

Astral Divination in the Context of Mesopotamian Divination, Medicine, Religion, Magic, Society, and Scholarship*

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The fundamental premise lying behind celestial and other forms of divination in Mesopotamia was that the gods would, on occasions, impart information to humans through signs, that could bode both well and ill, providing a positive or negative answer to a query, or more specific (unfalsifiable) information on what will happen in the future.

* This article is based on the paper delivered at the workshop: 'Divination in China: A Comparative Perspective' held in honour of Professor Ho Peng Yoke, at the Needham Research Institute, Cambridge University, December 8, 2001. The article was first prepared for publication in April 2002, with adjustments being made in September 2004. During this period I was supported first by the Alexander von Humboldt Foundation, and latter by the German Research Foundation (DFG), to both of which I extend by warmest thanks. My thanks go also to Eleanor Robson for astute editorial advice. In the meantime, of course, academia has moved on. Several new publications concerned with Mesopotamian divination have appeared since April 2002, the majority of which have been incorporated, where possible, into this article. The most important of these is Maul (2003), whose substantial article (in German) in the *Reallexikon der Assyriologie* provides a sensible summary of publications on Mesopotamian omina, usually accompanied by descriptions of the contents of the relevant tablet series—something which is not attempted here—and a valuable attempt to contextualise each of the disciplines. Maul's analysis, particularly his overall interpretation of the nature of divination in Mesopotamia, differs from that proposed here. See in particular chap. 5, below.

The purpose, then, of the following is to outline the characteristic, the most unusual, and interesting aspects of Mesopotamian divination, in order to facilitate comparison with other divinatory systems, but also to provide the non-specialist in Mesopotamian divination with a route into the subject, indicating those publications that are still 'current'.

0. Chronology and Background

Mesopotamian: There is no one 'Mesopotamian'. Unity in the material upon which writing was preserved, namely clay, as much as geographical unity hides a complex evolution over three thousand years. We will be concerned with a discipline, the surviving evidence for which shows that it was something that the literate, wealthy elite partook of. The shorthand 'Mesopotamian' will be used here, then, to refer to this elite, and to those aspects of their literary products which are attested from periods separated by hundreds, if not thousands of years.

Sumerian: Writing in the cuneiform script in the Sumerian language on clay tablets found in southern Iraq dates from c. 3200 BC,¹ and is attested until the very end of cuneiform writing in the Hellenistic period, although the language was already learned by the end of the third millennium BC. As the language was 'dying', many (largely unnamed) scholars living around 2000 BC and in the following few centuries attempted to preserve the 'wisdom' of the previous millennium in writing, for a variety of complex and poorly understood reasons. The vast majority of Sumerian compositions date to this period, therefore. It is often argued that if a particular genre is not attested in Sumerian, but instead in a Semitic language (also written in cuneiform), then the genre could not originally have been Sumerian, but must have been Semitic. This argument is flawed, however, because a discipline, such as divination, that was considered by the newly linguistically-dominant groups in southern Mesopotamia still to have been useful, may well have been written *directly* in their language in order to preserve it, while other texts connected instead to the idea of a glorious *past*, or to the process whereby writing was taught (the earliest was after all Sumerian), for example, would have been copied and recopied in Sumerian. Therefore, despite the absence of all but a very few divinatory texts in Sumerian, enough indirect evidence of its use exists to make us sure that it was practised in Mesopotamia throughout much of the third millennium BC. The earliest so-called deductive divination is written in Semitic Akkadian dating to c. 1950 BC,² but the absence of Sumerian

¹ This is very much the conventional view, but still supported by Cooper (1999).

² Bottéro (1974), p. 146, note 1 writes: "c'est là une forte présomption en faveur de l'idée que la traduction mantique (déductive) n'a pas été mise par écrit avant que la langue accadienne fût écrite, et même devenue le langage officiel des documents littéraires écrits : c'est-à-dire au plus tôt à l'époque d'Accad." Because it was not written, does not

texts of this sort does not mean that this form of divination was not practised by the mixed Sumero-Semitic population in the preceding millennium.³ It is important, however, to note that the process of preserving third millennium wisdom in writing did have an impact on the discipline itself.

OAKk = Old Akkadian, c. 2350 BC to 2150 BC: The dominant kingdom in the region at this time was centred in Akkad in the north of Southern Mesopotamia, one which brought to the fore, in scholarship and administration, the Semitic language of Akkadian. This language survived through various transmutations in two forms until the very end of the cuneiform tradition, while absorbing elements from other languages that came and went in Mesopotamia (Sumerian, Amorite, Kassite, Aramaic etc.)—Babylonian in the south, and Assyrian in the north. The Old Akkadian empire was the time when unity in the land of the “dark-haired” people (*šalmāt qaqqadi*) was first secured under a Semitic regime, and it became a particularly important point of reference for the Semitic speaking scribes of later periods, who, when rendering the divinatory disciplines into writing, were looking for particularly vivid vignettes, historiettes, and imagery with which to illustrate their omens.

OB = Old Babylonian, c. 2000 BC to 1600 BC: Direct evidence of the use of many forms of divination and copies of their associated works are attested from this period, particularly from the sites of Mari and Sippar.⁴ From the former, in particular, we have reports and letters describing the day-to-day practice of extispicy, celestial, dream and oracular divination in royal circles.⁵ The OB period was a time of high literacy, and literary productivity, feeding as it did off the demise of Sumerian on the one hand, and the wealth and stability provided by the Amorite dynasty made famous by Hammurapi. What is known of Old Assyrian (OA) in the north, is not relevant here.

MB/MA = Middle Babylonian / Assyrian, c. 1600 BC to 1000 BC: The fall of Babylonia to the Hittites and then to the Kassites ushered in a dark age, reflected by a relative paucity of sources from Mesopotamia proper. Most evidence we have comes from peripheral areas during this period. As time passes, however,

mean that it was not used. Writing is not a pre-requisite of deductive divination (defined below), especially when underpinned by what I term the ‘simple code’ (see below). Writing assists, however, in the elaboration of that simple code.

³ On the mixed and integrated natures of the populations in third millennium BC Mesopotamia see Cooper (1999).

⁴ According to the Sippar *Enmeduranki Legend*, which relates to the situation in OB times, although only preserved in later copies, only citizens from Sippar, Babylon and Nippur could qualify as diviners. See Lambert (1998), p. 142.

⁵ See Durand (1988) for the texts and an in-depth discussion of divination in Mari. See Guichard (1997) for additional material. A table of eclipse omens derived from a Babylonian original is edited by Durand (1988), pp. 504ff.

the dark age is being steadily lightened, and we now know that the MA and MB periods were characterised by extensive scribal endeavour in the field of divination. See below.

NA = Neo-Assyrian, c. 1000 BC to 600 BC: Our attention moves north to the great state libraries and archives in Assur, Nimrud and Nineveh, preserved for us by the rapid and catastrophic end to the mighty NA empire, and whence the bulk of our data on Mesopotamian divination come.⁶ From Nineveh, in particular, we have in addition to the core tablet series and related materials of the discipline, reports and letters relating to the everyday royal and state use of divination.

LB = Late Babylonian, c. 1000 BC to 0: LB is a catch-all term that describes the period of indigenous rule of southern Mesopotamia by monarchs based in Babylon (culminating in the so-called Neo-Babylonian (NB) empire under kings such as Nebuchadnezzar), as well as its rule by the foreign dynasties of Assyria, Persia, Macedonia and Parthia. Much of what is relevant to us here is preserved only from the period after c. 500 BC, and mainly from the sites of Babylon, Borsippa, Uruk, and Sippar. So far as divination is concerned, the LB period was one in which the forms established in the NA period were for the most part preserved through recopying. However, for astronomy-astrology it was a period of tremendous innovation, made all the more remarkable by the fact that the innovations continued to be recorded in cuneiform even though Akkadian had long since ceased to be the *lingua franca* in the area.⁷

⁶ The small temple library at Sultantepe in Turkey dates to this period, and has also provided us with some texts concerned with divination.

⁷ Cuneiform tablets from Mesopotamia and its neighbouring regions can be dated to one of the above periods on the basis of internal (script, language), or external (archaeological) evidence. Often a precise dating of even undated texts is possible on the basis of astronomical or historical data contained therein. Because of the many findspots dating to many periods, the fragmentary nature of what has survived, the tendency to archaism, and so forth, the evolution of even the best-attested texts is still a matter of controversy. It has become a commonplace, however, to state that many compositions were 'canonised' during the MA / MB period, and thereafter showed little evolution. This model suits the divinatory record as a first approximation, but must be refined in many particulars.

1. Introduction

I treat Mesopotamian divination as one expression of alleged god-client communication, in almost all cases mediated by an *expert* of some variety.⁸ The implied presence of a god or gods on one side is made absolutely explicit in the preserved texts on innumerable occasions, as is the necessity of a diviner who serves either as a direct conduit for divine messages, or as the supervisor and / or decipherer of a particular field of inquiry in which the messages are embedded in some particular way.

The expert received these messages for the most part passively, though the imploring of the god to provide both *a* message and the right one is well-attested.⁹ The use of techniques in order to *ensure* that the correct answer would be received does not in general form part of Mesopotamian divination, though ‘magic’ was used extensively to avert the evil predicted through divination.¹⁰ In broad terms, this is because the signs were sent by the great gods, who could not be forced to do anything, whereas the evil was brought by lesser powers, whose purposes could be frustrated by experts of sufficiently high standing. In this re-

⁸ The existence of do-it-yourself (DIY) divination in Mesopotamia is asserted by a number of scholars, based largely on the particularly simple nature of some forms, such as dice-throwing (Finkel (1995); Maul (2003), §15), sprinkling water on an ox, and so forth. See for example Bottéro (1974), pp. 119-124, and Reiner (1960), p. 31, on the text of the Sultantepe Tablets (henceforth STT) 73 (= *Rituals to Obtain a Purussû*, now in Butler (1998), pp. 349ff.), the latter of whom suggests that the stipulating of a sign in advance meant that the interpreter could be dispensed with. However, the very fact that we know of these techniques through their being preserved in writing suggests that they *too* fell into the domain of ‘expert’ knowledge. Clearly message dreams with apparent direct discourse with a deity needed no interpretation, though these are a special case of divination—see below.

⁹ Famously in the so-called *ikribu* and related prayer / rituals undertaken before an extispicy and designed to ensure that the gods “place truth” in the entrails of the beast in question. On the meaning of *ikribu* (from *karābu* “to pray”) see Reiner (1995), p. 73, with references. For example, in *The prayer to the gods of the night*, attested as early as the OB period, the “princely ones of the gods of the night” are summoned to stand by, since Šamaš (the sungod) and Adad (the stormgod) are asleep. Diurnal prayers address Adad and Šamaš directly: “Oh Šamaš, lord of judgement. O Adad, lord of divination: In the ritual I perform, in the extispicy I perform, place the truth.” For references to the publications of the *ikribu*, see Cryer (1994), pp. 171-172. See also Reiner (1995), pp. 62f. In the text known as *Rituals to Obtain a Purussû*, incantations and rituals are undertaken in order to obtain a dream message—see Reiner (1995), p. 71; Butler (1998), pp. 349f. In this, and in the *ikribus*, magic is nowhere used to ensure that the *desired* message is obtained. See also Böck (1995), p. 155. This does, however, appear to have been the case on certain occasions. For example, in a literary hemerology, translated in Livingstone (1997), p. 216, a ritual is described which enables the common man to dictate his will to the god.

¹⁰ Exemplified by the (Sumerian) *nam.búr.bi* (Akkadian) *namburbû* “its resolving” rituals. See now Maul (1994); Reiner (1995), chap. 5.

gard, divination in Mesopotamia lies closer to the religious end of the spectrum of human-supernatural communication, than it does to the magical end. We will discuss this matter further in chap. 5.

Many forms of divination existed in Mesopotamia,¹¹ each involving differing levels of action on the part of the mediating experts. No hard and fast divisions exist between the many divinatory techniques. We see instead a continuum of approaches towards god-client communication, from the largely oral, to the specifically writing-dependent; from that which set up an interpretable experiment in response to a specific request from a client to that which reacted to ominous situations over which mankind can have no influence; from those that provided a service to the king and state to those that fulfilled the requirements of everyman; from those that appear to be linked to a particular language to those that transcend the many languages that came and went in Mesopotamia; and from those techniques for which an expert with one specific title was necessary to those that were used by experts designated by many different titles. This continuum stretches naturally into the realms of religion and into literature, and particularly into those areas associated with the necessary *response* to the supposed god-client communication—the apotropaic ritual, the soothing of the gods, and healing. One of the best understood forms of divination as recovered from the ancient tells of Iraq and nearby is astral divination, a subset of celestial divination. It is, in many regards, exemplary of much of Mesopotamian divination as a whole, in other ways not, and its analysis brings to light many of divination's underlying characteristics.

The blurring between divinatory types and experts makes classification hard. It has become a commonplace¹² to divide up Mesopotamian divination into three basic types:

- a) *oblativa*—freely offered or unsolicited omens,

¹¹ An up-to-date guide to Mesopotamian divination is still wanting. The best overall summary remains Bottéro's in 1974, though this is in many regards now dated. The recent publication by Pongratz-Leisten (see also my review article in *Zeitschrift für Assyriologie*) provides an exemplary summary of the current state of knowledge of oracles, dream divination, and extispicy in Mesopotamia (the section on astrology is weak), as well as in the related fields of the exchange of letters with the gods, and the literary manifestations of divination. Oppenheim's 1977 discussion of divination is still good, as is the *CRRAI* 14 (1966) volume. Cryer (1994), pp. 124-215, offers many insights into the nature of Mesopotamian divination and provides some impressive bibliographical information. It is unfortunate that it appeared shortly before the publication of a number of new editions of the omen series, and it is surprising that it has not drawn on Bottéro (1974). This would, perhaps, have prevented the few errors, which somewhat mar this part of the book. Nevertheless, many of Cryer's observations are relevant, and he treats the relationship of Mesopotamian divination to that in ancient Israel in some detail. For a brief version of the same approach see Guinan (1997). Veldhuis (1999) is also recommended. The best secondary literature for each of the specific divinatory forms will be given where appropriate.

¹² See Guinan (1997), p. 421.

- b) impetrativa—omens from techniques employed, or objects manipulated,
- c) medumistic—where a human is the divinatory vehicle,

but there are certain problems with these divisions, to which we shall return at the end.

Instead, I attempt now a formulation based on local categories and using modern names only where these coincide closely. For many forms of divination the basic unit was a **tablet series**¹³ of cuneiform texts, ranging from a few to over one hundred in number, in most cases known to Mesopotamian scribes, and to us alike, by an incipit, for example *Enūma Anu Ellil* “When the gods Anu, Ellil” (henceforth *EAE*). In most cases, an early form of the tablet series is known from the OB period, and a ‘most-complete’ form from the NA. The small collections dating to the MA or MB periods lead us to believe that the ‘most-complete’ series were formed during an extensive editing process that took place from c. 1300 BC on, and which brought together closely related OB texts, and some new material.¹⁴ No doubt as a consequence of the editing process, a variety of **commentary**¹⁵ tablets were written, which both elaborated on, and explained the series. Sometimes the commentaries were appended to the series,¹⁶ other times we believe they merely accompanied them in library collections.

The commentaries sometimes allude to what we might loosely call ‘second-order’ questions as to the nature of the particular divinatory discipline. The principles which lead from a particular configuration of the observed phenomena to

¹³ *Iškaru* is the term for a tablet series, and was used to refer to the core text of divinatory (and other) disciplines, as opposed to some of their ‘associated’ or ‘spin-off’ publications. See below.

¹⁴ The so-called ‘canonization’. This term is unfortunate, but endemic to Assyriology. The series never achieved genuine text stability, but certainly they changed little after the NA period. For references, and criticism, see Brown (2000a), note 30. Rochberg (1999a), p. 424, argues that the claims to divine authorship of the omen series were means of justifying the stability of the text—that is, they were presented as bodies of revealed knowledge, even though they had been worked on over centuries. See, however, Finkel (1988), for the claims made by one Esagil-kīn-apli to have brought together the “twisted threads” of earlier redactions into a coherent whole, and Brown (2000a), note 144, for references to how ‘divinely inspired dreams’ permitted new works to be written, while maintaining the illusion of their supernatural origins.

¹⁵ Mostly, these are published along with the core series, but see also Livingstone (1989); Labat (1933); Pearce (1998). Ekhardt Frahm (Yale) is working on an edition of commentary texts. For background see the volume edited by Assman and Gladigow (1995).

¹⁶ E.g. the commentary *multābiltu* formed, by the NA period, the end of the *bārūtu* series. Each chapter of the series also contained a *mukallimtu* “revealer” commentary section. See Koch-Westenholz (2000), pp. 31ff.

its interpretation are outlined,¹⁷ and an interpretation of what divination was believed to be is sometimes given.¹⁸ The qualifications of the diviners are outlined, how they should undertake their work, and references to how the rich and the poor alike employ their services are alluded to,¹⁹ all of which give us a good idea of how divination worked at different times throughout Mesopotamian history. However, the question as to why divination is itself justifiable or not²⁰ is, to my knowledge, nowhere to be found in Mesopotamia.²¹ Nevertheless, the commentaries are a valuable source of knowledge about divination, and the rationale behind it as perceived *at the time*.

In other respects the commentaries were designed as guides to the series they accompanied, as well as independently being expressions of their authors' insightfulness. They sometimes explain difficult or obsolete passages in the series, particularly those where the phenomena described in an omen protasis, say, are hard to comprehend, or where the relationship between the apodosis and protasis needs explaining. In this sense, the commentaries *justify* the series. They are indeed characterised by an: "ingenuity (to) articulate or even (to) invent 'auxiliary hypotheses', which form a protective belt around the core", as Lakatos (1978), pp. 48ff. describes for a situation of 'normal science'. This process continued throughout the NA period and into the LB period. In one particular in-

¹⁷ E.g. a mark on the right is seen to be positive, where one on the left bodes ill. Rules also existed where one anomaly bodes ill, two also bode ill, but at three "it changes"—i.e. it bodes well. Also, it is stated in commentary texts, or can be deduced from the omens themselves, that two positives or two negatives together bode well, but a negative and a positive bode ill. See now Koch-Westenholz (2000), pp. 42-43, drawing on Starr (1974). Guinan (1996a), discusses the *pars hostilis*, *pars familiaris* formulations, demonstrating that in *šumma ālu* omens (see below) if an intrinsically ill-boding animal (snake, crow) moves towards, or sits on the (ill-boding) left, this bodes well, and vice versa. Similarly dreams (which are intrinsically bad) in which something occurs on the right, bode ill. The same applies to a sick person—the meanings of the signs are reversed. Nougayrol asserted that this was not the case in the OB period, but came about in the MB period. For references see Cryer (1994), p. 179.

¹⁸ Celestial signs were said to be "writing on the sky"—cf. Brown (2000a), p. 112. Also, divination series were often said by cuneiform scribes to have had divine sources—cf. Lambert (1962), (1967), (1998); Finkel (1988); Rochberg (1999a).

¹⁹ Lambert (1998); Livingstone (1986).

²⁰ There is no equivalent of Cicero's discussion in *De divinatione* xlix, for example. My impression (2000a), pp. 109ff., of this passage was that it alluded to the *post hoc ergo propter hoc* argument: "after this, therefore because of this," but Lehoux (2002), p. 210, has now argued that this is a misinterpretation based on Falconer's translation made for the Loeb edition, which I used. Lehoux argues that Cicero, in fact, carefully avoids invoking causal claims as to the basis of divination.

²¹ The *Cutha Legend*, for example, is clearly an expression of the need to employ diviners, but does not pose genuine second-order questions. See the edition in Goodnick-Westenholz (1997), and the discussion of the relevant lines 78-83 in Pongratz-Leisten (1999), pp. 8ff. The text is known in OB and NA versions.

stance, this “negative heuristic” (as Lakatos calls it) came to an end. In the case of celestial divination, the new skill of accurate planetary prediction led in time to a wholly new system of divination based both on the ability to retrocalculate planetary positions at the time of birth, and on a new interpretative template—the zodiac. The result was ‘astrology’, as we understand the term today—an innovation that was far more than an “auxiliary hypothesis” of celestial divination. It brought about innovations in other forms of divination, be they extispicy or diagnostic healing, and in time it came to supercede celestial divination itself, becoming indeed Mesopotamia’s most important divinatory bequest to the later world.

The **tablet series**, the ‘core text’, offers the best means of defining many of the types of divination in question in terms of ancient categories. All the matters presented in one series, all the divinatory techniques explicitly outlined or implied, can reasonably be said to define the divination. In some cases a type of diviner is identified as the expert in the series in question. In other cases the situation is not so clear. Mostly, the tablet series contains omens (Akkadian *ittu*, Sumerian *giskim*, or *ṣaddu* = ^{giš}an.ti.bal).²² These are interpretations of particular configurations and phenomena in the form of a protasis beginning with “if”, and an apodosis, derived from one particular field of inquiry.

2. Oblativa or Deductive-Observational Divination

This includes those divinatory techniques which do *not* require any ceremony, apparatus, or materials in order for signs to be elicited. Signs, in this case, are in theory received wholly passively, be they in the heavens or on earth. The omens are consequently unexpected, though, since (with Popper) no observation occurs without a prior hypothesis, the signs were looked for in certain areas and at certain times, and were thus sought for, somewhat as were impetrated signs. Where, in general, impetrativa or ceremonial divination provided ‘yes’, and ‘no’ answers to specific queries, Mesopotamian deductive-observational divination at first sight provided information of a more specific nature as to the future—“the king will die”, for example. As will shall see, however, the overlap between the type of information provided by the two main genres of deductive divination is much greater than appears at first.

The “scribe of *EAE*” or *ṭupšar Enūma Anu Ellil* in later periods, and the *āšipu*, or “healer-seer” throughout all periods were those experts most usually associated with oblativa, though the latter, in particular performed many other roles, many

²² Possibly also a.rá = *alaktu* “omen oracle, decision”, which refers rather to the decision contained within the sign than to the sign itself. For details on this lexically attested equivalence, see Böck (1995), who also argues that a.rá did indeed mean “omen oracle” in pre-OB Sumerian texts. We should perhaps also rethink the normal rendering of a.rá into Akkadian *arû* for some of the omen tables, since they too provide “signs” and therefore “decisions”. For a.rá and *arû* in divinatory context, see Brown (2000a), *sub* index.

of which involved elaborate ceremonies. As the title “scribe of *EAE*” implies, central amongst the deductive-observational methods recorded in cuneiform was celestial divination, and it is to this discipline that we shall devote most of our attention.

2.1 Celestial Divination

For recent introductions see Reiner (1995); Koch-Westenholz (1995); Bottéro (1996); Brown (2000a). Rochberg (2004) appeared too late to be considered here.

*Enūma Anu Ellil*²³ (*EAE*) treats phenomena in the sky, over which man has no influence. The series contains omens such as: “If the moon is surrounded by a halo, and Jupiter stands within it; the king of Akkad will be shut in.”²⁴ Omens of this sort were generated according to a series of rules, a particular means of encoding and decoding celestial phenomena, and *some* interface with empiricism (described below), and in the ‘most complete’ series, or ‘core text’, were recorded one after another on double-sided clay tablets, approximately twenty to one hundred per tablet in more or less logical blocks.

In *EAE*, lunar phenomena were gathered together in the first thirteen tablets of the series, the meteorological phenomena in another section, and so forth. It is quite apparent that whole sections of the series were extrapolations made there and then, from a series of easily understood rules, without the sky ever having been observed.²⁵ Other parts appear to be collections of omens generated at widely separated times and places, with both protases and apodoses having a

²³ This is a c. seventy-tablet series, of which about one half is published in modern editions. For its publication see Brown (2000a), p. 255, to which now add Horowitz (1994); Koch-Westenholz (1999), who publishes tablet 1 of the *mukallimtu* commentary text to the first 13 tablets; Borger (1973), who published tablet 2 of the same *mukallimtu* (tablet 4 is Virolleaud (1905-12) 2 Supp. 19, incidentally); Gehlken (2000), who publishes a new text of tablet 27; Verderame (2003) who publishes tablets 1-6 (although only the first 30 lines of tablet 6 can be placed with any certainty; he discusses the first 13 tablets in 2002), and Fincke (2001), who re-edits the catalogue of incipits from Assur. Verderame will be publishing tablets 7-13. See also Koch-Westenholz (2004), who publishes Jupiter omens in tablet SM 1309.

²⁴ Quoted after Hunger (1992), no. 147, l. 3f. See op. cit. l. rev. 5 *annāti ša éš gar* “these omens are from the *iškaru* (i.e. *EAE*).”

²⁵ “If Jupiter twinkles in the 1st watch to the north, the head of the land of Akkad will be seized by illness.” This omen is elaborated eleven further times, with only the italicised words being altered. Watches 2 and 3, and the other cardinal directions are used in the protases, and in the apodoses Elam, Subartu and Amurru replace “Akkad”, and middle and base replace “head”. The omen comes from *EAE*, or a related text, and is published in Virolleaud (1905-1912), 2. Supplement 58: pp. 1-4.

strongly empirical component.²⁶ This component of the apodoses, however, comprises ‘historiettes’²⁷ which *corroborate* the existing interpretation of the events described in the protases. To my mind they constitute potentially historically meaningful material (in other words, the things described in the omen apodosis could actually have happened), but there is absolutely no way of knowing if the events described occurred simultaneously with the events outlined in the protases (the celestial phenomena), and they certainly do *not* imply that the earliest parts of the omen series were derived from the correlation of contemporaneous celestial and terrestrial events.²⁸ More on the non-empirical origins of divination below.

²⁶ “If there is an eclipse in month 3 on the 14th, and the god becomes dark to the upper east side during an eclipse, and clears to the lower west side, the north wind rises during the evening watch and reaches the middle watch, you observe the eclipse and keep the north wind in mind, thereby a decision is given for Ur and the king of Ur: the king of Ur will experience famine, deaths will be many, as for the king of Ur, his son will wrong him, but Šamaš (the sungod) will catch the son who wronged his father, and he will die in a mourning-place of his father, a son of the king who had not been named for kingship will seize the throne,” after Hunger (1992), no. 4: pp. 1f. See also *EAE* tablet 20, month 3. On other ‘historical’ eclipses see Schaumberger (1954-1956).

²⁷ Reiner’s term (1973), p. 261.

²⁸ Huber (1987), (1999-2000), (2000), and elsewhere, attempts to date the Old Akkadian and Ur III dynasties on the basis of eclipse omnia preserved in *EAE* tablets 20 and 21, which refer (indirectly) to the deaths of kings of those empires in their apodoses. Given the lack of specificity in the description of the eclipses and in the apodoses, and the relative frequency of lunar eclipses, and the more or less 200 years of ambiguity in the dating of the Oakk period, in particular, it is little surprise that Huber found some correlations. Frankly, they are all doubtful, except perhaps for the one quoted in note 26, above, and dated by Huber to 2093 BC. He further argued that the series of eclipses occurring ‘near’ to the deaths of kings (as reconstructed by him) was the stimulus for the invention of celestial divination—Huber, as with others, still apparently believes in the late third millennium invention of divination, see below. Clearly, in the absence of an established relative chronology, and without a strict definition of ‘near’, and better descriptions of the phenomena in the protases, Huber’s conclusions must remain speculative (though potentially falsifiable). It is, I suggest, far more likely that the darkening of the brightest heavenly body was seen as a metaphor for the death of the most powerful person in the land, and that this form of encoding of the phenomena of the sky, and not empiricism, lay behind the ‘origin’ of celestial divination. Even the statistically plausible date for the observation of the eclipse dating to 2093 BC (it is sufficiently accurately described to fit only a few eclipses around 2000 BC) shows only that because, by chance an eclipse occurred near the death of a king, its details were recorded because it *corroborated* the existing interpretation. Even if Huber is right in his linking of the ‘Akkad eclipses’ to the deaths of the kings of that dynasty, the same argument applies. The eclipses were by then encoded already, a fact which naturally would reflect on the antiquity of celestial divination. Finally, there is no way of knowing if the event in an omen protasis *preceded* the description in the apodosis. It was just as likely, if not more likely, that the apodosis was attached *much* later to a description of a celestial event (as already argued by Hunger

Sometimes odd sections appear within the core series—for example, *EAE* tablet 14, which is divinatory and concerned with the moon, but wherein the means by which the interpretations are derived are not spelt out in omens. Rather the underlying system is presented. *EAE* 14 is related to a tradition concerned with the interpretation of phenomena that did not rely on a collection/elaboration of omens, but rather on the comparison of observed reality with what was anticipated by an ideal scheme. If what was observed corresponded with what was ideally meant to occur, then this boded well, if not it boded ill. The idea behind this draws on cosmology, and on notions of symmetry and numerical simplicity.

For example, when the gods constructed the universe, they ‘made’ the heavenly bodies move according to certain simple patterns. When observed movements are later seen to have been as ‘originally intended’, they were then ‘ideal’. Schemes of ideal movement and behaviour were elaborated using simple mathematical schemes (sometimes termed *arû*—see note 22), based mostly on the basic 360-day, 12-month year, which had evenly distributed equinoxes, and a 2:1 ratio for the longest to the shortest day, and the 30-day symmetrical lunation. These elaborations provided, for example, a daily ideal value for a number of celestially observable parameters, including the length of lunar visibility. These could then be compared with reality, and reality could then be interpreted *whenever requested*,²⁹ something that was otherwise not always possible with a divinatory technique that relied on the passive observing of the heavens, but certainly was possible to do with other, rival forms of divination.³⁰ The ideal schemes provided, I suggest, a pro-active component to celestial divination.

The core series of *EAE* was never comprehensive. There are many celestial omens found on cuneiform tablets that are not found in *EAE*. Nor was it consistent. The series contains some non-celestial omens, though obviously here the question arises as to whether or not the modern or ancient categories cohere. Certainly, the core series was never static. Different versions from different cities³¹ and times are known, but, I suggest, *EAE*-divination can, nevertheless, still be broadly characterised.

The core text had both ‘associated’ and ‘spin-off texts’. In some cases we are confident that the ancient experts made the association. On other occasions we

(2000), p. 158), the interpretation of which it cohered with. On this basis, the alleged statistical validity of Huber’s argument disappears completely.

²⁹ This is a new interpretation of material previously termed ‘early astronomy’, and forms a central argument of my book (2000a). See also the description in Brown (2001), and the discussion of the background to the creation of the length of the day in a Sumerian composition in Brown and Zólyomi (2001).

³⁰ It is, incidentally, something that is quite possible in astrology, for there, on request, the locations of the planets in the zodiac can be calculated, and a ‘horoscope’ of any moment drawn up. This form of astrology is termed ‘interrogatory’ by Pingree (1978), p. 220.

³¹ Koch-Westenholz (1995), pp. 79ff. See note 58, below.

moderns make it, sometimes at the risk of distortion. With *EAE* the **spin-off texts** are:

- a) *Commentary texts* of various types. For a brief summary, see Koch-Westenholz, (1995), pp. 82ff., and (1999), pp. 150ff. See note 15, above.
- b) *Reports (u'iltu) and Letters (egirtu)* sent by scholars to the last NA kings in Nineveh, in which celestial phenomena are interpreted and discussed and the relevant omens from *EAE* extracted. See in particular Hunger (1992), and Parpola (1993) for the most modern editions; Parpola (1983), for a letter by letter commentary and dating; and Brown (2000a), chap. 2 for a summary of the nomenclature, chap. 4.2 for a summary of the astronomical techniques these texts reveal, and Appendix 2 for further discussion of their dating. We have very few reports and letters similar to the NA ones from earlier, or indeed from later, periods.
- c) *Astronomical Diaries (and related Planetary Records)* from Babylon in which celestial and other phenomena were recorded on a daily basis. The phenomena are, broadly speaking, those considered ominous in *EAE*, but the Diaries also provided the raw material from which astronomical predictions were made. Hunger and Pingree (1999), pp. 139-158, argue that the original purpose of the Diaries was not divinatory, but was to provide the data necessary for astronomical predictions. I suggest, (2000a), pp. 97-102, otherwise, that their original purpose was merely to provide a *continuous* database of ominous phenomena, the completion of which, when observation was impossible, led to the discovery of parameters which characterised the temporal and spatial intervals between celestial phenomena of the same type, and thereby paved the way for astronomy. Why a continuous database of ominous phenomena was needed cannot be known for sure, but it may have been because it comprised the raw material prepared by junior scribes, from which the senior astrologers would then draw their interpretations. It may have been kept in order to be able to confirm the celestial configurations and so forth upon which the astrological predictions were drawn. The database may, it must be admitted, have been started by those interested in discovering the correct intervals between certain celestial phenomena, but even if this were the original stimulation (and it is a worryingly 'modern' explanation), it was clearly begun by those deeply versed in celestial divination, for the phenomena chosen to be recorded were those considered ominous. What is most revealing, is that the later Diaries tend to eschew some (but by no means all) of those phenomena that do not exhibit predictable periodicities, for example, some meteorological data. The terminology is also simplified and made more exact. The ability of the database to produce the parameters necessary for astronomy clearly played an important part in its later development, whatever the original reason for the Diaries first being recorded.

- d) The publications are Sachs and Hunger (1988), (1989), (1996), and Hunger (2001). The Diaries and related texts date from c. 750 BC to c. 75 AD. A reference to producing Diaries is made in the NA letter Parpola (1993), no. 160.
- e) *Astronomical texts*. Long periods in the Diary-like record of ominous planetary phenomena were elicited, permitting what was formerly recognised to be periodic, but not predictable,³² in fact to be predicted. To do this, accurate records, particularly of the times of phenomena were taken, which required the creation of a well-regulated calendar. In order to plot the positions of these same phenomena, the zodiac was invented, and some measurements of position were also made. The astronomical texts were, thereafter, fully mathematised.³³ Zodiacal astrology was invented, along with many other astrological innovations that drew on other forms of Mesopotamian divination,³⁴ assigning to the planets and zodiacal signs broadly the same ominous values given them in *EAE*. The new technology of astronomy permitted the state of the heavens to be reconstructed both for times in the future and those in the past, the latter making possible the first horoscopes,³⁵ the former, as in late NA times, assisting the diviner in protecting his employer against impending evil portents.

The **associated texts** (that is, compositions connected with things celestial, and reflected in the series *EAE* itself) are:

- a) *Practical Calendars*—from c. 3000 BC. These included:
- (i) The association of months with the heliacal rising of certain stars for agricultural purposes.³⁶
- (ii) The association of months with seasons. Some months were given seasonal names, and this implies that a simple intercalation scheme was known, keeping the lunations and the seasons more or less synchronised. The secondary Assyriological literature on calendars is vast and cannot be listed here, but Cohen (1993) is an excellent starting point, and the bibliography on the web at: http://www.phys.uu.nl/~vgent/babylon/babybibl_timekeeping.htm lists most of the other relevant recent publications.

³² Brown (2001), p. 45.

³³ The standard publication remains Neugebauer (1955). For a summary of, and a near-comprehensive list of subsequent publications see Hunger and Pingree (1999), pp. 183-270.

³⁴ E.g. Rochberg-Halton (1984), (1987), (1988); Reiner (1995); Koch-Westenholz (1995), pp. 177-179; Brown (2000a), Appendix 1 §49, Hunger (2004).

³⁵ Sachs (1952), and Rochberg (1998), with references to her own earlier publications and idem (1999b). See the related text published by Hunger (1999).

³⁶ See Civil (1994) on line 38 of *The Sumerian Farmer's Instructions*.

(iii) The administrative year of 360 days, made up of 12 30-day months. Englund (1988), pp. 136-164, argues that this was introduced for computational simplicity—see also Brown (2000b), p. 110.

The divinatory genre of ‘astrolabes’, which assign stars and lengths to the “watches” of the day and night to each of the 12 months, drew on these three earlier forms of practical calendar, and a simple ratio of 2:1 for the longest to the shortest night. The ideal astrolabe, in particular, is reflected in *EAE* tablets 50-51. The earliest references to astrolabes date to the OB period, but they are probably much older.³⁷

b) *Ideal Schemes*:³⁸

(i) The ‘ideal year’ (of 360 days, comprising 12, 30-day months, *in conjunction with* evenly spaced solstices and equinoxes, and a 2:1 ratio for the longest to the shortest night) is attested in the OB text BM 15175+,

(ii) the ‘ideal lunar visibility’ scheme (of a 30-day month, with full-moon on the fifteenth, and lunar visibility times equal to $1/15^{\text{th}}$ of the day number, multiplied by the ideal night length), and

(iii) the ‘ideal Venus scheme’ (expressed in terms of specific visibility and invisibility periods), all probably predate *EAE*, but all are reflected in the core series itself (in *EAE* tablets 14 and 63).³⁹ Ideal schemes for the other planets are reflected in *EAE* tablet 56.

c) *Star names in Sumerian*:

The earliest known astral name (Venus) dates to the early third millennium BC. Later, an extensive list of stars, constellations and planets in Sumerian formed part of the lexical tradition from the town of Nippur. It dates to the OB period, and as with the rest of the lexical tradition formed part of the curriculum designed (at least in part) to preserve Sumerian in written form. The same astral names exist throughout *EAE*.⁴⁰

d) *Significant day-compositions*:⁴¹

Many are formulated simply as “month X, day Y is good / bad” (for the patient, the physician, the diviner, the king), others as “if Z occurs in month X, day Y; general apodosis (expressing good or bad)”. Some outline what to or what not to do / eat / wear on any given day. The extremely popular and widespread so-called *Babylonian Almanac*, for example, contains 127 different admonitions or prescriptions for the common man scattered throughout

³⁷ For astrolabes see now Horowitz (1998), pp. 154ff., Brown (2000a), Appendix 1 §§ 16 and 26, and Casaburi (2003) for Astrolabe B. We await Horowitz’s new monograph on these interesting texts. For *EAE* 50-51 see Reiner and Pingree (1981).

³⁸ All the relevant bibliographical information on the ideal schemes can be found in Brown (2000a), chap. 3.

³⁹ *EAE* 63—see Reiner and Pingree (1975).

⁴⁰ Brown (2000a), Appendix 1 §§1 and 10.

⁴¹ Bottéro (1974), p. 104, terms this “chronomancy”. See also the references he gathers in p. 104, note 1. The best summary, however, is Livingstone (1993a).

every day of the year.⁴² *The Offering Bread Hemerology*⁴³ is of a slightly different form, designed for a higher social class. *The Prostration Hemerology* describes those days when, and to whom, the patient should prostrate himself. *Enbu bēl arhim* “fruit, lord of the month”, represents the most evolved form of these texts. It is a 15-tablet hemerology detailing the behaviour of a king throughout the year.⁴⁴ It in effect transposes parts of *iqqur īpuš* into the royal arena. *Iqqur īpuš* “when (a house) is destroyed and then rebuilt”, itself, is a 12-tablet monthly series, or menology.⁴⁵ Literary calendar texts are also attested.⁴⁶ The Babylonian word for hemerology is *uttuku*, deriving from the Sumerian words for ‘day’ (ud) and ‘good’ (dug₁₀).

From the earliest times cultic and ritual events were performed on particular days of the calendar, often connected to lunar phases, and were thus independent of the relationship between the lunar and solar or stellar calendars.⁴⁷ It is these days that are reflected in the hemerologies,⁴⁸ and they also appear directly in the core series, for example in the (often im-)possible eclipse days in omens preserved in *EAE* tablets 15-22. Livingstone (1993a), p. 103, notes that in the *Babylonian Almanach* the seventh of every month bodes ill, except during intercalary months. The same double-negative = positive ‘logic’ as was discussed in note 17, is once again found here. The hemerologies forbade the conducting of extispicies on days 1, 7, 14, 19, 21, 28, and 29, and the surviving records of dated extispicies show that these restrictions were obeyed in practice.⁴⁹ The dates upon which agricultural undertakings should take place, according to the hemerologies, do bear some relationship to the actual demands of farming, but, I would suggest, the dates they assign for the conducting of successful business deals arose not from any empirical input, but from a background of more or less serious associations with religious events, and intertextual links with mythical works, and other omen series. *Iqqur īpuš*, for example, shares a complex textual relationship with *šumma ālu* (see below),

⁴² Labat (1941). This has OB and Sumerian precursors. See now Cavigneaux and Al-Rawi (1993), pp. 91-105—references cited in Livingstone (1999).

⁴³ Labat (1939).

⁴⁴ Published in part by Landsberger (1915), pp. 100-145.

⁴⁵ Labat (1965). The series has OB precursors. A new edition is being prepared by J. Fincke (Heidelberg).

⁴⁶ See Livingstone (1999) and Reynolds (1999).

⁴⁷ The importance of the equinoxes in terms of dividing the year into two is stressed by Cohen (1993), pp. 6-7, however. It has been suggested by Livingstone (1996), p. 305, that the beginning of the second half of the year (as determined by months, and not the equinoxes, however) was particularly ominous. That is, the first days of month VII boded ill, according to the hemerologies. Month VII was the start of the ‘cultic year’ in later times, and enjoyed its own New Year festivals.

⁴⁸ Livingstone (1993a), p. 102.

⁴⁹ Livingstone (1993a), pp. 109f., (1997), p. 174.

for both deal with matters of urban and agricultural life. The Sumerian-Akkadian bilingual menology formed part of the so-called MA *Astrolabe B*, itself closely related to tablet 51 of *EAE*.⁵⁰ The literary calendar text edited, but not yet published, by Fran Reynolds makes many allusions to religious texts and other *belles lettres*, such as *The Creation Epic*. Hemerological information was extracted by the NA scholars and sent as reports to their kings, just as omens were.⁵¹ We await the new publication of the menologies and hemerologies by A. Livingstone, but in the meantime see the literature by him cited in the bibliography, below.

e) *Astral Magic:*

Reiner (1995) outlines the interplay between the employment of heavenly configurations for magical purposes, celestial divination (chap. 4), and the hemerologies (e.g. note 639) and picks out many resonances between Mesopotamian and later Greek and Roman practices. Where generally astral divination presupposes that celestial bodies or configurations are signs and *not* causes of what might lie ahead (see §5.3), in some contexts those self-same bodies were thought to be capable of directly influencing the earthly plane. Reiner (1995), p. 13, summarises those contexts as: (a) catarchic astrology, which endeavours to find the most auspicious moment for commencing an undertaking (op. cit. p. 111); (b) the power of the stars to imbue ordinary substances with supernatural, magic, effectiveness (op. cit. chap. 2); (c) the power of the stars to protect and avert the evil wrought by sorcerers or portended by ominous signs (e.g. op. cit. pp. 69 and 86ff.). We noted above (see notes 9-10) the use of magical rituals to avert portended evil, and also to ensure the presence of the sign-providers (the gods). In some case, those rituals cite not just the gods, but the heavenly bodies themselves. This tendency to cite the bodies rather than the gods (or the gods in their stellar manifestations) is accentuated in the LB period, as Reiner (1995), p. 143 notes, which may reflect changes in Mesopotamian religious belief in the late period under the partial influence of astronomy. See further Brown (forthcoming). The interplay between magic, religion, and divination is discussed further in §5.3.

f) *Cosmological Compositions:*

These sometimes outline the construction of the universe, and are reflected particularly in *EAE* 14. See now Horowitz (1998) for many relevant texts, and Brown (2000a), pp. 234ff., for some additional Sumerian sources and a discussion of the impact of cosmology on celestial divination. A useful bibliography of secondary sources on alleged astral myth in Mesopotamia is provided at: http://www.phys.uu.nl/~vgent/babylon/babybibl_astralmyth.htm.

⁵⁰ Livingstone (1993b); Casaburi (2003).

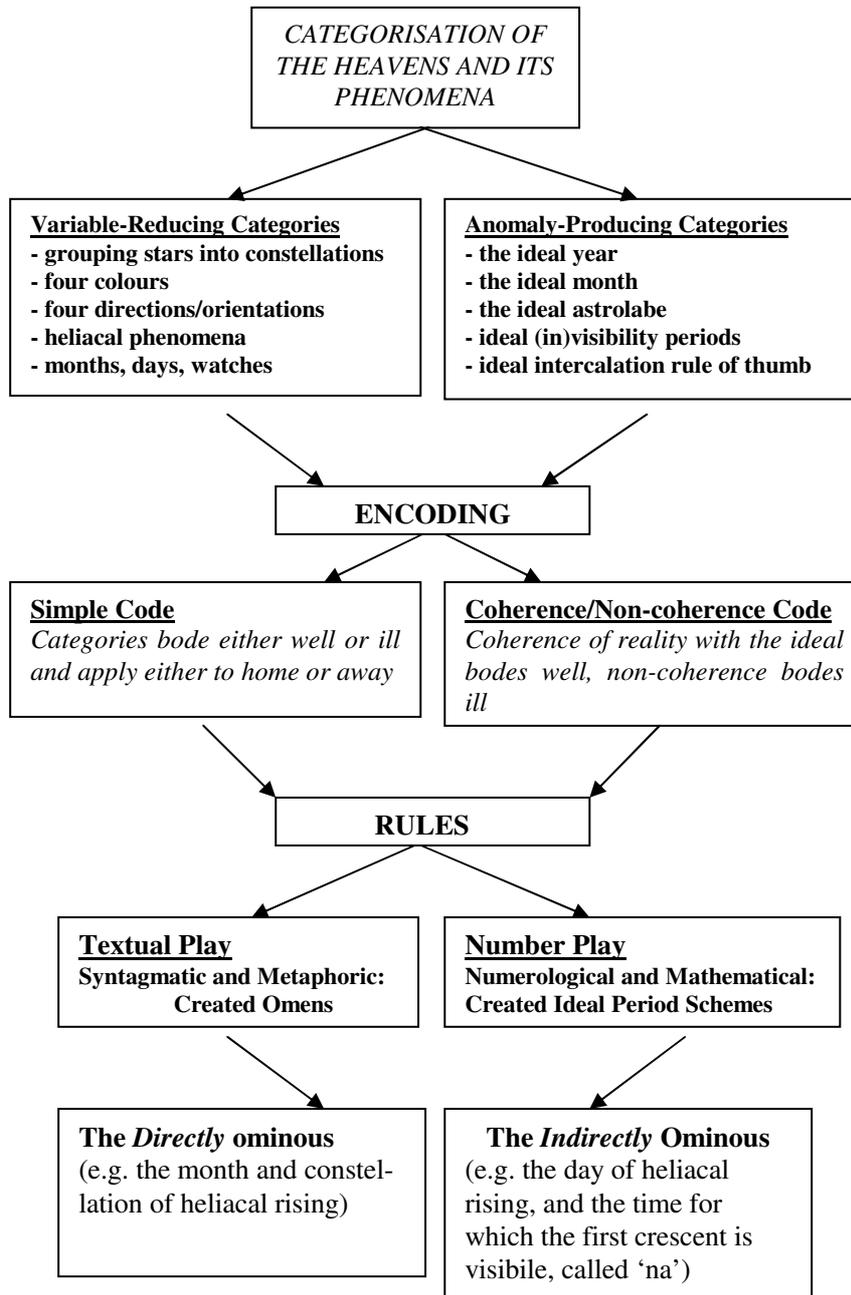
⁵¹ Hunger (1992), nos. 231 to 236.

The series known by the incipit *EAE* was an imperfect synthesis of all previous work on things celestial for the purpose of divination. We can date its complete form to c. 1200 BC, but a proto-form belonged to the OB period.⁵² The divinatory system, as fully expressed in the core text, was already in place by c. 1600 BC, and drew on related forms of celestial divination that had been practised in the previous millennium. Over the centuries, editors absorbed into the growing series key aspects of other, related divinatory, literary, and religious traditions. At the same time, the diviners who utilised *EAE* and its associated texts produced a series of spin-off texts that both inform us of their work and had significant implications for the development of their discipline.

By the NA period the ‘expert’ particularly associated with the divination characterised by *EAE* was called the *tupšarru EAE* or “scribe of *EAE*”, a term reserved for scholars of high status. Although our sources vis-à-vis the scribes of *EAE* are very limited in the LB period immediately following the demise of the Assyrians (c. 612 BC), it is clear from Nabonidus’ inscription that predictions based on the core series still informed state policy.⁵³ The title “scribe of *EAE*” remained potent until the demise of cuneiform writing, and copies of the series are attested in the Hellenistic period. AO 6450, part of tablet 55, dates to the eighty-ninth year of the Seleucid era (Largement 1957), for example. We often refer to the “scribe of *EAE*” as a **celestial diviner**, knowing that he (invariably he) was conversant with the **basic premises** of *EAE*, but note that he had other areas of expertise—see below. These premises I outline diagrammatically. The diagram appears in Brown, (2000a), p. 209, and the following page of discussion is based on pp. 212ff. of the same:

⁵² Based on the form of the surviving OB celestial omens, but interestingly the title of *EAE* appears in an OB catalogue from the city of Ur, and I see no reason not to associate this title with the later celestial omen series. See Brown (2000a), Appendix 1 §7.

⁵³ See Reiner (1995), pp. 76-77.



Most, but not all, significant events were anomalous (that is deviations from the perceived norm). As noted, in celestial divination, a temporal ‘norm’ was one occurring according to an ideal scheme. In this case, in particular, a sign appearing according to its period (*ina addanišu / simanišu / minātišu*) was not anomalous and boded well.⁵⁴

The skies were *decoded* by diviners, which meant that they had already been *encoded*, and the part played by the simultaneous occurrence of celestial and terrestrial happenings in that process of encoding was minimal. Encoding was done in two main ways. Firstly, the infinite number of locations and times at which a celestial event might occur, and the infinite variety of colour and shades it might manifest were fitted into a few broad categories. Aside from meteors, comets and meteorological effects, only the heliacal events of the planets, and planet-planet and planet-stellar interactions were deemed worthy of inspection, and the many possible planet-stellar approaches were reduced in number through the treating of most stars as members of larger constellations, and using but a few terms to describe levels of separation. I refer to the colours, locations, separations and so forth as the ‘variables’ of the celestial event. The first means by which the skies were rendered interpretable, then, was by *reducing* the number of these variables. The resultant broad categories are attested in some of the oldest divinatory and non-divinatory cuneiform texts, and survive until the end of cuneiform writing. Variable-reducing categorisation was the next basic premise of celestial, and indeed other, divination.

The heliacal events of the heavens are cyclical in pattern, and this phenomenon provided the diviners with another means by which readings from above could be gleaned. Adopting or deriving ideal, round-number values for the lengths of the year, the month, the periods of time for which the planets were visible or invisible, and the making of a rough association between the months and certain rising stars, permitted the diviners to compare what was observed with what was anticipated by such ideals. These ideal, largely temporal, categories thereby generated anomalies or coherence with what was seen, and the interpretation of one was antithetical to the interpretation of the other. Some of these ideals, the ideal year and month, and ideal intercalation scheme, for example, were known at least by the mid-third millennium BC; those connected with the planets were perhaps only discovered in the OB period. The application of round-number periods to divinatory ends was also a central premise of *EAE*.

The variable-reducing and anomaly-producing categories were encoded simply. Each boded either well or ill, and applied either to the land of the diviners or to the lands of foreigners, which by the OB period invariably included ‘Akkad’ and three others in a four-fold division. The binary division of *pars hostilis* and

⁵⁴ In the commentary series *šumma šîn ina tāmartišu* (Koch-Westenholz (1999)) tablet 1: 25-33, the various expressions for “not according to its period” are each explained as referring to particular unusual days of the month upon which lunar opposition (full-moon, while the sun is still visible) occurs.

pars familiaris likely characterises the earliest form of celestial and other divination, as reflected in the opposite significance attached to brightness and dimness, left and right, above and below, and so forth. There are even some hints that the planets were originally either benefic (Jupiter and Venus) or malefic (Mars), and only the later discovery⁵⁵ of Mercury and Saturn led to their intermediate positions of significance. Such broad encodings make ridiculous any idea that observation played a part in the assignments of value to the heavenly bodies and their phenomena. Much of the encoding drew instead on ‘traditional’ notions as to the role played by those particular gods linked to the heavenly bodies, or other such folklore, the analysis of which is all but impossible. The encoding of Venus with the benefic qualities associated with the goddess of love and war, Inana, for example, was *basic* to cuneiform divination, but little more than this can be said. It was an *a priori* fact, so far as all subsequent celestial diviners were concerned. It was on the bedrock of core ‘facts’ like these that learned scribes came to build the edifice known as *EAE*, and were able to render the heavens readable. One such core divinatory axiom of the encoding was that if an event occurred according to that predicted by the ideal period which modelled its behaviour, this boded well, and if it did not this boded ill.

Once the basic associations with deities had been made, and the variable-reducing and anomaly-producing categories had been assigned the simple code, the way was paved for the elaboration of omens using the *rules* of what I term ‘textual play’, and the elaboration of ideal *schemes* using the *rules* of ‘number play’ and the ideal *periods*, or temporal categories. It was the application of these rules that led to the rich and complex collection of divinatory material exemplified by *EAE*, drawing as they did on a background of ‘associated’ material, discussed above. It is the rules that account for the variant apodoses, the multiple readings, the learned allusions, and the historiettes, for an historical event whose interpretation was universally recognised to *corroborate* the interpretation of a particular heavenly configuration was sometimes appended as an apodosis. Not only have these omens and ideal schemes of celestial divination survived, some examples of the code abstracted out are attested in the ‘spin-off’ texts.

EAE did *not* evolve, therefore, by accreting to the body of omens ever more accounts of simultaneous celestial and terrestrial happenings. Its premises were established long before the OB period, when they were first made manifest in writing, and these premises indicated how, at any time, the heavens could be observed and interpreted. For reasons poorly understood, but perhaps connected with the demise of the Sumerian language or changes in the political arena, some of these decipherments came to be written down, and the texts produced then helped preserve the discipline for centuries thereafter.⁵⁶ They became *the* texts of

⁵⁵ Suggested by the names used to refer to them, as explained in Brown (2000a), pp. 75f.

⁵⁶ Veldhuis (1999), pp. 168ff. discusses this issue briefly, seeing the omen collections as repositories of their authors’ “speculative thinking”. This may be true, provided we do

EAE-style divination, and came to be treated with a degree of reverence. Although the core premises did not change over time, the means by which they were elaborated into omens and ideal period schemes *did*, and it is in these variations that the influence of individuals,⁵⁷ schools⁵⁸ or eras can be felt. Which of a stock of apodoses should be used with any given protasis was sometimes a matter of personal choice, as the variants in both *EAE* and in the NA letters and reports sent by scholars to their kings indicate. Certain political expediencies led some Scholars to reinterpret existing omens in rather favourable ways.⁵⁹ These subtle variations, caused by the normal work of Scholars over the centuries, formed what one might term the ‘protective belt’, a belt around the core ‘wisdom’ of celestial divination in which innovation was still possible, in which the pyrotech-

not interpret this to mean that the series were somehow distant from the practice, or teaching, of divination. Veldhuis argues that in the OB period diviners (he bases his evidence on the OB extispicy reports) would not have consulted the ‘core series’ or *iškarus* ‘on the job’, for they all knew the basic premises, or what I call the ‘simple code’ by heart. Most extispicy reports tabulate only if a particular feature bodes well or ill, even if that feature has an omen for it recorded in the series. In the later period, he admits on p. 170, the core series were actually consulted, as is most clear from the NA letters and reports in which complete omens extracted from very similar versions of *EAE* held in different cities were copied onto tablets and sent to the king. Veldhuis argues that “exaggerating for the sake of clarity one might say that OB texts are the products of authoritative scholars, while first millennium BC texts are themselves the authoritative sources and bearers of knowledge.” This reasserts the standard view of MB and MA ‘canonisation’, but in fact there is ample evidence of ongoing innovation by scholars in first millennium divination. Also, the OB extispicy reports are written in shorthand, and may nevertheless have been made in consultation with a version of the relevant core series. In one report (cited in Veldhuis (1999), note 39), the omens *are* written out in full. I am less convinced than Veldhuis that great differences exist between the practice of divination in OB and NA times, except in so far as the concentration of scholars in the NA courts was vastly higher than ever was the case previously.

⁵⁷ The so-called *ša pī ummâni* “from the mouth of the scholar” omens that are occasionally referred to in the NA letters and reports, and that show that despite the reverence given to *EAE*, senior experts were still able to invent new omens and that these omens would be passed down the generations along with the ‘core text’.

⁵⁸ Koch-Westenholz (1995), pp. 80ff., discusses the evidence for schools of *EAE*, coming to a negative conclusion as to their existence, but see now Fincke (2001), pp. 35ff., who identifies in the surviving texts from the city Assur, an Assur, an Assyrian-Ninevite and a Babylonian-Ninevite version of the weather omen section of *EAE*, and for the last section of *EAE* an additional Babylonian version. The number of tablets comprising these four versions of *EAE* differ substantially, and attest to the presence of different schools, each of which transmitted the collections gathered in earlier centuries.

⁵⁹ See Koch-Westenholz (1995), p. 144, and Brown (2000a), pp. 78-80.

nic brilliance of these learned scribes could still shine, without any challenges to the core premises being necessary.⁶⁰

Celestial divination was a royal art in Mesopotamia, referred to in literature, transmitted abroad, preserved in temples, and leading to the employment by the late NA kings of a large number of professional celestial diviners. Many of the premises of the discipline were transmitted both to the West and to the East. These included the largely benefic or malefic nature of the planets, the constellations (some transmuted into zodiacal signs), the concept of planet-planet interaction, and such things as the three and four-fold divisions of the heavens, and perhaps the significance of brightness and dimness, left and right, and so forth. Much in cuneiform celestial divination appears not to have been used elsewhere, however, including the significance of reality cohering with ideality and vice versa. The central place given to heliacal phenomena in *EAE*-style divination is mirrored in the *saṃhitā* astrology of India, for example, and elsewhere, but it is not clear that one owes a debt to the other.⁶¹ What is clear, is that the widespread use of astrology today owes a huge debt to celestial divination, and thus to the learned elaborations of a few literate Scholars living in the centuries around the turn of the third millennium BC.

The personal entourage of scholars or *ummânū* employed by the last Assyrian monarchs were expert (to differing degrees) in various divinatory disciplines. This situation pertained at other times as well, for example in Mari during the OB period. The scholars expressed their expertise in terms of having read or mastered a given core series. We know from NA times that the scholar with the title “scribe of *EAE*” or *ṭupšarru EAE* would know in addition to texts associated with *EAE* (i.e. celestial divination) other series of allegedly ‘offered up’ omens, or oblativa.⁶²

(a) *Šumma ālu ina melê šakin* “when a town lies upon a hill”—a series of c. 120 tablets⁶³ dealing with the ominous (that is anomalous) aspects of cities, houses, demonic appearances, the presence and behaviour of snakes, scorpions,

⁶⁰ On this last point, Oppenheim (1978), p. 642, also writes of omenology as being: “an example of the process of additive rather than structural changes (for prestige purposes) that is evidenced in nearly all types of Mesopotamian literary production.”

⁶¹ *Contra* Pingree (1998), p. 131 and *passim*.

⁶² Based, for example, on text Assyrian and Babylonian Letters (ABL) 223. See also Leichty (1970), note 26. It is noteworthy, that omens from the series *izbu*, *ālu* and *iqqur īpuš* are directly attested in the NA celestial reports and letters. It was not merely a boast—these scholars really did use these series. Marduk-šāpik-zēri in Parpola (1993), no. 160, claims to have *read EAE*, *izbu* and *ālu*, made astronomical observations (Diary-writing, I suggest), *read* *kataduqqû*, *alamdimmû* and *nigdimmû* (*āšīpu* specialities), and *mastered* the art of the chanter. See further Brown (2000a), p. 49.

⁶³ See for a provisional overview Moren (1978), and for an edition of the first 21 tablets Freedman (1998), though accompanied by Heeßel’s (2001/2002b) critical review. For the latest edition of tablet 120 see Sallaberger (2000).

ons, lizards, rodents, insects, cattle, horses, wild and other domesticated beasts, fire, gardens, rivers, marshes, birds, fish, animal sexual behaviour, the behaviour of sleeping and waking humans, strange lights, what happens on the way to prayer, and human sexual behaviour. The series was probably the source of some omens in *izbu*, *iqqur īpuš*, and *zaqīqu* and *sa.gig*⁶⁴ (see below). There are excerpt texts, reports, *ahû* texts, commentaries, as well as catalogues of tablet incipits and the *iškaru* or ‘core text’ itself. OB forerunners are also attested, as are a number of MA and MB versions of the core text. A few LB versions are also known. Unlike *EAE*, the series contains some of the relevant apotropaic rituals, which hints that the earliest scholars to have used this series were the *āšīpus*, or ‘healer-seers’. I refer to the series as *ālu*, henceforth

- (b) *Šumma sinništu arātma* “when a woman is pregnant,” tablets 1-4, and *Šumma izbu* “when a mal-formed birth,” tablets 6-17 of a 24-tablet series⁶⁵ of some 2000 human, and animal birth omens, referred to in NA times by either incipit, but here henceforth referred to as *izbu*. It has some omens of the *ālu* type, concerned with animal behaviour. We have today, accompanying the core text, two OB forerunners, NA *šātu* and *mukallimtu* commentaries and a variant LB commentary, a NA excerpt, abridged series, an *ahû* series, and reports from OB and NA times—some in the NA period sent by scholars who also sent many celestial omens,⁶⁶ namely the scribe of *EAE*, the healer-seer, and the chanter. It was the examiner (extispicer), or *bārû*, however, who undertook *izbu* divination in the OB period. The core text itself is grouped according to species. It has king / state apodoses (in the first person suggesting that one version of the series may have been for the king’s personal use) and private ones concerned with the owner of the house in which the birth occurred. Some apodoses concern the fate of the child, others of the mother (a bit like physiognomic omens). A few are diagnostic (e.g. “a sinful man impregnated the woman in the street”). Some of the so-called historical apodoses appear to have been borrowed from extispicy, and *izbu* does use technical terms common in extispicy. It would appear, then, that *izbu* was originally part of the wide repertoire of the “examiner” (extispicer) or *bārû*, but later came to form part of the expertise of the celestial diviner, and perhaps also of the particularly highly qualified healer-seer and chanter.

Ālu and *izbu* do not contain celestial phenomena. Interestingly, the use of terrestrial (if not teratological) omens together with celestial omens is known to have formed part of the work of the *āšīpu*, or healer-seer (see below, §2.2), particu-

⁶⁴ See now Heeßel (2001/2002a) on the relationship between *sa.gig* tablet 2 and *šumma ālu*.

⁶⁵ Leichty (1970).

⁶⁶ E.g. Nergal-eṭir son of Gahul-Tutu—It is not stated if he is a *tuššarru*, but this is likely (not a *bārû* as Leichty (1970), p. 10 would have it).

larly as a means of diagnosis. In the text known (rather confusingly) as *The Diviner's Manual*,⁶⁷ a combination of omens derived from celestial and *ālu*-like phenomena are recommended to the expert (presumably an *āšipu*) as a means of providing an interpretation for a king, or for the state. Hemerologies, another area of expertise for the “scribe of *EAE*”, are also recommended by that author.⁶⁸ The text dates, I believe, to the period before the rise to significance of the “scribe of *EAE*”.⁶⁹ It is perhaps as old as the OB period, using as it does the OB calendar, and suggests that before the NA period celestial and hemerological divination were a concern of the *āšipu*. Finally, it is noteworthy that the “scribe of *EAE*” felt free to offer advice on apotropaic rituals in letters (Parpola (1993), no. 10), and in reports (Hunger (1992), nos. 22-23), which again suggests that these celestial diviners were still being trained in the arts of the *āšipu* in the late NA period (c. 670 BC).

Such breadths of divinatory knowledge perhaps reflected the elevated status of the scholars at the NA court, but it also indicates an important point about the diviners in Mesopotamia at this time, and no doubt at other times, and that is, they possessed skills more closely connected with experts bearing *different* titles. The “scribe of *EAE*” was competent to interpret in fields we link (and “they” more usually linked) with the *āšipu*—the “healer / seer” (often translated as “exorcist”). Indeed we know of scholars who bore both titles.⁷⁰

2.2 *Āšipūtu*—the Trade of the “Healer / Seer”

Although by trade more concerned with averting evil, both present evil and that predicted through, say, divination, in the so-called *Āšipu's Manual*, text KAR (Keilschrifttexte aus Assur religiösen Inhalts) 44,⁷¹ it is specified that this expert—the *āšipu*—should master in addition to many incantations and rites:

⁶⁷ Oppenheim (1974). The text's connection with *āšipūtu* is suggested by the associated *namburbū*—the apotropaic ritual, and also by the parallel with the shooting star divination and divining by the sprinkling of an ox with water found in the so-called *Rituals to Obtain a Purussū*, now in Butler (1998), pp. 349ff.

⁶⁸ On the particular divinatory reasons for this see Brown (2000a), pp. 120-122.

⁶⁹ *Contra* Oppenheim (1974), p. 209. See Brown (2000a), p. 121 and note 310.

⁷⁰ E.g. Marduk-šumu-iqīša, cited in Pongratz-Leisten (1999), p. 18, note 9.

⁷¹ Edited in Bottéro (1985), pp. 65-112, and most recently in Geller (2000).

Sa.gig—a forty-tablet series of medical prognostications;⁷²
 Alandimmû—the physiognomic series—omens drawn from
 people’s faces;
 Nigdimimmû—the same, but based on comportment;
 Kataduqqû—the same, but elocution;⁷³

and various other poorly understood medical series, and in what is a second section (rev. 2):

oracular decisions (*purussûs*) by means of stars, birds, oxen,
 wild animals, ominous noises (*egirrû*), die (na₄), flour....,

and finally in the line rev. 16, the omen series *EAE*, and *ālu*.

The “oracular decisions by means of stars” may possibly refer to *EAE*-type divination, since repetition does indeed occur in this text, but I suggest in fact that it refers mainly to dream divination, since the parallels with the text describing rituals to obtain one of these *purussû*⁷⁴ are very close. These rituals were used to promote a dream in which a decision was made, and include some dream omnia and references to divination from shooting stars and the reactions of an ox. This is further suggested by the reference to an *egirrû*, or ominous noise⁷⁵ in the line in question in KAR 44.

It is noteworthy, then, that the *āšipu*, at least in the MA to NA period, to which the *Āšipu’s Manual* dates, was engaged largely, but not exclusively, in observational-deductive divination (see §5). We know that this divination was, at least in part, undertaken in order to diagnose the cause of an illness, whether that be divine, more generally supernatural, or human. Diagnosing the cause (albeit not one that to our minds makes much sense) assisted in the cure, which involved in many cases the reconciliation of the patient with the super-natural force in question. At the very least this reconciliation-through-ritual undertaken by the *āšipu* would have had some psychosomatic effect on the patient.

If my suggestion above is correct, the healer-seer also undertook divination more usually associated with the *šā’ilu*, or dream interpreter (see §3.2), and it is this that may account for the absence of the *šā’ilu* expert in the latest period of Mesopotamian history (post c. 500 BC). KAR 44 is said to be a copy of an an-

⁷² Another Babylonian compilation of the middle eleventh century BC with older precursors, published in Labat (1951), and Heeßel (2000). For a convenient, up-to-date, and well-referenced description of diagnosis in Mesopotamia, see now Heeßel (2001). For medicine in general in Mesopotamia see Biggs (1987-1990). See also George (1991), and Heeßel (2001/2002a).

⁷³ For these three, and related series see now Böck (2000).

⁷⁴ Butler (1998), pp. 349ff.

⁷⁵ See Butler (1998), p. 151, for the relationship of *egirrû* “noise oracle” to dreams. For Sumerian *igara* for *egirrû* and its attestation in two Sumerian compositions, one before the OB period, one during, see Römer (1986), pp. 22-23.

cient text, however, so the *āšipu* may have been engaged in these practices long before the NA period, when the *šā'ilu* is well attested. The allusions to a die and to flour, in the line in question, suggest that the *āšipu* may also have engaged in ceremonial divinatory forms, though apparently only in the simplest possible ones. It is worth indicating again, that however simple the methods, they were still something undertaken by an expert (see note 8). The references to *EAE* and *ālu* were perhaps added only later to KAR 44, for, as noted, in the NA period the *āšipu* did indeed engage in these divinatory disciplines. Whether he did much earlier is not yet clear.

To summarise, in Nineveh during the late NA period, those who employed divination of the core-series type (i.e. ceremonial and observational-deductive divination), and produced written records of this activity, possessed one of five different names—the *tupšarru EAE* “the scribe of *EAE*”, the *āšipu* “the healer-seer”, the *bārû* “the examiner (extispicer)” (see §3.1), the *kalû* “the chanter” (the expert who assuaged the gods’ anger), and the *asû* (“the physician”). As a first approximation, we find that the *tupšarru EAE* and the *āšipu*, but also the *kalû*, all undertook deductive-observational divination, in particular celestial divination;⁷⁶ that the *asû* and *āšipu*’s work overlapped somewhat, in both the diagnostic (a process then akin to divination, see below, §5.3) and exorcistic and healing parts of their work;⁷⁷ that only the *kalû* soothed the gods with chanting;⁷⁸ and only the *bārû* performed extispicies. In other words, at this time, the diviners *par excellence* were the scribes of *EAE* and the examiners (extispicers),⁷⁹ the former of whom undertook divination based on unsolicited or offered-up omens (oblativa),

⁷⁶ This continued through to Seleucid times—see McEwan (1981), pp. 11f.

⁷⁷ The distinction between *āšipu* and *asû* implied by the translations of their titles as “exorcist” and “physician” respectively hides the fact that both engaged with the idea that supernatural forces lay behind ailments. The *asû* was probably a term designating someone who healed wounds and other external injuries, for which a particular expertise in the efficacious effects of certain ointments and herbs was a prerequisite, whereas the *āšipu* was more concerned with diseases and the like, for which expertise in the reading of signs and apotropaic rituals was considered necessary, *but* their spheres of expertise overlapped—see Heeßel (2001), pp. 261-263, for the description of *asû*-like therapeutic methods in the series sa.gig 31/6-8, and of *āšipu*-like magical techniques designed to enhance the potency of certain remedies in the therapeutic texts. See also Scurlock (1999).

⁷⁸ The ‘core text’ of the *kalû* was known as *kalûtu* and comprised 39 balang songs, 40 er-šemma songs and 47 šu-ila prayers in Eme-sal (a sociolect of Sumerian), according to a NA catalogue from Nineveh, but many more are known from OB times. See Krecher (1966), Cohen (1981), and Black (1987), for details. In a NA text *kalûtu* was assigned divine authorship. See Lambert (1962), p. 64. Other Sumerian songs, the šir-nam-šub, and prayers, the er-ša-hun-ga (see Maul (1988)), were also performed by the *kalû* in order to sooth the angered gods.

⁷⁹ That their means of divining complemented each other is well known. Extispicies checked celestially derived interpretations, for example, and the celestial bodies were implored to directly prior to an extispicy. For references see Brown (2000a) p. 37.

and the latter, of whom undertook impetrativa. While both were also involved in removing the ill predicted, this remained the area of expertise of the other three scholars. Equally, these other three had some expertise in reading the signs, but were probably insufficiently skilled to undertake a complex extispicy. The *āšipu*, for example, was probably competent in all the major observational-deductive divinatory techniques, but only a few of those requiring apparatus (impetrativa).

In the OB period, no expert is known whose main expertise was in observational-deductive divination (i.e. no *tušarru EAE* is known), and we believe these techniques were undertaken by the healer-seers (*āšipus*) and by the examiners (*bārûs*) for specific reasons connected to their main disciplines.

Of the many divinatory techniques from Mesopotamia which had a core text, the close association and high status in the NA period of extispicy, celestial divination, *izbu* and *ālu* (admittedly split between two experts), provides such a close parallel with Cicero's statement in *De Divinatione* on the divination of the Etruscans, that the NA (as opposed to, say, OB via the Old Hittite Empire) origin of Etruscan divination must seriously be entertained (but no further here).⁸⁰

As to the other experts at the Ninevite court, the *raggimu / raggintu* "the prophet / prophetess", the *dāgil iššūrī* "the augur", the *harṭibi* "the Egyptian scholar", the *hassu* "the wise man", the *tušar Armā'u* "the Aramean scribe"⁸¹—their divinatory techniques (if they had them) did not require, or at least did not produce in imperishable materials, any core texts yet found, and we do not know if they also provided any apotropaic services for their clients.

What follows is a brief summary of the other major forms of divination in Mesopotamia, for the purposes of comparison with celestial divination:

⁸⁰ "But the Etruscans, being in their nature of a very ardent religious temperament and accustomed to the frequent sacrifice of victims, have given their chief attention to the study of entrails. And as on account of the density of the atmosphere signs from heaven were common among them, and furthermore since that atmospheric condition caused many phenomena both of earth and sky and also certain prodigies that occur in the conception and the birth of men and cattle—these reasons the Etruscans have become very proficient in the interpretation of portents." Cicero, quoted in Leichty (1970), Introduction. On Hittite divination see now the brief summaries with literature by van den Hout (2003a), (2003b).

⁸¹ See now Pearce (1999), pp. 360ff., for the bilingual ^{lu}a.ba *armā'u* "aramaic scribe", closely related to the *sepīru*.

3. Impetrativa or Omens Derived from Techniques Employed or Objects Manipulated

Omens were also commonly derived in Mesopotamia from signs elicited during particular ceremonies. The expert, in this case most commonly the *bārû* or “the examiner”, set up an interpretable experiment employing in particular, so far as our sources allow us to judge, an animal, oil, smoke, or flour. He implored the gods to place signs (favourable, preferably) within the medium in question, and then killed the animal and inspected its entrails, spilled the oil or studied the smoke. It is probably no surprise that the materials used were those employed in the feeding and care of the gods during normal everyday religious activity, and would therefore have encouraged the gods to be present during the reading. The religious background to other attested forms of impetrativa is unattested. Little is also known of the *Sitz im Leben* of oil, smoke, and flour divination, although collections of their omens are attested.⁸² We will concentrate here, therefore, on extispicy:

3.1 Extispicy

See now U. Jeyes (1989); U. Koch-Westenholz (2000); J. W. Meyer (1987), and I. Starr (1983) and (1990). Thomas Richter (Frankfurt am Main) is preparing his Habilitationsschrift on the *bārû*, with particular emphasis on the ritual texts. In the meantime see his publications listed in Richter (1999). See also Lambert, (1998).

We know of some form of divination through the inspecting of goats from the third millennium BC, but we have no omen texts or records of extispicy until the early OB period. The term *máš* “goat” occurs in the name *máš.e.pà* “selected via goat” of a high priest in an inscription of the twenty-sixth century BC Lagaš king Ur-Nanše, and the name of the expert ^{li}*máš.šu.gíd(.gíd)* “he who with reference to a goat sticks his hands out” (probably “he who inspects a goat’s entrails”) is found in lexical lists from Ebla in Syria (twenty-fourth century BC), Fara and Abu Šalabikh in Sumer (c. twenty-sixth century BC). This allows us to surmise that entrails were investigated in southern Mesopotamia and in neighbouring areas in early Sumerian times, at least for the purpose of ascertaining the suitability or otherwise of an official for cultic office.

However, because the first attested written exemplars of omens concerning extispicy manifest all the usual encodings of written divination, it seems that the discipline was already *fully* developed before the early OB period, that is before

⁸² See Maul (2003), pp. 83ff.

c. 1875 BC. It can hardly be called an invention of the OB period or of the Semitic peoples, then, even if the ‘core series’ is only attested in Akkadian.⁸³

We know a great deal about extispicy, and how it was practised in both the OB and NA periods, as a result of the preservation from these times not only of core text material, but of liver, lung and colon models,⁸⁴ and of extispicy reports.⁸⁵ Extispicy was performed mainly on goats or sheep, but extispicy of birds is attested.⁸⁶

The extispicer was known as the ^{lú}hal or ^{lú}máš-šu-gíd-gíd in Sumerian. The Akkadian name *bārû* “examiner”, which was directly equated with ^{lú}hal and ^{lú}máš-šu-gíd-gíd, has a more general etymology, which perhaps reflects the wider interests of this diviner.

Not only were the entire entrails of the animal ominous, but its behaviour prior to death was also interpreted. The liver and lungs, however, were the most important internal organs investigated. Liver, lung and colon models, inscribed with writing, have been found at a number of Mesopotamian sites, particularly from Mari from c. 1875 BC. Some are themselves mini-compendia of omens, others are, in effect, extispicy reports expressed as a model, perhaps used for teaching purposes, and even the earliest comply with the known rules of interpretation.⁸⁷ Reports and compendia of omens in tablet form are known from a number of sites shortly after this period. The liver was known as *amūtum*, a word which resonated with *awātum* “word”,⁸⁸ and certainly the liver itself, once investigated and interpreted was considered to be a *niširti bārûti* “treasure of the diviner”.⁸⁹ The omen compendia were collections of these treasures, and indeed in later times were called “tablets of the gods”.

Extispicy was believed to work as follows: The client put a question relating to any matter (including even the interpretation of other signs), which was passed to the sungod, the god of justice, Šamaš, via the client’s personal god, after an *appeal*.⁹⁰ The sungod’s answer came via the shapes found in the sacrificed animal’s entrails. The expert, the *bārû*, investigated the entrails in a particular order,

⁸³ Bottéro (1974), p. 146, note 1 and Veldhuis (1999), note 28.

⁸⁴ Meyer (1987).

⁸⁵ Veldhuis (1999), pp. 166ff. provides the relevant bibliographical information.

⁸⁶ Tsukimoto (1982) and Durand (1997). Birds are mentioned in the context of the extispicer in the *Enmeduranki Legend*—see Lambert (1998), p. 144.

⁸⁷ Jeyes (1989), note 138.

⁸⁸ *Awātum* “word” was also read *amātum* in the OB period. *Amūtum* or *amuwātum* were terms used for “liver omen” at this time.

⁸⁹ Jeyes (1989), p. 18; Lambert (1998).

⁹⁰ Clearly, the appeal was considered to be important, and suggests that the sungod was thought to make his decision at that moment. This is different to horoscopic astrology, for example, where the configurations establishing the fate of an individual were determined by the gods long before the enquiry (the drawing up of the horoscope) was made. See Brown (forthcoming).

reflected both in the omen series and in the specific reports. Each mark (whether anomalous or not) was judged to be favourable or unfavourable, and a roster of these decipherments was drawn up, resulting in a final ‘yes’ or ‘no’.

Unlike celestial divination, the extispicy could be repeated, either to confirm or disprove the answer. Particular stress was placed on the purity of the participants in the ceremony, and their lack of purity could always account for the wrong answer.⁹¹ Celestial diviners could not repeat their observations, in this sense, and their only means of producing the ‘right’ answer was through particular interpretations of *EAE*, and the like. Also, what pertains in the sky is visible to all, and its interpretation would therefore not have been seen to concern any private individual, but rather the state or the king. The potential of extispicy to answer private, non-royal queries was clearly higher than that of celestial divination.⁹² The fact that even in the OB period most reports pertained to the king as client reflects only the nature of what has survived.⁹³

As noted, however, the *tupšar EAE* had expertise in *izbu* and *ālu*, and in the NA period could and did do work for commoners. In the NA period, the vast majority of extispicy reports surviving concern the kings, but undoubtedly substantial private work still went on. Although under the NA kings extispicy was tightly controlled,⁹⁴ this shows only that *usually* the two main diviners in this period did both state and private work.

One final difference between *EAE* divination and extispicy was that the latter was used not only to ascertain answers to questions, and to determine propitious times for undertakings, but, as noted, to ‘check’ the results gleaned from other divinatory methods.⁹⁵ Although we know that only certain days were believed to have been favourable for extispicy,⁹⁶ checking was presumably done at anytime.

⁹¹ Bottéro (1974), pp. 139f., stresses correctly the analogy with the process of law. See also Sallaberger (2000), p. 244.

⁹² On the transition of extispicy divination from state to private or “einfache Bevölkerungskreise” in the OB period, see Meyer (1987), pp. 268-270. It is not at all clear that prior to the OB period, extispicy was exclusively used in royal circles, though the need to sacrifice a valuable beast does suggest that goat or sheep extispicy was perhaps restricted to the very rich. For a criticism of this view see now Pongratz-Leisten (1999), pp. 129-133.

⁹³ “It seems unlikely that diviners would refuse wealthy clients simply because they were not royal, but there is no clear evidence on this point,” Lambert (1998), p. 146. See further Reiner (1995), p. 64, who notes that villages in the OB period seem to have had a resident *bārû*.

⁹⁴ Pongratz-Leisten (1999), pp. 189ff.

⁹⁵ See for example the text Parpola (1993), no. 315:17. Extispicy was used to predict the outcome of an ailment, and even the effectiveness of certain medicines administered to the king. See Heeßel (2001), p. 251, for references. Extispicy was used to check the interpretation of an eclipse in OB Mari. See Durand (1988), p. 221.

⁹⁶ As expressed, for example, in the text KAR 151, now re-edited in Pongratz-Leisten (1999), Anhang.

I have remarked, however, that divination using ideal period schemes allowed interpretations of the heavens to be made at any time, and note that according to the *Diviner's Manual*⁹⁷ the signs of heaven and earth 'checked' each other.

The core series of extispicy is known to Assyriologists as *bārûtu*, though this was not the incipit of the series, and the term is applied in Mesopotamia only in a LB text. In earlier periods the series was known by the titles assigned to its various chapters. By the OB period the core series already comprised over 100 tablets, but its form only became fixed during the NA period. We have OB, MB and NA extispicy reports, *ahû* versions, commentary texts, LB texts combining the zodiac and entrails (SpTU (Spätbabylonische Texte aus Uruk) IV, 159), a further extispicy compendium (KAR 423), and so forth—the usual spin-off texts of the discipline. One particular group of related texts are known as *tamîtus*. Still largely unpublished⁹⁸ with OB roots, they are very similar to the royal extispicy queries placed before Šamaš in the NA period, but also record the results of private ceremonies and are addressed to Adad and Šamaš.

In the OB period we know that the *bārûs* performed not only extispicies, but undertook all other forms of deductive divination then known. These included, as mentioned, other ceremonial forms, such as lecanomantic,⁹⁹ libanomantic¹⁰⁰ and aleuromantic¹⁰¹ forms, but also oblativa. *Bārûs* interpreted the heavens in OB Mari, and various allusions to *ālu*-like divination¹⁰² indicate that this also formed part of their sphere of expertise. It is the *bārû* who interprets *izbu* phenomena in the OB period, and there is some evidence that they also interpreted dreams at this time. Evidence from Sippar suggests that in the OB period a *bārû* was a powerful and wealthy member of society, with an established career path leading up to court diviner.¹⁰³ His only main rivals at the time were the ecstasics and dream interpreters (see §4), whose main work was with non-deductive divination, and the *āšīpu* and *asû*, whose main work was with medical-diagnostic 'divination', undoing evil, and curing.

Extispicy is well attested in the NA period, of course, but other simple divinatory ceremonies are only rarely attested.¹⁰⁴ The *bārû* in the late NA period, so far

⁹⁷ Oppenheim (1974); Brown (2000a), pp. 120-122; Williams (2002).

⁹⁸ Lambert (1966), (1997); Leichty (1990).

⁹⁹ Pettinato (1966).

¹⁰⁰ Smoke omens. Four OB texts are known, see Finkel (1983).

¹⁰¹ Jeyes (1989), note 44.

¹⁰² He observed the discolourations and spots on slaughtered fowl—see Renger (1969), p. 208.

¹⁰³ Jeyes (1989), pp. 15-16. See also the situation described (probably) for this period in the *Enmeduranki Legend* in Lambert (1998), pp. 146ff., in terms of qualifications, hierarchies, and families. Compare this with the situation outlined for the NA period in Brown (2000a), pp. 48f.

¹⁰⁴ In the NA text KAR 151 (also a *niširti bārûti* "a secret of the *bārû*"), rev. 31f., oil divination is described. See Pongratz-Leisten (1999), Anhang. It also appears as a "skill"

as we have evidence for his activities, did not practise observational-deductive divination, a field by then largely monopolised by the scribe of *EAE*, with the healer-seers and the chanters also participating in a smaller way.

The later demise of the *bārû* in official circles is indicated by his virtual absence in temple records of the Persian and Hellenistic periods.¹⁰⁵ The reasons for this are unclear, but may relate to the growing popularity of astrology. The temples, pretty much the only place where cuneiform continued to be used in the latest periods, did draw up horoscopes for private individuals, and astrology was perfectly capable of determining the propitiousness or otherwise of any particular moment (see note 30), thus usurping somewhat this role of extispicy, yet one wonders why the ‘checking’ facility provided by extispicy fell so much from favour that the temples rarely supported any *bārû* experts.¹⁰⁶

3.2 Dream Divination

A. L. Oppenheim (1956) and (1969) is still fundamental for dream omens, although S. A. L. Butler (1998) is extremely useful, even though its main purpose is to treat the rituals associated with dreams. See also Durand (1988), pp. 455ff., and (1997), p. 282. For incubation see Zgoll (2002).

Dreams in Mesopotamia were treated either as *significant*, that is as messages (which did or did not need interpretation), or as *infected*, that is as symptomatic of demonic invasion, ill-health and so forth. If the dreams did not need interpretation, they formed part of what Bottéro calls ‘inspired’ divination, and should be seen alongside the speech of ecstasies, for example—see chap. 4. When they did require interpretation, they formed part of deductive divination, and to this end a tablet series of dream omens was produced, which served to interpret the symbols and objects dreamed about by the client. Oppenheim believed dream divination to be a minor divinatory technique, and certainly most references to dreams are connected to the alleviation of bad dreams through ritual. However, dream omens are mentioned in some NA letters to the king,¹⁰⁷ and in the OB period in a num-

of the *bārû* in the text BBR (Beiträge zur Kenntnis der babylonischen Religion), 85:6, and in the *Enmeduranki Legend* (last discussed in Lambert (1998)—see especially p. 146) the “master of oil”, *apkal šamni* appears to refer to a master diviner.

¹⁰⁵ McEwan (1981), p. 15. He was still going strong directly prior to the Persian period, as shown in the Nabonidus inscription—see Reiner (1995), pp. 76-77.

¹⁰⁶ That extispicy was perhaps undertaken in the Hellenistic period by scholars holding titles other than *bārû* is suggested by texts such as SpTU IV, 159, a late example from Uruk in which parts of the entrails are systematically associated with months, gods and zodiacal constellations. See Reiner (1995), p. 78. Also, in Diodorus Siculus II, 29 the Chaldaei are said to have been interested not only in astrology, but in viscera.

¹⁰⁷ Parpola (1993), nos. 174, 305, 361 and 365.

ber of private letters.¹⁰⁸ The earliest reference to an ominous dream dates to the mid-third millennium BC from Mari, according to Maul (2003), p. 68. They appear widely as a literary motif from Sumerian times onwards, from as early as the text known as *The Stele of the Vultures* (c. twenty-fourth century BC), and see Römer (1986), pp. 23-35, for other dreams found in Sumerian literature.

A significant dream was referred to as a *šuttu* = máš.ge₆—a “*bīru* (divination) of the night”, which indicates that in this case it was to be treated in the much the same way as were other signs in the repertoire of deductive divination. Other terms include a *tabrīt mūši*—“a nocturnal vision”, and *munattu*—“waking dream”, and *diglu*—“sight”,¹⁰⁹ which are more suggestive of inspired divination. A specific answer to a query received in a dream was termed in ritual an eš.bar = *purussā*¹¹⁰ *amāru*, “to see an oracular decision”—yet another allusion to legal terminology (see note 91). These decisions were received either by chance or more probably as a result of incubation,¹¹¹ in which case, of course, dream divination falls into the category of impetrativa. It is apparent, then, that dream divination falls between the three main types of divination attested in Mesopotamia—dreams were provoked (impetrativa) or passively received (oblativa), in both cases the interpretations of which were deduced by an external expert with the help of a ‘core text’ and accompanying materials, or they were seen as direct expressions of divine communication, in which the dreamer served merely as the vehicle (medumistic). In most of these cases an expert was the medium (and might when awake further interpret his dream), in other cases (attested in literature) persons of elevated status were regarded as having been given dreams by the gods that required no interpretation.

The core text of deductive dream divination comprises tablets 2-9 of an 11-tablet series we call *The Dream Book*, but known in antiquity as *iškar^d Zaqīqu* (“core text of the god Zaqīqu”) with roots in the OB period, perhaps earlier.¹¹² Interestingly, it contains in tablets 1, 10 and 11 the rituals designed to alleviate bad dreams etc. Either the dream interpreter himself, or herself, undertook these activities, or the client employed an *āšipu*. As noted in chap. 2.2 the *āšipu* probably had some involvement with dream divination, particularly in earlier periods. The interpretation of a dream is checked in the NA period with extispicy in Starr (1990), nos. 202 and 316, and as remarked in chap. 3.1 the *bārū* in the OB period probably also undertook some dream interpretation.

The dream diviners *par excellence* (lú.en.me.li or lú.igi-du₈ = *šā’ilu*, “the questioner”) were commonly female (sal.en.me.li = *šā’iltu*, possibly *hartibi*).¹¹³ The

¹⁰⁸ Butler (1998), p. 7.

¹⁰⁹ Pongratz-Leisten (1999), p. 102.

¹¹⁰ In *EAE purussā* sometimes refers to the apodosis of an omen, where *ittu* refers to the protasis or sign.

¹¹¹ See now Butler (1998), chap. 19; Zgoll (2002).

¹¹² Butler (1998), pp. 100 and 313.

¹¹³ See Pongratz-Leisten (1999), p. 107.

name is suggestive (a) of the means by which information was extracted from the dreamer—in this case this was the divinatory act—or (b) of the request made of a god to provide a message dream. The *šā'ilu* is commonly associated with incense, and an OA reference exists, suggesting the connection of this diviner with necromancy.¹¹⁴ There are allusions to dreaming on someone else's behalf,¹¹⁵ which again would fall into the category of inspired divination.

4. Medumistic, Inspired, or Non-Deductive Divination

4.1 Oracles and Prophecies

We have only a small number of texts pertaining to prophecy, some 30 from the 25, 000 texts recovered at the French dig at Mari on the Euphrates, and dating to c. 1700 BC, and a small collection from NA times, but these have been well published respectively by Durand (1988), Dietrich (1986), and Parpola (1997), with a collection of references in NA times compiled by Nissinen (1998). Pongratz-Leisten's (1999) summary needs no improvement, except note Guichard (1997), and Cancik-Kirschbaum's article in 2003.

It is not surprising that for what was essentially an oral tradition, and one that did not require deduction in the manner employed in the divinatory disciplines discussed in §§ 2 and 3, we have no 'core texts'. Despite the dearth of sources, Pongratz-Leisten (1999) suggests, p. 55, that inspired divination was in use continuously from OB times until NA. I will not discuss this form of divination any further here, since it bears little comparison with astral divination, but suffice to say that the main experts in question were known in Mari in the OB period as *āpilum* "answerer" (note the opposite to the *šā'ilu* "questioner" or dream diviner), and *muhhûm* "ecstatic", and in the NA period as *raggimu* "proclaimer", and that the large number of names for these experts suggest that it was indeed considered to be a discipline of prime importance. Note the reference, however, to "if a city has many ecstasies, trouble for the city" in *ālu* 1:101-102!

5. Discussion

5.1) The distinction between divination types mentioned in chap. 1 is for the most part sound and corresponds broadly to the division between *bārû*, *tuṣṣar* EAE, and *raggimu* in the late period, and between *bārû*, *āšipu* and *muhhûm* etc. in earlier periods. Dream interpretation, however, fell into all three categories, and

¹¹⁴ See Finkel (1983-1984).

¹¹⁵ Pongratz-Leisten (1999), p. 102.

blurs the sharp distinction between deductive and inspired divination that Bottéro (1974), p. 143, and others wish to see. The divination types in Mesopotamia can be grouped as follows, therefore:

- a) Deductive / observational—*EAE*, *izbu*, *ālu*, augury,¹¹⁶ medical, physiognomic, some message dreams.
- b) Deductive / ceremonial (Bottéro uses ‘deductive liturgical’, but this adds an unwarranted religious component)—extispicy, oil, smoke, flour, dream incubation.
- c) Inspired—some message dreams, oracles, prophecy.

Pongratz-Leisten elects for a distinction between ‘ceremonial’ and ‘observational’ along the same lines, but in the case of the ceremonial (or ‘intentional’, to use her terminology) form, she sees a further subdivision into “Vergewissenssysteme”, or checking systems which apply to things past (exemplified by extispicy) and “prognostische Systeme” for things to come, while admitting that oracles lie somewhere between. I have commented above on celestial divination being used to ‘check’ other prognostications, and it is also clear from the extispicy reports that queries often pertained to the efficacy of *future* expeditions, for example. Nevertheless, checking was something that especially concerned the extispicer.

The sometimes cited distinction into yes / no types of divination, and those that provided more specific prognostications is also attractive, however, many of the latter omens can be reduced to a simple code of ‘favourable’ / ‘non-favourable’ (see below), which destroys the distinction. Another possible distinction is between those techniques that are repeatable, and those that are not—see my comments above *sub* extispicy. Sallaberger (2000), pp. 242f., further subdivides deductive-observational divination into three sub-categories which relate to the extent to which man can interact with what he observes.

5.2) The supposed distinction alleged by some to exist between Sumerian and Akkadian divination in Mesopotamia disappears under close inspection. Extispicy of the ‘this candidate is suitable / not suitable’ variety existed early in Sumerian times, and the earliest liver models attest to an already extant system of deductive divination by c. 1900 BC. The allusions to celestial divination in the Sumerian *Gudea’s Cylinder* (c. 2100 BC) are strong,¹¹⁷ and if we accept the

¹¹⁶ We know of the augur *dāgil iššūrī* from NA sources, and of divination by birds from earlier references—see Jeyes (1989), note 46, and Durand (1997), pp. 273ff., for references to what pertained in OB Mari and for a discussion of the possible West Semitic origins of this discipline.

¹¹⁷ Brown (2000a), p. 247, and Brown and Zólyomi (2001), *contra* Koch-Westenholz (1995), pp. 32f., who argues that the Sumerian goddess Nisaba, particularly associated with stars, was concerned with timing rather than divination. For other references to divination in Sumerian see Falkenstein (1966), Römer (1986), and Böck (1995), p. 153.

statistical validity of Huber's dating, then at least by 2093 BC eclipse omnia were being interpreted according to systems later used in the OB period (see note 28). Dreams that are understood to be messages from the gods are also well attested in Sumerian sources, as noted above. The Sumerian word for *giskim*, "sign", exists in pre-OB Sumerian texts, and if Böck is right (see note 22), so does *a.rá* "omen oracle", in medical circumstances. There is an allusion to oil-on-water divination in a Sumerian source.¹¹⁸ The alleged West Semitic origin of oracles has now been abandoned, and its origin is regarded as Mesopotamian, perhaps also stemming from the third millennium.¹¹⁹

I am critical of ascribing divination to a 'Semitic mentality', as does Botéro,¹²⁰ and suggest that its OB written form came about for political reasons (see below). I also suggest that (with exceptions) the attested apodoses hide an essentially 'favourable' / 'non favourable' interpretation of the phenomena in question. In other words, the basic two-fold interpretation is presented in terms of various apodoses evoking notions of what constitutes a good life or good things, or vice versa, some of which were stock (interchangeable between series), and others of which had an empirical component taken at the time. The difference, then, between the divinations that we know was undertaken in the third millennium BC (determining the suitability of cultic personnel, for example) and that attested in OB times diminishes, making the existence of the latter in the third millennium all the more likely.

5.3) According to B. Pongratz-Leisten (1999), p. 5, with her study, "wird der Bereich der Divination (in Mesopotamien) endgültig aus dem Bereich der Magie herausgelöst, und unter dem Aspekt der Kommunikation zwischen König und Gott als politisches Instrument von Herrschaft, d.h. als Herrschaftswissen, definiert." Certainly, Maul (2003) is right when he argues, pp. 48-49, that divination in Mesopotamia has little to do with fatalism (though, when does it ever?), and should be understood as a system in which the gods offer mankind signs that all is not as it should be, and that appropriate counter measures are required. The existence of signs are not to be feared, therefore, for they indicate that the supernatural and natural are working together to guide humanity. "Es unterscheidet sich von jenen jedoch wesentlich darin, daß für den mesopotamischen Menschen auch in den ungünstigen Zeichen letztlich göttliches Wohlwollen lag," for "dadurch verliert das zunächst nicht faßbare Zukünftige zumindest einen Teil seines bedrohlichen Wesens," he writes, and in the hands of the powerful in Mesopotamia, divination was no doubt thereby used to justify particular actions, but this is far from saying that it was a "politisches Instrument von Herrschaft".

¹¹⁸ Reference in Cryer (1994), p. 146, note 1.

¹¹⁹ Pongratz-Leisten (1999), p. 51. For further examples of third millennium BC divination, see Maul (2003), pp. 70-71.

¹²⁰ E.g. (2000), pp. 34f. See my review (2002).

I treat ‘magic’ as little more than a loose descriptive category for those activities designed to *coerce* and *constrain* supernatural forces (after Fraser (1994), p. 48), where ‘religion’ serves to *conciliate* or *propitiate* them, while recognising that no such terms for ‘magic’ and ‘religion’ exist in the cuneiform sources themselves.¹²¹ ‘Magic’ in this sense is merely what is central to the activities of the *āšipu* (the “healer-seer”) and the *asû* (the “physician”) in particular. Cryer (1994), p. 122, contrary to Pongratz-Leisten, argues that “divination belongs to what is by far the largest province within magic ... ‘medical magic’”, seeing, like Maul (2003), p. 188, that it (op. cit., p. 188): “enables man to face the challenges of his existence.” Van Binsbergen and Wiggermann (1999), pp. 24f., also attempt to place divination under the rubric ‘magic’ as defined by them, contrasting this ‘magic’ with ‘religion’ on the basis that the former operated within the areas of man’s efforts to exert control over the environment, himself and his peers (man and the supernatural are close—a ‘holistic’ view), and that the latter served the purpose of assisting the institutions in exerting control over the population as a whole (man and the supernatural are distant, he relates to the latter through submission etc.).

To these authors, ‘magic’ drew on sources of knowledge and power, termed locally “the secret of Heaven and Earth”, that were antagonistic to theism, which itself favoured the hegemonic aims of those in power. When those in power did use ‘magic’, it was rendered into a form that was compatible with the prevailing ‘religion’, and (for van Binsbergen and Wiggermann) this is what divination is. In other words, they see Mesopotamian divination as ‘magic’ with a religious spin. Pongratz-Leisten (1999), pp. 301-308, however, sees this “secret knowledge”, expressed with the Akkadian terms *niširtu* and *pirištu*, as more to do with the art of ruling than with esoteric wisdom of the hidden nature of the universe, and this view is accepted by Maul (2003), p. 49. She even draws a parallel with Greek *technē*, “skill of the craftsman”, in note 132 on p. 308, but there is no escaping the fact that this “secret knowledge” described the contents of texts that we would call both magical and divinatory. Pongratz-Leisten makes a good case for integrating divination (at least that which has come down to us in the written record) into the machinery of rule, and van Binsbergen and Wiggermann’s description of the state ‘usurping’ divination to its own ends is compelling. Nevertheless, I argue (Brown 2004) that the textual record is, in fact, best accounted for by a situation in which those in power are simply availing themselves of the elite versions of Mesopotamian divination, which was in reality very widely used throughout society. It was not “secret knowledge”, because it assisted those in power—it was a “secret of the gods”, because it revealed what was known to the divinities, but was not immediately obvious to mankind, namely the true meaning of natural phenomena.

¹²¹ Μάγεια, of course in later Iranian and Greek discourse often denoted little more than ‘Chaldaean’.

While divination, in Mesopotamia and elsewhere, is indeed ‘holistic’, in so far as it draws on the mutual dependency of man, and his surroundings evoked as gods, it is nevertheless distinguishable from magic in that it does *not* use coercion to achieve its aims, that of receiving and interpreting a sign. Nor is there any evidence that it used coercion in earlier times, whether or not it was then allegedly absorbed into religion. From the very earliest times for which we have records from Mesopotamia (c. 2500 BC) some forms of divination were used to determine the suitability of religious personnel. That is, some forms of divination were (so far as we can judge) from their inception ‘hegemonic’, and served the needs of those ‘in charge’. Other forms of divination were, perhaps, absorbed into the scholarly temple and palace repertoire (and hence were written down and survived), having their original purposes (namely to help the average man) perverted to suit the aims of the king, and became thereby ‘religious’. In so doing, I would argue, the supernatural forces providing the messages were indeed perceived to be more distant than those believed to assist in the practice of magic.¹²² We return, then, to my statement early in this article that the signs were sent by the great gods, for whom religious and not magical communication was suitable, whereas the predicted evil was, perhaps surprisingly, brought by lesser powers, against whom magic was thought to work. The system was a hybrid of top-down communication and communication between equals. It mirrored, in my opinion, the way in which laws, judgements and so forth were promulgated within the Mesopotamian state. The new law or decision came arbitrarily from the king. Its content was not up for negotiation. The implementation of the law, however, was left to the king’s agents, who like the demonic beings, were equal to, or only marginally above, the ‘ordinary’ person. Their actions could be, and were, frustrated by communication between equals—i.e. magic in the form of apotropaic rituals.

For Cryer (1994), pp. 121-122, divination is “a set of socially defined and structural procedures for producing (notional) knowledge in a society from what are presumed to be extra-human sources,” and he stresses repeatedly that the notion that divination predicts the future is wrong. This is, of course, true, in so far as any system which purported to predict the future on so flimsy a premise as the movement of oil on water, say, would soon find its statements falsified, if no other mechanisms co-existed to ensure that the predictions *could not* be falsified.¹²³ Two such mechanisms existed in Mesopotamia, and undoubtedly else-

¹²² See further Brown (2004) and (forthcoming). For an older, but still useful discussion on divination’s relationship to religion, see Saggs (1978), pp. 137ff. Showing, sadly, that old-fashioned categories of magic and divination are still current terms in Assyriology, see Leichty (1997).

¹²³ A distinction between the work of the scientist and non-scientist promulgated most famously by Karl Popper, of course. See Cryer (1994), p. 122, note 1. See Pingree (1978), p. 220: “the omens provided a basis for intelligent action rather than an indication of inexorable fate.”

where. Firstly, the divination could be followed by a ritual which served to undo the evil portended, and secondly the validity of the reading was always open to question. The reading was open to question firstly on the basis that the divination procedure was somehow flawed, or impure (i.e. that the signs themselves were false), or that the signs had been falsely interpreted.¹²⁴ Naturally, for some forms of divination it was possible to repeat the operation, and hope for better omens next time (e.g. extispicy), and for others it was considered wise to do nothing until the bad omens had passed (e.g. while Mars was in Scorpius).¹²⁵ Either way the future prediction was not *tested*. An example will spell out how the two basic mechanisms would have been used in practice. On the basis of signs, a sick patient (for whom the avoiding of action while the omens continue to bode ill is not an option) is predicted:

- a) to die. A ritual is undertaken to avert the evil portended. The patient:
 - i) lives. Alles ist in Ordnung.
 - ii) dies. The ritual failed. Sorry!
- b) to live. A ritual might be undertaken. The patient:
 - i) lives. Great, (but I'll take your money anyway).
 - ii) dies. Sorry!
- A) The signs were false. The gods deliberately wanted to deceive the patient and the diviner, or the ritual place was impure (probably because of the patient).
- B) The right signs were misread. Insufficient attention was paid to X and Y.¹²⁶

¹²⁴ The abundance of variant apodoses in the cuneiform omen corpus attest to the existence of divergent interpretations of similar phenomena. Even today, unlike what is commonly believed by the sceptic, there is no one to one correspondence between the accurately defined planetary and zodiacal positions in a modern horoscope, and its interpretation. The interpretation depends on the 'syntheses' of the hints gained from the astral positions, the expertise of the astrologer, and knowledge of the person whose horoscope is being drawn. It is in this area, therefore, where the possibility of ambiguity and dissimilation exists, that the discipline can remain safely unfalsifiable, while at the same time enjoying the association with the exact science of astronomy.

¹²⁵ Hunger (1992), no. 53—the scholar writes to the king (rev. 2f., translation after Hunger): "Mars has turned around, started moving, and is going forward in Scorpius: that is a bad sign. Let them finish the muster quickly. The king should only go out rarely until we see how (Mars) moves and stands."

¹²⁶ A good example is offered by the text Parpola (1993), no. 351. On account of a predicted eclipse, which bodes ill for kings, a substitute is placed on the throne in Nineveh. The diviner makes the substitute recite litanies (*naqbītu*) of the scribal art in order that he "takes on all the celestial and terrestrial portents on himself" (ll.12-13). This was the ritual means (a) by which the predicted evil was avoided, and falsification was also avoided. The diviner then describes the eclipse, and on the basis of the encoding of eclipses writes that the ill portended applies not to the Assyrian monarch, but to other kings. This is (b), where a more precise reading predicts that evil will not occur. Finally, the diviner warns the king: "nevertheless the king, my lord, should be on his guard and ... (other) apotropaic rituals should be performed" (ll. rev. 12f). In other words, the diviner

As can be seen immediately, only scenario b, ii, B offers a critique of the diviner's skill, and is the only place where some *corrective* empirical feedback into his interpretative system could take place. The scenarios where the future occurred as predicted could, of course, provide *corroborative* empirical feedback, and indeed did. Divination, then, provides information that will shape future action, but it does not predict the future (despite its claim to), since *any* future falls within its remit.

The so-called 'empirical hypothesis', that lying behind Mesopotamian divination are the simultaneous observations of events described in omen protases and apodoses, is supported by Bottéro (1974), pp. 144f.; (2000), p. 47, where he cites the famous *post hoc ergo propter hoc* critique, "what follows something is caused or announced by that thing." (See also above, note 20). However, 'variable-reducing' (my term) and 'encoding' have to occur before interpretation can begin, as argued, for example, by Denyer (1985), and Bottéro's position in respect of celestial divination has been criticised in both Koch-Westenholz (1995), pp. 13-19, and Brown (2000a), pp. 109f.

The criticism can be extended to other forms of divination. The gods were believed to have caused the signs, not the events predicted by the signs.¹²⁷ Every omen from Mesopotamia should *not* be translated:

If A is observed, then B will take place,

but instead (assuming that the observation itself could not be explained away as a *false* reading, due to impurity, and so forth) as:

If A is observed, then B *might* take place (if the appropriate counter measures are not undertaken).

Most Assyriologists accept now, that so far as Mesopotamian divination was concerned, A was not believed to *cause* B. It is still commonly argued, however, that A and B were associated through their being observed at virtually the same time,¹²⁸ or that the omen compendia, "although based on a core of observations, were by and large the creation of language: in extending the classification patterns, the scribes not only formulated new omens but determined their predictions."¹²⁹

protects himself, saying in effect: "in case my reading is wrong (b, ii), or the first ritual I undertook failed, perform other rituals (with other experts, who could then be blamed if the king, my lord, dies)." Virtually the whole scheme outlined above is evoked in this letter.

¹²⁷ E.g. Lawson (1994), p. 71 has deduced: "to the ancient Mesopotamian, life's events were understood to be fixed, determined—but they were not inevitable."

¹²⁸ Larsen (1987), p. 212; Pongratz-Leisten (1999), p. 14; Maul (2003), p. 46.

¹²⁹ Guinan (1989), p. 228. This is basically Rochberg's position in (1999c)—see p. 566: omens are based upon "empirical as well as theoretical foundations"—where she

It is clear that when the omens were created particular literary practices already common in the lexical tradition were used, and I follow Goody here in believing that the particular technology of cuneiform writing (long training, multi-valent readings, the dying or dead Sumerian language) helped create a way of thinking that is reflected in the omen series.¹³⁰ I suggest that the particular political situation in the OB period, with city states ruling after a period of unification under the Ur III empire, meant that the scribes felt they had a unifying role to play in their work. They brought together variant omen forms and attempted to reconcile them. In so doing they began the work that led to the core series.

What is not readily appreciated, in many circles,¹³¹ however, is that what appear to be a core set of observations amongst the omens, are more likely the *corroborations* of pre-existing decipherments of a set of observable phenomena, which themselves have been broken down into a series of broad categories in order to be readable in the first place.

In some celestial omen protases events are described that could never occur, so it is apparent that the entire omen was invented. Similarly, impossible protases occur in other core series. Naturally, many protases describe things that can happen, but an infinite number of terrestrial events occur simultaneously with even the most remarkable phenomenon. The choice of apodosis made depends on the *existing* interpretation—the simple code, issues of ugliness, parallelism, metaphor, what is abnormal and so forth. The series, far from being “based on a core of observations” are rather based on a series of generalisations and categorisations, given value according to this simple code, such as right is good, left bad, red is bad, white good, snakes are bad (see note 17, above), deformity is bad, eclipses are bad, temporal anomaly is bad, temporal coherence is good, and so on and so forth. The means by which that which is good or bad is expressed (the apodoses) depended to a great extent on the audience for whom the omens were intended.¹³²

In *EAE* the apodoses commonly describe events that impact on the well-being of the land as a whole—floods, good harvests, wars etc., but they also describe events of direct concern to the king—changes of regime, deaths of kings etc. Other series, with other audiences, exhibit another set of generalisations, including a rather rich collection of cultural *prejudices*, concerning foreigners, adultery,

extends the meaning of the term “empirical” to “non-observables”, in order to stress the similarity omens have with “aspects” of modern Western science (p. 561). She argues, however, that signs and associated events are in an “invariant correlation” in Mesopotamian omenology (p. 566), and that the essence of omens is their “predictive aspect”. This is more true of celestial divination than it is of extispicy, for example. See also Lehoux (2002).

¹³⁰ Brown (2000a), note 203.

¹³¹ Except by Koch-Westenholz, e.g. (1995), p. 36, and probably Cryer (1994), pp. 150f., and Veldhuis (1999).

¹³² Cooper (1980).

correct behaviour, vermin and so forth.¹³³ For example, the connection between a blind *izbu* and a bad household cannot have been ‘observed’, without the pre-existing idea that to be blind was bad, and what a good household constituted and I argue that all the omens from Mesopotamia were similarly constituted. The fact that they could be so constructed without recourse to empiricism was made possible by the fact that they were always associated with ‘get-out’ clauses—that is, they were unfalsifiable. The seemingly empirical aspects added credibility to the system, but they did not form its core. The system worked perfectly without any ‘observables’ at all, as indeed divination from the appearances of ghosts, and the footprints of gods¹³⁴ makes absolutely clear.

In the case of extispicy, the fact that a ceremony was instigated in order to answer a specific query, the answer to which, at least in some cases, would subsequently have been checked against what actually occurred, does mean that in this discipline the potential for extensive empirical *feedback* into the omen series was high. The liver models exemplify this fund of observational data, and undoubtedly many such records were combined to *refine* the pre-existing decoding. I see the process as follows: A preliminary encoding makes a liver interpretable. Extispicies are carried out. Particular phenomena in the livers are noted as protases, which are slightly different from those anticipated in the encoding, but are nevertheless interpreted accordingly. The extispicy proves to have answered the query correctly, and the specific record of phenomena thus becomes a “treasure of the diviner”, and thereby source material for later investigations.

The empirical background to *sa.gig*, the *āšipu*’s diagnostic handbook (see note 72), is particularly interesting. It is clear from the symptoms described in the series that the experts had come across a variety of medical problems in their travels, and that their responses to what they had confronted over the centuries had been transferred to subsequent generations by being recorded in the handbook. The modern designation ‘diagnostic’, however, hides the large divinatory component of this series, for which the true aim is the description of ailments as signs of a particular god’s ire, in order that the appropriate supernatural counter-measures could be brought to bear. The omens are formulated thus:

If he is ill one day, and his head hurts him: overheating due to the sun’s blaze, the hand of the god of his father, he will die / he will live (variant),¹³⁵

and we see here what was an observed ‘symptom’, according to our terminology (a headache), an apparently empirically derived explanation, a diagnosis in terms of the malefic influence of a god and two variant prognoses, very much in the ‘favourable’ / ‘unfavourable’ form. The diagnoses are, for the most part, the

¹³³ See Guinan (1989), (1990).

¹³⁴ *Šumma ālu* 19 and 21.

¹³⁵ Tablet 16:1, after Heeßel (2000).

results of decoding. They show that the ‘symptoms’, or better ‘ailments’, are, in a very real sense, messages from the (displeased) gods. The protases were likely formed from some feedback process based on the medical ailments of actual patients. However, which of the many symptoms any given ailing patient had that were actually recorded, was also partly informed by how one should ‘read’ the situation at hand. The notion of direct contact with the god through his touching of the patient is particularly strong in diagnostic writings, and exemplified by the term “hand of the god”. The touching was believed to have caused the ailment, just as any divinatory sign was caused by a god. After all, many people are overheated due to the sun’s rays, but never suffer a headache, so *this* cannot have been seen as the sufficient cause of the ailment. The sun’s blaze was a contributing factor, or perhaps even an agent of the god, much as demons and lesser supernatural agents that appear in diagnostic texts, are the necessary but not sufficient cause of ailments.¹³⁶ The role of the diagnostician was to identify which god was the sufficient cause, and effect reconciliation between that god and the patient, and also to tackle the lesser supernatural or contributory causes head on, with the use of ‘magic’. The ailment was the equivalent of a divinatory sign¹³⁷ of divine displeasure, and like those signs could be averted through correct ritual action—soothing the greater gods, and fending off or destroying the minor supernatural beings, or rivals. The gods caused the signs, but not necessarily the event predicted by the sign, which in the case of a patient was death or survival. The cause of death or recovery lay in the complex interplay between correct ritual action and treatment, the moral rectitude of the patient, the will of the gods, and perhaps the will of the patient.

Even the seemingly obvious difference between ‘ailment-signs’ and ‘divinatory-signs’, in that the ailment is already causing the patient pain, disappears when we think that an ill-boding sign provided immediate psychological worry for the recipient, and required him or her to call immediately upon the services of the *āšipu*.

As a final word, Lehoux (2002) argues that the debate as to the empirical or non-empirical background of the omens misses the point, and suggests that the Mesopotamian diviners *themselves* took the empirical basis of the omens very seriously (p. 220). Perhaps the diviners did indeed believe that the omens were drawn from the juxtaposition of real events that occurred in the distant past, but

¹³⁶ Demons and magical practitioners are sometimes blamed for ailments in *The Diagnostic Handbook*, and occasionally even a moral component seems to play a role, cf. Heeßel (2001), p. 249. None of these, however, I argue were the sole causes of ailments. In the background lurked a deity, whether mentioned or not.

¹³⁷ In *sa.gig* many of the omens recorded are not even connected to the description of the ailment, but to events the healer-seer may confront on his way to the patient’s house, or in the patient’s home, etc. These events can provide him both with information on whether or not the patient will die, and which god has caused the ailment. Yet again, these omens are the elaborations of pre-encoded scenarios, some with and some without an empirical component that corroborated the decoding (reading).

we have no way of knowing this for sure, so this argument takes us no further. Perhaps, instead the diviners felt only that the interpretative schema had been *corroborated* in the past, and would have found it ridiculous that any one could think that empiricism lay behind the schema in the first place. Such a view, which is indeed hard to accept in my opinion, may have been first conjured up by the likes of Cicero, and has confused generations ever since.

5.4) My analysis of so-called ‘early astronomy’, as in fact ‘ideal-scheme’ divination, has led me to criticise the widespread belief that the motivation behind the appearance of astronomy in Mesopotamia and elsewhere was calendar control—a view shared by O. Neugebauer amongst others. In fact, the evidence is that the months and the seasons were roughly regulated from the earliest times, but that they were systematically reconciled only after the accurate prediction of celestial phenomena had begun. I argue that this was done in order to facilitate prediction (the same reason lies behind the invention of the zodiac—the spatial equivalent), and that the motivation behind prediction came from the advantages it gave to the celestial diviner. I thus tie the advent of astronomy in Mesopotamia to the demands of the prevailing divination, and also argue that the consequences for divination and for the idea of god-client communication itself were enormous.¹³⁸

5.5) Even after celestial phenomena became predictable, they lost none of their ominous significance. This is different from what occurred with predictable eclipses in China at the time of the Chinese Astronomical Bureau.¹³⁹

5.6) Omens in cuneiform bode both well and ill. Protases usually, but do not always describe abnormal situations. When the normal is described this bodes well. The abnormal *in relation to this normal* bodes ill, but is subject to the ‘textual-play’ rules of omen invention. In *Izbu* I: 58-59:

If a woman gives birth to a male form—good news will arrive in the land.
If a woman gives birth to a female form—that house will get ahead; he (the father) will have good luck.

Note here that the interpretation of a normal form overrides that usually derived from sexual opposites. Giving birth to twins (I: 83), however, bodes ill, but having triplet girls bodes well (I: 101), triplet boys ill (I: 104). In this case the rule of opposites has made the *abnormal* situation of triplet girls propitious. Similarly, normally good-boding planets can, in certain circumstances, foretell ill. When trying to elicit from our cuneiform sources an idea of the astrological “nature” of a planet, in order to effect a comparison with their natures as outlined in Ptolemy’s *Tetrabiblos*, for example, or in the contemporary work of Vettius Va-

¹³⁸ See Brown (2000a), p. 234, and Brown (2004) and (forthcoming).

¹³⁹ See Brown and Linssen (1997), p. 155.

lens, say, we are forced to rely on the omen series and related materials, for we have no equivalents to the long sections those two second century AD authors devoted to the planets' primary significance.¹⁴⁰ The means by which the complex 'textual-play' rules affect the relationship between protasis and apodosis severely complicates this task, however. Nevertheless, attempts have been made which rely heavily on the myth associated with the deities associated with the planets, with modest success.¹⁴¹

5.7) I conclude merely with the comment that Mesopotamian divination cannot be disposed of as omen-based elaboration, with little to tell us of Mesopotamian thinking or of Mesopotamian society and religion. The apodoses are loaded with information on cultural practices and prejudices, and the protases tell us a great deal about how the phenomena of the world were categorised. The relationships between the 'if' and the 'then (might)' part of the omen, and between omens within a series themselves, reveal the techniques, literate and pre-literate, with which phenomena were assigned a meaning, and by which unobserved phenomena were interpreted if and when seen. We see the influence of legal thinking in some of the terms used. The commentaries and the incipits of the core series tell us of the premises lying behind these forms of divination, from the metaphors of writing to the notion of order and design inherent in the divine construction of the universe.¹⁴² Male and female diviners are attested, and we know a little about the status of some of the elite practitioners. We are aware that divination was used outside of royal circles, but the vast majority of our material pertains to royal concerns. This should not, however, tempt us to think of divination as merely a tool of the powerful, for it derived its plausibility from widely shared Weltanschauung vis-à-vis gods, demons, nature, and mankind, which tells us a great deal about what one might call Mesopotamian "religion". Literary texts, no doubt written by diviner-scholars in defence of their art, allude to the importance of adhering to the omens. In the Cutha Legend (see note 21), OAKk. king *Narām-Sîn* ignored the omens, and came to an unfortunate end. In the NA period, the last Assyrian kings made no such mistake, and surrounded themselves with a large number of experts, the consequences of which for the exact sciences, for the disenchantment of nature, for man's view of the nearness of the gods, for the concept of the interlinking of the heavenly and earthly spheres, and for the practice and spread of divination were profound indeed.

¹⁴⁰ Brockbank (2003).

¹⁴¹ E.g. Baigent (1994), chapters 8-14.

¹⁴² Brown (2000a), pp. 235f.

Abbreviations and Bibliography

Abbreviations

CRRAI = Comptes rendues de la Rencontre Assyriologique Internationale.

CRRAI 14 = *La divination en Mésopotamie ancienne et dans les régions voisines*. Paris: Presse Universitaires de France, 1966.

CRRAI 26 = *Death in Mesopotamia*. B. Alster (ed.), Copenhagen: Akademisk Forlag, 1980.

CRRAI 40 = *Houses and Households in Ancient Mesopotamia*. K. R. Veenhof (ed.), Istanbul: Nederlands Historisch-Archeologisch Instituut te Istanbul, 1996.

CRRAI 41 = *Landwirtschaft im alten Orient*. H. Klengel and J. Renger (eds.), Berlin: Dietrich Reimer Verlag, 1999.

CRRAI 42 = *Languages and Cultures in Contact—At the Crossroads of Civilizations in the Syro-Mesopotamian Realm*. K. Van Lerberghe and G. Voet (eds.), Leuven: Peeters, 1999.

RIA = *Reallexikon der Assyriologie*. D. O. Edzard (ed.), Berlin and New York: Walter de Gruyter.

Other abbreviations can be found in the *Chicago Assyrian Dictionary* or in the *RIA*.

Bibliography

Assmann, Jan, and Gladigow, Burkhard (eds.) (1995). *Text und Kommentar. Archäologie der literarischen Kommunikation*. Vol. 4. München: Fink.

Baigent, Michael (1994). *From the Omens of Babylon: Astrology and Ancient Mesopotamia*. London, etc.: Penguin-Arkana.

Biggs, Robert D. (1987-1990). "Medizin." *RIA* 7: 623-629.

Black, Jeremy A. (1987). "Sumerian *Balang* Compositions." *Bibliotheca Orientalis* 44: 32-79.

Böck, Barbara (1995). "Sumerisch a.rá und Divination in Mesopotamien." *Aula Orientalis* 13: 151-159.

- (2000). *Die babylonisch-assyrische Morphoskopie*—*Archiv für Orientalforschung*. Beiheft 27. Vienna: Institut für Orientalistik.
- Borger, Rykle (1973). “Keilschrifttexte verschiedenen Inhalts: I. Der astrologische Text LB 1321,” in Martinus A. Beek et al. (eds.), *Symbolae Biblicae et Mesopotamicae Francisco Mario Theodoro de Liagre Böhl dedicatae*. Leiden: Brill, pp. 38-43.
- Bottéro, Jean (1974). “Symptômes, signes, écritures en Mesopotamie ancienne,” in Jean-Pierre Vernant et al. (eds.), *Divination et rationalité*. Paris: Éditions du Seuil, pp. 70-197.
- (1985). *Mythes et rites de Babylone*. Paris: Libr. H. Champion.
- (1996). “L’astrologie mésopotamienne: L’astrologie dans son plus vieil état,” in B. Bakhouché, A. Moreau, and J.-C. Turpin (eds.), *Les astres: Actes du colloque international de Montpellier, 23-25 mars 1995*. Montpellier: Recherche Université Paul Valéry I, pp. 159-182.
- (2000). “Religion and Reasoning in Mesopotamia,” in Jean Bottéro, Clarisse Herrenschmidt, and Jean-Pierre Vernant, *Ancestor of the West: Writing, Reasoning, and Religion in Mesopotamia, Elam, and Greece*. Chicago: University of Chicago Press, pp. 3-66.
- Brockbank, James (2003). “Planetary Signification from the Second Century until the Present Day.” *Culture and Cosmos* 7/2: 37-62.
- Brown, David R. (2000a). *Mesopotamian Planetary Astronomy-Astrology*. Cuneiform Monographs 18. Groningen: Styx.
- (2000b). “The Cuneiform Conception of Celestial Space and Time.” *Cambridge Archaeological Journal* 10: 103-121.
- (2001). “Astronomy-Astrology in Mesopotamia.” *Bibliotheca Orientalis* 58: 41-60.
- (2002). “One Out of Three Ain’t Bad—Review of *Ancestor of the West: Writing, Reasoning, and Religion in Mesopotamia, Elam, and Greece* by Jean Bottéro, Clarisse Herrenschmidt, and Jean-Pierre Vernant. (Chicago, 2000).” *Cambridge Archaeological Journal* 12.1: 165-169.
- (2003). “The Scientific Revolution of c. 700 BC,” in Alisdair A. MacDonald, Michael W. Twomey, and Gerrit J. Reinink (eds.), *Learned Antiquity: Scholarship and Society in the Near East, the Greco-Roman World, and the Early Medieval West*. Leuven: Peeters, pp. 1-12.
- (2004). “A Review of Beate Pongratz-Leisten (1999). *Herrschaftswissen in Mesopotamien*. Helsinki: Helsinki University Press.” *Zeitschrift für Assyriologie* 94: 112-121.

- (forthcoming) “Disenchanted with the Gods? The Advent of Accurate Prediction and its Influence on Scholarly Attitudes towards the Supernatural in Ancient Mesopotamia and Ancient Greece,” in Gábor Zólyomi, Eleanor Robson, and Heather Baker (eds.), *Gedenkschrift Jeremy Black*.
- Brown, David R., and Linssen, Marc (1997). “BM 134701 = 1965-10-14,1 and the Hellenistic Period Eclipse Ritual from Uruk.” *Revue d’Assyriologie* 91: 147-166.
- Brown, David R., and Zólyomi, Gábor (2001). “‘Daylight Converts to Night-time.’ An Astrological-Astronomical Reference in Sumerian Literary Context.” *Iraq* 63: 149-154.
- Butler, Sally A. L. (1998). *Mesopotamian Conceptions of Dreams and Dream Rituals*. Münster: Ugarit-Verlag.
- Cancik-Kirschbaum, Eva (2003). “Prophetismus und Divination—ein Blick auf die keilschriftlichen Quellen,” in Matthia Köckert and Martti Nissinen (eds.), *Propheten in Mari, Assyrien und Israel*. Göttingen: Vandenhoeck and Ruprecht, pp. 33-53.
- Casaburi, Maria C. (2003). *Tre-stelle-per ciascun(mese). L’Astrolabio B: edizione filologica*. Naples.
- Cavigneaux, Antoine, and Al-Rawi, Farouk (1993). “New Sumerian Texts from Tell Haddad (ancient Meturan): a First Survey.” *Iraq* 55: 91-105.
- Cicero, Marcus T. *De Divinatione* (W. A. Falconer translation into English of 1923 in the Loeb Classical Library, London, and the Christoph Schäublin translation into German of 1991). München: Artemis and Winkler.
- Civil, Miguel (1994). *The Farmer’s Instructions: a Sumerian Agricultural Manual*. Sabadell-Barcelona: AUSA.
- Cohen, Mark E. (1981). *Sumerian Hymnology: the Eršemma*. Cincinnati: Hebrew Union College.
- (1993). *The Cultic Calendars of the Ancient Near East*. Bethesda: CDL Press.
- Cooper, Jerrold S. (1980). “Apodictic Death and the Historicity of ‘Historical’ Omens.” *CRRAI* 26: 99-105.
- (1999). “Sumerian and Semitic Writing in Most of Ancient Syro-Mesopotamia.” *CRRAI* 42: 61-77.

- Cryer, Frederick H. (1994). *Divination in Ancient Israel and its Near Eastern Environment : a Socio-Historical Investigation*. Sheffield: JSOT Press.
- Denyer, Nicholas (1985). "The Case against Divination: An Examination of Cicero's *De Divinatione*." *Proceedings of the Cambridge Philological Society* 211 (NS 31): 1-10.
- Dietrich, Manfred (1986). "Prophetenbriefe aus Mari." *Texte aus der Umwelt des Alten Testaments* II/1: 83-93.
- Durand, Jean-Marie (1988). *Archive Royales de Mari 26/1, Archive épistolaires de Mari 1*. Paris: Éditions Recherche sur les civilisations.
- (1997). "La divination par les oiseaux." *Mari Annales de Recherches Interdisciplinaire* 8: 273-282.
- Falkenstein, Adam, (1966). "'Wahrsagung' in der sumersichen Überlieferung." *CRRAI* 14: 45-68.
- Fincke, Jeanette C. (2001). "Der Assur-Katalog der Serie *enūma anu enlil* (EAE)." *Orientalia* 70: 19-39.
- Finkel, Irving L. (1983). "A New Piece of Libanomancy." *Archiv für Orientforschung* 29: 50-57.
- (1983-1984). "Necromancy in Ancient Mesopotamia." *Archiv für Orientforschung* 29-30: 1-17.
- (1988). "Adad-apla-iddina, Esagil-kīn-apli, and the Series SA.GIG," in Erle Leichty et al. (eds.), *A Scientific Humanist: Studies in Memory of Abraham Sachs*. Philadelphia: Samuel Noah Kramer Fund, pp. 143-159.
- (1995). "In Black and White: Remarks on the Assur Psephomancy Rial." *Zeitschrift für Assyriologie* 85: 271-276.
- Fraser, James G. (1994). *The Golden Bough*, (the new abridgement). Oxford: Oxford University Press.
- Freedman, Sally M. (1998). *If a City Is Set on a Height. The Akkadian Omen Series Šumma ālu ina melê Šakin*. Philadelphia: The University of Pennsylvania Museum.
- Gehlken, Erlend (2000). "Sonnenaufgang in Sippar: Tafel 27 der Serie *Enūma Anu Enlil*," in Simonetta Graziani (ed.), *Studi sul Vicino Oriente antico dedicati alla memoria di Luigi Cagni*. Napoli: Istituto universitario orientale, pp. 345-353.

- Geller, Markham J. (2000). "Incipits and Rubrics," in A. R. George, and I. L. Finkel (eds.), *Wisdom, Gods and Literature. Studies in Assyriology in Honour of W. G. Lambert*. Winona Lake: Eisenbrauns, pp. 225-258.
- George, Andrew R. (1991). "Babylonian Texts from the Folios of Sidney Smith. Part 2: Prognostic and Diagnostic Omens, Tablet 1." *Revue d'Assyriologie* 85: 137-167.
- Goodnick-Westenholz, Joan (1997). *Legends of the Kings of Akkade*. Winona Lake: Eisenbrauns.
- Guichard, M. (1997). "Présages fortuits à Mari (copies et ajouts à ARMT XXVI/1)." *Mari Annales de Recherches Interdisciplinaire* 8: 305-328.
- Guinan, Ann K. (1989). "The Perils of High Living: Divinatory Rhetoric in *šumma ālu*," in H. Behrens et al. (eds.), *DUMU-E₂-DUB-BA-A, Studies A. W. Sjöberg*. Philadelphia: Samuel Noah Kramer Fund, University Museum, pp. 227-235.
- (1990). "The Human Behavioural Omens: On the Threshold of Psychological Inquiry." *Bulletin of the Canadian Society of Mesopotamian Studies* 19: 9-14.
- (1996a). "Left / Right Symbolism in Mesopotamian Divination." *State Archives of Assyria Bulletin* 10/1: 5-10.
- (1996b). "Social Constructions and Private Designs. The House Omens of *Šumma ālu*." *CRRAI* 40: 61-68.
- (1997). "Divination," in William W. Hallo and K. L. Younger (eds.), *The Context of Scripture*. Vol. 1. Leiden: Brill, pp. 421-426.
- Heeßel, Nils P. (2000). *Babylonisch-assyrische Diagnostik*. Münster: Ugarit-Verlag.
- (2001). "Diagnostik in Babylonien und Assyrien." *Medizin-Historisches Journal* 36: 247-266.
- (2001 / 2002a). "'Wenn ein Mann zum Haus des Kranken geht....'. Intertextuelle Bezüge zwischen der Serie *šumma ālu* und der zweiten Tafel der Serie SA.GIG." *Archiv für Orientforschung* 48/49: 22-49.
- (2001/2002b). "Review of Freedman (1999)." *Archiv für Orientforschung* 48/49: 232-241.
- Horowitz, Wayne (1994). "A Join to Enūma Anu Enlil 50." *Journal of Cuneiform Studies* 46: 127-130.
- (1998). *Mesopotamian Cosmic Geography*. Winona Lake: Eisenbrauns.

- Huber, Peter, J. (1987). "Dating by Lunar Eclipse Omina, with Speculations on the Birth of Omen Astrology," in J. L. Berggren, and B. R. Goldstein (eds.), *From Ancient Omens to Statistical Mechanics. Essays on the Exact Sciences presented to Asgar Aaboe*. Copenhagen: University Library, pp. 3-13.
- (1999-2000). "Astronomical Dating of Ur III and Akkad." *Archiv für Orientforschung* 46/47: 50-69.
- (2000). "Astronomy and Ancient Chronology." *Akkadica* 119-120: 159-176.
- Hunger, Hermann (1992). *Astrological Reports to Assyrian Kings*. Helsinki: Helsinki University Press.
- (1999). "Planetenstellungen bei der Geburt," in B. Böck, E. Cancik-Kirschbaum, and T. Richter (eds.), *Munuscula Mesopotamica. Festschrift für Johannes Renger*. Münster: Ugarit-Verlag, pp. 229-239.
- (2000). "Uses of Enūma Anu Enlil for Chronology." *Akkadica* 119-120: 155-158.
- (2001). *Volume V of Astronomical Diaries and Planetary Texts—Lunar and Planetary Texts*. Vienna: Österreichische Akademie der Wissenschaften.
- (2004). "Stars, Cities, and Predictions," in C. Burnett, J. P. Hogendijk, K. Plofker, and M. Yano (eds.), *Studies in the History of the Exact Sciences in Honour of David Pingree*. Leiden / Boston: Brill, pp. 16-32.
- Hunger, Hermann, and Pingree, David (1999). *Astral Sciences in Mesopotamia*. Leiden: Brill.
- Jeyes, Ulla (1989). *Old Babylonian Extispicy*. Istanbul: Nederlands Historisch-Archeologisch Instituut te Istanbul.
- Koch-Westenholz, Ulla (1995). *Mesopotamian Astrology—An Introduction to Babylonian and Assyrian Celestial Divination*. Copenhagen: Museum Tusulanum Press.
- (1999). "The Astrological Commentary *šumma šîn ina tāmartišu* Tablet 1." *La science des Cieux. Sages, mages, astrologues. Res Orientales XII*: 149-165.
- (2000). *Babylonian Liver Omens—The Chapters manzāzu, padānu and pān tākalti of the Babylonian Extispicy Series mainly from Aššurbanipal's Library*. Copenhagen: Museum Tusulanum Press.

- (2004). “A Fragment of Enūma Anu Enlil concerning Jupiter.” *Nouvelles Assyriologiques Brèves et Utilitaires (N.A.B.U.)* 45: 43.
- Krecher, Joachim (1966). *Sumerische Kultlyric*. Wiesbaden: Harrassowitz.
- Labat, René (1933). *Commentaires assyro-babyloniens sur les présages*. Bordeaux: Imprimerie-Libraire de l’Université.
- (1939). *Hémérologies et ménologies d’Assur*. Paris: Adrien-Maisonneuve.
- (1941). “Un almanach babylonien (VR 48.49).” *Revue d’Assyriologie* 38: 13-40.
- (1951). *Traité akkadien de diagnostics et pronostics médicaux*. Paris: Académie internationale de histoire des sciences.
- (1965). *Un calendrier babylonien des travaux des signes et des mois (séries iqur īpuš)*. Paris: H. Champion.
- (1972-1975). “Hemerologien.” *RIA* 4: 317-323.
- Lakatos, Imre (1978). *Philosophical Papers Vol. 1 = The Methodology of Scientific Research Programs*. J. Worall and G. Curie (eds.). Cambridge: Cambridge University Press.
- Lambert, Wilfred G. (1962). “A Catalogue of Texts and Authors.” *Journal of Cuneiform Studies* 16: 59-77.
- (1966). “The ‘tamītu’ Texts.” *CRRAI* 14: 119-123.
- (1967). “Enmeduranki and Related Matters.” *Journal of Cuneiform Studies* 21: 126-38.
- (1997). “Questions Addressed to the Babylonian Oracle. The *tamītu* Texts,” in J. G. Heintz (ed.), *Oracles et prophéties dans l’antiquité*. Paris: De Boccard, pp. 85-98.
- (1998). “The Qualifications of Babylonian Diviners,” in Stefan Maul (ed.), *tikip santakku mala bašmu ... Festschrift für Rykle Borger*. Groningen: Styx, pp. 141-158.
- Landsberger, Benno (1915). *Der kultische Kalendar der Babylonier und Assyrer*. Leipzig: J. C. Hinrichs.
- Largement R. (1957). “Contribution à l’étude des astres errantes dans l’astrologie chaldéenne.” *Zeitschrift für Assyriologie* 52: 235-266.
- Larsen, Mogens T. (1987). “The Mesopotamian Lukewarm Mind. Reflections on Science, Divination, and Literacy,” in F. Rochberg-Halton (ed.), *Language*,

Literature, and History. Studies....Erica Reiner. New Haven: AOS, pp. 203-225.

- Lawson, Jack N. (1994). *The Concept of Fate in Ancient Mesopotamia of the First Millennium: Toward an Understanding of Šimtu.* Wiesbaden: Harrassowitz.
- Lehoux, Daryn (2002). "The Historicity Question in Mesopotamian Divination," in J. M. Steele, and A. Imhausen (eds.), *Under One Sky: Astronomy and Mathematics in the Ancient Near East.* Alter Orient und Altes Testament 297. Münster: Ugarit-Verlag, pp. 209-222.
- Leichty, Erle (1970). *The Omen Series Šumma izbu.* Locust Valley, NY: J. J. Augustin.
- (1990). "A tamītu from Nippur," in T. Abusch et al. (eds.), *Lingering over Words. Studies Moran.* Atlanta Ga.: Scholars Press, pp. 301-304.
- (1997). "Divination, Magic, and Astrology in the Assyrian Royal Court," in R. M. Whiting and S. Parpola (eds.), *Assyria 1995.* Helsinki: Neo-Assyrian Text Corpus Project, pp. 161-164.
- Livingstone, Alasdair (1986). *Mystical and Mythological Explanatory Works.* Oxford: Oxford University Press.
- (1989). *Court Poetry and Literary Miscellanea.* Helsinki: Helsinki University Press.
- (1993a). "The Case of the Hemerologies: Official Cult, Learned Formulation and Popular Practice," in E. Matsushima (ed.), *Official Cult and Popular Religion in the Ancient Near East.* Heidelberg: Universitätsverlag C. Winter, pp. 97-113.
- (1993b). "Menologie." *RIA* 8: 59-60.
- (1996). "Review of Cohen, 1993." *Journal of Semitic Studies* 41/2: 303-306.
- (1997). "New Dimensions in the Study of Assyrian Religion," in R. M. Whiting and S. Parpola (eds.), *Assyria 1995.* Helsinki: Neo-Assyrian Text Corpus Project, pp. 165-177.
- (1999). "Agriculture in Literary Calendar Texts." *CRRAI* 41: 375-379.
- Maul, Stefan M. (1988). "*Herzberuhigungsklagen*": *Die sumerisch-akkadischen Eršahunga-Gebete.* Wiesbaden: Harrassowitz.

- (1994). *Zukunftsbewältigung: eine Untersuchung altorientalischen Denkens anhand der babylonisch-assyrischen Löserituale (Namburbi)*. Mainz: Philipp von Zabern.
- (2003). "Omina und Orakel. A. Mesopotamien." *RIA* 10 1/2: 45-88.
- McEwan, Gilbert J. P. (1981). *Priest and Temple in Hellenistic Babylonia*. Wiesbaden: Franz Steiner.
- Meyer, Jan-Waalke (1987). *Untersuchungen zu den Tonlebermodellen aus dem Alten Orient*. Kevelaer: Butzon & Berker.
- Moren, Sally M. (1978). *The Omen Series Šumma Alu: a Preliminary Investigation*. Ann Arbor: University Microfilms International.
- Neugebauer, Otto (1955). *Astronomical Cuneiform Texts*. London: Lund Humphries.
- Nissinen, Marti (1998). *References to Prophecy in Neo-Assyrian Sources*. Helsinki: Helsinki University Press.
- Oppenheim, A. Leo (1956). *The Interpretation of Dreams in the Ancient Near East with a Translation of the Assyrian Dream Book = Transactions of the American Philosophical Society* 46/3. Philadelphia: APS, 179-353.
- (1969). "New Fragments of the Assyrian Dream-Book." *Iraq* 31: 153-165.
- (1974). "The Babylonian Diviner's Manual." *Journal of Near Eastern Studies* 33: 197-220.
- (1977). *Ancient Mesopotamia. Portrait of a Dead Civilization*. Chicago: University of Chicago Press.
- (1978). "Man and Nature in Mesopotamian Civilization." *Dictionary of Scientific Biography* 15. New York: Charles Scribner's Sons, pp. 634-666.
- Parpola, Simo (1983). *Letters from Assyrian Scholars to the Kings Esarhaddon and Assurbanipal: II Commentary and Appendices*. Kevelaer: Butzon & Berker.
- (1993). *Letters from Assyrian and Babylonian Scholars*. Helsinki: Helsinki University Press.
- Pearce, Laurie E. (1998). "Babylonian Commentaries and Intellectual Innovation." *CRAI* 44: 331-338.
- (1999). "Sepīru and ^{LÚ}A.BA: Scribes of the Late First Millennium." *CRAI* 42: 355-368.

- Pettinato, Giovanni (1966). *Die Ölwahrsagung bei den Babyloniern*. Rome: Istituto di Studio del Vicino Oriente.
- Pingree, David (1978). "Astrology." *Encyclopaedia Britannica* A: 219-223.
- (1998). "Legacies in Astronomy and Celestial Omens," in Stephanie Dalley (ed.), *The Legacy of Mesopotamia*. Oxford: Oxford University Press, pp. 125-137.
- Pongratz-Leisten, Beate (1999). *Herrschaftswissen in Mesopotamien*. Helsinki: Helsinki University Press.
- Reiner, Erica (1960). "Fortune-Telling in Mesopotamia." *Journal of Near Eastern Studies* 19: 23-35.
- (1973). "New Light on Some Historical Omens," in K. Bittel et al. (eds.), *Anatolian Studies presented to Hans Gustav Güterbock on the Occasion of his 65th Birthday*. Istanbul: Nederlands Historisch-Archeologisch Instituut te Istanbul, pp. 257-261.
- (1995). *Astral Magic in Babylonia*. Philadelphia: APS.
- Reiner, Erica, and Pingree, David Edwin (1975). *The Venus Tablets of Amisaduqa*. Malibu: Undena.
- (1981). *Enūma Anu Enlil. Tablet 50-51*. Malibu: Undena.
- (1998). *Babylonian Planetary Omens. Part Three*. Cuneiform Monographs 11. Groningen: Styx.
- Renger, Johannes (1969). "Untersuchungen zum Priestertum in der altbabylonischen Zeit. 2. Teil." *Zeitschrift für Assyriologie* 59: 104-246.
- Reynolds, Frances (1999). "Stellar Representations of Tiāmat and qingu in a Learned Calendar Text." *CRRAI* 42: 369-378.
- Richter, Thomas (1999). "Untersuchungen zum Opferschauwesen. III. Drei übersehene Opferschauprotokolle aus altbabylonischer Zeit," in B. Böck, E. Cancik-Kirschbaum, and T. Richter (eds.), *Munuscula Mesopotamica, Festschrift für Johannes Renger*. Münster: Ugarit-Verlag, pp. 399-414.
- Rochberg, Francesca (1996). "Personification and Metaphors in Babylonian Celestial Omina." *Journal of the American Oriental Society* 116: 475-485.
- (1998). *Babylonian Horoscopes*. Philadelphia: APS.
- (1999a). "Continuity and Change in Omen Literature," in B. Böck, E. Cancik-Kirschbaum, and T. Richter (eds.), *Munuscula Mesopotamica, Festschrift für Johannes Renger*. Münster: Ugarit-Verlag, pp. 415-425.

- (1999b). “Babylonian Horoscopy: The Texts and their Relations,” in N. M. Swerdlow (ed.), *Ancient Astronomy and Celestial Divination*. Cambridge/London: MIT Press, pp. 39-59.
- (1999c). “Empiricism in Babylonian Omen Texts and the Classification of Mesopotamian Divination as Science.” *Journal of the American Oriental Society* 119: 559-569.
- (2000). “Scribes and Scholars: The *tupšar Enūma Anu Enlil*,” in J. Marzahn and H. Neumann (eds.), *Assyriologica et Semitica: Festschrift für Joachim Oelsner anlässlich seines 65. Geburtstages am 18. Februar 1997*. Alter Orient und Altes Testament 252. Münster: Ugarit-Verlag, pp. 359-375.
- (2004). *The Heavenly Writing: Divination, Horoscopy, and Astronomy in Mesopotamian Culture*. Cambridge: Cambridge University Press.
- Rochberg-Halton, Francesca (1984). “New Evidence for the History of Astrology.” *Journal for Near Eastern Studies* 43: 115-140.
- (1987). “Mixed Traditions in Late Babylonian Astrology.” *Zeitschrift für Assyriologie* 77: 207-228.
- (1988). “Elements of the Babylonian Contribution to Hellenistic Astrology.” *Journal of the American Oriental Society* 108: 51-62.
- Römer, Willem H. Ph. (1986). “Zukunftsideutungen in sumerischen Texten.” *Texte aus der Umwelt des Alten Testaments* II/1: 18-55.
- Sachs, Abraham (1952). “Babylonian Horoscopes.” *Journal of Cuneiform Studies* 6: 49-75.
- Sachs, Abraham, and Hunger, Hermann (1988), (1989), and (1996). *Astronomical Diaries and Related Texts from Babylonia Vols. I, II, III (652 BC to 61 BC)*. Vienna: Österreichische Akademie der Wissenschaften.
- Saggs, H. W. F. (1978). *The Encounter with the Divine in Mesopotamia and Israel*. London: Athlone.
- Sallaberger, Walther (2000). “Das Erscheinen Marduks als Vorzeichen: Kultstatue und Neujahrsfest in der Omenserie *Šumma ālu*.” *Zeitschrift für Assyriologie* 90: 227-262.
- Schaumberger, Johannes (1954-1956). “Astronomische Untersuchungen der ‘historischen’ Mondfinsternisse in *Enūma Anu Enlil*.” *Archiv für Orientforschung* 17: 89-92.
- Scurlock, Jo Ann (1999). “A Tale of Two Healing Professions,” in T. Abusch and K. van der Toorn (eds.), *Mesopotamian Magic Textual Historical, and Interpretative Perspectives*. Groningen: Styx, pp. 69-79.

- Starr, Ivan (1974). "In Search of the Principles of Prognostication in Extispicy." *Hebrew Union College Annual* 45: 17-23.
- (1983). *The Rituals of the Diviner*. Malibu: Undena.
- (1990). *Queries to the Sungod*. Helsinki: Helsinki University Press.
- Tsukimoto, A. (1982). "A Report on Divination by Means of a Sacrificial Bird." *Oriens* 18: 107-110.
- van Binsbergen, Wim, and Wiggermann, Frans (1999). "Magic in History. A Theoretical Perspective, and its Application to Ancient Mesopotamia," in T. Abusch and K. van der Toorn (eds.), *Mesopotamian Magic Textual, Historical, and Interpretative Perspectives*. Groningen: Styx, pp. 3-34.
- van den Hout, Th. (2003a). "Omina (Omens). B. Bei den Hethitern." *RIA* 10 1/2: 88-90.
- (2003b). Orakel (Oracle). B. Bei den Hethitern." *RIA* 10 1/2: 118-124.
- Veldhuis, Niek (1999). "Reading the Signs," in H. L. J. Vanstiphout (ed.), *All those Nations ... Cultural Encounters within and with the Near East, Studies Presented to Han Drijvers*. Groningen: Styx, pp. 161-174.
- Verderame, Lorenzo (2002). "Enūma Anu Enlil Tablets 1-13," in J. M. Steele and A. Imhausen (eds.), *Under One Sky: Astronomy and Mathematics in the Ancient Near East*. Alter Orient und Altes Testament 297. Münster: Ugarit-Verlag, pp. 447-457.
- (2003, Di.Sc.A.M 2002). *Le Tavole I-VI della serie astrologica Enūma Anu Enlil*. Nisaba 2 Rome: Grafica Cristal S.r.l.
- Virolleaud, Charles (1905-1912). *L'astrologie chaldéenne, le livre intitulé "enu-ma (Anu) ^{illu} Bêl" publié, transcrit et traduit^[sic]* fascicules 1-14. Paris: Virolleaud.
- Williams, Clemency (2002). "Signs from the Sky, Signs from the Earth: The Diviner's Manual Revisited," in J. M. Steele and A. Imhausen (eds.), *Under One Sky: Astronomy and Mathematics in the Ancient Near East*. Alter Orient und Altes Testament 297. Münster: Ugarit-Verlag, pp. 473-485.
- Zgoll, Annette (2002). "Die Welt im Schlaf zu sehen—Inkubation von Träumen im Antiken Mesopotamien." *Welt des Orients* 32: 74-101.