

A discussion of aspects of the UGU series

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Among the hundreds of Mesopotamian tablets and fragments of tablets dealing with (magico-) medical matters, several are devoted entirely or in part to complaints of the head. Of these, four are shown by their colophons and catch-lines to be the first four tablets of a series entitled *šumma awīlu muḫḫašu* 'if the crown¹ of a man's head' (UGU for short) from the library of the Assyrian king Aššurbanipal. The fourth tablet's catch-line indicates that there was a fifth tablet, which has not yet been found; we do not know whether there were more. The four extant tablets each seem to have roughly identifiable characteristic specialisms: the first treats the *muḫḫu* and *qaqqadu* 'head'; the second is given over to *sag.ki* (the temples); the third starts off with a great many spells for 'seizure of the temples' (*sag.ki.dib.ba*) then briefly moves on to the ears; the fourth seems to have treated skin diseases of the head. The purpose of this article is to offer a discussion of several matters which arise from the UGU series, but may have relevance for Mesopotamian medicine at large; specifically: (1) notes on the UGU series, (2) perceptions of the head, (3) medicine v. magic, (4) popular medicine, (5) magic, medicine and cooking.²

§ 1. *šumma awīlu muḫḫašu* was the first sub-series of Aššurbanipal's extensive therapeutic compendium of (probably) forty-five tablets, which dealt with ailments arranged by body part from head to toe.³ The sources to which we can turn to reconstruct the series are of two types: first, manuscripts of the series itself, which bear (or, if broken, we assume to have borne) Aššurbanipal colophons. The best-preserved manuscript of 1. UGU is *BAM 480*; *BAM 4* is another. The best-preserved manuscript of 2. UGU is *BAM 482*; *AMT 20,1* is another. Manuscripts of the series should be as good as identical, including the same recipes in the same order, at most exhibiting minor orthographic variants. Secondly, there are tablets which are not manuscripts of the series, but do include one or more of the series' recipes, in the same or a different order, with greater or lesser variants. We shall call such tablets 'duplicates' of UGU.

Attempting to establish the genealogical status of UGU vis-à-vis its duplicates is a tricky business. Even in the case of the Middle Assyrian duplicate from the library of Tiglath-Pileser I (*BAM 11*)⁴, which we know *ipso facto* to be older than UGU, it is impossible to determine whether the UGU tablet descends from it

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¹ This is the probable usual meaning of *muḫḫu*, and presumably that which led to its prepositional usage *ana muḫḫi* 'onto, on top of'. In the past it has been translated 'brain' (e.g. Contenau 1938:66). Stol (2000a:628) favours this translation because of an Old Assyrian passage where *muḫḫu* seems to mean 'marrow' and because 'brain' is the word's usual meaning in cognate languages (roughly true – cf. Militarev and Kogan 2000:187), and Stol's arguments have been accepted e.g. by Geller [2003]. That this interpretation cannot fit all uses of the word in medical tablets is, however, clear from *BAM 9, 23 šumma awīlu qaqqassu šēta ḫamiṭma šārat muḫḫišu išaḫḫulū* 'if a man's head burns with sunstroke, and the hair of his *muḫḫu* falls out'. (One could conceivably read *šārtu elišu* 'the hair on it' i.e. *šārtu eli qaqqadišu* 'the hair on his head', but this would be very unusual). A similar argument can be made from 1. UGU ii 21 [*šumma awīlu muḫḫa-šū šēta ḫamiṭ-mā*] [*ku-r]a-ra ù dāma mali*, where the brain surely cannot be seen to be covered in boils or blood.

² The tablets and the duplicates known to him were translated but not transliterated by Thompson in 1937 (UGU 1) and 1938 (UGU 2-4). Further duplicates to the first and second tablet were identified by Franz Köcher in the Inhaltsübersichten to *BAM 480* and *482*. Further duplicates to UGU 3 (and at least one to UGU 4) are scattered through the Inhaltsübersichten of the six volumes, especially vols. V and VI for UGU 3. The second tablet, which partially duplicates the series *sa.gig*, has recently been edited by Attia and Buisson (2003) in the first issue of this journal.

³ For which see Köcher 1978:18 ff.

⁴ According to Köcher (*BAM I* xiv), *BAM 12* is also from Tiglath-Pileser's library. If this is correct, similar considerations apply.

directly or from a common ancestor.⁵ But more usually, the duplicates are written in Neo Assyrian script, and there is no way of telling ancestor from descendent. One exception, however, a tablet in Neo Assyrian script published by Jastrow in 1913, bearing the colophon of a senior official and probably found at Aššur, does deserve special mention: with the exception of obv. 7-8, all its entries from obv. 1 to rev. 28 are to be found, in the same sequence, in the first three UGU tablets, so it is fair to assume that the Jastrow scribe copied extracts of UGU for personal use.

The writings in UGU are not usually standardised: thus we get an aberrant *lú* for the customary *na* in 2.UGU i 49, ii 8; prognoses vary between *ti* and *tin*; a given word can be spelled syllabically in one recipe, but written with a logogram in another (e.g. *saḫ-lé-e* (1.UGU i 6) vs. *zà.ḫi.li* (i 8); *te-qé* (ii 6) vs. *mar* (ii 3)); different logograms can alternate (*ur.bi* (2.UGU i 58') vs. *1-niš* (i 61'); *ina ḫ eš-su* (2.UGU i 64') vs. *ina ḫ šés-su* (ii 1)). These inconsistencies probably reflect the scribe's care in preserving exactly the spellings in the tablets he was copying from. A possible example of a standardised use of normally interchangeable signs is: *lal* for *šamādu* but *lál* for *rakāsu* (the phonetic complement *-id* occurs only with *lal*⁶). This points to the hand of a redactor.

§ 2. Now, given the UGU tablets' subject-matter, it is worth drawing together several suggestive passages in the incantation literature which testify to perceptions of the head likely to have been shared by medical texts.

For obvious reasons (it is the exclusive seat of three senses, it is how people generally recognise each other, amputation of it means near-instantaneous death), many cultures assign special significance to the head (e.g. for India and Sri Lanka see Obeysekere 1976:215 f.). In Mesopotamia, it seems to have enjoyed symbolic status as representative of the entire individual,⁷ for it is referred to in order to bring about a close association between a person and something else. Thus in the substitution ritual edited by Ebeling, 'you will remove the headband of the ill man's head, bind it on to its (the kid's) head, and treat it (the kid) like a dead person' (1931:68, 13-15). By wearing the ill man's headband, the kid becomes his surrogate, and can die in his place. A similar principle may underpin a ritual for picking a plant: *tigillâ ša ina šēri ediššišu ašû kīma Šamaš ana bītišu erēbi šubāta qaqqadka kuttimma tigillâ kuttimma qēma eširma ina šēri lām Šamaš ašē ina manzazi usuḫšuma šurussu leqēma* '(look for) a gourd which grows alone on the steppe; at sunset use a cloth to cover your head and the gourd, draw (a magic circle around it with) flour, and in the morning, before the sun comes out, pull it up from (its) location, take its root'.⁸ The head also plays a symbolic part in rituals void of such association mechanisms, such as *qaqqassu ana šaplānu tašakkan šēpīšu ana elīnu tušaqqâ ina šipkūti lēssu tamaḫḫaš ina šipkūti tummassuma ana libbi tīb taqabbi ina ubānika rabīti ša adi 14-šu qinnātišu talappat 14-šu qaqqassu talappat u qaqqara talappat* 'You shall put his head down and raise his feet up, you shall strike his cheek with leather thongs, you shall immobilise him with leather thongs, you shall say 'get up' to him, with your index finger which has touched his behind fourteen times (i.e. seven per buttock ?) you shall touch his head, touch the ground, fourteen times (i.e. seven each ?)' (BAM 574 i 14-16)⁹ and *epra ina qaqqadišu liddi* 'He shall strew dust on his head' (AMT 90, 1:14).¹⁰

We further learn that, although organs other than the brain were thought to be the seat of reason and emotion in the Near East,¹¹ the Mesopotamians were not unaware that a blow to the head has special, unfortunate consequences for one's ability to think; thus a witch is warned: *amaḫḫaš muḫḫaki ušannâ řenki adallaḫ libbaki tamaššī šīrī* 'I strike your head, confuse your intellect, make your insides disordered (so that) you forget (your own) flesh' (Maqlū iii 148-9).¹² Elsewhere in the same text (iii 116-7) we get: *aliqqākimma ḫaḫâ ša utūni umminu ša diqāri amaḫḫaḫ atabbak ana qaqqad raggati šimtiki* 'I'll get you a clump of ash from

⁵ In the case of BAM 11, there are arguments both ways: if the UGU scribe had been copying from it directly, it is hard to see why the tablet could not have been assimilated *en bloc*, or the selected entries copied in direct succession; on the other hand, tantalisingly, the entries appear in *almost* exactly direct succession.

⁶ Other texts are less consistent. See for instance Labat 1959:11 Rev. 15 *lal-ḫi* and 24 *lál-id*.

⁷ Cf. CAD Q 102^b-103^a for its involvement in symbolic acts, including oil being poured on Anatolian princesses' heads (EA 11 and 31; additional examples translated in Moran 1992).

⁸ A bilingual passage (Sumerian omitted here) transliterated and translated by Reiner 1995:36. Note the alternative interpretation of Contenau cited by Reiner (39¹⁵⁸), that the coverings were intended to protect the cutter and to stop the plant from seeing him. Reiner, who seems to accept Contenau's interpretation, notes (39) that no rituals are known for dealing with a herb's revenge.

⁹ Edited by Kūchler 1904:2, 14-16. (After a century, the translation offered here inevitably differs somewhat.) Note also two rituals for the same symptoms in the preceding lines.

¹⁰ Cf. also Ebeling 1931:72, 14.

¹¹ Cf. Labat 1972 (RIA 4):367 f. and Brunner 1977 (Lexikon der Ägyptologie II):1158-68, both s.v. 'Herz'.

¹² An Old Babylonian incantation beginning *amaḫḫaš ina muḫḫim* 'I beat you on the skull' (van Dijk 1985 (YOS xi):6, 1-8) is not directly comparable, since the body parts might be those of the patient and the *muḫḫu* is not singled out specially (other body parts follow).

the oven, cinders from a pot, stir (it), (and) pour it on the head of your evil figure'. Perhaps the mixture was to be poured on the head because it would from there spread downwards to cover the entire figure; but this does not exclude the alternative explanation, suggested by the passage cited previously, that the mixture would confound the witch most effectively if applied to the head.

In this context, a remarkable late text which lists diseases (originating)¹³ *ultu* 'from' particular body parts is noteworthy.¹⁴ First to appear in the section *ultu karšu* 'from the stomach' is *mu-ru-uš sag.du* 'disease of the head'. This connection between what the ancients *thought* to be the seat of reason (the stomach/heart) and what *actually* constitutes it (the head) is unlikely to be coincidental,¹⁵ and probably stemmed from a chain of thought such as: 'reason is in the stomach, but a bad head can interfere with reasoning, so a bad head must depend on the stomach'.¹⁶

§ 3. On a different matter, I wish to consider what evidence the UGU tablets have to offer vis-à-vis the divide, or lack thereof, between magic and, as we understand it, medicine in Mesopotamian therapeutic texts. The great majority of therapeutic texts are of two types, which can be distinguished fairly easily, and rarely overlap:¹⁷ those which are straight-forwardly 'pharmaceutical', and those which are 'magical', involving rituals (or ritual-sounding actions) and incantations;¹⁸ certain ingredients (notably stones) appear prevalently in recipes introduced as 'rituals' (*dù.dù.bi*, *kid.kid.bi*), and are associated with ritual-sounding actions (e.g. 'you shall string (stones) on a red thread').

A seminal article in the Landsberger *Festschrift* (Ritter 1965) first articulated the idea that this distinction in therapeutic techniques corresponded to a distinction in professions. The sources mention two practitioners involved with healing: the *āšipu* and the *asû*, and Ritter¹⁹ (roughly) equated the former with a magician or exorcist, and the latter with a doctor. Influenced by Ritter's model, scholars have been tempted to scrutinise the therapeutic texts, seeking to assign recipes to one therapist or the other, depending on whether they are 'pharmaceutical' or 'magical'. Ritter's *asû* - *āšipu* distinction has, however, been criticised. Colophons show entire tablets, containing both 'magical' and 'pharmaceutical' prescriptions, to have belonged to *āšipu*'s (Pedersén 1986:58³⁶),²⁰ and changes in verbal person (which Ritter used to support her thesis) give conflicting results (Scurlock 1999:69 ff.). Though alternative visions of the *asû* (e.g. Scurlock 1999:78 f.) are perhaps less than definitive, the critiques of Ritter are compelling. The correspondences 'pharmaceutical' recipes > *asû*, 'magical' recipes > *āšipu* must be reconsidered.²¹ At the same time, even if those correspondences collapse, the underlying distinction 'pharmaceutical' recipes - 'magical' recipes remains intact, and it is this distinction, shorn of all considerations of professions, which I wish to discuss.

Although we encounter two different types of recipe,²² we must pause to consider whether they enshrine different understandings of disease and/or different philosophies of treatment. The notion that diseases were caused by supernatural beings, and that they could be dispelled by magic,²³ is self-evident in a great number of texts, and we may suppose it to underpin the 'magical' recipes. The question is, whether the 'pharmaceutical' recipes were underpinned by an understanding of disease and treatment which excluded the supernatural. For the purposes of this discussion, we shall call such an understanding 'physical'.

A first point to make is that there are instances of 'pharmaceutical' recipes being prescribed for supernaturally induced ailments (e.g. 2.UGU iii 48'-49' and 50'; *BAM* 3 iii 12-14).²⁴ This tends to undermine the idea that 'pharmaceutical' recipes relied on a 'physical' understanding of disease.

¹³ The verb is not actually in the texts, but it seems fair to supply it.

¹⁴ *SpTU* I, 43, re-edited by Köcher 1978:24.

¹⁵ Hence we regard proposals of emendation (e.g. Stol 1993:26) as unnecessary.

¹⁶ Conversely, in *Maqlû* iii 148-9, the disorder in the *libbu* seems to be the effect of the blow to the head..

¹⁷ For an example of an overlap, Scurlock 1999:72¹⁷ cites *BAM* 49, with special reference to line 18'.

¹⁸ In the words of Köcher (1978:17), 'medizinisch-therapeutisch' and 'magisch-medizinisch' ('diagnostisch-prognostisch' texts, which are the third type of medical text, do not concern us here).

¹⁹ Some see the influence of the jubilar himself in the article.

²⁰ The argument has been expanded by Avalos 1995:144 ff. and Scurlock 1999:74 f.

²¹ Geller argued at the 2003 *Rencontre assyriologique internationale*, held at the British Museum, that the symptoms and vocabulary in the diagnostic tablets overlap so little with those the therapeutic tablets that it is likely they originated in different 'workshops'.

²² A third, but poorly attested category, is surgical. Stol on skin diseases in Finkel and Geller (eds.) *Concepts of Disease in Ancient Mesopotamia* (forthcoming) cites a case in which the gods create ('will') diseases which are treated with surgical instruments. I am most grateful to Professor Stol for letting me see his manuscript before publication.

²³ If, that is, they could be dispelled at all. Some incurable skin diseases led to the ostracism of the sufferer, see Stol forthcoming in *Concepts of Disease*.

²⁴ 2.UGU iii 48'-49' and 50' are two recipes prescribed for: *šumma ki.min* (i.e. *šumma awīlu* [*ina šabit qāt eḫemmi tīb nakka pī iraššī*] [...]) 'If a man has got an attack of the temples through the seizure by the hand of

Considering the question of supernatural vs. physical aetiologies from a different point of view, we can search for afflictions which were observed to occur with some predictability, and enquire how they were understood. For if it happened at all that diseases dispensed with supernatural aetiologies, predictable ones would be the most likely to do this. There are at least two passages which appear to share very down-to-earth explanations of why the patient is unwell: *šumma awīlu kurunna ištima išdāšu palqā digla mādi ana bulluṭišu ...* 'if a man has drunk *kurunnu*-beer and his legs are smitten (and) he has multiple vision, to cure him you will ...' (BAM 575 iii 49); *šumma awīlu šikara ištima qaqqassu šabissu awātišu imtanašši ina dabābišu upaššaṭ ṭēnšu lā šabit awīlu šuātu ināšu izzazā ana bulluṭišu ...* 'if a man has drunk beer, and his head 'seizes' him, he constantly forgets his words, in talking he constantly revokes them, he does not hold on to his reason, this man's eyes stare (?), to cure him you will ...' (BAM 575 iii 51-52)²⁵. We cannot doubt that the predictability of alcohol leading to drunkenness was clear; but the remedy prescribed (a ritual with, to modern eyes, no obvious therapeutic value) is not 'pharmaceutical'.²⁶

We reach a similar conclusion by considering seasonal predictability. It is clear that certain diseases were observed to appear at a particular time of year: king Esarhaddon was reassured *murši šatti [šū]* '[this] (is) a disease of the year' (i.e. a seasonal disease) and *muršu Ābi šū nišū ammar maršūni gabbu šulmū* 'this is a disease of the month Ābu, all who were ill with it have recovered'.²⁷ The observation of regularity did not, however, spell the end of supernatural aetiologies, far from it: seasonality itself was given a theistic aetiology (Dumuzi - Geštinanna/Persephone), and the first letter cited continues: *ilāni ša š[arri] arḫiṣ ipaṭṭaru* 'the gods of the king will quickly dispel (it)'.

If supernatural explanations were not abandoned in the case of predictable diseases, then it is unlikely that they were abandoned in other cases. There is some evidence for rationalising thought in Mesopotamia (e.g. supernatural aetiologies themselves), but this was directed at organising and discovering patterns within the supernatural universe, rather than at offering physical or mechanistic explanations of it. So, it seems unlikely that 'pharmaceutical' remedies relied on a 'physical' understanding of disease, or one different from the 'magical' remedies.

Another question still stands, however: were 'pharmaceutical' and 'magical' remedies thought to work in different ways? The suggestion here is that they were not, and that, insofar as the effectiveness of the two types was explained at all, it would have been explained in similar terms.

Let us begin with the fact that there are significant overlaps between pharmacopoeia and substances used in magic. Consider the following chart, which shows that many substances which appear in UGU 'pharmaceutical' recipes were also used for magical purposes in *Maqlû* and/or *Šurpu* (the columns show the purpose to which *Maqlû* and/or *Šurpu* put the substance):²⁸

a ghost [...] (iii 40'),²⁴ BAM 3 iii 12-14, is prescribed for illness caused by *qāt eṭemmi šanê lštar* 'the hand of a ghost or of lštar' (iii 8). In fairness, a complication which might be thought to discredit the evidence of these references deserves mention: it is possible that by late times the phrase 'hand of ghost/goddess' had lost its original literal meaning, and no longer implied a belief in the supernatural. Köcher (1978:32) has observed that in *SpTU* I 43 (re-edited by him in the same article) ŠU GIDIM.MA is listed as originating in the stomach, ŠU lštar in the heart, and so on. He suggests that the expressions had crystallised into designations for particular sets of symptoms, without implying a belief in a supernatural origin to them, as a supernatural being would be unlikely to need to attack the victim from a particular organ ('bedürfte ein Gott, ein Dämon oder eine übernatürliche Macht eines menschlichen Organs, aus dem die Krankheit hervorbrach, die sie dem Menschen zugebracht hatten?'). But even if this is true, the recipes cited are still good evidence for the time before the crystallisation proposed by Köcher (unless they were composed *ex novo* after it, which is unlikely). We will doubtless find the matter discussed in Scurlock's *Magico-Medical Means of Treating Ghost-Induced Illnesses in Ancient Mesopotamia* (=Ancient Magic and Divination 3), Brill, forthcoming.

²⁵ Both texts are edited by Kūchler 1904:32 and HeeBel 2002:104. The latter also cites some interesting related texts.

²⁶ After all, the supernatural stood at only one remove, in the shape of the grain goddess; compare Dodds (1951:4) on Homer: 'in the Odyssey, it is true, excessive consumption of wine is said to cause *ate* ['temporary madness']; the implication, however, is not that *ate* can be produced 'naturally', but rather that the wine has something supernatural or demonic about it'.

²⁷ Parpola 1970 (LAS) vol. i n. 182 and note, vol. ii *ad loc.* Cf. also *di-i' šat-ti 'di'u* of the year' (Ebeling 1953:297, 23), i.e. 'seasonal *di'u*'. *di'u* is a head disease which strongly affects the head; CAD Š ii 387^a tentatively suggests 'malaria'.

²⁸ For some similar texts see Abusch 1987:95²¹.

Ingredient	1. Incantation addressed to it	2. 'I am' it	3. May it do good to recitant	4. May it do bad to witch	5. Used in simile, wishing bad to witch	6. Used against witch directly	7. Used by witch for statuettes
<i>atā'išu</i> (^ú KUR.KUR) <a plant>		M vi 85					
<i>bīnu</i> (^{giš} šinig) tamarisk	Š ix 1		M i 21				M iv 39
<i>burāšu</i> (^{šim} li) (a) juniper	Š ix 49, 98						
<i>eperu</i> (saḥar) dust				M vii 116			
<i>erēnu</i> (^{giš} erin) cedar	Š ix 42						M iv 39
<i>gišimmaru</i> (^{giš} gišimmar) date-palm			M i 22				
<i>ḥašû</i> (^ú / ^{giš} ḥar.ḥar) thyme?			M v 4		M v 35	M v 4	
<i>imḥur līm</i> (^ú igi lim)	M ix 114						
<i>kasû</i> (gazi ^{sar}) mustard?					M v 34		
<i>kibrītu</i> (piš ₁₀ . ^d i-) sulphur?						M ii 70, v 79	
<i>kukru</i> (^{šim} gúr.gúr) <an aromatic>	M vi 26-37						
<i>lipû</i> (i.udu) fat							M iv 39
<i>maštakal</i> (^ú in.nu.UŠ) (a soapwort)	Š ix 9		M i 23				
<i>nīnû</i> (ú.KUR.RA) ammi?					M v 30		
<i>nuḥurtu</i> (^ú nu.luh) (an) asa-foetida				M vi 127	M v 38		
<i>qanû ḫābu</i> (gi du ₁₀ .ga) sweet reed							
<i>sahlû</i> (zà.ḫi.li) cress?					M v 32		
<i>suluppû</i> (zú.lum.ma) dates							Š v-vi 54-5
<i>šamaššammû</i> (še.giš.i) sesame			M v 5			M v 4	
<i>šamnu</i> (i) oil	M vii 31-49						
<i>terinnu</i> (giš.še.ù.suh ₅) (conifer) cone			M i 24				
<i>ḫābtu</i> (mun) salt	M vi 111-9				M i 33	M i 33	

Now, the magical texts are good at giving us glimpses into how the effectiveness of substances was explained. Sometimes, the principle was association: thus a witch is conjured to dissolve as salt dissolves (*Maqlû* i 33), and to be pierced by her sorcery as she would be by *sahlû* (*Maqlû* v 32). In other cases, we detect the notion that plants possessed inherent properties: reed and tamarisk were thought of as inherently pure, and as possessing an inherent capacity for purification (Cunningham 1997:27-30; see also Abusch 1987:95 note 21). The same idea of inherence assumes a more articulate form when *nuhurtu* (an *Asa*

foetida) is called upon to *nuhhuru* sorcery 'make it shrivel' (*Maqlû* vi 127; see also v 38) — the name and function are obviously linked, and one must have been assigned on the strength of other.²⁹

Why should we not simply export this kind of explanation onto 'pharmaceutical' recipes? It would work well: bearing in mind the salt in *Maqlû*, we might suggest that the lump of malt which features in UGU 'pharmaceutical' recipes (e.g. 2 iii 43') was included so that, as it dissolved, it would cause the illness to dissolve; similarly, perhaps *qanû fābu* 'sweet reed' was included in preparations because it was thought it would do the patient 'good' (also *fābu* in Akkadian).³⁰ *Gilgameš* xi (in which Gilgameš is told that he can secure eternal life for himself by taking a plant from the underground waters, takes the plant, but then unwittingly lets a snake steal it while bathing) suggests that wonder and frustration at plants' power over the human body permeated Mesopotamian culture and lasted through time,³¹ the secret of plants never being discovered. The notion that in certain contexts, such as 'pharmaceutical' medical recipes (which happily coexist on the same tablets as 'magical' ones), the belief in plant's magical properties was forgotten or disregarded, beggars belief.

Moreover, we know of at least one 'pharmaceutical' recipe which is used to fight a supernatural battle with (apparently) physical weapons: *BAM* 190 and duplicates (edited and discussed in different terms by Abusch 2002:81). In this text, the patient is diagnosed as having 'eaten and drunk witchcraft', resulting in indigestion. Since the witchcraft was itself ingested, the patient must vomit in order to get rid of it, and this is brought about by ingesting crushed drugs.³² In itself, administering an emetic for stomach ache might suggest that the therapist was thinking in terms of physical cause and effect. But we know from the diagnosis that this is not the case, and even the (apparently) purely physical employment of the emetic proves to have a purpose only within a wider supernatural framework. The possibility should be borne in mind that this was often thought to be the case, even when the 'pharmaceutical' recipes do not say so.³³

We can still picture two types of knowledge being amassed, and even regarded as separate by the ancient practitioners: on the one hand, the herbalist might learn that seed X was most effective for headache if taken in vinegar with root Y; on the other, the exorcist might find his patients giving better results after a ritual with a plant from a grave than one with a plant from a rock crevice. But that does not mean that the two practitioners (and they might often have been one person) would have had different explanatory models for why or how their treatments worked. They could have regarded themselves as exploiting the same properties of a substance in different ways.

If we are willing to imagine that a belief in non-supernatural ailments existed at all in Mesopotamia, then neither 'pharmaceutical' nor 'magical' medical recipes are a likely abode for it. We can, however, tentatively point to the possibility that it existed outside medical texts altogether. Unlike Egyptian medical texts, Mesopotamian ones do not generally discuss traumas which can be sustained by physical objects as well as by humans,³⁴ such as cuts, burns, fractures, lacerations, etc. (perhaps the most striking absentees are battle wounds).³⁵ It is tempting to think that such injuries were thought to have a 'non-supernatural' origin, and that the medical texts excluded them because they had a 'supernatural' remit.³⁶

§ 4. Fourthly, some thoughts on the UGU tablets' use in practice³⁷ — for they were surely compiled to be consulted.³⁸ It is usually unclear exactly what use the therapist made of written recipes, and questions such

²⁹ It is the suggestion of a recent, brilliant article (van Binsbergen and Wiggermann 1999) that the idea of inherence survives from a very ancient, pre-theistic view of the world. Be that as it may (and the idea is attractive), the principle clearly survived to bring order into a supernatural, theistic universe.

³⁰ Or perhaps it was observed to possess healing properties, and the name was given to it as an explanation of these.

³¹ Compare the striking early temple name é ú.nam.ti.la 'house (of) the herb of life' (Frayne 1990 (RIME 4) 2.13.22.1.12.).

³² The drugs are left out overnight, and swallowed before breakfast on the following morning.

³³ We must also allow for changes over time, though these are difficult to track. Abusch 2002:38 ff. offers some interesting evidence that witchcraft grew in importance as an explanation for illness, and came to be incorporated into diagnoses as texts were transmitted.

³⁴ This way of putting it, with its interesting philosophical implications, was suggested to me by Miss Lucy Howard.

³⁵ But see some fragmentary lines in a catalogue of medical tablets: rev. 5' [DIŠ n]a lu ina gir lu ina A.x[...] 6' [sag.d]u-su (?) : DIŠ na ana igi gis má [...] '[If a ma]n either through a sword or a ... his [hea]d : If in front of a ship a man [...]' which may be evidence of the existence of lost tablets which dealt with such topics and accidents (published by Beckman and Foster 1988:14, fragment 9d). I owe the reference to Dr. Irving Finkel.

³⁶ Of course, it might often have been felt that supernatural forces dealt the bad luck through which the injury was suffered. But the actual process by which one suffered was surely more obvious in the case of a hammer producing a painful bang than in that of a beer leading to incapacitation.

³⁷ I am not suggesting that there is anything special about the way in which the UGU tablets were used, but I am wary of making statements about Babylonian medicine in general on this point.

as how he was supposed to choose from alternative prescriptions for a given ailment, or whether indeed written recipes constituted more than a source of ideas for him,³⁹ can be speculated upon, but not answered with confidence. We are, however, able to prise a small amount of information out of *BAM 3 i 1-19*, (which is similar to the opening lines of 1. UGU).

BAM 3's first recipe includes an instruction (*sag-ka (=rēška) ú-kal* 'have it ready')⁴⁰ whose function seems to be to divide the recipe into two: the first part tells us to prepare a mixture, and 'have it ready'; the second tells us what to do with it, which, as it happens, is to stir another two ingredients into it. The same verb *tuštabbal* 'you shall stir in' appears also in the next two recipes, suggesting that the overall procedure is A - B₁ B₂ B₃: the mixture's preparation (A) is explained once, and is shown to be a finite unit by the final phrase 'have it ready';⁴¹ the three different procedures involving stirring (B₁ B₂ B₃) are described in succession, each following on from 'have it ready'. The fourth recipe, which begins 'when you have tied these dressings onto him' suggests (without, however, proving) that B₁, B₂ and B₃ are successive treatments, and not alternatives to be chosen from. Strikingly, B₁, B₂ and B₃ last three days each. Are we to envisage all of them being applied simultaneously, or the original mixture being kept (and lasting, with modifications, for over nine days), or identical mixtures being confected from scratch every three days? Practical considerations argue strongly for the latter.

More generally, in asking about medical tablets' employment in practice, we need first of all consider some ethnographic background. As diverse examples remind us, the modern western situation, that medical therapy is the almost exclusive preserve of a specially trained profession, is exceptional. For instance, a study of the strategies of resort to curers in South India found that:

'all persons questioned were able to provide lists of diseases together with their causes, symptoms, and cures. No one professed ignorance of causes or symptoms, and only rarely were diseases listed as incurable'. (Beals 1976:190)

A similar situation existed in Early Modern England, for which several studies have shown that medical lore was 'widespread across society' (Wear 2000:21). The wide diffusion of folk remedies is also solidly documented by ethnographers for nineteenth century English-speaking North America (e.g. Berger and Berger 1899 and Randolph 1947). In both these cases professional doctors as well as less formally trained healers were available, but their help was not always sought. This situation is by no means uncommon, and the list could be expanded indefinitely.

How does Mesopotamia compare? Admittedly, a number of Mesopotamian letters can be interpreted as suggesting that a doctor was automatically sent for in case of illness.⁴² But some concern the king, whom we can justifiably treat as an exception, and the other examples are connected with institutions, which might have had a permanent staff of healers. The silent peasant majority is under-represented, and in the absence of evidence to the contrary we are entitled to assume *a priori* that a great deal of medical therapy was carried out prior to or indeed without recourse to an *asû* or *āšipu*, with the sick drawing first upon 'the collective wisdom of [their] social network'.⁴³

If we may posit such a tradition of self-help for the poor, comparative evidence suggests that, although they were kept in the king's library and thus physically removed from the sphere of common medicine, far from representing an insulated and independent, 'privileged' branch, the UGU tablets drew on popular custom. For they are typical of folk medicine as known from many cultures.⁴⁴ There are, for instance, striking parallels with the medicine of the Ozarks (19th century middle North Americans of European

³⁸ There is copious epistolary evidence for this being the case with omen texts. For medical texts there is (only) one passage in a letter which seems to be a quotation from a therapeutic text (Lutz 1919 No. 72, translated Ritter 1965:178^a). Some medical tablets state that they are a *pirsu* 'extract' of other ('canonical') tablets; it has been suggested that the abridgement was made so as to facilitate transport and consultation at the patient's bedside (Köcher 1978:18).

³⁹ Cf. Stol 1992:59, who envisages the *asû* experimenting.

⁴⁰ This is an idiom; see *CAD K 516^b* 'kullu' 5f.

⁴¹ Note that, without some sort of special function in the recipe's architecture, the command 'have it ready' is redundant. Indeed, if there were no link between the three recipes, we could remove the phrase from recipe one, and lose nothing through its excision. Conversely, we could insert it between almost any two verbs in the tablet without perceptibly altering the meaning. (As for *BAM 3 i 25*, which poses a self-evident difficulty for the notion of redundancy, the tablet is a self-declared *pirsu* 'extract' of another tablet; perhaps the original had more recipes following on, which were ignored in copying, while *sag-ka ú-kal* was retained.)

⁴² E.g. Durand 1988 no. 278 and Parpola 1970 (*LAS*) no. 246.

⁴³ An important phrase, borrowed from Beals 1976:196. Note a Mari letter (Durand 1988 no. 273) which suggest that all sick were anointed with oil as a matter of course. Is this the sort of thing that lay folk could have done, or was a specialist required? (Cf. the epistle of James v.14)

⁴⁴ Stol (1992:60) believes that 'the physician was well versed in popular medicine', but only sees evidence of this in a small number of passages which seem rather arbitrarily selected.

descent). The Ozarks' pharmacopoeia includes bread (108)⁴⁵, human bone (110), fat from (rabbits') kidneys (112), and numerous plants; honey and vinegar are ubiquitous in it (99-120). They use copper kettles (101, 111). Their incantations, which they used alongside 'pharmacological' therapy, have the same folkloristic 'poetic cast'⁴⁶ of Mesopotamian ones, e.g.

One little Indian, two little Indians,
One named East, one named West,
The Son and the Father and the Holy Ghost,
In goes the frost, out comes the fire,
Ask it all in Jesus' name, Amen.' (for burns) (121 f.)

'Two little angels came from heaven,
one brought fire and the other brought frost,
Go out fire come in frost!' (for burns) (122)

'Upon Christ's grave three roses bloom,
Stop, blood, stop.' (to stop blood) (123)

'God's mother Mary walked the land,
She held three worms all in her hand,
One white, one black, and t'other red,
For Jesus' sake the worms are dead.' (for intestinal worms) (137)

Again as with Mesopotamia,⁴⁷ the Ozarks even had two different types of doctor (92 ff. for their equivalent of the *asû*, 121 ff. for their equivalent of the *āšipu*).

Though the similarities between the Mesopotamian and Ozark medical systems are, as illustrated, striking, and parallels are forthcoming from many other cultures too,⁴⁸ the comparative material is not in itself unassailable evidence of a popular origin for the recipes in the UGU tablets. It could be held that folk medicine as we know it has inherited much from Mesopotamia⁴⁹, and that the argument is circular; in that case, the Mesopotamian recipes could conceivably have been the preserve of an elite.

For the 'pharmaceutical' recipes, however, there are two further, reciprocally complementary considerations which corroborate the hypothesis of a popular origin. First, it is striking that 'therapy and pharmacology, in contrast to incantations and spells, did not constitute part of the normative scribal training in late Babylonian circles'.⁵⁰ Second, pharmaceutical medicine was closely associated with the domestic activity of cooking: see following.

§ 5. We may use the UGU tablets to assess the applicability of a discovery made outside Assyriology to Mesopotamian healing. In his important examination of medicine in Early Modern England, Andrew Wear (2000:52) has uncovered a close association between medicine and household skills, cooking in particular, which places 'medicine squarely in the realm of the kitchen and women's work'. There are signs, corroborated and contextualised by the twin hypotheses made above of self-help for the masses and of the UGU recipes' origin in popular medicine, that this was also the case in Mesopotamia.

Our knowledge of Mesopotamian cooking is scant, being derived from a small total of five⁵¹ preserved recipes, and economic texts to complement them. The three most substantial recipe tablets⁵² are unprovenanced, and probably mid-Old Babylonian in date. As they include directions for quite sophisticated dishes, it is thought that they stem from the palace (Bottéro 2001:62), and are not evidence of what was eaten by the majority of the population. (The fact that they were written down at all may also argue for this).

⁴⁵ The numbers in brackets refer to page numbers in Randolph 1947.

⁴⁶ For which see Ritter and Kinnier Wilson 1980:23; more recently, Veldhuis 1999.

⁴⁷ Though this is a contentious issue; cf. Ritter and her critics in section 3, above.

⁴⁸ E.g. China, where, as in Mesopotamia, incantations in foreign languages and gibberish were popular (Harper 1998:161). For a (not very solidly backed up) hypothesis of cross-cultural contact involving 'Magi', chariots, and silk between China and the Near East, see Mair 1990:29-47.

⁴⁹ See Geller 1995 for influence on Talmudic medicine. Köcher (1995:204) suggests that the notorious European *Dreckapotheke* originated in a misunderstanding of Mesopotamian secret names, i.e. dog's tongue being administered instead of dog's tongue *plant*.

⁵⁰ Finkel (2000:141) referring to Gesche 2000 (unpublished at time of Finkel's chapter), who, he says, 'demonstrates' this. Dr. Finkel has suggested to me that the absence of medicine on the curriculum might argue for the opposite situation, if for instance medicine was secret or commercially valuable.

⁵¹ Stol (1992:60) believes that one of these, a late Babylonian or Persian text, is not a culinary recipe, but a medical recipe cast in the form of a culinary recipe.

⁵² Van Dijk 1985 (YOS xi), n. 25-27, re-edited by Bottéro 1995 (with collations by Walter Farber).

However, their interest for the present discussion is that they use many plants (as spices, for broth, etc.), and we may suggest that these plants were more widely eaten than the rich meats which they garnish.⁵³

It is striking that the culinary texts display substantial similarities with ('pharmaceutical') medical ones. For a start, there are conspicuous overlaps in ingredients:

	e.g. in UGU	e.g. in cooking ⁵⁴
<i>ballukku</i> (^{sim} MUG, ^{sim} BAL, ^{sim} bulug) <an aromatic>	1 ii 59 (broken)	Bottéro 1971: 342 ^a
<i>buqlu</i> (munu ₄₋₈) malt	1 iii 12	CAD B 323 ff
<i>buṭuttu</i> terebinth, <i>Pistachia</i>	1 i 3	Bottéro 1995 ⁵⁵
<i>dīšpu</i> (lāl) honey	1 i 53	Bottéro 1995
<i>egemgiru</i> (^u nig.gán.gán) <i>Eruca sativa</i> ?	1 iii 25	Bottéro 1971: 341 ^a
<i>errû</i> (^u úkuš.LAGAB) colocynth?	2 i 1	Bottéro 1971: 341 ^b
<i>ḥallûru</i> (gú.gal) chick pea?	1 iii 18	CAD H 47 f.
<i>ḥašû</i> (^u ḥar.ḥar) thyme?	2 i 1	Bottéro 1971: 341 ^b
<i>ḥimētu</i> (i.nun(.na)) butter, ghee	1 i 7	Bottéro 1995
<i>inninnu</i> a kind of cereal	1 iii 18	AHw 219a
<i>isqûqu</i> (zíd.kum) (a) coarse flour or groats	1 i 25	
<i>kakkû</i> (gú.tur) lentil?	1 iii 11	CAD K 58
<i>kam(m)antu</i> (^u ÁB.DUH) ?	1 iii 15	Bottéro 1971: 341
<i>kamûnu</i> (^u gamun) cumin	1 ii 4	Bottéro 1995
<i>kasû</i> (gazi ^{sar}) cress?	1 iv 34	Bottéro 1971: 341 ^b
<i>kurkanû</i> (^u kur.gi.rin.na)	1 iv 19	Bottéro 1971: 342 ^a
<i>laptu</i> (lu.úb ^{sar})	1 i 24 (?)	Bottéro 1995
<i>nînu</i> (ú.KUR.RA) ammi?	1 ii 5	Bottéro 1971: 342 ^a , 1995
<i>nuḥurtu</i> (ú.nu.luḥ.ḥa) (an) <i>Asa foetida</i>	1 ii 21	Bottéro 1971: 342 ^a
<i>qalîtu</i> (še.sa.a) parched grain	1 iv 34	Bottéro 1995
<i>saḥlû</i> (zà.ḥi.li) cress	1 i 3	Bottéro 1971: 342 ^a
<i>siskû</i> (zíd.eša) (a) fine flour	1 iii 49	CAD S 192 ff.
<i>suluppu</i> (zú.lum.ma) date	1 iii 11	
<i>šumlalû</i> (^{sim} GAM.ma) a spice plant	1 ii 4	CAD S 245 ^a
<i>šallûru</i> (šennur) plum?	1 ii 10	CAD S i 254
<i>šizbu</i> (ga) milk	1 ii 15	
<i>šurmēnu</i> (^u šur.min) cypress	1 iii 10	Bottéro 1995
<i>šurdunû</i> (^u si.sá)	1 iv 35	Bottéro 1971: 342 ^b (?)
<i>šūšu</i> (^{gis} še.dù.a) liquorice	1 iv 35	CAD S iii 385 ^b
<i>tappinnu</i> (dabin) a kind of flour	1 iii 18	AHw 1321 ^a
<i>tittu</i> (^{gis} pēš) fig	2 iii 32	
<i>ṭābātu</i> (a.geštin.na) vinegar	1 ii 14	Bottéro 1995
<i>uḥinnu</i> (ú.ḥi.in) fresh dates	1 iii 38	
<i>urijānu</i> (^u tál.tál) fennel?	2 i 56	AHw 1430 ^a
<i>zibû</i> (gamun gi ₆) black cumin	1 ii 5	Bottéro 1971: 343 ^a

And this list, based on the UGU tablets alone, is certainly not exhaustive, and will need extending as our knowledge of the Mesopotamian diet extends.

As well as in ingredients, medical and the few culinary texts we possess resemble each other in the instructions given to the reader: *ḥašālu* 'crush', *napû* 'sieve', *lāšu* 'knead', *šubšulu* 'cook'. In other words, 'pharmaceutical' medicine often used culinary ingredients, treating them in the same way as it might have done food.⁵⁶ The kitchen, where mortars etc. would be located and waste disposal routine, thus suggests itself as the most likely place for the preparation of medicaments. A poignant example of the close association between magic, medicine and cooking is offered by a menology which advises staying clear of mortars on particular days of the year: *ašar uršu nadû lā izzaz* 'he shall not stand where there is a mortar' (KAR 177 rev. ii 14, ii 19-20, i 26, edited Labat 1939:172-4 and 178).⁵⁷ the mortar, presumably to be found

⁵³ Economic texts also point to this, though the evidence has not been collected systematically.

⁵⁴ Examples not supplied where they are hardly necessary, e.g. 'dates'.

⁵⁵ See the references in the alphabetically arranged list of words, pp. 195-223.

⁵⁶ The fact that 'magical' recipes do not have the same propensity does not undermine the idea advanced above that the effectiveness of 'pharmaceutical' and 'magical' treatments would have been given the same sort of explanation.

⁵⁷ Cf. also lines i 26 and 48.

sitting innocently in many households' kitchen, was also used for the preparation of medicines, and so a potential accessory in black magic.⁵⁸ We suggest it was for this reason that it could be unlucky to approach one.⁵⁹

This association between medicine and cooking throws new light on the fact that the evil bewitcher in *Maqlû* is usually female.⁶⁰ Sumerian proverbs linking cooking with wives and mothers, and dowry records listing cooking utensils suggest that domestic cooking was done by women (Bottéro 1983:293^b). As experts in domestic food preparation and hence, presumably, plant lore, women were probably prime suspects in cases where magic was suspected. A poignant example is offered by a legal record from Mari, in which a mother is required to swear that her daughter did not poison a man with bewitched food: *k[šp] mārī Marateštar ana Hammiepuḥ mār Dadi(j)a lā ṭpušu sinništu šī ina bābim ū ajjānumma giš^{bi.a} kišpī lā iddinamma ina akalim ina ukultim šikarim ū mimma Hammiepuḥ mār Dadi(j)a lā ušākilu* 'my daughter Marateštar did not put a spell on Hammiepuh son of Dadia. This woman did not give magic wood (?) at the gate or anywhere else, and she did not get Hammiepuh son of Dadia to eat (it) in bread, in food, beer, or anything (else)⁶¹. Thus, although Jean Bottéro is surely right that 'en cuisine ... ne comptaient que les valeurs alimentaires et les saveurs ... toute origine "religieuse", "magique" ... de la Cuisine, est parfaitement improbable' (1983:297^a), he is perhaps too dismissive of the significance of the similarities between medicine and cooking, which point to a proto *Hexenküche*.

It must be admitted that, in the chain of associations proposed between magic, medicine, and cooking, it is difficult to find documentary evidence linking women with healing⁶². This could be used to argue *ad absurdum* against the suggestion, but the difficulty is not insurmountable. For a start, if we take the evidence of the sources at face value, there is the question of historical development: a fully-fledged medical tradition is attested for the third millennium,⁶³ and many of the recipes from late contexts such as Aššurbanipal's library are thought to derive from much earlier ones. Medicine (like many others in Mesopotamia) seems to have been a conservative pursuit, and it is possible that its pharmacological profile was established early on (perhaps even in pre-historic times), before a tide of institutionalising male chauvinism,⁶⁴ which excluded women from medicine—except as midwives, a capacity in which 'wise women'⁶⁵ continued to practice. Second, it is worth drawing attention to a remarkable Mari letter (*ARM X*, 169) [*tuppaki*] *ša tušābilīm ešme [k]ṭ'am tašpurīm umma atti-ma aššum muršika ammīnim lā tašpuram ibaššī-ma ša ana aḷīšu aššum muršišu išapparu puššurtam ašappar umma-mi maršāku [in]an[na] abtaluḫ* 1 have heard the tablet which you had brought to me. You wrote as follows: "Why did you not write about your illness?". Is there anyone who writes (even) to his brother about his sickness? I write (only about) a recovery: "I was ill, and now I am well"⁶⁶. The text suggests that stigma was attached to illness. For this reason, and because *qua* healers they may have been regarded as potential bewitchers,⁶⁷ (women) healers outside of institutional contexts may have preferred to keep a low profile. But one cannot definitively explain a silence of several millennia through a single letter, and the magic-medicine-cooking hypothesis remains just that, even if with the letter it gains in plausibility.

Thus we conclude our selective discussion of the UGU tablets. After opening with a short characterisation of the series, we commented on perceptions of the head, suggested that 'pharmaceutical' and 'magical' recipes do not enshrine different understandings of disease or treatment, discussed the tablets' likely grounding in popular medicine, and suggested that ancient Mesopotamia witnessed a similar close association between magic, 'pharmaceutical' medicine and cooking to that known from Early Modern England. Nothing has been said which the author expects others to adopt without reservation, but it is hoped that the thoughts offered here might serve as fuel for debate.

⁵⁸ The menology is specific, saying that standing near a mortar will land one with SA.GAL or KI.A diseases, but this is not a serious threat to the argument. Perhaps conscious memory of the association mortar > medicine/witchcraft > disease had been lost, and our text is a fossil.

⁵⁹ For a previous discussion of links between medicine and witchcraft see Abusch 2002:12.

⁶⁰ For a previous explanation see Abusch 2002:66 (cf. the discussion by Scurlock 2002:472 f.).

⁶¹ Durand 1988, n.253, p. 532 II 4'-10'. Compare another Mari text, where the suspected bewitcher is again a woman, though this time there is no mention of cooking: *aššum šammī ša kišpī ša Šimatū ana šēr bēlija ušābilam awātum šī kīnat* 'About the herbs of bewitchment which Šimatū had brought to my lord, that matter is true!' (Charpin 1988 n. 314, p. 77 II 26-8).

⁶² The (meagre) evidence for female doctors available so far in Mesopotamia and Anatolia is collected by Otten and Ruster 1993.

⁶³ A comprehensive treatment of early (second millennium) medicine is in preparation by Dr. Finkel.

⁶⁴ For which see Abusch 2002:86 f.

⁶⁵ Stol 2000b, chapter on midwives.

⁶⁶ Following the emphases in translation suggested by Durand 1988:552.

⁶⁷ The continuities between the two are discussed by Abusch 2002:84 ff. Note also the *napšalti šammī lemnuṭi* 'ointment of evil substances' (*Maqlû* i 106), *napšaltu* 'ointment, salve' being a standard term in medical texts.

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