

No cover
image
available

The Oxford Handbook of Tantric Studies

Richard K. Payne (ed.), Glen A. Hayes (ed.)

<https://doi.org/10.1093/oxfordhb/9780197549889.001.0001>

Published: 2022

Online ISBN: 9780197549919

Print ISBN: 9780197549889

CHAPTER

Tantric Dimensions of Alchemy

Patricia Sauthoff

<https://doi.org/10.1093/oxfordhb/9780197549889.013.44> Pages C44S1–C44N4

Published: 22 March 2023

Abstract

This chapter examines the tantric dimensions found within Sanskrit alchemical textual tradition called *rasaśāstra*. This canon of literature, which dates to the 11th century to today abounds in references to early tantric alchemists, the use of mantra and maṇḍala within alchemical healing practices, and the protection of children from illness caused by demonic possession. The deities of *rasaśāstra* tend toward the tantric as well, with familiar deities such as Bhairava, Tripurasundarī, and Cāmuṇḍā worshipped during the processing of medical mercurials. This chapter explores the *rasaśāstra* canon for tantric elements and traces the how the texts combines herbal, metal, mineral, and spiritual medicines to provide a more complete understanding of both healing and religion in the medieval and pre-modern South Asian context.

Keywords: [rasaśāstra](#), [tantra](#), [alchemy](#), [ayurveda](#), [sexuality](#), [healing](#), [mantra](#)

Subject: [Interfaith Relations](#), [Buddhism](#), [Jainism](#), [Hinduism](#), [Religion](#)

Series: [Oxford Handbooks](#)

Abbreviations

AHS

Aṣṭāṅgahr̥dayasaṃhitā

ĀK

Ānandakanda

CS

Carakasamhitā

CS.Ci

Carakasamhitā (Cikitsāsthāna)

KS

Kakṣapuṭa

RĀm

Rasamitra

RAṛṇ

Rasārṇava

RAḍhy

Rasādhyāya

RCūM

Rasendracūḍāmaṇi

RHT

Rasahr̥dayatantra

RMañj

Rasamañjarī

RPSudh

Rasaparakāśasudhākara

RRĀ RasKh

Rasaratnākara (Rasāyanakhaṇḍa)

RS

Rasasāra

RRS

Rasaratnasamucchaya

AHS	Aṣṭāṅgahrdayasaṃhitā
ĀK	Ānandakanda
CS	<i>Carakasamhitā</i> (Cikitsāsthāna)
KS	Kakṣapuṭa
RĀm	Rasamitra
RAṇ	Rasārṇava
RAdhy	Rasādhyāya
RCūM	Rasendracūḍāmaṇi
RHT	Rasahrdayatantra
RMañj	Rasamañjarī
RPSudh	Rasaprakāśasudhākara
RRĀ RasKh	<i>Rasaratnākara</i> (Rasāyanakhaṇḍa)
RS	Rasasāra
RRS	Rasaratnasamucchaya

Introduction

In approximately the seventh century CE, Sanskrit medical, religious, and yoga texts began to make unambiguous references to mercury as an ingestible or topical agent which, when applied correctly, cured the *timira* eye disease, removed freckles, and was an ingredient in rejuvenative tonics (Wujastyk 2013, 18). Traditionally, mercury has been considered to have an even longer history with references to *rasa* in both the *Carakasamhitā* (first century CE) and *Suśrutasaṃhitā* (third century CE) as a substance that cures all diseases (Wujastyk 2013, 17). However, in Sanskrit, *rasa* can also refer to the sap or juice of plants, liquids or fluids, liquors, sugar cane, or various minerals or metals among its myriad definitions. The twelfth-century commentator on the *Suśrutasaṃhitā*, Ḍalhaṇa, interprets *rasa* in this case to be mercury (Wujastyk 2013, 17) but there is no other evidence for medicinal usage of mercury at such an early stage of Āyurvedic development. Further, there have been no local sources identified for Indian mercury, indicating that it was likely imported (Rapp 2009, 16).

Assuming then that mercury was introduced to India during the seventh century CE, its introduction occurs around the same time as the beginnings of tantric literary production. Like medicinal uses of mercury, dubious efforts have been made to trace tantric traditions to early periods, including the time of the Buddha and ancient Hindu sages and even as far back as the first settlements of humans in the Indus Valley (Gray 2016, 1). The earliest references to tantric practitioners, called Pāśupatas, occur around the second century CE. The *kāpālikas*, skull-bearing Śaiva tantric practitioners who engaged in charnel ground rituals, first appear in the Prakrit poem *Gāthāsaptasati*, written between the third and fifth century CE (Dyczkowski 1988, 26). A 423 CE stone inscription from Gaṅgdhār describes Tantras as ritual teachings as well as acknowledging the female *ḍākinīs* and *mātṛs* (Gray 2016, 7) which inhabit so much of the tantric world. A seventh-century CE reference to a tantric practitioner suffering from the use of improperly purified mercury by the author and playwright Bāṇabhaṭṭa in his *Kādambarī* (White 1996, 49) reaffirms the dating of the introduction of mercury to India and demonstrates its early connection with Tantra and tantric practitioners.

This chapter focuses almost exclusively on the alchemical tradition called *rasaśāstra* as it appears in Sanskrit literature. Tibetan and Indian vernacular traditions also include alchemical references, but the connections between these traditions and the Sanskrit corpus of *rasaśāstra* literature remain to date largely unexplored. *Rasaśāstra* in the Sanskrit tradition has itself long been underexamined. Of the nearly forty works Meulenbeld examines in his encyclopedic *History of Indian Medical Literature* (2000, 583–738), none have

been critically edited and translated. Until this work has begun, cross-cultural and cross-language connections will remain elusive.

Defining Rasaśāstra

Though references in Sanskrit to medicinal ingestion of mercury date to the seventh century CE, *rasaśāstra* literature as works by alchemists on alchemy for alchemists appear beginning with the *Rasahrdayatantra*, in approximately the tenth century (Sauthoff and Wujastyk 2021). This coincides with the development of the later Kaula tantric tradition, which deemphasized charnel ground practice, replacing it instead with a focus on eroticism, the attainment of supernatural powers through yoga, and initiatory practices (Sauthoff 2019, 1). These texts, especially Abhinavagupta's *Tantrāloka*, pay minimal attention to the long tradition of tantric medicine. From approximately the sixth century on, Bhūta, Bāla, and Gāruḍa Tantras focus on the treatment of a variety of illnesses ranging from demonic possession, pediatrics and childhood possession, and snakebites (Slouber 2016, 8–9). These works utilize a combination of herbal and ritual treatments to provide medical cures. The ninth-century Bhairava Tantra, the *Netra Tantra* (see White, this volume), does not offer herbal recipes but describes the use of mantra, maṇḍala, and meditation to imbue medicines with healing power (Sauthoff 2022, 118). Scholars often focus on the philosophical developments of Tantra but ignore its lasting influence in medicoreligion. Enter *rasaśāstra*, whose early works adopt the language of the tantric Kaula, especially in their understanding and use of mantra as required for alchemical success in mercurial operations, aurifaction (the transmutation of base metals into gold), and an increase in the effectiveness of plant and mineral medicines (Roṣu 1986, 251). At the center of worship we find Rasabhairava and Rasāṅkuṣā, developed from the tantric deities Svachhandabhairava and Tripurasundarī (Sanderson 2014, 34).

The *Rasārṇava* (eleventh or twelfth century) places knowledge of mercury above all other learning, saying:

Excavational knowledge [that allows one to cross the ocean of poverty] is the lowest, portal knowledge [that uses mantras ritual to unlock seals to subterranean worlds], the middle. Mantric knowledge is highest and mercurial knowledge (*rasavāda*) the highest. Through knowledge of mantra, tantra, and rasayoga, transgressions disperse. Having destroyed all hells, one collects virtue. Knowledge of mercury (*rasavidyā*) is the highest knowledge in the three worlds, and very difficult to obtain because it produces enjoyment (*bhukti*) and liberation (*mukti*). Therefore, by joining these qualities, it gives [these results].

(RARṇ 1.44–46)

The *Rasārṇava* also designates itself the highest and most difficult to obtain Tantra because it teaches one to attain perfection and gives both enjoyment and liberation (RARṇ 1.57). In addition to teaching the worship of the *rasaliṅga*, the text also uses the tantric archetypal model of a dialogue between Śiva and Pārvatī. At the beginning of the work, Pārvatī praises Bhairava (Śiva) as “leader of the Kaula, Mahākaula, and Siddhakaula, etc. lineages” (RARṇ 1.4), making a clear connection between Tantra and alchemy.

Mercury as Sexual Fluid

Rasaśāstra texts present themselves as a largely indigenous tradition, including almost no references to non-Sanskrit or even nonalchemical Sanskrit works, but it would be foolish to believe that there were no outside influences. The thirteen- to fifteenth-century *Rasasāra* (RS 9.2) explicitly states that the processes for coloring mercurial products (*raṅgākṛṣṭi* or *raṅgadruṭi*) were taught to the author by Tibetan Buddhists (Meulenbeld 2000, 690, 692). This and the translation of numerous Sanskrit works into Tibetan indicate a strong exchange of ideas and techniques.

There has been little scholarly work exploring the connections between Indian and Chinese alchemical traditions. The Chinese tradition of external alchemy (*waidan*), which deals with the creation of elixirs of immortality and includes mercurial recipes, predates *rasaśāstra* by centuries (Pregadio 2008, 1002–1004). However, there is no textual evidence found thus far that indicates a direct transmission of mercurial knowledge from China to India. Further, *waidan* focuses largely on mineral and metal ingredients, while *rasaśāstra* relies heavily on the botanical knowledge found in Āyurveda. One major philosophical difference

between the Chinese and Indian approaches presents itself: the connections between mercury, sulfur, and sexual fluids. In China, mercury is associated with menstrual blood and sulfur with semen. As a substance that dissolves and softens the mercurial feminine, Yin is considered to have the physical properties of mercury while the sulfuric masculine Yang dries and hardens (Svoboda and Lade 1995, 146). Conversely, in *rasaśāstra*, mercury helps a user produce semen when properly purified and is associated with the semen of Śiva, while purified sulfur cleanses blood and works to regulate menstruation and therefore is connected to the menses of the goddess (Svoboda and Lade 1995, 146; White 1996, 191, 193–194). Further, cinnabar or mercuric sulfide is a divine manifestation of the sexual union between god and goddess in mineral form (White 1996, 194).

In the *Rasārṇava* (Rarṇ) and *Rasaratnasamucchaya* (RRS) we find a mythological account of the birth of Skanda that teaches of the gods drinking mercury to attain immortality. Fearful that humans too would use the substance for the same aims, Śiva makes mercury impure and therefore incapable of producing immortality. These texts also describe menstrual blood mixed with nectar (*amṛta*), which can be used in the calcination and purification of mercury (White 1996, 192–193). These gendered notions of substances continue in the practice of alchemy where a female assistant is required for mercurial operations.

Where the male alchemist must have attributes such as knowledge of mantras, bravery, devotion to Śiva and the Goddess, and patience (RRS 6.3–4), the female alchemist is chosen for her physical attributes. She must have curly black [pubic] hair and lotus eyes and must be young, beautiful, and endowed with large, heavy breasts. Her vulva must appear like the leaf of the sacred fig tree. Furthermore, she should menstruate in the waning half of the lunar month. If such a woman is unavailable, another woman, who too must be young and beautiful, may act as a substitute after she has been fed a mixture of sulfur and ghee each morning for three weeks (RRS 6.33–37). Women are partners and assistants in ritual rather than core participants (Bose 2010, 138). As in Tantra, women do participate directly in alchemical processes. As the mother/wife/assistant, alchemy becomes part of the woman's domestic life.

This archetypal female-bodied alchemist participant (*kālinī*) has the attributes of the tantric goddesses. Her very real menstrual blood is both alchemical ingredient and alchemical product. She must possess the ideal goddess body. If that body is not deemed up to standard, she must ingest an unpleasant concoction of the mineral sulfur mixed with a stomach-soothing dairy, here ghee.¹

The text implies that this woman is postpubescent. Her breasts and pubic hair are full and she menstruates with regularity. The leaf-like symmetry of her *yonī* is reminiscent of the tantric view of *yonī* as the mouth of the yoginī (*yoginīvaktra*). Where the vulva of the Kula yoginī offers knowledge during the initiation process (White 2003, 106) the *kālinī*'s vulva produces a tangible substance to be used in alchemical processes. Both tantra and *rasaśāstra* recognize the mystical power of the feminine as both woman and mother (Bose 2010, 70). The creative power of the feminine is harnessed through the inclusion of female sexual fluids in alchemical recipes.

Hatley has identified seven types of tantric sexual practices: love magic, desire fulfillment, ritualized coitus, the tantric feast, initiatory coitus, sexual yoga, and individual sexual practice (2018, 196–199). Of these seven, love magic and individual sexual practice are most prominent in *rasaśāstra* literature. Love magic involves ritual practices meant to attract (*ākaraṇa*) or subjugate (*vaśīkaraṇa*) a sexual partner while individual sexual practice involves the retention, collection, or elimination of sexual fluids.

Many alchemical works feature medical sections devoted to the suppression of ejaculation (*śukrastambha* or *vīryastambha*) and the production of virility (*vājīkaraṇa*), including aphrodisiacs. These recipes often appear in chapters of their own or intermingled with prescriptions for women's health, such as causing or preventing pregnancy, the removal of pubic hair, firming the breasts, and reducing menstrual pain (Sauthoff forthcoming). Some of the works that include virility recipes are from the fifteenth-century *Rasaratnākara* (*Rasāyanakhaṇḍa* chapters six and seven) and *Rasasaṃkelakalika* (chapter four), sixteenth-century *Rasamañjarī* (chapter 9), sixteenth- or seventeenth-century *Rasaprakāśasudhākara* (chapters twelve and thirteen), seventeenth-century *Rasaratnasamucchaya* (chapter twenty seven), and eighteenth-century *Rasendrasārasaṃgraha* (chapter five).

Diamonds appear widely in the *rasaśāstra* corpus. When used in medicine, the diamond's gender must conform to the gender of the user. The sixteenth- or seventeenth-century *Rasaprakāśasudhākara* (RPSudh) describes three subtypes: male (*pumvajra*), female (*strivajra*), and a third gender (*napumsakavajra*), which is described both as third or neuter (*trītiya*) and *ṣaṇḍha*: a person who does not neatly fit into the male/female dichotomy.² These gendered properties (*guṇa*) appear in all gems but are most notable in the diamond (RPSudh 7.20). The *pum* diamond is one that has eight edges and six angles and resembles a rainbow. Its eight surfaces are radiant, are beautiful, and contain no faults (RPSudh 7.23). The *strī* diamond is round, flat-surfaced, and rough (RPSudh 7.24ab). Finally, the *napumsaka* diamond has blunt angles and lacks roundness (RPSudh 7.24cd).

The Six Acts

Recipes for the subjugation of women range from medical to mantric. The wide variety of methods can be found in the sixteenth-century *Rasamañjarī*. While Meulenbeld describes the ninth chapter as one that “describes subjects usually dealt with in Tantric treatises about *ṣaṭkarman*”³ (1999, 637), only subjugation (*vaśīkaraṇa*) appears. The text gives recipes to “make a woman like a slave at night,” which include smearing ingredients such as honey, rock salt, camphor, quicksilver, saffron, and gold on the penis; preparations for either the man's or the woman's food, with sandalwood, valerian, long pepper, and tamarind; and bathing a woman's genitals with embolic myrobalan after reciting a mantra seven times (RMañj 9.31–38). Here we also find recipes for the aversion (*dveṣa*) of female sexual pleasure. These recipes call for ingredients such as the dust stirred by a donkey mixed with corpse ash and menstrual blood or simply the dust of two fighting dogs (RMañj 9.40–43).

While the *Rasamañjarī* does not include most of the so-called six acts (*ṣaṭkarman*), the fifteenth-century *Rasaratnākara* does. In its *Siddhakhaṇḍa* (sometimes called *Mantrakhaṇḍa*) section, we find chapters on (1) the subjugation (*vaśīkaraṇa*) of all creatures, kings, women, and husbands; (2) attraction (*ākaraṇa*) and immobilization (*stambhana*) including of fire and water; and (3) delusion or bewildering (*mohana*), eradication (*uccāṭana*), and killing (*māraṇa*) as well as causing illness (*vyādhikaraṇa*), impotence (*ṣaṇḍhakaraṇa*), sealing the vagina (*bhagabandhana*), and averting evil from the house (*grhaleśanivāraṇa*). Further chapters provide prescriptions for (4) conjuring (*kautūhala*), (5) acquiring a *yakṣiṇī* (*yakṣiṇīsādhana*), (6) invisibility (*adrśya*) and the acquisition of magic shoes (*pādukāsādhana*), and (7) raising the dead (*mṛtasamjīvana*). Unfortunately, this section has not been critically edited and exists only in manuscript form, transmitted independently from the remainder of the text (Wujastyk 1984, 74). However, when compiling the *Siddhakhaṇḍa*, its author Nityanātha took many of its passages from the tenth-century Śaiva *Kakṣapuṭa*, ascribed to Nāgārjuna Siddha (Wujastyk 1984, 75).

In the *Kakṣapuṭa*, we find a man who worships various *yakṣiṇīs* through mantric recitation (*japa*) and offers various plants, honey, clarified butter, and milk to the goddesses who then gives the worshipper whatever he wishes (Yamano 2014 102–103). In addition to granting him all his desires, the *yakṣiṇīs* also reward gifts of soups and mantras with food, long life, wealth, health, a serene mind, supernatural powers, a youthful appearance, immortality, speech, revitalization of the dead, and good fortune (Yamano 2014, 103–117).

Dealing with Death

The *Kakṣapuṭa*'s nineteenth chapter focuses on raising the dead (*mṛtasamjīvana*), knowing the time of death (*kālañāna*), and cheating death (*kālavañca* sometimes also called *mṛtyuvañcana* or conquering death *mṛtyuñjaya*). Hindu Tantras such as the *Kubjikāmatatantra* (Goudriaan 1983, 94–96) and *Mālinīvijayottaratantra*, the Bhairava Tantras, such as the *Svacchandatantra* and *Netratantras* (Sauthoff 2022, 10, 112, 129, 186 n.50), and Buddhist Tantras such as the *Mṛtyuvañcanopadeśa*, *Mṛtasugatiniyojana*, and *Siddhisambhavanīdi* (Yamano 2014, 25) include sections on each of these outcomes. In each of these works, one attempts to conquer death in order to attain liberation (*mokṣa*). As Yamano notes, the *Kakṣapuṭa* is interested only in worldly gains, making the aims of resuscitating, estimating the time of death, and cheating death a medical rather than spiritual treatment (2014, 26).⁴ It calls for the use of sage-leaf alangium oil (*aṅkola*) and *guḍūcī*, common ingredients in both Āyurveda and *rasaśāstra* (Yamano 2014, 27).

In order to revive the dead, and in the *Kakṣapuṭa* (KS) this means one who has died from disease or snakebite, one must worship a *liṅga* that he ties to the *aṅkola* tree and recite the *aghora* mantra for three hours each day and night. He then fills a pot that is also tied to the tree with ripe fruit and worships it with perfume, flawless flowers, and other substances. He then places seeds smeared with borax into a wide-mouthed clay pot made by a woman. The vessel is then placed upside-down into a copper bowl and put to rest in the sunshine. Finally, he puts .55g (a half *māṣa*) of the prepared oil and the same amount of sesame oil into the nose of the corpse (KS 19.1–9). In a second recipe, one mingles human semen and mercury with an equal part of the prepared oil to immediately bring the corpse back to life (19.10).

That the *Kakṣapuṭa* contains both mantra and mercurial medicine is not surprising considering its connection to both the earlier or contemporary Tantras mentioned above. In its first chapter, the *Kakṣapuṭa* lists several works that inspired it, including the tantric *Svacchandatantra*, *Amṛteśvaratantra* (also called *Netratantra* or *Mṛteśvaratantra*), and *Gāruḍatantras*, the *rasaśāstra* text the *Rasārṇava*, and the Vedic *Atharvaveda*, among others (KS 1.9). The mercury or quicksilver used in the resuscitating recipe would likely have gone through the purification process.

The tenth-century *Rasahrdayatantra* (RHT 2.1–2; Meulenbeld 2000, 616–621) describes in detail the first eight steps in the process of purifying mercury and lists ten more that lead to immortality.

1. Steaming (*svedana*)
2. Trituration (*mardana*)
3. Thickening (*mūrchā*)
4. Rising (*utthāpana*)
5. Letting fall (*pātana*)
6. Reviving (*nirodha*)
7. Fixing (*niyamana*)
8. Stimulating (*dīpana*)
9. Consumption of mica (*gaganagrāsparmāṇa*)
10. Amalgamation (*cāraṇa*)
11. Internal liquefaction (*garbhadruti*)
12. External liquefaction (*bāhyadruti*)
13. Calcination (*jāraṇa*)
14. Dyeing (*rāga*)
15. Blending (*sāraṇa*)
16. Penetration (*krāmaṇa*)
17. Transmutation (*vedha*)
18. Becoming fit for internal use (*bhakṣaṇa*)

Such purification is mythologically important because, as the story goes, during a long session of lovemaking with Pārvatī, Śiva spilled his semen (mercury) on the earth, causing its pollution. (White 1996 281).

Because the *Kakṣapuṭa* directly references the *Rasārṇava*, we must question the dating of both. Yamano dates the *Kakṣapuṭa* to sometime around the tenth century (2015, 80). If this is correct, it moves up the date of the *Rasārṇava* from the widely accepted eleventh or twelfth centuries (Meulenbeld 2000, 685). However, many passages from the *Rasārṇava* are directly taken from earlier texts, such as the *Aṣṭāṅgasamgraha* and paraphrased in the *Rasahrdayatantra* (White 1996, 149). White concludes, and I agree, that this provides evidence of an orally transmitted tradition of *rasaśāstra* and the use of common source materials (White

1996, 149). Perhaps Nāgārjuna Siddha encountered this early *Rasārṇava* as it was in the process of being composed.

To return to the use of mercury, we find references to mercury that has undergone various processes throughout early *rasaśāstra* literature leading to an immortal body or liberation while alive (*jīvanmukti*) (RHT 1.3, 1.15; RRS 1.42–59; RAṛṇ 1.7–17).

Aphrodisiacs

Aphrodisiacs have a long history in Indian medicine. The first-century BCE to second-century CE *Carakasaṃhitā*'s sixth section, called *Cikitsāsthāna* (the section on therapeutics), contains a wide range of information on aphrodisiacs. The *Cikitsāsthāna*'s second chapter focuses its four parts on aphrodisiacs (*vājīkaraṇa*). First, it praises aphrodisiacs and describes the most attractive types of women. Second, it offers formulations involving substances of animal origin and a variety of aphrodisiac recipes. The third part gives recipes for nonanimal substances (excluding milk). Finally, the fourth section provides recipes and information on aphrodisiacs and improved sexual vigor in men (Meulenbeld 2000, 53–54). Here we learn that one should use aphrodisiacs regularly as they are not just for sexual pleasure but also to bring virtue, wealth, fame, and sons (CS.Ci.2.1.3). Further, the best aphrodisiac is a beautiful, young, auspiciously featured, submissive woman (CS.Ci.2.1.4–7). These recipes are for aphrodisiacs to be used solely by men in order to ensure their sexual excitement and prevent loss of erection or premature ejaculation. Typical ingredients include sugar, black gram, milk, ghee, bird and buffalo meats, eggs, the semen of various animals (sparrows, swans, roosters, peacocks, tortoises, and crocodiles), rice, and dozens of plants (CS.Ci.2.1.38–53, CS.Ci.2.2.3–32, CS.Ci.2.3.3–31, CS.Ci.2.4.3–53).

Similarly, the *Cikitsāsthāna* portion of the *Suśrutasaṃhitā*, which was likely compiled over several centuries and finalized around the seventh century CE (Meulenbeld 2000, 342–344), also contains a chapter on aphrodisiacs. Again, we find both animal and plant materials used to produce virility in men. The third-century CE *Kamasūtra* also deals with the subjugation of women and aphrodisiacs (KS 7.1.25–51), again with similar ingredients. Other Ayurvedic works such as the early seventh-century CE (Wujastyk 2013, 18) *Aṣṭāṅgahṛdayasaṃhitā* Śārīsthāna 3.65–67, and *Uttarasthāna* 40 contain references to sexual potency (*vājīkaraṇa*) recipes. Here again we find plants such as the pipal and shatavari, mixed with milk and ghee. Though the word does have an unambiguous reference to mercury (*rasendra*) and contains what is likely the first reference to the internal use of mercury (*pārada*) in rejuvenation therapy (AHS *Uttarasthāna* 39.161) (Wujastyk 2013, 18), its chapter on aphrodisiacs uses the term *rasa* in its familiar meaning of “juice” or “sap.”

The fifteenth-century *Rasaratnākara*'s *Rasāyanakhaṇḍa*'s chapters six and seven offer comprehensive recipes for mercurial and nonmercurial aphrodisiacs. The *makaradhvaja* recipe calls for a mixture of diamond, copper, mercury, mica, iron, and ashes cooked in a glass bottle buried in sand mixed with aloe and semal tree juice for three days. The sediment that remains after cooking is then boiled with kali musli, diamond, copper, and milk for a day. Once crushed in a mortar, the concoction is steeped in a *bhūdhara yantra*, an apparatus in which a drum-shaped container or crucible is buried in sand or clay and heated from above (Hellwig 2009, 74–76). After a night of steeping, one then adds ground white sugar and indigo to the mix, eating one *maṣa* (approximately 1 gram). A man then drinks 1/2 a *pala* (approximately 20 grams) of long pepper, kali musli, licorice, velvet bean, white sugar, and ghee in order to delight 1,001 women who do not go astray (RRĀ RasKh 6.2–6). Other recipes call for the use of red lotus petal and cannabis root with seeds (*madanodaya*), goat meat and sesame oil (*madaneśvara*), and calcinated talc (*kāmakalā*). (RRĀ RasKh 6.7–21). Each aphrodisiac is meant to increase virility, delight many women, increase sexual desire and enjoyment, and make a man like Kāmadeva. Save for one, called *ratikāma*, the aphrodisiacs appear to be specifically used by men. Here, at the beginning of a woman's menstruation, mercury that has been calcinated twelve times to be ash is crushed with equal parts oxidized copper, silver, and sulfur for a day. This is then combined with white sugar, honey, ghee, and gold, mixed with milk, and drunk to urge a woman's pleasure (RRĀ RasKh 6.26cd–28ab).

Aphrodisiacs found their way outside Tantra and *rasaśāstra* in *kāma* literature, such as the fifteen- or sixteenth-century *Anaṅga Raṅga*. Compiled for the Muslim court, this Sanskrit work presents simple recipes for eight aphrodisiacs. Though none use mercury, we do find a recipe that includes the powders of iron oxide, the three *myrobalans*, and licorice mixed with honey and ghee. Taken daily at sunset, a man “will be

able to conquer the woman in the duel of love” (Ray 1964, 131). Where the text does utilize mercury, it tends to do so externally rather than internally, such as several recipes to quicken the female orgasm and inhibit ejaculation. In such recipes, we lose our alchemical apparatuses and detailed instructions, which are replaced with simple recipes such as “If some rectified mercury be pounded with the juice of *Jati* (*Jasminum Graniflorum*) flower and applied into the *yoni* of a woman she will attain orgasm very quickly” (Ray 1964, 123) or “The man who cohabits with a woman, having smeared his *liṅga* with a paste prepared of equal parts camphor, borax, and rectified mercury mixed with honey, can effect her orgasm within a very short time” (Ray 1964, 123).

Certainly aphrodisiacs are not tantric on their own and predate the religious development of tantric ideas. However, the use of transgressive substances such as meat hint at tantric influence. Further, practices such as *vajrolīmudrā*, in which a male practitioner draws up the sexual fluids through the urethra to attain control over ejaculation (Mallinson 2013, 7–10), highlight the importance of the virile tantric hero, and ritualized tantric sex called “the sword’s edge observance” (*asidhārāvratā*, *āsīdhāram*, *vratam*, *khaḍgadhārāvratā*) in which the male practitioner experiences various temptations without completing the sexual act (Hatley 2016, 4) indicates some of the wide variety of tantric sexual practices that could benefit from alchemical aphrodisiacs.

Alchemical Pediatrics

The treatment of children within tantric and alchemical medicine focuses on protection from a variety of female demons (*rākṣasī*, *yoginīs*, etc.) rather than through medicinal remedies. One of the earliest instances appears in the Buddhist *Mekhalādhāraṇī*, dating to approximately the first half of the seventh century (Slouber 2016, 36). In this so far unedited manuscript, we find the story of Buddha recounting a spell to ward off demonic possession to protect his son from female demons (Slouber 2016, 36).

Illness caused by spirit possession, and the medicalization of possession, appears in Sanskrit literature from a very early stage. The Ṛg Veda (10.162) calls on Agni to hear prayers and drive evil spirits from the body. This verse focuses on illnesses of possession that impact embryos and a woman’s womb, demonstrating a special risk of possession to women and fetuses (Smith 2006, 474). As Smith notes, there are two primary divisions of possession: involuntary and voluntary (Smith 2006, 421). The former is of concern to Āyurvedic and tantric healers, while the latter focuses on divination. Āyurvedic texts often associate madness (*unmāda*) and mental illness (*mānasikaroga*) with possession. The *Carakaśāstrā* teaches that diseases caused by moral transgressions can be treated with pacification rituals (*śānta*), medicines (*auśadha*), giving (*dāna*), the recitation of god’s name (*japa*), fire sacrifice (*homa*), temple offerings (*arcana*), and more (Smith 2006, 473). Within the *rasasāstra* corpus, we are not given a reason for child possession (i.e., moral transgression in a previous life) but, instead, the symptoms and instructions regarding which goddess one must appeal to for healing.

Several tantric works, including Rāvaṇa’s *Bālatantra* and the pre-eleventh-century *Kriyākālaguṇottara*, are among two works that discuss possession pediatrics clearly. The term *bālatantra* itself is often translated “midwifery” but would be better translated as “childhood illness” as works that focus on rites of *bālatantra* rarely mention the process of childbirth but instead highlight medicines before and after birth. Unfortunately, we do not have any texts that focus solely on children’s medicine; rather, we find references to possession within the tantric canon, especially in the Bhūta and Bāla Tantras. Slouber points out that the *Gāruḍa Purāṇa* contains a spell used to protect children that closely matches that of the *Kriyākālaguṇottara* and *Īśānaśivagurudevapaddhati* (Slouber 2016 112),

The sixteenth-century alchemical *Rasamañjarī* continues this tradition, citing Rāvaṇa’s *Bālatantra*. A comparison of published editions of the *Bālatantra* attributed to Rāvaṇa find a very different list of *yoginīs* who must be appeased. Its list does, however, closely match those found in the *Kriyākālaguṇottara* (Sauthoff forthcoming). The *Rasamañjarī* does not give detailed instructions on how to appease the *yoginīs* but instead gives the name, direction of offerings, and symptoms associated with them. These *yoginī* include Nandā, Sunandā, Pūtanā, Biḍālī, Śakunī, Śuṣkāśivā, Jṛmbhakā, Acintā, Kāpālikā, Lipsitā, Pītalī, Bhadrakālī, Tārā, Śarvarī, and Kumārī.

We know little of the domestic life of the alchemist. He does have a temple (*maṇḍapa*), laboratory (*rasaśālā*), and medicinal garden (Sauthoff forthcoming). This indicates that he is a householder (*gṛhastha*) with a wife and a home. The appliances (*yantra*) and ingredients for the alchemical preparations (*yoga*) can be costly. He would need to live near enough a town or city to procure ingredients. He also needs to attract clients and presumably house a small library of *rasaśāstra* instruction manuals. However, he also needs to be distant enough from a city—or wealthy enough to have a large plot within a city—to have a tract of land on which to build and work. The processes of alchemy are time-consuming: ingredients churned for days on end, continually roasted over a flame, accompanied by the repetition of mantras. He is more holy man pharmacist than doctor. He has been initiated and must know the mantras.

Rituals related to medicine hold an ambiguous position in modern ayurveda and *rasaśāstra*. On the one hand, Indian-published English-language textbooks and translations acknowledge the role of mythology and mantra within the traditional canon, while on the other, they minimize these elements by emphasizing and justifying such connections as things of the past. Take V. A. Dole's assertion in his 2015 translation of the *Rasaratnasamucchaya*, in which he says:

As has been said time & [sic] again that Rasaśāstra used to have a religious and philosophical base. It is but natural that its study should start with many religious rituals. (245)

Rather than ignore the religious instruction within the work, Dole brushes them away as a historical necessity that no longer applies. In describing the placement of deities in the laboratory, Dole and Paranjpe say: “one need not wonder about why such a peculiar [sic] arrangement is advocated. Because all the Ancient sciences from Indian subcontinent have religion and God as their base. Rasashastra is no exception to it” (Dole and Paranjpe 2016, 13).

As recently as 1926, Mookerji wrote,

Personally, I consider the chemical system of Indian medicine as of divine origin. It is not a science in the ordinary sense of the term. It is not a collection of experiential truths or inductive generalizations, based on observation and experiment. It is a super-science, and, and such, is based on something higher than observation and experiment—call it inspiration, revelation, or what you will.

(Mookerji 1926, ix)

Despite this assertion, within his five-volume *Rasa-Jala-Nidhi*, Mookerji rarely mentions prayer, mantras, or ritual. From these brief and fleeting references, one might think ritual and mantra had only passing importance within precolonial medicine.

In fact, *rasaśāstra* works include countless references to deities and rituals at all stages of the alchemical process. Many conform to tantric rites of initiation, deity installation, and mantric recitation. Further, many works, such as the eleventh-century *Bhūtiprakaraṇa of Gorakṣasamhitā*, eleventh- to twelfth-century *Rasārṇava*, twelfth- to thirteenth-century *Ānandakanda*, fourteenth-century *Kākacaṇḍeśvarīmata*, and fifteenth-century *Rasamañjarī* present themselves as divine revelation, taking the form of dialogue between the Śiva and the goddess. The approximately twelfth-century *Rasārṇavakalpa* is part of the tantric *Rudrayāmalatantra* while the *Gorakṣasamhitā*'s *Kātiprakaraṇa* is closely related to the *Kubjikāmatatantra*. Within these and many other Śaiva *rasaśāstra* works we find verses in homage to various gods, including those outside the Śaiva milieu such as the Tirthaṅkaras (*Rasādhyāya*, fourteenth century). Throughout these works, tantric mantras appear frequently. Where tantric works tend to use complex encoding to reveal their mantras, *rasaśāstra* literature either refers to the mantras by name or reveals them in fairly straightforward ways. The exception is the *Ānandakanda*, a unique work within the *rasaśāstra* canon as it retains many of the oblique characteristics of tantric literature while providing an encyclopedic catalogue of alchemical terminology, ingredients, procedures, and more.

Several works, including the *Rasendracūdāmaṇi* and *Rasārṇava*, describe the initiation process in detail. In its second chapter, the *Rasendracūdāmaṇi* describes the initiand as one who knows both the text and meaning of the text. He can come from any of the castes, though the *sūdra* is only suitable for initiation if no one from the three higher castes is available and he comes from a good, devoted family (RCūM 2.2–4). During the

initiation, the initiand constructs a pavilion in a forest, Śiva temple, or auspicious house in which he makes an eight-petaled lotus inside a double *bhūpura* and places a vase adorned with gold and precious stones, garlanded with flowers and wrapped in two pieces of cloth containing mercury, water, and rice in the middle of the lotus (RCūM 2.15–19). Once he has placed the deities, whether through mantra, visualization, or otherwise is not made explicit, on each petal and one in the center, he receives the Rasabhairava and Rasāṅkuśī mantras: *aiṃ hrīṃ hrūḥ rasabhairavāya namaḥ* and *aiṃ hrīṃ śrīṃ hrīṃ klīṃ rasāṅkuśāyai svāhā* (Roṣu 1986, 253).

We then find a third, lengthy mantra, that pays homage to Śiva while including the tantric mantric phonemes *om*, *hrām*, *hrīm*, *hrūm*, *hraiṃ*, *hraum*, *hraḥ*, *hum*, and *phaṭ* (RCūM 2.49–50). Finally, we have the mantra for giving mercury: *Om hum pham pham hām hīm hūm thaḥ thaḥ thaḥ mahārasāya bhairavāya śrīrasabhairavādidaivatāya paramāṃtarūpāya kuru kuru amukasya sarvarogān hara hara jarāmṛtyum vināśaya vināśayaa sarvārogyābhayapradāya*. This means “*om hum, pham, pham, hām, hīm, hūm, thaḥ, thaḥ, thaḥ*” [Act, act to take away all disease, destroy old age and death. Homage to Bhairava, to Mahārasa, to Rasabhairava, etc., who is the supreme nectar, who gives abundant health and safety, who is victorious over death, and whose nectar is mercury]. One must recite it 100,000, 50,000, or 25,000 times. Having accomplished this initiation, one becomes similar to Śiva in an instant (RCūM 2.51–52).

In its chapter on initiation, the Rasārṇava presents similar mantras:

om hrīṃ kraum kṣlaiṃ kṣlam hrīṃ hrīṃ hrīṃ hrūḥ hum phaṭ raseśvarāya mahākālabhairavāya raudrarūpāya kṛṣṇapiṅgalalocanāya | avatara avatara avatāraya avatāraya jalpa jalpa jalpaya jalpaya śubhāśubham kathaya kathaya kathāpaya kathāpaya mahārakṣām kuru kuru rasasiddhiṃ dehi ||

[To quicksilver, to Mahākālabhairava, to he who has the form of Rudra, to the dark red eyed one. Overcome, remove, speak, tell, [what is] pure and impure, name, recite [the name of] Mahārakṣā. Act. Give the perfection of mercury.]

(RARṇ 98).

Texts, including the Rasārṇava, mention the importance of the *aghora* and *rasāṅkuśī* mantras, which the Rasaratnasamuccaya gives as *om hrām hrīm hrūm adyoratara prasphuṭa prasphuṭa prakāṭa prakāṭa kaha kaha śamaya śamaya jāta jāta daha daha pātaya pātaya om hrīm hraiṃ hraum hrūm aghorāya phaṭ* and *om kāmaraśaktibījarasāṅkuśāyai ājñayā vidyām rasāṅkuśām*, respectively (RRS 6.38). The *aghoramantra* is especially useful here in the installation of the *rasaliṅga*, a special mercurial *liṅga* made by combining 3 *niṣkas* (36g) of thin gold sheets, 9 *niṣkas* (108g) mercury, and acidic liquid. This is then cooked in a swing apparatus (*dolāyantra*) for a day with sour gruel (?*sāranāla*) (RRS 6.17–18). Viewing the *rasaliṅga* removes the sins of killing a brāhmaṇa or cows, while touching the *rasaliṅga* frees one from *samsāra*. The *rasaliṅga* is to be placed in the southeast and worshipped with the *aghoramantra* while one imagines an eighteen-handed, fair, five-headed, blue-necked Śiva who is accompanied by a single-headed, four-handed Pārvatī who holds a string of prayer beads (*rudrākṣa*), elephant hook, and noose, and holds her hand in *mudrā* of protection. She appears like heated gold and wears yellow (RRS 6.19–23).

The *Rasaratnākara* gives a much more concise, and common, version of the *aghoramantra* as *aghorebhyo ‘tha ghorebhyo ghoraghoratarebhyaḥ | sarvebhyaḥ sarvasarvebhyo namaste ‘stu rudrarūpebhyaḥ* (RRĀ Rkh 1.32), which is to be chanted when processing mercury. According to the *Ānandakanda*, reciting the *aghoramantra*, and using the associated *mudrā* during processing gives mercury the perfected form of the deity (ĀK 1:23.413–416).

The goddess Kālī also plays an important role in therapeutics and is associated with longevity. The Rasārṇava gives Kālī’s mantra as: *om hrīm śrīm kālīkā kālī mahākālī māṃsaṣoṇitabhōjini | hrīm hrīm hum raktakṛṣṇamukhe devi rasasiddhiṃ dadasva me | śrīm hrīm aiṃ ramā śaktiś ca tārākhyo mantro’yam sarvasiddhidaḥ* (RARṇ 14.22–23) [O Kālī, O Mahākālī, O eater of flesh and blood. O she who has a dark red mouth, O Devi, give me mercurial perfection. Pleasure, power, and appearance of silver, this mantra grants all perfections].

Mantras played an important role in the production of mercurial medicines in that they were considered a key element to the process of purifying mercury. According to the mythological account given in the first chapter of the *Rasaratnasamuccaya*, Śiva resides in the Himalayas in the form of mercury in order to protect the world. Glimpsing mercury is of the same merit as the horse sacrifice (*aśvamedha*) or donating 100,000

cows, 1,000 gold coins, or bathing in all the auspicious and sacred rivers. Worshipping mercury destroys all sins, consuming mercury destroys disease, and maligning mercury sends one to the most dangerous of hells until the end of the world (RRS 1.23–30). Because mercury is so powerful, Śiva gave it undesirable properties so that only through purification can it be used to bestow wealth, health, and immortality on its user. The wise pharmacist is warned again and again that without proper knowledge and use of the mantras, not only will his medicines not work but instead they will become the greatest of poisons.

Yantras of the Ānandakanda

In *rasaśāstra*, the term *yantra* has two meanings. In the ĀK, *yantra* refers to the diagrams familiar in Tantra. In the vast majority of the *rasaśāstra* corpus, *yantra* is the term for the alchemical apparatus used in the making of medicines. These *yantras* are jars, bottles, ovens, and so on. The twenty-first chapter of the ĀK offers a description of the treatment room (*kuṭi*) as a dwelling with twelve pillars, a strong roof, and walls of brick smeared with plaster (ĀK 21.2–4). The text teaches the builder to place the doors at the cardinal directions and to install a ten-armed Bhairava who resembles a black cloud; has flaming erect hair; holds a shovel, axe, drum, hook, sword, trident, the *mudrā* of granting wishes, a serpent, and a noose; and is ringing a bell. He has curved fangs, wears serpents as earrings and, as sacred threads, a gold bracelet on his upper arm, and conveys fear. Smeared in black unguents and adorned in many garlands of beads, Bhairava destroys death, venom, and so on, as well as fear. (ĀK 21.12–16). The text goes on to describe in detail the iconography of various forms of Śiva along with *bija* mantras such as *hrīm* (ĀK 20) and the building of *yantras* using eight, twenty-six, and thirty-two petals along with the letters of the alphabet (ĀK 21.23cd–25ab). These *yantra* and mantra combinations provide medical treatment for eradicating misfortune; preventing sudden death (ĀK 21.25bc), fear, disease, venom, fainting, and annihilation (32cd); preventing fever, confusion, and death (37ab); and repelling poison, death, disease (44cd), leprosy, epilepsy (84cd), and other diseases. The one who receives rejuvenative therapy (*rasāyana*) within the hut is treated with both medicinal and mantric remedies for a complete treatment.

Deities

Recent translations of *rasaśāstra* works have deemphasized the importance of deities in alchemical operations by omitting chapters related to the gods in translations. In his commentary on his 2015 translation of the *Rasaratnasamuccaya*, Dole explains the initial benediction to Śiva by saying, “in the culture which was prevalent throughout the Indian subcontinent from ancient times, it was an established custom to salute God in the beginning of any book” (Dole 2015, 1). He further states that “as has been said time & again that *Rasaśāstra* used to have a religious & philosophical base. It is but natural that its study should start with many religious rituals” (Dole 2015, 245), implying that it no longer does. To his credit, Dole does reproduce much of the work and comments on the mantras, benedictions, and other references to mythology.

Many early *rasaśāstra* texts reproduce the narrative framing so familiar to readers of the tantric canon: that of dialogue between god and goddess. In its first chapter, the possibly eleventh-century *Gorakṣasamhitā*’s Bhūtiprakaraṇa section tells of Svachchanda’s revelation of a 25,000-verse *rasatantra*. This text then inspired other gods to write their own *rasatantras*, including Śiva, whose work is abridged in the Bhūtiprakaraṇa (Meulenbeld 2000, 603). The Bhūtiprakaraṇa itself is a dialogue between Śrīkaṅṭha and Śakti and includes numerous references to the worship of Śiva and gives various mantras, especially in its sixth and seventh chapters. Similarly, the eleventh- or twelfth-century *Rasārṇava* presents a dialogue between Śiva and Pārvatī, in which Śiva is exalted as the “God among gods, great God, incinerator of time and love, and preceptor of the Kaula, Mahākaula, Siddhakaula, and etc. lineages” (RARṇ 1.4). Śiva teaches that a twofold yoga of mercury and breath control are parallel practices for the attainment of *jīvanmukti*, which he associates with eternal youth, immortality of the body, and the attainment of Śiva (RĀ 1.8–9, 18). Further, he explains that those who indulge in liquor, flesh, and sexual intercourse will make it difficult to succeed in mercurial sciences (RARṇ 1.24) but that those who eat cow meat and drink the nectar of immortality are superior experts (RARṇ 1.26). The RARṇ teaches that alchemy surpasses the six philosophical systems (*ṣaḍdarśana*), includes many tantric deities in its list of those to be worshipped, and makes frequent references to *kapālin*s and *kāpālik*s, though it is unclear whether these terms refer to the alchemist or the Kāpālika sect, or that the alchemist is both (Meulenbeld 2000, 684). Other works that present themselves as

dialogue include the probably twelfth-century *Rasārṇavakalpa*, which itself is part of the *Rudrayāmalatantra*, twelfth- or thirteenth-century *Ānandakanda*, fourteenth-century *Kākacaṇḍeśvarīmatatantra*, and fifteenth-century *Rasamañjarī*.

In addition to the dialogue structure, many works on *rasaśāstra* contain *maṅgalas* to deities such as the *arhats* (RADhy 1.1); Bhairava, Bhārati, and Vighneśa (RADhy 1.10); Harihara, Śārādā, Gaṇapati, and mercury (RPSudh 1.1–5); Śiva (RĀm 1.1–3; RRS 1.1; RSK 1.1) and Śiva and Rāma (RCūM 1.1–2); Raseśvara (RCūḍ 1.3); Rasāṅkuśī (RCūM 1.5); the Kaulikas and their lords Īśvara and Maheśvara (RCūḍ 1.6–12); and Caṇḍikā and Candraśekhara (RRĀ Rkh 1.1).

Though *rasaśāstra* is overflowing with references to deities, mantras, and maṅḍalas, we need not confuse them with the tantric texts they clearly find inspiration from. The vast majority of verses focus on the scientific and medical preparations of cures for specific ailments and not on *jīvanmukti*. These are works that use mythology to explain the genesis of naturally occurring metals, minerals, gemstones, and plants, but alchemical knowledge does not end there. The works demonstrate a complex and deep understanding of these ingredients. For example, the approximately tenth-century *Rasahrdayatantra*, often cited as the first extant work of alchemy proper (Sauthoff and Wujastyk 2021), spends the majority of its nineteen chapters concerned with processing mercury, the amalgamation of metals and minerals, the extraction of ingredients, liquefaction, stabilization of mercury, and the use of processed mercury for rejuvenative therapies (*rasāyana*), and only a few verses scattered throughout on the role and worship of deities.

Alchemy in Yoga and Tantra

Tracing the tantric dimensions of alchemy within the *rasaśāstra* corpus is fairly easy as the references are straightforward. However, finding alchemy in tantra, yoga, and other sources is more difficult. Within *rasaśāstra*, the word *rasa* unambiguously refers to mercury. These works describe the attributes and usages of mercury in such a way that there can be no doubt that they mean the chemical element Hg. Philosophical works from the early *haṭhayoga* and tantric corpora tend to focus less on the scientific aspects of alchemy and more on *rasa* as the procreative element of Śiva and Pārvatī. This means that the alchemical references tend more toward metaphor than the precise scientific language of *rasaśāstra*. For example, the eleventh-century *haṭhayoga* text the *Amṛtasiddhi* uses alchemical terminology like Great Seal (*mahāmudrā*), Great Lock (*mahābhanda*), and Great Piercing (*mahāvedha*) to describe breath and body practices that change and purify bodily elements through heat (Mallinson and Szántó 2022, 20–21). Like the Buddhist *Kālacakratantra*, also composed around the eleventh century, in the *Amṛtasiddhi*, we find an internal yogic practice of meditation, visualization, mantra recitation, breath control, and postural practices that lead to special powers and cure disease (Sauthoff and Wujastyk 2021; White 1996, 71). As White (1996, 71, 148) notes, the *Rasārṇava* shares many linguistic and subject features with the *Kācakratantra*. However, we must not assume that early works like the *Rasendra Maṅgala* attributed to Nāgārjuna Siddha or the *Rasahrdayatantra* were once Buddhist. Instead, we see that Buddhist, Jain, and Hindu traditions appear to have shared material about the procedures of alchemy, each utilizing its own preexisting tantric metaphors in written works.

Like their tantric forerunners, *rasaśāstra* texts do emphasize the need for secrecy, mentorship, and initiation. However, unlike Greco-Egyptian and European alchemy, which saw alchemists writing in coded language to avoid detection (Principe and Light 2013, 4), the language of *rasaśāstra* is clear and straightforward in most cases. In a brief period of time the corpus—whether cited as divine revelation (*Ānandakanda*, *Goraḥṣasamhitā*, and *Rasamañjarī*), compendium (*Rasakāmadhenu* and *Rasaratnasamuccaya*), or instructional (*Rasādhyāya*, *Rasataraṅgiṇī*, and *Rasendracintāmaṇi*)—came to be laid out in a systematic, syllabus-like manner. The reader is introduced to the gods from whom they will require assistance, the mythological origins of the ingredients they will work with, then perhaps rules of behavior and attributes, followed by chapter upon chapter of detailed classification, usage, methods, and the results of experimentation. Some works, such as the *Rasendracintāmaṇi* and *Rasasamketalikā* offer comments from the authors on their own experiments or the direct teachings of their gurus.

Conclusion

From the introduction of mercury as a medicinal ingredient in the seventh century to the first works of *rasaśāstra* in the tenth, we have little written evidence of mercurial practices. Tantric works rarely include healing recipes, instead opting to focus on rituals that bring about health. Although many of these rites found their way into *rasaśāstra*, the question of how alchemy developed remains unclear. As a highly toxic substance, we can assume that physicians and alchemists learned to process it through shared knowledge. Further investigation of tantric and alchemical works across languages may help us to find early recipes and experiments. However, the Sanskrit propensity toward stripping away historical markers means cross-linguistic comparison will likely raise as many questions as it answers.

As scholars discover more alchemical metaphors outside the *rasaśāstra* corpus, I hope they will also look for tantric references and teachings within alchemy. This is especially important within mantric studies, where tantric mantras appear without encoding with *rasaśāstra* works. Connecting these mantras to their tantric counterparts will allow us to look for interdependence and tantric inspiration.

Primary Sources

Ānandakanda. 1952. Edited by S. V. Radhakrishna Sastri. Srirangam: Sri Vilasam Press. (Digital Corpus of Sanskrit e-text. Input by Oliver Hellwig.)

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Aṣṭāṅgahṛdayasaṃhitā of Vāgbhaṭa. n.d. (Digital Corpus of Sanskrit e-text. Input by Oliver Hellwig.)

Carakasamhitā. 1994. Edited by J. Trikamji. Varanasi: Chaukhambha Sanskrit Sansthan.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Kakṣapuṭa. 2014. Edited by Chieko Yamano. "Reviving the Dead and Knowing the Time of Death: Chapter Nineteen of the Kakṣapuṭatantra, Introduction, Critical Edition and Translation." *Journal of the International College of Postgraduate Buddhist Studies* 18: 23–73.

[Google Scholar](#) [WorldCat](#)

Kakṣapuṭa. 2015. Edited by Chieko Yamano. "Mantra-Sādhana: Chapter One of the Kakṣapuṭatantra, Introduction, Critical Edition and Translation." *Journal of the International College of Postgraduate Buddhist Studies* 19: 79–152.

[Google Scholar](#) [WorldCat](#)

Rasamañjarī of Śālinātha. 1914. Edited by Tryambaka Gurunātha Kāle. *Rasamañjarī*. Pune: Mahādeva Sakhārāma Dāte

Rasamañjarī of Śālinātha. 1927. *Rasalināñjarī-Vaidyaka*. Bombay: Gaṅgāvishṇu Śrīkṛṣṇadāsa

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Rasamañjarī of Śālinātha. 1995. *Rasamañjarī: bhāṣāṭīkāśahita*. Varanasi: Caukhambā Saṃkṛta Pratiṣṭhāna

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Rasamañjarī of Śālinātha. 2003. Edited by Siddhinanda Miśra. *Rasamañjarī: Siddhipradā hindīvyākhyāśahita*. Varanasi: Caukhambhā Oriyaṅṭāliyā

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Rasārṇava. 1910. Edited by Praphulla Chandra Ray. Calcutta: Hitavrata Chattopadhyaya. (Digital Corpus of Sanskrit e-text. Input by Oliver Hellwig.)

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Rasādhyāya. 1930. Edited by Rāmakṛṣṇa Śārman. Benares: Chowkhamba Sanskrit Series.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Rasendracūḍāmaṇi of Somadeva. Ed. Siddhinandan Miśra. Benares: Chaukhamba Orientalia. 1999. (Digital Corpus of Sanskrit e-text. Input by Oliver Hellwig.)

Rasahṛdayatantra of Govindabagavatpāda. 1989. Delhi: Chaukhambha Orientalia. (Digital Corpus of Sanskrit e-text. Input by Oliver Hellwig.)

Rasaprakāśasudhākara of Yaśodhara. 1940. Edited by Jivrām Kālidās Śāstri. Goṇḍol: Rasaśālā auśadhāśram. (Digital Corpus of Sanskrit e-text. Input by Oliver Hellwig.)

Rasaratnākara of Nitya Nātha Siddha. 1939. Edited by Vaidya Jādvajī Tricumjī Ācārya. Benares: Caukhamba Sanskrit Office. (Digital Corpus of Sanskrit e-text. Input by Oliver Hellwig.)

Rasaratnasamuccaya of Vāgbhaṭa. 1890. Edited by Kṛṣṇaravasarmān Vinayaka Bapat. Pune. (Digital Corpus of Sanskrit e-text. Input by Wieslaw Mical, Som Dev Vasudeva, Anne Glazier; Oliver Hellwig.)

Secondary Sources

Bose, M. 2010. *Women in the Hindu Tradition: Rules, Roles, and Exceptions*. New York: Routledge.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Dole, V. A. 2015. *Śrī Vāgbhatāchārya's Rasaratnasamuccaya*. Varanasi, India: Chowkhamba Press.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Dole, V., and P. Paranjpe. 2016. *A Text Book of Rasashastra*. Delhi: Chaukhamba Sanskrit Pratishtan.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Dyczkowski, M. S. G. 1988. *The Canon of the Saivagama and the Kubjika: Tantras of the Western Kaula Tradition*. State University of New York Press.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Goudriaan, T. 1983. "Some Beliefs and Rituals Concerning Time and Death in the Kubjikāmata." In *Selected Studies on Ritual in the Indian Religions: Essays to D.J. Hoens*, Vol. 45. Numen Book Series, edited by Ria Kloppenborg, 92–117. Leiden, The Netherlands: Brill. https://doi.org/10.1163/9789004378643_006

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Gray, D. B. 2016. "Tantra and the Tantric Traditions of Hinduism and Buddhism." In *The Oxford Encyclopedia of Buddhism*. Ed. Richard K. Payne and Georgios T. Halkias, n.p. Oxford: Oxford University Press.

<https://doi.org/10.1093/acrefore/9780199340378.013.59>

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Hatley, S. 2016. "Erotic Asceticism: The Razor's Edge Observance (Asidhārāvratā) and the Early History of Tantric Coital Ritual." *Bulletin of the School of Oriental and African Studies* 79, no. 2: 1–17.

[Google Scholar](#) [WorldCat](#)

Hatley, S. 2018. *The Brahmayāmala or Picumata. Volume I: Chapters 1-2, 39-40 & 83. Revelation, Ritual, and Material Culture in an Early Śaiva Tantra*. Pondicherry: Ecole française d'Extrême-Orient.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Hellwig, O. 2009. *Wörterbuch Der Mittelalterlichen Indischen Alchemie*. Vol. 2. Eelde, The Netherlands: Barkhuis.

<https://doi.org/10.2307/j.ctt22728hs>

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Mallinson, J. 2013. "Yoga and Sex: What Is the Purpose of Vajrolīmudrā?" Paper presented at the University of Vienna, Yoga in Transformation Conference, September 20.

https://www.academia.edu/4652312/Yoga_and_Sex_What_is_the_Purpose_of_Vajrolīmudrā

Mallinson, J., and P-D. Szántó. 2022. *The Amṛtasiddhi and Amṛtasiddhimūla: The Earliest Texts of the Haṭha Yoga Tradition*. Pondicherry: École Française d'Extrême-Orient.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Meulenbeld, G. J. 2000. *A History of Indian Medical Literature*. Vol. 2A. Groningen Oriental Studies 15. Groningen, Germany: Egbert Forsten.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Mookerji, K. B. 1926. *Rasa-Jala-Nidhi: Or, Ocean of Indian Chemistry & Alchemy*. Vol. 1. Varanasi, India: Srigokul Mudranalaya.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Pregadio, F. 2008. *The Encyclopedia of Taoism*. New York: Routledge

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Principe, L. M., and L. Light. 2013. *Alchemy*. New York: Les Enluminures.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Rapp, George. 2009. *Archaeomineralogy*. Heidelberg, Germany: Springer.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Ray, T. 1964. *Kalyanamalia's Ananga Ranga: The Hindu Ritual of Love*. New York: Citadel.

[Google Scholar](#) [Google Preview](#) [WorldCat](#) [COPAC](#)

Roşu, A. 1986. "Mantra et yantra dans la médecine et l'alchimie Indiennes." *Journal Asiatique* 274: 203–268.

[Google Scholar](#) [WorldCat](#)

Sanderson, A. 2014. "Śaiva Texts." In *Brill's Encyclopedia of Hinduism*: Vol. 6, edited by K. A. Jacobsen, H. Basu, A. Malinar, and V. Narayanan, 10–42. Leiden, The Netherlands: Brill.

Sauthoff, P. 2019. "Kaula." In *Hinduism and Tribal Religions*, edited by P. Jain, R. Sherma, and M. Khanna, 1–4. Dordrecht, The Netherlands: Springer.

Google Scholar Google Preview WorldCat COPAC

Sauthoff, P. 2022. *Illness and Immorality: Mantra, maṇḍala, and meditation in the Netra Tantra*. New York: Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

Sauthoff, P. Forthcoming. "Sexual and Reproductive Health." In *The Alchemy Reader*, edited by D. Wujastyk. Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

Sauthoff, P., and D. Wujastyk. 2021. "Rasaśāstra: A Timeline of Sanskrit Alchemical Literature. Ayuryog.org." Retrieved June 13, 2022 from <http://ayuryog.org/AlchemyTimeline>

WorldCat

Slouber, M. 2016. *Early Tantric Medicine: Snakebite, Mantras, and Healing in the Garuda Tantras*. New York: Oxford University Press.

Google Scholar Google Preview WorldCat COPAC

Smith, F. M. 2006. *The Self Possessed: Deity and Spirit Possession in South Asian Literature and Civilization*. New York: Columbia University Press.

Google Scholar Google Preview WorldCat COPAC

Svoboda, R., and A. Lade. 1995. *Tao and Dharma: Chinese Medicine and Ayurveda*. Detroit, MI: Lotus Press.

Google Scholar Google Preview WorldCat COPAC

White, D. G. 1996. *The Alchemical Body*. Chicago: University of Chicago Press.

Google Scholar Google Preview WorldCat COPAC

White, D. G. 2003. *Kiss of the Yogini: "Tantric Sex" in Its South Asian Contexts*. Chicago: University of Chicago Press.

Google Scholar Google Preview WorldCat COPAC

Wujastyk, D. 1984. "An Alchemical Ghost: The Rasaratnākara by Nāgārjuna." *Ambix* 31 (Part 2): 70–83.

Google Scholar WorldCat

Wujastyk, D. 2013. "Perfect Medicine: Mercury in Sanskrit Medical Literature." *Asian Medicine* 8, no. 1: 15–40.

<https://doi.org/10.1163/15734218-12341278>.

Google Scholar WorldCat

Yamano, C. 2014. "Reviving the Dead and Knowing the Time of Death: Chapter Nineteen of the Kakṣapuṭatantra, Introduction, Critical Edition and Translation." *Journal of the International College of Postgraduate Buddhist Studies* 18: 23–73.

Google Scholar WorldCat

Yamano, C. 2015. "Mantra-Sādhana: Chapter One of the Kakṣapuṭatantra, Introduction, Critical Edition and Translation." *Journal of the International College of Postgraduate Buddhist Studies* 19: 79–152.

Google Scholar WorldCat

Notes

- 1 In addition to the alchemical preparation to transform a woman into a *kālinī*, alchemical works provide recipes for women's health, such as the easing of heavy menstruation (RMañj 9.25).
- 2 I hesitate to translate *ṣaṇḍha* according to dictionary definitions such as "eunuch" or "hermaphrodite" due to their outdated status in modern-day English. Further, translating *ṣaṇḍha* as "transgender" is also misleading as the word has a very specific sociobiological meaning in modern medicine and society.
- 3 The lists of *ṣaṭkarman* vary and can include subjugation (*vaśīkaraṇa*), delusion (*mohana*), attraction (*ākaraṣaṇa*), eradication (*uccāṭaṇa*), immobilization (*stambhana*), and liquidation (*māraṇa*) or pacification (*śānti*), immobilization (*stambhana*), eradication (*uccāṭaṇa*), sewing dissent (*vidveṣaṇa*), and killing (*māraṇa*).

