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Towards a historical contextualisation of Ancient Egyptian perspectives of the inner body, sickness, and healing

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6. Late- and Graeco-Roman Period Egyptian sources and the BRONCHIA tablets from the Mesopotamian Nineveh Therapeutic Compendia

This section will offer a preliminary overview of the occurrences of the four domains discussed in the context of therapeutic compendia of the Second Millennium BCE. The motivations for doing so are three-fold: 1) to understand whether the Egyptian perspectives elicited from the earlier sources can be considered salient enough to the culture that it dominated later sources; if this is the case, then 2) to understand whether later references can refine our general understanding of the concepts discussed; finally 3) to understand whether the elicited perspectives can be compared according to the methodologies of the present discourse with a very select group of texts from Mesopotamia. The third question is particularly pertinent for any attempt to enter the discourse of whether the elicited concepts can be considered specific to the Egyptian culture during the discussed periods, more representative of ideas present in other cultures from ancient Western Asia. Moreover, it provides an opportunity to consider whether such ideas conform, to a certain extent, to relatively universal modes of categorisation.

Towards these objectives, the final discussion is divided into two sections. The first analyses two surviving and published Egyptian therapeutic compendia from the later periods of ancient Egyptian history. The first is pRubensohn, originating from a temple archive at Elephantine and dated to *c.* 620 BCE – to the 26th Dynasty.¹⁰¹⁶ The second is pVindob 6257, a demotic therapeutic manual from *c.* 150 BCE, the early Roman Period Fayum.¹⁰¹⁷ The final chapter will offer an ethnomedical comparative case-study of the BRONCHIA tablet series from the Nineveh Therapeutic Compendium (NTC), a subseries known to its users as *šumma amēlu (napīš) appašu kabit* ‘if a man, the breathing of his nose is difficult’. This series is dated to the Neo-Assyrian period – specifically to the reign of Assurbanipal, *c.* 640 BCE, as documented in the colophon of all manuscripts of this series. The tablets studied here are exclusively those from the library at Nineveh; the exploration considers comparable documents from other sites

¹⁰¹⁶ Around 200 km south of modern-day Luxor; for the dating of this manuscript, see the overview offered by P. Dils, ‘Papyrus Rubensohn’, in *SAE* (2022).

¹⁰¹⁷ Based on the manuscript’s palaeography, Reymond dated the manuscript to the latter half of the 2nd century CE, providing a *terminus ad quem* ‘for deciding as to the date or dates of the contents’ (*Medical Book*, 38); whether this estimation holds up to further scrutiny, remains to be seen; to the untrained eye, the style is characteristically Roman Demotic.

only where they are considered pertinent to the discussion of the NTC BRONCHIA tablet contents.¹⁰¹⁸

Although the present discussion exclusively constitutes an examination of therapeutic compendia from later periods as an examination of the cultural domains inherent within them—as discussed in the previous chapter – the domains of the epigastric region, *wḥd.w*, *st.t*, and *sry.t*, and their members—it is necessary to point out that, while comparable compendia are somewhat lacking, the terms associated with these domains emerge in other health-related manuscripts and are also reported to occur in hitherto unpublished manuscripts. To better anchor the discussion of Egyptian domains as they emerge in later manuscripts into a diachronic survey, an overview of the available evidence of these domains in later sources will be offered.

While the epigastric-region, *wḥd.w*, and *st.t* domains do not appear to be referenced directly, earlier attestations of their members appear in lists aimed at protecting individuals, seemingly children, against harmful entities and health complaints in the *Oracular Amuletic Decrees*, dated to the twenty-second and twenty-third dynasties, c. 930-730 BCE.¹⁰¹⁹ Only two texts make reference to *sry.t*; L. 5 includes it within a larger list that also lists sicknesses classifications which appear as members of the other domains. It notes that protective entity shall keep the wearer safe from ‘every kind of death (*mwt*), from every affliction (*mḥr*), from every kind of impurity (‘*b*), from every kind of *dḥr.t*-fever, from every kind of *šmm*-fever, from every kind of *srf*-heat/rash, from every kind of *rmny*-affliction, and from every kind of (bad thing) which comes’, before asserting that the wearer will also be safe from ‘*sry.t*, from blindness(?) (‘*fn*), and from any *ḥq*-discharge’.¹⁰²⁰ Body parts are often referenced in these lists, such as L. 6, which notes that the protective entity ‘shall keep healthy his liver (*mjs.t*), his lungs

¹⁰¹⁸ For example, in discussions of restorations of particular passages from the Nineveh tablets through variations of the same text recorded elsewhere, as documented in the inventory of these manuscripts on the *BabMed* website. U. Steinert et al. (‘The Assur Medical Catalogue (AMC)’, in Steinert (ed.), *Scholarly Text Catalogues*, 228) provide a useful catalogue of documents that contain variations of parts of the Bronchia tablets studied here, from locations beyond Nineveh (primarily Assur, but also Babylonia, in the case of the Bronchia tablets).

¹⁰¹⁹ Only L. 7 from this series offers any indication of an absolute date, referencing a pharaoh ‘Osorkon’, though which is unclear; see I. E. S. Edwards, *Oracular Amuletic Decrees of the Late New Kingdom* (HPBM 4; London, 1960), xiii-xv; for their application in the protection of children especially, see T. G. Wilfong, ‘The Oracular Amuletic Decrees: a Question of Length’, *JEA* 99 (2013), 295-300; new OADs have since surfaced in a recent publication by Fischer-Elfert (*Magika Hieratika*, 82-95; 203-219; 250-52).

¹⁰²⁰ Vs. 43-49; Edwards, *Oracular Amuletic Decrees*, 32-3; pls. 9-9a; the latter written $\overline{\text{𓏏}}\overline{\text{𓏏}}\overline{\text{𓏏}}\overline{\text{𓏏}}\overline{\text{𓏏}}$; unattested elsewhere in this form but potentially linked to an unknown verb which occurs once, earlier in pLondon 10059; *GdM VII*, 573; the second manuscript is pBerlin P 3059, which includes *sry.t* alone within a general attestation of divine protection against *mḥr* ‘affliction’ (Fischer-Elfert, *Magika Hieratika*, 86).

(*wfʿ*), his stomach-spleen (*nnšm*), as well as ‘his kidneys (*kʿr.t*),¹⁰²¹ his intestines (*jmy-h.t*), and his rear (*ph.wy*). It is notable that these are typically more specific regions of the body than are found in the earlier therapeutic compendia studied, with the prominent exception of the ‘rear’.

All domains occur in therapeutic manuscripts dated to around the twenty-sixth dynasty (c. 600 BCE) from the archive of manuscripts discovered at Elephantine – including pRubensohn, which, according to currently available sources and discussions thereof, is the only text to include *sry.t*. Unger notes that in the soon to be published pBrooklyn 47.218.75+86, *st.t*, *wḥd.w*, and ʿ³-discharge appear together more generally with hostile superhuman entities as causes of sickness episodes located primarily in the back and upper abdomen.¹⁰²² It is not yet clear if this manuscript differs in terms of perspectives on these domains or the therapeutic strategies considered members thereof. In an incantation from pBrooklyn 47.218.48+85 for the use of *js.w*-reed against snakebite venom, the epigastric region is referred to as an area upon which the ‘poison of the enemy of Osiris’ has risen.¹⁰²³ Little can be elicited from this passage alone in terms of the significance of this area of the body from the perspective of the progenitor, though it demonstrates that the term remained prominent in such social circles. Perhaps the most interesting from this archive, however, is pBrooklyn 47.218.49, an incantation compendium specifically intended for the protection of the ears of Pharaoh.¹⁰²⁴ One spell within this manuscript is particularly enlightening on the perspective of *st.t*. This is another an invocation against ghosts, expelling them from the ears of Pharaoh. The precise context is somewhat obscure as the column is damaged, however, associations between the *st.t*-domain and regions in the body with which it is associated in earlier manuscripts emerges:¹⁰²⁵

pBrooklyn 47.218.49, col. x+3,3-7: ... *nṯr.w rwiʿs[n sw m msḏr n pr-ʿ³ i] mwt mwt.t ḥrʿs[n ...] rmt rwiʿsn [sw m msḏr n pr-ʿ³ ḥrʿsn sw ḥr [...]ʿsn dḥr.tḥf r jbʿsn [...] bw.tʿsn wdi[ʿsn(?)]...]ḥf rḏw.w st.tḥf fnd[ḥf(?)]... ḥ]nm nr.w n rḏw.w [...(?)]ḥf jbʿsn r ḥḏty pḏty mwt m[wt.t dʿy dʿy.t] ḥm.wt-rʿ*

‘... The Gods; may they expel [it from the ear of Pharaoh. Oh!] male and female ghost; may they fell it upon [... may] they [...] its *dḥr.t*-fever against their *jb* [...] their abomination; may

¹⁰²¹ Noted by Edwards (*Oracular Amuletic Decrees*, 37) as a variant writing of *gr.t*, noted to be a loan-word (Hoch, *Semitic Loan Words*, 352-3) from many Semitic languages such as Ugaritic *klyt*, Arabic *kulya*, and Akk. *kalītu*; for the latter, see ‘small of the back region; kidney’, *CAD* k, 74.

¹⁰²² Unger, in Steinert (ed.), *Systems of Classification*, 123 ff.; ʿ³-discharge occurs also as a central theme in the yet unpublished pBrooklyn 47.218.47 (currently being edited by J. Quack), a manuscript dated tentatively to the Saite Period, 6th century BCE. The document also refers to the epigastric region (Quack, personal communication).

¹⁰²³ pBrooklyn 47.218.48+85 6,26: [*mt*]w.t *pri(.t) r-ḥry ḥ(ʿy.t) ḥr rʿ-jb n ḥḏt n wsjr* ‘[the poi]son which has risen upwards and descended upon his epigastric region is of an enemy of Osiris’; cf. the translation offered by Sauneron (*Un Traité Égyptien d’ophiologie*, 133; pl. 6 haut-bas).

¹⁰²⁴ This is the only compendium discovered of which it can be affirmed was intended specifically for the protection of the highest echelon of Egyptian society; see O’Rourke, *A Royal Book of Protection*, 23 ff.

¹⁰²⁵ Restorations offered by O’Rourke, *ibid.*, 57-66; pl. 3a-b; the translation offered here differs only slightly.

[they?] place [...] its [...] the *rdw.w*-effluxes (of) his *st.t* (𐎓𐎠𐎢) (of) [his(?)] nose [...] breathing the terror from the effluxes [...] may] he [...] their *jb* against the *hft*-enemy, the *pft*-enemy, the male or fe[male] ghost, [the male or female wrongdoer], etc’.

The invocation in this spell against ghosts, further qualified with the epithets ‘enemy’ (*hfty* and *pfty*) and ‘wrongdoer’ (*dʒy* and *dʒy.t*) demonstrates the continuation of the prominent perspective seen in the earlier second millennium BCE manuscripts – namely, that external entities cause DISTURBANCE in the body. In this particular case, the invocation particularly concerns the model represented by the *st.t*-domain – that afflictions of the ears were conceptualised as a manifestation of pathogens in the head region through a disturbance that enters through breathing.¹⁰²⁶ Particularly insightful is that the *rdw.w*-efflux is directly connected with ‘his *st.t*’, and with ‘his nose’,¹⁰²⁷ reflecting the notion of pathogenic substances (here *rdw.w*) from the head interfering with the *st.t* already present within the body. The overarching theme offered is complex, and suggests that the afflictions of the ear were specifically understood in this context as being caused by the process of disturbance of *st.t* through the nasal cavity, reflecting notions found in the explanatory model of mucus-air (*nšš.w*) causing deafness in Eb. 854b [854e] and rot and pathogenic substances which *sti* ‘pour’ in the ear in Eb. 766[a-g] or removing *st.t* from the ears in Bln. 200-04, as well as the pathogenic *rš-* or *hntj*-substances of the nose and in the head in Eb. 192 and 761-3.¹⁰²⁸

The salient perspectives of sickness manifestation that dominate the therapeutic manuscripts from the second millennium BCE are perhaps more challenging to identify in later sources; nevertheless, they appear present to a certain extent, and can be seen in pMünchen ÄS 5882—a manuscript possibly from the Fayum which is closely paralleled with pKöln 3547, both of which are dated to the early Ptolemaic Period—which records an incantation against *swʒ.w-bjn* ‘a wandering evil-spirit’:¹⁰²⁹

¹⁰²⁶ Note, O’Rourke translates *hnm* as ‘smelling’ (*ibid.*, 57, 60, n. T); cf. *TLA* (2022) lemma-no. 118040, where the verb is rendered ‘to breathe in (a pleasant smell)’.

¹⁰²⁷ O’Rourke translates *st.t* as ‘mucus’ (citing *GdM VII* 812-14); he notes that the relationship between *rdw.w st.t fnd* is unclear, but rightly suggests that ‘*sttzf* and *fnd* go together, giving something like “...his mucus (of) (his) nose...”’ (O’Rourke, *A Royal Book of Protection*, 60, n. S).

¹⁰²⁸ It is also worth noting that while the *whd.w*-model does not appear to be referenced directly in this manuscript, *whʒ.w*-rash makes an appearance in col. x+8,12-13, though O’Rourke translates this as ‘eye-disease’ (*ibid.*, 130; pls. 8a-b), curiously following Wb. I 347,8-10 and R. Hannig, *Großes Handwörterbuch Ägyptisch-Deutsch* (Mainz, 2001), 209a. The first sign of this word is omitted, and the alternative readings of *nhʒ* and *hʒ* are also considered (O’Rourke, *A Royal Book of Protection*, 132, n. G). The same passage also refers to *hns.w*-swellings, and *pri ht hr jʒb[t.t] n ʒs.t r whm n nb.t-hw.t* ‘fire gone forth upon the left(-side) of Isis and again upon that of Nephthys’; perspectives (fire likely being a metaphor for ‘heat’ more generally) which appear more coherent with the domain of *whd.w*.

¹⁰²⁹ See Fischer-Elfert, *Magika Hieratika*, 253-294; for pKöln 3547, cf. Kurth et al., *Kölner ägyptische Papyri*.

pMünchen ÄS 5882, rt. 1 – vs. 1: *mj r-bl shr.tw <m/r>-h³.t md.wtzj hfty pft mwt mwt<.t> hm.wt-r³ p³ t³.w bjn p³ t³.w rw.ty p³ sw³.w bjn d³y jh.t nb.t dw nty <m> ‘.t-nb.t... nn jri³k m(h)r<.t> tn r³f nn jri³k gs n m³‘ m tp³f nn jri³k htb m ‘nh.wy³f nn jri³k h³ m jr.ty³f nn jri³k hrd m jbh.w³f nn jri³k jbb m sp.ty³f nn jri³k hntj m fnd³f nn jri³k snht m nhb.t³f {...} nn jri³k khkh m ‘š³š³(t)³f nn ‘q<=k> m h.t³f nn jri³k šmm(t) m h³.w³f m ‘.t³f nb.t jptn*

‘Come out, you shall be made to fall before my words, *hfty*-enemy, *pft*-enemy, male or female deceased, etc.; evil wind, wind (from) outside, wandering evil, wrongdoer, any evil thing which is in this part (of the body)! ... You will not make this affliction against him! You will not make a ‘half-temple’ in his head! You will not make *htb*-deafness(?) in his ears! You will not make weak-sightedness in his eyes! You will not make grinding in his teeth! You will not make dumbness in his lips! You will not make a *hntj*-substance in his nose! You will not make stiffness in his neck! {...} You will not make *khkh*-cough in his voice! You will not enter into his belly! You will not make a *šmm*-fever in his flesh or in all parts of his body!’.

The existence of this incantation, which again—as in the incantations from the verso of pEdwin Smith—personifies the ecological experience of wind as a hostile superhuman entity, characterised again according to the perspective of disturbance. The sickness as disturbance is specified in a list-like format. Perhaps most interesting in this list, is both the survival of *hntj*-substance, here directly connected with the nose, and its close proximity to stiffness in the neck – here, are two classificatory models for experiences of sickness subsumed under *st.t* in earlier manuscripts. Following the erroneous repetition of ‘in his neck’,¹⁰³⁰ the physical phenomenon of ‘coughing’ is referenced through the onomatopoeic classification *khkh* (and not *sry.t*-phlegm). That *šmm*-fever is only listed after the entity is invoked not to enter the belly, is particularly interesting; whether the *st.t*-domain was in the mind of the text’s progenitor is unclear, though the selection of specific afflictions should not be considered inconsequential. Though not present in this manuscript, the variant pKöln 3547 includes the invocations:

pKöln 3547 3,4-5: *nn jri³k hsi hnhn m rd.wy³s m tb.ty³s nn jri³k whd.w m psd³s nn ‘q³k m h.t³s nn jri³k šmm m ‘.t³s nb.t*

‘You will not make a weakness or detention in her legs (to) in the soles of her feet! You will not make *whd.w* in her back! You will not enter into her belly! You will not make a *šmm*-fever in all of her parts (of the body)!’

Contrary to pMünchen, the collection of sickness classifications here instead appears to reflect those typically assimilated under the *whd.w* domain, attesting to the survival of both perspectives of sickness, even in this later period. What cannot be known from these incantations is the extent to which these domains retained their members – including the therapeutic recipes saliently associated with them. Thus, analyses of surviving fragments of therapeutic compendia provide a useful means of assessing the longevity of ancient Egyptian perspectives of the inner-body and sickness classification.

¹⁰³⁰ *Ibid.*, 260.

6.1. Later Egyptian therapeutic compendia

6.1.1. pRubensohn

Discovered at Elephantine during the 1906-8 excavations of the Royal Museums in Berlin, this manuscript was first edited by Westendorf in 1974.¹⁰³¹ It has received three translations in print, by Bardinet,¹⁰³² Günter Vittmann,¹⁰³³ and again by Westendorf;¹⁰³⁴ Peter Dils has since uploaded an entry for the text on the *SAE*, offering a useful commentary of these previous translations.

Earlier attempts at dating of this manuscript placed it somewhere between the Persian Period Egypt and the early Ptolemaic Period;¹⁰³⁵ however, a more detailed palaeographical study confirms its placement in the 26th Dynasty.¹⁰³⁶ It is evident that much of the manuscript is missing, even much of the column which survives appears to be absent; what remains is likely to be less than half of a column, with only the left-hand margin visibly preserved in parts.¹⁰³⁷ Given this fact, it is extremely difficult to discern patterns in drug usage from this document. Three sections are selected for discussion from this text:



x+1,3: [...?...] his *sry.t*-phlegm is ine[rt] and vomit-spew comes (up); [...] irritates in his throat [...]

x+1,4: [...?...] from(?) a physician's compendium: beer-grain flour 1/4-*dja*, barley flour 1/4-*dja*, date flour 1/8-*dja*, *gnngn.t*-plant 1/8-*dja*, goose oil 1/2-*dja*

¹⁰³¹ W. Westendorf, 'Papyrus Berlin 10456: Ein Fragment des wiederentdeckten medizinischen Papyrus Rubensohn', in *The Egyptian Museum and Papyrus Collection of East-Berlin* (ed.), *Festschrift zum 150 jährigen Bestehen des Berliner Ägyptischen Museum* (MÄS 8; Berlin 1974), 247-54; pl. 33; also Dils, in *SAE* (2022).

¹⁰³² Bardinet, *Papyrus médicaux*, 461-3.

¹⁰³³ G. Vittmann, 'Hieratic Texts', in B. Porten (ed.), *The Elephantine Papyri in English: Three Millennia of Cross-Cultural Continuity and Change* (DMOA 22; Leiden 1996), 71-3

¹⁰³⁴ Westendorf, *Handbuch*, 50-51, 78, 179, 182-4, and 409.

¹⁰³⁵ E.g., Westendorf, in *Festschrift*, 248; Vittmann, in Porten (ed.), *The Elephantine Papyri*, 71.

¹⁰³⁶ U. Verhoeven van Elsbergen, *Untersuchungen zur späthieratischen Buchschrift* (OLA 99; Leuven, 2001), 278-9; see discussion by Dils, in *SAE* (2022).

¹⁰³⁷ When compared with pBrooklyn 47.218.48+85—also from Elephantine and dated to roughly the same period—one can estimate that around one-third of the column survives; cf. e.g., the plates for this manuscript presented in Sauneron, *Ophiologie*.

x+1,5: [...?...*fev*]er: *gn gn.t*-plant 1/4-*dja*, beer-grain flour 1/4-*dja*, date flour 1/4-*dja*, barley flour 1/8-*dja*, acacia gum 1/32-*dja*

x+1,6: [...?... he]ated and left to the dew; take 2-*dja* therefrom and add 1/8-*dja gn gn.t*-plant to it (with goose oil 1/8-*dja* and honey 1/8-*dja*; to be strained [and drunk ...])

x+1,7: [...?...] honey 1/8-*dja*; to be strained and drunk for four days at a lukewarm temperature. **Another of its like:** *gn gn.t*-plant 1/4-*dja*, [...] flour [...]


x+1,8: [...?... from(?)] a compendium, a recipe of removing *sry.t*-phlegm from the chest: tooth 1/8-*dja*; to be ground with sweet beer 1/2-*dja*

x+1,9: [...?...] removing *sry.t*-phlegm of the thoracic-cavity: (yellow) ochre 1/32-*dja*, acacia gum 1/32-*dja*, acacia leaf 1/32-*dja*, incense 1/64-*dja*

x+1,10: [...?...] honey 1/4-*dja*; to be heated and eaten for four days.

This first extract on *sry.t*-phlegm offers more specific details concerning the nature of the substance and its ability to cause *q³.w n.w bš* ‘vomit-spew’, or the like. Here, a perspective is offered which is not found in surviving earlier manuscripts – that *sry.t*-phlegm results in vomit when it is immovable.¹⁰³⁸ In this case, a matter ‘irritates’ (*wmm*) in his throat – which matter is unclear, due to the lacuna.¹⁰³⁹ Curious in this extract is also the direct association between ‘fever’ and *sry.t*-phlegm; any doubt cast over the inclusion of this recipe as an anomaly to a manuscript which otherwise predominantly offers remedies against *sry.t*-phlegm must be eradicated by the similarity of the surviving ingredients for the treatment strategies listed here. The use of grains used in the beer-brewing process and *gn gn.t*-plant, with additional inclusions, such as date flour, oil, gum, and honey attest to the grouping of these recipes as variant methods of the same treatment. The recipes here are unlike those listed in pEbers *sry.t*-domain section; although though date flour is used in three recipes,¹⁰⁴⁰ these are quite distinct. In Eb. 321, *gn gn.t* is combined with fruits and *njwj.w*-mint(?); flour does not appear to dominate. The plant appears nowhere in pHearst, and once in pBerlin 3038, in the recipe against *st.t* which also uses mint (Bln. 136; cf. Eb. 297). More commonly, the plant is included in pEbers in recipes together with ingredients such as *šnj t³*, which suggest a downwards evacuation was the objective of the

¹⁰³⁸ Read as *nnj.w* ‘to be inert’ (e.g., *GdM VII*, 465); cf. Eb. 189 ‘an inertness from irritations which did not permit him to eat beforehand’ – denoting a lack of movement in food and therefore eating habits); Westendorf (in *Festschrift*, 251) first suggested two possibilities: *šwmm j[...]*³ or *m nnj[...]*³, the second of which appears most evident here, though with the final aleph belonging to the verb *q³* ‘to vomit’. Westendorf (*Handbuch*, 182) renders no translation.

¹⁰³⁹ The subject of this statement is lost to the lacuna; the verb used is ‘to eat’ in a subject-stative construction, and is not the subject itself; cf. e.g., Westendorf (*Handbuch*, 182); Dils (in *SAE*, 2022), who both translate ‘Essen in {seiner} Kehle’; here, Bardinet reads ‘*qui rongent (= irritent) l’intérieur de la gorge*’ (*Papyrus médicaux*, 462), which is inconsistent with his other renderings of *wmm* (cf. e.g., Eb. 188, *ibid.*, 276). Whether ‘blood’ is missing in the lacuna is difficult to assert with certainty – it is perhaps noteworthy that the remains of D26 can be argued for (f ) at the left-hand edge of the break, though this could represent any other lexeme employed by this text (e.g., *q³* ‘or even *bš*, found in the same line).

¹⁰⁴⁰ Eb. 308, 313, 319.

therapeutic strategy here.¹⁰⁴¹ Further potential aims of these therapeutics is clouded by the inability to offer a secure identification;¹⁰⁴² nevertheless, according to this manuscript, the variant means of preparing the herbal product indicate that it was particularly salient (at least during this period and/or in this area of Egypt). Whether other ingredients, now lost to the lacuna, were commonly included (such as *šnj t³* or *njwjw*-mint(?)) remains unclear.



x+1,12: [...?...] **Another of removing *sry.t*-phlegm from the chest and thoracic-cavity:** *prš*-substance from Gaheset; ground finely

x+1,13: [...?... from] **the heart:** fresh dates *1/8-dja*, honey *1/8-dja*, water; to be strained and drunk for four days. **Another:** dried dates *1/8-dja*

x+1,14: [...?...] a recipe for a man who has *sry.t*-phlegm and his voice is hoarse: dates *1/32-dja*, *šnf.t*-fruit




x+1,15: [...?...] fat like when it is fresh; taken and chewed for four days at a lukewarm temperature

x+1,16: [...?...] **treating(?)**¹⁰⁴³ **the thoracic-cavity:** wine *1/2-dja*, Lower Egyptian salt *1/64-dja*; to be drunk in the morning and vomited at midday.

¹⁰⁴¹ The plant is also included together with somewhat predictable ingredients in the first subseries of pEbers – recipes for removing general afflictions from the belly: Eb. 11, 13, 24, 28, and 31, as well as in two for removing *wh³.w* from the belly and thereby treating *wh³.w*, Eb. 90-91.

¹⁰⁴² Charpentier (*Botanique*, 772) suggests *Eruca sativa* Mill. (an accepted synonym of *Eruca vesicaria* (L.) Cav; TPL 2022) for this plant, following Crum (*Coptic Dictionary*, 824b), who points out that ⲄⲒⲚⲄⲒⲚ refers to ‘rocket’; as pointed out by Germer (*Handbuch*, 148), the description of the plant offered by Eb. 28 confounds this identification: *wnn-s mj jwr.yt kf.tyw* ‘it is like Cretan beans’. Even if the Coptic word derives from this earlier name, the meaning appears to have shifted somewhat. The plant is also noted to be a product of the Wadi Natrun (*ibid.*; D. Kurth, *Der Oasenmann: eine altägyptische Erzählung übersetzt und kommentiert* (KAW 103; Mainz, 2003) 109).

¹⁰⁴³ Westendorf (*Handbuch*, 181) refrains from reading this indication; Bardinet (*Papyrus médicaux*, 463) offers ‘[Remède pour vider] la trachée-poumons (des sécrétions-seryt)’; Dils (in SAE 2022) reads ‘[Rezept zum]

Vertreiben <des Hustens aus (?)> der Lunge. Certainly, the reading is difficult:  - the remains of a transitive verb is visible, classified with A24 (). Reading *dr* ‘to remove’ is impossible, as the verb is not used in this way. It is more likely that a verb such as *srwh* ‘to treat’, is hidden in this lacuna. This becomes possible when one considers the diagonal stroke of the apparent *d* to in fact belong to A24; however, this does not explain the form of the sign below, which is challenging to connect with the final *h* of the verb ().

The second section selected offers a direct reference to *sry.t*-phlegm afflicting the chest and thoracic cavity, contrasting with the typical indications offered by earlier manuscripts – especially ‘removing *sry.t* from the belly’. Col. x+1,14 instead indicates that the recipes are for a hoarse-voice. Its use in a recipe for the heart seemingly connects the domain of *sry.t* with Eb. 854c [855k], which describes blood of the lungs constricting the heart and small amounts *pri* ‘coming forth’. Dates appear again as a particularly salient inclusion for treating these conditions. A less-specific variant of the final recipe, x+1,16, is also found in Bln. 39.



x+1,17: [...?...] fatty] flesh of a cow with marrow; the man would drink this heated. **Another:** wine **1/2-dja**, *krkr*-plant [...]

x+1,18: [...?...] incense] **1/64-dja**, cumin **1/64-dja**, goose oil **1/8-dja**, sweet beer **1/2-dja**, honey **1/16-dja**; to be heated, strained, and drunk for four days. **Another:** (yellow) ochre **1/64-dja** [...]

x+1,19: [...?...] strained and drunk for four days. **Another:** *nstj*-malt-tongue **1/8-dja**, incense **1/64-dja**, figs **1/8-dja**, *jšd*-fruit [**1/8-dja**?]

x+1,20: [...?...] (?)-liquid **1/8-dja**; ground finely and bound upon [it]. **Another:** beer-grain grist **1/8-dja**, cyperus **1/8-dja** [...]

The final selection of texts presented here demonstrate the diversity of treatments offered, as well as the notable absence of salience therapeutics found especially in pEbers and pBerlin 3038 – notably, the use of carob drinks and milk-honey concoctions. Whether any of these recipes are now lost to the lacunae of the manuscript as a whole is impossible to state. Honey does appear, of course, in ingredients, but too little remains to suggest whether these recipes could be considered similar to those of the earlier periods. Despite this, x+1,17—preserving two recipes—includes an ingredient which is otherwise found only in H. 61: *krkr*-plant (**1/16-dja**).¹⁰⁴⁴ The Rubensohn recipe uses wine, not found in H. 61; H. 61 includes **5-dja** milk, “*m*-plant (**1/16-dja**), incense **1/64-dja**, (yellow) ochre **1/32-dja**, and bone marrow **1/8-dja**, and is to be heated and drunk. Whether the distance in time and space between these manuscripts could

¹⁰⁴⁴ *GdM VI*, 529-30.

be suggestive of a salience for this ingredient, but any further analysis impossible based on the available evidence.

The obvious limitations in the possible analysis of this document is unfortunate; nevertheless, the survival of *sry.t*-phlegm within what appears to be a broader archive that also carries *whd.w*, ʕ^c-discharge, *st.t*, and even a reference to the epigastric region is suggestive that even during this period and in this disparate location, prevalent perspectives observable in earlier manuscripts influenced therapeutic practices. In the surviving recipes in this document, however, only tenuous connections can be made with the salient recipe variants of earlier periods. This could, of course, be a matter of happenstance; equally, it could suggest a need for caution in assuming that the sickness experiences encoded under model-domains remained stagnant throughout the course of ancient Egyptian history. As a final remark, the higher level of specificity observable in the remains of only a few recipe indications might be suggestive of a trend in later manuscripts; to substantiate this suggestion, further supporting documentation from the period would be required.

6.1.2. pVindob 6257 and *sry.t*, *st.t*, and *whd.w*

This document forms part of the Vienna Demotic Papyrus Collection retrieved from the temple library of Suchos in the Fayum, which has—together with the temple town of Tebtunis—yielded the most fruitful collection of demotic manuscripts.¹⁰⁴⁵ Due to the somewhat problematic *editio princeps* of this compendium offered by Reymond,¹⁰⁴⁶ a full re-edition of this manuscript by Friedhelm Hoffmann is in preparation. Prior to the release of this, Hoffmann has significantly re-worked the arrangement of the manuscript, identifying new joins and separating the first three columns of the text, now recognised as belonging to a separate text.¹⁰⁴⁷ The images of the rearranged document can be found on the website of the Austrian National Library's Papyrus Collection;¹⁰⁴⁸ from these, only six columns of text appear to have survived, as opposed to Reymond's 16!¹⁰⁴⁹ These images have been used in the present study of the contents of this manuscript,¹⁰⁵⁰ and the numbering system for the columns and lines used follows the reworked image, and thus dispenses with Reymond's columns, and somewhat

¹⁰⁴⁵ See the detailed overview offered by Reymond, *Medical Book*, 21-5 and ff..

¹⁰⁴⁶ See literature review in section 1.1., above.

¹⁰⁴⁷ Hoffmann, in Imhausen and Pommerening, 201-218.

¹⁰⁴⁸ (<https://www.onb.ac.at/en/museums/papyrus-museum>).

¹⁰⁴⁹ Cf. the online image with the plates at the end of Reymond's edition (*Medical Book*, pls. 1-7).

¹⁰⁵⁰ see text appendix.

arbitrary organisation of these into ‘books’.¹⁰⁵¹ Partial translations of the manuscript have since been offered by Hoffmann and Quack,¹⁰⁵² but beyond this, very little discussion of this document has been incorporated into broader overviews of Egyptian medicine.¹⁰⁵³

Rather than offering a thorough overview of the contents of this document, though much desired, the present analysis will only offer a short summary of the use of vocabulary which both sets it apart and connects it to earlier Egyptian therapeutic compendia. It will also present preliminary observations regarding the thematic structuring of the manuscript, essential for an exploration of the domains of sickness experience entered into the text, before exploring specific passages of the manuscript in which the domains discussed in the present thesis can be observed.

It is clear that the compendium is heavily grounded in older Egyptian manuscripts through its use of older classifications and organisational principles.¹⁰⁵⁴ The terms *phr.t* ‘recipe’ and *k.t* ‘another’ are retained to mark individual entries,¹⁰⁵⁵ and the structure of the entries themselves does not deviate from those of previous texts – i.e., each is structured according to a title listing the afflictions to be treated, ingredients, their measurements, and processing steps. Furthermore, old classifications for the parts of the body treated—such as *h.t* ‘belly’,¹⁰⁵⁶ *ph.w* ‘rear’,¹⁰⁵⁷ and *fnd* ‘nose’¹⁰⁵⁸—survive without any clear new non-Egyptian influences. The same is true of sickness classifications, such as *hf²*-worms and *pnd*-worms,¹⁰⁵⁹ *sry.t*-phlegm,¹⁰⁶⁰

¹⁰⁵¹ Reymond (*Medical Book*) offers a somewhat presumptuous overview of the organisation of this manuscript, recognising ‘Book A: from a medical book on skin diseases’, B) ‘on internal diseases’; C) ‘on skin inflammations’; D) ‘sores and disturbances’; E) ‘on methods of treatment of various internal diseases’; and F) ‘from a physician’s compendium’; as can be seen from the rudimentary overview of the contents of this manuscript (TAB. 21), this organisation is not only misguided and grounded in Western-centric presuppositions, it is also entirely misleading of the organisational and classification system of such therapeutic compendia, as well as of the overall contents of each supposed section; *ibid.*, 83-5.

¹⁰⁵² Hoffmann and Quack, in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 300-305.

¹⁰⁵³ Westendorf (*Handbuch*, 55-8) includes an overview of the document limited in use by Reymond’s initial edition, with limited references to passages—which are again reliant on Reymond’s translations—confusingly disconnected and disseminated over several sections of his monograph (e.g., *ibid.*, *sry.t* 186, *srf.t* 317, and *st.t* 346-7).

¹⁰⁵⁴ See similar, Reymond, *Medical Book*, 58.

¹⁰⁵⁵ E.g., Reymond, *Medical Book*, 212-3; 234.

¹⁰⁵⁶ Cols. 1,1, 8, 16 and 6,6, 9.

¹⁰⁵⁷ Cols. 4,2, 31, 38, 5,7, and 6,8, 11, 14.

¹⁰⁵⁸ Cols. 2,10, 11.

¹⁰⁵⁹ Cols. 1,1, 3,38, and 6,6, 9. In col. 3,38, *pnd* is noted as a synonym for *hf²*; cf. e.g., the use of both in the subdomain of worm-treatments (Eb. 50-85) in the first belly domain in pEbers (Eb. 4-103).

¹⁰⁶⁰ Col. 1,9, 10, 11.

sr̄f.t-heat/rash,¹⁰⁶¹ and even *st.t.*¹⁰⁶² Earlier *materia medica* classifications, such as the popular vehicles of *jrp* ‘wine’,¹⁰⁶³ *hnq.t* (*ndm.t*) ‘(sweet) beer’,¹⁰⁶⁴ and *bj.t* ‘honey’,¹⁰⁶⁵ are frequently attested, as are more particular items salient in earlier manuscripts, such as *s* ‘*m*-artemisia’,¹⁰⁶⁶ ‘*’m*-plant’¹⁰⁶⁷—both according to older hieratic writings—and anise(?), the latter rendered in demotic script as *’n’s*, rather than *jns.t.*¹⁰⁶⁸

Against this backdrop of components typical of earlier compendia are the new ingredients—more widely noted in Egyptological scholarship¹⁰⁶⁹—many of these being clearly foreign in origin, such as *rbwn*’-substance,¹⁰⁷⁰ and *rbwkyn*-substance.¹⁰⁷¹ New measurements are also used, such as the *lq*-measurement for liquid volume,¹⁰⁷² *qite*-weight,¹⁰⁷³ and in one case, a *krd*-measurement of volume derived from a Semitic language.¹⁰⁷⁴ In one observable cases, new anatomical terminology is used: *ššpy*, allegedly for ‘stomach’,¹⁰⁷⁵ Beyond this, however, it is apparent that certain aspects of standard terminology as observable in earlier

¹⁰⁶¹ Col. 4,32, 33; read as ‘fever’ by H. J. Thissen, ‘Zur Behandlung von Fieber in demotischen Texte’, A. Karenberg and C. Leitz (eds.), *Heilkunde und Hochkultur II* (NPG 16; Münster, 2002), 75-87, following Reymond, *Medical Book*, 110-111; cf. also the use of *hmm/šmm*-fever in this text, cols. 5,10, 38.

¹⁰⁶² Col. 2,9.

¹⁰⁶³ Cols. 3,14, 23, 26, 29; 4,9; 5,2, 3, 34; and 6,3, 5, 10, 20, 21, 24, 25, 35.


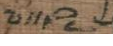
¹⁰⁶⁴ Cols. 1,14; 4,32, 34; 5,2, 9; and 6, 26, 34, 36, 39.

¹⁰⁶⁵ Cols. 1,15, 20; 3,5, 26, 27, 33, 34; 4,3, 7, 22, 24, 31, 37, 39; 5,4, 12, 36; 6,8, 14, 15, 24.

¹⁰⁶⁶ Cols. 1,1; 3,18 (root); 5,3

¹⁰⁶⁷ Cols. 1,13 (root); 3,28; 4,35 (liquid decoction?); 5,35; 6,26

¹⁰⁶⁸ Col. 1,13.

¹⁰⁶⁹ See e.g., the various attempts by Reymond (*Medical Book*, 244 ff.) at equating Egyptian *materia medica* names with those known from Greek, in some cases successfully (e.g., the reading  as *wr.t* ‘rose’ from Coptic οϋπτ but Greek ρουϋς) and in others problematic (e.g. the reading of  as *jrs* ‘iris’ from Coptic ειερεϋ and Greek ιρις (*ibid.*, 249; followed by Aufrère, *BIFAO* 87, 41, n. 2), now correctly read as *jrt.t* ‘milk’ by J. F. Quack (Review: W. Westendorf, *Handbuch der altägyptischen Medizin*, *Handbuch der Orientalistik I*, 36, 1 (Leiden/Boston/Köln), in *Orientalistische Literaturzeitung* 94 (1999) 462; followed by *CDD* i, 201). Westendorf, *Handbuch*, 55-8; R. K. Ritner, ‘Innovations and Adaptations in Ancient Egyptian Medicine’, *JNES* 59(2) (2000), 113 and ff..

¹⁰⁷⁰ Offered as ‘rosemary’ from Gr. λιβανov by Reymond (*Medical Book*, 267; followed with hesitation by Charpentier, *Botanique*, 430); this ingredient is classified with the N33+Z2 determinative combination, indicating something small, such as a grain (e.g., Pommerening, in Pommerening and Bisang, *Classification*), though—if a plant product—could perhaps also denote something typically dried and stored in a groud form – this would make sense if the product was imported.

¹⁰⁷¹ Offered as ‘wild lotus’, from Gr. λιβovkov by Reymond (*Medical Book*, 268). Not followed by Charpentier (*Botanique*, 430), citing criticism of Devauchelle and Pezin, *CdÉ* 53, 63, n. 96 that the identification of the Greek word has only so far been offered as conjecture and is therefore not secured. Not translated by Hoffmann and Quack, in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 303.

¹⁰⁷² E.g., *CDD* 1, 17.

¹⁰⁷³ Hoffmann and Quack (in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 301, n. 292) note that 1 *qite* is around 0,9g.

¹⁰⁷⁴ Col 5,4; Hoffmann, in Imhausen and Pommerening (eds.), *Writings of Early Scholars*; the measure of a *krd* is roughly equivalent to 1/10 of a liter: cf. Akkadian *qapīru* (*CAD* q, 91); Talmudic קפרזא (*kprza*) (*DTMML* 1401a); and Coptic ⲁⲛⲉⲣⲏⲈ (Westendorf, *Koptisches Handwörterbuch*, 464).

¹⁰⁷⁵ Discussed in section 3.2., above, p. 112, n. 455.

manuscripts have been replaced with later vocabulary. This is most evident in the preferred use of *rky* over *dr* ‘to remove’, the latter being found consistently in earlier manuscripts up until at least the papyri from the Elephantine archive of the late 7th or early 6th centuries BCE. Though its use appears much the same as *dr*—i.e., that it is found in recipe titles to mark a problem or pathogen as an object of the verb which requires treatment—the meaning of this verb is difficult to approximate. The general nuance of this verb appears to be ‘to stop’;¹⁰⁷⁶ Reymond reads *rki* as ‘to recover’, suggesting an affinity to the later Coptic $\lambda\alpha\sigma\epsilon$, a word rendered in Coptic dictionaries as ‘to cease, cause to cease, remove; recover from sickness, and cure’.¹⁰⁷⁷ Certainly, its use in the same context as *dr* is notable, e.g., col. 1,10 *k.t rky sry.t* ‘another of removing/stopping *sry.t*-phlegm’; col. 2,9: *p̄hr.t n rky st.t* ‘a recipe of removing/stopping *st.t*’; however, it can apparently also be applied to body-parts, e.g., col 1,5 *p̄hr.t psi hly rky ššpy* ‘a recipe of heating a meal and *rky* the *ššpy*-stomach’. In this latter example, the translation of ‘to remove’ makes little sense, hinting at a semantic field for this verb which was dissimilar from than that of *dr*. While it is difficult, if not entirely impossible, to suggest an older root of this verb,¹⁰⁷⁸ its function might be said to incorporate the functions of both *dr* and *srwh* ‘to treat’, the latter being found in earlier manuscripts specifically in relation to anatomical designations.¹⁰⁷⁹ A final observation worth noting here is the use of *šn* ‘to be afflicted’;¹⁰⁸⁰ this is used as both a noun and a verb; compare, for example, col. 3,24-5 *k.t rky šny [ms]dr.wy* ‘another of removing/treating an affliction of the ears’ and 4,38-9 [*p̄hr.t*] *n r^kly [...] r(?)¹ ʾr².w sj jwʾf šny hn̄hn r w¹n¹ tʾyʾf šnby m qty mdw n ip.t* ‘[A recipe] for rem^o[ving ...] ¹from[?] a youth (or) a man who suffers a *hn̄hn* so that his chest is like the sound of birds’.¹⁰⁸¹ The word

¹⁰⁷⁶ *CDD* r, 74-5

¹⁰⁷⁷ E.g., Crum, *Coptic Dictionary*, 151a; Westendorf, *Koptisches Handwörterbuch*, 83-4.

¹⁰⁷⁸ The only verb which comes to mind is perhaps *rqi* ‘to turn aside; to defy’, listed on the *TLA* (2022, lemma-no. 96290) with only 13 attestations from the Pharaonic Period; Satzinger and Stefanović (*Root Lexicon*, 237) list this verb as a derivative of the substantive *rq* ‘opponent’; if this is indeed a possibility, one might compare the use of *hft* as a verb in earlier manuscripts, *k.t n.t hft whd.w m h.t* ‘another of opposing *whd.w* in the belly’ (Eb. 87; cf. Bln. 35), ‘opposing *whd.w* in the epigas(tric-region)’ (Eb. 122), ‘opposing *whd.w* in the chest’ (Eb. 187), ‘opposing ³‘-discharge’ (Eb. 241), and ‘opposing *šmm.t*-fever’ (Eb. 303). In this case, one might read the title of col. 1,5 as ‘a recipe of heating food when the *ššpy*-stomach is turned aside/opposed/etc.’.

¹⁰⁷⁹ E.g., Eb. 21, 35, 82, 132, 138, 147, 183, 185, 209, 220, 230, 233, 255, 631, 766-7; H. 8, 28, 51, 57, 62, 69, 173, 175, 179, 185, 193, 195; Bln. 52, 77, 117; cf. *srwh sm³* ‘treating the thoracic cavity’ (Eb. 21 and 35); *srwh h²tj* ‘treating the heart’ (Eb. 230, 233); *srwh tp* ‘treating the head’ (Eb. 255); *srwh mjs.t* ‘treating the liver’ (Eb. 477), *srwh mt.w m gs j³by* ‘treating the conduits in the left side (Eb. 631-3), and so forth; cf. *srwh pnd* ‘treating *pnd*-worms’ (Eb. 82).

¹⁰⁸⁰ *CDD* š, 169 and ff., ‘to be(come) sick; to pain; to be painful, ill, diseased’.

¹⁰⁸¹ In this recipe title, we actually see a complete sequence reversal of explanatory model in this demotic text which is highly similar to the paradigm discussed for other substances. The offending substance is lost to the lacuna (perhaps *whd.w* or even *sry.t* – especially as this text deals with the chest and the following passage is an inhalation device against *sry.t*). It causes a *hn̄hn*-hinderance (= SICKNESS is DISTURBANCE; cf. Bln. 169), from which the patient suffers (cf. earlier *m(h)r*), resulting in his chest making the ‘sound of birds’.

appears to be used as a replacement for older *m(h)r*, which encodes a similar meaning and can be used both as a verb¹⁰⁸² and a noun.¹⁰⁸³ The root of this word, however, is most likely to be *šn* ‘obstruction’, found in earlier papyri.¹⁰⁸⁴ Whether the perspectives encoded by the use of this word in constructions of explanatory models, such as those reliant on the BLOCKAGE or even DISTURBANCE schemata remain encoded in the demotic derivative is, however, unclear from the available evidence – though, it should be stressed, if unlikely, then not impossible.

The six columns of this highly fragmentary document, broadly speaking, cover somewhat of a diverse range of sickness experiences – uniquely integrating ‘gynaecological’ therapeutics amongst these domains, rather than isolating them into separate lists as seen in pEbers and pBerlin 3038.¹⁰⁸⁵ Furthermore, it can be demonstrated that the sickness experiences are organised according to domains that can be considered distinctly Egyptian, and not according to foreign or perhaps even Hippocratic or otherwise Graeco-Roman explanatory models for diverse sickness experiences. This can be demonstrated using the tentative tabular overview of the manuscript, presented here (TAB. 22), as well as through an analysis of four excerpts selected here for discussion:

¹⁰⁸² E.g., Eb. 1, 5, 162, 179 200, 202, 251 253, 254, 257, 259, 261; H. 7, 48, 55, 78, 88, 174-5, 252; Bln. 13, 17-18, 74, 154, 163d, 171, 191; Bt. 1.

¹⁰⁸³ Eb. 4, 30, 35, 40, 41, 43, 66, 67, 69, 185, 217, 247, 250, 301; H. 33, 53, 75, 134, 139, 212; Bln. 101, 123, 161, 163b, 163h, 167, 172-3; Bt. 11, 13a.

¹⁰⁸⁴ Eb. 153, 188, 190, 193, 198, 199, 201, 202, 204, 206, 207, 208, 209, 210, 211, 213, 265, Sm. v 9; H. 25; Bln. 154, 164a-b. A possible cognate of this term exists in Akkadian (though not those studied in the present dissertation); cf. *šanā’u* ‘to obstruct, irritate the throat’, e.g., *šumma ruāssu išnū’šu* ‘if his spittle obstructs his throat’ (CAD š/2, 371).

¹⁰⁸⁵ In these manuscripts, ‘gynaecological’ treatments are relegated towards the end of manuscripts (e.g., Eb. 783-839; Bln vs. 192-199).

Wien no.	Recipe Title	Recipe Character	Processing and Administration
1,1	Recipe for killing <i>hfy</i> -worms	Artemisia with salt, [...]	[...]
1,2-4	[...]	1) sherds and oil, incense; 2) [...] myrrh	1) low heat; 2) ground and powdered
1,4-5	Recipe for a child's navel	[...]	Topical
1,5-(?)	Recipe for heating a meal; ending stomach (problems)	1) milk (of the poppy?) [...]; 2) 'midday cabbage'-meal heated with dill-root and Gilead-balm [...]; 3) [...] beans and water with <i>qny</i> -plant [...]; 4) poppy latex [...]; 5) 200 dates, dill seeds, and water	1) [...]; 2) [...]; 3) drunk; 4) [...] 5) ground, strained, and drunk
1,8-9	A good one of the belly	1) [...]; 2) <i>drm</i> -seed and artemisia	1) ground, strained, and drunk 2) ground and strained
1,9-10 [...]	Another of removing <i>sry.t</i> 'when it is high'	[...]	[...]
1,10	Another of removing <i>sry.t</i> and taking away the putrefaction from it	' <i>r.w</i> -juniper powder [...]	Heated [...]
1,11- 17(ff.?)	Another of removing <i>sry.t</i>	1) reheated food and myrrh 2) [beans], pepper corns, 'Arabian incense', milk (of the poppy?) 3) ' <i>m</i> -plant root, anise(?), Gilead balm ('known as <i>wⁿ</i> -juniper incense') [...]; 4) myrrh and beans with milk of the poppy and beans and sweet beer [...] 5) [...]; honey, beans 6) [...]; [...] -tree bark, its milk, pot sherds	1) [...]; 2) make balls from the beans [...]; 3) [...] 4) ground and swallowed with [...]; 5) heated w. honey; soak herbs [...], mix with beans [...]; 6) [...]
1,17-20 (and ff.?)	Recipe of removing <i>sly</i>	1) [...]; 2) <i>pdr</i> -substance [...]; 3) [...]; honey	1) [...]; 2) ground finely and made into (a powder(?)) [...]; 3) ground w. honey [...]
c. 20 lines missing			
2,1-9	[...] – removing (<i>sny</i> - affliction?) 'to the form of any touch'	Unclear number of recipes: use of oils, <i>sn²</i> -plant, water; <i>rbwn²</i> -substance; tooth	Smears and <i>bnt</i> -bandages
2,9-14	Recipe of removing <i>st.t</i> from (the neck)	1) [...]; 2) dried myrrh [...]; 3) [...], milk of the poppy, rose oil	1) nasal packing; 2) [...]; 3) nasal packing;

		4) [...]; 5) ‘cat’s-eye’-plant; 6) <i>th</i> -‘b-plant, <i>nḥḥ</i> -oil; 7) [...]; 8) [...] -substance, kohl, incense, <i>nḥḥ</i> -oil [...]	4) [...]; 5) likewise; 6) likewise; 7) [...]; 8) heated w. water [...]
2,14-(?)	Recipe of [...] – unclear, perhaps aesthetic cosmetics (<i>ḥrš.t</i>)	Uses coloured minerals – ‘green’-pigment, doum-fruit ivory, glass	Bandages?
2,18-(?)	Recipe of removing <i>šny</i> -affliction from (any) part of the body	Unclear – uses incenses, copper flakes, salt, <i>rbwn</i> ² -substance (cf. 2,1-9)	‘to strain’ (2,19); ‘made into balls’ (2,20); ‘heated to ashes and eaten’ (2,21)
2,22-(?)	(Another(?) ...) a <i>ḥnḥn</i> -hinderance <i>šny</i> -affliction (cf. 4,38 – an affliction of the chest)	Also unclear: <i>qstn</i> -mineral, salt, unknown plant roots, black beans; oils, <i>rbwn</i> ² -substance	‘ground’ (2,24); ‘balls’ (2,28); ‘bandage liquid-substance’ (2,28); ‘powder therewith’ (2,37)
2,38 – 3,(?)	Another recipe given on the day(?) [...] (pustules?)	1) [...] copper- <i>dysf</i> , milk 2) [...] ammoniac, salt, water, <i>jn.w</i> -cloth; honey	1) oil the pustule w. milk, powder w. the recipe [...]; pierce the pustule w. a needle to know if there is blood inside; cut w. a knife 2) (likewise?)
3,6-14	Another of removing a pustule	1) heated copper flakes; orpiment; copper sulphate 2) <i>mšy</i> -mineral 3) pine-resin, <i>shry</i> -resin 4) [...] copper- <i>dysf</i> , <i>mšy</i> -mineral 5) ammoniac, <i>mšy</i> -mineral, alum [...] 6) [...], black-[...] -substance, cumin, <i>rbks</i> -substance, oven soot, <i>qr</i> ² -plant, [...], heated copper flakes, [...] 7) papyrus-plant liquid, <i>hwr</i> -plant liquid, <i>h²y</i> -substance, <i>mšy</i> -mineral [...] 8) <i>mšy</i> -mineral(?), [...] 9) copper sulphate, ammoniac, [...] 10) alum, (heated) copper flakes(?), [...], reed 11) heated <i>mšy</i> -mineral, copper sulphate	1) ground and powdered therewith; 2) likewise; 3) likewise; 4) likewise; 5) [...]; 6) [...]; 7) [...]; 8) [...]; 9) ground, likewise; 10) ground and applied topically, 4 times; oil w. urine(?); 11) ground w. wine, applied (topically) likewise
3,14-17	Another of removing a pustule and stopping it burning	1) [...], <i>jqr</i> -reed, <i>sfy</i> -oil 2) [...], (black ...-substance), bull fat, milk- [...] 3) bull fat, [...] grapes(?), incense 4) [...], acacia-fruit 5) fresh acacia-fruit	1) ground and applied (topically); 2) [...]; 3) likewise; 4) [...]; 5) ground finely [...]

3,17-19	Recipes for the ears; removing the [...] <i>nšn</i> -phenomenon of the ears, letting his hearing 'be quick'	1) <i>qqy</i> -plant water; artemisia root, salt, beans, [...] 2) <i>skn</i> -oil of the [<i>wr.t</i> -rose]-flower 3) fresh incense, <i>wr.t</i> -rose	1) [...]; 2) ground and topically applied; 3) strained and topically applied;
3,19-24	Another of removing the <i>tg(...)</i> -ferocity(?) of the ears	1) [...] 2) Syrian artemisia, water 3) acacia-tree fruit, <i>mšy</i> -mineral 4) black beans, [...]-liquid, milk of the poppy 5) heated wine, heated [...], <i>wr.t</i> -rose liquid	1) ground and topically applied; 2) steam thereof produced in a sealed vessel; heated under the patient, [...], into his ears, [...], reed tube, [...]; 3) likewise; 4) topically applied; 5) heated and applied topically;
3,24-27	Another of removing a <i>šny</i> -affliction of the ears	1) [...]-mineral, <i>ltm</i> -palm water 2) <i>ḏr</i> -part of the <i>bty</i> -fish 3) vinegar and copper flakes 4) [...], wine 5) mouse faeces, wine 6) myrrh, alum, honey 7) <i>sfy</i> -oil, honey, red orpiment	1) strained and applied topically; 2) heated and applied topically; 3) heated and applied topically to 'moisten the putrefaction'; 4) likewise; 5) applied topically; 6) likewise(?); 7) ground and applied topically 'against putrefactive-water which comes from any ear affliction'
3,27-28	Recipes for removing (<i>st.t</i> (?)) from the neck and from both ears	1) fat, salt, onions 2) onion, '(?) <i>m</i> -plant, <i>nḥh</i> -oil	1) put into clay and applied topically; 2) likewise
3,29-30	Another of removing a <i>ḡnb</i> from the neck	1) <i>ḥby</i> -plant seed, <i>nšy-bt.t</i> -plant, dill seed; wine, <i>skn</i> -flower, henna-seed, oil 2) [...], doum-ivory 3) cumin, dill seed, oil, wax 4) sedge, cumin, fat, incense	1) ground w. wine and oil, strained, [...]; 2) ground and bound 3) likewise; 4) bound likewise
3,30-33	Recipes of removing any wound	1) olive water 'known as <i>šnmr</i> ' 2) [...]-plant 'known as <i>rbwnkyn</i> ', water, <i>bbš</i> -plant, <i>wr.t</i> -rose 3) [...]-plant, oil, [...], (?) <i>kn</i> -plant, <i>šqy</i> -plant, honey 4) <i>wšby</i> -mineral, <i>ḥqy</i> -mineral, honey	1) ground w. water and given to any <i>ḥtp</i> -affliction of putrefaction; 2) ground and given; 3) ground and topically applied; 4) ground and applied topically
3,33-35	Recipes of making a black- [...] (skin affliction?)	1) [...], <i>bbš</i> -plant, honey, water; 2) <i>ḥprj</i> -plant, natron, vinegar	1) drunk; alternatively ground into a ball and swallowed; 2) ground and made into a ball (and swallowed(?));
3,35-38	[...] – referred to as 'a physician's means'	1) [...], <i>jšd</i> -tree leaf, natron, water 2) [...], water	1) poured [...]; 2) strained for five days [...]

3,38 – 4,1	[...] a physician's means of laying down <i>pnd</i> worms 'known as <i>hḫ</i> (³)-worms; otherwise said [...]	[...], <i>jšd</i> -tree leaf, natron, water, <i>s</i> ³ (<i>m</i>)-artemisia(?)	[...]
4,1-18	First gynaecological excerpt	Fragmentary list of smears, binds, fumigations, and drinks, as well as other kinds of vaginal suppositories concerned with smells and discharges, some of which appear to be administered on 'the day of her purity'.	
4,19-20	Recipes of the temples, from the <i>ḫy.w</i> and the [...]	1) [...] 2) [...], alum, grain bristles, black-stone, [...]; 3) salt, [...] 4) [...] red orpiment	1) [...]; 2) [...], topically applied to a part (of the body) 3) [...]; 4) ground and [...];
4,21-22	Another of lifting the temples [...]	1) [...], <i>wr.t</i> -rose leaf, myrrh, honey, [...]	1) lift his mouth/opening;
4,22-27	[Another of a <i>šny</i> -afflicted temple] purging the putrefactive-liquid	1) grapes, [...], myrrh, <i>wr.t</i> -rose, [...] 2) <i>kks</i> -substance, <i>mšy</i> -mineral, [...], small amount of alum, <i>nd</i> [...]-substance, grapes [...], [...], <i>hr</i> . <i>r.t</i> -flower(?) 3) <i>jm</i> ² -tree fruit, alum, red orpiment [...], [...], pepper corns, acacia resin, beans	1) [...]; 2) ground, lift his mouth/opening w. honey; 3) ground finely, made into a ball, swallowed; give food of boiled [...] afterwards; likewise
4,27-31	Second Gynaecological excerpt	Starting with a recipe for 'taking out urine and discharging (<i>h</i> ³) the uterus'; 'causing blood to [...]'; these are 'placed in her flesh' (4,28) or 'poured in the rear' (4,31).	
4,32-3	A recipe for removing urine which causes <i>srf.t</i> -heat	artemisia root, [...], 'health is with him'-plant, sweet beer [...]	[...], strained and drunk in the morning, the man should not eat during treatment
4,33-36	Another of removing the <i>srf(.t)</i> -heat all over the body	<i>hm</i> -substance, [...], [...], <i>ḫstn</i> -plant, Nubian ochre, 'health is with him'-plant, sweet beer; a) w. <i>ḫm</i> -plant, [...], <i>qhs</i> -plant and rue with vinegar and <i>nḫh</i> -oil	Heated down to 2- <i>leq</i> [...], the one known as the '8 th hour has happened'(?); he drinks w. a standard amount of <i>ḫm</i> -plant and other additives, [...] on the named day
4,36-38	Another for a man who suffers and is covered(?) <i>gp</i> [...]	[...], 'knife-wood'-plant, <i>n'y</i> -substance, <i>bt.t</i> -plant, papyrus; w. donkey urine, honey, <i>nḫh</i> -oil, cow milk	Strike the one (kidney/side?) which makes 'the piercing' (<i>wḫy</i>) twice with donkey urine (analogy); extract the honey, milk, and oil and [...], pour in the rear
4,38-39	[A recipe for] re[moving ...] a <i>hnḫn</i> -hinderance from a youth or a man, making his chest make the sound of birds	Burned copper, w. milk; w. honey	Beaten w. milk and [...] the standard amount in a shell, w. honey; poured in the mouth
4,40 – 5,4	A recipe of removing <i>sly</i>	1) Coriander, black <i>sḫ</i> ² -plant [...], Nubian ochre, fresh incense; eaten w. moringa or wine; or w. sweet beer, and meat with salt	1) Ground finely, put in a <i>dp</i> -bowl filled w. glowing coals; invert another <i>dp</i> -bowl over its opening, its

		2) <i>th</i> [...], red orpiment, wine 3) black [...]-substance, artemisia, cumin, red orpiment, <i>m</i> [...]-mineral	bottom being pierced; place a reed tube [through the hole(?) of the <i>d</i>]p-bowl, which is also placed to his mouth – (being) a reed through which he drags the smoke up into his mouth; if he hastens(?) [...] eaten with moringa or wine; he drinks sweet beer and vomit afterwards, and has to make all meals with meat and salt 2) ground w. wine 3) ground; when he hastens(?), he drinks with water and honey and vomits
5,4-5	<i>mšpny</i> -skin affliction and <i>hrš.t</i> -blemishes	Cress; [...], mustard, <i>knkn(.t)</i> -plant, black [...]-substance; w. vinegar	Measurements for cress and mustard semitic in origin; ground w. vinegar
5,5-9	Recipes for removing a <i>d</i> [.] <i>b</i> [...]	1) Syrian <i>šny,t</i> -plant, [...], grapes 2) <i>mn</i> ² -substance, ‘Ionian fly’-substance [...] 3) [...]-substance, [...], beer [...]	1) separate one portion [...], from her shoulders and brought to her rear [...] 2) ground and bound upon it for two days 3) [...]
5,9-10	[Recipes for removing] any <i>hmm</i> -fever of any part (of the body) which is afflicted	[...], white oil [...]	[...]
5,11-12	Unclear		
5,12-??	Third gynaecological excerpt	Highly fragmentary – unclear whether other domains are listed within this unit. Recipes are instructed to be ‘given to her (5,13), placed in her flesh ‘what is normally swallowed’ (5,14); one recipe is listed as for ‘an affliction of the uterus’ (5,27); end of column 5 appears to connect with the start of column 6, though this begins with ‘bites’ (see below).	
5,?? – 6,6??	Recipes for removing bites and remove the pustule (6,1-6)	pustules associated therewith; recipes appear to be associated with ‘bites’ (<i>psh</i>) (6,1) and making these ‘wider’ with a knife to	
6,6-9	Recipe for killing <i>hf.w</i> -worms in the belly	1) bright wood (?), water; w. salt water 2) [...], fresh [...], salt, honey, water 3) coriander-seed water	1) drunk [...]; one portion of salt added to the water, heated and applied topically; salt water drunk 2) poured in the rear; a drink is administered additionally; if he sits and [evacuates?] the worm from his belly, recipe 3 administered: 3) [...], eats a reed [...]
6,10-11	[Recipes for] the ears	<i>qr</i> ² -plant, salt, wine	Bound upon it for an unspecified number of days
6,11-12	A recipe for removing any affliction from the rear	1) fresh <i>tby</i> -plant water, its seed, [...] 2) [...] milk 3) fresh dates, acacia leaf, salt, water	1) [...]; 2) likewise; 3) likewise

6,12-14	A recipe [...]	[...], water, <i>rb</i> [...]-water, honey	Ground finely, add water, pulverise twice, and grind (again?); add <i>rb</i> [...] water; [...] add honey; poured in the rear
6,15-19	Recipes for [...]	1) white [...](?) 2) [...] 3) goat blood 4) [...] 5) rue 6) [...], [...]-wood, water	1) heat and add honey; applied topically 2) [...] 3) oil any <i>pyšy</i> -swelling(?) therewith to remove it; 4) [...]; 5) likewise 6) drunk
6,19-28	Highly fragmentary – a more specific title appears to read ‘recipes for causing [...] milk(?) [...]’ (6,19), those titles readable simply state ‘another’; unclear whether these represent a singular domain, or indeed whether they also pertain to ‘gynaecological’ therapeutics (e.g., those immediately below). There does not appear to be any gender marker in these lines. Certainly, some ingredients appear to follow a pattern, to a limited extent. Many of the recipes were to be eaten or drunk, though one recipe also includes the instruction for applying topically to ‘the mouth of the wound’ (6,23); ingredients include grains, unreadable plants, wine, cress, temple rations, orpiment, and acacia leaf, and ‘ <i>m</i> -plant.		
6,28-41	Fourth gynaecological excerpt: with the readable title: ‘a recipe for making water(/urine?) be discharged (<i>h</i> ’’) from the blood’ (6,28); recipes include a mixture of substances to be ‘placed in her flesh’ (6,29, 31, 32, 33, 35, 37, 38), drunk (6,31, 35, 39, 40), eaten (6,36), and even placed upon the face (6,35); one text reads ‘if she is not pure’, though the meaning giving context is lost to the lacuna (6,39); a second reads ‘the day of her menstruation’, with the word ‘pure’ being preserved on the same line (6,41)		

TAB. 22: tentative breakdown of recipe domains in pVindob 6257 according to the surviving fragments; green = recipes associated with the belly or torso; blue = recipes associated with the head and afflictions thereof; purple = integrated gynaecological treatises. Table is constructed based on the surviving uses of *p_hr.t* and the associated *k.t* recipes connected with the general domain.

As a preliminary summary of the table offered, one observes three key divisions of therapeutics, despite the significant damage sustained to the manuscript. The first column of the manuscript appears to integrate what appear to be primarily digestible therapeutics with those applied topically to the surface of the body (e.g., col. 1,2-4 and 1,17-20). How the manuscript then moves onto the largely topical applications listed over cols. 2-4 is unclear, as the latter half of col. 1 is missing; it can be observed, however, that across this large unit of recipes, only a very small selection of therapeutics is consumed (col. 2,21; 3,33-8, 4,27). Amongst these recipes is a small selection of nasal-packings (2,9-14). Recipes which appear as largely consumable therapeutics then resume from col. 4,32 onwards, though with notable topical applications inserted within the unit (e.g., 4,36-9; 5,9, and 6,15-28). Within this unit are also inhalations (4,40 – 5,4) and enemas (6,7, 12-14). To better assess the difference between the two apparently disparate groups of topical applications, it is necessary to explore the cultural domains to which they pertain. For this purpose, four extracts from the manuscript are discussed in further detail, here:¹⁰⁸⁶

pVindob 6257, col. 1,8-20:

col. 1,1: A recipe for killing worms in the belly ...

col. 1,9: Another of removing *sry.t*-phlegm when it is high(?)[...]

col. 1,10: Another removing *sry.t* [?], taking away the putrefaction from it: 'r.w-tree powder 1/4, [...] one? [...]; heated, (?)[...]

col. 1,11: Another removing *sry.t*: re-heat the food and 1/10, myrrh; otherwise said 1/60, [...] myrrh (?)[...]

col. 1,12: the (standard) measure, 10-corns of pepper(?), Arabian(?) incense 3/4, milk [... make(?)] balls from beans with [...]

col. 1,13: Another removing *sry.t*: doubly good! "m-plant root 1/4, anise(?) [... Gile]ad bal[m], which is known as 'juniper incense' [...]

col. 1,14: myrrh 1, beans at the (standard) measure; milk of the poppy [?] 1, beans at the (standard) measure; beer(?) 1/8; finely ground and swallowed(?)[with(?) ...]

col. 1,15: [...](?) it is heated with honey; when he has soaked with the herbs¹⁰⁸⁷ [...](?)¹⁰⁸⁸ beans at the (standard) amount – 10 [...]

col. 1,16: [...] bark, crushed finely 'with' milk, twice according to the (standard) measure; it is put with sherds of a š³y-vessel [...]

¹⁰⁸⁶ For the transcription, transliteration, translation, and further notes thereof, see the entry for this manuscript in Appendix 1.

¹⁰⁸⁷ The pronoun referring to the therapeutic earlier in the line is feminine; that with the conditional marker is masculine, indicating that it is the patient who is soaked. This is perhaps reminiscent of the Mesopotamian use of 'soaks' (interpreted as baths).

¹⁰⁸⁸ If the restoration is correct, the space here is very small and there is only enough space for perhaps one verb or even a preposition (though the latter is here considered unlikely). One might wonder whether the patient was expected to wash/bathe with the herbal liquid and concurrently consume beans.

col. 1,17: [...]plant; doubly good – it has been tested! **A recipe for** removing [s]ly from a person so that it does not [...]

The recipes selected here from the first column of text appear to maintain a focus on the domain ‘removing afflictions from the belly’, not dissimilarly grouping experiences according to the model of offending agents within. They are placed immediately following treatments for ‘killing’ (*smy*) *hfy*-worms in the ‘belly’ (*h.t*) (col. 1,1 and ff.); the context of much of what follows is lost, though one recipe includes treating a child’s navel (*hlp̄y n̄hn*) (1,4-5), and for heating a meal and ‘treating?’ the *ššpy*-stomach (1,5-ff.).¹⁰⁸⁹ Typical processing and administration instructions can be found, such as ‘straining and drinking’, and while unknown ingredients can be found,¹⁰⁹⁰ principal items found in earlier manuscripts can be found here also, such as *s̄m*-artemisia, indicative of a continuation in the use of ingredients, at least with regards to the latter.

What follows is damaged, but can be restored with confidence.¹⁰⁹¹ More specifically, the recipe reads *k.t r[ky sry.]t jw̄f̄ qy* ‘another of removing *sry.t*-phlegm when he vomits(?)’. Deciphering *qy* as ‘to vomit’ is admittedly unsecure, but is probable through associated expression found in pRubensohn, where line x+1,3 suggests a perspective wherein inert *sry.t*-phlegm results in vomiting. Certainly, the use of the D40 determinative (𐤎) is suggestive of an action.¹⁰⁹² Any potential indication offered by the therapeutic is unfortunately lost to the lacuna, but the next preserved recipe title indicates a notion of ‘putrefaction’ (*hwy*) of the *sry.t*-phlegm within the body, a notion seemingly reserved for qualifications of substances associated with *st.t* in earlier manuscripts;¹⁰⁹³ this recipe uses juniper-tree powder, perhaps rendered from the berries.¹⁰⁹⁴ What follows is a series of alternative recipes for removing *sry.t*-phlegm, written in hieratic, and *sly*-phlegm, the demotic equivalent (1,9-20).¹⁰⁹⁵ It is again challenging to make any definitive assessment of the recipe types listed in this section of the manuscript; however,

¹⁰⁸⁹ It is notable that four instances include recipe value markers ‘a good one’ (1,3, 4, 8, 17); it is not clear but also not impossible that the concentration of more of these in the first column explains why these recipes were placed at the start of the manuscript; for the use of the *nfr* marker in pEbers, see p. 91, above.

¹⁰⁹⁰ E.g., *qrm*-substance; Charpentier (*Botanique*, 862) perhaps correctly connects this with demotic *q̄lm*, an unknown plant.

¹⁰⁹¹ So Hoffmann and Quack, in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 301.

¹⁰⁹² It may also be possible that *qy* in fact refers to ‘being high’, especially in expressions of *dhr.t*-fever in pEbers 854c [855h], though this is here considered less likely. Hoffmann and Quack (in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 301) instead read ‘A[ufhören lassen] von [Hust]en, indem man [(den) Schleim zusammen mit ihm] fortnimmt: [...]’, a rendering here considered difficult to follow.

¹⁰⁹³ See section 4.3., above.

¹⁰⁹⁴ Read as ‘Beeren’ by Hoffmann and Quack (in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 301).


¹⁰⁹⁵ Hoffmann, in Imhausen and Pommerening (eds.), *Writings of Early Scholars*, 204-5.

milk appears popular, and the occurrence of “*m*-plant root and anise(?)”¹⁰⁹⁶ in col. 1,13 is indicative of a derivation of older therapeutic groups, though not necessarily against *sry.t*-phlegm. New ingredients also occur; especially notable is the designation ‘Arabian incense’ (*sntr ʾrʾbyn*), indicative of the interconnectivity of the period, as well as the use of ‘milk of the poppy’ (*jrt.t mqn*), an ingredient unfound or otherwise unidentified in earlier manuscripts.¹⁰⁹⁷ Rather than being specific to treatments of *sry.t*-phlegm, however, the ingredient appears to have been used across a diverse range of sickness domains.¹⁰⁹⁸

That this part of the manuscript lists therapeutics for *sry.t*-phlegm with others against what seems to be a diverse array of afflictions associated with of the belly is not arbitrary. As has been noted in the discussion of this pathogenic substance as it appears in pEbers and pBerlin, *sry.t*-phlegm requires removal from the belly – also attested by the parity between salient recipes against *sry.t* in pEbers with those for treating the belly, chest, and thoracic cavity in the same. The remaining therapies listed in pVindob 6257 cannot be correlated with those recorded in the earlier lists with any level of certainty. Nevertheless, both sets of temporally separated manuscripts agree upon the perspective that *sry.t*-phlegm was but another pathogenic matter which required removal from the belly.¹⁰⁹⁹ It is perhaps this continued perspective that resulted in the scribe of the recipe title in 1,17 as *phr.t n rky [s]ly n rmt r bw jrʾf [...]* ‘a recipe for removing [s]*ry.t* from the person so that it/he doesn’t [...]’. However one reads the pronoun, this title clearly implies the agency of the substance in manifesting here undefined sickness experiences. The like can also be seen for the much damaged section which is the manuscript’s only direct reference of *st.t*:

pVindob 6257, col. 2,9-14:

col. 2,9: [sa]lt [...] finely ground and given to it together with a recipe for removing *st.t* [from the n]ec[k... ..] (?) these

¹⁰⁹⁶ Here written *ʾnʾs* , with the determinative lost to the lacuna.

¹⁰⁹⁷ Offered by Reymond (*Medical Book*, 264) as an Egyptian writing for Greek *μῆκων*; followed tentatively by Charpentier (*Botanique*, 364) and accepted by Hoffmann and Quack in Janowski and Schwemer (eds.), *Texte zur Heilkunde*; both *Papaver rhoeas* L. and *sonniferum* L. appear to have been present in pharaonic Egypt, though poorly preserved (Vartavan et al., *Codex*, 189-90; see the note to *sonniferum*, which suggests it was also found by Bruyère at Deir el-Medina; disputed by Germer (e.g., *Handbuch*, 310-11), who notes that the poppy does not appear on the record with confidence until the Graeco-Roman Period. Germer’s overview is rightfully cautious, but perhaps also curious; she appears to dispute many reports which claimed to identify opium residues in vessels, without ever considering the artistic depiction of these plants found in reliefs, such as those almost indisputably depicted in the tomb of Sennedjem at Deir el-Medina TT 1; e.g., Manniche, *Herbal*, 130, who perhaps too boldly identifies *špn* as ‘poppy’ (*P. sonniferum*)).

¹⁰⁹⁸ Including here, col. 1,7 and 14 as well as against *st.t* in the neck, combined with *wr.t*-rose oil (col. 2,11), in a topical application for the ears (col. 2,23), and in a recipe with a lost indication (5,15).

¹⁰⁹⁹ See section 4.4., above.

col. 2,10: [...] made into a packet and given to his nose. **Another:** dried myrrh [... ...]


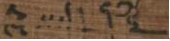
col. 2,11: [...] milk of the poppy, rose oil(?), given to his nose. **Another** [... ...]-stone(?) 4-*dja*.

col. 2,12: **Another:** cat's eye-plant 8-*qite*; (prepared and administered) likewise. **Another:** *th*-*b*-plant, *nḥḥ*-oil; (prepared and administered) likewise. **Another** [... ...] 1/4-*qite*

col. 2,13: [...] substance: a *qite* of galena, a *qite* of fresh incense, two *qite* of *nḥḥ*-oil, heated (together) at the appropriate measurements: add to this water [... ...] galena

col. 2,14: [...] (?) 3/8, oil 4-*qite*, fresh incense 8-*qite*, *ḥ³.t*-oil 1/4-*leq*; heated.

The damage sustained to this portion of the manuscript—together with the present gaps in knowledge regarding many of the ingredient identifications—hinders a more rigorous analysis of this otherwise important passage. The lines immediately preceding the excerpt offer very little in terms of contextualisation, with crucial details about the domains specified in the titles lost to the lacunae. Nevertheless, the first discernible recipe in this extract, together with those which immediately follow, hint towards perspectives of the *st.t*-domain and the members therein it. As discussed above, in pEbers, *st.t* was perceived as causing either stiffness in the neck (Eb. 295) as well as, in conjunction with *ḥntj*-substance in the head (Eb. 298), causes inflamed eyes and a running nose (Eb. 193). This is reflected in this passage which, although severely damaged, heads a list of therapeutics which were placed in the nose when the patient was diagnosed as suffering from *st.t* in the neck.¹¹⁰⁰ Thus, in this passage, not only is the connection between *st.t* and the nose is not only again observed; the connection between nasal packings and *st.t* also further supports the hypothesis of the connection between *st.t* and substances in the head from the nose, as observable through an analysis of *rš* and *nj²*—treated also with nasal packings—in Eb. 761-3. The objective of these therapeutic recipes thus appears to treat pathogens associated with the head and *st.t* in the neck through their placement in the nose, rather than as an attempt to alleviate ‘bad smells’, despite the salience of scented ingredients in all nasal packing therapeutics to have survived.¹¹⁰¹

¹¹⁰⁰ The reading of neck was challenged by Devauchelle and Pezin (*CdÉ* 53,59), who note that the section is too damaged to read *nḥby* here: ; however, not only is the reading *st.t* clear, but the traces around the first lacuna permit the restoration of the first radicals of the anatomical term, compared with its writing in col. 3,28: ; this is perhaps one of the few corrections of Reymond's editions with which the present analysis disagrees; notably, Westendorf (*Handbuch*, 347) also reads ‘Entfernen (lg/rq) von Schleimstoffen [im] Nacken [...]’.

¹¹⁰¹ As noted above, the pEbers recipes use date-wine or *njwj.w*-mint(?); in this text, myrrh and *wr.t*-rose are particularly telling; cf. H. 31-2, which are bodily smears to alleviate *sty ḥnš* ‘foul odours’. It appears that the nasal packing was conceived as a mirroring to the enemas and suppositories placed in the rear for the treatment of conditions whose origin is determined as arising from pathogens in the lower reaches of the body.

As an additional observation, given the salience of ingredients such as galena and oil in eye make-up recipes, also a therapeutic which was considered a member of the *st.t*-domain in pEbers, either directly (e.g., as a treatment for *st.t* in the neck in Eb. 295), or as a means for treating *hntj*-substance in the head (Eb. 391 and 418, the latter of which removes *hntj* from the nose through the application of a makeup), it can be suggested that the recipes following the nasal packings may indeed have been eye make-ups. Unfortunately, not enough of these passages have been preserved to enable a more conclusive observation.¹¹⁰² Nevertheless, it remains apparent that the domain of *st.t* still retained a firm association with pathogenic substances in the head. This observation appears also to offer a tentative explanation for the collection of recipes in other associated members of the *st.t*-domain, such as therapeutics for the ears and the temples of the head. Moreover, it may also offer an indication as to why the recipes listed in col. 6, separated from those in this section, include enemas *wth m ph.wzf* ‘to be poured in the rear’, a salient treatment for conditions encompassed instead by the *whd.w* domain in older manuscripts. Notably, the term *whd.w* itself is not preserved in this document.

Following this series of mostly topically applied therapeutics against afflictions typically associated with the *st.t* domain, and following a second gynaecological excerpt seemingly dedicated to ‘taking out urine and discharging (*hʿ*) the uterus’ (4,27) and *ti.t snf* [...] ‘causing blood to [...]’, recipes begin for treating *srf.t*-rash/heat seemingly caused by urine, making another recognisable cluster of recipes:

pVindob 6257, col. 4,32-38:

col. 4,32 A recipe for causing that urine which makes *srf(.t)*-rash/heat is removed: *sʿm*-plant root 1/10-*qite*, [...] ʿʿ¹ 1/10-*qite*, ‘he has recovered’-plant 1/8-*dja*, sweet beer [...] ʿʿ¹ (

col. 4,33 to be strained and drunk in the morning; the man should not eat or drink on the named day (i.e. – during treatment). Another for removing all-over *srf(.t)*-rash/heat: *hm*-substance [...] 1/8-*dja* [...]

col. 4,34 *ʿpstn*-plant 1/8-*dja*, Nubian ochre 1/8-*dja*, ‘he has recovered’-plant 1/8-*dja*, sweet beer 4-*leq*; to be heated down to 2-*leq*; take the ʿ2ʿ¹-*leq* [...]

col. 4,35 (when?) the saying of the 8th hour has occurred, he drinks ‘(?)*m*-plant drink, being at the regular *leq*-measure and a [...] ‘heʿ¹ [...] *qhs*-plant 1/4-*dja*, *bšwš*-plant in vinegar and *nḥḥ*-oil; he should not eʿat¹ [or drink on]

col. 4,36 A recipe for man when he suffers and is covered(?) [with/by(?) ...] *ht-ds*-wood 1/4-*dja*, *nʿy*-substance 1/4-*dja*, *btt*-plant 1/8-*dja*, papyrus; to be struck once, and then treats (lit.: ‘does’) it (with)

col. 4,37 a ‘piercing(-recipe?)’ twice over: ʿ2-¹*leq* of donkey urine [...]ʿ take from these and cover them again; their(?) [...] honey 1/4-*dja*, *nḥḥ*-oil 1/8-*dja*, (38) cow milk 1/4-*dja* [...]ʿ Pour into the re[ar].




¹¹⁰² Galena can also, on occasion, be found in more general topical applications to the body, such as in Eb. 91, 116, as well as in suppositories for the rear, as in Eb. 144 and 155.

In the surviving portions of pVindob 6257, the domain-model *whd.w* is not referred to once. Nevertheless, interesting parallels in terms of explanatory model can be observed. In pEbers, therapies for *srf.t*-heat/rash are grouped together with the larger recipe series treating *whd.w* or *whd.w*-adjacent experiences (Eb. 93, 94, 115, and 119) such as a larger group of *whʔ.w* recipes (Eb. 90-95, 103-104, 113-14, 116-18, 120, 123, and 125), for which *whd.w* is described as the root (Eb. 103). Here, however, *mw-rmṯ* ‘human-urine’¹¹⁰³ is instead noted as the cause of the experiences considered members of the *srf.t* domain, at least during this period. Recognisable principal components appear in these recipes, especially the use of plants (notably *sʿm*-artemisia) and sweet beer, a vehicle which is otherwise highly sparingly used in this manuscript, as opposed to its comparative ubiquity in earlier manuscripts. Equally, other items can be seen as new, as well as the instruction that the patient must not eat or drink during treatment, something found more frequently among the cuneiform texts.¹¹⁰⁴ Much of the recipe title which starts in 4,36 is lost to the lacuna. While *srf.t* is not found here, it is perhaps no accident donkey urine is to be employed as a principal component of a ‘piercing-(recipe)’ used as an enema twice over.¹¹⁰⁵

Prior to the final extract discussed in more detail in the present short analysis is a recipe for treating a child or man suffering from a *hnḥn*-hinderance,¹¹⁰⁶ resulting in his chest being ‘the character of bird’s sound’. The following recipe continues the theme of chest afflictions with another recognisable therapeutic strategy:


pVindob 6257, col. 4,38 – 5,4:

col. 4,40: A recipe of removing *sry.t*-phlegm (*sly*): coriander seed, *stʔ-km*-plant [...] Nubian ochre, fresh incense; ground finely and put (in) a *ḏp*-bowl [which is] filled with hot coals(?),¹¹⁰⁷ and you invert the other *ḏp*-bowl to its opening,

¹¹⁰³ The writing of this term is peculiar (), but its reading is supported by the surrounding context. The ligature for *rmṯ* is clear from a comparable example in 4,36: . It is a challenge to understand the other element as anything but *mw* ‘water’; cf.  *mw n ʔ* ‘donkey urine’ in 4,37.

¹¹⁰⁴ See expression *balu patān*, n. 678; one might compare Bln. 6, where a ‘man who slept hungry’ is noted.

¹¹⁰⁵ For enemas and their particularity with *whd.w*, see section 5.2. Urine recipes make up another portion of ‘internal recipes’ in pEbers (Eb. 261-283) and elsewhere, not discussed here; notably, these do not include enemas.

¹¹⁰⁶ This word is written , with an apparent penis-determinative (D53), suggesting the word *hnḥn*-penis, though—unless the line refers to an injection of negative substances into the body by a foreign entity—this reading appears to make little sense, here. The word is therefore instead translated in-line with *hnḥn*-hinderance, as used in Bln. 167. The line was translated as ‘*das einer “Furcht” leidet, indem ein Ger[äu]sch in seiner Brust ist wie ein Geräusch eines Vogels*’ by Hoffmann and Quack (in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 304); entered as ,phallus‘ in the CDD (h, 162).

¹¹⁰⁷ CDD b, 83: meaning uncertain; *bs* is registered as meaning ‘flame’ (CDD b, 83), but *pʔ bs*-hot coal (classified with the Q7-brazier determinative) is the object of the verb *mḥ* ‘to fill’; Hoffmann and Quack (in Janowski and

col. 5,1: its bottom being pierced, and you put the reed tube [through the (hole?) of the *d]p*-bowl which is (also) put (to) his mouth, a reed through which he drags the smoke up to his mouth. If he is sad/miserable(?)¹¹⁰⁸ [...]

col. 5,2: [... ea]ten with *b'q*-liquid or wine¹¹⁰⁹ [...] the recipe. He drinks sweet beer and spits¹¹¹⁰ afterwards, and (has to?) make all of his meals (with) meat and salt. **Another:** *th*[...]

col. 5,3: [...] red orpiment 1/2-*qite*; ground finely with wine [... **Another:**...] black [...] -substance, artemisia, cumin, red orpiment, *m*[...] -mineral, ground finely at the same amount; if he is miserable(?) [...]

col. 5,4: [he? drinks] water with honey, and he spi[ts ...].

The survival of this recipe and its variant methods of execution is significant. Not only is the survival of the inhalation method of treating *sry.t*-phlegm observable; the longevity of recording the specificity of its technique is also highly curious. The ingredients used again appear to foreground coloured substances as significant: the first recipe uses *st' km*, perhaps to be read as a 'dark ochre' and 'Nubian ochre'. The variant ingredients for the method recorded in col. 5,3 appear instead to prefer the use of red ingredients, as found in Eb. 325, perhaps characterising the kinds of sickness experiences here associated with *sry.t*-phlegm, such as spitting blood. Other ingredients further confirm the likely age of the therapeutic variations included in the list, such as *s'm*-artemisia (Bln. 46). The '*d]p*-vessel' used in pVindob 6257 perhaps even relates to the *tb.w*-vessel used in Bln. 46, older by over 1,200 years! Finally, the instruction to spit sweet beer following the inhalation is not only a likely reflection of the desired outcome—i.e., that *sry.t*-phlegm leaves the body—but is again paralleled by Bln. 46. The major difference between this therapeutic strategy and those of the earlier periods is the apparent regulation of diet – that the patient must only consume meat and salt following the recipe. The motivation for this instruction is unclear.

Schwemer (eds.), *Texte zur Heilkunde*, 304) offer '<in> eine Schale geben, d[ie <mit> (glühender) Kohle gefüllt ist'.

¹¹⁰⁸ Cf. end of line 3; *hphp* 'to be sad' (EG, 303); the meaning of this word in this context is uncertain.

¹¹⁰⁹ Hoffmann and Quack (in Janowski and Schwemer (eds.), *Texte zur Heilkunde*, 304) translate 'Wenn er Reiz sp[ührt] [durch] Tropfen oder Schaum: ...-Flüssigkeit [... ... die] Heilmittel. Er soll süßes Bier trinken. Er soll davon ausspucken. Er soll (als) sine Nahrung bereiten: Fleisch; Auge'.

¹¹¹⁰ The verb *p'y* is read here as 'to vomit', but it could equally denote 'to spit' (e.g., CDD p. 37); as with *pgs* in the example from pBerlin (Bln. 46).

6.2. Akkadian Therapeutic Compendia

6.2.1. A Brief Introduction to Mesopotamian Medicine

Although this is no place to offer a comprehensive overview of Mesopotamian medicine, as to do so would far exceed the limitations of the present thesis, it should be stated from the outset that documentation for therapeutic healing strategies in Sumerian and Akkadian languages, written on more durable clay tablets, survive from contexts which are far older than those which preserved Egyptian compendia, both of therapeutics and ritual incantations. These can be found in cuneiform script, dating as far back as the third millennium BCE.¹¹¹¹ Of course, in itself, this is not evidence that one healing culture should be considered ‘older’ than the other. It would seem that the institutionalised aspects of therapeutic healing, at least those considered pertinent enough to be stored in Egyptian temple archives, operated concomitantly with those of Mesopotamia.

As noted in the literature review offered at the start of the present dissertation, cross-cultural interaction between the two medical cultures is so-far only evident in limited contexts.¹¹¹² It is generally accepted that the explanatory models that appear to pervade Egyptian therapeutic compendia—such as that represented by *whd.w*, a quintessential model of Egyptian medicine beyond Egyptology—appear not to be represented in the plethora of diverse sources available to the Assyriologist.¹¹¹³ It is perhaps logical that the domain-models developed in the Nile Valley for categorising and understanding experiences of sickness would be dissimilar from those found in Mesopotamian texts, especially as—as has been noted—they are heavily coloured by social, cultural, and environmental phenomena.

Thus, for the Egyptologist, the contemporaneous Mesopotamian medical tablets provide a useful opportunity to reflect upon which perspectives of the body, sickness, and healing strategies might be considered as being entirely unique to the ancient Egyptian culture, which might be considered instead as having a common ancestral route in the broader region, and which might be seen as more universal modes of thought construction. The purpose of the present case-study is to provide the impetus for conducting fruitful cross-cultural comparative studies of the two cultures which are purely objective. The aim is not to simply isolate

¹¹¹¹ A useful introduction to the sources for Mesopotamian medicine is offered by M. J. Geller, *Ancient Babylonian Medicine: Theory and Practice* (Chichester, 2010), 1-10.

¹¹¹² Seemingly from East to West, at present; see e.g., the apparent Egyptian adoption of the Akkadian *samānu* (Beck, *Samānu*; also in J. Althoff et al., *Finding, Inheriting, Borrowing?*; see above, pp. 28-9), or the use of pomegranate root for the treatment of worms (Pommerening and Steinert, in Schubert (ed.), *Medicus*; see n. 696)

¹¹¹³ E.g., Geller, *Renal and Rectal Disease Texts*, 2; Unger, in Steinert (ed.), *Systems of Classification*, 128-133.

commonalities between the two traditions so as to suggest that one culture influenced the other, but rather to evaluate instead the similarities and differences between the two cultures in a manner that informs upon the prominent modes of thought and how these might have been constructed in cultures from this early period of medical history.

The present is an exclusive analysis of the so-called ‘BRONCHIA’ subsection of the Nineveh Therapeutic Compendium (NTC). This unit of texts was selected for the current purpose based on the diachronic availability of Egyptian texts concerned with *sry.t*-phlegm, a cultural domain of sickness experience which is well integrated into both the *whd.w* and *st.t* explanatory domains, as argued by this thesis. It would be impossible to delve into excessive details of each and every aspect of the chosen corpus; thus, as with the assessment of pVindob 6257 above, a highly generalised overview of the texts will be offered and discussed from the translations created, before a key analysis of selected texts from more detailed and restorable passages of the document are considered.

Unlike the Egyptian compendia, the NTC has been considered a product of a process of canonisation in technical compendia which began sometime around the tail-end of the second millennium BCE.¹¹¹⁴ Although it was penned in its present format during the reign of Assurbanipal of the Neo-Assyrian Empire (c. 669-630 BCE), sometime during the mid-seventh century BCE, many of the passages included within it have been demonstrably copied from earlier manuscripts from other locations, notably from sources originating in Kassite Babylonia.¹¹¹⁵ The secure and specific *terminus ad quem* for the NTC is evident from the colophon of each and every tablet that belongs to the compendium, all of which uniformly quote Assurbanipal himself as having ‘written the tablets, checked, and re-read (them)’ before ‘depositing (them) for observation and my own study inside my palace’.¹¹¹⁶ According to the

¹¹¹⁴ For canonisation, particularly in the context of divination texts, see U. S. Koch, *Mesopotamian Divination Texts: Conversing with the Gods – Sources from the First Millennium BCE* (GMTR 7; Münster, 2015), 52-4; D. Goltz, *Studien zur altorientalischen und griechischen Heilkunde: Therapie-Arzneibereitung-Rezeptstruktur* (Wiesbaden, 1974), 4. See also R. D. Biggs, ‘Medicine, Surgery, and Public Health in Ancient Mesopotamia’, in J. M. Sasson et al. (eds.), *Civilizations of the Ancient Near East 3* (New York; 1995), 1911-24; Scurlock, *Sourcebook*, 295 ff.

¹¹¹⁵ I. Finkel (‘Old Babylonian medicine at Ur: lettre aux éditeurs’, *JdMC* 4, (2004) 26) suggests that many medical texts recoded during this period likely date further back in time; Steinert provides a useful overview of correspondences between NTC tablets and variant versions of passages deriving from other locations, namely Assur, Nimrud, Sultantepe, and Babylonia; U. Steinert, with S. V. Panayotov, M. J. Geller, E. Schmidtchen, and J. C. Johnson, ‘The Assur Medical Catalogue (AMC)’, in U. Steinert (ed.), *Assyrian and Babylonian Scholarly Text Catalogues: Medicine, Magic, and Divination* (BAM 9; Berlin, 2018), 286-91.

¹¹¹⁶ See the colophon to the NTC series, appended to the end of the translations of the Bronchia tablets offered here in the text appendix; H. Hunger, *Babylonische und assyrische Kolophone* (AOAT 2; Neukirchen-Vluyn, 1968), 103, n. 329.

communis opinio in current Assyriological discourse, the NTC is associated specifically with the *asû*, a ‘medical practitioner’ – this is based on the numerous occurrences of the social label in the manuscripts.¹¹¹⁷

Significant similarities in the therapeutic strategies are observable at first glance, especially in terms of overall layout of listed recipes. Beyond the similarities in the many ways in which ingredients were typically processed – a palette of techniques likely limited only by possibility,¹¹¹⁸ more particular modes of administration also show parallels. The use of enemas provides a useful example for consideration, as—as seen with the Egyptian texts—the salience of their application arguably suggests a significant role played by the substances which collect in the lower body in perspectives of pathogenesis. The specificity in terms of purpose for such medications offered in Mesopotamian texts, such as the use of enemas for cleansing ‘dried faeces’ from the intestines, expelling flatulus, countering abdominal pains, and treating fevers, and anal suppositories for similar, offer insights into possible motivations for the use of similar therapies by Egyptian practitioners, whose text indications throughout the surviving manuscripts are comparatively far more implicit.¹¹¹⁹ Beyond this, it is becoming increasingly apparent that certain paradigms of thought—such as the pervasive understanding in both cultures that superhuman entities could inject their victim’s with pathogenic semen, whether metaphorically or physically, and the belief in pathogenic winds personified as entities¹¹²⁰—hint at what is likely a deeper relationship between the practical traditions of the two cultures than might otherwise be evident at first glance.

¹¹¹⁷ J. C. Johnson, ‘Towards a New Perspective of Babylonian Medicine: The Continuum of Allegoresis and the Emergence of Secular Models in Mesopotamian Scientific Thought’, in Steinert (ed.), *Scholarly Text Catalogues. Mesopotamian society appears to make a distinction between *asû* and the *āšipu/mašmašu* ‘exorcist’; for an overview of this in the context of the NTC and Assur Medical Catalogue, see S. Panayotov, ‘Notes on the Assur Medical Catalogue with Comparison to the Nineveh Medical Encyclopaedia’, in U. Steinert (ed.), *Assyrian and Babylonian Scholarly Text Catalogues: Medicine, Magic and Divination* (BAM 9; Berlin, 2018), 90-91. The first contribution to what is now a debate on the roles of these two individuals in Mesopotamian society was opened by the influential article by E. K. Ritter, ‘Magical-Expert (=Āšipu) and Physician (=Asû): Notes on Two Complementary Professions in Babylonian Medicine’, in H. G. Güterbock and T. Jacobsen (eds.), *Studies in Honor of Benno Landsberger on his Seventy-Fifth Birthday, April 21, 1965* (Chicago, 1965), 299-321; for a more recent overview of the matter, see M. Geller, *Ancient Babylonian Medicine: Theory and Practice* (Chichester, 2010), 43-55; Ritter’s divisions have elicited much criticism; cf. e.g., E. Robson, ‘Mesopotamian Medicine and Religion: Current Debates, New Perspectives’, *Religion Compass* 2(4) (2008), 455-83.*

¹¹¹⁸ i.e., ingredients were used fresh, dried, parched, roasted, made into flour, and substances were dissolved, macerated, decocted in available liquids such as water, oil, wine, beer, milk, normal beer, strong beer, high quality beer, and vinegar; B. Böck, ‘On Medical Technology in Ancient Mesopotamia’, in A. Attia and G. Buisson, with M. Geller (eds.), *Advances in Mesopotamian Medicine: from Hammurabi to Hippocrates – Proceedings of the International Conference “Oeil malade et mauvais oeil”*, *Collège de France, Paris, 23rd June 2006* (CM 37; Leiden, 2009), 110-111.

¹¹¹⁹ *Ibid.*, 117-27.

¹¹²⁰ See Steinert and Russell, in Doole and Bauer (eds.), *Ideas of Possession* (forthcoming).

It is perhaps not of little consequence that Akkadian and Egyptian share a common linguistic ancestor with many shared anatomical root derivatives. Older Egyptian terms for anatomical components, such as *jn* ‘eye’, or *jdn* ‘ear’ are well known to have cognates in Akkadian (cf. Akk. *īnu(m)* ‘eye’; *uznu* ‘ear’);¹¹²¹ in some cases, these correspondences can be seen at a higher conceptual level – this is clearest in the use of Egyptian *jb* and Akkadian *libbu*.¹¹²² As noted above, this Egyptian term is difficult, if not impossible, to correctly render using modern terminology;¹¹²³ similarly, Akk. *libbu* primarily expresses the notion of interiority, and in an anatomical context can be used to denote ‘the heart’, ‘innards’, and the like.¹¹²⁴ Unlike the Egyptian use of *ḥꜣtj* ‘heart’, a word derived from the Egyptian preposition *ḥꜣt* ‘in front’, Akkadian possesses no word that exclusively denotes the ‘heart’ as an anatomical organ. Like Egyptian, however, anatomical terms for the inner body found with a higher level of salience and used to organise the therapeutic lists in the NTC are ‘*libbu*-adjacent’ in meaning: *libbu* (ŠA₃) itself is commonly rendered as ‘heart’ or ‘stomach’, where as *qerbu* (ŠA₃.MEŠ), composed of the same Sumerogram with an appended plural marker, is primarily used to denote the ‘internal organs’ more generally, in certain cases referring more specifically to the ‘intestines’, corresponding in part to the Egyptian designation *ḥ.t* ‘belly’ and *(j)m(.y)-ḥ.t* ‘what is in the belly’, ‘intestines’.¹¹²⁵ In addition, *rēš-libbi* (SAG ŠA₃) is a compound term, literally meaning ‘top of the insides’, commonly rendered as ‘epigastrium’,¹¹²⁶ corresponding to Egyptian *rꜣjb* ‘epigastric region’. Finally, although the anatomical model of the conduits and heart elucidated in pEbers 854-856 and Bln. 163 are not found anywhere explicated in Mesopotamian sources, Akk. *šer’ānu* is used to denote ‘sinew, tendon, vein, muscle’,¹¹²⁷ and

¹¹²¹ See P. Lacau, *Les noms des parties du corps en Égyptien et en Sémitique* (Paris, 1970), 40 ff.; and 51 ff.; cf. CAD i, 153 ff.; u, 362 ff.; cf. also the early observations of W. F. Albright, ‘Notes on Egypto-Semitic Etymology’, *The American Journal of Semitic Languages and Literatures* 34(2) (1918), 89 ff.; more recently, a small selection of observations have been noted by M. Franci, ‘Egypto-Semitic Lexical Comparison: New Correspondences and Phono-logical Problems in the Lexicon of Anatomy and Physiological Functions’, in A. Mengozzi (ed.), *Afro-Asiatic Studies: 11th Italian Meeting of Afro-Asiatic Linguistics* (Milan, 2005), 57-66.

¹¹²² Lacau, *parties du corps*, 92;

¹¹²³ See above., pp. 99-103.

¹¹²⁴ E.g., CAD l, 164; here, it is also noted that it can pertain to the ‘womb’; cf. the Egyptian expression *rdi m jwfꜣs* ‘to be placed in her flesh’ (of vaginal suppositories, etc.), which likely also draws on notions of interiority.

¹¹²⁵ E.g., as listed in the Onomastica (Gardiner, *Onomastica*); cf. CAD q, 216 ff.

¹¹²⁶ CAD r, 277 ff.; see especially 284 ff. It is not impossible that the word actually denotes all organs in the middle epigastric region of the patient, rather than the hole in the diaphragm. It is clear from the inventory of cuneiform signs produced by Labat (*Manuel d’Épigraphie Akkadienne*, 90-91, nr. 115) that SAG derived from the original pictographic writing for ‘head’, whereas ŠA₃ (*ibid.* 176-7, nr. 384) derives from a pictogram which appears to represent the diaphragm or perhaps even the liver, and secondly then the heart.

¹¹²⁷ CAD š, 308.

has been translated as both ‘muscle’ and ‘blood-vessel’, depending on the context in which it is used,¹¹²⁸ corresponding to the Egyptian use of *mt.w* ‘conduit’.

Also, unlike the Egyptian therapeutic compendia which appear instead to be dominated primarily by both therapeutic administration methods and the domain model prioritised by the scribe, the manuscripts within the NTC are entirely organised in a head-to-foot arrangement (*a capite ad calcem*). The tablets within the NTC are organised into series; these series within the compendium focus on and are referred to in Assyriological discourse as 1) CRANIUM; 2) EYES; 3) EARS; 4) NECK; 5) NOSEBLEED; 6) TEETH; 7) BRONCHIA; 8) STOMACH; 9) EPIGASTRIUM-ABDOMEN; 10) KIDNEY; 11) ANUS; and 12) HAMSTRING. Each series has its own number of constituent tablets, and each tablet within each series consists of four columns of text – two on the ‘obverse’ (or ‘recto’, in Egyptological discourse), and two on the ‘reverse’ (‘verso’). Each independent text-entry within a tablet is separated by a separating line, as well as the more typical use of DIŠ NA ‘if a man’, or KI.MIN ‘another’.¹¹²⁹ Moreover, and uniquely for surviving Mesopotamian sources, this arrangement is uniquely corroborated by the Assur Medical Catalogue (AMC) of a similar age, which conveniently lists exclusively, and in the same order, the titles (‘incipit’) of each tablet within each unit which makes up the NTC as a whole.¹¹³⁰

The arrangement of these manuscripts within the NTC is thus a peculiar feature of organisation of this Neo-Assyrian compendium, when compared with the Egyptian sources.¹¹³¹ Within each series of tablets in the NTC, the Assyriologist is provided the benefit of a highly-

¹¹²⁸ See e.g., Scurlock’s translation of the term in DPS tablet 11 (*Sourcebook*, 82 ff.), where she renders [DIŠ SA.MEŠ ŠU₂-š_u] SA₅.MEŠ [...] as ‘[If the muscles of his hands] are red’, but [DIŠ NA SA.MEŠ ŠU₂]-š_u₂ MUD₂ *il-te-qu-u₂* [...] as ‘[If the blood vessels] of his [hands] take up blood [...]’ (*ibid.*, 85 and 89); it is particularly interesting that the condition known in Akkadian as *sagallu* has been noted to refer to a particular condition of the muscles and tendons, perhaps corresponding to the use of *sgnn* in Egyptian texts (e.g., Eb. 627-696); though the two anatomical terms *šer’ānu* and *mt.w* are clearly unrelated etymologically, the same is not impossible for *sagallu* and *sgnn*, though the syndromes they encapsulate are likely to contrast.

¹¹²⁹ See e.g., the arrangement of these tablets according to the *NinMed* website. The Akkadian normalisation of the KI.MIN Sumerogram combination remains uncertain, see *šaniš*, CAD š/1, 386 ff.

¹¹³⁰ See Steinert et al., in Steinert (ed.), *Scholarly Text Catalogues*; note the limited contradictions listed by Panayotov (in *ibid.*, 106).

¹¹³¹ This in fact follows the same principles of arrangement used in the *Diagnostic Handbook*, a manuscript instead dedicated to the diagnosis of health complaints seemingly used as a textbook by the *āšipu* ‘exorcist’; according to the colophon, this compendium was standardised by an individual known as Esagil-kīn-apli during the reign of Adad-apla-iddina of Babylonia (c. 1064-1043 BCE), just before the turn of the first millennium BCE; see I. Finkel, ‘Adad-apla-iddina, Esagil-kīn-apli, and the Series SA.GIG’, in E. Leichty, M. de Jong-Ellis, and P. Gerardi (eds.), *A Scientific Humanist, Studies in Memory of Abraham Sachs* (Philadelphia, 1988), 143-59; J. Z. Wee, ‘Phenomena in Writing: Creating and Interpreting Variants of the Diagnostic Series Sa-gig’, in J. C. Johnson (ed.), *In the Wake of the Compendia: Infrastructural Contexts and Licensing of Empiricism in Ancient and Medieval Mesopotamia* (Berlin, 2015), 247-87; M. J. Geller, ‘A Babylonian Hippocrates’, in Steinert (ed.), *Scholarly Text Catalogues*, 42-54.

organised notation system. Every tablet within a particular series is given a unique title. The title of the first tablet in that series is found repeated at the end of every other tablet within the same series, effectively marking which tablets belong to the given series. Moreover, the end of each tablet also includes the title of the next tablet within that series, enabling one to follow precisely the canonised arrangement of the compendium (Fig. xxx).¹¹³²

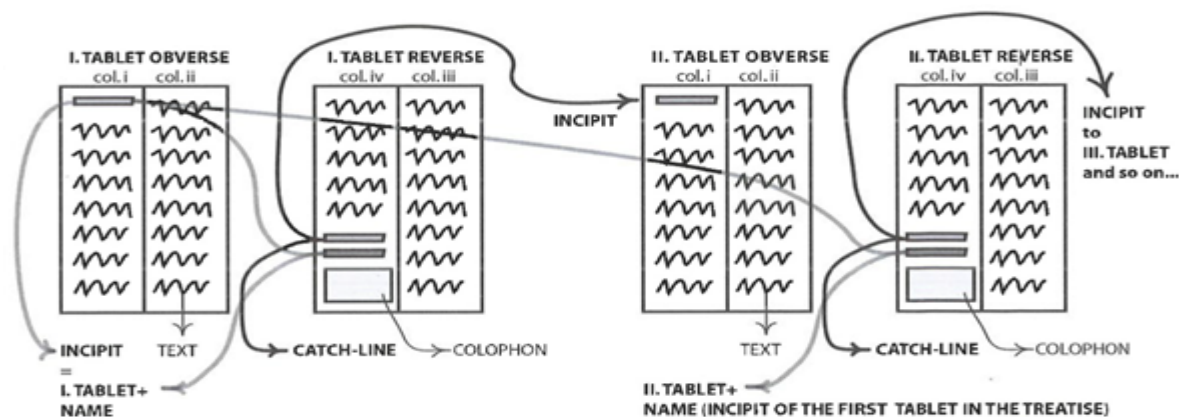


Fig. xxx: after fig. 2 of Panayotov, in Steinert (ed.), *Assyrian and Babylonian Scholarly Text Catalogues*, 95; this useful schematic shows the arrangement of the tablets within each series of the NTC.

6.2.2. The Bronchia Subseries of the Nineveh Therapeutic Compendium

The so-called ‘BRONCHIA series’ constitutes the seventh series of the NTC. According to the AMC, six tablets make up this series; this document lists the individual titles for each tablet that belongs to the NTC BRONCHIA series, named ‘If a man (the breathing of) his nose is difficult’:

AMC 24-8:¹¹³³

AMC line	Frag. line	Incipit
24	C8	[If a man, the breathing of his nose is difficult]. If a man's chest is sick.
25	C9	[If a man, his chest, epigastrium (lit. 'top of his belly')] and shoulders hurt him.
26	C10	[If a man is feverish (lit. 'hot') and coughs]. If a man is sick with <i>suālu</i> .
27	C11	[If a man] is sick [with <i>suālu</i> , <i>ḥaḥḥu</i> -cough] and constriction (of the lungs).

¹¹³² Panayotov, in Steinert (ed.), *Assyrian and Babylonian Scholarly Text Catalogues*, 94-5; see also Scurlock, *Sourcebook*, 295-8.

¹¹³³ After U. Steinert et al., in Steinert (ed.), *Scholarly Text Catalogues*, 221; note, ‘*suālu*-cough’ has here been rendered ‘*suālu*’. For references to tablets from which these incipits are reconstructed, see S. V. Panayotov, ‘Notes on the Assur Medical Catalogue with Comparison to the Nineveh Medical Encyclopaedia’, in Steinert (ed.), *Assyrian and Babylonian Scholarly Text Catalogues*, 101-2. Note also that the series title *šumma amēlu (napiš) appašu kabit* (DIŠ NA (*na-piš*) KIR₄-š_u₂ DUGUD) is rendered literally here; cf. Steinert, et al., who translate the heading more freely, as ‘if a man’s breathing becomes difficult’; following Panayotov (in Steinert (ed.), *Scholarly Text Catalogues*, 102) for the insertion of *napiš* – based on a Late Babylonian version of this incipit (SpTU 1, 44,1) which includes the first component of the *status constructus* - *napiš appašu* (‘the breathing of his nose’).

28	C12	[Total of six tablets (of the section) 'If a man, the breathing of his nose is difficult']. Including (prescriptions) for the case that a man's bronchial tube (is sick), (for) <i>šīqu</i> -illness and (for) an infant suffering from <i>suālu</i> .
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These headings are comparable to the catch-lines offered by the NTC series manuscripts themselves; although, in many cases, these headings are damaged or lost entirely, the titles of each of the six tablets within the BRONCHIA series can be reconstructed with aid from the AMC as follows:¹¹³⁴

BRONCHIA no. and constituent tablets in appendix	Transliteration	Akkadian normalisation	Translation	Reconstructed from
1) BAM 547	DIŠ NA (<i>napiš</i>) KIR ₄ - <i>šu</i> ₂ DUGUD	<i>šumma amēlu (na-piš) appašu kabit</i>	If a man, (the breathing) of his nose is difficult	BAM 547 R.II, 14
2) AMT 48/4	DIŠ NA GABA- <i>su</i> GIG- <i>at</i> NINDA u A <i>ina</i> GABA- <i>šu</i> ₂ GUB.MEŠ- <i>zu</i> <i>ḥa-aḥ-ḥa</i> TUKU.MEŠ	<i>šumma amēlu irassu maršat akala u mē ina irtišu izzazzū ḥaḥḥa iraššū</i>	If a man, his chest is afflicted; bread and water are stuck in his chest and he gets <i>ḥaḥḥu</i>	AMC 24; BAM 547 R.II, 13
3) AMT 49/4	DIŠ NA GABA- <i>su</i> SAG ŠA ₃ - <i>šu</i> ₂ MAŠ.SIL ₃ .2- <i>šu</i> ₂ GU ₇ .MEŠ- <i>šu</i> ₂	<i>šumma amēlu irassu reš-libbišu naglabūšu ikkalūšu</i>	If a man, his chest, epigastrium, and shoulder blades 'eat' him	AMT 48/4 R.II, 13
4) BAM 571, AMT 48/5, and BAM 560+	DIŠ NA KUM ₂ - <i>im</i> u ₂ - <i>ga-na</i> -[<i>aḥ</i>]	<i>šumma amēlu ṫmmim/ēm ugannah</i> [...]	If a man is feverish, making (him) cough	AMT 49/4 R.II, 10
5) BAM 548-51	DIŠ NA <i>su-a-lam</i> GIG	<i>šumma amēlu suāla imarraṣ</i>	If a man suffers from <i>suālu</i>	AMC 26
6) BAM 554-6; 558	DIŠ NA <i>su-a-lam ḥa-ḥa u ki-šir-ta</i> ₅ MUR[.MEŠ- <i>šu</i> ₂ GIG ...]	<i>šumma amēlu suāla ḥaḥḥa u kiširta ḥaš[īšu maruṣ ...]</i>	If a man [is sick (with)] <i>suālu</i> , <i>ḥaḥḥu</i> and narrowing/constriction of his l[ungs]	BAM 548 R.II, 14

Already from the tablet titles, one gains the impression that the sickness experiences encoded within the entries are more explicitly diverse than recipe indications provide in the Egyptian therapeutic compendia. The first tablet suggests that the nose and breathing complications are a general topic of the treatise. The second focuses on the chest and 'bread and water' which get

¹¹³⁴ See Panayotov, in Steinert (ed.), *Scholarly Text Catalogues*, 101-2; also, Scurlock, *Sourcebook*, 298-300.

stuck therein, as well as *ḥaḥḥu* – offered as *ḥaḥḥu*-cough in Steinert, et al.¹¹³⁵ The third tablet instead refers to specific regions of the upper body – namely that the chest, epigastrium, and shoulder blades are irritated, lit.: ‘they eat’ the patient (from the infinitive *akālu(m)* ‘to eat’).¹¹³⁶ The fourth focusses on ‘fever’ (*ummu*)¹¹³⁷ which ‘makes the patient cough’, denoted through the use of the verb *ganāḥu(m)* ‘to cough’.¹¹³⁸ The fifth tablet treats a man that suffers from *suālu* – offered as *suālu*-cough in Steinert, et al.¹¹³⁹ The final tablet expands upon this theme, integrating both *suālu* and *ḥaḥḥu* with ‘a narrowing/constriction of the lungs’.¹¹⁴⁰

The various physiological phenomena, such as breathing of the nose and problems with ‘bread and water’ passing through the upper body area; the listed regions of the body, such as the chest, epigastrium, and shoulder-blades; and the use of *ganāḥu(m)* ‘to cough’ affirm that the upper body and respiratory sicknesses are in focus here. The integration of this with ‘fever’ offers an insightful indication that, at least from a Mesopotamian perspective, the experience of fever could be classified as a member of this domain.

Two key sickness classifications remain elusive from the tablet incipits: *suālu* and *ḥaḥḥu*, both typically rendered as types of coughs, and perhaps implicitly as varying types of cough.¹¹⁴¹ The former is related to a verbal form *sa’ālu*, rendered as ‘to cough, cough up phlegm in the CAD’;¹¹⁴² the same is true of the latter, rendered as *ḥaḥû* ‘to cough up’ by the CAD.¹¹⁴³ Attempts to distinguish these have been somewhat retrospective, with Scurlock and Anderson most recently rendering the former as ‘barking cough’ and suggesting that it describes pertussis, or ‘whooping cough’; the latter they identify as ‘bloody phlegm’.¹¹⁴⁴ While it appears that both

¹¹³⁵ Steinert, et al. (in Steinert (ed.), *Scholarly Text Catalogues*, 211) translate *ḥaḥḥu*-cough; Panayotov (in Steinert (ed.), *Scholarly Text Catalogues*, 101) offers ‘*ḥaḥḥu*-wet cough’; cf. Panayotov in *NinMed*, where ‘phlegm’ is rendered. CAD (ḥ, 28) offers ‘(1) spittle, slime; (2) cough (as a disease)’.

¹¹³⁶ ‘to eat, consume, provide for oneself’; CAD a/2, 245; cf. meaning 6: ‘to irritate, hurt (of ailing body parts)’; *ibid.*; cf. the use of Eg. *wmm* in Egyptian therapeutic compendia, discussed above, see n. 582.

¹¹³⁷ CAD u, 131: ‘1. Fever, 2. (in pl.) heat, summer’; also, Stol, in Geller and Finkel (eds.), *Disease in Babylonia*, 3-11; Bácskay (*Fever in Mesopotamia*, 1-3) understands the word to mean ‘fever’ through the literal meaning of ‘heat’.

¹¹³⁸ CAD (g, 39) offers ‘to have a fit of coughing (and retching)’.

¹¹³⁹ Steinert, et al., in Steinert (ed.), *Scholarly Text Catalogues*, 211.

¹¹⁴⁰ For the multiple meanings of *kišru*, see CAD k, 346 ff.; incl. ‘1. Knot (made for magical purposes);... 4. joint of the human or animal body; 5. *kišir libbi* anger, wrath; 6. Structure, bond (of a mountain, a wall), mountain fastness, concentration, strength; 7. Joint, node, knot (of a plant)’. Perhaps to be compared semantically with the use of words such as Eg. *ṯs* ‘knot’, *ḥns* ‘to narrow’; see discussions in section 3.3.

¹¹⁴¹ As suggested by the renderings in both Panayotov and Steinert et al..

¹¹⁴² CAD s, 1.

¹¹⁴³ CAD ḥ, 30-31.

¹¹⁴⁴ J. Scurlock and B. R. Anderson, *Diagnoses in Assyrian and Babylonian Medicine* (Chicago, 2005), 48; 178, 179; R. Labat (‘Husten’, in D. O. Edzard (ed.), *RLA* 4 (1972-5), 523-4) suggested that the first referred to ‘*toux, bronchite*’, and the latter to ‘*toux expectorante*’.

designations were capable of being used as verbs, in some cases complementing the use of *ganāḥu(m)* ‘to cough’,¹¹⁴⁵ it becomes apparent from the use of the verb *ganāḥu(m)* that *suālu* was at least conceptualised in terms of a substance, rather than as ‘cough’ itself, as the following extract from a Kassite-period letter—the earliest documentation for *suālu* found in the present investigation—and a comparable entry in BRONCHIA 5 indicates:¹¹⁴⁶

PBS 1,2 72 lines 16-19: *mārat NN ša iganniḥuma la [na]dā mašqâti [...] kî aštaq(q)ûši suālam ittadâ*

‘the daughter of NN, who was coughing without producing. After I continued to administering potions (to) her, she then produced the *suālu*’.

BAM 549, R.II, 4-5: If a man *sa’alu*-coughs in dry form¹¹⁴⁷ but cannot discharge. [He(?) ...] his saliva [...]. In order to heal him: you crush *urnû*-plant and gazelle droppings; (if) he drinks (these) in beer without having eaten, he will recover.

In the first text, *suālu* appears to be used in a manner similar to that of *sry.t* in Egyptian. This corresponds with the second text, where the verb *sa’alu* is used in the D-durative to indicate that the patient continues to cough, but nothing comes up,¹¹⁴⁸ further demonstrating the substance-nature of *suālu*. The agency of this substance is characterised metaphorically in an incantation from BRONCHIA 5:¹¹⁴⁹

BAM 549, R.II, 6-9: Incantation: Oh *suālu*, *suālu*, *suālu*! Strong is his grip; his throne is what he has laid down amidst the lungs! Be gone, *suālu* – this is not your dwelling place! Concerning constriction, *guhḥu*-cough and *suālu*: may Gula, Lady of Healing; may she destroy your roots! [Incantation spell].

It is interesting that in this text, *suālu* is characterised via the conceptual metaphor, SICKNESS IS POSSESSION OF INHABITATION, though in this case it is *suālu* as an agent, rather than a possessing entity. It is described as having a ‘strong grip’ (*dāni šibit*) and as having ‘laid down a throne’ (*kussašu ittadi*), and having set up ‘roots’ (*šuršu*) which must be destroyed. The use of the image ‘roots’ here is unlike the use of the same in Egyptian to describe *wḥd.w*, however,

¹¹⁴⁵ E.g., Text 8.65 cited by Scurlock and Anderson (*Diagnoses*, 178) states that the patient *usâl ugannaḥ* ‘*suālus* and coughs’.

¹¹⁴⁶ CAD s, 340; H. F. Lutz, *Selected Sumerian and Babylonian Texts* (PBS 1/2; Philadelphia, 1919), pl. 93.

¹¹⁴⁷ *tābīlam* ‘adv.; in dry form, in a dry state’; CAD t, 25; cf. Panayotov (in *NinMed*), who translates ‘If a person has a dry cough [...] his saliva [...]’.

¹¹⁴⁸ *tābīlam* ‘adv.; in dry form, in a dry state’; CAD t, 25; cf. Panayotov (in *NinMed*), who translates ‘If a person has a dry cough’.

¹¹⁴⁹ For ‘medical incantations’ employed by the *asû* in therapeutic compendia (*asîtu*) and their secularisation of more theological incantations utilised by the *āšipu* in such texts as the *Diagnostic Handbook*, see Johnson, in Wee (ed.), *The Comparable Body*.

as in the latter, *wḥd.w* is coloured as the root—the internal cause—of *wḥʾ.w*;¹¹⁵⁰ conversely, the establishment of roots by *suālu* attests to its firm placement within the lungs.

Comparatively, the nature of *ḥaḥḥu* is more uncertain. Given that Egyptian *kh.w* (and by extension *gh.w*)¹¹⁵¹ appears to be used onomatopoeically, it might be suggested that *ḥaḥḥu* was also an onomatopoeic rendering of a physiological phenomena with a distinctive sound, such as coughing (or perhaps even sneezing), or the like. Nevertheless, though it is associated with *suālu*, reference to it is found earlier in the BRONCHIA series, suggesting that not only was it distinguishable from this, but also that it was perhaps connected to sickness experiences or the model thereof more closely associated with the upper reaches of the thoracic cavity or respiratory system.

Before taking a closer look at the BRONCHIA series as a whole, it is also important to note that *suālu* was conceived of not only as a pathogenic substance in the thoracic cavity. In cases where it remained in the body, it had the capacity of ‘transforming’ (*tāru(m)*)¹¹⁵² into *kīs libbi*,¹¹⁵³ literally ‘binding of the insides’.¹¹⁵⁴ As Johnson notes, this transformation led to other categories of sickness experience which instead primarily involved the digestive tract and fever.¹¹⁵⁵ This is known from the title of the NTC series following Bronchia – namely, the eighth series known as STOMACH to Assyriologists. Despite the indication presented in the first tablet heading of this eighth series, *suālu* does not appear as the focus of any of the therapeutics; instead, *kīs libbi* is the target of the treatment. The category *suālu* thus remains a preoccupation of BRONCHIA, and providing a theoretical connection between the BRONCHIA and STOMACH series, rather than a focus of the latter:¹¹⁵⁶

AMC line	Frag. line	Incipit
29	C13	[If a man is sick with <i>suālu</i> (which)] for him turns [into 'binding of the <i>libbu</i> ']. If a man's <i>libbu</i> is sick.
30	C14	[If a man's epigastrium hurts him. If a man is] overcome [by <i>ṣētu</i>]. If <i>ummu</i> -fever afflicts a man's <i>libbu</i> .

¹¹⁵⁰ See section 4.2.

¹¹⁵¹ See section 4.4.

¹¹⁵² CDA t, 401.

¹¹⁵³ CDA k, 161.

¹¹⁵⁴ Or ‘gastric constriction’; Johnson, in Wee (ed.), *The Comparable Body*, 109.

¹¹⁵⁵ Johnson, in *JdMC* 24, 13; in Wee (ed.), *The Comparable Body*, 109.

¹¹⁵⁶ For this reason, as Johnson points out, the earlier tendency to refer to STOMACH as ‘SUALU’ is misleading; Johnson, in Steinert (ed.), *Scholarly Text Catalogues*, 56, n. 2.

31	C15	[Total of five tablets (of the section) 'If a man is sick with <i>suālu</i> (which)] for him turns into 'binding of the <i>libbu</i> '. Including (prescriptions for the case that) wind has bloated him.
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Whether the Egyptian notion of *sry.t* had a similar theoretical grounding is unclear from the surviving source material; nevertheless, its transformative ability through interaction with heat from the lower reaches of the body (Eb. 308 and 311)¹¹⁵⁷ and its association with the belly in recipe indications (e.g., Eb. 321-5), as well as the downwards flowing nature of associated *st.t*¹¹⁵⁸ in Egyptian explanatory models is certainly indicative of possibility.

The present comparative analysis will discern general observations from all tablets from the BRONCHIA series through the use of a tabular overview, created through an analysis of the text translation of the series.¹¹⁵⁹ These observations serve to provide a foundational summary of the inner upper-body, its sicknesses, and therapeutics from the Mesopotamian perspective. Here, each tablet is considered a cultural domain, with members of those domains—i.e., sickness experiences, explanatory models, and therapeutics—considered as being listed under each tablet. The purpose is to create a framework through which a comparative discussion using Egyptian sources discussed in the present thesis can be entered into. This overview permits a more rigorous analysis of a selection of texts for the comparative discussion. It should be emphasized here that, given the case-study nature of the present discussion, only a very limited discussion of comparative therapeutic salience can be entered into; to contribute a more thorough analysis, calibrations of recipes from other series within the NTC, as well as other sources from Mesopotamia more generally, would be required.

¹¹⁵⁷ See section 4.4.

¹¹⁵⁸ See section 4.3.

¹¹⁵⁹ See text appendix.

Bronchia	Incipit	Tablet	Line	Recipe label	Therapeutic (steps)
1	If a man, the breathing of his nose is difficult	BAM 527	R.II, 5-12	[...]	fumigate w. barley; smear mouth and nostrils; drink w. [...] ten herbs (roasted cress, roasted <i>kasû</i> , <i>nikaptu</i> -plant, [...]?) <i>tarmuš</i> -plant seed, <i>kukru</i> -resin, <i>burāšu</i> -juniper, and <i>atā'išu</i> -plant) pressed into leather, bind for 15 days; <i>ardadillu</i> -plant and oil, drunk while holding patient's tongue; wash him in warm <i>šunû</i> -tree water
2	If a man, his chest is sick, bread and water stand still in his chest, he gets <i>ḥahḥu</i> -phlegm	AMT 48/8	O.I, 2	[...]	2) [...] <i>kasû</i> [...]
			O.I, 3	[...]	3) [...] in beer and water; drink repeatedly
			O.I, 4	[...]	4) [...] crush and sift [flour? ... mix?] in water and oil [...]
			O.I, 5	[...]	5) [...] bandages(?) [...]
			O.I, 6-7	[...] his whole chest	[...] lentil(?) [flour], malt flour, emmer flour [...]
			R.II, 5-6	back irritated	[...] <i>kirbān eqli</i> -plant; <i>baltu</i> (?)-plant flour [...]
			R.II, 7	bandages and potions	
			R.II 8-12	chest irritated, epigastrium makes him burn up, bloated insides, difficulty eating; sick lungs caused by eating/drinking sorcery	seven herbs (<i>tarmuš</i> -plant, [...] -plant, <i>sikillu</i> -plant, <i>maštakal</i> -plant, <i>kamkadu</i> -plant, and <i>šimru</i> -plant); ground and drunk in wine; place a gold, silver, copper, and tin bead at the neck
3	If a man, his chest, epigastrium, and shoulder blades 'eat' him	AMT 49/4	O.I, 1-3	sick lungs	1) ground <i>saḥlû</i> -plant, <i>buṭuttu</i> , parched grain [flour ... together] and you rub (it) into a peice of leather; bind epigastrium and shoulder
			O.I, 4-5	[...]	2) [You ...] <i>saḥlû</i> -plant, <i>kupsu</i> -bran/husks, [and you ...] in beer [...] [and you ...] <i>kasû</i> -plant, parched grain flour, and gypsum [...]
			O.I, 6-8	[...]	3) [You ...] chi[ckpea] flour [lentil(?) flour ...][...] leaf, <i>ḥilēpu</i> -leaf [...] leaf [...] [...] sailor [faeces ...]
			O.I, 9-10	[...]	4) [You ...] <i>colocynth</i> [...] [...] 'bad-smell'-plant [...]
			O.I, 15-19	[...]	x+1) [...] <i>šumlalû</i> -aromatic [...], <i>urnû</i> -mint; drunk w. date-wine without [eating]
			O.I, 20-21	[...]	x+2) [...] <i>kasû</i> [...] <i>annuḥar</i> [a ...]
			O.I, 22	[...]	x+3) [...] <i>aktam</i> -plant, <i>nī</i> [<i>nû</i> -plant ...]
			O.I, 23-4	[...]	x+4) [...] <i>ēdu</i> -plant [...]
		R.II, 1-9	<i>ummu</i> -fever in body; belly growls; 'this man has a cut(?)'	[...] spill [...] over him; cut open fourth rib with a flint-knife to let water and blood escape; boil 5 liters of <i>kasû</i> -plant; heat and place a lead-tube in ribs; knead dough at opening of wound	

4	If a man is feverish, making (him) cough	BAM 571	O.II, 1-2	[...]	x+1) [...] drink seven herbs; bandage him
			O.II, 3	[...]; sick?	x+2) [...] repeat and bandage his front and shoulder blades
			O.II, 4-5	[...]	x+3) [...] you pound [...] IM.GU2.NIG2.NIGIN.NA-substance; rub in (a peice of leather?); bandage
			O.II, 6-9	[...]	x+4) [...] flours(?) [...] sesame pulp(?); <i>tarmuš</i> -seed; crush and sieve [...] in old-beer dregs [...] decoct [...] rub in peice of leather; bandage
			O.II, 10-12	[...]	x+5) [...] decoct [...] <i>kukuru</i> -aromatic, <i>burāšu</i> -juniper, lentil flour; crush and sieve herbs [...] decoct [...] rub in a piece of leather; [bandage]
			O.II, 13-14	[...] if a man(?) [...]	[...] <i>šumlalû</i> -aromatic, <i>nikiptu</i> -plant, cypress-tree [...]; processed likewise in dregs of old-beer
			O.II, 15-16	[...] if you have bandaged the man for 15 days:	[...] drink a cold therapeutic drink with wine [...]
			O.II, 17-19	[...]	x+1) [...] date skins, sheep kidney fat, [...], <i>kukuru</i> -aromatic, <i>burāšu</i> -juniper, <i>sumlalû</i> -plant, <i>Ninurta</i> -plant; crush, sieve; rub in peice of leather; bandage
			O.II, 20-22	[...]	x+2) [...] date skins, sheep kidney fat, [...]-plant [...], [...] crush, sieve, rub in a piece of leather; bandage; rest for three months
			O.II, 23-6	[...]	grind <i>saḥlû</i> -plant and <i>buṭuttu</i> -pistachio(?); [you ...] these 3 herbs [...]; smear and sprinkle <i>kukuru</i> -aromatic (and) <i>burāšu</i> -juniper onto it; [...] crush and sieve w. linseed; you knead w. <i>kasû</i> -water[...] (?) bandage
			O.II, 27-9	[if a man(?)]	[...] <i>kamantu</i> -plant, <i>tarmuš</i> -plant seed; mix w. sheep kidney fat; rub in a piece of leather; bandage
			R.I, 3	[...]	x+1) [...] bandage him
			R.I, 4-14	[...]	x+2) [...] 17 herbs (tree leaves; and [...] <i>ḥaltannu</i> -plant 'you purify'-plant [...]); crush and sift; mix w. emmer beer; smear w. oil; bandage
			R.I, 15	[...]	x+3) [...] bandage him
R.I, 16-18	[...]	x+4) [...] fox-vine-plant [...] crush and sift [...] likewise			
5	If a man suffers from <i>suālu</i>	BAM 548	O.I, 1-3	If a man suffers from <i>suālu</i> ; to remove it:	1) squeeze 'green hound's-tongue'-plant with a cloth; add crushed or roasted <i>kasû</i> -plant; drinks, and either vomits or defaecates
			O.I, 4		2) continually drinks water and oil while you hold his tongue

		O.I, 5-7		3) decoct crushed sahlû-plant and pulverised kasû; eat w. oil and honey; drink pork-broth. You [...] him; heat in front of a fire. He purges from the rear
		O.I, 8-9	If a man suffers from <i>suālu</i>	1) boil green 'hound's tongue'-plant; mix w. milk and oil; drink w/o. eating
		O.I, 10-11		2) dry and grind <i>kūru</i> -tree seed; drink w. oven-baked and boiled <i>kasû</i> -water; he vomits
		O.I, 12-13		3) <i>emesallu</i> -salt in mouth; chews; swallow w. saliva from mouth; drink fatty pork-broth w. beer and honey; repeat over 3 days
		O.I, 14-16		4) crush 'white plant' w. beer, honey, and refined oil and drink while holding his tongue; drink beer and boiled honey w/o. eating; cause him to vomit w. a feather; eat a paste made of honey and ghee; drink sweet wine
		O.I, 17-18	If <i>suālu</i> seizes him	1) dry and grind 'poor creature which is in a river-shell'; drink w. oil and honey
		O.I, 19-22		2) pound kalgukku-mineral, cedar, ballukku-aromatic, šurdunû-plant seeds, 'sweet-reed', coarse flour, sahlû-plant, atā'īšu-plant, juniper, [kammantu-plant, baluḥḥu-aromatic resin] with a (wooden)-pestle; [you... in] fat of sheep kidney [...] (?) take hot (?) -coals [...]
		O.I, 23-4		3) [...] linseed and cow's milk; put a reed straw therein [...] suck (the fluid(?)) up into his mouth [...]
		O.I, 25-8	If a man, he suffers from <i>suālu</i> and his [shoulder blades(?)]	[...]
		R.II, 4-5	Alternatively [if a man suffers from <i>suālu</i>]	<i>nuḥurtu</i> -plant, [...] -plant [...]; drink w/o. eating
		R.II, 6-12	If he does not recover	set up a porous(?) <i>diqāru</i> -vessel, crush <i>nīnû</i> -mint(?), [you...] <i>šūšu</i> -root, [...]; pulverise and seive <i>antaḥṣu</i> -vegetable and <i>kukuru</i> -aromatic; [you ...] oil [and? ...]; you add beer and ghee; you [...] a <i>burzigallu</i> -vessel which you have pierced and close off its sides with emmer-dough; boil over a fire; he sucks it up boiling through a straw into his mouth; it impacts his lungs

6	If a man [is sick (with)] <i>suālu</i> , <i>ḥaḥḥu</i> and narrowing/constriction of his l[ungs]	BAM 554-6	BAM 554; O.I, 1-2	If a man suffers from <i>ḥaḥḥu</i> ; [...] it repeatedly irritates him [...]	[...]
			O.I, 3-6	If a man suffers from a binding of the lungs	1) [...], <i>bīnu</i> -tree leaf [...] decocted in beer; spread on a cloth; bandage him; crush <i>kasû</i> -garden-plant; drink in beer w/o. eating
			O.I, 7		2) pound <i>ḥašû</i> -plant, drink in beer w/o. eating
			O.I, 8-9		3) pound <i>nuḥurtu</i> -plant and soak in beer; he drinks w/o. eating
			O.I, 10-12	If a man suffers from a binding of the lungs and it turns into a swelling	1) [...] <i>kukuru</i> -aromatic, <i>burāšû</i> -juniper, emmer flour [...]; break it up; sift; decoct w. beer in a small kettle; spread on cloth and bandage/8/ for 3 days
			O.I, 13-15		2) cedar, cypress, <i>daprāna</i> -juniper(?), [...], <i>šumlalû</i> -aromatic, <i>asu</i> -plant, <i>kanaktu</i> -aromatic [...] aromatic; decoct w. beer in a small kettle; spread on cloth; bandage for 3 days
			O.I, 16-18		3) artemisia, argānu-tree [...] tree [...], aktam-plant, sulphur, red-plant, [...]; decoct w. emmer in beer in a small kettle; spread on a cloth and bandage for 3 days
			O.I, 19-21		4) <i>šunû</i> -tree leaf, [...], <i>azalli</i> -plant leaf, [...], <i>kasû</i> -garden-plant, [...]
			BAM 555; O.II, 1-3	[...]	1) [...] make a body rinse [...] boil in refined oil [...] break it up with [...] in beer; drink w/o. eating while holding his tongue
			O.II, 4-15	[...] indicated to be for lung constriction	2) The ' <i>saḥunu</i> -beer' [...] 27-plant mix; grind and pound; heat emmer beer mash in oven; cool it down; take [...]; boil with 1 litre of white mountain honey, beer wort, and emmer beer mash [...] leave under the stars for three days; boil it again and add refined oil; eat repeatedly w/o. eating; draw off (?) into a flask and add beer and oil; for a man, not for a woman
O.II, 16-17	3) beer, sweet reed, <i>asu</i> -plant, myrrh, cypress, <i>kikkirānu</i> -juniper, <i>kurkanû</i> -tree; boil 6 herbs together; add honey and oil; have him drink; he must vomit				

		O.II, 18-24	[...]	4) chop sweet reed, <i>asu</i> -aromatic, cypress, <i>burāšu</i> -juniper, <i>kurkanû</i> -plant, <i>baluḥḥu</i> -aromatic, <i>baluḥḥu</i> -aromatic resin, <i>nuḥurtu</i> -plant, <i>kikkirānu</i> -plant, 'white'-plant, <i>elikullu</i> -plant seed, <i>šibur[rattu]</i> -plant] [... <i>bu</i>] <i>ṭna</i> -plant, <i>ḥašānu</i> -plant; moist beer-wort; [...] heat emmer beer mash in oven; cool it, [...] these herbs [...] stir wort and mash together; collect in a <i>karpāt</i> -vessel; leave for three days [...] add [...] refined oil and pour in beer [...] an <i>adagurru</i> -vessel [...] he drinks continually [...] w/o. eating
		O.II 25-6	If a man suffers from [...] either lung constriction or <i>suālu</i>	prepare a <i>tariḥu</i> -vessel [...] the herbs [...] <i>imḥur</i> -[...]plant(?)
		BAM 556; O.II, 59		x+1) prepare a <i>tariḥu</i> -vessel
		O.II, 60-69	[...] indicated for a man whose lungs [and(?) ...] are sick and who is weak	x+2) a ' <i>saḥunu</i> -beer' cedar, <i>sur</i> { <i>mēnu</i> -tree ...} <i>šimeššalû</i> -tree, sweet reed, <i>buṭnānu</i> -tree, <i>ḥašānu</i> -pant, <i>kurkanû</i> -plant, <i>kikkirānu</i> -aromatic; cut up the 12 herbs and aromatics together; break them up w. wooden pestle; sift, repeat, grind w. basalt millstone. Filter through linen cloth; wash a <i>sūt</i> -measure of <i>arsānu</i> -groats w. water; heat in oven; heat again; you [...] these herbs and aromatics in cold water and beer-wort bread; you [...]; stir; collect [...]; eat w/o. eating; add oil to a side-amount and [...] he eats [...]; drink w. sweet wine; for a man or for a king - a royal secret!
		O.II, 70-71	If a man, his epigastrium is continually rising up, his insides are lit-up, bread returns from his mouth; food doesn't agree w. him; constriction of the lungs; to heal him:	N/A

		R.I, 1-14	Sheep kidney fat; date skins; <i>kukru</i> -aromatic, <i>burāšu</i> -juniper, <i>asu</i> -aromatic, <i>ḥašû</i> -plant (otherwise known as) <i>ašû</i> -plant, bat guana; break up w. wooden pestle and drip on a gazelle skin; you [...] smear on the skin. Bind upon the constriction for 3 days. He also has to drink sweet beer and eat hot dishes continually; regularly apply something hot. Remove bandages on day 4. Boil water and wine in <i>diqāru</i> -vessel and [add] <i>uluḥu</i> -plant, <i>kasû</i> -(garden)-plant, <i>atā'īšu</i> -plant; pound and mix w. salt, <i>nuḥurtu</i> -plant, <i>saḥlû</i> -plant, and oven-parched grain; pour in and boil [...]; pour into his rear [...] he eats [...] of he does not expel [...] <i>atā'īšu</i> -plant, <i>nikiptu</i> -plant [...] (?) <i>atkam</i> -plant [...] grind [...]
		BAM 555; R.I, 39-40	[...] mix [...] beer [...] bandage him on the front and shoulders
		R.I, 41-4	[...] tamarisk seed, [...] -plant seed [...] pour in oil and drink w/o. eating; pound up [...] and mix w. beer; repeat and leave to dry. Break up and sift <i>kasû</i> -garden plant; you [...]; smear on a piece of leather; bind to front and shoulders
		R.I, 45-7	[...] he drinks [...] in oil and beer w/o. eating [...] pound up [...], <i>kukru</i> -aromatic, <i>burāšu</i> -juniper, <i>ṭūrâ</i> -aromatic, <i>urnû</i> -mint(?); bind to front and shoulders
		R.I, 48-50	pound up [...] and cypress wood; drink in beer [you ...] gazelle droppings and a lump of oxen dung [...] you mix in [...] and dates; you smear on a peice of leather; bind to front and shoulders
		R.I, 51-4	[...] <i>urnû</i> -mint(?), fox-vine(?) -plant [...] <i>ḥašû</i> -plant, 'white plant'; [you...] these six plants [...]; you mix [...] in ghee; eat w/o. eating; pound [...] plants; he drinks [...] in beer
		R.I, 55-7	He continually produces blood; that man suffers continually from <i>suālu</i> [...] <i>ḥašû</i> -plant, u2NU.LUḤ-plant, <i>nuḥurtu</i> -plant, [...]; he continually drinks [...] in beer w/o. eating; he eats continually <i>andaḥṣu</i> -plant with honey and ghee
		R.I, 58-61	He has [...] and continually produces blood 1) you crush <i>kasû</i> -water, roasted <i>saḥlû</i> -cress, [and ...]; he drinks in beer; wash him w. <i>šunû</i> -tree water [...]; pound together fig-leaf and <i>urnû</i> -mint(?) leaf; boil [...] and smear in a piece of leather; bandage him

		R.I, 62-6	[...]	2) you dry and pound up [...], a praying mantis, and milk; stir; wash him w. [...] hot water of <i>šunû</i> -tree; stir and again w. <i>šūšu</i> -wood leaf, <i>šunû</i> -tree leaf, [...] <i>urnû</i> -plant [leaf], apple-tree leaf, ‘good-for-everything’-plant, <i>urânu</i> -plant leaf [...] in beer; dry it, break it up, smear w. fat on a peice of leather; bind chest and shoulders
		R.I, 67-8	[...]	3) pound up [...]; pour in his mouth w. refined oil while you hold his tongue; bind w. <i>kasû</i> -water, pomegranate leaf, and <i>šūšu</i> -leaf
		R.I, 69-71	[...]	4) pound up [...] <i>saḥlû</i> -plant leaf and drink w/o. eating; mix fig-leaf [...], <i>lipāru</i> -tree leaf, <i>šunû</i> -tree leaf, <i>urnû</i> -mint(?) leaf [...] w. fat and smear on a peice of leather; bandage

TAB. 23: tentative breakdown of therapies in BRONCHIA 1-6 according to the surviving fragments: BRONCHIA 1, BAM 527; BRONCHIA 2, AMT 48/8; BRONCHIA 3, AMT 49/4; BRONCHIA 4, BAM 571; BRONCHIA 5, BAM 548; and BRONCHIA 6, BAM 554-6. Individual texts are marked in colour according to administration technique; blue = recipes to be consumed (eaten/drunk); green = recipes consumed specifically to be vomited; red = recipes to be bound upon the body; yellow = recipes to be inhaled; grey = ‘surgical’; white = unclear or combination. Therapeutic strategies are numbered where it is clear that they are alternative therapies for the same goal as marked in the recipe label (i.e., marked by *ana* KI.MIN). Note, measurements have been omitted; for these, see the translation in the appendix. Also omitted are alternate versions from the same series, where it is unknown where specifically they are placed within the series; thus, from BRONCHIA 4, AMT 48/5 and BAM 560+ are omitted; from BRONCHIA 5, BAM 549-51 are omitted; from BRONCHIA 6, BAM 558 is omitted. Finally, passages too damaged to be of use in this tabular overview are omitted.

From the overview provided in TAB. 23, a few general comparative observations can be posited, especially in terms of differences in administration techniques between Mesopotamian and Egyptian applications. Firstly, the extensive use of leather bandages contrasts with those binds in Egyptian texts, where it is implied that these are administered in various kinds of linens, though specification beyond the verb *wṭ* ‘to bind’ is not found in the studied texts.¹¹⁶⁰ Nowhere in the Egyptian texts is leather used as a means to bind a substance to the body. One of the main motivators for its comparatively more extensive use in the NTC is likely the availability of skins as a result of the more extensive wool industry recorded for ancient Mesopotamian societies, though linen was still produced.¹¹⁶¹ The reverse of this is true for Egyptian civilisation which, although also making use of sheep’s wool, produced the majority of their textiles from linen made of flax bast.¹¹⁶²

A second observation is the heightened complexity of the entries in BRONCHIA and the NTC in general. Though entries in the Egyptian compendia can prescribe multiple therapeutics or their instructions be stretched over various stages,¹¹⁶³ this is statistically less common; comparatively, several entries observable in this smaller selection of Mesopotamian therapeutics include more than one type of strategy,¹¹⁶⁴ and the processing and administration instructions can in some cases be more complex.¹¹⁶⁵ Nevertheless, some Egyptian therapeutics observed can be said to be just as complex, especially in terms of quantity of recipe ingredients.¹¹⁶⁶

A third, and perhaps more significant observation, is that—although it is more difficult to detect ingredient clusters and patterning with a smaller dataset—a significantly higher-degree of uniqueness can be detected for each surviving entry. Although some parts of BRONCHIA are simply lists of alternative means of treatment (i.e., marked by *ana* KI.MIN ‘alternatively’, a

¹¹⁶⁰ For *wṭ* ‘to bind’, see *GdM VII*, 226-32.

¹¹⁶¹ E.g., I. Good, ‘Cloth in the Babylonian World’, in G. Leick (ed.), *The Babylonian World* (New York, 2007), 143-7.

¹¹⁶² Vogelsang-Eastwood, in Nicholson and Shaw (eds.), *Materials and Technology*, especially 268-9 and ff.

¹¹⁶³ Many of the teaching texts from the epigastric-region series imply that multiple treatments were administered; for examples of individual entries to compendia wherein more than one therapeutic is included, see also Eb. 90; 92, 772; from the *sry.t* series, a few passages are more detailed, offering stages of therapeutic processing (Eb. 308, 310, 312, 313, and 314); the indication title of Eb. 163 *k.t mt (s)qbb.n ph.wyt* ‘another suppository after the rear has been made cool’ suggests that some entries were intended to be combined with others. Finally, from pEbers, see Eb. 766, which covers a higher range of therapeutic stages.

¹¹⁶⁴ E.g., BAM 527, R.II, 5-12; AMT 48/8, R. 8-12; BAM 548, O.I, 14-16; BAM 556, R.I, 1-14; 51-4.

¹¹⁶⁵ The processing instructions for ‘*sahumu*-beer’ are especially complex BAM 554, O.II, 4-15 includes a mix of 27 plants, and multiple preparation instructions for the plants, the beer itself (from beer wort, honey, and an ‘emmer beer mash’, all of which is left under the stars for three days, before being boiled down again; cf. also 18-24 and BAM 556, O.II, 60-69.

¹¹⁶⁶ As noted above, Eb. 209 was isolated from the data-processing programs due to its use of 16 items; the most extreme example from all therapeutic texts studied from Egypt was Eb. 663, which includes 39 separate items!

marker comparable to the Egyptian use of *k.t* ‘another’),¹¹⁶⁷ there appears to be less agreement among these than, for example, was observed across multiple domain-lists from Egyptian compendia. An exception to this is perhaps the Roman Period pVindob 6257, though, unfortunately, too much of this papyrus is damaged to enable a clearer indication of recipe variation in this manuscript. This observation may find reason in the fact that it is the product of a process of standardisation and canonisation. Thus, it could be argued that fewer variations of the same technique are likely to be included. This hypothesis would, of course, require substantiation through expanding the scope of Mesopotamian sources examined.

Despite the plethora of items used in these recipes, a few ingredients and associated therapeutic techniques appear with a higher degree of salience. Bathing or washing the patient with *šunû*-tree water¹¹⁶⁸ is comparatively unique, and appears in a few instances, in BRONCHIAS 1, 4, and 6;¹¹⁶⁹ however, this practice appears more salient across Mesopotamian therapeutic compendia in general – it is not specific to BRONCHIA,¹¹⁷⁰ further illustrating differences between these and surviving Egyptian compendia. Another ingredient which stands out with an even higher level of frequency is *kasû* or *kasû*-water. This appears in all tablets of the bronchia series,¹¹⁷¹ though again, it also appears across most domains of surviving Mesopotamian therapeutic texts.¹¹⁷² Its wide application in therapeutics implies the prominent role that food technology had as a motivator for the development of salient treatment strategies. This detail is

¹¹⁶⁷ AMT 48/8, O.I, 2-5; AMT 49/4, O.I 1-10; O.II, 1-26; BAM 548, O.I, 1-7; O.I, 8-16; BAM 554, O.I, 3-9; O.I, 10-21; BAM 555, O.II, 1-24; R.I, 39-50.

¹¹⁶⁸ Identified as the chaste tree (*Vitex agnus-castus* L.) by Thompson (*Assyrian Botany*, 296 ff.); followed by Panayotov (*NinMed*) and Scurlock (*Sourcebook*); for *ht ds* as ‘chaste tree’ in Egyptian, see n. 648, above.

¹¹⁶⁹ BAM 547, R.II, 12; AMT 48/5, x+5; BAM 555, R.I, 59, 63; BAM 558, R.II, 14.

¹¹⁷⁰ Thompson, *Assyrian Botany*, 296 ff.

¹¹⁷¹ BAM 527, R.II, 5-12; AMT 48/8, O.I, 2; AMT 49/4 O.I, 5, 21; R. II, 1-9; BAM 571, O.II, 23-6; BAM 560+, O.I, 1-10-x; BAM 548, O.I, 1-3, 5-7, 10-11; BAM 549 O.I, x+10-12; BAM 550, O.I, x+1-3, 4-7; BAM 554, O.I, x+3-6; 19-21; BAM 556, O.II, x+60-69, R.I, 1-14; BAM 555, R.I, 41-4, 58-61, 67-8; BAM 558, O.I, x+5-6.

¹¹⁷² This plant has received much attention in Assyriological scholarship, with Thompson identifying three separate words - as ‘cassia’, ‘carob’, and ‘rose’ (*Assyrian Botany*, 192 ff.); CAD (k, 248-250) offers ‘mustard seed’; Stol, in Milano (ed.), *Drinking in Ancient Societies*, suggests ‘dodder’. Most recently, S. C. Eypper (‘*kasû* (^{u2}GAZI^{SAR}) Revisited’, *JdMC* 33 (2019), 35-49) evaluates these suggestions, and others, adding that its leaves, seeds, sprouts, and fruity-pulp, and *mê kasû* ‘*kasû*-juice’ (however, cf. Egyptian *mw jt* ‘barley water’ (Eb. 205; Bln. 137), *mw n.w mjmj* ‘linseed water’ (Bt. 13b), and *mw n.w ḡr.t* ‘carob water’ (Eb. 135-6, 143, 150, 151, 159; H. 45; Bln. 43, 173, 176, 182; Bt. 20) – all of which denote processed beverages or liquids (the latter perhaps a syrup used in beer manufacture), rather than the modern notion of ‘juice’) is frequently designated as an ingredient in recipes. Eypper discusses the plant-product’s use in beer production, dyeing textiles a red-brown colour, as well as the manufacture (or flavouring?) of cheese. She curiously posits ‘tamarind’, despite understanding that the tree does not exist in Iraq today, nor does there appear to be any archaeobotanical support for the identification (cf. *ADEMNES* 2022), beyond the knowledge that *kasû* is noted as an import via the port of Dilmun (*ibid.*, 7; cf. carob, a pod and import from the southern Levant which also ‘travels well’). Although archaeobotanical evidence from Mesopotamia is at a disadvantage over Egyptian archaeology because of the latter’s burial culture, the total absence of tamarind in art or material remains does not correlate with the prominence of *kasû* in medical recipes. Panayotov (*NinMed*) follows ‘tamarind’.

further supported by the occasional reference to other beer-manufacturing products, such as in the creation of the ‘*saḫunu*-beer’ recipes, created from a plethora of herbs and aromatics ‘beer wort’ (*narṭabu*) and ‘emmer beer-mash’ (*titāp kunāši*).¹¹⁷³

Another observation to be gained from the study of these texts is that *ummu* ‘fever’ was considered associated with the upper body inasmuch as it was with the digestive tract.¹¹⁷⁴ Although categories of sickness associated with fever could be treated with consumable therapeutics in this series of texts, a comparatively larger list of entries were also smeared or bandaged upon the body,¹¹⁷⁵ further supporting the identification of Egyptian cognate *šmm* as a cognate.¹¹⁷⁶

Another, more general comparative observation is the prevalence of therapeutics for making the patient vomit, saliently—though not exclusively—for treating *suālu*.¹¹⁷⁷ The Egyptian indications against *sry.t* are less detailed, and do not appear to specifically indicate that the patient must vomit the matter. Nevertheless, pRubensohn (x+1,3) notes the ability of *sry.t*-phlegm itself to cause the patient to vomit, so it is not impossible to imagine a relationship between vomit as a member of the *sry.t* domain. In this regard, it is perhaps significant that in some inhalation recipes, the patient is instructed also to swig and spit out beer (Bln. 46; Wien 5,2, 4).¹¹⁷⁸ Nevertheless, unique to the NTC is the application of a feather (in the throat) to instigate the therapeutic vomiting and eradicate the *suālu*.¹¹⁷⁹

A final remark is the limited application of enemas for removing *suālu* from the body. In the Egyptian compendia, enemas appear to be strictly members of the *wḥd.w* model-domain, though—as seen with the comparison of therapeutics, as well as the association of this domain with air from the lungs¹¹⁸⁰—the associated sickness experiences likely diverged with those of *sry.t*, in some cases. In at least one case, the instruction for the practitioner to *ana šuburrišu*

¹¹⁷³ BAM 555, O.II, x+4-15, 18-24; and BAM 556, O.II, x+60-69; these ingredients have the potential to inform on similar items used in Egyptian therapeutic recipes, such as *ḥsʿ* and *šb.t* beer-products (see above, n. xxx), as well as *ḫ wʿd* - a beer-bread mash.

¹¹⁷⁴ E.g., Bácskay, *Fever in Ancient Mesopotamia*, passim; also Johnson, in Wee (ed.), *The Comparable Body*, passim. See also Stol, in Geller and Finkel (eds.), *Disease in Babylonia*.

¹¹⁷⁵ E.g., BAM 571, O.II, 1-14 and 17-29; R.I, 4-18.

¹¹⁷⁶ Noted as “‘Hitze’ zur Bezeichnung einer Haut-Entzündung’ by the authors of the *GdM* (VII, 853 ff.) in cases where medications were applied topically to the body (e.g., Bln. 81-8; Eb. 304-5).

¹¹⁷⁷ BAM 548, O.I 1-18; cf. BAM 555, O.II, 16-17, which appears instead to be directed at treating *kīrte ḫāšē* ‘lung constriction’.

¹¹⁷⁸ Cf. also Eb. 198, against the blood-nest in the epigastric-region, which must descend ‘either from his mouth or from his rear like the blood of a pig’; also, Eb. 199, against an undefined liquid matter in the epigastric-region which must ‘descend from his mouth with/as *ḥsʿ*’.

¹¹⁷⁹ BAM 548, O.I, 14-16; BAM 549, O.I, x+4-6; BAM 551, R.I, x+1-4(?).

¹¹⁸⁰ See section 4.2.

tatabbak ‘pour into his rear’ the concoction of salt and herbs in water and wine is included as a means of treating what appears to be symptoms described as a ‘continual rising up’ (*zapāqu*) of the patient’s epigastrium and a ‘blowing/lighting-up’ (*napāḥu*) of his belly (*qerbu*), and a ‘returning’ (*tarû*) of bread from the mouth,¹¹⁸¹ suggesting a digestive-disorder aspect to a domain otherwise associated with the respiratory tract. This is supported by the incorporation of therapeutics which the patient *išattima lū ina pīšu lū ina šuburrišu išaḥḥaṭam* ‘drinks and then removes from either his mouth or from his rear’.¹¹⁸² These may not be surprising; these imply a Mesopotamian perspective wherein *suālu* as a substance could be removed from the body via the rear to restore the patient to health.

In addition to these observations, two texts provide a useful consideration of similarities and differences between Egyptian and Mesopotamian perspectives of the inner-body, sickness, and therapeutics. The first could arguably be considered a more ‘surgical’ therapeutic:

AMT 49/4, R.II, 1-9: [...] ... [...] [Alternativ]ely, if an *ummu*-fever [endures] in his body [and (his belly) also growls loudly; this man, he has a cut(?) [...] [...] you] spill [...] over him and [you? ...] three [ribs ... in order to heal him:(?) ...] you open him [...] with a flint-knife] in the fourth rib and then water and blood [will flow out(???) ...] You boil and fi[lter] five litres of *kasû*-plant [...]. You spill [...] over him and then strain(?);¹¹⁸³ [you return¹¹⁸⁴ ...] You heat (it) together and [you pour it inside it].¹¹⁸⁵ You make a lead tube¹¹⁸⁶ [and thread it with linen]. You place (it) inside (the opening in the ribs); you boil the concoction with *kasû*-water; [knead it (into dough);¹¹⁸⁷ (if) you bandage him (with this), then he will recover].

This passage from BRONCHIA 3 is interesting in the first as it appears entirely unlike any surviving Egyptian treatment instruction. Of course, knife-treatments are not alien to the Egyptian corpora. pVienna 6257 includes recipes for treating a *ryty*(?), many of which are topical applications involving minerals such as ammoniac.¹¹⁸⁸ In one case, however, a *ryty* is

¹¹⁸¹ BAM 556, O.II, x+70-71; cf. also AMT 48/8, R.II, 8-12, where similar symptoms are listed together with ‘his chest irritates him’ (*irassu ikkašû*), though in this case it appears the patient’s appetite is reduced.

¹¹⁸² BAM 548, O.I, 1-3; see also O.I, 5-7 of the same tablet, wherein the patient must eat a decoction of crushed *sahlû*-plant and pulverised *kasû*-garden-plant with oil and honey together with drinking a pork broth and heating himself before a fire until the matter *ina šuburrišu ušeššeram* ‘is purged from his rear’.

¹¹⁸³ My thanks to Steinert for pointing out that the meaning ‘to pound’ (as in crushing herbs) does not seem appropriate here; perhaps another meaning ‘to bring up’ (in the sense of drinking and vomiting, though this seems unlikely) or ‘to strain, or the like’ is meant instead (see 2a-b in CAD s, 84-5).

¹¹⁸⁴ repeat?

¹¹⁸⁵ The vessel with the *kasû*-water, not the patient.

¹¹⁸⁶ *uppi* is normalised here, though no satisfactory rendering for NAM.SI.SA₂ is offered in either Borger (*Zeichenlexikon*) nor Labat (*Épigraphique Akkadienne*); Panayotov (*NinMed*) translates ‘drainage tube’; certainly a tube best fits the context.

¹¹⁸⁷ Following Panayotov (*NinMed*); the sequence of processing stages here is unclear; perhaps the lead tube is indeed placed in the ribs, and then a concoction with *kasû* water is used to make a dough, used to fasten the tube and the bandage which is bandaged over this – however, this seems highly unlikely as it could only result in infection.

¹¹⁸⁸ Wien 3,1-17; CDD (r, 15) tentatively offers ‘abscess’; likely related to *ry.t* ‘pus’ (TLA 2022, lemma-no. 93200); cf. Akk. *ru’tu* ‘spittle, salver, saliva, phlegm, mucus’ (CAD r, 435, ff.).

pierced with a needle ‘to know if it might then be said that there is blood inside’; the passage is too damaged to suggest any kind of similarity, and owing to the absence of many of the specific aspects of the Mesopotamian passage, a correlation seems highly unlikely. As Stol points out, however, an incredibly similar passage appears in a Hippocratic treatise:¹¹⁸⁹

De morbis (2.47): ‘When the fifteenth day after the pus has broken out into the cavity arrives, wash the patient in copious hot water and set him on a chair that does not move; have someone else hold his arms, and you shake him by the shoulders, listening on which of his sides there is a sound; prefer to incise the left side, for it is less dangerous. If because the thickness and abundance of pus, there is no sound for you to hear—for sometimes this happens—on whichever side there is swelling and more pain, make an incision as low down as possible, behind the swelling rather than in front of it, in order that the exit you make for the pus will allow freedom of flow. First cut the skin between the ribs with a bellied scalpel; then wrap a lancet with a piece of cloth, leaving the point of the blade exposed a length equal to the nail of your thumb, and insert it. When you have removed as much pus as you think appropriate, plug the wound with a tent of raw linen and tie it with a cord; draw off pus once a day; on the tenth day, draw all the pus, and plug the wound with linen. Then make an infusion of warm wine and oil with a rube, in order that the lung, accustomed to being soaked in pus, will not be suddenly dried out; discharge the morning infusion towards evening, and the evening one in the morning. When the pus is thin like water, sticky when touched with a finger, and small in amount, insert a hollow tin drainage tube. When the cavity is completely dried out, cut off the tube little by little, and let the ulcer unite before you remove the tube. A sign whether the patient is going to escape: if the pus is white and clean, and contains streaks of blood, he generally recovers; but if it flows out on the first day yolk-coloured, or on the following day thick, slightly yellow-green, and stinking, when it has flowed out the patient dies’.

Although the Mesopotamian text is significantly damaged, the parallels are clear, and suggestive—given the earlier date of the NTC—of a cross cultural interaction between Mesopotamia and Greece. Or is it? A discussion of a second passage from BRONCHIA 5 enables us to refine this conclusion:

BAM 548, R.II, 6-12: If you do not see him recovered (lit.: ‘good outcome/improvement’); [you set up] a porous(?) *diqāru*-vessel, you crush *nīnū*-plant, [you ...] *šūšu*-root, [...]; [and?] you pulverise and sieve *antaḥšu*-vegetable and *kukuru*-aromatic; [you ...] oil [and? ...] you add beer and ghee into (the mix). [You...] a *burzigallu*-vessel which you have pierced [and you close-off] its sides with emmer dough [...] you boil (this) over a fire. You place a straw (therein); [he sucks it up boiling hot into his mouth... it will have an impact(?)]¹¹⁹⁰ on his lungs [... then he will recover].

¹¹⁸⁹ Stol, in Horstmanshoff and Stol (eds.), *Magic and Rationality*, 71-2; translation after Stol, who follows Hippocrates, *Affections, Diseases I, Diseases II* (P. Potter (trans.); LCL 472; Cambridge MA, 1988) 243; see also Majno, *The Healing Hand*, 52, who notes a similar passage in the Hippocratic ‘Internal Afflictions’, where the ‘third rib’ is specified as the place of incision.

¹¹⁹⁰ Steinert also points out that the restoration offered by both BabMed and the CDLI appears difficult to understand from a semantic point of view, and suggests that perhaps another verb is found here, instead.

The use of a porous(?) *diqāru*-vessel¹¹⁹¹ with various kinds of herbal *materia medica*, over which a *burzigallu*-vessel, pierced at its base, is placed and sealed, and into which an inhalation tube is inserted for the inhalation of smoke upon heating the apparatus is highly reminiscent of the use of the pierced *hin*-, *tb*-, and *dp*-vessels used across pEbers, pBerlin, and pVindob 6257 for the treatment of *sry.t* (Eb. 320, 325; Bln. 46; Wien 4,40-5,2).¹¹⁹² The specificity and uniformity of the instructions in each manuscript attests to the salience of the therapeutic strategy across a period of nearly 2,000-years of surviving Egyptian therapeutic compendia. This leaves the modern observer with the question – were these techniques culturally specific to the Egyptian civilisation, or rather representative of perspectives of therapeutic treatment that should instead be considered relatively universal to the region of ancient North-East Africa and South-West Asia? As Stol points out, a variant manuscript offers the additional instruction:¹¹⁹³

AMT 21/4, 10-11: 7 *u₄-me an-na-a* DU₃.DU₃-*ma* [...] GU7.MEŠ KAŠ ^{lu2}KURUN₂.NA DU₁₀.GA NAG-*ma* TI

7 *ūmī annā tatanpešma* [...] *illak šikara kurunna t̄aba išattima iballuṭ*

‘You keep doing this (for) seven days [...] he eats [...] and drinks good *kurunna*-beer, then he will recover’.

The specification of ‘seven days’¹¹⁹⁴ here is strongly reminiscent of both Eb. 325 and Bln. 46, where instead ‘seven stones’ (Eb. 325) or ‘seven potter’s wheels’ (Bln. 46) are taken, and the same process repeated for each stone; of course, in the Egyptian variants, days are not specified – though, from this, it can perhaps be assumed that they are implied. The number seven is of course a number endowed with conceptual significance, according to Pharaonic Egyptian culture; among other numbers, sickness-causing demonic entities can be cited as appearing in groups of seven.¹¹⁹⁵ In Akkadian narrative literature, the same number appears to have a similar conceptual significance,¹¹⁹⁶ again suggestive of a more relatively universal approach to

¹¹⁹¹ Scurlock (*Sourcebook*, 483) offers ‘a crescent-shaped *diqāru*-bowl’. My thanks to Steinert, who points out that SAKAR could instead denote a ‘porous’ vessel (*šaharratu*); cf. *šaharru* ‘adj.; (qualifying clay pots)’, CAD š, 80 ff.

¹¹⁹² See section 4.4.

¹¹⁹³ AMT 21/4; see Stol, in Horstmanshoff and Stol, *Magic and Rationality*, 73.

¹¹⁹⁴ BAM 557,6 is a variant, and lists nine days, rather than seven; *ul IGI-mar* is restored in the lacuna from another – BAM 564, O.II, 25 by *BabMed*.

¹¹⁹⁵ See e.g., M. Rochholz, *Schöpfung, Feindvernichtung, Regeneration: Untersuchung zum Symbolgehalt der machtgelandenen Zahl 7 im alten Ägypten* (ÄAT 56; Wiesbaden, 2002); see also W. Helck, ‘Hathoren, Sieben’, in W. Helck and E. Otto (eds.) *Lexikon der Ägyptologie 2* (Wiesbaden, 1986), 1033. The ‘Cairo Calendar’ (24,10) lists *sḫ.w ḥy.wt m rš-ḥsr.t* ‘seven sickness-agents’ typically associated with Sekhmet (A. el-M. Bakir, *The Cairo Calendar No. 86637* (Cairo, 1966)).

¹¹⁹⁶ In a Middle Babylonian (late second millennium BCE) version of Nergal and Ereshkigal, for example, the god Ea assigns ‘seven and seven watchers’ to go with Nergal for protection, and fourteen (7x2) gates of the netherworld are referred to; in a later version, seven gates of the netherworld are named, as are seven days of intercourse between the two divinities (B. Foster, *Before the Muses: An Anthology of Akkadian Literature* (Bethesda, 2005),

therapeutics. As Stol notes, however, a variant of the technique also appears in the Hippocratic treatise:¹¹⁹⁷

De morbis 2,26: ‘Then apply a vapour-bath of vinegar, soda, cress seed, and marjoram: grind these fine, mix the vinegar into an equal amount of water, instil a little oil, and then dissolve the soda, cress seed, and marjoram into it; pour into a pot, set on a lid that covers it completely, bore a hole through the lid, and insert a hollow reed. Then set the pot on coals to boil, and, when vapour passes up through the reed, have the patient open his mouth wide and draw in the vapour, taking care not to burn his throat. Soak sponges in hot water, and have the patient apply these externally to his upper and lower jaws. Make a gargle for him of marjoram, rue, savory, celery, mint, and a little soda: prepare dilute melicrat, and instil a little vinegar into it; grind the leaves and soda fine, and have the patient gargle’.

With this entry into the Hippocratic Corpus, the philologist is left with a somewhat problematic consideration, as the salience with which the specificity for such an inhalation technique appears across millennia of Egyptian compendia appears then not only to appear also in Mesopotamian therapeutic compendia, but also in later Greek treatises. Together with the instructions for incising the ribs to release pathogenic bodily fluids, which does not appear in the Egyptian compendia,¹¹⁹⁸ the inclusion of two overly specific types of therapeutics from one Mesopotamian corpus into one later Greek compendium might imply the origin of transmission to be from Mesopotamia, rather than Egypt. Nevertheless, the far older evidence for the Egyptian inhalation method at least appears to include the Egyptian culture in this transmission process. Of course, for the latter, we are at the mercy of the general state of publication of the earlier Mesopotamian corpora.

A final point for consideration here is the debate over the origin of the Greek word ‘*sieron* (Attic *sialon*)’, which Stol noted reminded him of ‘Babylonian sputum *suālu*’.¹¹⁹⁹ This perhaps confounds or clarifies this problem further. In the same volume in which Stol was writing, Geller—prompted by Stol’s observation—suggested that *suālu*—which he instead renders as ‘coughing’—might correspond to the Hippocratic concept of *peripneumonia*; he thus suggests *suālu* to be a possible etymological origin for Greek *sialos*. Over a decade later, Markus Asper wrote that this would appear unlikely, as the Greek word really means ‘fat’ and the related term *sialon* ‘spittle’, and does not denote ‘cough’ as a sickness.¹²⁰⁰ Of course, given

509-24). A late period incantation also refers to a group of harmful entities as ‘the seven’ as ‘the evil ones of Ea’ (*ibid.*, 963).

¹¹⁹⁷ Stol, in Horstmanshoff and Stol (eds.), *Magic and Rationality*, 72; Hippocrates, *Affections, Diseases I, Diseases II*, 237.

¹¹⁹⁸ Though one has to wonder whether this is solely due to the nature of surviving Egyptian sources.

¹¹⁹⁹ Stol, in Horstmanshoff and Stol (eds.), *Magic and Rationality*, 70.

¹²⁰⁰ M. Asper, ‘Medical Acculturation? Early Greek Texts and the Question of Near Eastern Influence’, in B. Holmes and K.-D. Fischer (eds.), *The Frontiers of Ancient Science: Essays in Honor of Heinrich von Staden* (BzA 338; Berlin, 2015), 29-30; n. 46.

the observations produced from this limited comparative study, it would seem that both the Egyptian and Mesopotamian cognates refer to a substance, rather than ‘coughing’, re-opening the possibility for discussion. At the same time, it confounds the certainty of the route through which Greek *sialos* was adopted; alternatively, of course, it might also be suggestive that Greek culture at the time, too, possessed a similar notion whose roots extend further back in time than might otherwise have been initially assumed. In any case, it is of note that the concept appears unrestricted to medical literature, with the same pathogenic nuance in Greek literature:¹²⁰¹

Xenophon, *Memorabilia* 1.2.54: ‘Moreover, a man's dearest friend is himself: yet, even in his lifetime he removes or lets another remove from his body whatever is useless and unprofitable. He removes his own nails, hair, corns: he lets the surgeon cut and cauterize him, and, aches and pains notwithstanding, feels bound to thank and fee him for it. He spits out the saliva (*sialon*) from his mouth as far away as he can, because to retain it doesn't help him, but harms him rather’.

Rather than engaging with the subjective desire to identify a cultural progenitor, the similarities between *sry.t* and *suālu*—at least in terms of perspectives of a harmful inner-bodily substance and the aims of the treatment strategies used to contend with it—advocates for the understanding of relative universality in modes of thought in the region. These observations suggest that, while the Egyptian and Babylo-Assyrian written cultures retained their own cultural uniqueness in certain areas of thought and application, their geographic and temporal proximity resulted in similar of the same to integrate therapeutic treatments into their compendia from the regions in which they were with direct contact. This suggests that further comparative research between the written cultures is likely to be fruitful, at least in terms of salient approaches to healing, and is therefore desirable.

¹²⁰¹ Xenophon, *Memorabilia* (E. C. Marchant (trans.); X7/4; London, 1923).