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Jews, Christians and Muslims as Colleagues and Collaborators in the
Abbasid Near East (Munich, 2020)

Teaching and Learning by the Book at the Turning Point
Between the Ayyūbid and Mamlūk Eras as a Source of
Information on Methods and Scientific Controversies

[working paper]

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Important note — In this preliminary version, the writer refers to Müller’s edition of the *‘Uyūn al-‘anbā’ fī ṭabaqāt al-‘aṭibbā’*, *Sources of Information on the Classes of Physicians*,² as it gives us an in-depth record on the reception of Greek medicine in the Arabic tradition at the turning point between the Ayyūbid and Mamlūk eras.³ As a matter of fact, Ibn ‘Abī ‘Uṣaybi‘ah gives in his work a comprehensive list of Galen’s treatises that he could have access to in his day through Arabic translations, even if some of them are unknown or lost to the modern reader. On this account, it shall be argued here

IN A CHAPTER dedicated to the reception of Galen in Ibn ‘Abī ‘Uṣaybi‘ah published last year,¹ the writer of these lines tried to emphasize the importance of the *‘Uyūn al-‘anbā’ fī ṭabaqāt al-‘aṭibbā’*, *Sources of Information on the Classes of Physicians*,² as it gives us an in-depth record on the reception of Greek medicine in the Arabic tradition at the turning point between the Ayyūbid and Mamlūk eras.³ As a matter of fact, Ibn ‘Abī ‘Uṣaybi‘ah gives in his work a comprehensive list of Galen’s treatises that he could have access to in his day through Arabic translations, even if some of them are unknown or lost to the modern reader. On this account, it shall be argued here

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¹Robert Alessi, “The Reception of Galen in Ibn ‘Abī ‘Uṣaybi‘ah”, in *Brill’s Companion to the Reception of Galen*, ed. Petros Bouras-Vallianatos and Barbara Zipser (Leiden – Boston: Brill, 2019), 279–303.

²August Müller (ed.), *Ibn ‘Abī ‘Uṣaybi‘ah, ‘Uyūn al-‘anbā’ fī ṭabaqāt al-‘aṭibbā’*, 2 vols. (Königsberg and Cairo, 1882–4), repr. Fuat Sezgin (ed.), 2 vols. (Frankfurt am Main: Institute for the history of Arabic-Islamic Science, 1995); Reprint of the edition of Cairo 1882/1299.

³On Ibn ‘Abī ‘Uṣaybi‘ah (d. 668/1270), see J. Vernet, “Ibn Abī Uṣaybi‘a”, *EI*² (2012), accessed Apr. 24, 2018 and Carl Brockelmann. (Carl Brockelmann, *Geschichte der Arabischen Literatur*, 2 vols. [1937–1949; 2nd edn., Leiden: Brill, 1943–49], I, 325 and Suppl. I, 560)

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that one of the major interests of the *ʿUyūn al-ʿanbāʾ*, is that the author, starting from the list of Galen’s works that Ḥunayn ibn ʿIshāq (d. 260/873) first established in his *Risālah* four hundred years earlier, rounds off all the lists established by his predecessors, including the one of Ibn an-Nadīm’s *Fihrist* (377/987–8). This list is truly exceptional because Ibn ʿAbī ʿUṣaybiʿah relied both on multiple sources, now lost, and on his personal investigations.⁴

One must also bear in mind that such huge a work of encyclopaedic scope as are the *ʿUyūn al-ʿanbāʾ* emerges as a typical illustration of a time and a place, namely the turn of the 13th century in Damascus and Cairo, where resource materials in medicine were both abundant in number and easy to get in libraries.

As already discussed in the chapter quoted above,⁵ several characteristic examples of this period are given about ʿAsʿad ad-Dīn Yaʿqūb ibn ʿIshāq al-Maḥallī (d. ca. 1260), a Jewish physician who lived and practised there, by Emma Gannagé.⁶⁷ Going through a yet unedited collection of treatises by ʿAsʿad ad-Dīn Yaʿqūb ibn ʿIshāq, she quotes from a manuscript⁸ a passage where al-Maḥallī tells that just after a dispute about Aristotle’s theory of elements which took place in the *maḡlis* of Muḥaddab ad-Dīn ʿAbd ar-Raḥīm ibn ʿAlī ʿAbū Muḥammad, the master of Ibn ʿAbī ʿUṣaybiʿah also known as ad-Ḍaḡwar,⁹ while he had not at hand the commentary of Alexander of Aphro-

⁴That Ibn ʿAbī ʿUṣaybiʿah had access to sources that were quite distinct from Ḥunayn’s is clearly illustrated by the synopsis presented by Gotthelf Bergsträsser (Gotthelf Bergsträsser, “Neue Materialien zu Ḥunayn Ibn Ishāq’s Galen-Bibliographie”, *Abhandlungen für die Kunde des Morgenlandes: Herausgegeben von der Deutschen Morgenländischen Gesellschaft*, 19/2 [1932], 7–108 at 52) where Ibn ʿAbī ʿUṣaybiʿah’s “other sources (Arabic mss. of Galen’s works, texts transmitted in scholarly books, etc.)” are set apart from the sources that are mentioned in Ḥunayn’s *Risālah*.

⁵Robert Alessi, see n. 1, 279–80.

⁶Emma Gannagé, “Médecine et philosophie à Damas à l’aube du XIII^e siècle : un tournant post-avicennien ?”, *Oriens*, 39/2 (2011), 227–56 at 250–4.

⁷See Ibn ʿAbī ʿUṣaybiʿah, *ʿUyūn al-ʿanbāʾ*, II, 118: Ibn ʿAbī ʿUṣaybiʿah may have met him in person; he says that there were “frequent topics of arguments and little affability”, مَبَاحِثٌ كَثِيرَةٌ وَنَكَدٌ, between this man and some of the best physicians in Cairo although he and his paternal uncle — Rašīd ad-Dīn ʿAlī ibn Ḥalīfah (see Ibn ʿAbī ʿUṣaybiʿah, *ʿUyūn al-ʿanbāʾ*, II, 246–59) — were friends.

⁸Ms. Istanbul, Nuruosmaniye 3589, fol. 4 (Emma Gannagé, see n. 6, 250, text 1).

⁹Muḥaddab ad-Dīn ʿAbd ar-Raḥīm ibn ʿAlī ʿAbū Muḥammad (Ibn ʿAbī ʿUṣaybiʿah, *ʿUyūn al-ʿanbāʾ*, II, 239–46); on Muḥaddab ad-Dīn’s *maḡlis* which was created by the Ayyūbid ruler al-Malik al-ʿAšraf ʿAbu ʿl-Faṭḥ Mūsā ibn al-Malik al-ʿĀdil ʿAbū Bakr ibn ʿAyyūb (d. 635/1237), see Peter E. Pormann and Emilie Savage-Smith; (Peter E. Pormann and Emilie Savage-Smith, *Medieval Islamic Medicine* [Edinburgh: Edinburgh University Press, 2010] [originally pub. 2007], 83) however, see below on page 11.

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disias on Aristotle's *On generation and corruption*, he obtained it that very night so that he could read it. Not only does this information show that many books were available at the libraries, but it sheds some light on the topics that were raised by the physicians during the debates that took place in the 'teaching facilities'¹⁰ that were attached to the hospitals: as this example shows, purely philological issues were very much under discussion.

The Purpose of the Training: Galen's Books

More importantly, it is not sufficient to insist on the large number of books that were circulating among doctors. As will be apparent from the examples provided in the second part of this paper, it must be noted that medical training, as well as discussions between doctors, either Jews, Christians or Muslims, were based primarily on the reading and interpretation of Galen's books. The subject is therefore first and foremost that of the availability of Galenic treatises.

Regarding Galen's works, Ibn 'Abī 'Uṣaybi'ah provides three lists of books. The first list, which is the longest, goes from I, 90.21 to I, 101.14. It is introduced as follows:

وَلِجَالِينُوسٍ مِنَ الْمُصَنِّفَاتِ كُتُبٌ كَثِيرَةٌ جَدًّا. وَهَذَا ذِكْرُ مَا وَجَدْتُهُ مِنْهَا مُنْتَشِرًا فِي أَيْدِي النَّاسِ، مِمَّا قَدْ نَقَلَهُ حَنِينُ بْنُ إِسْحَاقَ الْعِبَادِيِّ وَغَيْرُهُ إِلَى الْعَرَبِيِّ، وَأَعْرَاضَ جَالِينُوسٍ فِي كُلِّ كِتَابٍ.

As to Galen's treatises, they are very abundant in number; here follows the list of those I could find scattered among people, which have been translated into Arabic
 5 by Ḥunayn ibn 'Ishāq and others, with an indication of Galen's purpose in each of them.¹¹

Of course, this first list comes from the one that is found in Ḥunayn's *Risālah*. As far back as 1925, when the *Risālah* was first published, Gotthelf Bergsträsser pointed out that, even though Ibn 'Abī 'Uṣaybi'ah did not mention Ḥunayn's work, he followed the *Risālah* 'to the letter'.¹² Nonetheless, one must pay particular attention to the words used by Ibn 'Abī 'Uṣaybi'ah: "the list of those *I could find scattered among people*", which clearly indicate that authorship is not of much relevance at this point. On the contrary, one must keep in mind that emphasis is placed on the books that Ibn 'Abī 'Uṣaybi'ah *could actually find at his time*. From this perspective, Ḥunayn's list

¹⁰F. Rosenthal, quoted from Pormann and Savage-Smith. (ibid., 96–101)

¹¹Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, I, 90.21–23.

¹²Gotthelf Bergsträsser, "Ḥunayn ibn 'Ishāq über die syrischen und arabischen Galen-Übersetzungen", *Abhandlungen für die Kunde des Morgenlandes: herausgegeben von der Deutschen Morgenländischen Gesellschaft*, 17/2 (1925), II.

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may be deemed to be the standard work from which any scholar intending to draw up his own inventory would start. As will be apparent from the examples below, this may explain some of the differences between Ḥunayn's and Ibn 'Abī 'Uṣaybi'ah's lists.

The second list goes from I, 101.24 to I, 102.9, and gives a list of books which are attributed to Galen, but which are not his. This time, Ibn 'Abī 'Uṣaybi'ah explicitly states that this list comes from Ḥunayn:

قَالَ حُنَيْنُ بْنُ إِسْحَاقَ: وَقَدْ وَجَدْنَا أَيْضًا كُتُبًا أُخْرَى قَدْ وَسَمَتْ بِاسْمِ جَالِينُوسَ وَلَيْسَتْ لَهُ.

Ḥunayn Ibn 'Ishāq said: "We have also found other books which bear the name of Galen but are not his".¹³

These words are the same as those which open the second section of the appendix entitled *Ḥunayn Ibn 'Ishāq's Appendix on the List of Books That Galen Did Not Mentioned in the Index of His Books* which Ibn 'Abī 'Uṣaybi'ah composed eight years later his *Risālah*.¹⁴

Finally, Ibn 'Abī 'Uṣaybi'ah provides a third list of thirty-four books which are not found in the above mentioned works of Ḥunayn. This compilation, which closes the chapter devoted to Galen, is made of a number of apocryphal treatises, along with others which are authentic. As a whole, it is interesting, because it gives a good insight into the titles which were circulating under the name of Galen in the 13th century in Damascus and Cairo. It is worth quoting Ibn 'Abī 'Uṣaybi'ah's introductory words:

أَقُولُ: وَهَذَا جُمْلَةٌ مِمَّا تَبَيَّنَ ذِكْرُهُ مِنْ كُتُبِ جَالِينُوسَ الصَّحِيحَةِ وَالْمُنْحَوَلَةِ إِلَيْهِ عَلَى مَا اثْبَتَهُ حُنَيْنُ بْنُ إِسْحَاقَ فِي كِتَابِهِ مِمَّا قَدْ وَجَدَهُ وَأَنَّهُ قَدْ نَقَلَ إِلَى اللُّغَةِ الْعَرَبِيَّةِ، وَكَانَ ذِكْرُهُ لِذَلِكَ. وَقَدْ آتَى عَلَيْهِ مِنَ السَّنِينَ ثَمَانٍ وَأَرْبَعُونَ سَنَةً، وَكَانَتْ مَدَّةُ حَيَاتِهِ سَبْعِينَ سَنَةً، فَبِالضَّرُورَةِ أَنَّهُ قَدْ وَجَدَ أَشْيَاءَ كَثِيرَةً أَيْضًا مِنْ كُتُبِ جَالِينُوسَ وَنَقَلَتْ إِلَى الْعَرَبِيَّةِ. كَمَا قَدْ وَجَدْنَا كَثِيرًا مِنْ كُتُبِ جَالِينُوسَ وَمِمَّا هُوَ مَنْسُوبٌ إِلَيْهِ يَنْقَلُ حُنَيْنُ بْنُ إِسْحَاقَ وَغَيْرِهِ، وَلَيْسَ لَهَا ذِكْرٌ أَصْلًا فِي كِتَابِ الْمَقْدَمِ ذِكْرُهُ. وَمِنْ ذَلِكَ...

5

I say: this is the bulk that can be mentioned of Galen's books, either authentic (*aṣ-ṣahīḥah*) or falsely attributed (*al-manḥūlah*) to him, as it is established by Ḥunayn Ibn 'Ishāq in his book among what he could find — and this was translated into Arabic

¹³Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, I, 101.15–16.

¹⁴248–9/863–4. See Bergsträsser: (Bergsträsser, "Neue Materialien zu Ḥunayn Ibn 'Ishāq's Galen-Bibliographie", see n. 4, 84.9–10) مَقَالَةٌ لِحُنَيْنِ بْنِ إِسْحَاقَ فِي ذِكْرِ الْكُتُبِ الَّتِي لَمْ يَذْكُرْهَا جَالِينُوسَ فِي فِهْرَسْتِ كُتُبِهِ. This appendix which deals with works not mentioned by Galen in the *On My Own Books* (here referred as *fihrist*), is otherwise preserved in two manuscripts: Ayasofya 3590 (= B), ed. Bergsträsser, (ibid.) and Ayasofya 3593 (= C), ed. Fabian Käs. (Fabian Käs, "Eine neue Handschrift von Ḥunayn Ibn 'Ishāq's Galenbibliographie", *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften*, 19 [2010–11], 135–93)

and mentioned for this reason. He was by then forty-eight years old,¹⁵ but he lived
10 up to seventy years, so he must have found also many other books of Galen — and
they were translated into Arabic. Likewise, we have found a number of books of
Galen, or attributed (*mansūb^{un}*) to him in the translation of Ḥunayn Ibn 'Ishāq or
others — and they are not at all mentioned in Ḥunayn's above quoted work. They are
the following...¹⁶

Again, one must pay attention to the words used by Ibn 'Abī 'Uṣaybi'ah here: first, he mentions all the books that were explicitly recorded by Ḥunayn. From him, it is known that some are 'authentic' while others are 'falsely attributed' to Galen, but they all can be found in Arabic translation. Then Ibn 'Abī 'Uṣaybi'ah assumes that Ḥunayn must have carried on his investigations until he died: this is why a bulk of other books are found in Arabic translation, and seemingly, at least in some instances, why Ibn 'Abī 'Uṣaybi'ah himself found them too ('likewise we have found'), either in Ḥunayn's or others' translations. As regards the authorship of those books, of interest is to note that Ibn 'Abī 'Uṣaybi'ah considers some as undisputably authentic ('a number of books of Galen'), while others are referred to as Galen's ('attributed to him'). But are the latter authentic? Ibn 'Abī 'Uṣaybi'ah cannot possibly comment. Instead, one must understand, he merely gives the list of all of these. Doing so, he closes the inventory of Galen's books, either authentic or not, as it is known in the Islamic world.¹⁷

Regarding their content, the lists provided in the *'Uyūn al-'anbā'* call for some remarks about the method exhibited by Ibn 'Abī 'Uṣaybi'ah and

¹⁵From this information, Max Meyerhof (Max Meyerhof, "Über die echte und unechte Schriften Galens, nach arabische Quellen", *Sitzungsberichte der Preussischen Akad. der Wissenschaften* [1928], 533–48, repr. Fuat Sezgin [ed.], *Galen in the Arabic Tradition: Texts and Studies*, xx [3; Frankfurt am Main: Institute for the history of Arabic-Islamic Science, 1996], 542, n. 1) assumes that Ibn 'Abī 'Uṣaybi'ah has used the text of the first recension of Ḥunayn's *Risālah* which he composed in 240–1/858–9 to build his first own list (see above on page 3). This is the text of ms. A (Ayasofya 3631), edited by Bergsträsser. (Bergsträsser, "Ḥunayn ibn 'Ishāq über die syrischen und arabischen Galen-Übersetzungen", see n. 12) This assumption is seemingly confirmed by the comparison between the variant readings of Galen's titles. At least in four instances, mss. BC agree against ms. A and Ibn 'Abī 'Uṣaybi'ah (Gotthelf Bergsträsser [ed.], = *Ḥunayn ibn 'Ishāq, Risālah* [1925] [henceforth Ḥunayn, *Risālah*], 9, 15, 104, 124). However, see also Ḥunayn, *Risālah*, 76. On the readings of ms. C, see Käs, see n. 14, 140–1.

¹⁶Ibn 'Abī 'Uṣaybi'ah, *'Uyūn al-'anbā'*, I, 102.10–15.

¹⁷As far back as Ḥunayn's time, the inventory of the *Risālah* was not deemed to be exhaustive, for ar-Rāzī, who was contemporary with the son of Ḥunayn, composed a specific treatise entitled *On Supplementing What Was Left of Galen's Books, and What Is Not Mentioned by Ḥunayn Nor by Galen in His Index* (viz. *On My Own Books*), *fi 'stidrāk mā baqiya min kutub Ġālīnūs mimmā lam yadkur-hu Ḥunayn wa-lā Ġālīnūs fi Fihristi-h*. See Gotthard Strohmaier, "Ḥunayn b. 'Ishāq al-'Ibādī", *EI²* (2012), accessed Apr. 24, 2018 for the references.

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his purpose. As Bergsträsser¹⁸ already pointed out, what has been written by Ḥunayn as an epistle composed in running paragraphs is given by Ibn ʿAbī ʿUṣaybiʿah in the form of a strongly abbreviated list. For example, where Ḥunayn says ‘his book on...’ (*kitābu-hu fī...*), one only finds in Ibn ʿAbī ʿUṣaybiʿah ‘the book...’ (*kitāb*). Likewise, linking sentences used by Ḥunayn to provide continuity of thought have also been rearranged into the form of a list.¹⁹ Doing so, Ibn ʿAbī ʿUṣaybiʿah but follows an established tradition, as we know from the recently edited ms. C (Ayasofya 3593) of the *Risālah* which is also in the form of an abbreviated list — one may call it a ‘working paper’, let alone its seemingly being the most ancient witness of Ḥunayn’s text.²⁰

The following points of interest are retained in Ibn ʿAbī ʿUṣaybiʿah’s list: the *title*, the *number of books* each treatise consists of, the *availability in Arabic* and the *authorship*, namely its being authentic or not. The information regarding the identity of the translators or the translations are mostly discarded. As the latter is commonly found in the last part of each entry, Bergsträsser assumed that Ibn ʿAbī ʿUṣaybiʿah was only interested in the information given in the first part of each paragraph of the *Risālah*.²¹ For that reason, the cause of any missing expected piece of information in Ibn ʿAbī ʿUṣaybiʿah is attributed to mechanical mistakes.

However, this may not be entirely true, as will be demonstrated in the final version of this paper through close examination of items provided in Ibn ʿAbī ʿUṣaybiʿah’s lists.



[Examples to be inserted here. Make a selection?]

As a matter of fact, all items provide a particularly interesting insight into the way in which Ibn ʿAbī ʿUṣaybiʿah used Ḥunayn’s *Risālah*. Having stripped it out of all the elements he had no interest in, he used it as a *canvas* prepared to receive additional remarks of his own, or to be adapted in case some book which had fallen away at Ḥunayn’s time has become available later on. Of course, Ibn ʿAbī ʿUṣaybiʿah’s interventions, as quiet and discreet they must have been because of the high degree of achievement of the *Risālah*, may now all be taken for mistakes in the course of the tradition. But arguably, this would not be said in all fairness to Ibn ʿAbī ʿUṣaybiʿah.

¹⁸Bergsträsser, “Ḥunayn ibn ʿIshāq über die syrischen und arabischen Galen-Übersetzungen”, see n. 12, ii.

¹⁹See the examples in Bergsträsser, (ibid., iii) viz. Ḥunayn, *Risālah*, 116–7, 124.

²⁰See Käs (Käs, see n. 14, 138–40) and 137–8 for an excellent ‘state of the question’ on the text of Ḥunayn’s *Risālah*.

²¹Bergsträsser. (Bergsträsser, “Ḥunayn ibn ʿIshāq über die syrischen und arabischen Galen-Übersetzungen”, see n. 12, ii)

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Besides, that would mean forgetting that, as already seen above on page 3, Ibn 'Abī 'Uṣaybi'ah does not even mention Ḥunayn as the author of the first list of Galen's books he is about to provide — although he is often quoted by name inside the list.

What should be retained here for the time being is that surely Ibn 'Abī 'Uṣaybi'ah closes the account that has been opened by Ḥunayn four centuries ago; but most importantly, he provides his reader with an accurate insight into what may have contained a complete library of Galenic and pseudo-Galenic books translated into Arabic in the middle of the 13th century between Damascus and Cairo as material to be used in discussions between doctors and for medical formation.

How Galen's Books Were Used in Discussions and Seminars

Ibn 'Abī 'Uṣaybi'ah met in person many doctors whose biographical notes are found in the last part of chapter 14, *Fī ṭabaqāt al-ʿaṭibbāʾ al-mašhūrīna min ʿaṭibbāʾ diyār Miṣr*, “On the Classes of Celebrated Doctors Who Lived in Egypt”,²² and in chapter 15, *Fī ṭabaqāt al-ʿaṭibbāʾ al-mašhūrīna min ʿaṭibbāʾ aš-Šām*, “On the Classes of Celebrated Doctors Who Lived in Syria”.²³ From these notes naturally emerge many scenes of discussions or seminars of which he was a direct witness as a participant or disciple.

In one of the most significant examples, Ibn 'Abī 'Uṣaybi'ah puts himself into stage as disciple of Muwaffaq ad-Dīn Ya'qūb ibn Siqlāb (d. 625/1228),²⁴ a Christian physician who was known, says Ibn 'Abī 'Uṣaybi'ah, as “the most prominent man in his time in the science, the understanding, <the art of> establishing the authentic meanings and the knowledge of Galen's books”:²⁵ *كَانَ أَعْلَمَ أَهْلِ زَمَانِهِ بِكُتُبِ جَالِينُوسَ وَمَعْرِفَتِهَا وَالتَّحْقِيقِ لِمَعَانِيهَا وَالدَّرَابَةِ لَهَا.* This example is remarkable in many respects.

First, Ya'qūb, contrary to Ibn 'Abī 'Uṣaybi'ah, had in-depth knowledge of Greek so that he had direct access to the originals of Galen's books:

وَكَانَ الْحَكِيمُ يُعَقُّوبُ أَيْضًا مُتَقَنَّاً لِللِّسَانِ الرَّومِيِّ وَخَبيراً بِلُغَتِهِ وَنَقَلَ مَعْنَاهُ إِلَى الْعَرَبِيِّ وَكَانَ عِنْدَهُ بَعْضُ كُتُبِ جَالِينُوسَ مَكْتُوبَةً بِالرُّومِيِّ مِثْلَ حِيلَةِ الْبَرِّ وَالْعَلَلِ وَالْأَعْرَاضِ وَغَيْرِ ذَلِكَ وَكَانَ أَيْضًا مُلَازِماً لِقِرَاءَتِهَا وَالْإِسْتِغَالِ بِهَا.

²²Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, II, 82.

²³Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, II, 134.

²⁴Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, II, 214–6. Read سِقْلَابٌ as in 'Abd as-Sattār 'Aḥmad Farrāğ et al. (eds.), *Muḥammad Murtada 'l-Ḥusaynī az-Zabīdī, Tāğ al-'arūs min ḡawāhir al-qāmūs*, 40 vols. (*Maṭba'at ḥukūmat al-kūwayt*, 1965–2001) (henceforth *Tāğ al-'arūs*), iii 64.

²⁵Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, II, 214.20–21.

The wise (*al-hakīm*) Ya'qūb also knew thoroughly Greek and was an expert in this language and the translation of its wording into Arabic; he owned some of the books of Galen written in Greek such as *The art of healing* (*ḥīlat al-bur'*, *De methodo medendi*), *The causes and the symptoms* (*al-'ilal wa-'l-'a'rāḍ*, *De causis et symptomatis*) among other books which he was continuously reading and studying.²⁶

It goes without saying that both Galenic treatises, which are part of the so-called Alexandrian Canon, are mentioned here by Ibn 'Abī 'Uṣaybi'ah for their usefulness in medical training, “among other books”.

Second, this in-depth knowledge of Greek and of Galen's books in the original Greek must also be viewed within the larger frame of medical education in Ibn 'Abī 'Uṣaybi'ah's time. On this account, the way Ibn 'Abī 'Uṣaybi'ah himself carried out the study of Hippocrates' and Galen's books under Ya'qūb is a rich source of information about the methods that were employed and how thoroughly the texts were apprehended:

وَمَا شَاهَدْتُهُ فِي ذَلِكَ مِنْ أَمْرِهِ أَنِّي كُنْتُ أَقْرَأُ عَلَيْهِ فِي أَوَائِلِ اسْتِعْجَالِي بِصِنَاعَةِ الطِّبِّ (...) شَيْئًا مِنْ كَلَامِ بُقْرَاطٍ حَفِظًا وَاسْتَشْرَاحًا، فَكُنْتُ أَرَى، مِنْ حُسْنِ تَأْتِيهِ لِلشَّرْحِ وَشِدَّةِ اسْتِقْصَائِهِ لِلْمَعَانِي بِأَحْسَنِ عِبَارَةٍ وَأَوْجَزِهَا وَأَتْمَمَهَا، مَعْنَى مَا لَا يَجْسُرُ أَحَدٌ عَلَى مِثْلِ ذَلِكَ وَلَا يَقْدِرُ عَلَيْهِ. ثُمَّ يَذْكُرُ خُلَاصَةَ مَا ذَكَرَهُ وَحَاصِلَ مَا قَالَهُ، حَتَّى لَا يَبْقَى فِي كَلَامِ بُقْرَاطٍ مَوْضِعٌ إِلَّا وَقَدْ شَرَحَهُ شَرْحًا لَا مَزِيدَ عَلَيْهِ فِي الْجَوْدَةِ. ثُمَّ أَنَّهُ يُورِدُ نَصَّ مَا قَالَهُ جَالِينُوسُ فِي شَرْحِهِ لِذَلِكَ الْفَصْلِ عَلَى التَّوَالِي إِلَى آخِرِ قَوْلِهِ، وَلَقَدْ كُنْتُ أُرَاجِعُ شَرْحَ جَالِينُوسُ فِي ذَلِكَ فَأَجِدُهُ قَدْ حَكَى جُمْلَةً مَا قَالَهُ جَالِينُوسُ بِأَسْرِهِ فِي ذَلِكَ الْمَعْنَى. وَرَبَّمَا أَلْفَاظَ كَثِيرَةً مِنْ أَلْفَاظِ جَالِينُوسُ يُورِدُهَا بِأَعْيَانِهَا مِنْ غَيْرِ أَنْ يَزِيدَ فِيهَا وَلَا يَنْقُصُ. وَهَذَا شَيْءٌ كَانَ قَدْ تَفَرَّدَ بِهِ فِي زَمَانِهِ.

Here follows what I can account for with respect to him: I was studying under him at the start of my medical studies (...) a passage of Hippocrates in order to learn it by heart and to ask for an explanation, and I was able to see, from the outstanding gentleness with which he applied himself to the explanation, the rigour in his searching to the utmost the meaning <of the words> with the highest degree of excellence, concision and completeness in the expression, some matter of meaning that no man ventured upon or was able to reach. Then, he gave the choice part (*ḥulāṣah*) of what he had mentioned and the essential import of what he had said, until no passage in the words of Hippocrates was left that he had not extensively commented on in a way that there might not be any desire for further profuseness. Then he mentioned the text of Galen's commentary on that section unremittingly until the end, and returning to Galen's commentary on that <subject>, I found that he recited altogether what Galen had said on this passage (*fi dālīka 'l-ma'nā*), and many were the sentences of Galen that he mentioned word for word (*bi-'a'yāni-hā*) without adding or omitting anything. Such was the feat that only him has been known to perform in his time!²⁷

²⁶Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, II, 215.17–19.

²⁷Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, II, 214.29–215.5.

As the final clause of this passage clearly shows, Ya'qūb's ability of scrutinizing the Greek sources, as seemingly only a Christian doctor could do, is reckoned by Ibn 'Abī 'Uṣaybi'ah to be a paragon of scholarship. This competence must have been rare enough for Ibn 'Abī 'Uṣaybi'ah to emphasize that Ya'qūb "may have been the only one (*kāna qad tafarrada*) to master it in his time": *wa-hādā šay^{un} kāna qad tafarrada bi-hi fī zamāni-hi*. (l. 7) It is as a whole very interesting because it puts two characters into stage, namely the Christian as a master who delivers on the words of Hippocrates his own explanation in two steps, first with a combination of extensiveness and concision, then in a summarized version²⁸ which was certainly meant to be learnt by heart — and the Muslim as a disciple, in his attempt at studying words that are by essence difficult to understand.

Furthermore, it must be noted that only the words of Hippocrates need explanation. As regards Galen, no explanation whatsoever is either given or even expected, as the words of the narrative that are related to the use of Galen by Ya'qūb show: "Then he mentioned the text of Galen's commentary on that section unremittingly until the end."²⁹ Unlike Hippocrates, Galen does not require to be summarized or explained: he only requires to be consigned to memory. The rest of the text only emphasizes the feat of the master who has come off stage so that the disciple, left alone, might dedicate his time to check Galen's words that his master had just quoted at length without omitting any of them. This shows that Galen is also meant to be checked against the sources. This feature will prove of paramount importance to understand how Muslims actually collaborated with Christians in studying Galen's texts in the medical community at Ibn 'Abī 'Uṣaybi'ah's time.

In this respect, another important scene is worth mentioning. Unlike the one quoted above which was about teaching, this one deals with research. Two prominent characters are put into stage by Ibn 'Abī 'Uṣaybi'ah: the same Ya'qūb and his own master Muhaddab ad-Dīn (see above n. 9 on page 3):

وَكَانَ فِي أَوْقَاتٍ كَثِيرَةٍ لَمَّا أَقَامَ بَدِمَشَقَ يَجْتَمِعُ هُوَ وَالشَّيْخُ مَهْدَبُ الدِّينِ عَبْدِ الرَّحِيمِ بْنِ عَلِيٍّ فِي الْمَوْضِعِ الَّذِي
يَجْلِسُ فِيهِ الْأَطِبَّاءُ عِنْدَ دَارِ السُّلْطَانِ وَيَتَبَايَعُونَ فِي أَشْيَاءَ مِنَ الطَّبِّ. فَكَانَ الشَّيْخُ مَهْدَبُ الدِّينِ أَفْصَحَ عِبَارَةً وَأَقْوَى
بَارِعَةً وَأَحْسَنَ بَحْثًا وَكَانَ الْحَكِيمُ يَعْقُوبُ أَكْثَرَ سَكِينَةً وَأَبِينَ قَوْلًا وَأَوْسَعَ نَقْلًا لِأَنَّهُ كَانَ بِمَنْزِلَةِ التَّرْجَمَانِ الْمُسْتَحْضَرِ لَمَّا
ذَكَرَهُ جَالِينُوسُ فِي سَائِرِ كُتُبِهِ مِنْ صِنَاعَةِ الطَّبِّ.

⁵ On many occasions, when he was staying in Damascus, he [viz. Ya'qūb] met the master (*aš-šayḥ*) Muhaddab ad-Dīn 'Abd ar-Raḥīm ibn 'Alī at the place where the physicians sat in the Sultan's residence and both used to discuss research issues with

²⁸See in the passage quoted on the current page (l. 14): "Then, he gave the choice part (*ḥulāṣah*) of what he had mentioned..."

²⁹See above on this page (l. 17).

regard to medical subjects. The master (*aš-šayḥ*) Muḥaddab ad-Dīn was clearer in his speech, stronger in eloquence, and better in research, while the practitioner (*al-ḥakīm*) Ya'qūb was more steady, more distinct in speaking and could draw on a wider tradition because he was in the position of an interpreter who <was able to> recall what Galen had mentioned about medicine in all of his books.³⁰

Certainly this presentation poses a clear distinction between the two characters — The Muslim physician is referred to as ‘the master’ (*aš-šayḥ*). The Christian physician, on the other hand, is called *al-ḥakīm* which in contrast is to be understood as ‘the practitioner’. This distinction against the latter is confirmed by the sentence that immediately follows: “*As regards the therapeutics of the physician (al-ḥakīm) Ya'qūb, they were of the utmost excellence and accomplishment*”, فَأَمَّا مُعَالَجَاتُ الْحَكِيمِ يَعْقُوبَ فَإِنَّهَا كَانَتْ فِي الْعَايَةِ مِنَ الْجُودَةِ،³¹ Similarly, the steadiness of the latter and his care for accuracy do not compare with the strength in eloquence of the former and his skills as a researcher. Behind this scientific hierarchy, one can therefore clearly see that Muslims and Christians held very different social positions.

Nonetheless, this scene is important towards understanding how Galen’s texts were studied in the medical community at Ibn ‘Abī ‘Uṣaybi‘ah’s time. With the invaluable help of colleagues who were able to read Greek, not only prominent figures in medical research such as Muḥaddab ad-Dīn had direct access to the Greek sources, but also they always concerned themselves with checking the Arabic versions of Galen they were studying against the Greek sources without neglecting the variant readings. That his how the reference to Ya'qūb as a man who “could draw on a wider tradition” [*awsa‘a naql^{an}*, see on this page (l. 10)] must be understood. While the Arabic *naql* conveys the general idea of ‘translating’ or ‘transmitting’, its meaning is specified by the rest of the sentence: “*because (li-‘anna-hu) he was in the position of an interpreter who was able to recall (at-tarḡumān al-mustahḍir)...*” (*ibid.*)

Furthermore, to return to the essential issue of the availability of Galen’s books at that time, Ibn ‘Abī ‘Uṣaybi‘ah lays stress on the extent of the Greek sources of Galen that were available by adding that Ya'qūb was able to recall what Galen “had mentioned about medicine in *all of his books*”, مَا ذَكَرَهُ... فِي، سَائِرِ كُتُبِهِ مِنْ صِنَاعَةِ الطِّبِّ. [See on the previous page (l. 11)]. The importance of this remark is twofold. First, it lets us know that all of the manuscripts of Galen were arguably available in Greek to those who could read them. Then, it completes this picture of the physicians at work on reading Galen: the ones — the Christians — naturally read Galen in the Greek original, while the

³⁰Ibn ‘Abī ‘Uṣaybi‘ah, *Uyūn al-‘anbā’*, II, 215.5–10.

³¹Ibn ‘Abī ‘Uṣaybi‘ah, *Uyūn al-‘anbā’*, II, 215.10.

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others — the Muslims — certainly read him in translation, but also worked in close collaboration with the former who could enlighten difficult passages by the Greek or check the variant readings recorded by the Greek manuscripts. So abundance in number of, and ease of access to Galen’s books are the two dominant features that distinguish teaching and research on medicine at this time and but active collaboration between doctors from different confessions could reach.

Boundaries Between Confessions

The passage quoted above on the preceding page, brought together with the anecdotes related about al-Maḥallī,³² shows that the physicians, either Muslims, Jews or Christians, worked and taught in close collaboration at this time.³³

Furthermore, as one can see [spec. on the preceding page (l. 1)], active discussions between physicians, regardless of religion, were facilitated by the Sultan himself who provided a special place at his residence to be used as a *maḡlis* for research: “[Ya‘qūb and Muḥaddab ad-Dīn met] at the place where the physicians sat in the Sultan’s residence, and both used to discuss research issues with regard to medical subjects”, *fi ‘l-mawḍi‘i ‘lladī yaḡlisu fī-hi ‘l-‘aṭibbā‘u ‘inda dāri ‘s-sultāni wa-yatabāḡatāni fī ‘ašyā‘a mina ‘t-ṭibbi*. This research *maḡlis* must not be confused with the one that al-Malik al-‘Ašraf created for Muḥaddab ad-Dīn after 626/1229 for teaching medicine:³⁴ Ya‘qūb, died about one year ago in 625/1228³⁵ and never got to know it.³⁶ Be that as it may, the grammatical variation in the sentence just quoted between the first verb *yaḡlisu*, “they sat/they used to seat” in agreement with the plural *al-‘aṭibbā‘u*, “the doctors”, and the second verb in the dual, *yatabāḡatāni* that refers circumstantially to Ya‘qūb and Muḥaddab ad-Dīn only, clearly shows

³²See above on page 2

³³However see Anne-Marie Eddé, “Les médecins dans la société syrienne du VII^e/XIII^e siècle”, *Annales Islamologiques*, 29 (1995), 91–109 at p. 93, to be taken with caution on this point.

³⁴See 9 on page 3.

³⁵Ibn ‘Abī ‘Uṣaybi‘ah, *Uyūn al-‘anbā’*, II, 216.9–10.

³⁶Ibn ‘Abī ‘Uṣaybi‘ah says exactly as follows: “He [*sc.* Muḥaddab ad-Dīn] arrived in Damascus when al-Malik al-‘Ašraf took possession of it in the year 626/1229, while he was in company with him; he appointed him to the post of head (*ri‘āsaḡ*) of medicine — a position that he kept for a long space of time — and he created for him (*wa-ḡa‘ala la-hu*) a *maḡlis* for teaching the art of medicine.” *وَوَصَلَ إِلَى دِمَشْقَ لَمَّا مَلَكَهَا الْمَلِكُ الْأَشْرَفُ فِي سَنَةِ سِتِّ وَعِشْرِينَ وَسَمَائَةَ وَهُوَ مَعَهُ* “فَوَلَّاهُ رِئَاسَةَ الطِّبِّ وَبَقِيَ كَذَلِكَ مَدِينَةً وَجَعَلَ لَهُ مَجْلِسًا لِتَدْرِيسِ الطِّبِّ” (Ibn ‘Abī ‘Uṣaybi‘ah, *Uyūn al-‘anbā’*, II, 244.10–12).

that this *maḡlis* at the Sultan’s residence, in which discussions between Muslims and *ḍimmis* was favored, was a permanent structure.

Other circumstances offer a more contrasted picture. For example, we know that a muslim doctor, Šaraf ad-Dīn ar-Raḡbī (583/1187–667/1267),³⁷ worked in Damascus in the an-Nūrī Hospital in close collaboration with the same Muḥaḍḍab ad-Dīn. His biographical note gives an interesting information about a medical school founded by the latter:

وَمَا وَقَفَ شَيْخُنَا مُدَبِّبُ الدِّينِ عَبْدِ الرَّحْمَنِ بْنِ عَلِيٍّ رَحِمَ اللَّهُ الدَّارَ الَّتِي لَهُ بِدِمَشَقَ وَجَعَلَهَا مَدْرَسَةً يُدْرَسُ فِيهَا
صِنَاعَةَ الطِّبِّ وَيَنْتَفِعُ الْمُسْلِمُونَ بِقِرَاءَتِهِمْ فِيهَا أَوْصَى أَنْ يَكُونَ مَدْرَسَهَا شَرَفَ الدِّينِ بْنِ الرَّحِيِّ لَمَّا قَدْ تَحَقَّقَتْ مِنْ عَلَيْهِ
وَفَهْمِهِ.

When our master Muḥaḍḍab ad-Dīn ‘Abd ar-Raḡīm ibn ‘Alī, God have mercy on
5 him, bequeathed the house he had in Damascus and turned it into a school for the
Muslims to study medicine there and benefit from lectures to attend, he decided in his
will that the lecturer be Šaraf ad-Dīn ibn ar-Raḡbī once established his science and
intelligence.³⁸

Not surprisingly, as Muḥaḍḍab ad-Dīn’s school was founded as a charitable endowment (*waqf*), only Muslim disciples were allowed to attend, as such bequeathment was an act of piety. But this does not mean that Jews and Christians may not have been excluded from attending medical training in other circumstances. In this respect, the biographical note dedicated to ar-Raḡbī’s father, Raḡī ad-Dīn ar-Raḡbī, provides an interesting anecdote which is related first-hand by Ibn ‘Abī ‘Uṣaybi‘ah as follows:

وَحَدَّثَنِي الشَّيْخُ رَضِيَ الدِّينُ³⁹ قَالَ: إِنَّ جَمِيعَ مَنْ قَرَأَ عَلَيَّ وَلَا زَمَنِي فَإِنَّهُمْ سَعَدُوا وَانْتَفَعَ النَّاسُ بِهِمْ وَذَكَرَ لِي أَسْمَاءَ
كَثِيرِينَ مِنْهُمْ قَدْ تَمَيَّزُوا وَاشْتَهَرُوا فِي صِنَاعَةِ الطِّبِّ مِنْهُمْ مَنْ قَدْ مَاتَ وَمِنْهُمْ مَنْ كَانَ بَعْدَ فِي الْحَيَاتِ وَكَانَ يَرُوي أَنَّهُ
لَا يَقْرَأُ أَحَدًا مِنْ أَهْلِ الذِّمَّةِ أَصْلًا صِنَاعَةَ الطِّبِّ وَلَا لِمَنْ لَا يَجِدُهُ أَهْلًا لَهَا وَكَانَ يُعْطِي الصِّنَاعَةَ حَقَّهَا مِنَ الرَّئِيسَةِ
وَالتَّعْظِيمِ وَقَالَ لِي إِنَّهُ لَمْ يَقْرَأْ فِي سَائِرِ عُمُرِهِ مِنَ الذِّمَّةِ سِوَى اثْنَيْنِ لَا غَيْرَ أَحَدُهُمَا الْحَكِيمُ عِمْرَانُ الْإِسْرَائِيلِي وَالْآخَرُ
5 إِبْرَاهِيمُ بْنُ خَلْفِ السَّامِرِيِّ بَعْدَ أَنْ ثَقَلَا عَلَيْهِ بِكُلِّ طَرِيقٍ وَشَفَّعَا عِنْدَهُ بِجِهَاتٍ لَا يُمَكِّنُهُ رُدُّهُمُ وَكُلُّ مَنْهَا نَبِغٌ وَصَارَ
طَبِيبًا فَاضِلًا.

The Shaykh Raḡī ad-Dīn told me: “All those who studied under me and resorted
to me were helpful and the people benefited from them.” Then he gave me the names
of many of them who were distinguished and prominent in the art of medicine. Some
10 were already dead, while others were still alive. He said that he did not teach to any
ḍimmī [viz. any Jew or Christian] at all the art of medicine, nor did he to anyone
who was not worthy of it, for he hold true science in high dignity and importance.
He told me that all his live he never taught to any *ḍimmī* except two and no one else:

³⁷See Ibn ‘Abī ‘Uṣaybi‘ah, *‘Uyūn al-‘anbā’*, II, 195.22.

³⁸Ibn ‘Abī ‘Uṣaybi‘ah, *‘Uyūn al-‘anbā’*, II, 196.2–4.

³⁹After this name Müller reads *يَوْمًا*, “one day”.

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15 the wise 'Imrān al-'Isrā'īlī and 'Ibrāhīm ibn Ḥalaf the Samaritan, after they pressed him by all means and tried persuasion on him, in such a way that he could not turn them down. Both became talented and excellent physicians.⁴⁰

⚡ [This needs discussion. He and Ibn al-Maṭrān were disciples of Muḥad-
ḍab ad-Dīn ibn an-Naqqāš. I have collected many examples on the way
medicine was taught from master to disciples: who taught to whom, Mus-
lims to *dimmīs* and vice versa. On which books, and how sources were ap-
proached depending on the confession. The most significant examples as to
how medicine was taught will be inserted here.]

Conclusion

⚡ [Yet to be written.]

Cited References

- 'Abd as-Sattār 'Aḥmad Farrāğ et al. (eds.), *az-Zabīdī, Tāğ al-'arūs min ḡawāhir al-qāmūs*, 40 vols. (*Maṭba'at ḥukūmat al-kūwayt*, 1965–2001) (cit. on p. 7).
- Alessi, Robert, “The Reception of Galen in Ibn 'Abī 'Uṣaybi'ah”, in *Brill's Companion to the Reception of Galen*, ed. Petros Bouras-Vallianatos and Barbara Zipser (Leiden – Boston: Brill, 2019), 279–303 (cit. on pp. 1, 2).
- Bergsträsser, Gotthelf, “Ḥunayn ibn 'Ishāq über die syrischen und arabischen Galen-Übersetzungen”, *Abhandlungen für die Kunde des Morgenlandes: herausgegeben von der Deutschen Morgenländischen Gesellschaft*, 17/2 (1925) (cit. on pp. 3–6).
- Bergsträsser, Gotthelf, “Neue Materialien zu Ḥunain Ibn Ishāq's Galen-Bibliographie”, *Abhandlungen für die Kunde des Morgenlandes: Herausgegeben von der Deutschen Morgenländischen Gessellschaft*, 19/2 (1932), 7–108 (cit. on pp. 2, 4).
- Boudon-Millot, Véronique (ed.), *Galien, Introduction générale, Sur l'ordre de ses propres livres, Sur ses propres livres, Que l'excellent médecin est aussi philosophe* (Paris: Les Belles Lettres, 2007).

⁴⁰Ibn 'Abī 'Uṣaybi'ah, *Uyūn al-'anbā'*, II, 193.26–32.

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- Brockelmann, Carl, *Geschichte der Arabischen Literatur*, 2 vols. (1937–1949; 2nd edn., Leiden: Brill, 1943–49); supplement vols. 1–3, Leiden, 1937–42; reprinted 6 vols., Leiden, 1996 (cit. on p. 2).
- Eddé, Anne-Marie, “Les médecins dans la société syrienne du VII^e/XIII^e siècle”, *Annales Islamologiques*, 29 (1995), 91–109 (cit. on p. 11).
- Gannagé, Emma, “Médecine et philosophie à Damas à l’aube du XIII^e siècle : un tournant post-avicennien?”, *Oriens*, 39/2 (2011), 227–56 (cit. on p. 2).
- Käs, Fabian, “Eine neue Handschrift von Ḥunain Ibn Ishāqs Galenbibliographie”, *Zeitschrift für Geschichte der arabisch-islamischen Wissenschaften*, 19 (2010–11), 135–93 (cit. on pp. 4–6).
- Meyerhof, Max, “Über die echte und unechte Schriften Galens, nach arabische Quellen”, *Sitzungsberichte der Preussischen Akad. der Wissenschaften* (1928), 533–48 (cit. on p. 5), repr. Sezgin, Fuat (ed.), *Galen in the Arabic Tradition: Texts and Studies*, xx (3; Frankfurt am Main: Institute for the history of Arabic-Islamic Science, 1996).
- Müller, August (ed.), *Ibn ‘Abī ‘Uṣaybi‘ah, Uyūn al-‘anbā’ fī ṭabaqāt al-‘aṭib-bā’*, 2 vols. (Königsberg and Cairo, 1882–4) (cit. on pp. 1–13), repr. Sezgin, Fuat (ed.), 2 vols. (Frankfurt am Main: Institute for the history of Arabic-Islamic Science, 1995); Reprint of the edition of Cairo 1882/1299.
- Pormann, Peter E. and Savage-Smith, Emilie, *Medieval Islamic Medicine* (Edinburgh: Edinburgh University Press, 2010) (originally pub. 2007) (cit. on p. 3).
- Strohmaier, Gotthard, “Ḥunayn b. Ishāq al-‘Ibādī”, *EI²* (2012), http://dx.doi.org/10.1163/1573-3912_islam_COM_0300, accessed Apr. 24, 2018 (cit. on p. 6).
- Vernet, J., “Ibn Abī Uṣaybi‘a”, *EI²* (2012), http://dx.doi.org/10.1163/1573-3912_islam_SIM_3058, accessed Apr. 24, 2018 (cit. on p. 2).