Babylonian Physiognomic Omens in Cryptic Hebrew Orthography

by

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Abstract

A unique text of physiognomic omens in Hebrew from the Dead Sea Scrolls (4Q186) is remarkable in that it mimics the similar Akkadian omens upon which it is based, in that it is written in a left-to-right format beginning with the column on the left. The Qumran text also avoids final letters and includes some words in Paleo-Hebrew script and Greek letters, all pointing to its *Vorlage* being an exemplar of Graeco-Babyloniaca (an Akkadian text in Greek transliteration), employed in order to make technical Akkadian more widely accessible.

About the Author

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n a recent collection of papers on physiognomic omens and *ekphrasis* in antiquity, Marvin Schreiber modestly presents significant parallels between Late Babylonian astrological texts and a unique Hebrew text from Dead Sea scrolls of physiognomic omens [Schreiber 2019].¹ The parallels discovered by Schreiber call for a new look at this intriguing text. In fact, two Dead Sea scrolls present physiognomic omens, one fragmentary in Aramaic [4Q561] and a second in Hebrew [4Q186], both edited in detail by Mladen Popovic [2007].² The contents are similar and have some common vocabulary, e.g., «^cbh» (thick), referring to fingers, and «sglgl» (round) [see Popovic 2007, 29, 62]. The existence of an Aramaic text of physiognomic omens that resembles Akkadian prototypes (as we will see below) is unremarkable since Qumran also preserves Aramaic versions of the Akkadian astronomical tract MUL.APIN [see Drawnel 2021]. Aramaic served as the lingua franca of the vast Achaemenid Empire and continued as the vernacular in both Babylonia and ancient Palestine until the Islamic conquest. An Aramaic rendering of Akkadian astronomy could have easily been transported from the center to the periphery, from Babylonia to Judaea, and the text would have potentially been part of curricula anywhere within the Seleucid and Parthian cultural spheres, which included Judaea.

However, Hebrew translations of Babylonian physiognomic omens are unexpected in this scenario since there are no other examples from this period of Hebrew versions of scientific texts such as astronomy or medicine. Moreover, the Hebrew of 4Q186 has unique eccentric features not shared by any other Qumran texts. Written from left to right, it includes paleo-Hebrew characters as well as the usual square script, often (but not always) avoiding using final letters («k, m, n»), and occasionally using the Greek letters « α »

¹ Schreiber's paper is to be recommended since it is not often we find a detailed and comprehensive discussion of topics that span Mesopotamian and classical cultures and incorporate data from Sumerian to Akkadian to Ugaritic and Hebrew and, finally, to Arabic. See my discussion of the collection in this same volume.

² Popovic's volume is exemplary in correcting earlier editions of the Qumran texts and for a full discussion of the epistemological contexts, although more needs to be said about these texts.

and (β) instead of Hebrew equivalents [see Popovic 2007, 25–26]. This information sets the stage for the significant parallels discovered by Schreiber between this and Akkadian astrological texts.

First, Schreiber noted that the Hebrew term « bhmh» (animal) appears twice in the short Qumran text with the meaning of "zodiacal sign" and that this usage is likely to be a calque of Akkadian « umāmu» (animal), which also means "zodiacal sign" in a Late Babylonian astrological text [*LBAT* 1593]; both of these terms correspond to Greek « $\zeta \phi \delta i o v$ », also meaning "animal" and referring to the zodiac [see Schreiber 2019, 134–135].³ Apart from this important discovery, Schreiber also noted the use of Hebrew « rwh » (spirit) in the Qumran text, which he associates with the similar use of «lamassu» (protective spirit) in Akkadian astrology [Schreiber 2019, 133–134: see below]. Since both of these correspondences suggest Babylonian rather than Greek influence on the Qumran text,⁴ the obvious next step is to examine the Hebrew text more closely for other possible Akkadian parallels.

³ The association of Akkadian «umāmu» with Greek «ζῷα» had already been suggested by Erica Reiner [2000, 427: see Schreiber 2019, 135 n 106]. Hebrew «bhmh» (animal), indicating a zodiacal sign in 4Q186, confirms this connection. Another hitherto unnoticed reflection of this same phenomenon occurs in the Babylonian Talmud Hagigah 13a in an unusual passage speculating on the cosmos and its seven heavens which refers to "inner" and "outer" houses [see below], as well as to the celestial "animals" (Hebrew «ḥyywt») above the firmament, which have ankles, knees, thighs, necks, horns, etc. and can only refer to zodiacal imagery, similar to 4Q186.

⁴ Schreiber 2019, 133 entertains the idea of Hellenistic influence from Greek horoscopes, but this is based on the assumption that 4Q186 is concerned with "determining the ascendant at the time of birth" [Popovic 2007, 170], which is reading too much into the references to birth omens in the Qumran text.

1. An edition of 4Q186

The edition below of individual passages relies heavily on Popovic 2007 but with a few suggested alternative readings that conform more closely with parallels from Akkadian physiognomic omens. Although Popovic's study has made important improvements in the readings and understanding of the Hebrew text, there is a major flaw that needs to be corrected. In the multicolumn fragment of 4Q186, Popovic treats the right-hand column as column one, with the left-hand column as column four. This is unlikely to be correct in a text in which the direction of writing is from left to right. The edition below reorders the text, reading columns from left to right. The positioning of the first fragment-fragment 2 in Popovic's editionis uncertain, since it is not joined to the main multicolumn piece. It is provisionally placed in the initial position in the edition below, based on the fact that it appears to refer to omens of the face, following the principle that such texts are often organized from head to foot. Suggested readings are based upon published photos of the originals rather than on collation of the texts.

1.1 Fragment 1

.....] ′1

2׳ סרו[חה ו]שניו בינ שחורות וב[ינ] מסריות וזקנו
3׳ ממע[ט] והואה <ה>תרגל ובת קולו עניה ושניו
4׳ דקות ויושבות על סרכמה והואה לוא ארוך
5׳ ולוא קצר והואה [ש]ממולד אצבעות ידיו דקות
6׳ ואֹרוֹ[כ]ות ושוקיו חלקות וכפות רגליו
7׳ [.... ושניו עבות] ויושבות על סרכמה ורוח ל[ו]
(traces)

2' srw[hh w]šnyw byn šhwrwt wb[yn] msrywt wzqnw

3' mm^c[t] whw'h <h>trgl wbt qwlw ^cnyh wšnyw

4' dqwt wywšbwt ^cl srkmh whw'h lw' 'rwk

5' wlw' qşr whw'h [š]mmwld 'şb^cwt ydyw dqwt

6' w'rw[k]wt wšwqyw hlqwt wkpwt rglyw

7' [....wšnyw ^cbwt] wywšbwt ^cl srkmh wrw<u>h</u> l[w]

1'....., smelly, [and] his teeth⁵ are either black or rotten⁶ and his beard is minimal and it [the result] will be *regular*.⁷ And his utterance (results in) poverty. And his teeth are thin⁸ and are situated [lit. sit] on *lesions*.⁹ And he is not tall and not short.¹⁰ And as for he who is born, his fingers are thin and long¹¹ and his thighs are smooth and his foot soles are [.... His teeth are thick(?)] and situated on *lesions*. And he is *lucky*.¹²

- ⁵ Probably referring to mouth odor, as in the Akkadian physiognomic omen «ina pîšu ibtanašu lā magāru šakinšu» ([if a man's breath] smells in his mouth, an unfavorable [outcome] is in store for him) [cf. Kraus 1936–1937, 224, 75]. Popovic [2007, 30] reads, «srkm[h]» (well ordered), but the reading «srkmh» for "ordered" is unattested elsewhere: see n9 below. Popovic then reads «w^C]nyw» (and his eyes), but the reading is uncertain. Akkadian physiognomic omens referring to teeth emphasize color [see Böck 2000, 103, with teeth described as yellow/green, black, or red], and although eyes can also be described with color (not black), a bad smell is usually associated with the mouth rather than eyes, hence the suggested restoration as «wš]nyw» (and his teeth).
- ⁶ Popovic [2000, 30] reads «mnmrywt» (speckled(?)), but the root «sry» (to be rotten) is a good fit with teeth.
- ⁷ This corresponds in physiognomic omens to Akkadian «sadiršu» (a regular (occurrence) for him) [cf. Böck 2000, 112.86; 114.95; 131.14]. Popovic [2000, 31] translates «trgl» as "wavy"(?) based only on an Arabic etymology. The term appears again in the Aramaic physiognomic text 4Q561 [see Popovic 2007, 62] but lacks any context and occurs immediately after a break (]*trgl*).
- ⁸ The term "thin" (dq) has a counterpart in Akkadian physiognomic omens, «raqqu» (thin) [cf. Böck 2000, 292, 24]. The Akkadian cognate «daqqu» has the meaning of "minute", as if crushed.
- ⁹ Popovic [2007, 30–31] translates «srkmh» as "well ordered" [see n5 above], but this is likely to be Babylonian Talmudic Aramaic «syrk'» (wound) [see *DJBA*², 776].
- ¹⁰ This might be long and short rather than tall and short, but the antecedent is unclear.
- ¹¹ Corresponding to Akkadian «arik» (long), for which see Böck 2000, 38, and suggesting that "long" (fingers, toes, and so on) may be a favorable feature.
- ¹² See Böck 2000, 187, 31–32; Salin 2019, 66. The contrasting apodoses «ila lā rašê» (not having a god) and «ila rašê» (having a god) are idiomatic for being unlucky or lucky [see CAD I/J, 101]. Since having a god would make little sense in Qumran, the phrase has been adapted to having a "spirit", comparable to the «lamassu» parallel already noted by Schreiber.

1.2 Fragment 2 col. i

(1'-5' missing) 6' [.....] שמה אלה 7 [.....] יהיה תוך (trace) '8 (Not translatable)

1.3 Fragment 2 col. ii

(1'-5' missing) 6' מיראות [........] ושניו רומות לאבר ואצבעות 7' ידיו עבות ושוקיו עבות ומלאות שער לאחת 8' ואצבעות רגליו עבות וקצרות ורוח לו ββית (= בבית) 9' [....... ש]מונה(?) ואחת מבית האור וחוש[כ](?)

6' myr'wt [.....] wšnyw rwmwt l'br w'şb^cwt

7' ydyw ^cbwt wšwqyw ^cbwt wml'wt ś^cr l'ḥt

8' w'sb^cwt rglyw ^cbwt wqsrwt wrwh lw ββyt

9' [.....š]mwnh(?) w'ht mbyt h'wr whwš [k](?)

are fat. [.....] and his teeth protruding [lit. high toward the outside]¹³ and fingers are thick,¹⁴ and thighs are thick and full of much hair and his toes are thick and short.¹⁵ He is *lucky* in the house of [.....] *eight* and one from the house of light and darkness(?)

1.4 Fragment 2 col. iii

מו]ג(?) טמא] ′1
אבן צונם [] ′2
[] איש ע.[].'3
	(readings uncertain) '4

¹³ See Popovic 2007, 252. The translation "protruding" is a calque of Akkadian physiognomic omens, which refer to a tooth as *a-sa-at* [Böck 2000, 169]. Although the verb «waşû» could also mean that a tooth is extracted, in physiognomic omens the meaning is more likely to be "going out" or "protruding". Böck correctly translates "vorsteht", but the potential ambiguity is avoided in the Hebrew circumlocution. The intrusion of an Aramaic term, «l'br», is not surprising considering the existence of a parallel Qumran physiognomic text in Aramaic 4Q561.

¹⁴ Cognate to Akkadian «ebû»: see Böck 2000, 292.23 «šumma ebû» (if [eyebrows] are thick).

¹⁵ Corresponding to «karû» (short): see, e.g., Böck 2000, 158–159, referring in this case to fingers or in other cases to one's days (i.e., lifetime) being short.

5' ושוקיו ארוכות ודקות ואצבעות רגליו 6' דקות וארוכות והואה מנ העמוד השני 7' רוח לו ββית (= בבית) הαור (= האור) שש? ושלוש בבית 8' החושכ וזה הואה המולד אש^ר הואה ילוד עליו

9' ברגל השור עני יהיה וזה בהמתו שור

.....

and his thighs are long and thin¹⁶ and his toes thin and long. This is from the second column: he is lucky in the house of light, six and three¹⁷ in the house of darkness. This is the birth (sign) under which he was born at the foot of Taurus.¹⁸ He will be poor,¹⁹ and this is his (zodiacal) sign [lit. animal]: Taurus.

1.5 Fragment 2 col. iv

(lines 1'-6' missing)

7′ ואיש אשר יהיה.[......] 8′ [......] רחבימ סגלגלימ]....... 9′ מעורבימ ולוא שאר רוש[מ(?)........

¹⁶ See n8 above.

- ¹⁷ Schreiber 2019, 133 provides a possible explanation for these numbers by referring to Babylonian *Calendar Texts*, which use a series of four numbers or two numbers and two logograms to indicate positions in the ecliptic. See Steele 2015, 188–189 for examples, and Brack-Bernsen 2022, 117 for sequences of the numbers 6 and 3 within zodiacal "houses" of *Calendar Texts*.
- ¹⁸ Cf. *CAD* Š/2, 301 for examples of references to the "foot" of various constellations in Babylonian astronomy.
- ¹⁹ Popovic [2007, 30] translates "humble" but notes [250] the possible translation of "poor". Böck [2000, 36] lists impoverishment as a recurrent theme in apodoses.

7' w'yš 'šr yhyh [...... 8' [.....] rhbym sglglym [...... 9' m^cwrbym wlw' š'r rwš[m(?).....

and the man who will be [.....] are broad and round [.....] mixed,²⁰ and no remnant of a lesion(?) [.....

1.6 Fragment 3

1' [wh'h mn h^c]mwd hšny šmwl[dw.....

2' [.....] mwldw lw [.....

3' [......*h*][*w*'*h bh*<*m*>[*t*]*w* [......

[and that one from] the second column, that his birth (sign) [.....

[.....] his birth (sign) for him [.....

[.....], that is his (zodiacal) sign [.....

The remaining fragments are difficult to see in published photographs, but the text is only of marginal importance, although there is another reference to a "second column" [see Popovic 2007, 32].

2. Notes on the text

2.1 Fragment 1 3': «wbt qwlw ^cnyh» (and his utterance [results in] poverty)

This phrase alludes to an entire tablet of Akkadian physiognomic omens called KA.TA.DU₁₁.GA (Akkadian *kataduggû*, lit. spoken from the mouth), resulting from utterances of the client: see Böck 2000, 131–145, e.g., «šumma lušrumi ul išarru» (if he [says,] "Let me be rich," he will not be rich); «šumma lulpunmi ul ilappin» (if he [says,] "Let me be poor," he will not be poor); «šumma [lulp]unmi yānummi makû uqašu» (if he says, "Let me be poor, I have nothing," poverty awaits him). See Böck 2000, 130–131.

²⁰ Since these masculine plural adjectives cannot refer to dual body parts, they may describe lesions on the body, another major theme of physiognomic omens. See Böck 2000, 28–29.

2.2 Fragment 1 7': «wrwh l [w]» (and he is lucky [lit. he has a spirit])

Popovic [2007, 194–195, 206–208] offers an alternative explanation, defining the *rwh*-spirit as a zodiacal spirit associated with the houses of light or darkness, referring to zodiacal signs. However, Schreiber [2019, 133–134] points to a Late Babylonian physiognomic commentary text, BM 41623, which refers to the zodiacal signs Taurus and Aries and the *bāb lamassišunu* (gate of their protective (*lamassu*) spirits), although the relationship between the signs and the gate is not clear. Nevertheless, physiognomic omens also contain apodoses with the phrase «lamassa rašê» [Böck 2000, 35], i.e., "having a protective spirit", but probably with the same meaning of being lucky.

2.3 Fragment 2 col. ii 8': «wrwḥ lw ββyt» (he is *lucky* [lit. he has a spirit] in the house)

See Steele 2015, 191 and 209, citing a 4th-3rd-century Babylonian astronomical tablet that uses the term "house" for a zodiacal sign that is designated either by a number or a corresponding month name. A somewhat mysterious «bīt nișirti» (secret house) appears numerous times in Babylonian horoscopes and is thought to refer to the zodiacal sign under which the child was born, with positive implications for its future [see Rochberg 1998, 47; Schreiber 2019, 133]. It may be that the obscurity of this reference remained unclear to Hebrew translators, who revert to the well-known Qumran cliché of light and darkness ("Sons of Light, Sons of Darkness") to indicate good and evil, or, in this instance, to a favorable or unfavorable prognosis. Another possibility is to consider the Babylonian designations of celestial bodies as either ba'ālu (bright) or unnutu (faint) to indicate favorable or unfavorable omens [see Rochberg-Halton 1997, 209], but in this case applied to zodiacal signs with the more typical Qumran terminology, "light" and "darkness". Finally, a more technical explanation may present itself in the Calendar Text tables in Brack-Bernsen 2022, 4-119, which chart the positions of the Moon (in its four phases) and Sun within zodiacal "houses". It is noticeable that the numbers 6 and 3 occur together in many of the sequences noted in the tables.

2.4 Fragment 2 col. iii 1': «[mw]g(?) țm'» (an unclean sore(?))

The restoration is a guess, but this may well correspond to the common skin lesion (*urāšu*) in Akkadian physiognomy, which Böck translates consistently as *unreine Narbe* [Böck 2000, 202–203, editing the text *Šumma urāšu*]. The unclean nature of the *urāšu*-lesion is confirmed by cognate adjectives «aršu» (dirty), which is connected in lexical commentaries to «urāšu» (dirty garment) [cf. *CAD* A/2 309], and «urrušu»/«urruštu», referring to filthy

persons or objects [*CAD* U/W, 248], all derived from a verb «warāšu» (to be filthy) [cf. *AHw* III 1464].

2.5 Fragment 2 col. iii 2': «'bn swnm» (flint)

This stone name (usually translated as "granite" without solid evidence) constitutes the only words written correctly from right to left, perhaps because the term may not have been recognized in reverse orthography. The reference to a stone as *materia magica* may relate to Late Babylonian texts that list stones, plants, and wood together with zodiacal signs for use in astral medicine [see Popovic 2007, 52–53; Schreiber 2019, 132]. Although this may be an allusion to Babylonian astral medicine, the lack of context makes this uncertain since the stone might simply be a metaphor for some aspect of the subject's physique (i.e., flint[-like]).

2.6 Fragment 2 col. iv 7': «w'yš 'šr yhyh» (and the man who)

The phrase is reminiscent of how typical Akkadian recipes begin with «DIŠ *amēlu*» (if a man), understood conventionally as "if (*šumma*) a man…", but the «DIŠ» may simply indicate a new line entry and was understood as such by the Hebrew text.

2.7 Fragment 2 col. iv 8': «rhbym sglglym» (broad and round)

There is an intriguing parallel to this protasis in the Babylonian Talmud [Nedarim 66b], recording a physiognomic text describing a woman's physical features. Her feet are described as *rhbwt kšl 'wwy'* (broad like a duck), which matches an Akkadian omen in which the subject has duck feet (*šēpi paspasi*) or *šēpi rapšāti* (broad feet) [Böck 2000, 286.26]. The same text [Ned. 66b] refers to the woman's head as round (*sglgl*), which is the same term used here in 4Q186. However, since the adjectives "broad" (rhb) and "round" (*sglgl*) in 4Q186 are masculine plural forms, they cannot refer to the subject's feet.

3. General observations on the text

The first important consideration is the unusual layout, orthography, and format of this text, which is completely unique. First, it was written from left to right, with one exception, in a reference to a stone. Second, many words are written in paleo-Hebrew script,²¹ while two words employ Greek letters $\ll \beta \gg$ and possibly $\ll \alpha \gg$. In many cases, final letters are not used for final $\ll kaf \gg$, $\ll mem \gg$, or $\ll nun \gg$. However, the crucial point is that the Hebrew letters typically slant toward the left and not toward the right, as you might expect

²¹ One wonders if the use of paleo-Hebrew script might mimic the use of sumerograms in Akkadian omens.

if someone was writing from left to right: see Popovic 2007, 25 for agreement on this point. A reasonable assumption is that the scribe was copying from a *Vorlage* written from left to right, but he formed the Hebrew letters in the normal fashion of a right-to-left orthography. We shall return to the reasons for this below.

Second, the structure of this text resembles Akkadian physiognomic omens, without any hint of influence from Greek physiognomic treatises, such as the pseudo-Aristotelian Physiognomonica.²² The text shows typical phrases from the protases of physiognomic omen texts, describing the physical features of a male subject. There is some mixing of genres here since some passages in 4Q186 that are not physical descriptions of human anatomy come from birth omens (or horoscopes), which usually predict the future of the subject being described.²³ One of the difficulties of interpreting the Qumran text is the question of mixed genres since Akkadian physiognomic omens would normally not include data from horoscopes in either the protases or apodoses. However, in late texts surprising things can happen, such as the Late Babylonian compendium published by John Steele, which is a mixture of calendrical and astrological themes drawn from multiple sources, suggesting that "the text was compiled by a scribe as a handy resource for his own use" [Steele 2015, 187]. It is possible that 4Q186 was also based on some kind of Akkadian compendium.

One crux that has aroused extensive discussion are the references in 4Q186 to "column 2", which Popovic divides into several possible solutions: column 2 could refer to a zodiacal sign or quadrant, a column in a heavenly scroll, or finally, his own solution, to a "zodiacal circle", although all are treated as "unsatisfactory" [Popovic 2007, 38–48]. There is a much simpler solution to this conundrum. The Qumran Hebrew text does not have a tabular layout of data, as is often the case with cuneiform tablets; but nevertheless the clauses in Hebrew can still be associated with protases and apodoses known from Akkadian physiognomic texts. Since virtually all of the features of this unusual text point to Akkadian physiognomic omens, the likelihood is that this text was based upon a Babylonian text that had the usual format of

²² For a discussion of Babylonian and Greek physiognomics, see my discussion in the present volume of the papers collected in Johnson and Stavru 2019.

²³ See Rochberg 1998, 13, pointing to commonalities between astrological omens and horoscopes regarding a newborn.

Listenwissenschaften, namely, a left-hand column of basic data and a righthand column of explanatory data. A Late Babylonian example of the genre [BM 57612+] clearly shows a two-column layout.

The crucial point is that the scribe was basing his Hebrew translation on a two-column formatted text with apodoses in column 2 and meant the references to column 2 in 4Q186 as a shorthand notation for these apodoses. The reason for this shorthand notation is that omen apodoses can differ from one cultural milieu to another, as is the case with dream omens, which appear with similar protases in Akkadian, Aramaic, and Greek,²⁴ although there is little agreement among apodoses.²⁵ Hence, the scribe of 4Q186 simply notes that there may be other relevant omen results to be found in column 2 of his *Vorlage*.

In this scenario, the scribe, writing from left to right and using paleo-Hebrew script at times and often avoiding final letters, was not only copying but also *mimicking* a text written in a left-to-right format that did not use final letters in the script and was considered to be text older than contemporary Judaean Hebrew. The occasional instances of using Greek letters is also significant. The scribe was offering a Hebrew translation of a "foreign" text while at the same time trying to mimic its features. Using a couple of Greek letters (which everyone would recognize) is one good way of calling attention to its foreign character, but the direction of writing is key. The main problem, however, remains whether any Qumran or Judaean scribe would have been able to read from a *Vorlage* written in Akkadian in cuneiform script, and the answer to this question is likely to be negative. So how can all of these data render a consistent and coherent picture of what was happening with 4Q186?

There is only one plausible way out of this conundrum. A small group of cuneiform tablets dating from the latest period of cuneiform writing is known as Graeco-Babyloniaca, which were characterized by having cuneiform script on the obverse and Greek transliterations of both Sumerian and Akkadian on the reverse of the tablets. Unlike normal cuneiform tablets, which turn end-over-end from obverse to reverse, these tablets turn

²⁴ For these dream books, cf. Oppenheim 1956; Tractate Berakot of the Babylonian Talmud; and Artemidorus' *Oneirocritica* [White 1990].

²⁵ The Babylonian Talmud dream book explains that positive omens are received if the interpreter receives payment and negative ones if no payment is received. Although this looks like a skeptical view of dream interpretation, it also suggests that the same protases are capable of being interpreted differently, depending upon circumstances.



Plate 1. Two-column layout in BM 57612+ Photo courtesy of the British Museum.

over like book pages, and the tablets probably represented exercises for writing Sumerian and Akkadian on leather or parchment, rather than on clay

tablets [see Geller 1997]. If the Vorlage of 4Q186 was an example of Graeco-Babyloniaca, preserving a typical two-column layout of the original tablet, this would explain every aspect of the Babylonian physiognomic omens being translated into Hebrew. The paleo-Hebrew script, the avoidance of final letters, and the presence of Greek letters all point to an older Vorlage preserving Akkadian data in a Greek transliteration, which was then translated into Hebrew by the Judaean scribe. In fact, the second Qumran text of physiognomic omens, 4Q561, with similar entries, may have actually been an Aramaic translation of the same or a similar Graeco-Babyloniaca Vorlage, but this time into Aramaic rather than Hebrew. Why Hebrew was chosen for 4Q186 rather than Aramaic is impossible to say, except perhaps as an attempt to integrate the text into the literary corpus of Judaea. Nevertheless, the very fact that an exemplar of Graeco-Babyloniaca (an Akkadian text in Greek transliteration) may have been exported to Judaea is hardly trivial since this would mean that such texts were more widely used than previously realized in order to make technical Akkadian more accessible. This might, in fact, suggest the medium by which topics such as Babylonian astronomy became familiar to Greek science.

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ABBREVIATIONS

- AHw W. von Soden, Akkadisches Handwörterbuch. Wiesbaden, 1965–1981.
- CAD Chicago Assyrian Dictionary. Chicago, 1956–2011.
- DJBA M. Sokoloff, A Dictionary of Jewish Babylonian Aramaic. 2nd edn. Ramat Gan, 2020.
- *LBAT* Late Babylonian Astronomical Texts. T. Pinches and J. N. Strassmeier, with A. J. Sachs and J. Schaumberger. Providence, 1955.

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