

81) BM 42803 + 42974: A New Fragment of the Astronomical Diary -375A* — The fragment BM 42803 + 42974 of the British Museum measures 46.7 x 48.5 x 25.8 mm. Their join was reported by the author to the staffs of the British Museum in 2013. The small fragment is indirectly joined to another fragment, BM 45673, which was published as LBAT 173 and the astronomical diary -375A. The latter fragment measures 43.8 x 59.6 x 20.9 mm. BM 42803+ has a date formula of the 29th year of Arses (Artaxerxes II),¹⁾ i.e. -375/-374 (Right Edge 1'). The heights of those two fragments are nearly equal and both of them have equally nine or ten lines on one side. Another side is lost on both of the fragments. Since it is flat, the inscribed side of BM 45673 is probably the obverse of the original tablet, as is shown in ADART 1, 92. The preserved side of BM 42803+ seems to be the obverse of the original again, because it is also flat. Contents of the lines 'Obv.'² 1'-9' of BM 42803+ show that these lines should be placed exactly at the right ends of the lines 'Obv.'² 1'-9' of BM 45673, but there is still a space between the two fragments. This estimation is substantiated by the existence of an unusual double horizontal line below 'Obv.'² 6' of BM 42803+. BM 45673 also has an double horizontal line below 'Obv.'² 6', which divides its monthly sections for the seventh and eighth months of -375/-374. Following is the transliteration and translation of the text on the two fragments and comments on it. The restored astronomical data are confirmed by calculations with StellaNavigator 10.0i (C) AstroArts Inc.

BM 42803 (1881-7-1 567) + 42974 (1881-7-1 738) (+) 45673 (1881-7-6 70)

'Obv.'²

1' [...] ʿx¹ GE₆ 14 5,40 GE₆ MU[RUB₄ *ina* ZALÁG *sin ár* MÚL.]ʿMÚL¹ 1 1/2 KŪŠ

1' [...] Night of the 14th, sunset to moonrise: 5°40'; middle part [of the night,; last part of the night, the moon was] 1 1/2 cubits [behind the Pleia]des.

2' [...] GE₆ 17 *ina* ZALÁG *sin ina* IGI MAŠ.MAŠ IGI [nn mm] ʿx¹ 1 5/6 KŪŠ 19 *kal* [ME ŠÚ] GE₆ 20 *ina* ZALÁG *sin*

2' [...] Night of the 17th, last part of the night, the moon was [...] in front of α Geminorum [...] 1 5/6 cubits. The 19th, all [day overcast.] Night of the 20th, last part of the night, the moon

3' [...] + 1 2/3 KŪŠ 21 GU₄.UD *ina* ŠÚ UD.DA ŠÚ-šú DI[B GE₆ 23 MURUB₄ *sin ina* IGI ĜĪR á]r šá UR.A 8 SI {GE₆ [23]} *ina* ZALÁG *sin ina* IGI *dele-bat* | 4 KŪŠ

3' [...] + 1 2/3 cubits. The 21st, Mercury in the west its last appearance omit[ted. Night of the 23rd, middle part of the night, the moon was] 8 fingers [in front of β] Virginis. [Night of [the 23rd,]] last part of the night, the moon was 4 cubits in front of Venus.

4' [GE₆ 25 *ina* ZALÁG *sin ina* IGI SA₄ šá ABSIN i[?] KÛŠ[?]] 10[?] SI *ina* IGI GENNA
r₂¹ KÛŠ *ana* ŠÚ GUB GE₆ 26 *ina* ZALÁG *dele-ba*[t SIG DELE šá IGI ABSIN nn mm] r₁¹
dele-bat ana NIM DIB 26 r₂¹7 KUR 28 *ina* KIN.SIG | ŠÚ

4' [Night of the 25th, last part of the night, the moon was i[?] cubit[?]] 10[?] fingers [in
front of α Virginis], it stood 2 cubits in front of Saturn to the west. Night of the 26th, last
part of the night, Venus [was below γ Virginis,] Venus having passed a little to the
east. The 26th, moonrise to sunrise: 27°. The 28th, in the afternoon, overcast.

5' [...] DIR AN ZA ITI BI KILAM *še-im* 1(p) 4(b) 2 *qa ina* TIL ITI 2(p) P[I ZÚ-
LUM nn mm] 3 *qa ka-si* 1(g) GUR ZÀ 5(b) ŠE.GIŠ 1(b) 3 *qa*

5' [...] clouds were in the sky. That month, the equivalent (for 1 shekel of silver
was): barley, 1 pān 4 sūt 2 qa, at the end of the month, 2 pān; [dates,] 3 qa; mustard, 1
kur; cress, 5 sūt; sesame, 1 sūt 3 qa;

6' [... *i-nu-šú* MÚL.BABBAR *ina*] MÁŠ *ina* TIL ITI *ina* GU *dele-bat ina* UR.A *ina*
TIL ITI *ina* ABSIN GENNA *ina* ABSIN GU₄[UD u AN šá ŠÚ^{mes} NU IGI^m]^{es} (vacat)

6' [... At that time, Jupiter was in] Capricorn, at the end of the month, in
Aquarius; Venus was in Leo, at the end of the month, in Virgo; Saturn was in Virgo;
Mer[cury and Mars, which had set, we]re [not visible.] (vacat)

7' [APIN DIR A]N 'ZA' GE₆ 2 2 DIR AN ZA GE₆ 3 3 DIR AN ZA GE₆ '4' [...
GE₆ 6 SAG GE₆ *sin ár* MÚL] 'ár' šá 'SUḪUR?' MÁŠ 2 KÛŠ

7' [Month VIII, clouds] were in the sky. Night of the 2nd (and) the 2nd,
clouds were in the sky. Night of the 3rd (and) the 3rd, clouds were in the sky. Night of
the 4th, [... Night of the 6th, beginning of the night, the moon was] 2 cubits [behind δ]
Capricorni.

8' [... GE₆] '7' DIR AN ZA *ina* ZALÁG *dele-bat e* SA₄ š[á ABSIN nn mm *in*] 3
IGI

8' [... Night of the] 7th, clouds were in the sky; last part of the night, Venus was
[...] above α Vir[ginis] (Mercury's ideal) first appearance [on] the 3rd.

9' [... *ina* ZALÁ]G *dele-bat* SIG GENNA 3 SI 'dele-bat x' [...] 'KÛŠ?' GE₆ [x (x)]

9' [..., last part of the ni]ght, Venus was 3 fingers below Saturn, Venus [...]
cubits[?]. Night [...]

10' [...] 'x' [...]

10' [...] [...]

Right Edge

1' [... M]U.29.KAM^m ár-šú (vacat)

1' [... Ye]ar 29 of Arses. (vacat)

'Obv.'[?]

1' For the identification of the normal star MÚL.MÚL with the Pleiades, see
Jones 2004, 482, 483n1.

3' For the untranslated logogram UD.DA, see ADART 1, 94.

4' [GE₆ 25 SA₄ šá ABSIN: Following the restoration in ADART 1, 92.1[?] KÛŠ[?]
10[?] SI: nn S]I[?] in ADART 1, 92.

5' 1(p) 4(b) 2 *qa*: The last numeral was read 3[?] in ADART 1, 92.

6' IGI^m]^{es}: the existence of the last sign was predicted in ADART 1, 92.

8' GE₆] '7': GE6] '6' in ADART 1, 94.

Right Edge

1' It is uncertain that the line is the original first one, because the upper part of the edge is lost.

*¹) My thanks go to the trustees of the British Museum for allowing me to study the tablets BM 42803, 42974, and 45673. I also thank Christopher B. F. Walker for putting his provisional catalogue of the tablets with astronomical and astrological contents in the British Museum Babylon Collection in a form of database at my disposal, and Mathieu Ossendrijver for letting me know that BM 42974 is a part of an astronomical diary. All the remaining errors are, of course, mine. My research for this paper is funded by JSPS KAKENHI Grant No. 26870111.

¹ We do not have to consider the identification of this Arses with Artaxerxes I, who also reigned over 29 years. The diary -440 has a date formula with a name [^már-]šú, "[Ar]ses" (Obv.' 1), and was dated to -440/-439, the 24th year of Artaxerxes I, in LBAT, xii (the dating was provisionally adopted in ADART 1, 61). However, the diary is now dated to -381/-380, the 23rd year of Artaxerxes II (Koch 1991-1992, 101-103).

Bibliography

ADART = Abraham J. Sachs, and Hermann Hunger. 1988-. *Astronomical Diaries and Related Texts from Babylonia*. Vienna: VÖAW.

LBAT = Theophilus G. Pinches, Johann N. Strassmaier, and Abraham J. Sachs. 1955. *Late Babylonian Astronomical and Related Texts*. Providence, RI: Brown University Press.

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