44) Evidence for an instrumental meaning of ina libbi, 'by means of'. The AHW quotes several examples of instrumental ina libbi (1 p. 550 libbu CIf 'kausal'; g 'mittel'). However, the GAG (§115d) does not mention this meaning, and it was dropped by the CAD (cf. Vol. L libbu 4b). There were good reasons for that, since most of the examples quoted in the AHW do not survive close scrutiny: CT 22: 196, 22: 'by the desire of' (contra Ebeling Neubab. Briefe: 'dank'); UET 4, 163, 5: 'in the matter of' (cf. CAD Vol. D dalašu 2b); YOS 3, 137, 8: 'from it' (cf. CAD Vol. A II arrabu c). The remaining example occurs in the letter ABL 292 Obv. 5-7: (5) at-tu-nu ti-da-a ša₂ ina libbi(Ša₂ patri)(GIR₂;AN.BAR) ša₃ (6) Aššur(AN.SAR) DINGIR.MEŠ E A KUR ul-li-ti gab-bi-ša₂ (7) i-ša₂-a-tu tu-ša₂-a-ki-lu: 'You (pl.) know that by means of the sword of Assur, the gods?... you have let fire devour that entire land'. Here 'by means of' might be correct, but this is uncertain, because the text is difficult to understand (for a translation cf. Waterman 1930), and Harper's copy requires collation (e.g. in line 6). It is therefore understandable that the CAD does not mention the instrumental meaning. However, two overlooked or hitherto unknown passages now prove beyond doubt that ina libbi can have an instrumental meaning after all. First, the following well-known but overlooked passage from the astronomical text MUL.APIN, Tablet I iv 1-3 (Hunger & Pingree 1989):

(1) DIŠ MUL.MEŠ ša₂ ziq-pi ša₂ i-na KASKAL šu-ut En-lil₂ i-na MURUB₂ AN-e ina IGI-et GABA ša₂ nāṣir(URU₂) AN-e GUB.MEŠ-ma muta(GL₂) nīpšir(KUR₂) u rabāṭ(ŠU₂) ša MUL.MEŠ i-na lib₂-bi-šu-nu im-ma-du:

'The ziqpu stars which stand in the path of Enlil in the middle of the sky in front of the breast of the celestial observer and with which he observes the risings and the settings of the stars at night.'

This passage is duplicated, with minor changes, in MUL.APIN Tablet I iv 7-9 and in the Seleucid ziqpu star list AO 6478 (TCL 6 21). The instrumental meaning, already proposed by Thureau-Dangin (1913) and taken up by Schaumberger (1952), makes perfect sense, because ziqpu stars, which are stars that pass through the zenith, were used for timing astronomical phenomena during the night, e.g. risings and settings (cf. Hunger & Pingree 1999, 84-90). The CAD (Vol. Z ziqpu A4b) does quote the passage, but ina libbišunu is inaptly translated as 'in relation to which'.

The second passage occurs in the Seleucid 'Gold Theft Chronicle' BCHP 15 (under preparation by B. van der Spek and I. Finkel), Obv. 11-13:

(11) ina KI-LA₂.MEŠ ša₂ E₂ lu₃.KU₃.DIM ša₂ ina IGI-ma ina lib₂-bi-šu-nu LA₂ (12) ki-i LA₂-ša₂ 2/3 6 1/2

KU₂.SIG₂ in-da-tu: 'When they weighed it with the weight stones of the house of the goldsmiths, with which they had previously weighed it, it had diminished by 2/3 mina 6 1/2 shekels'.

It is probably significant that both examples concern instrumental relative clauses ('by means of which'). In main clauses the instrumental meaning is usually realised by the bare preposition ina, 'through'. In instrumental relative clauses this is not possible, because, according to Akkadian syntax, ina cannot carry a resumptive pronoun (GAG §114c). This seems to prompt the insertion of libbi in between ina and the resumptive pronoun (-šunu, -šu). It may also be significant that most if not all sources, including ABL 292, date from the 1st millennium BC and are written in the Babylonian script. Only one fragment of MUL.APIN that partly preserves the quoted passage is written in the Neo Assyrian script (YY = VAT 9527).

Finally, I propose that the instrumental meaning may also apply to some instances of the conjunction libbi ša, e.g. in the Seleucid astronomical procedural text (see Ossendrijver 2010 for a new edition of these texts) BM 32167+: (ACT 200+) Obv. 1.14:

DU₃₃-₃₃ ša₂ Zl₃ sin AB₂₂ anu AB₂₂ 42 TAB u LA₂₃ lib₂-bu-u₂₁ ša₂ 15.56.54.22.30 KUR-ad₃: 'Procedure for the displacement of the Moon. Month by month you add and subtract 0;42, by means of which you reach 15;56,54,22,30.'

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