Mesopotamian Astrology and Astronomy as Domains of the Mesopotamian „Wisdom"*

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The current Assyriological manner of speaking of „Mesopotamian astrology and astronomy", of which I myself am as guilty as anybody, involves a difficulty liable to create misunderstandings and a potential obstacle to our attempts to understand the nature of Mesopotamian science in general.

There is, of course, nothing wrong with applying the terms „astrology" and „astronomy" to ancient Mesopotamia as long as we know precisely what these two terms mean and why we are using them. One may perfectly legitimately speak of „the astrological omen series Enuma Anu Enlil" for instance, meaning a collection of omens containing only astrological material from our point of view. One can also speak of „astronomical cuneiform texts" meaning the sort of texts Neugebauer published in his ACT.

The danger in the matter lies in the fact that in today's world astronomy and astrology are separate disciplines with entirely different connotations and value attachments. One is progressive science; the other is primitive superstition. Speaking of Mesopotamian astrology and astronomy we project, unwantingly maybe, this notion of two separate disciplines to the past and create a problem of definition: what exactly were Mesopotamian astrology and astronomy, and what was their relationship to each other?

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* This paper is a polished version of the more or less informal talk I delivered in Graz. It would never have been published without the perseverance of Hannes D. Galter and Bernhard Scholz, who not only insisted that I should participate in the Symposium but also recorded my talk and provided me with a transcript of it. I am much indebted to both of them for their hospitality and efforts. I also remember fondly and with gratitude the hospitality of Irmtraut Seybold. The abbreviations are those of the Chicago Assyrian Dictionary.

I know of course that many Assyriologists would not agree to separate astrology and astronomy in ancient Mesopotamia, but as a matter of fact there exists substantial confusion about the issue even among experts, not to mention outsiders.[1] Certainly there is also a strong tendency to regard Mesopotamian mathematical astronomy as the culmination of Mesopotamian science[2] and to think that the people who practiced it were somehow different from professional astrologers. In practice, the study of Mesopotamian astronomy and astrology has long since gone in separate directions, so that experts in Mesopotamian astronomical texts do not necessarily know very much about Mesopotamian astrology.

This split has one particular danger in it. It tends to divide astrological and astronomical texts into two separate categories, and inferences drawn about these two groups tend to be strongly biased depending on the texts that happen to be assigned or assignable to them. An overwhelming majority of the texts traditionally assigned to the category of „Mesopotamian astrology" are collections of omens, and for this reason Mesopotamian astrology is often referred to as „omen astrology" or, putting an emphasis on the omen protases, „observational astrology". It is of course realised that there are other types of astrological texts as well, but the fact is that Mesopotamian astrology still is – mistakenly, in my opinion – rather strongly contrasted with later (Hellenistic, medieval, Islamic) astrological systems, which are viewed as further developments or transformations of the former, but nevertheless as something essentially different.[3]

I think it is unfortunate that such a notion has become so popular, because in a sense speaking of „omen astrology" tends to reduce Mesopotamian astrology to a rather mechanical system with not very much imagination in it. On the assumption that an observed celestial phenomenon produces a phenomenon on the earth, one compiles huge collections of omens registering virtually everything that goes on in the heavens and noting down whatever can be assumed to have happened as a consequence on

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[1] Cf. F. Rochberg-Halton, „Between Observation and Theory in Babylonian Astronomical Texts", JNES 50 (1991), 107-120.

[2] Cf. A. Aaboe, *Cambridge Ancient History*, 2nd ed., III/2 (1991), p. 278.

[3] See F. Rochberg-Halton, „Elements of the Babylonian Contribution to Hellenistic Astrology", JAOS 108 (1988), 51-62.

a consequence on the earth. It does not require very much intelligence to build up such collections.

Today I propose to take a somewhat different approach to the whole issue, and instead of dwelling on the texts we have, conventionally divided in the said two categories, take a closer look at the persons who actually *produced* these texts.

It has long since been observed that the persons professionally engaged in making astronomical observations in first millennium Mesopotamia were called *ṭupšar Enūma Anu Enlil*, literally „Enuma-Anu-Enlil-scribes". Enuma Anu Enlil was the name of the great astrological omen series, so this title in effect means „observer and interpreter of celestial omens" and thus was the functional equivalent of our „astrologer".

Now the professional titles of the people who copied and drew up advanced mathematical astronomical texts, planetary and lunar ephemerides, etc., can to a large extent be established from the colophons of these texts. Not unexpectedly, as implied by the title *ṭupšar Enūma Anu Enlil*, these „astronomers" regularly turn out to be practicing astrologers, being in possession of astrological literature ranging from copies of and commentaries to Enuma Anu Enlil to horoscopic texts. But, surprisingly, the title *ṭupšar Enūma Anu Enlil* itself is not at all prominent in the colophons. Virtually all owners of Seleucid astrological-astronomical tablets identify themselves as representatives of two utterly „non-astronomical" professions – *kalû*, „lamentation priests", and *āšipu*, „exorcists"!

It is true that they occasionally also call themselves *ṭupšar Enūma Anu Enlil*, the normal term for „astrologer".[4] But it is important to note that whenever a person with two professional titles chooses to omit his other title, it is the title „astrologer" he drops, while the titles „lamentation priest" or „exorcist" are never omitted.[5]

[4] See ACT nos. 102, 122, 126, 135, 161, 171, 194, 420.

[5] E.g., Anu-abi-uttere calls himself *ṭupšar Enūma Anu Enlil* and *kalû* in ACT 171 and 194, but *kalû* only in ACT 600 and 802; Šamaš-eṭir is *āšipu* and *ṭupšar Enūma Anu Enlil* in ACT 163, but *āšipu* only in ACT 601.

There is one further point in these colophons worth comment in this context, and that relates to the genealogies of the tablet owners. As is well known, practically all Seleucid scribal families traced their origins back to eponymous ancestors living in a distant past,[6] and I would like to make a point here about one particular ancestor encountered in the astrological-astronomical colophons. It is Sin-leqe-unninni, otherwise known as the editor of the Standard Babylonian version of the epic of Gilgamesh, and elsewhere entitled „exorcist."[7] The point is that if the title „exorcist" does not particularly well agree with our idea of an astronomer, it certainly does not suit any better our preconceived ideas of who the editor of a major philosophical work like the epic of Gilgamesh should have been. This underlines that one has to be extremely cautious in applying the modern notions of „astronomy" and „philosophy" to ancient Mesopotamia.

Leaving the Seleucid era and moving back in time to the Neo-Assyrian (Sargonid) period, we encounter a remarkably similar situation. From this period we have a large corpus of astrological letters and reports to the king, and as F. Rochberg-Halton just pointed out, these dispatches were not authored exclusively by „Enuma-Anu-Enlil-scribes"; the senders also include „exorcists" and „lamentation priests". Another similarity with the Seleucid period are the genealogies of the report-writers. The Assyrian scholars also traced their families back to ancient times, and largely, though not always, perpetuated the same professions as their fathers and ancestors.[8]

Now I would not like to make too much of the fact that people like exorcists and lamentation-priests are found among the senders of the Sargonid reports; after all, most Sargonid letters and reports of astrological content *were* written by „scribes" or „astrologers". Nevertheless, the fact is there and calls for an explanation. Why did professional exorcists and lamentation priests occupy themselves with matters of astrology and observational astronomy?

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[6]See O. Neugebauer ACT I, p. 13ff and cf. W. G. Lambert, „Ancestors, Authors and Canonicity", JCS 11 (1957), 1-14.

[7]See W. G. Lambert, „A Catalogue of Texts and Authors", JCS 16 (1962), 66.

[8] See S. Parpola, LAS 2, p. XVIIff.

Before suggesting an answer, I may note that there is evidence of extensive cooperation between scholarly experts in Sargonid royal correspondence, and other contemporary texts. Thus one finds experts in different fields co-authoring letters to the king, e.g. on account of a lunar eclipse, and such groups of experts typically include the three professions already mentioned: a professional astrologer, a professional lamentiation-chanter and a professional exorcist.[9] Other types of scholarly experts could also co-autor letters to the king, for instance medical doctors (*asû*) writing letters jointly with exorcists.

In addition to this, scholarly cooperation is described or alluded to in several letters. We find an exorcist carrying out apotropaic rites an account of an astrological omen while a lamentation priest carries out a different set of rites on account of the same omen, or a haruspex (*bārû*) performing an extispicy on account of a royal illness whose nature could not be determined by the doctors attending to the king's health.[10] From other contempoary texts we learn that the training of scholarly experts involved mastery of the professional lore of several different crafts. For example, a text dubbed „a curriculum for exorcists" specifies the literature an exorcist had to master in order to become fully trained, and this list includes collections of astrological and terrestrial omens – in other word, things properly belonging to the domain of the „astrologer" -scribes.[11] Conversely, private libraries of haruspices could contain numerous exorcistic tablets.[12]

To sum up, we have clear evidence in both Sargonid and Seleucid times of a well-established „system" in which specialists in different branches of Mesopotamian learning cooperated for a common purpose. The training of these experts involved erudition in subjects clearly exceeding the confines of their individual fields – one could with reason speak of

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[9] See LAS 2, Appendix M1.

[10] See, e.g., LAS nos. 167, 185 and 333 (exorcists co-operating with lamentation priests); no. 246: 18f and relevant commentary (haruspices cooperating with physicians).

[11] See KAR 44 r.16ff, edited by H. Zimmern, ZA 30 (1916), 204ff, and recently by J. Botteró in Annuairire, École Pratique des hautes Études, IVe section, 1974/1975 (Paris 1975), 95ff.

[12] See S. Parpola, „Assyrian Library Records", JNES 42 (1983), 8ff.

interdisciplinary education.[13] In this light, the question left pending above (p. 50) should actually be rephrased as follows: What purpose did this interdisciplinary cooperation and education serve? Why would an expert in chanting lamentations have had to master astrological texts or draw up ephemerides for the moon and the planets?

I believe the answer is that the crafts of these scholarly experts were to a large extent *complementary* and that their respective disciplines and fields represented parts of a larger whole, which I, in conformity with the native Mesopotamian terminology, propose to call „wisdom". In my opinion it is essential to consider these disciplines not in isolation but as integral parts of this larger whole, and to realize that as parts of an integrated system of thought, the different subdisciplines of the „wisdom" were in constant contact and interaction with each other.

One should note in this context that the scholars figuring in the Sargonid royal correspondence were not just any „soothsayers", „magicians" or „wizards". They represented the intellectual elite of their time and not only that: they were the absolute top men in the disciplines they represented. They bear titles identifying them as the chiefs (*rabi*, lit. „greatest") of different groups of scholarly experts employed at the royal court – in other words, they can be said to have been the „rabbis" or „wise men" (Daniel 5: 7–8) of their time.

This point has to be stressed because it is essential to make a distinction between these „rabbis", who represented the highest knowledge in their fields, and lower-level practitioners of the same disciplines. The „rabbis" had a particular purpose to fulfill in the Mesopotamian society. They were attached to the royal court to protect and advise the king because they, like their „predecessors", the mythical Seven Sages serving antediluvian kings, were in possession of certain *secret knowledge* of vital importance to the king that other people did not possess.

To understand why the king had to be surrounded by such men we must briefly consider the king's status in Mesopotamian society. He was a link between god and man, a sort of god on earth, and as such, subject to demands of perfection not imposed on any other individual in the society. As god's representative on earth, his conduct largely determined the

[13] Cf. LAS 2, p. XVIII.

fortunes of the state. He could not just behave any way he wanted; his conduct had to correspond to the way the gods wished him to act.

The scholars' became indispensable when the king needed to be advised about his conduct. He himself was not able to understand the ways of the gods or the language they spoke. It was only a handful of learned men trained to read the signals sent by the gods who could do this.

Previous speakers have already touched on the element of religion in Mesopotamian astrology and it has been pointed out that one cannot speak of *astral religion* in this context, because the stars themselves were not gods even though they were considered divine. But this does not mean that religion did not play any role in the work of the specialists who interpreted the signals of the gods. I would say quite the contrary.

One should be keenly aware of the fact that omen astrology in the sense of a mechanical system of haphazardly correlated celestial signs and mundane events did not exist in Mesopotamia. There was always a *message* in the signs – they were *meaningful* signals, not just producers of certain haphazard effects on the earth.

I understand the series Enuma Anu Enlil primarily as a scientific collection of signals sent by the gods to the king. They sent these signs in order to affect the conduct of the king, the actions that he should take, and these signs were there for this single purpose only –that the gods could express their pleasure or displeasure with the conduct of the king through a system of signs that could be interpreted and reacted to.

In the Sargonid royal correspondence there are several references to omens that were sent to the king by gods in order to „open his ears", and by this it is meant that the king was supposed to listen to what the gods were saying.[14] In addition, we have a reference, which I think is very important, where after the discussion of an omen and its interpretation it is stated that the king should be „on his guard".[15] The omen in question is not astrological even though it is included in Enuma Anu Enlil . It refers to an earthquake and is explained to mean that the king will be vilified amidst his magnates. In order to prevent that, he was supposed to perform

[14] See e.g. R. C. Thompson, Rep. 57.

[15] LAS no. 35 r. 22.

a *namburbi* ritual to avert the omen, because „the god who created the earthquake, Ea, had also created an apotropaic ritual against it". But after this comes the statement that the king should nevertheless be „on his guard". I take this to imply that he had to *review his ways.*

A similar conclusion can be drawn from a consideration of the attitude to lunar or solar eclipses portending the king's death. There was a way of avoiding the predicted fate, namely by enthroning a substitute king who would eventually be killed. Discussions of this ritual have been generally satisfied to explain it as reflecting a rather primitive logic:

1) Superstitious people establish that the king's life is being threatened by supernatural forces; 2) the equally superstitious king abdicates his throne and enthrones a substitute, who is killed in his stead; 3) the supernatural forces are happy with this, and the king can reassume his role without having to be afraid of anything.[16]

But I think that this interpretation is utterly wrong, because the message „the king will die" actually meant that the king was to die because he had *sinned.*[17] Seen in this light, enthroning a substitute just could not be enough, because it did not solve the basic issue, namely that the punishment, the king's death, had been imposed because of his personal conduct. Thus it had to be a *personal* punishment.

For this reason the personality of the king was magically transferred to the substitute. He takes on the person and the sins of the king and dies *as him*, while the king himself becomes a different person through a process called „ablution house" (*bīt rimki*), a cycle of apotropaic rituals performed in connection with the lunar eclipse. The purpose of this cycle was to purify the person of the king. He dons new garments, washes away his sins, and confesses that he has sinned. Embedded in the cycle are beautiful hymns and prayers closely resembling Biblical psalms. In fact, some of them are so beautiful that in translation they could easily be mistaken for Biblical verses. There the king tells that he does not know

16 On the substitute king ritual see LAS 2, pp. XXII-XXXII and the literature listed ibid, p. XXII.

17 See below.

how he has sinned, he only knows that he has sinned, and repents and asks for forgiveness. [18]

The earthquake ritual discussed above has a similar rationale, because the king there undergoes a shaving ritual whereby his bodily outgrowths (hairs and nails) representing his sinful ego are shaved off and put in a bottle, which is then sealed and carried off to enemy territory.[19] Here, in effect, we have the *evil spirit* of this mighty being, the king, a semi-god even, forced into eternal imprisonment in a sealed bottle, while the king's new *purified self* is enabled to resume the duties of the king. I seriously think this embottlement ritual has given rise to the countless stories about the spirit of the bottle found in the Arabian Nights.[20]

But back to the nature of the astrological omen collection. Concealed as it is behind the mask of monotonous, stereotyped, repetitive omens, its religious nature is easily overlooked. It should be noted, however, that the beginning of this composition explicitly defines it as a religious text. Its introductory lines, which refer to the establishment of the divine world order by Anu, Enlil and Ea, set the tone to the whole composition.[21] An unmistakable religious undertone is also found in other collections of omens like the *Šumma ālu*, whose very first lines reveal the moral attitude of its compiler:

> „If a city is situated on a hill, for the inhabitants, that city will be depressed.
> If a city is situated (modestly) in a valley, that city will be elevated."

[18] See W. G. Lambert, „Dingir.šà.dib.ba Incantations", JNES 33 (1974), 267-322.

[19] See LAS no. 137-139 and the commentary in LAS 2, p.123ff. See also W. Mayer, „Ein neues Königsritual gegen feindliche Bedrohung", Or. 57 (1988), 145-164.

[20] Note that the jinns figure as expert palace builders, an activity where ancient Mesopotamian kings excelled like no others.

[21] ACh Sin 1: 1-8.

The same basic attitude is encountered throughout the text:

> „If the structure of the house on the outside is alluring, it will not endure;
> If the structure of a house is unprepossessing, its inhabitant will be happy."[22]

Why am I stressing this moral undertone of the omen texts? Simply because I think it is important to recognize these texts for what they properly are, religious texts belonging to a larger canonized whole comparable to the Holy Writ. It is diagnostic of their character as sacred writings that their origin was attributed to divine revelation,[23] and that whenever they are cited or referred to this is done in much the same words as the Biblical texts are referred to and quoted in the Bible.[24]

In general I find that the element of religion in Mesopotamian science should be stressed much more than has been customary in recent times. If I would have to define Mesopotamian „wisdom" in a simple way, I would define it as an *extension of Mesopotamian religion.* It should be clearly recognized that with Mesopotamian science we are dealing with a sophisticated, well organized and comprehensive system of thought that had largely grown out of the necessity to advise and protect the king in his capacity as the god's earthly representative. It could not have developed as it did without this sort of background. Whatever development it underwent and whatever way that development ended, it was a long, gradual process extending over millennia, whereby the whole system with its integrated world view was being slowly and continuously refined, enlarged and revised.

On the microlevel, this process is mirrored by the development of mathematical astronomy, which likewise was not the creation of any single individual but the end product of a long development in which

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22 Tablets I 1-2 and VI 3-4; see Ann Guinan, „The Perils of High Living: Divinatory Rhetoric in *Šumma Alu*", in H. Behrens et. al. (eds.), DUMU–E$_2$–DUB–BA–A, Studies in Honor of Åke W. Sjöberg (Philadelphia 1989), 231ff.

23 See K 2248: 1 (W. G. Lambert, JCS 16, 64).

24 *akī annie* (*ina libbi* ...) *šaṭir* „it is written (in ...)" or *akī annie* (*ina ... libbi*) *qabi* „it is said (...)". The matter is discussed more fully in my dissertation (LAS II A, Neukirchen 1971), p. 19.

many generations of competing scholars participated – a process comparable to the way in which the personal computer was perfected.[25]

Viewed as a whole, Mesopotamian „wisdom" displays a number of distinctive characteristics largely attributable to its historical background. One important characteristic is that its theoretical core – *summa sapientia* – was jealously guarded by the initiates and kept secret from outsiders. No full exposition of the „system" has survived for the simple reason that it was never committed to writing. We do have glimpses of it in a few odd esoteric texts defined as „secret of the great gods, for the initiate only" in their colophons, and revealingly enough, such texts also include mathematical astronomical texts.[26]

One may ask how such esoteric lore could be effectively transmitted if it was to be kept oral and concealed from the masses. The answer is that it was transmitted exactly in the way specified in the colophons of mathematical-astronomical texts already discussed, namely from father to son within a few old scribal families. A father who knew that his son would continue in his position would in due course impart his knowledge to his son, while he would keep it secret from other persons, with the exception of a few initiated colleagues or disciples.

A further characteristic of this esoteric science was that it was essentially mystic and speculative. The things that this „wisdom" had to deal with were matters that by their very nature demanded a lot of speculation, like the metaphysical world of the gods. You have to know what it is like, and in order to do that, you have to speculate.

Finally Mesopotamian „wisdom" may be characterized as a remarkably *harmonious* system, because in the course of the many millennia that went into its development it developed towards an ever increasing systematization, one could even say symmetry. Previous papers have referred to certain basic features in the Mesopotamian omen exegesis like the polar system of opposites and so on. These features, which imply the existence of a well-defined hermeneutical theory hidden behind the

[25] Cf. LAS 2, p. XXI and the paper of Britton elsewhere in this volume.

[26] E.g., MCT no. 135; see in general R. Borger, „Geheimwissen", RLA 3, 188-191.

noncommittal cover of stereotype omens, should be subjected to a careful and comprehensive study.[27]

Obviously the Mesopotamian scholars attached a great deal of importance to matters associated with the concepts of harmony and symmetry. The world of numbers, including mystic numbers and mathematics in general, played a dominant part in their thinking and hermeneutical methods. Mesopotamian esoteric texts make extensive use of two well-known techniques of interpretation known as gematriah and notarikon, which involve establishing relationships between words on etymological grounds, seeking relations between numbers and words, reinterpreting passages written in cuneiform script by assigning new values to the signs that made up an utterance, and so on. These techniques are well known from Jewish Kabbalah and since the terms themselves are loanwords from Greek they must also have been popular in Hellenistic mystic philosophies.[28]

I believe Assyriologists ought to take a serious look at Kabbalah, because this esoteric lore not only provides the closest known parallel to the Mesopotamian „wisdom", but it is also very likely to actually originate in Mesopotamia. Let me just recall a few basic facts about Kabbalah to show the basis on which the comparison rests.[29] Essentially, Kabbalah is an extension of Jewish religion. It is a mystic speculative form of Judaism, but it does contain a lot of astrology and magic just like the Mesopotamian „wisdom". Above all, Kabbalistic doctrines have always been strictly esoteric and ideally could only be passed from master to disciple or from father to son orally. For this reason no direct information on Kabbalah is available until relatively late (10th century A.D.).

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[27] For the time being see Guinan, cit. p. 227ff and I. Starr, *The Rituals of the Diviner* (Malibu 1983), 8-24.

[28] See S. Lieberman, „A Mesopotamian Background for the So-Called *Aggadic* 'Measures' of Biblical Hermeneutics", HUCA 58 (1987), 157-225.

[29] For details see, e.g., D. S. Milto, *Kabbalah* (New York 1980); P. S. Epstein, *Kabbalah: The Way of the Jewish Mystic* (Garden City, NY, 1978); C. Poncé, *Kabbalah* (San Fransisco 1973); Z. ben Shimon Halevi, *Kabbalah. Tradition of Hidden Knowledge* (London 1979).

What does this analogy mean for our understanding of Mesopotamian astrology and astronomy in particular? I think it means a great deal, even though I am not sure that it will remove the terminological problem referred to at the beginning of this paper. If astronomy, astrology and the other Mesopotamian fields of learning are seen as meaningful, mutually complementary parts of a larger whole, then they are taken out of the isolation in which they are now being studied, and one can focus one's attention on the interrelationship between these disciplines rather than trying to understand the individual disciplines on their own. If this lost esoteric system of knowledge could be reconstructed – and I am sure much can be achived on that score –, we would certainly be able to understand Mesopotamian civilization much better than we do at the moment.

I would like to conclude this paper with a passage from the inscriptions of the last great king of Assyria, Ashurbanipal, where he boastfully describes his careful education. He starts by saying that he learned the *secret lore* of the sage Adapa, the servant of the god of wisdom, and then goes on telling how he mastered astrology and hepatoscopy, could solve mathematical problems, read difficult texts etc.[30] I believe he knew exactly where to place the emphasis and I think we should follow his example.

[30] „I learnt the craft of the sage Adapa, the esoteric secret of the entire scribal tradition; I have observed and discussed celestial and terrestrial signs in the meetings of scholars; I ponder with experts diviners the liver, the image of heaven; I can solve complicated mathematical problems lacking solution; I read sophisticated texts written in obscure Sumerian and hardly understandable Akkadian; I have studied stone inscriptions from time before the Flood ..." (Streck, Asb., p.252 i 13-18).

Die Rolle der

Astronomie

in den Kulturen Mesopotamiens

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