

2010

**PREPRINT 401**

M. J. Geller

**Look to the Stars: Babylonian medicine,  
magic, astrology and *melothesia***



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## Acknowledgements

The present Preprint is the result of four intensive work visits to the Max Planck Institut für Wissenschaftsgichte over a three-year period, from 2007 to 2009, amounting to 13 months in all, funded by the Alexander von Humboldt-Stiftung, Topoi Excellence Cluster of the Freie Universität Berlin, and the Max Planck Gesellschaft. I am pleased to thank Peter Damerow, Jürgen Renn, and Eva Cancik-Kirschbaum for making these research visits possible. An interdisciplinary study of this kind could hardly have been undertaken without the help and resources of the MPIWG Library, under the stewardship of Urs Schoepflin. I would like to thank Hermann Hunger for kindly lending me his photograph of the Uruk tablet which is at the centre of this study (SBTU I 43), as well as for further assistance. I am also grateful to Francesca Rochberg for crucial advice on astronomy and to Helen Jacobus for some important pointers on astrology. Two former NIAS colleagues, Marten Stol and Manfred Horstmannshof, were characteristically helpful. Cale Johnson and Florentina Badalanova Geller read through the final proofs, offering many corrections. Finally, I would like to thank the Preussischer Kulturbesitz for permission to reproduce a plate from the Duc du Berry's *Très Riches Heures*, and to Bach Original Flower Remedies for permission to reproduce a page from a Bach Remedies brochure.

## **Globalisation of Knowledge**

Any similarities between Babylonian and Greek medicine may reflect an increasing globalisation of knowledge in the ancient Mediterranean world, after the advent of philosophical thinking in Greece and advances in astronomy and mathematics within contemporary Babylonian scholarship. Comparisons, however, between Babylonian and Greek medicine are not always obvious because of the very different nature of the source material. Greek philosophers wrote elaborate and even polemical treatises putting forth their medical theories, while the impressively large and complex corpus of Babylonian medicine consisted of lists of symptoms and *materia medica*, as well as therapies listing appropriate drugs and procedures for alleviating symptoms, with little in the way of theoretical speculation. One must therefore look beyond the forms in which the information was given to discover whether similar notions were being shared between Babylonian and Greek scholars. One of the important areas of ancient scholarship lending itself to this kind of inquiry is the genre of astral-medicine and astral-magic, in which therapy and healing techniques were influenced by new discoveries in astronomy and even astrology, such as the zodiac. The results were new efforts in attempting to make more accurate predictions of the course of disease and therapies, based upon astrological models.

Among the many Akkadian medical and incantation texts from Persian and Hellenistic Babylonia, two texts in particular stand out and deserve special attention because of their unique features. Both texts probably emanate from Uruk cuneiform archives, one of the important centres of learning in ancient Mesopotamia whose archives survived well into the Hellenistic period. This is where we find a great many important medical texts, as well as unique medical commentaries. Although all of these texts merit much further study, the two texts to be discussed here represent innovative thinking about medicine among Babylonian scholars in the Persian and Hellenistic periods. The first of the two texts, SBTU I 43, is a list

of diseases associated with parts of the body, and so far no duplicates are known. The second Uruk text, BRM 4 20, adapts inherited concepts of astral magic to the zodia, representing a new approach to the subject. Another Uruk manuscript from the same milieu, BRM 4 19, gives the same information as in BRM 4 20 but in a different format; this also yields important information about the newly emerging Babylonian zodiac. A duplicate from the NA period (STT 300), dating some two centuries earlier, shows how astral magic was treated before the zodiac became popular.

### **Text One: The Uruk 'taxonomy' (SBTU I 43)**

This Uruk tablet has so far defied explanation because of its uniqueness, since it is not characteristic of any other Late Babylonian medical text, and because we lack any ancient commentary on its cryptic format and puzzling data. The text is a list of diseases assigned to four regions of the internal human anatomy, with each region associated with an organ. Here is the text, collated from a photograph kindly supplied by Herman Hunger, who originally copied and edited the text in its *editio princeps*.

**SBTU I 43**, cf. Köcher 1978: 24-25, Stol 1993: 26f., Heeßel 2010: 30f.

1	<i>ul-tu lib-bi</i>	<i>hīp lib-bi</i>	from the mind ('heart')	depression
2	KI.MIN	<i>miqtu</i> (an.ta.šub.ba)	ditto	seizure
3	KI.MIN	<i>qāt ili</i> (šu dingir.ra)	ditto	hand of the god
4	KI.MIN	<i>qāt ištari</i> (šu d <sup>i</sup> innin)	ditto	hand of goddess
5	KI.MIN	<i>be-e[n]-nu</i>	ditto	epilepsy
6	KI.MIN	<sup>d</sup> lug[al]. <sup>r</sup> ūr <sup>1</sup> . <sup>r</sup> a	ditto	epilepsy
<hr/>				
7	<i>ul-tu KA kar-šú</i>	<i>mu-ru-uš sag.du(qaqqadi)</i>	from the pharynx	head and and mouth disease
		<i>u pi-[i]</i>		
8	KI.MIN	<i>pi-i šin-ni</i> <sup>r</sup> mur.dúr <sup>1</sup> .meš-šú-nu	ditto <sup>1</sup>	mouth, teeth their 'toothworms'
9	KI.MIN MIN	<sup>r</sup> gir <sub>11</sub> <sup>1</sup> . <sup>r</sup> [gi]- <sup>r</sup> iš <sup>1</sup> -šum	ditto, ditto	red skin lesions
10	KI.MIN MIN	<sup>d</sup> dim.me	ditto, ditto	Lamaštu

<sup>1</sup> = 'from the pharynx (and)'

11	KI.MIN MIN	<i>pa-šit-t[u<sub>4</sub>]<sup>mi</sup> mar-tu<sub>4</sub></i>	ditto, ditto	Pašittu-daughter
12	KI.MIN	<i>ṛma-li<sup>1</sup> me-e</i>	ditto	dropsy
13	KI.MIN	<i>qāt etimmi(šu.gedim.ma)<sup>2</sup></i>	ditto	hand of ghost
14	KI.MIN	<i>maš-ka-du<sup>3</sup></i>	ditto	joint disease
15	KI.MIN	<i>mi-šit-ti</i>	ditto	stroke
16	KI.MIN	<i>a-šu-ú</i>	ditto	(skin disease)
17	KI.MIN	<i>gi-iš-ša-tu<sub>4</sub></i>	ditto	(skin disease)
18	KI.MIN	<i>hi-miṭ ṣēti ù nap-bar mur-ṣu<sup>4</sup></i>	ditto	'sun-light'-fever and all illnesses
<hr/>				
19	[ul-t]u ha-še-e	<i>tib-bi</i>	from the lungs	throbbing
20	[KI.MIN]	<i>ši-i-qu</i>	[ditto]	moisture(?)
21	[K]I.MIN	<i>šá-a-ri</i>	ditto	wind
22	KI.MIN	<i>e-[z]i zu</i>	ditto	defecating, sweating?
23	KI.MIN	<i>bu-šá-a-nu</i>	ditto	diphtheria
24	KI.MIN	<i>ši-in-na-ab-tir</i>	ditto	(intestinal-disease)
<hr/>				
25	<i>ul-tu éllag.meš(kalâti)</i>	<i>hi-niq-ti</i>	from the kidneys	stricture
26	KI.MIN	<i>nāš libbi (šà.zi.ga)<sup>5</sup></i>	ditto	impotence
27	KI.MIN	<i>muṛuṣ šuburri(du.ur gi.g.ga)<sup>6</sup></i>	ditto	anal disease
28	KI.MIN	<i>sa-gal-lu<sub>4</sub><sup>7</sup></i>	ditto	muscle-disease
29	KI.MIN	<i>la a-li-du-ti</i>	ditto	barrenness
30	KI.MIN	<i>rēmu(arhuš) šá zi-i-ri</i>	ditto	womb which is twisted
31	KI.MIN	<i>ka-le-e šāri(im)</i>	ditto	'gas' retention

(colophon) GIM BE-šú SAR-ma ba-ri IM.GÌ.DA

(Remainder of the colophon in Hunger 1976.)

<sup>2</sup>BRM 4 20: 30 and duplicates.

<sup>3</sup>Cf. the astral medicine text LBAT 1597: 6' (below).

<sup>4</sup>LBAT 1597 8', tu.ra.kilib.ba, which appears in the Exorcism Manuel KAR 44: 9 (Jean 2006: 65).

<sup>5</sup>Cf. BRM 4 20: 38. but cf. also šà.si.si in BRM 4 20 33.

<sup>6</sup>Cf. BRM 4 20: 33

<sup>7</sup>Cf. BRM 4 20: 33, STT 300: 21, BRM 4 19: 32.

*Philological notes on SBTU I 43*

ll.1-5: A similar collection of diseases is given by Ptolemy, specifically noting diseases caused by astral influences:

Mercury portends death by madness, distraction, melancholy, the falling sickness, epilepsy, diseases accompanied by coughing and raising, and all such ailments as arise from the excess or deficiency of dryness.

(Ptolemy *Tetrabiblos* IV 9, Loeb 431)

Several of the ailments mentioned by Ptolemy correspond to *h̄ip libbi*, *miqtu*, *bennu*, and perhaps *qāt ili* in SBTU I 43, and we will return to these parallels below. The important point is that 'seizure' and 'epilepsy' were often treated as psychic rather than simply physical diseases.

l. 2: Cf. BRM 4 20: 30, STT 300 15. In LBAT 1597: 7'-8' (edited below), *antašubba* / *miqtu*-disease is associated with the moon in Taurus and Orion, or with Gemini (see below). Cf. KAR 44 rev. 10 (Jean 2006: 70): *bul-tu an.ta.šub.ba d̄lugal.ùr.ra šu.dingir.ra šu.d̄inanna šu.gedim.ma*, showing how these illness were already classified as a group with common characteristics, but to be treated with a medical *bul-tu* or recipe rather than with incantations.

l. 3: Cf. BRM 4 20: 30, STT 300 15. In LBAT 1597: 11', *šu.dingir.ra(-disease)* is listed with *šu.d̄innin(-disease)* as reflections of impotence.

l. 5: Cf. BRM 4 19: 29 and STT 300 15 but omitted in the duplicate line, BRM 4 20: 30, while in LBAT 1597: 5', this disease is associated with the constellation Perseus (*šu.gi*); see Stol 1993: 116.

l. 6: The reading was suggested by Köcher 1978: 35 and occurs in BRM 4 20: 30, STT 300: 15, and BRM 4 19: 29; in LBAT 1597: 7' this disease is associated with *an.ta.šub.ba* and other illnesses, as influenced by the moon in Gemini.

ll. 7-8: Literally, the *pî karši* is the 'mouth of the stomach', previously translated as 'epigastrium', see the discussion in Cadelli 2000: 298. Three locations are referred to in this connection, namely the pharynx, mouth and teeth, all of which can potentially be affected by 'toothworm'.

For the toothworm, see Akkadian *tūltu*, pl. *tūlātu*, toothworm, CAD T 466. The pattern of 'ditto' notations in ll. 8-11 show that toothworm, *girgiššu*, *lamaštu* and *pašittu* diseases are all associated with the pharynx, mouth, and teeth, while remaining ailments in this group (ll. 12-18) belong only to the pharynx. A translation of the toothworm incantation can be found in Foster 1993 ii 878.

ll. 9-11: The dittos here refer to the mouth and teeth.

ll. 11: The *pašittu* demon, like *lamaštu*, is female and the two are associated with each other; a medical commentary which states that *pa-šit-tú* <sup>d</sup>[im.me] [:] *pa-ši-ṭat zu-mur*, 'the *pašittu* / *lamaštu* (demon) (is one that) obliterates (*pašīṭat*) the body' (Hunger 1976: no. 49: 4). The logogram for the *pašittu*-demon is a Sumerian phrase, KA-muš ṭ-gu<sub>7</sub>-e, 'the tooth-worm hurts', but this phrase refers to the illness as well as to the demon<sup>8</sup>. The *pašittu* is also a constellation, although this astral connection is probably not relevant to astral magic or medicine. The writing <sup>mi</sup>*mar-tu<sub>4</sub>* 'daughter', is written to clarify an ambiguity. On one hand *martu*, together with *pašittu*, can mean 'gall', as in the medical commentary GCCI 2 406:4, *pašittu imtu : pašittu ša marta ukallū*, '*pašittu*-disease, poison' means '*pašittu*-disease which contains bile.'<sup>9</sup> On the other hand, *mārtu* 'daughter' is a frequent epithet of *pašittu*, as in STT 138: 11' (dupl. BAM 338 10'), *la-[maš]-tu<sub>4</sub> maš-tu<sub>4</sub> pa-šiš-tú*, 'Lamaštu daughter of Pašittu'. SBTU I 43, in lines 10-11, provides a different interpretation, treating Lamaštu (disease as well as demon) as parallel to another demonic disease, 'Pašittu-daughter'.

l. 19: For *tibbi*, Köcher (1978: 24) tentatively suggests reading *dappi*, 'Blutgerinnsel', but see rather AHw 1355f. and CAD T 390, s.v. *tību*, although the orthography *tibbu* is not attested. A close parallel may be found in Greek medicine, in Ptolemy's *Tetrabiblos* IV.9 (Loeb 430f.), which mentions the medical condition (cited above in fn. 1), *bēchikôn kai anaphorikôn nosēmatôn*, 'diseases accompanied by coughing and raising', with the latter term referring to bringing up phlegm or blood, and described as the opposite of *pepsis*, 'digestion'. Akkadian *tibbu* might describe a similar condition, derived from *tebû*, 'rise'.

l. 20: The term *šiqu* may actually mean 'irrigation' in other contexts, as suggested by G. Buisson, and could represent a disease of excessive 'moisture', like the disease *ruṭibtu*. CAD Š/3, 101 suggests eczema, although without sufficient supporting evidence, and Heeßel 2010: 31 concurs. The disease occurs in the list of MSL 9 96: 197, associated with bile or gall.

l. 21: The 'wind' (*ša-a-ru-um*) appears as the object of a short OB incantation (Fish 1939: 184), ordering the wind to depart from the patient's head, eye, mouth, ear, and body. This is probably the same condition as the disease *šibiṭ šāri*, cf. Cadelli 2000: No. 5 ii 54', iii 18.

l. 22: Heeßel 2010: 31 keeps to the idea of *ezezu*-disease, but I can find no supporting evidence for such a disease.

l. 24: The disease *šinnahṭiri* is associated with lungs, e.g. [diš na] mur.meš *gig-ma na.bi ši-na-a[h-ti-ra]* (Cadelli 2000: 243: 15, see also AMT 45, 1 and duplicates).

<sup>8</sup>Cf. Uruanna IV i 24, KA-muš ṭ-gu<sub>7</sub>-e *gig*; see also see MSL 9 107.

<sup>9</sup>Cf. Geller and Wiggermann: 153f., 156f., translating *mar-tam pa-ši-it-tam* as 'exterminating bile'.

In SBTU I 44: 1, this disease is associated with the nose and mouth, including the disease of *bu šānu*, which confirms the identification of *bu-ša-a-nu* in the previous line (SBTU I 43: 23).

l. 31: Cf. BRM 4 20 33: *ša.si.si ana ka-le-e*, which may be similar to the meaning here.

### *General notes on SBTU I 43*

There are several possible routes for trying to interpret this text without the guidance of ancient Uruk scholars, but it is immediately clear that we are not dealing here with a typical Babylonian taxonomy of diseases. For one thing, there is remarkably little interest in this text in fevers, which play a major role in Babylonian medical history (Stol 2007). Furthermore, we have examples of other texts which list diseases, but never in association with specific internal organs or parts of the human anatomy.

The unique nature of the SBTU I 43 can best be seen if compared with other more traditional listings of maladies within the body, apart from those lists known from the *Diagnostic Handbook* (Labat 1951, Heeßel 2000), which served a completely different purpose, ie. prognosis. Below is a therapeutic text with information to offer on diseases occurring within the body, although the essential purpose of the appended ritual is to transfer disease from the patient's body into that of a figurine, which is to be disposed of in a manner not specified. Despite being more of a sympathetic magic ritual than a strictly medical text, the connection between illness and anatomy in the text following is relevant to the present discussion.

### **BAM 212<sup>10</sup>**

- 1      én [..... *mī*] *m-ma lem-nu* <sup>d</sup>alad *lem-nu*
- 2      [gedim<sup>?</sup> *lem*]-*nu* [a.l]á *lem-nu gal*<sub>5</sub>.lá *lem-nu*

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<sup>10</sup> See also duplicates BAM 213 and LKU no. 37.

3 [.....] x *lem-nu ha-a-a-tu ha-i-tu*  
 4 *gig di-'i-i di-lip-tú lú.líl.lá*  
 5 *ki.sikil.líl.lá ki.sikil.ud.da.kar.ra*  
 6 [..... m]u-*ša-bit a-me-lu-[tí]*  
 7 *šá* [.....]-*ma ur-ra u ge<sub>6</sub> ús-an-ni*  
 8 *gig* [.....] *hul at-ta k[i-....]*

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9	<i>gig sag.ki.mu</i>	<i>ana s[ag].ki-ka min</i>
10	<i>gig ugu.mu</i>	<i>ana ugu-ka min</i>
11	[g]ig <i>pa-ni-mu</i>	<i>ana pa-ni-ka min</i>
12	<i>gig</i> ṛigi <sup>II</sup> - <i>mu</i>	<i>ana igi<sup>II</sup>-ka min</i>
13	<i>gig a[p]-pi</i>	<i>ana ap-p[i-k]a min</i>
14	<i>gig geštug<sup>II</sup>-mu</i>	<i>ana geštug<sup>II</sup>-[k]a min</i>
15	<i>gig</i> ṛnundum <sup>1</sup> - <i>mu</i>	<i>ana nun[dum-ka min]</i>
16	<i>gig</i> [e]me. <i>mu</i>	<i>ana em[e-ka min]</i>
17	<i>gig ka.mu</i>	<i>ana ka-[ka min]</i>
18	<i>gig</i> gú. <i>mu</i>	<i>ana gú-k[a] min</i>
19	<i>gig</i> á. <i>mu</i>	<i>ana á-[k]a min</i>
20	<i>gig</i> šid. <i>mu</i>	<i>ana šid-ka min</i>
21	<i>gig</i> umbin. <i>mu</i>	<i>ana umbin-ka min</i>
22	<i>gig</i> 15. <i>mu</i>	<i>ana 15-ka min</i> <sup>11</sup>
23	<i>gig</i> 2,30. <i>mu</i>	<i>ana 2,30-ka min</i>
24	<i>gig</i> ubur. <i>mu</i>	<i>ana ubur-ka min</i>
25	<i>gig</i> ti. <i>mu</i>	<i>ana ti-[k]a min</i>
26	<i>gig</i> šà. <i>mu</i>	<i>ana š[à-k]a min</i>
27	<i>gig</i> li.dur. <i>mu</i>	<i>ana l[i.dur-ka min]</i>
rev.		
28	[g]ig gú.murgu. <i>mu</i>	<i>ana gú.murgu-k[a] min]</i>
29	<i>gig</i> muru <sub>4</sub> . <i>mu</i>	<i>ana muru<sub>4</sub>-k[a] min]</i>
30	<i>gig</i> giš.kun. <i>mu</i>	<i>ana giš.kun-k[a] min]</i>
31	<i>gig</i> tuhul.[m]u	<i>a[na tuhul-ka min]</i>

<sup>11</sup> Var. LKU 37 *a-bi*.

- 32 [gig peš<sub>4</sub>.mu            ana peš<sub>4</sub>-k]a min<sup>12</sup>  
33 [gi]g ú[r].mu            ana úr-ka min  
34 [gi]g kìn-ši.mu            ana kìn-ši-ka min  
35 gig gír<sup>2</sup>.mu            ana gír<sup>2</sup>-ka min  
36 im diš li-zi-qam-ma at-ta la [.....]  
37 im 2 ki.min im 3 ki.min im 4 k[i.mi]n  
38 [.....] ugu d<sub>gu</sub>-[la .....]  
39 [šum]-ma gur-ma lá.an.b[a] t[u<sub>6</sub>.é]n
- 
- 40 [dù]dù.bi kullata(ki.gar) tu-qad-dáš im ki.gar [ti]-qí  
41 [duh].lál téš.bi hi.hi nu mim-ma lem-[n]u dù-uš  
42 [na.bi] ana maš.sila gùb-šú kéš ina šà x x x x  
43 [ina] igi d<sub>utu</sub> ta-dan-šú ì.[kur.r]a ì ku<sub>6</sub> kàš [...]  
44 [t]a-sal-lub-šú 3 u<sub>4</sub>.me 'ina 'kàš' gig t[uš-kin]  
45 [..] x an.[b]ar<sub>7</sub> x én 3.ta.àm ana muh-hi šid-nu  
46 13 u<sub>4</sub>.me è 'la' ina har-ba-te te-te-mir  
47 zi-pa-di-i tu-tam-ma-šú  
48 ana egir-[k]a nu igi.bar
- 
- 49 (colophon)

### Translation BAM 212

- 1 Incantation. [...], whatever evil, evil spirit,  
2 evil [ghost<sup>2</sup>], evil Alû-demon, evil Gallû-demon,  
3 evil [...], watcher, watched,  
4 illness, headache, depression, lil-demon,  
5 lilith-demon, maiden-lil-demon,  
6 [...], seizing mankind,  
7 which [...] an pursues me day and night,  
8 illness, [...] you are evil, ....
- 
- 9 My forehead is ill, ditto (= remove it) to your forehead,

<sup>12</sup> Cf. BAM 213: 25'.

10 my brain is ill, ditto to your brain,  
11 my face is ill, ditto to your face  
12 my eyes are ill, ditto to your eyes,  
13 my nose is ill, ditto to your nose,  
14 my ears are ill, ditto to your ears,  
15 my lip is ill, ditto to your lip,  
16 my tongue is ill, ditto to your tongue,  
17 my mouth is ill, ditto to your mouth,  
18 my neck is ill, ditto to your neck,  
19 my arm is ill, ditto to your arm,  
20 my side is ill, ditto to your side,  
21 my nail is ill, ditto to your nail,  
22 my right side is ill, ditto to your right side,  
23 my left side is ill, ditto to your left side,  
24 my breast is ill, ditto to your breast,  
25 my rib is ill, ditto to your rib,  
26 my stomach is ill, ditto to your stomach,  
27 my navel is ill, ditto to your navel,  
28 my spine is ill, ditto to your spine,  
29 my hip is ill, ditto to your hip,  
30 my buttocks are ill, ditto to your buttocks,  
31 my pelvis is ill, ditto to your pelvis,  
32 my womb is ill, ditto to your womb,  
33 my lap is ill, ditto to your lap,  
34 my shin is ill, ditto to your shin,  
35 my foot is ill, ditto to your foot,  
36 let the north wind blow, you do not .....  
37 a second wind, ditto, a third wind, ditto, a fourth wind, ditto,  
38 [.....] over Gula [.....]  
39 If it returns, bind it. Incantation-spell.

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40 Its ritual: you purify the potter's clay, you take the potter's clay,  
41 you mix it together with wax, you manufacture a 'whatever evil' figurine.  
42 [As for that man] bind (it) to his left shoulder within .....

43 you judge him before Šamaš, you sprinkle him with mountain oil, fish oil, urine,  
and [...],  
44 for 3 days you set it in the *patient's urine*,  
45 ... at noon, recite it 3 times over (it),  
46 take it out (after) 13 days, you do not bury it in wastelands,  
47 you recite over it the incantation formulae,  
48 (and) you do not look behind you.

Although there is no question that this text relates disease to human anatomy, it is hardly similar to SBTU I 43, with its four categories of diseases related to four regions of the body. Clearly a different methodology is required to explain SBTU I 43.

One obvious possibility is to take a comparative approach, based on Greco-Roman medicine, which looks for foreign models to explain the unique arrangement of SBTU I 43. We are searching for certain medical notions which may have been common to the ancient scientific world and hence reflect a type of globalisation of medical knowledge. This is not simply a record of ideas borrowed by A to B, but a more complex arrangement in which ideas travel back and forth and become common scientific property, irrespective of where the actual idea originates.

Before searching for parallels, it is worth reviewing some background information. There is an enormous advantage to comparing systems of ancient medicine because of its finite field of scientific inquiry (i.e. the human body), and the finite number of diseases and conditions which were being studied in each individual society. The actual subject of inquiry is the same everywhere, which is what distinguishes medicine from magic, religion, and storytelling, etc. There is nothing specific which defines magic or religion, and nothing prevents an active imagination from introducing new concepts or ideas, whether generated *de novo* or borrowed from elsewhere. As with mathematics or astronomy, medical theories are restrained by certain limiting factors, such as human anatomy or disease symptoms, and although much is left to human imagination, the nature of inquiry is relatively restricted. We

tend, therefore, to find *systems* of medicine in the ancient world, as exemplified by Babylonian, Egyptian, Greek, Roman, Ayurvedic, or Chinese medicine, and these are identifiable by various general characteristics, along with their sub-categories and specialities.<sup>13</sup> Some of these *systems* of medicine (and their sub-specialities) share common features, others do not. Although some sources for Greek and Chinese medicine come from roughly the same time, the geographical differences between these cultures is vast, and proximity is one relevant factor in the exchange of scientific ideas. Not only was there little in the way of direct contact, but approaches to medicines developed within completely different philosophies and with very different ways of understanding the workings of the human body.

Much effort has been made to find parallels between Egyptian and Greek medicine, but the failure to find more than superficial similarities has more to do with the nature of our sources than with the actual medicine being practiced. Egyptian medicine mostly comes from a single archive of papyri dating from the first half of the second millennium BC, long before the advent of Greek medicine. We have little information about Egyptian medicine contemporary with Hippocrates, which is a serious handicap. One should try, from a methodological standpoint, to compare systems of medicine which are roughly contemporaneous, since ideas and approaches change over time.

So far little progress has been made in comparing Babylonian and Hippocratic medicine, despite the fact that the sources come from the same period and medicine was being practiced in neighbouring regions. Essentially, Babylonian medicine was an extremely conservative system of healing, already well-attested by the early 2nd millennium BC, consisting of recipes and drugs used to treat diseases which were identified by exhaustive examination of all external bodily symptoms, as well as urine and other indicators of bodily functions. With little in the way of surgery, Babylonian medicine was based almost entirely on

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<sup>13</sup> For a stimulating study of comparisons between Greek and Chinese medical systems, see Unschuld 2009, which is an improvement on Lloyd and Sivin 2002.

large collections of *materia medica* used as either simple or compound recipes, with many different ways of utilizing the extensive pharmacopia.<sup>14</sup> Moreover, disease was considered to be the result of external attack on the body in the form of demons, or from natural causes such as bites, draughts, or poisoned food. The initial phases of healing arts in Greece were probably similar, as can be seen from early Hippocratic treatises which also relied upon careful scrutiny of external symptoms. As in Babylonia, Greek medicine first expressed prognoses in the form of signs and omens, as indications of whether the patient was likely to live or die or survive for a limited time. Finally, like Babylonian physicians, Hippocratic physicians had only a rather vague idea of internal anatomy because few physicians conducted autopsies on human corpses.

Hippocratic medicine as a general system departed from traditional Babylonian medicine in the fifth century BC by developing a new approach to both diagnosis and therapy. The notion of external attack by demons was replaced by a theory of humours or internal imbalance within the human body, which had to be corrected through the use of diet, purgatives, and eventually minor surgery in the form of venesection. Greek medicine is often considered to be more 'rational' than its Babylonian counterpart, in the same way that Greek mathematics improved upon that of its predecessors. Greeks were able to replace complex calculations for every individual problem by mathematical 'laws' or theorems, thereby offering

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<sup>14</sup> Babylonian recipes offer numerous instructions on how the drugs are to be prepared and administered to the patient, and instructions were often complex and technical. Drugs were to be 'taken' and 'weighed', 'washed' and 'immersed', 'dried', 'deshicated', 'roasted', or 'burned'; 'crushed', 'cut up', 'beaten', 'ground', 'pounded', 'diced', 'chopped', 'grated', and 'pulverised'; 'sifted' and 'pressed'; 'mixed', 'blended', 'moistened', 'dissolved', 'soaked', 'dripped', 'sprinkled', and 'poured'; 'kneaded' and 'stirred'; 'boiled', 'heated', 'warmed up', 'heated in an oven', or 'cooled' and 'left overnight'; 'filtered', 'divided up', 'saturated' and 'soaked', and other terms as well. Drugs, consisting mostly of plants and minerals, were prepared in the form of potions, salves, powders, pills, tampons, and pessaries, to be ingested, rubbed onto the body, applied as a bandage, or inserted into the anus, urethra or vagina through lubricated copper tubes or reeds. Not only was there a large variety of drugs, but there was an equally important variety of ways in which drugs could be utilised, in both simples and compound recipes. See Goltz 1974.

a general rule which can be applied to numerous types of calculations. In a similar way, once a general theory of humours was developed to explain all manner of disease, the theory allows the practitioner to dispense with the cumbersome system of preparing recipes which had to be tailored to each individual condition and ailment. In other words, the simple rule replaces the exhaustive database. Although not necessarily more effective for the patient, the new Hippocratic methodology took its place among other emerging disciplines in Greek science, as initiated by Thales and his contemporaries. Similar changes were taking place, however, both in Babylonia and even further afield in Chinese medicine roughly at the same time, in an age when it became fashionable to look for natural causes for disease as an alternative to direct interference of gods and demons in human health.<sup>15</sup>

### **Non-Hippocratic Greco-Roman Medicine**

Pre-Hippocratic medicine never actually became obsolete. Recipe-based medicine, using hundreds of drugs without relying upon any one theory of causes of disease, probably remained current while Hippocratic medicine was being hotly debated among learned physicians. Recipe-based medicine may not have been fashionable among the literati and philosophers, with practitioners being referred to rather pejoratively as 'root-cutters'.<sup>16</sup> Little else is heard of them, which is also why we have relatively little in the way of recipes in the Hippocratic corpus as a whole. On the other hand, Dogmatists<sup>17</sup> and Empiricists<sup>18</sup> were

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<sup>15</sup>See Harper 1997: 9ff., suggesting that Chinese medicine developed an interest in nature after the third century BC. The Chinese did not develop natural philosophy along the same lines as the Greeks, but they nevertheless had their own observations which they applied to medicine through analogy. See also Unschuld 2009.

<sup>16</sup> Lloyd 1979: 38 and see Nutton 2004: 173f., referring to non-professional healers in Roman medicine who developed a reputation for effective treatment through drugs.

<sup>17</sup> According to Temkin 1956: xxv, Dogmatists 'believed in the necessity and possibility of rational scientific investigation as the basis of medicine.' This approach encouraged the study of anatomy and even dissection to discover the 'hidden' causes of disease.

sharply divided over theories of causes of disease, and whether causes can be ascertained or not, and these arguments appear to dominate the discussions, until the advent of a new theory in the first century BC.

The Methodists originally consisted of Greek doctors in Rome who developed their own philosophy of medicine in around the 2nd century BC, and Methodism distinguished itself from both Dogmatism and Empiricism by refusing to acknowledge causes of illness. Methodists redefined medical terminology for their own non-theoretical approach to disease. Instead of the widely used Greek word *nosos* 'disease', they employed a more general term *pathe*, 'affections'. Second, they developed the idea of *koinotetes*, namely three states<sup>19</sup> which describe disease, as either 'constricted', 'loose', or 'mixed', although the second category 'loose' is often translated by Classicists as 'flux'.<sup>20</sup> Temkin explains Soranus' understanding these three states (*status strictus*, *status laxus*, *status mixtus*) in the following way:

diseases marked by a flux<sup>21</sup> would be classified as belonging to the *status laxus*, where a styptic treatment<sup>22</sup> is indicated; whereas hysterical suffocation with its accompanying convulsions would impress the physician as presenting the *status constructus*, requiring a relaxing therapy.<sup>23</sup>

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<sup>18</sup> Temkin argues that the Empiricists rejected studying 'hidden causes' as fruitless, but 'the physician who would recognise such "evident" causes as hunger, cold, etc., would diagnose a disease according to its symptoms, and would know the treatment that had proved efficient in these cases. This approach has some important similarities to Babylonian medicine, although both Dogmatism and Empiricism developed in Alexandria (Temkin 1956: xxvi).

<sup>19</sup> Vallance 1990: 131 prefers to translate this term as 'communities'.

<sup>20</sup> See Tecusan 2004: 10, Nutton 2004: 191. Vallance, 1990, 131, fn. 28. quoting from Celsus, *De medicina* I, proem 54-5, in which Celsus mentions three classifications of disease by Methodists, namely *unum adstrictum*, *alterum fluens*, *tertium mixtum*. Edelstein sees things differently, citing Galen to explain that the physician needs no special training or knowledge, except to be able to recognise three general conditions (communia, *koinotētes*) of the body, 'the body's dryness, its fluidity, and a mixed condition, as well as variations.' (Edelstein 1967: 180).

<sup>21</sup> E.g. gonorrhoea.

<sup>22</sup> E.g. stopping bleeding.

<sup>23</sup> Temkin 1956: xxxii, and see Tecusan's edition of Pseudo-Galen, Fr. 279, (Tecusan 2004: 716f.), in which 'flux' is explained by its opposite state, and 'the opposite of flux will be not swelling but constriction'.

The other important contribution of Methodists was to distinguish between acute and chronic ailments, and Methodists in the first century BC. divided diseases into 3-day periods (*diatribos*) marking critical stages of illness, 'an initial increase, a middle period when the level of disease was constant, and a final stage in which it diminished' (Nutton 2004: 191). As Galen argues in his staunch critique of Methodism, 'the leader of their madness', Themison, refers both to 'affections' (*pathe*) and also to 'symptoms' (*symptomata*); Galen accuses Methodists of not making a clear distinction between the two (Tecusan 2004: Fr. 166, 434f.). In fact, Methodists had both a general term, 'affections', but also kept terms for individual diseases. One other important criticism of Galen is that the Methodist theory of *koinotetes* ('common features') does not refer to particular features of any individual person but to patients in general (Tecusan Fr. 178, 456f.). Furthermore, Galen complains about the Methodist view that 'the doctor's job is either to guard health when it is present (as in the case of the healthy) or to restore it when it has been damaged (as in the case of the ill); as for making predictions about what will happen, this would be a diviner's job' (Tecusan Fr. 215, 590f.). One crucial distinction made by Galen between Methodists and other philosophies of medicine is that Methodists refuse to consider what is 'hidden' but simply derived their treatment from what is 'manifest', what is obvious to determine (Tecusan 2004: Fr. 277, 694f.). In this way, Methodists reject any entertainment of 'causes' of disease, except that which may be obvious and observable (Tecusan 2004: Fr. 279, 706f.). As we will see, all of these attributes have Babylonian analogues.

### **Methodism and Babylonian Medicine**

The question of origins of Methodism is unclear, except that the label 'Methodist' was first associated with one Themison of Laodicea, a disciple of the second century BC physician Asclepieades of Bythnia, who was known for his radical medical theories in the

ancient world (Vallance 1994). One theory is that Methodism derives from an older philosophy of Asclepiaedes, but this is now disputed (Tecusan 2004: 13). Methodist approaches to medicine were probably widespread in the Roman world; an epigram on a first century AD bust from Smyrna reads, 'Marcus Modius Asiaticus, Methodist doctor' (Tecusan 2004: Fr 12, 132f.).

The origins of Methodism may have been influenced by the rising popularity of the theriac, a compound antidote against poisons and bites. Antiochus III of Mesopotamia was reported to have developed a herbal theriac against venoms already in the second century BC, and it is possible that Antiochus may have relied upon more ancient Babylonian sources.<sup>24</sup> In 66 BC King Mithridates of Pontus was defeated by the Romans, and it was widely reported that Mithridates had perfected an effective antidote during his lifetime to

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<sup>24</sup> Watson 1966: 13. Arguing against this idea is the fact that Babylonian medicine preserves little in the way of antidotes among hundreds of preserved recipes, including panaceas. One example is BAM 176 11'-15', a concoction consisting of 13 drugs for snakebite which are to be drunk in wine (*maš-qit* 13 ú.meš ka.tar muš *ina* geštin na[g]). A second example is the following, consisting mostly of 'simples':

**BAM 42: 63-68** (see also AMT 92, 7: 6-7)

diš na muš [i]š-šuk-šú suhuš *ur-ba-tim ta-qàl-lu gu7-ma né-eš*  
 diš na muš [i]š-šuk-šú [ú]gi-lim súd *ina* kaš nag-*ma né-eš* diš min <sup>ú</sup>igi-lim *ina*  
*níš-ki-šú gar-an né-[eš]*  
 diš na muš [i]š-šuk-šú <sup>ú</sup>igi-[lim še].ná.a gu7-*ma* diš min <sup>ú</sup>ša-šum-tú giškam-*ka-du* súd  
<sup>ra</sup> ana igi š[ub<sup>2</sup>-m]a *né-eš*: diš min <sup>ú</sup>an.dah.še súd igi *simmi*(gig) *ta-kar-ma*  
*né-eš*  
 diš min <sup>ú</sup>tar.muš súd *ina* kaš nag-*ma né-eš* diš min *šilla*(gišgi6) *eriš*(uru<sub>4</sub>-iš) gišmá.gurg  
*ina* igi dib-šú gar.gar-*ma né-eš*  
 diš min [ú]nam.tar níta x súd *ina* dè *tu-šar-rap-ma né-eš*

If a man is bitten by a snake, you roast the root of rushes, he will eat it and get better.

If a man is bitten by a snake, you crush *imbur-lim*-plant in beer, he will drink it and get better.

If a man is bitten by a snake, he will eat *imbur-lim*-plant and *šunû* and if ditto, crush *šašumtu*-plant and *kamkadu*, put water into it and he will get better. If ditto, crush *antahšu*-plant, rub it over the lesion and he will get better.

If ditto, crush *tarmuš*-plant, drink it in beer and he will get better. If ditto, he craves shade (and) a cargo-boat passes over him, you arrange it and he will get better.

If ditto, crush male mandrake ..., you burn it over coal and he will get better.

protect himself from being poisoned. The antidote proved to be so effective that Mithridates was unable to poison himself after his defeat but had to be killed by a soldier. The Mithridates antidote became famous as a panacea partly because it was a compound recipe consisting of some 90 ingredients, while in Greco-Roman medicine it was often the practice to rely upon *pharmaka* or 'simple' drugs, i.e. a single drug employed against a single condition.<sup>25</sup> The popularity of the theriac among the Roman public may have served to publicise the idea of 'old-fashioned' medicine, as practiced in the East (e.g. Babylonia), in preference to Hippocratic type medicine in the West, with its emphasis on theory, diet, purging, and bloodletting. The result may have been that Methodists were responding to this feeling abroad in the Roman world, that medicine should rely less (or not at all) on theoretical assumptions about causes of disease and concentrate on effective remedies, which were usually pharmacological. This might have been the impetus for the popularity of recipe-based medicine, which had probably always been employed in Greek circles in the intervening periods from before Hippocrates until the first-century BC, when recipes became more often cited among the medical and social elite there as well. The point is that Babylonian-style medicine may have simply resurfaced in our sources, although in a negative way. With the sole exception being the writings of Soranus (whose work was even acknowledged by Galen), Methodists and Methodism was uniformly criticised and lampooned by later Greek authors, and especially by Galen himself. This means that most of our sources on Methodism have to be reconstructed from critical or denigrating comments from the works of authors who objected to its approach and basic tenets.

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<sup>25</sup>See Celsus Book V 1, 'all medicaments have special powers, and afford relief, often when simple, often when mixed,' (Loeb II, 5). According to Pliny, medicinal plants were not studied in Rome before the work of Lenaeus became known in the first century BC (Watson 1966: 36), and only later were compound drugs perceived as being efficacious (ibid. 75f.). According to Galen, even Mithridates operated on the assumption that having identified simple drugs (*pharmaka*) as antidotes, he could combine them into a compound drug for a more effective result (ibid. 34).

Methodism describes disease in three general categories of 'strictness', 'looseness', and a mixture of the two. Although we have no Babylonian medical theory where such ideas are put forward, nevertheless the notions of 'strictness' and 'looseness' are common in Babylonian medicine. One of the major symptoms of diseases affecting the organs is '*hiniqtu*', 'stricture', which refers to some kind of tightening.<sup>26</sup> The opposite description of organs (including limbs) is to be 'loose' or 'flaccid' (Akk. *paṭāru*), literally untying a knot.<sup>27</sup> This description is common in diagnostic texts, referring to many different parts of the anatomy being 'loose', including the ear, neck vertebrae, buttocks, epigastrium, intestines, chest, fingers, and chin, among others. I cannot find Babylonian examples of the third Methodist category, a mixture between 'strictness' and 'laxness', but this may be a later refinement in Methodism which was not part of Babylonian descriptions of disease.

As for diseases being described by Methodists as *pathe* rather than *nosos*, this conforms generally to Babylonian medical terminology, which lacks any specific term for 'disease'. The Akkadian term *marṣu*, which modern translations identify as 'illness' or 'disease', actually means something quite different, much closer to Greek *pathe*. The verb *marāṣu* literally means 'to be difficult, to suffer' or in a causative form 'to make things difficult, to trouble, to cause hurt'. The adjective *marṣu* is often applied to organs within medical contexts (head, eye, nose, lungs, etc.), although the word can actually mean simply 'sore' or 'troublesome', which we translate as 'sick' only by extension. In essence, the term for 'sick' in Babylonian medicine is really a description of discomfort or how the patient *feels* under adverse conditions, and hence parallels Greek *pathe*.

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<sup>26</sup> Although the term *hiniqtu* appears regularly in therapeutic rather than diagnostic texts, the diagnosis can be found: 'if (the patient's) larynx is "constricted" (*baniq*)' (Labat 1951: 84, 28). The nouns *hinqu* and *hiniqtu* for 'stricture' are common in therapeutic texts, such as *hiniq ellibubhi*, 'stricture of the bladder' (Geller 2005: 46).

<sup>27</sup> In therapeutic texts, limbs can be described as being 'poured out' (from Akk. *šapāku*), another synonym for flaccid or loose.

Moreover, the fact that Methodism recognised certain specific diseases by name (e.g. epilepsy, diseases of various organs, etc.) offers a similar picture to what we find in Babylonia. For instance, Themison, the founder of Methodism, when writing on pathology, described paralysis and apoplexy, incubus (nightmare), melancholy, flux, hemorrhages, stomach ‘affections’, worms, fevers, and women’s ‘affections’ (Tecusan 2004: 97). Correspondences can be found to all these ‘ailments’ within Babylonian disease categories. Themison also labelled diseases by general designations (epilepsy, phrenitis, lethargy, pleuritis, jaundice, fevers, nausea, etc.) as well as associating diseases with specific organs (cephalaea, peripneumonia, stomach ‘affection’, conditions of the spleen and liver, inflammation of the uterus) (Tecusan 2004: 101f.). This same type of disease taxonomy can be found in Babylonia, as we have seen above in SBTU I 43.

There is no evidence from Methodism, however, of the use of ‘case histories’, i.e. treating individual patients, and Galen severely criticises Methodism for this failure. He writes that a good physician must be aware of the individual characteristics of each patient. Galen writes:

The best doctor for any kind of disease would be the one who has worked out some method through which he might be able both to discern the natures and to conjecture the remedies specifically adapted to each. To believe that there is some treatment common to the entire mankind is foolish in the extreme; and this is exactly what the utterly senseless Methodists think.

(Tecusan 2004: 456f.)

Galen would have no doubt been equally critical of Babylonian medicine, which operated on similar assumptions. The Babylonian *Diagnostic Handbook* (Labat 1951, Heeßel 2000) is a universal record of all symptoms of all diseases organized according to affected parts of the anatomy (i.e., symptoms of the head, symptoms of the eyes, neck, etc.), but in no case associated with an individual patient. We have no idea from how many patients these

symptoms were drawn, since the *Diagnostic Handbook* was strictly concerned with disease and not with patients. Galen goes on to write,

And their [sc. The Methodists'] art is an investigation of *koinotetes* [= common features], not of particular features, as if they were treating the common and generic man, not individual patients.

(Tecusan 2004: 456f.)

This is precisely how Babylonian medicine operated, being concerned with a common grouping of all symptoms from all diseases in abstract terms, without reference to a single patient. As in the Babylonian *Diagnostic Handbook*, Akkadian therapeutic medical recipes usually begin with a generic statement something like, 'if a man suffers from ....', but the 'man' is never specified or identified with any individual patient.

Furthermore, as mentioned earlier, Galen criticizes Methodists for failing to distinguish between a disease and disease-symptom (*symptoma nosēmatos*). Galen accuses the Methodists of being confused in their terminology, using as an example the term 'apoplectic' referring to a 'violent seizure in the whole body' which lasts for a few hours, but in general one refers to the same condition as epileptic. Similarly, Galen chides the Methodists for being vague regarding 'persistent' or 'prolonged' conditions, suggesting that what is really meant is a condition which is 'hard to resolve', referring to chronic disease (Teluscan 434f.). The point is that Babylonian medicine shares all of the attributes which Galen associates with Methodists. In Akkadian medical terms, for instance, there is no real distinction between 'feverish' and 'fever' as a symptom or as a malady; in fact, one common Akkadian term for fever, *ummu*, simply means 'heat' (Stol 2007: 5f.). Little distinction is made between being hot and the condition called 'fever', a term for the illness itself. At the same time, vague expressions are used in Akkadian medicine to describe longer-lasting conditions, such as 'persistent fever' (*ummu lazzu*, Stol 2007: 9), although such conditions may not be chronic but only persist for three or four days (Labat 1951: 116, 3). At the same time, illnesses can be

'prolonged' (*irrik*), a frequent description in Babylonian medical texts. There is no precise differentiation, however, between a disease which is 'prolonged' or 'protracted' and one which is a 'disease not removable,'<sup>28</sup> which is more likely to refer to a chronic ailment. In any case, Galen's frustration with Methodist vocabulary for disease would apply equally well to Babylonian medicine.

As for Galen's criticism of the Methodists that the role of the physician was to heal the sick while prediction was the job of the diviner (Tecusan 2004: Fr. 215, 590f.), this conforms to a certain extent to the situation in Babylonia, where the task of prognosis through diagnostic omens (in the *Diagnostic Handbook*) belonged, not to the physician, but to the ka.pirig-exorcist, a sub-speciality of exorcists who visited the patient at home and predicted the course of the illness. Although Galen refers to the diviner for this task, the significant thing is that the physician was not responsible for predicting what would happen to the patient.

No one has as yet investigated a possible Babylonian parallel to the Methodist theory of critical stages of disease divided into three-day periods, as mentioned above. Babylonian medicine had the concept of *adannu*, the 'critical time' or 'fixed time' for the course of a disease, but without reference to stages. It is true that Babylonian medicine often refers to three-day periods, either as a period during which symptoms are present, or for a period of time during which therapy should be applied, but no consistent picture emerges; four and five day periods are also common. Nevertheless, there may be some basis for comparison in a recipe published by Stol:

If [the illness] leaves him [in] two days, and seizes him on the third day: whenever it seizes him, he becomes stiff (*magāgu*) all the time, after he has been stiff all the time [ditto], he gets trembling (*ra'ibu*), his limbs ... hurt him, his hands and feet are cold..., afterwards a fever 'together' ... rides him / pours down (*rehû*) upon him and (*u*) sweat falls upon him, and he comes to rest (*nabû*): seizure of the mountain has seized him.

(Stol 2007: 14)

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<sup>28</sup>Sumerian logogram 'gig nu zi', see Stol 2007: 30.

Such descriptions of different stages of an illness are not systematic or divided into initial, middle, and final stages, but one can nevertheless see some similar patterns here, how the disease at first increases, then becomes constant, and finally diminishes, according to Methodist theory. It is unlikely to find any theoretical statements in Babylonian sources, but Babylonian therapy may nevertheless have been aware of different stages in the progression of illness.

Pseudo-Galen also has plenty to criticize in Methodist and Empirist philosophies of medicine, and once again some of these same criticisms would be equally valid for Babylonian medicine. The issue is whether one should look for hidden causes of disease, deduced by logical assumptions drawn from symptoms, or be content with manifest causes which one can easily identify from external factors (Tecusan 2004: 694f.); this was a major point of contention between conflicting schools of thought. As Pseudo-Galen points out, ‘Empiricists and Methodists declare that the apprehension of hidden things is useless; for nothing useful is discovered from hidden things’ (Tecusan 2004: 697). Within Babylonian diagnosis and prognosis, there is virtually no evidence of logical deductions from symptoms or esoteric knowledge, but descriptions of disease are mostly based upon observation of external bodily signs and symptoms. There are cases within Babylonian diagnosis of descriptions of internal bodily organs, whether soft or hard, or having a particular colour, but such descriptions are simply extensions of the same criteria observable from external anatomy, applied mechanically to internal organs; such observations are not based upon hidden or esoteric knowledge.

Finally, let us return to the specific case of SBTU I 43. There is one point of comparison with Hippocratic medicine which needs to be borne in mind, namely the Hippocratic notion of the ‘seat’ of a disease being in one of the bodily organs. As Tecusan points out,

In traditional, so-called 'Hippocratic', medicine this notion carried certain basic assumptions. It tied together an item which was in principle well specified, the seat or the part affected, and one which was, by contrast, general and speculative: the 'cause' or aetiological theory supposed to explain the disease. These two functioned as main sources of indications for therapy.'

(Tecusan 2004: 10)

Tecusan adds that 'even if the Hippocratics did not speak in the technical language of Hellenistic concepts..., basic notions of cause and seat of a disease were there' (Tecusan 2004: 10 n. 12). This might serve as one possible explanation of SBTU I 43, namely that the heart, pharynx, lungs and kidneys each serve as a 'seat' for the diseases listed with them, but unfortunately there is no evidence for such a 'seat' of disease found as yet within Babylonian medicine, which was therefore unlikely to have been influenced by a basic aspect of Hippocratic theory. In general, the many interesting parallels between Babylonian medicine and 'alternative' Greek medicine (e.g. Methodism) provide a more promising line of approach to comparative studies. However, little gleaned from Methodists or Empiricists enlightens us about the underlying structure and purpose behind SBTU I 43.

### **Text Two: Uruk Astral Magic (BRM 4 20, duplicates BRM 4 19, STT 300)**

We turn now to another unique Uruk text of a slightly later period, BRM 4 20 (with a parallel text from Uruk, BRM 4 19), which is astral magic rather than astral medicine but referring to many of the same diseases. These Uruk tablets are essentially a reworking of a late eighth century text from Sultantepe (STT 300), which relates astral magic to specific days in the lunar year, while the Uruk texts adapt the same conditions to zodiac signs. What concerns us specifically is the Uruk perspective on astral magic (with its zodiac orientation) and any possible connection with disease classification at Uruk during the same period. The question is whether medical taxonomy and astral magic might both represent examples of new

scientific thinking in Uruk, some of which may share common features with Greek medical astrology emerging at the same time and later.

In Uruk astral magic (BRM 4 20), the individual entries associated with zodiac signs represent aggressive magic which can alter reality, rather than being defensive or protective spells and rituals which react to the reality of disease or misfortune which has already occurred. Presumably these spells are deemed effective if they are to be used when a planet or the moon traverses a certain zodiac sign. Reiner describes this text as follows: 'Many of the activities listed describe calamities or diseases in order to indicate the proper time for carrying out apotropaia against them, especially when they are caused by maleficent practices' (Reiner 1995: 109). We do not agree. The purpose of this text is to invoke black magic, rather than protect against it, or to counter the evil pre-emptively.

As for the general character of this text, there is no doubt about close parallels with Maqlû and other texts within the witchcraft corpus (Schwemer 2007: 160f.). The essential problem in this text is how to counteract evil predominantly caused by human agency rather than by demons or angry gods. So although gods play a role in this kind of magic, the aims are very different from the kind of magic found in classical bilingual Sumerian-Akkadian incantations, or in a formal composition like Šurpu (Reiner 1970), which are essentially concerned with a person's relationship to gods (and demons). The kind of magic found in Uruk astral magical texts, such as BRM 4 20, was also known to the Greeks, and Plato describes such practices in succinct if critical terms:

But the strangest of all these speeches are the things they say about the gods and virtue, how so it is that the gods themselves assign to many good men misfortunes and an evil life, but to their opposites a contrary lot; and begging priests and soothsayers go to rich men's doors and make them believe that they by means of sacrifices and incantations have accumulated a treasure of power from the gods that can expiate and cure with pleasurable festivals any misdeed of a man or his ancestors, and that if a man wishes to harm an enemy, at slight cost he will be enabled to injure just and unjust alike, since they are masters of spells and enchantments that constrain the gods to serve their end.

Plato, *The Republic* Book 2 (Lloyd 2003: 69)

Here is an edition of the most important of the Uruk astral magic texts:

**BRM 4 20 (MLC 1859)<sup>29</sup>**

1	ša.bal.bal	ki mul <sub>ur.a</sub>	(STT 300 4)
2	di.bal.a <sup>30</sup>	ki mul <sub>gu.la</sub>	(STT 300 39)
3	šu.dug.a.kam <sup>31</sup>	ki mul <sub>ab.sín</sub>	(STT 300 7)
4	nam.érim.búr.ru.da	ki mul <sub>gu.la</sub>	(STT 300 7)
5	ki.ág.gá nita <i>ana</i> munus <sup>32</sup>	ki mul <sub>zi-ba-nu</sub>	(STT 300 10, 13)
6	ki.ág.gá munus <i>ana</i> nita <sup>33</sup>	ki mul <sub>kun.meš</sub>	(STT 300 9)
7	ki.ág.gá nita <i>ana</i> nita	ki mul <sub>gír.[tab]</sub>	(STT 300 12)
8	munus gin.na	ki mul <sub>lú.hun.gá</sub>	(STT 300 21) <sup>34</sup>
9	zi.ku <sub>5</sub> .ru.da <sup>35</sup>	ki mul <sub>pa.bil.sag šá-niš</sub> ki mul <sub>maš.maš</sub>	(STT 300 21, 38)
10	igi.nígin.na	ki mul <sub>&lt;maš&gt;.tab.ba gal.gal</sub>	(STT 300 14)
11	<sup>d</sup> id u pú kù.ga	ki mul <sub>suhur.máš</sub>	(STT 300 16)
12	é.gal.ku <sub>4</sub> .ra <sup>36</sup>	ki mul <sub>al.lu<sub>5</sub></sub>	(STT 300 11,16)
13	šúr.hun.gá	ki mul <sub>gu.[la]</sub>	(STT 300 120)
14	lugal <i>ina</i> é.gal-šú mu-šú <i>ana</i> sig <sub>5</sub> -tim <i>ba-sa-sa</i>	ki 5 uš <i>ina</i> igi mul [...] <sup>37</sup>	(STT 300 23, 25)

<sup>29</sup> The parallel texts BRM 4 19 (MLC 1886) and STT 300 are edited below, treated by Scurlock 2005-2006, and discussed by Reiner 1990: 421f.; Stol 1993: 116f.; Rochberg 1984: 119 shows how designations of the zodiac signs differed between these texts. BRM 4 19 lines 1-14 are reconstructed according to BRM 4 20 (Ungnad 1944), also providing evidence for a *dodekatemoria* (Neugebauer and Sachs 1952-53, and Rochberg 1988: 57f.).

The end of BRM 4 20 has a commentary explaining some of the entries, which were probably no longer understood by Uruk scribes, or possibly because no exemplars of these spells were known in Uruk libraries.

<sup>30</sup>SBTU 5 243 rev. 5' (astral magic fragment), see Schwemer 2007: 160.

<sup>31</sup>SBTU 4 129 v 47 (rubric), and SBTU 2 23, see Schwemer 2007: 128

<sup>32</sup>Cf. Biggs 1967: 5, for ll. 5-8, and see Schwemer 2007: 159.

<sup>33</sup>See SBTU V 243: 1.

<sup>34</sup>See below l. 50.

<sup>35</sup>The term also occurs in SBTU 5, 243 rev. 4' as well as frequently in the witchcraft corpus (Schwemer 2007: 14-16, 160). See also STT 89, spells against *zikurudû* administered according to appearance of stars or in various months, edited by Stol 1993: 91-98.

<sup>36</sup>SBTU 4 129 v 47 and SBTU V 243: 5'.

15	nun <i>ina</i> é.gal-šú mu-šú <i>ana sig<sub>5</sub>-tim mu-ár</i> <sup>38</sup>	ki mul <sub>kun</sub> .[meš]	(STT 300 25)
16	<i>a-mir-ka ana igi-ka ha-de-e u ra-a-ši</i>	ki mul <sub>ur</sub> .[a]	(STT 300 26)
17	munus <i>šu-ud-bu-bu</i>	ki mul <sub>ú</sub> .hun.[gá]	
18	<i>a-mir-ka šu.si-šú ana sig<sub>5</sub>-tim ana muh-bi-ka ta-ra-aš</i>	ki mul <sub>ab</sub> [sin]	(STT 300 32)
19	<i>ši-kin kù.babbar</i>	ki sa <sub>4</sub> <sup>39</sup> šú mul <sub>gu<sub>4</sub></sub> .an.[na]	(STT 300 36)
20	záh gur.ru.da <sup>40</sup>	ki mul <sub>lugal</sub> šá-niš ki mul <sub>zi-ba</sub> -[nu]	
21	munus lú <i>ana nita šá-nim-ma igi<sup>II</sup>-šú u igi la na-še-e</i>	ki mul <sub>maš</sub> .tab.ba gal.[gal]	(STT 300 39)
22	hul.gig	ki mul <sub>[g]í</sub> [r.tab]	(STT 300 10, 39)
23	uš <sub>11</sub> .búr.ru.da	ki mul <sub>gu</sub> -la šá-niš ki mul <sub>kun</sub> .[meš]	(STT 300 4,40)
24	gìri hul-tu <i>ina</i> é lú tar-si	ki mul <sub>mul</sub> šá-niš ki mul <sub>gu</sub> .la	(STT 300 40)
25	<i>iš-di-bu lú.kurun.nam šur-ši-i</i>	ki mul <sub>al-lu<sub>5</sub></sub> šá-niš ki mul <sub>gu</sub> .la	(STT 300 41)
26	uš <sub>11</sub> .zu <i>ana búr-ra</i> <sup>41</sup> <i>ana lú gig nu.te sag.du ti.la ra-i-ib-šú a-na šu-si-i si-im-ma a-na ti.la</i> <sup>42</sup> múd munus <i>ana tar-si hul ana</i> é lú nu.te <sup>43</sup>	ki mul <sub>suhur</sub> .máš	(STT 300 5-6)
27	líl.lá.en.na	ki mul <sub>mul</sub> šá-niš ki mul <sub>giš</sub> .rín	(STT 300 8,26, 35-38)
28	ki.sikil.líl.lá <sup>44</sup>	ki mul <sub>mul</sub> šá-niš ki mul <sub>maš</sub> .maš šal-šiš ki mul <sub>p[a-bi]l</sub> -[s]ag	
29	líl.lá.en.na ki.sikil.líl.lá <sup>45</sup>	ki mul <sub>rpa</sub> .bil'.[sag]	(STT 300 12f.)
30	an.ta.šub.ba <sup>d</sup> lugal.ùr.ra šu.dingir.ra šu.gedim.ma <sup>46</sup>	ki mu <sub>[ur.a]</sub>	(STT 300 15)
31	gedim dib-bat ki <sup>47</sup> lú <ana> <sup>48</sup> kéš nu lú <i>ana ug<sub>7</sub> pa-qá-du</i> <sup>49</sup> <i>ana ged</i> [im a.meš]		(STT 300 17!)

<sup>37</sup> Ungnad 1944: 259, restores [lugal] here for 'Regulus'. This and the following two entries are probably cited from Egalkurra-type incantations.

<sup>38</sup> See in another Uruk text a variant formulation, nun *ina* é.gal mu-šú sig<sub>5</sub>-tim *ha-sa-sa* (SBTU II 243 19).

<sup>39</sup> *nebû* = brightest star of a constellation.

<sup>40</sup> See below l. 40 and BRM 4 19 20: ìr lú nu záh šà ìr u geme [kúr] dù-ma silim, as well as STT 300 37f. and 42 and cf. SBTU V 243, rev. 2'.

<sup>41</sup> Akk. *kišpī ana pašāri*, cf. Schwemer 2007: 160.

<sup>42</sup> BRM 4 19 26.

<sup>43</sup> BRM 4 19 26, adding the clause *tep[puš-m]a išallim*; the phrase occurs in Wiggerman 1992: 6, 18.

<sup>44</sup> KAR 44 10.

<sup>45</sup> BRM 4 19 27-28, adding *zi-bi dím-ma al-silim*.

<sup>46</sup> BRM 4 19 29, var. an.ta.šub.ba *be-en-na*<sup>d</sup>lugal.ùr.ra (om. šu.gedim.ma), adding *zi-bi dím-ma al-silim*.

- ana nag-e<sup>50</sup> hi-bil-ti è-i<sup>51</sup> ki mu[lal.lu5] (STT 300 117-18)
- 32 munus gin.na<sup>52</sup> dù-ma hi-*tam* nu.tuk<sup>53</sup> ki mu[lgiš.rín] (STT 300 20-21)
- 33 dingir ana qé-re-e<sup>1</sup> ištār<sup>1</sup> ana qé-re-e sa.gal.la<sup>54</sup> ana ti.la<sup>55</sup> é ana hu-up<sup>1</sup>-[pi<sup>56</sup> lú.gig]  
 ana e-se-ri<sup>57</sup> dūr.gig ana ti.la<sup>58</sup> (STT 300 21-23, 26)  
 na<sub>4</sub><sup>1</sup> ana ti.la šà.si.si ana ka-le-e<sup>59</sup> kúm<sup>60</sup> ana<sup>1</sup> zi-bi<sup>1</sup> [ki mul<sup>1</sup>lú.hun.gá<sup>61</sup>] (STT 300 22)
- 34 idim u nun ana eme.sig nu.gu.<sup>62</sup> ga[ba.ri<sup>63</sup> ki mul<sup>1</sup>maš.tab.ta gal.gal] (STT 300 27)
- 35 nu šī-il-la-ti ana tuk lú ina igi lú [šá-ka-nu šúr.hun.gá<sup>64</sup> ana kar-ši nu igi-ri<sup>65</sup> lu ug<sub>7</sub> / idim tag<sub>4</sub>

<sup>47</sup>See comm. below l. 62: *e-tim-mu ša-ba-tu it-ti lú ana ra-k[a-su]*, 'to seize a ghost, to bind it with a man'. Cf. BRM 4 19 26.

<sup>48</sup>BRM 4 19: 30 has *ana kéš*.

<sup>49</sup>See comm. below, l. 60, nu lú ana ug<sub>7</sub> pa-qa-du : nu lú a-na mu-ú-tu p[a-qa-du], 'to entrust the figurine of a man to a dead (person)', probably meaning that the figurine is to be buried with a corpse.

<sup>50</sup>BRM 4 19 30 reads nag.nag-e, referring to providings offerings for the dead.

<sup>51</sup>Cf. BRM 4 19 30, adding *dím-ma al-silim*.

<sup>52</sup>See Biggs, TCS 1 70 (KAR 61), with the incipit, *diš ki.min šum<sub>4</sub>-ma munus nu gin-ku*, 'ditto, if a woman doesn't come'.

<sup>53</sup>BRM 4 19 31, var. *dím-ma* for *dù-ma*, and at the end adding *dím-ma al-silim*. See Scurlock AfO 51, 136, translating this phrase as 'to perform attraction magic without having done anything wrong'.

<sup>54</sup>See STT 300 21, BRM 4 19: 32, also KAR 44 rev. 9.

<sup>55</sup>BRM 4 19: 32.

<sup>56</sup>BRM 4 19: 32, *é ana hu-ub-bi*, with the latter being a form of *hūbu*, 'cleansing'.

<sup>57</sup>To arrest disease, see CAD E 335, an unusual usage of the word for shutting, enclosing.

<sup>58</sup>Restored BRM 4 19: 32. There is more restored here than space allows.

<sup>59</sup>Although one expects the reading *šà si.sá*, as in the earlier STT 300 22, BRM 4 19: 32 also reads *si.si*. Note the phrase in KAR 44: 18, *šà.sur ku<sub>5</sub>.ru.da*, interpreted as stopping diarrhoea (Jean 2006: 79).

<sup>60</sup>BRM 4 19: 32, but omitting *kúm*, adding *dím-ma a[l-silim]*.

<sup>61</sup>Restoration Ungnad 1944: 259, 37.

<sup>62</sup>Copy nag, but var. no. 19 is correct (l. 33).

<sup>63</sup>This line is in BRM 4 19: 33, see note above; also no *ana* before *eme.sig*, and *glossenkeil* before *gaba.ri*.

<sup>64</sup>Restoration based upon BRM 4 19: 34 and STT 300: 28.

<sup>65</sup>STT 300: 28 has a variant, *šúr.hun.gá nu gaba.ri*.

	<i>lu</i> lú.uš <sub>11</sub> .zu <sup>66</sup> <i>lu</i> [mí.uš <sub>11</sub> .zu <i>lu</i> mí.dingir šu-ud-bu-bi]	(STT 300 28-29)
	<i>lu</i> idim <i>ina</i> é.gal <i>ana</i> zi-bi [ <i>lu</i> <i>ana</i> šà.dab.dab <sup>67</sup> < <i>ana</i> > <sup>68</sup> sag.du lú]	(STT 300 29)
	<i>ana</i> dib-tim lú ki.ág.gá <sup>69</sup> lugal <i>ana</i> ta[r-si <sup>70</sup> munus ág <i>ana</i> tar-si <sup>71</sup> ki mul <sub>ur.a</sub> <sup>72</sup> ] (STT 300 29f.)	
36	ka.dab.bé.da <sup>73</sup>	k[i mul <sub>mul</sub> <sup>74</sup> ] (STT 300 33, 34)
37	sag.ki.dab.bé.da <sup>75</sup>	ki [mul .....]
38	šà.zi.ga <sup>76</sup>	ki [mul.....] (STT 300 1)
39	<i>ma-gàr</i> lugal <i>ana</i> lú <sup>77</sup>	ki mu[l.....]
40	ìr lú nu záh <sup>78</sup>	ki mul <sub>gí[r.tab]</sub> (STT 300 37, 42)
41	dingir igi.bar dingir.šà.dab.ba búr-ri <sup>79</sup>	ki mul <sub>mul</sub> (STT 300 36, 37)
42	dam.tab.ba <sup>80</sup> pur-ru-di <sup>81</sup> ù lú <i>ina</i> man-za-zi-šu zi-bi ki mul <sub>suhur.maš</sub> (STT 300 19)	
43	lú <i>ina</i> qí-ip-ti-šú zi-bi ù lú <i>ina</i> igi lú gar-ni ki mul <sub>ú.hun.ga</sub> (STT 300 24)	

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<sup>66</sup> Var. BRM 4 19: 34: *lu* lú *lu* uš<sub>11</sub>.zu *lu* mí.u[š<sub>11</sub>.zu]

<sup>67</sup>So STT 300: 29, although šà.dib.ba would be another possible restoration, with both expressions being for Akk. *kimiltu*.

<sup>68</sup>Although the *ana* sign is clear in BRM 4 19: 34, it is not present in the older duplicate, STT 300 29. In any case the syntax of the phrase is disturbed by having too many *ana* signs, although use of *ana* + infinitives is treated in unorthodox ways in this text.

<sup>69</sup>BRM 4 19 34 var. ág.ki.

<sup>70</sup>See the commentary at the end of the text (BRM 4 20: 63): lú.ág lugal *ana* tar-si : lú šá šar-ri i-ra-mu-šú a-n[a tar-si], 'to keep away the one whom the king loves.

<sup>71</sup>Entire passage duplicated in BRM 4 19 34.

<sup>72</sup>Restored Ungnad 1944: 259, 42.

<sup>73</sup>BRM 4 19 35, adds dù-*ma* i-šal-lim, as does STT 300 (dím.ma al-silim.

<sup>74</sup>Restored Ungnad 1944: 259.

<sup>75</sup>Known also from SBTU 4 129 vi 42 (ka.inim.ma) and SBTU 5 243 5.

<sup>76</sup>KAR 44 14 (Jean 2006: 66); SBTU 4 129 v 47 (rubric)

<sup>77</sup>The phrase also occurs in LBAT 1626: 2'.

<sup>78</sup> See SBTU 243 rev. 2', ìr na u munus nu.záh ki múl.gír.tab.

<sup>79</sup>Cf. BRM 4 19 36, adding dím-*ma* al.silim.

<sup>80</sup>Akk. *tappātu*.

<sup>81</sup>To terrify; probably = BRM 4 19: 37, followed by dím-*ma* al.silim.

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gaba.rim šeš.unug<sup>ki</sup> 82 u tin.tir<sup>ki</sup>


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45	ud.da.kam	<i>u<sub>4</sub>-mu a-da-nu</i>	
46	ša.bal.bal	<i>lib-bi a-na na-bal-ku-tú</i>	
47	ša.bal.bal	<i>lib-bi a-na šu-un-nu-u</i>	
48	di.bal.a	<i>na-bal-ku-tú di-i-ni</i>	
49	šu.du <sub>8</sub> .a.kam	<i>pa-ta-ri šá qa-ti</i>	
50	munus gin.na	<i>sin-niš-tú a-na a-la-ku</i>	
51	igi nígin.na	<i>su-uh-bu&lt;-ur&gt; pa-ni</i>	
52	díd kù.ga	<i>a-me-lu ina hur-šá-nu zu-uk-ku-ú</i>	(STT 300 16)
53	munus šu-ud-bu-bu	<i>munus su-un-nu-qa</i> <i>munus šá e tul-la-tu-šu<sup>1</sup></i> <i>mim-ma ma-la ta-sal-lu-šú</i> <i>i-táh-bu-ka</i>	

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54	ši-kin kù.babbar šá-niš záh kù.babbar	kù.babbar <i>ta-áš-ku-tú la-bi-ri</i>	
		<i>šá é a-na pa-te-e</i>	

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55	hul.gig	<i>zi-'i-ri</i>	
56	iš-di-bu	<i>né-me-lu</i>	
57	iš-di-bu	<i>ir-[bu]</i>	
58	ra-'-i-bi ana šu-ši-i	<i>ra-'-i-bi mur-[su]</i>	
59	nam.érim.búr.ru.da	<i>ma-mit pa-šá-[ru]</i>	
60	nu lú ana ug <sub>7</sub> pa-qa-du	nu lú <i>a-na mu-ú-tu p[a-qa-du]</i>	(STT 300 17!)
61	eme.sig nu gaba.ri	<i>kar-ši la ma-[ha-ru]</i>	
62		<i>e-ṭim-mu ša-ba-tu it-ti lú ana ra-k[a-su]</i>	

<sup>82</sup>Although Ur is mentioned rather than Uruk, I think that Ungnad may have actually been correct in translating Uruk! It fits this period.

63	lú.ág lugal <i>ana tar-si</i>	lú šá šar-ri i-ra-mu-šú a-n[a tar-si]
64	dingir igi.bar	dingir.meš <i>li-ip-pal-sa-a[n-ni]</i>
65	dingir.šà.dab.ba búr-ra	<i>lib-bi</i> dingir.meš <i>kam-ri</i> <sup>83</sup> <i>li-ip-pa-š[ir]</i>
66	tu <sub>6</sub> .tu <sub>6</sub> bar.ra <sup>84</sup>	<i>ši-pa-a-tú a-ha-a-tú</i> (STT 300 44)

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67 ul<sup>85</sup> *šu-ut* ka šá iti.bára ud.10.kam ud.da.kam šà.bal.bal

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[i]m <sup>m</sup>ba-ša-a *bug-kúr* <sup>m</sup>innin.mu.kam šà.bal.bal <sup>m</sup>é-kur-za-kir lú.maš.maš

### BRM 4 20 Translation

- 1) (The spells<sup>86</sup> for) 'changing someone's mind': (in the) region of Leo.
- 2) (The spells for) 'overturning a judgement'<sup>87</sup>: region of Aquarius.
- 3) (The spells for) 'loosening the grasp'<sup>88</sup>: region of Virgo.
- 4) (The spells for) 'breaking an oath': region of Aquarius.
- 5) (The spells for) 'love of a man for a woman': region of Libra.
- 6) (The spells for) 'love of a woman for a man': region of Pisces.
- 7) (The spells for) 'love of a man for a man': region of Scorpio.

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<sup>83</sup>CAD K 124 s.v. *kamlu* angry.

<sup>84</sup>This occurs in KAR 44 Rev. 8, see Jean 2006: 69.

<sup>85</sup>Akk. *šātu*.

<sup>86</sup>Consisting of incantations and/or rituals.

<sup>87</sup>Scurlock 2005-2006: 125ff., is certainly correct in assuming this to be black magic for justice to be overturned and hence perverted. She assumes, however, that performing such rites would have resulted in the execution of the practitioner; this is an unproven assumption for which she supplies no evidence. These incantations may never have actually been performed, but their theoretical existence is sufficient for the purposes of the present text. See Schwemer 2007: 63f.

<sup>88</sup>According to Scurlock 2005-2006: 125, these black magic spells designed to make a victim keep his hands open and render him unable to refuse requests for money. She stretches the point (p. 130) by relating this type of magic to a statement in the *Mandaic Book of the Zodiac* in which, under the sign of Virgo, one can get money from a widow. The association of ideas is possible but certainly not provable.

- 8) (The spells for) 'a woman to come': region of Aries.
- 9) (The spells for) 'cutting off of the breath': region of Sagitarius, alternatively Gemini.
- 10) (The spells for) 'turning the face': region of Gemini.
- 11) (The spells for) 'cleansing (of guilt) by river or well-water' (ordeal): region of Capricorn.
- 12) (The spells for) 'entering the palace' (Egalkurra): region of Cancer.
- 13) (The spells for) 'appeasing (divine-)anger': region of Aquarius.
- 14) (The spells for) the 'king remembering his name favourably in his palace': 5 degrees before  
.....
- 15) (The spells so that) the 'prince will mention his name favourably in his palace': in the  
region of Pisces.
- 16) (The spells so that) the one who sees you will rejoice and be happy at seeing you: in the  
region of Leo.
- 17) (The spells for) making a woman have intercourse: region of Aries.
- 18) (The spells for) the one who sees you to point to you favourably: region of Virgo.
- 19) (The spells for) depositing of silver: region of the brightest star of Taurus.
- 20) (The spells for) returning a runaway (slave):<sup>89</sup> region of Regulus, alternatively Libra.
- 21) (The spells so that) a man's wife not turn her eyes or face towards another man: the region  
of Gemini.
- 22) (The spells for for) hate magic: region of Scorpio.
- 23) (The spells for) annulling witchcraft (ušburruda): region of Aquarius, alternatively Pisces.
- 24) (The spells for) preventing the approach of an enemy<sup>90</sup> in a man's house: region of  
Taurus, alternatively Aquarius.

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<sup>89</sup>BRM 4 19: 20 differs: '(spells for) the slave of a man not to escape, to alter the intentions of the slave or slave-girl.'

<sup>90</sup>Lit. 'foot of evil'.

25) (The spells for) bringing about profit for the publican: region of Cancer, alternatively Aquarius.

26) (The spells for) exorcising a sorcerer<sup>91</sup>, for illness not to approach a victim; for healing the head; for getting rid of *mania*, for healing a wound, for stemming menstrual bleeding, for preventing evil from approaching a man's house: region of Capricorn.

27) (The spells for)<sup>92</sup> lilû-demon: region of Taurus, alternatively Libra.

28) (The spells for) Lilith: region of Taurus, alternatively Taurus, alternatively, Gemini, third alternative, Sagitarius.

29) (The spells for) Lilû and Lilith: region of Sagitarius.

30) (The spells for) seizure, epilepsy, (var. adds *bennu*), Hand-of-the-god-disease, Hand-of-the-ghost-disease:<sup>93</sup> region of Leo.

31) (The spells for) seizing a ghost and tying him to a man,<sup>94</sup> for entrusting the figurine of a man to a dead (person),<sup>95</sup> for making a libation to a ghost (thus) removing culpability: region of Cancer.

32) (The spells for) 'making a woman come', without incurring recriminations: region of [...].

33) (The spells for) 'inviting the god, inviting the goddess',<sup>96</sup> (needing) to heal paralysis, (needing) to purify the house,<sup>97</sup> (needing) to quarantine the patient, (needing) to heal rectal

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<sup>91</sup>Our translation attempts to distinguish between *uš<sub>11</sub>.búr.ru.da* in l. 23 and *uš<sub>11</sub>.zu* in l. 26

<sup>92</sup>Var. 'getting rid of'. The meaning is taken from the duplicate, BRM 4 19: 27-28, which inserts the verb *nasābi* in this and following lines (28-30).

<sup>93</sup>All of these conditions are to be found in the first section of SBTU 1 43.

<sup>94</sup>See Reiner 1995: 109.

<sup>95</sup>Ibid. 110.

<sup>96</sup>The word *qerû* is attested in Old Babylonian legal texts, in which being 'invited by the god' is a euphemism for dying (cf. CAD Q 242f.). Even as a connotation, the idea fits well into our text, in the sense of '(spells for) being invited by the god or goddess', suggesting that the patient is going to die. This leaves the problem of healing of various diseases, such as wounds, paralysis, kidney stones, and diarrhea, all of which are mentioned in this line. The seeming contradiction between 'being invited by the gods' and being healed is based on an irony: the magical

disease, (needing) to heal a calculus, (needing) to stop diarrrea, (needing) to get rid of fever:<sup>98</sup>  
region of Aries.

34) (The spells for) a mogul or prince not to slander (or) be believed:<sup>99</sup> region of Gemini.

35) (The spells for) having no insults, for setting a man against (another) man, for appeasing anger, for not believing slander, or for a dead person to leave, for making (var. a man or) sorcerer or witch or priestess talk<sup>100</sup>, or remove a mogul from the palace, or for divine anger to strike a man's head, to keep away a man loved by the king, to keep away a woman loved (by someone else): region of Leo.

36) (The spells for for) aphasia: region of [...].

37) (The spells for for) 'forehead-affliction':<sup>101</sup> region of [...].

38) (The spells for for) impotence: region of [...].

39) (The spells for attracting the) favour of the king:<sup>102</sup> region of [...].

40) (The spells for) a man's slave not to run away: region of Scorpio.

41) (The spells for) annulling divine anger of watching gods: region of Taurus.<sup>103</sup>

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spell wishes for the victim to need to be healed, to require being cured, as a way of wishing that he become ill. Scurlock, on the other hand, relates the banquet to Hellenistic rites from Greek magical papyri in which virgin boys are used as assistants in order to attract gods to a banquet (Scurlock 2005-2006: 136).

<sup>97</sup> Probably because of the presence of an epidemic or contagious disease in the house.

<sup>98</sup> All of these illnesses which need to be healed in this passage are either difficult to cure (e.g. paralysis) or involve very unpleasant treatments associated with a patient's private parts (penis or rectum), or cause the patient to incur the social stigma of quarantine.

<sup>99</sup> This statement conforms to the aims of aggressive magic to alter the behaviour of an opponent, even a powerful one.

<sup>100</sup> In this case, *šudbubu* means to make someone talk, usually with mantic rather than sexual connotations, as in the so-called *Totengeist* incantation from Uruk in which the rubric reads, ka.inim.ma nam.tar šu-ud-bu-bi, 'incantation for the Fate demon to talk' (SBTU 2, 20: 15), and a subsequent incantation which has as its rubric: ka.inim.ma gedim igi.du<sub>8</sub> eš.bar tar-si, 'incantation for seeing the ghost and making a decision'. The idea behind these texts is for the demon or ghost to provide information.

<sup>101</sup> See Reiner 1995: 109 n. 486.

<sup>102</sup> Ibid. 110-111, n. 497.

42) (The spells for) frightening off a (female) rival or removing a man from his office: region of Capricorn.

43) (The spells for) removing a man from his position of trust or for a man being set against (another) man: region of Aries.

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44) (Based on) copies from Uruk<sup>1</sup> and Babylon<sup>104</sup>

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[*Commentary on technical terms in the text*]

- |     |                           |  |
|-----|---------------------------|--|
| 45) | ud.da.kam                 | normal time                                |
| 46) | šà.bal.bal                | to cause a change of heart                 |
| 47) | šà.bal.bal                | to change the mind                         |
| 48) | di.bal.a                  | to overturn a judgement                    |
| 49) | šu.du <sub>8</sub> .a.kam | to loosen the grasp                        |
| 50) | munus gin.na              | for a woman to come                        |
| 51) | igi nigin.na              | turning the face/eye                       |
| 52) | díd kù.ga                 | a man acquitted through the river ordeal   |
| 53) | munus šu-ud-bu-bu         | to make an approach to a woman             |
|     |                           | a woman which you must not 'swallow'       |
|     |                           | whatever you ask of her                    |
|     |                           | she will have sex with you. <sup>105</sup> |

---

<sup>103</sup> Is this not positive (defensive) magic rather than aggressive (black) magic? It may be so, if the patient is innocent and does not deserve divine anger, but if the patient is actually guilty of a crime, he may have to resort to a more aggressive type of magic in order to deflect divine anger.

<sup>104</sup> Although the text actually says 'Ur' rather than Uruk (as noted by Neugebauer and Sachs 1952-1953: 66), Ungnad 1944: 281 was correct to translate Uruk and Babylon, since these two cities were the most important centers of Mesopotamian scholarship during the Hellenistic period.

<sup>105</sup> Cf. Geller 2005a.

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54) *ši-kin kù.babbar šá-niš záh kù.babbar* to locate silver – old treasure – of the house

---

55) *hul.gig* hate (magic)

56) *iš-di-hu* profit

57) *iš-di-hu* trade

58) *ra-'-i-bi ana šu-ši-i* to remove 'anger'-disease (mania)

59) *nam.érim.búr.ru.da* to break an oath

60) *nu lú ana ug<sub>7</sub> pa-qa-du* to entrust the figurine of a man to the dead

61) *eme.sig nu gaba.ri* not to believe slander

62) *e-ṭim-mu ša-ba-tu* etc. to seize a ghost to tie (him) to a man

63) *lú.ág lugal ana tar-si* to keep a man away whom the king loves

64) *dingir igi.bar* 'may the gods look at me'

65) *dingir.šà.dab.ba búr.ra* may the angry heart of the gods be appeased

66) *tu<sub>6</sub>.tu<sub>6</sub> bar.ra* non-canonical incantations

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67) Extract and commentary of 'Nisannu, normal period for šà.bal.bal'

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68) Tablet of Iqišā, son of Inanna-šuma-ereš, descendant of the exorcist Ekurzakir

#### *Philological commentary on BRM 4 20*

l. 10 The phrase *igi.nigin.na* can simply mean 'to look back,' which is the way it is treated in the explanatory lines at the end of this text (l. 51 = *su-ub-hu<-ur> pa-ni*). Reiner

(1995: 109 n. 484) gives this as an equivalent to Akk. *šīdānu* 'vertigo', and her interpretation is supported by other evidence from medical texts in which a symptom is implied; see, for example, Scurlock 2006: 303: 6'f. [diš n]a *pa-nu-šu iṣ-ša-nun-du*, or Schwemer 2007a: 31: 1, *pa-nu-u-šú nigin.meš-d[u]*. The phrase *pānū subhuru* can equally mean to turn the face towards someone or something (see CAD S 49f.), usually with evil intentions.

l. 11: The entry is explained by the commentary at the end of this text (see l. 52), as: *d'íd kù.ga = a-me-lu ina hur-šá-nu zu-uk-ku-ú*, a person cleansed through the river-ordeal'. The phrase *íd.kù.ga* occurs in LBAT 1626 rev. 3 and SBTU V 243 rev. 4.

l. 13: CAD Š/3 344 gives the term *šurbungû* as an affliction, based upon Maqlu I 90 and AfO 18 290: 13, but CAD does not rule out the reading *uzzi nubhi* 'to calm anger', which is elsewhere attested in magic and medicine to appease the anger of a god or demon. In the present context both meanings could apply.

l. 16: BRM 4 19 16 has *glossenkeil* instead of *u* before *ra-a-ši*. This phrase occurs in LBAT 1626 and in SBTU II 24 16, 20, the rubric of which reads, *ka.inim.ma igi.bi húl.la.ke<sub>4</sub>*, 'incantation for one seeing him to rejoice' (ibid. 13, 31). This formulation differs somewhat from what we find in an incantation from an earlier era, which reads, *igi.lá a-na ha-de-e ugu a-mi-ri-šú zi*, 'to raise the eyes to rejoice over one looking at him' (Ebeling 1949: 187).

l. 17: The phrase is explained in the commentary at the end of the text; see below l. 53 and Geller 2005a. The phrase also occurs within love magic, see Biggs 1967: 70, which has the incipit of an incantation: [ana] *munus šu-ud-bu-bi*, '[to] make a woman indulge in intercourse'.

l. 18: The unique point about this phrase is that a finger is being pointed at someone *with good intentions*, since the opposite is normally the case, that a finger is pointed at someone with evil intent; for examples from Uruk, see SBTU II 22 (along with many of the categories here, such as *hul.gig*, *di.bal.a*, *zi.ku<sub>5</sub>.ru.da*, etc.). The phrase also occurs in LBAT 1626 rev. 4'.

l. 19: The phrase is explained in the commentary at the end of the text (l. 54): *ši-kin* kù.babbar *ša-niš* záh kù.babbar : kù.babbar *ta-aš-ku-tú la-bi-ri šá é a-na pa-te-e*, 'the depositing of silver, alternatively the disappearance of silver: to reveal silver and old *treasure* belonging to the house'. Reiner 1995: 109 n. 480, mentions a hemerology referring to a non-propitious time for laying aside barley or silver (KAR 178 iv 67 = Labat 1939: 78), and she relates the expression *šikin kaspi* to a Latin Lunaria which discusses when lending or borrowing money might be auspicious under various signs of the zodiac (Aries, Cancer, Libra, or Capricorn). See also SBTU I 94 for astrological influences over the market place and trade.

l. 21: BRM 4 19 21 reads *munus-ka ana nita igi nu il-e*. This is another example of offensive magic, related to love magic, preventing the wife from doing something which she may wish to do. Ungnad 1944: 265 gives examples of incantations with this phrase as incipit (BRM 4 32:1, KAR 61 7, 22 = Ebeling 1925: 12); see also Biggs, 1967: 70 (KAR 61), with the incantation rubric, *ka.inim.ma ana munus igi ana nita na-aš-ši*, 'incantation for a woman raising her eye towards a man', as well as SBTU V 243: 3. This formulation is closer to what we find in the older duplicate, STT 300 39.

l. 22: The commentary at the end of the text (BRM 4 20: 55) reads, *hul.gig* : *zi-'i-ri* 'hate', referring to a specific type of offensive 'hate' magic which is the antithesis of love magic; it forces a loved one to separate from her spouse or lover; cf. also BRM 4 19 22 and Schwemer 2007: 159.

l. 23: This genre of incantation-ritual occurs in the Exorcism Manuel, KAR 44 12-13 (Jean 2006: 65, see also BRM 4 19 23, SBTU V 243 rev. 4', and Schwemer 2007: 160), designed to keep black magic or 'the approach of evil' at bay. The fact that such magical rituals are associated with witchcraft explains why they are cited in the present context, but see l. 26 below, where the same idea is repeated in a somewhat different form.

l. 24: This type of magic is mentioned in the Exorcism Manuel, KAR 44: 20 (Jean 2006: 67), and in BRM 4 19: 24. Incantations to prevent the 'foot of evil' (*šēp lemuttim*) from entering the house also occur elsewhere (Wiggermann 1992: 6, 19, and in Uruk, SBTU V Nos. 246-247).

l. 25: The commentary at the end of BRM 4 20: 57f. explains these terms as follows: *iš-di-bu* : *ir-[bu]* 'trade'. BRM 4 19: 25 has an interesting variant: *iš-di-ib lú.kúrun.na šu.kar u an.ta.lù*, translated by Scurlock 2005-2006: 143 as 'the appropriate day for (rites) to take away the beer merchant's profit or (to cause his) eclipse'. Although the idea of 'eclipse' is undoubtedly correct (see already Ungnad 266), it is not clear to whom this eclipse should refer, although from Scurlock's translation it appears that it is the beer merchant who is being eclipsed. Scurlock also seems to be equating the Sumerogram *šu.kar* with *eqēmu*, 'to take away by force', or alternatively *eṭēru*, for which the Sum. is usually *kar*. Sum. *šu.kar* has the meaning of 'to save' (*šuzubu*), which suggests translating the phrase as: '(spells) to save the profits of the publican – or (spells to be recited on the occasion of) an eclipse'.

l. 26: Notice the variant (BRM 4 19: 26, *uš<sub>11</sub>.zu búru.da*), which is not the usual idiom for breaking a spell (usually *uš<sub>11</sub>.búr.ru.da*). Why should magic for breaking a spell appear in this list of mostly offensive magic? One other problem: *uš<sub>11</sub>.zu* can refer to a male witch (*kaššapu*), as well as to sorcery (*rubû* or *kišpu*), and this might account for the difference between terminology in ll. 23 and 26. Alternatively, one might read *uš<sub>11</sub>.zu ana búr-ra ana lú.gig nu te-e*, '(spells) for exorcising a sorcerer so that he does not approach a patient', but our rendering is based upon the older duplicate, STT 300: 5, *ana na gig nu te-e*, which is unambiguous: 'for illness not to approach a man'.

The term *sag.du ti.la* is not the same as headache or *sag.gig*-disease, and most likely refers to witchcraft affecting the head or cranium; cf. Schwemer 2007a: 79: 16', a witchcraft

medical text with the incipit stating that the patient's head (*qaqqadu*) has been stricken, presumably in this case by a disease attributable to witchcraft.

The term *ra'ibu* denotes a disease here, as explained in the commentary section of BRM 4 20: 69, *ra-'i-bi ana šu-ši-i = ra-'i-bi (=) mur-[su]*. It is reasonable to assume that the disease itself is psychological, indicated by rage, since the term *ra'ibu* is synonymous in lexical texts with *uggatu* 'anger', cf. CAD R 81. Alternatively Heeßel 2000: 420 defines this disease within the *Diagnostic Handbook* as 'Zitterkrankheit, Zittern', although also associated with symptoms of being agitated or angry.

l. 31: Scurlock's translation (2005-2006: 133f.) differs: 'giving a ghost water to drink so that he will take (punishment for) a wrong way (with him to the Nether World).' Her idea is that since the Nether World is not a place for food and drink (as we are told in the Gilgamesh Epic), hence libating to ghosts would cause problems for the victim en route. A simpler understanding of this phrase would be that the spell referred to in this line is trying to inflict a ghost on some victim, which is a dangerous endeavor for the perpetrator. He can do this by placing a figurine of his intended victim with a freshly buried corpse, but to avoid being attacked by the ghost himself, the perpetrator makes a *kispu*-style libation, in order to remove any punishment or ill effects (*hibiltu*) which might result from dealing with ghosts.

l. 36: This type of affliction (*kadabbedû*) occurs frequently in the witchcraft corpus, e.g. Schwemer 2007a: 50: 18, but Reiner (1995: 109 n. 485) prefers the equivalent to be *šibit pî*, which is also attested.

l. 41: The commentary at the end of the text (BRM 4 20: 64) explains the expression 'dingir igi.bar' as 'dingir.meš *li-ip-pal-sa-a[n-ni]*', 'may the gods look upon me', which is probably a citation from an incantation. The second phrase in this line also appears in the commentary (BRM 4 20: 65), *dingir.ša.dib.ba búr.ra : lib-bi dingir.meš kam-ri li-ip-pa-š[ir]*, 'may the angry heart of the gods be appeased', probably another citation from an incantation.

BRM 4 19

- 1 [I 10 ud.da.kam šà.bal.bal I 10 V 10 ur.a šá lu zi]
- 2 [I 24 ud.da.kam di.bal.a I 24 XI 12 gu šá lu zi]
- 3 [II 10ud.da.kam šu.du<sub>g</sub>.a.kam II 10 VI 10 absin šá múl.múl zi]
- 4 [II 21 ud.da.kam nam.érim.búr.ru.da II 21 XI 3 gu šá múl.múl zi]
- 5 [III 10 ud.da.kam ki.ág.gá nita *ana* munus III 10 VI 10 rín šá maš.maš zi]
- 6 [III 21 ud.da.kam ki.ág.gá munus *ana* nita III 21 XII 3 iku šá maš.maš zi]
- 7 [IV 10 ud.da.kam ki.ág.gá nita *ana* nita IV 10 VIII 10 gír.tab šá alla zi]
- 8 [IV 21 ud.da.kam munus gin.na IV 21 I 3 lu šá ur.a zi]
- 9 [V 10 ud.da.kam zi.ku<sub>5</sub>.ru.da V 10 IX 10 pa.bil šá ur.a zi]
- 10 [V 24 ud.da.kam igi.nígin.na V 24 III 12 maš.maš šá ur.a zi]
- 11 [VI 10 ud.da.kam <sup>d</sup>íd u pú kù.ga VI 10 X 10 máš šá absin zi]
- 12 [VI 24 ud.da.kam é.gal.ku<sub>4</sub>.ra VI 24 IV 12 alla šá absin zi]
- 13 [VII 10 ud.da.kam šúr.hun.gá VII 10 XI 10 gu šá rín zi]
- 14 [VII 24 ud.da.kam lugal *ina* é.gal-šú mu-šú *ana* sig<sub>5</sub>-tim *ha-sa-sa*  
VII 24 V 12 ur.a šá rín zi]
- 15 [VIII 10 ud.da.kam nun *ina* é.gal-šú mu-šú *ana* sig<sub>5</sub>-tim mu-á]<sup>r</sup> VIII 10 XII<sup>1</sup> 10 iku  
šá [gír.tab<sup>1</sup> z[i]
- 
- 16 [VIII 21 ud.da.kam<sup>1</sup> *a-mir-ka* *ana* igi-ka *ha-de-e* : ra-a-š[i]  
VIII 21 V 3 ur.a šá gír.tab z[i]
- 
- 17 IX 10 ud.da.kam munus *šu-ud-bu-bu* IX 10 I 10 lu šá [pa.bil<sup>1</sup> [zi]
- 
- 18 IX 21 ud.da.kam *a-mir-ka* šu.si-šú *ana* sig<sub>5</sub>-tim *ana* [ugu-ka]  
*ta-ra-aš* IX 21 VI 3 absin šá p[a.bil zi]
- 
- 19 X 10 ud.da.kam *ši-kin* kù.babbar X 10 II 10 múl.múl šá [máš zi]
- 
- 20 X 21 ud.da.kam ìr lú nu záh šà ìr u geme [kúr]  
dù-ma silim X 21 VII 3 rín ša m[áš zi]

- 21 XI 10 ud.da.kam munus-*ka ana* nita igi nu íl-*e* XI 10 III 10 maš.maš *ša* <sup>1</sup>gu zi<sup>1</sup>
- 
- 22 XI 21 ud.da.kam hul.gig XI 21VIII 3 gír.tab *ša* gu zi
- 
- 23 XII 24 ud.da.kam uš<sub>11</sub>.búr.ru.da XII 24 XI 21 gu *ša* gu<sup>1</sup> zi
- 
- 24 XII 28 ud.da.kam gír hul-*tim ina* é na tar-*si* XII 28 XII 4 gu *ša* iku zi
- 
- 25 XII 29 ud.da.kam *iš-di-ib* lú.kúrun.na šu.kar  
u an.ta.lù XII 19 XII 17 gu.la *ša* iku zi
- 
- 26 I 21 uš<sub>11</sub>.zu búr.da *ana* lú gig nu.te-*e*  
sag.du ti.la *ra-i-ib-šu a-na šu-si-i*  
*si*<sup>1</sup>-*im-ma a-na* ti.la múd munus *ana* tar-*si* hul *ana* é lú nu te  
*dím-ma* al<sup>1</sup>.silim I 21 X 3 máš *ša* lu zi
- rev.
- 27 II 22 líl.<sup>1</sup>lá.en.na ki.sikil.líl<sup>1</sup>.lá.<sup>1</sup>en.na<sup>1</sup> zi-*bi*  
*dím-ma* al.silim IV 22 VII 6 rín *ša* múl.múl zi
- 
- 28 IV 12 líl.lá.en.na ki.sikil.líl.lá.en.[n]a zi-*bi*  
*dím-ma* al.silim IV 12 IX 6 pa.b[il *ša*] <sup>1</sup>alla zi<sup>1</sup>
- 
- 29 II 29 an.ta.šub.ba *be-en-na* <sup>d</sup>lugal.ùr.ra šu.dingir.ra  
zi-*bi* *dím-ma* al.silim V 29 V 17 absin *ša* <sup>1</sup>ur.a<sup>1</sup> z[i]
- 
- 30 VI 24 gedim dab-*bat* ki lú *ana* kéš nu lú *ana* ug<sub>7</sub> *pa-qá-<sup>1</sup>di<sup>1</sup>* *ana* ug<sub>7</sub> [a]  
*ana* nag.nag-*e hi-bil-tu<sub>4</sub>* è-*i* *dím-ma* al.silim VI 24 IV 12 [alla *ša* absin z]i
- 
- 31 VII 11 munus gin.na *dím.ma hi-*tam** nu tuk *dím-ma* al.silim VII 11 11 23<sup>1</sup> [gu *ša* rín z]i
- 
- 32 VII 16 dingir *ana qé-re-e ištar ana qé-re-e* sa.gal.la *ana* ti.la

*é ana hu-ub-bi gig ana e-se-ri dúr.gig ana ti.la*  
*na<sub>4</sub> ana ti.la šà.si.si ana ka-le-e dím-ma a[l.silim]*

VII 16 I 28 lu *šá* rín z[i]

---

33 VII 18 idim *u* nun eme.sig nu gu<sub>7</sub> : gaba.ri VIII 18 III 24 maš.maš *šá* g[ír.tab zi]

---

34 VIII 21 nu *ši-il-la-ti ana* tuk lú *ina* igi lú *šá-ka-nu* šúr.h[un.ga]

*ana kar-ši* nu igi-ri *lu* ug<sub>7</sub> tag<sub>4</sub> *lu* lú *lu* uš<sub>11</sub>.zu *lu* mí.u[š<sub>11</sub>.zu]

*lu* mí.dingir *šu-ud-bu-bi lu* idim *ina* é.gal *ana* zi-*bi lu ana* šà.dab.d[ab]

*ana* sag.du lú *ana* dab-*tim* lú ág.ki lugal *ana* tar-*si* munus ág *ana* tar-*si* VIII 21 V 3<sup>106</sup>

---

35 [XI] 12 ka.dab.bé.da *dù-ma i-šal-lim* IX 12 II 6 múl.múl *šá* {pa} pa.bil z[i]

---

36 [X 11 di]ngir igi.bar dingir.šà.dab.ba *búr-ri dím-ma* al.[silim]

[X 11] II 23 múl.múl *šá* máš [zi]

---

37 [..... dam.tab.ba] <sup>1</sup>*pur-ru*-*da* dím-ma a[l.silim .....

There is no need to translate the above text since it follows so closely upon the related tablet from the same Uruk archive, BRM 4 20. The following version of this same text, from late eighth-century Sultantepe, merits a full edition and translation, despite similarities with the texts above. The importance of the Sultantepe text is that since it predates the zodiac, the same magical themes are associated with specific dates in the calendar, similar to the system used in hemerologies.

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<sup>106</sup>Ungnad restores the signs ur.a *šá* gír.tab zi, but they are not on the copy.

STT 300

obv.

- 1 [diš *ina* iti.zíz] ta ud.1.kám *in*[a] ud.30.kám šà.zi.[g]a dím-*ma* al.silim
- 2 [diš *ina* iti.še ta] ud.1.[ká]m e[n u]d.[3]0.kám sag.ki.da[b] tuk-*e* ù [n]u-[u]b-*bi*<sup>107</sup> šà.zi.ga 'ta'
- 3 [ud.1.kám] en ud.30.[k]ám [líl].lá.en.na an.ta.[šu]b.[b]a [z]i-*bi* dím-*ma* al.silim
- 4 [diš *ina* iti.bára.ud.10.k]ám [ud.d]a.kám šà.bal.'bal' ud 21.[k]ám ud.da.'kám' di [bal].a  
u[d.2]1.kám uš<sub>1</sub>'búr.da
- 5 [a]na na g[i]g nu te-*e* sag.d[u] *ana* ti-*tí*'ra-i-ib-*šu*' [ana š]u-*ši-i* [s]i-*im-ma* ana t[i.l]a
- 6 múd munus *ana* tar-*si* hul *ana* é nu te-*e* dí[m]-*ma* al.'silim'
- 
- 7 diš *ina* iti.gu<sub>4</sub> ud.10.kám ud.da.kám šu.dug.a ud.[2]1.kám 'nam-*érim*.búru.da' *érim* *ana* lú tar-*si*
- 8 ud 13.kám líl.lá.an.na ki.sikil.líl.lá.en.na 'zi'-*bi* dím-*ma* al.silim
- 
- 9 diš *ina* iti.si[g<sub>4</sub>] ud.10.kám ud.da.kám ki.'ág' nita *ana* munus ud.21.kám ki.ág.gá munus *ana* nita  
ud.4.kám 'íd.kù.ga'<sup>108</sup>
- 10 ud.30.kám hul.gig ud.30.kám ki.ág nita *ana* munus dím-[*m*]a a[l].silim
- 
- 11 diš *ina* iti.gu<sub>4</sub> u iti.sig<sub>4</sub> ki.ág é.gal.ku<sub>4</sub>.ra ta ud.1.kám e[n] ud.[3]0.[ká]m [d]ím-*ma* al.silim
- 
- 12 diš *ina* iti.šu ud.10.kam u[d.d]a.kám ki.ág nita *ana* nita ud.21.kám ud.d[a.k]ám [mun]us.[gin].na  
ud.12.[kám líl].lá.en.na
- 13 ki.sikil.líl.lá.en.na zi-*bi* ud.21.kám 'ud.da'.kám' k[i.á]g nita *ana* munus *ana* 'búr-*rí*'  
dím-[*ma* al].silim
- 

<sup>107</sup> See SBTU III 85 iii 3, dingir *ez-zu ana* lú *nu-ub-bu*, which may be the full text behind our phrase here.

There are many similar phrases in SBTU III 85 iv, but these are used with amulet stones in order to nullify the evil, which is a completely different approach to that of our text.

<sup>108</sup> The text is damaged, but even if the reading is correct, this phrase looks out of place here.



rev.

- 28 [diš *ina* it]i.apin ud.28.kám lú [é]r.<sup>1</sup>ra<sup>2</sup> zi-*e* šúr.hun.gá <eme.>sig gaba.ri *lu* ug<sub>7</sub> [t]ag<sub>4</sub> *lu* u[š<sub>11</sub>.z]u  
m[í.uš<sub>11</sub>.zu *lu*]
- 29 [n]in.dingir du<sub>11</sub>.du<sup>113</sup> [*lu* idim *ina* é.gal zi-*hi* ki.min *ana* šà.dib.dib sag.du lú *ana* dab-*[bat* lú]
- 30 [k]i.ág lú *ana* tar-*si* munus ág.ki munus *ana* tar-*si* dím-*ma* al.[si]lim
- 
- 31 diš *ina* iti.apin lú *ina* ki *kib-ra* šu.gur-*ri*<sup>114</sup> di.bal.a ka.dib.bé.da uš<sub>11</sub>.búr-*ri* igi.<sup>1</sup>nigin<sup>2</sup>.na<sup>21</sup>  
dím-*šú* silim
- 
- 32 diš *ina* iti.gan ud.10.kám ud.da.kám [munus] du<sub>11</sub>.du<sub>11</sub> ud.21.kám ud.da.kám *a-mir-ka* šu.si  
*ana* sig<sub>5</sub>-*tím* ta-*ra-ši*
- 33 [*ana* s]ig<sub>5</sub>-*ka* šu.si <sup>1</sup>sig<sub>5</sub>-*ti* *ana* <sup>1</sup>ta-*ra-ši* ud.12.kám ka.dab.bé.da dím-*ma* al.silim
- 
- 34 [ud.x].kám *qí-b*[it k]a-*šú* *ana* šu-*ud-di-i* ù dab-*sú* dím-*ma* al-sil[im] <sup>1</sup>á<sup>1</sup>.sàg dím-*ma* al.silim
- 
- 35 diš *ina* iti.ga[n ud...k]ám líl.lá.en.na ki.sikil.líl.lá.en.na zi-*hi* ka.dib.bé.da dím-<sup>1</sup>*ma* al.silim<sup>1</sup>
- 
- 36 diš *ina* iti.[ab ud...k]ám ud.da.kám *ši-kin* ku.sig<sub>17</sub> kù.babbar ud.11.kám dingir igi.bar  
dingir.šà.dib.<sup>1</sup>ba<sup>1</sup> búr ud.<sup>1</sup>1<sup>1</sup>.kám ud.da.kám
- 37 <sup>1</sup>ir na<sup>1</sup> nu z[áh<sup>1</sup>] šà ìr *u* geme <nu><sup>115</sup> kúr dingir igi.bar dingir šà.dib.ba búr-*ri* ud.12.kám  
zi.<sup>1</sup>ku<sub>5</sub>.ru.da líl<sup>1</sup>.lá.en.na
- 38 ki.sikil.líl.lá.<sup>1</sup>en.na<sup>1</sup> zi-*hi* dím-*ma* al.silim *ina* iti.ab zi.ku<sub>5</sub>.ru.da dím-<sup>1</sup>*ma* al<sup>1</sup>.silim
- 
- 39 diš *ina* iti.zíz ud.10.kám ud.da.kám munus [*ana*] <sup>1</sup>nita igi nu<sup>1</sup> íl ud.21.kám ud.da.kám  
hul.gig di.bal.a ki.min
- 
- 40 diš *ina* iti.še ud.26.kám ud.da.kám uš<sub>11</sub>.búr.ru.da ud.28.<sup>1</sup>kám<sup>1</sup> u[d.da.ká]m <sup>1</sup>gìri hul<sup>1</sup>-*tím*  
*ina* é na tar-*si*
- 41 ud.27.kám ud.da.<sup>1</sup>kám<sup>1</sup> *iš-di-ih* lú.kúrun.na *sa-da-ri* é-*lat* a-*k*[a-*li* *i*]š-*di-ih* <sup>1</sup>kúrun<sup>1</sup>.na-<sup>1</sup>*su*<sup>1</sup>

---

<sup>113</sup> For Akk. *šudbubu*.

<sup>114</sup> Akk. *kapāri*, to smear *bitumen* (*kibru* as a mistake for *kibrītu*) on a place.

<sup>115</sup> See below l. 42.

búr ki.min

---

42 diš *ina* iti.ab *u* iti.zíz ud.21.kám ìr na nu záh šà ìr *u* geme nu kúr [dím-*ma* al.silim]

---

43 diš *ina* iti.zíz *u* iti.še ud.27.kám ud.da.kám uš<sub>1</sub> 1.búr.ru.da dím-*m*[*a* al.silim]

---

44 diš *ina* iti.zíz *u* iti.še tu<sub>6</sub>.tu<sub>6</sub> bar.ra dím-*[ma]* <sup>1</sup>al.silim<sup>1</sup>

---

45 *ina* 12 iti.meš *kal* mu.an.na ud.27.kám ud.28.kám ud.29.kám sag.<sup>1</sup>hul<sup>1</sup>.ha.za dím-*ma* <sup>1</sup>al.silim<sup>1</sup>

---

46 én.meš *mu-du*<sub>11</sub>-*tu sam-tak-ki* é.<sup>1</sup>dub<sup>116</sup> *mu-du-ú mu-da-a li-k*[*al-lim an*]*a la mu-du-u* nu <sup>1</sup>pà<sup>1</sup>

---

47 šum<sup>sar</sup> zà.hi.li<sup>sar</sup> ga<sup>1</sup>.ras<sup>sar</sup> ku<sub>6</sub> mušen uzu.sah nu *ina* x *še-rim* gu<sub>7</sub> x -šú x x x -ri

---

colophon (cf. Hunger 1968: No. 362 and Reiner 1967: 200)

On edge of tablet, criss-cross patterns with the following written into the spaces between the lines:

obv. dingir.ra silim.meš.àm <sup>d</sup>asal.lú.hi

dingir *mu-šal-lim* <sup>d</sup>*marduk*

rev. dingir.ra silim.meš.àm <sup>d</sup>asal.lú.hi dingir *mu-šal-lim*

dingir tur ú.dug

dingir.ra silim.meš.àm <sup>d</sup>asal.lú.hi

dingir *mu-šal-lim* <sup>d</sup>*marduk*

---

<sup>116</sup>perhaps: incantations known by the wedges of the scribal school!

1 [If] you perform potency spells [on] the first day of the month [Šabātu], from the first day to the 30th day, it will pay off.

---

2-3 [If in month Ayyaru], you perform (the spells) from the first day to the 30th day (for) having 'forehead affliction' or (for) alleviating impotence, (or) from [the first first day] to the 30th day for getting rid of Lilû-demon and seizure, it will pay off.

---

4-6 [If in month Nisannu on the 10 day] you perform (the spells) for 'changing someone's mind', on the 21st day (the spells) for 'overturning a judgement', on the 21st day (the spells) for 'breaking a spell'; (the spells) 'for illness not to approach a man'; (the spells) for curing the head; (the spells) for getting rid of *mania*; (the spells) for curing wounds; (the spells) for stopping menstrual bleeding; (or the spells) for 'evil not to approach the house', it will pay off.

---

7-8 If in the month Ayyāru on the 10th day, you perform (the spells) for 'loosening the grasp', on the 21st day (the spells) for 'breaking an oath'; (the spells) for 'keeping an enemy away from someone', (or) on the 13th day (the spells) to get rid of the Lilû and Lilith demons, it will pay off.

---

9-10 If in the month Simānu on the 10th day, you perform (the spells) for 'having a man love a woman', on the 21st day (the spells) for 'having a woman love a man'; on the 4th day (the spells) for 'acquittal through the river ordeal'; on the 30th day (the spells) for 'hate magic'; or on the 30th day (the spells) for 'having a man love a woman', it will pay off.

---

11 If in the months of Ayyaru and Simānu, from the 1st day to the 30th day, you perform (the spells for) 'entering the palace', it will pay off.

---

12-13 If in the month Du'uzu on the 10th day, you perform (the spells) for 'a man to love a man', on the 21st day (the spells) for 'having a woman come', on the 12th day (the spells) for getting rid of the Lilû and Lilith demons, (or) on the 21st day (you perform) the counterspells for 'making a man love a woman',<sup>117</sup> it will pay off.

---

14-15 If in the month of Abu on the 10th day, you perform (the spells) for 'cutting off the breath' (spells), on the 10th day (the spells) for 'turning the face/eyes, on the 28th day (the spells) for stroke, *bennu*, seizure, 'hand of the god'-disease, (or) 'hand-of-the-ghost'-disease, it will pay off.

---

16-18 If in the month Ulûlu on the first day, you perform (the spells) for 'acquittal through the river ordeal', on the 21st day (the spells) for 'entering the palace', on the 24th day (the spells) for 'seizing a ghost in order to tie a figurine to a man'; (the spells) for not *casting off* the figurine of a man to the dead, (the spells) for giving water to a ghost to remove guilt, it will pay off.

---

19 If in the months of Du'uzu and Abu, you perform (the spells) for frightening a (female) rival and for removing a man from his office, it will pay off.

---

21-32 If in the month Tašrîtu on the 10th day, you perform (the spells) for 'appeasing anger' (spells); on the 11th day (the spells) for 'making a woman come'; from the 16th day to the 20th day (the spells) for 'cutting off of the breath'; (the spells) 'for a woman to come'; on the

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<sup>117</sup> If the reading is correct, spells to annul a love charm are unique here and do not appear in the later duplicates.

16th and 17th day (you perform the spells) for 'inviting a god to a banquet, goddess ditto'; (the spells) for (needing) to cure paralysis; (the spells) for purifying a house; (the spells) for quarantining a man; (the spells) for (needing) to heal a sick rectum; (the spells) for (needing to) cure a calculus; (the spells) for (needing to) stop diarrhea; (the spells) for (needing to) get rid of fever; on the 7th day (you perform the spells) for quarantining a man, it will pay off; on the 21st day (you perform the spells) for 'the king to mention his name with good intentions', it will pay off.

---

24 If in the months of Ulūlu and Tašrītu, you perform the spells for removing a man from his position of trust or (spells) for a man being set against (another) man -- it will pay off.

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25-27 If in the month of Arahsamnu the 10th day, you perform (the spells) for a prince to mention his name in the palace with good intentions, on the 21st day (the spells) for 'one who sees you to rejoice at seeing you', on the 12th day (the spells) for quarantining the patient (and) for getting rid of the Lilû and Lilith demons, on the 18th day (the spells) for a mogul or prince not to believe slander, (or) on the 28th day (the spells) 'not to witness insults', it will pay off.

rev.

28 [If in the] month of Arahsamnu on the 28th day, you perform (the spells) for the *wailing man to rise*;<sup>118</sup> (the spells) for 'appeasing anger'; (the spells) for 'believing slander'; (the spells) for the dead to leave, or (the spells) for having intercourse with a sorcerer, witch or priestess; (the spells) for removing a mogul from the palace, ditto; (the spells) for divine anger; (the spells) for afflicting a man's head; (the spells) for keeping a man away from a man who loves him and to keep a woman away from a woman who loves her, it will pay off.

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<sup>118</sup> This phrase has no parallels in either BRM 4 19 or 20, but may have something to do with funerary rites.

31 If in the month Arahsamnu, you perform (the spells) for *wiping sulphur on a place*,<sup>119</sup> (the spells) for 'overturning a judgement'; (the spells) for aphasia; (the spells) for breaking a spell; (the spells) for *turning the face/eye*, it will pay off.

---

32-33 If in the month Kislimu on the 10th day, you perform (the spells) for seducing a woman, on the 21st day (the spells) for 'whoever looks at you to point his finger with good intentions'; (the spells) for 'for pointing the finger with good intentions [for] your benefit', (or) on the 12th day (the spells) for aphasia, it will pay off.

---

34 If the ... day (of the month) you perform (the spells) for 'making known his promise and his action', it will pay off. If you perform the *taboo* (spells), it will pay off.

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35 If in the month of Kislimu, the [...] day being for (spells) to get rid of Lilû and Lilith demons (and spells for) aphasia -- if you perform them, it will pay off.

---

36-38 If in the month [Ṭebet, on the ... day] you perform (the spells) for depositing gold and silver; on the 11th day (the spells) for annulling the 'divine anger of the watchful god'; on the 11th day (the spells against) a 'man's slave not running away'; (the spells for insuring that) the intentions of male or female slaves not change'; (the spells) for annulling the 'divine anger of the watchful god' or on the 12th day (the spells) for 'cutting off the breath' and to get rid of Lilû and Lilith demons, it will pay off. (If) in the month Ṭebet, you perform the (spells) for 'cutting off the breath', it will pay off.

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<sup>119</sup> This phrase has no parallels in either BRM 4 19 or 20. Presumably it is an allusion to some kind of anti-witchcraft ritual.

39 If in the month Šabāṭu on the 10th day, ditto (= you perform) you perform (the spells) against a woman gazing [at] a man, on the 21st day (the spells) for 'hate magic', 'overturning a judgement', ditto (= it will pay off).

---

40-41 If in the month of Addaru on the 26th day, ditto (= you perform) (the spells) for 'breaking a spell; on the 28th day (the spells) for 'keeping the foot of evil out of a man's house'; on the 27th day (the spells) to regularise a publican's trade, apart from (spells) for counteracting the consuming of the profit of his tavern, ditto (= it will pay off).

---

42 If in the months of Ṭebet and Šabāṭu on the 21st day, you perform (the spells) for 'a man's slave not to run away' (and) 'that the intentions of slave and slavegirl not change', it will pay off.

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43 If in the months of Šabāṭu and Addaru on the 27th day, you perform (the spells) for 'breaking the spell', it will pay off.

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44 If in the months Šabāṭu and Addaru, you perform non-canonical incantations (and rituals), it will pay off.

---

45 In all 12 months of the entire year, on the 27th, 28th, or 29th day, if you perform 'sag.hul.ha.za' (incantations/rituals), it will pay off.

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46 Incantations (are) always the wisdom of the scribal school, let the knowledgeable reveal it to the knowledgeable but do not reveal it to the ignorant.

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47 Onion, *sablû*, leeks, fish or fowl, and pork is not to be eaten in the ... morning .....<sup>120</sup>

*Other related texts*

Two other fragmentary texts from Babylon and Uruk offer similar data to that in BRM 4 20 and duplicates, and these texts need to be noted.

**LBAT 1626** (BM 35537), cited Reiner 1995: 110f. n. 492 and 495-498. Written in a late, very cursive script.

obv. (almost nothing remains)

rev.

1' [.....] 'é-šú tu x' [.....

2' [*āmirka ana amārika h*]a-de-e ki mul.absin : <ma->gar lugal ki m[ul.x]<sup>121</sup>

3' [.....ki m]ul.absin íd kù.ga ki mul.[...] <sup>122</sup>

4' [*a-mi*]r-ka<sup>123</sup> šu.si sig<sub>5</sub>-tim egir na lá-[.....] <sup>124</sup>

5' [.....k]i mul.máš<sup>125</sup> di en du<sub>11</sub>-šú<sup>126</sup> šu.s[i] .....

6' [.....] x meš dù x [.....

Translation

1' .....

2' (The spells so that) one who sees you will rejoice at seeing you: region of Virgo; (the spells for attracting the) favour of a king, region of [...].

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<sup>120</sup> This is a hemerology, showing the connection between the text genres.

<sup>121</sup> Cf. BRM 4 20: 16 and BRM 4 19: 16, and BRM 4 20: 33.

<sup>122</sup> See Reiner 1995 n.493, citing as a parallel BRM 4 20 11 = Capricorn.

<sup>123</sup> The sign, which also looks like mul, is the same sign as du<sub>11</sub> in l. 5'.

<sup>124</sup> Cf. BRM 4 20 18.

<sup>125</sup> The sign is mul.SUM as drawn, but Reiner (1995: n 497) suggests this is a misreading for mul.máš, Capricorn.

<sup>126</sup> See BAM 315 ii 42 [diš] en du<sub>11</sub>-šú hul, along with other similar problems, such as zikurruda dibala kadabbeda.

- 3' [(The spells for) .....], region of Virgo; 'cleansing (of guilt) by river or well-water' (ordeal); region of [...].
- 4' [(The spells for) the one who] sees you to point the finger favourably, [region of ....].
- 5' [(The spells for) .....], region of Capricorn, for [pointing] the finger at one's adversary in court, [region of ....].
- 6' .....

### SBTU V 243

- 1 [...] x x x [...] 'ki.ág'.gá munus ana<sup>1</sup> nita 'ki' múl.hun.gá
- 2 [.....] x ki.sikil.líl.e.ne ki.múl<šu.gi> ki múl.múl
- 3 [munus lú ana nita igi<sup>II</sup> u igi] nu íl-e ka.dab.'bé.da' ki múl.maš.maš
- 4 [.....] ki múl.alla
- (traces)
- rev.
- 1' [..... k]i mul.<sup>giš</sup>[rín]
- 2' [.....] x ìr na u munus nu.záh ki múl.gír.tab
- 3' [u]š<sub>11</sub>.búr.ru.da zi.ku<sub>5</sub>.ru.da líl.lá.e.ne ki.sikil.e.ne ki múl.pa.bil.sag
- 4' <sup>d</sup>íd ù pú kù.ga ki múl.máš
- 5' di.bal.a é.'gal.ku<sub>4</sub>' ki múl.gu.la
- 6' gír hul 'tar' k[i.múl] x

### Translation

- 1 [.....], (the spells for the) love of a woman for a man, region of Aries.
- 2 [.....] (the spells for) Lilith, region of Taurus, region of Pleides.
- 3 [(The spells so that) a man's wife] not turn her eyes or face towards another man; aphasia; region of Gemini.
- 4 [.....], region of Cancer.

rev.

- 1' [.....], region of Libra.
- 2' [.....].. (spells that) a man or woman's slave not run away; region of Scorpio.
- 3' (The spells for) annulling witchcraft (ušburruda), 'cutting off the breath', Lilû and Lilith, region of Sagittarius.
- 4' (The spells for) 'cleansing (of guilt) by river or well-water' (ordeal); region of Capricorn.
- 5' (The spells for) overturning a judgement, entering the palace, region of Aquarius.
- 6' (The spells for) preventing the approach of an enemy, region of ....

These two duplicate texts from Babylon and Uruk do not always associate the same spells with the same zodiac signs as in BRM 4 20 and 19, indicating a different arrangement of spells and zodiac signs which has yet to be studied.

#### **Ancient Parallels to BRM 4 20**

This text and its duplicate enumerates various spells and rituals to be performed under the influence of zodiac signs, but based on an earlier late-eighth century BC text from Sultantepe which lists these same spells according to various days of the month. The profound change represented by these texts is that a traditional hemerology-based system of favourable and unfavourable days of the month has been replaced by zodiac-based system which assumes astral influences over the same spells and rituals. This change was likely to have occurred in the Persian period, contemporary with new ideas represented by SBTU I 43.

These texts have recently been treated in detail (Scurlock 2005-2006), although not in a text edition *per se*; Scurlock excerpts passages for comment, with parallels drawn from the Greek Magical Papyri and the *Mandaic Book of the Zodiac*. The aims of Scurlock's article are exemplary in bringing such wide-ranging material together, but there are some serious flaws in this approach. First of all, Scurlock does not sufficiently recognise the important distinction between the non-zodiacal reckoning of the Sultantepe text versus the zodiacal orientation of

the later Uruk duplicates; she simply assumes that both systems can be taken into account, when in fact the later zodiacal system replaced the earlier hemerological one. Second, Scurlock tends to cite excerpts from the Greek Magical Papyri without reference to context, such as her comment on one passage (BRM 4 20, 8) that a spell to seduce a woman can be assigned to Aries, which she relates to a spell which has the label, 'Aries: love charm' (Scurlock 2005-2006: 131). In fact the PGM text is much more interesting in its entirety than for the few words cited by Scurlock, since it offers a general parallel to our Uruk texts:

Orbit of the moon: Moon in Virgo: anything is rendered obtainable. In Libra: necromancy. In Scorpio: anything inflicting evil. In Sagittarius: an invocation or incantations to the sun and moon. In Capricorn: say whatever you wish for best results. In Aquarius: for a love charm. Pisces: for foreknowledge. In Aries: fire divination or love charm. In Taurus: incantation to a lamp. Gemini: spell for winning favor. In Cancer: phylacteries. Leo: rings or binding spells.  
(PGM VII 284-99, Betz 1986: 124)

There are certainly some general parallels from PGM which should be studied in more detail such as PGM III 275-81 (Betz 1986: 26), a text similar to that quoted above, and PGM III 494-611 (Betz 1986: 31f.), in which Helios appears in the form of an animal, with tree, stone, and animal icons, with certain similarities to the astral magic texts we have seen above. PGM X 24-35 (Betz 1986: 149) provides the drawing of an amulet to protect against anger of enemies, accuser, brigands, phobias and nightmares. This still leaves us with the difficulty of explaining how texts from Achaemenid Uruk have analogues in Hellenistic and Roman Egypt, which Scurlock does not address.

Furthermore, Scurlock's parallels from the *Mandaic Book of the Zodiac* require further scrutiny, since it is insufficient to compare such texts in English translation alone. The Mandaic text has to be checked for possible Akkadian loanwords, since we do not know whether Mandaic texts were derived from Akkadian before the demise of cuneiform script, or were simply remembered orally (and imperfectly), later committed to writing. Comparisons should ideally include other available sources, such as the *Syriac Book of Medicine*, which

contains relevant material such as aggressive spells and the use of astrology combined with magic and medicine.

There are other important Greek parallels to the Uruk texts from Ptolemy's *Tetrabiblos*, Book IV, in which he catalogues numerous kinds of influences of various planets, depending upon their positions relative to constellations in the zodiac. The headings alone of Ptolemy's Book IV highlight his thoughts on planetary influences:

Of Material Fortune (IV. 2 Loeb 372)  
Of the Fortune of Dignity (IV. 3 Loeb 376)  
Of the Quality of Action (IV. 4 Loeb 380)  
Of Marriage (IV.5 Loeb 392)  
Of Children (IV.6 Loeb 408)  
Of Friends and Enemies (IV.7 Loeb 412)  
Of Foreign Travel (IV.8 Loeb 422)  
Of the Quality of Death (IV.9 Loeb 426)  
Of the Division of Times (IV.10 Loeb 436)

Similar themes are addressed by spells in the Uruk tablets above, as well as in horoscopes known from Babylonia. For example, under Ptolemy's heading 'Friends and Enemies', we find the following statement:

‘Thus there come about occasional spells of silence and of disparaging talk in friendships, whenever the maleficent planets are passing through these configurations, and truces and reconciliations in enmities at the ingress of the benevolent planets upon them.’

(Ptolemy *Tetrabiblos* IV 7, Loeb p. 415)

Ptolemy goes on to enumerate how planets affect such relationships, and many of his lists have parallels in BRM 4 20, edited and discussed above. These include ‘intentional quarrels and scheming’;<sup>127</sup> ‘associations through kinfolk, which, however, quickly cool’; ‘marriage and partnerships for the sake of giving and receiving, trade, or the mysteries’;<sup>128</sup> ‘friendships through women, religious rites, oracles’;<sup>129</sup> ‘associations through love, adultery, or illegitimate

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<sup>127</sup> See BRM 4 20: 35.

<sup>128</sup> See BRM 4 20: 56 and 57, referring generally to profit and trade, as well as specific trade of publicans (25).

<sup>129</sup> See BRM 4 20: 35

relations';<sup>130</sup> 'enmities, noisy disputes, and lawsuits which arise through business or poisonings' (ibid. 419).<sup>131</sup> Under the heading 'Of the Quality of Death', Ptolemy catalogues diseases associated with planets, e.g. citing Saturn being associated with 'long (chronic?) illness', rheumatism, chills and fevers, while Jupiter brings about death through strangulation, pneumonia, apoplexy, spasms, headache, and cardiac affections (ibid. Loeb 429).

The comparisons with BRM 4 20 deserve a separate and more intense investigation, but the extracts above are sufficient to show important similarities between medical astrology at Uruk and later astrology within Greek sources. It is not easy, however, to prove how these associations came about, but since Ptolemy flourished in the second century AD when cuneiform was probably still legible, it would not be inconceivable that Ptolemy gathered ideas from Mesopotamia as part of a living heritage, quite possibly through Aramaic translations. We have little idea about the nature of Ptolemy's sources, but one of the fascinating descriptions of the early use of primary sources comes from his *Tetrabiblos* I, 21, in which Ptolemy explains that he came across a Chaldean manuscript in a bad state. According to Ptolemy,

Recently, however, we have come upon an ancient manuscript, much damaged, which contains a natural and consistent explanation of their order and number.... The book was very lengthy in expression and excessive in demonstration, and its damaged state made it hard to read, so that I could barely gain an idea of its general purport; that too, in spite of the help offered by the tabulations of the terms, better preserved because they were placed at the end of the book

(Ptolemy *Tetrabiblos* I 21, Loeb p. 103).

This is certainly the kind of text which Ptolemy may have collected and which could have formed the link between Uruk astral magic and his own writings on astrology.

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<sup>130</sup> See BRM 4 20: 5-6; 8; 32; 53.

<sup>131</sup> See BRM 4: 2.

### **Astrological interpretation of SBTU I 43**

So far, our attempt at finding a solution for explaining SBTU I 43 by referring to analogues from contemporary and later Greek medicine has not proven to be successful. Albeit parallels between Babylonian and non-Hippocratic medicine are interesting in themselves, they do not enlighten us further about the purposes of the Uruk text. In order to find a more satisfactory explanation, it is necessary to search further afield, delving into astrology.<sup>132</sup> At first glance, an astrological decipherment of SBTU I 43 is also hardly credible, because of too many possible variants. One can speculate about the numbers of divisions of the text into four units, each consisting of 6, 12, 7 and 6 lines of text respectively. But what kinds of associations can be made with these sequences? Twelve signs of the zodiac? The theory of the 'lunar six'? Seven planets? Four phases of the moon? Nothing seems concrete enough within astrology to make a convincing case.

Without attempting, therefore, to posit an explanation, the next step in our investigation is to review the similar genre of astral magic texts, to see if clues might emerge which cast light on SBTU I 43.

#### *An astral-medical text for comparison with SBTU I 43*

What if there is some astrological basis behind this text, which has not yet been noticed, but which is somehow cryptically encoded within the number of entries in each section of the text? In other words, there might be some astrological connection with each disease mentioned, if it is associated with a zodiac sign as well as with a body organ. Here is an example of what astral medicine of this kind looks like:

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<sup>132</sup> Heeßel was obviously thinking along similar lines when referring to SBTU I 43 within the context of astral medicine (Heeßel 2005: 22).

## LBAT 1598

- 1' [ki-i d<sup>d</sup>sin ina absin] ù gig šá g[ír.tab šu-ú a-na zib.me zi....  
When the moon is in Virgo, and the illness belonging to Scorpio moves into Pisces, ....  
(sequence: VI, VIII, XII)
- 2' [ki-i d<sup>d</sup>sin ina r]ín ù gig šá pa šu-ú [a-na hun zi ...  
When the moon is in Libra and the illness belonging to Sagittarius moves into  
Aries, .... (sequence: VII, IX, I)
- 3' [ki-i d<sup>d</sup>]sin ina gír.tab ù gig šá máš šu-ú [a-na múl.múl zi ...  
When the moon is in Scorpio and the illness belonging to Capricorn moves into  
Taurus .... (sequence: VIII, X, II)
- 4' [ki-i d<sup>d</sup>]sin ina pa ù gig šá gu šu-ú a-na m[aš.maš zi ...  
When the moon is in Sagittarius and the illness belonging to Aquarius moves into  
Gemini.... (sequence: IX, XI, III)
- 5' [ki-i d<sup>d</sup>]sin ina máš ù gig šá zib.me šu-ú a-na a[lla zi ...  
When the moon is in Capricorn and the illness belongng to Pisces moves into  
Cancer .... (sequence: X, XII, IV)
- 6' [ki-i d<sup>d</sup>sin ina gu ù gig šá hun šu-ú a-na a [zi ...  
When the moon is in Aquarius and the illness belonging to Aries moves into Leo ...
- 7' [ki-i d<sup>d</sup>]sin ina zib.me ù gig šá múl.múl šu-ú a-na absin [zi ...  
(translations all follow the same sequences, as above)
- 8' [ki-i d<sup>d</sup>sin] ina hun ù gig šá absin šu-ú a-na máš [zi ...
- 9' [ki-i d<sup>d</sup>sin ina múl.múl] ù gig šá rín šu-ú a-na gu [zi ...
- 10' [ki-i d<sup>d</sup>sin] ina maš.maš [ù] gig šá gír.tab šu-ú a-na zib.me g[in<sup>?</sup>...
- 11' [ki-i d<sup>d</sup>]sin ina alla ù gig š[á pa šu-ú a-na hun g[in<sup>?</sup>
- 12' ki-i<sup>r</sup> d<sup>d</sup>sin ina a ù gig š[á máš šu-ú a-na múl.múl zi .....
- 13' ki-i d<sup>d</sup>sin ina absin ù gig š[á gu šu-ú a-na maš.maš zi .....
- 14' ki-i d<sup>d</sup>sin ina rín ù gig š[á zib.me šu-ú a-na alla zi .....
- 15' ki-i d<sup>d</sup>sin ina gír.tab ù gig š[á hun šu-ú a-na a zi .....
- 16' ki-i d<sup>d</sup>sin ina pa ù gig š[á múl.múl šu-ú a-na absin zi .....

- 17' *ki-i*<sup>d</sup>*sin ina máš ù gig š[á máš.maš šu-ú a-na rín zi .....*
- 18' *ki-i*<sup>d</sup>*sin ina gu ù gig š[á alla šu-ú a-na máš.maš zi .....*
- 19' *ki-i*<sup>d</sup>*sin ina zib.me ù gig š[á a šu-ú a-na alla zi .....*
- 20' *ki-i*<sup>d</sup>*sin ina hun ù gig š[á absin šu-ú a-na a zi .....*
- 21' *ki-i*<sup>d</sup>*sin ina múl.múl ù gig š[á rín šu-ú a-na absin zi .....*
- 22' *ki-i*<sup>d</sup>*sin ina máš.maš ù gig š[á gír.tab šu-ú a-na rín zi .....*
- 23' *ki-i*<sup>d</sup>*sin ina alla ù gig š[á pa šu-ú a-na gír.tab zi .....*
- 24' *ki-i*<sup>d</sup>*sin ina a ù gig š[á máš šu-ú a-na pa zi .....*
- 25' *ki-i*<sup>d</sup>*sin ina absin ù gig š[á gu šu-ú a-na máš zi .....*
- 26' *ki-i*<sup>d</sup>*sin ina rín ù g[ig š[á zib.me šu-ú a-na gu zi .....*

With this text, we have the moon moving through various houses of the zodiac with consequences for associated diseases.<sup>133</sup> However, this text is only relevant if there is some kind of astrological basis behind SBTU I 43, which we have yet to demonstrate.

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<sup>133</sup> Francesca Rochberg (oral communication) offers the following tentative explanation of the text as follows: 'If gig here is the sick person, the text might be saying when the moon is in sign 1 and the sick person's (birth?) sign is sign 2, go to sign 3 (meaning "treat" when the sun is in sign 3)? The distance from the gig's sign and the treatment(?) sign is 120°, i.e., in "trine," which is most favorable. The distance from the moon's sign to the sick person's sign is 60°, or "sextile," which is another but slightly less favorable aspect that I have not seen in cuneiform before.

Cale Johnson (oral communication) offers the following useful observation on this text as well:  
 Section 1: (lines 1'-7') 1st and 2nd signs are TWO signs apart, 2nd and 3rd signs are FOUR signs apart  
 Section 2: (lines 8'-17') 1st and 2nd signs are FIVE signs apart, 2nd and 3rd signs are FOUR signs apart  
 Section 3: (lines 18'-26') 1st and 2nd signs are FIVE signs part, 2nd and 3rd signs are MINUS ONE (or 11) signs apart.

The interesting thing is that there is certainly a trine aspect hiding in each section: between the 2nd and 3rd signs in the first two sections: 6>8>12 in line 1' and 1>6>10 in line 8', and between the 1st and 3rd signs in the third section as in line 18': 11>4>3. So given the reconstruction in the third section, which is only hypothetical, a trine description is only correct for the first two sections; in the third section the trine is between the moon and the goal rather than the sick person and the goal.



From the Duc du Berry, *Très Riches Heures* (c. 1410), photo courtesy of the Preussischer Kultur Besitz

## *Melothesia*

So far, all of our efforts to explain the text of SBTU I 43 have ended in failure. One final avenue for us to explore will be the astrological science of melothesia.<sup>134</sup> According to Harry Bober, the classical concept of melothesia originating in the Hellenistic period represents ‘the doctrine of the domination of the twelve signs of the zodiac over the anatomical regions indicated, beginning with Aries for the head, Taurus for the neck, Gemini for the shoulders and arms, and so on in sequence down to Pisces for the feet (Bober 1948: 2). Neugebauer refers to Greek astrological sources which divide a zodiac sign into 12 micro-divisions (*dodekatemoria*), with each being associated with a part of the zodiacal body, such as 'head', 'throat', 'mouth', 'heart', 'privy parts', etc., referring to the parts of the zodiac sign (ie. crab, goat, etc.).<sup>135</sup> For example, Aries was divided into the head, throat, shoulders, chest, stomach, abdomen, buttocks, pudenda, knees, loins, tibia, and feet. The problem is that Greek astrologers identified two different types of melothesia, one describing influences of zodiac signs and the other influences of planets, and the system of astral influences became increasingly complex over the course of time (Bouché-Leclercq 1899: 319-325, Bezza 1995 II 722-731, 741-744). The obvious danger is to try to read back into Babylonian astrology ideas learned from Greek astronomy which may have developed at a later date.

In Book II of his *Tetrabiblos*, Ptolemy outlines his notions of astral influences on human affairs:

Constellations of human form, both in the zodiac and among the fixed stars, cause the event to concern the human race. Of the other terrestrial signs, the four-footed are concerned with the four-footed dumb animals, and the signs formed like creeping things with serpents and the like. Again, the animal signs have significance for the wild

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<sup>134</sup>The idea of exploring melothesia in Babylonia was first suggested to me by F. Rochberg.

<sup>135</sup>Neugebauer 1959: 270-275. See Hunger and Pingree 1999: 89ff., listing fixed *zipqu* stars coming from parts of the anatomy of the animals representing constellations, such as lion, panther, and scorpion, etc., giving stars from the head, horn, breast, thigh, tail, knee, heel and shoulder. This is quite similar to the type of Greek melothesia discussed by Neugebauer, *op. cit.*

animals and those which injure the human race; the tame signs concern the useful and domesticated animals, and those which help to gain prosperity, in consistency with their several forms; for example, horses, oxen, sheep, and the like.

(Ptolemy, *Tetrabiblos* II 7, Loeb p. 171-173)

As far as disease goes, Ptolemy is specific about planetary influences on human health.

About Saturn he writes that this planet

is in general the cause of destruction by cold, and in particular, when the event concerns men, causes long illnesses, consumptions, withering, disturbances caused by fluids, rheumatisms, and quartan fevers.

(Ptolemy, *Tetrabiblos* II 8, Loeb p. 179-181)

Ptolemy goes on to conclude that Saturn also leads men to exile, impoverishment, prison, mourning, anxiety, and death. Saturn also causes harm to animals, disrupts the weather and natural ecology, and ruins crops. Jupiter, on the other hand, brings happiness and 'bodily and spiritual health' (II.8, Loeb 182f.).

Mars, another malevolent planet, has an adverse effect on humans, causing war, slavery, and death; as for human health, he brings about fevers, tertian fevers, and 'raising of the blood' (ibid.).

While Venus is seen as benevolent in every respect, Mercury is more ambiguous since he is influenced by other planets which approach him. He is capable of causing a disease of 'dryness', quotidian fever, cough, and consumption (ibid., Loeb 186f.).

One of the cardinal aspects of planetary influence on human health concerns either quartan, quotidian, or tertian fevers; it is noteworthy that only one type of fever (sun-light fever) is mentioned is SBTU I 43 18, the very last entry associated with the epigastrium.

Ptolemy goes further into melothesia by exploring which parts of human anatomy are directly affected by the planets. The malevolent planets which bring disease only do so under certain conditions, depending upon their positions in relation to the sun and moon.

For the parts of the individual signs of the zodiac which surround the afflicted portion of the horizon will indicate the part of the body which the portent will concern, and whether the part indicated can suffer an injury or a disease or both.

(Ptolemy *Tetrabiblos* III 12, Loeb p. 319)

Ptolemy goes on to explain that Saturn controls what happens to the right ear, spleen, bladder, phlegm, and bones. Jupiter controls the faculty of touch, the lungs, arteries, and semen. Mars controls the left ear, kidneys, veins, and genitals. The sun controls the brain, heart, sinews and everything related to the right hand. Venus controls the sense of smell, the liver, and viscera; Mercury controls speech and thought, the tongue, bile and buttocks. The moon controls the sense of taste, as well as drinking, the stomach, belly, womb, and everything related to the left hand (ibid, Loeb p. 318f.).

Ptolemy then proceeds to explain how planets affect a single example of eye disease or injury. The conjunction of the moon with other orbs can bring about eye disease in one eye, while other conjunctions will cause disease in both eyes. Conjunctions with Mars causes eye injury through a physical blow, while configurations with Saturn can affect the eyes with glaucoma (ibid.). Ptolemy next explains what specific ailments are influenced by planets.

Diseases are likely to result when at the positions already described the maleficent planets are in aspect, but in the opposite sense, that is, evening stars with respect to the sun and morning stars to the moon. For in general Saturn causes his subjects to have cold bellies, increases the phlegm, makes them rheumatic, meagre, weak, jaundiced, and prone to dysentery, coughing, raising, colic, and elephantiasis; the females he makes also subject to disease of the womb.

(Ptolemy *Tetrabiblos* III 12, Loeb p. 327).

He describes the effects of what happens when Mercury is allied with Mars, which results in sore eyes and abscesses, as well as 'black bile, insanity, the sacred disease' (ibid.).

Ptolemy goes on to discuss what diseases are affected by the zodiac, apart from planets, and we find a similar listing of ailments, such as skin diseases, epilepsy, and falling fits. But all is not lost, since the benevolent planets have an effect as well, in which case Jupiter in conjunction with Mercury can help treatment through drugs and good physicians, while Venus and Saturn tend to help healing through prayer and magic (ibid., Loeb 330-333).

Unlike in Greek, there is no single text devoted specifically to melothesia in cuneiform texts,<sup>136</sup> although Reiner has discovered melothesia in an important source, in a Late Babylonian medical commentary from Nippur (Reiner 1993: 21f.). These medical commentaries are crucial for understanding contemporary scholarship of the Persian and Hellenistic periods in Babylonia, and their significance must not be underestimated. The entry which caught Reiner's attention is a learned comment on the typical medical phrases, 'If a man's spleen hurts him' and 'if a man's kidney hurts him'. What the commentary explains is that the spleen is equated with Jupiter, and the 'the Kidney-star is Mars' (Reiner 1995: 60, Civil 1974: 336f.). Reiner correctly concludes that the intention of the commentary is that Jupiter governs the spleen and Mars governs the kidneys, which are clear examples of melothesia, as we know from Greek sources.

In other words, the essential elements and ingredients were available within Babylonian astronomy to construct a theory of melothesia. For one thing, within standard astronomical texts such as *Enūma Anu Enlil*, diseases were often connected with celestial omens, and it was an easy step to take to associate diseases with zodiacal phenomena; this idea was previously discussed by Rochberg in her edition of a Late Babylonian tablet of lunar eclipses within the zodiac (rather than the more traditional appearance of an eclipse on a certain day of the month). Hence Rochberg translates:

If the moon is eclipsed in Leo and finishes the watch and the north wind blows, Jupiter does not stand (in) the eclipse; Saturn and Mars stand in Aries or in Sagittarius or The Field; variant: in its eclipse [a halo surrounds (the moon) and Regulus stands within it]. For this sign: [the king] of Akkad will experience severe ... *šibbu*-disease.  
(Rochberg 1984: 136, also idem. 1999-2000: 245)

It is clear that *šibbu*-disease is influenced by an eclipse of the moon in Leo, with the positions of two malefic planets Saturn and Mars being noted.

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<sup>136</sup> Referring to a late Babylonian tablet of lunar eclipses within the zodiac, Rochberg observes that, despite parallels with Greek astrology, 'explicit benefic and malefic influence on the planets cannot be recognized' (Rochberg 1984: 125).



- 7' diš ki múl maš.tab.gal an.ta.šub.ba u<sup>d</sup>lugal.ùr.ra múl.maš.tab.gal<sup>d</sup>lugal.ùr.ra u<sup>d</sup>mes.lam.ta.è.a<sup>144</sup>
- 
- 8' diš ki múl.al.lu<sub>5</sub> ugu.sag.ki.dab.ba *sil-hu u ra-'i-bi*<sup>145</sup> mul.alla íd<sup>d</sup>nin.gír.su<sup>d</sup>a-nim : diškur
- 
- 9' diš ki múl.ur.gu<sup>d</sup> ðim.me<sup>d</sup> ðim.me.a<sup>d</sup> ðim.me.lagab<sup>d</sup> ðim.me.tab<sup>d</sup> ðim.me.tab.ge<sub>6</sub>.ù.na<sup>d</sup> dingir *la-ab-ba* mu dingir lirum<sup>146</sup> *iš-tar u šu.gedim.ma<sup>d</sup> dili-bat u ur.a*
- 
- 10' [diš] 'ki múl' x [l]ú munus nu si.sá šu.<sup>d</sup>innin šu.dingir.ra šu.nam.érim.ma<sup>d</sup> šu.nam.lú.u<sub>18</sub>.lu ka.dimma kúr<sup>147</sup>  
[....šu] *iš-tar še-e-du šá šu<sup>d</sup>bé-let-dingir.meš*
- 
- 11' [.....] x x x x<sup>d</sup>sin u<sup>d</sup>utu sag : *zi-i-mu*  
[.....] x du
- 
- 13' [.....] x na

### Translation

- 1' [If (the moon is)<sup>148</sup> in the region of .....] .... a glad heart, whether god, king, noble or prince, melancholy or fearful, [.....] sons or daughters, ditto.
- 2' [If (the moon is) in the region of Saturn, he will die, (his) guilt will not be rectified.

<sup>144</sup>See Stol 1993: 117, explaining translating 'Gemini: Lugal-urra and Meslamtaea', equating Gemini with the twin stars.

<sup>145</sup>BRM 4 20: 26, with the commentary *ibid.* 69, and the duplicate BRM 4 19: 26.

<sup>146</sup>Cf. CAD Š/1 449 lex., *šitpušu* 'belligerent'.

<sup>147</sup>Akk. *ṣēmu šanû*

<sup>148</sup> Our interpretation of the moon in conjunction with various zodiac signs follows the pattern of a text published by Hunger, ZA 64 (1975), 41-43.

- 3' [If (the moon is) in the region] of Mercury, he will not proceed in a lordly way,  
but he will rule over the household of his brothers.
- 4' If (the moon is) in the region of Perseus, epilepsy, fever, or joint-disease<sup>149</sup>,  
(broken Vorlage), migraine; [alternatively] Mercury (lit. Marduk-Star)<sup>150</sup>  
for epilepsy, or 'sperm of Šulpa'e' (Jupiter)<sup>151</sup> (for) epilepsy.
- 5' If (the moon is) in the region of the Pleides, 'all' diseases or a plague; epidemic,  
attack of fever, (broken Vorlage)
- 6' If (the moon is) in the region of Taurus and Orion, joint-disease, vertigo,  
*maškadu*-disease, *šû*-disease, seizure; [alternatively] *lamaštu*-disease (lit.  
'Daughter of Anu')<sup>152</sup> (in) Orion (and) Saturn.
- 7' If (the moon is) in the region of Gemini, seizure or epilepsy; Gemini and Great  
Twins (Lugalurra and Meslamtaea).
- 8' If (the moon is) in the region of Cancer, migraine, dribbling,<sup>153</sup> cramp;  
[alternatively] Cancer, a lunar halo,<sup>154</sup> Ningirsu of Anu = Adad.

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<sup>149</sup> SBTU I 49: 39, where this word appears in a medical commentary but rendered by Hunger as 'herumirren', suggesting a psychological trauma (translating Sumerian *dib.ra.ah*).

<sup>150</sup> A Marduk-star is known from the Great Star List (Koch-Westenholz 1995: 192), identified as Mercury in Hunger-Pingree 1999: 137.

<sup>151</sup> This may be an allusion to a Šumma Izbu omen (Leichty 1970: 38, 68), referring to a freak birth. The text reads, *be munus a.ria dŠul.pa.e ù.tu é.bi dīškur ra-iš*, 'if a woman gives birth to the "sperm of Šulpae", a storm will strike the household.' This might be a secret name for some kind of plant, since the 'sperm' of a god is found in the Greek Magical Papyri to be a *Deckname* for various kinds of plants, e.g. 'semen of Ares' = clover, see Betz 1986, 168f. Similarly, 'human sperm' (*a.ri.a nam.lú.u<sub>18</sub>.lu*) is a *Deckname* for the common plant *maštakal* (BRM 4 32:5 (a medical commentary)). This would mean that the text is identifying a remedy for epilepsy, as well as the celestial influences on this disease.

<sup>152</sup> See Stol 1993: 117.

<sup>153</sup> So CAD S 267, cf BAM 111 ii 8 and 29 for this rare disease, characterised by the general symptoms: *dīš na kàš.meš-šû ut-ta-na-tak ka-la-a la i-la-a' uzu.bir-šu he-sa-at im.diri-ma ma-as-la-ab kàš.meš-šû i-bi-ta diri*, 'if a man continually drips urine and is not able to withhold it, his bladder is swollen, he is full of wind and the opening of his penis (lit. urine) is full of thick matter'. BAM VII no. 3

<sup>154</sup> CAD N/1 376.

- 9' If (the moon is) in the region of Leo, *lamaštu*, *labašu*, and *abhāzu*-demons, the seized-by-*lamaštu*(-disease), seized by *lamaštu* day-and-night(-disease), the god is a lion related to a belligerent god, Ištar, and Hand of the Ghost-disease, (in the region of) Venus and Leo.
- 10' If (the moon is) in the region of ..., a man cannot make advances towards a woman, Hand of Goddess-disease, Hand of the God-disease, Hand of the Oath-disease, Hand of Mankind-disease, madness, [... the hand of] Ištar (is) a spirit which is the Hand of Bēlet-ilī.
- 11' [If (the moon is) in the region of .....], moon and sun; head = face.....

There are some specific elements of melothesia in this text, especially in those passages which assign diseases to specific zodiacal influences. In line six, a sequence of six ailments known as *šaššātu šidanu maškadu šû miqtu* and *lamaštu*-caused disease occur together under the same zodiacal influence; these diseases are similarly grouped in SBTU I 43 and elsewhere in Babylonian medical literature. What we do lack here is the intermediate stage, which would have explained how the moon's position within the zodiac influences individual organs or parts of the body. In fact this is exactly what we expect in a classic melothesia text. So although we lack the theoretical explanation for this text (as often happens in Babylonian science), we can nevertheless infer the system which operates in the background, ie. planets influence organs which are associated with various groups of diseases.

Another important text published by Nils Heeßel does not mention diseases by name but gives zodiac signs together with stones, plants, and tree substances which are to be used for various healing purposes, specifically fumigation, amulets, and salves (Heeßel 2005). Here is a sample extract:

Month Šabātu (11<sup>th</sup> month of the year, Jan/Feb), region of (the corresponding zodiacal sign) Aquarius: hematite, poplar wood, *aktam*-plant, dust from the gate of (the god) Ellil you sew up [in a linen cloth] with a linen thread. One piece of hematite you attach to a string with (this) amulet and put it on his neck. (With) poplar wood [you fumigate him], with *aktam*-plant (and) dust from the gate of (the god) Ellil (mixed) in fine (*pūru*)-oil you anoint him. Salve from the 15<sup>th</sup> to the 21<sup>st</sup> day of (the month) Šabātu, on the 15<sup>th</sup> day [...].

(translation Heeßel 2008: 10).

Another group of similar texts recording astral influences (Weidner 1967) hardly make any mention of disease but refer more characteristically to chances of avoiding snakebite or winning a lawsuit.<sup>155</sup> Here is one example: ‘Capricorn: one should not eat fish; solar eclipse; unfavourable for a court case’ (ibid. 35). Here again we have a combination of zodiac astrology and hemerology-style favourable and unfavourable days, although without mentioning the month. The interesting point is that of all texts providing similar information and data, none gives the complete record of the system, but only a partial scheme of the complexities of astral medicine.

Heeßel has also published a Late Babylonian tablet from Yale (YBC 9833), possibly also from Uruk, which relates to the *dodekatemoria* tablet cited below (BM 55605) and fills in further small sections of our large puzzle. This interesting tablet gives a specific simplicium as a remedy to be wrapped in some form of hide and applied with oil to the patient, but in this case reference is made to each of twelve months, rather than the appearance of a planet or zodiac sign. Nevertheless, the information is relevant to melothesia, as we will see below.

#### YBC 9833

- 1 <sup>iti</sup>bára <sup>gišv</sup>sur.mìn ina kuš sa.a ina gú ga[r]-a[n] ù ina ì.giš šés t[i]
- 2 <sup>iti</sup>gu<sub>4</sub> <sup>ú</sup>ba-ri-rat ina kuš ur.bar u ina ì.giš ki.min
- 3 <sup>iti</sup>sig<sub>4</sub> <sup>gišv</sup>šak-kul ina kuš ka<sub>5</sub>.a u ina ì.giš ki.min
- 4 <sup>iti</sup>su <sup>giš</sup>kìm ina kuš gu<sub>4</sub> u ina ì.giš ki.min

<sup>155</sup> Except for Weidner 1967: 22, mentioning *bennu*-disease (epilepsy).

- 5 <sup>iti</sup>ne giš.kín *ina* kuš udu.níta *u ina* ì.giš ki.min  
6 <sup>iti</sup>kin <sup>giš</sup>*mur-ra-nu ina ši-hi-iṭ* muš *u ina* ì.giš ki.min  
7 <sup>iti</sup>du<sub>6</sub> <sup>giš</sup>*sar-bat ina ši-hi-iṭ* gír.tab *u ina* ì.giš ki.min  
8 <sup>iti</sup>apin <sup>giš</sup>á.zu *ina* kuš ur.gi<sub>7</sub> *u ina* ì.giš ki.min  
9 <sup>iti</sup>gan <sup>giš</sup>hašhur *ina* kuš maš.dà *u ina* ì.giš ki.[min]  
10 <sup>iti</sup>ab <sup>giš</sup>nu.úr.ma *ina* kuš eme.šid *u ina* ì.giš ki.min  
11 <sup>iti</sup>zíz <sup>giš</sup>geštin *ina* kuš dar.lugal<sup>mušen</sup> *u ina* ì.giš ki.min  
12 <sup>iti</sup>še <sup>giš</sup>*pu-qut-tú* <sup>giš</sup>*mur-ra-nu ši-hi-iṭ* muš <sup>ú</sup>kur.kur *ina* túg.gada *u ina* ì.giš ki.min

#### Translation

- 1 Nisan, place cypress in catskin on the neck and rub with oil, it will improve.  
2 Ayyaru, (place) *barīrātu*-plant in wolfskin and with oil, ditto,<sup>156</sup>  
3 Simānu, (place) *šakkullu*-wood in foxskin and with oil, ditto,  
4 Du'uzu, (place) willow in ox hide and with oil, ditto,  
5 Abu, (place) *kiškanû* in buckskin and with oil, ditto,  
6 Ululu, (place) *murrānu*-wood in cast snakeskin and with oil, ditto,  
7 Tašrītu, (place) poplar in cast scorpion-skin and with oil, ditto,  
8 Arahsamnu, (place) bolt-wood<sup>157</sup> in dog-hide and with oil, ditto,  
9 Kislimu, (place) apple-wood in gazelle-skin and with oil, ditto,  
10 Ṭebetu, (place) pomegranate in lizard-skin and with oil, ditto,  
11 Šabāṭu, (place) vine-wood in rooster-skin and with oil, ditto,  
12 Addaru, (place) *puquṭtu*-thorn (and) *murrānu* into snakeskin,  
( and) *atā'išu* in linen and with oil, ditto.

<sup>156</sup> Ditto = rub (with oil), place on the (patient's neck) and he will improve.

<sup>157</sup> *aškuttu*, written á.zu instead of á.súkuḍ.

The above text relates to the another Late Babylonian tablet, BM 56605, probably from Sippar, the reverse of which lists a specific stone, tree and plant for each zodiac sign, as well as a day of the month on which certain foods should not be consumed (Heeßel 2000: 128f). This tablet further shows a combination of zodiac astrology and hemerology; here is a sample passage: ‘Gemini, carnelian, *tiātu*-plant, *kamkadu*-plant, drink no milk on the 15<sup>th</sup> of the month Simānu’ (ibid. 129, see 469). The same tablet also includes a *dodekatemoria*.<sup>158</sup> There is no direct evidence that the stone, tree, and plant listed in BM 56605 have any relevance to medicine or healing, but it is a likely assumption, provided that both texts are considered to belong to the same atelier. BM 56605 is a highly unusual text which has thematic parallels in BM 47755, from Babylon (Heeßel 2000: 124f.) and in YBC 9833. Both of these former texts include a passage intended for a patient who has been affected by a star, and specific parts of his body hurt as a consequence, which is typical of the genre of melothesia. Several of the stars mentioned can be found in the Great Star List, given as the 12 stars of Amurru (Koch-Westenholz 1995: 198). Below is a combined edition and translation of relevant lines from BM 47755 and from BM 56605 obv. 48-71, and lines from YBC 9833 have been added for convenience.<sup>159</sup>

**A = BM 47755**

**B = BM 56605 ii 46-74**

**C = YBC 9833**

- 1' A = diš na Šulak dab-su<sup>ú</sup>uri<sup>ki</sup> súd ina a.meš ina ʾíd<sup>1</sup> hi.hi šés-su tin-ut šit-tu  
téš.bi an-nu-tú ina gú-šú min
- 2' A = diš ina min lú gig<sup>múl</sup>gu.la tag-su úr 15-ti<sup>2</sup> gu<sub>7</sub>-šú<sup>giš<sub>v</sub></sup>sur-mìn-ni ina kuš sa.a  
ina gú-šú gar-an ina ì šés tin-ut

<sup>158</sup>This is similar to what we found in the Uruk text, BRM 4 19, which divides each zodiac sign into a micro-zodiac of 2 1/2 degrees, to allow each zodiacal point to be associated with other points in the zodiac. See Neugebauer and Sachs 1952-1953, Rochberg 1988, Heeßel 2008: 12.

<sup>159</sup>Heeßel has given these texts separately, but we give them in *Partitur* format, in order to show the relationship between the various texts, since they are not exact duplicates.

- B = [..... lú g]ig<sup>mul</sup>gu.la tag-su úr 15-šú gu<sub>7</sub>-šú šur.mìn  
[.....]-an ša-niš ina ì.giš šés-su-ma ti.la
- C = <sup>iti</sup>bára<sup>giš<sub>v</sub></sup>šur.mìn ina kuš sa.a ina gú ga[r]-a[n] ù ina ì.giš šés t[i]
- 3' A = min min aš.iku tag-šú<sup>r</sup>úr<sup>1</sup> 2,30-šú gu<sub>7</sub>-šú<sup>ú</sup>ba-ár-ra-tú ina kuš ur.bar.ra ina  
gú-šú gar-an ina <sup>r</sup>1 [.....]
- B = [..... g]ig<sup>mul</sup>aš.iku tag-su úr 2,30-šú gu<sub>7</sub>-šú [.....u]r.bar.ra ina  
gú-šú gar-an šá-niš ina ì.giš šés-su
- C = <sup>iti</sup>gu<sub>4</sub><sup>ú</sup>ba-ri-rat ina kuš ur.bar u ina ì.gi ki.min
- 4' A = min min nu.muš.da tag-šú<sup>r</sup>giš<sup>š</sup>kun murub<sub>4</sub> gu<sub>7</sub>-šú<sup>r</sup>[<sup>giš</sup>sa]g.kul  
<ina kuš> k[a<sub>5</sub>].<sup>r</sup>a<sup>1</sup> [ina g]ú-šú<sup>r</sup>gar-an šés<sup>1</sup>-su tin-<sup>r</sup>ut<sup>1</sup>
- B = [... <sup>m</sup>u<sup>l</sup>nu.muš.da tag-su giš.kun u murub<sub>4</sub> gu<sub>7</sub>-šú [.....]-šú  
gar-an šá-niš ina ì.giš šés-su
- C = <sup>iti</sup>sig<sub>4</sub><sup>giš<sub>v</sub></sup>šak-kul ina kuš ka<sub>5</sub>.a u ina ì.giš ki.min
- 5' A = min min šu.g[i] ..... ina kuš gu<sub>4</sub> [ina gú-šú  
[..... šé]š-[s]u tin-ut<sup>1</sup>
- B = [... <sup>r</sup>mul<sup>v</sup>šu.gi tag<sup>1</sup>-su gaba-su gu<sub>7</sub>-šú [.....]  
gar-an šá-[niš] <sup>r</sup>ina<sup>1</sup> ì.giš šés-su
- C = <sup>iti</sup>š<sup>v</sup>u<sup>giš</sup>kim ina kuš gu<sub>4</sub> u ina ì.giš ki.min
- 6' A = min min gú.an tag<sup>1</sup>-šú x x gu<sub>7</sub><sup>1</sup>-šú [.....] ina kuš udu<sup>1</sup>.n[íta ina] gú-šú  
gar-an ina ì šés tin<sup>1</sup>-u[t]
- B = [... lú gi]g<sup>mul</sup>gú.an tag-su šu<sup>II</sup> 15-šú u bar gu<sub>7</sub>-šú [.....] x ina  
gú-šú gar-an [šá-ni]š ina ì.giš šés-su
- C = <sup>iti</sup>ne giš.kín ina kuš udu.níta u ina ì.giš ki.min
- 7' A = min min maš.[tab.ba gal.ga] tag-šú sag.du gu<sub>7</sub>-šú mu[r-ra-nu] ina kuš  
<sup>r</sup>muš<sup>1</sup> [ina g]ú-šú<sup>1</sup> gar-an ina ì šés tin<sup>1</sup>-ut
- B = [..... <sup>m</sup>u<sup>l</sup>maš.tab.ba gal.gal ta[g-su sa]g.<sup>r</sup>du<sup>1</sup>-su gu<sub>7</sub>-šú  
[.....] ina gu<sub>7</sub>-šú gar-an šá-niš [ina ì.giš šé]š-su
- C = <sup>iti</sup>kin<sup>giš</sup>mur-ra-nu ina ši-bi-it muš u ina ì.giš ki.min
- 8' A = min min zubi<sup>1</sup> tag-šú gú-šú gu<sub>7</sub>-šú<sup>giš</sup>šar-ba-tu<sub>4</sub> ina kuš gír.tab ina gú-šú  
gar-an ina ì.giš šés tin-ut

- B = [.....<sup>mul</sup>gag.si.s]á tag-*su* gú-*šú* [g]u<sub>7</sub>-*šú* [..... ga]r-*an*  
*šá-niš ina* ò.giš šés-*su*
- C = <sup>iti</sup>du<sub>6</sub><sup>giš</sup> *šar-bat ina ši-hi-iṭ* gír.tab *u ina* ò.giš ki.min
- 9' A = min min uga tag-*šú* gu<sub>4</sub>.murub-*šú* [gu<sub>7</sub>-*šú*<sup>1</sup>giš *ed-de-et-tu<sub>4</sub> ina* kuš ur.a *in*  
gú-*šú* gar-*an*]
- B = [.....<sup>mul</sup>ug]a<sup>mušen</sup> tag-*su* murgu-*šú* gu<sub>7</sub>-*šú* [..... *šá-ni*]š  
*ina* ò.giš šés-*su*
- C = <sup>iti</sup>apin<sup>giš</sup> á.zu *ina* kuš ur.gi<sub>7</sub> *u ina* ò.giš ki.min
- 10' A = min min ab.sín tag-*šú* ku-a-mu-u *u* maš.síl g[u<sub>7</sub>-*šú*<sup>giš</sup> hašhur] *ina* kuš  
maš.dà *ina* gú-*šú* gar-*an* *ina* ò šés [ti]n-[u]t
- B = [.....] x x 150-*šú* *šá-niš* maš.[síl gu<sub>7</sub><sup>1</sup>-*šú*  
[.....]
- C = <sup>iti</sup>gan<sup>giš</sup> hašhur *ina* kuš maš.dà *u ina* ò.giš ki.[min]
- 11' A = min min *šá-ru-ru-ur* šar.[gaz tag-*šú*]ú ti 15 g[u<sub>7</sub>-*šú*<sup>giš</sup> nu.úr.mu *i*[na kuš  
e]me.šid *ina* gú-*šú* [gar-*an*]
- C = <sup>iti</sup>ab<sup>giš</sup> nu.úr.ma *ina* kuš eme.šid *u ina* ò.giš ki.min
- 12' A = min min ur.gi<sub>15</sub> tag-*šú* *ina* [.....-*šú*] gu<sub>7</sub>-*šú*<sup>giš</sup> geštin *ina* [kuš<sup>1</sup> dar.[lugal *ina*  
g]ú-*šú* gar-*an* *ina* ò šés
- C = <sup>iti</sup>zíz<sup>giš</sup> geštin *ina* kuš dar.lugal<sup>mušen</sup> *u ina* ò.giš ki.min
- 13' A = min min<sup>giš</sup> da-a<sup>160</sup> t[ag-*šú*] bu-bat-ta-*šú* gu<sub>7</sub>-*šú* [.....] <sup>giš</sup>pěš *ina*  
túg.gada [.....] *ina* ò šés-*su* [.....] lá-*šú* t[i]
- C = <sup>iti</sup>ve<sup>giš</sup> pu-qut-tú<sup>giš</sup> mur-ra-nu ši-hi-iṭ muš<sup>ú</sup> kur.kur *ina* túg.gada *u ina* ò.giš  
ki.min
- 1' If a man was seized by (the toilet-demon) Šulak, pound up Akkad-plant, mix it in river water, rub it on him and he will get better; (put) the remainder together with these (things) on his neck etc.
- 2' Ditto, when a man suffering ditto, with the Great-star (Aquarius) has affecting (lit. touching) him, his right thigh hurts him, place cypress in catskin on his neck, secondly, rub him with oil and he will improve.
- 3' Ditto (= if) ditto, a man suffers from ditto, the Field-star (Pisces) has affected him and his left thigh hurts him, place *barīrātu*-plant in wolfskin on his neck, secondly, rub him with oil and he will improve.

<sup>160</sup>Presumably a variant *is le'a* for *is lé*, 'Hyades', which can be written *iš le-e*, cf. CAD I/J 188.

- 4' Ditto (= if) ditto, the Wild Herd-star has affected him and his buttocks and hips hurt him, place datepalm in fox-skin on his neck, secondly, rub him in oil and he will improve.
- 5' Ditto (= if) ditto, Perseus has affected him and his chest hurts him, place willow in oxhide on his neck, secondly rub him with oil and he will improve.
- 6' Ditto (= if) ditto, the Bull of Heaven-star (Taurus) has affected him and his right hand and scaly skin hurt him, place *kiškanû* in buckskin, secondly rub him with oil and he will improve.
- 7' Ditto (= if) the Great Twins (Gemini) has affected him and his head hurts him, place *murrānu*-wood in snakeskin and secondly, rub him with oil and he will improve.
- 8' Ditto (= if) ditto, Auriga (var. Sirius) has affected him and his neck hurts him, place poplar in scorpion skin on his neck, secondly rub him with oil and he will improve.
- 9' Ditto (= if) ditto, the Raven has affected him and his spine (var. groin) hurts him, place boxthorn in lionskin and secondly, rub him with oil and he will improve.
- 10' Ditto (= if) ditto, the Furrow-star (Virgo) has affected him and his upper shoulder<sup>161</sup> and shoulder hurt him, place apple-wood in gazelle-skin on his neck and rub him with oil and he will improve.
- 11' Ditto (= if) ditto, Šarur and Šargaz (Scorpio) have affected him and his right rib hurts him, place pomegranate in lizard-skin on his neck (and rub him in oil and he will improve).
- 12' Ditto (= if) ditto, the Dog-star (Hercules) has affected him and his [.....] hurts him, place vine-wood in rooster-skin on his neck and (rub him) with oil (and he will improve).
- 13' Ditto (= if) ditto, Hyades has affected him and his boils<sup>162</sup> hurt him, [place *puquuttu*-thorn (and) *murrānu* into snakeskin] and fig-wood in linen and rub him in oil (var. bandage him ....) and he will improve.

An additional passage from one of the above texts, BM 56606 rev. col. i, provides some additional data, since instead of using the zodiac as the only point of reference, it reflects the genre of hemerologies, identifying lucky and unlucky days of the month; this unique text

<sup>161</sup>The intended word *qumāru* 'upper shoulder' has been incorrectly rendered by the scribe.

<sup>162</sup> Reading *bu-bat-ta-šú* from *bubuttu* rather than *puquuttu*.

combines reference to specific days of the month with zodiac signs, showing the development of astral magic. We provide a translation of a few lines of the reverse.

### BM 56606 reverse col. i

- 1) In Aries: the stone (is) *zânu* (lit. decorative)-stone<sup>163</sup>, the plant (is) *imbhur-lim*, on the 20<sup>th</sup> day of Nisan you should not eat fish and leeks.
- 2) Pleiades: the stone (is) ...<sup>164</sup>, the wood is *e'ru*, the plant is *barirātu*<sup>165</sup>, on the first day of the Ayyaru do not cleanse faeces.
- 3) Capricorn: the stone (is) carnelian, the wood is *suādu*, the plant is *kamkadu*, you should not drink milk on the 15<sup>th</sup> day of Simānu.
- 4) Cancer: the stone is *apsû*, the wood is *šennur*, the plant is pomegranate,<sup>166</sup> you should not *dry out* latrine water.<sup>167</sup>

What we can see from these Late Babylonian tablets, probably from roughly contemporary archives, is that no single text preserves all relevant information, but the data is divided piecemeal over several different tablets. If we had only had the Yale tablet, we could easily have surmised that the text concerned itself with *materia medica* to be applied to a

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<sup>163</sup> *za'ānu*, 'adorned'

<sup>164</sup> [<sup>na4</sup>]kūr.ra, for <sup>na4</sup>kur.ra? or for *šanû*, 'strange' stone?

<sup>165</sup> Written *ba-ri-ri-tu<sub>4</sub>*, for *barirātu*.

<sup>166</sup> Also in YBC 9833: 10

<sup>167</sup>The present author took the opportunity to collate some of the readings on the reverse of BM 56605, suggesting some minor improvements to the excellent edition of Heeßel 2000: 129:

line 1: we would suggest reading the stone name as *na<sub>4</sub>.za-nu* < *za'ānu* 'adorned'.

line 3: read: *na<sub>4</sub>].tar.ra giš.ma.nu ú.ba-ri-ra-tu<sub>4</sub>* (for *barirātu*).

line 5: perhaps read *giš].<sup>1</sup>su<sup>1</sup>-a<sup>1</sup>-du<sup>1</sup>*.

line 6: for <x> read *u*.

line 8: for GAZ.ME x, read *kaš-šu-<sup>1</sup>ú<sup>1</sup>*.

line 9: for the plant name at the end of the line read: *ú<sup>1</sup>li<sup>1</sup>-ni-[i]n*.

line 10: for x at the end of the line, read *gu<sub>7</sub>*.

line 11: perhaps read the stone name as *na<sub>4</sub>.ka.bar.ra*.

line 14: for *gu<sub>7</sub>* read *gur<sub>5</sub>* (= *kaššū*).

patient while wrapped in some form of skin or leather, in conjunction with rubbing with oil, each time associated with a particular month. From the two British Museum tablets we now learn that the months can be converted into planetary influences affecting a specific part of a patient's body, which is a classic example of melothesia, in fact the clearest example we have from Mesopotamia. According to these two texts, a certain star affects (lit. touches) the patient, resulting in pain somewhere in his anatomy; this interpretation comes close to Ptolemy's own description of melothesia:

For the parts of the individual signs of the zodiac which surround the afflicted portion of the horizon will indicate the part of the body which the portent will concern, and whether the part indicated can suffer an injury or a disease of both, and the natures of the planets produce the kinds and causes of the events that are to occur. For, of the most important parts of the human body, Saturn is lord of the right ear, the spleen, the bladder, the phlegm, and the bones; Jupiter is lord of touch, the lungs, arteries, and semen; Mars of the left ear, kidneys, veins, and genitals; the sun of the sight, the brain, heart, sinews and all the right-hand parts; Venus of smell, the liver, and the flesh; Mercury of speech and thought, the tongue, the bile, and the buttocks; the moon of taste and drinking, the stomach, belly, womb, and all the left-hand parts.

(Ptolemy *Tetrabiblos* III 12, Loeb p. 319-321)

Ptolemy also describes the effects of planets on disease:

Mars causes men to spit blood, makes the melancholy, weakens their lungs, and causes itch or scurvy.

(Ptolemy *Tetrabiblos* III 12, Loeb p. 327)

Another interesting astrological tablet, which has never been fully edited, refers to the 'seized' man, probably (but not necessarily) indicating illness. The text is LBAT 1596 = BM 34618 + A 1670<sup>168</sup>, with some lines (obv. I 10-14) edited in Sachs 1952: 74. The text begins with a phrase repeated several times, *a-dan-nu* lú dab, 'critical time for the "seized man"'. Here are some relevant lines from this text from the first column:

1. *a-dan-nu* lú dab *šá é diš na ap-lu ana* d[am-šú TE .....], 'Critical time of the 'seized

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<sup>168</sup> A1670 (in the Oriental Institute Chicago) is joined to the top left hand corner, unscrubed on the rev. (col. iv); the join was made by Hermann Hunger and the complete text is to be edited by him, although he was kind enough to supply me with his own edition of this tablet.

man' of the household: if a man's heir has [had sex] with his wife ...'<sup>169</sup>

4. <sup>d</sup>udu.til.me kin.k[in-m]a lú dab u nu dab me-a gar-an, 'keep searching the planets and you will make a statement (whether) the man is seized or not seized'.

5. a-dan-nu lú d[ab ana dù]-ka šá a ana a-bi sar ina bar ud 1 lú dab-bat, 'For you to [calculate] the critical time when an heir who steals from his father, the man is seized in Nisan on the first day....'<sup>170</sup>

13. be-ma gu<sub>4</sub>.ud u genna ina ki.gub lu ina dur lu ina mi-hir gub-iz lú.bi nu dab, 'if Mercury and Saturn stand in the same position (*mazzāzzu*) or line (*riksu*) or equivalent position (*mihir*), the man will not be seized.

The point about this text is that it predicts the critical time (*adannu*) when a man will or will not be seized, which in this particular case may not refer to illness but a to other kinds of misfortune, such as betrayal by his own son. The predictions are based upon positions of various planets within the zodiac, which affect the client's fortunes. Although we cannot consider this to be a case of melothesia *per se*, it is relevant because of the notion of *adannu*, which occurs within therapeutic omens, referring to the critical period of a disease. Second, it is clear from this text that the relative positioning of planets is the single factor determining the client's fate, whether he is 'seized' or not.

## Hypothesis

We return finally to our very first text above, the Uruk 'Taxonomy' (SBTU I 43). The question is whether SBTU I 43 could conceivably have been an early form of melothesia, dating from the time of Darius. The later ideas of Greek and Latin astrology are still a long way off, but they could have originated in this period, and the elements which we have in the Uruk text may have been a forerunner to later Greek astral medicine. Gundel suggests that Greeks themselves often falsified traditions about astronomy going back to sources in the fifth

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<sup>169</sup> Medical diagnosis often establishes a link between illicit sex and illness (see Heeßel 2000: 219: 21-23), but in this case it looks like the man is seized by being a cuckold.

<sup>170</sup> The heir harming his father fits pattern of the earlier protasis.

or sixth centuries BC but simply claimed that everything came from Homer and Hesiod.<sup>171</sup> The elements of the Uruk texts, 'heart', 'mouth of the stomach' and mouth, lungs, and kidneys, could all represent a first step in this direction, in which each of the diseases appears at least once within a 12-month cycle, but not necessarily every month.

The crucial point is that Babylonian scholars do not record (at least as far as we know) all aspects of astral medicine and magic, *because it was unnecessary to do so*. In other words, anyone familiar with astrology at the time would have known automatically which planets and which zodiac signs would govern the heart, throat, lungs, and kidneys, as explained in Ptolemy's *Tetrabiblos*. Astrologers even today command such information by heart, without having to look it up. Therefore, any trained astrologer would have instantly been able to associate the organs mentioned in SBTU I 43 with the relevant astral bodies; he or she would have known that *Leo rules the heart, Taurus rules the throat, Jupiter (in Sagittarius) rules the lungs, and Mars (Scorpio) rules the kidneys*. Moreover, it is hardly coincidental that a similar sequence of zodiac signs exists as a quartile in Greek astrology, as recorded in Ptolemy's *Tetrabiblos*; quartiles are groupings of four zodiac signs, in 90-degree relationships to each other (Ptolemy *Tetrabiblos* I.13). According to this system, the zodiac signs Taurus, Leo, Scorpio, and Aquarius comprise a quartile, which is quite similar to the sequence of zodiac signs in SBTU I 43 of Leo, Taurus, Sagittarius, and Scorpio;<sup>172</sup> three out of four zodiac signs fit this pattern. In fact, the deviations can be explained on several grounds. While Greek astrology has Jupiter ruling the lungs, we know from a Babylonian commentary that Jupiter rules the spleen rather than the lungs (Civil 1974: 336 and Reiner 1993: 21f.). If Saturn (in Aquarius) were to be attested in Babylonia as ruling the lungs, this would give us a sequence of Taurus, Leo, Aquarius, and Scorpio, and hence match the quartile in Ptolemy's *Tetrabiblos*. It is also possible that the Babylonian quartile is not quite identical to the Greek scheme, since it

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<sup>171</sup> Gundel 1966: 72 and 80, suggesting that astral melothesia dates from c. 400 BC.

<sup>172</sup>I.e., zodiac signs corresponding to the four regions of the body in SBTU I 43.

appeared several centuries earlier than the zodiac order in Greek sources. Nevertheless, the important detail is that any worthy Uruk astrologer reading SBTU I 43 could have immediately associated the proper zodiac signs with each part of the body, following the rules of melothesia, and SBTU I 43 then simply records which diseases were associated with melothesia, ie. the parts of the body affected by zodiac signs. Such astrological information could have been given orally, without the necessity of composing a separate tablet to explain the obvious. This would explain why our records are incomplete; each single tablet only records one single aspect of the complex system of astral magic and medicine.

### **Modern Parallels**

It is worth remembering, when translating ancient data dealing with technical subjects such as astral medicine, that what is being described are universal problems which have always been with us and persist until our own day. Although astrological influence today is hardly reckoned to have any scientific basis or relevance to drug therapy, there are nevertheless modern adherents to both astrology and herbal remedies who would adopt a different point of view. A good case in point is a company known as Bach Remedies, whose literature is widely distributed, offering herbal treatments for the following kinds of mental and physical states:

You are shy or feel anxious about something  
You are anxious but can't say why  
You feel an extreme terror about something  
You fear you might lose control  
You find yourself making the same mistakes  
You feel down in the dumps and don't know why  
Your talkativeness leads to loneliness  
You feel impatient with the slow pace of people or things  
You give up when things go wrong  
You can't make your mind up  
You feel overwhelmed by your many responsibilities  
You feel guilty or blame yourself  
You expect to fail and lack confidence in your skills  
You feel unclean or dislike something about yourself  
Sometimes you are a tyrant when you want to lead  
You feel critical of or intolerant towards others  
You feel wounded, spiteful, jealous, or want revenge

This selection from the Bach Remedies brochure features common types of anxieties and insecurities, the kinds of conditions for which today one might seek psychological counseling or psychiatric help. The Bach Remedies brochure groups the 'symptoms' into various categories: 'face your fears', 'live the day', 'reach out to others', 'know your own mind', 'find joy and hope', 'live and let live', and 'stand your ground'.

The recommended treatment for each of the modern Bach Remedy conditions is some form of herbal remedy, many of which are easily recognisable from the garden, such as cherry plum, honeysuckle, clematis, wild rose, mustard, olive, heather, impatiens, wild oat, willow, elm, pine, crabapple, pine, vervain, and Star of Bethlehem. Although not exactly like the various magical spells listed in BRM 4 and similar texts above, nevertheless the underlying human feelings of self-doubt and angst are common to both ancient and modern lists. In the ancient world, however, no recourse to psychotherapy was possible, and the only treatments available to a Babylonian patient were either incantations or therapeutic recipes, consisting mostly of plants and drugs to be administered in various forms or attached to the person within an amulet. Although we cannot associate Akkadian plant names with most of the above modern garden herbs, nevertheless the common feature is that quite ordinary plants and herbs, also used for standard culinary purposes, could form the basis of a pharmacopeia to be used to treat psychological distress of different sorts.

The only thing missing from the Bach Remedy list, from an ancient perspective, is when such herbal remedies are best applied, and modern herbal medicine has no real answer to this question. Ancient physicians, however, working in the latter half of the first millennium BC, could find a ready answer in the form of astrology and astral medicine, which attempted to determine when incantations and recipes had an optimal effect on the condition to be treated, whether physical disease or mental problems. Because of the fragmentary nature of our ancient source material, we cannot always know how astrology was applied to medical recipes or even incantations, since this knowledge may have been orally transmitted and taught without necessarily being committed to writing. In a similar way, one could easily imagine a Bach Remedies brochure in the hands of a modern astrologer, intent to find the most propitious

times when such herbal remedies could be used to cure the kind of psychological problems to which astrology is often addressed. There would be no record of such calculations, apart from those in the know.

Group	Symptom	Remedy	
FACE YOUR FEARS	You are shy or you feel anxious about something	specific	Mimulus
	You are anxious but can't say why		Aspen
	You feel an extreme terror about something		Rock Rose
	You fear you might lose control		Cherry Plum
	You feel anxious about somebody else's safety		Red Chestnut
LIVE THE DAY	Your mind is on the past instead of the present		Honeysuckle
	You are in a dream		Clematis
	You find yourself making the same mistakes		Chestnut Bud
	Your mind is running over the same thing		White Chestnut
	You can't really be bothered		Wild Rose
	You feel down in the dumps and don't know why		Mustard
	You feel tired after making an effort		Olive
REACH OUT TO OTHERS	Your talkativeness leads to loneliness		Heather
	You feel impatient with the slow pace of people	or things	Impatiens
	You like your own company but sometimes feel	lonely	Water Violet
KNOW YOUR OWN MIND	You put things off, feeling tired at the thought of	starting work	Hornbeam
	You feel a bit let down after a setback		Gentian
	You give up when things go wrong		Gorse
	You can't make your mind up		Scleranthus
	You want to do something worthwhile but can't find	your vocation	Wild Oat
	You know what you want to do but doubt your	judgement	Cerato
FIND JOY AND HOPE	You are suffering from the effects of a shock, or	from grief	Star of Bethlehem
	You feel resentful and sorry for yourself		Willow
	You feel overwhelmed by your many responsibilities		Elm
	You feel guilty or blame yourself		Pine
	You feel despair when there is no hope left		Sweet Chestnut
	You expect to fail and lack confidence in your skills		Larch
	You are a strong person who struggles on past the	limits of strength	Oak
	You feel unclean or dislike something about	yourself	Crab Apple
LIVE AND LET LIVE	Sometimes you are a tyrant when you want to lead		Vine
	Your enthusiasm leads you to burn yourself out		Vervain
	You feel critical of or intolerant towards others		Beech
	Your love for your family makes it hard to let them go		Chicory
	You drive yourself hard trying to set an example		Rock Water
STAND YOUR GROUND	You can't easily say 'no' to other people		Centauray
	Other people's ideas knock you off course; you are	unsettled at times of change	Walnut
	You feel wounded, jealous, spiteful, or want revenge		Holly
	You hide your troubles behind a smile		Agrimony

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## Conclusion

We have embarked on a roundabout course on inquiry, to determine whether a single so-far unique Uruk text, SBTU I 43, associating diseases with regions of the human anatomy, can be best explained from the perspective of medical theory or from further afield, astral-medicine. To this end, we have explored possible parallels within Greek medicine and particularly the fragmentary records of the Methodists, whose rather traditional approach to medicine was both non-Hippocratic and similar to what we find in Babylonian medicine. Despite these important parallels, no real progress can be made on this front to explain the text of SBTU I 43.

A second line of inquiry was to explore astral magic, which is much better preserved than astral medicine from Babylonia, to see how the zodiac signs and zodiacal influences were thought to affect human behaviour and illnesses. What seems to emerge from these texts is that zodiac signs were considered to be crucial in determining when specific kinds of spells (often representing aggressive magic) were to be prescribed, and the specific periods of zodiacal influence rotated throughout the year (as a dodecatemoria).

The next piece of this large puzzle appears within Babylonian astral medical texts which assign a stone, plant, and wood to be used in amulets to specific zodiac signs, corresponding to specific calendrical dates; these *materia medica* were clearly designed to treat diseases, which often remain unmentioned in the texts. Furthermore, we also have a text which mentions illness associated with monthly cycles of the moon through zodiac signs, although the illness or illnesses are unspecified. Nevertheless, other fragmentary astral medical texts do cite diseases by name associated with various zodiac signs, which again provide further pieces to the unfinished puzzle.

Finally, the few references to melothesia in Babylonian medicine are sufficient to indicate that zodiac signs could affect specific regions or parts of the body, perhaps as a rudimentary basis for the complex system of melothesia which develops in Hellenistic Greek

and Latin sources. Moreover, descriptions of melothesia in Greek sources have some parallels in Babylonian medicine.

This leads us back to our original line of inquiry, how to explain the Uruk text SBTU I 43. The pieces of the puzzle are scattered, but may provide important clues. We know from Greek melothesia that both the zodiac and individual planets are thought capable of influencing parts of the human body as well as diseases associated with these same body parts. When seen from this perspective, the text of SBTU I 43 might render up its secrets, at least to some extent. If the four regions of the body, the 'heart', 'epigastrium', 'lungs' and 'kidneys' in SBTU I 43 represent parts of the body influenced by zodiac signs, then it is also possible to conjecture that the diseases associated with these bodily regions are likewise influenced by zodiac signs or individual planets.

Theoretically, one should eventually be able to reconstruct a complete table or grid showing a schedule of zodiac influences, when all relevant texts become known. The grid would include names of all stones, plants, wood, parts of the body and diseases influenced by particular zodiac signs,<sup>173</sup> thereby showing which diseases can be treated by recipes containing relevant stones, plants, and wood, and under what times of the year. At the same time, one should also be able to know when magical spells are considered to be most effective. Whether this information was only known by heart by Babylonian scholars or committed to writing in antiquity is too early for us to tell, but what is clear is that we do not yet have the missing links, providing the diseases and remedies for each zodiacal period. The Uruk 'taxonomy' tablet, SBTU I 43, which turns out not to deal with disease taxonomy, might have been one piece of this large and complex puzzle, listing the diseases associated with the parts of the body associated with zodiacal influences.

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<sup>173</sup> This grid could look quite similar to that on the tablet BM 56605 (Heeßel 2008: 128f.), showing a table of zodiac signs, parts of the body, and various animals, although the combination is not clearly understood.

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## ABBREVIATIONS

AHW = *Akkadisches Handwörterbuch*

AMT = *Assyrian Medical Texts*

BAM = *Babylonisch-assyrische Medizin in Texten und Untersuchungen*

BRM = *Babylonian Records in the Library of J. Pierpont Morgan*

CAD = *Chicago Assyrian Dictionary*

GCCI = Goucher College Cuneiform Inscriptions

KAR = *Keilschrifttexte religiösen Inhalts*

LBAT = *Late Babylonian Astronomical Texts*

LKU = *Literarische Keilschrifttexte aus Uruk*

MSL = *Materials for the Sumerian Lexicon*

SBTU = *Spätbabylonische Texte aus Uruk*

STT = *The Sultantepe Tablets*

ZA = *Zeitschrift für Assyriologie*

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