

# How to Uproot a Mandrake: Reciprocity of Knowledge between Europe, the Middle East, and China

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# Horizons médiévaux d'Orient et d'Occident

# Regards croisés entre France et Japon

sous la direction de

EGAWA Atsushi, Marc SMITH, TANABE Megumi, Hanno WIJSMAN

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## Table des matières Introduction \_\_\_\_\_\_3 FURUKAWA Shōichi, YASHIRO Yukio et la fondation du musée Yamato Bunkakan : le TSUKAMOTO Maromitsu, La collection des palais impériaux chinois et la genèse de la culture extrême-orientale : la renaissance du « pavillon secret » (Bige) chez les SONG du Alban GAUTIER, Conversion to Christianity as cultural exchange? Mediaeval examples Hanno WIJSMAN, The Library as a Window. The Grand Duke of the West and the KOBAYASHI Yoshiko, In Search of Anglo-French Peace: The Didactic Epistles of John Anne ROCHEBOUET, Le français écrit en Italie à travers quelques exemples des XIII<sup>e</sup>-XIV<sup>e</sup> siècles : langue artificielle, langue hybride, langue de contact ?......91 YAMANAKA Yuriko, with the collaboration of Isabelle Draelants, How to Uproot a Mandrake: Reciprocity of Knowledge between Europe, the Middle East, and China...... 101 Serena FERENTE & SATŌ Hitomi, Ikki 一揆 / Leagues: Languages and Representations of Laurent HABLOT, Pour en finir avec l'« héraldique japonaise ». Mon et armoiries, un Ambre VILAIN, avec la collaboration de TANABE Megumi, Pratiques sigillaires HORIKOSHI Kōichi, Éléments d'histoire comparée de la culture militaire médiévale entre Philippe Buc, Religion and war, historically compared: the Japanese Far East and the Benoît Grévin & Kuroiwa Taku, Chanson de Roland et Heike-monogatari : la Jacques BERLIOZ, Les récits exemplaires en Orient à l'époque médiévale. Éléments d'approche critique et comparatiste pour leur indexation dans la base ThEMA (Thesaurus des *exempla* du Moyen Âge)......190 Les auteurs 201

# How to Uproot a Mandrake: Reciprocity of Knowledge between Europe, the Middle East, and China

YAMANAKA Yuriko, with the collaboration of Isabelle Draelants<sup>1</sup>

The mandrake, or mandragora, is a plant that was known since antiquity for its medicinal, poisonous, and magical properties, as well as for its human-shaped root. Its place in the history of pharmacology and folklore has been the subject of many previous studies<sup>2</sup>. The so-called mandrake has commonly been identified with the type species *Mandragora Officinarum L.*, which is native to the Mediterranean region. However, texts and images linked to the mandrake have a much wider distribution, from the Western to the Eastern end of the Eurasian continent. Botanical studies show that the historical and biogeographical scenario of the *Mandragora* taxa is indeed complicated and remains yet to be fully resolved<sup>3</sup>. Genera other than *Mandragora*, such as *Atropa* or *Bryonia*, also came to be associated with the mandrake.

In this article we will focus on a particularly widespread lore involving the dog and the mandrake, of which evidence is found in mediaeval Arabic, Persian, and Chinese sources. In tracing the line of transmission of this tale, we shall illustrate how the mandrake, as a highly sought-after medicinal plant and an object of curiosity, continued to fuel the imagination of scientists, writers, and traders from Europe to East Asia.

## Point of departure: China

Let us start at the far-eastern end of the transmission route and work westwards, to see how information travelled through the Middle East to China. We will first look at a passage on a plant called *yabulu* recorded by Zhou Mi 周密 (1232-1298) in his *Guixin zashi* 癸辛雜識 (Miscellaneous Records of Guixin [Street]). Zhou Mi was a statesman, scholar and artist who lived around the end of the Southern Song dynasty (1127-1279). He held various positions in Song bureaucracy, including as an official in the Lin An 臨安 public pharmacy. Shortly after

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<sup>&</sup>lt;sup>1</sup> During and after the Ménestrel colloquium in Nara in 2017, the present author has had fruitful exchanges with Dr. Isabelle DRAELANTS on the subject of this paper. A joint paper is forthcoming, including Dr. DRAELANTS' careful analysis of European manuscripts – especially illustrations –, which will fully examine the points of confluence between European and Middle-Eastern traditions concerning the mandrake. This work was supported by JSPS KAKENHI Grant Numbers JP18H03573 and JP16H06411.

<sup>&</sup>lt;sup>2</sup> See for example: Charles Brewster RANDOLPH, "The Mandragora of the Ancients in Folk-Lore and Medicine", *Proceedings of the American Academy of Arts and Sciences*, 40, Jan. 1905, p. 487-537 (https://archive.org/details/jstor-20021986); Berthold LAUFER, "La Mandragore", *Toung Pao*, 2<sup>de</sup> série, Paris, 1917, p. 22-30; James George FRAZER, *Folk-Lore in the Old Testament*, 1918, vol. 2, p. 372-397; Charles J. S. THOMPSON, *The Mystic Mandrake*, London, Ryder & Co., 1934; Mircea ELIADE, "La mandragore et les mythes de la 'Naissance miraculeuse'", *Zalmoxis*, 3, 1940-1942, p. 3-48; Jean-Denis ROLAND, "La mandragore. Le mythe d'une racine, la racine d'un mythe", *Annales des Sciences Naturelles, Botanique et biologie végétale*, II (8), 1990-1991, p. 49-81; Thierry ZARCONE, "Chronique", *Diogène*, 207, 2004/3, p. 140-173 (https://www.cairn.info/revue-diogene-2004-3-page-140.htm, consulted 21 July 2018); Anne VAN ARSDALL, Helmut W. Klug, Paul Blanz, "The Mandrake Plant and its Legend. A New Perspective", in Peter BIERBAUMER, Helmut W. Klug (eds), *Old Names – New Growth*, Frankfurt am Main, Peter Lang, 2009, p. 285-345.

<sup>&</sup>lt;sup>3</sup> Stefan UNGRICHT, Sandra KNAPP, J. R. PRESS, "A revision of the genus Mandragora (Solanaceae)", *Bulletin of the Natural History Museum*, 28/1, June 1998, p. 17-40; Sergei Volis *et al.*, "Phylogeographic study of Mandragora L. reveals a case of ancient human-assisted migration", *Israel Journal of Plant Sciences*, 62, 2015, p. 1-11.

he was appointed district magistrate of Yiwu 義烏 in Zheijiang 浙江, SONG rule in the region surrendered to the YUAN forces in 1276, whereby he went into exile and retired into a life of scholarship. *Guixin zashi* is a collection of essays that he wrote later in his life about miscellaneous records of life in Guixin Street in Hangzhou 杭州. ZHOU Mi writes:

Yabulu 押不蘆. Several thousand miles west into the Muslim lands 回回國, the land produces a thing that is extremely poisonous, and is shaped like a man similar to the ginseng 人參. It is called yabulu. This grows in the earth several zhang deep. Should a man come into contact with it by mistake, its poisonous emanation would surely kill him. This is how to extract it. First, dig a trench on four sides of it that is deep enough to fit a man. Then attach a leather cord to the plant and bind the other end to the leg of a big dog. Hit the dog with a stick so that he runs away, whereby the plant will be uprooted. The dog will die instantaneously affected by the poison (既 而用杖擊逐犬, 犬逸而根拔起, 犬感毒氣隨斃). After that bury the plant underground, take it out after a year, then dry it. It is mixed with other medicine and when taken even in small dosage mixed with wine, it paralyses the body into a state of death. The person will not feel anything, even when a knife or axe is applied. After three days with a small dose of medicine, he will awake. This was perhaps the remedy once used by HUA Tuo 華陀 who opened the bellies of his patients to cleanse them of illness. I have heard that the Imperial Pharmacy has a reserve of this substance, according to BAI Ting-yu 白廷玉 who heard it from LU Song-yai 盧 松厓. Some say that these days, when greedy officers and corrupt bureaucrats take large bribes and are accused of this, they are made to take a poison called bai ri dan 百日丹, which uses none other than this  $(yabulu^4)$ .

What he describes here is a poisonous plant that is produced in the "Muslim lands" with roots that are human in form, similar to the Chinese *ginseng*, that has anesthetic effects when used as medicine. It is interesting that ZHOU Mi looks back on the history of Chinese medicine and speculates whether it could have been the plant used by the famous physician HUA Tuo (d. 208), of the late Eastern HAN dynasty, who was known to have conducted surgery using anesthesia. The procedure that is to be followed to uproot this plant – digging around it, tying a dog to pull it up, with the dog dying from "poisonous emanation" – is analogous to descriptions given by Flavius Josephus about a plant called *baaras* in *The Jewish War* (VII. 180-184) finished in 78 AD, and also to the account by Aelianus (c. 175-c. 235) about a plant termed *aglaophotis* (brightly glimmering) and *kynospastos* (dug up by a dog, or dog-attracting) in *De natura animalium* (Book XIV, 27).

MINAKATA Kumagusu, a Japanese naturalist, was one of the first scholars to point out the similarities between this Chinese text and European mandrake lore. During his time working at the British Museum, he contributed two notices to *Nature* magazine on the subject<sup>5</sup>. In the latter article, he correctly conjectured that *yabulu*, the name of the plant that ZHOU Mi mentions, is derived from Arabic *Ybruh* (*sic*). Dutch scholars, actually, had previously identified *yabulu* in ZHOU Mi's later anthology *Zhi ya tang za chao* as an Arabic word<sup>6</sup>, but

<sup>&</sup>lt;sup>4</sup> Translations of primary texts are by YAMANAKA unless otherwise noted: 周密 『癸辛雜識續集』 卷上 (百部 叢書 46/26), 台北, 藝文印書館, 1965, p. 40-41 (ZHOU Mi, *Miscellaneous Records of Guixin* [Street], Tai bei, Yi wen yin shu guan). ZHOU Mi also has a similar passage in a later anthology, *Zhi ya tang za chao* 『志雅堂雜 鈔』.

<sup>&</sup>lt;sup>5</sup> MINAKATA Kumagusu, "The Mandrake", *Nature*, 51/1330, 1895-4-25, p. 608, and *Nature*, 54/1398, 1896-8-13, p. 343.

p. 343.

<sup>6</sup> Gustav SCHLEGEL, *Neederlandsch-Chineesch Woordenboek*, Deel IV (met Supplement), Leiden, Brill, 1890; Pieter Johannes VETH, "De leer der signatuur", *Internationales Archiv für Ethnographie* 7, 1894, p. 75-88 and 105-141; id. "De Mandragora. Naschrift op het tweede hoofdstuk der verhandeling over de leer der signatuur", *Internationales Archiv für Ethnographie* 7, 1894, p. 199-205.

MINAKATA should be given credit for referring to the fuller original passage in the earlier *Guixin zashi*<sup>7</sup>.

About two decades later, sinologist Berthold Laufer published a closer examination of the Chinese text and its possible sources of information, trying to find links back to Flavius Josephus<sup>8</sup>. He looked to mediaeval Arabic authors such as Ibn al-Baytar, Ibn Sīnā (Avicenna), Ibn Buṭlān, and Qazwīnī. However, being a sinologist, Laufer relied mainly on European translations for the Arabic and Persian texts. The especially crucial text by Ibn al-Baytar, which we will analyse in detail below, was only read through the complete but often incorrect German translation by Sontheimer and through the correct but incomplete French translation by Leclerc, thereby frustrating his search for a "more complete and more exact parallel<sup>9</sup>". Subsequent studies on the eastern transmission of the mandrake lore also relied on inadequate translations<sup>10</sup>.

The search for links between the European, Middle Eastern and Chinese sources on this strange plant seems to have been abandoned since. We have reopened the investigation by reexamining the Arabic text of Ibn al-Baytār, translating it into English (see Appendix), as well as searching other mediaeval Arabic and Persian sources for parallels. In the course of this investigation, we have consulted various pharmacopeias and medical treatises of the mediaeval Islamic world. These works do contain information on various types or parts of mandrakes (or plants that the authors considered as equivalent to or somehow linked to what the Greeks called *mandragora*), under various names: *luffāḥ*, *mandaghūra* / *mandhaghūra*, *sābījaz* / *shābīzak*, *sirāj al-qutrub*, *yabrūḥ/yabrūj*<sup>11</sup>.

Most of these are 'clinically' limited to physical descriptions of the plant as well as its effects when used as medicine, following the Dioscoridean or Galenic tradition, but do not contain the more 'folkloric' information about the dog. In this paper, we will focus on texts that include the motif of the dog, to trace how the tale developed and came to be known in China and try to assess why this particular lore travelled so far.

<sup>10</sup> FRAZER, Folk-Lore in the Old Testament, op. cit., p. 390; THOMPSON, The Mystic Mandrake, op. cit.; TAMURA, "Minakata Kumagusu's research...", art. cit.; 松居竜五 『南方熊楠―複眼の学問構想』 東京, 慶應義塾大学出版会, 2016, p. 330-365 (MATSUI Ryūgo, Minakata Kumagusu. Man of Multifaceted Scholarship), Tōkyō, Keio University Press).

<sup>&</sup>lt;sup>7</sup>田村義也 「南方熊楠のマンドラゴラ研究—その研究史上の位置付け—」 『熊楠研究』 8, 2006, p. 6-35 (TAMURA Yoshiya, "Minakata Kumagusu's research on mandragore (Mandrake) and Its Historical Position", *Studies on Minakata Kumagusu* 8).

<sup>&</sup>lt;sup>8</sup> LAUFER, "La Mandragore", art. cit.

<sup>&</sup>lt;sup>9</sup> *Ibid.*, p. 13.

<sup>&</sup>lt;sup>11</sup> Texts consulted: Aqrābādhīn (Medical Formulary) by al-Kindī (c. 801-866), Kitāb al-nabāt (Book of Plants) by Dīnawarī (815-896), Kitāb al-sumūm (Book of Poisons) by Jābir ibn Hayyān (ninth century), Kitāb al-hāwī fi 'l-tibb (Comprehensive Book on Medicine) by Razī (Rhazes, c. 854-925 or 935), Kitāb al-abniya 'an haqā 'iq aladwiya (The Foundations of the True Properties of Remedies, c. 975) by Harawī, Jāmi al-adwiya al-mufrada (Collection of Simples) by Ibn Samjūn (d. 1001), al-Qānūn fī 'l-tibb (The Canon of Medicine, 1025) by Ibn Sīnā (c. 980-1037), Kitāb al-saydana fi 'l-tibb (Book on Pharmacy and Materia Medica) by Bīrūnī (972-1048), Taqwīm al-şiḥḥa (Maintenance of Health) by Ibn Buṭlān (d. c. 1065), Kitāb al-adwiya al-mufrada (Book of Simples) by Ibn Wāfid (1007-1074), Kitāb fī 'l-adwiya al-mufrada (Book of Simples) by al-Ghāfiqī (d. c. 1165), Kitāb al-jāmi 'li-ṣifāt ashtāt al-nabāt wa durūb anwā 'al-mufradāt (Compendium of the Properties of Diverse Plants and Various Kinds of Simple Drugs) by al-Idrīsī (d. c. 1165), Sharḥ asmā al- 'uqqār (Glossary of Drug Names) by Maimonides (1135/1138-1204), and Tuhfat al-aḥbāb fī māhīyat al-nabāt wa 'l-a 'shāb (Precious Gifts to Friends Concerning the Attributes of Plants and Simples), a Moroccan medical glossary from around 1700. Secondary sources on medicine and pharmacology in the mediaeval Islamic world: Martin LEVEY, Early Arabic Pharmacology. An Introduction based on Ancient and Medieval Sources, Leiden, Brill, 1973; Mahmoud Mohamed SADEK, The Arabic Materia Medica of Dioscorides, Quebec, Éditions du Sphinx, 1983; Manfred ULLMANN, Die Medizin Im Islam, Leiden, Brill (Handbuch Der Orientalistik, Abteilung I, Ergänzungsband VI, Abschnitt 1), 1970.

#### A missing link?

In the mediaeval Islamic world, the earliest known work that contains the dog episode is the 'Ajā'ib al-makhlūqāt va gharā'ib al-maujūdāt (Wonders of Creation and the Oddities of Existence), a Persian cosmography-cum-encyclopaedia by Muhammad Tūsī dedicated to the Seljuqid sultan Tughril III, compiled sometime during his reign, that is 1175-1194<sup>12</sup>. The pertinent passage, which has been hitherto ignored in previous mandrake research, is contained in the chapter on trees and plants and reads as follows:

Mandrake  $(yabr\bar{u}h)$ : It is a shrub  $(ch\bar{u}b)$  that is found in Arrān, which grows from the ground. Like humans it has locks of hair. Its odour makes men sleep, and its juice is lethal. Anyone who pulls it out of the ground will die. Therefore, they tie a rope to it and bind the end to a dog's waist and show a piece of meat to the dog. The dog then goes after the meat, thus uprooting the plant, but the dog dies. It can be up to 10 cubits (arash) long. There is another herb there, whoever carries it with him it makes him laugh until he writhes; but if he discards it, he begins to weep<sup>13</sup>.

#### Fig. 29

Arrān, where the mandrakes supposedly grow, is the region between the Kura and Araks rivers in Transcaucasia (roughly corresponding to present-day Azerbaijan<sup>14</sup>). This is one of the very rare testimonies in which the dog-mandrake episode is geographically pinpointed. The phytogeographical information in this passage is probably based on Abū Dulaf's Risāla al-thāniya (Second Journey), which reports about his voyage to Iran sometime in the midtenth century. One may conjecture this because in Abū Dulaf's report about the town of "Al-Rān", which lays at a distance of 4 farsakhs from Shīz<sup>15</sup>, he mentions that he "found in it many mandrakes (yabrūh) of huge size, one measuring 10 cubits or more," and that he also found a herb there that makes whoever carries it "laugh until his laughter turns to madness; but if he loses the herb or part of it, he feels sorrow for it and even weeps 16... However, Abū Dulaf's travelogue does not include the dog anecdote.

One can note that the 'botanical' information on yabrūh given by Tūsī about the sleepinducing odour, the lethal juice and the method of uprooting using the dog is close to what Aelianus wrote about the kynospastos in De natura animalium. Thus Tūsī's account is undoubtedly a missing link, hitherto overlooked, in the eastern transmission of the story in question. But, what was Tūsī's source?

Tūsī's encyclopaedia reveals that the author seems to have had considerable knowledge of medical herbs, and he at times specifically names Galen, Hippocrates, or Ibn Sīnā as his

 $<sup>^{12}</sup>$  Muhammad b. Maḥmūd b. Aḥmad Ṭūsī, ' $Aj\bar{a}yib$  al-makhlūqāt va gharāyib al-maujūdāt, ed. by M. SUTŪDE, Intishārāt-i 'ilmī va farhangī, Tehran, 2003. An annotated Japanese translation by MORIKAWA et al. has been published in instalments and is now complete: see Kyōto Bulletin of Islamic Area Studies, 2/2-11, 2009-2018 (http://hdl.handle.net/2433/70836).

Tūsī, 'Ajāyib al-makhlūqāt va gharāyib al-maujūdāt, p. 326; Japanese translation by MORIKAWA et al., part 6,

p. 567.

14 Ṭūsī's entry on Arrān in the fourth chapter on cities also mentions: "Yabrūj (sic) comes from there. It is an arrange of the poison "Tūsī 'Aiāvib al-makhlūqāt va gharāyib almaujūdāt, p. 183.

<sup>&</sup>lt;sup>15</sup> Arrān and al-Rān are both used by Arab geographers. See Henry C. RAWLINSON, "Memoir on the Site of the Atropatenian Ecbatana", The Journal of the Royal Geographical Society, 1841, p. 138-141.

<sup>&</sup>lt;sup>16</sup> Abū Dulaf al-Ḥazraǧī, Mis'ar ibn al-Muhalhil, Abū-Dulaf Mis'ar Ibn-Muhalhil's Travels in Iran, ed. and transl. by Vladimir MINORSKY, Cairo, Cairo UP, 1955, transl. p. 33, Arabic text p. 4; id., Risāla al-thāniya, ed. by Pavel Georgievič BULGAKOV, Anas B. KHALIDOV, Cairo, 'Ālam al-Kutub, 1970, p. 40-41. MINORSKY reads bayrūḥ but it is a misreading for yabrūḥ. For a facsimile of Mashhad MS 5229, see Ibn al-Faqīh, Ibn Faḍlān, Abū Dulaf al-Hazrağī, Collection of Geographical Works Reproduced from Ms 5229 Ridawīya Library, Mashhad, Frankfurt am Main, Inst. for the History of Arabic-Islamic Science, 1987, p. 364-365.

source<sup>17</sup>. Much of Ṭūsī's entries on plants, overlaps with what is recorded in Harawī's *Kitāb al-abniya*, Ibn Sīnā's *Qanun fī 'l-ṭibb*, or Bīrūnī's *Kitāb al-ṣaydana*. As mentioned before, these medical treatises do have entries on the mandrake as a human-shaped plant, but the dog anecdote is not found there. In fact, we have not found any Arabic or Persian text predating Ṭūsī that directly mentions the use of the dog in uprooting the mandrake<sup>18</sup>. However, the Arabic *Kitāb al-sumūm* (Book on Poisons) from the first half of the tenth century, by Ibn Waḥshīya (d. c. 935), has an entry "On the Treatment of One Who Eats or Drinks Some Mandrake (*yabrūḥ*)", where it is written: "This is the root of the wild *luffāḥ*. It exists in the shape of humans, equally in the form of men and women. When a man plucks it, he dies in three days; men have experienced this since ancient times. It should be plucked artfully (*bi 'l-ḥīlati*<sup>19</sup>)".

The passage does not give any more details about the uprooting and does not mention a dog, but the Arabic expression bi 'l-hīlati (with a stratagem/ruse) is curiously similar to what the Anglo-Norman Philippe de Thaon (active between 1113 and 1154) wrote in his bestiary about the use of the dog in harvesting the mandrake: Par engin est cuillie ("It is gathered by a stratagem"). And this, in turn, recalls the word decipere ("to deceive") used in Ps. Apuleius' Herbarius<sup>20</sup>. Ibn Waḥshīya translated the Book of Poisons from a "Nabataean" source, probably written in Syriac, as was the other treatise on agriculture that he translated, Kitāb alfilāha al-nabaṭīya (The Book of Nabataean Agriculture), which also has several references to the mandrake (yabrūḥ) being used in magic<sup>21</sup>. "Nabataean" (Nabaṭ) was a term used in Arabic texts to designate the local Aramaic-speaking peoples of Syria and Iraq, renowned for their expertise in agriculture and magic<sup>22</sup>. The "Nabataean" corpus that Ibn Waḥshīya used, via a Syriac or Aramaic intermediary, is thought to have come from a Northern Mesopotamian geographical setting, and drew on ancient Babylonian and Assyrian sources or the Greek-Byzantine Geoponica<sup>23</sup>. Concrete evidence is scant, but we are lead to venture a supposition that there was some kind of mandrake-harvesting ritual practiced by pre-Islamic

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<sup>&</sup>lt;sup>17</sup> MORIKAWA *et al.*, *op. cit.*, p. 201.

<sup>&</sup>lt;sup>18</sup> Although in later European manuscript illustrations of the *Tacuinum sanitatis* the mandrake-pulling dog features prominently (for example Paris, Bibliothèque nationale de France, lat. 9333, fol. 37 (digitized: <a href="https://gallica.bnf.fr/ark:/12148/btv1b105072169">https://gallica.bnf.fr/ark:/12148/btv1b105072169</a>), in the Arabic original *Taqwīm al-ṣiḥḥa*, by the Nestorian Christian Ibn Buṭlān (d. c. 1065), there is no mention of the dog in the entry "*luffāḥ*". Hosam ELKHADEM, *Le Taqwīm al-Ṣiḥḥa (Tacuini sanitatis) d'ibn Buṭlān. Un traité médical du Xf siècle*, Leuven, Peeters, 1990, p. 102, 207.

<sup>&</sup>lt;sup>19</sup> Martin Levey, *Medieval Arabic Toxicology*. *The Book on Poisons of Ibn Waḥshīya and Its Relation to Early Indian and Greek Texts*, Philadelphia, The American Philosophical Society (Transactions of the American Philosophical Society, NS 56/7), 1966, p. 88. Arabic original: London, British Library, Oriental MS Add. 23604, fol. 89v (https://www.qdl.qa/en/universal-viewer/81055/vdc\_100044788414. 0x00002e#

<sup>?</sup>c=0&m=0&s=0&cv=188&r=0&xywh=-2871%2C-1%2C9761%2C5375, consulted Aug. 8, 2018).

<sup>&</sup>lt;sup>20</sup> VAN ARSDALL, KLUG, BLANZ, "The Mandrake Plant and its Legend...", art. cit., p. 311.

<sup>&</sup>lt;sup>21</sup> Ibn Waḥshīya, *Kitāb al-fīlāḥa al-nabaṭīya*, ed. by Toufic FAHD, Damas, Institut Français de Damas, 1993, 1995, 1998, 3 vol. On the superiority of mandrake (*yabrūḥ*) over marsh mallow (*khiṭmī*) in magic, vol. 1, p. 155-157; the tree of Abraham (*shajarat Ibrāhīm*) having affinities with the *yabrūḥ* and *sirāj al-quṭrub*, vol. 1, p. 187; *al-umṭā nahrā* called by the Arabs 'dog's bread' (*khubz al-kalb*) and found close to the mandrake (*yabrūḥ*), vol. 1, p. 604-605; the properties of *ḥummād al-mā* 'being close to that of the mandrake and opposite to the temperament of *quṭrub*, vol. 2, p. 838. Toufic FAHD, "Matériaux pour l'histoire de l'agriculture en Irak. Al-Filāḥa n-nabaṭiyya", in *Handbuch der Orientalistik*, I, 6, 6/1: *Wirtschaftsgeschichte des Vorderen Orients in islamischer Zeit*, Leiden, Brill, 1977, p. 296-297, 299, 310, and 323. Particularly interesting is the story on marsh mallow's rivalry with the mandrake which shows that the mandrake was a plant both revered and feared by the "magicians of Bābil". See HÄMEEN-ANTTILA's English translation of the anecdote (Text 22). Jaakko HÄMEEN-ANTTILA, *The Last Pagans of Iraq. Ibn Waḥshiyya and His Nabatean Agriculture*, Leiden, Brill, 2006, p. 221-224. An extract of this is also included in Ps. Majriṭī's *Ghāyat al-ḥakīm* (Arabic "Picatrix"). See Helmut RITTER, Martin PLESSNER, "*Picatrix*", *das Ziel des Weisen, von Pseudo-Maǧrūṭī*, London, Warburg Institute, 1962, p. 368-371.

<sup>&</sup>lt;sup>22</sup> HÄMEEN-ANTTILA, *The Last Pagans of Iraq..., op. cit.*, p. 36-37.

<sup>&</sup>lt;sup>23</sup> *Ibid.*, p. 28 and following.

agriculturalists in Mesopotamia, which survived in rural pockets of paganism even after the Islamic conquest<sup>24</sup>.

### Ibn al-Bayṭār's account

The ritualistic aspect surrounding the uprooting of the mandrake is attested in the pharmacopeia by the Andalusian pharmacist and botanist Ibn al-Baytār (1197 Malaga-1248 Damascus), *Jāmi' li-mufradāt al-adwiya wa l-aghdiya* (Compendium on Simple Drugs and Foods<sup>25</sup>). This Arabic compendium, which was compiled within half a century after Ṭūsī's encyclopaedia, lists some 1400 medicinal "simples" alphabetically, citing more than 260 sources, including Dioscorides, Galen, Rufus of Ephesus, Paul of Aegina, and Aristotle, as well as al-Razī, Ibn Sīnā, and many other Arabic authors. What is noteworthy about Ibn al-Baytār is that he does not just copy information from previous authors but inserts his own first-hand observations, having travelled widely in the Mediterranean regions. He also makes cross-references between equivalent or related terms in Arabic, Persian, Berber, Greek, Latin, and Romance languages. Thus, based on his book which may be one of the most informative sources on knowledge about the mandrake in the mediaeval Islamic world, one can make an inventory of the various terms associated with the mandrake plant, as below (the entry number is from LECLERC's translation<sup>26</sup>).

N° in	Name	Equivalent to
LECLERC		
422	tuffāḥ al-jinn (apple	luffāḥ, name of fruit of yabrūḥ
	of the jinn)	
1156	sābījaz / sabīzak	mandhaghūra, yabrūḥ
1177	sirāj al-qutrub	yabrūḥ al-waqqād (fiery mandrake), sajara al-ṣanam (tree of
	(werewolf's lamp/	the idol), sayda al-yabārīḥ al-sab 'a (queen of the seven
	lampe des lutins,	mandrakes), 'awāqīnūs" (in Greek) known as "al-ḥadaqī" (=
	fairies' lamp)	hyacinthus), "lūsīmākhiyūs" (in Greek = lysimachia), buḥayla
		(in "Andalusian")
2033	laʻba maṭlaqa	root of the <i>yabrūḥ</i> among the Egyptians
	(la 'ba without	
	epithet)	
2034	luffāḥ	name of fruit of yabrūḥ in Syria and Egypt
2189	mandhaghūra	yabrūḥ among the Egyptians < from mandhāghūras in Greek
2300	yabrūḥ	thrīdaqs (< thridacia in Greek, female species), mūriyūn
		(< morion in Greek, male species), luffāḥ (its fruit), sābījaz
2301	yabrūḥ ṣanamī	sirāj al-quṭrub
	(idol mandrake)	

Among these entries, what is most relevant to the objective of this article is the lengthy entry on *sirāj al-qutrub* (n° 1177), which ULLMANN translates as *Lampe des Werwolfs* 

Heil- und Nahrungsmittel Al-Gami' al-kabīr li-qawī al-adwiya wa'l-agidya aš-šanīr bi-mufradāt, Stuttgart, Hallberger, 1840-1842; Lucien LECLERC, Traité des simples par Ibn el-Beïtar, I-III (Notices et extraits des manuscrits de la Bibliothèque nationale, 23/1; 25/1; 26/1), Paris 1877, 1881, 1883.

On the continuity of pre-Islamic traditions in Iraq and Syria, *ibid.*, p. 46-52; Carlo SCARDINO, *Edition antiker landwirtschaftlicher Werke in arabischer Sprache*, 1, *Prolegomena*, Boston/Berlin, De Gruyter, 2015, p. 48-51.
 Ibn al-Bayṭār, *Jāmi' li-mufradāt al-adwiya wal-aghdhiya*, c. 1965, Baghdad, Maktaba al-muthannā (reprint of the Būlāq edition); Joseph von SONTHEIMER, *Grosse Zusammenstellung über die Kräfte der bekannten einfachen*

<sup>&</sup>lt;sup>26</sup> Ibn al-Bayṭār also wrote a commentary of the *Materia medica* of Dioscorides, which has an entry on *Mandāraġūras*, but it does not contain the dog episode. Albert DIETRICH, *Die Dioskurides-Erklärung des Ibn al-Baiṭār. Ein Beitrag zur arabischen Pflanzensynonymik des Mittelalters. Arabischer Text nebst kommentierter deutscher Übersetzung*, Göttingen, Vandenhoeck & Ruprecht, 1991, p. 243-244, 77.

("werewolf's lamp"), and LECLERC calls *lampe des lutins* ("fairies' lamp<sup>27</sup>"). It is the only entry in Ibn al-Bayṭār related to the mandrake plant (under various names) that contains the dog story. We have given an English translation of the whole entry in the appendix to this article, since the complete translation into German by SONTHEIMER, using two manuscripts from the Hamburg Stadtbibliothek (Codices Orient. 125, 126), is rather faulty<sup>28</sup>, and LECLERC, in his more accurate French translation, regrettably omits entire passages which he deemed not serious enough for Ibn al-Bayṭār. LECLERC, who mainly collated Paris manuscripts<sup>29</sup>, excludes the entire section on the crucial details about the method of uprooting the *sirāj alqutrub*<sup>30</sup>. Sontheimer's translation (despite its mistakes) and the Arabic edition (reprint of the 1874/1291 h. Būlāq edition), on the other hand, do include the passages in question. Our translation is based on the Būlāq edition text. Let us take a closer look.

Ibn al-Bayṭār first says on the authority of the now only partially existing *Kitāb al-murshid ilā jawāhir al-'aghdhiya wa quwa 'l-mufradāt min al-'adwiya* (The Guide to the Fundamentals of Foodstuffs and the Powers of Simple Drugs) by Tamīmī (d. 990), that the *sirāj al-quṭrub* is also called *yabrūḥ al-waqqād* (fiery mandrake or shining mandrake). He also identifies it as the *shajarat al-ṣanam* (shrub/tree of the idol) and as "the queen of the seven mandrakes<sup>31</sup>".

It is highly interesting that Ibn al-Baytār first mentions, citing Hermes (Trismegistus), the extraordinary powers which King Solomon and Alexander supposedly derived from it to perform wonders and conquer the world. He only then goes on to list the practical uses of the plant against maladies that would in modern medicine be categorised as neurological disorders, such as insanity, melancholy, paralysis, or memory loss. The work by Hermes that Ibn al-Baytār refers to may be an Arabic version of the magico-medical compilation *Kyranides* (translated around the ninth century), but there is no conclusive evidence<sup>32</sup>.

Then follows the physical description of the plant with a root "in the form of a standing idol ( $sanam\ q\bar{a}$ 'im) with two arms and legs and all the human members" and stem and leaves that "rise from the middle of the head of this idol". It also clings to, spreads over, and outgrows plants around them, suggesting some kind of climbing vine. Except for the human-shaped root, the morphological characteristics described here do not seem to point to the species  $Mandragora\ officinarum\ or\ Mandragora\ autumnalis$ , which are most often identified as the mandrake in mediaeval sources.

Ibn al-Bayṭār then notes, from an unnamed source ("They claim that ..."), how difficult it is to uproot, giving a rather complicated explanation on the exact position of the planets and the moon in relation to constellations that is favourable for the extraction. That coupled with the fact that it must be done on a Tuesday at the break of dawn, indeed only gives a small window of opportunity for obtaining the prized root.

Manfred Ullmann, "Der Werwolf: ein griechisches Sagenmotiv in arabischer Verkleidung", in id., *Aufsätze zur arabischen Rezeption der griechischen Medizin und Naturwissenschaften*, Boston/Berlin, De Gruyter, 2016, p. 198-209; LECLERC, *Traité des simples par Ibn el-Beïtar*, *op. cit.*, 1881, p. 248. According to Ullmann (p. 203), *qutrub* < *qantropos* (syr) < *lykanthropos* (gr.) = werewolf.

<sup>&</sup>lt;sup>28</sup> Ibn al-Bayṭār, *Jāmi' li-mufradāt al-adwiya wal-aghdhiya*, p. 15. SONTHEIMER's translation has many mistakes and has been criticised. Reinhart P. A. Dozy, "Ueber Sontheimer's Uebersetzung des Ibn-al-Baiṭâr", *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 23/1-2, 1869, p. 183-200.

<sup>&</sup>lt;sup>29</sup> LECLERC, *Traité des simples par Ibn el-Beïtar, op. cit.*, 1877, p. XIV-XVI.

<sup>&</sup>lt;sup>30</sup> "Quelques passages de ce chapitre, qui tranche par son caractère sur le ton général de l'ouvrage d'Ibn al-Baitar, nous ont paru devoir être supprimés" (LECLERC, *Traité des simples par Ibn el-Beïtar, op. cit.*, 1881, p. 248).

<sup>&</sup>lt;sup>31</sup> Possible influence from the Greek *Physiologus* that calls the mandrake a "tree" (*dendron*).

<sup>&</sup>lt;sup>32</sup> WELLMANN thinks Ibn al-Baytār's Hermes passages may come from *Kyranides*. Max WELLMANN, *Marcellus von Side als Arzt und die Koiraniden des Hermes Trismegistos* (Philologus. Supplementband 27, 2), Leipzig, Dieterich, 1934, p. 19-21. However, relevant passages could not be found in the Arabic *Kitāb Jiranīs* transl. by Isabel TORAL-NIEHOFF, *Kitāb Ğiranīs*. *Die arabische Übersetzung der ersten Kyranis des Hermes Trismegistos und die griechischen Parallelen*, Munich, Herbert Utz (Quellen und Forschungen zur antiken Welt, 43), 2004. Isabelle DRAELANTS will examine the question of the mandragore in early versions of the *Kyranides* in our forthcoming joint article.

Following the temporal specifications for its harvest, the method of using the dog is described, although no reason for the necessity of the dog is given:

Practitioners of exoteric alchemy ( $ash\bar{a}b$  al-a  $m\bar{a}l$   $al-barr\bar{a}n\bar{i}ya$ ) claim that the only way to uproot it is thus: after loosening the earth around it and clearing it, one must bind the thin stems ( $ur\bar{u}q$ ) to the neck of a dog that has been starved for some time. Then the man moves away from it and calls out to the dog. The dog runs to him, struggling in the direction of his master and thereby uproots it. They claim that at that moment, the dog drops dead. However, I have seen this to be absurd and false for I have seen its uprooting, and it did not do any harm. It was wrapped in a white cloth, being uprooted all together with its stems and leaves and fruit.

It is important to note that Ibn al-Bayṭār's source of information here is the aṣḥāb al-a'māl al-barrānīya (literally, "followers of the external practices"). We have interpreted this as practitioners of exoteric or superficial alchemy, based on a record in the bibliographical catalogue by Ibn al-Nadīm. In his Fihrist (987), following a list of philosophers who spoke of the art of alchemy and perfected the elixir, Ibn al-Nadīm mentions: "Coming after them were those who sought this aim but were unsuccessful, because they only accomplished operations of an external nature (al-a'māl al-barrānīya<sup>33</sup>)". As the glossary to Dodge's translation remarks<sup>34</sup>, these must have been people engaged in fabricating imitation gems, pearls and precious metals through the practical application of alchemy, without any esoteric or spiritual aspirations.

The process of loosening the earth around the plant, tying a starved dog to it, and then calling the dog to make it pull out the root, is quite close to what Flavius Josephus wrote about the flame-coloured plant *baaras* in *The Jewish War*. However, the story does not seem to be handed down through a written authority, but rather through a source which Ibn al-Bayṭār himself considers dubious. In fact he flatly denies the tale of the dying dog, having observed at first hand that the plant is not at all hazardous, as the lore claims it to be.

Next, Ibn al-Bayṭār enumerates the uses of the plant, many of which "have nothing to do with medical application" but are more magical in nature, again drawing on a Hermetic source. He mentions how various parts of this plant can be used in amulets, ointments, and fumigation to attract the favour of those in power, bring good fortune, expel demons, and ward off various misfortunes.

Towards the end of the entry, additional information is given, taken from previous authorities on *Materia medica*. He quotes al-Idrīsī who explains that the plant is called "sirāj al-qutrub because qutrub is the little creature (duwayba) that shines at night like a fire torch<sup>35</sup>", and that this plant, like the creature, glows when its stem is peeled. Ibn al-Bayṭār finally closes the entry with an account of his own "strange" (gharīb) experience with a specimen of this plant which had bioluminescent properties.

To recapitulate the evidence so far, among the several mandrake-related plant names contained in Ibn al-Baytār's compendium, *sirāj al-qutrub* is the only entry that contains the passage about the shining human-shaped plant combined with the use of the dog for its extraction. Ibn al-Baytār may be the first author of the Islamic world to integrate the mandrake and the dog anecdote into the Dioscoridean *Materia medica* framework. The anecdote is fairly close to Flavius Josephus's account of *baaras*, and the entry on *aglaophotis* 

<sup>33</sup> Ibn al-Nadīm, *Kitāb al-Fihrist*, ed. by Gustav Flügel, Leipzig, Vogel, 1872, p. 354; *The Fihrist of al-Nadīm*, transl. by Bayard DODGE, New York/London, Columbia University Press, 1970, vol. 2, p. 850.

<sup>&</sup>lt;sup>34</sup> "External alchemy: al-a māl al-barrānīyah. Refers to fabrication of ceramics, imitation of precious stones, artificial pearls and similar things rather than to changing metal into gold." (*The Fihrist of al-Nadīm*, p. 910). ULLMANN also notes two types of elixirs: "esoteric" (*jawwānī*) and "exoteric" (*barrānī*). Max ULLMANN, s. v. "Al-Iksīr", in Peri BEARMAN *et al.*, (eds), *Encyclopaedia of Islam*, 2nd edn (<a href="http://dx.doi.org/10.1163/1573-3912">http://dx.doi.org/10.1163/1573-3912</a> islam SIM 3521, consulted 21 July 2018).

<sup>&</sup>lt;sup>35</sup> For the meaning of *qutrub* see Max ULLMANN, s. v. "Kuṭrub," in *Encyclopaedia of Islam*, <a href="http://dx.doi.org/10.1163/1573-3912\_islam\_SIM\_4592">http://dx.doi.org/10.1163/1573-3912\_islam\_SIM\_4592</a> (consulted 21 July 2018); ULLMANN, "Der Werwolf", art. cit.

("brightly glimmering") / kynospastos ("dug up by a dog" or "dog-attracting") by Aelian, which is identified as the paeony. Ibn al-Baytār's immediate source for this story are the "practitioners of exoteric alchemy," whereas Tusi's version of the tale was told in connection to the plant *yabrūh* which he located in Arrān (in Transcaucasia), possibly following Abū Dulaf's account in the Second Journey. Finally, Ibn Wahshīya's Book of Poisons suggested that the lethal effects of extracting yabrūh, the root of the wild luffāh, had been known "since ancient times," and that there was a stratagem to be followed in order to harvest the mandrake without dying. The trail of clues ends there, and we have found no further evidence from the earlier centuries of the Islamic era.

## Role of the *Banū Sāsān* in the dissemination of the story

Ibn al-Baytār's scepticism towards the claim that canine sacrifice is the only way to uproot the plant, makes us conjecture that perhaps these "practitioners of exoteric alchemy" were pseudo-alchemists who used this kind of mysterious and elaborate tales to market their faked products. This speculation is founded on evidence of faked mandrakes in near contemporary Arabic sources. And these will lead us back to the question of how the story might have spread to Song China.

Our first testimony is given by al-Jawbarī, a Syrian author who wrote the Kitāb al-mukhtār fī kashf al-asrār (Book of Selected Disclosure of Secrets) between 1232 and 1248/9<sup>36</sup>. This book exposes the tricks of the trade of the Banū Sāsān ("Sons of Sāsān"), an underworld class of vagabond charlatans and rogues who made a living by duping the naive populace through all sorts of trickery<sup>37</sup>.

Among the fraudulent practices of those charlatans against which al-Jawbarī warns the reader is the fabrication of bogus mandrakes, and the gibberish they tell to hoax the audience into believing that it is a genuine rarity, only obtained through a high-risk operation costing the life of a poor dog. The passage in its entirety in our translation is as follows<sup>38</sup>:

Disclosure of their secrets about the "idol mandrake" (yabrūh al-sanamī) and what is said about

Know that this drug ('aqqār) is what is called "devil's apple" (tuffāh al-jinn), also called yabrūh, also called mandghūra. As for the "idol" shape, when it stays in the earth for forty years, it comes to take the shape of an idol (sanam). The charlatans (turuq $\bar{i}$ ya = followers of the 'way<sup>39</sup>') lie about it and about its uprooting. They say that one cannot uproot it without dying on the spot. People are fooled by this. They claim that if they want to uproot it, they dig around it until they reach its end. Then they attach a cord to it and utter foolish spells ('azā'im makhrafāt). Then they take a dog and tie the cord to its neck and they yell (yaz 'aqūna) at it. The dog hence pulls the cord, uprooting the herb ( $al-hash\bar{\iota}sha$ ). The dog dies immediately. All this is false ( $fays^{40}$ ) and hocus-pocus ( $h\bar{a}d\bar{u}r$  = jargon of the confraternity<sup>41</sup>). Know that when you want to uproot it, you can uproot it without any fear. Everything they say about it is hocus-pocus  $(h\bar{a}d\bar{u}r)$  and a

<sup>&</sup>lt;sup>36</sup> Critical Arabic edition, Manuela HÖGLMEIER, Al-Ğawbarī und sein Kašf al-asrār - ein Sittenbild des Gauners im arabisch-islamischen Mittelalter (7.-13. Jahrhundert), Berlin, Klaus Schwarz, (Islamkundliche Untersuchungen, 267), 2006; See also Eilhard WIEDEMANN, "Uber Charlatane bei den Muslimen nach Gaubarî", in Aufsätze zur arabischen Wissenschaftsgeschichte, vol. 1., Hildesheim/New York, G. Olms, 1970, p. 749-775.

<sup>&</sup>lt;sup>37</sup> The definitive study on the Banū Sāsān is Clifford Edmund BOSWORTH, The Mediaeval Islamic Underworld, vol. 1, The Banū Sāsān in Arabic Life and Lore, vol. 2, The Arabic jargon texts. The qaṣīda sāsāniyyas of Abū Dulaf and Şafī d-Dīn, Leiden, Brill, 1976.

<sup>&</sup>lt;sup>38</sup> Translation by present author. Arabic edition, HÖGLMEIER, Al-Ğawbarī und sein Kašf al-asrār..., op. cit., p. 252-253, notes p. 458-459; German translation, WIEDEMANN, "Uber Charlatane...", art. cit., p. 752-753.

<sup>39</sup> In al-Jawbarī, *aṭibbāʾ al-ṭuruq* (the doctors of the 'way') is a designation for the *Banū Sāsān*. HÖGLMEIER, *Al-*

*Ğawbarī und sein Kašf al-asrār..., op. cit.*, p. 457.

<sup>&</sup>lt;sup>40</sup> *Ibid.*, p. 456.

<sup>&</sup>lt;sup>41</sup> Ibid., p. 446; Bosworth, The Mediaeval Islamic Underworld, op. cit., vol. 2, p. 198 and 240-241; s. v. "hādhūr", in Reinhart P. A. DOZY, Supplément aux dictionnaires arabes, Leiden, Brill, 1881, vol. 2, p. 752b.

trick  $(rib\bar{a}t)$  to spellbind the uneducated  $(akhsh\bar{a}n)$ . But they have a secret to it and I will disclose it.

They set forth in autumn to the cyclamen  $(rukf^{42})$ , they dig up the root, then they take a knife and carve the shape of a man, complete with penis, face, hair, hands and feet; the Son of Adam in his entirety. Some of them make two forms, male and female, embracing each other. When they have arranged this, they sprinkle soil on it, without tearing the root off. Then one leaves it till spring time, until the time of pulling out weeds. One will then go and dig it up and find it covered in earth just the way one formed it, in the form of the Son of Adam. He would uproot it, utter onto it some hocus-pocus (bi 'l- $h\bar{a}d\bar{u}r$ ). People who see it do not doubt that it is a natural creation (khilqa), and he would sell them weight per weight (equivalent weight in silver or gold).

Al-Jawbarī calls the plant *yabrūḥ al-ṣanamī*, the "idol mandrake", which in Ibn al-Bayṭār's compendium is another name for *sirāj al-quṭrub*. The use of the dog described in the first half of al-Jawbarī's passage overlaps with what Ibn al-Bayṭār wrote about the *sirāj al-quṭrub*, except for the glow. Interesting additional information that al-Jawbarī gives is that the confraternity of charlatans (*ṭuruqīya*) utter some nonsensical spells (*hādūr*) during the act of uprooting.

In the latter half of the passage is a candid disclosure of how counterfeit are made and marketed. He describes the cunning method of digging up cyclamen (apparently a far more readily available plant), making incisions into its root (or rather its tuber) so that it resembled "the shape of a man, complete with penis, face, hair, hands and feet", then putting it back in the ground. This way the tuber tissue healed and grew around the incisions, so that when it was dug up again in spring, the "idol" looked like a freak of nature, and not man-made. And again, he mentions the hocus-pocus or babble (bi 'l-hādūr') uttered by the swindlers.

The roots, manipulated into a vaguely anthropomorphic shape, by themselves probably would not have convinced the public of any special powers, but it was the story-telling peppered with mysterious incantations that stimulated the curiosity of the public and convinced them to shell out an equivalent weight of silver or gold to obtain the prized plant. One can imagine a situation similar to the pre-modern medicine show where itinerant "doctors" sold dubious remedies like snake oil or the Japanese *gama no abura* ("toad's oil") by making an elaborate discourse to attract the attention of the public.

Al-Jawbarī thus paints the mandrake dealer in a very negative light, but we can acquire a taste of the literary charm and narrative power of this "marketing hype" in a thirteenth-century Cairene shadow play, *Ajīb wa Gharīb* (The Amazing Preacher and the Stranger) by Ibn Dāniyāl, an ophthalmologist and playwright who died in 1310<sup>43</sup>. This is our second testimony about the marketing of fake mandrakes.

The play opens with the Presenter announcing the character Gharīb (the Stranger) who introduces himself as one of the *Banū Sāsān* and explains how he was exiled into a life of vagrancy and trickery. After he describes the different guises he has used to swindle people, the mentioned character types appear, 23 in total, each telling their story and showing the paraphernalia of their trade. First comes Ajīb the mock preacher, then an array of street performers, practitioners of quack medicine and magic, pseudo-scientists, a harlot (the only female character), a torch-bearer, and a camel driver trail into the scene one by one. As BADAWI says, these characters "are so vividly portrayed and concretely realised that they

<sup>&</sup>lt;sup>42</sup> Syrian name for *bakhūr Maryam* = cyclamen. HÖGLMEIER, *Al-Ğawbarī und sein Kašf al-asrār...*, *op. cit.*, p. 459.

p. 459.

459.

459.

459.

40 Voir Georg JACOB, *Ein ägyptischer Jahrmarkt im 13. Jahrhundert*, Munich, Bayerische Akademie der Wissenschaften (Sitzungsberichte der Bayerischen Akademie der Wissenschaften, philosophisch-philologische und historische Klasse, 10), 1910; Paul KAHLE, "The Arabic Shadow Play in Egypt", *The Journal of the Royal Asiatic Society of Great Britain and Ireland*, 1, 1940, p. 21-34; Mohammed Mustafa BADAWI, "Medieval Arabic Drama. Ibn Dāniyāl", *Journal of Arabic Literature*, 13, 1982, p. 83-107; Safi Mahmoud MAHFOUZ, "The Arab Rabelais. Ibn Dāniyāl's Carnivalesque Satire and Wit", *Journal of Semitic Studies*, 62/2, 2017, p. 413-445.

form easily recognisable types to be seen in Cairo until the early years of the present [twentieth] century", and their speeches are "masterpieces of satirical writing 44".

Among the con men figures who claim to belong to the medical profession is Nubāta alashshāb, the herbalist. And this is his sales pitch<sup>45</sup>:

Here is Nubāta the herbalist and pharmacist, successor to Dioscorides and grandson of Ibn al-Baytār, the connoisseur of roots and shoots, foliage and flowers. For I have travelled in search of these herbs all the way to the coast and trekked verdant and barren roads, until finally, in these bags and cases, I collected what analogy and trials can certify as authentic. And you may Allah guide you to certain knowledge and to the realisation that the old saying is true, that "there is no herb growing on earth that does not correspond to a disease 46 in the body." By Allah's will, some of them are useful while others are harmful, some are binding while others loosen, some keep you up at night while others put you to sleep, and some soothe wounds while others cause swelling. Roots and seeds, resin, sap and flowers! What a difference between the heat of the calamus (wajj) and the coldness of opium  $(afy\bar{u}n)$  and henbane (banj). And what a difference between the bitterness of cumin  $(kamm\bar{u}n)$  and the sweetness of anis  $(an\bar{i}s\bar{u}n)$ . Praise be to Him who created these opposites as a blessing for humanity! This, oh gentlemen, is the plain leopard's bane 'the cheerful' (al-darūnaj al-mufarrih), and this is the marking-nut "the ulcerous" (al-balādhur al-muqarriḥ). This, by God, is alyssum (hashīsha al-sulaḥfāh, "turtle plant") useful for achieving approval and glory (or "receptivity and high standing" li 'l-qabūl wa 'l-iāh).

For I, by the truth of the One who splits [germinates] seeds and fruit stones ( $f\bar{a}liq\ al-habb\ wa\ 'l-nawa$ ) [Quran 6:95], am not stingy with you with any of these remedies. I have not held you here for you to give me alms, nor for you to throw at me your wasted rubbles ( $fadl\ hut\bar{a}mi-kum$ ). I am here to show you the wonders ( $fada\ ib$ ) of this shape, to enlighten you about the merits ( $fada\ ib$ ) of this, the mandrake ( $al-mandagh\ ubar abc)$ .

And see here, both female and male! Exalted is Allah, the inventor of forms who has created these from the roots of trees. But he who pulls them out without proper knowledge, will come to harm. I, however, once its roots were cleared and it was possible to extract and obtain it, attached a tent rope to it then fastened it to the neck of a dog. Then I lured him with a piece of bread from a distance. He plunged toward it to eat it, thereby pulling the plant out, and then died from its scream (wa māta li ṣarkhati-hā), "his forelegs spread out at the threshold" [Quran 18:18]. Praise be to Him who inspired, instructed, preserved and protected me. Oh gentlemen, men of refinement and means, should any of you ask, "What benefits and merits does this mandrake have?" Well, here are some: a seed (habba) transforms hate into love (mahabba), and a particle (dharra) of it is worth a pearl (durra). Is there anyone here who was shunned by his beloved or vexed his master or his friend? Show me someone who is facing the wrath of the sultan or has been beaten by the devil (shaytan). Bring me someone whose strength has weakened from intercourse and coitus. This is a remedy for the epileptic and the insane, as well as for taking out the foetus and the one that is trapped [in delivery?]. So seek your heart's desires, and do not miss out on the valuable, by purchasing something of inferior quality. For health is better than wealth. By Allah, only the owners of lawful dirhams shall acquire it from

(And he recites in *mujtath* metre:)

I have herbs that were like gardens to onlookers,

It delights the eyes and it happens to remove diseases,

<sup>44</sup> BADAWI, "Medieval Arabic Drama. Ibn Dāniyāl", art. cit., p. 93 and 103.

<sup>&</sup>lt;sup>45</sup> Ibn Dāniyāl, *Khayāl al-zill wa-tamthīlīyāt Ibn-Dāniyāl*, ed. by Ibrāhīm ḤAMĀDA, Cairo, 1963, p. 202-204; *Three Shadow Plays by Muḥammad Ibn Dāniyāl*, ed. by Paul KAHLE, Derek HOPWOOD, Cambridge, Gibb Memorial Trust, 1992, p. 65-67 and 138. ḤAMĀDA's edition expurgates obscene parts, but KAHLE's edition is not devoid of errors (as pointed out in the review by Shmuel Moreh in *Die Welt des Islams*, 34, 1994, p. 126-129). For my translation I have consulted both editions, as well as the German abridged translation by JACOB in *Ein ägyptischer Jahrmarkt im 13. Jahrhundert, op. cit.*, p. 15-16, and the English translation of the scene included in Leigh CHIPMAN, *The World of Pharmacy and Pharmacists in Mamlūk Cairo*, Leiden, Brill, 2010, p. 166-168.

p. 166-168.

The Kahle edition, as well as the Chipman translation, reads milla ملة (religion, sect), but it would be more natural in the context to read 'illa علة (disease, illness), as in the Hamāda edition.

But there is no gain from it, only in its sale is compensation.

By Allah, whoever maintains health by simply giving [money], whose intellect overpowers his desire<sup>47</sup>, and acquires for his illness a remedy, and amasses the superior goods for very little [is successful]. "Sufficient is Allah for us, for He is the best Disposer of affairs." [Quran 3:173] (And then he packs up to disappear and hide, then exits the scene.)

The monologue is in witty and entertaining prose, full of word-plays using rhetorical figures such as  $tarṣ\bar{\imath}$  (rhymed parallel phrases), for example  $dar\bar{u}naj$   $al-mufarri\hbar$  and  $al-bal\bar{a}dhur$   $al-muqarri\hbar$  or  $al-sult\bar{a}n$  and  $al-shayt\bar{a}n$ ; also  $tajn\bar{\imath}s$  (paronomasia) using different derivations of same root, for example  $\hbar abba$  and  $ma\hbar abba$ ; and tawriya (double entendre) with a sexual connotation, such as li 'l- $qab\bar{u}l$  wa 'l- $j\bar{a}h$  which could possibly mean both "social approval and glory" as well as "sexual receptivity and high standing". In addition, the rhythmic oratory style is accentuated by Quranic verses and hadith sprinkled here and there  $^{48}$ .

The herbalist's hyperbolic claim to be the "successor to Dioscorides and grandson of Ibn al-Bayṭār" attests to the fact that the audience was familiar with their names and their *Materia medica*, at least in a vulgarised version. Ibn Dāniyāl, being an ophthalmologist, was most probably well acquainted with medico-botanical knowledge on the mandrake as compiled in Ibn al-Bayṭār's compendium. The mock herbalist's enumeration of the properties of the mandrake – the existence of male and female species, its efficaciousness against epilepsy, insanity, difficult childbirth, the wrath of rulers, ill fate, and sexual dysfunctions – imitates what Ibn al-Bayṭār had written about the *sirāj al-quṭrub* and *yabrūḥ*, with a lewd twist. The seriousness of the subtext (medical literature) makes this parody even more amusing.

The humour lies in the fact that the audience knows that what he is trying to sell is a fraud, although the character Nubāta, being one of the  $Ban\bar{u}$   $S\bar{a}s\bar{a}n$ , would never spoil the secret behind the faked mandrake, as did al-Jawbarī. The latter's text, as we have seen above, was a disclosure and condemnation of the charlatanry, whereas Ibn Dāniyāl's shadow play is a subtler "metaparody<sup>49</sup>", a parody of a parody, mocking both the mocker (the mock herbalist) and the mocked (the duped public), leading the audience to feel sympathy towards the "shadow" figure (literally) of a figure who lives in the "shadows" (metaphorically).

One significant point that we cannot fail to note is the mention of the "scream" (*ṣarkha*) of the uprooted mandrake that kills the dog. This is the only instance in the mediaeval Islamic world, to my knowledge, where the dog dies from the scream of the plant. It could have been imported from Europe, since there it had already become a common feature in mandrake-related literature by the time of Philippe de Thaon's *Bestiary*<sup>50</sup>. The most likely channel of transmission would have been the Venetian merchants who had special ties with the Mamlukid Sultanate.

Lastly, for our third testimony, we will briefly mention a *qaṣīda* (ode) written in the first half of the fourteenth century by the poet and trader Ṣafī al-Dīn al-Ḥillī (1278-1349). His *Qaṣīda Sāsānīya* is a first-person narrative of how the poet mastered the jargon and tricks of the *Banū Sāsān*, in 75 lines in the *ṭawīl* metre<sup>51</sup>. Similar to Ibn Dāniyāl's play, the poem is a roster of all the guises the narrator has taken, from mock preacher, quack doctor, to performer

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A parallel phrase in a collection of aphorisms attributed to 'Alī Ibn Abū Ṭālib, compiled by Abdul Wāḥid al-Tamīmī in the eleventh century: "One whose intellect overpowers his vain desire is successful. One whose vain desire overpowers his intellect is disgraced." *Ghurar al-hikam*, transl. by Tahir Ridha JAFFER, Qum, Ansariyan Publications, 2012, ch. "The Intellect (*al-ʿaql*)", verses 144-145 (<a href="https://www.al-islam.org/ghurar-al-hikam-wa-durar-al-kalim-exalted-aphorisms-and-pearls-speech/intellect">https://www.al-islam.org/ghurar-al-hikam-wa-durar-al-kalim-exalted-aphorisms-and-pearls-speech/intellect</a>, consulted 6 Aug. 2018).

<sup>&</sup>lt;sup>48</sup> Much of the *Banū Sāsān*'s activities were operated under the cloak of religion. BOSWORTH, *The Mediaeval Islamic Underworld*, *op. cit.*, vol. 1, p. 144.

<sup>&</sup>lt;sup>49</sup> Gary Saul MORSON, "Parody, History, and Metaparody", in id., Caryl EMERSON (eds), *Rethinking Bakhtin. Extensions and Challenges*, Evanston, Northwestern University Press, 1989, p. 63-86.

<sup>&</sup>lt;sup>50</sup> VAN ARSDALL, KLUG, BLANZ, "The Mandrake Plant and its Legend...", art. cit., p. 309-346. In our forthcoming joint article, Isabelle DRAELANTS will demonstrate that in Europe, the scream was associated with the mandrake already about a century earlier than Philippe de Thaon.

<sup>&</sup>lt;sup>51</sup> BOSWORTH, The Mediaeval Islamic Underworld, op. cit., vol. 1, p. 140-149.

and beggar. But contrary to the shadow play, the narrator discloses all the tricks of the  $Ban\bar{u}$   $S\bar{a}s\bar{a}n$  in what Bosworth calls a "literary *tour-de-force*" of jargon expressions<sup>52</sup>. Thus about his medical and pharmaceutical practices he reveals:

[27] And how often have I acted as a purveyor of images and amulets, or as a quack doctor, and how often have I been a seller of electuaries and a peddler who carries round and spreads out a display of drugs!

[28] And I have asserted, in regard to the mandrake root  $(yabr\bar{u}h)$ , that I have gathered this through the agency of my dog, and if the dog (wabr) had not died in the process<sup>53</sup>, the mandrake would have killed me<sup>54</sup>!

This genre of "poems in the Sāsānī jargon" or "poems on the activities of the  $Ban\bar{u}$   $S\bar{a}s\bar{a}n$ " had already come into vogue in the literary circles of the Buyid courts in the tenth century. The aforementioned Abū Dulaf, whose travelogue was a possible source of information for Tūsī's account on the mandrake, also composed a long  $Qas\bar{\iota}da$   $S\bar{a}s\bar{a}n\bar{\imath}ya$ . It similarly features practitioners of quack medicine; however, no mandrake is mentioned <sup>55</sup>. Abū Dulaf was certainly familiar with the activities of the  $Ban\bar{u}$   $S\bar{a}s\bar{a}n$  and was a practicing physician himself who was curious about pharmacological minerals and plants <sup>56</sup>. If the mandrake is not included in his  $Qas\bar{\iota}da$   $S\bar{a}s\bar{a}n\bar{\iota}ya$ , perhaps this means that faking mandrakes was not yet part of the  $Ban\bar{u}$   $S\bar{a}s\bar{a}n$  repertoire of trickery in his time, in the tenth century.

From Abū Dulaf's *qaṣīda* we also learn that some members of the *Banū Sāsān* had a non-Arabic speaking "Nabataean" background, and that their jargon included Eastern Aramaic loan words, such as the word *hādhūr* (to circle, or to wander around<sup>57</sup>). Also, as CHIPMAN's study demonstrates, in Mamlukid society the pharmacist (*aṭṭār*) had a rather low standing and was even considered a sub-group of the *Banū Sāsān*<sup>58</sup>. So, perhaps the botanical and magical knowledge on the mandrake that the *Banū Sāsān* had, as attested in al-Jawbarī and Ibn Dāniyāl, was not completely bogus. It may be that among the *Banū Sāsān* were a group of people who had inherited pharmaceutical knowledge from a long-lost pagan tradition. Moreover, Abū Dulaf depicts the *Banū Sāsān* as extremely mobile people who boasted of wandering "from China to Egypt," and in "the lands of Islam and the lands of unbelief alike<sup>59</sup>". This mobility, and their narrative and marketing skills, made these people the perfect carriers of both tale and object.

Although it is difficult to imagine that faked mandrakes would end up as trading goods to China, the above testimonies on *Banū Sāsān*'s drug fraud do correspond in time with Zhou Mi's record on the *yabulu*. In the first half of the thirteenth century, the demand for mandrakes must have increased (possibly fuelled by Ibn al-Baytār's compendium), which lead to the circulation of faked mandrakes by the so-called *Banū Sāsān* whose hype reached its peak in the latter half of the thirteenth century. And it is around this time that the mandrake and its tale were imported into China, possibly by Karīmī merchants whose spice trading route extended from the Red Sea to Chinese port towns such as Zaytūn (modern-day

<sup>53</sup> The poet uses the word *wabr* (*Hyrax syriacus* or daman) instead of the more common word *kalb* for dog, perhaps because of the assonance with the word *yabrūḥ* (mandrake).
<sup>54</sup> English translation by BOSWORTH, *The Mediaeval Islamic Underworld*, *op. cit.*, vol. 2, p. 297, lines 27-28,

<sup>&</sup>lt;sup>52</sup> *Ibid.*, vol. 1, p. 142.

English translation by BOSWORTH, *The Mediaeval Islamic Underworld*, op. cit., vol. 2, p. 297, lines 27-28, notes p. 320; Arabic text, p. 47. Also see *ibid.*, vol. 1, p. 146.

<sup>&</sup>lt;sup>55</sup> BOSWORTH, *The Mediaeval Islamic Underworld*, op. cit., vol. 2, p. 205, lines 99, 105. See also vol. 1, p. 90-91.

<sup>&</sup>lt;sup>56</sup> *Ibid.*, vol. 1, 52-53.

<sup>&</sup>lt;sup>57</sup> On *Nabaţī*, *ibid.*, vol. 2, p. 203, 255, YY; on *hādhūr*, *ibid.*, p. 198, 240, Y". We have seen above that al-Jawbarī uses this word in a derogatory sense to mean "nonsensical hocus-pocus".

<sup>&</sup>lt;sup>58</sup> CHIPMAN, The World of Pharmacy and Pharmacists in Mamlūk Cairo, op. cit., p. 172.

<sup>&</sup>lt;sup>59</sup> BOSWORTH, The Mediaeval Islamic Underworld, op. cit., vol. 2, p. 192, 217, \(\xi\).

Quanzhou), which had a strong Muslim presence<sup>60</sup>. ZHOU Mi, in turn, might have obtained information through the Muslim community in Zheijiang.

The qualities of the substance would no doubt have been worlds apart between the counterfeit sold in the streets of Cairo and those supposedly stocked in the imperial pharmacy of Song China. The muhtasib (market inspectors) were well aware of fraudulent practices and had manuals to control the trafficking of adulterated pharmaceuticals <sup>61</sup>. But it is highly interesting that Arab merchants sold the product to their Chinese buyers with the same marketing hype as that used by the  $Ban\bar{u}$   $S\bar{a}s\bar{a}n$ .

#### Conclusion

For the Eastern transmission of the dog-mandrake story we can make the following hypothesis based on the Arabic, Persian, and Chinese sources examined above. The elaborate stratagem surrounding the uprooting of the mandrake can be traced back to the milieu of a "Nabataean" agriculturalist society of Northern Mesopotamia whose agronomical knowledge, as attested in Ibn Waḥshīya's "Nabataean" Corpus, shows a continuity from Graeco-Latin traditions, but also traces of an ancient Syro-Mesopotamian religion. The harvest ritual and the use of mandrake in magic possibly survived into the Islamic period among the pagan communities such as the "Nabataeans," or the "Ṣābians" of Ḥarrān whose temple is attested to have existed until around the  $1080s^{62}$ . We have Abū Dulaf's eyewitness information, from the middle of the tenth century, about rather sizable yabrūh plants growing in Arrān, a neighbouring region to the East of where the diminishing pagan communities would have existed.

These pagan populations would have been assimilated into Islam or Christianity by the latter half of the twelfth century, but the tale about the peculiar method of uprooting the mandrake somehow persisted and was recorded into the Persian encyclopaedia by Tūsī. Perhaps it was transmitted as part of local herbal lore or told by merchants trading in medicinal herbs. In the first half of the thirteenth century when Ibn al-Baytār compiled his pharmacological compendium, the mandrake-dog tale was told by "practitioners of exoteric alchemy" whose authority Ibn al-Baytār seems to have doubted. His scepticism towards the veracity of this harvesting method coincides more or less with the appearance of textual evidence about the sale of faked mandrakes by the *Banū Sāsān*, some of whom claimed "Nabaṭī" heritage and whose jargon showed Aramaic influences. It is impossible to verify any ethnic or historical connections to the pagan "Nabataeans," but the *Banū Sāsān* could have inherited their knowledge on magical plants and would in any case have played an important role in the oral transmission of the dog-mandrake tale, that even made its way to China through trade.

When we connect the histories, there are several points in Late Antiquity and the Middle Ages where we notice the confluence of occidental and oriental traditions of this tale.

It has already been speculated that JOSEPHUS' description of the use of a dog in uprooting the *baaras* belongs to a Middle Eastern tradition that was adopted by Hellenism<sup>63</sup>. The dogmandrake episode seems to have been incorporated into the *Herbarius* by the sixth century, somehow combining elements from the description of *baaras* by JOSEPHUS and the entry on paeony from Aelian<sup>64</sup>. The agriculturalist milieu of Upper Mesopotamia at the border of

<sup>62</sup> Kevin van BLADEL, *The Arabic Hermes. From Pagan Sage to Prophet of Science*, Oxford, Oxford University Press, 2009, p. 104-114.

<sup>&</sup>lt;sup>60</sup> On the spice trade under the Mamluks see CHIPMAN, *The World of Pharmacy and Pharmacists in Mamlūk Cairo*, op. cit., p. 145-147.

<sup>&</sup>lt;sup>61</sup> *Ibid.*, p. 155-161.

<sup>63</sup> LAUFER, "La Mandragore", art. cit., p. 10.

<sup>&</sup>lt;sup>64</sup> VAN ARSDALL, KLUG, BLANZ, "The Mandrake Plant and its Legend...", art. cit., p. 303-304.

Byzantine and Sassanian territories may have been an environment where Graeco-Latin and ancient Syro-Mesopotamian traditions interflowed, resulting in the dog's association with the mandrake.

Next, viewed against the background of twelfth- and thirteenth-century Crusader States' occupation of the Eastern Mediterranean and North Mesopotamia, Ibn al-Baytār's information on sirāj al-quṭrub, where we see the "glowing" element for the first time in an Arabic/Persian source, might reflect a renewed influence from a European bestiary or herbal. During the Crusades, there may also have been transfers of medical and pharmaceutical knowledge on the clinical level among Christian, Muslim, and Jewish physicians<sup>65</sup>.

Finally, in Mamlukid Cairo, we find evidence of the mandrake's shriek being introduced into the Middle Eastern side of the lore, and it is also around this time that the story travelled to China. This can be seen in the context of the spice trade between Italian, Arab, and Chinese merchants, where wonder tales such as the mandrake-harvesting dog, which caught the attention and aroused the curiosity of buyers as well as raised the scarcity value of a merchandise, must have functioned as a sort of 'currency' traded along with the actual products.

Thus, our investigation – following the trail of our poor dog ever bound to the lethal plant, to the Eastern end of the transmission – has allowed us to connect the literary, medical, economic histories of Europe, the Middle East, and China, and to gain insight into the reciprocity of object and text in mediaeval Eurasia.

#### Illustration

Illustration of the entry on the mandrake (vabrūh) in Tūsī's 'Ajā'ib al-makhlūgāt Baltimore, Walters Art Museum W.593, f. 116v; c. 1585-1590 [http://www.thedigitalwalters.org/Data/WaltersManuscripts/html/W593/]

## **Appendix**

Translation from Ibn al-Bayṭār's *al-Jāmi ʿli-mufradāt* (3/4 p. 10-12)

Sirāj al-qutrub

Al-Tamīmī says in the Murshid, this is the yabrūḥ al-waqqād (fiery mandrake). It is also named shajarat al-sanam (tree of the idol) and this is the queen of the seven mandrakes. Hermes (Hirmis) claimed that it was a piece of this shrub that Solomon son of David had underneath the stone of his signet ring which allowed him to perform wonders and made the rebellious spirits obey him. He also claimed that with this shrub the Two-Horned King Alexander (*Dhū 'l-Qarnayn al-malik al-Iskandar*) managed his expedition to the West and to the East. Hermes said that this shrub is the most blessed amongst all shrubs, and is useful against all maladies that humans are afflicted with, from possession (jinna), insanity (khabl), to melancholy (waswās). It is also useful for all severe illnesses that befall humans inside their body such as paralysis (fālij), facial palsy (laqwa), epilepsy (sar), leprosy (judhām), mental deterioration (fasād al-'aql), [p. 11] fatigue (tuwala), and loss of memory (kathra nisyān). The root of this shrub hidden under the earth is in the form of a standing idol (sanam  $q\bar{a}$ 'im) with two arms and legs and all the human members. Its stem and its leaves are visible above the ground, and they rise from the middle of the head of this idol. The leaves are like that of the blackberry ('ullayq), and also cling to nearby plants and then spread over them and outgrow them. Its fruit is red in colour and pleasant in odour, much like the nectar of storax (asal al-lubnā'). This plant grows in the mountains and vineyards. They claim that uprooting it is difficult because of what needs

<sup>&</sup>lt;sup>65</sup> Piers D. MITCHELL, Medicine in the Crusades. Warfare, Wounds and the Medieval Surgeon, Cambridge/New York/Melbourne, Cambridge University Press, 2007, p. 201-215.

to be done  $^{66}$ : first one needs to have knowledge of the right time for uprooting it and be sure of it, and one should not be resolved in pursuing the task until Mars (al- $mirr\bar{\imath}kh$ ) is in a beneficial state, straight in its path, and in one of its houses. For the action to be effective, it is most preferable that Mars be in the highest house, which is Aries (al-hamal), or in its elevated house (bayt sharaf), which is Capricorn (al- $jad\bar{\imath}$ ), and that it is rising 24 degrees from it, or in one of its conjunction triangles, or at one of its terminal points. For its seeker to dig, he must have it (Mars?) in view while Mars is descending, returning, inclined towards returning, or in its low house (bayt  $wab\bar{\imath}al$ ), or burning below the celestial body of the Sun while it is rising straight. If Venus (al-zuhara) or Jupiter (al- $mushtar\bar{\imath}$ ) stand over it in a favorable formation, he will be more fortunate. It is desirable to observe the movement of the moon at the time so that it will be in conjunction with Mars or in the same sign of the zodiac. When he has made sure of these conditions, then he shall go about uprooting the shrub on a Tuesday, at the break of dawn ( $tul\bar{\imath}$  al-shams).

Practitioners of exoteric alchemy ( $ash\bar{a}b$  al-a' $m\bar{a}l$  al- $barr\bar{a}n\bar{i}ya$ ) claim that the only way to uproot it is thus: after loosening the earth around it and clearing it, one must bind the thin stems (' $ur\bar{u}q$ ) to the neck of a dog that has been starved for a day. Then the man moves away from it and calls out to the dog. The dog runs to him, struggling in the direction of his master and thereby uproots it. They claim that at that moment, the dog drops dead. However, I have seen this to be absurd and false for I have seen its uprooting, and it did not do [the dog] any harm. It was wrapped in a white cloth, being uprooted all together with its stems and leaves and fruit.

Its fruit is more useful than its roots. This shrub is suitable for many things that have nothing to do with medical application. One takes a piece of limb off this 'idol' and pounds it with some of its fruit and pounds it fine. One mixes it with oil of the Egyptian willow ( $duhn\ b\bar{a}n$ ) or firm scented oil or in grey quicksilver (zi'baq  $ras\bar{a}s\bar{s}\bar{\imath}$ ). A man may rub this oil on when he wants an encounter with notables or with people in power. As he rubs this on his eyes, forehead, face, and body, then he will meet with those who are the most beloved of the kings, whatever he desires. With it he will be honoured and his house will be elevated, and all his needs satisfied. He will only see the one [in power] that he needs. Also, one takes its white fruit that has not yet completely ripened and one pounds and crushes it with the oil of the Persian rose. One instructs a woman to rub it on her belly and her back. If she fears having a miscarriage, then she will not, by God's will, and pregnancy will reach its full term till the time of birth.

Hermes said: if one takes the calyx (*kimma*) of the bud before it has opened, wrap it in a linen cloth, bind it with a wool yarn made with seven colours, and hang it on a child that has epilepsy, then the seizures will disappear and will not return as long as this pendant is on him. Also, one takes the calyx of the flower after it has blossomed, one grinds it, roasts it with olive oil (*zayt*). Then one filters the oil and applies it on the belly of a pregnant woman who has been having difficulties in childbirth. It will ease the birth and she will deliver without pain. When one who fumigates, with some of the root that is the 'idol', his house or the place where he is staying, spirits and demons (*al-jinn wa 'l-shaytān*) will be expelled immediately and will not come near for many years. When one fumigates with this 'idol' a man who is in a state of delirium (*hadhayān*) and mental deterioration (*fasād 'aql*), it will go away.

Hermes said: this 'idol' is an amulet (*hirz*) with great usefulness for he who wears it as a necklace, or breaks off one of its 'limbs', strings it with a leather cord and hangs it around his neck or on his upper arm. From that time, he will be safe from all calamities and maladies, from all robbers and thieves, [p. 12] from drowning and burning, and from any other misfortunes. When one hangs some of it on someone who is prone to epileptic seizures, he will be cured. Its effect is stronger in this than a branch of paeony (*al-fāwanīya*). The uses of this shrub are many, especially the root of this shrub which is the 'idol'. Its fruit is effective for metastatic cancer (? *al-akla al-sā 'īya*) and malignant ulcers.

It is found in the Book of Properties (*Kitāb al-khawāṣṣ*<sup>67</sup>): whoever hangs on him the root of this shrub or any part of it stifles the rage of governors, but it must be hung at the time of full moon.

In my opinion, it [the name  $sir\bar{a}j$  al-qutub?] is said for many medicines among which are medicines that we have already mentioned above, as it is said for the medicine whose Greek name is  $aw\bar{a}q\bar{t}n\bar{u}s$  ( $aw\bar{a}q\bar{t}n\bar{u}s$ ) which is known as  $al-hadaq\bar{t}$  (= hyacinthus). We have mentioned it in the section alif followed by  $w\bar{a}w$ .

Al-Razī claims in  $al-Ḥāw\bar{\imath}^{68}$ , that it is the plant named  $l\bar{u}s\bar{\imath}m\bar{a}khiy\bar{u}s$  (لوسيماخيوس = lysimachia) in Greek, which we will mention in the section on the letter  $l\bar{a}m$  followed by  $w\bar{a}w$ . He also says about

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<sup>&</sup>lt;sup>66</sup> LECLERC's omission starts here.

<sup>&</sup>lt;sup>67</sup> LECLERC's translation resumes here.

this in a later place that this is the medicine named  $likhb\bar{l}s$  ( $likhn\bar{l}s$ ? = lychnis) in Greek. We will also mention this in the section on the letter  $l\bar{a}m$  followed by  $kh\bar{a}$ .

Al-Ghāfiqī says that some of the transmitters claim that this is a plant that grows among flax (*al-kattān*) and it grows much higher than it, and it has flowers like a red rose, and it has a root like a nut (*jawza*). It is called in the (non-Arabic) language of Andalusia *bukhayla* (بخيلة), which is the little nut that the diggers of the vineyard take and eat<sup>69</sup>.

Sharīf Idrīsī said: one calls it  $sir\bar{a}j$  al-qutrub because qutrub is the little creature (duwayba) that shines at night like a fire torch, and this plant is known in Syria to grow near the sea<sup>70</sup>. The stem  $(\bar{u}d)$  of this plant, when night darkens, glows from within, as long as it stays moist, so much that the observer would think it is on fire. But when it becomes dry, this effect ceases. When one places it in a cloth moistened with water and leaves it there, its moisture returns, and it would light up. When dry, it ceases. No medical merit is known for it.

I have chanced upon some of this specimen which I will report about. I came to a trunk of a cedar tree and extracted its roots and took a root and went back home. I laid it aside in a corner of the house and went to sleep. During the night I awoke from my sleep and opened my eyes. I saw something radiating light, and I did not doubt that it was indeed a light. So, I got up to see what it was, and I found the root of the cedar tree that I had brought from the garden. I examined it carefully and it was gleaming until it dried up, whereupon the effect ceased. That which was gleaming was the part that was close to the stem (al-  $\bar{u}d$ ). This is a strange ( $ghar\bar{t}b$ ) but proven thing.

<sup>&</sup>lt;sup>68</sup> Kitāb al-ḥāwī fi 'l-ṭibb (Comprehensive Book on Medicine)

<sup>&</sup>lt;sup>69</sup> I was not able to verify the original passage by al-Ghāfiqī. The critical edition by Eleonora DI VINCENZO (Pisa/Rome, Fabrizio Serra, 2009) has been done only for the chapter on *alif*. Also, the abridged version by Bar Hebraeus only covers *alif*, *ba*, *jim*, *dal*, *ha*, *waw* (*The Abridged Version of the "Book of simple drugs" of Ahmad Ibn Muhammad Al-Ghāfiqī*, Cairo, Bulaq, 1932). The oldest manuscript, Olser 7508, of which a facsimile edition with critical essays is available, contains only the first half of the work, which includes *yabrūh* but not *sirāj alqutrub* (F. Jamil RAGEP, Faith WALLIS (eds), *The Herbal of al-Ghāfiqī*, Montreal, McGill-Queen's University Press, 2014).

<sup>&</sup>lt;sup>70</sup> Idrīsī, Compendium of the Properties of Diverse Plants and Various Kinds of Simple Drugs (Kitāb al-jāmiʿ liṣifāt ashtāt al-nabāt wa-ḍurūb anwāʿ al-mufradāt), Frankfurt am Main, Institute for the History of Arabic-Islamic Science, 1995, vol. 2: part 2 of the Tehran redaction, p. 428.