

Shaping Texts and Text Genres: On the Drug Lore of Babylonian Practitioners of Medicine

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[The present contribution focuses on the scribes and scholars who compiled, copied and edited medical and pharmacological cuneiform tablets. It is argued on the basis of the information coming from colophons that the corpus cannot be divided into a specific lore of ‘exorcists’ and ‘physicians’.]

Keywords: *Uruanna*, *Šammu šikinšu*, vade mecum texts, herbals, lists of simple drugs, exorcist, physician, medicine, pharmacology.

Sometime in the second half of the 7th century BC the Assyrian king Ashurbanipal decided to issue a new edition of the cuneiform handbook on medicinal ingredients known in ancient Mesopotamia under the title *Uruanna*. This book as stated in the colophon “contains drugs, which since the times of old have not been systematically redacted in commentaries and explanatory texts.” The text further explains, “Ashurbanipal, king of the universe and king of Assyria, checked all those drugs and their equivalents that had been indiscriminately lumped together without applying any criterion as far as the sequence is concerned and he for the first time arranged methodically these drugs and their equivalents. He removed those entries that appeared two or three times. In doing so he did not change the old handbooks but rather followed their old order of entries, he then checked and collated them. Next, he extracted passages from several smaller treatises like the one entitled ‘Lion’s blood (equates) the sap from inside the tamarisk’ and included these passages in the tablets of the new edition without any reference from which treatise they have been taken out.”¹

We know that the king received scholarly education,² was trained in the scribal arts and kept a private library in his palace in Nineveh;³ in this regard his claim of being responsible for a new edition of

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1. See for the Akkadian text Hunger (1968) 99; the text can be restored with the help of further duplicates for which see the edition of †Köcher & Böck (in preparation).

2. See for the education of Ashurbanipal the contributions Villard (1997) and also Fincke (2003-2004) 119-122. For an accentuation of the literacy of the king and the royal family see Livingstone (2007). Ashurbanipal’s literacy is no exception; it seems that a higher percentage of the social (and royal) elite was able to write and read, see Parpola (1997) and Charpin (2008) 31-51.

3. See for a discussion of the works he kept in his reach Lieberman (1990) 303-336 and Maul (1995) 221.

Uruanna should not be taken as a mere hyperbolic statement but rather as a confirmation of his interest in technical texts. As is known, the king himself wrote chemical recipes.⁴ The colophon of *Uruanna* is striking for yet another reason: as for the works coming from the libraries of Nineveh for no other cuneiform handbook do we have such detailed information stated in a colophon about the process of edition involving the king. The usual acknowledgments claim that Ashurbanipal wrote, checked and collated cuneiform works in order to read them himself or have them read to him.⁵ In contrast to these standard formulas, Ashurbanipal's *Uruanna* colophon is full of expressions and formulations not attested otherwise in his colophons. The royal attention and authority the handbook of medicinal ingredients received is an extraordinary feature that singles out *Uruanna* from other scholarly works on medicine.

In this contribution I shall discuss some aspects on the nature, structure and transmission of the *Uruanna* handbook as one of the most important sources for ingredients used in medicine in the context of other cuneiform treatises on medicinal ingredients. I intend to shed light on the significance and importance of the medical and pharmacological lore⁶ and its transmitters in ancient Mesopotamian life. *Uruanna* is the modern short version of the ancient Babylonian title *Uruanna : maštakal* quoting like almost all ancient cuneiform literary works the *incipit* of the handbook. The meaning is "The plant *uruanna* (literally 'plant whose home is heaven') is the plant *maštakal*."

1. Lists, handbooks and manuals on Babylonian medicinal plants

In one of the interviews Umberto Eco gave on the occasion of the exposition *Le vertige de la liste* he was invited to design for the Louvre he summarized "the list is the origin of culture. It's part of the history of art and literature. What does culture want? To make infinity comprehensible. It also wants to create order – not always, but often. And how, as a human being, does one face infinity? How does one attempt to grasp the incomprehensible? Through lists, through catalogs, through collections in museums and through encyclopedias and dictionaries."⁷

1.1. *Uruanna*

The *Uruanna* handbook uses the form of a two-column list in order to organize terms for medicinal ingredients, mainly of vegetable origin.⁸ Names that appear in the left column are explained by or equated with another term in the corresponding right column. We can distinguish between different forms of introducing the plant term:

- (1) a Sumerian plant designation which is equated to an Akkadian term such as
U₂ AB₂.DUḪ : U₂ *kammantu*
"The drug (called in Sumerian) *abduḫ* (is called in Akkadian) *kammantu*."⁹
- (2) a Sumerian name which is equated to an Akkadian term,

4. As Livingstone (2007) 132 shows the king wrote apparently chemical texts about the process of glazing.

5. See for a convenient overview of the so-called Ashurbanipal colophons Hunger (1968) 97-107; for the passage quoted here see Hunger (1968) 97 no. 318 ll. 7-8; 100 no. 323 l. 4; 100 no. 324 l. 2 *passim*.

6. For short outlines see the contributions of Böck (2002), (2014) 129-163; Kinnier Wilson (2005); Köcher (1995); Reiner (1995) 25-42; and Stol (2004-2005).

7. Quoted from an interview in the on-line version of the German news-magazine *Der Spiegel*, namely <http://www.spiegel.de/international/zeitgeist/0,1518,659577,00.html>.

8. For the publication of the *Uruanna* handbook see †Köcher & Böck (in preparation).

9. See for now the cuneiform autograph published by Wiseman & Black (1996) no. 192 col. i: 79'.

U₂ GI.RIM SA₅ : U₂ *ratuttu*

“The drug (called in Sumerian) ‘red blossom’” (is called in Akkadian) *ratuttu*.”¹⁰

(3) an Akkadian plant designation which is equated to an Akkadian term,

U₂ *pinnaru* : U₂ *kabû*

“The drug (called in Akkadian) *pinnaru* (is also called in Akkadian) *kabû*.”¹¹

(4) an Akkadian name which is equated to an Akkadian term.

U₂ *amurriqānu* : U₂ *burāšu*

“The drug (called in Akkadian ‘plant for) jaundice’ (is also called in Akkadian) *burāšu* (juniper).”¹²

Terms that belong together, viz. alternative names of a given plant in Sumerian and Akkadian or in foreign languages such as Kassite, Aramaic, Elamite or Hurrian¹³ are arranged in paragraphs which are usually separated from the former and succeeding sections by a dividing line. Occasionally, the plants are compared to others using the standard expression ‘drug A has resemblance to drug B’ as in “the drug which resembles the plant ‘dog’s tongue’ (is) the *liddanānu* drug;”¹⁴ and sporadically, a description of the growth of the plant can be inserted such as in the entry “the drug ‘Oh please!’ resembles the drug *papparhû*: the leaves are small and thin, it has curled fringes.”¹⁵

In one of its latest stage the *Uruanna* handbook is composed of four tablets or chapters. Out of the 4-tablet edition only chapters one, two and three treat medicinal plants and to a small extent other drugs of mineral and animal origin. The fourth chapter is fragmentarily preserved; from the remaining lines we can deduce that it contained a concordance of symptoms with names of diseases.¹⁶ The oldest manuscript dates to the 12th/11th century and the latest to the 4th century BC.¹⁷ Based on the most complete version of the four-chapter edition of *Uruanna*, we count 1.720 text lines citing about 1.250 different names. Taking into account the alternative names and terms for substitute plants the number of terms can be cautiously reduced as referring to about 320 actual medicinal ingredients. This allows the reversal conclusion that every medicinal ingredient was known as an average under four alternative names including names of substitute herbs.

Alongside the four-chapter edition there is another slightly older one, in which the entries are distributed in two tablets or chapters. The overall structure of the *Uruanna* manuscripts is set up into main columns that are often separated from each other by vertical lines leaving an extra space between them. Each of these main columns contains the two-column plant list. The *Uruanna* manuscripts are arranged in two or three main columns on obverse and reverse of the cuneiform clay tablet. The visual impression is

10. The tablet is reconstructed from seven fragments of which only the biggest is quoted; see the cuneiform autograph published by Thompson (1902) pl. 18 col. iv: 20’.

11. See for now the cuneiform autograph published by Köcher (1955) no. 1 col. iv: 40’.

12. See for now the cuneiform autograph Köcher (1955) no. 6 col. vii: 58’.

13. Little is known about Kassite; it was the language of a people who ruled Babylonia during the 16th and 12th century BC. Since they adopted the Akkadian language and clay tablets as writing medium, there is no single connected text in Kassite language preserved. The Kassite plant terms in the *Uruanna* handbook belong to the approximately 60 words known in this isolated language; see for a survey of Balkan (1954) and see for Kassites Sommerfeld (1995).

14. See for now the cuneiform autograph published by Köcher (1955) no. 12 col. v: 28.

15. See for the time being the cuneiform autograph published by Köcher (1955) no. 6 col. vii: 13-14.

16. Note here that Stol (2004-2005) 505 speaks of three chapters which should be accordingly corrected.

17. One of the earliest exemplars of the handbook is the text published by Köcher (1955) no. 1; the youngest text is so far unpublished, see †Köcher & Böck (in preparation).

that of a multicolumn text counting between four to six ‘plant-columns’ on each obverse and reverse. Presently we count around 50 tablets and fragments belonging to any of the editions.

It seems that there was no standard version of the *Uruanna* handbook since only few manuscripts are exact duplicates of one or the other edition; we rather find a variety of versions of each edition with more or less line entries. In this regard, Ashurbanipal’s claim of having finally established *the* edition of the handbook quoted at the beginning gains importance. It shows not only that the information given in his colophon is based on the actual evidence of the time, but also sheds light on the editorial work carried out in his scriptorium.¹⁸ The edition issued by the Assyrian king is quite particular. He (or the scribes in his palace) indeed produced a revised version: compared to the other *Uruanna* manuscripts, entries of the same passage appear in his edition in a different order, and double entries are removed as far as the preserved text material can be compared. Instead of two or four chapters this edition counts twelve. On the epigraphic level we can observe that while the other manuscripts usually choose to write a ‘ditto’ sign when the same plant term is referred to Ashurbanipal’s version gives the names written out. In addition, the tablets of this new version use another smaller format with seemingly neatly kept measurements: they are about 11 cm broad and some 20 cm large.

A striking aspect of the formation of *Uruanna* is that though the number of its line entries is constantly increasing the actual number of medicinal plants being used remains more or less constant. Most illustrative is the comparison of the paragraph on the *nuṣābu* plant in the oldest text exemplar and a more recent version. In the edition of the 12th/11th century BC the entry on the medicinal plant occupies just two lines referring in total to three drug names. In the edition known from a manuscript dating to the 7th century BC the entry on *nuṣābu* covers nine lines, including a name of the drug in a foreign language and referring in total to eight different terms.

Older version¹⁹

“The drug ‘silver rosette’ : the drug *nuṣābu*.

The fresh drug ‘golden glow’ resembles the drug *nuṣābu*.”

Younger version²⁰

“The drug ‘white blossom’ : the drug ‘silver rosette’

The drug ‘silver rosette’ : the drug *nuṣābu*.

The medicinal plant for the *ašû*-disease (which affects head and eye sight): *nuṣābu* is its name.

The medicinal plant *kišulumzi* (is the name of) the drug *nuṣābu* in Hurrian language.

The drug ‘gold rosette’: *nuṣābu* is its name.

The drug ‘golden glow’ : drug *nuṣābu* ...

The drug ‘white flower’ : the drug *nuṣābu*.

The drug ‘black flower’ : the drug ‘gold rosette’.

The drug ‘golden glow’ : the drug ‘silver rosette’.”²¹

18. See on the creation of the famous library in Nineveh the contributions of Parpola (1983) and Frame & George (2005).

19. The cuneiform autograph is published by Köcher (1955) no.1; the lines translated are col. iii: 7-8.

20. The cuneiform autograph is published by Thompson (1902) pl. 18 col. iv: 25-33.

21. It should be noted that the designations ‘white blossom’ (Sumerian GL.RIM BABBAR) and ‘white flower’ (Sumerian NINDA₂ BABBAR) are translated differently. However, the Sumerian GL.RIM has also the meaning ‘flower’. In this regard it is equally possible that the entry provides just another way of writing the name and does, thus, not refer to a different plant name.

It seems that the linguistic and epigraphic interests were far more predominant than adding and completing the corpus of medicinal plants with newly discovered and approved drugs. Contrary to the development of the different handbooks of the Chinese *materia medica*, which grows gradually and constantly in size and number of medicinal plants,²² the ancient Mesopotamian plant lore appears to have stagnated. This observation fits well into the picture A. Leo Oppenheim has drawn of the stream of cuneiform literary tradition, namely that due to the process of canonization, the knowledge acquired until a certain point in history is being frozen and later innovations or new achievements are hardly included.²³

One of the effects of this stagnation is a rather rigidly kept structure of the handbook in which with only few exceptions plant paragraphs follow the same order. We have only few but instructive indications for some criteria of its inner arrangement. E.g. lines 571-581 of the first chapter give a list of plants, which share the distinctive characteristic that they are aquatic, namely the plants called *zê malāḫi* ('Sailor's Faeces'), *imbâ tâmtim* ('Fiber of the Sea') and *kakkab tâmtim* ('Star of the Sea').²⁴ Other plant paragraphs are associated with each other in terms of colour as the main distinctive feature: *šammu pešû* ('White Drug') is followed by the section on *atkam* also called 'Black Drug', which in turn is succeeded by 'Shepherd's Staff' known under the by-name 'Red Drug' and then by the plant 'It-Opposed-1000' described as 'Yellow Drug'.²⁵ Not all the sections or paragraphs can be brought together because of sharing physiological characteristics or the same habitat. This is best illustrated with the sequence of the terms *urnû*, *qurnu* and *ḫurnu*, which are in all likelihood arranged on phonological grounds.²⁶

1.2. *The handbook of plant descriptions*

Another handbook about drugs is *Šammu šikinšu*, literally "the appearance of the medicinal plant." Although lacking illustrations it gives a detailed description of a number of plants couched in terms of comparisons of the plant's resemblance to other plants.²⁷ The ideal entry would open comparing the plant's general appearance with another plant, followed by a description of the seed, leaf, fruit, root, blossom and growth, each compared with the respective parts of other medicinal plants. It would further include whether the plant contains milky sap, details about its habitat and a reference for which diseases the plant is good. An explanation of how it is to be prepared and administered concludes the entry. Presently, we know of 13 extant manuscripts none of which is completely preserved; they all date into the first millennium BC.

As an example of the structure of *Šammu šikinšu* the entry about the *sikillu* plant is quoted:

The appearance of the plant resembles the 'sun-plant'. Its leaves resemble those of the *ḫašûr-āpi* tree. Its fruit resembles the fruit of the *ašāgu* thorny bush. This plant is called *sikillu* ('pure'). It is the plant for cultic purification and undoes witchcraft. Purify the patient on new moon. [He will recover].²⁸

Even if the plant descriptions are seemingly of little use for identifications, the combination of all the information provided in *Šammu šikinšu*, *Uruanna*, herbals and medical prescriptions help avoid wrong identifications. A telling example is the term *sahlû* for which identifications with 'Cress plant, Cress

22. See for an overview of Chinese medicinal plants Liu (2005).

23. See Oppenheim (1977²) 18.

24. The lines refer to the edition of †Köcher & Böck (in preparation).

25. The sections are †Köcher & Böck (in preparation) ll. 89-92, 93-109, 110-115 and 116-130.

26. As referred to in †Köcher & Böck (in preparation) ll. 183-189, 190-193 and 194.

27. For the edition of the handbook see †Köcher & Böck (in preparation).

28. See for the publication of the cuneiform autograph by Gurney & Finkelstein (1957) no. 93 obv. 46'-47'.

seed²⁹ and ‘salad’ (as *kulturwort*)³⁰ have been proposed.³¹ Recently, a rather interesting suggestion, namely the identification with wolfberry, has been put forward.³² The drug *sahlû* is mentioned as comparison plant to the *namḥarû* plant.

As for its thorns / prickles / sharp points / stinging hairs the plant resembles the *sahlû* plant. Its leaves are as big as the leaves of the *sahlû* plant. This plant is called *namḥarû*.³³

Wolfberry also known as boxthorn has spiny branches and is said to be used to build or be grown in place of a fence.

1.3. Lists of simple drugs or Herbals

The third group of texts was in all likelihood used as a guidebook how to employ medicinal plants. About 40 texts and fragments belonging to this genre are known, the earliest exemplars dating to the last quarter of the second millennium BC.³⁴ There is no ancient title preserved for this genre nor do we know the extent of the handbook.³⁵ Only one manuscript includes a reference to a chapter numbering, namely “2nd tablet, checked, read, alright”.³⁶ This suggests that in late Middle-Assyrian times (11th to 10th century BC) the herbal counted at least two chapters.

In outward appearance the tablets are again organized in lists divided in up to three columns. One can distinguish between two forms or editions: herbals of two columns and herbals of three columns. The arrangement in two columns is so far only known from text fragments belonging to the tablet collections of the Assyrian king Ashurbanipal in Nineveh. The first column gives the Akkadian name of the medicinal plant used as simple and the second, the indication for which disease the plant is employed.

The three-column versions give additional information about the preparation and administration of the plant remedy, which is attached in the last third column. In some manuscripts this information is included in the second column that refers to the disease. As for these three-column or three-section versions, we can observe two modes of arrangement: one group is organized according to the drugs cited in the first column. On a horizontal level each paragraph opens with the same medicinal plant and gives in the second column a list of diseases and illnesses which were cured with the drug. Herbals structured in this way were presumably used to consult or learn the medicinal properties of plants. The second group of herbals is arranged after the diseases referred to in the middle column; accordingly, what we find in the first column is a list of different plants. This organization helped to look up rather quickly the drugs which were used to cure the very same disease. It is interesting to note that in two instances beginners copied herbals, viz. an

29. This identification goes back to Landsberger (1922) 343 fn. 3, and has been accepted by the two main dictionaries of the Akkadian language, for the *Chicago Assyrian Dictionary* see Brinkman et al. (1984) 62; and for the *Akkadische Handwörterbuch* see von Soden (1972) 1009. Also Thompson (1949) 55-58 bases his identification on B. Landsberger's study.

30. See Edzard (1985) 125.

31. Doubts on this identification have been already raised by Köcher (1995) 212.

32. See Haas (2003) 349-350.

33. See for now the edition of the cuneiform autograph published by Köcher (1955) no. 33 obv. 12-13.

34. For the edition of the herbal texts see †Köcher & Böck (in preparation).

35. In her magisterial study Reiner (1995) 28 mentions as title for the herbals the Sumerian designation DUB U₂.ĜĪ.A, literally “Tablets about medicinal plants”. She refers to a suggestion of Köcher (1980) xi who identifies the cuneiform tablet he publishes as no. 431 as belonging to this group of medical texts. The tablet, however, is structured differently. Instead of giving a list of simple drugs several medicinal plants are grouped together and attributed to a specific disease. In this regard the information complements the herbals but the text is not a herbal or vade mecum.

36. See Köcher (1955) no. 1 col. vii: 3’-4’.

apprentice scribe and an apprentice physician.³⁷ This, though scarce, evidence suggests that herbals formed part of the training of medical practitioners who would have to learn which plants were efficacious for which disease.

To illustrate the different arrangements some text passages are quoted. An example for a two-column herbal is:

The drug *šizbānu* – medicinal plant for expelling parasitic worms.
Seed of the *urnû* drug – medicinal plant for expelling parasitic worms.
The drug *urnû* – medicinal plant for expelling parasitic worms.³⁸

One of the herbals found at Sultantepe, namely in a hoard of cuneiform tablets outside the house of a family of priests, is quoted as example for a three-column exemplar, which is structured according to the ailment treated.

The drug *kamkadu* – medicinal plant for scorpion sting– give to drink in first-class beer, anoint with oil.
The drug *rušruššu* – medicinal plant for scorpion sting– give to drink in first-class beer, anoint with oil.
The drug ‘fox wine’ – medicinal plant for scorpion sting– give to drink in first-class beer, anoint with oil.
The drug ‘it-opposed-1000’ – medicinal plant for scorpion sting– give to drink in first-class beer, anoint with oil, cense over coals.³⁹

An example for a three-column herbal, which is arranged according to the medicinal plant:

The drug *nikiptu* – it is good as medicinal plant for (afflictions attributed to) the healing goddess Gula, the female demon Lamaštu and also the god Asaluḫi – [you put it around the neck of the patient].
The drug *ditto* – medicinal plant for states of anxiety – you put it around the neck of the patient.⁴⁰

We referred already to the effects involved in the process of standardizing the cuneiform literature, namely that we hardly seem to meet new discoveries of medicinal plants. There is another central aspect of the handbooks on herbal lore: the information provided appears to be quite uniform and hardly contradictory. The data in the lists of simple drugs on preparing and administering medicinal plants for specific diseases usually reproduce the recommendations found in the prescriptions. The short descriptions of the appearance of medicinal plants that are occasionally inserted in the *Uruanna* handbook confirm or use the formulation that is stated in the plant descriptive text. This is the case for the plants *liddanānu* and ‘dog’s tongue’, which is specified in the first chapter of *Uruanna* “the medicinal plant ‘dog’s tongue’ resembles the plant *liddanānu*.” The same comparison is found in *Šammu šikinšu*:

In appearance the medicinal plant resembles ‘dog’s tongue’. Then again the plant ‘bull’s forehead’. Its leaves are small and brownish. It prefers abundant water habitats. Whenever you prick its roots they will coil up. [...] This plant is called *liddanānu*.⁴¹

37. See for now Gurney & Finkelstein (1957) no. 92 rev. 16, and Köcher (1963a) no. 1 col. iv: 27.

38. See for now the edition of the cuneiform autograph Köcher (1980) no. 422 col. iii: 36’-38’.

39. See for the time being the cuneiform autograph published by Gurney & Finkelstein (1957) no. 92 col. i: 12-15.

40. See for the edition of the cuneiform autograph Köcher (1971) no. 379 col. iii: 11-12.

41. The text quoted is published in cuneiform autograph Gurney & Finkelstein (1957) no. 93 obv. 92’-94.’

Some preparations and employments of medicinal plants included in the handbook of plant descriptions, in turn, are identical with the recommendations of medical prescriptions. About the plant ‘it-opposed-1000’ the following is said:

The appearance of the plant resembles the colocynth. It is growing fast, creeps over the ground. Its shoots look like those of the squash. Its leaves are split like those of the ...-plant. Its seeds resemble those of the *hūratu*-plant. Its root is bitter and soft. This plant is called ‘it-opposed-1000.’ It is good to remove the *ezizzu* disease, and also the Hand of the god Adad. You dry the plant, crush it and mix it with fine oil, you anoint the patient, and he shall recover. The plant is also good for skin eruptions caused by: several skin diseases, you crush it, mix it with fine oil, you anoint the patient, and he shall recover.⁴²

As for the second usage described, it should be compared to the following prescription from a medical text:

If a man’s head is covered with *kuraštu* blisters or wounds caused by the *giššatu* skin disease or the *kibšu* skin disease or the *guditu* skin disease, you anoint him constantly with the oil of ‘it-opposed-1000’.⁴³

2. Shaping the drug-lore: on pharmacists and doctors

2.1. On the transmitters of pharmacological handbooks

Cuneiform literature is except few cases not attributed to authors.⁴⁴ What we find are rather names, filiations and titles of its compilers, scribes and editors.⁴⁵ Occasionally, the name of the owner of a tablet is given. The feature of ‘missing authorship’, together with the fact that the information about medical practitioners is heterogeneous and inconsistent are some of the impediments to define the exact scope of their duties in first millennium Babylonia. So far modern scholars have opposed their areas of responsibility centering the argument on the nature of disease aetiology. As a result, discussions usually focus on the nature of the respective healing cures. When magic is involved an ‘exorcist’ would treat the patient while ‘physicians’ were called upon in cases of natural disease causes.⁴⁶ Recently, the relationship between the nature of treatment (physical, esoteric or magic) and supernatural causes as far as skin affliction are concerned has been statistically established. It appears that the attribution to supernatural agents did not necessarily result into a magical treatment; rather the natural and supernatural afflictions

42. See for the cuneiform autograph Gurney & Finkelstein (1957) no. 93 obv. 58’-61.’

43. The prescription is published in cuneiform autograph by Köcher (1963a) no. 33, obv. 1-2, 8.

44. See for both Akkadian and Sumerian literature the contributions of Lambert (1957), (1962); Foster (1991); Michalowski (1996); Glassner (2009). For few exceptions, namely ‘self-references’, see the contribution of Foster (2011) 131, referring to Kabti-ilāni-Marduk, the ‘author’ of the *Epic of Erra*, and Šubši-mešrê-Šakkan, the protagonist of the *Poem of the Righteous Sufferer*.

45. Famous redactors are Esagil-kīn-apli who lived in the 11th century BC during the reign of the Babylonian king Adad-apladdina and Sīn-lēqi-unnini whom Babylonian tradition regards the editor of the (standard version of the) *Epic of Gilgamesh*. See for the former Finkel (1988) and for the latter George (2003) 28-33.

46. I have summarized the rather long discussion about both experts to which the argument about rational versus irrational should be amended. The discussion goes back to Ritter (1965). She contrasts the ‘physician’s’ rational treatment with the ‘exorcist’s’ irrational manipulations. This dichotomous model has been often criticised, see e.g. Biggs (1995) 1918 or Avalos (1995) 142-167. Even so some scholars feel that there must be a division of tasks, see Scurlock (1999) 69-79, Finkel (2000) 146 or Geller (2007). Recently, Zucconi (2007) has stressed that the difference between ‘exorcist’ and ‘physician’ should be rather sought in the way they communicated with the supernatural realm.

were indifferently alleviated through physical therapies.⁴⁷ Although the result is partial it puts in question the viability of basing the argument for possible differences between the two healers on the nature of disease or treatment.

We principally meet two designations for medical practitioners in the handbooks on pharmacological lore, be they editors or copyists of tablets: the Akkadian term *asû*, which is usually rendered ‘physician, pharmacist’ and the Akkadian *āšipu* or *mašmaššu* translated as ‘exorcist’.⁴⁸ Both translations are neither entirely accurate since they refer to partial aspects of the activities of each expert nor felicitous because they insinuate a division between medicine and magic.⁴⁹

Departing from the information provided in the colophons of handbooks on cuneiform pharmacology, I shall challenge the common argument identifying points of consilience and offering an alternative explanation for the apparent antagonism of ‘physician’ and ‘exorcist’.⁵⁰

If we take into account the information from the colophons it seems as if the tasks of both practitioners were rather overlapping. The ‘exorcist’ worked also as ‘pharmacist’ while the ‘physician’ was quite familiar with the treatment of supernatural disease causes. As we would suspect, one of the copies of the *Uruanna* handbook was compiled by a group of “ten expert physicians.”⁵¹ However, the text has been found in the library of ‘exorcists’.⁵² We learn from two further manuscripts of *Uruanna* that they were owned by the exorcist Banūni; both texts have been unearthed at the temple library of the god Nabû, patron of scribal arts, in the city of Nimrud.⁵³ The attribution to an exorcist is no exception as the following data show. Other copies of *Uruanna* have been found in the library⁵⁴ of the well-known family of Baba-šūma-ibni, his son Nabû-bēssunu, his grandson Kišir-Aššur and his great-grandsons Kišir-Nabû and Aššur-nadin-ahhē – all were employed as exorcists at the temple of the god Ashur in the city of Ashur.⁵⁵ One of the manuscripts seemed to have been written by an apprentice since the tablet contains an unusually high number of glosses to explain how to pronounce the cuneiform signs.⁵⁶ Still another was copied by the young apprentice Šumma-balāt from the family of Dādijû, who was scribe of the temple and the palace in the same city.⁵⁷

The evidence for herbals is scarce since only very few manuscripts preserve a substantial colophon. We learn that one of the copyists was Nabû-ibni, an apprentice scribe from Ĥuzirina.⁵⁸ The by far best-

47. See Scheyhing (2011) 79-117.

48. See for recent discussions Attinger (2008): 71-77 and Geller (2010): 43-88.

49. See e.g. Geller (2010) 167.

50. For a discussion of the information on both healing professions in non-medical texts see Worthington (2009). See also the discussion in Böck (2014) 181-195.

51. See for now the cuneiform autograph Köcher (1955) no. 22 col. iv: 13.

52. See Pedersén (1986) 71 no. 487.

53. See for now the cuneiform autograph Wiseman & Black (1996) no. 192 col. iv: 70.

54. This group includes the texts Köcher (1955) no. 2 and no. 22 (the tablet referring to ten ‘physicians’ as mentioned above). The text Köcher (1955) no. 28 is a different concordance of medicinal ingredients and belongs to the handbook “Lion’s blood (corresponds to) sap of a tamarisk” for which see †Köcher & Böck (in preparation). This handbook is mentioned in the already quoted colophons of Ashurbanipal’s *Uruanna* edition as one of the sources. See for the attribution to the library of the house of ‘exorcists’ Pedersén (1986) 71 no. 489 for Köcher (1955) no. 2; Pedersén (1986) 71 no. 487 for Köcher (1955) no. 22; and Pedersén (1986) 71 no. 502 for Köcher (1955) no. 28.

55. See for the activities of the family members and their library Maul (2010).

56. See for now the cuneiform autograph Köcher (1955) no. 4.

57. See for now the cuneiform autograph Köcher (1955) no. 11 col. iv: 42.

58. See for now the cuneiform autograph Gurney & Finkelstein (1957) no. 92 iv: 16’.

preserved manuscript was written by a certain Nabû-le'i, who signs the tablet as junior physician.⁵⁹ The text, however, has been found in the library of the already mentioned family of exorcists from Ashur.⁶⁰ It is the genre of herbals that demonstrates that the physician at least knew how to cope with diseases caused through supernatural causes. Recalling the structure of herbals, in the column referring to afflictions that could be treated with a simple drug we find ailments associated with gods and malevolent demons as well as afflictions attributed to witchcraft and malediction.⁶¹ As for the plant descriptive text *Šammu šikinšu*, it formed part of the training of the 'exorcist' since it is included in a catalogue of the corpus he had to master.⁶² There is no information available that would explicitly associate the 'physician' with this handbook.

The evidence for medical prescriptions is equally inconclusive. One of the main problems is that the majority of the material comes from the scriptorium of the royal library at Nineveh. These texts include typical library colophons that refer to the king as discussed above but as far as recommendations are concerned, hardly mention the name of a compiler, scribe or editor. There are few texts coming from other ancient Mesopotamian sites, which allow us a glimpse of the medical professions involved in the transmission of medical prescriptions.

One tablet with prescriptions was found at Ashur but stems from a Babylonian site. It was written by a certain Rabâ-ša-Marduk, a 'physician' who might have lived in the 13th century BC.⁶³ However, by far the great majority of medical recommendations from first millennium Ashur are attributed to 'exorcists' from the temple of the god Ashur, namely the clan of Baba-šūma-ibni with Kišir-Assur as the family's most prominent member.⁶⁴ It is interesting to note that the copies of prescriptions Kišir-Assur kept in the library are often excerpts of larger texts, which he quickly copied for imminent use.⁶⁵ Few of the colophons state that they have been copied from an original kept at one of the temple libraries at Ashur.⁶⁶ Most of the medical texts that stem from Uruk belong to the private library of, again, families of exorcists with Anu-ikšur and Iqīšāja as the better-known member.⁶⁷

Different, however, is the information coming from the so far only catalogue of medical prescriptions. The text is in many aspects unique. It features a rather innovative editorial work in that medical incantations are attributed to medical prescriptions. The tablet is badly damaged; it gives the titles of each of the chapters and sub-chapters of the handbook of prescriptions. The name of the person who wrote this catalogue is not entirely preserved but his title: he was apprentice physician and related to a family of

59. See for now the cuneiform autograph Köcher (1963a) no. 1 col. iv: 27.

60. As listed in Pedersén (1986) 63 no. 137.

61. The female demon Lamaštu is referred to e.g. in Köcher (1980) no. 423 col i: 18-19 or in Köcher (1971) no. 379 col. iii: 5; witchcraft is mentioned e.g. in Ebeling (1922-1923) no. 76(b): 4; afflictions caused by the "hand of god" are attested e.g. in Köcher (1955) no. 1 col. v: 5, 6.

62. The broad range of works which the 'exorcist' had to master are listed in a catalogue which is known from various copies, see for the edition of the text Geller (2000) 242-254. The plant descriptive text is mentioned on p. 248 l. 26.

63. The tablet has been published in cuneiform autograph by Köcher (1963a) no. 11. See for the rather prominent physician the contribution of Heebel (2009).

64. See for a thorough discussion of both, the genealogical tree and the family's library, Maul (2010); for the family tree and the activities of the family members see Maul (2010) 202-217.

65. See e.g. the texts Köcher (1963a) no. 78, no. 81; Köcher (1963b) no. 164, no. 177, no. 186, no. 188, and Köcher (1964) no. 202.

66. See, e.g., the tablets Köcher (1963a) no. 99; Köcher (1964) no. 201, no. 307 whose *vorlage* was kept at the Esabad-temple of the healing goddess Gula.

67. See for Anu-ikšur the convenient overview provided by Hunger (1976) 12. For the library of both, see Frahm (2011) 290-296. For a recent discussion of one of the medical commentaries from Iqīšāja see Geller (2010) 168-176.

scribes working in Ashur.⁶⁸ The fact that he wrote down the titles of medical incantations suggests that he was familiar with the material and, as such, competent to exercise the office of conjuring. Last I should mention a cuneiform document that is known under the modern designation ‘A pharmacist’s drug inventory’. The singular text – no duplicates or similar tablets are known – enumerates medicinal ingredients some of which were kept in specific recipients. No colophon is preserved, just the find spot is known: the library of the family of exorcists in Ashur.⁶⁹ Perhaps it is not a coincidence that the oldest known manuscript of the *Uruanna* handbook and one of the herbals come from Ashur in the end of the 2nd millennium BC.⁷⁰ Both texts come fit well into the picture of the city as one of the centres of learning concentrated at the royal court.⁷¹

As is apparent from the data presented, both medical practitioners took part in the transmission of the Babylonian drug-lore and were proficient in treating natural and supernatural diseases.⁷² ‘Exorcist’ and ‘physician’ share also that at least from Middle-Assyrian times to the first third of the 1st millennium BC they were active in the royal palace.⁷³

2.2. Contrasting ‘physician’ and ‘exorcist’

Since both experts were responsible in the transmission of the same lore practising the same healing therapies the difference between them should be sought on another level. As the *āšipu/mašmaššu* exorcist belongs predominantly to a religious category⁷⁴ we suggest that the reason for the distinction and eventually for the disappearance of the *asû* is directly connected to his status as performer of rituals. This distinction does not imply a differentiation between medicine as non-religious practice in contrast to magic as part of an overall religious concept. As I have elaborated elsewhere, Babylonian medicine is dovetailed with religious ideas and perceptions.⁷⁵ I am not alluding to the obvious element of medical incantations, which we find so often interlinked with medical recommendations and which were to be recited in order to guarantee the efficacy of both treatment and medication, neither to ideas of purity and

68. A cuneiform autograph of the fragmented text has been published by Beckman & Foster (1988) 11-14. Fragment 9a (YBC 7123) mentions on rev. l. 7 the profession, namely ^{lu}2A.ZU TUR. Note - after collation – that the signs MAŠ.MAŠ are erased. See for the study of this important text K (in preparation). One of the forefathers was *šangû* priest in Ashur according to rev. l. 8.

69. See Pedersén (1986) 62 no. 136. For a recent study of this peculiar text see Tavernier (2007) and Tavernier (2008); for a discussion of the “pharmacist’s inventory” in the frame of other pharmacological texts see Böck (in press) and †Köcher & Böck (in preparation).

70. Namely Köcher (1955) no. 1.

71. A number of contributions deal with the importance of the city as centre of learning already in the 13th to 11th centuries BC; see Maul (2003) 181-184; Heebel (2010) 164-167 and (2011).

72. I exclude here minor surgical interventions for which the ‘physician’ took care. Hammurabi’s law-code dedicates several paragraphs to the operations of the ‘physician’, viz. §§ 215-225; see for a translation of the text Roth (1997²) 123-124. We know that the ‘physician’ used very fine cutters, knives and scalpels, see Maul (2001) 7, and D’Agostino (2003). It has been stressed that there are no medical prescriptions covering the issue of lesser surgical interventions, see e.g. Biggs (1995) 1922. Indeed, there are few indications but at least one prescription - so far overlooked - deals with the treatment of broken bones, see Böck (2010) 100, 102.

73. For ‘physicians’ see the study of Jakob (2003) 535-537 and for ‘exorcists’ Jakob (2003) 528-529. An exhaustive study of the ‘exorcist’s’ tasks in Neo-Assyrian times based on the epistolary evidences has been produced by Jean (2006). For the healing practitioners at the Neo-Assyrian royal court see Villard (2006). The affiliation of the ‘exorcist’ with the palace and the king is, however, older and attested already in records from the end of the third millennium BC, the Dynasty of Ur III, see e.g. Sallaberger (2002) 615. See for a diachronic summary of the ‘exorcist’ Sallaberger & Huber Vulliet (2005) 632.

74. The differentiation based on the religious status was already suggested by Zucconi (2007) 29. However, her argument departs from the ‘exorcist’s’ role of reading symptoms as divinatory signs. See for a study of the connection between ‘exorcist’ and diviner also Oppenheim (1978) 645.

75. See Böck (2014).

impurity. I refer to the religious premises that lie behind the choice of medicinal plants to treat specific ailments in prescriptions.⁷⁶

It has been suggested that the figure of the ‘exorcist’ underwent an ideational process during whose course the ‘physician’ lost status as compared to the *āšipu/mašmaššu* who would finally displace him.⁷⁷ It is this aspect, the impact of the religious role, with which I am concerned.⁷⁸ The field of cognitive religion offers some theories that help understanding the mechanisms of the status of roles, viz. religious categories. Religious roles are seen as containing a special essence which can be attached by means of iconic, metonymic or identical connections.⁷⁹ As for the iconic bonds, we do not know whether the ‘exorcist’ dressed up in a special gown when treating his patients with medical prescriptions⁸⁰ or whether his body had to be in a specific condition, as it is known for the diviner whose teeth had to be in perfect condition or for the *pāšišu* priest who could only complete his initiation if its body was without blemishes.⁸¹ An interesting aspect is the issue of metonymic relations, namely when the religious category is constrained by hereditary rights. Keeping professions in one and the same family is a well-known feature in ancient Babylonia. Craftsmanship was usually maintained in families⁸²; scribes and scholars would trace back their family lines to wise and often mythical figures.⁸³ Concerning religious roles, the genealogical tree guaranteed that members of certain families would share the same essence – ideally through blood.⁸⁴ An eloquent case is the office of the *bārû* diviner; according to the text on his qualifications he receives his authority directly from the legendary ancestor of extispicy, the wise Enmeduranki.⁸⁵ There are no comparable texts known for the *āšipu/mašmaššu* likewise stating that a true ‘exorcist’ had to belong to a particular family and have specific mythical forefathers. However, also the position of the ‘exorcist’ was maintained in one family, which indicates quite a similar conception of transferring religious essence.⁸⁶ Yet the ‘exorcist’ received his authorisation through still another bond. In exorcistic rituals he claims to be the messenger of the gods of magic, Ea/Enki and his son

76. I exclude from the category ‘prescription’ magical healing ceremonies which seek to ease pains through exorcising supernatural agents or through transferring the disease (demon) to another object (*transplanatio morbi*).

77. See Oppenheim (1977²) 296; similarly Abusch (2002b) 87 and Böck (2007) 94-95.

78. Zucconi (2007) suggests that the prominence of the ‘exorcist’ is linked to his divinatory capacities in the prognosis of symptoms. She refers here to the corpus of prognostic-diagnostic texts which use the form of divinatory treatises. Grouped together into a handbook with the title *Sakikkû*, they formed part of the ‘exorcist’s’ lore. For the closeness of both ‘exorcist’ and diviner see also Worthington (2009) 65-73.

79. See Boyer (1994) 155-184.

80. Usually the figure of the ‘fish-garbed’ man – belonging to the so-called seven mythical wise ‘fish-*apkallû*’ – is said to depict an exorcist performing rituals. See for the ‘fish-*apkallû*’ the discussion of Wiggermann (1992) 76-77. There are, however, no indications that the exorcist changed his robe for healing therapies. See for the dressing with a red robe in exorcistic rituals Böck (2014: 183-184).

81. See for the edition and study of the text Lambert (1998); as for the body conditions of the *pāšišu* see article of Borger (1973).

82. Families of the same profession would usually keep their prebendary rights; see for this system in first millennium Sippar, namely in the Ebabbar temple, the treatment of Bongenaar (1997) 140-295.

83. See the contribution of Lambert (1962). Special authorisation was achieved when a scribe could trace back his family line to one of the famous sages who advised kings. A list of these Babylonian scholars dating to 165 BC was published by van Dijk (1962) 44-52; see also Klotchkoff (1982).

84. However, the essential religious quality can flow also through adoption or apprenticeship.

85. For the authorisation of the diviner see Koch (2010) 52-53.

86. A case in point is the family of *mašmaššu*’s from Ashur who over four generations shared the same office; see for a recent discussion and the genealogical tree the contribution of Maul (2010) 203-208. Another famous family is the one of Šangi-Ninurta whose member were over five generations “exorcists”, see for a discussion and remarks on the tablets attributed to the family the contributions of Frahm (2002) 78-89 and Clancier (2009) 52, 58-59, 83.

Marduk/Asaluḫi. The incantations bestowing him with special legitimation contain phrases such as “I am the man of Enki/Ea,” “the exorcist is an image of Marduk.”⁸⁷ Actually, the ‘exorcist’ takes over the role of Asaluḫi blending, thus, the sacred space with the profane; this is best seen when the “exorcist” recites the operative part of incantations of the so-called ‘Marduk-Ea-type’. In these spells the son of Ea/Enki asks his father how he should treat the patient. It is assumed that while reciting the answer of the god of magic the ‘exorcist’ accomplishes the actions Ea advises his son to carry out.⁸⁸ What I want to suggest then is that we can probably best detect the difference between the ‘exorcist’ and the ‘physician’ in stressing how they are authorised. The *āšipul/mašmaššu* seems to assume special power because of both identity and metonymical bonds with the sacred. The *asû* by contrast does not belong to the religious personnel and performs his duties without essential qualities flowing through his body.⁸⁹

Placed in a perspective of the history of ideas our argument becomes more apparent. It seems that some time around the course from the end of the second millennium to the first third of the first millennium BC a change in the religious notion of the worldview took place. This has been pointed out with respect to the transformation of witchcraft beliefs.⁹⁰ The witch who formerly was attributed with special personal abilities and knowledge turns into a disembodied demonic and malevolent power. Concomitant with this process, it is not any longer the wise woman finding remedies but the ‘exorcist’ who in his role as messenger of the gods is the only able one to counterattack evil powers. With this background in mind, I would propose that the ‘exorcist’ because of his authoritative religious position was believed to guarantee better the efficacy of medical prescriptions than the ‘physician’ who, albeit equally trained in treating the sick, was lacking the spiritual aura.

Further studies will have to deal with the social-historical perspective of this development. Perhaps it does not come as a surprise that the ‘physician’ vanishes progressively from the archives and libraries of first millennium Babylonia if we take into account that with Cyrus’ the Great invasion of Babylon in 539 BC, which initiates the era of foreign rulers in Mesopotamia outliving cuneiform culture, non-Babylonian worldviews gain foothold at the royal court. As a result, Babylonian religious life seems to move out from the palace in order to remain exclusively in the temple – kept alive by the religious elite to which ‘physicians’ did not belong.

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87. See for a recent discussion of the identification and authorisation of the ‘exorcist’ Mander (2010).

88. See for incantations featuring this divine dialogue Falkenstein (1931) 44-74 and Cunningham (1997) 167.

89. See Böck (2014) 181-195.

90. See the discussion of Abusch (2002a).

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