

Beyond the “wonders of India” (*‘ajā’ib al-hind*): Yogis in Persian medico-alchemical writings in South Asia

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Abstract

This article looks at the translation and circulation of yogis’ learning in Persian medical and alchemical texts produced in South Asia. I suggest that looking at the non-religious environment allows for a more accurate understanding of the overall circulation of yogic knowledge and techniques in the Muslim society of South Asia. Furthermore, I suggest that the assimilation of yogis’ learning in Persian sources concerned not only Yoga but also other types of knowledge associated with yogis. Muslim physicians’ interest in yogis’ knowledge focused on one specific aspect: *rasaśāstra* “alchemy” and the mastery over the production of mercurial and metallic drugs. The technical and pragmatic focus of Persian medico-alchemical writings contributed to give views of yogis beyond the exotic and foreignizing category of the wonders of India. Medical writings helped to develop views of yogis as a socio-economic group involved in the transmission of a specific body of knowledge. This was an important shift away from the perspective of the *‘ajā’ib al-hind* “wonders of India” as well as from the ways in which yogis were perceived in Sufi texts. New perspectives on yogis emerged when Persian-speaking scholars and readers in India needed more pragmatic representations of local groups, such as the physicians who were in the process of appropriating alchemical notions that were closely associated with the yogis.

Keywords: Yogi, Persian, Alchemy, Medicine, South Asia, India, Ethnography, Mercury

1. Introduction

Scholarship on cross-cultural contacts between Hindu and Muslim societies in South Asia has looked at mystic circles as a representative domain in order to

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elaborate more precise ways to understand how such interactions took place among specific social groups. A series of studies appearing from the 1970s onwards has dealt with the issues of how narratives about yogis and knowledge of Yoga techniques have been integrated into Muslim textual culture, and how certain sects of yogis interacted with Muslim society. The contacts between yogis and Sufis have been examined in more detail beginning with Simon Digby's studies of narratives about yogis and rivalry between yogis and Sufis in Persian hagiographical sources and of 'Abd al-Quddus Gangohī's (d. 944/1537) interaction with yogic materials.² Carl W. Ernst has greatly contributed to developing this field through a series of articles looking at Yoga and Sufism in South Asia and the translation and circulation of sources on Yoga in the Muslim environment.³ His studies show that masters of various Indian Sufi orders integrated notions drawn from Yoga in their teachings, and that Persian and Arabic texts dealing with Yoga were also read in other regions of the Muslim world. In his analysis of narratives about yogis in Muslim travelogues and historical texts, he has also pointed out the outsider and prejudiced perspective of certain writers such as some Muslim travellers who visited India and related its exotic marvels.⁴ James Mallinson has studied the features of the yogis in the paintings produced in the Mughal environment.⁵ French anthropologists Catherine Servan-Schreiber and Véronique Bouillier have shed new light on Muslim involvement in yogis' sects and the role of the Nāth sect of yogis. Servan-Schreiber has provided a study of the Bhartṛhari, a Muslim group of musicians and singers who specialize in the Nāth repertoire; Bouillier has looked at the *Mohammad bodh*, a prayer text recited by Muslim yogis during the month of Ramadan.⁶

How did Persian scientific and technical writings contribute to broadening Persian readers' perceptions of yogis? Concerning the epistemic categories of the target culture, we should avoid the assumption that Muslims had a homogeneous and unchanging view of yogis. The many and varied accounts of yogis extant in Arabic, Persian and Urdu writings suggest that different perceptions coexisted, and that different types of texts and writers contributed to shaping and reflecting those views. In historical, geographical and travel (*saḡar-nāma*) literature yogis are often seen as part of the '*ajā'ib al-hind*, the "wonders" or "curiosities" of India. This view is still present in some Muslims' travelogues of the Mughal period.⁷ The Persian texts written in the Indian Sufi environment provide contrasting views of yogis and their doctrines. They contain narratives

- 2 See Digby 1970, 1975. On 'Abd al-Quddus Gangohī's main work, the *Ruṣd-nāma*, see also Ernst and Khodamoradi 2019.
- 3 See Ernst 1996, 2003b, 2005, 2008, 2009, 2010, 2016. On the *Yoga-Kalandar*, a Bengali text combining Yoga and Sufi elements, see Bhattacharya 2003. On longevity practices in Bengali Sufi texts, see Mukharji 2017.
- 4 Ernst 2008: 409–10.
- 5 Mallinson 2013. On yogis in Mughal paintings, see also Parikh 2015.
- 6 Servan-Schreiber 1995, 1999, 2003; Bouillier 2010, 2015. On the Nāth cult in Sindh, see Kalhoro 2018: 115–28.
- 7 See Ernst 2008; on the '*ajā'ib*', see Dubler 2012 and the recent edition of Buzurg ibn Šahriyār's *Kitāb 'ajā'ib al-hind*, Buzurg ibn Šahriyār 2018. On the *saḡar-nāma* texts, see Alam and Subrahmanyam 2007.

of competition for spiritual supremacy as well as elaborate forms of interpretation and assimilation of knowledge about Yoga.⁸ The yogi is a character of some Indian tales which also circulated among Muslim readers, such as the love story of *Hīr-Rānjhā*, a tale from the Punjab that was adapted several times in Persian, where the male character, Rānjhā, becomes a yogi healer to be able to visit Hīr, his beloved who has fallen ill.⁹

In the Persian scientific texts studied in this article, yogis are chiefly regarded as a group associated with the transmission of knowledge about mercurial, metallic and herbal drugs. During the Mughal and British periods, Persian treatises dealing with the religions, castes and professions of India included sections on yogis, and some of them used proto-ethnographic forms of description.¹⁰ Therefore, knowledge about yogis in Persian textual culture – like knowledge of India – was a multi-layered phenomenon which evolved over time and adapted to the features of the readership for which these texts were produced. For instance, the perspective of the *‘ajā’ib al-hind* is more common in the *saḡar-nāmas* “travelogues” written by foreign Muslim travellers who had a limited knowledge of India and wrote their texts chiefly for a non-Indian Muslim readership. On the other hand, medico-alchemical texts focus on the technical knowledge used by yogis to process mercury and metals as this was the kind of knowledge sought by their readership: i.e. the Muslim physicians who were adapting their practice to the trends of Indian medical culture.

In this article, I suggest that looking at the non-religious environment allows for a more accurate understanding of the overall circulation of yogis’ knowledge and techniques in the Muslim society of South Asia. Furthermore, I suggest that the assimilation of yogis’ learning in Persian sources concerned not only Yoga but also other types of knowledge associated with yogis. The translation and circulation of yogic scientific-technical concepts in Persian medical and alchemical texts is particularly important in this regard. I propose to take into account the socio-economic context in which translation and the borrowing of technical procedures took place. Economic reasons play a key role in the Muslim target culture’s assimilation of Indic concepts, and Persian texts show that yogis were among the actors involved in the process of cross-cultural transfer.

Muslim physicians’ interest in yogis’ knowledge focused on the specific aspects of *rasaśāstra* “alchemy” and mastery over the production of mercurial and metallic drugs. The incorporation of ideas associated with yogis into Persian texts took place in a context where Muslim physicians were engaged in an extensive process of translation and assimilation of medical and therapeutic knowledge from Indian sources.¹¹ Muslim physicians explained in their books that Ayurvedic materials were translated primarily for material and pragmatic reasons. Miyyān Bhuwa ibn Ḥawāṣṣ Ḥān, who compiled an extensive Persian treatise on Āyurveda in the early sixteenth century, openly complains about

8 See Ernst 2003b, 2005, 2010.

9 I thank Anne Murphy and Pegah Shahbaz, who currently work on the Punjabi and Persian versions of this tale, for pointing out this text to me. On the yogi’s character in the romances known as *Premākhyāns*, see also Behl 2012; Mallinson (forthcoming).

10 On the texts produced for the Europeans, see Ernst 2003a: 187–93; Speziale 2010b: 433–5.

11 See Speziale 2010c, 2014, 2018a, 2018b.

earlier Arabic and Persian texts because the names of drugs used in these texts were unknown in India and certain drugs did not grow there. Muslim scholars needed to assimilate local knowledge about Indian drugs and their lexicon, which were insufficiently described in Arabic and Persian texts. Another major concern raised by these writers was the difficulty of interacting with drug sellers in the local markets in India, who of course did not know Persian or Arabic.¹² These accounts suggest that Muslim physicians perceived this situation as a major threat to their professional and economic status, and that the assimilation of Indian knowledge became the main strategy for countering it.

From the fourteenth century onwards, a number of Persian medical texts written in South Asia included chapters dealing with Ayurvedic medical materials and *rasaśāstra*. In South Asia, the *rasaśāstra* trend developed almost simultaneously in Sanskrit and Persian medical texts.¹³ Although earlier Ayurvedic texts included references to mercury and its medical use, the *Śārṅgadharasamhitā* by Śārṅgadhara (thirteenth or fourteenth century) is considered the earliest Sanskrit medical text that includes a long chapter on mercury.¹⁴ Śārṅgadhara's treatise was probably written not long before the *Majmū'a-yi Žiyā'ī* by Žiyā' Muḥammad (written shortly after 727/1327), a Persian medical text that provides an extensive account of yogis' knowledge of mercurial and metallic drugs and the technical apparatuses involved in processing these drugs.¹⁵

Mercurial and metallic preparations were new drugs that seem to have reshaped the drug market of late medieval and early modern South Asia if we judge by the significance that this topic acquires in Sanskrit and Persian medical texts. These drugs included poisonous substances like mercury which had to be processed before they could be safely ingested. The processing of mercury and metals involved the use of apparatuses that were the most advanced technological tools available at the time. These borrowings had an important economic value, as the technology was an endogenous knowledge transmitted within specific social groups. The interest of Persian-speaking writers focuses on the description of the technical learning necessary to master complex procedures to process metals and minerals for internal use, such as in the case of the concepts associated with the yogis.¹⁶

Some of these drugs were costly items, including precious metals like gold and silver, and were sought by kings and wealthy clients for the many powers ascribed to them, such as longevity and virility. We do not yet possess precise information about the cost of drugs that included mercury in the Indian market. However, certain documents of the Mughal period can help provide a rough idea of the high cost of processed mercury used in compound drugs. The Mughal emperor Awrangzeb (r. 1658–1707) sent a well-known royal letter (*farmān*) to the master Ānand Nāth of Jakhbar (Punjab) after he had received two

12 On these accounts, see Speziale 2018a: 45–51.

13 On *rasaśāstra* in Sanskrit texts, see Wujastyk 2013, 2015a, 2017; in Persian medical writings, see Speziale 2019.

14 See Wujastyk 2013: 16–19, 2015: 101–9.

15 Śārṅgadhara's text was also translated several times into Persian: see Speziale 2018a: 60–1, 175–6, 190–1.

16 See also Speziale 2019.

*tolā*¹⁷ of mercury (*pāra*) from the latter. Awrangzeb also sent a piece of cloth for a cloak, twenty-five rupees and a guarantee of his protection to Ānand Nāth.¹⁸ Pieces of cloth sent by the Mughals were usually luxury goods. The sum of twenty-five rupees was also significant for two *tolā* of product if we consider that, during Awrangzeb’s reign, the salary of a high-ranking physician of the state administration, the director (*dāroġa*) of the hospital of Awrangabad, was 136 rupees per month.¹⁹

2. Yogis and Hindu sages as masters of Muslim scholars

The transfer of scientific and technical knowledge did not rely exclusively on textual translation and studies. Private teaching and cross-cultural networks of Hindu and Muslim scholars played a key role in the exchange of medical knowledge in an environment in which Muslim physicians did not learn Sanskrit and therefore did not have access to texts in that language.²⁰ Accounts of Muslim physicians’ studies in South Asia are rare before the colonial period. However, certain writers provide biographical information on themselves or on the way their text was produced.

It is noteworthy that certain pre-eighteenth-century writers, who mention Hindu teachers, refer to having studied with ascetics, which could suggest that this phenomenon was not so unusual. It is likely that certain yogis accepted Muslim disciples, considering that Muslim groups of yogis were a rather widespread phenomenon until the colonial period.²¹ Although writers’ accounts offer scanty information about yogis, such accounts suggest that yogis were part of the network of Hindu masters the Muslims could use to get acquainted with local learning. In the *Haft aḥbāb*, an apocryphal Persian text dealing extensively with Indian alchemy, the account of a yogi teaching technical knowledge to a Muslim even becomes a narrative device. In the fourth chapter, a three-hundred-year-old Nāth yogi, Dayā Nāth, teaches the methods for making acids to a certain Ṣayḥ Zāhīr al-Dīn Rūmī, who had converted eighty-four yogis to Islam (including the same Dayā Nāth).²²

The most noteworthy of these accounts is probably that of Šihāb al-Dīn Nāgawrī, a physician active in Gujarat and Rajasthan. In 790/1388, Nāgawrī writes the *Šifā al-maraz*, a Persian medical handbook in verse. The *Šifā al-maraz* is a key text in the history of Muslim assimilation of Indic medical knowledge in South Asia. In the first chapter the author proposes a new division of humoral pathology which combines the theories of Muslim and Hindu physicians.²³ The *Šifā al-maraz* circulated widely and was read and copied by both Muslim and Hindu physicians. In one of the last chapters, the author offers

17 An Indian weight that is equal to 11.66 grams.

18 Goswamy and Grewal 1967: 120.

19 See Speziale 2012: 11.

20 Speziale 2018a: 128–33.

21 See Briggs 1938: 4–6, 66, 71. Muslim groups of yogis still exist in India, especially in Uttar Pradesh and Bihar: see fn. 6.

22 On the *Haft aḥbāb*, see Speziale 2006.

23 See Speziale 2014.

a biographical account of himself and his family. Regarding his medical studies, he relates that he has studied with a Muslim teacher from Kabul and later often visited the yogis (*basī ḥidmat-i jūgyān*) to improve his medical skills.²⁴ In the *Šifā al-maraḏ*, Nāgawrī devotes a series of chapters to the Indian methods for producing oxide of mercury and other metal oxides. It is possible that Nāgawrī discussed such topics in his encounters with the yogis, although he does not mention them in the chapters on metal oxides.²⁵

The case of Nāgawrī's studies with yogis does not seem to be the only one during his time. Another fourteenth-century account refers to the fact that yogis had Muslim disciples and to yogis' skills in the production of certain drugs. This account is provided by the Moroccan traveller Ibn Baṭṭūṭa (d. c. 1369), who visited India in the 1330s and 1340s and wrote a well-known travelogue in Arabic. Ibn Baṭṭūṭa relates that in Mangalore he saw a Muslim man who had studied with the yogis and had remained on a platform for twenty-five days without eating and drinking. Ibn Baṭṭūṭa explains that, according to local people, the yogis make pills (*ḥabb*) which they eat during a certain number of days and which allow them to remain without food and drink.²⁶ Ibn Baṭṭūṭa's account therefore suggests that the knowledge of how to produce and use such drugs was the object of a process of cross-cultural transfer from master to student.

The *Tajribāt al-mujarrabāt-i Ġiyāt-šāhī* (Tested Remedies of King Ġiyāt), a Persian treatise on Indian medicine written by Sa'd Allāh Niẓāmī Zanjānī, testifies to the interest in the Muslim environment in appropriating knowledge associated with Hindu sages' practices of longevity. The writer claims to have gathered in his text the experiences (*tajribāt*) of a Hindu named Malik Lālā of the time of Sultan 'Alā' al-Dīn Ḥaljī (r. 1296–1316) of Delhi. Malik Lālā was about one hundred years old, but by virtue of his daily exercises (*ḥarakāt wa sukūnat*) his limbs were better than those of a thirty-year-old man.²⁷ Nothing is known about Niẓāmī Zanjānī and he does not explain how he met Malik Lālā or how Malik Lālā's teachings were transmitted to him. It is also not certain to which Muslim king he dedicated his treatises, although it may have been Sultan Ġiyāt al-Dīn Muḥammad Šāh Ḥaljī (r. 1469–1500) of Malwa.²⁸ As noted in earlier studies, it seems that certain members of the Ḥaljī nobility in Malwa were interested in acquiring the power of longevity ascribed to yogis and some even lived with yogis in order to gain knowledge of their techniques and drugs.²⁹

A number of Persian treatises dealing with Indic knowledge on erotology and virility therapy were written, copied and illustrated in South Asia.³⁰ Several of

24 Nāgawrī 1295/1878–79: 98.

25 Nāgawrī 1295/1878–79: 82–7.

26 Ibn Baṭṭūṭa 1858: 35–6.

27 Sa'd Allāh Niẓāmī Zanjānī. *Tajribāt al-mujarrabāt-i Ġiyāt-i šāhī*. MS. Hyderabad: Salar Jung Library, pers. *ṭibb* 31, f. 2a.

28 On this text, see Speziale 2018a: 172–3.

29 See Ernst 2008: 412. A treatise on alchemy in Hindawi dealing with mercury and other metals was composed at the court of Ġiyāt al-Dīn's successor, Naṣīr Šāh (r. 1500–10): see Day 1965: 369–70.

30 See Speziale 2010b: 424–5; Kurz 2018.

these texts mention that they were based on the *Kokaśāstra*, or *Ratirahasya*, a well-known Sanskrit text on this topic by pandit Kokkoka or Kōkā, although it is likely that Muslim translators also came into contact with different texts bearing the same title or based on the *Kokaśāstra*. Muslims were deeply interested in this field, and virility is one of the main effects of the alchemic drugs of the Hindus described in Persian medical texts. Muḥammad Qulī 'Jāmī' realized an abridged verse translation of the teachings of the *Kokaśāstra* which he dedicated to Sultan 'Abd Allāh Quṭb Šāh (r. 1626–72) of Golconda. The translator was a scholar from the Deccan and his Persian adaptation includes the medical prescriptions that are found in similar Sanskrit treatises. At the end of the introduction, he explains that he has encountered considerable difficulties in his translation work and had to visit the experienced persons (*āzmūda*) in this art (*hunar*), the yogis (*jūgī*) and the itinerant ascetics (*saiyāh*), to deepen his knowledge in this field.³¹ This account suggests that the Muslim translator considered yogis and ascetics to be skilled in this art. In this regard, one should consider that increased virility is one of the typical effects of the alchemical preparations attributed to yogis in Persian texts, such as in the chapter on this topic in Žiyā' Muḥammad's *Majmū'a-yi Žiyā'ī*. It is possible that this was one of the main motivations for the translator to get in touch with yogis.³²

One may raise the question why Nāgawrī and Muḥammad Qulī mention that they chose to study with yogis and ascetics and not with other classes of Hindu scholars such as the physicians. A possible reason is that at that time there were still few Hindu Persian-speaking scholars with whom Muslims could have interacted, especially in Nāgawrī's time. In this context yogis, or at least some of them, would have been among the few Hindu masters who would have accepted Muslims as students. The Hindu yogis were less concerned with caste and purity than the *vaidyas*, the Ayurvedic doctors who would often have been brahmins. Moreover, Muslims could have chosen yogis as their masters because they considered them experts in the secrets of arts related to alchemy and virility, the knowledge of which allowed one to produce drugs that were sought after in the medical market. On the other hand, we should consider that these narratives date from before the eighteenth century. Things changed during the late Mughal period when the number of Hindu Persian-speaking scholars with whom Muslim physicians could interact increased considerably.

3. Yogis and their knowledge in Persian medical and alchemical sources

How is yogis' knowledge about alchemical drugs presented and incorporated in Persian medical and alchemical texts? The aim here is not to raise the issue of the relationship between Yoga and Ayurvedic medicine in the Hindu

31 Muḥammad Qulī. 'Jāmī', *Laḡdat al-nisā'*. MS. London: British Library Add. 17,489, ff. 12b–13a; see also Fārūqī 1420/1999: 149.

32 On concepts and practices related to sexuality in the yogic environment, see Mallinson 2011: 408, 411, 413, 415, 423; Mallinson 2018; Mallinson and Singleton 2017: 94, 102, 570, 817, 966. For a comparison with Southeast Asia, see Braginsky 2019.

environment.³³ Persian medical and alchemical texts do not deal at all with Yoga or Yoga exercises, except for one seventeenth-century medical encyclopaedia which includes a chapter on the techniques for breath control. The incorporation of yogis' knowledge chiefly concerns the procedures of *rasaśāstra* and the methods for processing mercury and metals. The association of Hindu ascetics with this domain is attested in both Hindu and Muslim sources. In the Hindu environment, texts on alchemy were written by members of *śākta-śaiva* and tantric orders.³⁴ The masters of the Nāth sect of yogis were known for their mastery over alchemy, beginning with Gorakṣanātha (or Gorakhnāth), the founder of the sect.³⁵ Until the contemporary period, certain Nāth yogis were known for their alchemical skills.³⁶ The Nāth Panth was the sect of yogis that had the closest interactions with the Muslim society. Hindu scholars who wrote in Persian, such as Ladhamal ibn Bhairav (*fl.* second half of the seventeenth century), author of the medical treatise *Baḥr al-fawā'id*, also refer to drugs made by yogis.

Persian texts show that Muslims looked at the yogis, and the Nāths in particular, as a group closely involved in the transmission of alchemical knowledge. Besides scientific texts, yogis' mastery over the production of miraculous drugs used to extend the lifespan and acquire powers is attested in other writings by Muslim authors and notably in accounts about the courtly environment. As pointed out by Carl W. Ernst, kings were among the most knowledgeable Muslim observers of yogis not because they were interested in their philosophy but because they wanted to get access to the occult powers ascribed to them.³⁷ Certain kings had close contacts with yogis, such as the Mughal emperor Akbar (r. 1556–1605), who discussed with them topics related to alchemy and magic.³⁸ According to a folk tale related by John Marshall, a factor of the East India company who arrived in India in the late 1660s, Akbar even killed a yogi after having stolen from him the quicksilver ball he used to fly.³⁹ Although fictional, this narrative is emblematic of how popular culture assimilated Muslim kings' eager efforts to appropriate yogis' mercurial drugs.

Awrangzeb was most likely a connoisseur and consumer of the mercurial preparations made by the yogis, as is shown by the aforementioned *farmān* in which he complained about the quality of mercury already provided by Ānand Nāth and requested him to send mercury of better quality quickly.⁴⁰ Awrangzeb's interest in this type of drug is also attested by medical sources. Persian treatises dealing with Ayurvedic medicine were dedicated to Awrangzeb and two of them include chapters on mercurial and metallic drugs.⁴¹ A Marathi account even

33 This relationship is chiefly a twentieth-century creation: see Newcombe 2017; on pre-modern texts, see Birch 2018.

34 White 2001: 873; White 1996.

35 Mallinson 2011: 14, 16.

36 Bouillier 2008: 16, 82, 134, 191, 207.

37 Ernst 2008: 422.

38 On Akbar and other Muslim kings, see Ernst 2008: 411–14.

39 Marshall 1927: 371–2.

40 See Goswamy and Grewal 1967: 120.

41 These are Darwīš Muḥammad's *Tibb-i Awrang-šāhī*, a general manual on Ayurveda, and Abū al-Faṭḥ Čištī's *Dār al-šifā'-i Awrang-šāhī*; on these texts, see Speziale 2018a: 42–5, 191–3.

claimed that Awrangzeb became a follower of the cult of Śahā Datta, a Hindu holy man who assimilated the features of a Muslim fakir.⁴² Moreover, as pointed out by Bouillier, according to certain accounts Nāth masters gave their blessing to Muslim kings before victorious battles.⁴³ The fame of yogis’ mercurial drugs went beyond South Asia, as a well-known incident that happened at the Ilkhanid court in Tabriz (Iran) demonstrates. A yogi from India suggested the Buddhist ruler Argūn Hān (r. 1284–91), who patronized Buddhist monks at his court, take a life-prolonging drug made of sulphur and quicksilver. As a result, Argūn developed an incurable sickness and died in five months.⁴⁴

Besides kings, physicians were among the Muslims most involved in the circulation of mercurial drugs in the Islamicate environment of South Asia. Muslim physicians’ interest in the alchemical preparations of the yogis is already attested in the *Majmū‘a-yi Žiyā’ī* (Compendium of Žiyā’), the earliest Persian medical text written in South Asia that has come down to us. It is a general medical handbook written by Žiyā’ Muḥammad ‘Umar Ġaznawī at Dawlatabad soon after 727/1327, when the city became the second capital of the sultan of Delhi, Muḥammad ibn Tuġluq (r. 1325–51). It has been suggested that the text was composed in the courtly environment and for the same Sultan,⁴⁵ although the author does not clearly state that the book was written at the order of Muḥammad ibn Tuġluq or dedicated to him. However, the author’s association with the court would be consistent with Muḥammad ibn Tuġluq’s interest in the yogis. The contemporary Ibn Baṭṭūṭa writes that Muḥammad ibn Tuġluq esteemed the yogis and admitted them to his presence, and that one day he even saw a yogi levitating in the sultan’s apartment.⁴⁶

Chapter 41 (*dar rasahā* “on mercurials”) of *Majmū‘a-yi Žiyā’ī* is entirely devoted to mercurial and metallic drugs. The author writes in the preface that this chapter is based on the teachings (*guftār*) of Nāgārjuna and other yogis (*jūgiyān-i dīgar*).⁴⁷ It is possible that this chapter was based on the lost Persian translation of a text attributed to Nāgārjuna, entitled *Maḥzan al-šifā’ wa ma’dan al-ġanā’* “Treasury of healing and mine of benefit”, which is mentioned by Žiyā’ Muḥammad.⁴⁸ Žiyā’ Muḥammad quotes this Persian translation in his preface, among the texts he used for the compilation of the *Majmū‘a-yi Žiyā’ī*.⁴⁹ Copies of this translation have not been found so far. However, we should bear in mind that almost all the complete translations into Persian of Indic scientific texts made during the Sultanate period were realized in the courtly environment, largely owing to the high costs of assembling a bilingual

42 Deák 2010: 519–20.

43 Bouillier 2015: 7–8.

44 Jackson 1986.

45 Ashraf 2003: 21, 32.

46 Ibn Baṭṭūṭa 1858: 36.

47 Žiyā’ Muḥammad. *Majmū‘a-yi Žiyā’ī*. MS. New Delhi: Jāmi‘a Hamdard, 11963, ff. 2a, 5b; MS. Hyderabad: Andhra Pradesh Oriental Manuscript Library and Research Institute, *ṭibb* 344, ff. 3a, 7b.

48 On the medical and alchemical tests attributed to Nāgārjuna, see Wujastyk 1984; Meulenbeld 1999: 363–8.

49 Žiyā’ Muḥammad. *Majmū‘a-yi Žiyā’ī*. MS. Hyderabad: Andhra Pradesh Oriental Manuscript Library and Research Institute, *ṭibb* 344, ff. 2b–3a.

team of scholars.⁵⁰ One may also wonder if this translation was the same book that Nūr al-Dīn Šīrāzī mentioned as *Kitāb-i Nāgārjuna ṭabīb*, the “Book of Nāgārjuna the physician”, in the chapter on alchemy (*rasāyan*) of the *‘Ilājāt-i Dārā Šikōhī*, which would suggest that the translation was still circulating in the seventeenth century.⁵¹

Chapter 41 of the *Majmū‘a-yi Žiyā’ī* does not contain any further reference to Yoga or to the doctrinal features of Indian alchemy. The main aim of such Persian texts dealing with Ayurveda and *rasāsāstra* was to allow readers to appropriate the procedures and treatments of their Hindu colleagues. The text focuses entirely on the description of the technical procedures needed to process mercury and other metals. It describes the production and the posology of compound drugs made of mercury and other metals and includes several Indic terms in Persian script. Towards the beginning of the chapter an elaborate formula of pills attributed to Nāgārjuna is described. These pills contain mercury, sulphur and some herbal ingredients and involve the use of the *vālukāyantra* (*bālukā-jantra* in Persian script), the “sand apparatus” that was employed to purify mercury. These pills are said to cure the *samnīpāt* fever (the fever caused by the combination of three humours of Ayurvedic medicine) in three days.⁵² The chapter ends with a formula of *kalpa rasa* by the yogi Vāgbhaṭa (Baghbādās in Persian script) which explains how to make a mercurial pill that turns white hair black.⁵³ In the chapter dealing with sexology, Žiyā’ Muḥammad recounts the formula of a compound drug for the hair that is related (*mīgūyad*) by the yogi Ācāra.⁵⁴

Early Muslim fascination with yogis’ drugs is also attested in the *Rāḥat al-insān*, a medical work dealing with Avicennian and Ayurvedic materials which was written in 778/1377 by Ilyās ibn Shihāb Žiyā’ and was dedicated to Sultan Fīrūz Šāh Tuḡluq (r. 1351–88) of Delhi. In Chapter 46, which deals with the rejuvenation therapy (called *ilāj-i kalpa*, “treatment of *kalpa*”) of the Hindus, the author describes a herbal formula made with *sanā makkī* (*Cassia acutifolia*), *āmla* (*Phyllanthus emblica*), and *halīla* (*Terminalia chebula*), which is claimed to have many benefits; after one week it cures all the seventy ailments of the wind (*bād*, for Ayurvedic *vāta*) while after six months it gives the strength of an eighteen-year-old man. Ilyās explains that the yogis call it (*gūyand*) *dēva rasāyana* and that this drug should be used (*isti‘amāl*) while continually eating rice, oil and cow’s milk and abstaining from sour food and sexual intercourse.⁵⁵

This and other accounts suggest that yogis used jargon to refer to compound and single drugs and that Muslim physicians were aware of this. This point is further illustrated by an account concerning Miḡān Ṭāha Farmulī given in a

50 See Speziale 2018a: 38–45, 72–4, 165–78.

51 Speziale 2019: 23. On the *‘Ilājāt-i Dārā Šikōhī*, see also below in this section.

52 Žiyā’ Muḥammad. *Majmū‘a-yi Žiyā’ī*. MS. Hyderabad: Andhra Pradesh Oriental Manuscript Library and Research Institute, *ṭibb* 344, pp. 644–5.

53 For a partial English translation of this chapter, see Zahuri 1964.

54 Žiyā’ Muḥammad. *Majmū‘a-yi Žiyā’ī*. MS. New Delhi: Jāmi‘a Hamdard, 11963, f. 74b.

55 Ilyās ibn Shihāb Žiyā’. *Rāḥat al-insān*. MS. Hyderabad: Andhra Pradesh Oriental Manuscript Library and Research Institute, *ṭibb* 387, p. 106.

historical chronicle, the *Wāqi‘āt-i Muštāqī*. Miḡyān Ṭāha was a Muslim scholar during the time of Sultan Ibrāhīm Lodī (r. 1517–26); he was an expert in Ayurvedic medicine, and it is said that even Hindus came to study medicine and music with him. The wounded son of a nobleman was once taken to Miḡyān Ṭāha, who prescribed a treatment that included powder of *gobhī*.⁵⁶ The servant accompanying the child did not understand the meaning of the word *gobhī* and Miḡyān Ṭāha tried to explain to him what it was, mentioning the different names used by villagers, yogis, the Gujaratis and the Afghans.⁵⁷ This indicates that the yogis used a term that was different from that used by other groups and that this term was also known to and used by scholars.

Muḡammad Qāsim Firišta (born c. 978/1570) is another Muslim who had direct contacts with Hindu scholars.⁵⁸ A well-known historian of Iranian origin, he was active at the court of Ibrāhīm ‘Ādil Šāh II (r. 1580–1627) of Bijapur. He was also a physician, and he authored the *Dastūr al-aṭibbā’*, a handbook in Persian on Ayurvedic medicine.⁵⁹ The *Dastūr al-aṭibbā’* includes a detailed chapter on *rasasāstra* where Firišta mentions a few formulas that are made (*ma’mūl*) by the “sect of the yogis” (*ṭā’ifa-yi jūgiyān*) in the part dealing with the “killing of mercury” (*qatl-i sīmāb*). These formulas are *rasa sindūr* and *rasa bhīm* which, as he explains at the beginning, are variants of the same drug. It is a compound drug made of mercury and sulphur which has a number of benefits: it relieves the wind and the phlegm, and is useful against dysentery, cough, asthma, intestinal worms, gonorrhoea, jaundice and weakness in coitus.⁶⁰

Certain Nāth yogis wrote treatises on alchemy, such as Nityanātha Pārvaṭīputra, the author of the *Rasaratnākara*, a Sanskrit treatise on *rasasāstra*.⁶¹ The *Rasaratnākara* is mentioned among the sources translated into Persian and used for the composition of the *Ma’dan al-šifā’-i Sikandar-šāhī*, a comprehensive treatise on Ayurvedic medicine compiled in 918/1512–13 by Miḡyān Bhuwa ibn Ḥawāṣṣ Ḥān.⁶² The *Ma’dan al-šifā’* was dedicated to the Sultan of Delhi Sikandar Lodī (r. 1489–1517). Miḡyān Bhuwa was a vizier of the court and hired a group of Hindu and Muslim scholars to translate a selection of Ayurvedic texts into Persian. Miḡyān Bhuwa also had close connections with the Sufi master ‘Abd al-Quddus Gangohī, the contemporary master of the Čištī order who was renowned for his knowledge of Yoga.⁶³

The *Nuṣṣa-yi Ghōḡācōlī*, the “Recipe of Ghōḡācōlī”, is another alchemical recipe which enjoyed a significant circulation in Persian texts. The Indic source seems to have been a text attributed to Ghōḡā Coḡī. David White writes that Ghōḡā Coḡī (or also Ghōḡācōlī, Ghōḡācōlī) was a *mahāsiddha* of the yogic

56 Hindi term for the medicinal plant *Elephantopus scaber*.

57 Muštāqī 1422/2002, 176–7.

58 See Speziale 2018a: 130, 184.

59 On the *Dastūr al-aṭibbā’*, see Speziale 2018a: 181–4.

60 Firišta, Muḡammad Qāsim Hindūšāh. *Dastūr al-aṭibbā’*. MS. Copenhagen: Det Kongelige Bibliotek, pers. XXII, ff. 89b–90a.

61 Mallinson 2011: 14, 16.

62 Bhuwa Ḥān 1294/1877: 3.

63 On ‘Abd al-Quddus Gangohī, see Digby 1975; on Miḡyān Bhuwa, see Speziale 2010a: 43–4.

tradition and a short Sanskrit alchemical work, the *Ghoḍā Cōlī* or *Ghoḍācōlīvākya*, is ascribed to him.⁶⁴ A Persian version of this recipe is attributed to Muḥammad Ḥusayn Gīsūdirāz (d. 825/1422, Gulbarga), the leading Čištī master of the Deccan. As in the case of the *Haft aḥbāb* (see below), this version of the *ghōḍācōlī* shows how the creation of Sufī authorship could be used to assimilate these materials in the target culture and Islamize them. The *Nuṣṣa-yi ghōḍācōlī* ascribed to Gīsūdirāz is a short text describing a drug made with mercury, sulphur, the three myrobalans and other ingredients, which is a panacea for sixty-three diseases.⁶⁵

Several authors of medical texts included the *ghōḍācōlī* in their books, or probably variants of this recipe. Amān Allāh Ḥān ‘Amānī’ (d. 1046/1637), a physician and nobleman who served as the governor of the Mughal provinces of Bengal and Malwa,⁶⁶ describes the preparation and properties of this pill (*nuṣṣa-yi ḥabb-i ghōḍācōlī*) in the chapter on *rasāyan* of the *Ganj-i bād-āward*, an extensive treatise on pharmacology.⁶⁷ Abū al-Faṭḥ Čištī describes the ingredients and benefits of this mercurial drug (*rasa ghōḍācōlī*) in the *Dār al-šifā’-i Awrang-šāhī*, a text written in 1081/1670 and dedicated to the Mughal emperor Awrangzeb.⁶⁸ In the *Ṭibb-i bēdik*, a Persian manual of Ayurvedic medicine by Aḥmad ‘Alī Ḥān (fl. first half of the nineteenth century), the *ghōḍācōlī* is presented along with another drug made by the yogis (*digar manāfi’-i jūgiyān*) that does not include mercury or metals.⁶⁹ This recipe also circulated in Persian writings produced outside South Asia, such as the *Ḥulāṣa al-tajārib* by Bahā’ al-Dawla Nūrbahšī. Bahā’ al-Dawla was an Iranian scholar and belonged to an eminent family of Sufī masters.⁷⁰ The *Ḥulāṣa al-tajārib* is a Persian medical handbook written in 907/1501–02 in Iran. The author also dealt with Ayurvedic materials, and it is likely that his account of the *ghōḍācōlī* and of other Indic notions relied on Persian texts produced in South Asia.⁷¹

Abū al-Faṭḥ Čištī taught medicine to the Hindu scholar Ladhmal ibn Bhairava who wrote the *Baḥr al-fawā’id*, a medical handbook based on both Hindu and Muslim sources.⁷² In Chapter 35, which deals with mercurial drugs (*rasahā*), the author illustrates the many benefits of the *ghōḍācōlī*; just after this formula he describes at length the preparation of a compound drug made with sulphur, mercury, copper and iron that is useful for several ailments.

64 White 1996: 83, 129, 418. In Marathi, the term *ghōḍācōlī* defines a “pill composed of sulphur, mercury, orpiment, etc.”: see Molesworth 1857: 154.

65 Speziale 2010a: 234–6.

66 Speziale 2010d.

67 Amān Allāh Ḥān. *Ganj-i bād-āward*. MS. New Delhi: Jāmi’a Hamdard, pers. 1883, unnumbered folios.

68 Abū al-Faṭḥ. *Dār al-šifā’-i Awrang-šāhī*. MS. New Delhi: Jāmi’a Hamdard, pers. 1973, p. 201.

69 Aḥmad ‘Alī Ḥān. *Ṭibb-i bēdik*. MS. Aligarh: Mawlānā Āzād Library, Subḥ. 616/21, unnumbered folios.

70 His grandfather, Muḥammad Ḥusayn Nūrbahš (d. 869/1464–5), was the eponymous master of the Nūrbahšīyya order: see Speziale 2010a: 253.

71 Bahā’ al-Dawla Nūrbahšī 1893: 625.

72 See Speziale 2018: 156–7.

The author explains that this formula is that of the Bhairava (*bhairawan*) yogis and is also called *bhairawan rasa*.⁷³ One may wonder if this formula was in any way associated with the author's background, given that he refers to his father as a Bhairava. However, the author does not provide any further information on his family. Nevertheless, Ladhamal ibn Bhairava seems to be well informed on this topic and he specifies that this *rasa* "is made" (*karda ast*) by the yogis, a statement that could suggest that the author had directly observed such a practice or had contacts with the yogis involved in the production of this drug.

The apocryphal *Haft aḥbāb*, the "Seven Friends", is the Persian scientific text where the association between yogis and alchemy is developed in greatest detail while it also contributes to creating the narrative frame of this fabricated treatise. The *Haft aḥbāb* is a work dealing with various alchemical topics, including formulas and benefits of mercurial and metallic remedies. The text is divided into seven chapters and is attributed to a group of seven authors who in reality lived in different periods.⁷⁴ One of the seven writers is Gyān Nāth Sa'ādātmand, a Nāth yogi who converted to Islam. The group includes the Sufi Ḥamīd al-Dīn Nagawrī (d. 643/1246), a well-known master of the Suhrawardiyya order, and Sulaymān Mandawī (d. 944/1537–38), who was initiated by 'Abd al-Quddus Gangohī (d. 944/1537) into the teaching of the *Amṛtakunḍa*, a treatise on Yoga which circulated widely in the Muslim world.⁷⁵ Each chapter (*bāb*) of the *Haft aḥbāb* has a specific title, such as "The Seven Friends" or "The Seven Seas", and is divided into four paragraphs.

The second chapter, "The Seven Seas", is the longest in the book and is ascribed to Gyān Nāth, a yogi who is said to have been converted to Islam by the other authors of the book and thereafter nicknamed Sa'ādātmand, "the Felicitous". The chapter deals chiefly with the production of elixirs, mercurial compounds and the substances of vegetal origin used in alchemy. The first paragraph (*faṣl*) is on mercury and mercurial prescriptions for internal use; it begins by describing how to obtain mercury from cinnabar and explains the methods for processing mercury. The following *faṣl* discusses the solar elixir (*iksīr*) and the making of alchemical gold. The first elixir is made from calcined lead and cinnabar, and a pill of it may convert silver or copper into gold. The third paragraph deals with the lunar compounds (*tarkībāt-i qamar*) and alchemical silver; four methods are described. The first formula includes mercury, arsenic, calcined tin, sal ammoniac and lead; two pills may convert a *tolā* of copper into silver. The fourth paragraph deals with the plants used in alchemy and those used to process mercury. About one hundred plants are mentioned. The last part of the chapter deals with more than eighty aphoristic verses on alchemy given in Hindi and written in Persian script. According to the text, they were uttered by the old masters (*ustādān*) of Gyān Nāth.⁷⁶ These utterances are followed by one or more explanations of their meaning in Persian. Many of them provide

73 Ladhamal ibn Bhairava. *Baḥr al-fawā'id*. MS. London: Wellcome Trust Library, pers. 88, ff. 78b–79b.

74 See Speziale 2006.

75 See Digby 1975: 36. On the Arabic and Persian texts said to be based on the *Amṛtakunḍa*, see Ernst 2003b.

76 *Haft aḥbāb*. MS. Hyderabad: Salar Jung Library, *kīmīyā'* 6, p. 10.

instructions for producing elixirs capable of converting other substances into precious metals; some deal with the methods for processing mercury.

Other chapters in the text also include materials drawn from Indian alchemy, such as recipes for the preparation of the *guṭkā*, the magic ball of the yogis, as well as descriptions of the technical apparatus used for processing mercury and metals, such as the *pātanayantra*, an appliance for distillation. Some manuscript copies of the *Haft aḥbāb* have been illustrated with drawings of these apparatuses.⁷⁷ As in the case of the *Majmū‘a-yi Žiyā’ī*, the text of the *Haft aḥbāb* is selective about the types of Indic knowledge that are included in it. The *Haft aḥbāb* focuses on the description of practical and technical knowledge. It does not look at the principles of Yoga associated with alchemy, nor does it refer to the religious symbolism associated with alchemy in the Hindu environment, such as the association between mercury and Śiva. On the other hand, the narrative of the conversion of Hindu yogis to Islam and the creation of a Sufi authorship are devices used to Islamize the translated materials for the readers of the target culture.

The use of mantras appears to be the only Hindu notion having a sacred character that is preserved in some Persian texts. However, one may wonder if such a notion was kept in the translation because of its sacred meaning or because it was perceived as a component of delicate procedures involving mercury. For instance, in the *Rāḥat al-insān*, Ilyās ibn Shihāb provides a few mantras – a word translated by the Persian term *afsūn* “incantation” – written in vocalized Persian script. One of them had to be recited while preparing a recipe to “cook” mercury (*tarkīb-i puḥtan-i sīmāb*) in which mercury is processed by cooking it with other ingredients.⁷⁸ Ilyās ibn Shihāb does not present the use of this mantra as a practice associated with the yogis.

Besides materials on mercurial and metallic drugs, a description of the features of breath control is provided in the *‘Ilājāt-i Dārā Šikōhī*, a medical encyclopedia written by Nūr al-Dīn Šīrāzī and dedicated to the Mughal prince Dārā Šikōh (d. 1069/1659). Šīrāzī’s account may have been based on one of the many earlier accounts of this topic found in Persian texts. The methods for breath control are explained in Chapter 37 (*dar ma‘rifat-i ijrā-yi naḥs wa manāfi‘-i ān*) of the concluding section (*ḥātima*), which is further divided into nine paragraphs. The text describes the basic principles of the esoteric physiology of breath of the ascetics of India according to whom a man in good health breathes 21,600 times in one day and 900 times in one hour. It explains the correspondence with the solar and lunar principles, according to which the right nostril is connected to the sun (*šamsī*) while the left is associated with the moon (*qamarī*). It further exposes the relations between the five elements and different type of breaths as well as their effects on human beings: for instance, earth and water cause happiness while fire leads to sadness and illness.⁷⁹

77 For some drawings from the Leiden manuscript, see Speziale 2006: 24, 28; for a drawing from the manuscript kept at Wellcome Trust Library, London, see Speziale 2019: 26.

78 Ilyās ibn Shihāb Žiyā. *Rāḥat al-insān*. MS. Hyderabad: Andhra Pradesh Oriental Manuscript Library and Research Institute, *ṭibb* 387, p. 112.

79 Šīrāzī. *‘Ilājāt-i Dārā Šikōhī*. MS. Tehran: Kitābhāna-yi Majlis, pers. 6226, pp. 1556–61. On the *‘Ilājāt-i Dārā Šikōhī*, see Speziale 2010c.

Medical and therapeutic notions associated with the yogis also circulated through Arabic and Persian texts that claimed to be based on the *Amṛtakunḍa*, an alleged treatise on Yoga of which there is no mention in Sanskrit texts. These include subjects such as the constitution and physiology of the body, the use of breath-control in case of illness, a meditative posture to heal skin diseases, and other practices to treat the eyes and headaches.⁸⁰ In his study of the embryological notions discussed in the *Baḥr al-ḥayāt* of the Ṣaṭṭārī Sufi Muḥammad Ġawṭ (d. 970/1563), a Persian text that deals with the teachings of the *Amṛtakunḍa*, Carl W. Ernst has shown that the text uses terms drawn from the technical lexicon of Persian medical works.⁸¹ However, it does not seem that there was a significant overlap of contents between the Persian texts based on the *Amṛtakunḍa* and the Persian medical texts written in South Asia. Persian medical texts do not seem to include notions associated with the *Amṛtakunḍa* when they discuss materials associated with yogis, and the Persian texts claiming to be based on the *Amṛtakunḍa* do not include mercurial and alchemical recipes.

4. De-exoticizing yogis in Persian texts

The large number of textual references to yogis and their wisdom in different types of Persian, Arabic and Urdu writings offer a wide range of materials for studying how this Hindu group interacted with the Islamicate society of South Asia. Contacts were not limited to the religious sphere, and certain domains of Persianate scientific culture were also involved. In the scientific environment of the target culture, alchemy and medicine seemed particularly concerned with such interactions, and this is consistent with the fact that Muslims saw yogis as masters in the production of alchemical drugs. Various Muslim groups in South Asia were actually involved in the circulation of yogis' medico-alchemical notions and drugs, in particular the ruling class, physicians and Sufis.

Scientific texts contribute to a more precise understanding of how cross-cultural interaction involving knowledge transfer between groups was taking place in South Asian society. Muslim writers' narratives of their studies with yogis provide first-hand accounts of knowledge transfer that relied on personal and oral interaction. It may be useful to compare these narratives with the way Persian texts produced in the Sufi environment dealt with the issue of the transmission and authorship of yogis' knowledge. The Sufi literature shows that yogis regularly visited the *dargāh* "shrine" of Sufi masters and that the oral interaction among groups also included non-religious topics. In the *Fawā'id al-fu'ād*, the Čiṣṭī master Niẓām al-Dīn Awliyā' (d. 725/1325) says that he has listened to and learned from a yogi's speech on how the characteristics of the days of the month on which intercourse occurs influence the characters of the sons conceived on those days.⁸² In the same text, Niẓām al-Dīn Awliyā'

80 See Khan 1928: 297–9; Ernst 2003b: 213, 216–19.

81 See Carl W. Ernst, "Poetry, scripted meditation, and creation narrative: Sufi additions to the yoga practices in *The Ocean of Life*", paper presented at the Center for Islamic Area Studies, Kyoto University, 13 March 2019, unpublished.

82 Sijzī Dihlawī 1992: 417–18; for the English translation, see Lawrence 1992: 354–5.

relates – in a critical way – the case of a disciple of Farīd al-Dīn Ganj-i Šakar (d. 664/1265) who asked a yogi who came to the hospice how to make hair grow long.⁸³ At the same time, Sufis' narratives indicate that the two groups were competing for spiritual supremacy. Some accounts involve refusal by Sufis of the alchemical powers of the yogis as a means to affirm Sufi masters' superiority over the yogis. In one of these accounts, Muḥammad Ḥusayn Gīsūdīrāz refuses to accept the knowledge of alchemy (*rasāyana*) that a yogi insists on teaching him.⁸⁴ Another Čištī, Ḥamīd al-Dīn Nāgawrī, criticizes the emphasis placed by yogis on the alchemical powers of *rasāyana*.⁸⁵

The Sufi scholars most recognized for the assimilation of yogic practices in Persian texts do not claim to have studied with yogis or other Hindu teachers; among these scholars are 'Abd al-Quddus Gangohī and the Šaṭṭārī masters. Although it is unlikely that such borrowings could have taken place without close interactions or the observation of yogic practices, Sufi writers who integrated Yoga into their Persian treatises did not seem to acknowledge yogis as their masters. In the *Haft aḥbāb*, although borrowing is acknowledged, it is part of the rhetorical narrative of the yogi's conversion by the Sufi master. Medical writers certainly looked at this type of issue less antagonistically. To acknowledge the yogis as their masters did not represent a threat to their authority. On the contrary, the authors' statements that they studied directly with the yogis could be perceived by readers as evidence of the author's personal command of the Indian knowledge dealt with in the text.

Persian scientific works written in South Asia offered a different view of yogis compared with earlier and contemporary accounts in Arabic and Persian travelogues. Moreover, the technical contents of scientific writings did not overlap with the contents of Sufis' texts dealing with yogic practices. Persian medical and alchemical writings did not portray yogis as scholars embodying religious values or transmitting religious notions. Most of these writings omit references to Yoga and to the spiritual doctrine associated with alchemy in the yogic environment. Persian scientific texts provide a view of yogis as a group of experts involved in the transmission of specific technical crafts. Indian Muslim writers' approach is very pragmatic: what they considered valuable in yogis' knowledge were their technical skills in processing mercury and metals for internal use, a topic not dealt with in earlier Arabic and Persian texts, and which was one of the main new trends in medical studies and the drug market in South Asia.

The technical and pragmatic focus of Indo-Persian medico-alchemical writings contributed to give views of yogis beyond the exotic and foreignizing category of the wonders of India. This was in fact part of a wider phenomenon. When India became part of the *dār al-islām*, Persian scientific studies brought India out of the realm of the '*ajā'ib*. Indian culture and nature, including flora, fauna and climate, became the subject of a vast research enterprise based on both textual translation and empirical observation.⁸⁶ Indian Muslim

83 Sijzī Dihlawī 1992: 405; for the English translation, see Lawrence 1992: 346–7.

84 Simon Digby 1970: 23–6.

85 Rizvi 1986: 327.

86 For Persian medical and pharmacological texts, see Speziale 2018a.

scholars certainly had many occasions to meet and observe yogis. Persian medical texts provide provincial views of yogis written by Indian writers engaged with local knowledge. Medical and alchemical accounts may seem to share certain features of the ‘ajā’ib paradigm: yogis’ alchemical drugs were sought for their wonderful properties. However, in ‘ajā’ib accounts, yogic practices were narrated from a distant perspective and did not need to be explained in detail for readers. In the medico-alchemical texts, yogis’ formulas became the object of lengthy and meticulous descriptions that should allow readers to understand and possibly replicate such procedures. Certain simple procedures to process mercury described in Persian medical texts are still used by some Muslims in contemporary India.⁸⁷

Medical and alchemical texts were part – an early stage – of a broader process of “de-exoticization” of yogis in Persian literature. The proto-ethnographic treatises on the religions, castes and crafts of India brought a major contribution to this process. Persian treatises of ethnographic character are one of the major developments of Persian scientific studies in South Asia during the late Mughal and Colonial periods. These works began to appear during the Mughal period; their production developed during the Colonial period when texts of this kind were produced at the request of the British, for instance the *Daḥīra al-fu’ād*, made for John MacGregor Murray (1745–1822), and the *Tašrīḥ al-aqwām*, a treatise on the castes, professions and religious orders compiled by James Skinner (1778–1841). These texts applied new categories to the study of yogis as well as of other Hindu and Muslim social groups. Yogis and their beliefs, sects, practices, physical appearance, clothes and status in Indian society became the object of more or less systematic accounts.⁸⁸ Proto-ethnographic accounts used methodic patterns to present characteristics of groups in order to study and understand them, a procedure analogous to that used in the natural sciences. For instance, Persian texts dealing with Ayurveda used repetitive patterns to describe features and properties of Indian drugs, such as in the chapter on yogis’ drugs in the *Majmū’a-yi Žiyā’ī*. The Persian dictionaries (*farhang*) of Indian drugs produced in the eighteenth and nineteenth centuries – a period when proto-ethnographic texts were also produced – aimed to standardize the huge amount of knowledge on Indian drugs that Muslim scholars had acquired.⁸⁹

Although medico-alchemical and ethnographic texts looked at different features of yogis, both types of texts helped to develop views of yogis as a socio-economic group involved in the transmission of a specific body of knowledge. This was an important shift from the perspective of the ‘ajā’ib-nāma “books of curiosities” as well as from the ways in which yogis were perceived in Sufi texts.

87 Personal observation in Delhi (in 1999) of the processing of a mercurial drug for skin troubles.

88 See the papers presented by Carl W. Ernst, “Anglo-Persian texts and the colonial understanding of religion”, unpublished, and by Jean Arzoumanov, “Atmaram and the emergence of Anglo-Persian ethnography: the *Daḥīra al-fu’ād*, an account of Hindu festivals, castes and sects”, unpublished, at “The 4th Perso-Indica Workshop. John MacGregor Murray (1745–1822): Persianate and Indic Cultures in British South Asia”, Paris, Ecole des Hautes Etudes en Sciences Sociales, 28 May 2019.

89 On the Persian *farhangs* of Indian drugs, see Speziale 2018a: 66–7, 199–204.

New views seem to have emerged in environments in which the other's knowledge and technical skills acquire an economic value: *rasaśāstra* drugs were in high demand in the medical market, while proto-ethnographic works were written to inform readers about professions and forms of income of certain social groups.⁹⁰ In conclusion, we need go beyond the idea that Persian textual culture had a stereotyped image of yogis. Different views of yogis existed, and the early exotic paradigm was supplemented and replaced by more pragmatic representations created for the needs of different readerships. While the '*ajā'ib*' perspective was chiefly a foreign category used for a foreign Muslim readership, new perspectives emerged when Persian-speaking scholars and readers in India needed more pragmatic representations of local groups, such as the physicians who were in the process of appropriating a segment of technical knowledge that was closely associated with the yogis.

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90 For instance, cost price and sale price of goods are described in detail in the *Kitāb-i tašāwīr* of Ġulām Yaḥyā, an illustrated Persian treatise on crafts and trades in the districts of Bareilly and Rohilkhand, written at the request of Robert Glyn, who held the post of magistrate of Bareilly from 1818 to 1823: see Ġulām Yaḥyā 2005. This point has also been discussed by Jean Arzoumanov, "Continuité et héritage du persan dans l'Inde britannique du 19^{ème} siècle", paper presented at the "2^{ème} Congrès du GIS 'Moyen-Orient et monde musulman'", Paris, Institut National des Langues et Civilisations Orientales, 7 July 2017, unpublished.

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