## The Origins of Scholarship

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I never had the pleasure of meeting Ernst Weidner, but I did have the good fortune to correspond with him and I felt that I knew him because my teacher, Leo Oppenheim spoke so frequently and fondly of him. Weidner was not only one of the great scholars of his generation, he was also one of the most popular people among his colleagues. One reason for this was his great generosity. Like all Assyriologists, Weidner collected large quantities of unpublished material over the years and he was always quick to share this material with other Assyriologists, especially younger ones. I was a grateful recipient of that generosity when I did my work on the Mesopotamian birth omens.<sup>1</sup>

As everyone knows, one of Weidner's primary interests lay in the cuneiform astronomical material which explains the theme of this book. But Weidner did not limit himself to astronomy alone. He was first and foremost an Assyriologist, and as such, he also had a deep interest in the ancillary texts, such as those that dealt with astrology and celestial divination. This led him very naturally to the scholastic texts and the world of Mesopotamian scholarship. In this paper I would like to explore the origin and development of scholarship and its culmination in three categories of texts that were of interest to Weidner and his work: letters, reports, and commentaries.

When the Sumerians invented writing, they did not invent a writing system as such. They attempted to represent their language through pictures. Thus, a picture of a head with the mouth indicated stood for Sumerian KA "mouth" and a picture of a loaf of bread stood for Sumerian NINDA "bread". These two signs combined stood for Sumerian KU<sub>2</sub> "to eat". In this manner, they created a logographic writing for each single thing in their physical world. It was only later that

<sup>&</sup>lt;sup>1</sup> Leichty, E., The Omen Series Šumma Izbu, TCS 4, Locust Valley, NY, 1970.

the Sumerians developed a true writing system which utilized syllabic writing as well as logograms.

To make this earliest writing comprehensible, every scribe had to use exactly the same writing for any given object or concept, and since human memory is frail, it was necessary to have these writings in some sort of order so that they could be looked up when necessary. In order to achieve those goals the Sumerians compiled a taxonomy of their universe which has come down to us in the form of what we call lexical texts. These texts list objects by type: all animals, all fish, all pots, all body parts, etc. Scribes were trained by memorization of these lists and the logogram or logograms for the various objects. Over the years the lists were organized and expanded and they functioned as an authoritative body of knowledge for scribal research. When the writing evolved into a proper system words could be written syllabically and the scribes would have been able to learn cuneiform more easily, but the conservatism of the scribal schools caused the retention of the traditional teaching methods and the continued use of the lexical lists which represented the accumulated knowledge of the scribal craft. Despite the gradual spread of Akkadian, the lists remained unilingual Sumerian until the end of the Ur III period.<sup>2</sup>

With the death of Sumerian as a spoken tongue the scribes were in danger of losing their access to the lexical texts and to the Sumerian language itself. To prevent this the scribes made a serious attempt to preserve the Sumerian corpus of knowledge. The Sumerian literary texts were recopied in the Ur III period and again in the Old Babylonian period. Also, in the Old Babylonian period, the scribes added Akkadian translations to the lexical texts and sometimes even a pronunciation guide for the Sumerian. A new genre was added with the composition of the Old Babylonian Grammatical Texts. These texts give us a Sumerian sentence with an Akkadian translation. Then they wrote the Sumerian again, changing one element in the Sumerian and adding a new Akkadian translation, and so forth. These attempts to maintain a grasp of Sumerian led the scribes to reassess their corpus of written knowledge and to expand it.

<sup>&</sup>lt;sup>2</sup> See the discussion by M. Civil in AS 20, 127ff.

<sup>&</sup>lt;sup>3</sup> MSL 4, 45ff.

In the process of adding to their corpus, the scribes now began to take a serious interest in matters outside their immediate physical surroundings. At this time they showed a particular interest in the nascent field of divination and they began to collect all kinds of omens and record them on tablets. As the omens were collected the scribes classified them just as they had the word lists. Collection of the omens was for the purpose of research and the collection of them would have served no useful purpose if the scribes were unable to consult the lists and find the omen or omens they were looking for.

Divination had been practised throughout Mesopotamian history, but now the scribes turned the study of divination into a virtual science. As they classified the omens they created new ones to fill the gaps in the collections. This was done in a systematic, logical way. One of simplest methods dealt with the location of the ominous object. If the occurrence was on the right, then omens for the left side and for both sides could be added. Another way to make the collections all inclusive was through the use of numbers or colors. If the ominous fox had two tails, then the scribe could add omens for three tails, or four tails, five tails, etc. Similarly, if the cow was red, one could add omens for yellow, black, white, etc. New omens were added in a consistent manner. The numbers were always in sequence and the colors were in a standard order. Still other methods of creating omens were used and are obvious from the texts, but I will not go into them here.4 The result of this creation of new omens was the inclusion of some omens whose occurrence was genetically or physically impossible. The purpose of the scribal exercise was to create an all inclusive and authoritative reference work for the field of divination. Since everything in Mesopotamia, including even the behavior of the diviner, was ominous, this resulted in a massive corpus of material which has come down to us in multiple copies.

The deep interest in divination led the scribes to observation of the skies and the movements of the stars and planets and the recording of other astral phenomena. It was this interest in divination that led the Mesopotamian scribes to study the heavens and eventually the study resulted in the science of astronomy, but not for some time. The earlier astronomical material was exclusively divinatory in nature.

<sup>&</sup>lt;sup>4</sup> Many of these methods of expanding a series are discussed in the introduction to TCS 4.

By the late Old Babylonian period, the scribes were fully into the tedious process of organizing their accumulated knowledge so that it could be used for research purposes; a process that must been largely completed by 1200 B.C.5 The end result of this long process was the creation of socalled "canonical" editions of cuneiform texts including not only lexical lists and omens but also literature, prayers, rituals, and every other genre of cuneiform except business documents. These editions were standard ones in which each edition of a tablet contained the same lines regardless of its origin or date. For instance, the Gilgameš epic, in its canonical or standard edition, was written on twelve tablets. Each tablet was numbered and had the same content in every copy of that tablet regardless of where it was written.6 That is, you could find tablet eleven from Kuyunjik, or Babylon, or Sippar, or Borsippa, and all of them would contain the same section of the epic. In the case of omens, for instance, the scribes divided the material into series or groups of tablets based on subject matter. Omens taken from exta were one series, omens from birth another, and those from astral phenomena still another. Within the various series, individual tablets dealt with a single subject. In the case of exta one numbered tablet would deal with lungs, another with the gall bladder, etc. With astronomical omens, there were separate tablets for each star or constellation. This organization and standardization of cuneiform sources resulted in a series of reference works which could be consulted for information.

There is ample evidence that the standardization of the cuneiform corpus was done to enable the scribes to conduct research. Among the many letters from the Assurbanipal library are a large number from so-called Assyrian scholars. These have been recently and admirably treated by

<sup>&</sup>lt;sup>5</sup> See the comments of Civil in AS 20, 128, where he points out that the texts from the time of Tiglath-Pileser I (1114-1076 B.C.) are largely canonical.

<sup>&</sup>lt;sup>6</sup> The picture presented here is, of course, simplistic. Throughout this paper I offer generalities which can not be universally applied. There are many exceptions to the rules. Not all texts were standardized, and the process of standardization did not take place all at one time. When new innovations were introduced, the old traditions were not necessarily dropped. Here I am only trying to detect patterns over a very long period of time.

Simo Parpola.<sup>7</sup> A substantial group of the letters and reports deals with astronomy and or celestial divination. The most common topics within the letters are omens, eclipses, intercalations, and combinations thereof. The omens mentioned come from the astronomical omen series Enuma Anu Enlil and are frequently quoted from that series. The great majority of the letters appear to be in response to inquiries from the court since they refer to previous requests made by the king. These letters date from the reigns of Esarhaddon and Assurbanipal, but there is no reason to think that they are unique and the correspondence of other neo-Assyrian kings was probably similar.

Most of the letters deal with celestial observation and divination. They report on actual astronomical sightings as well as on research in the omen series Enuma Anu Enlil. Typical of the letters dealing with observations is one from the scholar Balasî:

"As regards what the king, my lord, wrote to me: 'You have certainly observed something in the sky', I am very attentive (but) must say: 'I have seen nobody and nothing, (therefore) I have not written to the king'. Not(hing) has risen; I have seen not(hing). As regards the watch of the Sun about which the king, my lord, wrote to me, it is (indeed) the month for the watch of the Sun. We keep its watch twice, on the 26th of Arahsamna (and) the 26th of Kislimu. In this way we keep the watch of the Sun for 2 months. As regards the solar eclipse about which the king spoke, the eclipse did not occur. I shall look again on the 27th (and) write (to the king)."8

The letters record movements of planets and other astral phenomena as well as solar and lunar eclipses, but it is the eclipses which play the most prominent role in these documents. This is for good reason. It is well documented that the primary purpose of celestial observation was for divination, and eclipses were particularly threatening, frequently predicting the death of the king. During the reign of Esarhaddon there were ten full or partial lunar eclipses and one solar eclipse which explains their frequent mention in these documents.

<sup>&</sup>lt;sup>7</sup> S. Parpola, Letters from Assyrian Scholars, AOAT 5/1 and 5/2, Kevelaer, 1970 and 1983.

<sup>&</sup>lt;sup>8</sup> AOAT 5/1, 29 no. 41.

There appears to be an uncommon royal interest in intercalation. Balasî writes the king:

"As regards the adding of the intercalary month about which the king wrote to me, this is (really) a leap year. After Jupiter has become visible, I shall write (again) to the king, my lord. I am waiting for it; it will take this whole month. There we shall see how it is (and) when we have to add the intercalary month."9

The king's concern in this matter was probably prompted by his need to perform various religious duties at specific times. Diviners reported their observations directly to the king. They also answered his queries and explained phenomena to him. For these purposes they consulted the standardized text series. There are numerous references to such research. One scribe writes:

"I have extracted the [relevant] interpretation written on the tablet (and) s[ent] (it), together with this letter, to the king, my lord. Moreover, I shall keep the watch for the solar eclipse, as the king, my lord, wrote to me. Whether it occurs or not, I shall write to the king, my lord, whatever it be. This lunar eclipse which took place, afflicted all countries, but its whole evil heaped upon the Westland. 'Westland' means the Hittite country (Syria) or, according to another interpretation, Chaldea. With the king, my lord, all is well. However, the guard should not be neglected (and) the relevant apotropaiac ritual should be performed for the king, my lord."<sup>10</sup>

## Another writes:

"Let them bring in that tablet of (the series) Enuma Anu Enlil written by us, (and) let the king, my lord, have a look. Also, let them give us the Akkadian tablet of the king; the stars. 3 of each, should be drawn therein after its model. An eunuch should be appointed to open the seal (and) to supervise the drawing."11

<sup>&</sup>lt;sup>9</sup> AOAT 5/1, 27 no. 38.

<sup>&</sup>lt;sup>10</sup> AOAT 5/1, 225 no. 278.

<sup>&</sup>lt;sup>11</sup> AOAT 5/1, 275 no. 319.

In still another instance the king instructs his diviner:

"Let them look up where the evil (effects) of the eclipse pertain to, and let them excerpt (the relevant passage) for me."<sup>12</sup>

Despite the attempt to make the omen series all inclusive, there were instances when omens occurred which were not recorded in the diviners' reference works. We are told of one such case:

"If Mars, having returned, enters Scorpio, do not neglect your guard; the king should not go outdoors on an evil day. This omen is not from the Series (but) is from the oral tradition of the masters. When Mars, furthermore, turns from the head of the constellation Leo and afflicts Cancer (and) Gemini, its interpretation is this: End of the reign of the king of the Westland. This is not from the Series (but) is non-canonical. This aforesaid is the only area which is held for bad, if Mars turns there. Wherever else it might turn, it may happily do so, there is no word about it. And (the matter) of the planet Jupiter is as follows: If it turns back out of the flank of the constellation Leo, this is unlucky."<sup>13</sup>

By the eighth century, Akkadian was a dead language and the scribes were trying to maintain their knowledge of it. Parts of the language had already been forgotten and attempts were being made to understand difficult passages in the standardized corpus. These attempts are recorded in new genres of cuneiform texts: commentaries, Akkadian to Akkadian word lists, and even new lexical texts going from Akkadian to Sumerian.

The commentaries selected words or phrases from the standard or canonical works and then attempted to explain their meaning. The commentaries served as research tools for the scribes and such research is recorded in letters. For instance, one diviner writes:

"As regards the planet Venus about which the king, my lord, wrote to me: 'When will you tell me (what) "Venus is stable in the morning" (means)?', it is [writte]n as follows in the commentary: 'Venus [is stable] in the morning: (the word) "morning" (here)

<sup>&</sup>lt;sup>12</sup> AOAT 5/1, 179 no. 234.

<sup>&</sup>lt;sup>13</sup> AOAT 5/1, 11 no. 13.

means [to be bright], it is shinin[g brightly], (and the expression) "[its] posi[tion is stable]" means it [rises] in the west'."<sup>14</sup>

It is obvious from the commentary entries that the scribes were struggling with Akkadian. Very easy words are glossed as well as difficult ones and the scribes often admit *ul īdi* "I don't know" or *ul ašme* "I never heard (of it)".

As pointed out by Civil, "there are two types of commentaries: the older ones consist of two subcolumns with the word at right explaining the word at left; the late Neo-Babylonian commentaries offer a continuous text with the items separated by the cuneiform equivalent of our colon, indulge freely in etymologies, and frequently use quotations from classical works (Enūma eliš, Gilgameš, Ludlul, omina, etc.) as examples".<sup>15</sup> The quotations from the canonical corpus demonstrate clearly that this corpus was considered authoritive and was used for research, but like all research, the scribes did not always get it right. In commentary O to Šumma Izbu<sup>16</sup>, for instance, the scribe quotes Erimhuš I 198-200 as:

$$DUL_2.LA_2$$
 //  $A.DUL_2.LA_2$  //  $LAH_4.LAH_4$  // [ri-du-tu] // e-tel-lu-ú // šá-la-lu

In fact, the Erimhuš passage has:17

DUL.LA<sub>2</sub> = 
$$ri$$
- $du$ - $t\acute{u}$ ; E<sub>2</sub>-DUL-LA<sub>2</sub> =  $e$ - $du$ - $lu$ - $u$ ; LAH<sub>4</sub>.LAH<sub>4</sub> =  $\check{s}\acute{a}$ - $la$ - $lu$ .

The majority of commentaries comment on two of the most difficult genres of texts: medical texts and divinatory texts. This is probably because the scribes found the Akkadian in these texts to be particularly hard to understand.

I believe that it is this context that fostered mathematical astronomy. As Akkadian died, the scribes reassessed their body of knowledge and began

<sup>&</sup>lt;sup>14</sup> AOAT 5/1, 9 no. 12.

<sup>&</sup>lt;sup>15</sup> AS 20, 126.

<sup>16</sup> TCS 4, 232: 3-4.

<sup>&</sup>lt;sup>17</sup> MSL 17, 18: 198-200.

to introduce mathematical astronomy as a means of understanding the astrological omens. This did not mean that the divinatory tradition died out. The two traditions survived side by side and to a certain degree interwoven.

The death of Akkadian as a spoken tongue had much the same affect as the death of Sumerian. In both instances, the scribes tried to save their written body of knowledge and preserve their knowledge of the dead language. In the process of doing so the scribes came to reassess their whole corpus of knowledge and add to it. In each case, the result was an expanded body of knowledge which was considered authoritative and was used for research.

It would appear that scholarship began because of an ill developed writing system which led to a taxonomic approach, an approach which is still fundamental to scholarship today.

## Die Rolle der **Astronomie**

in den Kulturen Mesopotamiens

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