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HERBS AS PHARMAKA: BETWEEN MEDICINE, ASTROLOGY AND MAGIC*

Abstract. In the ancient and Byzantine world, natural elements were used to cure a certain disease, as attested by traditional medical sources such as Hippocrates, Dioscorides and Galen. However, the therapeutic properties of these substances are also described in some compilations that transmit another type of knowledge: the *Cyranides*, a hermetic work that illustrates the usages of vegetable, animal and mineral species for different purposes; Cassianus Bassus' *Geoponica*, an important source of the ancient agronomic-botanical tradition; the *Hygromanteia Salomonis*, a hermetic and esoteric treatise dedicated to planetary divination, which also illustrates the correspondences between plants, planets and zodiac signs. The herbs described in these compilations are suggested as φάρμακα for the treatment of diseases, but also for other purposes such as warding off demons or having luck (e.g. in *Monacensis gr. 70*, which transmits *Hygromanteia Salomonis*, Jupiter's plant is χρυσάγκαθον, capable of causing extraordinary healings). This denotes the development of a parallel medicine, connected with magic and astrology, and in some cases the practices discussed still have folkloric implications today. Therefore, this contribution intends to analyse these three magico-medical works, highlighting the similarities and differences from traditional medical sources as well as the link between medicine, magic and astrology.

Keywords: plants, *pharmaka*, *Cyranides*, *Geoponica*, *Hygromanteia Salomonis*, medicine, astrology, magic, folklore

Many ancient and Byzantine traditional medical sources, such as works of Hippocrates, Dioscorides or Galen, recommend the use of natural elements to heal certain diseases of the human body, contributing to the development of a scientific and rational medicine. However, even popular beliefs influenced the medical methodology, as it emerges from the preparation of φάρμακα with the herbs collected by ρίζοτόμοι (“root cutters”), the activity of the φαρμακοπῶλαι (“druggists”), the divine invocations, the incubatory medicine and, in general,

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the usages of herbs in magical rituals for therapeutic purposes¹. This suggests the existence of a parallel path that sometimes intersects folk and traditional medicine, and in this regard the definition of ‘popular medicine’ provided by William H. Harris is remarkable:

those practices aimed at averting or remedying illness that are followed by people who do not claim expertise in learned medicine (Gr. *iatrike*) and do not surrender their entire physical health to professional physicians (Gr. *iatroi*)².

As W.H. Harris noted, popular and folk medicine are problematic categories³, and it is especially clear from some compilations related to ‘occult sciences’⁴:

¹ I. ANDORLINI, A. MARCONE, *Medicina, medico e società nel mondo antico*, Firenze 2004, p. 10–12. Cf. also L. TOTELIN, *Pharmakopôlai: A Re-Evaluation of the Sources*, [in:] *Popular Medicine in Graeco-Roman Antiquity. Explorations*, ed. W.H. HARRIS, Leiden–Boston 2016 [= CSCT, 42], p. 65–85. The therapeutic use of herbs and plants already emerges in the Homeric poems: in the *Odyssey* Helen demonstrates to know an Egyptian φάρμακον able to calm pain and anger, as well as Circe is defined πολυφάρμακος for her knowledge of herbs and the use of these substances for magical purposes; cf. OMERO, *Odissea*, IV, 219–232; X, 276, ed. et trans. V. DI BENEDETTO, Milano 2010, p. 290–293, 568–569. Another personality generally known for her ability with herbs is Medea; cf. EURIPIDES, *Medea*, 285, 385, 409, ed. D.L. PAGE, ²Oxford 2001, p. 15, 19–20; APOLLONIUS RHODIUS, *Argonautica*, IV, 20–53, [in:] APOLLONIO RODIO, *Le argonautiche*, ed. et trans. G. PADUANO, ⁴Milano 2016, p. 540–545. Also Theophrastus in his *Historia Plantarum* explains that he has taken into account the popular knowledge on herbs, which was elementary but reliable due to the experience in the use of these substances; THEOPHRASTUS, *Historia plantarum*, IX, 17, [in:] THEOPHRASTUS, *Enquiry into Plants. And Minor Works on Odours and Weather Signs*, vol. II, ed. et trans. A. HORT, London–New York 1916 [= LCL], p. 304–309. Finally, we can recall Plato’s *Theaetetus*’ passage on Socrates’ mother and the midwife: here the midwife is considered as an expert in drugs and spells, so that she can control pain, facilitate childbirth or cause abortion; cf. PLATO, *Theaetetus*, 149 c-d, ed. et trans. F. FERRARI, Milano 2011, p. 234–235.

² W.H. HARRIS, *Preface*, [in:] *Popular Medicine...*, p. VII. The concept of popular medicine traces back to Laurent Joubert (1529–1583), who wrote *Erreurs populaires au fait de la médecine et régime de santé* (1578): its main concept is the fact that people of the countryside employed remedies; cf. W.H. HARRIS, *Popular Medicine in the Classical World*, [in:] *Popular Medicine...*, p. 5, 37–40.

³ W.H. HARRIS, *Popular Medicine...*, p. 2. Such scholars as Arthur Kleinman considered separately popular and folk medicine, representing the first the methods transmitted by non-professionals and the second one those put into practice by healers not approved; cf. A. KLEINMAN, *Patients and Healers in the Context of Culture. An Exploration of the Borderland Between Anthropology, Medicine, and Psychiatry*, Berkeley 1980 [= CSHSMC, 5], p. 59.

⁴ Occult sciences required specific methods and techniques, consequently we can talk about “learned practitioners”; however, occult sciences were not the learned – and the non-superstitious – side of magic, but there was difference also in terms of matter, since occult practitioners based their considerations on natural science. Cf. P. MAGDALINO, M. MAVROUDI, *Introduction*, [in:] *The Occult Sciences in Byzantium*, ed. EIDEM, Geneve 2006, p. 11–15. M. PAPATHANASSIOU, *The Occult Sciences in Byzantium*, [in:] *A Companion to Byzantine Science*, ed. S. LAZARIS, Leiden–Boston 2020 [= BCBW, 6], p. 464–495. For the connection between medicine and botany in Byzantium, cf. J. SCARBOROUGH, *Herbs of the Field and Herbs of the Garden in Byzantine Medicinal Pharmacy*,

the *Cyranides*, Cassianus Bassus’ *Geoponica* and the *Hygromanteia Salomonis*, which transmit a knowledge different from that of traditional medicine. Therefore, the aim of this contribution is to analyse these magico-medical works and their relationship with traditional medical sources. The intent is also to emphasize the link between medicine, magic and astrology and, as far as possible, the implications of the use of herbs as φάρμακα in Italian folkloric evidence. This would indicate a certain continuity of ancient practices in modern beliefs, as it emerges from such folkloric repertoires as the one by Emanuele Lelli or folkloric works like those of Italian folklorists of the 19th–20th century. Since some of the species discussed are attested both by *Cyranides* and *Geoponica*, the first part of this contribution will be devoted to these two works, whereas the last one will examine the *Hygromanteia Salomonis*.

1. The *Cyranides* and Cassianus Bassus’ *Geoponica*

The first work we can consider for the analysis of herbs as φάρμακα in non-traditional medicine is the *Cyranides*, a collection of quasi-magical cures to use the words of W.H. Harris⁵. It is at the same time a bestiary, a *herbarium* and a lapidary, since it shows the characteristics, the properties and the employments of animals, plants and minerals, listed in alphabetical order. It is composed of four books, the first defined as βίβλος θεραπευτική (therapeutic book) in the prologue, even if it is not purely a medical treatise, rather a magico-medical work on the usage of natural substances for therapeutic purposes⁶. The next three books are devoted to birds, terrestrial animals and fish, but some manuscripts include even a fifth book on plants and a sixth one on the power of stones and colours⁷.

Concerning the fifth book, it describes the physical characteristics and the therapeutic uses of 24 plants, one for each alphabetical letter. Some of the species discussed permit to make some comparisons not only with traditional medical sources, but also with folkloric evidence. For example, the θρίδαξ (“lettuce”) is suggested as a φάρμακον to heal different diseases:

[in:] *Byzantine Garden Culture*, ed. A. LITTLEWOOD, H. MAGUIRE, J. WOLSCHKE-BULMAHN, Washington D.C. 2002, p. 177–188.

⁵ W.H. HARRIS, *Popular Medicine...*, p. 2 note 8.

⁶ *Cyranides*’ prologue is composed by three different prologues, giving a kind of external frame in which a Byzantine editor explains that he collected two ancient works (the Kyranos’ and the Harpocraton’ books) and then he quotes their prologues. M. ZAGO, *Mixis ed enantiosis. L’uso metaforico delle sostanze rituali nelle Ciranidi e oltre*, [in:] *Ermetismo ed esoterismi. Mondo antico e riflessi contemporanei*, ed. P. SCARPI, M. ZAGO, Padova 2013, p. 71–75.

⁷ The fifth and sixth book were included by Dimitris Kaimakis in his edition of this work for philological reasons: *Cyranides*, V–VI, [in:] *Die Kyraniden*, ed. D. KAIMAKIS, Meisenheim am Glan 1976 [= BKP, 76] (cetera: *Cyranides*), p. 300–310.

Θρίδαξ ὑγρὸν καὶ ψυχρὸν ἐστὶ λάχανον, ἐδώδιμον καὶ πᾶσι γνωστόν, ὃ καὶ μαϊούλι λέγεται παρὰ τοῖς πολλοῖς. αὕτη στόμαχον ἀνακτάται. μετὰ ὀξύγαρου δὲ καὶ λάσαρος ἐσθιομένη ὄρεξιν κινεῖ, καὶ τὴν γαστέρα μαλάσσει ἐπὶ πλείον ἐσθιομένη. ἐὰν δ' ἐπ' ὀλίγον τὴν γαστέρα ἐπέχει, καὶ χολέρας διαλύει ὄχλησιν. ἐν ὀξυμέλιτι δὲ ἐσθιομένη κοιλιακοῦς ὠφελεῖ, <καὶ> ὕπνον παρασκευάζει. τὸ σπέρμα δ' αὐτῆς τῷ μετώπῳ καταπλασσομένον κεφαλαλγίας πυρῶδεις ἀποκρούει.

Lettuce is a humid and cold vegetable, eatable and known to all, which most define *maiouli*. It recovers the stomach. Eaten with *oxýgaron*⁸ and silphium's juice⁹, it stimulates the appetite; eaten further, it softens the belly. If lettuce touches the belly for a short time, it extinguishes the nuisance of *cholera*. Eaten in oxymel¹⁰, it is useful for the bowels and provides sleep. Its seed applied as a poultice in the forehead drives away fiery headaches¹¹.

Here lettuce's characteristics and therapeutic *δυνάμεις* are described, recognizing the plant's suitability for the belly, the stomach, the bowel or for headache. To heal these ailments, lettuce is recommended with several substances, for example ὀξύγαρον and silphium's juice, denoting the importance of combination with other elements to be more effective.

Likewise, this plant appears in Cassianus Bassus' *Geoponica*, defined by Emanuele Lelli as a companion of the ancient agronomic-botanical tradition¹². Composed of 20 books, this work is a collection of *excerpta* on the agricultural world. Its primary sources are Vindanius Anatolius and Didimus, but other authors such as Diophanes, Pamphilus or Zoroaster were also excerpted¹³. *Geoponica* can be

⁸ That is a sauce made of vinegar and γάρου; H. LIDDELL, R. SCOTT, H.S. JONES, *A Greek-English lexicon*, s.v. ὀξύγαρον, <http://stephanus.tlg.uci.edu/ljsj/#context=lsj&eid=76614> [15 III 2023].

⁹ E. ΚΡΙΑΡΑΣ, *Λεξικό της Μεσαιωνικής Ελληνικής Δημόδους Γραμματείας*, 1100–1669, vol. IX, Θεσσαλονίκη 1985, s.v. λάσαρον, p. 113.

¹⁰ That is a mixture of vinegar and honey; H. LIDDELL, R. SCOTT, H.S. JONES, *A Greek-English lexicon*, s.v. ὀξυμελικρατον, <http://stephanus.tlg.uci.edu/ljsj/#context=lsj&eid=76697> [15 III 2023].

¹¹ *Cyranides*, V, 8, p. 303. The English translation of the text, as well as the other ones quoted in this contribution, is mine.

¹² E. LELLI in *L'agricoltura antica. I Geoponica di Cassiano Basso*, vol. I, ed. et trans. IDEM, Soveria Mannelli 2010, p. XXVI. The attribution to Cassianus Bassus (ca. 6th century) is based on the subscription transmitted by *Marcianus gr. Z 524* at the beginning of the first book of *Geoponica*; E. LELLI in *L'agricoltura antica...*, vol. I, p. XXIX–XXX.

¹³ E. LELLI in *L'agricoltura antica...*, vol. I, p. XLVII–XLIX, LXVIII–LXXI. Eugen Oder hypothesised that originally the quotations in *Geoponica* were authentic, but the attributions of the different chapters could not be reliable. Christophe Guignard, considering also the Syriac and Arabic version of the text, suggested that a pre-Constantinian editor used a source table for the attribution of the *excerpta*: this attribution was made due to the knowledge of a tradition which associates a certain element to a certain author. Cf. E. ODER, *Beiträge zur Geschichte der Landwirtschaft bei den Griechen I*, RMP 45, 1890, p. 62–66; C. GUIGNARD, *Sources et constitution des Géoponiques à la lumière des versions orientales d'Anatolie de Béryte et de Cassianus Bassus*, [in:] *Die Kestoi des Julius Africanus und ihre Überlieferung*, ed. M. WALLRAFF, L. MECCELLA, Berlin–New York 2009 [= TUGAL, 165], p. 244, 286–302, 330–335. In general, cf. also C. SCARDINO, *Edition antiker landwirtschaftlicher Werke in arabischer Sprache*, vol. I, *Prolegomena*, Berlin–Boston 2015 [= SGA, 16.1], p. 23–29.

considered the first western agricultural almanac, since it gives some advice on agriculture and shows popular beliefs, highlighting the folkloric element. In the 12th book, devoted to vegetables, there is lettuce, discussed in an *excerptum* from Florentinus¹⁴. It is defined as a humid and cold vegetable, with the same words that we find in *Cyranides* (Θρίδαξ ὑγρὸν καὶ ψυχρὸν ἐστὶ λάχανον), but more medical usages are mentioned here. It is a thirst-quenching, soporific and galactogenic food, so it stimulates the secretion of milk. If lettuce is cooked, it becomes more nutritious and discourages sexual intercourse, and for this reason the Pythagoreans called it eunuch, whereas women defined it as an anti-aphrodisiac. Moreover, *Geoponica* gives some advice to have a good-looking lettuce, suggesting to bind its leaves two days before the harvest: Εἰ δὲ βούλει καὶ εὐειδεῖς ἔχειν τὰς θριδικίνας, πρὸ δύο ἡμέρων τοῦ μέλλειν ἀφαιρεῖσθαι αὐτάς, τὰς κόμας αὐτῶν, τουτέστι τὸ ἄνωθεν μέρος, δῆσον. οὕτω γὰρ λευκαὶ καὶ εὐειδεῖς ἔσονται (‘If you want a good-looking lettuce, two days before the harvest, bind its leaves, that is the upper part. In this way they become white and good looking’)¹⁵. Similarly as in the *Cyranides*, this plant is said to stimulate the appetite, but it even dissolves mucus and curbs sexual drive if taken with sweet wine and vinegar. If it is cooked in rose essence, it heals *cholera*. Its juice reduces lungs’ swelling, whereas a spread of lettuce with mother’s milk is excellent for erysipelas. The crushed seeds, if drunk, are a remedy for scorpion bites and help those with chest pains: Τὸ σπέρμα αὐτῆς τριφθὲν καὶ ποθὲν σκορπιόδηκτους ἰᾶται θώρακα πεπονθότα ὠφελεῖ (‘Its seed, crushed and then drunk, heals scorpion bites and is suitable for chest pains’)¹⁶. If somebody eats this plant constantly, he will cure the weakness of vision, making the eyesight sharp. Finally, eating lettuce causes sleep for both the healthy and the sick: if five or six leaves are secretly placed under the pillow, they will provide sleep for those who have difficulty in falling asleep¹⁷.

As it emerges from Florentinus’ *excerptum*, *Cyranides* and *Geoponica* share some of lettuce’s therapeutic δυνάμεις, even if the second work is more precise and adds some further advice. This permits to have a broader view of the medical use of lettuce, also in regard to agricultural and peasant knowledge¹⁸. At the same time, both these compilations allow to make a comparison with traditional medical authors and the folkloric evidence. For example, in Dioscorides’ *De materia medica* there is a distinction between the cultivated and wild lettuce, whose

¹⁴ Author of *Georgics*, Florentinus was one of the most important authors of agronomy and zootechnology in the first centuries of the Roman Empire. E. LELLI in *L’agricoltura antica...*, vol. I, p. LII–LV.

¹⁵ CASSIANUS BASSUS, *Geoponica*, XII, 13, 3, [in:] *L’agricoltura antica...* (cetera: CASSIANUS BASSUS), vol. II, p. 691.

¹⁶ CASSIANUS BASSUS, XII, 13, 6, vol. II, p. 692.

¹⁷ CASSIANUS BASSUS, XII, 13, vol. II, p. 691–692.

¹⁸ As E. Lelli noted, *Geoponica* intends to express the general, folkloric and popular sense of the agricultural world, referring to its beliefs and millennial practices. E. LELLI in *L’agricoltura antica...*, vol. I, p. LXXVII.

properties are similar to those exposed in *Cyranides* and *Geoponica*. Concerning the cultivated lettuce, Dioscorides provides this description:

θρίδαξ ἡμερος εὐστόμαχος, ὑποψύχουσα, ὕπνωτική, κοιλίας μαλακτική, γάλακτος κατασπαστική· ἐψηθεῖσα δὲ γίνεται τροφιμωτέρα, ἄπλυτος δὲ ἐσθιομένη στομαχικοῖς ἀρμόζει. τὸ δὲ σπέρμα αὐτῆς πινόμενον τοῖς συνεχῶς ὄνειρώττουσι βοηθεῖ καὶ συνουσίαν ἀποστρέφει. αὐταὶ δὲ συνεχῶς ἐσθιόμενα ἀμβλυωπίας εἰσὶ ποιητικά.

The cultivated lettuce is good for the stomach, refreshing, soporific, it softens the bowel and draws down milk. It becomes more nutritive if boiled; instead, if it is eaten unwashed, it is good for those with stomach ailments. Its seed, if drunk, helps those who frequently emit their semen during their sleep and discourages sexual intercourse. Eating constantly lettuce causes fainting¹⁹.

The properties of cultivated lettuce are more or less the same we find in *Cyranides* and *Geoponica*: it is considered beneficial for the stomach, soporific and anti-aphrodisiac. On the other hand, the wild lettuce (ἀγρία θρίδαξ) is defined as soporific and analgesic, being also a good φάρμακον for misty eyes and scorpion bites; last but not least, if the seed is drunk, it prevents the emission of semen, just like it happens for the cultivated lettuce²⁰. Hence, the anti-aphrodisiac property of lettuce appears in both the cultivated and the wild kind. This results even in Pliny the Elder's *Naturalis Historia*: several varieties of lettuce basing on their stem or their colour are distinguished, mentioning in particular a *lactuca* called *astytis* or *eunuchion* for its anti-aphrodisiac characteristic: *quoniam haec maxime refragetur veneri* (because it greatly dampens the sexual urge)²¹. Lettuce was still used in Byzantium and, just like other vegetables, its consumption was also regulated by medical considerations²²: for example, Nikolaos Myrepsos describes a recipe

¹⁹ *Pedanii Dioscuridis Anazarbei De Materia Medica*, II, 136, 1, vol. I, ed. M. WELLMANN, Berlin 1907–1914 (cetera: DIOSCORIDES), p. 207–208. Also Galen distinguishes a wild and a cultivated lettuce; cf. GALENUS, *De compositione medicamentorum per genera libri VII*, I, 316, [in:] *Claudii Galeni opera omnia*, vol. XIII, ed. K.G. KÜHN, Leipzig 1821–1833, p. 387.

²⁰ DIOSCORIDES, II, 136, 3, vol. I, p. 208. Wild lettuce may correspond to *Lactuca virosa*, generally known as opium lettuce and whose milky juice has a soporific effect; cf. J.H. CLARKE, *Dictionary of Practical Materia Medica*, vol. II, New Delhi 1995, p. 235.

²¹ GAIUS PLINIO SECONDO, *Storia naturale*, XIX, 38, vol. III.1, ed. et trans. G.B. CONTE, Torino 1982–1988 (cetera: GAIUS PLINIUS SECUNDUS), p. 932. Cf. also GAIUS PLINIUS SECUNDUS, XX, 24, vol. III.2, p. 38. The same property emerges in a fragment of Lycus quoted in *Athenaei Naucratis Dipnosophistarum Libri XV*, II, 79, vol. I, ed. G. KAIBEL, Leipzig 1887 [= BSGR] (cetera: ATHENAEUS, *Deipnosophistae*), p. 162. This source is Pythagorean, and in fact lettuce was important for the Pythagoreans because it was refreshing and considered able to dominate erotic impulses; ATHENAEUS, *Deipnosophistae*, II, 80, vol. I, p. 162–164.

²² For the consumption of lettuce and other vegetables, cf. J. KODER, *Gemüse in Byzanz. Die Frischgemüseversorgung Konstantinopels im Lichte der Geoponika*, Wien 1993; IDEM, *Fresh Vegetables for*

in which lettuce' seed was drank with water to prevent dreams and diminish sexual drive²³. Finally, we can recall Pietro Andrea Mattioli's *Discorsi*, i.e. the Italian translation and commentary of Dioscorides' *De materia medica*: in the edition of 1568 Mattioli explains that in the ancient world people used to eat cultivated lettuce after dinner because they believed that it could make you have a peaceful sleep²⁴.

In addition to these medical sources, the properties of lettuce are connected to popular beliefs and traditions, some of which are still alive today. As E. Lelli noticed, the anti-aphrodisiac characteristic of lettuce can relate to the Greek myth of Adonis, Aphrodite's lover, who took refuge or hid himself in a bed of lettuce, where he was killed²⁵. Even if the relationship between the myth and the anti-aphrodisiac property of the plant is not clear, it is remarkable to consider the folkloric implication of this myth. In fact, during the *Adonia* – the feast for Adonis – there was a celebration in which women prepared a garden with various plants, including lettuce, and exposed them to the sun: consequently, the plants germinated in a few days, but at the same time they immediately died just like Adonis. This would suggest the relationship between lettuce and impotence, which for Adonis coincides with death²⁶. This perception of lettuce as anti-aphrodisiac is still alive nowadays in Abruzzo, as E. Lelli noted after interviewing people from this Italian region²⁷. At the same time, other usages of this plant already emerged in *Cyranides*

the Capital, [in:] *Constantinople and its Hinterland. Papers from the Twenty-seventh Spring Symposium of Byzantine Studies, Oxford, April 1993*, ed. C. MANGO, G. DAGRON, London 1995, p. 49–56; A. TOUWAIDE, *Botany*, [in:] *A Companion...*, p. 302–353; IDEM, *Medicine and Pharmacy*, [in:] *A Companion...*, p. 354–403.

²³ Nikolaos Myrepsos' *Dynameron*, Πέσσοι, ρκδ', ed. I. VALIAKOS, Heidelberg 2020 (cetera: NIKOLAOS MYREPSOS), p. 959.

²⁴ PIETRO ANDREA MATTIOLI, *Discorsi*, II, 126, [in:] *I discorsi di M. Pietro Andrea Matthioli sanese, medico cesareo, et del serenissimo principe Ferdinando archiduca d'Austria etc. nelli sei libri di Pedacio Discoride Anazarbeo della materia Medicinale*, Venezia 1568 (cetera: PIETRO ANDREA MATTIOLI), p. 549–553. This ancient belief emerges also from an epigram by Martialis, in which we can read: *Cludere quae cenas lactuca solebat avorum, / dic mihi, cur nostras inchoat illa dapes?* (“The lettuce with which our ancestors used to close dinners: / tell me why is it now an appetizer?”). MARZIALE, *Epigrammi*, XIII, 14, ed. et trans. M. SCÀNDOLA, ⁴Milano 2015, p. 1042–1043.

²⁵ CALLIMACHUS, fr. 478 Pf, vol. I, ed. R. PFEIFFER, Oxford 1959, p. 359. NICANDER, fr. 120 G, [in:] *Theriaca et Alexipharmaca*, ed. O. SCHNEIDER, Lipsiae 1856, p. 203–204. Callimachus and Nicander are mentioned in ATHENAEUS, *Deipnosophistae*, II, 80, vol. I, p. 163. At the same Athenaeus quotes Eubulus and Amphis, two Athenian comic poets who ironized the anti-aphrodisiac property of lettuce in their works: EUBULUS, fr. 13 K.-A., [in:] *Poetae Comici Graeci*, vol. V, ed. R. KASSEL, C. AUSTIN, Berlin–New York 1986, p. 197; AMPHIS, fr. 20 K.-A., [in:] R. KASSEL, C. AUSTIN, *Poetae Comici...*, vol. II, p. 222.

²⁶ J.P. VERNANT, *Introduction*, [in:] M. DETIENNE, *The Gardens of Adonis. Spices in Greek Mythology*, ²Princeton 1994, p. XII; M. DETIENNE, *The Gardens...*, p. 68, 115. In general cf. A. DE GUBERNATIS, *La mythologie des plantes*, vol. II, Paris 1882, p. 187–188.

²⁷ E. LELLI, *Folklore antico e moderno*, Roma 2012, p. 286.

and *Geoponica* also appear in modern folklore, which implies a continuity from the ancient world. Giuseppe Pitrè (1841–1916) in his volume *Medicina popolare siciliana (Popular Sicilian Medicine)* explained that lettuce, especially if cooked, could increase mother and nurse's milk if they had little; furthermore this plant, after being boiled, was recommended to wash eyes. Eventually, the Sicilian folklore recommends lettuce as a good φάρμακον to heal bowel ailments, just like fennel and cabbage²⁸. The tradition of using lettuce to cure eye-diseases is also attested in the Sorrentine Peninsula, as we can read in the volume *Tradizioni ed usi della penisola sorrentina (Traditions and uses of the Sorrentine Peninsula)*²⁹ by Gaetano Amalfi (1855–1928). Using lettuce to help with breastfeeding is registered in the repertory on beliefs of Abruzzo by Gennaro Finamore (1836–1923): for this purpose, lettuce was cooked in broth with fennel and whisked eggs³⁰. An article on Barletta's folklore in the 20th century by Salvatore Santeramo (1880–1969) shows that mothers employed *u popagne* and *u lattuchiedde* (poppy and lettuce) to make children fall asleep, but this practice already appears in ancient sources³¹. Finally, the use of lettuce for belly pains results from the traditions of Rome catalogued by Giggi Zanazzo (1860–1911), in particular from a remedy *Pe' ffa' ppassà' li dolor de la panza a le creature* ('to get rid of children's stomach-aches'): it consisted of giving two or three spoons of boiled water with two leaves of lettuce³².

In *Geoponica* there are certain properties of lettuce not included in *Cyranides*, but some 'fixed characteristics' appear in all the works we have mentioned: the anti-aphrodisiac properties, the usage for increasing milk or for healing eyes, the benefit for belly pains. As the folkloric evidence reveals, all these δυνάμεις are still alive today in different parts of Italy, especially in the south, where the influence of the Greek world is remarkable. The fact that certain properties of this plant (the same goes for other species) are recorded in folkloric works and repertories implies a continuity of ancient beliefs in the modern world. It may be that even today the oldest people living in the small villages in the south of Italy use these popular remedies to heal a disease³³. However, before moving to *Hygromanteia Salomonis*, we may give some other examples of vegetable species attested both in traditional and non-traditional medical sources, as well as in ancient and modern popular beliefs.

²⁸ G. PITRÈ, *Medicina popolare siciliana*, ²Firenze 1949, p. 187, 252, 320, 323, 414.

²⁹ G. AMALFI, *Tradizioni ed usi della penisola sorrentina*, Palermo 1890, p. 60.

³⁰ G. FINAMORE, *Tradizioni popolari abruzzesi*, Torino–Palermo 1894, p. 162.

³¹ S. SANTERAMO, *Folklore barlettano*, *Lar* 2.2, 1931, p. 35. For this property cf. also C. LAPUCCI, A. ANTONI, *La simbologia delle piante. Magia, leggende, araldica e curiosità del mondo vegetale*, Firenze 2016, p. 237.

³² G. ZANAZZO, *Usi, costumi e pregiudizi del popolo di Roma*, Torino 1908, p. 18.

³³ For example, consider the villages under the Greek influence in Calabria, where ancient beliefs are still alive; cf. F. VIOLI, *Storia della Calabria greca*, Reggio Calabria 2005; E. LELLI, *Calabria antica e moderna*, Athens 2021.

Parsley

Cyranides, V, 15: Ὀριοσέλινον, ἄλλοι δὲ πετροσέλινον, βοτάνη ἐστὶ παραπλησία σελίνῳ τὸ τε εἶδος καὶ τὴν δύναμιν, πλὴν ἰσχυρότερον. αὕτη γαστέρα μαλάσσει καὶ διουρητικὴ ἐστὶν ἐσθιομένη. καὶ ἐφθὴ δὲ πινομένη δυσουρίαν παύει καὶ στραγγουρίαν καὶ νεφρίτιδα θεραπεύει. τὸ δὲ ἀπόζημα ἐσθιόμενόν τε καὶ πινόμενον ψυαλγίαις βοηθεῖ.

Oriosélinon, for others *petrosélinon*, is a plant similar to celery in appearance and properties, but stronger. It calms belly pains and, if eaten, it is diuretic. If boiled and drunk, it calms difficult micturition and heals strangury and nephritis. The decoction, if eaten and drunk, is useful for those who have back pains.

Geoponica, XII, 23, 3–5: Βρωθὲν δὲ τὸ σέλινον κατωφερεστέρας εἰς τὰ ἀφροδίσια ποιεῖ τὰς γυναῖκας. ὅθεν οὐ δεῖ συγχωρεῖν ταῖς τιθηνούσαις ἐσθίειν τὰ σέλινα, καὶ μάλιστα διὰ τὸ ἐπέχειν τὸ γάλα. τῷ δὲ στόματι εἰς εὐωδίαν συμβάλλεται. διὸ καὶ οἱ δυσώδη τὰ στόματα ἔχοντες, εἰ φάγοιεν, ἀποκρούονται τὴν δυσωδίαν. καὶ τὰς ἐπὶ σκηνῆς φασι τοῦτο ἐσθίειν, ὅπως αὐτῶν τὰ στόματα εὐώδη εἶη. Τὰ δὲ σέλινα ἅμα ἄρτω καταπλασσομένα ἐρυσιπέλατα θεραπεύει, καὶ τὸ ζέμα αὐτῶν ἐγκάθισμα γινόμενον, καὶ ὑπαντλούμενον, λίθους ἐκβάλλει, καὶ δυσουρίαν θεραπεύει, καὶ νεφροὺς ἰᾶται.

Parsley, if eaten, makes women more willing to love; for this reason, breastfeeding people should not eat parsley, especially because it holds milk. It smells good in the mouth, so those who have a bad-smelling mouth get rid of the bad smell if they eat parsley. Actors are said to eat it on stage for their mouths to be scented. Parsley spread on bread cures erysipelas; its decoction, taken in a sitz bath or in a bath, eliminates kidney stones, cures difficult micturition and heals kidneys³⁴.

Traditional medical sources: Dioscorides distinguishes three kinds of parsley, ὀρεοσέλινον, πετροσέλινον and ἵπποσέλινον. The properties of the first two coincide with *Cyranides* and *Geoponica*'s paragraphs. Concerning the third one, its seed, if drunk with honey and wine, brings on the menstrual period; if drunk, it can warm shiverers; if anointed, it is suitable for curing strangury, and the root has the same properties³⁵. The varieties of parsley appear in Pliny the Elder's *Naturalis Historia*: the *olusatrum*, or *hipposelinum*, which was considered a good remedy for colic and intestinal diseases, and even against rabid dogs' bite; the *oreoselinum*, which provokes urination and menstruation; the *heleoselinum*, beneficial against spiders and for menstruation; the *petroselinum*, growing among the stones and useful for

³⁴ In the previous part, *Geoponica* gives some advice to make the parsley grow luxuriantly. CASSIANUS BASSUS, XII, 23, 1–2, vol. II, p. 708–709. It is remarkable that in *Geoponica* parsley is defined σέλινον, whereas in *Cyranides* we find ὀριοσέλινον and πετροσέλινον. As E. Lelli noted, the parsley was the celery which grew among the stones; E. LELLI in *L'agricoltura antica...*, vol. II, p. 989.

³⁵ DIOSCORIDES, III, 65–67, vol. II, p. 76–78. Pietro Andrea Mattioli in his *Discorsi* talks about the so-called *apio* (*apium*), distinguishing between the *apio hortense* (of gardens), the *eleoselino* (that is the *apio palustre*, of swamps), the *oreoselino* (or *apio montano*, of mountains), the *petroselino* and the *hipposelino*; cf. PIETRO ANDREA MATTIOLI, *Discorsi*, III, 69–71, p. 810–816.

abscesses; finally, the *buselinum*, good against snakes³⁶. Likewise, these properties are highlighted in Celsus' *De medicina*³⁷ and in Scribonius Largus' *De compositione medicamentorum*³⁸. What is also of note is the brief description of the characteristics of parsley provided by Galen in *De simplicium medicamentorum temperamentis ac facultatibus libri XI*³⁹. In Nikolaos Myrepsos' *Dynameron* we find many recipes with ὀρεοσέλινον, ἵπποσέλινον and πετροσέλινον, especially for kidney stones and colic⁴⁰.

Folkloric evidence: The continuity of beliefs from ancient to modern times can be also observed in case of parsley and its characteristics. E. Lelli has interviewed people from Calabria who thought that *il prezzemolo faceva male alle donne incinta* ('parsley was dangerous for pregnant women')⁴¹. The same property is registered by G. Pitrè for the Sicilian folklore, where parsley is included among the galactogen substances, *i.e.* those stimulating the production of milk⁴². In Sicilian popular beliefs parsley is also a remedy for children's intestinal problems and kidney stones⁴³. In Friuli Venezia Giulia a decoction of parsley or grape flowers was suggested to make the nurses' milk disappear, but this plant was helpful even for meteorism, colic or strangury⁴⁴. Salerno area's peasants recommended not transplanting parsley plants at home, since they claimed it would cause someone to die within a year, but they advised not eradicating it to keep the devil away from a garden. In the countryside girls would eat a lot of parsley to provoke a miscarriage and during the night of Saint John parsley was employed as a divinatory herb to know if dead people were in Paradise or not. Similar to mandrake or henbane, this plant was mixed with animal fat and soot to create the *unguento del volo magico delle streghe* ('ointment of the magical flight of witches'), that could provoke hallucinations and dizziness⁴⁵. Finally, the use of this plant is also recorded in Asia Minor, where it is considered a galactogen⁴⁶.

³⁶ GAIUS PLINIUS SECUNDUS, XX, 46–47, vol. III.2, p. 68–69. Cf. also GAIUS PLINIUS SECUNDUS, XIX, 48, vol. III.1, p. 930–935.

³⁷ CELSUS, *De medicina*, II, 31; II, 33; IV, 21; IV, 27; V, 6; V, 23; V, 25, ed. et trans. W.G. SPENCER, Cambridge, Massachusetts 1960–1961 [= LCL], vol. I, p. 211, 213, 431, 449; vol. II, p. 9, 55, 57, 65.

³⁸ *Scribonii Largi Compositiones*, 106; 120; 126; 144; 145; 152; 176; 177, ed. S. SCONOCCHIA, Berlin 2020 [= CMLat, 2.1], p. 169, 177, 183, 193, 195, 211.

³⁹ GALENUS, *De simplicium medicamentorum temperamentis ac facultatibus libri XI*, III, 18.6, [in:] *Claudii Galeni...*, vol. XII, p. 118–119.

⁴⁰ For example, NIKOLAOS MYREPSOS, Ἀντίδοτα, ρϑ'; τμθ', p. 100, 162; Ἐνέματα, κγ'; λδ', p. 564, 568.

⁴¹ E. LELLI, *Folklore antico...*, p. 159.

⁴² G. PITRÈ, *Medicina popolare...*, p. 151.

⁴³ *Ibidem*, p. 338, 341, 419.

⁴⁴ V. OSTERMANN, *La vita in Friuli. Usi, costumi, credenze, pregiudizi e superstizioni popolari*, Udine 1894, p. 378, 415–416, 449.

⁴⁵ F.M. MORESE, *L'eredità degli antenati. Il lascito ancestrale di Italici, Romani e Longobardi nel Folklore di Salerno tra religiosità popolare e sopravvivenze pagane*, Cosenza 2019, p. 183–184.

⁴⁶ A. CATABIANI, *Florario. Miti, leggende e simboli di fiori e piante*, Milano 1996, p. 247.

Garlic

Cyranides, V, 18: Σκόροδον πικρόν ἐστὶ καὶ δριμύ. οὔρα δὲ κινεῖ καὶ τὰ σπλάγγνα διακαθαίρει καὶ θερμαίνει ἐφθὸν ἐσθιόμενον. ὠμόν δὲ ἐσθιόμενον, ἄδηκτον ἀπὸ ἐρπετῶν διαφυλάττει καὶ θηριοδῆκτους ὠφελεῖ τῷ δῆγματι καταπλασσόμενον. ἔλκη τὰ ἐν τῇ κεφαλῇ συμβαίοντα ἐκρίζοι σκόροδον χλωρόν σὺν στέατι χηνεῖω καὶ κολιάνδρω, λείον ἐπιτιθέμενον. σὺν δὲ ἐλαίῳ ὁ χυλὸς αὐτοῦ ἐνσταζόμενος ὠταλγίας παύει. πόνους κροτάφων ἰάται ἐφθὸν τὸ σκόροδον λείον ἐπιτιθέμενον. λειχῆνας δὲ καὶ σπιλώματα ὕψεως ἀφανίζει, λείον ἐπιτιθέμενον. ἀναγκαῖον δὲ καὶ τὰ βλαβερὰ τοῦ σκοροδου εἰδέναι δι’ ἀσφάλειαν. ὄρασιν ἀμβλύνει ἐκ πνεύματος, στόμαχον ἀδικεῖ, καὶ δίψαν ἐρεθίζει.

Garlic is sharp and acre. It stimulates urine, purifies inward parts and heats, if eaten boiled. Instead, if eaten raw, it protects against snake bites and it is useful for those bitten by a beast, if it is applied as a poultice in the sting. Unripe garlic removes the wounds in the head, if it is ground and applied with goose fat and coriander. Its juice soaked in oil calms earache. Garlic boiled and applied ground cures temples’ pains. It removes rashes and eye spots, if it is ground and then applied. As a precaution, it is necessary to know the harmfulness of garlic. Due to the wind, it makes vision blurred, damages the stomach and causes thirst.

Geoponica, XII, 30, 1–5: Τὰ σκόρδα γίνεταὶ κάλλιστα ἐν τοῖς λευκογειοῖς. ταῦτα δὲ ἐσθιόμενα ἔλμινθας ἐξάγει, καὶ οὔρα κινεῖ, καὶ ἐχιοδῆκτους καταπλασσόμενα καὶ τρωγόμενα καὶ λυσοδῆκτους βοηθεῖ. καυθέντα δὲ καὶ φυραθέντα μέλιτι, καὶ καταχρίομενα, ὑπώπια καὶ ἀλωπεκίας ἰάται. ὀδονταλγίας δὲ διακρατούμενα ἐν τῷ στόματι παύει. σὺν ἐλαίῳ δὲ καὶ ἄλατι ἐξανθήματα θεραπεύει καὶ ὑδρωπιῶντας ὀνίνησιν. ἀφίστησι δὲ καὶ φακοὺς καὶ λειχῆνας. Ἐφθὸν δὲ καὶ ὠμόν ἐσθιόμενον βῆχας χρονίας ὠφελεῖ. καὶ ἀρτηρίαν ὠδύνουσαν πρᾶννει. καὶ φωνῆς λαμπρότητα παρέχει. εἰ δὲ τις προτρώγει τὸ σκόρδον, ἀβλαβῆς ἔκ τε ἐρπετῶν καὶ τῶν ἄλλων δηλητηρίων ἔσται. καὶ πληγέντας δὲ τριφθέντα καὶ ἐπιτεθέντα ἰάται. πάνυ δὲ ὠφελεῖ καὶ μετὰ οἴνου πινόμενα. χρησιμώτερα δὲ καὶ τοῖς πέττειν τροφὰς μὴ δυναμένους. οὔρα ὑπάγει, νεφρίτιν ἰάται, οὐκ ἔξ ὑπὸ φαύλων ὑδάτων βλάπτεσθαι.

Garlic becomes great if it is planted in white soil. This kind of garlic, if eaten, removes tapeworm, stimulates diuresis and, if applied as a poultice and then eaten, it is efficacious for those bitten by a mad dog. If it is burnt and mixed with honey, then spread, it heals black eyes and alopecia. If it is held in the mouth, it calms toothache. With oil and salt, it cures rashes and it is helpful for those who have dropsy. It relieves freckles and impetigo. If garlic is eaten cooked or raw, it is useful against chronic cough and calms arterial pains. It makes the voice clear. If somebody eats garlic, then he will be unhurt by snakes and other poisons. If it is chopped and then applied, it heals those who are injured. It gives benefit if drunk with wine. It is very suitable for those who cannot digest food. It stimulates diuresis, cures nephritis and it prevents from being damaged from non-potable water⁴⁷.

Traditional medical sources⁴⁸: Garlic’s therapeutic properties already appear in *Corpus Hippocraticum*. For example, according to *De diaeta* this plant is warm, excretive, diuretic and purgative, but also good for the body and bad for the eyes;

⁴⁷ The description continues in Cassianus Bassus’ *Geoponica*, XII, 30, 6–9 with some advice to make garlic sweeter or odourless. CASSIANUS BASSUS, XII, 30, 6–9, vol. II, p. 716–717.

⁴⁸ An important source for the use of garlic in ancient medicine is L. TOTELIN, *When Foods Become Remedies in Ancient Greece: The Curious Case of Garlic and Other Substances*, Jeph 167, 2015, p. 30–37.

moreover, when it is boiled, it is weaker than when it is raw⁴⁹. However, Hippocratic authors had different ideas about the properties of this plant: in *De videndi acie* raw garlic is suggested to heal night blindness, whereas in *Epidemiae* a garlic and barley cake is considered a φάρμακον for eye-diseases; it is mentioned in *De natura muliebri* as a cure for displacement of the womb and in *De mulierum affectibus* as a pregnancy test⁵⁰. The same properties are highlighted in Dioscorides' *De materia medica*, where there is the distinction between a cultivated and a wild variety: here garlic is recommended for those bitten by a mad dog, just like in *Geoponica*, and as a remedy for the bite of the shrewmouse⁵¹. This property emerges also in Pliny the Elder's *Naturalis Historia*, and in addition we find the δύναις of garlic helping against dropsy, cough, toothache and, when applied with goose fat, being a cure for ear diseases⁵². Finally, this plant appears in several passages of Marcellus Empiricus' *De medicamentis*, referring to the same properties described in other ancient medical works⁵³.

Folkloric evidence: The continuity of ancient beliefs about garlic can also be observed in folklore. There is some evidence on its use against bites in Abruzzo, where it was placed under the pillow of a new mother to keep snakes away, as we can read in *Tradizioni popolari abruzzesi (Popular traditions of Abruzzo)* by G. Finamore⁵⁴. There is a similar belief in Salento, where people thought that this plant could cure *le punzecchiature degli scorpioni e delle vipere* ('scorpions' [stings] and vipers' bites'), as attested by Saverio La Sorsa (1877–1970)⁵⁵. The δύναις to heal toothache appears in the Sorrentine Peninsula, where applying chopped garlic with vinegar and milk is suggested⁵⁶. In Sicilian folklore it was employed for eye-diseases, bites (especially of spiders, but in general of poisonous insects) and even for *cholera* epidemics during the 19th century⁵⁷. As it emerges from Theophrastus'

⁴⁹ HIPPOCRATES, *De diaeta*, 54, [in:] HIPPOCRATES, *Du régime des maladies aiguës. Appendice. De l'aliment. De l'usage des liquides*, ed. R. JOLY, Paris 1972, p. 51–52.

⁵⁰ HIPPOCRATES, *De natura muliebri*, 6, [in:] HIPPOCRATES, *Generation. Nature of the Child. Diseases 4. Nature of Women, Barrenness*, ed. et trans. P. POTTER, Cambridge, Massachusetts 2012 [= LCL], p. 201. HIPPOCRATES, *Diseases of Women 1–2*, 214, ed. et trans. P. POTTER, Cambridge, Massachusetts 2012 [= LCL], p. 338–340.

⁵¹ DIOSCORIDES, II, 152, vol. I, p. 217–218. Cf. also PIETRO ANDREA MATTIOLI, *Discorsi*, II, 141, p. 587–591, where Mattioli distinguishes the cultivated and wild garlic, defining this last one *serpentino*.

⁵² GAIUS PLINIUS SECUNDUS, XX, 23, vol. III.2, p. 34–39.

⁵³ *Marcelli De medicamentis liber*, IX, 22; XIV, 29–30; XV, 77 and 87; XVI, 48; XXIII, 39; XXVII, 107; XXVIII, 29, ed. et trans. M. NIEDERMANN, E. LIECHTENHAN, Berlin 1968 [= CMLat, 5], p. 170, 236, 258, 260, 282, 402, 480, 492.

⁵⁴ G. FINAMORE, *Tradizioni popolari...*, p. 162.

⁵⁵ S. LA SORSA, *Alberi, piante ed erbe medicinali nella tradizione popolare italiana*, Lar 12.2, 1941, p. 116.

⁵⁶ G. AMALFI, *Tradizioni ed usi...*, p. 64.

⁵⁷ G. PITRÈ, *Medicina popolare...*, p. 253, 276, 351.

*Characters*⁵⁸, since the ancient world garlic was considered a remedy for the evil eye, but this popular belief is still attested in modern folklore: in Greece garlic was used as an amulet against the evil eye or, if it is not at hand, people could exclaim σκόρδο ‘στά μάτια σου’ (‘garlic in your eyes’); likewise, in Calabria, as E. Lelli noted, *si portava addosso uno spicchio d’aglio contro il malocchio* (‘people wore a clove of garlic against the evil eye’), and the same usage is attested in Puglia⁵⁹. Furthermore, it was associated with witches, both in the ancient world and in modern times: Quintus Serenus noticed that the comic playwright Titinius knew that it could be a defence against the black *strix* that attacked *puelli*⁶⁰; similarly, in the contemporary Greek world a wreath of herbs, including garlic, was hung on the door on the first of May to keep evil influence away⁶¹; we find the same belief in Salerno, where garlic should be carried in the pocket during the night of Saint John to protect against witches and demons⁶².

After examining the use of select herbs in *Cyranides* and *Geoponica*, comparing their properties and employment between traditional medical sources and folkloric evidence, we can proceed with another non-traditional medical work, the *Hygromanteia Salomonis*. We will examine other types of vegetable, considering in this case also the influence of astrology in the practice of medicine and magic.

2. The *Hygromanteia Salomonis*

The *Hygromanteia Salomonis* is an astrological-demonological compilation which includes considerations on planets and zodiac signs, and even some exorcisms attributed to king Solomon⁶³. The last two blocks of the astrological material discussed in this work are devoted to the associations of zodiac signs and planets with vegetable species; moreover, Solomon explains when and how to harvest

⁵⁸ THEOPHRASTUS, *Characters*, XVI, 14, ed. et trans. J. DIGGLE, Cambridge 2004 [= LCL, 225], p. 112–113.

⁵⁹ E. LELLI, *Folklore antico...*, p. 52. C. LAPUCCI, A. ANTONI, *La simbologia...*, p. 66. Cf. also S. LA SORSA, *Alberi, piante...*, p. 116 and C. LAPUCCI, *DVP*, 36, [in:] IDEM, *Dizionario dei modi di vivere del passato*, Firenze 1996.

⁶⁰ *Quinti Sereni Liber medicinalis*, 58, ed. F. VOLLMER, Leipzig–Berlin 1916 [= CMLat, 2.3]. For this aspect cf. also L. CHERUBINI, *Strix. La strega nella cultura romana*, Torino 2010, p. 23; D. OGDEN, *The Werewolf in the Ancient World*, Oxford 2021, p. 33.

⁶¹ W.H.D. ROUSE, *Folklore Firstfruits from Lesbos*, Fol 7.2, 1896, p. 146. Cf. also T. BRACCINI, *Prima di Dracula. Archeologia del vampiro*, Bologna 2011, p. 177, where garlic is even associated with vampires, and in particular it was rubbed on the corpses to keep them from becoming vampires.

⁶² F.M. MORESE, *L’eredità degli antenati...*, p. 174–175.

⁶³ There is a tradition according to which Solomon, builder of the homonym temple, was also an astrologer and exorcist. This emerges in the *Hygromanteia Salomonis* and in the *Testament of Solomon*, cf. P.A. TORIJANO, *Solomon the Esoteric King. From King to Magus, Development of a Tradition*, Leiden–New York–Köln 2002 [= JSJ.S, 73].

the plants, how to prepare them and what are their ἐνέργειαι (powers). As Pablo Antonio Torijano highlighted, the medical preparations discussed seem to refer to ‘actual practices of medicinal or magical botany’: consequently, this text could be used as a repository of techniques probably carried out by real practitioners, as well as the exorcisms of the *Testament of Solomon*⁶⁴.

The *Hygromanteia Salomonis* describes first the link between zodiac signs and herbs, and then those involving planets, but it is better to start from the latter part for the sake of clarity. Each planet is connected with a certain plant, and this association is explicable by the characteristics of the planet itself according to Ptolemy’s *Tetrabiblos* or Vettius Valens’ *Anthologies*. For example, concerning Jupiter, Ptolemy explains that this planet has a temperate action since its orbit is halfway between Saturn and Mars, the first being cold and the other burning hot. For this reason, it was classified by the ancients as a cold, masculine and diurnal planet and was assigned the signs of Sagittarius and Pisces, in trine with the luminaries (the Sun and the Moon). Ptolemy states that Jupiter presides over the organs of touch, lungs, arteries and sperm. On the other hand, in Vettius Valens’ *Anthologies* Jupiter relates to abundance – thus is associated with pregnancy, generation, prosperity and abundance of gifts and crops – but it also exemplifies desire, friendship with great men, trust and brotherhood. Jupiter presides over thighs and feet, whereas if the internal body parts are concerned, it rules the sperm, the uterus, the liver and in general the right side of the body⁶⁵.

So far we have clarified the characteristics of Jupiter and we can examine the link between this planet and the herb associated with it, χρυσάγκαθον in the *Hygromanteia Salomonis*⁶⁶. For this purpose, we can take into account the text transmitted by *Monacensis gr. 70* (16th century), which is the oldest version of *Hygromanteia Salomonis*⁶⁷:

Τὸ βότανον τοῦ Διὸς τὸ χρυσάγκαθον· τοῦτο εὐγαλε εἰς τὴν ὥραν, ἐν ἣ κυριεῦει ὁ Ζεὺς, καὶ ὀνόμαζε τοὺς ἀγγέλους καὶ εἰπὲ καὶ τὰς προσευχὰς καὶ ἔχει ἰατρείας φρικτὰς καὶ φοβεράς· τὴν ρίζαν ἐὰν δώσεις φαγεῖν πρωΐας ζ', σεληνιαζομένους ἰαθήσεται· εἰ δὲ δαιμονιζομένῳ δώσεις βαστάζειν μετὰ λιβάνου τὴν ρίζαν, φυγήσεται τὸ δαιμόνιον· τοὺς πίπτοντας ἐκ τοῦ

⁶⁴ *Ibidem*, p. 170.

⁶⁵ PTOLEMY, *Tetrabiblos*, I, 4–7; 18; III, 13, [in:] CLAUDIO TOLOMEO, *Le previsioni astrologiche*, ed. S. FERABOLI, ⁴Milano 1998 (cetera: PTOLEMY), p. 32, 39; 66–69; 246–259. VETTIUS VALENS, *Anthologiae*, I, 1, ed. D. PINGREE, Leipzig 1986, p. 17. The Latin version of *Picatrix*, an Arabic treatise on astrology, only mentions the left ear and the liver; cf. *Picatrix. The Latin Version of the Ghāyat al-Hakīm*, III, 1, ed. D. PINGREE, London 1986, p. 92.

⁶⁶ There are also similar treatises on the connections between planets and plants, transmitted by several manuscripts edited in the *Catalogus Codicum Astrologorum Graecorum*. For these connections cf. G. DUCOURTHIAL, *Flore magique et astrologique de l'antiquité*, Paris–Berlin 2003, p. 267–376; G. FRENI, *Piante, pietre e animali tra magia e astrologia*, *Ac 73.2*, 2020, p. 53–70.

⁶⁷ P.A. TORIJANO, *Solomon the Esoteric King...*, p. 161–162.

πάθους και ἀφρίζοντας, πότιζε τὴν ρίζαν μετὰ λουλακίου και παραυτικά ιαθήσεται. ἐκ δὲ τῶν φύλλων τρίψας λάβε τὸν ὀπὸν και ἀλειψον τομάς και κρούσματα ξιφῶν και πληγὰς. και διὰ ἡ΄ ὠρῶν θεραπεύσεις, τὴν δὲ κεφαλὴν τοῦ βοτάνου ἐὰν δώσης βαστάσαι, ἀνὴρ οὐ φοβηθήσεται πειραθῆναι ὑπὸ μαγίων. εἰ δὲ ἐστὶν ἀνθρώπος και πάσχει ἐκ φαρμακοποσίῳ, ἐπίδος ἐπὶ τὴν κεφαλὴν τῆς βοτάνης πίνειν μετὰ ὕδατος και μέλιτος και ιαθήσεται.

The plant of Jupiter is the *chryságkathon*. Pick it up in the hour when Zeus dominates, invoke the angels, recite the prayers and it presents extraordinary and formidable healings. If you make someone eat the root at the seventh hour of the morning, it will cure epilepsy; if you give the root with incense to someone who is possessed by a demon and he carries it, the demon will flee. Make those who fall due to the suffering and those who foam drink the root with *loylákion* and they will heal immediately. Grind the leaves, take the juice and anoint the cuts, the injuries caused by a sword and the wounds and you will cure them in eighteen hours. If you give the extremity of the plant to someone and he carries it, he will not be afraid to be tested by incantations. If someone suffers because of a potion, make him drink immediately the extremity of the plant with water and honey and he will be healed⁶⁸.

As it emerges from this passage, χρυσάγκαθον can have extraordinary and formidable healing properties if picked up in the hour in which Jupiter is dominant and if some invocations and prayers are pronounced. The plant can cure epileptics, those possessed by a demon and those who foam at their mouths, but also heals wounds and injuries; it even protects from incantations and is a remedy for poisoning. However, *Monacensis gr. 70* is not the only manuscript which indicates the connection between planets and herbs. Another remarkable testimony of this section of *Hygromanteia Salomonis* is the so-called *Petropolitanus* of the Palaeographic Museum of Russian Academy of Sciences (17th century⁶⁹). This species is defined there as χρυσάκανθος or ἀλχαράνιος, suggesting to collect it when Jupiter dominates, on the seventh day at the first hour, reciting the planet’s prayer. Among the recipes given, there is a remedy for eye-diseases:

τὴν ρίζαν αὐτῆς σμιζον μετὰ χελιδονίου, τρίψον, ἀνάλυσον και βάλε μετὰ ὕδατος νύκτας τρεῖς εἰς τὸν ἀέρα και τότε ἀλειψε τοὺς ὀφθαλμοὺς και ποτε οὐ μὴ τυφλανθοῦν, οἶον ἐξ ἀνθρώπου πληγαίς, και ἰάσει τοῦτον· βλέψει ὥστε θαυμάσεις.

Mix the root of *chrysákanthos* with celandine, then grind, dissolve and leave with water in the open air for three nights and anoint your eyes, they will not be blind; it will cure who is beaten by a man; see and you will be amazed⁷⁰.

⁶⁸ *Hygromanteia Salomonis, excerptum e cod. Monacensi gr. 70*, fol. 252r, [in:] *Catalogus Codicum Astrologorum Graecorum*, vol. VIII.2, ed. J. HEEG, Bruxelles 1911, p. 162–163.

⁶⁹ This manuscript transmits the part of *Hygromanteia Salomonis* related to planetary plants and that of *Testament of Salomon* dedicated to decans; cf. P.A. TORIJANO, *Solomon the Esoteric King...*, p. 159.

⁷⁰ The text of the *Petropolitanus* is edited in A. DELATTE, *Le traité des plantes planétaires d’un manuscrit de Léningrad*, [in:] *Mélanges en l’honneur de H. Grégoire*, Bruxelles 1949, p. 167.

Furthermore, χρυσάκανθος is recommended for belly pains or nerve paralysis, but also for non-medical uses such as being successful in embarking on a journey or being invincible in court. Concerning other testimonies, as Iannnis Marathakis explained, this section of *Hygromanteia Salomonis* is attested in such manuscripts as *Harleianus* 5596 – which mentions only the plants associated with the Sun and Saturn – or the *Gennadianus* 45 of the Gennadius Library of Athens (16th century) and the *Bernardaceus* of the private library of the Bernardakedes (19th century)⁷¹. Likewise, there are further works devoted to the relationship between herbs and planets and, according to Armand Delatte, we can distinguish five different treatises, only two of which probably connected with the *Hygromanteia Salomonis*⁷². Finally, we can recall the *Additional manuscript* 17 900 of the British Library in London, which includes a treatise attributed to Alexander the Great: even if this work is not strictly linked with *Hygromanteia Salomonis*, it is useful to understand the circulation of such medical-astrological beliefs in the ancient and Byzantine world. Friedrich Pfister defined this treatise *Alexandertext* and distinguished the version *Peristereontext* from the *Mandragoratext*, depending on the attribution of περιστερεών and μανδραγόρα to Aphrodite/Venus, but also on the distinction between σαγχαρώνιον and ύσσύαμος as the plants connected with Zeus/Jupiter⁷³.

The identification of χρυσάκανθος and άλχαράνιος, which appear in astrological treatises, was discussed for a long time. Scholars have proposed that this species corresponds to *Hyoscyamus* L. and, in particular, it seems that άλχαράνιος is a deformation of σαγχαρώνιον. This hypothesis seems confirmed by two astrological texts, included in *Parisinus* gr. 2256 and *Neapolitanus* II.C. 33. The Jupiter's herbs there are named respectively σαγχαρώνιον and άλχαράνιος, but they have the same properties: the root heals inguinal tumours, the liver and those who suffer from gout; if used as an amulet, the root has an aphrodisiac power⁷⁴. These prescriptions may suggest that both names refer to the same herb. Pseudo Apuleius' *Herbarium* confirms the identification with *Hyoscyamus* L.: when mentioning the *herba simfoniaca*, it is explained that *A Graecis dicitur iosciamum* (Greeks define it *iosciamum*), but according to some manuscripts prophets call it *saccanaron*⁷⁵.

⁷¹ For the *Gennadianus* cf. A. DELATTE, *Un nouveau témoin de la littérature solomonique, le Codex Gennadianus 45 d'Athènes*, BCLSM 45, 1959, p. 280–321.

⁷² I. MARATHAKIS, *The Magical Treatise of Solomon or Hygromanteia also called Apolesmatikē Pragmateia, Epistle to Rehoboam*, Singapore 2011, p. 81–83.

⁷³ F. PFISTER, *Pflanzenaberglaube*, [in:] *RE*, vol. XIX.2, col. 1446–1456, in particular col. 1450–1451; M.T. SANTAMARÍA HERNÁNDEZ, *Testimonios de una traducción latina antigua del Liber Alexandri Magni de septem herbis septem planetarum en el Herbario de Pseudo Apuleyo*, *Gal* 4, 2010, p. 149–161.

⁷⁴ *Excerptum e cod. Parisino* gr. 2256, fol. 582v, [in:] *Catalogus Codicum Astrologorum Graecorum*, vol. VIII.3, ed. P. BOUDREAUX, Bruxelles 1912, p. 160–161. *Excerptum e cod. Neapolitano* II.C. 33, fol. 387v, [in:] *Catalogus Codicum Astrologorum Graecorum*, vol. IV, ed. D. BASSI, F. CUMONT, E. MARTINI, A. OLIVIERI, Bruxelles 1903, p. 135–136.

⁷⁵ In particular, in *Vratislaviensis bibl. univ.* III F 19 and in *Vindobonensis* 93 we can read *prophetiae saccanaron*. Cf. *Pseudoapulei Herbarius*, IV, ed. E. HOWALD, H.E. SIGERIST, Leipzig–Berlin 1927

As Guy Ducourthial pointed out, *iosciamum* and *saccanaron* could represent the Latinized form for χρυσάκανθος and σαγχαρώνιον⁷⁶. But there is even more evidence to support that claim: ἀλχαράνιος or σαγχαρώνιον seems related to the Arabic term *al-saykarān*, which indicates both henbane and hemlock, whereas *shawkarān* is the name of hemlock, denoting again the difficulty in the identification⁷⁷. Finally, ὕσκάμος, as claimed by Dioscorides’ *De materia medica (recensio vetus)*, was called by some Διὸς κύαμος: this links it with Zeus and, consequently, with the planet Jupiter⁷⁸.

Having verified the identification with the *Hyoscyamus* L., generally known as henbane, we can analyse the ancient medical sources and the folkloric evidence on this plant. There are many varieties of henbane, for example the black (*Hyoscyamus niger* L.), the golden (*Hyoscyamus aureus* L.), the white (*Hyoscyamus albus* L.), the one from Egypt (*Hyoscyamus muticus* L.) and the lattice henbane (*Hyoscyamus reticulatus* L.)⁷⁹. However, already in the ancient world several varieties of this plant were distinguished.

Hippocrates gives some information on the δυνάμεις of henbane, mentioning its employ for uterus diseases, tetanus, fevers or sterility⁸⁰. Dioscorides talks about three species, *i.e.* one with purple flowers and a black seed, another with quince-yellow flowers and yellow seed and the last one with white flowers and seed. It is clarified that the first two cause madness, are soporific and difficult to use, whereas the third one is suitable for treatments. If the white variety is unavailable, the henbane with the yellow seed was preferred over the black seed variety. Its juice has analgesic properties and is beneficial for rheum, earaches, uterus’ ailments, eye-disease, feet and in general for inflammations. The seed can be used for the same purposes, but it is even employed for female flow, gout, swollen testicles and breasts. The leaves are analgesics, especially the fresh ones if applied

[= CMLat, 4], p. 33. Cf. also M.T. SANTAMARÍA HERNÁNDEZ, *Testimonios...*, p. 159–160, where there is a comparison between the *herba simfoniaca* in Pseudo Apuleius’ *Herbarium* and the *excerptum* from *Parisinus gr.* 2256. Other synonyms of this species can be found in B. LANGKAVEL, *Botanik Der Spaeteren Griechen*, Berlin 1866, p. 52.

⁷⁶ G. DUCOURTHIAL, *Flore magique...*, p. 328–329.

⁷⁷ MARWĀN IBN JANĀH, *On the Nomenclature of Medicinal Drugs (Kitāb al-Talkhīs)*. Edition, Translation and Commentary, with Special Reference to the Ibero-Romance Terminology, vol. I–II, ed. et trans. G. BOS, F. KĀS, M. LÜBKE, G. MENSCHING, Leiden–Boston 2020 [= IHC, 170], p. 309, 816. For the Arabic terms which indicate henbane cf. also F. STEINGASS, *A Comprehensive Persian-English Dictionary, Including the Arabic Words and Phrases to Be Met with in Persian Literature*, ⁵London 1963, p. 716; M. HINDS, E. BADAWI, *A Dictionary of Egyptian Arabic*, Beirut 1986, p. 419.

⁷⁸ DIOSCORIDES, IV, 68, vol. II, p. 224. In general, for the denominations of this plant cf. also F. GAIDE, *La jusquiame dans l’Antiquité romaine. Réflexions méthodologiques sur la lecture et l’appréciation des textes médicaux latins*, [in:] *La transmission des connaissances techniques. Tables rondes Aix-en-Provence, avril 1993-mai 1994*, ed. M.C. AMOURETTI, G. COMET, Aix-en-Provence 1995, p. 115–126.

⁷⁹ G. DUCOURTHIAL, *Flore magique...*, p. 329.

⁸⁰ *Oeuvres Complètes D’Hippocrates*, ed. E. LITTRÉ, Paris 1839–1861, vol. VII, p. 60, 298, 392; VIII, p. 314, 360, 380, 434.

as a plaster; if three or four of them are drunk with wine, they heal fever; if a bowl of leaves is boiled and eaten, they cause delirium. Finally, the root boiled with vinegar is efficacious for toothache⁸¹. Pliny generally discusses the same properties, but he talks about four varieties: in addition to the ones found in Dioscorides' *De materia medica*, there is a species whose seed seems that of the *irio*. Concerning the dangerousness of this plant, Pliny mentions a remedy for those who drunk henbane's juice, explaining that the juice itself was a remedy⁸². Galen distinguishes different seeds, recognizing that henbane can provoke madness and including it in the so-called φάρμακα δηλητήρια⁸³. Even Oribasius recommends white henbane, noting that the black one can cause madness and admitting the perilousness of the yellow one: for this reason, people should avoid these two varieties, preferring the white henbane⁸⁴. All things considered, these medical sources point out the toxicity of this plant⁸⁵, especially the black variety as we can read in Dioscorides and Oribasius, and there were also some remedies for its dangerousness as Pliny notes in his *Naturalis Historia*⁸⁶. Finally, Alexander of Tralles suggests to unearth henbane when the moon is on the sign of Aquarius or Pisces, before sunset, but without touching the root of the plant; after reciting some formulas, the extremity should be applied to those who suffer⁸⁷.

As Ducourthial stated⁸⁸, henbane still is considered toxic today and there is some folkloric evidence in this regard. The folklorist Anselmo Calvetti (1924–2016) highlighted that this plant is cultivated in Europe and has different effects depending on its doses: in small doses it can cause sleep, but in large doses it is employed in popular medicine against neuralgia; smoked like cigarettes, the leaves can cure asthma and are used in powder form as a hypnotic⁸⁹. As Valentino Oster-

⁸¹ DIOSCORIDES, IV, 68, vol. II, p. 224–227. Cf. also PIETRO ANDREA MATTIOLI, *Discorsi*, IV, 64, p. 1118–1121, where three varieties are distinguished basing on their seed (black, red, white) and the black one is considered poisonous.

⁸² GAIUS PLINIUS SECUNDUS, XXV, 17, vol. III.2, p. 640–643. Concerning the other properties of this plant, cf. GAIUS PLINIUS SECUNDUS, XXII, 58; XXIII, 49; XXV, 58, 91, 103, 105; XXVI, 15, 58, 64, 66, 90, vol. III.2, p. 332–333; 410–411; 680–681; 698–699; 710–711; 736–737; 768–769; 774–775; 766–767; 800–801.

⁸³ GALENUS, *De simplicium medicamentorum temperamentis ac facultatibus libri XI*, IX, 18 and 20, 4, [in:] *Claudii Galeni...*, vol. XI, p. 596; XII, p. 147–148. For other uses and properties of this plant, cf. *Claudii Galeni...*, vol. X, p. 920; XI, p. 879; XVII A, p. 904; XVII B, p. 331.

⁸⁴ *Oribasii Collectionum medicarum reliquiae*, XV, 1, vol. II, ed. J. RAEDER, Leipzig–Berlin 1929 [= CMG], p. 279.

⁸⁵ Cf. A. BARTNIK, *Lulek czarny i jego zastosowanie w starożytnej medycynie i weterynarii*, SAMAI 2, 2017, p. 103–117.

⁸⁶ GAIUS PLINIUS SECUNDUS, XX, 13; XXII, 52, vol. III.2, p. 18–19; 324–325.

⁸⁷ ALEXANDER TRALLIANUS, *Libri duodecim De re medicina*, [in:] ALEXANDER VON TRALLES, vol. II, ed. T. PUSCHMANN, Wien 1878–1879 (cetera: ALEXANDER TRALLIANUS), p. 585.

⁸⁸ G. DUCOURTHIAL, *Flore magique...*, p. 332.

⁸⁹ A. CALVETTI, *Piròn Pirbors Piri Pipeta*, Lar 55.1, 1989, p. 80. Cf. also F. CORTESI, A. BENEDECENTI, *Giusquiamo*, [in:] *Enciclopedia Italiana*, Roma 1933, <https://www.treccani.it/enciclopedia/giusquiamo>

-mann (1841–1904) noticed, in Friuli the root, chopped with that of hellebore, was applied on the legs for rheumatic and sciatic pains; its poisonous property is also recognized, noting that the most frequent poisoning in the 19th century were caused by henbane, atropa belladonna, hemlock etc. and the only remedy was vomiting, drinking water with salt, eating lemons or cedars and drinking decoctions of vincetossico. Henbane was used for toothache and, referring to this prescription, Ostermann names it *erbe di Santa Polonia*⁹⁰. Likewise, in Abruzzo this herb, and especially its oil, was employed in curing rheumatic pains, toothache, carbuncle, boils and sores⁹¹. In Sicily this species is called *erva grassudda*, suitable for removing lice, curing skin inflammations and decaying teeth⁹².

After examining the association between Jupiter and henbane in *Hygromanteia Salomonis* – and the continuity of henbane’s beliefs – we can describe the herbs of the two zodiac signs associated with this planet⁹³. Sagittarius and Pisces were considered windy, fruitful and in trine with the luminaries, so they had a harmonic and beneficial aspect⁹⁴. Concerning Sagittarius, the *Hygromanteia Salomonis* connects the ἀνακάρδιος with this sign, giving some prescriptions for the collection (ταύτην ἔπαρον, ὅταν τὸ ζῳδιὸν ὁ Τοξότης κυριεύει, ‘pick it up when the sign of Sagittarius is dominant’) and talking about some magico-medical properties of the plant: for example, the leaves can cure itchy inflammations and kidney pain, whereas the root brings luck and happiness⁹⁵. As G. Ducourthial highlighted, it is difficult to identify this species and, consequently, to trace folkloric evidence. Unknown to Theophrastus, Dioscorides and Pliny, the ἀνακάρδιος only appears in certain preparations mentioned by Paul of Aegina and Alexander of Tralles, but

amo_%28Enciclopedia-Italiana%29/#:~:text=GIUSQUIAMO%20(dal%20lat.,Europa%2C%20Asia%20e%20Africa%20settentrionale [15 III 2023]. The hypnotic property already emerges in ancient and Byzantine sources, not only for henbane, but also for other species belonging to *Solanaceae* family like mandragoras, atropa belladonna, opium; cf. I.A. RAMOUTSAKI, H. ASKITOPOULOU, E. KONSOLAKI, *Pain Relief and Sedation in Roman Byzantine Texts: Mandragoras Officinarum, Hyoscyamos Niger and Atropa Belladonna*, [in:] *The History of Anesthesia. Proceedings of the Fifth International Symposium on the History of Anesthesia, Santiago, Spain, 19–23 September 2001*, ed. J.C. DIZ, A. FRANCO, D.R. BACON, J. RUPERTH, J. ALVAREZ, Amsterdam 2002, p. 43–50.

⁹⁰ V. OSTERMANN, *La vita in Friuli...*, p. 186, 412, 423, 427.

⁹¹ G. FINAMORE, *Tradizioni popolari...*, p. 121, 127, 130, 154, 191.

⁹² G. PITRÈ, *Medicina popolare...*, p. 30, 217, 239. In general cf. also C. LAPUCCI, A. ANTONI, *La simbologia...*, p. 221–223.

⁹³ In addition to the one in *Hygromanteia Salomonis*, there is another treatise on the connection between plants and Zodiac signs, transmitted by *Parisinus gr.* 2256, fol. 588v–592v; cf. P. BOUDREAU, *Catalogus Codicum...*, vol. VIII.3, p. 139–151. As Marathakis noted, this work is attributed to Harpocratio and has no relation with the *Hygromanteia Salomonis*; a Latin version of this treatise was published in 1528 as an appendix to Pseudo Apuleius’ *Herbarium*; cf. I. MARATHAKIS, *The Magical Treatise...*, p. 80.

⁹⁴ PTOLEMY, I, 18, p. 66–69.

⁹⁵ *Hygromanteia Salomonis, excerptum e cod. Monacensi gr.* 70, fol. 250v, [in:] J. HEGG, *Catalogus Codicum...*, vol. VIII.2, p. 161.

the plant itself is not described⁹⁶; some late antique glossaries identify it with an Indian species⁹⁷. Finally, the *Cyranides*, when talking about the plant called *μορέα*, explains that *ἀνακάρδιον* refers to the direction of the small branches (*ἀνακάρδιος*, with upward branches; *κατακάρδιον*, with downward branches)⁹⁸.

Instead, the plant associated with *Pisces* in the *Hygromanteia Salomonis* is the *ἀριστολογία*: its fruit, drunk with wine, drives away all diseases; its root, after a fumigation, is successful against demons, diseases and calamities⁹⁹. According to Dioscorides the phytonym comes from the usefulness for women during childbirth (*ὠνόμασται μὲν ἀπὸ τοῦ δοκεῖν ἄριστα βοηθεῖν ταῖς λοχοῖς*, ‘it is defined from the belief that is excellent for women during childbirth’). Then three varieties are distinguished: a feminine one, excellent for poisons; however, to treat snake or deadly the masculine variety is preferred, which is also suitable for pregnant women; the third species (*κληματίτις*) has the same properties but is less powerful¹⁰⁰. Pliny the Elder shows the same etymology for *aristolochia*, connecting it with *ἀρίστη λεχούσαις* (good for pregnant women); however, in *Naturalis Historia* four species are distinguished, the first three yellowish in colour, with a small stem and purple leaves, and the fourth one, which is very thin. Pliny explains that if the second variety (the masculine, which is long), is eaten with beef after conception, it will result in a male child being born; moreover, the fishermen of Campania thought that the one with a round root (the feminine), mixed with lime and thrown into the sea, allowed to fish more easily (*Piscatores Campaniae radicem eam quae rotunda est uenenum terrae uocant coramque nobis contusam mixta calce in mare sparsere. Aduolant pisces cupiditate mira statimque exanimati fluitant*. ‘Fishers from Campania call the round root poison of the earth and, I am a witness, they throw it on the sea, chopped and mixed with lime. Fish come quickly with extraordinary greed and immediately float dead’)¹⁰¹. Finally, both the masculine and the feminine varieties are mentioned in Nicander’s *Theriaká*, where *ἀριστολογία* is considered a remedy for the vipers’ venom¹⁰². However, these different usages

⁹⁶ PAULUS AEGINETA, *Libri V–VII*, VII, 11, 38–39, ed. J. HEILBERG, Leipzig–Berlin 1924 [= CMG, 9.2], p. 307. ALEXANDER TRALLIANUS, vol. II, p. 283.

⁹⁷ For these glossaries cf. for example the one edited by A. DELATTE, *Le lexique du botanique du Parisinus graecus 2419*, Serta Leodiensia ad celebrandam patriae libertatem iam centesimum annum recuperatam composuerunt philologi leodienses, Liège 1930, p. 59–101; in particular cf. p. 70 and 84. In general, G. DUCOURTHIAL, *Flore magique...*, p. 441, p. 577 notes 184–186.

⁹⁸ *Cyranides*, I, 12, p. 71.

⁹⁹ *Hygromanteia Salomonis, excerptum e cod. Monacensi gr. 70*, fol. 251r, [in:] J. HEGG, *Catalogus Codicum...*, vol. VIII.2, p. 162. The same plant appears in the treatise transmitted by *Parisinus gr. 2256*; cf. P. BOUDREAUX, *Catalogus Codicum...*, vol. VIII.3, p. 149–151.

¹⁰⁰ DIOSCORIDES, III, 4, vol. III, p. 6–8.

¹⁰¹ GAIUS PLINIUS SECUNDUS, XXV, 54, vol. III.2, p. 674–677.

¹⁰² NICANDER, *Theriaká*, 509–519, [in:] NICANDRO, *Theriaká e Alexiphármaka*, ed. et trans. G. SPATAFORA, Roma 2007, p. 70–73.

still emerge in modern folklore, revealing again a continuity of ancient beliefs. For example, the connection to pregnancy has been found by E. Lelli in the Apulian folklore: in fact, an interviewed person from this region affirmed that this plant *serviva come amuleto per le partorienti* (‘it was used as an amulet for pregnant women’). On the other hand, the association with fishing recalls the sign of Pisces itself: it is remarkable that this characteristic appears in the area of former Greek influence, in particular in Calabria, where the belief on the poisonous property is also alive¹⁰³.

Reaching towards conclusions, we can recognize that *Cyranides* and *Geoponica* on the one side, and *Hygromanteia Salomonis* on the other are three works that illustrate the existence of a knowledge different from that of traditional medical sources. These compilations are not strictly devoted to medicine, since they concern distinctive field of knowledge in which medicine is included. Except for the fifth book of *Cyranides*, dedicated to the therapeutic uses of the 24 vegetable species, *Geoponica* and *Hygromanteia Salomonis* are not just meant to examine how to employ herbs as φάρμακα, but also to give prescriptions in different fields of knowledge: *Geoponica* mainly relates to agricultural and peasant wisdom, which involves the practice of collecting and taking advantage of herbs’ characteristics and properties in the medical practice; the *Hygromanteia Salomonis*, however, is an astrological-demonological compilation on astrological questions. Therefore, the therapeutic usage of plants is not the primary aim of these works: nonetheless, it is an important section of all these compilations and, as we have seen, the comparison with traditional medical sources permits to hypothesise the existence of a parallel non-traditional medicine, intersected with the scientific one¹⁰⁴. The comparison with such authors as Hippocrates, Dioscorides or Galen allows to have a broad view of the properties of certain plants – some of which are common, like the soporific action of lettuce, henbane and hemlock – and to retrace its uses in ancient and modern beliefs. In fact, the species analysed are still attested in several regions of Italy, but also in Greece, for their medical and magical use. Peasant knowledge or astrological principles are still alive today, especially in the countryside, sometimes recorded by our ancestors and handed down from generation to generation. Maybe on a summer evening, when grandparents tell their ancient remedies to children, thinking that one day they will do the same.

¹⁰³ E. LELLI, *Folklore antico...*, p. 61–62, 242.

¹⁰⁴ For the perception of science in the ancient and Byzantine world, cf. S. LAZARIS, *Introduction*, [in:] *A Companion...*, p. 1–26.

Bibliography

Primary Sources

- L'agricoltura antica. I Geoponica di Cassiano Basso*, ed. et trans. E. LELLI, Soveria Mannelli 2010.
- ALEXANDER VON TRALLES, vol. I–II, ed. T. PUSCHMANN, Wien 1878–1879.
- APOLLONIO RODIO, *Le argonautiche*, ed. et trans. G. PADUANO, ⁴Milano 2016.
- Athenaei Naucraticae Dipnosophistarum Libri XV*, ed. G. KAIBEL, Leipzig 1887 [= Bibliotheca scriptorum Graecorum et Romanorum Teubneriana].
- CALLIMACHUS, ed. R. PFEIFFER, Oxford 1959.
- Catalogus Codicum Astrologorum Graecorum*, vol. IV, ed. D. BASSI, F. CUMONT, E. MARTINI, A. OLIVIERI, Bruxelles 1903.
- Catalogus Codicum Astrologorum Graecorum*, vol. VIII.2, ed. J. HEEG, Bruxelles 1911.
- Catalogus Codicum Astrologorum Graecorum*, vol. VIII.3, ed. P. BOUDREAUX, Bruxelles 1912.
- CELSUS, *De medicina*, vol. I–III, ed. et trans. W.G. SPENCER, ³Cambridge, Massachusetts 1960–1961 [= Loeb Classical Library].
- Claudii Galeni opera omnia*, ed. K.G. KÜHN, Leipzig 1821–1833.
- CLAUDIO TOLOMEO, *Le previsioni astrologiche*, ed. S. FERABOLI, ⁴Milano 1998.
- I discorsi di M. Pietro Andrea Matthioli sanese, medico cesareo, et del serenissimo principe Ferdinando archiduca d'Austria etc. nelli sei libri di Pedacio Discoride Anazarbeo della materia Medicinale*, Venezia 1568.
- EURIPIDES, *Medea*, ed. D.L. PAGE, ²Oxford 2001.
- GAIO PLINIO SECONDO, *Storia naturale*, ed. et trans. G.B. CONTE, Torino 1982–1988.
- HIPPOCRATES, *Diseases of Women 1–2*, ed. et trans. P. POTTER, Cambridge, Massachusetts 2012 [= Loeb Classical Library].
- HIPPOCRATES, *Du régime des maladies aiguës. Appendice. De l'aliment. De l'usage des liquides*, ed. R. JOLY, Paris 1972.
- HIPPOCRATES, *Generation. Nature of the Child. Diseases 4. Nature of Women, Barrenness*, ed. et trans. P. POTTER, Cambridge, Massachusetts 2012 [= Loeb Classical Library].
- Die Kyraniden*, ed. D. KAIMAKIS, Meisenheim am Glan 1976 [= Beiträge zur klassischen Philologie, 76].
- Marcelli De medicamentis liber*, ed. et trans. M. NIEDERMANN, E. LIECHTENHAN, Berlin 1968 [= Corpus Medicorum Latinorum, 5].
- MARZIALE, *Epigrammi*, ed. et trans. M. SCÀNDOLA, ⁴Milano 2015.
- NICANDRO, *Theriaká e Alexiphármaka*, ed. et trans. G. SPATAFORA, Roma 2007.
- Nikolaos Myrepsos' Dynameron*, ed. I. VALLAKOS, Heidelberg 2020.
- Oeuvres Completes D'Hippocrates*, ed. E. LITTRÈ, Paris 1839–1861.
- OMERO, *Odissea*, ed. et trans. V. DI BENEDETTO, Milano 2010.
- Oribasii Collectionum medicarum reliquiae*, vol. II, ed. J. RAEDER, Leipzig–Berlin 1929 [= Corpus Medicorum Graecorum].
- PAULUS AEGINETA, *Libri V–VII*, ed. J. HEILBERG, Leipzig–Berlin 1924 [= Corpus Medicorum Graecorum, 9.2].
- Pedanii Dioscuridis Anazarbei De Materia Medica*, ed. M. WELLMANN, Berlin 1907–1914.

- Picatrix. The Latin Version of the Ghāyat al-Ḥakīm*, ed. D. PINGREE, London 1986.
- PLATO, *Theaetetus*, ed. et trans. F. FERRARI, Milano 2011.
- Poetae Comici Graeci*, vol. V, ed. R. KASSEL, C. AUSTIN, Berlin–New York 1986.
- Pseudoapulei Herbarius*, ed. E. HOWALD, H.E. SIGERIST, Leipzig–Berlin 1927 [= *Corpus Medicorum Latinorum*, 4].
- Quinti Sereni Liber medicinalis*, ed. F. VOLLMER, Leipzig–Berlin 1916 [= *Corpus Medicorum Latinorum*, 2.3].
- Scribonii Largi Compositiones*, ed. S. SCONOCCHIA, Berlin 2020 [= *Corpus Medicorum Latinorum*, 2.1].
- THEOPHRASTUS, *Characters*, ed. et trans. J. DIGGLE, Cambridge 2004 [= *Loeb Classical Library*, 225], <https://doi.org/10.4159/DLCL.theophrastus-characters.2003>
- THEOPHRASTUS, *Enquiry into Plants. And Minor Works on Odours and Weather Signs*, ed. et trans. A. HORT, London–New York 1916 [= *Loeb Classical Library*], <https://doi.org/10.5962/bhl.title.162657>
- Theriaca et Alexipharmaca*, ed. O. SCHNEIDER, Lipsiae 1856.
- VETTIUS VALENS, *Anthologiae*, ed. D. PINGREE, Leipzig 1986.

Secondary Literature

- AMALFI G., *Tradizioni ed usi della penisola sorrentina*, Palermo 1890.
- ANDORLINI I., MARCONE A., *Medicina, medico e società nel mondo antico*, Firenze 2004.
- BARTNIK A., *Lulek czarny i jego zastosowanie w starożytnej medycynie i weterynarii*, “SAMAI. Studia Antiquitatis et Medii Aevis incohantis” 2, 2017, p. 103–117.
- BRACCINI T., *Prima di Dracula. Archeologia del vampiro*, Bologna 2011.
- CALVETTI A., *Piròn Pirbors Piri Pipeta*, “Lares. Quadrimestrale di studi demoetnoantropologici” 55.1, 1989, p. 73–91.
- CATTABIANI A., *Florario. Miti, leggende e simboli di fiori e piante*, Milano 1996.
- CHERUBINI C., *Strix. La strega nella cultura romana*, Torino 2010.
- CLARKE J.H., *Dictionary of Practical Materia Medica*, vol. II, New Delhi 1995.
- CORTESI F., BENEDICENTI A., *Giusquiamo*, [in:] *Enciclopedia Italiana*, Roma 1933, [https://www.treccani.it/enciclopedia/giusquiamo_%28Enciclopedia-Italiana%29/#:~:text=GIUSQUIAMO%20\(dal%20lat.,Europa%2C%20Asia%20e%20Africa%20settentrionale](https://www.treccani.it/enciclopedia/giusquiamo_%28Enciclopedia-Italiana%29/#:~:text=GIUSQUIAMO%20(dal%20lat.,Europa%2C%20Asia%20e%20Africa%20settentrionale) [15 III 2023].
- DE GUBERNATIS A., *La mythologie des plantes*, vol. II, Paris 1882.
- DELATTE A., *Le lexique du botanique du Parisinus graecus 2419*, Serta Leodiensia ad celebrandam patriae libertatem iam centesimum annum recuperatam composuerunt philologi leodienses, Liège 1930, p. 59–101.
- DELATTE A., *Le traité des plantes planétaires d'un manuscrit de Léningrad*, [in:] *Mélanges en l'honneur de H. Grégoire*, Bruxelles 1949, p. 145–177.
- DELATTE A., *Un nouveau témoin de la littérature solomonique, le Codex Gennadianus 45 d'Athènes*, “Bulletin de la Classe des lettres et des sciences morales et politiques, Académie royale de Belgique” 45, 1959, p. 280–321.
- DETIENNE M., *The Gardens of Adonis. Spices in Greek Mythology*, ²Princeton 1994.
- DU COURTHIAL G., *Flore magique et astrologique de l'antiquité*, Paris–Berlin 2003.
- FINAMORE G., *Tradizioni popolari abruzzesi*, Torino–Palermo 1894.

- FRENI G., *Piante, pietre e animali tra magia e astrologia*, "Acme" 73.2, 2020, p. 53–70.
- GAIDE F., *La jusquiame dans l'Antiquité romaine. Réflexions méthodologiques sur la lecture et l'appréciation des textes médicaux latins*, [in:] *La transmission des connaissances techniques. Tables rondes Aix-en-Provence, avril 1993 – mai 1994*, ed. M.C. AMOURETTI, G. COMET, Aix-en-Provence 1995, p. 115–126.
- GUIGNARD C., *Sources et constitution des Géoponiques à la lumière des versions orientales d'Anatolius de Béryte et de Cassianus Bassus*, [in:] *Die Kestoi des Julius Africanus und ihre Überlieferung*, ed. M. WALLRAFF, L. MECELLA, Berlin–New York 2009 [= *Texte und Untersuchungen zur Geschichte der altchristlichen Literatur*, 165], p. 243–344, <https://doi.org/10.1515/9783110219593.243>
- HARRIS W.H., *Popular Medicine in the Classical World*, [in:] *Popular Medicine in Graeco-Roman Antiquity. Explorations*, ed. W.H. HARRIS, Leiden–Boston 2016 [= *Columbia Studies in the Classical Tradition*, 42], p. 1–64, https://doi.org/10.1163/9789004326040_002
- HARRIS W.H., *Preface*, [in:] *Popular Medicine in Graeco-Roman Antiquity. Explorations*, ed. W.H. HARRIS, Leiden–Boston 2016 [= *Columbia Studies in the Classical Tradition*, 42], p. VII–VIII, <https://doi.org/10.1163/9789004326040>
- HINDS M., BADAWI E., *A Dictionary of Egyptian Arabic*, Beirut 1986.
- KLEINMAN A., *Patients and Healers in the Context of Culture. An Exploration of the Borderland Between Anthropology, Medicine, and Psychiatry*, Berkeley 1980 [= *Comparative Studies of Health Systems and Medical Care*, 5], <https://doi.org/10.1525/9780520340848>
- KODER J., *Fresh Vegetables for the Capital*, [in:] *Constantinople and its Hinterland. Papers from the Twenty-seventh Spring Symposium of Byzantine Studies, Oxford, April 1993*, ed. C. MANGO, G. DAGRON, London 1995, p. 49–56.
- KODER J., *Gemüse in Byzanz. Die Frischgemüseversorgung Konstantinopels im Lichte der Geoponika*, Vienna 1993.
- KRIARAS E., *Lexikó tēs Mesaionikēs Ellēnikēs Dimōdous Grammateías, 1100–1669*, vol. IX, Thessalonikē 1985.
- LA SORSA S., *Alberi, piante ed erbe medicinali nella tradizione popolare italiana*, "Lares. Quadrimestrale di studi demoetnoantropologici" 12.2, 1941, p. 99–129.
- LANGKAVEL B., *Botanik Der Spaeteren Griechen*, Berlin 1866.
- LAPUCCI C., *Dizionario dei modi di vivere del passato*, Firenze 1996.
- LAPUCCI C., ANTONI A.M., *La simbologia delle piante. Magia, leggende, araldica e curiosità del mondo vegetale*, Firenze 2016.
- LAZARIS S., *Introduction*, [in:] *A Companion to Byzantine Science*, ed. S. LAZARIS, Leiden–Boston 2020 [= *Brill's Companions to the Byzantine World*, 6], p. 1–26, https://doi.org/10.1163/9789004414617_002
- LELLI E., *Calabria antica e moderna*, Athens 2021.
- LELLI E., *Folklore antico e moderno*, Roma 2012.
- LIDDELL H., SCOTT R., JONES H.S., *The Online Liddell-Scott-Jones Greek-English Lexicon*, <https://stephanus.tlg.uci.edu/ljsj/#eid:1=undefined&eid=1> [15 III 2023].
- MAGDALINO P., MAVROUDI M., *Introduction*, [in:] *The Occult Sciences in Byzantium*, ed. P. MAGDALINO, M. MAVROUDI, Geneve 2006, p. 11–37.
- MARATHAKIS I., *The Magical Treatise of Solomon or Hygromanteia also called Apolesmatikē Pragmateia, Epistle to Rehoboam*, Singapore 2011.

- MARWĀN IBN JANĀH, *On the Nomenclature of Medicinal Drugs (Kitāb al-Talkhīṣ)*. Edition, Translation and Commentary, with Special Reference to the Ibero-Romance Terminology, vol. I–II, ed. et trans. G. BOS, F. KĀS, M. LÜBKE, G. MENSCHING, Leiden–Boston 2020 [= Islamic History and Civilization, 170], <https://doi.org/10.1163/9789004413344>
- MORESE F.M., *L’eredità degli antenati. Il lascito ancestrale di Italici, Romani e Longobardi nel Folklore di Salerno tra religiosità popolare e sopravvivenze pagane*, Cosenza 2019.
- ODER E., *Beiträge zur Geschichte der Landwirtschaft bei den Griechen I*, “Rheinisches Museum für Philologie” 45, 1890, p. 58–99.
- OGDEN D., *The Werewolf in the Ancient World*, Oxford 2021, <https://doi.org/10.1093/oso/9780198854319.001.0001>
- OSTERMANN V., *La vita in Friuli. Usi, costumi, credenze, pregiudizi e superstizioni popolari*, Udine 1894.
- PAPATHANASSIOU M., *The Occult Sciences in Byzantium*, [in:] *A Companion to Byzantine Science*, ed. S. LAZARIS, Leiden–Boston 2020 [= Brill’s Companions to the Byzantine World, 6], p. 464–495, https://doi.org/10.1163/9789004414617_015
- PFISTER F., *Pflanzenaberglaube*, [in:] *Paulys Real-Encyclopädie der classischen Altertumswissenschaft*, vol. XIX.2, ed. G. WISSOWA, W. KROLL, Stuttgart 1938, col. 1446–1456.
- PITRÈ G., *Medicina popolare siciliana*, ²Firenze 1949.
- RAMOUTSAKI I.A., ASKITOPOULOU H., KONSOLAKI E., *Pain Relief and Sedation in Roman Byzantine Texts: Mandragoras Officinatum, Hyoscyamos Niger and Atropa Belladonna*, [in:] *The History of Anesthesia. Proceedings of the Fifth International Symposium on the History of Anesthesia*, Santiago, Spain, 19–23 September 2001, ed. J.C. DIZ, A. FRANCO, D.R. BACON, J. RUPERTH, J. ALVAREZ, Amsterdam 2002, p. 43–50, [https://doi.org/10.1016/S0531-5131\(02\)00699-4](https://doi.org/10.1016/S0531-5131(02)00699-4)
- ROUSE W.H.D., *Folklore Firstfruits from Lesbos*, “Folklore” 7.2, 1896, p. 142–161, <https://doi.org/10.1080/0015587X.1896.9720350>
- SANTAMARÍA HERNÁNDEZ M.T., *Testimonios de una traducción latina antigua del Liber Alexandri Magni de septem herbis septem planetarum en el Herbario de Pseudo Apuleyo*, “Galenos” 4, 2010, p. 149–161.
- SANTERAMO S., *Folklore barlettano*, “Lares. Quadrimestrale di studi demoetnoantropologici” 2.2, 1931, p. 34–45.
- SCARBOROUGH J., *Herbs of the Field and Herbs of the Garden in Byzantine Medicinal Pharmacy*, [in:] *Byzantine Garden Culture*, ed. A. LITTLEWOOD, H. MAGUIRE, J. WOLSCHKE-BULMAHN, Washington D.C. 2002, p. 177–188.
- SCARDINO C., *Edition antiker landwirtschaftlicher Werke in arabischer Sprache*, vol. I, *Prolegomena*, Berlin–Boston 2015 [= Scientia Graeco-Arabica, 16.1], <https://doi.org/10.1515/9781614517481>
- STEINGASS F., *A Comprehensive Persian-English Dictionary, Including the Arabic Words and Phrases to Be Met with in Persian Literature*, ⁵London 1963.
- TORIJANO P., *Solomon the Esoteric King. From King to Magus, Development of a Tradition*, Leiden–New York–Köln 2002 [= Supplements to the Journal for the Study of Judaism, 73].
- TOTELIN L., *Pharmakopōlai: A Re-Evaluation of the Sources*, [in:] *Popular Medicine in Graeco-Roman Antiquity. Explorations*, ed. W.H. HARRIS, Leiden–Boston 2016 [= Columbia Studies in the Classical Tradition, 42], p. 65–85, https://doi.org/10.1163/9789004326040_003
- TOTELIN L., *When Foods Become Remedies in Ancient Greece: The Curious Case of Garlic and Other Substances*, “Journal of Ethnopharmacology” 167, 2015, p. 30–37, <https://doi.org/10.1016/j.jep.2014.08.018>

- TOUWAIDE A., *Botany*, [in:] *A Companion to Byzantine Science*, ed. S. LAZARIS, Leiden–Boston 2020 [= Brill's Companions to the Byzantine World, 6], p. 302–353, https://doi.org/10.1163/9789004414617_011
- TOUWAIDE A., *Medicine and Pharmacy*, [in:] *A Companion to Byzantine Science*, ed. S. LAZARIS, Leiden–Boston 2020 [= Brill's Companions to the Byzantine World, 6], p. 354–403, https://doi.org/10.1163/9789004414617_012
- VERNANT J.P., *Introduction*, [in:] M. DETIENNE, *The Gardens of Adonis. Spices in Greek Mythology*, ²Princeton 1994, p. VII–XLI.
- VIOLI F., *Storia della Calabria greca*, Reggio Calabria 2005.
- ZAGO M., *Mixis ed enantiosis. L'uso metaforico delle sostanze rituali nelle Ciranidi e oltre*, [in:] *Ermetismo ed esoterismi. Mondo antico e riflessi contemporanei*, ed. P. SCARPI, M. ZAGO, Padova 2013, p. 67–88.
- ZANAZZO G., *Usi, costumi e pregiudizi del popolo di Roma*, Torino 1908.

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