

# Latin-into-Hebrew Treatises on the Black Death

Diana Di Segni

## Abstract

When the first epidemics of the Black Death struck Europe, a specific genre of medical literature on the plague developed. Among the medical manuals circulating at the time, a certain number were also written in Hebrew. Some of them were original works composed by Jewish physicians; other texts were translations of Arabic and Latin works into Hebrew. The phenomenon of Latin-into-Hebrew translations has long been disregarded, as it was considered marginal compared to the Arabic-into-Hebrew movement; this paper sheds light on this lesser-known aspect of the intercultural exchanges involving Hebrew, by focusing on plague treatises. The corpus of medical literature on the plague that was translated from Latin into Hebrew includes works by Gentile da Foligno, Francesco Zanelli of Bologna, John of Burgundy, Petrus de Tossignano, Antonio Guaineri of Pavia, and Valescus de Taranta. The aim of the paper is to offer a general overview of these texts, as until now only incomplete or erroneous information is available.

## 1.

When the first epidemics of the Black Death struck Europe between 1348 and 1353, a specific genre of medical literature developed and became widely influential.<sup>1</sup> Treatises devoted to the plague gathered scientific explanations for the pestilence, practical advice to avoid an infection, and possible remedies to treat the disease.<sup>2</sup> Among the various medical manuals circulating at the time, a certain number of those dedicated to the causes, treatment, and prevention of the plague were also written in

---

\* This research was funded by the Department of Philosophy “Piero Martinetti” of the University of Milan under the Project “Departments of Excellence 2018-2022” awarded by the Ministry of University and Research (MUR).

<sup>1</sup> For a general overview on the Black Death, see Anna Montgomery Campbell, *The Black Death and Men of Learning* (New York: Columbia University Press, 1931); Philip Ziegler, *The Black Death* (London: Collins, 1969; repr. 1991); Jean-Nöel Biraben, *Les hommes et la peste en France et dans les pays européens et méditerranéens*, 2 vols (Paris-La Haye: Mouton, 1975–76); *The Black Death*, trans. and ed. by Rosemary Horrox, (Manchester-New York: Manchester University Press, 1994); Jon Arrizabalaga, ‘Facing the Black Death: Perceptions and reactions of university medical practitioners’, in *Practical Medicine from Salerno to the Black Death*, ed. by Luis García-Ballester and others (Cambridge: Cambridge University Press, 1994), pp. 237–88. See also chapter 3 of this volume.

<sup>2</sup> For a brief presentation of the most famous treatises, see Dorothea Waley Singer, ‘Some Plague Tractates (Fourteenth and Fifteenth Centuries)’, *Proceedings of the Royal Society of Medicine*. Section of the History of Medicine, 9 (1916), pp. 159–212. For a more detailed analysis, see Karl Sudhoff, ‘Pestschriften aus den ersten 150 Jahren nach der Epidemie des ‘Schwarzen Todes’ 1348’, *Archiv für Geschichte der Medizin*, 4 (1910–11), pp. 191–222, pp. 389–424; 5 (1911–12), pp. 36–87, pp. 332–96; 6 (1912–13), pp. 313–79; 7 (1913–14), pp. 57–114; 8 (1914–15), pp. 175–214, pp. 236–86; 9 (1915–16), pp. 53–78; pp. 117–67; 11 (1918–19), pp. 44–92, pp. 121–76; 14 (1922–23), pp. 1–25, pp. 79–105, pp. 129–68; 16 (1924–25), pp. 1–76, pp. 77–188; 17 (1925), pp. 12–139, pp. 241–91.

Hebrew.<sup>3</sup> Original works composed by Jewish physicians as well as translations of Arabic and Latin texts into Hebrew formed a corpus of handbooks focused on the cure of the pestilence. Among the treatises written directly in Hebrew, we find the *Tractatulus de pestilentia* by Abraham Ben Solomon Hen;<sup>4</sup> the *Ma'amar be-qaddaḥot divriyyot u-minei qaddaḥot* ('Treatise on pestilential fevers and other kinds of fevers') by Abraham Caslari;<sup>5</sup> the *Be'er la-Hay* ('Well of life') by Isaac Ben Todros;<sup>6</sup> and the anonymous *Ha-ma'amar be-qaddaḥot ha-dever* ('Treatise on pestilential fever').<sup>7</sup>

The fact that medical literature in Hebrew flourished was first and foremost a result of the influence of works written in foreign languages, so that translations played a fundamental role in shaping Jewish medical libraries.<sup>8</sup> If in general Arabic-into-Hebrew translations were more frequent, the field of medicine represents an exception: especially in the fourteenth century, the number of Latin-into-Hebrew translations of medical treatises increased considerably.<sup>9</sup> This tendency reflects the needs of Jewish physicians, who sought for the most advanced knowledge that was available at the time, but whose access to contemporary scientific developments was hampered due to their lack of familiarity with the Latin language and to the fact that they were excluded from universities. The phenomenon of Latin-into-Hebrew translations has long been disregarded, as it was considered marginal compared to the Arabic-into-Hebrew movement.<sup>10</sup> The present paper sheds light on this lesser-known aspect of the intercultural exchanges involving Hebrew, by focusing on a specific genre within medical literature, namely plague treatises. The number of texts devoted to the pestilence that has been translated from Latin in the fourteenth and fifteenth centuries is a clear indicator of the interest that Jewish physicians had in the information at disposal of their Christian colleagues as well as of the shift towards Latin sources rather than Arabic ones. Often, these translations feature a preface written by the translator, which is of fundamental importance in order to understand the motivations that led to such an endeavour.

The corpus of medical literature on the plague that was translated from Latin into Hebrew includes works by Gentile da Foligno, Francesco Zanelli of Bologna, John of Burgundy, Petrus de Tossignano, Antonio Guaineri of Pavia, and Valescus de Taranta.<sup>11</sup> The aim of the present paper is

---

<sup>3</sup> For a survey of this literature, see Ron Barkai, 'Jewish Treatises on the Black Death (1350–1500): A Preliminary Study', in *Medicine from the Black Death to the French Disease*, ed. by Roger French and others (London: Routledge, 2020), pp. 6–25.

<sup>4</sup> See Gerrit Bos and Guido Mensching, 'The Black Death in Hebrew Literature: Abraham Ben Solomon Hen's *Tractatulus de pestilentia*', *Jewish Studies Quarterly*, 18 (2011), pp. 32–63.

<sup>5</sup> See Herman Pinkhof, *Abraham Kashlari over Pestachtige Koortsen*. Hebreewsch met Nederlandsche Vertaling. Naar het te Leiden voorhanden handschrift, benevens een bericht over vier andere 14e eeuwse Hebreewsche handschriften, handelende over de pest (Amsterdam: 1891).

<sup>6</sup> See David Ginzburg, 'Be'er la-Hay: The Plague Treatise of R. Isaac ben Todros' [Hebrew], in *Jubelschrift zum neunzigsten Geburtstag des Dr L. Zunz*, (Berlin: Gershel, 1884), pp. 91–126.

<sup>7</sup> The text is transmitted in the following manuscripts: Berlin, Staatsbibliothek Preussischer Kulturbesitz, Or. Qu. 836, fols 123–29, see Moritz Steinschneider, *Die Handschriften-Verzeichnisse der Königlichen Bibliothek zu Berlin: Verzeichniss der hebräischen Handschriften*, 2 vols (Berlin: Buchdruckerei der Königl. Akademie der Wissenschaften, 1878–1897), vol. 2, no. 232, p. 84.

<sup>8</sup> For a general overview, see Carmen Caballero-Navas, 'Medicine among Medieval Jews. The Science, the Art, and the Practice', in *Science in medieval Jewish cultures*, ed. by Gad Freudenthal (Cambridge: Cambridge University Press, 2011), pp. 320–42. On translations, see Luis García-Ballester and others, 'Jewish Appreciation of Fourteenth-Century Scholastic Medicine', *Osiris*, (2nd series), 6 (1990), pp. 85–117; Lola Ferre, 'Hebrew Translations from Medical Treatises of Montpellier', *Korot*, 13 (1998), pp. 21–36. On the use of Hebrew in medical writings, see Harry Friedenwald, 'The use of the Hebrew language in medical literature', *Bulletin of the Institute of the History of Medicine*, 2 (1934), pp. 77–111.

<sup>9</sup> See Gad Freudenthal, 'Arabic and Latin Cultures as Resources for the Hebrew Translation Movement. Comparative Considerations, Both Quantitative and Qualitative', in *Science in medieval Jewish cultures*, pp. 73–105.

<sup>10</sup> See Alexander Fidora and others, 'Latin-into-Hebrew: Introducing a Neglected Chapter in European Cultural History', in *Latin-into-Hebrew: Texts and Studies*, vol. 1, ed. by Alexander Fidora and others (Leiden-Boston: Brill, 2013), pp. 1–10.

<sup>11</sup> We also know of translations from Latin into Judeo-Spanish, such as the treatise *Preservatio contra pestilenciam*, written in 1370 by the physician Jean de Tournemire, see Barkai, 'Jewish Treatises on the Black Death', p. 7. Moreover,

to offer a general overview of these texts, as until now only incomplete or erroneous information is available.<sup>12</sup> Most references to those writings are found in scholarship that dates back to the nineteenth century and needs to be updated. Thanks to various ongoing projects dedicated to the digitalization of manuscripts, documents were recently made accessible, which enabled the identification of previously unknown sources. This contribution thus presents newly discovered data and organizes research material in a coherent way, by relating different pieces of information that were hitherto spread in various sources.

## 2.

In general, fourteenth and fifteenth-century plague treatises focus on three main aspects, namely on the causes of the epidemics, on the necessary measures to prevent contagion, and on the treatment of the disease itself. Understanding the causes of the pestilence was a crucial point often tackled by the authors. Two main causes were acknowledged: a metaphysical one — the divine will, which identifies God as the last cause — and a physical one.<sup>13</sup> Since remote physical causes are identified with the celestial spheres, numerous works feature an astrological *excursus*, in which the influence of the celestial bodies on the epidemics as well as on the cure is examined.<sup>14</sup> Following the theory of the great conjunctions, formulated in the nineteenth century by Albumasar, who considered the conjunction between the major planets (Saturn, Jupiter, and Mars) as the cause for political and natural calamities, the faculty of medicine in Paris adopted a similar explanation for the Black Death in 1348.<sup>15</sup> The conjunction of Saturn, Jupiter and Mars that was observable in 1345 was seen as the cause for the miasmas that corrupted the air and thus facilitated the spread of the malady.<sup>16</sup>

Since the corruption of the air was believed to be the result of excessive heat and humidity, the most commonly suggested remedies were fumigations and scents that were supposed to improve the quality of the air. According to traditional ancient medicine, opposites are cured with opposites, so that it was considered necessary to use cold and dry ingredients to balance heat and humidity.

---

there are also translations from vernacular languages into Hebrew, such as the treatise *Hanhagat ha-dever* (*Regimen of the Plague*), based on Valescus de Taranta's work on the plague, see below, n. 82.

<sup>12</sup> The groundbreaking work by Ron Barkai is fundamental in order to approach the topic of plague treatises in Hebrew; however, it contains some imprecisions: it, e.g., dates the *'Etzer elohi ma'mar be-'ipush ha-avir ve-ha-dever* to the year 1399 (see Barkai, 'Jewish Treatises on the Black Death', p. 7), while the manuscript Paris, Bibliothèque nationale de France, héb. 1191, fols 141r–145v mention the year 22 — for which it has been suggested to read 122, corresponding to the year 1362. Moreover, Barkai attributes the translation of Francesco Zanelli's work to Samuel ben Jacob (see Barkai, 'Jewish Treatises on the Black Death', p. 9), while in the manuscript Paris, Bibliothèque nationale de France, héb. 1124, fols 135r–139v the translation is attributed to Joshua of Bologna. Barkai also erroneously states that Antonio Guaineri's *Tractatus de peste* was not translated into Hebrew (see Barkai, 'Jewish Treatises on the Black Death', p. 8). Further, the list of translated treatises does not mention the anonymous Hebrew translation of Petrus de Tossignano's *Tractatus de peste*.

<sup>13</sup> See Campbell, *The Black Death*, p. 34 ff.; Arrizabalaga, 'Facing the Black Death', pp. 248–64.

<sup>14</sup> See *The Black Death*, ed. by Horrox, p. 167.

<sup>15</sup> On the theory of the great conjunctions, see Lynn Thorndike, *A History of Magic and Experimental Science*, vol. 1 (New York: Columbia University Press, 1923), pp. 648–51; Richard Lemay, *Abu Ma'shar and Latin Aristotelianism in the Twelfth century* (Beirut: American University of Beirut, 1962); Bernard R. Goldenstein, 'A Prognostication based on the Conjunction of Saturn and Jupiter in 1166 [561 AH]', in *Studies in the History of the Exact Sciences in Honour of David Pingree* (Leiden-Boston: Brill, 2004), pp. 735–57; Tullio Gregory, 'I cieli, il tempo, la storia', in Id., *Speculum naturale. Percorsi del pensiero medievale* (Roma: Storia e Letteratura, 2007), pp. 69–91; Graziella Federici Vescovini, *Le Moyen Âge magique. La magie entre religion et science aux XIII<sup>e</sup> et XIV<sup>e</sup> siècles* (Paris: Vrin, 2011), pp. 248–77; Alessandro Palazzo, 'Astrology and Politics: the Theory of Great Conjunctions in Albert the Great', in *Quaestio*, 19 (2019), *Stars, Kingdoms, Beliefs, and Masses. Political Astrology in the Mediterranean Area from the Middle Ages to the Renaissance*, ed. by Marienza Benedetto and others, pp. 173–203.

<sup>16</sup> See Arrizabalaga, 'Facing the Black Death', p. 253; *The Black Death*, ed. by Horrox, pp. 173–76. On conjunctions, see also section 3.3. of chapter 3 of this volume.

A detailed prophylactic regime to avoid illness, involving advice on diet and life habits, was often described. Finally, a number of compounds and their recipes are presented, such as ointments and lotions, which were prescribed in the case of an actual infection. Indeed, if corrupted air enters into the bodies through the pores, the blood becomes corrupted as well, acquiring the characteristics of the air, in this case heat and humidity.

One of the most ancient treatises, dating back to 1348, was composed by Gentile da Foligno, who eventually died of the plague in that same year.<sup>17</sup> Apart from the most famous *Consilium contra pestilentiam*,<sup>18</sup> Gentile wrote various *Consilia* about the pestilence:<sup>19</sup> the *Consilium in epidemia magna dum accidit Perusii*,<sup>20</sup> the *Consilium in pestilentia que accidit Ianue*,<sup>21</sup> which is followed in the manuscripts and in the prints by a *Consilium aliud*, whose incipit reads: ‘Manifestum videtur quod causa terribilis mortis’.<sup>22</sup> Moreover, the manuscript tradition also testifies to a short *Sumarium de peste*,<sup>23</sup> a *Consilium magistri Gentilis super pestilentiam*,<sup>24</sup> some *Considerationes aliorum medicorum circa easdem pestilencias*,<sup>25</sup> and a *Prognosticatio*.<sup>26</sup>

---

<sup>17</sup> On Gentile da Foligno, see Lynn Thorndike, ‘Gentile da Foligno and fourteenth-century medicine’, in *History of magic and experimental science*, vol. 3 (New York: Columbia University Press, 1934), pp. 233–52; Id., ‘*Consilia* and more works in manuscript by Gentile da Foligno’, *Medical History*, 3 (1959) pp. 8–19; Roger French, *Canonical Medicine. Gentile da Foligno and Scholasticism* (Leiden-Boston-Köln: Brill, 2001). On Gentile’s treatises on the Black Death, see Sudhoff, ‘Pestschriften’, *Archiv für Geschichte der Medizin*, 5 (1911), pp. 332–40; Sudhoff raises doubts about the date of composition and suggests an earlier date (p. 336).

<sup>18</sup> The incipit reads: ‘Quoniam gloriosus et excelsus Deus de largitate sua’. The text is found in the manuscripts Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1147, fols 124r–136v; Firenze, Biblioteca Medicea Laurenziana, Plut. 90 sup. 90, fols 63r–94r. Moreover, it is printed in Gentilis de Fulgineo, *Consilium contra pestilentiam* (Pataviae: per Laurentium Canozium, c. 1472–75); Gentilis de Fulgineo, *Consilium contra pestilentiam* (Colle in Valle Elsa: per Bonuum Gallum, c. 1478–79); Gentilis de Fulgineo, *Consilium contra pestilentiam, Tractatus de resistentiis* (Venetiis?: c. 1500).

<sup>19</sup> Thorndike raises the question whether these are different versions or extracts from one *consilium*, see Thorndike, ‘Gentile da Foligno’, p. 244.

<sup>20</sup> The incipit reads: ‘Nulla videtur precessisse temporibus memorabilibus’. The work is transmitted in the manuscripts Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1260, fols 97r–v; Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1264, fols 302r–v. The work is divided in two; on fol. 302v, the following incipit is found: ‘Gentilis de Fulgineo cum venerabili collegio magistrorum in preservationem et defensionem a tanta pestilentia’. It is not clear whether the latter text is the second paragraph of the Perugian *Consilium* or an independent *Consilium*. The text is printed in Gentilis de Fulgineo, *Consilia* (Papiae: per Antonium Carcanum, c. 1486); *Consilia Cermisoni. Consilia Gentilis. Recepte Gentilis de febribus. Tractatus de balneis Gentilis* (Venetiis, per O. Scottum, 1495)

<sup>21</sup> The incipit reads: ‘Illustrissimis amicis nostris de Ianua’. The *Consilium* is found in the manuscripts Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1260, fols 96v–97r; Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1264, fols 301r; München, Bayerische Staatsbibliothek, Clm 77, fols 117r–118r; Basel, Universitätsbibliothek, A.VI.6, fols 296v–298r; Leipzig, Universitätsbibliothek, ms. 1178, fols 53r–54r. It is printed in Gentilis de Fulgineo, *Consilia* (Papiae: per Antonium Carcanum, c. 1486); *Consilia Cermisoni. Consilia Gentilis. Recepte Gentilis de febribus. Tractatus de balneis Gentilis* (Venetiis: per O. Scottum, 1495).

<sup>22</sup> Thorndike, ‘*Consilia* and more works in manuscript’, p. 14, suggests that this second *Consilium* should be considered the second paragraph of the Genoese *Consilium*. It is found in Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1264, fols 301v–302r; Città del Vaticano, Biblioteca Apostolica Vaticana, Vat. lat. 1043, fols 374r–v; Leipzig, Universitätsbibliothek, ms. 1178, fol. 54r. This *Consilium* is also present in the already mentioned printed editions.

<sup>23</sup> Città del Vaticano, Biblioteca Apostolica Vaticana, Vat. lat. 8690, fol. 152.

<sup>24</sup> The incipit reads: ‘Emergentis et inexcogitati considerantes eventus periculum et fragilitatis previsionis humane oportet’. It is transmitted in Wien, Österreichische Nationalbibliothek, ms. 2317, fols 34v–35r.

<sup>25</sup> The incipit reads: ‘Circa causam huius pestilencie variatur consideracio magistrorum’. The work is not explicitly ascribed to Gentile, but Sudhoff noted numerous similarities with the other *Consilia* (cf. Sudhoff, ‘Pestschriften’, *Archiv für Geschichte der Medizin*, 5 (1911), pp. 36–87 (pp. 83–87)). The text is found in the manuscript Würzburg, Universitätsbibliothek, M.p.misc.f. 6, fols 63r–64r.

<sup>26</sup> The title is *Prognosticatio magistri Gentilis in quadam pestilentia scilicet tempore magne mortalitatis*. The incipit reads: ‘Egritudines erunt febres continue’. The text is found in the manuscript Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1264, fol. 303r.

An anonymous Hebrew translation bears the title *'Etzah 'al ha-dever* ('Advice on the Plague'), and the authorship of the text is ascribed to Gentile da Foligno.<sup>27</sup> The work is transmitted in the manuscript Wien, Österreichische Nationalbibliothek, Cod. hebr. 59, fols 224v–225v.<sup>28</sup> Both Steinschneider and the Vienna catalogue hypothesize that the author of the translation might have been Joshua the Physician from Bologna, since in the same Vienna manuscript two other *Advices* on the plague translated from Latin are included, and Joshua from Bologna is identified as the translator in the latter. The title in the manuscript is somehow puzzling because it mentions that the *Advice* had been sent to Pisa — so that it coincides neither with the Genoese nor with the Perugian *Advice*.<sup>29</sup> However, it seems that the text kept in the Vienna manuscript is the translation of that *Consilium aliud*, which followed the Genua *Consilium* in the manuscripts and in the prints. Indeed, in the incipit, the city of Pisa is mentioned, together with Genua and Naples, which are also referred to in the Hebrew text: 'Manifestum videtur quod causa terribilis mortis, que manifesta fuit prius apud Januam, deinde venit Pisas et Plumbinum et Massam et que est nunc Neapolim, sit venenosa putredo circa partes cordis et pulmonis'.<sup>30</sup> The Hebrew text states the same, but it replaces the cities of Piombino and Massa with Catalonia.<sup>31</sup>

The text is quite short and deals mostly with health regimen. After a brief introduction, mentioning the causes, the author describes the disease as being an affection of the heart and the lungs. The main remedy involves the purification of the air with scented herbs and the use of vinegar. Dietary advice for healthy people to prevent the infection is given and recipes to treat it are mentioned. In case one has contracted the malady, bloodletting is prescribed. Regarding the recommendations for ill patients, Gentile suggests to separate them from the healthy ones and to place them in a higher location than the others. Moreover, the importance of washing hands numerous times is stressed. The work ends with a series of recipes.

A pupil of Gentile da Foligno, the physician Francesco Zanelli (also known as Giannelli) of Bologna,<sup>32</sup> who taught at the University of Perugia from 1351, composed a *Consilium* on the plague himself and commented on a *Consilium ad evitandum pestilencie periculum* by the Neapolitan physician Giovanni della Penna.<sup>33</sup> Both texts refer to topics treated by Gentile. Indeed, Giovanni della Penna also wrote another *Consilium*, specifically with the aim of rejecting Gentile's opinions: 'Consilium magistri Johannis dela Penna in magna pestilentia post magnam promulgationem dictorum consiliorum et specialiter in mente dicti magistri Gentilis'.<sup>34</sup>

In the manuscript Breslau, Universitätsbibliothek, Cod. III F 6, fols 191v–195, both *Consilia* by Giovanni della Penna and Francesco Zanelli are found, with the information that the text was presented by Francesco to the University of Perugia: 'Consilium magistri Francisci de Bononia super eadem peste, cuius oppositum suprascriptum consilium et illud reprobans, quod consilium fuit publicatum per eundem reverendum magistrum Franciscum coram universitate Perusiensis studi sub

<sup>27</sup> See Moritz Steinschneider, *Die hebräischen Übersetzungen des Mittelalters und die Juden als Dolmetscher* (Berlin: Kommissionsverlag des Bibliographischen Bureaus, 1893), p. 791.

<sup>28</sup> See Arthur Zacharias Schwarz, *Die hebräischen Handschriften der Nationalbibliothek in Wien* (Wien-Prag-Leipzig: Strache, 1925), no. 175, pp. 193–94.

<sup>29</sup> Probably for this reason, Steinschneider considered the possibility of reading Perugia instead of Pisa: see Steinschneider, *Die hebräischen Übersetzungen*, p. 791.

<sup>30</sup> Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1264, fol. 301v.

<sup>31</sup> Wien, Österreichische Nationalbibliothek, Cod. hebr. 59, fol. 224v:

דבר ברור הוא ונראה המיתה האכזרית אשר נולדה בתחלה בגינואה, ובקטלונייא ואחר זה בפיישה ועתה היא בנפולי הוא עפוי ארסיי בסביבות הלב והריאה.

<sup>32</sup> On Franciscus de Zanellis, see Giuseppe Ermini, *Storia dell'Università di Perugia*, 2 vols (Firenze: Leo S. Olschki, 1971), vol. 1, p. 176, pp. 178–80.

<sup>33</sup> See Sudhoff, 'Pestschriften', *Archiv für Geschichte der Medizin*, 16 (1925), pp. 162–67.

<sup>34</sup> The work is found in the manuscript Leipzig, Universitätsbibliothek, ms. 1178, fols 54r–57r. See Sudhoff, 'Pestschriften', *Archiv für Geschichte der Medizin*, 5 (1911), pp. 341–48. The incipit is: 'Licet presentis pestilentie pravitas'.

anno Domini 1364 tempore Urbani pape V'.<sup>35</sup> The text is preceded by Giovanni della Penna's *Consilium ad evitandum pestilencie periculum*, against which Zanelli argues.<sup>36</sup>

The 'Etzah 'al ha-dever ('Advice on the plague') transmitted in the manuscripts Paris, Bibliothèque nationale de France, héb. 1124, fols 135r–139v and Wien, Österreichische Nationalbibliothek, Cod. hebr. 59, fols 227v–232v is attributed to Francesco Zanelli of Bologna.<sup>37</sup> In the third part, the refutation of the *Advice* by Giovanni della Penna is found.<sup>38</sup> As stated in the colophon, the 'Etzah 'al ha-dever has been translated by Joshua the physician of Bologna.<sup>39</sup> It thus seems that this *Advice* is the translation of the Latin text, as it is found in the Breslau manuscript, in which the two *Consilia*, that of Francesco Zanelli and that of Giovanni della Penna, are transmitted together, with a reference to the refutation of the latter by the former. Indeed, the incipit of the Hebrew text reads: כאשר השגנו מדברי גאלינו בפרק בספר הראשון מהבדל הקדחות הסבות מקדחות

One of the most widespread and popular treatises devoted to the Black Death was the *De epidemia*, or *De pestilentia*, probably written in 1365 by John of Burgundy.<sup>40</sup> The author, also known as John à la Barbe, was a professor of medicine between 1330 and 1370 in Liège. In his *De epidemia*, John declares that he wrote two other works on the plague, the *De causis et natura corrupti aeris* and the *De distinctione morborum epydimialium ab aliis morbis*, mentioning their respective incipits. However, only the third treatise is preserved, while the former two have not been found until now.

The popularity of the work is testified by its manuscript dissemination, which counts more than a hundred copies, as well as by its translations into numerous languages, including English, French, Dutch, and Hebrew.<sup>41</sup> As it was often the case with widespread manuals, the text underwent a series of modifications, abbreviations, and interpolations during its transmission, and it was, at some point, even attributed to the faculty of medicine of Bologna. The work is known in at least two main

---

<sup>35</sup> See fol. 192r. See Breslau, Universitätsbibliothek, *Katalog rękopisów dawnej Biblioteki Uniwersyteckiej we Wrocławiu*, t. 7 (III F 1–30) p. 8, available at <https://www.bibliotekacyfrowa.pl/dlibra/publication/10035?tab=1&language=en#description> (last accessed 14/02/2022); see Sudhoff, 'Pestschriften', *Archiv für Geschichte der Medizin*, 16 (1922–23), p. 162. I suggest the reading 'Perusiensis' instead of 'Parysiensis'. The incipit of the text reads: 'Sicut colligitur ex dictis gloriosissimi Galieni'.

<sup>36</sup> The incipit reads: 'Prima et communis regula est non sinere approximare homines venientes a regionibus'. The same text is transmitted also in the manuscript Wiesbaden, Nassauische Landesbibliothek, cod. 61, fols 51r–52r: see Sudhoff, 'Pestschriften', *Archiv für Geschichte der Medizin*, 16 (1925), pp. 162–67. Francesco Zanelli and Giovanni della Penna had another controversy on the *animatio seminis*: see *Documenti per la storia dell'Università di Perugia*, ed. by Adamo Rossi, *Giornale di erudizione artistica*, 5 (1876), p. 313; Francesco Puccinotti, *Storia della medicina*, 3 vols (Livorno: Wagner, 1850), vol. 2, p. 2, pp. 348–51.

<sup>37</sup> The name is transcribed according to its variant 'de Giannelli': דִּי גַאנִילִי (the Parisian catalogue suggests to read it as Ganili or Gagnali; the Vienna catalogue retains the name in Hebrew). See *Catalogue des manuscrits hébreux et samaritains de la Bibliothèque impériale* (Paris: Imprimerie Impériale, 1866) p. 208; Schwarz, *Die hebräischen Handschriften*, pp. 193–94. See Steinschneider, *Die hebräischen Übersetzungen*, p. 790.

<sup>38</sup> The name is therefore neither to be read as Gioan Delfina, as suggested by Steinschneider (*Die hebräischen Übersetzungen*, p. 790), nor is the author to be identified with Joannes Platearius, as suggested by the catalogue of the *National Library of Israel*, available at [https://web.nli.org.il/sites/NLIS/en/ManuScript/Pages/Item.aspx?ItemID=PNX\\_MANUSCRIPTS990001315510205171](https://web.nli.org.il/sites/NLIS/en/ManuScript/Pages/Item.aspx?ItemID=PNX_MANUSCRIPTS990001315510205171) (last accessed 19/01/2022).

<sup>39</sup> See Stefano Arieti, 'Medici ebrei a Bologna tra XV e XVI secolo', in *Verso l'epilogo di una convivenza: gli ebrei a Bologna nel XVI secolo*, ed. by Maria Giuseppina Muzzarelli (Firenze: Giuntina, 1996), pp. 235–43, (p. 238); Mauro Perani, 'La cultura ebraica a Bologna nella testimonianza dei manoscritti' in *La cultura ebraica a Bologna tra Medioevo e Rinascimento* (Firenze: Giuntina, 2002), pp. 29–70 (p. 63).

<sup>40</sup> See Sudhoff, 'Pestschriften', *Archiv für Geschichte der Medizin*, 5 (1911), pp. 58–69; *The Black Death*, ed. by Horrox, pp. 184–93; Lister M. Matheson, 'John of Burgundy: Treatises on Plague', in *Sex, Aging, and Death in a Medieval Medical Compendium. Trinity College Cambridge MS R.14.52, Its Texts, Language, and Scribe*, ed. by M. Teresa Tavormina, (Tempe: Arizona Center for Medieval and Renaissance Studies, 2006), pp. 569–606; Kari Anne Rand, 'A Previously Unnoticed Fragment of John of Burgundy's Plague Tract and Some Connected Pest Regimens', *Notes and Queries*, 53 (2006), pp. 295–97.

<sup>41</sup> See Lister M. Matheson, 'Médecins sans Frontières?: The European Dissemination of John of Burgundy's Plague Treatise', *A Quarterly Journal of Short Articles, Notes and Reviews*, 18 (2005), pp. 19–30.

versions, a long and a short one; in the latter, the astrological introduction is absent.<sup>42</sup> As stated by its author, the aim of the writing is to help simple people take care of themselves in difficult times.

Various parts of the short version of John of Burgundy's *De epidemia* were translated into Hebrew, forming two different manuals with a slightly different content: the '*Etzer elohi ma'mar be-  
'ipush ha-avir ve-ha-dever*' ('Divine help: A treatise on the corruption of the air and the plague') and the '*Etzah 'al ha-dever*' ('Advice on the plague').<sup>43</sup> Both translations are partial and extract only few passages from the original text; in particular, the *Divine help* focuses on prophylaxis, while the *Advice on the plague* also gives instructions for treatment.

The '*Etzer elohi*' is transmitted in two manuscripts: Paris, Bibliothèque nationale de France, héb. 1191, fols 141r–143r, and Moscow, Russian State Library, Günzburg 1481, fols 19–20r.<sup>44</sup> The title is probably a reference to the incipit of the text: 'Ego Johannes de Burgundia divino auxilio invocato preservationem et curam epidemie enucleare intendo'.<sup>45</sup> As it is stated in the colophon, the *Divine Help* was translated by Benjamin of Carcassonne — known only for this translation —, who explains his motivations to make the text accessible to a Jewish audience. According to him, the treatise was extensively used by Christian physicians, but it was kept hidden; he then acquired a copy to translate it into Hebrew, so that Jewish physicians would profit from a manual that was widespread among their colleagues. It is reported that the work had been composed in the year 22; scholars suggested to read it as 122, which would correspond to the year 1362 (even though the work is supposed to have been written in 1365).<sup>46</sup> Moreover, a previous work is mentioned, whose incipit might correspond to the *De causis et natura corrupti aeris*, also cited in the Latin version of the treatise.<sup>47</sup>

The *Divine help* translates only part of John of Burgundy's short version of *De epidemia*, and it focuses on the corruption of the air as the cause for the pandemics, as well as on practical remedies to prevent and treat the disease. Indeed, it was assumed that the reason for the spreading of the plague into numerous countries was the air that had been corrupted by the miasmas. However, the pestilence was also considered to be the result of the concomitance of bad bodily humors. Depending on the variety of humors, corrupted air generates different illnesses, which are not lethal for every human being. The explanation for the high mortality is the mixture of bad humors with which human bodies were filled before contracting the malady. Making reference to Galen, John of Burgundy maintains that the disease strikes only those bodies that are susceptible to corruption, which is why a series of precautions is necessary to keep the bodies clean and purged. However, this does not apply to bodies whose *complexio* is opposite to that of corrupted air, because they are considered to be able to remain healthy anyway.

Even though in the short version of the *De epidemia* the astrological *excursus* at the beginning is absent, a section on astrology is introduced before the discussion of the remedies. When administering a treatment, the physician must be aware of the astrological conditions, since a medicine taken in the wrong moment will not achieve the expected, and sometimes even the opposite, result. This section refers to Hippocrates regarding the central role played by astrology within the field of medicine, and to Avicenna and Averroes about the importance of knowing the proximate and remote causes, with celestial bodies being the primary causes of things.

---

<sup>42</sup> See Matheson, '*Médecins sans Frontières?*', p. 19.

<sup>43</sup> See Steinschneider, *Die hebräischen Übersetzungen*, pp. 803–04. Moreover, see Dorothea Waley Singer and Reuben Levy, 'Plague Tractates', *Annals of Medical History*, 4 (1917), pp. 394–411.

<sup>44</sup> For the description of the Parisian manuscript, see <https://archivesetmanuscrits.bnf.fr/ark:/12148/cc8073s> (last accessed 24/01/2022). For the Günzburg manuscript, see Moritz Steinschneider, 'Eine medizinische hebräische Handschrift', *Magazin für die Wissenschaften des Judenthums*, 12 (1885), pp. 182–214. The Günzburg manuscript corresponds to the Parisian copy, but it mentions the city of Montpellier instead of Liège.

<sup>45</sup> See Sudhoff, 'Pestschriften', *Archiv für Geschichte der Medizin*, 5 (1911), p. 62.

<sup>46</sup> See Steinschneider, *Die hebräischen Übersetzungen*, p. 804. For the discussion of this point, see *infra*, n. 53.

<sup>47</sup> According to the Latin version, the incipit of this lost work read: 'Deus Deorum dicens'; in Hebrew: אֱלֹהֵי אֱלֹהִים.

In the last part, a list of recommendations is provided, for instance, containing the suggestions to abstain from excessive eating and intercourse. Moreover, it is advised to avoid bathing, as it opens the pores through which the corrupted air may enter the body. The *Divine help* continues with a series of dietary instructions, listing food that should be avoided — such as fruits and honey — and food that is allowed — such as vinegar and light food. Finally, suggestions concerning the climate are provided: if the weather is humid and rainy, a fire should be lit in the room. The text then abruptly stops (the Parisian manuscript presents a *lacuna*) and four recipes follow.

The ‘*Etzah ‘al ha-dever*’ has a similar content, yet it slightly diverges from the previous treatise, as it translates other fragments of John of Burgundy’s *De epidemia*. The text is transmitted in the manuscripts Paris, Bibliothèque nationale de France, héb. 1124, fols 133v–135r;<sup>48</sup> and Wien, Österreichische Nationalbibliothek, hebr. 59, fols 225v–227v.<sup>49</sup> The name of the translator is unknown; since the same two manuscripts transmit Francesco Zanelli’s *Advice on the plague*, which was translated by Joshua of Bologna, it has been proposed that the author of the translation could be the same.<sup>50</sup> From a linguistic point of view, the numerous vernacular terms used by the translator seem to support the thesis that its origin is Italian. The physician who wrote the original version is called Gioan de Cenobarba, and in the colophon the date 1399 is found.<sup>51</sup>

In the *Advice on the plague*, the focus lies more on curing the disease rather than on its prevention. Therefore, the description of how the illness spreads in the body is more detailed with regard to the different organs involved; moreover, instructions for bloodletting are provided. When the corrupted air enters the body, the main organs — the heart, the brain, and the liver — try to depurate themselves from the poisonous miasmas, which cause different symptoms according to the organ that is involved the most. Consequently, bloodletting has to be performed choosing the vein according to the location of the symptoms.

As for the prophylactic treatment, dietary instructions for infirm people are described: patients must avoid excessive eating and should drink infusions, in particular water with vinegar. Recipes for unguents are provided, specifically for a powder called *Zinwar*, which is said to have been used by Arab emperors.<sup>52</sup>

The treatise includes a short astrological epilogue, in which the cause for the pestilence is considered to be the conjunction that occurred 22 years before, whose consequences were still noticeable.<sup>53</sup>

At this point, the ‘*Etzah ‘al ha-dever*’ deals with the topic of prophylaxis, and thus rejoins the previous treatise, repeating the same preventive measures already featured in the *Divine Help*. However, it also adds certain recommendations that were absent in the former work, such as the use of a sponge soaked in vinegar or sprinkling the house with water, vinegar, and rose water. The book ends with the recipe for the pill of Rhazes.

---

<sup>48</sup> See *Catalogue des manuscrits hébreux et samaritains de la Bibliothèque impériale*, p. 208.

<sup>49</sup> See Schwarz, *Die hebräischen Handschriften*, pp. 193–94.

<sup>50</sup> See Steinscheider, *Die hebräischen Übersetzungen*, p. 804; Schwarz, *Die hebräischen Handschriften*, p. 193.

<sup>51</sup> Steinscheider, *Die hebräischen Übersetzungen*, p. 804, suggests that the word דַּבְּרֵי יוֹנָה should be considered a translation of ‘dictus’, so that the name would be ‘Gioan called Barba’.

<sup>52</sup> The Hebrew זִינוּרָא translates the Latin ‘bethazaer’: ‘dicitur pulvis imperialis, quia imperatores gentilium eo utebantur [...] et dicitur in lingua Arabiae Bethzaer, id est a morte liberans’. In Petrus de Tussignano’s *Tractatus de peste*, the same remedy is called Bezaar and the etymology is linked to the Hebrew language: ‘Et dicitur lingua hebrayca Bezaar quod interpretatur a morte liberans’: see Petrus de Tussignano, *Tractatus de peste* (Venetiis: c. 1472).

<sup>53</sup> The astrological epilogue is not present in the Latin text published by Sudhoff, but one might compare the indication given in the French version of the *De epidemia*: ‘Item ne croie nulz que ceste pestilence soit pour la raison de Saturne & de iupiter pour la coniuncion qui se fist deulz & dautres lan passe cest assauoir en lan LXXV. aincois dient des reliques de lautre coniuncion autresfoiz faite de lan XLV dont les traces apperent encore en effect’: see Singer, ‘Some plague tractates’, p. 209. Given the correspondence with the French version, it seems more appropriate to read the indication as 22 years ago, rather than in the year 22, which — following the conjecture made by Steinschneider regarding the date of the composition of the *Divine help* — would be the year 1362.

The translation method adopted for the *Advice on the plague* is different from that of the *Divine Help*, as vernacular terms transcribed in Hebrew characters appear often. Vernacular words are frequently used for herbal terminology, such as סנבוקו (*sanbuco*), קמומילא (*camomilla*), גינסיאנה (*gensiana*), קרווא (*osella cruda*), as well as for medical vocabulary, such as בשליקא and צפיליקא (*basilica* and *cefalica*, referring to the veins), גלנדולי (*glandule*), שפינא (*safena*). However, also generic terms not pertaining to a technical terminology appear, such as קומוני (*comune*), טישאנה (*tisana*), אינפידילי (*infedeli*), גראטיקולא (*graticola*), קונדיטי (*conditi*).<sup>54</sup>

The master Petrus de Tossignano, who taught medicine in Bologna and Padua, composed a widely spread work titled *Tractatus de peste* in 1398. Numerous manuscripts as well as a fifteenth-century print of this treatise have survived.<sup>55</sup> A reworked version of the text was published in 1491 in Venice, under the title *Consilium pro peste evitanda*, with a dedication to Gian Galeazzo Visconti.<sup>56</sup> In secondary literature, the text transmitted by the manuscript tradition has been considered the same as that printed in the 1491 edition.<sup>57</sup> However, numerous differences can be noticed between the manuscript version — which corresponds mostly to the c. 1472 print — and the 1491 print.<sup>58</sup> This suggested the assumption that Petrus wrote two different works. Both these suppositions — namely that the 1491 print and the manuscripts correspond and that the author wrote two different works — seem to be incorrect. A comparison between the two versions indeed reveals a close proximity, but also noticeable differences, which can only be explained through a reworked version made either by its author or by the editor. Moreover, in the manuscript tradition, the writing is transmitted with different titles, which has led to some confusion over the number of handbooks that Petrus devoted to the pestilence.<sup>59</sup> It is still not clear whether de Tossignano wrote two further treatises on the plague, namely the *De remediis ac pestilentie curatione* and the *Tractatus de pestilentia*, or whether it is the same work with different titles.<sup>60</sup>

---

<sup>54</sup> See the notes in Singer, ‘Plague Tractates’, pp. 402–05.

<sup>55</sup> I have been able to identify the following manuscripts transmitting the *Tractatus de peste*: Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1260, fols 99va–104vb; Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1144, fols 228r–239v; Città del Vaticano Biblioteca Apostolica Vaticana, Vat. lat. 2482, fols 97r–106v; Città del Vaticano, Biblioteca Apostolica Vaticana, Vat. lat. 5373, fols 25r–36r; Berlin, Staatsbibliothek zu Berlin – Preußischer Kulturbesitz, Ms. lat. qu. 371, fols 273r–286v; Kraków, Biblioteka Jagiellonska, ms. 782, fols 273r–278v; Leipzig, Universitätsbibliothek, ms. 1175, fols 109r–119r; Leipzig, Universitätsbibliothek, ms. 1198, fols 207–215; Venezia, Biblioteca Marciana, lat. XIV 289 [4615], fols 30r–43r; Roma, Biblioteca Vallicelliana, ms. F 93, fols 145r–150r; Roma, Biblioteca Angelica, ms. 1283, fols 33r–53v; Roma, Biblioteca Angelica, ms. 1377, fols 51v–73v; Firenze, Biblioteca Riccardiana, ms. 1177, fols 183–190. The work has been printed in Venice around 1472. On Petrus de Tossignano, see Sudhoff, ‘Pestschriften’, *Archiv für Geschichte der Medizin*, 5 (1911), pp. 390–95; Giuseppe Mazzini, *Vita e opera di maestro Pietro da Tossignano* (Roma: Leonardo da Vinci, 1926); Singer, ‘Some plague tractates’, pp. 187–89; Augusto De Ferrari, ‘Curiali, Pietro’, in *Dizionario biografico degli Italiani*, 31 (Roma: Istituto della Enciclopedia Italiana, 1985), pp. 432–34.

<sup>56</sup> The treatise was printed in 1491 in Venice with the *Fasciculus medicinae* by Iohannes de Ketham: *Fasciculus medicinae, auctore Johanne de Ketham* (Venetiis: per J. et G. de Gregoriia, 1491; 1495; 1500; 1513).

<sup>57</sup> See Mazzini, *Vita e opera di maestro Pietro da Tossignano*, p. 84. However, Mazzini mentions some major differences between the two versions (see p. 90).

<sup>58</sup> Sudhoff speaks of “recht erheblichen Abweichungen der beiden Drucke untereinander und der Handschriften von den Drucken”: see Sudhoff, ‘Pestschriften’, *Archiv für Geschichte der Medizin*, 5 (1911), p. 392.

<sup>59</sup> See for instance the database *Mirabile* <http://www.mirabileweb.it/author/petrus-de-tussignano-m-8-4-1407-author/23161> (last accessed 24/01/2022) which lists the *Consilium pro peste vitanda*, the *De peste*, and the *Tractatus de pestilentia*. However, the manuscripts listed under the title *Consilium pro peste vitanda* and *Tractatus de pestilentia* actually transmit the *Tractatus de peste*.

<sup>60</sup> According to secondary literature, the *De remediis ac pestilentie curatione* is found in the ms. Città del Vaticano, Biblioteca Apostolica Vaticana, Vat. lat. 1180, while the *Tractatus de pestilentia* is transmitted in the mss. Napoli, Biblioteca nazionale “Vittorio Emanuele III”, VII D 35, fols 75–81 and Firenze, Biblioteca nazionale centrale, Magl. XV.185, fols 149r–168r: see *I manoscritti datati della Biblioteca nazionale centrale di Firenze*, vols 4, ed. by Michelangiola Marchiaro and Stefano Zamponi, vol. 4 (Firenze: Sismel – Edizioni del Galluzzo, 2018), p. 69. It was impossible for me to personally check this information.

Probably in the fifteenth century, an anonymous author translated the *Tractatus de peste* into Hebrew.<sup>61</sup> The work is transmitted in the manuscript Paris, Bibliothèque nationale de France, hébr. 1195, fols 98r–113r.<sup>62</sup> With regard to the abovementioned ambiguity with the *Consilium pro peste evitanda*, Steinschneider has noted a difference between the Latin and Hebrew incipit;<sup>63</sup> however, the incipit of the Hebrew translation coincides with that of the *Tractatus de peste*, which reads: ‘Dixit Galienus primo de ingenio circa finem. Decet nos nil negligentie habere in ostendendo sanitatis ingenio [...]’. The translation copied in the Parisian manuscript starts with the following words: בשום אמר גלינוס בראשון מתחבולת הרפואה בדרך למור שלא נתרשל

The treatise is divided into four chapters: the first chapter deals with the investigation of the causes of the plague; the second describes a prophylactic regimen; in the third chapter, eleven common doubts concerning the pestilence are explained and answered; finally, therapeutic measures are discussed.

It is noteworthy that, in considering the causes, Petrus de Tussignano mentions contact and warns not to touch objects that have been touched by a sick person; moreover, he stresses the importance of moving away from places where the pandemic has spread and of not letting anyone enter the city who comes from an infected area. Since transmission happens more often within social gatherings, the author recommends to isolate patients and to prohibit public meetings. The explanation of the causes appears to be similar to that given by John of Burgundy, but Petrus is more focused on the notion of contagion. Apart from contact, the author mentions multiple other factors concurring in the transmission, one of the most relevant causes being the patient’s predisposition. Referring to Aristotle and Avicenna concerning this point, he states that it is necessary to keep the body dry in order to avoid the infection. Celestial causes also play a fundamental role, since they are responsible for the corruption of the air, while the proximate cause is the mixture of miasmas with venomous air — such as that originating from corpses. Finally, Petrus distinguishes between particular and common pestilential disease; the particular disease infects singular individuals and is not caused by corrupted air, while the illness is defined as common if it occurs in a specific area, according to the climatic conditions of the place, and is then called endemic.

In the second chapter, the regimen is treated, and special attention is devoted to the three organs that, if infected, cause the death of the body, namely the heart, the brain, and the liver. A series of hygienic remedies, such as adopting a suitable diet, are prescribed in order to keep the body dry and purged. Regarding life habits, it is advised not to sleep during the day nor after meals, and even the best sleeping position is indicated. Excessive physical exercise is to be avoided, as well as coitus and baths. De Tussignano suggests to listen to nice stories in order to cheer oneself up and prevent sadness — especially political conversations, on the other hand, are to be avoided. Finally, the *rectificatio* of the air through herbal fumigations is considered to be of great help.

The next chapter is devoted to eleven doubts. In particular, certain questions seem to be of particular interest, such as why pandemics occur mostly in autumn, although the air is not as humid as in summer, or why birds, which usually fly in the higher sky, closer to the earth during epidemics and vice versa. Moreover, the varying virulence with which the disease attacks different bodies is the main topic of the next doubts concerning differences in mortality. Even if the cause for the plague is universal, it has been observed that, within the same family, one person dies and the rest survives, or that a strong young man dies and an old woman survives.

Finally, therapeutic measures against the malady are prescribed, focusing especially on symptoms like fever, dysentery, and the swelling of glands. Bloodletting is treated at length, and different kind of boils are described. Since they contain a contagious poison, it is recommended to the surgeon who treats them to use vinegar. Further, advice concerning the purification of the air in the room of the patient as well as a list of recipes are presented.

---

<sup>61</sup> See Steinschneider, *Die hebräischen Übersetzungen*, p. 818.

<sup>62</sup> See *Catalogue des manuscrits hébreux et samaritains de la Bibliothèque impériale*, p. 220.

<sup>63</sup> Steinschneider, *Die hebräischen Übersetzungen*, p. 818.

Antonio Guaineri of Pavia, born at the end of the fourteenth century, studied medicine in Padua and Pavia — where he was also active as a lecturer — and was then hired as a physician at the Savoy court in Piedmont.<sup>64</sup> According to his own statements, Guaineri experienced two epidemics during his life, in 1402 and in 1416.<sup>65</sup> Mostly working in the field of *medicina practica*, he devoted two of his writings to the pestilence, namely the *Tractatus de peste* and the *Liber de febribus*, even though the latter does not specifically focus only on the plague. The *Tractatus de peste* addresses the matter in its entirety: from causes to treatment, it deals with signs and medicines, with the purification of the air, dietary instructions and advice on sleep, with exercise and sexual intercourse. The second treatise focuses more on curing the disease, giving instructions for bloodletting, sharing recipes for pills and bezoars as well as for remedies against fever and boils. The *Tractatus* also includes a section on poisons, which is sometimes transmitted separately as an independent work.<sup>66</sup> The work is dedicated to Filippo Maria Visconti, duke of Milan.

The violence of the pestilence and the exceptional nature of this disease compared to other illnesses is accurately described in the prologue to the work:

Persepe animadvertens hoc mortale hominum genus innumeris casibus additum [*coni. subiectum*] et infinita mortis varietate facile corrumpi, nullamque ex omnibus moriendi causis acerbiolem fieri atque acutiorem hac ipsa amarissima et prope modum crudelissima peste que tanto impetu tantaque latenti voracitate in nostra viscera descendit [...]<sup>67</sup> (Very often observing that the mortal mankind is subject to innumerable circumstances and easily corrupted by an infinite variety of deaths, and that none of all these causes of death is more unpleasant and more severe than this very bitter and extremely cruel plague that, with such strong force and such latent insatiability, descends in our bowels [...]).

Following the tradition of etymologies, the treatise starts with an exposition of the terminological distinctions between different words used, such as *pestis*, *pestilentia*, *febris pestilentialis*, *lues*, *contagium*, *epidemia*, *mortalitas*. In general, Antonio Guaineri mostly avoids astrological explanations, even though divine causes are acknowledged as the primary causes for the epidemics. To demonstrate the divine origin of the plague, Guaineri reminds of the numerous apparitions of the Virgin and of the saints that foretold the pandemics; for this reason, the author suggests to pray, especially to the saints. Concerning the different treatment options, special attention is devoted to the bezoars. As opposed to Petrus de Tussignano, Guaineri does not investigate the notion of contagion in such great detail; indeed, it is advised not to talk to a person that comes from an infected area, but it is also recommended to move sick patients elsewhere, to let them breathe

---

<sup>64</sup> On Antonio Guaineri, see Daniela Mugnai Carrara, ‘Guaineri, Antonio’, in *Dizionario Biografico degli Italiani*, vol. 60 (Roma: Istituto della Enciclopedia Italiana, 2003), [https://www.treccani.it/enciclopedia/antonio-guaineri\\_\(Dizionario-Biografico\)/](https://www.treccani.it/enciclopedia/antonio-guaineri_(Dizionario-Biografico)/) (last accessed: 27.06.2022). Danielle Jacquart, ‘Theory, Everyday Practice, and Three Fifteenth-Century Physicians’, *Osiris* 6 (1990), pp. 140–60; Ead., ‘De la science à la magie: le cas d’A. Guainerio, médecin italien du XV<sup>e</sup> siècle’, *Littérature, médecine et société*, 9 (1988), pp. 137–56.

<sup>65</sup> See Jacquart, ‘Theory, Everyday Practice’, p. 142.

<sup>66</sup> See Sudhoff, ‘Pestschriften’, *Archiv für Geschichte der Medizin*, 16 (1925), pp. 77–188 (pp. 117–118). The text is transmitted in the following manuscripts: Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1098, fols 289v–368r; Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1214, fols 5r–70r; Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1195, fols 194v–216r; Wien, Schottenkloster, cod. 268, fols 93r–172r; Leipzig, Universitätsbibliothek, ms. 1167, fols 1r–55r; München, Bayerische Staatsbibliothek, Clm. 184, fols 162–207; Neustift, Augustiner-Chorherrenstift, cod. 748, fols 90v–137v; Breslau, Universitätsbibliothek, cod. III T 11; Oxford, Bodleian Library, Canon. Misc. 451, fols 127r–159; Vendôme, Bibliothèque municipale, ms. 107, fols 53r–152v; Bonn, Universitäts- und Landesbibliothek, S 480, fols 78r–121v; Paris, Bibliothèque nationale de France, lat. 6981, fols 129v–198v; Firenze, Biblioteca Riccardiana 878, fols 103r–119v; Venezia, Biblioteca Nazionale Marciana, lat. VII. 47 (3380). The work has been printed separately (Venetiis: Rainald von Nimwegen, c. 1486–87) and together with other works in 1481 and 1488 (Papiae: Antonius Carcanus), in 1497 (Venetiis: Octavianus Scotus), in 1500 (Venetiis: Johann Hamann), in 1508 (Venetiis: Iacobus Pentius), in 1517 (Venetiis: Luccantonius de Giunta), in 1518 (Papiae: Bernardinus de Garaldo) and in 1525 (Lugduni: Jacob Myt).

<sup>67</sup> Antonius Guainerius, *Tractatus de peste* (Venetiis: Rainald von Nimwegen, c. 1486–87), fol. 1.

uncorrupted air. The idea of contagion through contact only plays a minor role when compared to the notion of the corruption of the air as the cause for the malady.

A short part of the *Tractatus de peste* was translated into Hebrew by an anonymous writer, with the title *Ma'amar be-dever* ('Treatise on the plague'). Today, this translation is transmitted in the manuscript Moscow, Russian State Library, Günzburg 1122, fols 35r–37r.<sup>68</sup> The codex contains a fragment of a larger text, whose structure, however, does not seem to correspond to that of the *Tractatus de peste*, even though the work is explicitly attributed to Antonio Guaineri. In the introduction to the Hebrew translation, two parts are mentioned: the first one deals with the pestilence and the second with poisons — exactly as in the Latin version. Nonetheless, the division of the chapters does not seem to correspond to the original. In the Hebrew version, the first part is divided into four chapters, dealing with the use of laxatives to protect against the disease, some kinds of bezoar, external means — such as stones — and the treatment of boils. In the Günzburg manuscript, the text is interrupted in the middle of the second chapter. The interest of the translator clearly seems to be on the practical side, as the selection of chapters to be translated shows. The first part of the original version, which deals with the causes and precautions, is missing, to the benefit of the exposition about healing methods, mentioned in the second treatise of the Latin text.

After the *Tractatus de peste*, in 1434, Antonio Guaineri composed the already mentioned *Liber de febribus*, which was dedicated to Antonio Magliano, one of his former teachers at the University of Pavia.<sup>69</sup> Even though it did not specifically focus on the plague, a chapter of the second treatise is devoted to the regimen in times of pestilence.

The *Liber de febribus* was translated under the title *Ha-klal me-ha-qaddaḥot* ('The whole knowledge on fevers') by Solomon ben Moses Shalom 'Sephardi', who seems to have been active as a translator between 1473 and 1486.<sup>70</sup> The text is transmitted in the following manuscripts: Parma, Biblioteca Palatina, Ms. Parm. 2263, fols 19r–101r;<sup>71</sup> Berlin, Staatsbibliothek, Or. Qu. 511, fols 89r–157r — which is a direct copy of the Parma manuscript;<sup>72</sup> Paris, Bibliothèque nationale de France, hébr. 1131, fols 161r–217r;<sup>73</sup> Paris, Bibliothèque nationale de France, hébr. 1134, fols 73r–119r.<sup>74</sup>

---

<sup>68</sup> See Steinschneider, *Die hebräischen Übersetzungen*, p. 800.

<sup>69</sup> On the *De febribus*, see Sudhoff, 'Pestschriften', *Archiv für Geschichte der Medizin*, 16 (1925), pp. 77–188 (pp. 117–118); Lynn Thorndike, *A History of Magic and Experimental Science*, vol. 4 (New York: Columbia University Press, 1953), pp. 670–77. The work is transmitted in the following manuscripts: Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1194, fols 75r–107r; Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1195, fols 1r–47v; Città del Vaticano, Biblioteca Apostolica Vaticana, Pal. lat. 1221, fols 51r–86r; Città del Vaticano, Biblioteca Apostolica Vaticana, Vat. lat. 2482, fols 168r–216r; Oxford, Bodleian Library, Canon. Misc. 426, fols 187r–228; Vendôme, Bibliothèque municipale, ms. 107, fols 1r–52v; Wien, Schottenkloster, cod. 268, fols 31r–91r; Firenze, Biblioteca Riccardiana, ms. 1177, fols 212v–241v; Firenze, Biblioteca Riccardiana, ms. 2153, fols 105r–135v; Leipzig, Universitätsbibliothek, ms. 1167, fols 128–163; Bonn, Universitäts- und Landesbibliothek, S 480, ff. 21r–76v; Bruxelles, KBR, ms. 3204–18; Hildesheim, Stadtarchiv, Best. 52 Nr. 344, fols 122r–165r; Kraków, Biblioteka Jagiellonska, ms. 810, fols 203r–249v; Neustift, Augustiner-Chorherrenstift, cod. 748, fols 1v–40v; Venezia, Biblioteca Nazionale Marciana, lat. VII 47 [3380]; Wolfenbüttel, Herzog August Bibliothek, Extrav. 112.1, fols 8r–40r; Paris, Bibliothèque nationale de France, lat. 6981, fols 1r–51v; Paris, Bibliothèque nationale de France, NAL 1253, fols 1r–77v; München, Bayerische Staatsbibliothek, Clm. 205, fols 11r–59r. The work has been printed several times: separately in 1474 (Neapoli: Bertholdus Rihing; Pataviae or Venetiis: Conradus de Padeborn); together with other treatises in the editions already mentioned, see above, n. 66.

<sup>70</sup> See Steinschneider, *Die hebräischen Übersetzungen*, p. 799. Solomon ben Moses Shalom also translated the *Medical advice* by Bartolomeo Montagnana. Moreover, he was the copyist of a manuscript for David Kalonymos in 1473.

<sup>71</sup> See Giuliano Tamani, 'Inventario dei manoscritti ebraici di argomento medico della biblioteca Palatina di Parma', *La Bibliofilia*, 69 (1967), pp. 245–76 (pp. 254–255, no. 9); *Hebrew manuscripts in the Biblioteca Palatina in Parma: catalogue*, ed. by Benjamin Richler, Malachi Beit-Arié (Jerusalem: Hebrew University of Jerusalem-Jewish National and University Library, 2001), p. 450. The manuscript was copied in 1486 by Raphael ben Ephraim da Modena.

<sup>72</sup> See Steinschneider, *Die Handschriften-Verzeichnisse der Königlichen Bibliothek zu Berlin*, vol. 1, no. 62, pp. 39–42. The copyist was Samuel ben Menachem from Soliano (?); in 1585, the manuscript was in Spezzano.

<sup>73</sup> See *Catalogue des manuscrits hébreux et samaritains de la Bibliothèque impériale*, p. 210.

<sup>74</sup> See *Catalogue des manuscrits hébreux et samaritains de la Bibliothèque impériale*, p. 211. At the end of the work, a list of questions and answers on fever as well as fragments taken from different medical writings are added.

The work is preceded by the translator's prologue, in which the author is identified as Antonio of Pavia. Moreover, Solomon ben Moses Shalom apologizes for the use of vernacular terms, explaining that the equivalent Hebrew terms were obsolete; only readers with a profound knowledge of the ancient language would be able to understand these, which is why he adopted the vernacular language.<sup>75</sup> Because of these difficulties, he asks the reader not to correct his work, as it was often the case. Finally, he mentions the translation of a work titled *Pandetti* and of the *Consilia medica* by Bartolomeo Montagnana.

Another anonymous translation of the same text was completed in 1483, by the son or at the request of a certain Gedalia. The work is found in the manuscript Leiden, University Library, Or. 4778, fols 23v–78r.<sup>76</sup> The name of the author is absent in the incipit, but the content of the three parts seem to correspond to Guaineri's *De febribus*. Contrary to the previous translation, some words, which were translated in the former version, are given in the original language, such as אינפלאטיווא שיוקא (*synocha inflativa*) or פוטרידא (*putrida*).

The writing is divided into three parts. The first part has only one chapter, which is devoted to ephemeral fever; the second part discusses the humors and is divided into five treatises, the last of which deals with pestilential fevers. More specifically, the sixth chapter of the fifth treatise discusses the signs and treatments of the plague. Finally, the third part examines fever of the limbs and is divided into three chapters. In general, the text extensively refers to Avicenna; moreover, it reveals an interest in magic, even with a certain criticism towards popular beliefs: in a passage mentioning a recipe to restore youth, taken from Ovid's *Metamorphoses*, the author strongly criticizes superstitious beliefs and especially the legend of the android fabricated by Albert the Great.<sup>77</sup>

The chapter on pestilential fever starts with a reference to Antonio Guaineri's previous treatise, the *Tractatus de peste*. The author states that this chapter is a brief summary of the *Tractatus de peste*, which he advises to consult for more information. As in the longer version, the chapter mostly deals with the cause of the pestilence, which is identified with the corruption of the air generated not only by celestial influence, but also by corpses or infected water. Moreover, in reference to Avicenna, the author maintains that putrid air is found also in the depth of the earth and that, consequently, the vegetation that grows on the corrupted spot is infected as well. When human beings eat animals fed on this vegetation, they are also corrupted. After the section on the causes, Guaineri devotes numerous paragraphs to the signs of fever according to the different kinds of pestilential fevers, quoting Gentile da Foligno as an authority on the topic. Numerous recommendations are prescribed: in order to purify the room, it is suggested to use willow leaves, to reduce humidity, and vinegar. Advice on diet, bloodletting and recipes for medicines and remedies are given. Finally, the author suggests listening to pleasant melodies or songs.

The physician Valescus de Taranta (Vasco de Taranta), born in Portugal, was active in the medical school in Montpellier and was the first physician of Charles VI of France.<sup>78</sup> In 1418, he

---

<sup>75</sup> See Jean-Pierre Rothschild, 'Motivations et méthodes des traductions en hébreu du milieu du XII<sup>e</sup> à la fin du XV<sup>e</sup> siècle', in *Traduction et traducteurs au Moyen Âge. Actes du colloque international du CNRS organisé à Paris*, ed. by Geneviève Contamine (Paris: Éditions du CNRS, 1989), pp. 279–302 (p. 290).

<sup>76</sup> See Moritz Steinschneider, *Catalogus Codicum Hebraeorum Bibliothecae Academiae Lugduno-Batavae* (Leiden: Brill, 1858), p. 156; Albert van der Heide, *Hebrew Manuscripts of Leiden University Library* (Leiden: Bibliotheca Universitatis Leidensis, 1977), p. 34.

<sup>77</sup> See *Liber de febribus*, III, 3 (Pataviae or Venetiis: Conradus de Padeborn, 1474), fol. 48v: 'Et si in hoc experiri volueris, Ovidium lege similiter et receptam, quam tu invenies in VII Methamorphoseos circa principium, illam partem memorie mandes, tamen hoc non plus repugnat quam Albertus Magnus fecerat caput ex succis herbarum ex tali constellatione, quod velut homo loquebatur, ut isti fratres predicatorum asserunt, sed quantum ad hoc naturaliter sit possibile, considera. Sed, o bone Deus, quamdiu poteris istos ribaldos fratres infatuire. Sed obmissis istis fratribus garulantibus ad curam est de cetero transeundum, in qua proposui satis breviter et succincte pertransire'. On this legend by Albert the Great, see Alessandro Palazzo, 'Le apparizioni angeliche e demoniache secondo Alberto il Grande e Ulrico di Strasburgo', *Giornale critico della filosofia italiana*, 85 (2006), pp. 237–253 (p. 251).

<sup>78</sup> See *Dictionnaire historique de la médecine ancienne et moderne*, vol. 1 (Paris: Imprimerie de Trouvé et Compagnie, 1828), pp. 259–60.

composed the work *Practica*, which is also known under the title *Philonium*.<sup>79</sup> The writing is divided into seven books and treats different medical subjects, not only being a compilation of ancient sources, but also a documentation based on personal experience as a physician. Moreover, he also wrote the short treatise *De epidemia et peste*,<sup>80</sup> which was soon translated into Catalan by Joan Villa, and the Castilian version was published in 1494.<sup>81</sup>

The vernacular version of the work was translated into Hebrew, bearing the title *Hanhagat ha-dever* ('Regimen of the Plague').<sup>82</sup> In the colophon, the translator explains his motivation for choosing this writing, stating that it was considered to be the best manual on the topic among Christians. A different version of Valescus' work is transmitted in another translation, known under the title *Ma'amar be-qaddaḥot* ('Treatise on fevers'); according to the colophon, in this case, the text was rendered from Latin into Hebrew. The treatise is found in the manuscript New York, Jewish Theological Seminary of America, Ms. 2661, fols 206r–215v, which was copied in Saragossa in 1488 by the copyist David Ha-Cohen. The *Ma'amar be-qaddaḥot* contains some excerpts from the *Philonium*, whose seventh book focuses on fevers. Indeed, the Hebrew text starts with an exposition on sweat, a topic that is treated in the sixteenth chapter of the seventh book of the *Philonium*. Further, the work features some extracts on epidemics.

The succinct treatise *De epidemia et peste* deals with the traditional topics of plague literature. Mostly by quoting Avicenna, it explains the astrological causes of epidemics and the time when they occur — mostly summer and autumn. Among the signs that predict the outbreak of the disease, there are comets, falling stars, and meteorological conditions. The author agrees with the traditional literature, blaming the corruption of the air, which might also be caused by stagnant and putrid water as well as by unburied corpses. Surprisingly, the mortality in places where the air is generally less good — such as prisons — is lower than in areas that are usually considered healthier. The most important prophylactic measures include the purification of the air in the house; it is recommended to keep stale water and latrines away from the dwelling and to close the windows as often as possible. Vinegar, rose water, and fumigations of aromatic herbs help purify the air in the house. To prevent infection, it is helpful to remove bad humors from the body, through purgation and bloodletting. It is not advised to perform hard physical exercise, as the acceleration of the breath facilitates the inhalation of corrupted air. Diet and sleep must also be regulated. Concerning the accidents of the soul, one must reach an equilibrium by avoiding extremes, such as rage, which provokes heat in the hearth, but also extreme happiness; a temperate feeling of joy should be encouraged. After having treated the prophylactic regimen, the author deals with remedies against the disease. He provides a series of recipes for pills, instructions on how to treat fever and recommends ointments against boils. It is noteworthy that, on many occasions, Valescus refers not only to traditional medical literature, but also to his own knowledge, giving advice on the basis of his practical experience with the patients. The author, for instance, indicates which of the different traditional remedies were most useful according to his judgement.

---

<sup>79</sup> *Practica Valesci de Tharanta que alias Philonium dicitur* (Lugduni: Yohann Trechsel, 1490); it was printed again: in Lugduni: Nicolas Wolff, 1500; Lugduni, 1401 (i.e. 1501); Venetiis, 1502; Lugduni, 1516. It was later printed under the title *Philonium pharmaceuticum et chirurgicum de medendis omnibus* (Francofurti: Nikolaus Basse, 1599; Francofurti-Lipsiae: J. A. Kästneri, 1680).

<sup>80</sup> *Tractatus de epidimia et peste domini Valasti de Taranta* (c. 1474); later, it was published together with the works of Petrus de Abano and Arnaldus de Villanova: Mantuae: Johann Wurster, 1473; Mediolani: Christoph Valdarfer, 1475; Romae: Bartholomaeus Guldinbeck de Wila, 1475; Pataviae: Leonhard Achates, 1473; Pataviae, 1487. It is also included in the *Philonium*, under the title 'Capitula de epidimia'.

<sup>81</sup> See Carlos Alvar, *Traducciones y traductores*, Materiales para una historia de la traducción en Castilla durante la Edad Media (Madrid: Centro de Estudios Cervantinos, 2010), p. 150.

<sup>82</sup> See Steinschneider, *Die hebräischen Übersetzungen*, pp. 818–20. The work is found in the manuscripts New York, Jewish Theological Seminary of America, Ms. 2669, fols 1r–17v, and St Petersburg, The National Library of Russia, Ms. EVR I 336. In the colophon, it is stated that the translation has been made from the לשון לעז, which seems to indicate that the model was the vernacular version.

Finally, a manuscript kept in Leeuwarden, Tresoar Friesland Historical and Literary Centre, Ms. PB 19, fols 194–196 transmits an anonymous translation titled *Hanagah divrit* [*sic*], a *Regimen sanitatis* in times of pestilence.<sup>83</sup> The Hebrew translator attributes it to an otherwise unknown Maestro Pablo, and the name is followed by the toponym שיפייא, whose identification however is problematic: possibly Sipaya, Sophia or Shpia. The original Latin text is not available and there is no information on it. The origin is certainly Spanish, since most medical terms are Spanish, transcribed with Hebrew letters; moreover, the author states that he lives in the city of Jaca and that the work is intended for the well-being of his town. The text is divided into three parts and transmits mostly recipes, featuring a few quotations from Arnaldus de Villa Nova.

### 3.

In conclusion, this overview allows for some interesting assumptions concerning medical literature in Hebrew. They outline the frame for the development of scientific learning in Hebrew, on the one hand, and of intercultural exchanges among scholars and physicians in Christian Europe, on the other. Attention has already been drawn to the fundamental historical testimonies that the prologues to the translations represent, which are almost classified as an independent literary genre.<sup>84</sup> The methods of and motivations for the translation are often addressed in these prefaces, frequently accompanied by rhetorical apologies concerning the difficulty of the endeavor, which was due to the struggle of finding original texts as well as to terminological gaps in the Hebrew language. The use of the vernacular language transliterated in Hebrew characters stands out as a peculiar feature of this specific subgroup of medical literature, that is, of plague treatises.<sup>85</sup> These documents testify to the slow shift of the role of Romance languages from being a mediation instrument for oral exchanges in intercultural interactions to their development as independent languages with scientific authority. In their methodological considerations declared in the prologues, Jewish translators seem to be well aware of the differences between the Latin language of the original and the vernacular language that they often used to substitute the Hebrew.<sup>86</sup> This practice certainly responds to the concrete need to translate the names of the ingredients for medical preparations in an unequivocally understandable way as well as to communicate efficiently with non-Jewish patients. Moreover, it testifies to the widespread use of vernacular languages within Jewish communities, not only as a means to communicate with the outside world, but also as a scholarly instrument. These considerations are especially true for Italy, since a great number of the texts mentioned in the present paper were composed or translated there.<sup>87</sup> The significance of Italian centres of learning for medicine during the Middle Ages is reflected in the production of medical literature devoted to the Black Death — even if the epidemics equally struck other regions of the continent as well.

Besides the dynamics and interactions between Latin and vernacular languages, these treatises also testify to the shift from a context in which the main interest lay on scientific literature produced in Arabic to a setting in which scholarly reference texts were those written in Latin. If in the twelfth

---

<sup>83</sup> See Steinschneider, *Die hebräischen Übersetzungen*, p. 816; see also Adolf Neubauer, ‘Handschriften in kleineren Bibliotheken’, *Israelitische Letterbode*, 2 (1876–77), pp. 83–94 (p. 84).

<sup>84</sup> See Rothschild, ‘Motivations et méthodes des traductions en hébreu’, p. 280.

<sup>85</sup> For the use of vernacular language in Latin-into-Hebrew translations, see Cyril Aslanov, ‘From Latin into Hebrew through the Romance Vernaculars: The Creation of an Interlanguage Written in Hebrew Characters’, in *Latin-into-Hebrew*, vol. 1, pp. 69–84; Gerrit Bos and Guido Mensching, ‘The Literature of Hebrew Medical Synonyms: Romance and Latin Terms and Their Identification’, *Aleph*, 5 (2005), pp. 169–211.

<sup>86</sup> This was not always the case; often, Romance languages and Latin were not distinguished: cf. Aslanov, ‘From Latin into Hebrew through the Romance Vernaculars’.

<sup>87</sup> For an overview of the different places of translations, see Mauro Zonta, ‘Medieval Hebrew Translations of Philosophical and Scientific texts. A chronological table’, in *Science in medieval Jewish cultures*, pp. 17–73.

and thirteenth centuries Jewish translators were the vehicles for transmitting scientific and philosophical knowledge from Arabic into Latin — through the mediation of Hebrew and Romance languages — the direction changed towards Latin being the source language from the fourteenth century on. This transition went hand in hand with the decline of fluency in Arabic among Jews.<sup>88</sup> Of course, Latin plague treatises, as well as medical literature in general, relied on a *corpus* of translations from Arabic, hence counting it among the different intellectual languages at stake.

The motivations mentioned by the translators in their prologues resonate with a widespread *topos* of the translation genre: their endeavor was justified by the troubles that Jewish scholars faced when trying to gain access to a kind of knowledge that was not available to them.<sup>89</sup> While their Latin-speaking colleagues not only had the most up-to-date information, but also the most traditional and thus authoritative works at their disposal, Jewish physicians complained about the lack of first-hand sources. In the prologue of his work, the translator of Antonio Guaineri's *Liber de febribus*, Solomon ben Moses Shalom, refers to the contempt with which Christian scholars treated their Jewish colleagues, considering them unable to gain complete knowledge of fevers, which had to be based on ancient authorities, such as Galen and Hippocrates.<sup>90</sup> To avoid accusations of ignorance and to provide Jewish physicians with indispensable instruments to face the epidemics, translators undertook the effort of obtaining a copy of the respective texts. Benjamin of Carcassonne, for instance, complains that John of Burgundy's work had been kept from the Jews by their Christian colleagues.<sup>91</sup> Further, the translators exposed themselves to criticism due to their terminological choices, as stated by Solomon ben Moses Shalom.

The interest in plague literature among Jewish physicians is also testified by a common phenomenon of translation movements, namely the re-translation of a text, as the case of Antonio Guaineri's *Liber de febribus* shows.<sup>92</sup> Furthermore, partial translations of John of Burgundy's *De epidemia* intersect, so that two Hebrew versions of some parts of the text exist. It is often not clear to what extent the translators were aware of the existence of another version of the same text. Besides the custom of 'double translations', original texts also exhibit a sort of duplication, due to the practice adopted by physicians who used to write and re-write their *consilia* more than once.<sup>93</sup> Gentile da Foligno composed numerous *consilia* on the plague, whose content overlaps and which address different recipients. Similarly, Petrus de Tossignano's *Consilium pro peste evitanda* seems to be a reworked version of his *Tractatus de peste*.

This overview can be seen as the starting point for more in-depth investigations of this topic, which might, first of all, explore the question of the sources. These would need to be examined in the framework of medical manuals, which often rely on each other, and in the context of medical schools. The reception of the Avicennian *Canon* has certainly played a major role in shaping these texts. However, the personal experience of the physicians is often not considered inferior with respect to the authorities, since they were aware of the fact that some of the ancient authors never experienced the pandemics. Secondly, each of the mentioned texts should be thoroughly analysed from a lexical perspective in order to better define the development of medical terminology in Hebrew — or in the vernacular used by Jewish physicians. The intersection of Latin and Hebrew not only shapes the language but also the profile of Jewish scholars living in medieval Europe, as the increasingly

---

<sup>88</sup> See Mauro Zonta, 'The Jewish Mediation in the Transmission of Arabo-Islamic Science and Philosophy to the Latin Middle Ages. Historical Overview and Perspective of Research', in *Wissen über Grenzen: Arabisches Wissen und Lateinisches Mittelalter*, ed. by Andreas Speer and Lydia Wegener (Miscellanea Mediaevalia, 33) (Berlin-New York: de Gruyter, 2006), pp. 89–105 (p. 105).

<sup>89</sup> See Rothschild, 'Motivations et méthodes des traductions en hébreu', pp. 290–91.

<sup>90</sup> See Parma, Biblioteca Palatina, Ms. Parm. 2263, fol. 19.

<sup>91</sup> See Paris, Bibliothèque nationale de France, héb. 1191, fol. 142.

<sup>92</sup> On this practice, see Jean-Pierre Rothschild, 'Traductions refaites et traductions révisées', in *Latin-into-Hebrew*, vol. 1, pp. 391–420.

<sup>93</sup> On the *consilia* literature, see Jole Agrimi, Chiara Crisciani, *Les consilia médicaux* (Turnhout: Brepols, 1994).

widespread use of the vernacular in medical contexts contributes to its development as a modern scientific language.

# Bibliography

- Antonius Guainerius, *Tractatus de peste* (Venetiis: Rainald von Nimwegen, c. 1486–87).
- Fasciculus medicinae, auctore Johanne de Ketham* (Venetiis: per J. et G. de Gregoriia, 1491).
- Gentilis de Fulgineo, *Consilium contra pestilentiam* (Pataviae: per Laurentium Canozium, c. 1472–75).
- Gentilis de Fulgineo, *Consilia* (Papiae: per Antonium Carcanum, c. 1486).
- Practica Valesci de Tharanta que alias Philonium dicitur* (Lugduni: Yohann Trechsel, 1490).
- Tractatus de epidimia et peste domini Valasti de Taranta* (c. 1474).
- \*\*\*
- Agrimi, Jole, and Crisciani, Chiara, *Les consilia médicaux* (Turnhout: Brepols, 1994).
- Alvar, Carlos, *Traducciones y traductores, Materiales para una historia de la traducción en Castilla durante la Edad Media* (Madrid: Centro de Estudios Cervantinos, 2010).
- Arieti, Stefano, ‘Medici ebrei a Bologna tra XV e XVI secolo’, in *Verso l’epilogo di una convivenza: gli ebrei a Bologna nel XVI secolo*, ed. by Maria Giuseppina Muzzarelli (Firenze: Giuntina, 1996), pp. 235–43.
- Arrizabalaga, Jon, ‘Facing the Black Death: Perceptions and reactions of university medical practitioners’, in *Practical Medicine from Salerno to the Black Death*, ed. by Luis García-Ballester and others (Cambridge: Cambridge University Press, 1994), pp. 237–88.
- Aslanov, Cyril, ‘From Latin into Hebrew through the Romance Vernaculars: The Creation of an Interlanguage Written in Hebrew Characters’, in *Latin-into-Hebrew: Texts and Studies*, vol. 1, ed. by Alexander Fidora and others (Leiden-Boston: Brill, 2013), pp. 69–84.
- Barkai, Ron, ‘Jewish Treatises on the Black Death (1350–1500): A Preliminary Study’, in *Medicine from the Black Death to the French Disease*, ed. by Roger French and others (London: Routledge, 2020), pp. 6–25.
- Biraben, Jean-Nöel, *Les hommes et la peste en France et dans les pays européens et méditerranéens*, 2 vols (Paris-La Haye: Mouton, 1975–76).
- Bos, Gerrit, and Mensching, Guido, ‘The Literature of Hebrew Medical Synonyms: Romance and Latin Terms and Their Identification’, *Aleph*, 5 (2005), pp. 169–211.
- Bos, Gerrit, and Mensching, Guido, ‘The Black Death in Hebrew Literature: Abraham Ben Solomon Hen’s *Tractatulus de pestilentia*’, *Jewish Studies Quarterly*, 18 (2011), pp. 32–63.
- Caballero-Navas, Carmen, ‘Medicine among Medieval Jews. The Science, the Art, and the Practice’, in *Science in medieval Jewish cultures*, ed. by Gad Freudenthal (Cambridge: Cambridge University Press, 2011), pp. 320–42.
- Campbell, Anna Montgomery, *The Black Death and Men of Learning* (New York: Columbia University Press, 1931).
- Catalogue des manuscrits hébreux et samaritains de la Bibliothèque impériale* (Paris: Imprimerie Impériale, 1866).
- De Ferrari, Augusto, ‘Curiali, Pietro’, in *Dizionario biografico degli Italiani*, 31 (Roma: Istituto della Enciclopedia Italiana, 1985), pp. 432–34.
- Dictionnaire historique de la médecine ancienne et moderne*, vol. 1 (Paris: Imprimerie de Trouvé et Compagnie, 1828).
- Documenti per la storia dell’Università di Perugia, ed. by Adamo Rossi, *Giornale di erudizione artistica*, 5 (1876), p. 313.
- Ermini, Giuseppe, *Storia dell’Università di Perugia*, 2 vols (Firenze: Leo S. Olschki, 1971).

- Federici Vescovini, Graziella, *Le Moyen Âge magique. La magie entre religion et science aux XIII<sup>e</sup> et XIV<sup>e</sup> siècles* (Paris: Vrin, 2011).
- Ferre, Lola, 'Hebrew Translations from Medical Treatises of Montpellier', *Korot*, 13 (1998), pp. 21–36.
- Fidora, Alexander, and others, 'Latin-into-Hebrew: Introducing a Neglected Chapter in European Cultural History', in *Latin-into-Hebrew: Texts and Studies*, vol. 1, ed. by Alexander Fidora and others (Leiden-Boston: Brill, 2013), pp. 1–10.
- French, Roger, *Canonical Medicine. Gentile da Foligno and Scholasticism* (Leiden-Boston-Köln: Brill, 2001).
- Freudenthal, Gad, 'Arabic and Latin Cultures as Resources for the Hebrew Translation Movement. Comparative Considerations, Both Quantitative and Qualitative', in *Science in medieval Jewish cultures*, pp. 73–105.
- Friedenwald, Harry, 'The use of the Hebrew language in medical literature', *Bulletin of the Institute of the History of Medicine*, 2 (1934), pp. 77–111.
- García-Ballester, Luis, and others, 'Jewish Appreciation of Fourteenth-Century Scholastic Medicine', *Osiris*, (2nd series), 6 (1990), pp. 85–117.
- Ginzburg, David, 'Be'er la-Hay: The Plague Treatise of R. Isaac ben Todros' [Hebrew], in *Jubelschrift zum neunzigsten Geburtstag des Dr L. Zunz*, (Berlin: Gershel, 1884), pp. 91–126.
- Goldenstein, Bernard R., 'A Prognostication based on the Conjunction of Saturn and Jupiter in 1166 [561 AH]', in *Studies in the History of the Exact Sciences in Honour of David Pingree* (Leiden-Boston: Brill, 2004), pp. 735–57.
- Gregory, Tullio, 'I cieli, il tempo, la storia', in Id., *Speculum naturale. Percorsi del pensiero medievale* (Roma: Storia e Letteratura, 2007), pp. 69–91.
- Horrox, Rosemary (trans. and ed. by), *The Black Death* (Manchester-New York: Manchester University Press, 1994).
- Jacquart, Danielle, 'De la science à la magie: le cas d'A. Guainerio, médecin italien du XV<sup>e</sup> siècle', *Littérature, médecine et société*, 9 (1988), pp. 137–56.
- Jacquart, Danielle, 'Theory, Everyday Practice, and Three Fifteenth-Century Physicians', *Osiris* 6 (1990), pp. 140–60.
- Lemay, Richard, *Abu Ma'shar and Latin Aristotelianism in the Twelfth century* (Beirut: American University of Beirut, 1962).
- Marchiaro, Michelangiola, and Zamponi, Stefano (eds.), *I manoscritti datati della Biblioteca nazionale centrale di Firenze*, vols 4, vol. 4 (Firenze: Sismel – Edizioni del Galluzzo, 2018).
- Matheson, Lister M., 'Médecins sans Frontières?: The European Dissemination of John of Burgundy's Plague Treatise', *A Quarterly Journal of Short Articles, Notes and Reviews*, 18 (2005), pp. 19–30.
- Matheson, Lister M., 'John of Burgundy: Treatises on Plague', in *Sex, Aging, and Death in a Medieval Medical Compendium. Trinity College Cambridge MS R.14.52, Its Texts, Language, and Scribe*, ed. by M. Teresa Tavormina, (Tempe: Arizona Center for Medieval and Renaissance Studies, 2006), pp. 569–606.
- Mazzini, Giuseppe, *Vita e opera di maestro Pietro da Tossignano* (Roma: Leonardo da Vinci, 1926).
- Mugnai Carrara, Daniela, 'Guaineri, Antonio', in *Dizionario Biografico degli Italiani*, 60 (Roma: Istituto della Enciclopedia Italiana, 2003), [https://www.treccani.it/enciclopedia/antonio-guaineri\\_\(Dizionario-Biografico\)/](https://www.treccani.it/enciclopedia/antonio-guaineri_(Dizionario-Biografico)/)
- Neubauer, Adolf, 'Handschriften in kleineren Bibliotheken', *Israelitische Letterbode*, 2 (1876–77), pp. 83–94.
- Palazzo, Alessandro, 'Le apparizioni angeliche e demoniache secondo Alberto il Grande e Ulrico di Strasburgo', *Giornale critico della filosofia italiana*, 85 (2006), pp. 237–253.
- Palazzo, Alessandro, 'Astrology and Politics: the Theory of Great Conjunctions in Albert the Great', in *Quaestio*, 19 (2019), *Stars, Kingdoms, Beliefs, and Masses. Political Astrology in the Mediterranean Area from the Middle Ages to the Renaissance*, ed. by Marienza Benedetto and others, pp. 173–203.

- Perani, Mauro, 'La cultura ebraica a Bologna nella testimonianza dei manoscritti' in *La cultura ebraica a Bologna tra Medioevo e Rinascimento* (Firenze: Giuntina, 2002), pp. 29–70.
- Pinkhof, Herman, *Abraham Kashlari over Pestachtige Koortsen*. Hebreuwsch met Nederlandsche Vertaling. Naar het te Leiden voorhanden handschrift, benevens een bericht over vier andere 14e eeuwse Hebreuwsche handschriften, handelende over de pest (Amsterdam: 1891).
- Puccinotti, Francesco, *Storia della medicina*, 3 vols (Livorno: Wagner, 1850).
- Rand, Kari Anne, 'A Previously Unnoticed Fragment of John of Burgundy's Plague Tract and Some Connected Pest Regimens', *Notes and Queries*, 53 (2006), pp. 295–97.
- Richler, Benjamin, and Beit-Arié, Malachi (eds.), *Hebrew manuscripts in the Biblioteca Palatina in Parma: catalogue* (Jerusalem: Hebrew University of Jerusalem-Jewish National and University Library, 2001).
- Rothschild, Jean-Pierre, 'Motivations et méthodes des traductions en hébreu du milieu du XII<sup>e</sup> à la fin du XV<sup>e</sup> siècle', in *Traduction et traducteurs au Moyen Âge. Actes du colloque international du CNRS organisé à Paris*, ed. by Geneviève Contamine (Paris: Éditions du CNRS, 1989), pp. 279–302.
- Rothschild, Jean-Pierre, 'Traductions refaites et traductions révisées', in *Latin-into-Hebrew: Texts and Studies*, vol. 1, ed. by Alexander Fidora and others (Leiden-Boston: Brill, 2013), pp. 391–420.
- Schwarz, Arthur Zacharias, *Die hebräischen Handschriften der Nationalbibliothek in Wien* (Wien-Prag-Leipzig: Strache, 1925).
- Singer, Dorothea Waley, 'Some Plague Tractates (Fourteenth and Fifteenth Centuries)', *Proceedings of the Royal Society of Medicine. Section of the History of Medicine*, 9 (1916), pp. 159–212.
- Singer, Dorothea Waley, and Levy, Reuben, 'Plague Tractates', *Annals of Medical History*, 4 (1917), pp. 394–411.
- Steinschneider, Moritz, *Catalogus Codicum Hebraeorum Bibliothecae Academiae Lugduno-Batavae* (Leiden: Brill, 1858).
- Steinschneider, Moritz, *Die Handschriften-Verzeichnisse der Königlichen Bibliothek zu Berlin: Verzeichniss der hebräischen Handschriften*, 2 vols (Berlin: Buchdruckerei der Königl. Akademie der Wissenschaften, 1878–1897).
- Steinschneider, Moritz, 'Eine medizinische hebräische Handschrift', *Magazin für die Wissenschaften des Judenthums*, 12 (1885), pp. 182–214.
- Steinschneider, Moritz, *Die hebräischen Übersetzungen des Mittelalters und die Juden als Dolmetscher* (Berlin: Kommissionsverlag des Bibliographischen Bureaus, 1893).
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 4 (1910–11), pp. 191–222, pp. 389–424.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 5 (1911–12), pp. 36–87, pp. 332–96.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 6 (1912–13), pp. 313–79.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 7 (1913–14), pp. 57–114.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 8 (1914–15), pp. 175–214, pp. 236–86.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 9 (1915–16), pp. 53–78; pp. 117–67.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 11 (1918–19), pp. 44–92, pp. 121–76.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 14 (1922–23), pp. 1–25, pp. 79–105, pp. 129–68.

- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 16 (1924–25), pp. 1–76, pp. 77–188.
- Sudhoff, Karl, 'Pestschriften aus den ersten 150 Jahren nach der Epidemie des 'Schwarzen Todes' 1348', *Archiv für Geschichte der Medizin*, 17 (1925), pp. 12–139, pp. 241–91.
- Tamani, Giuliano, 'Inventario dei manoscritti ebraici di argomento medico della biblioteca Palatina di Parma', *La Bibliofilia*, 69 (1967), pp. 245–76.
- Thorndike, Lynn, *A History of Magic and Experimental Science*, vol. 1 (New York: Columbia University Press, 1923).
- Thorndike, Lynn, *History of magic and experimental science*, vol. 3 (New York: Columbia University Press, 1934).
- Thorndike, Lynn, *A History of Magic and Experimental Science*, vol. 4 (New York: Columbia University Press, 1953).
- Thorndike, Lynn, 'Consilia and more works in manuscript by Gentile da Foligno', *Medical History*, 3 (1959).
- van der Heide, Albert, *Hebrew Manuscripts of Leiden University Library* (Leiden: Bibliotheca Universitatis Leidensis, 1977).
- Ziegler, Philip, *The Black Death* (London: Collins, 1969; repr. 1991).
- Zonta, Mauro, 'The Jewish Mediation in the Transmission of Arabo-Islamic Science and Philosophy to the Latin Middle Ages. Historical Overview and Perspective of Research', in *Wissen über Grenzen: Arabisches Wissen und Lateinisches Mittelalter*, ed. by Andreas Speer and Lydia Wegener (Miscellanea Mediaevalia, 33) (Berlin-New York: de Gruyter, 2006), pp. 89–105.
- Zonta, Mauro, 'Medieval Hebrew Translations of Philosophical and Scientific texts. A chronological table', in *Science in medieval Jewish cultures*, ed. by Gad Freudenthal (Cambridge: Cambridge University Press, 2011), pp. 17–73.