

54) **Remarks on the sources for the lunar latitude section of Atypical Astronomical Cuneiform Text E** – The atypical astronomical cuneiform text BM 41004, known as “Atypical Text E”, contains four sections: Section 1 (Obv. 1–22) which presents a scheme for calculating lunar latitude, Section 2 (Obv. 23–26) which concerns planetary conjunctions, Section 3 (Rev. 1–17) which presents planetary periods, and Section 4 (Rev. 18–23) which deals with lunar motion, eclipses and latitude. In their edition of the text,¹ Neugebauer and Sachs noted three duplicates to Section 1: LBAT 1502 Rev. II’ 10’–11’ duplicating Atypical Text E Obv. 1–3, LBAT 1501 Rev. II’ 1’–6’ duplicating Atypical Text E Obv. 19–21, and BM 33739 duplicating Atypical Text E Obv. 13–16. To these examples I add BM 36874 (= 80-6-17, 614),² a small fragment measuring about 5½ cm by 5 cm from the left edge of a tablet, which duplicates part of Atypical Text E Obv. 4–6.

BM 36874

1' [ina] 'MU-AN'[-NA šá-ni-tu₄]
 2' 2/3 KASKAL-BU TA U[GU MÚL-MÚL]
 3' ana EGIR-ki LAL-is-ma N[IM DIB-at]
 4' 5 UŠ ár ALLA 'x' [MÚRUB-at]
 5' 5 UŠ RÍN NU KUR [BÜR]
 6' 5 UŠ ina MÁŠ DIB-ma MURÚB-t[ú]
 7' ITU 1 UŠ 40 GAR ana EGIR-šú 'x' [...]
 8' ina 3 [MU-MEŠ ...]
 9' traces only

Textual notes

4' BM 41004 has *ár-ki* where BM 36874 has just *ár*.

5' BM 41004 has GIŠ-RÍN where BM 36874 has just RÍN.

6' The *ina* is missing in BM 41004. It may simply be a scribal error but H. Hunger also notes the possibility of reading *ina* literally and suggests translating “it passes 5 degrees in Capricorn”. Another possibility would be to amend the text to *ina* <IGI> MÁŠ DIB-ma and translate “it passes 5 degrees in front of Capricorn”.

7' ITU is missing in BM 41004 which abbreviates here replacing *ana EGIR-šú* ... with KI MIN.

As there is only a small amount of missing text at the end of each line, BM 36874 must be a fragment from a multi-column tablet. Whether the complete tablet contained all four sections of Atypical Text E remains an open question. However, it seems that Section 1 was copied independently of the other parts of Atypical Text E in at least two of the sources. On LBAT 1502 Rev. two columns remain. The duplicate to Atypical Text E Section 1 begins at the bottom of the column II; there is insufficient space to fit all of Sections 2–4 on the remainder of the reverse of this tablet. The relevant part of LBAT 1501 seems to duplicate only part of Atypical Text E Section 1. The 6 lines preserved on LBAT 1501 correspond to 3 lines of text on Atypical Text E. Thus if this section was a complete duplicate about 30 lines of text must be missing from the beginning. Inspection of the tablet suggests that there is insufficient room for

30 lines to be restored in the lost parts of columns I and II. It would appear therefore that only the schematic presentation of the moon's latitudinal motion found in the second part of Atypical Text E Section 1 (Obv. 9–22) was copied onto LBAT 1501. Thus Atypical Text E Section 1 was an independent unit of text that could be copied either in full or in part and separately from the other sections of Atypical Text E.

As Section 1 of Atypical Text E was copied independently on several tablets we must conclude that it was a standard section and view its inclusion on Atypical Text E in this light. Thus we should perhaps not expect Sections 1 and Sections 4 of this text to be consistent with each other, in the same way as many other procedure texts contain compilations of standard sections. For example, ACT No. 812 contains procedures for Jupiter of both System A and System B variety. The inclusion of Sections 1 and 4 may simply reflect a desire on the part of the scribe to gather together procedures dealing with lunar latitude, rather than schemes which are necessarily consistent.

It is worthy of note that both LBAT 1501 and LBAT 1502 contain in the column next to the duplicates of Atypical Text E Section 1 lists of distances above and below Normal Stars, related to those in Sections 12 and 13 of the star text BM 36609+.³ As I have shown elsewhere these distances define a band 6 cubits in width through which the moon moves, or, in modern terms, the extremes of the moon's latitudinal motion.⁴ It may well be significant, therefore, that these lists are found on the same tablets as a scheme for calculating lunar latitude which refers to stars. This may add further support to the recent reinterpretation of Section 1 of Text E by Brack-Bernsen and Hunger.⁵

¹ O. Neugebauer and A. Sachs, "Some Atypical Astronomical Cuneiform Texts I", *Journal of Cuneiform Studies* 21 (1967), 183–218.

² BM 36874 is published by permission of the Trustees of the British Museum.

³ N. A. Roughton, J. M. Steele and C. B. F. Walker, "A late Babylonian Normal and *Ziqpu* Star Text", *Archive for History of Exact Sciences* 58 (2004), 537–572.

⁴ J. M. Steele, "Celestial Measurement in Babylonian Astronomy", *Annals of Science* 64 (2007), 293–325.

⁵ L. Brack-Bernsen and H. Hunger, "On the "Atypical Astronomical Cuneiform Text E": A Meanvalue Scheme for Predicting Lunar Latitude", *Archiv für Orientforschung* 51 (2005–06), 96–107.

J. M. STEELE <john_steele@brown.edu>

Department of Egyptology and Ancient Western Asian Studies, Brown University,
Box 1899, Providence, RI 02912, USA