The Historical Review/La Revue Historique

Vol 19, No 1 (2022)

The Historical Review / La Revue Historique

The Historical Review
La Revue Historique

VOLUME XIX (2022)

Section de Recherches Néohelléniques
Institut de Recherches Historiques / FNRS

Section of Neohellenic Research
Institute of Historical Research / NHRF

From the Greek Medical Manuscripts of the Ottoman Empire to the Pharmacopoeia I of the Greek State: Pharmacy and Political Change in Southeastern Europe

Athanasios Barlagiannis , Penelope Seriatou, Vaso Seirinidou

Articles

FROM THE GREEK MEDICAL MANUSCRIPTS OF THE OTTOMAN EMPIRE TO THE PHARMACOPOEIA I OF THE GREEK STATE: PHARMACY AND POLITICAL CHANGE IN SOUTHEASTERN EUROPE

Athanasios Barlagiannis, Penelope Seriatou and Vaso Seirinidou

Abstract: The article studies the transition from the medical manuscripts that circulated as a means of knowledge preservation and professional regulation in the early modern Greek world to the first edited pharmacopoeia of the Greek state in 1837. The transition is examined in parallel to the changes in the political, scientific and professional domains attested in southeastern Europe from the eighteenth to the middle of the nineteenth centuries. After an overview of the Greek state's legal interventions in the pharmaceutical trade, in the context of which the pharmacopoeia was promulgated, and of the efforts to translate the pharmaceutical terms by court physicians and pharmacists, the article compares the materia medica of the *Ελληνική Φαρμακοποιΐα* (Greek Pharmacopoeia) with that of two medical manuscripts that circulated in the period before the formation of the Greek state. By studying the process of incorporation and/or exclusion of pharmaceutical ingredients during the establishment of a new legal culture and of a more formal way of regulating pharmacy in the southeastern Balkans, the article discusses important issues in the history of pharmacy, especially its relationship to politics, ideology and professional rivalries.

The habit of listing substances with therapeutic value (*materia medica*) dates back to ancient times.[1] Specialists of therapy, and also lay people at times, wrote down what seemed to them to be useful for many, if not all, types of ailments.

* This research is co-financed by Greece and the European Union (European Social Fund–ESF) through the Operational Program "Human Resources Development, Education and Lifelong Learning, 2014–2020" in the context of the project "From the medical manuscripts of the 18th century to the first Greek Pharmacopoeia (1837). Aspects of the politics of pharmacy in King Otto's Greece" (MIS 5047975). Research team: Vaso Seirinidou (scientist responsible for the project), Athanasios Barlagiannis (postdoctoral researcher) and Penelope Seriatou (PhD candidate).

[1] The Egyptian papyrus Ebers, containing one of the most ancient texts with medical recipes, dates to 1600 BC. Erwin H. Ackerknecht, *Ιστορία της Ιατρικής*, trans. Vasilis Paschalis, Giorgos Iliadis, Vasilis Karatzoulis (Athens: Marathia, 1998), 53.

These medical manuscripts were copied through the centuries, creating a certain corpus of drugs and substances that were identified as safe and efficacious: plants, plant parts, metals, stones, minerals, animal parts, extracts or excreta from organisms and chemical substances. This consensus over the *materia medica*, even though their natural origins explain why some substances are used in one place and are absent in another, owes much to the work of the first-century AD Greek healer Dioscorides.[2] Thanks to his career as a military doctor in the Roman legions and to previous works like Crateus' *Rhizotomico*n (first century BC),[3] he was able to register, categorise and classify over 600 medicinal plants. His *Περί ύλης ιατρικής* (*De materia medica*) was perhaps the most influential pharmaceutical text in Europe until about 1500, while in the Ottoman Empire it continued to exert a steady influence even beyond that.[4]

The Greek medical manuscripts of the Ottoman era that were circulating within the empire and were written in modern Greek (with differences in language owing to the needs and origins of the authors)[5] vary in size, quality and content, ranging from simple notebooks to specialised treatises. Besides medicines, recipes and medicinal ingredients, they could contain information about diseases and their treatment, dietary rules as well as information about the human body and the functions of its organs.[6] Even though some of them could also contain practical information, like cooking recipes, in order to offer

---

[2] Paula De Vos, "European Materia Medica in Historical Texts: Longevity of a Tradition and Implications for Future Use," *Journal of Ethnopharmacology* 132, no. 1 (2010): 28–47.

[3] Jerry Stannard, "The Herbal as a Medical Document," *Bulletin of the History of Medicine* 43, no. 3 (1969): 213–14.

[4] Efthalia Tsagkala, "Οι επιβιώσεις του Διοσκουρίδη στα δημοσιευμένα χειρόγραφα γιατροσόφια της Ηπείρου. Συμβολή στην έρευνα της Ιστορίας της ιατρικής και της λαϊκής ιατρικής" (PhD diss., University of Ioannina, 2007).

[5] Nikolaos E. Papadogiannakis, *Κρητικό ιατροσόφιον του 19ου αιώνα* (Rethymno: Istoriki kai Laographiki Etaireia Rethymnis, 2001), 27; Tina Lendari and Io Manolessou, "The Language of *Iatrosophia*: A Case-study of Two Manuscripts of the Library at Wellcome Collection (MS.4103 and MS.MSL.14)," in *Exploring Greek Manuscripts in the Library at Wellcome Collection in London*, ed. Petros Bouras-Vallianatos (London: Routledge, 2020), 66–112. For a British example, see Emily Kesling, *Medical Texts in Anglo-Saxon Literary Culture* (s.n.: Boydell and Brewer, 2020).

[6] For a recent study on Greek medical manuscripts, Penelope Seriatou, "Από τα γιατροσόφια στα ιατρικά εγχειρίδια: Η διαδρομή προς την επιστημονική ιατρική γνώση και περίθαλψη στον ελληνικό χώρο κατά τον 18ο και 19ο αιώνα" (PhD diss., University of Athens, 2021). See also John Karas, "Η επιστημονική–φιλοσοφική σκέψη στον ελληνικό χώρο κατά την περίοδο της Τουρκοκρατίας: Η περίπτωση των φυσικών–θετικών επιστημών" (PhD diss., University of Ioannina, 1984), pt. 2.

all-round advice on the best way to manage a household (and meet its health needs), they constitute an important source for the history of medicine.[7] They were handbooks that copied and combined texts from ancient Greek, Byzantine and Arab medical traditions,[8] in an effort to preserve and further promote pharmaceutical and medical knowledge, especially its practical curative side. Sometimes they updated the therapeutic tradition, with the incorporation, for example, of quinaquina[9] or of other recipes personally tested by the author.[10] The medical manuscripts represent a centuries-long effort to register the best therapeutic substances for the diseases found in a specific geographical area according to the ideas of reciprocity between the human body and its environment.[11]

The history of the medical literature and of its uses should take cognisance of and include an important factor underway since the fifteenth century: modern state formation. States had, at first, an economic interest in ensuring a flourishing pharmaceutical trade which was taken up by merchants, apothecaries and doctors (educated ones and empirics).[12] Later, as seventeenth-century

---

[7] Henry E. Sigerist, "The Latin Medical Literature of the Early Middle Ages," *Journal of the History of Medicine and Allied Sciences* 12, no. 2 (1958): 127–46.

[8] Agamemnon Tselikas, "Τα ελληνικά γιατροσόφια: Μια περιφρονημένη κατηγορία χειρογράφων," in *Ιατρικά βυζαντινά χειρόγραφα*, ed. Thanasis Diamantopoulos (Athens: Domos, 1995), 57–70; Alain Touwaide, "Byzantine Hospital Manuals (*Iatrosophia*) as a Source for the Study of Therapeutics," in *The Medieval Hospital and Medical Practice*, ed. Barbara S. Bowers (Aldershot: Ashgate, 2007), 147–73; Touwaide, "Arabic into Greek: The Rise of an International Lexicon of Medicine in the Medieval Eastern Mediterranean?," in *Vehicles of Transmission, Translation, and Transformation in Medieval Textual Culture*, ed. Robert Wisnovsky, Faith Wallis, Jamie Fumo and Carlos Fraenkel (Turnhout: Brepols, 2011), 196.

[9] Feza Gunergun and Seref Etker, "From Quinaquina to 'Quinine Law': A Bitter Chapter in the Westernization of Turkish Medicine," *Osmanli Bilimi Arastirmalar* 14, no. 2 (2013): 41–68. These handbooks were also necessary possessions for merchants, who would want to discern the quality of their merchandise. See Ingeborg Swart, Mieke Beumer et al., "Bodies of Plant and Animal kingdom: An Illustrated Manuscript on *materia medica* in the Netherlands (ca. 1800)," *Journal of Ethnopharmacology* 237 (2019): 239–44.

[10] Seriatou, "Από τα γιατροσόφια στα ιατρικάεγχειρίδια," 169–71.

[11] Christos Papadopoulos, "Post-Byzantine Medical Manuscripts: New Insights into the Greek Medical Tradition, its Intellectual and Practical Interconnections, and Our Understanding of Greek Culture," *Journal of Modern Greek Studies* 27 (2009): 107–30.

[12] For the work of apothecaries and the pharmacists that oscillated between profit and medical assistance, see Barbara Di Gennaro Splendore, "Craft, Money and Mercy: An Apothecary's Self-Portrait in Sixteenth-Century Bologna," *Annals of Science* 74, no. 2 (2017): 91–107; R. Schepers, "Pharmacists and Medical Doctors in Nineteenth-Century Belgium," *Sociology of Health and Illness* 10, no. 1 (1988): 68–90.

states were becoming more and more involved with their subjects' health interests,[13] this merchandise became a central object for state regulation and an important incentive for institutional expansion. It was in this context that state pharmacopoeias, which should be considered as distinct from all other medical texts, appeared. A pharmacopoeia is the official list of drugs (simples, compounds and chemically prepared) in which the professionals, recognised as such by an authority, could search for a drug's qualities and active components as well as the ways of conservation and the measures and weights by which to apply it.[14]

The first official European pharmacopoeia was the *Ricettario Fiorentina*, published in 1498 in the Italian city of Florence.[15] It was not a *materia medica* but a formulary, noting the officially recognised modes of drug preparation. What distinguished it then from other formularies so that it is considered as the first (modern) pharmacopoeia? Its publication was demanded and imposed by a recognised central authority. George Urdang identified the development of pharmacopoeias (and their iconography) with political changes and reforms worldwide.[16] Pharmacopoeias were "adapted to the needs of a certain political unit" and were "a matter of national ambition, a part and a proof of national sovereignty and unity".[17] As it will be shown next, the *Ελληνική Φαρμακοποιΐα* (*Greek Pharmacopoeia*) was in no way unaware of these developments.

There is a legalistic aspect behind the publication of a pharmacopoeia: "The development of obligatory pharmacopoeial standards" demand the "force of a legal authority".[18] In the absence of such an authority, it was actually the Hippocratic oath, and hence "an idealistic code of ethical conduct", that constituted a defence against malpractice and drug adulteration.[19] In other words, with the publication of a pharmacopoeia the very notions of patent medicines, illegitimate drugs, quackery and proprietary medicines become concretely and

[13] Olivier Faure, *Histoire sociale de la médecine (XVIIe–XXe siècles)* (Paris: Anthropos, 1994), 33.

[14] Mark J. Wiggins, and Joseph A. Albanese, "A Brief History of Pharmacopoeias: A Global Perspective," *BioPharm International eBook* (September 2019): 2.

[15] James Shaw and Evelyn Welch, *Making and Marketing Medicines in Renaissance Florence* (Amsterdam: Rodopi, 2011),43.

[16] George Urdang, "Pharmacopoeias as Witnesses of World History," *Journal of the History of Medicine and Allied Sciences* 1, no. 1 (1946): 46–70.

[17] Ibid., 46–47.

[18] R.G. Penn, "The State Control of Medicines: The First 3000 Years," *British Journal of Clinical Pharmacology* 8, no. 4 (1979): 294.

[19] E. Fullerton Cook, "History of the Pharmacopoeia," *Food, Drug, Cosmetic Law Quarterly* 1, no. 4 (1946): 518.

meaningfully constructed.[20] Moreover, a printed pharmacopoeia, whose content, under the threat of a punishment, could be copied out but not changed, as was the case with the medical manuscripts, created a space within which the law decided which drugs or components were legal and safe to use and which was illegal and harmful. The pharmacopoeia was a legal text, its publication was supported by the justice system which intervened, thus, in the pharmaceutical domain.

The article is the result of a collaborative research project into the political, economic, professional and scientific aspects of the history of pharmacology in southeastern Europe. The research focuses on the transition from the use of the medical manuscripts, as a means for medical knowledge circulation and drug regulation in the early modern Greek world in the Ottoman Empire, to the publication in 1837 of the first officially printed pharmacopoeia in the region. The transition was slow and took time mainly because the publication of the pharmacopoeia, being linked more to transformations in politics, economy and professional organisation than to advances in the scientific, that is, pharmacological, domain, was not readily accepted by all therapy professionals. As is shown in the first part of the article, the shift from handwritten to edited volumes on pharmacotherapeutics was largely related to the increasing need to formally organise the pharmacist profession, to establish its limits and boundaries and to promote a stricter way of scientific research.

This shift and its relevant legal and professional dynamics had important scientific consequences. In a period of transition from the Ottoman Empire to the Greek state, as the new state was constructing its identity and trying to distance itself from the past and to align more to western Europe and to its science, the court's pharmacists were asking themselves what writing a "Greek" pharmacopoeia would entail: did it have to imitate western European pharmaceutical standards? Was it to turn exclusively to ancient Greek medicine? Or was it to integrate substances used already by local physicians and pharmacists? The indications seem to suggest that the Greek administration and its physicians tried to satisfy all three options. At least, this deduction can be

[20] J. Worth Estes, "The Pharmacology of Nineteenth-Century Patent Medicines," *Pharmacy in History* 30, no. 1 (1988): 3–18; Alex Berman, "Conflict and Anomaly in the Scientific Orientation of French Pharmacy, 1800–1873," *Bulletin of the History of Medicine* 37, no. 5 (1963): 440–62 and, for a contemporary globalised perspective, Maurice Cassier, "Pharmaceutical Patent Law In-the-Making: Opposition and Legal Action by States, Citizens, and Generics Laboratories in Brazil and India," in *Ways of Regulating Drugs in the 19th and 20th Centuries*, ed. Jean-Paul Gaudillière and Volker Hess (Houndmills: Palgrave Macmillan, 2013), 287–317.

derived from the comparison, made in the second part of the article, between the substances contained in two medical manuscripts of the Ottoman period written in Greek and those integrated into the Greek pharmacopoeia.[21]

By bringing together analytical methods from palaeography, the social history of medicine, the political history of southeastern Europe and the history of pharmacology, the article examines the multiple dynamics (scientific, political, economic, textual and professional) behind the publication of the *Greek Pharmacopoeia I*. These dynamics are described in terms of *discipline* and *standardisation*: the social and political discipline imposed by the Greek state's administration went hand in hand with professional organisation and scientific standardisation, that is, a discipline influencing the ways of proving, observing, curing, demonstrating, controlling, classifying and diffusing knowledge.[22]

The Greek Pharmacopoeia I in a Period of Political Transition

When the Greek Kingdom was formed in 1832–1833, it was put under the rule of the Bavarian court of King Othon (1815–1867). His cameralist administrators, such as Georg Ludwig von Maurer (1790–1872), who was responsible for the educational matters of the new state, thought of their work as a rational intervention in societal and scientific issues guided by the unified action of the law. The body of law produced during Othon's reign (1833–1862) was enormous compared to subsequent years, as his court aspired to organise every aspect of social life in the Greek *Polizeistaat*, and, thus, to establish a medical police.[23]

The former Ottoman regions under Othon's government lacked any formal organisation in their medical spheres. Even though there were concrete local

---

[21] For an Indian example, see Nandini Bhattacharya, "From Materia Medica to the Pharmacopoeia: Challenges of Writing the History of Drugs in India," *History Compass* 14, no. 4 (2016): 131–39.

[22] For the notion of discipline, see Max Weber, "The Meaning of Discipline," in *From Max Weber: Essays in Sociology*, ed. H.H. Gerth and C. Wright Mills (New York: Oxford University Press, 1946), 253–64. Very important are also the works of Norbert Elias, especially his *Περί χρόνου* (Athens: Eikostou Protou, 2004).

[23] For cameralism and the police, see Marc Raeff, *The Well-Ordered Police State: Social and Institutional Change through Law in the Germanies and Russia, 1600–1800* (New Haven: Yale University Press, 1983) and Keith Tribe, "Cameralism and the Science of Government," *Journal of Modern History* 56, no. 2 (1984): 263–84. For medical police, George Rosen, "Cameralism and the Concept of Medical Police," *Bulletin of the History of Medicine* 27 (1953): 21–42. For the Greek case, see Athanasios Barlagiannis, "Hygiène publique et construction de l'état grec, 1833–1845: La police sanitaire et l'ordre public de la santé" (PhD diss., École des hautes études en sciences sociales, 2017), which offers a comprehensive study of Greek

medical realities, that is, "social relations", as Charles Rosenberg considers them,[24] with their own logic that shared conceptual frameworks and adhered to certain rules for preparing and dispensing medicines,[25] it is true that the Ottoman medical market, if there was one at all, was unregulated on the eve of the Greek state's formation. "In Greece," writes Maurer, "the idea of controlling physicians, midwives, pharmacists, etc., was a thing unknown. Everybody could exercise his/her profession in total liberty concerning the place and the manner … That is the reason, it was of an utmost necessity to regulate all these matters."[26] There is, of course, an ideological element in Maurer's statement since he was trying to legitimise the new regime by arguing that the king was bringing reform, order and novelty. However, this clear-cut image of discontinuity with the past underlines a historical change in the Ottoman medical market at the end of the eighteenth century: the number of people who were prescribing medicines was growing, making the need for a formal distinction between legitimate and illegitimate medical practice more urgent than before.

The European eighteenth century saw an expansion of the medical market and of drug consumption as a result of European imperialism, of the intensification of trading exchanges, and of transformations in mental attitudes that were beginning to consider health as an important element for economic growth, security and happiness.[27] The Ottoman Empire was not divorced from these changes:[28] it was a time when its political structures, its administration and

public health legislation. Also Barlagiannis, *Η υγειονομική συγκρότηση του ελληνικού κράτους (1833–1845)* (Athens: Estia, 2018).

[24] Charles E. Rosenberg, "The Therapeutic Revolution: Medicine, Meaning, and Social Change in Nineteenth-Century America," in *Explaining Epidemics and Other Studies in the History of Medicine* (Cambridge: Cambridge University Press, 1992), 9.

[25] Athanasios Barlagiannis, "Η ταυτότητα του επίσημου ιατρικού σώματος στην Ελλάδα του Όθωνα: Ανάμεσα στο ευρωπαϊκό επιστημονικό παράδειγμα και τις ντόπιες πολιτισμικές και πολιτικές πραγματικότητες," in *Identities in the Greek World (from 1204 to Present Day)*, ed. Konstantinos A. Dimadis (Athens: European Society of Modern Greek Studies, 2011), 5:251–64.

[26] Georg Ludwig von Maurer, *Ο Ελληνικός Λαός: Δημόσιο, ιδιωτικό και εκκλησιαστικό δίκαιο από την έναρξη του Αγώνα για την ανεξαρτησία ως την 31η Ιουλίου 1834*, trans. Olga Rombaki (Athens: Tolidi, 1976), 2:495.

[27] Faure, *Histoire sociale de la médecine*, 33; Harold J. Cook and Timothy D. Walker, "Circulation of Medicine in the Early Modern Atlantic World," *Social History of Medicine* 26, no. 3 (2013): 337–51; Benjamin Breen, "Drugs and Early Modernity," *History Compass* 15, no. 4 (2017), https: //doi.org/10.1111/hic3.12376.

[28] Daniel Panzac, *La peste dans l'Empire ottoman, 1700–1850* (Leuven: Peeters, 1985); Murphey Rhoads, "Ottoman Medicine and Tranculturalism from the Sixteenth

its economy were also undergoing significant transformations.[29] The empire's inhabitants were expressing an increasing interest in their health and, as a result, the number of healers and merchants looking to take advantage of this interest was increasing. The phenomenon of the *κομπογιαννίτες*, the seasonal travelling merchants who could go as far as Crete and Asia Minor, even India, to sell the natural products of their mountains, was in no way a fortuitous one. They had started to make their presence felt around 1670 when they found a way out of their poverty by supplying the growing medical market place of the Ottoman Empire and beyond.[30] Merchants, army men, physicians and sailors were traveling abroad more frequently and, progressively, the number of Greek subjects of the sultan studying in foreign medical faculties multiplied. Conversely, European subjects, like the infamous *καλογιατροί,* individuals who (purportedly) practiced medicine and pharmacy, found a profitable way of living in the Ottoman Empire. Their numbers were such that it was believed by the Christians of the empire that "anyone who was born or who has travelled to the West is a doctor or knows medicine".[31]

During this period of transformations, the number of medical manuscripts and of the printed texts (herbals, pharmacopoeias, formularies, *iatrosophia* and manuals) multiplied,[32] after the first printed medical text in Greek appeared in

---

through the Eighteenth Century," *Bulletin of the History of Medicine* 66, no. 3 (1992): 376–403; G.A. Russell, "Physicians at the Ottoman Court," *Medical History* 34 (1990): 243–67, and Nuran Yıldırım, *A History of Healthcare in Istanbul* (Istanbul: İstanbul Üniversitesi, 2010). Specifically for the Greek Orthodox communities, Efi Kanner, *Φτώχεια και φιλανθρωπία στην Ορθόδοξη κοινότητα Κωνσταντινούπολης, 1753–1912* (Athens: Katarti, 2004).

[29] Donald Quataert, *The Ottoman Empire, 1700–1922* (New York: Cambridge University Press, 2005). For an analysis of the changes in health and medicine within the context of the transformations in the millet administration, see Athanasios Barlagiannis, *Ιατρική ιστορία της Επανάστασης του 1821: Οι απαρχές της συγκρότησης της ελληνικής δημόσιας υγείας, 1790–1831* (Athens: Hellenic Open University Press, 2022), chap. 1.

[30] Giorgos Avogianos and Christina Kyriakopoulou, "Οι κομπογιαννίτες και τα βότανά τους," Ηλιοχώρι (Ντομπρίνοβο) Ζαγορίου website, 14 January 2009, https://iliochori.wordpress.com./2009/01/14/647/. Also Georgios Vavaretos, *Κομπογιαννίτες, Ματσουκάδες: Οι ξακουσμένοι αυτοδίδακτοι γιατροί απ'το Ζαγόρι της Ηπείρου* (Athens: Epirotiki Etairia Athinon, 1972)

[31] Jean Bouros [Ioannis Vouros], "Quelques mots sur l'état actuel de la médecine en Grèce," *Bulletin de l'Académie Royale de Médecine de Paris* 7 (1841–1842): 871.

[32] According to our count, based on Yiannis Karas, *Οι επιστήμες στην Τουρκοκρατία: Χειρόγραφα και έντυπα*, vol. 3, *Οι επιστήμες της ζωής* (Athens: Estia, 1994). See also, Dimitrios Karaberopoulos, *Η ιατρική ευρωπαϊκή γνώση στον ελληνικό χώρο, 1745–1821* (Athens: Stamoulis, 2003).

1724.[33] Alain Touwaide has traced 160 of these manuscripts[34] while Agamemnon Tselikas thinks that more than 250 have survived.[35] The increase in the numbers demonstrates, on the one hand, their social necessity and, on the other, the power balance within a profession that was expanding, or that was just coming into being. The thriving trade in cures favoured not only physicians and other professionals of therapy but also the unscrupulous. The distinction between the two was difficult to detect and the flourishing medical literature tried to clarify matters while satisfying three more social and scientific requirements: the patient's need to help themselves in the absence of specialised care (self-medication); the transmission of knowledge within the profession; and the standardisation of pharmacy.

Pharmaceutical literature was then faced with a contradiction: on the one hand, writers, authors and copyists would want to create the standards of pharmacotherapy and to homogenise it, in order to protect patients from exploitation. On the other, since there was no formal or institutional demarcation line between legal and illegal practice, the medical manuals reflected the rivalry between all those aspiring to control the definition of illegality and the process of standardisation.[36] Monks, priests, physicians, medical empirics and cunning folk (and anyone else, for that matter) were producing texts that could not, however, deal with the problem of standardisation and homogenisation since the texts' quality was not controlled by any official institution. Since most texts were handwritten, it was particularly difficult to assure that their copies respected any procedure of knowledge transmission. Anyone could add anything to a text under Hippocrates' authority. As one manuscript stated:

> We have written to you, Man, many interpretations and many drugs … The reason is that if one [cure] isn't found, you should use

[33] Giorgos Veloudis, *Το ελληνικό τυπογραφείο των Γλυκήδων στη Βενετία (1670–1854): Συμβολή στη μελέτη του ελληνικού βιβλίου κατά την εποχή της Τουρκοκρατίας* (Athens: Bouras, 1987), 200, and Dimitrios Karamperopoulos, *Ιστορία της ιατρικής: Ελληνική βιβλιογραφία 1750–2000* (Athens: Stamoulis, 2009).

[34] Alain Touwaide, *Greek Medical Manuscripts – Diels' Catalogue*, vol. 2.1, *Diels Catalogue with Indices* (Berlin: De Gruyter, 2019).

[35] Agamemnon Tselikas, "Η συνάντηση Ανατολής και Δύσης στους νεοελληνικούς ιατροσοφικούς κώδικες," *Θέματα Ελληνικής Παλαιογραφίας* 34 (2004): 556; Penelope Seriatou, "Μαντζούνια και αλοιφές: Συνταγές ίασης της λαϊκής ιατρικής σε ένα γιατροσόφι του 18ου αι." (Master's thesis, National and Kapodistrian University of Athens, 2013), 39–45.

[36] See Elizabeth L. Eisenstein, *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe* (Cambridge: Cambridge University Press, 1979), 80.

> the other one. And if you don't find that one, you use another … And you, as a man, you can chose the one from the other and do the one that is more useful as you discern and act.[37]

Readers of the medical literature were left to decide for themselves, since no one else could officially and formally assure them of a medicine's safety and efficacy.

Even though Ottoman society had already established informal ways to supervise pharmaceutical enterprises (through the family or the guild institution, traditional practices or educating its professionals in community schools), the multiplication of those offering a medicinal treatment created the need by the turn of the nineteenth century to intensify the practices to control them.[38] It was not by chance then that in 1818 the *Φαρμακοποιΐα Γενική* (*General Pharmacopoeia*) was published in Constantinople by the physician and archimandrite Dionysios Pyrros.[39] It was a scientific endeavour linked to the process of organising the Orthodox millet.[40] However, even if it seems that the patriarch was involved in its publication and that many "notables of the Morea" were among its subscribers, it is far from sure that the *General Pharmacopoeia* constituted the official pharmacopoeia of the Orthodox Church. Due to the administrative conditions of the period, any controlling effort by any formal institution could not be anything more than occasional. The question, thus, of who would be incorporated in the profession and who would be excluded remained; the Greek administration of the subsequent period tried hard to resolve it.

The efforts of the first two decades of the nineteenth century in fact paved the way for the Greek court's interventions after 1833. From a broader perspective, the Greek medical police neither updated nor reformed the Ottoman past, it

---

[37] Cited in Tselikas, "Τα ελληνικά γιατροσόφια," 67.

[38] Barlagiannis, *Ιατρική ιστορία της Επανάστασης του 1821*, 46–55.

[39] See Ioanna Stavrou and Eythimios Bokaris, "Το 'παζλ' Χυμικής/Χημείας – Φαρμακοποιίας/Φαρμακίας στις αρχές του 19ου αιώνα στις ελληνόφωνες περιοχές της Οθωμανικής Αυτοκρατορίας," in *Τεχνολογία και Κοινωνία στην Ελλάδα: Μελέτες από την Ιστορία της Τεχνολογίας και τις Σπουδές Επιστήμης και Τεχνολογίας* (Athens: Ekdotiki Athinon, 2015), 55–80.

[40] The exact same process, if not more rapid and successful, had produced the Nomokanons, texts with a juridical content. Many manuscripts codifying ecclesiastical and family law, adapted to local customs and to local contexts, were circulating down to the eighteenth century, when the compilation of the Byzantine jurist Constantinos Armenopoulos was edited and imposed as the only juridical document to all Christians of the Ottoman Empire by a consolidated ecclesiastical power. See Socrate Petmézas, "L'organisation ecclésiastique sous les Ottomans," in *Conseils et mémoires de Synadinos, prêtre de Serrès en Macédoine (XVIIe siècle)*, ed. Paolo Odorico (Paris: Association Pierre Belon, 1996), 505.

was rather building on it, incorporating practices and actors, and multiplying or, more precisely, intensifying medical surveillance.

> A police force is an organisation authorised by a collectivity to regulate social relations within itself by utilising, if need be, physical force. Therefore, when the word police is used it should be understood in terms of a practical function and not in terms of a given body of men.[41]

A *Polizeistaat* was not about changing things, nor dismantling local social life; its government was "manipulating, maintaining, distributing, and re-establishing relations of force".[42] In other words, King Othon's medical police was more to do with past political and scientific efforts than its administrators would have acknowledged openly, even though novel institutions and practices were indeed introduced, like the *Pharmacopoeia I*.

The *Greek Pharmacopoeia I (Pharmacopoea Graeca iussu regio)* served

> the need to bring to [Greece] some order to the kind and to the preparation of medicines, because, since there was no university in the Greek state, nor physicians and pharmacists returning from different European universities and schools to prescribe and prepare medicines according to the method they were taught; as a result … there is obvious damage for the diseased and for physicians and pharmacists alike.[43]

The search for order and policing in the medical marketplace brings to mind the notion of "sanitary security" (*sécurité sanitaire*), as analysed by Sophie Chauveau: "This notion describes the project for the control and the surveillance of pharmaceutical products in order not to damage public health, and the guarantee that this security will be employed is one of the main attributes of the medicament, even for the judicial domain."[44] The pharmacopoeia, backed by the state's force and judiciary system, guaranteed public health.

---

[41] David H. Bayley, "The Police and Political Development in Europe," in *The Formation of National States in Western Europe*, ed. Charles Tilly (Princeton: Princeton University Press, 1975), 328.

[42] Michel Foucault, *Security, Territory, Population, Lectures at the Collège de France 1977–1978*, trans. Graham Burchell (London: Palgrave Macmillan, 2007), 407.

[43] From the Introduction to the 1837 *Greek Pharmacopoeia*.

[44] Sophie Chauveau, "Genèse de la 'sécurité sanitaire': Les produits pharmaceutiques en France au XIXe et XXe siècles," *Revue d'histoire moderne et contemporaine* 51, no. 2 (2004): 91.

Furthermore, the pharmacopoeia reinforced an important element in the circulation of pharmaceutical knowledge: the printed volume. The printing press had a special impact on knowledge production and circulation. A printed book represents a "closed" or a definite world whose content cannot be easily renegotiated.[45] Even if readers were using it as if it were a manuscript, making notes on it, corrections to or copies from it, the printed book opened the way to start envisaging the text as the result of a process of proving, experimenting and acquiring knowledge and not merely as part and parcel of that process. Interestingly, the debate as to whether a printed book or a manuscript was the best means to circulate knowledge and scientific deliberation was not easily answered by the Christian physicians of the Ottoman Empire who were accustomed to expressing doubts about the former's credibility.[46] As studies have shown, medical epistemology guided the text editing during the process of translation and transcription of a manuscript[47] and, conversely, the book's format has had a decisive role in the history of science.[48] In other words, a pharmacopoeia could only be a printed text.

The *Pharmacopoeia* was compiled by the German chemist Xaver Landerer (1809–1885), chief pharmacist of the Greek king, member of the Medical Council and professor of pharmacology, chemistry and botany at the Athens Medical Faculty and at the Athens School of Pharmacy; Josef Sartori (1809–1880), a German who was employed as a royal pharmacist; and by Ioannis Vouros (1808–1885), a physician who served as secretary to the Medical Council and whose dissertation (in the University of Halle) was on Greek pharmacology.[49] Three elements are worth noting here: first, pharmacists and chemists played a central role in the compilation of the pharmacopoeia, something which was an innovation in a period when physicians edited other nations' pharmacopoeias;

---

[45] Walter J. Ong, *Orality and Literacy: The Technologizing of the World* (London: Routledge, 2002), chap. 5.

[46] Triantafyllos E. Sklavenitis, "Η δυσπιστία στο έντυπο βιβλίο και η παράλληλη χρήση του χειρόγραφου,"in *Το βιβλίο στις προβιομηχανικές κοινωνίες* (Athens: INR/NHRF, 1982), 283–93.

[47] Faith Wallis, "The Experience of the Book: Manuscripts, Texts, and the Role of Epistemology in Early Medieval Medicine," in *Knowledge and the Scholarly Medical Traditions*, ed. Don Bates (Cambridge: Cambridge University Press, 1995), 101–26.

[48] Andrian Johns, "The Uses of Print in the History of Sciences," *Papers of the Bibliographical Society of America* 107, no. 4 (2013): 393–420.

[49] Ioannis Vouros, *Dissertatio inauguralis de pharmacologia graecorum veterum in genere quam consensu facultatis medicae Halensis, ut Doctoris medici gradum rite adipiscatur AD D. XXXI Iulii CIↃIↃCCCXXIX. Publico examinis ubiicit Ιωάννης Βούρος, Chius* (Halle: Gebauer, 1829).

second, none of them was born within the Greek state's borders (Vouros was from Chios), and third, all of them had studied in a German state. The king chose the editors of the pharmacopoeia from professionals with studies in German universities since they had to have access to the *Bavarian Pharmacopoeia*, which served as the model for the Greek one.[50] The Bavarian and some French administrators of the royal court saw their role as civilising a former Ottoman province, and "civilisation" meant at the time "being a European".[51] The science of pharmacy in Greece should, then, have been a European one. But European pharmacy was not unknown to most, if not all, Greek physicians and pharmacists, since they were educated in European universities, especially Italian and central European ones.[52] The choice of the editors, all of them foreigners to the local social conditions of the Greek state, was tied to larger administrative choices made by the king, as John Petropulos has underlined: Othon wanted to make sure that his administrators were loyal to his person and not to local warlords and local political elites. Landerer, Sartori and even Vouros did not (yet) have such ties with local societies and were absolutely dependent on the king's goodwill.[53]

These personnel choices had indirect influences on the science of pharmacy. Pharmacy was becoming irrelevant at any national and local context, thus contradicting the Paracelsian idea that, in the words of a Greek medical empiric, "God is not so naive to have the fevers in Greece and their cures in China."[54] The administration of a medication, proposed by a "Bavarian" Pharmacopoeia and adopted by the "Greek" one, no longer depended on individual and local "constitutions" but on the action of a particular substance on a particular human condition. The beginnings of scientific universality and drug specificity was put in place in 1837, thanks to the specific choices made by the court, even though the

[50] Skevos Philianos and Helen Skaltsa, "Étude comparative de la première édition de la Pharmacopée hellénique (1837, 1868) et de la pharmacopée bavaroise (1822)," 31st International Congress for the History of Pharmacy, Heidelberg, 1993. Professor Helen Skaltsa has written extensively on the Greek Pharmacopoeia. We would like to thank her for giving us access to the abovementioned paper.

[51] John A. Petropoulos, *Πολιτική και Συγκρότηση Κράτους στο Ελληνικό Βασίλειο (1833–1843)* (Athens: National Bank of Greece, 1997), 1:194.

[52] Manolis Patiniotis, "Scientific Travels of the Greek Scholars in the Eighteenth Century," in *Travels of Learning. A Geography of Science in Europe*, ed. Ana Simões, Ana Carneiro and Paula Maria Diogo (Dordrecht: Kluwer Academic, 2003), 58–63.

[53] For a further analysis of these administrative choices by the king, see Barlagiannis, *H υγειονομική συγκρότηση*, 72–79.

[54] Cited by Vavaretos, *Κομπογιαννίτες, Ματσουκάδες*, 45. For Paracelsus, see Agnes Arber, *Herbals: Their Origin and Evolution. A Chapter in the History of Botany, 1470–1670* (Cambridge: Cambridge University Press, 1912), 217–18.

direct purpose of the Bavarian administration was actually to assist the adaption of the Bavarian pharmacy to local conditions in Greece.

This being so, the pharmaceutical enterprise of 1837 could not hope to completely satisfy the principle of scientific universality. The effort to compile a "Greek" pharmacopoeia from the "Bavarian" one was one of accommodation, adaptation and translation. At a period of nation building and nationalism, the kind of pharmaceutical substances imposed by the *Pharmacopoeia* of 1837 had still to be "Greek", that is, the pharmacopoeia should comprise "old and new medicines that we know by experience that physicians use in Greece".[55] Scientifically, the effort had two outcomes. Firstly, physicians slightly distanced themselves from Paracelsus. Even if a "particular pathology" or a "special physiology" was impossible to exist only in one country as distinct to another,[56] diseases did present themselves with different aspects depending on the localities and on the climate and, hence, demanded not so much different cures, but different quantities of the same drug as was applied universally.[57] The idea differed from the one already expressed in a manuscript "regarding the constitution and the genre [*γένος*] of the plants, the stones and the metals" that required the "doctor to know his art as well as the way all other things were made and their constitution".[58]

Secondly, the *Pharmacopoeia* represented an enormous work of translation and, eventually, of the establishment of Greek pharmaceutical terminology. The translating enterprise, which was not novel in the region but was the most successful, was fundamental to the development of pharmacy in Greece. Until 1832–1833, a pharmacist used the language of his studies (French, Latin but mostly Italian), introducing thus "the confusion of the languages of Babel". For Vouros, the author of that observation, the solution was to impose Latin as a lingua franca.[59] His opinion was expressed in 1831. Six years later the

[55] From the Introduction to the 1837 *Greek Pharmacopoeia*.

[56] Nicolaos P. Parissis and Jean A. Tetzis, *De l'île d'Hydra (Grèce) au point de vue médical et particulièrement du Tzanaki, maladie spéciale de l'enfance et des maladies des plongeurs* (Paris: Moquet, 1881), 5–6.

[57] See the opinion expressed in 1847 by the Greek Society of Medicine, General State Archives (GAK), Vlachoyiannis Collection, f. D56. The idea did not always promote national unification; it could also undermine it. For example, the local physician on the island of Santorini thought that "the maximum of a dose proposed by the Pharmacopoeias is given here as a minimum of it" because of "the more powerful constitution" of the inhabitants, Iosif De-Kigallas, *Γενική στατιστική της νήσου Θήρας* (Ermoupoli: Typ. G. Melistagous Makedonos, 1850), 57–58.

[58] MS 9(11), Korgialeneios Library, Argostoli, Kefalonia, p. 10.

[59] Ioannis Vouros, *Περί νοσοκομείων σχεδίασμα* (Paris: K. Everarte, 1831), 90.

Pharmacopoeia appeared both in Latin and in modern Greek. It was a novelty even by western European standards, since it was one of only two at the time written in the vernacular.[60] Moreover, the appendix of the work comprised the corresponding terminology in English, French, German and Ottoman Turkish, serving thus two objectives. First, the work aspired to establish ties between Greek and western European science, showing that the process of formatting the first was essentially dependent on an "Europeanising" attitude. Second, the terminology should be accessible to the natives, former Ottoman subjects, that is, to the majority of Greek pharmacists at the time.

The participation of Vouros, a native to the larger eastern Mediterranean region, is thus explained: he was considered the one with the necessary "local pharmaceutical experience" but who was not a native of the Greek Kingdom. In fact, it was his quality as such an intermediary that made him secretary to the Medical Council in the first place. When discussing the need for a secretary to the council, the interior minister demanded that the candidate know "well the language and the habits of the country", proposing Vouros for the post.[61] Vouros was indeed the perfect choice, satisfying all the presuppositions demanded by a "Greek" pharmacopoeia, which was the result of a balanced political and scientific approach to pharmacy during a period of transition from one political, linguistic and scientific regime to another.

One final remark relates to the centrality of the Medical Council: two of the three authors of the *Pharmacopoeia* were members of it. Landerer was a member for his whole professional career and Vouros became its president in 1840. Through the Medical Council, the king and his court physicians (all of whom were members, if not presidents, of the council) exercised control of the profession, in fact they were creating it. The council served during the whole century as the examination committee of every therapy professional. Having passed the council's exams, the professional obtained a diploma, the only legal document permitting the practice of a pharmacist, of a physician and of a midwife in Greece. Each of these professionals, the members of the newly established official medical and paramedical body of the country, was obliged by law to apply the *Greek Pharmacopoeia* of the Medical Council.[62]

---

[60] The other one was the US Pharmacopoeia, written also both in Latin and in English and published in 1820.

[61] GAK, Othonian Archive, Archives of the Ministry of the Interior, f. 204, doc. 48.

[62] Decree on the Greek Pharmacopoeia, *Εφημερίς της Κυβερνήσεως* (*ΦΕΚ*), no. 17, 13 May 1838. It was printed in 1,200 copies between 1837 and 1838 and accessible in every "public library" for six drachmas, GAK, Othonian Archive, Archives of the Ministry of the Interior, f. 190, doc. 42.

"De materia pharmaceutica"

Which substances did the *Pharmacopoeia I* incorporate to be considered a Greek one? Did its authors respect their promise to integrate substances that "physicians use in Greece" or did they just translate the Bavarian version? How extensive or how limited was the effort to "Europeanise" the local pharmacy and, conversely, how close did the *Pharmacopoeia* remain to the medical manuscripts' tradition? From the legislative texts and the administrative procedures, we now pass to the *materia medica*, or as the *Pharmacopoeia* calls them, the *materia pharmaceutica* (part 1, pp. 1–170).

First of all, as Skevos Philianos and Helen Skaltsa have shown, the *Greek Pharmacopoeia* did not blindly imitate the Bavarian. Choices were made on the form, the organisation of the material, the language and the content.[63] Concerning, for example, medicinal plants or plant parts, the *Greek Pharmacopoeia I* comprises 27 substances that are absent from the Bavarian one while, in turn, it omits 21 substances that exist in its German prototype. In other words, there were scientific divergences. It is difficult for the current research to attribute them to Landerer, Sartori and Vouros' concern about adapting their work to the local pharmacotherapy. However, their work did take into account the Greek medical manuscript tradition, as it is shown next by the comparison of two such manuscripts with the *Pharmacopoeia I*.

The first manuscript to be compared is the MS 92 from the Zagora Public Library archive.[64] It is a *iatrosophion* written at the beginning of the eighteenth century (1708) by the physician Michail Kontopidis, who also signed it.[65] Fifty years later the text was enriched by Constantinople Patriarch Kallinikos IV. Kontopidis, on the one

---

[63] Philianos and Skaltsa, "Étude comparative de la première édition de la Pharmacopée hellénique," 2–3 and 5.

[64] Zagora is a historical village in the Pelion peninsula, Thessaly.

[65] Markellos-Michail Kontopidis (1651–1716) was an educated doctor from the island of Naxos. He studied medicine in Padua University. An *iatrosophion* is a medical manuscript containing diverse medical information (even, in some cases, the expected curative progress), often mentioning a renamed medical authority (Hippocrates, Galen, Meletius, etc.). They belong to the category of post-Byzantine texts that were produced between the sixteenth and twentieth centuries. They record ethnomedical data very important for the history of medicine and therapeutics in the Greek regions up to the nineteenth century, Konstantinos Amantos, "Ιατροσοφικός κώδιξ," *Αθηνά* 43 (1931): 148–70; A. Kouzis, "Contribution à l'étude de la médecine des zenos pendant le XVème siècle," *Byzantinisch-neugriechische Jahrbücher* 6 (1927–28): 77–90; Touwaide, "Byzantine Hospital Manuals," 148–49; Touwaide, "Arabic into Greek," 196; Quinlan, "Ethnomedicine"; Seriatou, **"**Από τα γιατροσόφια στα ιατρικά εγχειρίδια," 18.

hand, had copied extensively the work of Dioscorides when he was studying medicine at the University of Padua, even though he has included current medicinal knowledge. According to Kallinikos' notes, on the other hand, MS 92 is a copy of the sixth volume of the original work of Dioscorides, which we know, however, had only five volumes. In any case, even if the reference was about Dioscorides' disputed work *On other Pharmaceuticals*, the manuscript (MS 92), like many other *iatrosophia*, shares many medicinal materials with Dioscorides' texts such as: *αλθέα* (althaea), *μολόχα* (malva), *γλυκάνισο* (anise), *αψίνθια* (absinthium), *ηδύοσμος* (spearmint), *δυσκύαμος* (hyoscyamus), *ραβέντι* (rhubarb), *αφιόνι* (opium), *κρόκος* (saffron), *απήγανος* (common rue), *ελαφοκέρατο* (elkhorn fern), *στύψη* (potassium alum), *βασιλικός* (basil) and *μάραθος* (fennel).[66] The second manuscript that is compared with the *Greek Pharmacopoeia* is the MS 244 that dates from the eighteenth century.[67] It is a medical manuscript, written probably by a professional and entitled *Αουστριακή Φαρμακοπαια* (*Austrian Pharmacopoeia*). The work copied its *materia medica* from western European texts, as the author himself acknowledged. Both manuscripts are characteristic examples of the eighteenth-century pharmaceutical tradition in the Greek regions since they mainly list substances with their uses.

As far as our methodology is concerned, ethnopharmacology, by raising questions about the survival of medicinal material, has proposed effective routes by which data can be successfully extracted from the texts. As Efraim Lev argues, the use of different sources, in kind and in origin, can produce reliable results.[68] Paula De Vos, for example, examined a number of medical texts and presented a compiled list of 439 simples that were shared by all of them.[69] As for the problem of equating past terminology with its modern one, the work of Andreas Lardos' on the *Iatrosophikon* of Cyprus is very promising.[70] Very helpful here was also the Aromatic Plants of Epirus database established by the University of Ioannina.[71] Thanks to it, as well as

[66] For Dioscorides' text, see Tsagkala, "Οι επιβιώσεις του Διοσκουρίδη," 43–110.

[67] MS 244, Archives of Historical Documents, National Historical Museum, 22. See S. Lampros, "Κατάλογος των κωδίκων των εν Αθήναις Βιβλιοθηκών πλην της Εθνικής. Β' Κώδικες της Ιστορικής και Εθνολογικής Εταιρείας," *Νέος Ελληνομνήμων* 10 (1913): 184.

[68] Efraim Lev, "Reconstructed *materia medica* of the Medieval and Ottoman al-Sham," *Journal of Ethnopharmacology* 80, no. 2–3 (2002): 167–79.

[69] De Vos, "European Materia Medica in Historical Texts," 28–47.

[70] Andreas Lardos, "The Botanical Materia Medica of the Iatrosophikon: A Collection of Prescriptions from a Monastery in Cyprus," *Journal of Ethnopharmacology* 104, no. 3 (2006): 387–406.

[71] University of Ioannina, School of Health Sciences, Faculty of Medicine, Department of Pharmacology, *Αρωματικά Φυτά της Ηπείρου*, http://mediplantepirus.med.uoi.gr/pharmacology/plant.php.

to other works,[72] it was possible to associate the local names of many substances with their scientific terms and their Latin ones as well. In this respect, the fact that the author of MS 92 (the Zagora *iatrosophion*) also provided the Latin and the Arabic names (written in Greek letters) of the substances helped the identification of the ones included in the Greek *Pharmacopoeia*.

The results of the comparison are illustrated in the table in the appendix. The table comprises all 354 substances and pharmaceutical products (in Latin and in Greek) contained in the *Greek Pharmacopoeia* (columns 2 and 3). The other columns include only the shared *materia medica* between the *Pharmacopoeia* and MS 244 (*Austrian Pharmacopoeia*), on the one hand (column 3), and MS 92 (the Zagora *iatrosophion*), on the other (column 4). As the table shows, the *Greek Pharmacopoeia* shares 142 substances with MS 244 and 51 with the MS 92. Given that MS 244 includes a total of 271 substances, and MS 92 a total of 123, then half of MS 244 (52 percent) is included in the *Greek Pharmacopoeia* while the respective percentage for MS 92 is 41 percent. In this respect, there is little difference between the influences on the two manuscripts. However, if we relate the number of the shared substances from each manuscript to the total of 354 substances contained in the *Greek Pharmacopoeia*, then 40 percent of its content coincides with that of the *Austrian Pharmacopoeia* while only 14 percent of it is the same with the content of the Zagora *iatrosophion*. In other words, the Greek *Pharmacopoeia I* shares more with the *Austrian Pharmacopoeia*, that is, with western European *materia medica*, than with MS 92, which more closely followed Dioscorides, that is, ancient Greek pharmacotherapy.

Concluding remarks

In the context of the transition from the Ottoman Empire to the Greek state, the approach used for diffusing knowledge (a printed book or a manuscript) was linked to the process of political centralisation, to the professionalisation of pharmacists and to the history of the science of pharmacy. With the printed version, standardisation, control and harmonisation were introduced to or imposed on the pharmaceutical trade to a larger extent than before 1833, a process that occurred simultaneously on both the local/national and on the

[72] Academic Dictionaries and Encyclopedias, https://greek_greek.en-academic.com; Pantazis Kontomichis, *Η λαϊκή ιατρική στη Λευκάδα* (Athens: Grigoris, 1983); G.A. Rigatos, *Λεξικό ιατρικής λαογραφίας* (Athens: Vita, 2005); Gunnar Samuelsson, *Φαρμακευτικά προϊόντα φυσικής προελεύσεως*, trans. and ed. Pavlos Kordopatis, Evi Manesi-Zoupa and Giorgos Pairas (Heraklion: Crete University Press, 2004); Roula Goliou, *200 βότανα και οι θεραπευτικές ιδιότητές τους* (Thessaloniki: Malliaris Paideia, 2008).

global levels.[73] The very history of editing pharmacopoeias concerns the dialectics between national and international efforts to standardise pharmacology that were taking place within the larger period of European political and scientific expansion. The Greek case that incorporated a "German" pharmacology in order to promote or to form a "Greek" one was one such event in this dual process.

The aforementioned differences between the Greek and the Bavarian pharmacopoeias were due to the efforts of the court physicians to incorporate local substances, respecting, thus, the local natural environments and medical habits that were slowly being transformed into national ones. As there were limits set on the straightforward imitation of the European pharmacopoeial standards, the same limits applied to the incorporation of the local pharmaceutical traditions represented in the eighteenth-century Greek medical manuscripts.

Of course, the *Greek Pharmacopoeia* continued to quote past uses. For example, like many important *iatrosophia*, its second part comprised detailed instructions, descriptions and precise dosages for the preparation of the chemical pharmaceutical formulations.[74] Interestingly enough, its *materia pharmaceutica* included also recipes for various fruit syrups for the confection of desserts as well as flavour enhancers for drugs. However, the *Pharmacopoeia* regularised profound changes to past forms of knowledge diffusion and ways of professional organisation. As the comparison between its *materia medica* and the substances contained in MS 244 and MS 92 has shown, the *Pharmacopoeia* did not slavishly follow the medical manuscript derived from the ancient Greek medical tradition. Instead, it shared more substances with the *Austrian Pharmacopoeia* manuscript.

As a result of this national and international process of translation, imitation, incorporation and exclusion, the local substances omitted from the *Pharmacopoeia I* that remained in use in Greece and in circulation in medical manuscripts until well into the twentieth century[75] were identified as "quackery" and "medical empiricism". The notions were not reified entities; they describe dynamic processes practiced by professional rivalries and scientific quarrels in the face of which the state was meant to play the role of arbitrator. As is noted, the term "medical empiric" was first used

[73] Domingos Tabajara de Oliveira Martins et al., "The Historical Development of Pharmacopoeias and the Inclusion of Exotic Herbal Drugs with a Focus on Europe and Brazil," *Journal of Ethnopharmacology* 240 (2019): 1–11.

[74] Seriatou, "Μαντζούνια και αλοιφές," 39–45.

[75] Violetta Hionidou, "Popular Medicine and Empirics in Greece, 1900–1950: An Oral History Approach," *Medical History* 60, no. 4 (2016): 492–513; Penelope Seriatou, "Η λειτουργία της εμπειρικής ιατρικής, οι θεραπευτές και τα χειρόγραφά τους," *Τα Ιστορικά* 70 (2019): 71–88.

to describe a certain category of therapists in an 1831 text.[76] With the appearance of legal authorities interested in health and medical issues, internal divisions within the profession became clearer and more formal. From a certain point of view, the legal interventions established internal as well external boundaries that were of help in defining and distinguishing the professional and the scientific from all other forms of therapy. To put it another way, from the publication of the *Greek Pharmacopoeia* onwards, the scientist used the printed version and the medical empiric (or any other therapist) the manuscript, which gradually came to include prayers and magic symbols.[77] The manuscript during the nineteenth century lost any pretension to a scientific allure.

The *Greek Pharmacopoeia* should not, however, be considered as marking any clean break or rupture. The eighteenth century increased the professional tendencies inherent in the growth of the medical production: this was an important step towards the constitution of pharmacy as a formal profession and as a standardised science. As is shown by the comparisons made in this article, the *Greek Pharmacopoeia* was conceived at a moment when the state and its physicians wanted to satisfy the demand expressed by eighteenth-century patients and therapists for efficiency, legality and health security. In this respect, the present article may bridge the gap between ethnopharmacology and biomedicine.[78] The "science of ethnopharmacology is the interdisciplinary investigation of the full set of medical approaches that use remedies of vegetable, animal, or mineral origin".[79] The *Greek Pharmacopoeia*, by including such natural substances, offers itself as an object of research for ethnopharmacology. On the other hand, since the *Pharmacopoeia* helped establish the foundations for scientific universality, its medicinal and botanical information was not specific to some geographical and cultural area and the substances included were openly available in the market. Moreover, by giving a significant place to chemistry and to chemical products, the same text is also of interest for the history of biomedicine.

---

[76] Lazaros Vladimiros, "Ο εμπειρικός γιατρός στην Τουρκοκρατία," in *Η θέση του γιατρού στην κοινωνία (ΙΙ)*, ed. P.N. Zirogiannis, A. Diamantopoulos, E. Vogiatzakis, E. Koumantakis (Athens: Etaireia Diadosis Ippokratreiou Pnevmatos, 2015), 86–87.

[77] Seriatou, "Από τα γιατροσόφια στα ιατρικά εγχειρίδια," 184 and 243.

[78] Medical anthropology investigates modern European pharmacy as a specific, culturally bounded, system of knowledge, as a specific expression of ethnopharmacy, and not as a universally applied scientific system. See, for example, Lorna Amarasingham Rhodes, "Studying Biomedicine as Cultural System," in *Medical Anthropology: Contemporary Theory and Method,* ed. Thomas M. Johnson and Carolyn F. Sargent (Westport: Praeger, 1990), 159–73.

[79] Jacques Fleurentin, "From Medicinal Plants of Yemen to Therapeutic Herbal Drugs," in *Herbal Medicine in Yemen: Traditional Knowledge and Practice, and their Value for Today's World*, ed. Ingrid Hehmeyer, Hanne Schönig and Anne Regourd (Leiden: Brill, 2012), 154.

The state's intervention played a role in the development of biomedicine from ethnomedicine.

The development is not a linear one. Current trends in pharmacognosy have now returned to "traditional" modes of healing in order to find drugs for illnesses resistant or non-responsive to modern medicine.[80] Even if it is not a full return, since modern European pharmacy has developed from practices that were not at all "traditional" in the past, the current attentiveness to herbs shows that the *Pharmacopoeia* did not spell the end to such interests. In the nineteenth century, the professional and scientific rivalries were not over; they just obtained different forms. Indeed, the very existence of this legal text of 1837 could actually hinder pharmaceutical innovation. For example, what happened to drugs produced after the publication of the *Pharmacopoeia*? The French government commissioned, for example, the Medical Academy to examine every new medicine and publish its recipe in the academy's bulletin, until a subsequent edition of the Codex (the French Pharmacopoeia) could integrate it properly. Hence the need arose for constant re-editions to keep the pharmacopoeias up to date.[81] In Greece, the role for certifying a drug's composition was in the hands of the Medical Council, while the *Greek Pharmacopoeia* has appeared in five main editions with a total of 14 supplements. But then again, the economic question persists: what about patents? What happens when a merchant or an inventor would like to keep his drug's recipe secret? How may his copyright interests – and economic profits – be protected without harming public health or without him being considered as a quack?[82]

The article has demonstrated the importance of the publication of the *Pharmacopoeia* for the history of medicine and pharmacy. It has argued that its publication involved much struggle, competition and conflict. It has focused on the use of medical manuscripts and on the political, scientific, ideological and professional dimensions of pharmacy. Further research should also include that of the economy.[83]

National and Kapodistrian University of Athens

---

[80] G.P. Sarlis, *Αρωματικά και φαρμακευτικά φυτά* (Athens: Agricultural University of Athens, 1994), 2.

[81] Georges Dilleman, "Les remèdes secrets et la réglementation de la pharmacopée française," *Revue d'histoire de la pharmacie* 23, no. 228 (1976): 37–48.

[82] See, for example, *O Ελληνικός Ταχυδρόμος/Le Courier Grec*, 6 October 1838.

[83] David L. Cowen, "Liberty, Laissez-faire and Licensure in Nineteenth-Century Britain," *Bulletin of the History of Medicine* 43, no. 1 (1969): 30–40.

APPENDIX

Shared *materia medica* between the *Greek Pharmacopoeia I* and two medical manuscripts (MS 244, National Historical Museum; and MS 92, Zagora Public Library).

	Greek Pharmacopoeia I (all substances)		MS 244 (shared substances)	MS 92 (shared substances)
	Latin term	Greek translation		
1	*Abrotani herba, Artemisia abrotanu*m	Αβροτόνου πόα	Αβρότονον	Αβρότανον or Αρτεμισία[1]
2	*Absinthii herba, Artemisia absinthium*	Αψινθίου πόα	Αψίνθια ποντιακή, Αψίνθια κοινή	Αψινθίαν
3	*Acetum (crudum)*	Όξος αγοραίον		
4	*Acidum muriaticum crudum*	Αλικόν οξύ αγοραίον		
5	*Acidum nitricum concentratum*	Νιτρικόν οξύ άκρατον		
6	*Acidum nitricum dilutum crudum (Aqua fortis)*	Κεκραμένον νιτρικόν οξύ αγοραίον		
7	*Acidum pyro-lignosum crudum*	Πυροξυλικόν οξύ αγοραίον		
8	*Acidum succinicum crudum*	Ηλεκτρικόν οξύ αγοραίον		
9	*Acidum sulphuricum crudum*	Θειϊκόν οξύ αγοραίον	Λάδι βιτριλίου	
10	*Acidum sulphuricum rectificatum*	Θειϊκόν οξύ καθαρισμένο		
11	*Acidum tartaricum*	Τρυγικόν οξύ		
12	*Aconiti herba, Aconitum napellus et Aconitum neomontanum*	Ακονίτου πόα	Νάπελους	Ακόνιτον
13	*Agaricus albus, Boletus laricis*	Αγαρικόν το λευκόν	Αγαρικόν άσπρον	Αγαρικόν

14	*Alcanae radix, Anchusa tinctoria*	Αγχούσης ρίζα		
15	*Alcohol venale*	Οινόπνευμα αγοραίον		
16	*Allii bulbus, Allium sativum*	Σκορόδου βολβός	Σκόρδιον	
17	*Aloe lucida, Aloe spicata soccotrina et perfoliata*	Αλόη	Αλοή	
18	*Althaeae radix, herba et flores, Althaea officinalis*	Αλθαίας ρίζα, πόα και άνθη	Δενδρομολόχα	Αλθέα or Αγριομολόχα
19	*Alumen crudum, Sulphus aluminae*	Στυπτηρία αγοραίος	Στύψη	
20	*Ambra grisea, Ambra*	Άμβαρ		
21	*Ammoniacum, Heracleum gummiferum, Ferula orientalis, Gummi ammoniacum*	Αμμωνιακόν κόμμι		
22	*Ammonium muriaticum crudum*	Άλας αμμωνιακόν αγοραίον	Νισαντήρι	
23	*Ammonium subcarbonioum crudum*	Υπανθρακική αμμωνία αγοραίος		
24	*Ammonium subcarbonicum pyro-oleosum, Subcarbonas*	Υπανθρακική αμμωνία εμπορευματική		
25	*Ammonium subcarbonicum pyro-oleosum liquidum*	Υπανθρακική Αμμωνία εμπορευματική υγρά		
26	*Amygdalae dulces et amarae, Amygdalus communis*	Αμύγδαλα γλυκέα και πικρά	Μύγδαλα	
27	*Amylum*	Άμυλον	Νισεστές	
28	*Angelicae radix, Angelica Archangelica*	Αγγελικής ρίζα	Ανγκέλικα	Αγγέλικα
29	*Angusturae cortex, Bonglandia trifoliata, Angostura cuspare*	Αγγοστύρας φλοιός		

30	*Anisi semen et oleum, Pimpinella anisum*	Ανίσου σπέρμα και έλαιον	Άνισουμ στελάτουμ	Γλυκάνισον
31	*Aqua pluvialis, Aqua fluviatilis, Aqua fontana*	Ὑδωρόμβριον, ὑδωροτάμιον, ὑδωρπηγαίον		
32	*Argentum*	Άργυρος		
33	*Argentum foliatum*	Αργύρου φύλλα		
34	*Armoraciae radix, Cochlearia armoracia*	Ραφανίδος της αγρίας ρίζα		
35	*Arnica radix et flores, Arnica montana*	Δωρονίκου του ορεινού ρίζα και άνθος		
36	*Arrowroot, Maranta arundinacea*	Μαραντάμυλον		
37	*Arsenicum album, Acidum arsenicosum (vitreum)*	Αρσενικόν λευκόν		
38	*Artmisiae radix Artemisia vulgaris*	Αρτεμισίας ρίζα		
39	*Asa foetida, F erula asa foetida*	Σίλφιον το μηδικόν		
40	*Asari radix, Asarum europaeum*	Ασάρου ρίζα		
41	*Aurantii folia, flores, fructus immaturi, fructus maturi horumque epidermiis*	Πορτογαλίας φύλλα, άνθη, καρπός άωρος, καρπός ώριμος και η επίλεπις αυτού	Κύτρον	
42	*Aurum*	Χρυσός		
43	*Aurum foliatum*	Χρυσού φύλλα		
44	*Avena excorticata, Avena sativa*	Βρόμος λελεπισμένος		
45	*Axungia suilla, Sus scrofa*	Στέαρ χοίρειον	Γουρουνόστογκον	
46	*Badianae semen, Illicium anisatum, Polyandria*	Ανίσου του αστερείου σπέρμα		
47	*Balsamum pervianum, Myroxylon peruiferum*	Βάλσαμον περουβικόν	Μπάλσαμον της Περού	

48	*Balsamum tolutanum, Myroxylon toluiferum*	Βάλσαμον τολουταϊκόν	Μπάλσαμον	
49	*Bardanae radix, Arctium bardana et Arctium lappa*	Αρχείου ρίζα		
50	*Baryta sulphurica nativa*	Βαρύτις θειϊκή αυτοσύστατος		
51	*Basilici herba, Ocymum basilicum*	Ωκίμου πόα		
52	*Belladonae radix et folia, Atropa belladonna*	Ευθαλείας ρίζα και φύλλα	Μπέλλα ντόννα	
53	*Benzoe, Styrax benzoe*	Βενζόη		
54	*Berganiottae oleum, Citrus aurantium, Bergamia vulgaris*	Έλαιον περγαμινόν		
55	*Bismuthum*	Βίσμουθον		
56	*Bolus armena*	Βώλος αρμενία	Βόλος αρμένικος	
57	*Buccu folia, Diosma crenata*	Διόσμου φύλλα		
58	*Butyrum oville, Ovis aries*	Βούτυρον προβάτειον		Βούτυρο
59	*Cacao, Theobroma cacao*	Κάκαον	Κακάο	
60	*Cajeputi oleum, Melaleuca Leucadendron s. Melaleuca cajeputi*	Έλαιον λευκο δένδρινον		
61	*Caincae radix, Chiococca anguifuga, Frutex brasiliensis*	Εχιοκόκκου ρίζα		
62	*Calami radix, Acorus calamus*	Καλάμου του αρωματικού ρίζα	Καλάμι αρωματικόν ρίζα	
63	*Calcaria muriatica oxygenata*	Τίτανος έγχλωρος		
64	*Calcaria usta*	Τίτανος κεκαυμένη		
65	*Camphora, Dryobalanops Comphora et Laurus camphora*	Καφουρά	Κάμφορα	
66	*Cancrorum lapides, Cancer Astacus, Astacus fluviatilis*	Λιθάρια των ποταμίων καρκίνων		Καβούρους

67	*Canella alba*	Κιννάμωμον το λευκόν	Κανέλα άσπρη	
68	*Cannabis semen, Cannabis sativa*	Καννάβεως σπέρμα,		
69	*Cantharides, Meloe vesicatorius, Lytta vesicatoria*	Κανθαρίδες	Κανθαρίδας	Κανθαρίδαις
70	*Capilli veneris herba, Adianthum capillus veneris*	Αδιάντου πόα		
71	*Carbo animalis*	Ζωάνθραξ		
72	*Carbo vegetabilis*	Άνθραξ		
73	*Cardamomum minus, Alpinia cardamomun, Elettaria cardamomum*	Καρδάμωμον το μικρόν	Κάρδαμον μικρόν	
74	*Cardui benedicti herba, Cnicus benedictus, Centaurea benedicta*	Ακάνθας της ιεράς πόα		
75	*Caricae, Ficuscarica*	Ισχάδες		
76	*Caricis arenariae radix, Carex arenaria*	Αμμοφύτου ρίζα		
77	*Carvi semen et oleum, Carum carvi*	Κάρου σπέρμα και έλαιον	Κάρβους	
78	*Caryophyllatae radix, Geum urbanum*	Γέου ρίζα	Καριοφυλλάτα	
79	*Caryophylli eorumque oleum, Caryophyllus aromaticus s. Eugenia carryophyllata*	Καρυόφυλλα και το εξ αυτών έλαιον	Καραφύλλια	
80	*Cascarillae cortex, Croton eluteria*	Κασκαρίλλης φλοιός	Κασκαρίλλα	
81	*Cassia cinnamomeae jusque oleum, Laurus cassia*	Κιννάμωμον ξυλώδες και το εξ αυτού έλαιον	Κάσια ξύλινη	
82	*Cassia flores, Laurus cassia, Laurus malabathrum*	Κασσίας άνθη	Κάσια φίστουλας	
83	*Castoreum, Castor fiber*	Καστόριον	Καστόριον	

84	*Catechu, Mimosa catechu, Acacia catechu*	Λύκιον		
85	*Centaurii herba, Chironia centaurium s. Gentiana centaurium s. Erythraea centaurium*	Κενταυρίου πόα	Κενταύριον μικρόν	
86	*Cera flava et alba*	Κηρός κίτρινος και λευκός	Κερί άσπρο, κίτρινο	
87	*Cerasa acida, Prunus cerasus, Melanocarpa*	Βύσσινα	Κεράσια μαύρα	
88	*Cervi cornu, Cervus elaphus*	Κέρας ελάφιον	Ελάφιον	Κέρατο Ελάφου
89	*Cetaceum*	Κήτους σπέρμα		
90	*Chamomillae ramanae flores*	Χαμαιμήλου άνθος		Χαμομήλα
91	*Chamomillae vulgaris flores, Matricaria chamomilla*	Λευκανθέμου άνθος	Χαμομήλα	
92	*Chelidonii herba, Chelidonium majus*	Χελιδονίου πόα	Χελιδώνιον μεγάλον	
93	*Chenopodii herba, Chenopodium ambrosioides*	Χηνοποδίου πόα		
94	*Chinae radix, Smilax china*	Κίνας ρίζα	Κίνα κομπιάρικη ρίζα	
95	*China fusca*	Κίνα φαιά		
96	*China regia, Cinchona angustifolia, Cinchona lancifolia*	Κίνα βασιλική		
97	*Chininum sulphuricum*	Κινίνη θειϊκή		
98	*Cichorei radix, Cichorium intybus*	Κιχωρίου ρίζα		
99	*Cina semen, Artemisia contra*	Αβροτόνου του άρρενος σπέρμα		
100	*Cinnabaris*	Κιννάβαρι		
101	*Cinnamomi cortex et oleum, Laurus cinnamomum*	Κινναμώμου φλοιός και έλαιον		

102	*Citri fructus et oleum, Citrus medica*	Μηδικά μήλα και το εξ αυτών έλαιον		
103	*Clematidis herba, Clematis erecta*	Κληματίδος πόα		
104	*Coccinella, Coccus cacti*	Ανθηρόκοκκος	Κριμέζι	
105	*Cochleariae herba, Cochleariae officinalis*	Κοχλιαρίδος πόα		
106	*Coffeae semen, Coffea arabica*	Καφφέας σπέρμα		
107	*Colchici radix et semen, Colchicum autumnale*	Κολχικού ρίζα και σπέρμα		
108	*Colocynthides, Cucumis colocynthis*	Κολοκυνθίδες		
109	*Colombo radix, Cocculus palmatus, Menispermum palmatum*	Κολόμβου ρίζα		
110	*Colophonium, Pinus sylvestris*	Κολοφόνιον		
111	*Conchae, Ostrea edulis*	Κόγχαι		
112	*Conii maculatiherba, Conium maculatum*	Κωνείου πόα	Τζικούτα κοινή	Κόνιο
113	*Capaivae balsamum, Copaifera officinalis*	Βάλσαμον κοπαϊκόν		
114	*Coriandri semen, Coriandrum sativum*	Κοριανου σπέρμα		Κόρεον
115	*Creta alba*	Κρητίς		
116	*Crocus, Crocus sativus*	Κρόκος		
117	*Crotonis oleum, Croton tiglium*	Κρότυνον έλαιον		
118	*Cubebae, Piper cubeba, Piper caudatum*	Μυρτίδανον		
119	*Cuprum*	Χαλκός		
120	*Cuprum aceticum crystallisatum*	Οξικός χαλκός κρυσταλλωμένος		

121	*Cuprum subaceticum*	Ἰός χαλκού(ιόξυστός)		
122	*Cuprum sulphuricum crudum*	Χαλκός θειϊκός	Βιτριόλι χαλκού	
123	*Curcumae radix, Curcuma longa*	Κροκόρριζα		
124	*Cydoniae fructus et semen, Pyrus cydonnia, Cydonia vulgaris*	Κυδωνίων καρπός και σπέρμα		
125	*Dactyli, Phoenix dactylifera*	Φοινικοβάλανον		
126	*Dauci radix, Daucus carota*	Σταφυλίνου ρίζα		
127	*Digitalis folia, Digitalis purpurea*	Ελύτρου φύλλα		
128	*Draconis sanguis, Calamus draco*	Αίμα δρακόντιον	Αίμα δράκοντο	
129	*Dulcamarae stipites*	Γλυκυπίκρου Κλωνία		Στύφνος, στρύχνος
130	*Elaterii pepones*	Σίκυος άγριος		
131	*Elemi*	Έλημον		
132	*Erucae semen, Sinapis alba*	Σινάπεως του λευκού σπέρμα		
133	*Euphorbium, Euphorbia officinarum*	Ευφόρβιον		
134	*Fabae albae, Phaseolus vulgaris*	Δύλιχοι		
135	*Farfarae folis, Tussilago farfara*	Βηχίου φύλλα		
136	*Ferrum, mars, ferro*	Σίδηρος		
137	*Filicis maris radix, Aspidium filix mas*	Πτέριδος ρίζα		
138	*Foeniculi semen, Foeniculum vulgare*	Μαράθρου σπέρμα		Μάραθον
139	*Foeni groeci semen, Frigonella foenum graecum*	Τήλεως σπέρμα		

140	*Formicae, Formica rufa*	Μύρμηκος		
141	*Fumariae herba, Fumaria officinalis*	Καπνού πόα	Καπνός	Καπνόν
142	*Galangae radix, Alpinia galanga*	Γαλάγχης ρίζα	Γαλάνγα	
143	*Galbanum, Bubon galbanum, Selimun galbanum*	Χαλβάνη	Γάλμπανο	
144	*Gallae, Quercus infectoria*	Κηκίδες		
145	*Gentianae radix, Gentiana lutea*	Γεντιανής ρίζα	Γεντριάνα	Γεθιανή
146	*Graminis radix, Triticum repens, Agropyrum repens*	Αγρώστιδος ρίζα		Άγροστις
147	*Granati cortex radicis et cortex fructus, Punica granatum*	Ρόας ρίζης φλοιός και σίδια (ρόας λέπη)		
148	*Graphites*	Γραφίτης		
149	*Gratiolae herba, Gratiola officinalis*	Ηρακλεία πόα	Γραντζιόλα	
150	*Guajaci lignum, Cortex ligni et resina, Guajacum officinale*	Ιερόξυλου φλοιός, ξύλον και κομμιρητίνη		
151	*Guttae gummi, Garcinia cambogia, Mangostana cambogia*	Χρύσοπον		
152	*Gypsum*	Γύψος		
153	*Hederae terristris herba, Glechoma hederaceum*	Χαμαικίσσου πόα	Κισσός γαιώδης	
154	*Helenii, Enulae radix, Inula helenium*	Ελενίου ρίζα	Λένιο σαντο	
155	*Hellebori albi radix, Veratrum album*	Ελλεβόρου του λευκού ρίζα	Σκάρφη	
156	*Hellebori nigri radix, Helleborus niger*	Ελλεβόρου του μέλανος ρίζα		
157	*Helmintochortos, Ceramium helmintochorton*	Ελμινθόχορτον		

158	*Hippocastani cortex, Aesculus hippocastanum*	Ιπποκαστάνου φλοιός		
159	*Hirudo, Hirudo medicinalis*	Βδέλλα		
160	*Hordeum, Hordeum vulgare*	Κριθή	Κριθάρι	
161	*Hydrargyrum*	Υδράργυρος	Υδράργυρος ζωντανός	
162	*Hydrargyrum muriaticum corrosivum*	Αλικού υδραργύρου άχνη		
163	*Hydrargyrum oxydatum rubrum*	Υδραργύρου κοκκίνη υποστάθμη		
164	*Hyoscyami albi folia, Hyoscyamus albus*	Υοσκυάμου του λευκού φύλλα		
165	*Hyoscyamini grifolia et semen, Hyoscyamus niger*	Υοσκυάμου του μέλανος φύλλα και σπερμα		Δισκίαμο
166	*Jaceae herba, Viola tricolor*	Ίου του τριχρόου πόα		
167	*Jalappae radix, Convolvulus jalappa. Ipomaea jalappa*	Ιαλάππης ρίζα	Γιαλάππα	
168	*Ichyocolla*	Ιχθυοκόλλα		
169	*Jecoris aselli oleum*	Έλαιον το εκ του ήπατος του ονίσκου		
170	*Ignatiae semen, Strychnos ignatia, Ignatia amara*	Ιγνατίας σπέρμα		
171	*Imperotariae radix, Imperatorial ostruthium*	Κοιρανίας ρίζα	Ιμπεραδόρια	
172	*Jodium s. Jodina*	Ιώδες		
173	*Ipecacuanhae radix*	Ιπεκακουάνης ρίζα	Ιπεπακουάνα	
174	*Ireos radix, Iris florentina*	Ίριδος ρίζα		
175	*Juglandis fructuum cortex, Juglans regia*	Καρύων λέπυρα	Καριδιά	
176	*Jujubae, Rhamnus ziziphus, Ziziphus vulgaris*	Ζύζιφα		
177	*Juniperi lignum et baccae, Juniperus communis*	Αρκεύθου ξύλον και σφαιρία		

178	*Kali ferruginoso-hydrocyanicum*	Κάλιον προυσσιακόν σιδηρίζον		
179	*Kali muriaticum oxygenatum*	Κάλιον αλικόν οξυγονομένον		
180	*Kali nitricum crudum*	Νίτρον αγοραίον		
181	*Kali oxalicum acidulum, Oxalis acetosella et Oxalis corniculata*	Κάλιον οξαλικόν όξινον		
182	*Kali subcarbonicum crudum*	Κάλιον υπανθρακικόν αγοραίον		
183	*Kali sulphuricum crudum*	Κάλιον θειϊκόν αγοραίον		
184	*Kino, Eucalyptus resinifera*	Κίνον		
185	*Kreosotum*	Σωσίκρεον		
186	*Lacca in globulis*	Λάκκον σφαιρωτόν		
187	*Lacca in granis*	Λακκον δακρυώδες		
188	*Lacmus, Rocella tinctoria*	Καγκάμινον κυανούν		
189	*Lactis saccharum*	Σάκχαρα του γάλακτος	Γάλα από γελάδα, ζάχαρι	
190	*Lactucae virosae herba, Lactusa virosa*	Θριδακίνης της φαρμακώδους πόα	Αγριομαρούλι	
191	*Lactucarium, Lactuca sativa*	Θριδάκιον		
192	*Lapathi radix, Rumex obtusifolius*	Λαπάθου ρίζα	Ξινολάπαθο	
193	*Lauri baccae et oleum, Laurusnobilis*	Δάφνης καρπός και έλαιον	Δάφνη	
194	*Lauro-cerasi folia, Prunus lauro-cerasus*	Δαφνοκέρασου φύλλα		
195	*Lavandulae flores et oleum, Lavandula spica*	Τιφύου άνθη και έλαιον	Λαβεντούλα	
196	*Levistici radix, Ligusticum levisticum*	Λιγυστικού ρίζα		Λιγούστικο

197	*Lichen islandicus, Cetraria islandica*	Λειχήν ο ισλανδικός		
198	*Lignum campechianum, Haematoxylon camperchianum*	Καμπεχιανόν ξύλον		
199	*Linisemen et oleum, Linum usitatissimum*	Λίνου σπέρμα και έλαιον		
200	*Liquiritiae radix, Glycyrrhiza glabra*	Γλυκυρρίζης ρίζα	Γλυκόρριζα	Γλυκόριζα
201	*Liquiritiae succus inspisatus crudus*	Γλυκυρρίζης χύλισμα αγοραίον		
202	*Lupuli strobili, Humulus lupulus faemina*	Λυκίσκου στρόβυλοι		
203	*Lycopodii semen, Lycopodium clavatum*	Λυκοποδίου σπέρμα		
204	*Macis et macidis oleum, Myristica moschata*	Μοσχομάκερ και το έλαιον αυτού	Μοσχοκάριδον	
205	*Magnesia subcarbonica*	Μαγνησία υπανθρακική		
206	*Magnesia sulphurica cruda*	Μαγνησία θειϊκή αγοραίος (πικρόν άλας)		
207	*Malvae arborea e flores, Althea rosea*	Ροδαλθαίας άνθη		
208	*Malvae folia*	Μαλάχης φύλλα	Μολόχα κοινή	
209	*Malvae vulgaris Flores, Malva sylvestris*	Μαλάχης άνθη	Μολόχα κοινή	
210	*Manganum oxydatum (nativum)*	Μαγγανήσιον οξειδωμένον		
211	*Manna, Fraxinus ornus*	Μάννα	Μάννα	
212	*Mari herba, Teucrium marum*	Μάρου πόα		
213	*Marrubii herba, Marrubium vulgare*	Πρασίου πόα	Μαρούβιον	Πράσσιον
214	*Mastiche, Pistacia lentiscus*	Μαστίχη	Μαστίχη	

215	*Matricariae herba, Matricaria parthenium, Pyrethrum parthenium*	Παρθενίου πόα	Ματρικάρια	Παρθενούδι
216	*Mel crudum*	Μέλι	Μέλι κοινός και ξαφρισμένον	
217	*Meliloti herba, Melilotus officinalis*	Μελιλώτου πόα	Μελίλοτος	Μελίλοτο
218	*Melissae herba, Melissa officinalis*	Μελισσοφύλλου πόα	Μελισσόχορτον	Μελισσοβότανο
219	*Menthae crispae herba, Mentha crispa*	Ηδυόσμου του ουλοφύλλου πόα	Αγριοδυόσμος, δυόσμος	Δυόσμον
220	*Menthae piperitae herba et oleum, Mentha piperita*	Ηδυόσμου του πεπερώδους πόα και έλαιον		
221	*Mezerei cortex, Daphne mezereum et Daphne gnidium*	Δαφνοειδούς φλοιός		
222	*Millefolii herba, Achillea millefolium*	Χιλιόφυλλου πόα		Χιλιόφυλλον
223	*Mimosae gummi, Acacia ehrenbergii, Mimosa seyal et tortilis*	Κόμμι (το αραβικόν)		
224	*Mori bacae*	Συκάμινα (μούρα)	Μοριά	
225	*Morphium*	Μόρφιο		
226	*Moschus*	Μόσχος	Μόσχος	
227	*Myrrha, Balsamodendron myrrha*	Σμύρνα	Μύρα	Μύρριν
228	*Nasturtii herba, Sisymbrium nasturtium, Nasturtium officinale*	Σισυμβρίου πόα	Νεροκάρδαμον	
229	*Natrum carbonicum acidulum*	Νάτρον ανθρακικόν όξινον		
230	*Natrum mutiaticum*	Νάτρον αλικόν	Άλας αλκαλινόν	
231	*Natrum subboracicum*	Νάτρον υποβορακικόν		

232	*Natrum sulphuricum crudum*	Νάτρον θειικόν αγοραίον		
233	*Natrum subcarbonicum crudum*	Νάτρον υπανθρακικόν αγοραίον		
234	*Nicotianae folia, Nicotiana tabacum*	Νικοτιανής φύλλα	Καπνός	
235	*Nuces moschatae, Myristica moschata*	Μοσχοκάρυα	Μοσχοκάριδον	
236	*Nuces vomicae, Strychnos nux vomica*	Κάρυα εμετικά		
237	*Nucistae oleum, Myristica moschata*	Μοσχοκαρύου έλαιον		
238	*Oleum animale dippelii*	Σαρκέλαιον του Διππελίου		
239	*Oleum animale foetidum*	Σαρκέλαιον		
240	*Olibanum s. Thus, Boswellia serrata*	Λίβανος	Ολίβανον, Θυμίαμα	
241	*Olivarum oleum, Olea europaea*	Έλαιον	Ελεόλαδον	
242	*Ononidis radix, Ononis spinosa et Ononis antiquorum*	Ονωνίδος ρίζα	Ονονές	
243	*Opium, Papaver officinale et Papaver somniferum*	Όπιον		Αφιώνι, Όπιο
244	*Origami herba, Origanum smyrnaeum*	Οριγάνου πόα		Ρίγανην
245	*Ova gallinacea, Phasianus gallus foemina*	Ωά της αλεκτορίδος	Αυγόν από κόταν	
246	*Paeoniae radix, Paeonia officinalis*	Παιωνίας ρίζα		
247	*Papaveris capita, semina et oleum, Papaver somniferum, seminibus albis*	Μήκωνος κωδίαι, σπέρμα και έλαιον	Παπαρούνα άσπρη, Παπαρούνα πραντική	Κουτζουνάδα, Όπιο Μικώνιον αγριον
248	*Passulae majores, Vitis vinifera*	Σταφίδες		

249	*Passulae minores, Vitis vinifera var: apyrena*	Σταφίδες κορινθιακαί		
250	*Petroleum, oleum petrae*	Πετρέλαιον	Πετροέλαιον	
251	*Petroselini semen, Apium petroselinum*	Σελίνου σπερμα		Κουδουμέντο -Μακεδονίσι
252	*Phellandrii semen*	Φηλανδρίου σπέρμα		
253	*Phosphorus*	Φωσφόρον		
254	*Pimpinellae radix, Pimpinella saxifrage*	Εμπέτρου ρίζα	Πιμπρενέλλα	
255	*Piper hispanicum, Capsicum annum*	Πεπερίς		
256	*Peperinum*	Πεπέριον	Πιπέρι στρογγυλόν	
257	*Piper nigrum et album*	Πιπέρι μέλαν και λευκόν		
258	*Pix alba, Pinum sylvestris*	Ρητίνη λευκή		
259	*Pix nigra, Pinus sylvestris*	Πίσσα		
260	*Plumbum aceticum crudum*	Μόλυβδος οξικός αγοραίος		
261	*Plumbum oxydatum (rubrum)*	Άμμιον		
262	*Plumbum oxydulatum (fusum)*	Λιθάργυρος	Λιθάργυρος	Λιθάργυρος
263	*Plumbum subcarbonicum*	Ψιμύθιον	Μολυβόχωμα	
264	*Polygalae amaro e herba, Polygala amara, Polygala amarella*	Πολυγάλου πόα	Πολύγαλα	
265	*Poma acidula, Pyrus malus*	Μήλα υπόξινα		
266	*Pruna, Prunus domestica*	Κοκκύμηλα	Δαμασκηνιά	
267	*Psyllii semen*	Ψυλλίου σπέρμα		Ψύλλιον
268	*Pulegi herba*	Γλήχωνος Πόα		
269	*Pulsatillae herba*	Ανεμώνης της λειμωνίας Πόα		

270	*Pyrethri radix, Anthemis pyrethrum, Anacyclus pyrethrum*	Πυρέθρου ρίζα		Πύρεθρον
271	*Quassiae lignum, Quassia amara, Quassia excelsa*	Κάσσιον ξύλον, δένδρον του σουρινάμου	Κβάσια, κάσσια ξύλινη	
272	*Quercus cortex et glandes, Quercus aegilops*	Δρυός φλοιός και βάλανοι	Δρυς	
273	*Ratanhae radix et extractum, Krameria triandra*	Ρατανίας ρίζα και εκχύλισμα		
274	*Rhei radix, Rheum australe s. Rheum emodi*	Ρα ρίζα	Ρέουμ	Ραβέντι
275	*Rhododendri folia, Rhododendron chrysanthum*	Ροδοδένδρου φύλλα		
276	*Rhoeados flores, Papaver phoeas*	Ροιάδος άνθος		
277	*Ricini oleum, Ricinus communis*	Έλαιον κίκινον		
278	*Rosmarini folia et oleum, Rosmarinus officinalis*	Λιβανωτίδος φύλλα και έλαιον	Ροσμαρίνος	Δεντρολίβανον
279	*Rosarum flores, Rosa centifolia*	Ρόδα	Τριανταφυλλιά	
280	*Rosarum oleum, Rosa moschata*	Έλαιον ρόδινον		
281	*Rubiae tinctorum radix, Rubia tinctorum*	Ερυθροδάνου ρίζα	Ριζάρι	Ριζάρι, Ερυθρόδανον
282	*Rubi ideoi fructus, Rubus idaeus*	Βάτουιδαίας καρπός		Βάτον
283	*Rutae herba, Ruta graveolens*	Πηγάνου πόα	Κομίδη ρούτας	Απήγανον
284	*Sabadillae semen, Veratrum sabadilla*	Φθειράγχης σπέρμα	Σαμπατέλλα	
285	*Sabinae herba, Juniperus sabina*	Βράθυος πόα	Σαβίνα	
286	*Saccharum, Saccharum officinarum*	Σάκχαρ	Ζάχαρι	

287	*Sagapenum, Ferula persica*	Σαγαπηνόν	Σαγαπένουμ	
288	*Sago, Sagus rumphii*	Σάγον		
289	*Salep radix, Orchis mascula, pyramidalis, longibracteata et latifolia*	Όρχεως ρίζα		
290	*Salicis cortex, Salix fragilis et Salix alba*	Ιτέας φλοιός		
291	*Salviae herba, Salvia officinalis*	Ελελιφάσκου πόα	Αληφασκιά	Αλιφασκιά
292	*Sambuci flores et baccae, Sambucus nigra*	Ακτής άνθη και σφαιρία	Κουφοξυλιά	
293	*Santali rubric lignum, Pterocarpus santalinus*	Ξύλον σαγάληνον κόκκινον	Σάνταλον κόκκινον	
294	*Sapo domesticus*	Σάπων δια στέατος	Σαπούνι	
295	*Sapo hispanicus*	Σάπων κρητικός		
296	*Saponariae radix, Saponaria officinalis*	Στρουθίου ρίζα	Σαπονάρια	
297	*Sarsaparillae radix, Smilax syphilitica aliaeque hujus generis species*	Σαρσαπαρίλλης ρίζα	Σαρσαπαρίλα	
298	*Sassafras lignum, Laurus sassafras*	Ξύλον σασάφρινον	Σασσαφράς	
299	*Scammonium, Convolvulus scammonia*	Σκαμμωνία	Σκαμονέα	
300	*Scillae bulbus s. radix, Scillamaritima*	Σκίλλης βολβός ήτοι ρίζα	Σκύλα	
301	*Scordii herba, Teucrium scordium*	Σκορδίου πόα		Σκόρντιον
302	*Sebum ovillum, Ovisaries*	Στέαρ προβάτειον		
303	*Secale cornutum, Secale cereale*	Βρόμος ερυσιβώδης	Σήκαλη	
304	*Secalis farina, Secale cereale*	Βρόμιον άλευρον		
305	*Senegae radix, Polygala senega*	Πολυγάλου του βιργινικού ρίζα		

306	*Sennae folia, Cassia lanceolata, Cassia obtusata s. Senna*	Σένης φύλλα της Νουβίας, της ανωτέρας αιγύπτου θαμνία	Σηναμική	Σένα ή Σιναμική
307	*Sepiae, Sepia officinalis*	Σήπιον (σηπίας ξίφος)		
308	*Serpentariae radix, Aristolochia serpentaria*	Οφίτου ρίζα	Σερπεντάρια	
309	*Serpylli herba, Thymus serpyllum*	Ερπύλλου πόα		
310	*Siliqua dulcis, Ceratonia siliqua*	Κεράτια		
311	*Simarubae cortex, Simaruba officinalis s. Quassia simaruba*	Σιμαρούπης φλοιός		
312	*Sinapeos semen, Sinapis nigra*	Σινάπεως σπέρμα	Σινάπι	
313	*Solani nigri folia, Solanum nigrum*	Στρύχνου του μέλανος φύλλα	Σολάνουμ	Στρύφνον
314	*Spongia marina, Spongia officinalis*	Σπόγγος	Σφουνγκάρι	
315	*Stannum*	Κασσίτερος		
316	*Stibium*	Στίμμι	Αντιμμόνιον ωμόν[2]	
317	*Stibium oxydulatum vitreum*	Στίβινος ύελος		
318	*Stibium sulphuratum nigrum*	Στίμμι ένθειον		
319	*Stoechadis flores, Lavandula stoechas*	Στοιχάδος άνθη		
320	*Stramonii folia et semina, Datura stramonium*	Στραμονίου φύλλα και σπέρμα	Στραμόνιουμ	
321	*Strychninum*	Στρύχνιον		
322	*Styrax calamita, Styrax officinalis*	Στύραξ	Στύρακα	
323	*Styrax liquidus, Liquidambar styraciflua*	Μελιστύραξ	Στύρακα υγρόν	

324	*Succinume jusque oleum crudum*	Ήλεκτρον, και το εξ αυτού έλαιον το αγοραίον	Κεχριμπάρι	
325	*Sulphuris flores*	Θείου άνθος	Τιάφη	
326	*Tamarindi, Tamarindus indica*	Οξυφοίνικες	Ταμαρήντο	
327	*Tanaceti herba et oleum, Tanacetum vulgare*	Θηρανθέμιδος πόα και έλαιον	Ταναζτέτουμ	
328	*Taraxaci radix, Leontodon taraxacum*	Πικραφάκης ρίζα	Ταράξακουμ	
329	*Tartarus crudus et depuratus*	Τρυξ αγοραίος και καθαρισμένη	Καθάρισμα Ταρτάρου	
330	*Tauri fel, os taurus domesticus*	Χολή ταυρεία	Χολή ταύρου	
331	*Terebinthina communis, Pinus sylvestris et Pinus maritime*	Τερεβινθίνη		
332	*Terebinthinae oleum*	Έλαιον τερμίνθινον		
333	*Terebinthina laricina, Pinus larix*	Λάριξ		
334	*Terebinthina pistacina, Pistacia terebinthus*	Τερεβινθίνη χία		
335	*Tiliae flores, Tilia europaea*	Φιλύρας άνθος	Τίλια	
336	*Tormentillae radix, Tormentillae recta*	Επταφύλλου ρίζα	Τορμαντίλλα	Μπιστόρτα
337	*Toxicodendri folia, Rhus toxicondendron*	Τοξικοδένδρου φύλλα		
338	*Tragacanthae gummi, Astragalus aristatus*	Τραγακάνθης κόμμι	Τραγακάνθη	
339	*Trifolii fibrin herba, Menyanthes trifoliata*	Μηνυανθούς πόα	Τριφύλλη	Τριφύλλι
340	*Tritici furfures, Triticum hybernum et Triticum turgidum*	Πίτυρα του σίτου		
341	*Ulmi cortex, Ulmus campestris*	Πτέλεας φλοιός		

342	*Urticae folia, Urtica pilulifera*	Κνίδης φύλλα		Τζηκνίδα
343	*Uvaeursi folia, Arbutus uvaursi*	Αρκτοκομάρου φύλλα	Ούβα ούρος	
344	*Valerianae radix, Valeriana sylvestris*	Νάρδου της αγρίας (φου) ρίζα	Βαλεριάνα του λόνγκου	
345	*Vanilla, Vanilla aromatica*	Βανίλλη		
346	*Veratrinum*	Φθειράγχιον		
347	*Verbasci flores, Verbascum thapsus et Verbascum thapsi forme*	Φλόμου της θηλείας άνθος	Βερμπάσκουμ	Φλόμος
348	*Vinum, Vitis vinifera*	Οίνος		
349	*Violarum flores, Viola odorata*	Ίων άνθος	Βιόλα	Χαμοβιολέταις, Μενεξέδες
350	*Viscum album*	Ιξία	Βίσκουμ βερτζινούμ	Οξόν
351	*Zedoariae radix, Curcuma zedoaria, Curcuma zerumbet*	Ζάδερα	Τζεντοάρια	
352	*Zincum*	Ψευδάργυρος		
353	*Zincum sulphuricum crudum*	Θειϊκός ψευδάργυρος αγοραίος		
354	*Zingiberis radix, Zingiber officinarum*	Ζεγγιβέρεως ρίζα	Τζίτζιβερ	

Note: In the original text, the character "æ" generally appears as "œ", either by mistake or out of typographical necessity. This issue has been corrected where necessary.

Footnotes

[1] In most cases the author gives two and even three names for each substance.
[2] https://www.wordreference.com/definition/stibium.