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Scribes and Scholars: The *ṭupšar Enūma Anu Enlil*¹

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By means of the publication ten years ago of the "Materialien zur babylonischen Gesellschaft und Kultur in hellenistischer Zeit", Joachim Oelsner made it possible for an entire field to gain access to Late Babylonia in a way which was not possible previously. Our collective debt to him is weighty and mine personally no less so. I offer the following in deep appreciation.

While the term "*ṭupšar Enūma Anu Enlil*," is easily yet only literally translated "scribe of (the celestial omen series entitled) *Enūma Anu Enlil*," its definition in cultural terms is more complex. The translation "astrologer," by focussing on only one aspect of the celestial divination expert's activities, conveys an inadequate and one-sided picture. No one-word English translation of *ṭupšar Enūma Anu Enlil* (henceforth abbreviated *ṭ.EAE*) adequately defines the field of expertise of the *Enūma Anu Enlil* (henceforth *EAE*) scribe without implying an anachronistically sharp distinction between astrologer and astronomer. Thus Erica Reiner's freer translation "expert in celestial matters."²

The translation problem is partly a function of our modern understanding of the relationship between astrology and astronomy, not paralleled by the ancient terminology, on one hand, and, on the other, the need to establish what such a scribe referred to as such actually did, as well as how that changed over the course of the five hundred year span from the Neo-Assyrian to Arsacid periods. Although the term occurs in texts over the course of this long period, Babylonian celestial sciences of the last three centuries B.C. differ substantially from those of the seventh century. The training and activities of a *ṭ.EAE* must necessarily differ over this stretch of time. Finally, there is the question whether *ṭ.EAE* is a term for a distinct scholarly profession or a title held by certain members of the profession *ṭupšarru* "scribe."

If textual sources from which one could piece together the range of responsibilities and expertise of a *ṭ.EAE* were limited to those on which the title appears, very little could be said, as such sources are surprisingly rare. In the Neo-Assyrian period, there are four available texts: one letter,³ mentioning the "reports of the *ṭ.EAE*'s (*u'ilāti ša LU A.BA UD.AN*;^dEN.LÍL); another letter in which two

¹ Portions of this paper were presented in "The Scribes of *Enūma Anu Enlil*: The 'Scientific Community' of Late Babylonia" at the 200th Meeting of the American Oriental Society, Atlanta, Ga. 1990.

² E. Reiner, *Astral Magic in Babylonia*, Philadelphia 1995 (TAPS 85/4), 63.

³ LAS 60 ABL 1096. Cf. also S. Parpola, SAA X 76.

particular scribes are designated as LÚ.A.BA UD-*mu* AN EN.LÍL, who "look day and night at the sky";⁴ one report in which the title of Šumāia is the "scribe of *EAE* from the new team" (LÚ.DUB.SAR UD.AN.^dEN.LÍL *ša kišri eššu*);⁵ and one administrative document,⁶ listing the employees of the court in which seven *†EAE*'s head the list, two of whom are well-known from the Sargonid royal correspondence and astrological reports (Ištar-šumu-ēreš, known elsewhere as a *rab iupšarri* "chief scribe,"⁷ and Balasî).⁸

According to the designations of scribes found in colophons, the canonical *EAE* texts do not refer to the copyists as *†EAE*. Even though the celestial omen series represented the basic part of an "*EAE* scribe's" knowledge, and mastery of that text was obviously the chief defining feature of such a scribe, quotations of celestial omens from this series do not necessarily indicate that the writer of the text was an "*EAE* scribe." Evidence that scribes not holding this title could quote celestial omens (or hold private copies of the series, e.g., the 4th century scribe Iqīšā, see below) is common, as seen in the letters and astrological reports of the exorcist Adad-šumu-ušur,⁹ or the priest Akkullānu,¹⁰ who was an *ēreb biti* or "Enterer of the Temple of Assur."¹¹ Akkullānu carried out celestial observation and research in the *EAE* series, counselled the king on this basis and personally supervised the apotropaic rites necessitated by celestial omens which he recommended be performed.¹²

Not even in the body of texts termed "reports of the scribes of *Enūma Anu Enlil*" (*u'ilāti ša* LÚ.A.BA UD.AN.^dEN.LÍL), is a scribal author identified as a *†EAE*.¹³ Moreover, *EAE* was not the only source of omens utilized by the scribes who made

⁴ S. Parpola, A Letter from Šamaš-šumu-ukin to Esarhaddon, Iraq 24, 1972, 22 rev. 24-25. On the particular spelling of the title of the celestial omen series, see p. 26 note to line rev. 24.

⁵ H. Hunger, Astrological Reports to Assyrian Kings, Helsinki 1992 (SAA VIII), 499 rev. 5. See also A.L. Oppenheim, Divination and Celestial Observation in the Last Assyrian Empire, Centaurus 14, 1969, 99.

⁶ ADD 851 Obv. 18 [PAP 7 A.BA]-UD-AN-BE, see SAA VII 1.

⁷ See H. Tadmor's discussion of Ištar-šumu-ēreš as the author of the Synchronistic King List: History and Ideology in the Assyrian Royal Inscriptions, in: F.M. Fales (Ed.), Assyrian Royal Inscriptions: New Horizons in Literary, Ideological, and Historical Analysis, Rome 1981, 31-32. The "chief scribe," (*rab iupšarri*, written LÚ.GAL.DUB.SAR or GAL.A.BA), for example, was a title associated with celestial omen scribes from the time of Sargon II. One such chief scribe was Gabbi-ilāni-ēreš, ancestor of Nabū-zuqup-kēna. For colophons of the latter, from texts ranging in type from literary to astronomical and divination, both celestial and terrestrial, see H. Hunger, AOAT 2, Nos. 293-312.

⁸ S. Parpola, LAS I-II and H. Hunger, SAA VIII.

⁹ See LAS 119 and 120 and the astrological reports in H. Hunger, SAA VIII 160 and 161.

¹⁰ See LAS 298-302 and many reports, for which, see H. Hunger, SAA VIII 100-112.

¹¹ ABL 539 rev. 14-15, see LAS II, App. N 56. Cf. ACh Supp. 2 33: 8-11, the colophon of which identifies the scribe as belonging to the Assur Temple, as restored by H. Hunger, AOAT 2, No. 518.

¹² See LAS 298 on lunar eclipse omens and the substitute king ritual; also LAS 110+300 (S. Parpola, SAA X 100) on Mars omens and solar eclipse.

¹³ For text editions, see H. Hunger, SAA VIII. For the single example of a scribe identified with the title *†EAE* in the reports, see above note 9.

these reports to the king. It appears that the profession "scribe" (LÚA.BA=*ṭupšarru*) applied generally to specialists in scholarly divination, both celestial and terrestrial (*Šumma ālu* and *Šumma izbu*), as well as the hemerological omens (*iqqur ipuš* and *inbu bēl arhim*).¹⁴ These works constituted the literature of the scholarly field referred to by the abstract noun *ṭupšarrūtu*. Much scholarly divination was therefore included under the general field of "omen science," with the exception of the extispicy series *bārātu*. The series *EAE* ("canonical" and "non-canonical") is found within a list of scholarly works belonging to the library of Assurbanipal that included lexical lists (*nabnītu*), lamentations (*eršahunga*), terrestrial omens (*Šumma ālu*), and commentaries to a number of the omen series, as well as to the literary text *Enūma Eliš*.¹⁵ Celestial omens belonged to a classification of scholarship whose various aspects were divination (celestial and terrestrial), lamentation literature, lexical literature and commentaries.

In Oppenheim's study of the Neo-Assyrian scholar scribes, derived mainly from an analysis of the astrological reports,¹⁶ he called attention to the fact that, "the same experts report on and 'interpret' celestial events as well as such ominous occurrences as the birth of abnormal animals, or incidents which are typical of the sort dealt with in the compendium called *Šumma-ālu*," and that this "should prevent us from talking of them as 'astrologers.' They are simply experts in all those fields of divination which are outside extispicy."¹⁷ That this is the case is perhaps nowhere more clearly articulated than in a letter of Marduk-šāpik-zēri to Assurbanipal,¹⁸ in which he reviewed for the king the extent of his learning: (quoting Parpola's translation) "I fully master my father's profession, the discipline of lamentation; I have studied and chanted the Series. I am competent in [...], 'mouth-washing' and purification of the palace [...]. I have examined healthy and sick flesh. I have read the (astrological omen series) *Enūma Anu Enlil* [...] and made astronomical observations. I have read the (anomaly series) *Šumma izbu*, the (physiognomical works) [*Kataduqū*, *Alandi*] *mmū* and *Nigdīndimmū*, [...] and the (terrestrial omen series) *Šumma ālu*."¹⁹ The scribe then enumerated by name twenty other learned experts (PAP 20 UM.ME.A.MEŠ), two of whom specifically were competent in

¹⁴ See S. Parpola, SAA X, p. xiii and note 1.

¹⁵ W.G. Lambert, A Late Assyrian Catalogue of Literary and Scholarly Texts, in: B. Eichler (Ed.), Cuneiform Studies in Honor of Samuel Noah Kramer, Kevelaer - Neukirchen-Vluyn 1976 (AOAT 25), 314 (K.14067+). This list is associated with the scribal name Aplāia, a name seen in SAA X 289 (LAS 224) rev. 16' and (surely a different person) Aplāia of Borsippa, known from the celestial omen reports SAA VIII 356-368.

¹⁶ A.L. Oppenheim, Divination and Celestial Observation in the Last Assyrian Empire, Centaurus 14, 1969, 97-135.

¹⁷ A.L. Oppenheim, *ibid.*, 99.

¹⁸ CT 54 57+, edited by H. Hunger, in: F. Rochberg-Halton (Ed.), Language, Literature, and History: Philological and Historical Studies Presented to Erica Reiner, New Haven 1987 (AOS 67), 157-166; with join, S. Parpola, SAA X 160.

¹⁹ SAA X 160, 36, 12.

celestial divination and extispicy ("[NN] has crossed over from Elam; [he fully masters] extispicy and is an expert in [*Enūma A*] *nu Enlil*, ancient and Sumerian hermeneutics [and the secrets of heaven and e]arth," lines rev. 1-3 and "Kudurru is proficient in extispicy and has read *Enūma Anu Enlil*," line 31). The correspondence between Assyrian and Babylonian scholars and the kings Esarhaddon and Assurbanipal attests to the expertise of the diviners not only in the celestial and other omen literature, but also in incantations, rituals, and sacrifices necessitated by ominous signs. As portrayed in the Neo-Assyrian royal correspondence, such scribes not only knew what to watch for in the heavens and when, as well as where to find the corresponding prognostication in the compendium *EAE*, but also knew what to do in magical or cultic terms about one's findings in the text, and to advise the king accordingly. It is clear that scribes could be trained in the reading and application of *EAE* without their necessarily being identified as *t.EAE*.

Since the term "scribe" had the particular meaning "expert in omen sciences," the closest approximation to a general term for "litteratus" might be *ummānu* (LÚUM.ME.A), in accordance with its usage in the letter of Marduk-šāpik-zēri cited above. The word *ummānu* is normally translated into English as "master" or "scholar," as in the expression frequently found in the *mukallimtu* omen commentaries, "according to the scholars" (*ša pī ummāni*).²⁰ This statement has been interpreted as an expression meant to differentiate omens in "canonical" written series from those not recorded in the standard or "canonical" series. Colophons of some commentaries, for example the question-answer type, or *maš'altu*, sometimes identified their content as derived from ("the mouths of") scholars, e.g., *maš'altu ša pī ummāni*.²¹ Whether the force of the expression *ša pī* "according to (the mouth)" is to convey the orality of the tradition, or to establish a text as stemming from an authoritative source, i.e., the masters, or indeed both, is very difficult to establish.

In a text concerning the training of a diviner, the transmission of a variety of divination techniques, called "secrets of heaven and earth" and "secrets of the great gods," referred to the scholar as "learned" or "knowing" (*ummānu mudū*) and as "the one who guards the secrets of the great gods" (*nāšir pirišti ilāni rabūti*).²² The qualification of the scholar as *mudū* is of interest, since it raises the question of the nature of the knowledge of the Assyro-Babylonian scholar. The same designation is found in colophons which indicate the exclusivity of scholarly knowledge, as in "the knowing (one) may show (the tablet) only to the knowing, not to the 'unknowing'."²³ Or, equally explicit, "the 'unknowing' (i.e., uninitiated) may not see the

²⁰ See LAS 13 r. 1-2. Note the parallel to the expression *ša pī apkallē labirūti* "according to the (oral tradition of the) ancient sages," cited CAD s.v. *apkallu* 2a1'.

²¹ See CAD s.v. *maš'altu* mng. 2, with examples from medical texts, *iqqur ipuš*, diagnostic omens, *izbu*, celestial omens, and see H. Hunger, AOAT 2, No. 333.

²² W.G. Lambert, Enmeduranki and Related Matters, JCS 21, 1967, 132 (K 2486+): 19.

²³ See CAD s.v. *kullumu* mng. 4b. and H. Hunger, AOAT 2, index s.v.

secret of the sage" (*[niši]rti apkalli mudû la immar*).²⁴ The exclusivity of the scholars' knowledge, not to be disclosed to the "one who does not know," demarcates that body of knowledge, including divination, incantations and magic, from other fields.

There are isolated references to the revelation (*šubrû*) of texts from a god to a scribal "author," the clearest being that of the Erra Epic having been revealed to Kabti-ilāni-Marduk "in the night" (meaning in a dream?).²⁵ It is not clear, however, which god has done the revealing. The ascription of the celestial omen series *EAE* (as well as the exorcists' corpus [*āšipūtum*] and the lamentation singer' corpus [*kalūtum*]) to the god Ea in a catalogue listing authors of scientific and literary texts means that the origins of certain textual corpora of the scribal repertoire were thought of as divine. The catalogues in which texts are ascribed to authors, both divine and human, uniformly express "authorship" by means of the expression *ša pî*, literally "of the mouth," but meaning "according to," or, as Lambert translated, "by."²⁶ Yet, the case for revelation of these corpora, hence of the corresponding disciplines themselves, is less clear. For the divination sciences, called the "secrets of Anu, Enlil, and Ea" (*niširti* ^dAnu ^dEnlil u ^dEa), a text concerning the revelation of these bodies of knowledge, interestingly enough not from Ea, but from Šamaš and Adad to the sage Enmeduranki, explains the revelation of knowledge from the gods to the sage and then from the sage to "the men of Nippur, Sippar, and Babylon" (*māri Nippuri*^{ki} *Sippari*^{ki} u *Bābili*^{ki}).²⁷ Each time, revelation is expressed by means of the verb *šubrû*, as in the passage in the Erra Epic.²⁸ The disciplines of lamentation and incantation are not included in this text, whose purpose is specifically to define the qualifications (physical and in terms of descent) and requirements of a "diviner" (*mār LÚbāri*[HAL]). The diviner must be without physical blemish, must be considered a descendant of Enmeduranki the sage, who received divine revelation of the divination sciences, and must be sworn by an oath "on tablet and stylus before Šamaš and Adad"²⁹ before being instructed (*šūhuzu*) in the discipline by an *ummānu*.

It is not at all clear that the designation *ummānu* consistently implies one who possessed a body of knowledge by virtue of special communication with a god, as opposed to by rational inquiry and hermeneutics. Though the contents of the texts are

²⁴ CT 25 50: 20 + CT 46 54: 20, cited CAD s.v. *mudû* in *la mudû* mng. 1.

²⁵ Erra Epic V 43, see CAD s.v. *barû* A mng 5b. Kabti-ilāni-Marduk's name has been restored in one of the fragments included in Lambert's study, A Catalogue of Texts and Authors, JCS 16, 1962, 64 Text III K 9717: 1-2, which gives the incipit of the epic and refers to the passage in Tablet V 42-44 where it states the scribe compiled the tablets which were "revealed to him in the night," and which then "he spoke." Lambert points out (p. 70, note to III 1-2) that there is no clear subject of the verb *ušabrušama* "he revealed it to him."

²⁶ W.G. Lambert, A Catalogue of Texts and Authors, JCS 16, 1962, 59-77.

²⁷ JCS 21 13: K 2486: ii 10 11.

²⁸ JCS 21 13: K 2486: ii 7 and 13.

²⁹ JCS 21 13: K 2486: ii 20-21, and note the parallel BBR No. 24: 22, also *ibid.* No. 1-20: 13, also concerning the instruction of a scholar in the series "When the Diviner."

frequently referred to as "secrets" (*niširtu, pirištu*), no testimony to the necessity of divine revelation as the method of access to the "secrets" is extant for the Mesopotamian diviners and scholars such as one can find in Greco-Roman antiquity. For example, a first century A.D. account of the search for knowledge of the universe by the medical student Thessalos of Tralles is preserved in the form of an autobiographical letter forming the preface to a treatise on astrological medicine attributed to Nechepso, the 26th Dynasty pharaoh who allegedly received divine revelation from Hermes, and to whom the priest Petosiris addressed his astrological work.³⁰ Here the desire for natural knowledge was not satisfied by rational inquiry, i.e., merely by studying the treatise on astrological medicine of Nechepso, but only through direct communication with and revelation from the god of medicine Asclepius himself. And when Thessalos received his revelation of the iatromathematical secrets, the god instructed him not to "reveal [the secret] to any profane person who is a stranger to our art."³¹ The outward manifestation of parallelism here in the proscription against outsiders to the discipline is not an argument for interpreting the Assyrian and Babylonian evidence of the scholars in the same way. The cautionary remark not to reveal secrets to the "one who does not know," in the cuneiform texts is not in fact the same as that which refers to the unknowing person as "profane."

Access to the careers of scholars in the Neo-Babylonian period, who flourished during the sixth century B.C., is difficult, as a correspondence between them and the Chaldean dynasts, comparable to that between Sargonid kings and their scholars, apparently did not develop. Five Neo-Babylonian "letter orders," in this case from the temple archive at Sippar,³² record royal orders (three from Nabonidus³³ and two from Cyrus³⁴) to give food and beer rations to Babylonian scholars (*ummānu*) who have been sent to the temple Ebabbar in Sippar in order, as described in building inscriptions referring to the restoration of that temple, to find and excavate the old

³⁰ A.-J. Festugière, *L'expérience religieuse du médecin Thessalos*, *Revue Biblique* 48, 1939, 45-77. This text has been analyzed as a clear example of the understanding of magic as religion in this period, even as a necessary replacement of traditional temple cults, see J.Z. Smith, *The Temple and the Magician*, in: J. Jervell - W.A. Meeks (Eds.), *God's Christ and His People: Studies in Honour of Nils Alstrup Dahl*, Oslo - Bergen - Tromsø 1977, 233-247, and A.F. Segal, *Hellenistic Magic: Some Questions of Definition*, in: R. van den Broek - M.J. Vermaseren (Eds.), *Studies in Gnosticism and Hellenistic Religion Presented to Gilles Quispel on the Occasion of His 65th Birthday*, Leiden 1981, 371-372.

³¹ A.-J. Festugière, *L'expérience*, 67 apud W. Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture*, Princeton 1994, 20.

³² From the Ebabbar temple, cited by P.-A. Beaulieu, *YNER* 10, 8. Also W.W. Hallo, *The Neo-Sumerian Letter Orders*, *BiOr* 26, 1969, 171-176, and A.L. Oppenheim, review of Figulla, *UET IV* in *JCS* 4, 1949, 195.

³³ Nbn 56 (second year of Nbn), 407, and 409 (both tenth year), see P.-A. Beaulieu, *YNER* 10, 7-11.

³⁴ Cyr 103 and CT 55 321

foundations.³⁵ Titled solely "scribe" (DUB.SAR/*tupšarru*), like his Neo-Assyrian counterparts, one Nabû-zêr-lišir functioned as a royal scholar through the reigns of Neriglissar to the eighth year of Nabonidus.³⁶ Beaulieu, with Joannès, view this scholar as an *ummānu*, whose training, evidenced in the orthography of the texts written by him, selected him for work in old inscriptions found in the excavations of the *bīt akītu* at Agade conducted by Nabonidus.³⁷ Further evidence of Nabonidus' dependence upon scholars, assembling them before the restoration of sacred buildings to supervise excavation,³⁸ or to perform other tasks in accordance with tradition,³⁹ gives the impression that the scholars' workplace was not the palace but the *bīt mummu*. Although the connection of the Neo-Babylonian scribes to temple and cult is evident, texts from the reign of Nabonidus are lacking which attest to the scholars' dealings with celestial divination, and so the title *t.EAE* is not found. The often quoted inscription concerning the "request of Sin" in the form of a celestial omen apodosis for consecration of an *entu* priestess at Ur⁴⁰ reflects the desire of Nabonidus to verify celestial signs by means of extispicy.⁴¹ But here no scholars are mentioned. The result of the evaluation of both celestial and liver divination was the consecration of Nabonidus' daughter as priestess at Ur and a reorganization of the cult,⁴² suggesting at least an intersection of the two domains of divinatory science and cultic matters in this period.

In the Achaemenid period, evidence for the milieu of the *t.EAE* is exceedingly limited. Letter orders of the period concerning the intercalation of months point toward the association of the scholar-scribes, such as the *kalû* "lamentation singer," with the temple.⁴³ Colophons of late Babylonian copies of *EAE* indicate that a scribe writing celestial omen texts could be part of the temple personnel, e.g., the Urukian scribe Labāši-Marduk, whose title was *mār LÚšangi dEa*, "priest of Ea."⁴⁴ The job of celestial diviner as royal counsellor as in the Sargonid context, and the practical application of the celestial omen compendium *EAE*, which had focussed traditionally upon the king, is no longer attested. With the appearance of mathematical astronomical texts in the Seleucid period, the use of the term *t.EAE*

³⁵ See P.-A. Beaulieu, YNER 10, 7, inscription 5: 32-37, which refers to "many wise scribes who dwell in the temple academy" (¹³¹DUB.SAR *mi-na-a-ti en-qu-ú-tu a-šib É mu-un-mu*).

³⁶ P.-A. Beaulieu, *ibid.*, 142, and F. Joannès, Un lettre neo-babylonien, N.A.B.U. 1988, 55, apud Beaulieu.

³⁷ P.-A. Beaulieu, *ibid.*, 142.

³⁸ P.-A. Beaulieu, *ibid.*, 7-12.

³⁹ E.g., the fashioning of a *trana* as in former times (*kima labīrimma*), P.-A. Beaulieu, *ibid.*, 9 col. ii 1.

⁴⁰ YOS I 45, see P.R. Berger, AOAT 4/1, Zylinder II 7.

⁴¹ See the discussion in E. Reiner, Astral Magic, 76-77.

⁴² YOS I 45 col. ii 18-33, see P.-A. Beaulieu, YNER 10, 131.

⁴³ E.g., YOS 3 3, see S. Parpola, LAS II, p. 505, Appendix Q 6.3.

⁴⁴ This scribe wrote an "incomplete" (*ul qati*) copy of *EAE*, LKU 117 rev. 2f., see H. Hunger, AOAT 2, No. 82.

occurs primarily in the colophons of ephemerides, but was not attached to every scribe who wrote or possessed astronomical texts.

Seleucid copies of *EAE* are extant, but one can only infer from this the continued copying of *EAE* by scholars specializing in celestial divination. What purpose was served by the continued transmission of *EAE* is unknown, since sources attest merely to the preservation of the *EAE* text, not to its use. It appears, however, that the *EAE* text was still not in any way exclusive to scribes designated as *ī.EAE*. For example, in the late fourth century,⁴⁵ the Urukian scribe Iqīšā, son of Ištar-šuma-ēreš (not the same man as in the Sargonid letters), was an *āšīpu* "incantation sayer," or "exorcist," whose personal "Fachbibliothek" was excavated during the 27th, 29th and 30th campaigns at Uruk.⁴⁶ That library consisted of omens, both celestial (*EAE*) and terrestrial (*šumma ālu*, *šumma izbu*, medical diagnostic), commentaries, incantations, lexical tablets (vocabularies and synonym lists, e.g., *Ḫḫ IX*, *Erimḫuš V*) and astronomical texts, including an ephemeris computed by a "System A" scheme.⁴⁷ Iqīšā was also the scribe of two tablets coordinating dates (months and days),⁴⁸ "regions" of zodiacal signs (*qaqqar MUL...*), and magic.⁴⁹ Iqīšā's profession was *āšīpu*, yet he read, copied, and owned tablets of astronomical and astrological content.⁵⁰ In the colophon of another astrological text copied by him, he is further identified as *ērib bīti* (LÚ.TU É) *dAnu u Antu* "enterer of the temple of Anu and Antu."⁵¹ The evidence of any exclusivity of this body of knowledge to only one scribal profession is lacking, as is the title *ī.EAE* itself.

Similar evidence can be found from colophons of texts copied by a number of Seleucid Urukian litterati, which show that while they held the professional titles *kalū* or *āšīpu*, their scribal work entailed the copying of texts of diverse content. The

⁴⁵ Dated colophons place Iqīšā during the reign of Philipp Arrhidaeus, between 323 and 316 B C

⁴⁶ For a list of texts and the identification of Iqīšā's library, see E. von Weiher, UVB 29/30, 96ff., and SpTU II. See also W. Farber, Neues aus Uruk: Zur Bibliothek des Iqīšā, WO 18, 1987, 26-42.

⁴⁷ The ephemeris is published in H. Hunger, Spätbabylonische Texte aus Uruk I, Berlin 1976, No. 98.

⁴⁸ See O. Neugebauer - A.J. Sachs, The "Dodekatemeria" in Babylonian Astrology, AfO 16, 1952-1953, 65-66.

⁴⁹ BRM 4 19 and 20 (colophon in H. Hunger, AOAT 2, No. 118), see A. Ungnad, Besprechungskunst und Astrologie in Babylonien, AfO 14, 1941-1944, 251-284, and note the more complete duplicate STT 300. Erica Reiner discusses one of the text's magical acts, associated with a love charm(?), namely, SAL *šudbubu*, literally "to make a woman talk," in "Nocturnal Talk," in: T. Abusch - J. Huehnergard - P. Steinkeller (Eds.), Lingering Over Words: Studies in Ancient Near Eastern Literature in Honor of William L. Moran, Atlanta 1990, 421-424.

⁵⁰ How representative the find of a scribe's own tablet collection is, is difficult to judge. Another small collection of tablets in a private residence at Uruk is tentatively identified, on the basis of the colophons, as belonging to the scribe Anu-iksur. See J. Schmidt, XXVI. und XXVII. vorläufiger Bericht über ... Uruk-Warka 1968-1969, Berlin 1972, with a contribution on the texts by H. Hunger, 79-87. Iqīšā's colophons are collected in H. Hunger, WO 6, 1971-1972, 164.

⁵¹ H. Hunger, Spätbabylonische Texte aus Uruk I, Berlin 1976, 94 rev.56.

kalû Anu-uballit,⁵² for example, wrote the lamentation text TCL 6 54, the astrological procedure TCL 6 11, the copy of *EAE* 56 TCL 6 16, the mathematical astronomical texts ACT 702, a System B table for Saturn, and TCL 6 27, a Mars table. The *āšipu* Anu-aḫa-ušabši wrote extispicy tablets, such as the 7th tablet of the series *bārātu* (*tīrānu* "intestines" omens) BRM 4 13, the 48th tablet TCL 6 4, a copy of the lexical text Erimḫuš TCL 6 35, a catalogue of *EAE* TCL 6 15+, and the astronomical text ACT 101, a table of new moons.

The implications of the term *t.EAE* regarding the literary and scientific activities of such scribes changed in the Hellenistic period, when the term comes to be associated with scribes who produced mathematical astronomical texts (our dated ephemerides are all Seleucid). However, as in the Neo-Assyrian correspondence, the evidence from colophons of Seleucid astronomical texts, as illustrated above, shows that the scribes who either copied or owned the tablets were not always designated *t.EAE*, but were sometimes identified by the professions *kalû* or *āšipu*. Anu-aba-utēr, for example, was sometimes identified as a *kalû*. This scribe is well-known from astronomical texts, among which is the Jupiter table ACT 600 (written S.E. 118) in which first stations of Jupiter are computed according to System A. He also wrote the mathematical text TCL 6 33, as well as VAT 7815,⁵³ an astrological text in which lunar eclipse omens, zodiacal signs and associations with cities, temples, stones, and plants are systematically related.⁵⁴ This same scribe is referred to as *t.EAE* of Uruk in another astronomical text, ACT 135 (colophon U), which deals with lunar eclipses.

Anu-aba-utēr's father, Anu-bēlšunu, was also a *kalû*, as noted in two tablets identified as belonging to him (*tuppi PN*) but written by his son (ACT colophon D [=ACT 400] and colophon U [=ACT 135]).⁵⁵ A text of the *kalû* ritual is also associated with this scribe.⁵⁶ A personal horoscope is extant which almost certainly is to be identified as that of this same Anu-bēlšunu, father of Anu-aba-utēr.⁵⁷ The horoscope records the solar and lunar positions on the date of birth giving degrees and fractions of degrees within zodiacal signs, which underscores the close connection of the astronomical and astrological sides of the Babylonian study of heavenly phenomena.

The relationship between astronomy and divination is evident in the most extensive class of astronomical texts of the late period, the Babylonian archive of

⁵² TCL 6 54 rev. 27 ¹¹¹SU¹60 "kalû of Anu."

⁵³ E. Weidner, *Gestirn Darstellungen auf Babylonischen Tontafeln*, Wien 1967, 47.

⁵⁴ For the ACT colophons of this scribe, see ACT I, pp. 16-20, colophons D, F, H, L, P, Q, U, Y, Zc, Ze, and Zd.

⁵⁵ For Anu-bēlšunu's colophons, see ACT I, pp. 16-20, colophons D, H, L, M, Q, R, T, U, Y, Z, Zb, Zc, Zd, and Ze.

⁵⁶ See TCL 6 46 rev. 161, and F. Thureau-Dangin, *Rituels accadiens*, Paris 1921, 40ff.

⁵⁷ See P. A. Beaulieu and F. Rochberg, *The Horoscope of Anu-bēlšunu*, JCS (in press).

astronomical diaries.⁵⁸ Although ostensibly not at all astrological, the connection between the diaries and divination is supported by internal evidence which reveals that the compilers of the diaries had intimate knowledge of the astronomical contents, the phenomena of interest, and the language used to express these in the omen series *EAE*.⁵⁹ Nonetheless, the designation *ġEAE* has not appeared in a diary text, but colophons in diaries are in any case rare. A single prosopographical connection between the scribe of a mathematical astronomical text and a scribal name found in the colophon of a diary can be mentioned. A diary of -321 (LBAT 212 and 213⁶⁰) preserves the scribal name Bēl-apla-iddin, son of Mušallim-Bēl, descendant of Mušēzibu. This same Bēl-apla-iddin, son of Mušallim-Bēl, occurs in the colophon of ACT 816, a procedure text for Mercury, the provenance of which is Babylon, and in a text providing a quantitative model for Venus.⁶¹

As to the employment of the scholars who dealt with celestial sciences, from Achaemenid times onward, we may suppose that they were no longer employed by the king, at least there is no evidence to this effect. On the other hand, whether they were all in the service of the major temples is also difficult to pin down, although the available evidence points in this direction. The scholars producing ephemerides and procedure texts for which colophons remain appear to be working within the temple institution during the Seleucid period.⁶² In Babylon, scribal scholarship seems to have been attached to the Marduk temple Esagila, and in Uruk to the Anu temple, the so-called Rēš sanctuary.⁶³ Given this, the invocations to Bēl and Bēltija in the Babylonian astronomical texts and horoscopes and to Anu and Antu in those from Uruk are understandable.⁶⁴

As Brinkman has pointed out, however, there were private scribes in the first millennium (no evidence, however, for *ġEAE*'s) producing Babylonian chronicles who were not connected to the temple and who held no official titles.⁶⁵ Why the *asipū's* or *kalū's*, who were also *ġEAE*'s, became functionaries of the temple may be

⁵⁸ A. J. Sachs - H. Hunger, *Astronomical Diaries and Related Texts from Babylonia*, 3 vols., Vienna 1988-1996.

⁵⁹ A brief discussion of this connection was given in my review of Vol. I of A. J. Sachs - H. Hunger, *Diaries*, in *JAOS* 110, 1991, 323-332.

⁶⁰ A. J. Sachs - H. Hunger, *Diaries* I, 228 No. -321 rev. 27'.

⁶¹ J. P. Britton - C. B. F. Walker, *A Fourth Century Model for Venus: B.M. 33552, Centaurus* 34, 1991, 110-112.

⁶² See my article *The Cultural Locus of Astronomy in Late Babylonia*, in: H. D. Galter (Ed.), *Die Rolle der Astronomie in den Kulturen Mesopotamiens*, Graz 1993 (Grazer Morgenländische Studien 3), 31-45.

⁶³ See A. Falkenstein, *Topographie von Uruk I: Uruk zur Seleukidenzeit*, Leipzig 1941, 4; *É.SAG ACT*, Colophon H: 4 and *É.ZAG* *ibid.*, Colophon V: 9.

⁶⁴ The invocation is also attested to in an administrative text from Seleucid Uruk, NBC 8456, see P.-A. Beaulieu, *Textes administratifs inédits d'époque hellénistique provenant des archives du bit rēš*, RA 83, 1989, 79 Text 5: 1.

⁶⁵ J. A. Brinkman, *The Babylonian Chronicle Revisited*, in: T. Abusch - J. Huehnergard - P. Steinkeller (Eds.), *Lingering Over Words*, 75 with note 13.

tioned to their authority in matters of ritual.⁶⁶ While earlier, in the Neo-Assyrian period, *āsīpu*'s and *kalū*'s served the king, the association of these functionaries with the temple in this period is also attested. Some Neo-Assyrian *kalū*'s, and possibly also *āsīpu*'s, were consecrated members of the temple.⁶⁷ These Assyrian officials, however did not bear the title "priest" (LÚŠID = *šangû*). Parpola has argued that in Neo-Assyrian, the writing LÚSANGA (ŠID) = *šangû* is reserved for "priest," while "scribe" is consistently written LÚDUB.SAR or LÚA.BA.⁶⁸ It should be noted that in Seleucid texts, the distinction between scribe and priest, both written LÚŠID, read either SANGA (*šangû* "priest"), or UMBISAG (*tupšarru* "scribe"), is often made in translation by context and can be misleading. According to a list of names from late Babylonian Uruk,⁶⁹ exorcists were classified as *ērib bīti* "enterers of the temple (Eanna)." Among the exorcists listed in this text, Ekur-zākir and Ḫunzû both appear in the colophons of astronomical and astrological texts as ancestors of scribes.⁷⁰ Ekur-zākir is also found with the title *t.EAE* in a mathematical text.⁷¹ But the relationship to the cult of such exorcists who also engaged in astronomical activity is not at all clear, as the class *ērib bīti* was rather broad, encompassing any member of the temple personnel who had access to areas of the temple that were closed to others. By itself, the term *ērib bīti* carries no special sacred status, hence the English word "priest," as Brinkman pointed out,⁷² implies much more than does the designation *ērib bīti*.

In the Arsacid period, the continued patronage of the astronomer scribes by the Marduk temple Esagila, specifically, an "assembly" of the Esagila governed by a *šatammu* is clear.⁷³ Only a few extant documents attest to the employment of *t.EAE*'s within the institution of the Arsacid Babylonian Esagila temple of Babylon. They are Pinches, BOR 4 132, CT 49 144, CT 44 186, and AB 247, published by

⁶⁶ F. Thureau-Dangin, *Rituels accadiens*, 1-59 for the *kalū* ritual.

⁶⁷ See G. van Driel, *The Cult of Assur*, Assen 1969, 180-181.

⁶⁸ S. Parpola, LAS II, pp. 319-320, commentary to LAS 309, a letter of Akkulānu. It may also be worth noting that in Old Babylonian, ŠID had the reading *ummiānu*, see MSL 13 25: 255. See also the remarks of B. Landsberger, *Brief des Bischofs von Esagila an König Asarhaddon*, Amsterdam 1965, 14-15 and note 8.

⁶⁹ VS XV 1, see W.G. Lambert, JCS 11, 1957, 10, Appendix 2, col. i 1-8, where the *āsīpu*'s were counted among a total of 21 enterers of the temple, see col. ii 12 PAP.21.KAM! LÚ.TU.É.MES.

⁷⁰ The family of Ekur-zākir occurs in the astrological texts TCL 6 18 and 19, and in ACT colophons R, H, J, Lm M, N, V, W, Y, and Z. The family of Ḫunzû is mentioned in the astronomical text TCL 6 11 and in the reciprocal table TCL 6 31. Lambert noted the identification of Hunzû's son in a 9th century boundary stone, giving his titles as "kalū-priest of Uruk, enterer of the temple of Nanā, priest (*šangû*) of Ušur-amātsa, and scribe of Eanna," see *Ancestors, Authors, and Canonicity*, JCS 11, 1957, 4 and note 17.

⁷¹ TCL 6 35.

⁷² Brinkman's review of G.J.P. McEwan, *Priest and Temple in Hellenistic Babylonia*, Wiesbaden 1981 (FAOS 4) in JCS 35, 1983, 232.

⁷³ See R.J. van der Spek, *The Babylonian Temple during the Macedonian and Parthian Domination*, *BIOr* 42, 1985, 555.

McEwan in Iraq 43, 1981, 139-141.⁷⁴ CT 49 144 in particular concerns direct temple support of astronomers called *t.EAE*. This document represents the situation of the Babylonian temple ca. 119 B.C., roughly fifty years before the last extant astronomical diary (S.E. 251, or 61 B.C.). It is a protocol from a session of the temple assembly recording the decision of the assembly and the *šatammu* to transfer the support (silver and arable land⁷⁵) of one *t.EAE* to another, who laid claim to it. Since the parties in question are named, the document furnishes some good prosopographical data on members of the late Babylonian literati. Further, this court protocol shows that the variety of astronomical activities of the *EAE* scribes each represented separately in astronomical texts together constitute the professional responsibilities of these scholars.

This document has already been the focus of some discussion.⁷⁶ The original edition, by G.J.P. McEwan in *Priest and Temple in Hellenistic Babylonia*⁷⁷ was reviewed by W. von Soden,⁷⁸ R.J. van der Spek,⁷⁹ and J.A. Brinkman,⁸⁰ who offered corrections to McEwan's text. It has further been suggested that the stipulated tasks of the astronomers enumerated in lines 23-24 refer to specific types of astronomical texts which the scribes are contracted to provide.⁸¹ A modern classification of astronomical texts, based on scribal rubrics written at the conclusion of the various texts, was made by A. Sachs in 1948.⁸² The classification reflected in the scribal rubrics indicates that different sorts of texts were produced by different sorts of astronomical activity. Some were observational and non-tabular ("astronomical diaries"), some computational and tabular ("ACT" tables), and some required the use of observational records while not being observational themselves ("almanacs, normal star almanacs, goal-year texts").

In the enumeration of the specific scribal duties for which the *t.EAE* is hired, the Arsacid temple protocol utilizes terms which may be identified with a number of astronomical text rubrics. Lines 23-24 of the text make mention of the regular "observation" (*našāru*) familiar from the rubrics of the astronomical diaries, as well as the "tersētu tablets and almanacs," (*IMter-se-e-tú u meš-ḫi*^{MES}), terms also known

⁷⁴ See the discussion in R.J. van der Spek, *ibid.*, 547-554. The letters CT 49 189 and 192 contain references to the title *t.EAE*, but in broken context.

⁷⁵ Cf. for the Neo-Assyrian period, in LAS 114, the chief haruspex Marduk-šumu-ušur is given landed property as support.

⁷⁶ See Oelsner's review of CT 49 in ZA 61, 1971, 159-170, for text 144 see p. 168.

⁷⁷ Published as FAOS 4, Wiesbaden 1981.

⁷⁸ ZA 71, 1981, 294-295.

⁷⁹ BiOr 42, 1985, 541-562.

⁸⁰ JCS 35, 1983, 229-243.

⁸¹ See A.J. Sachs - H. Hunger, *Diaries I*, Introduction, 11-12, and my article *The Cultural Locus of Astronomy in Late Babylonia*, in: H.D. Galter (Ed.), *Die Rolle der Astronomie in den Kulturen Mesopotamiens*, 40-42.

⁸² A.J. Sachs, *A Classification of the Babylonian Astronomical Tablets of the Seleucid Period*, JCS 2, 1948, 271-290.

from the rubrics of mathematical ephemerides and "almanacs," according to Sachs' classification. It appears from this that in this period at least, the *t.EAE* was engaged in astronomical observation for the purpose of writing diaries,⁸³ preparing tables (ephemerides),⁸⁴ and making the derivative texts we refer to as "almanacs" (*mešhi*).⁸⁵ These text types represent the full range of astronomy in the late period, i.e., observation, mathematical computation and "non-mathematical" obtaining of some phenomena in the form of "almanacs."

Colophons of the scribes named as *t.EAE*'s in the protocols CT 49 144 and BOR 4, show a similar intellectual profile as is evidenced for the Neo-Assyrian scribes, i.e., they wrote texts of diverse disciplines, e.g., astronomy, divination, and literary texts. Bēl-aba-ušur, for example, is known from the colophon of ACT 23 (new moons System A) and 122 (new moons System B), both called "*tersētu* of Kidinnu," and ACT 123a (new and full moons System B). Itti-Marduk-balātu copied MUL.APIN,⁸⁶ while his son, Bēl-aḥḥe-ušur copied Tablet X of Gilgamesh,⁸⁷ and his other son Nabū-mušētiq-uddi copied *Enūma Eliš*.⁸⁸ Iddin-bēl, son of Marduk-šāpik-zēri inscribed from a wax tablet ACT 811, a procedure text for the outer planets.⁸⁹ These scribes are also found in "atypical" astronomical texts dealing with both lunar and planetary theory.⁹⁰ In the astronomical diary of -321 cited above (p. 368), the Mušēzibu who is ancestor of the scribe Bēl-apla-iddin, is probably the same ancestor of the scribal family referred to in the Esagila temple record BOR 4 132.

The astronomical activities of temple scribes and the production of certain types of texts, especially the omens of *EAE*, are difficult to understand in functional terms in the context of temple life, at least if we assume a necessary functional relationship. Was astronomy needed for the proper performance of certain rites and celebrations which were to occur on certain dates or at a certain time of day? Was the selection of a propitious moment based on celestial omens a consideration, even if it

⁸³ The rubric for diaries reads *našāru ša ginē ša TA ITL.x MU.y.KAM EN TIL ITL.z MU.y.KAM* "regular watch which covers a period from month x of year y to the end of month z of year y." See A.J. Sachs - H. Hunger, *Diaries* I, 11.

⁸⁴ See ACT I, pp. 12-13 and colophons to ACT 123a and 122. CAD s.v. *našāru* 5a translates *tersētu* as "computed tables," from BOR 4 132: 24.

⁸⁵ Almanacs from Babylon have the rubric *meš-ḥi šā KUR-ād^{MEŠ} šā UDU.IDIM.MEŠ šā MU ...* "measurements of the reachings of the planets of year such-and-such." The "reachings" of the planets means the entrances of planets within zodiacal signs. Almanacs from Uruk were labelled simply *mešhi ša MU...* "measurements of year such-and-such." See A.J. Sachs, *Classification*, 279. G.J.P. McEwan, *FAOS* 4, 20 note 68 read *meš-ḥi.MEŠ*, but misunderstood it to be the lexeme *mišhu* "luminous phenomenon in the sky," citing CAD s.v. *mišhu* A (where the passage in question is correctly not included). AHw. 1349b reads *IM.tersēti jābāti*.

⁸⁶ See H. Hunger - D. Pingree, *MUL.APIN: An Astronomical Compendium in Cuneiform*, Horn 1989 (AFO Beiheft 24), source K, p. 123.

⁸⁷ H. Hunger, *AOAT* 2, No. 148.

⁸⁸ H. Hunger, *AOAT* 2, No. 422.

⁸⁹ See also ACT I p. 24, Text 207ca, colophon Zrb.

⁹⁰ O. Neugebauer - A.J. Sachs, *Some Atypical Astronomical Cuneiform Texts* I, *JCS* 21, 1967, 202 Text F upper edge 1-2, and p. 208 Text F rev. 8', and idem, *JCS* 22, 1968, 92ff. Text K.

was no longer on demand from the king? It is difficult to imagine what relevance the content of *EAE* omen apodoses could have had for Babylonians in Hellenistic Babylonian society, particularly inasmuch as no evidence that the omens were consulted survives from this period.

But perhaps the relationship between the scholars and the temple need not be understood in a utilitarian way, at least with respect to the cult. There is no evidence that the scholars were in fact "priests," with our connotations of holiness and mediation between sacred and profane. Celestial divination constituted a body of knowledge conceived of as "divine," in the sense that the gods both produced the signs in nature and the scribes attributed "authorship" of *EAE* to the god Ea.

But there seems to me to be a wide gap not bridged by the available evidence between the practice of scholarly divination (and astronomy) and that of religion itself. If the temple became the preserve of cuneiform scholarship, it can be that much of the work of transcribing and preserving of texts had no cultic application, but simply continued because it belonged to the "*traditum*" as a whole. We do not know how or if the celestial omen compendium *EAE* was still used. It may simply have been preserved because it was a central part of the scholar-scribes' tradition. Regardless of the way astronomy functioned within the temple institution, association with the temple was without doubt the key to the survival of Babylonian astronomy and celestial divination for so many centuries after it had become defunct in the political sphere. As a further consequence, the maintenance of Babylonian astronomy and celestial divination by the temple scholars made possible its transmission to Greeks, interested, as it is put in one Greek horoscope, in the science of "ancient wise men, that is the Chaldeans."⁹¹ Indeed, the astronomical and astrological sciences of Mesopotamian culture preserved in Hellenistic and Arsacid times were transmitted and became foundational for Greek and later Indian as well as Arabic celestial sciences.

⁹¹ Horoscope No. 137C col. i 3, see O. Neugebauer - H.B. van Hoesen, *Greek Horoscopes*, Philadelphia 1959 (Memoirs of the American Philosophical Society 48), 42.