

Ibn al-Tilmīdh's Book on Simple Drugs
A Christian Physician from Baghdad on the Arabic, Greek,
Syriac, and Persian Nomenclature of Plants and Minerals

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Amīn al-Dawla Hibatallāh ibn Ṣāʿid Ibn al-Tilmīdh was born in Baghdad around the year 1073 CE into a family of Christian physicians. After years of travel in Persia, he returned to his home town, where he served several Abbasid caliphs as their personal physician. These entrusted him with high-ranking positions, namely that of ‘head of physicians’ and of director of the renowned ‘Aḍudi hospital. Ibn al-Tilmīdh was also a prominent member – according to his Muslim biographers a ‘priest and head’ – of the Nestorian community of Baghdad, where he died in AH 560/1165 CE aged over ninety.¹

Ibn al-Tilmīdh wrote about twenty books² and treatises, including collections of his own Arabic poems and letters. Most of his medical works were commentaries and abridgements of Greek and Arabic classics – for example, Galen’s commentaries on Hippocrates’ *Aphorisms* and his *Prognostic*. One of his abridgments hitherto deemed to be lost – that of Miskawayh’s book on beverages – could recently be identified in a manuscript kept in Ankara.³ His most renowned writings are his

¹ For a concise account of Ibn al-Tilmīdh’s life and work, see Kahl (2007: 7–19). The most important original sources are Ibn Abī Uṣaybi‘ah, ‘*Uyūn al-anbāʾ fi ṭabaqāt al-aṭibbāʾ*’ (*Sources of Information on the Classes of Physicians*), ed. Savage-Smith, Swain, and van Gelder (2020, online version), chapter 10, biography 64 = ed. Müller (1882) I.259–76; Yāqūt, *Muʿjam al-udabāʾ*’ (*Dictionary of Learned Men*), ed. Rifāʾī (1936) XIX.276–82; and Ibn Khallikān, *Wafayāt al-aʿyān* (*Obituaries of Famous Persons*), ed. ʿAbbās (1968) VI.69–77; cf. Kahl (2007: 7, n. 17).

² See the two lists of works given in Ibn Abī Uṣaybi‘ah, ‘*Uyūn al-anbāʾ fi ṭabaqāt al-aṭibbāʾ*’ (*Sources of information on the classes of physicians*), 10.64.20, ed. Savage-Smith et al. (2020, online version) = ed. Müller (1882) I.276 and Yāqūt, *Muʿjam al-udabāʾ*’ (*Dictionary of learned men*), ed. Rifāʾī (1936) XIX.278–9; cf. Kahl (2007: 13); Iskandar (1977); Iskandar (1981); Kahl (2010); Ibn al-Tilmīdh, *Maqālah fi al-faṣḍ* (*Treatise on phlebotomy*), ed. Hammāmī (1997).

³ Ankara, Library of the Arts Faculty, MS Saib 2057, ff. 1–9 (cf. Örs, Tuzcu, and Hekimoğlu (2006–8)). Fuat Sezgin (1970: 336), who examined this fragmentary, horribly misbound, and often damaged manuscript in the 1970s, was not able to identify the author of these *Ikhtiyārāt min kitāb Miskawayh fi al-ashribah* (*Excerpts from Miskawayh’s Book on Beverages*). In fact, on f. 9r there is a colophon,

Aqrābādihīn (*Dispensatory*), which consists of twenty chapters, and a concise treatise on phlebotomy.

Ibn al-Tilmīdh's main work on simple drugs is little known and has not yet been edited. The *Kitāb quwā l-adwiyah* (*Book on the Faculties of Simple Drugs*) or *al-Maqālah al-Amīniyyah fī al-adwiyah al-bīmāristāniyyah* (*Amīn [al-Dawlah's] Treatise on the Drugs of the Hospital*) is preserved in two manuscripts, both kept in London (British Library Or. 8294 and Wellcome Library, WMS Or. 9). Because of their divergent titles, most modern authors erroneously assumed that the manuscripts represent two different books. The text consists of 287 alphabetically arranged entries on medicinal plants, minerals, and a few animal products. The drugs mentioned are all well known, many from antiquity on. While some Arabic authors dealing with this topic tried to collect information on as many drugs as possible,⁴ Ibn al-Tilmīdh confined himself to those practically used in Baghdad in his time. This fact allows some conclusions, especially on drugs imported from abroad – for example, from India. Each entry of the book is divided into five sections, dedicated to synonyms, descriptions, 'faculties', benefits of the simple drug, and its use in compound remedies at the 'Aḡudī hospital.'⁵

The most interesting of these sections is the first, since Ibn al-Tilmīdh mentioned there not only the usual Arabic names of plants and minerals and their synonyms. Instead, he regularly listed the drugs' Syriac (written

according to which the sign *li* for comments found throughout the text refers to the 'author of the *Ikhtiyārāt* (*Excerpts*), namely Amīn al-Dawlah known as Ibn al-Tilmīdh al-Baghdādī'. Since the preceding lines are dedicated to varieties of *nabidh*, the colophon certainly belongs to the excerpts from the book on beverages. A few pages earlier, there is a misbound colophon indicating the end of Ibn al-Tilmīdh's excerpts from al-Rāzī's *Ḥāwī* (*Comprehensive Book*). This abridgment was also listed by Ibn Abī Uṣaybi'ah, '*Uyūn al-anbā' fī ṭabaqāt al-aṭibbā'* (*Sources of Information on the Classes of Physicians*), 10.64.20 (ed. Savage-Smith et al. (2020, online version), no. 5 = ed. Müller (1882) I.276: *Ikhtiyār kitāb Miskawayh fī al-ashribah* (*Selections from Miskawayh's Book of Beverages*)); and Yāqūt (ed. Rifā'ī (1936) XIX.278: *Mukhtaṣar kitāb al-ashribah li-Miskawayh* (*Abridgment of Miskawayh's Book of Beverages*)).

⁴ Ibn al-Bayṭār, *al-Jāmi' li-mufradāt al-adwiyah wa-l-aghḏhiyah* (*Collector of Simple Drugs and Foodstuffs*), written one century later, has more than 2,300 entries. He incorporated, for example, all drugs mentioned by Dioscorides into his own work. Needless to say, all too many of these were unknown to the Arabs of his time. Copying these pieces of information certainly had no value for the practitioners. By contrast, Ibn Jazlah's *Minhāj al-bayān* (*The Clear Method*) and Ibn Sīnā's *Qānūn fī al-ṭibb* (*Canon of Medicine*), which were important sources of Ibn al-Tilmīdh's simple drugs, also focus on the drugs' practical use and availability.

⁵ The most renowned hospital (*bimāristān*) of Baghdad was founded in 372/982 by the Buwayhid ruler 'Aḡud al-Dawla (Dunlop (1960: I.1224–5)). It flourished until the Mongol conquest in 1258. Ibn al-Tilmīdh's works are closely related to this hospital. His dispensatory replaced that by Sābūr ibn Saḥl formerly used there and his book on simple drugs is, in some respects, a supplement to the former. This relation to the 'Aḡudī also explains the relatively small number of manuscripts circulating outside of it.

in Syriac characters in one manuscript), Persian, and Greek names. Because of his Christian education and his long sojourn in Iran, he certainly mastered Syriac and Persian. One of his biographers even mentions his knowledge of Greek, which seems unlikely for Baghdad in the twelfth century. He rather may have found these synonyms in Syriac lexica or the Arabic versions of Greek medical books, especially the translations of Dioscorides' *De materia medica*.⁶ These synonyms have indeed practical value, since Ibn al-Tilmīdh's fellow Christian physicians were still able to check Syriac books on pharmacognosy. The original Greek names also appear in the oriental translations and the Persian terms were, apparently, important for merchants active in Iran and India trade.

This chapter aims to contribute to the study of the exchange of pharmacological knowledge between various medieval traditions with a focus on the names of plants and minerals. On another level, it makes several observations on how earlier knowledge on drugs was received and adopted in the multilingual milieu of twelfth-century Baghdad.

1.1 Manuscripts of the *Kitāb quwā l-adwiyah*

Ibn al-Tilmīdh's book on simple drugs is, to our knowledge, preserved in two copies only. Since the manuscripts bear different titles, several authors assumed that they represent different works by Ibn al-Tilmīdh, which is not the case.⁷ Manuscript A is entitled *Kitāb quwā l-adwiyah al-mufradah allatī yakthuru isti 'malūhā fī tarkībāt al-bīmāristān* (*Book on the Faculties of Simple Drugs That Are Often Used in Compound Remedies of the Hospital*, f. 1r). The problematic colophon of MS B reads *al-Maqālah al-Amīniyyah fī al-adwiyah al-māristāniyyah*, which is also confirmed by Ibn al-Tilmīdh's biographers.⁸ It is, despite this, not certain that the latter was indeed the original title, since Arabic authors do not normally mention themselves in

⁶ On annotations related to *materia medica* in Greek and Arabic manuscripts of Dioscorides, see Mavroudi (Chapter 4) in this volume.

⁷ Ullmann (1970: 306); Kahl (2007: 13); but Käs (2010: I.119–23). The author of this chapter was able to prove that both manuscripts represent the same text in his unpublished master's thesis 'Untersuchungen zum *Kitāb Quwā l-adwīya* des Ibn al-Tilmīd', written in 2001 under the auspices of the late Munich professor Rainer Degen (1941–2010).

⁸ Ibn Abī Uṣaybi'ah, '*Uyūn al-anbā' fī ṭabaqāt al-aṭibbā'* (*Sources of Information on the Classes of Physicians*), 10.64.20, ed. Savage-Smith et al. (2020, online version), no. 3 = ed. Müller (1882) I.276; Yāqūt, *Mu'jam al-udabā'* (*Dictionary of Learned Men*), ed. Rifā'ī (1936) XIX.278–9. Both list the title *al-Maqālah al-Amīniyyah fī al-adwiyah al-bīmāristāniyyah*. The translation by Savage-Smith et al. – 'A treatise for Amin on drugs for hospitals' – is incorrect since it is a 'treatise by Amin on drugs used in (sc. the 'Aḍudī) hospital'.

their headings. For practical reasons, I shall use in what follows the shortened title *Quwā*.

Manuscript (MS) A: London, British Library, Or. 8294⁹ (226 folia, 13 lines, text: 16.5 × 14.5 cm, elegant, almost fully vocalised *naskhī*).¹⁰ The manuscript contains the full text of the *Quwā* only. According to the colophon on f. 224r it was completed in Baghdad in *Shawwāl* 654/1256 by a certain Christian doctor, named Ya‘īsh ibn Jadā’ al-Naṣrānī *al-mutaṭabbib* al-Irbilī. On the margin of the colophon there is a note, according to which the text was compared with the autograph of the author (*nuskhat mu‘allifihī* [the second word is barely legible]) in *Rajab* 655/1257. It is likely that this Ya‘īsh was also the scribe of a famous illuminated manuscript of al-Ghāfiqī’s *Kitāb al-adwiyah al-mufradah* (*Book on Simple Drugs*) copied a few months earlier.¹¹

Manuscript (MS) B: London, The Library at Wellcome Collection, Or. 9, ff. 149v–234r. (234 folia, 17 lines, size: 23 × 17 cm, text: 19 × 11 cm, *naskhī*). This collective volume also contains Abū Bakr al-Rāzī’s *al-Aqrābādhin al-ṣaghīr* (*Small Dispensatory*; ff. 4r–26r), the treatise *Man lam yaḥḍurhū al-ṭabīb* (*Who Has No Physician to Attend Him*) by the same (ff. 27v–68v), Ibn al-Tilmīdh’s *Maqālāh fī al-faṣḍ* (*Treatise on Phlebotomy*; ff. 70r–78r), and his *Aqrābādhin* (*Dispensatory*, ff. 79r–148r).¹² Because of their bad state, several folia were replaced in 1228/1871 by modern copies by a certain physician of Damascus, named Tūmā Buṭrūs Jibāra. On f. 234r he copied the old colophon, according to which the volume was written in 597/1200 by Ibrāhīm ibn Naṣr ibn Ibrāhīm ibn Muḥammad ibn al-Ḥasan ibn Ibrāhīm ibn Munīr al-Kindī.¹³ In our case, the folia 169, 170, 211, 220, and 229–34 are modern substitutes. Tūmā was in fact not able to reconstruct the whole of the text of the *Quwā*. After f. 170 the end of the letter

⁹ www.qdl.qa/en/archive/81055/vdc_100048368830.0x000001 (accessed 1 January 2019).

¹⁰ Hamarneh (1975: 139, no. 158); Edwards (1922: 139, no. 19). ¹¹ Cf. Käs (2016: 261, n. 8).

¹² Iskandar (1967: 79, 224–5, 130, 78); cf. Kahl (2007: 20). The untitled last folia of this section do not obviously belong to the *Aqrābādhin*. On f. 148r the main copyist wrote *tammāt Ikhtiyārātu . . . Amīni l-Dawlati . . . bni l-Tilmīdhi* and on f. 146r the copyist of the modern pages stated *tamma mā khtārahū . . . Amīnu l-Dawlati . . . l-ma‘rūfu bi-bni l-Tilmīdhi min Kitābi J. [alīnīsa]*. Ibn al-Tilmīdh wrote several treatises entitled *Ikhtiyār* or *Mukhtār* (Ibn Abī Uṣaybi‘ah, ‘*Uyūn al-ambā‘ fī ṭabaqāt al-aṭibbā‘* (*Sources of Information on the Classes of Physicians*), 10.64.20, ed. Savage-Smith et al. (2020, online version) = ed. Müller (1882) I.276). Since most of these pages are concerned with substitute drugs, they might represent fragments of the *Mukhtār min Kitāb abdāl al-adwiyah li-Jālinūs* (*Selections from the Book on Substitute Drugs by Galen*), also listed by Ibn Abī Uṣaybi‘ah. In a similar manner, another manuscript of the *Aqrābādhin* (MS London, British Library, Or. 8293, ff. 164r–165v) contains a fragment entitled *Mukhtār min abdāl Jālinūs* (*Selections from Galen’s Substitute Drugs*). Other fragmentary statements on the use of drugs in MS B (cf. f. 143r *qāla Shaykhunā . . . l-ma‘rūfu bi-bni l-Tilmīdhi*) cannot, however, originate from that treatise.

¹³ Iskandar (1967: 78).

bā' and the beginning of the letter *tā'* and after f. 288 most of the letters *lām*, *mīm*, and *nūn* are missing. The text bears no title and the original table of contents is lost. The replaced colophon of f. 234r reads *tammāt al-Maqālah al-Amīniyyah fī al-adwiyah al-māristāniyyah*.

1.2 Contents

Each of the 287 entries of the *Quwā* is divided into five sections. The first three are arranged in parallel columns in both manuscripts. The first section, which includes the lemma written in larger characters, is dedicated to the Arabic and foreign-language names of the drug. The middle column deals with the description of the drug and its varieties. Occasionally, the choice quality is indicated. The left column is dedicated to the 'quality' (hot, cold, moist, dry) and the 'degree' (I–IV) of the drug according to the humoral theory. The second and third sections were apparently influenced by Ibn Sīnā's (d. 1037) *Qānūn fī al-ṭibb* (*Canon of Medicine*),¹⁴ where similar and also schematised accounts of the description (*al-māhiyyah*), the humorist quality and degree (*al-ṭab'*), and the choice quality (*al-ikhṭiyār*) were given at the beginning of each entry. The fourth section is dedicated to the therapeutic uses of the simple drug. The length of these accounts varies from a few lines up to one or two pages. Unlike Ibn Sīnā, who followed a strict scheme of possible uses,¹⁵ Ibn al-Tilmīdh arranged this material rather arbitrarily.

The fifth section has a unique character, since no other Arabic book on pharmacognosy contains similar detailed lists of the pharmaceutical use of simple drugs. At the end of each entry, Ibn al-Tilmīdh lists the 'compound remedies of the hospital' (*al-murakkabāt al-bimāristāniyyah*), in which the respective drug is used as an ingredient. This *bimāristān* is, of course, the famous 'Aḍudī hospital of Baghdad, where Ibn al-Tilmīdh served for many years as head physician (*sā'ūr*).¹⁶ One can certainly interpret these mentions of *al-murakkabāt al-bimāristāniyyah* as cross-references to a written formulary. It is, however, not clear which book he meant here. Until it was

¹⁴ Ibn Sīnā, *Qānūn fī al-ṭibb* (*Canon of Medicine*), ed. (1877) I.243–470.

¹⁵ Ibn Sīnā, *Qānūn fī al-ṭibb* (*Canon of Medicine*), ed. (1877) I.239–42.

¹⁶ See Kahl (2007: 8–9). Our author meant here certainly not hospitals in general. Of the few mentions of the word *bimāristān* in his *Aqrābādhin* (*Dispensatory*), ed. Kahl (2007) 30, no. 66) only two (ed. Kahl (2007) 54, 59, nos. 21, 34) are concerned with hospitals in general. In most cases, the adjective *bimāristānī* is part of the name of the remedy (ed. Kahl (2007) 58, 62, 67, 73, 89, 118, 132, 143, nos. 33, 230, 49, 67, 84, 137, 277, 310). Like in his *Quwā*, he apparently meant that this compound drug is used – or was invented – in the hospital of Baghdad. Two mentions are of particular interest in our context, since Ibn al-Tilmīdh alludes there to a 'copy of the hospital' (*nuskhat al-bimāristān*).

replaced by Ibn al-Tilmīdh's own *Aqrābādihīn*, a special recension of Sābūr ibn Sahl's (d. 255/869) dispensatory was used in the 'Aḡudī hospital.¹⁷ As the two specimens below will show, not all of the remedies listed in the *Quwā* are actually found there, whereas they all appear in Ibn al-Tilmīdh's own book. Since we do not know which of his two treatises was written first, there are two possible solutions for this problem. If the *Aqrābādihīn* predate the *Quwā*, *al-murakkabāt al-bīmāristāniyyah* may simply be an alternative title of his own dispensatory. In the other – more probable – case, Amīn al-Dawlah may have referred to the contemporary 'official formulary' of the hospital – certainly an enlarged version of Sābūr's book – which could be regarded as *travaux préparatoires* of the *Aqrābādihīn*. One can only speculate as to why Ibn al-Tilmīdh included these unusual fifth sections in his *Quwā*. One practical use may have been that the physicians of the 'Aḡudī hospital knew which compound drugs cannot be mixed when the ingredient is not at hand.

As a first specimen, I will edit here the fourth entry of the letter *alif* dedicated to the 'sky-blue iris' (A f. 16r–v/B f. 158r–v). It should be noted that the passage on the therapeutic use of its root and the oil obtained from it is rather short in comparison with many other entries. Ibn al-Tilmīdh did not explicitly mention his sources here. It is, however, likely that he copied most of the text verbatim from Ibn Sīnā's *Qānūn fī al-ṭibb* (ed. 1877, I.255–6, s.v. *īrisā*), since almost all statements are found there too. Only a few identical pieces of information were given by Ibn Jazlah (493/1100) in his *Minhāj al-bayān* (*The Clear Method*, f. 35r–v, s.v. *īrisā*; cf. f. 28r, s.v. *aṣl al-sawsan al-asmānjūnī*). Some of Ibn Sīnā's statements and descriptions can be traced back to Iṣṭifān's translation of Dioscorides' *De materia medica*, 1.1.

أصل السوسن الأسمانجوني، ويسمى¹⁸ باليونانية إيرس وبالسرانية¹⁹ سمسمه²⁰ وبالفارسية²¹ بن سوسن²² أسمانجوني.²³
هو أصل عقد له ورق دقاق²⁴ وزهر مختلف الألوان من بياض وصفرة وأسمانجونية وفريرية.
حار يابس في آخر الثانية.
ينضج ويفتح ويجلو²⁵ وينقى ويسكن وجع الكبد والطحال الباردین، ولذلك ينفع من الاستسقاء ومن²⁶ السموم، ودهنه يزيل الأبردة والنافض.
ويستعمل من المركبات المارستانية في²⁷ ٢: في أقراص الكبر، وأقراص السوسن، وهما²⁸ أقراص لصلاية الطحال.

¹⁷ Kahl (2009: 1–7). On Sābūr ibn Sahl, see also Chipman (Chapter 10) in this volume.

¹⁸ om. A باليونانية ¹⁹ om. A وبالسرانية ²⁰ B إيرسا ²¹ A سمسمه ²² B بن سوسن ²³ om. A

²⁴ دقاق ²⁵ ويجلو ²⁶ ومن ²⁷ om. B ²⁸ B في ٢: في أقراص الكبر، وأقراص السوسن، وهما أقراص لصلاية الطحال.

²² A سوسن B شوس ²³ أسمانجون A أسمانجون B ²⁴ أسمانجون ²⁵ ويجلو B ويجلوا ²⁶ B ومن A وينفع من ²⁷ om. B ²⁸ B في ٢: في أقراص الكبر، وأقراص السوسن، وهما أقراص لصلاية الطحال.

²⁸ B في ٢: في أقراص الكبر، وأقراص السوسن، وهما أقراص لصلاية الطحال.

Root of the sky-coloured iris (*aṣl al-sawsan al-asmānjūnī*). It is called in Greek *iris*,²⁹ which means 'rainbow', in Syriac *īrisā*,³⁰ and in Persian *bun-i sūsan-i asmānjūnī*.³¹

It is a knotty root with fine leaves and flowers with diverse colours, namely white, yellow, sky-coloured, and purple.

It is hot and dry at the end of the second [degree].

It brings to ripeness, opens, cleans, purifies, and alleviates the pain of the liver and the spleen, if they are affected by coldness. For this reason, it is beneficial for dropsy and poisoning. Its oil helps patients suffering from coldness and shivering.³² In the dispensatory of the hospital it is used in 2 [recipes]: The caper pastilles³³ and the iris pastilles³⁴ – both pastilles for sclerosis of the spleen.

The second specimen is of particular interest since Ibn al-Tilmīdh gives here his own Syriac etymology of an Arabic name for purslane (A f. 34r–v/B f. 167v). His statements on the description (*ma' rūf*), the degrees, and the therapeutic use have, again, striking parallels in Ibn Sīnā's *Qānūn fi al-ṭibb* (ed. 1877, I.275, s.v. *baqlat al-ḥamqā*). The unusual lemma *bizr (!) al-baqlah al-ḥamqā*' was perhaps inspired by Ibn Jazlah who had chosen the same catchword in his *Minhāj al-bayān* (f. 31v).

بزر³⁵ البقلة الحمقاء، ويسمى الفرفخ وهو معرّب من³⁶ السرياني ويسمى الرجلّة، فتهسسه³⁷، وبالفارسية³⁸ دندان ساي³⁹ وتخم فرهين. معرّف.

²⁹ *Īris* is the usual Arabic transcription of Greek ἴρις. It is already to be found in Iṣṭifān's translation of Dioscorides' *De materia medica* (I.1, ed. Wellmann (1907) I.5, ed. Dubler and Terés (1952) II.11), where it was also explained as 'rainbow' (*qaws Quzah*; cf. Dietrich (1988) I.1). The same gloss was also given by Ibn Sīnā (*Qānūn fi al-ṭibb* (*Canon of Medicine*), ed. (1877) I.255,22) and Ibn Jazlah (*Minhāj al-bayān* (*The Clear Method*), MS London, British Library, Add. 5934, f. 35r.ult.).

³⁰ Syriac ܝܪܝܫܐ is a common transcription of the Greek name. See Löw (1881: no. 21); Bar Bahlūl, ed. Duval (1890) I.147.8. *Īrisā* was also the lemma of the relevant entries of Ibn Sīnā's *Qānūn fi al-ṭibb* (*Canon of Medicine*, ed. (1877) I.256) and Ibn Jazlah's *Minhāj al-bayān* (*The Clear Method*, f. 35r).

³¹ Persian *bun-i sūsan-i asmānjūnī* means 'root of the sky-coloured lily'. See Steingass (1930: 200b): *bun* – 'root'; Steingass (1930: 709a): *sūsan-i asmānjūnī* – 'A variegated kind of lily, yellow, white, and blue'. The word *asmānjūnī*, composed of *asmān* 'sky' and *jūnī* 'colour', was written in both manuscripts with *jīm* instead of *gāf*, perhaps since *asmānjūnī* is a common Arabised loanword. The Persian form *sūsan* is in turn a Semitic loanword attested as early as in Pahlavi (Middle Persian); see MacKenzie (1971: 75): *sōsan* – 'lily'; Löw (1881: no. 323).

³² Ibn Sīnā, *Qānūn fi al-ṭibb* (*Canon of Medicine*), ed. (1877), I.256.12; cf. Dioscorides, *De materia medica*, I.1.2, ed. Wellmann (1907) I.7.4; transl. Beck (2011) 6: '(sc. it helps) hypothermics or shiverers'; ed. Dubler and Terés (1952) II.12.14: *wa-yanfa'u mina l-baradi wa-l-nāfidī*.

³³ Ibn al-Tilmīdh, *Aqrābādīn* (*Dispensatory*), ed. Kahl (2007) 51, 181, no. 9: *qurṣ al-kabar li-ṣalābat al-ṭihāl*; Sābūr ibn Sahl, *Aqrābādīn* (*Dispensatory*), ed. Kahl (2009) 26, 122, no. 7.

³⁴ Ibn al-Tilmīdh, *Aqrābādīn* (*Dispensatory*), ed. Kahl (2007) 53, 184, no. 19: *qurṣ al-sawsan li-ṣalābat al-ṭihāl*; Sābūr ibn Sahl, *Aqrābādīn* (*Dispensatory*), ed. Kahl (2009) 31, 128, no. 24.

³⁵ بزر البقلة الحمقاء A بقلة B

³⁶ من السرياني A الفرفخ B

³⁷ فتهسسه B

³⁸ وبالفارسية A ويسمى B

³⁹ دندان ساي وتخم فرهين B دنداب ساي و تخم فرهين A

بارد في الثالثة، رطب في الثانية.

عصارتها نافعة من الحميات الحادة التهاب الكبد والأحشاء بأسرها، وتمنع⁴⁰ القيء المرّي، وفيها قبض تمنع به النزف والسيلان، وتنفع⁴¹ من السحج والإسهال المراري شربًا وحقنًا، وتنفع من قروح المثانة والكلبي وأوجاعهما، وتنفع من نفث الدم، وتقطع شهوة الجماع إلا فيمن يغلب على مزاج حشاه الحرّ، وتنفع⁴² من نزف الرحم، وعصارتها تخرج حبّ القرع وذلك بتطفئها الحرارة العنيفة التي عنها يتكوّن⁴³، وتشفي الضرس بلزوجتها، وتذهب⁴⁴ الثآليل إذا حكّت بها بخاضية فيها.

ويستعمل⁴⁵ من المركبات المارستانية⁴⁶ في ١١: قرص الأميرباريس الصغير، وقرص⁴⁷ الكاقور، وقرص الغافت، وقرص الخشخاش، وقرص الكهرياء، ومسهل⁴⁸ ماء الجين، ومطبوخ الزوفا، وبنادق البزور⁴⁹ لقروح المثانة، والمطبوخ المارستاني⁵⁰، وسفوف لأصحاب السعال، وبرود⁵¹ الورد، وفي سفوف الطين.

Purslane seed (*bizr al-baqlah al-ḥamqā*). It is also called *al-farfah*,⁵² which is a loanword from Syriac and it is also called *al-rijla*.⁵³ [In Syriac] *parpahine*⁵⁴ and in Persian *dandān-sāy* and *tukhm-i farfahan*.⁵⁵

It is well-known.

Cold in the third degree; moist in the second degree.

Its juice is beneficial for acute fevers and inflammations of the liver and the entire intestines. It prevents bilious vomiting. Its astringency prevents haemorrhages and flows. Drunk or applied as a clyster, it is beneficial for abrasion of the intestines and bilious diarrhoea. It is beneficial for ulcers and pain of the bladder and the kidneys as well as for spitting of blood. It stops the desire for sexual intercourse, unless the temperament of the [patient's] intestines is dominated by heat. It is beneficial for discharges from the uterus. Its juice expels tapeworms by extinguishing the putrid heat that generates them. With its viscosity, it heals molar teeth. With a sympathetic virtue, it removes warts, when rubbed on them.

⁴⁰ وتنفع B وينفع A⁴² وتنفع B وينفع A⁴¹ وتمنع B ويمنع A

⁴³ ويستعمل A وتستعمل B⁴⁵ وتذهب B وتذهب A⁴⁴ يتكوّن ويشفي B تتكوّن ويشفي A

⁴⁶ مسهل. COIT. مندل AB⁴⁸ وقرص B قرص A⁴⁷ المارستانية A om.

⁴⁹ المارستاني B البيمارستاني A⁵⁰ البزور لقروح المثانة. corr. لقروح المثانة B البزور المثانية A

⁵¹ وبرود الورد وفي سفوف الطين B om.

⁵² There are several spelling varieties of this loanword, the most common of which is *farfakh*; see Dietrich (1988: 271, n. 3). In both manuscripts, it is consequently written *farfah* with *ḥā* – MS A even adds a *muhmal*. This form may indeed go back to the author, since the alleged Syriac etymon is also written with *ḥ*. It is not clear if *farfah* is indeed a Syriac loanword, since both forms may have been borrowed from Persian *parpahan* independently (cf. Bos et al. (2020: no. 751)).

⁵³ *Al-baqlah al-ḥamqā* (lit. 'the stupid vegetable') and *rijlah* are common Arabic names of purslane; cf. Dietrich (1988: 106); Bos et al. (2020: nos. 125, 751).

⁵⁴ For Syriac *ḥamqā*, see Brockelmann (1928: 604a). MS A indicates here the plural form also often attested (Löw (1881: 320, no. 264)). MS B does not give a correct transcription of the Syriac word; instead it repeats the Arabic form, *al-farfah*.

⁵⁵ Steingass (1930: 538a): *dandān-sā* – 'purslain'; 289a: *tukhm* – 'seed'; 921a: *farfahan* – 'purslain'; 240a: *parpahan* – 'purslain'.

In the dispensatory of the hospital, it is used in eleven⁵⁶ [recipes]: The small barberry pastille,⁵⁷ the pastille with camphor,⁵⁸ the agrimony pastille,⁵⁹ the poppy pastille,⁶⁰ the amber pastille,⁶¹ the purgative with cheese-water,⁶² the hyssop decoction,⁶³ the seed 'hazelnuts' for vesical ulcers,⁶⁴ the hospital decoction,⁶⁵ the powder for those who suffer from cough,⁶⁶ the rose coolant,⁶⁷ the bole powder.⁶⁸

1.3 Languages Employed by Ibn al-Tilmīdh

Table 1.1 lists all entries of the letter *alif* and the Arabic, Greek, Persian, and Syriac terms mentioned there. The list is mainly based on MS A, since MS B omitted many of the foreign-language terms.⁶⁹

It is a characteristic phenomenon that most of the lemmas are not genuine Arabic terms (except for nos 16, 18, 21). Ibn al-Tilmīdh certainly did not invent this system. The choice of his lemmas was clearly influenced by his main sources, especially Ibn Sīnā's *Qānūn fī al-tibb* and Ibn Jazlah's *Minhāj al-bayān* – the rare spelling variety *abrank* of no. 28 may have been copied from al-Rāzī's (d. c.925) *al-Ḥāwī (Comprehensive Book)*.⁷⁰ One reason for the preponderance of foreign names was the fact that many of

⁵⁶ Both manuscripts give the numeral 11, while MS A lists 12 and MS B 10 remedies. All of them are also to be found in Ibn al-Tilmīdh's dispensatory.

⁵⁷ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 49, 179, no. 3; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 24, 120, no. 3.

⁵⁸ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 50, 180, no. 7; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 25, 121, no. 5.

⁵⁹ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 50, 181, no. 8; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 25, 122, no. 6.

⁶⁰ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 51, 181, no. 10; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 26, 122, no. 8.

⁶¹ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 52, 183, no. 15; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 30, 127, no. 21.

⁶² Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 73, 204, no. 86.

⁶³ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 108, 249, no. 224; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 33, 131, no. 35.

⁶⁴ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 64, 194, no. 53; *banādiq li-barqat al-bawl wa-qurūh al-mathāna*; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 62, 163, no. 129; *safūf li-barqat al-bawl wa-yusammā banādiq al-buzūr*.

⁶⁵ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 118, 252, no. 230; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 76, 181, no. 165.

⁶⁶ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 71, 203, no. 79.

⁶⁷ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 163, 296, no. 385; Sābūr ibn Sahl, *Aqrābādīn (Dispensatory)*, ed. Kahl (2009) 91, 198, no. 199.

⁶⁸ Ibn al-Tilmīdh, *Aqrābādīn (Dispensatory)*, ed. Kahl (2007) 71, 202, no. 76.

⁶⁹ On the use of medical terms in various languages in the same text, see also Walker-Meikle (Chapter 3), Mavroudi (Chapter 4), and Martelli (Chapter 11) in the present volume.

⁷⁰ Al-Rāzī, *al-Ḥāwī (Comprehensive Book)*, ed. (1962) XX.93.

Table I.1 Specimens of foreign-language terms

No.	Lemma	Arabic synonyms	Greek	Persian	Syriac	English
1	<i>asarūn</i>		<i>asarūn</i> (ἄσαρον)		ܐܫܪܘܢ	asarabacca
2	<i>afjūn</i>		<i>afjūn</i> (ἄφῆον)		ܐܦܫܘܢ / ܐܦܫܘܢܐ	opium
3	<i>aqāqiyā</i>	' <i>usārāt al-qarāz</i>	<i>aqāqiyā</i> (ἀκκίαια)		ܐܩܩܝܝܐ	gum Senegal
4	<i>aṣl al-samsan al-asmāyūnī</i>		<i>īris ay qams quzāh</i> (ἴρις, i.e. 'rainbow')	<i>bun-i sāsan-i</i> <i>asmān-jūnī</i>	ܐܦܫܘܢܐ / ܐܦܫܘܢܐ	sky-coloured iris
5	<i>anisūn</i>	<i>biṣr al-razzānāj al-rūmī</i>	<i>anisūn</i> (ἄνησσον)	<i>razzānāj rūmī</i>	ܐܢܝܫܘܢ	anise
6	<i>afsinūn</i>	<i>shūh</i>	<i>afsinūn</i> (ἀψιθιον)		ܐܦܫܘܢܐ	absinth wormwood
7	<i>ushshaq</i>	<i>liṣāq al-dhabab</i>		<i>ushshaq</i>	ܐܘܫܫܐܩ	gum ammoniac
8	<i>isfihāj al-rasāṣ</i>	<i>ānuḵ mujaffaf</i>		<i>isfihāj</i>	ܐܝܫܦܝܗܐܩ	ceruse
9	<i>agharāqūn</i>		<i>agharāqūn</i> (ἀγαρικόν)		ܐܘܕܝܢܝܩܘܢ	agaric
10	<i>ihlilaj</i>			<i>ihlilaj</i>	ܐܝܠܝܠܐܝܩ	myrobalan
11	<i>amlaj wa-shir-amlaj</i>			<i>amlaj, shir-amlaj</i>	ܐܡܠܝܩ / ܐܡܠܝܩܐ	emblic jam
12	<i>ās</i>	<i>rand</i>		<i>murd</i>	ܐܘܫܘܪܐ	myrtle
13	<i>uṣṭūkbūbūs</i>		<i>uṣṭūkbūbūs</i> (στοιχάδος), <i>stūkbūs</i> (στοιχάς)		ܘܫܘܬܘܩܒܘܫ	French lavender

14	<i>afṭīmūn</i>	<i>afṭīmūn</i> (ἄφτιμον)		كفتيمون	epithyme
15	<i>usqūlīfandryūn</i>	<i>usqūlīfandryūn</i> (σκολοπένδριον)		كسقليفانديون	rusty-back fern
16	<i>abbul</i>	<i>thamarat al-'ar'</i>		تابول	savin juniper
17	<i>amirbārīs</i>		<i>ʿīrīshk</i>		barberry
18	<i>idbkhir</i>	<i>fuqqāḥ al-idbkhir</i>		حلكه ديمك	camel grass
19	<i>utruj</i>		<i>turruj</i>	كليمون/ليمون	lemon
20	<i>ijjās</i>			حلكه	
21	<i>iklīl al-malik</i>		<i>ālu, shābhalīj</i>	سلك	plum
22	<i>aruz</i>			حلكه حلكه	melilot
23	<i>iqṭimīyā fāḍlī ma-iqlīmīyā dhababī</i>	<i>qadīmīyā</i> (καδμεία)	<i>shakht</i> (fort. <i>shūkhṭab</i>)		rice
24	<i>itimid</i>	<i>kuḥl Sulaymān</i>		حملكه ديمك	silver calamine and gold calamine
25	<i>ushnab</i>		<i>dawālak</i>	عدلكه	antimony
26	<i>anzarūt</i>		<i>anzarūt</i>	كسقل	tree moss
27	<i>anjurab</i>	<i>qurayṣ</i>	<i>anjurab</i>	كسقل	sarcocolla
28	<i>abrank Kābulī</i>		<i>abrank</i>	فدي حلكه	Roman nettle
					white-flowered embelia

the officinal plants employed by the ancient Greek physicians and featuring in the dispensatory of the 'Aḍudī hospital were unknown on the Arabian Peninsula in pre-Islamic times. The translators of books on *materia medica* therefore often only transcribed the Greek phytonyms (nos 1–3, 5, 6, 9, 13–15, 23).⁷¹ Most of the Greek terms mentioned here were well known to the Arab pharmacologists⁷² and the occasional explanations of their literal meanings (no. 4) are also often attested.⁷³ There are two interesting exceptions in the letter *alif*. French lavender (no. 13) was usually referred to as *uṣṭūkhūdhūs*, allegedly a transcription of the Greek genitive case 'στοιχάδος'.⁷⁴ Ibn al-Tilmīdh lists the synonym *stūkhās* (MS A; *stkh'ws* MS B) – obviously a transcription of the nominative case 'στοιχάς' – which is not otherwise attested in the usual Arabic literature.⁷⁵ Instead, the almost identical (ⲗ vs. ⲁ) Syriac transcription ⲙⲉⲗⲁⲕ can be found in Bar Bahlūl's lexicon.⁷⁶ A similar case is the spelling variety *skhīnūn* (no. 18) for Greek 'σχοῖνος', which corresponds to the form ⲉⲥⲥⲉⲛⲉ listed by the glossographer Bar 'Alī.⁷⁷ These and several other examples show that Ibn al-Tilmīdh must not necessarily have spoken Greek himself. It is rather likely that he took his information on Greek words from the Syriac lexica.

Another important source for Arabicised names of plants (nos 5, 7, 10, 11, 17, 19, 26–8) and minerals (no. 8) was Persian. The reason for this was again that most cultivated plants and exotic spices were unknown to the Bedouins and the pre-Islamic resident population of the Arabian Peninsula. The frequent use of Persian loanwords as lemmas in the pharmacognostic literature was certainly also influenced by the fact that important authors, such as Ibn Sīnā and al-Rāzī, were of Iranian descent.

⁷¹ It should also be stressed that the predominance of Greek loanwords in the letter *alif* is more extreme than in other letters, since all words beginning with a vowel were transcribed with an *alif*.

⁷² For example, Ibn Sīnā, *Qānūn fī al-ṭibb* (*Canon of Medicine*), ed. (1877) I.248 (*asārūn*); I.256 (*afjūn*); I.246 (*aqāqīyā*); I.243 (*anīsūn*); I.244 (*afṣintīn*); I.464 (*ghārīqūn*); I.252 (*uṣṭūkhūdhūs*); I.251 (*afīṭīmūn*); I.386 (*sqūlūfandriyūn*).

⁷³ An interesting example is the entry dedicated to the marshmallow (*khīṭmī*, A f. 76r/B f. 180r). Ibn al-Tilmīdh states that its Greek name (sc. 'ἄλθαία') – which he actually did not mention – means 'full of benefits' (*al-kathīr al-manāfi*). That synonym was already listed by Ibn Sīnā (*Qānūn fī al-ṭibb* (*Canon of Medicine*), ed. (1877) I.453), who gave no explanation of it. Ibn al-Tilmīdh adds in this entry a quotation from Galen's *Tafsīr li-aymān Buqrāt wa-'abdihī* (*Commentary on the Hippocratic 'Oath'*), according to which the rod of Asclepius is a marshmallow stem because of its many benefits (*li-kathrat manāfi ihī*; cf. 'ἄλθαίνας' ('to heal')). That text is only known from its Oriental tradition; cf. Fichtner (2017: no. 390).

⁷⁴ Dietrich (1988) 374.

⁷⁵ Only al-Bīrūnī mentions the similar form *stūkhas* in his book on simple drugs entitled *al-Ṣaydanah* (*The Pharmacy*), ed. Zaryāb (1991) 44, no. 40.

⁷⁶ Bar Bahlūl, ed. Duval (1890) II.1330.1. ⁷⁷ Gortheil (1908: II.169.3).

We know from his biographers that Ibn al-Tilmīdh spent several years in Persia and there is no doubt he acquired a certain knowledge of Persia's language. Besides the terms copied from his usual sources, Ibn al-Tilmīdh often mentions Persian synonyms, especially of well-known things (nos 12, 20).⁷⁸ Sometimes he adds to Arabicised loanwords the original Persian forms.⁷⁹ The most interesting features in this context are certainly Ibn al-Tilmīdh's etymologies of loanwords, many unattested in other sources.⁸⁰ Two of them were cited by Ibn al-Bayṭār (d. 646/1248), who explicitly mentioned 'Amīn al-Dawlah Ibn al-Tilmīdh' as his source.⁸¹

The Persian terms of the *Quwā* represent, with a few exceptions, standard modern Persian forms. Ibn al-Tilmīdh only 'Arabicised' the orthography by writing *kāf* instead of *gāf*, *bā'* instead of *peh*, and *jīm* instead of *chīm*. Terms loaned at an early date preserve the Pahlavi ending *-ag* Arabicised as *-aj* (nos 5, 8, 10, 11), *-ak* (nos 25, 28), or *-aq* (no. 7). Ibn al-Tilmīdh uses these traditional along with modern forms – for example, in the case of the terms *ālū* ('plum', no. 20) and *shāhalūj* ('king's plum'). Although the overwhelming number of synonyms represents literary Persian, some terms that could not be identified might also be dialectal words Ibn al-Tilmīdh heard during his stay

⁷⁸ Other such examples are the Persian names of iron (*hadīd/āhan*; A f. 64v/B f. 174v), raisins (*zabīb/mawiz* A f. 96v/B f. 189r), wax (*sham'/mūm* A f. 134r/B f. 204v), honey (*'asallangubin*; A f. 151r/B f. 212v), milk (*laban/shir* A f. 195r/om. B), apricots (*mishmish/zard-ālū* A f. 202r/om. B), and quicklime (*nūrab/ābak* A f. 217r/om. B).

⁷⁹ Good examples are the names of polypody (*basfāyij/bas-bāy*, i.e. *bas-pāy*; A f. 41r/om. B), manna (*taranjubīn/tall-ankubīn*, i.e. *tall-angubin*; A f. 50r/om. B), seabest fruits (*safistān/sak-bistān*, i.e. *sag-pistān*; A f. 120v/B f. 199r), and musk (*misk/mushk*; A f. 198v/om. B).

⁸⁰ Examples are the names of lemon balm (*bādbaranjbūyah/al-utrujji al-rā'ihah* 'citron-scented'; A f. 38r/B f. 169v), tamarisk fruits (*kazmāzaj'/afṣat al-tarfā'* 'tamarisk gallnuts'; A f. 57v/B f. 171r), cucumbers (*khiyār-bādbaranj/khiyār utrujji* 'citron-shaped cucumber'; A f. 75v/B f. 180r), bishop's weed (*nānakhwāh/tālib al-khubz* 'beggar for bread'; A f. 213r/om. B), or water lilies (*nilūfar/al-nīli al-ajnihab*, *al-nīli al-aryāsh* 'having blue wings/feathers'; A f. 213v/om. B).

⁸¹ Ibn al-Bayṭār, *al-Jāmi' li-mufradāt al-adwiyah wa-l-aghdbhiyah* (*Collector of Simple Drugs and Foodstuffs*), ed. (1874) IV.173, s.v. *nānakhwāh* (= A f. 213r/om. B); IV.185, s.v. *nilūfar* (= A f. 213v/om. B). The *Jāmi'* contains two more explicit quotations: II.135, s.v. *rāziqī* (= A f. 152v/B f. 213v); IV.185, s.v. *nūshādīr* (= A f. 215r/om. B). Depending on Ibn al-Bayṭār, the explanation of the term *nilūfar* was incorporated by al-Nuwayrī (d. 733/1333) into his encyclopaedia *Nihāyat al-arab fi funūn al-adab* (*The Ultimate Ambition in the Arts of Erudition*), ed. Sha'irah et al. (1929–92) XI.219). Another early user of the *Quwā* was Ibn al-Tilmīdh's contemporary al-Sharīf al-Idrīsī (d. 559/1165), who explicitly mentioned him several times in his *al-Jāmi' li-ṣifāt ashtāt al-nabāt wa-durūb anwā' al-mufradāt* (*Compendium of the Properties of Diverse Plants and Various Kinds of Simple Drugs*) facs.-ed. Sezgin et al. (1995) II.523, index, s.v. Ibn al-Tilmīdh). The unusual multilanguage lists of synonyms found in the *Ṣifāt* (Ullmann (1970: 278); Käs (2010: I.123–9)) may, at least to a certain extent, have been inspired by the *Quwā*. Another model was obviously the section of the 'tables' of al-Rāzī's *al-Ḥawī* (*Comprehensive Book*), ed. (1962) XXII.

in Iran. On one occasion (A f. 62v/om. B, s.v. *tūdhari*), he stated that the inhabitants of Isfahan called the hedge mustard *ḥ'khy*, which could not be retrieved from the lexica.

The systematic notation of Syriac terms in Ibn al-Tilmīdh's *Quwā* is unique in the history of the Arabic pharmacology. Although a considerable number of Arabic phytonyms are ultimately Aramaic loanwords (e.g. nos 12, 20),⁸² they were rather neglected by authors on the nomenclature of drugs. Writers from the East – such as al-Rāzī in the tables of volume XXII of his *al-Hāwī* or al-Birūnī in his *al-Ṣaydanah* (*The Pharmacy*) – often noted Syriac terms, but the classics of this genre – such as the lists of synonyms by Ibn Juljul, Ibn Janāḥ, al-Ishbīlī, Maimonides, or the anonymous *Dioscurides triumphans* – were written in the West, where Aramaic was absolutely unimportant. Ibn al-Tilmīdh regularly adds at the end of the first column one or more Syriac terms, written in Estrangelo characters in MS A. As in the case of the Arabic names of drugs, only a minority of these are genuine Syriac terms (see nos 2, 3, 12, 18–21, 24, 27).⁸³ The others are Persian loanwords (nos 7, 8, 10, 11, 26) or transcriptions of Greek terms (nos 1–6, 9, 13–15). Ibn al-Tilmīdh's terms certainly do not represent the spoken dialect of his Christian community in Baghdad. Instead, he drew on written sources in classical Syriac, either books on medicine or glossographical sources, such as the lexica by Bar 'Alī or Bar Bahlūl, where parallels can regularly be found. For the possible use of such a text by Ḥunayn, see later in this chapter. Furthermore, some Greek words show clear signs of systematised transcriptions typical for the lexica.⁸⁴

MS B almost completely omitted the Syriac terms. They appear only when the term was allegedly written in Arabic characters in Ibn al-Tilmīdh's autograph. This happened when he quoted from Arabic sources already containing the Syriac foreign word (see no. 4).⁸⁵ This of course raises the question of whether these terms are authentic. In principle, the Syriac words may also have been added by a later copyist. However, their use parallels that of the Persian terms, which were regularly copied by the

⁸² Fraenkel (1886: 139). Besides loans of genuine words, Greek and Persian terms also came to the Arabs via Aramaic intermediary forms – for example, *urujj* (no. 19).

⁸³ In the letter *alif* only nos 22, 23, and 28 list no Syriac synonym. Mistakes of the scribe of MS A cannot be excluded, since in no. 23 he also omitted the Greek and Persian synonym preserved in MS B.

⁸⁴ In the case of *قاصص* (A f. 161v), for 'εὐφόρβιον', *ص* serves only as usual transcription of 'ε'.

⁸⁵ In the entry *ḥarmal* (A f. 71r/B f. 178r), he quotes from the Arabic translation of Dioscorides, *De materia medica* (ed. Dubler and Terés (1952) II.261.14), according to which the Syrians call this kind of rue *bashāshā*. This word appears in both MSS in Arabic characters. MS A adds the Syriac form *ܩܫܫܐ*.

1.4 Sources

Ibn al-Tilmīdh only occasionally named his sources. These quotations are furthermore misleading, since his most important sources were almost never explicitly indicated. As shown in the case of the aforementioned two edited specimens, almost all pieces of information included in the *Quwā* are also found in Ibn Sīnā's *Qānūn fī al-ṭibb*. Although Ibn Sīnā was mentioned four times,⁸⁸ there is no doubt the *Qānūn* was Ibn al-Tilmīdh's main source. Furthermore, we know that he highly appreciated this work and that he wrote marginal commentaries (*hawāshī*) on it, which are partially preserved as an autograph.⁸⁹ Ibn al-Tilmīdh was also acquainted with al-Rāzī's monumental *al-Hāwī*, which he abridged in a treatise entitled *Mukhtaṣar al-Hāwī* (*Abridgment of the Comprehensive Book*) or *Ikhtiyār kitāb al-Hāwī* (*Selections from the Comprehensive Book*), mentioned by his biographers and fragmentarily preserved in a few manuscripts.⁹⁰ The *Quwā* contain only two explicit quotations from al-Rāzī.⁹¹ Despite this, he likely made more use of the *Comprehensive Book* without mentioning it. The extent of this dependence can hardly be determined, since already the *Qānūn* depended widely on al-Rāzī.⁹² An important manual on simple drugs often used by medical practitioners and preserved in many copies is the *Minhāj al-bayān* by Ibn Jazlah. Ibn al-Tilmīdh also wrote apparently lost marginal commentaries on this book. Although he never mentioned the *Minhāj* in his *Quwā*, he likely used it as well. It is a unique feature of Ibn Jazlah's book that the drugs are often alphabetically arranged according to the part used (e.g. seed, root, leaves etc.) and not according to the actual name of the plant. In the cases of the entries *aṣl al-sawsan al-asmānjūnī* and

⁸⁸ MS A f. 24v/B f. 162v (= Ibn Sīnā, *Qānūn fī al-ṭibb* (*Canon of Medicine*), ed. (1877) I.386); A f. 149v/B f. 212r (= I.396); A f. 194r/om. B (= I.352); A f. 210v/om. B. (= I.362).

⁸⁹ Edwards (1922: no. 23); Iskandar (1977); Iskandar (1981).

⁹⁰ Ibn Abī Uṣaybi'ah, '*Uyūn al-anbā' fī ṭabaqāt al-aṭibbā'*' (*Sources of Information on the Classes of Physicians*), 10.64.20, ed. Savage-Smith et al. (2020, online version), no. 4 = ed. Müller (1882) I.276; Yāqūt, *Mu'jam al-udabā'* (*Dictionary of Learned Men*), ed. Rifā'ī (1936) XIX.278. About a quarter of the text is preserved in MS Berlin, Staatsbibliothek Preußischer Kulturbesitz, Ahlwardt 6260 (Wetzstein 1188). In the misbound and fragmentary manuscript Ankara, Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Kütüphanesi, Saib 2057, there is on f. 6v.7 a colophon indicating the end of *Ikhtiyārāt al-Hāwī* (*Selections from the Comprehensive Book*) by *Amīn al-dawlah . . . al-ma'rūf bi-Ibn al-Tilmīdh al-Baghdādī*.

⁹¹ The statement on the provenance of balsam of A f. 47v/om. B is ascribed to a *Kitāb al-ṣaydanah fī al-ṭibb* (*Book of the Pharmacy on Medicine*). Since it is missing from the entry *balasān* of the identically named chapter of al-Rāzī's *al-Hāwī* (*Comprehensive Book*), ed. (1962) XXII.12–13, it may have been taken from a lost monograph entitled *K. al-Ṣaydanah* mentioned by al-Rāzī's biographers (Sezgin (1970: 291)). The description of the therapeutic benefits of burned scorpions of A f. 146r/B f. 210r could not be traced in the pharmacological sections of the *Hāwī*.

⁹² Cf. Fellmann (1984).

bizr al-baqlah al-ḥamqā', we have seen that reminiscences of this unusual system can be observed in the *Quwā*.

Another possible source is the chapter on simple drugs⁹³ of the *Kitāb al-mi'ah* (*Book of the Hundred [Chapters]*) by Abū Sahl al-Masīhī (d. 401/1010). Ibn al-Tilmīdh knew this book and wrote a marginal commentary (*ḥawāshī*)⁹⁴ on it, as well as an abridgement (*mukhtār*), both listed by his biographers. There is only one explicit mention of 'the author of the *Kitāb al-mi'ah*'⁹⁵ in the *Quwā* and anonymous quotations can hardly be traced since this book was presumably one of the sources of Ibn Sīnā, who was a disciple of al-Masīhī. Ḥunayn ibn Iṣḥāq (d. 260/873) was cited a few times.⁹⁶ In only two cases, Ibn al-Tilmīdh mentioned the title of the work used; one was his book on substitute drugs (*Kitāb al-abdāl*).⁹⁷ On A f. 221r/om. B, Ibn al-Tilmīdh stated that Ḥunayn had explained a Syriac term in his *Jamhara*. Such a title is not attested for Ḥunayn; it can nevertheless not be excluded that Ibn al-Tilmīdh indeed had access to such a glossographical work ascribed to Ḥunayn.⁹⁸ The other quotations⁹⁹ were presumably taken from his diverse translations, where he sometimes gave explanations of foreign-language words. Another Syriac term ascribed to Jibrīl (sc. Ibn Bukhtīshū', fl. 212/817), may also originate from the glossographical literature (A f. 203v/om. B). The *Quwā* contain two more mentions of Jibrīl: one is concerned with the therapeutic use of scammony (A f. 116r/197v) and the other with a synonym of the term *faranjamushk*.¹⁰⁰ Other early Arabic authors on

⁹³ Masīhī, *Kitāb al-mi'ah* (*Book of the Hundred*), ed. Sanagustin (2000) I.267–306 (chapter 31).

⁹⁴ According to a note found on the Internet, which could not be checked, these *Ḥawāshī* seem to be preserved in a manuscript kept in Tehran: *Majlis-i shūrā-ʾi Islāmī*, no. 6335, *Catalogue* XIX.351, previously no. 61228 (cf. www.aghazoz.org/showbookdetail.aspx?bookid=100419, accessed 31 July 2021).

⁹⁵ In the entry for 'inab (grape; A f. 152v/B f. 213v), Ibn al-Tilmīdh mentioned explanations of the word *rāziqī* by 'Abū Sahl al-Masīhī *ṣāhib Kitāb al-mi'ah*', by 'Ubaydallāh [*sic*] ibn Yahyā *ṣāhib al-Ikhtisārāt al-arbaʾin* (Sezgin (1970: 256–7)), the author of the *Kitāb al-bulghab* (*The Sufficient Book*; several texts bearing this title are attested), and al-Sukkarī (a grammarian). This passage is absolutely unusual for the *Quwā* and may have been copied from an intermediary source. It is actually not found in the *Kitāb al-mi'ah* (*Book of the Hundred*) as edited by Sanagustin (2000).

⁹⁶ According to his biographers, Ibn al-Tilmīdh also wrote a commentary on Ḥunayn's *Masāʾil fi al-tibb* (*Questions on Medicine*), but there is no evidence that he used it for the *Quwā*.

⁹⁷ A f. 204r/om. B; cf. Sezgin (1970: 255, no. 12).

⁹⁸ Fragments of such a glossary referred to as 'Thabat' were preserved by al-Rāzī (Kahl (2011: 387)) and especially Bar Bahlūl (ed. Duval (1890): III.xviii, III.vii, III.xi).

⁹⁹ A f. 24r/B f. 162r; A f. 136v/B f. 206r; A f. 170v/B f. 221r.

¹⁰⁰ A f. 163r/B f. 217v. This passage is also interesting since Ibn al-Tilmīdh mentions there that Qudāmah ibn Jaʿfar (d. c.337/948) used the same synonym in his *Kitāb al-kharāj wa-sināʾat al-kiṭābah* (*Book of the Land Tax and the Art of the Secretary*). Unfortunately, I was unable to locate this quotation in al-Zubaydī's (1981) edition of this fragmentarily preserved book.

medicine mentioned in the *Quwā* are Ibn Māsawayh (d. 243/857),¹⁰¹ Ibn Māssa (d. c.275/888), and Masīḥ (al-Dimashqī, d. 225/839).¹⁰² Ibn al-Tilmīdh did certainly not always consult the originals of their works, instead most quotations could have been borrowed secondarily from his usual sources.¹⁰³

As we have seen, the number of explicit quotations from Arabic sources is rather small, which is typical for the Eastern school of pharmacognosy. Authors from the West and especially from al-Andalus, such as Ibn Samajūn, Ibn Janāḥ, or Ibn al-Bayṭār, consequently named all their sources. While al-Rāzī often mentioned his authorities in *al-Ḥāwī*, Ibn Sīnā did this only occasionally. Authors depending on the *Qānūn* – for example, Ibn Jazlah and Ibn al-Tilmīdh – followed his model. The only names regularly occurring in Ibn Sīnā's book are those of the unrivalled Greek physicians. As a consequence, Ibn al-Tilmīdh also often cites Dioscorides for descriptions of plants and the like.¹⁰⁴ The person named most frequently in the *Quwā* is Galen.¹⁰⁵ The overwhelming part of these quotations originates from *On the Capacities of Simple Drugs*, which is explicitly mentioned twice.¹⁰⁶ On one occasion, he also quoted from *On the Composition of Drugs according to Kind*.¹⁰⁷ Other Greek authorities were only mentioned occasionally: Hippocrates

¹⁰¹ A f. 61r/B f. 172v; A f. 69r/B f. 177r; A f. 69v/B f. 177v.

¹⁰² A f. 126r/B f. 201v. Ibn al-Tilmīdh states that the quotation is from Masīḥ's *Aqrābādhīn* (*Dispensatory*). Since a monograph bearing that title is not known, he may have meant the section on compound remedies of his *Kunnāsh* (*Handbook*); cf. Sezgin (1970: 228).

¹⁰³ The only statement ascribed to 'Isā ibn Māssa (A f. 172v/B f. 221v) is, for example, already present in al-Rāzī's *al-Ḥāwī* (*Comprehensive Book*), ed. (1962) XXI.305, and Ibn Sīnā's *Qānūn fī al-tibb* (*Canon of Medicine*), ed. (1877) I.421.

¹⁰⁴ A f. 19v/B f. 160r; A f. 24r/B f. 162r; A f. 26r/B f. 163r; A f. 27v/B f. 164r; A f. 28v/B f. 164v; A f. 47v/om. B; A f. 52v/om. B; A f. 61r/B f. 173r; A f. 62r/B f. 173v; A f. 73r/B f. 179r; A f. 102r/om. B; A f. 118r/B f. 198r; A f. 158v/B f. 215r; A f. 170v/B f. 221r; A f. 190r/om. B.

¹⁰⁵ A f. 14v/B f. 157v; A f. 15r/B f. 157v; A f. 24r/B f. 162r; A f. 28v/B f. 164v; A f. 46v/om. B; A f. 70v/B f. 178r; A f. 75r/B f. 179v; A f. 76r/B f. 180r; A f. 77v/B f. 180v; A f. 92r/B f. 187r; A f. 96v/B f. 189r; A f. 97r/B f. 189v; A f. 107r/B f. 193v; A f. 122v/B f. 200r; A f. 129r/B f. 202v; A f. 134v/B f. 205r; A f. 141r/B f. 208r; A f. 142r/B f. 208r; A f. 146r/B f. 210r; A f. 149v/B f. 212r; A f. 156v/B f. 212v; A f. 174v/B f. 222v; A f. 177v/B f. 223v; A f. 191r/om. B; A f. 214v/om. B. Ibn al-Tilmīdh certainly did not always consult the originals of Galen's books. His quotation of A f. 149v/B f. 212r is, for example, also found in Ibn Sīnā's *Qānūn fī al-tibb* (*Canon of Medicine*), ed. (1877) I.399, and al-Rāzī's *al-Ḥāwī* (*Comprehensive Book*), ed. (1962) XXI.198.

¹⁰⁶ A f. 46v/om. B; A f. 134v/B f. 205r: *fī Kitābīhi fī al-adwiyah al-mufradah* (*In His Book on Simple Drugs*).

¹⁰⁷ A f. 134v/B f. 205r: *fī Kitābīhi fī tarkīb al-adwiyah bi-ḥasab ajnāsīhā* (*In His Book on the Composition of Drugs according to Kind*). Another explicit quotation is problematic since the manuscripts give divergent titles (A f. 174v/B f. 222v). MS A reads *fī Kitābīhi l-ma' ruf bi-ārā' Buqrāt wa-Falātūn* (*On the Doctrines of Hippocrates and Plato*), while MS B has the variety *fī Kitābīhi l-ma' ruf bi-l-adwiyah al-muqābilah li-l-aduā'* (*On Antidotes*). For the only quotation from the commentary on the Hippocratic *Oath*, see note 73.

featured only once in the *Quwā*,¹⁰⁸ Paul of Aegina twice,¹⁰⁹ and Rufus of Ephesus three times.¹¹⁰

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¹⁰⁸ A f. 44r/om. B; cf. [Hippocrates], *On Regimen*, 2.45, ed. Littré (1849) VI. = 542–4 = ed. Joly and Byl (2003) 166–8.

¹⁰⁹ Ibn al-Tilmīdh had apparently no access to his book. The quotation of A f. 192v/om. B was copied from al-Rāzī’s *al-Ḥāwī (Comprehensive Book)*, ed. (1962) XXI.473, and also the second passage is explicitly marked as a secondary quotation (f. A f. 107r/B f. 193v: *dhakara ba’duhum ‘an Fīlus*).

¹¹⁰ A f. 102r/om. B; A f. 179v/B f. 224r (cf. al-Rāzī, *al-Ḥāwī (Comprehensive Book)*, ed. (1962) XXI.334); A f. 182r/B f. 225r (= al-Rāzī, *al-Ḥāwī*, ed. (1962) XXI.386).

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