
A Sogdian Medical Text from Turfan



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Abstract

This article deals with a Sogdian medical text in the German Turfan collection obtained from Toyoq. The recto of the document appears to contain two prescriptions for treating irregular fever and a disease involving the urinary bladder. The names of both diseases, and several ingredients used, suggest the text is closely linked to Indian medicine, especially Āyurveda. In contrast, the verso is a translation of a passage discussing dropsy in a seventh-century Chinese medical work, the first so far identified Sogdian text translated from a Chinese classical text. Despite its short content, this Sogdian medical text offers intriguing insight into the multi-cultural background of Sogdian medicine in Turfan.

Keywords: Sogdian; medical texts; Turfan; Toyoq; Chinese medicine

In this article I will discuss the Sogdian medical text So14822 in the German Turfan collection. The original find signature T II T 35 indicates its provenance as Toyoq, Turfan, from where it was obtained by the second German Turfan Expedition in northwestern China in the early 20th Century.

This medical document is written on an almost complete (except one worn edge) sheet of paper of an oblong shape, in the Indian *pustaka* format. The size is 26 × 7.7–8.0 cm. It bears writing on both sides: 5 lines on the recto and 3 lines on the verso. The document was briefly introduced and a partial transliteration of the text was provided by Dr Christiane Reck in 2016.¹

As a secular document, it is written in cursive script. Some pairs of letters are almost identical, e.g. ' and y, n and z, which makes it difficult to read, and some words are previously unknown. With the help of the Sanskrit-Khotanese bilingual medical manuscript *Jivaka-pustaka* from Dunhuang, presumably dating from the 10th Century,² and the Indian medical

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¹Ch. Reck, *Mitteliranische Handschriften. Teil 2: Berliner Turfanfragmente buddhistischen Inhalts in soghdischer Schrift* [hereafter Reck 2016] (Stuttgart, 2016), pp. 204–205.

²The Khotanese version was edited by S. Konow, *A Medical Text in Khotanese, Ch.ii 003 of India Office Library, with Translation and Vocabulary* (Oslo, 1941). Chen Ming 陳明 has translated the Sanskrit version into Chinese: *Dunhuang chutu huyu yidian 'Qipo shu' yanjiu* 敦煌出土胡語醫典《耆婆書》研究 (A Study on Sanskrit Text of *Jivaka*

work *Siddhasāra*, compiled in the mid-7th Century by Ravigupta,³ this article identifies the two diseases on the recto. The content of the verso is the translation of a renowned Chinese classical medical work. Nonetheless, due to the unavailability of parallel or relative texts, several words on the recto remain unknown. Even so, this short Sogdian medical text provides important evidence of the medical culture of the Sogdians in the Turfan oasis.

Recto (Fig. 1)

The recto has 5 lines of writing. Lines 4–5 are in smaller writing, and the last three words are squeezed in one above another. Near the bottom right corner of the recto is a faint trace in red which Reck regarded as a Chinese sign to indicate the direction for reading the text. She gave a transliteration of lines 3 and 5 in her brief description of So14822, and listed the unknown words of the other three lines in her index (2016, pp. 204–205, 444).

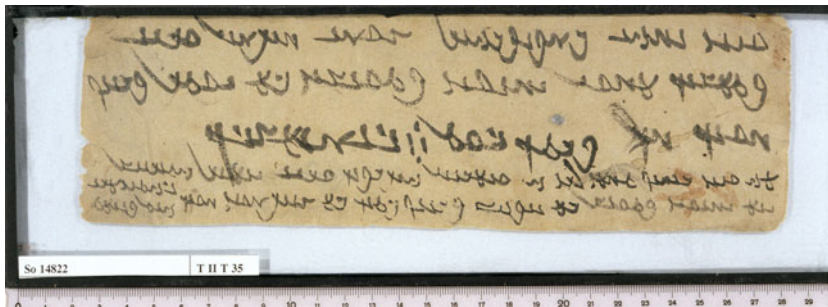


Fig. 1. Depositum der Berlin-Brandenburgischen Akademie der Wissenschaften in der Staatsbibliothek zu Berlin-Preussischer Kulturbesitz, Orientabteilung.

Text

- 1 wn'y yxs' kšp'prs'k cwš' xykšyn wrz'
- 2 ptmc'r mγwn nx'w'y ptwyc'y 'M zwtk pr'γw
- 3 xwyr xyδ prtr βwt ∴ βyš'mcβr
- 4 ms wn'y β'γγw txmy δry s w'mry'n snkrp'r wrz' nym'k styr'nc
- 5 z'm nx'w'y ptwyc 'M "pyh pr'γw kt'r 'M c'nkšw'y xwyr βstysmry s't py'mt

Translation

- 1 You should take musk, *kšp'prs'k*, cinnabar (?), *xykšyn, wrz'* (and)
- 2 *ptmc'r*, pound (them) together (and) sieve (them), and make (the patient) drink (it) with alcoholic liquor,

pustaka from Dunhuang) [hereafter '*Qipo shu' yanjiu*] (Taipei, 2005). On the brief introduction and main research on this work, see M. Maggi, "Jivakapustaka", in *Encyclopædia Iranica*, online edition: <http://www.iranicaonline.org/articles/jivakapustaka>.

³Cf. R. E. Emmerick, *The Siddhasāra of Ravigupta*. I: *The Sanskrit Text* (Wiesbaden, 1980); II: *The Tibetan Version with Facing English Translation* (Wiesbaden, 1982). Chen Ming, *Yindu fanwen yidian 'Yili Jinghua' yanjiu* 印度梵文醫典《醫理精華》研究 (A Study on the Indian Sanskrit Medical Work *Siddhasāra*) [hereafter '*Yili Jinghua' yanjiu*] (Beijing, 2002; revised edition, Beijing, 2014).

- 3 then it will be better. ∴ Irregular fever.
 4 Also, you should take 3 stateres of the seed of $\beta'γγw$, (and) $w'mry'n$, $snkrp'r$ (and) wrz' to the amount of half a stater,
 5 pound (them) finely (and) sieve (them), make (the patient) drink (it) with water or with *qingjiu*, (it) will completely cure the bladder stone.

Commentary

The recto of the document appears to contain two prescriptions: one (lines 1–3) is for treating irregular fever ($\beta\gamma s' m\epsilon\beta r$), and the other (lines 4–5) is to deal with a disease involving the urinary bladder ($\beta stysmry$). The names of diseases indicate that the text is closely related to the Indian medical tradition, specifically Āyurvedic medicine. Unfortunately, parallel texts in Sanskrit or in any other language have not been found, and several of the drugs used have not yet been identified.

Line 1. There are a few unknown words in this line. Given the context, apart from the initial verb *un'y* “you should take” (2 sg. opt.), the other words should be the names of various drugs.

$\gamma xs'$ nom.-acc. sg. of γxs - “musk”. Musk is attested as early as the 4th Century in the Sogdian Ancient Letter 2 discovered by Aurel Stein near Dunhuang in northwestern China, but we do not know whether it was used by the Sogdians as a medicine at that time. In a Sogdian rain-invoking text from Dunhuang (P 3, line 174), musk and camphor, sandalwood, safflower etc. were mixed for use in the ritual.⁴ Musk is used generally in a similar way in Āyurvedic and Chinese medicine,⁵ though the specific conditions for which it is prescribed differ greatly.⁶ At least from the time of *Shennong bencao jing* 神農本草經 (The Divine Farmer’s Canon of *Materia Medica*, c. 4th or 3rd Century BCE), the first Chinese pharmacopoeia, musk (*shexiang* 麝香) has been widely used in the Chinese medicine. *Shennong bencao jing* classifies it as the “middle class” of the animal drugs and says it can keep off malignant *Qi* (*xieqi* 邪氣) and kill demons etc.⁷ Musk is also attested in the medical texts from Turfan and Dunhuang. In a Chinese document from Turfan (IX 09170), it is used in a recipe for treating heart pain caused by the *guizhu* 鬼疰 “demon attachment-illness”.⁸ A Khotanese medical text from Dunhuang (P.2889v) shows that the Khotanese used musk to cure diseases including fever.⁹

⁴É. Benveniste, *Textes sogdiens* (Paris, 1940), p. 67; S. Azarnoché and F. Grenet, ‘Thaumaturgie sogdienne: nouvelle édition et commentaire du texte P. 3’, *Studia Iranica* 39 (2010), p. 48.

⁵Musk is also widely used in medieval Islamic medicine, cf. A. King, *Scent from the Garden of Paradise. Musk and the Medieval Islamic World* (Leiden and Boston, 2017), pp. 303–317.

⁶Musk is perhaps the most well-known animal product in Āyurveda due to its powerful aphrodisiac effect, cf. R. Svoboda and A. Lade, *Chinese Medicine and Ayurveda* (Delhi, 1998), Appendix I, p. 141. Despite this, it does not appear in *Siddhasāna* and it is suggested that it might be rarely used in Āyurvedic medicine, cf. Chen Ming, *Shufang yiyao: chutu wenshu yu xiyou yixue* 殊方異藥: 出土文書與西域醫學 (Foreign Medicine in Medieval China: Medical Manuscripts Discovered in Dunhuang and Western Regions), (Beijing, 2005), p. 34.

⁷Ma Jixing 馬繼興 (ed.), *Shennong bencao jing jizhu* 神農本草經輯注 (Collection and Annotation of *The Divine Farmer’s Canon of Materia Medica*) (Beijing, 1995), p. 149.

⁸Chen Ming, ‘Ecang dunhuang wenshu zhong de yizu tulufan yixue canjuan 俄藏敦煌文書中的一組吐魯番醫學殘卷 (A Group of Medical Fragments from Turfan in the Russian Collection of Dunhuang Documents)’, *Dunhuang yanjiu* 敦煌研究 (Dunhuang Research), 3 (2002), p. 108.

⁹H. W. Bailey, *Khotanese Texts*, III (Cambridge, 1969), p. 78; Chen, *Shufang yiyao*, p. 33.

kšp'prs'k is an unknown word (Reck 2016, p. 444), which looks like a compound: the first component *kšp'* is probably cognate with or a loanword from Sanskrit *kaśyapa* “tortoise”,¹⁰ elsewhere written *kyšph* (cf. also Tocharian B *kaccāp* “turtle, tortoise; skull”¹¹), and the second part *-prs'k* possibly corresponds to Sogdian *prs'kh* “side”.¹² Animal substances are widely used as drugs not only by the Chinese, but also by Indians, Uighurs and Tibetans, as well as the peoples of the oases in the Western Regions. In the Chinese medical documents from Dunhuang *guijia* 龜甲 and *biejia* 鳖甲 “carapace of (soft-shelled) turtle” are widely attested,¹³ and the latter also occurs as an ingredient in a Chinese recipe from Turfan.¹⁴

Reck interpreted the next word, *cuš'*, as a disease related to dryness (“Troockenheit, Brennen”), deriving it from Sanskrit *coṣa* (2016, p. 205), but this hardly fits the context. Here it should be the name of a drug, perhaps a transcription of Chinese *zhusha* 朱砂 (EMC **tcua šai/šɛ*) “cinnabar”.¹⁵ In the *Shennong bencao jing*, where it is referred to by its other name *dansha* 丹砂, cinnabar is listed in the “upper class” of mineral drugs and claimed as “the master of the hundred illnesses in the body and Five Viscera”.¹⁶

xykšyn is another unknown word in this line (Reck 2016, p. 444). The reading is uncertain, and *x'kšyn* or *xykš'n* are also possible. It seems likely to be a loanword from Chinese, probably the name of a traditional Chinese drug, and the first part *xyk* seems to transcribe Chinese *hei* 黑 (LMC **xəðək*)¹⁷ “black”.

The following *wrz'* is also unclear. Although Reck’s reading *wm'* is possible, *wrz'* seems more likely since *wrz'* [waržā] occurs as an ingredient in a Manichaean Sogdian medical text.¹⁸ Whether the form is *wrz'* or *wm'*, it is probably related to the unknown ingredient *wrz'pch* (read as *wm'pch* by Henning) in the Sogdian medical text P 19 from Dunhuang (line 6, 9).¹⁹

Line 2. The unattested *ptmc'r* looks like a compound with a first component *ptm-* from Sanskrit *padma* “lotus”.²⁰ White lotus and the filament of the lotus (Skt. *padma-kesara*) serve as ingredients for removing fever, as attested not only in the recipes in the *Siddhasāra*, but also in the remedies recorded in the Buddhist sūtras.²¹ Unfortunately, the second component *-c'r* is unclear.

¹⁰Prof. Nicholas Sims-Williams kindly pointed this out to me. For Sogdian *kyšph* see D. N. MacKenzie, *The Sūtra of the causes and effects of actions* in *Sogdian* (London, 1970), pp. 10, 20.

¹¹D. Adams, *A Dictionary of Tocharian B*. 2nd edition, revised and greatly enlarged (Amsterdam and New York, 2013), p. 144.

¹²Professor Yoshida kindly pointed this out to me. For Sogdian *prs'kh* see N. Sims-Williams and D. Durkin-Meisterernst, *Dictionary of Manichaean Sogdian and Bactrian*. Dictionary of Manichaean Texts, Vol. III/2. (Turnhout, 2012), p. 143.

¹³On their medical use see *Shennong bencao jing jizhu*, pp. 430–431, 433–434.

¹⁴Cf. Wang Xingyi 王興伊 and Duan Yishan 段逸山 (eds.), *Xinjiang chutu sheyi wenshu jijiao* 新疆出土涉醫文獻輯校 (Collection and Collation of Medical Texts excavated from Xinjiang) (Shanghai, 2016), p. 235.

¹⁵E. G. Pulleyblank, *Lexicon of Reconstructed Pronunciation in Early Middle Chinese, Late Middle Chinese, and Early Mandarin* (Vancouver, 2005), pp. 413, 273.

¹⁶*Shennong bencao jing jizhu*, pp. 148–149.

¹⁷Pulleyblank, *Lexicon of Reconstructed Pronunciation in Early Middle Chinese...*, p. 124.

¹⁸See Ch. Reck and A. Benkato, “Like a Virgin’: A Sogdian recipe for restoring virginity and the Sanskrit background of Sogdian medicine”, *Written Monuments of the Orient* 2(8), 2018, pp. 67–91.

¹⁹W. B. Henning, ‘The Sogdian Texts of Paris’, *BSOAS* 11/4 (1946), p. 713, n. 5.

²⁰Professor Yoshida suggested it might be connected with Skt. *padma-cāriṇī* “a small tree, Hibiscus Mutabilis”, cf. M. Monier-Williams, *A Sanskrit-English Dictionary* (Oxford, 1872), p. 531.

²¹Si. 5.41, 62, Emmerick, *The Siddhasāra of Ravigupta*. II, pp. 95, 99; Chen, “Yili jinghua” *yanjiu*, pp. 209–210. For the use of various types and parts of lotus in treatment to remove bodily heat, see K. G. Zysk, *Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery*. Corrected edition (Delhi, 1998), pp. 113–114.

For *nx'w'y ptwyc'y* “pound and sieve” cf. *nx'w'y ptwyc* in line 5. Here *nx'w'y* may be 2 sg. opt. for **nx'w'y'y* given the form of *ptwyc'y* (suggested by Prof. Sims-Williams), while in line 5 both verbs *nx'w'y ptwyc* are 2 sg. impv. The reason for the insertion of the first aleph of *nx'w'y* is not clear.²² This phrase corresponds to the Chinese phrase *daoshai* 搗篩 “id.” in prescriptions. Both the two individual verbs and their combination are well attested in the Sogdian medical texts, cf. *šyr nxw'y z'm ptwyc* “pound well and sieve finely” (P 19, line 9), *z'm nxw'y* “pound finely”, (P 3, lines 175, 273), Man. *j'm ptw(y)c* “sieve finely” (M746cR3).²³

zwtk “alcoholic liquor”, is related to Greek ζύτος etc. as recognised by Henning, who suggested that it denotes the Sogdian variety of “beer”²⁴ (as opposed to *mδw* “wine”, of which the earliest example appears in Ancient Letter 4, line 6),²⁵ but Sims-Williams has pointed out that there seems to be no basis for this in the Sogdian texts.²⁶ As a medical ingredient it is attested in the Sogdian fragment L47 + 48.²⁷ Sogdian *zwtk* seems to be employed as the equivalent of *jiu* 酒, a drink made of rice and fermented by yeast, which is used in Chinese medicine.²⁸

Line 3. *xwyr* (also in line 5), causative of the verb *xwr-/xurt* “to eat, drink, consume”.

As for *xyδ*, judging from the context, it is better to understand it as an adverb “then” (equivalent to Chin. *ji* 即 “id.”), as suggested to me by Prof. Yoshida, rather than a dem. pron. “that, those”. The sentence *xyδ ptr βwt* “then it will be better”, corresponding to *jiyu* 即愈 “id.” (or “then it will be cured”) in the Chinese recipes, is also attested in P 19 (line 12), indicating that it may be an idiomatic expression in the Sogdian medical texts.

βγs'mcβr was read as *β's'mcβr* reckoned as an unknown word by Reck (2016, p. 205). As the last word of this line, divided by decorative punctuation (∴) from the previous words, it should be the name of a disease. The word is certainly derived from Sanskrit *viṣama-jvara* “irregular fever”, *viṣmajvara* in Khotanese.

In modern medical parlance, fever is a symptom rather than a specific disease, but in antiquity, as medical historians point out, the fever itself was regarded as the disease.²⁹ According to the *Siddhasāra*, fever is “the king of all diseases, therefore the method of healing it is the first to be taught”.³⁰ Chapter 5 of the *Siddhasāra* is thus devoted to all sorts of fevers,

²²The verb *nxw'y* “to pound (drugs in a mortar)” was first correctly interpreted by Henning, ‘The Sogdian Texts of Paris’, p. 728.

²³A. Benkato, ‘A Manichaean Remedy for Headaches’, forthcoming. I am grateful to Dr Benkato for allowing me to cite his unpublished article.

²⁴Henning, ‘The Sogdian Texts of Paris’, pp. 719–720. The word appears twice in the Sogdian Buddhist text “*Sūtra of the causes and effects of actions*”, written *zwt'k*. MacKenzie translated it as “*beer, liquor”, cf. *The “Sūtra of the causes and effects of actions” in Sogdian*, pp. 15, 77. In this text the Sogdian translator used *zwt'k* to translate Chinese *jiu* 酒.

²⁵N. Sims-Williams, ‘The Sogdian Ancient Letter No. 4 and the personal name Manavaghichk’, *Estudios Iranios y Turanios* 3, (2017), pp. 172–173.

²⁶N. Sims-Williams, *Biblical and Other Christian Sogdian Texts from the Turfan Collection* (Turnhout, 2014), p. 102.

²⁷N. Sims-Williams, ‘The Sogdian Fragments of Leningrad’, *BSOAS* 44/2 (1981), p. 235.

²⁸Hao Wanshan 郝萬山, “Jingfang zhong de baijiu yu qingjiu 經方中的白酒與清酒” (The *baijiu* and *qingjiu* in the Canonical recipes), *Zhongyi zazhi* 中醫雜誌 (*Journal of Traditional Chinese Medicine*), 5 (1991), p. 59. According to the state-sponsored *Xinxiu bencao* 新修本草 (Newly Revised *Materia Medica*, 659) of Tang period, only rice wine (*mijiu* 米酒) can be used medicinally, cf. Shang Zhijun 尚志鈞 (ed.), *Xinxiu bencao*, 2nd edition (Hefei, 2004), p. 283.

²⁹V. Nutton, *Ancient Medicines*, 2nd edition (Routledge, 2013), p. 32.

³⁰Emmerick, *The Siddhasāra of Ravigupta*, II, p. 85.

among which irregular fevers are fivefold: (1) continuous fever, (2) double quotidian fever, (3) quotidian fever, (4) (tertian) fever that rises once after two days and (5) (quartan) fever that rises once after three days.³¹ Remedies for treating irregular fevers are given in Nos. 82, 109, 110, 111 and 115, in which common drugs or products include long pepper, honey, sugar, ghee, milk, and so on.³² In the *Jīvaka-pustaka* there are also a few recipes for irregular fevers.³³

Line 4. Beginning with the adverb *ms* “also”, this line and the next constitute a prescription for curing a kind of urinary disease.

The previously unattested word $\beta\gamma\gamma\omega$, followed by *txmy* “seed”, must be a plant with a medicinal seed.

The single letter *s* here, as Reck (2016, p. 205) pointed out, is the abbreviation of the measurement “stater”, which is a loanword from Greek $\sigma\tau\alpha\tau\acute{\eta}\rho$. In Sogdian medical prescriptions from Dunhuang and Turfan, *styr* (also *'styr*, in Manichaean script *styr*) and $\delta\rho\chi m\delta nk$ (“drachm by weight”) are used as measures for ingredients.³⁴ The last word of this line, *nym'k-styr'nc*, is the feminine form of a compound adjective **nym'k-styry*, meaning “to the amount of half a stater”.

This line contains another unknown word *w'mry'n*, which Reck reads *wymry'n* (2016, p. 444). It is perhaps a misspelling for *w'mry'n*, an ingredient attested in a Christian Sogdian pharmacological text (E38) from Turfan.³⁵ It is probably related to the Khotanese *vāmīrāṃ* in the medical text IOL Khot S.9 = Ch.00265(C2), where it is one of the ingredients used to remove red swelling and constipation of urine.³⁶ It probably corresponds to the Chinese herb *huanglian* 黃連 (other name *wanglian* 王連) “golden thread rhizome”. *Huanglian* can remove damp heat and cure abdominal pain.³⁷ The Chinese documents from Turfan show that *huanglian* and the above-mentioned musk, *zhusha* are common commodities in the local markets.³⁸

The following *snkrp'r* is another unknown word. It seems likely to be a compound, the first component of which *snk* probably transcribes Chinese *sang* 桑 (LMC **saj*) “mulberry”.

³¹Si.5.81, Emmerick, *The Siddhasāra of Ravigupta*. II, pp. 105–107.

³²*Ibid.*, pp. 117–119.

³³For example, JP No. 4, 10, 12, 16, 23, 40, 42, 79, cf. Konow, *A Medical Text in Khotanese*, pp. 17, 23, 27, 29, 35, 49, 51, 79; Chen, ‘*Qipo shu' yanjiu*’, pp. 280–284, 302–305, 308–312, 317–318, 358–360, 365–366, 429–431.

³⁴N. Sims-Williams, ‘Stater’ and ‘drachm’ in Sogdian and Bactrian weight inscriptions’, *Academia Turfanica* 吐魯番學研究院 (ed.), *Tulufan yu sichouzhilu jingji dai gaofeng luntan ji diwu jie tulufan xue guoji xueshu yantaohui lunwen ji* 吐魯番與絲綢之路經濟帶高峰論壇第五屆吐魯番學國際學術研討會論文集 (Essays on Turfan and Silk Road Economic Belt Forum: Selected Papers, the Fifth International Conference on Turfan Studies) (Shanghai, 2016), pp. 106–107.

³⁵N. Sims-Williams, *From Liturgy to Pharmacology: Christian Sogdian Texts from the Turfan Collection* (BTT XLV). (Turnhout, 2019), p. 92.

³⁶P. O. Skjærvø, *Khotanese Manuscripts from Chinese Turkestan in the British Library. A complete catalogue with Texts and Translations*, with contributions by U. Sims-Williams (London, 2002), p. 488.

³⁷*Shenmong bencao jing jizhu*, pp. 248–249; *Xinxiu bencao*, p. 104; B. Laufer, *Sino-Iranica. Chinese Contributions to the History of Civilization in Ancient Iran* (Chicago, 1919), pp. 546–547.

³⁸See the two price lists from the 2nd year of the Tianbao 天寶 era (743) for the Turfan markets, cf. Ikeda On 池田溫, *Chūgoku kodai sekichō kenkyū* 中國古代籍帳研究 (Studies in Ancient Chinese Household Registers) (Tokyo, 1979), pp. 447–462. This group of fragments have been studied by many scholars. For the medicinal items within see É. Trombert, ‘Produits médicaux, aromates et teintures à Turfan en 743’, in *Médecine, religion et société dans la Chine médiévale. Étude de manuscrits chinois de Dunhuang et de Turfan*, (ed.) C. Despeux (Paris, 2010), pp. 711–768; Eric Trombert et É. de La Vaissière, ‘Le prix des denrées sur le marché de Turfan en 743’, Jean-Pierre Drège (éd.), *Études de Dunhuang et Turfan* (Genève, 2007), pp. 1–52.

The meaning of the second part, *rp'r*, which Reck takes as a single word (2016, p. 444), is unclear. The leaves, bark, and fruit of mulberry are all used medicinally.

Line 5. For *c'nkšw'y*, Reck's reading is *c'ykšwγ* or *c'ykšwx*. Being a substance with which the drugs are taken, it should be an adjuvant such as water, wine or vinegar. It is tempting to derive it from Chinese *qingjiu* 清酒 (LMC **ts'iajɣ tsiw'*),³⁹ lit. "clear wine", which is widely attested in the prescriptions. *Qingjiu* is a kind of rice wine brewed in winter and ready to drink in summer, which functions in various ways in different remedies.⁴⁰ If so, the Sogdian form is perhaps the oblique case of a stem *c'nkšw* or *cynkšw*, which would be a plausible rendering of the Middle Chinese form (suggested by Professor Sims-Williams).

βstysmry is Reck's reading which I follow, though its last letter looks like aleph. It should be a disease involving the bladder, *βsty-* from Sanskrit *vasti* "bladder, lower abdomen", as already suggested by Reck 2016, p. 205. The second part of the compound, *smry*, may be from Sanskrit *āsmarī* or *āsmari* "calculus" (suggested by Professor Sims-Williams). If this is correct, the prescription is for bladder stone, one of the common diseases of the urinary system. Bladder problems figure prominently in ancient medical works.⁴¹

The last word of this line *py'mt* is 3 sg. pres. of the transitive verb *py'm* "to cure".

In the *Siddhasāra*, Chapter 18 is devoted to the disease of the retention of urine and a few passages explain or offer remedies for bladder stones.⁴² The *Jīvaka-pustaka* also contains several recipes for treating them. It is worth noting that when enumerating urinary diseases in the *Jīvaka-pustaka*, they are always mentioned together with fever (especially irregular fever).⁴³ In general, urinary disease, fever and other diseases often appear in the same prescription.⁴⁴ Judging from this feature, the content of the recto might have some connection with the *Jīvaka-pustaka*.

Based on the analysis above, it is unquestionable that the recto is closely linked to Indian medicine, especially Āyurveda. Despite this, we failed to find in the *Siddhasāra* or *Jīvaka-pustaka* prescriptions parallel or similar to those present in the Sogdian text. In view of the fact that some of the items used are presumably Chinese drugs, these two prescriptions are very likely the local creation of the Sogdians in Turfan. In other words, it may well be that no parallel text ever existed.

Verso (Fig. 2)

On the verso there are only three lines of writing followed by a blank space; apparently the text was left unfinished.

³⁹Pulleyblank, *Lexicon of Reconstructed Pronunciation in Early Middle Chinese...*, pp. 255, 161. Prof. Yoshida kindly pointed out to me that one might expect both syllables to begin with the same consonant, *ts* or *c*, but that *c...c...* may have developed into *c...š...* by dissimilation.

⁴⁰For *qingjiu* see Hao, 'Jingfang zhong de baijiu yu qingjiu', p. 59.

⁴¹Nutton, *Ancient Medicines*, p. 30. On the bladder stone, see K. Kiple (ed.), *The Cambridge World History of Human Disease* (Cambridge, 1993), pp. 1088–1092. K. Kiple (ed.), *The Cambridge Historical Dictionary of Disease* (Cambridge, 2003), p. 358.

⁴²Emmerick, *The Siddhasāra of Ravigupta*. II, pp. 283–287; Chen, "Yili jinghua" yanjiu, pp. 298–299.

⁴³JP No. 4, 5, 10, 12, 23, 40, 79, see Konow, *A Medical Text in Khotanese*, pp. 17, 23, 27, 29, 35, 49, 51, 79; Chen, 'Qipo shu' yanjiu, pp. 283, 287, 304–305, 311, 331, 359–360, 430.

⁴⁴Structurally unlike the disease-oriented *Siddhasāra*, the *Jīvaka-pustaka* is prescription-oriented, which means that an individual prescription is always a remedy for several sorts of diseases, cf. Chen, 'Qipo shu' yanjiu, p. 194.

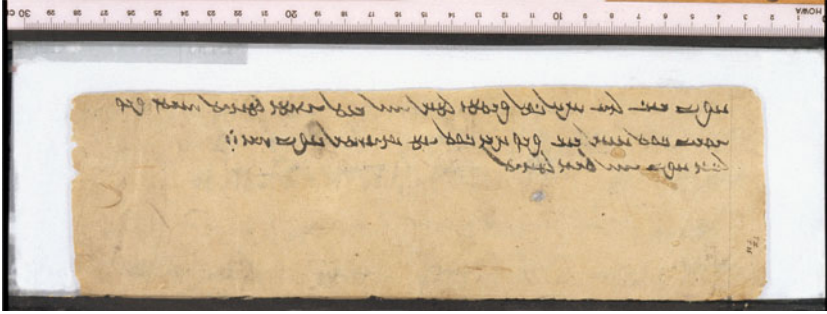


Fig. 2. Depositum der Berlin-Brandenburgischen Akademie der Wissenschaften in der Staatsbibliothek zu Berlin-Preussischer Kulturbesitz, Orientabteilung.

Text

- 1 'ph r'β δs'-znk'n βwt prtmy δm'k cnn ryt cšmy δm'st γyrtr prw
- 2 CWRH βwt 'yn'k r'β prw ykry βwt n'm 'ws'γtk 'ph xcy ∴
- 3 δβty 'ph cnn δ'rzy δm'st

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Translation

- 1 Water disease: there are ten kinds. The first swelling: it swells from the face (and) eye, afterwards, over
- 2 the (whole) body, this disease is in the liver. The name is pure water. ∴
- 3 The second (kind) of water (disease): it swells from the heart.

Commentary

Reck has pointed out that the verso deals with “water disease (‘ph r’β)”. The context implies that “water disease” actually refers to water-swelling, i.e. dropsy.⁴⁵ Chapter 10 of the *Siddhasāra* is specifically concerned with dropsy, but neither the name of the disease nor the description of its classification and origin have anything to do with the present Sogdian text.

To find out what the text is, we need to resort to the text itself. At the beginning it says that “water illnesses” are of ten kinds, but the following text only lists two kinds and then stops unexpectedly. Even so, these three lines give a good description of the signs and origin of at least one kind of dropsy, though without providing a remedy for it. In view of this, it is probably a passage from a theoretical medical work. In traditional Chinese medicine, there is indeed a famous work focusing on the symptoms and causes of diseases, i.e. *Zhubing yuanhou lun* 諸病源候論 (Treatise on the Origins and Symptoms of Various Diseases, hereafter *Bingyuan lun*) compiled in 612 CE under the supervision of Chao Yuanfang 巢元方 (605–616), the imperial physician of the Sui Dynasty (581–618). Unlike most traditional Chinese medical works focused on remedies, this is the first systematic treatise on diseases and their etiology. In Chapter

⁴⁵In some publications, “dropsy” is referred to by its synonym “edema”. Nevertheless, as medical experts have noted, the latter now has additional connotations, so the present article adopts “dropsy”, cf. Kiple (ed.), *The Cambridge World History of Human Disease*, p. 689.

21, under the heading *shuizhong bing zhuhou* 水腫病諸候 (lit. “Various Symptoms of the Disease of Dropsy”), there is a passage almost identical with the Sogdian text of So 14822, in which dropsy is variously named *shuizhong bing* 水腫病 (lit. “disease of water-swelling”), or *shuizhong* 水腫 (lit. “water swelling”), or *shuibing* 水病 (lit. “water disease”). This last is an exact equivalent to the phrase *’ph r’β* in our Sogdian text. Of the twenty-two treatises on the symptoms of dropsy, one is titled as *shi shuihou* 十水候, lit. “Symptoms of Ten Kinds of Water (Swelling)”, here the single character *shui* 水 is the abbreviation of *shuizhong* 水腫 “dropsy”. For the convenience of analysis, I quote here the relevant Chinese text of *Bingyuan lun* (the underlined part roughly corresponding to the Sogdian text):

十水者，青水、赤水、黃水、白水、黑水、懸水、風水、石水、暴水、氣水也。青水者，先從面目腫，遍一身，其根在肝。赤水者，先從心腫，其根在心。⁴⁶

The ten kinds of water (swelling) are *qingshui*, *chishui*, *huangshui*, *baishui*, *heishui*, *xuanshui*, *fengshui*, *shishui*, *baoshui* and *qishui*. The blue water (*qingshui*) swells from the face and eyes, then all over the whole body; its origin is in the liver. The red water (*chishui*) swells from the heart; its origin is in the heart.

With the help of the Chinese text, two words in the Sogdian text previously misread can be easily identified. The first is *γkry* “liver” (line 2), Christian Sogdian *γqr-*,⁴⁷ read as *’kry* by Reck 2016, p. 444. The second is *δ’rzy* “heart” (line 3), transcribed as *δ’my* in Reck 2016, p. 444, for which cf. BSogd. *δrzy*, MSogd. *δrjyy*,⁴⁸ also Sogd. *δrzyh* in the medical text P19, line 11. Apart from these two, there are no other difficult words and the meaning of the text is quite clear.

Although the Sogdian translation and the Chinese original text are fairly close, there are three obvious differences:

1. The content. It is evident that the Sogdian version is only a partial rather than a full translation of the Chinese text. The Chinese text starts with a collective term *shishui* 十水 “ten kinds of water (swelling)”, followed by an enumeration giving the name of each kind. The Sogdian text, on the other hand, mentions that dropsy has ten kinds and then goes on immediately to describe them individually, without giving the complete list of names.
2. The meaning of the vocabulary. For example, *’ws’γtk ’’ph* “pure water” in line 2 of the Sogdian text should correspond to a Chinese phrase *qingshui* 清水 “pure/clean water”. However, the Chinese text has *qingshui* 青水 “blue water”.⁴⁹ In view of the following phrases *chishui* 赤水 “red water”, *huangshui* 黃水 “yellow water”, *baishui* 白水 “white water” and *heishui* 黑水 “black water”, it is apparent that here the Chinese text uses

⁴⁶Ding Guangdi 丁光迪 (ed.), *Zhubing yuanhou lun jiaozhu* 諸病源候論校注 (Collation and Annotation of *Zhubing yuanhou lun*) (Beijing, 2013), p. 424.

⁴⁷N. Sims-Williams, *The Life of Serapion and Other Christian Sogdian Texts from the Manuscripts E25 and E26* (Turnhout, 2015), p. 101.

⁴⁸I. Gershevitch, *A Grammar of Manichean Sogdian* (Oxford, 1954), § 138, 182.

⁴⁹It is a bit difficult to translate *qing* 青 into English, since it usually means “blue” or “green” in the majority of its Chinese medical contexts and in some cases even “black”, “grey” or other colours. Therefore, some scholars suggest to use the English word “cyan” because it conveys the idea of blue and green, cf. N. Wiseman and P. Zmiewski, ‘Rectifying the Names: Suggestions for Standardizing Chinese Medical Terminology’, in *Approaches to Traditional Chinese Medical Literature. Proceedings of an International Symposium on Translation Methodologies and Terminologies*, (ed.) P. Unschuld (Dordrecht / Boston / London, 1989), p. 56. Here I choose the commonly used “blue” to translate *qing*.

the concept *wuse* 五色 “Five Colours” to refer to the first five sorts of dropsy. Despite the fact that *qing* 青 “blue”⁵⁰ and *qing* 清 “pure, clean, clear” have the same pronunciation in Late Medieval Chinese (**ts^hiaŋ*),⁵¹ their meanings are quite different. The fact that the Sogdian text employed “pure water” 清水 rather than “blue water” 青水, reveals a misunderstanding by the translator (who perhaps knew the text only in oral form as suggested by Professor Sims-Williams) or a mistake in the Chinese text he was using.

3. The order. Although the Sogdian version is only a partial translation of the Chinese text, i.e. the passage on the “blue water” and part of the “red water”, the formula is clear: when describing each type of dropsy, the text begins with an ordinal number, then the symptoms and the cause, and finally the name of the dropsy. In this respect the Sogdian text resembles the text of *Zhi shishui wan fang* 治十水丸方 (Pill Formula for Treating Ten Kinds of Dropsy) in the lost work *Fan Wang fang* 范汪方 (Remedies of Fan Wang, c. 370) which survived in the Japanese compilation of mediaeval Chinese medical texts *Ishimpō* 醫心方 (Formulas of the Heart of Medicines, 984) by Tamba no Yasuyori 丹波康賴 (912–995). Here is the Chinese text and its translation:

第一之水，先從面目腫，遍一身，名曰青水，其根在肝，大戟主之；
第二之水，先從心腫，名曰赤水，其根在心，葶藶子主之。⁵²

The first kind of water (swelling) swells from the face and eye, then all over the whole body. It is called blue water, the origin of which is in the liver, and *daji* 大戟 (*Knoxiae* or *Euphorbiae Radix*) is the cure.

The second kind of water (swelling) swells from the heart. It is called red water, the origin of which is in the heart, and *tingli zi* 葶藶子 (*lepidium seed*) is the cure.

This passage also appears in the text of *shishui wan: youfang* 十水丸：又方 “Pill for Ten Kinds of Water (swelling): Another (one)” of the lost work *Gujin lu yanfang* 古今錄驗方 (Tried and Tested Remedies from Antiquity to the Present Day) quoted by Wang Tao’s 王焘 (670–755) *Waitai miyao* 外臺秘要 (Arcane Essentials from the Imperial Library, 752).⁵³ Although the two texts are slightly different, the text in the *Gujin lu yanfang* is very likely taken from Fan Wang’s work.

As for the Sogdian text, though it is fairly close to the text from *Fan Wang fang* and *Gujin lu yanfang*, the differences are still noticeable. For example, in the Sogdian text, the name of each dropsy appears in the end, while in the two Chinese works of prescriptions the name of the dropsy is put ahead of the main organ involved. Moreover, unlike the theory-oriented *Bingyuan lun*, the two books of prescriptions are supposed to be of practical use; accordingly, at the end of each sentence the drug (e.g. *daji* or *tingli zi*) to be used against each dropsy is

⁵⁰Professor Yoshida has kindly pointed out to me that in the Sogdian *Sūtra of the causes and effects of actions*, ‘*xs’yn’k* is used to translate *qing* 青, cf. ‘*xs’yn’k syc’kk* (line 353) translating *qingque* 青雀 “green sparrow” in the Chinese text (cf. MacKenzie, *The “Sūtra of the causes and effects of actions” in Sogdian*, pp. 20–21). Strangely, in the same text, ‘*xs’yn’k* is also used to translate *huang* 黃 “yellow”, cf. ‘*xs’yn wrs’k* (line 88), the equivalent of *huangfa* 黃髮 “lit. yellow hair” (i.e. the old) in the Chinese text (*ibid.*, pp. 6–7). This seems to be a mistake.

⁵¹Pulleyblank, *Lexicon of Reconstructed Pronunciation in Early Middle Chinese*..., p. 255.

⁵²Gao Wenzhu 高文柱 (ed.), *Yixin fang* 醫心方 (Formulas of the Heart of Medicines) (Beijing, 2011) p. 227.

⁵³Gao Wenzhu 高文鑄 (ed.), *Waitai miyao fang* (Beijing, 1993), p. 375. *Gujin lu yanfang* is known to have been compiled in the Sui-Tang eras by Zhen Quan 甄權. Though the book is lost, part of its text survives in the works such as *Waitai miyao* and *Ishimpō*.

indicated. Due to this special feature, I suggest the Sogdian text is translated from *Bingyuan lun* rather than from the prescription works such as *Fan Wang fang* or *Gujin luyan fang*.

Although only three lines survive, the Sogdian text is of great importance as the first attested Sogdian document translated from the Chinese classics.⁵⁴ Prior to the identification of this text, almost all the Sogdian translations from Chinese sources known to us are Buddhist texts.⁵⁵ The Sogdian version of *Bingyuan lun* not only sheds light on the medical tradition of the Sogdians in Turfan, but also provides significant materials for studying the spread of this Chinese medical classic in the Western Regions.

As stated above, among the substantial medical works of ancient China, *Bingyuan lun* is the first systematic treatise on diseases and their etiology, and the descriptions of the origins and symptoms of diseases in many Tang and Song dynasty works containing prescriptions may be traced back to it. It not only occupies an important position in traditional Chinese medicine, but also has been transmitted to other areas in ancient Asia.

To the east, *Bingyuan lun* was introduced into Korea and Japan not long after its completion.⁵⁶ In the early 8th Century, it was introduced into Korea.⁵⁷ In the later Korean medical work *Ui'bang'ryuchui* 醫方類聚 (Classified Collection of Medical Remedies, 1477) compiled by Kim Yemong 金禮蒙 et al., *Bingyuan lun* was quoted under this name *Chaoshi bingyuan* 巢氏病源. In Japan, the earliest medical work, the aforementioned 9th Century *Ishimpō*, frequently quotes *Bingyuan lun* and many other Chinese medical works from Wei and Jin to Tang and the Five Dynasties. Statistics show that about 540 passages and 640 items of *Bingyuan lun* were cited by *Ishimpō*.⁵⁸

In the west, *Bingyuan lun* spread even as far as the Persianate world by the 14th Century. In *Tanksūqnāma-yi Īl-khān dar Funūn-i 'Ulūm-i Khatā'ī* (The Treasure Book of the Ilkhan on Chinese Science and Techniques) compiled by Rashīd al-Dīn (1247–1318), when translating another Chinese medical work *maijue* 脈訣 (Chants of the Pulse),⁵⁹ *Bingyuan lun* (abbreviated as *Bingyuan*) was quoted many times.⁶⁰ Obviously it became known in ancient Iran via the translation of *Maijue*, although it is not known whether the whole work was translated into Persian.

To the best of my knowledge, this Sogdian fragment of the *Bingyuan lun* represents the first ever translation of the text into any foreign language, a fact which is surely significant for our understanding of its transmission and impact on the society of mediaeval Turfan.

⁵⁴Recently another Sogdian fragment (Ch/U 7187 = T III 1078) referring to “ten kinds of water disease” has been identified, cf. Reck and Benkato, “Like a Virgin”, p. 85.

⁵⁵Cf. Y. Yoshida, “Buddhist Literature in Sogdian,” in R. E. Emmerick and M. Macuch (eds.), *The Literature of Pre-Islamic Iran Persian Literature* (New York, 2009), pp. 288–329; *idem*, “Sogdian literature i. Buddhist”, *Encyclopædia Iranica*, online edition, 2015: <http://www.iranicaonline.org/articles/sogdian-literature-01-buddhist>.

⁵⁶Ma Boying 馬伯英 et al., *Zhongwai yixue wenhua jiaoliu shi* 中外醫學文化交流史 (History of Medical Culture and Exchange between China and Abroad), (Shanghai, 1993), p. 24.

⁵⁷Li Jingwei 李經緯 et al. (eds.), *Zhongwai yixue jiaoliu shi* 中外醫學交流史 (History of Medical Interchange between China and Abroad) (Changsha, 1998), p. 72.

⁵⁸Gao (ed.), *Yixin fang*, p. 659.

⁵⁹*Maijue* is a composite work dating from the Song or Yuan eras, cf. T. Allsen, *Culture and Conquest in Mongol Eurasia* (Cambridge, 2000), p. 145; V. Lo and Wang Yidan, ‘Chasing the Vermilion Bird: Late-Medieval Alchemical Transformations in *The Treasure Book of Ilkhan on Chinese Science and Techniques*’, in *Imagining Chinese Medicine*, (ed.) V. Lo and P. Barrett (Leiden and Boston, 2018), p. 293.

⁶⁰Shi Guang 時光, *Yili han zhongguo keji zhenbao shu jiaozhu* 《伊利汗中國科技珍寶書》校注 (Collation and Annotation of *Tanksūqnāma-yi Īl-khān dar Funūn-i 'Ulūm-i Khatā'ī*), (Beijing, 2016), p. 38.

It has been noted that the Chinese medical manuscripts discovered in Turfan include very few medical classics, such as *Zhenjiu jiyi jing* 針灸甲乙經 (AB Canon of Acupuncture and Moxibustion) by Huangfu Mi 皇甫謐 (215–282), *Liu Juanzi guiwei fang* 劉涓子鬼遺方 (Liu Juanzi's Remedies Bequeathed by Ghosts, dating from the Jin 265–420), *Bencao jing jizhu* 本草經集注 (Notes to the Canon of *materia medica*) by Tao Hongjing 陶弘景 (456–463).⁶¹ Unfortunately, no fragments of *Bingyuan lun* have been found yet. There is no trace of it even in Dunhuang, where many more Chinese medical texts are preserved.⁶² Nevertheless, the Sogdian translation demonstrates that this Chinese medical classic was introduced into Turfan and even extended its influence amongst non-Chinese people.

It is worth noting that the Sogdian text even provide valuable evidence to look into the early version of *Bingyuan lun*. For example, when describing the “red water”, the Chinese text of *Bingyuan lun* states that “it swells from the heart, and its origin is in the heart”. Probably because “heart” appears twice, some scholars suspect the first character *xin* 心 “heart” might be an error for *xiong* 胸 “breast, chest”.⁶³ However, the Sogdian text definitely has “heart” rather than “breast”, indicating that the character *xin* 心 in the text of *Bingyuan lun* should be correct.

Now that we have clarified the text, two important questions remain to be considered: why did the Sogdians translate a theoretical Chinese medical text on dropsy? and what is the relationship between the two sides?

Let us look at dropsy first. Historical sources and modern researches show that not only in mediaeval but even in modern times untreated dropsy is always fatal.⁶⁴ In Dunhuang and the Western Regions this is supported by the prevalence of certain Buddhist apocryphal sūtras in the Tang and Five Dynasties. The existence of numerous copies of these sūtras reveals the great panic caused by several prevalent deadly diseases in northwest China at the time of their copying.⁶⁵ For example, among the ten fatal diseases mentioned in the numerous copies of *Xin Pusa jing* 新菩薩經 (New Bodhisattva sūtra) and *Jiu zhu zhongsheng kuman jing* 救諸眾生苦難經 (*Sūtra of Salvation of All Living Beings in Adversity*),⁶⁶ the fourth is *zhongbing* 腫病, lit. “swelling disease”, which is thought to refer to dropsy.⁶⁷ Hence one can see that to contemporary eyes dropsy was probably a very common nasty disease,⁶⁸ which may be

⁶¹On the latest editing of the Chinese medical texts from Turfan, see Wang and Duan (eds.), *Xinjiang chutu sheyi wenshu jijiao*; Shen Shunong 沈澍農 (ed.), *Dunhuang Tulufan yiyao wenxian xin jijiao* 敦煌吐魯番醫藥文獻新輯校 (New Collection and Collation of Medical Texts from Turfan, Xinjiang) (Beijing, 2016).

⁶²Wang Shumin, “A general survey of medical works contained in the Dunhuang medical manuscripts”, (translated by V. Lo), in *Medieval Chinese Medicine. The Dunhuang Medical Manuscripts*, (ed.) V. Lo and Ch. Cullen (London and New York, 2005), pp. 45–58.

⁶³For example, in the collation notes to this passage, the text of *Zhong cangjing* 中藏經 (Canon Kept in the Palace Repository) is quoted to suggest it is *xiong*, cf. Ding (ed.), *Zhubing yuanhou lun jiaozhu*, p. 425. *Zhong cangjing* is attributed to the renowned physician Hua Tuo 華佗 (?–208?), but it is generally accepted that the author is an anonymous compiler. On this passage about dropsy, see *Zhong cangjing*, (ed.) Gao Wenzhu (Beijing, 1995), pp. 69–70.

⁶⁴Kiple (ed.), *The Cambridge World History of Human Disease*, p. 689.

⁶⁵Yu Gengzhe 于廣哲, *Tangdai jibing yiliao shi chutan* 唐代疾病、醫療史初探 (Disease and Healing in T'ang China) (Beijing, 2011), pp. 11–20.

⁶⁶Lo and Cullen (eds.), *Medieval Chinese Medicine*, p. 430.

⁶⁷Yu, *Tangdai jibing yiliao shi chutan*, pp. 15–16.

⁶⁸The survival of at least two Sogdian texts concerning dropsy and the occurrence of some common drugs against dropsy (e.g. the above-mentioned *daji* and *tingli zi*) in the Chinese medical texts from Dunhuang and Turfan seem to be in strong support of this.

confirmed by its appearance in an Early New Persian pharmacological text (M 7340 = T II Toyoq) from Turfan.⁶⁹ Interestingly enough, in the same text fever(s) is also mentioned.

Like fever, dropsy was also viewed as a disease in ancient times, even though in modern medical terms it is only a symptom and one of the indications of a specific disease. Among the most common and hazardous diseases causing dropsy are those of the kidneys and bladder: nephritis, uremia, etc.⁷⁰ Interestingly, of the ten kinds of dropsy above mentioned, one is called *shishi* 石水 “stone water”, the origin of which, as *Bingyuan lun* explains, is in the bladder. This connection may be the reason why the Sogdian text on dropsy appears here together with the two prescriptions for bladder disease and fever.

Conclusion

In this article, I have studied the Sogdian medical document So 14822 from Turfan. Compared to the Chinese and non-Chinese (e.g. Uighur, Khotanese) medical documents from Turfan and Dunhuang, those in Sogdian are scarce,⁷¹ making it difficult for us to explore the Sogdian medical culture in northwestern China. Nevertheless, the few documents which do survive give us a glimpse into the medical tradition of the Sogdians in Turfan and the neighbouring area. On the whole, it is quite evident that the Sogdian medical culture in northwestern China was greatly influenced by the Indian, Chinese and other medical traditions prevalent in the area.

In the first place, Sogdian medicine was deeply indebted to Indian Āyurvedic medicine and Buddhist monastic medicine. Medical texts from Dunhuang and the Western Regions show that the *Siddhasāra* and other Indian medical works not only exerted profound influence on Khotanese, Kuchean, Uighur and Tibetan medicine, but also had considerable impact on Sogdian medicine.⁷² As discussed above, the name of two diseases in So 14822 are of Indian origin. Many drugs used in the recipes also bear Indian names, e.g. Sogd. *ārīre* < Skt. *harītakī* “chebulic myrobalan” and Sogd. [*trphāl*] < Skt. *triphalā* (*phalatraya*) “three myrobalans” in the Sanskrit-Sogdian bilingual Mz 639 (lines v3, v4),⁷³ Sogd. *βtskypyc* < Skt. *vatsakabīja* “kuṭaja seed, seed of kurchi plant”, Sogd. *tr'ywr* < Skt. *trivṛt* or *trivṛtā* “turpeth root”, Sogd. *'kwšty* < Skt. *kuṣṭha* “costus” in P 19 (line 8, 14, 20). Interestingly, even in a Manichaean Sogdian medical text (M 568 + M 746c), in a recipe for treating migraine, Indian medicines such as MSogd. *trypl* < Skt. *triphalā*, MSogd. *kwδrβ* < Skt. *kodrava* “kodo millet” were used.⁷⁴ Additionally, the characteristically Buddhist *pustaka* format

⁶⁹N. Sims-Williams, ‘Early New Persian in Syriac script: Two texts from Turfan’, *BSOAS* 74/3 (2011), p. 366.

⁷⁰Yu, *Tangdai jibing yiliao shi chutan*, pp. 15–16.

⁷¹The so far known Sogdian medical texts from Dunhuang and Turfan are twenty in number, according to the list made by Reck and Benkato, “Like a Virgin”, pp. 83–86.

⁷²Cf. D. Maue, *Alttürkische Handschriften, Teil 1: Dokumente in Brāhmī und tibetischer Schrift* (Stuttgart, 1996); P. Zieme, ‘Notes on Uighur Medicine, Especially on the Uighur *Siddhasāra* Tradition’, *Asian Medicine* 3 (2007), pp. 308–322; Chen, *Shufang yiyao*, pp. 19–43.

⁷³D. Maue and N. Sims-Williams, ‘Eine Sanskrit-Sogdische Bilingue in Brāhmī’, *BSOAS* 54/3 (1991), pp. 486–495.

⁷⁴Benkato, ‘A Manichaean Remedy for Headaches’. On Sanskrit *kodrava* cf. Emmerick, *The Siddhasāra of Ravigupta*, I, p. 193. Another example is worth mentioning too. In the above mentioned New Persian medical text there is an ingredient *tryuśn* (B8*), which can be identified as Skt. *try-uśana-* (= *vyośa*) “three hot substances”, i.e. a mixture of black pepper, long pepper and dry ginger (cf. Emmerick, *The Siddhasāra of Ravigupta* I, p. 179). As Professor Sims-Williams has pointed out, many of the ingredients attested in this New Persian text are the same as those in the

adopted by some Sogdian medical manuscripts exhibits a close connection with the Indian culture.⁷⁵

Secondly, traditional Chinese medicine also made contributions to the medical knowledge and theory of those Sogdians in northwest China. In the case of So 14822, the verso is translated from a Chinese medical classic, and several drugs on the recto are very probably Chinese. Against such a background, it is not surprising that some Chinese names of diseases are also introduced into Sogdian medicine.⁷⁶ Additionally, the measurement *sheng* 升 (*šnk*) used in some Sogdian medical documents (e.g. L47 + 48, P 19) is clearly borrowed from Chinese.

Even though we do not know to what extent Chinese medical culture impacted on Sogdian medicine, or whether the Sogdians in Turfan translated other Chinese medical texts into Sogdian, they undoubtedly tried to embrace Chinese medical theory and knowledge to enrich their own medical tradition.

Finally, the potential influence of Tocharian is also worth mentioning. For example, some Sogdian medical terms were borrowed from Sanskrit via Tocharian, e.g. Sogd. *āncām* < Toch. B *āncām* < Skt. *añjana* “collyrium” (Mz 639, v4),⁷⁷ Sogd. *syni*’p < Toch. B *sintāp* < BHSkt. *saindhava*- “rock salt” (P 19, line 8).⁷⁸

In addition to the Sogdian and Chinese medical documents from Turfan above mentioned, Turfan has also preserved medical texts used by the Christian community at Bulayiq whose main body were Sogdians.⁷⁹ As Professor Sims-Williams has pointed out, these texts belong rather to a western tradition which combines the learning of Greek doctors with more popular, semi-magical elements.⁸⁰ Amongst these texts, the most significant one is the New Persian medical text in Syriac script since it displays a considerable linguistic and

Syriac “Book of Medicines” (cf. ‘Early New Persian in Syriac script: Two texts from Turfan’, p. 363). Even though black pepper, long pepper and dry ginger are widely attested in the “Book of Medicines”, the expression “three hot substances” is not found. The use of this collective term is clearly due to Indian influence. Chen Ming has noted that, when listing the ingredients of a recipe the Sanskrit text usually followed the Āyurvedic tradition to use the collective term such as “three fruits” and “three pungent spices”, while the Khotanese text prefers to enumerate each of them (cf. Chen, ‘*Qipo shu*’ *yanjiu*, p. 32).

⁷⁵Several other Sogdian medical documents from Turfan are in *pustaka* format too, e.g. So10006 and So 20167 – So 20171 from Toyoq, So 10339 (T I α) from Qočo (Gaochang), cf. Reck 2016, pp. 20–21; Reck and Benkato, “Like a Virgin”, pp. 84–85. On So 10339 see Ch. Reck, ‘Nichtbuddhistische mittelliranische Pustakblätter’, *Vom Aramäischen zum Alttürkischen*, (ed.) J. P. Laut und K. Röhrborn (Berlin, 2014), pp. 170–172 (I thank Professor Yoshida for drawing my attention to this article); Benkato, ‘A Manichaean Remedy for Headaches’.

⁷⁶Recently, Professor Yoshida (*apud* Reck and Benkato, “Like a Virgin”, p. 73) has identified a word *lym* in a Sogdian gynaecological manuscript (So 10100k + So 18249 + So 18250 + So 18251) as Chinese *lin* 淋 (EMC **lim*), which he translates as “venereal disease, gonorrhoea”. However, both *lin* 淋 and its more common synonym *lin* 淋 mean “urinary difficulty” rather than “venereal disease”. Several chapters in the *Bingyuan lun* deal with *lin* 淋, Chapter 38 being specifically concerned with women (cf. *Zhubing yuanhou lun jiaozhu*, pp. 768–769).

⁷⁷Maue and Sims-Williams, ‘Eine Sanskrit-Sogdische Bilingue in Brāhmī’, p. 493; Adams, *A Dictionary of Tocharian B*, p. 8.

⁷⁸Also *snt*’p (So 20211, line 9), I am grateful to Professor Yoshida for reminding me of this. For Toch B. *sintāp* see Adams, *A Dictionary of Tocharian B*, p. 757.

⁷⁹N. Sims-Williams, ‘Sogdian and Turkish Christians in the Turfan and Tun-huang manuscripts’, in *Turfan and Tun-huang: The Texts*, (ed.) A. Cadonna (Florence, 1992), pp. 43–61.

⁸⁰N. Sims-Williams, ‘Medical Texts from Turfan in Syriac and New Persian’, in *Yuyan beihou de lishi – xiyu gudian yuyanxue gaofeng luntan lunwen ji* 語言背後的歷史——西域古典語言學高峰論壇論文集 (The History behind the Languages. Essays of Turfan Forum on Old Languages of the Silk Road), (ed.) Academia Turfanica, (Shanghai, 2012), pp. 13–19. On the Syriac medical fragment see M. Maróth, ‘Ein Fragment eines syrischen pharmazeutischen Rezeptbuches aus Turfan’, *Altorientalische Forschungen* 11 (1984), pp. 115–125.

cultural variety (e.g. influences from Syriac and Sogdian,⁸¹ or even Indian). It is worth noting that this text is also from Toyoq, the exact location where the present Sogdian medical text was discovered. Both texts give us vivid examples of cross-cultural interaction taking place in Toyoq.

There is ample evidence that mediaeval Turfan was a multi-ethnic society, providing a vibrant environment for cultural and religious exchange. In the case of the medical cultures discussed here, it is very likely that Toyoq used to be an important centre where people from different medical backgrounds communicated with each other. This might explain why a Sogdian medical document from Toyoq displays close connections with both Indian and Chinese medicine.

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⁸¹Sims-Williams, 'Early New Persian in Syriac script: Two texts from Turfan', pp. 362–363.