

A Translation of the New Edition of the *Suśrutasamhitā*

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Sūtrasthāna, adhyāya 1

- 1 Now I shall narrate the chapter on the origin of this knowledge.²³
 - 2 Now, as is well-known, Aupadhenava, Vaitaraṇa, Aurabhra, Puṣkalāvata, Karavīra, Gopurarakṣita, Bhoja, Suśruta and others addressed Lord Divodāsa, king of Kāśi, the best of the immortals, who was in his ashram surrounded by an entourage of sages.²⁴
 - 3 “O Lord, distress arose in our minds after witnessing people thrashing about with cries, assailed by different kinds of pain and injury (*vedanā-bhigāta*), feeling helpless in spite of having friends, because of diseases arising from the body, the mind and external sources.
 - 4 “To quell the illnesses of those who seek happiness and for our own purpose of prolonging life, we desire the science of life (*āyurveda*) that is being taught. Welfare, both in this world and in the next, depends upon it. Therefore, we have come to the Lord in pupillage.”
 - 5 The Lord said to them:
“Welcome to you! My children, all of you are beyond reproach and worthy to be taught.
 - 6 “As is well known, Ayurveda is the name of what is said to be the subsidiary part of the Atharvaveda. Before creating people, Svayambhū composed it in hundreds of thousands of verses and a thousand chapters and, after observing the short lifespan and low intelligence of people, he presented it again in eight parts.²⁵
 - 7 “Surgery, treatment of body parts above the clavicle, general medicine, knowledge of spirits, care of children, and the disciplines of antidotes,
-
- 23 Ḍalhaṇa understood the word “knowledge (*veda*)” as specifically “medical knowledge.” He said that the word “longevity” (*āyur*) had been elided. After this opening statement, later manuscripts and commentaries include the attribution, “as the venerable Dhanvantari stated.” The absence of this statement in the early Nepalese manuscripts is highly significant because it removes the outer narrative frame of the *Suśrutasaṃhitā* (Wujastyk 2013b: 148; Klebanov 2021a: § 3.1.2; Rai 2019; Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021). On the figure of Dhanvatari in medical literature, see [HIML: IA 358–361](#).
- 24 On these persons, see [HIML: IA 361–363, 369 ff](#). The authority Bhoja does not appear in the list as published in the vulgate edition ([Su 1931: 1](#)), and was not included in [HIML](#) amongst “authorities mentioned in the *Suśrutasaṃhitā*.” Meulenbeld gathered textual evidence about Bhoja at [HIML: IA 690–691](#). Klebanov (2021b) has discussed these authors in the context of an anonymous commentary on the *Suśrutasaṃhitā* that cites them.
- 25 Svayambhū is another name for Brahmā, the creator.

- rejuvenation and aphrodisiacs.
- 8 “Now, a collection of the characteristics of each component of Āyurveda.
- 9 “Among them, [the component] called surgery has the goal of extracting various grasses, wood, stone, dust, iron (?), soil, bone, hair, nails, discharge of pus, malignant wounds and foreign bodies inside the womb, and of determining the application of surgical instruments, knives, caustics and fire by means of sixty definitions.
- 10 “[The component] named the doctrine of treating body parts above the clavicles has the aim of curing diseases situated above clavicles that is, diseases located in ears, eyes, mouth, nose and so on.
- 11 “[The component] called general medicine has the goal of curing illnesses established in the whole body and [diseases] such as fever, tumour, swelling, hemorrhagic disorders, insanity, epilepsy, urinary diseases, diarrhoea and the like.
- 12 “[The component] called knowledge of spirits is for appeasing demons by pacification rites and making food offerings for those whose minds have been possessed by gods, their enemies,²⁶ Gandharvas, Yakṣas, demons, deceased ancestors, Piśācas, Vināyakas,²⁷ Nāgas and evil spirits that possess children.
- 13 “[The component] called care of children is for bearing children and purifying defects in a wet-nurse’s milk, and curing diseases that have arisen from bad breast milk and demons.
- 14 “[The component] called the discipline of toxicology is for [knowing] the signs of poison from snake and insect bites and for neutralising various combinations of poisons.²⁸
- 15 “[The component] called the discipline of rejuvenation is maintaining youth, bringing about a long life and mental vigour and for curing diseases.

26 Dānavas. The insertion marks (*kākapadas*) below the text at this point appears to be by the original scribe.

27 The vulgate doesn’t have *vināyakas* but does add *asuras*, probably under the influence of Ḍalhaṇa. Cite Paul Courtright, Ganesha book.

28 The scribal insertion marks (crosses) above the line at this point in MS K appear to be in a later hand and their referent is lost in the damaged part of the folio. Although MSS MS Kathmandu NAK 1-1079 and MS Kathmandu NAK 5-333 include spiders (*lūtā*) and creepy-crawlies (*sarīsrpa*) in the list, it does seem that MS K had a shorter list, and the vulgate edition adds rodents (*mūṣika*).

- 16 “[The component] called the discipline of aphrodisiacs brings about the increase, purity, accumulation and production of semen for those whose semen is minimal, bad, depleted, and dry [respectively] and for inducing an erection.
- 17 “Thus, this Āyurveda is taught with eight components.”
“Among these [components], tell us which is for whom.”
- 18 They said, “After you have conveyed the knowledge of surgery, teach us everything.”
- 19 He said, “so be it.”
- 20 They then said, “Having considered the view of all of us, when we are unanimous, Suśruta will question you. We too will learn what is being taught to him.”
- 21 He said, “so be it.
- 22 “Now, as is well-known, the aim of Āyurveda is eliminating the disease of one who have been assailed by disease and protecting the healthy; āyurveda is [that knowledge] in which they find a long life, or that by which long life is known. Learn its best component (i.e., surgery), which is being taught in accordance with tradition, perception, inference and analogy.
- 23 “For this component is first, the most important, because it is referred to first; it cures wounds and joins together the most important thing, Yajña’s head. For, just as it has been said of old, ‘the head that had been cut off by Rudra was joined again by the two Aśvins.’
- 24 “And also, of the eight disciplines of Āyurveda, [surgery] alone is the best because of the quick action of its procedures (*kriyā*), its application of blunt instruments, knives, caustics and fire, and it is common to all disciplines.
- 25 “Therefore, [surgery] is eternal, meritorious, leads to heaven, brings renown, bestows a long life, and affords a livelihood.
- 26 “Brahmā said this, ‘Prajāpati learned it. From him, the Aśvins. From the Aśvins, Indra. From Indra, I. In this world, I will transmit to those who desire it for the benefit of people.’
[There a verse about this].²⁹
- 27 *For, I (i.e., Brahmā) am Dhanvantari, the first god, the remover of old age, pain and death of mortals.*

29 This is an expansion of the scribe’s abbreviation *bha* for *bhavati cātra ślokaḥ* “There is a verse about this” (sometimes plural).

*Having understood surgery, the best of the great knowledge systems,
I arrived on earth again to teach it here.*

- 28 In this context, as far as this discipline is concerned, a human being (*puruṣa*) is called an amalgam of the five elements and the embodied soul. This is where procedures (*kriyā*) apply. This is the locus.

Why?

Because of the duality of the world, the world is twofold: the stationary and the moving. Its nature (*ātmaka*) is twofold, depending on the preponderance of Agni and Soma.³⁰ Alternatively, it can be considered as being fivefold. The multitude of beings in it are fourfold: they are termed “sweat-born, stone-born, caul-born and egg-born”.³¹ Where they are concerned, the human being is the main thing; others are his support. Therefore, the human being (*puruṣa*) is the locus.

- 29 Diseases are said to be the conjunction of the person and suffering (*duḥkha*). There are four of them: invasive, bodily, mental and inherent. The invasive ones are caused by an injury. The bodily ones are based on food, caused by irregularities (*vaiṣamya*) in wind, bile, phlegm and blood.³²

The mental (*mānasa*) ones, caused by desire (*icchā*) and hatred (*dveṣa*), include: anger (*krodha*), grief (*āśoka*), misery (*dainya*), overexcitement (*harṣa*), lust (*kāma*), depression (*viśāda*), envy (*īrṣyā*), jealousy (*asūyā*), malice (*mātsarya*), and greed (*lobha*).

The inherent (*svābhāvika*) ones are hunger, thirst, old age, death, sleep and those of the temperament (*prakṛti*).

These too are located (*adhiṣṭhāna*) in the mind and body.

Scarification (*lekhana*), nourishment (*bṛṇhana*), purification (*saṃśodhana*), pacification (*saṃśamana*), diet (*āhāra*) and regimen (*ācāra*), properly employed, bring about their cure.

- 30 Furthermore, food is the root (*mūla*) of living beings as well as of strength (*bala*), complexion (*varṇa*) and vital energy (*ojas*). It depends on (*āyatta*) the six flavours (*rasa*). Flavours, furthermore, have substances as their substrate (*āśrayin*). And substances are remedies (*oṣadhī*).³³ There are two types: stationary (*sthāvara*) and moving

30 See Wujastyk 2004.

31 This fourfold classification of beings is paralleled with closely-related vocabulary in *Bhelasamhitā* 4.4.4 (Bhela 2000: 206; Bhela 1921: 81).

32 Note that four humoral substances are assumed here.

33 Pāṇini 6.3.132 provides that the final vowel of the noun *oṣadhi* may be lengthened

- (*jaṅgama*).
- 31 Of these, there are four types of stationary ones: fruit trees (*vanaspati*), flowering trees (*vrkṣa*), herbs (*oṣadhi*) and shrubs (*vīrudh*).³⁴ Amongst these, the “fruit trees” have fruit but no flowers.³⁵ The “flowering trees” have flowers and fruit. The “herbs” die when the fruit is ripe. “Shrubs” put out shoots.
- 32 As is well known, moving remedies are also of four types: those born in a caul (*jarāyuja*), those born from eggs (*aṇḍaja*), those born of sweat (*svedaaja*), and shoots (*udbhid*). Amongst these, those born in a caul include animals (*paśu*), humans, and wild animals (*vyāla*). Birds, creepy-crawlies (*sarīrpa*) and snakes are “born of eggs.” Worms (*kṛmi*), small insects (*kunta*) and ants (*pipīlika*) and others are born of sweat.³⁶ Shoots include red velvet mites (*indragopa*) and frogs (*maṇḍūka*).³⁷
- 33 In this context, among the stationary remedies, skin (*tvak*), leaves (*patra*), flowers (*puṣpa*), fruits (*phala*), roots (*mūla*), bulbs (*kanda*), sap (*kṣīra*), resin (*niryāsa*), essence (*sāra*), oil (*sneha*), and juice extract (*svarasa*)³⁸ are useful; among the moving remedies pelt (*carman*), hair, nails, and blood (*rudhira*) and so forth.
- 34 And earth products (*pārthiva*) include gold and silver.³⁹
- 35 The items created by time (*kālakṛta*) are clusters (*samplava*) as far as wind and no wind (*nivāta*), heat and shade, darkness and light and the cold, hot and rainy seasons (*varṣā*) are concerned. The divisions of

(→*oṣadhī*) under certain conditions. These conditions require that the word be used in a Vedic mantra and not in the nominative. Neither condition is met in this passage, yet the author uses the form *oṣadhī*. This form is in fact not uncommon in medical literature as well as in epics, purāṇas, smṛtis, and other parts of Sanskrit literature.

34 Ca.sū.1.71–72 also describes these four types of medicinal plant in similar terms but with slightly differing names: *oṣadhi* is a plant that ends after fruiting, *vīrudh* is a plant that branches out, *vanaspati* is a tree with fruit, and *vānaspatya* is a tree with fruit and flowers.

35 The MSS agree in reading *phalavantyaḥ* “having flowers” which is grammatically non-standard. This form is also found in the *Viṣṇudharmottarapurāṇa* (1.92.27, 1.92.27 *Viṣṇudh.*: 56r).

36 The word *kunta*, though marked as “lexical” in most dictionaries, is in fact found in literature, commonly as a compound with *pipīlika*; the compound sometimes seems to be understood a type of ant (*tatpuruṣa* compound) rather than as a pair of insects (*dvandva* compound).

37 On *indragopa*, see Lienhard 1978.

38 On juice extract (*svarasa*) see CS 1.1.73, 1.4.7; Ḍalhaṇa on 4.10.12 (*Su* 1938: 450).

39 The flow of concepts in the treatise seems to be interrupted here.

time are the blink of the eye (*nimeṣa*), a trice (*kāṣṭhā*), minutes (*kalā*), three-quarters of an hour (*muḥūrta*), a day and night (*ahorātra*), a fortnight (*pakṣa*), a month (*māsa*), a season (*ṛtu*), a half-year (*ayana*), a year (*saṃvatsara*), and yuga (*yuga*).⁴⁰

- 36 These naturally cause accumulation (*sañcaya*), irritation (*prakopa*), pacification (*upaśama*) and alleviation (*pratīkāra*) of the humours (*doṣa*). And they have practical purposes (*prayojanavat*).

[There are verses about this:]⁴¹

- 37 *This fourfold category is taught by physicians as a cause for the agitation and quelling of bodily diseases.*⁴²

- 38 *There are two kinds of invasive diseases. Some certainly⁴³ affect (ni√pat) the mind, others the body. Their treatment (kriyā) is of two kinds too.*

- 39 *For those that affect the body there is physical (śārīravād) therapy, whereas for those that affect the mind there is the collection (varga) of desirable sensory experiences like sound that bring comfort (sukha).*

- 40 Along these lines (*evam*), this brief explanation of the four factors (*caturṣṭaya*) is given:

- human being (*puruṣa*),
- disease (*vyadhi*),
- remedies (*oṣadhi*),
- the time for therapies (*kriyākāla*).

In this context,

- from the mention of the word “human,” the collection of substances that arise from it, such as the elements, and the particulars (*vikalpa*) of its major and minor parts (*aṅga*) such as skin (*tvak*),

40 These units are presented at 1.6.5 (Su 1938: 24) and discussed by Hayashi (2017: § 59).

41 See footnote 29.

42 On the topic of the “group of four,” the commentator Ḍalhaṇa considers them to be “food, behaviour, earthen products and items created by time.” He refers to the author of the lost commentary entitled *Pañjikā*, and to Jejjāṭa (HIML: IA, 372–3, 192). In his view, these early commentators do not agree that the fourfold grouping (*caturvarga*) refers to the quartet of stationary (*sthāvara*), moving (*jaṅgama*), earthen products (*pārthiva*) and items created by time (*kālakṛta*) (Su 1938: 9a).

43 The text uses an archaic interjection here, *ha*.

flesh (*māṃsa*), ducts (*sirā*), sinews (*snāyu*), bones (*asthi*) and joints (*sandhi*) are meant.

- From the mention of “diseases,” all diseases caused by wind, bile, phlegm, congested humours (*sannipāta*), external factors (*āgantū*) and inherent factors (*svabhāva*) are intended (*vyākhyāta*).
- From the mention of “remedies,” there is the teaching of substances, tastes, potencies, post-digestive tastes.
- From the mention of “procedures (*kriyā*),” therapies (*karman*) such as oiling and excision (*chedya*) are taught.
- From the mention of the word “time,” every single teaching about the times for procedures is meant.

[There is a verse about this:]⁴⁴

41 *This seed of medicine has been declared in brief. Its explanation will be given in one hundred and twenty chapters.*⁴⁵

42 There are one hundred and twenty chapters in five sections (*adhyāya*).⁴⁶ In that regard, having divided them, according to their subject matter, into the Ślokaśthāna, the Nidāna, the Śārīra, the Cikitsita and the Kalpa, we shall mention this in the Uttaratantra.⁴⁷

[There is a verse about this:]⁴⁸

43 *Someone who reads this eternal proclamation of the King of Kāśī, that was declared by Svayambhu, will have good karma on earth, will be respected by kings and upon death will achieve the world of Śakra.*

44 See footnote 29.

45 This is the number of chapters in the first five sections of the work, namely the *Sūtra*-, *Nidāna*-, *Śārīra*-, *Cikitsā*- and *Kalpa*-*sthānas*. These have 46, 16, 10, 40 and 8 chapters respectively. The *Uttaratantra* has 66 chapters.

46 On *viṃśa* in the sense of “greater by 20” see P.5.2.46 *śadantaviṃśateś ca*.

47 The end of this sentence reads oddly. The vulgate edition adds an object: “[we shall mention] the remaining topics [in the Uttara]” which smooths out the difficulty, but this is supported in none of the Nepalese MSS. At the start of the *Uttaratantra* (**susr-trikamji3**) there is indeed a statement that picks up the point about there being 120 chapters.

48 See footnote 29.

Sūtrasthāna, adhyāya 13: On Leeches

Literature

Previous scholarship

Meulenbeld offered an annotated overview of this chapter and a bibliography of studies on Indian leeches and their application.⁴⁹

A Persian version of this chapter of the *Suśrutasamhitā* was included in *Sikandar Shāh's Mine of Medicine* (*Ma'dīn al-shifā' i Sikandar-Shāhī*) composed in 1512 by Miyān Bhūwah b. *Khawāṣṣ Khān*.⁵⁰

More recently, Brooks has explored the sense of touch in relation to leeching and patient-physician interactions.⁵¹

Translation

- 1 And now we shall explain **the chapter** about leeches.
- 3 The leech is for the benefit of kings, rich people, delicate people, children, the elderly, fearful people and women. It is said to be the most gentle means for letting blood.
- 4 In that context, one should let blood that is corrupted by wind, bile or phlegm with a horn, a leech, or a **gourd**, respectively. Or, each kind can be made to flow by any of them in their particular way.⁵²
- 5x And there are the following about this:

49 HIML: IA, 209; IB, 324, n. 131.

50 Siddiqi 1959: 96–109; Azeez Pasha 1971; Storey 1971: 231–232; HIML: IB, 324, n. 128; Speziale 2019: 8–9.

51 Brooks 2020a,b,c.

52 This sentence is hard to construe grammatically, although its meaning seems clear. In place of विशेषस्तु, Cakrapāṇidatta and Ḍalhaṇa both read विशेषतस्, which helps interpretation (Su 1939: 95, Su 1938: 55). It is noteworthy that the critical syllable स्तु is smudged or corrected in both MS Kathmandu NAK 1-1079 and in 1-1146, a much later Devanāgarī manuscript.

There is an insertion in the text, printed in parentheses in the vulgate at 1.13.4 (Su 1938: 55) as विशेषतस्तु विस्त्रव्यं शृङ्गजलौकालाबुभिर्गृहीयात्. This insertion is not included in the earlier edition of the vulgate, but is replaced by स्निग्धशीतरूक्षत्वात् (Su 1931: 54). Ḍalhaṇa noted that, “this reading is discussed to some extent by some compilers (निबन्धकार), but it is definitely rejected by most of them, including Jejjhaṭa.”

- 1.13.5 The horn of cows is praised for being unctuous, **smooth**, and very sweet. Therefore, when wind is troubled, that is good for bloodletting.⁵³
- 1.13.5a Having a length of seven fingers and a large body the shape of a half moon, should first be placed into a cut. A strong person should suck with the mouth.⁵⁴
- 6 A leech lives in the cold, is sweet and is born in the water. So when someone is afflicted by bile, they are suitable for bloodletting.⁵⁵
- 7 A **gourd** is well known for being pungent, dry and sharp. So when someone is afflicted by phlegm it is suitable for bloodletting.
- 8 In that context, at the scarified location one should let blood using a horn wrapped in a covering of a thin bladder, or with a **gourd** with a flame inside it because of the suction.⁵⁶
- 9 Leeches are called “*jala-ayu-ka*” because water (*jala*) is their life (*āyur*).⁵⁷ “Home” (*okas*) means “dwelling;” their home is water, so they are called “water-dwellers (*jalaaukas*).”
- 10 There are twelve of them: six are venomous and just the same number are non-venomous.
- 11 Here is an explanation of the venomous ones, together with the therapy:
- Black (*kṛṣṇā*)
 - Mottled (*karburā*)
 - Sting-gush (*alagarddā*)⁵⁸

53 The vulgate replaced “smooth” with “hot.”

54 This passage is not found in the vulgate, but it is similar to the passage cited by Ḍalhaṇa at 1.13.8 (Su 1938: 56) and attributed to Bhāluki. Bhāluki was the author of a *Bhālukitantra* that may have predated Jeṇḍaṭa and might even have been one of the sources for the *Suśrutasaṃhitā* (HIML: v. IA, 689–690 *et passim*). The editor Ācārya was aware of this reading in the Nepalese manuscripts; see his note 4 on 1.13.5 (Su 1938: 55, note 4).

55 Note that the particular qualities (*guṇas*) of the leech in this and the following verses counteract the quality of the affliction. See Brooks 2018: 113, table 1.

56 There are questions about the wrapping or covering of the horn. Other versions of the text, and the commentator, propose that there may be two coverings, or that cloth may be a constituent. Comparison with contemporary horn-bloodletting practice by traditional Sudanese healers suggests that a covering over the top hole in the horn is desirable when sucking, to prevent the patient’s blood entering the mouth (PBS 2020). Our understanding of this verse is that the bladder material is used to cover the mouthpiece and then to block it, in order to preserve suction in the horn for a few minutes while the blood is let.

57 This is a folk etymology.

58 Treating गर्दा as गल्दा and translating as in RV 8.1.20, with Jamison and Brereton

- Rainbow (*indrāyudhā*)
- Oceanic (*sāmudrikā*)
- **Cow-praising** (*govandanā*)⁵⁹

Amongst these,

- The one called a Black is the colour of kohl and has a broad head;
- The one called Mottled is like the **Indian mottled eel**, long with a segmented (*chinna*), humped belly.
- The one called Sting-gush is hairy, has large sides and a black mouth.
- The one called Rainbow is coloured like a rainbow, with vertical stripes.
- The one called Oceanic is slightly blackish-yellow, and is covered with variegated flower patterns.
- The one called Govandana is like a cow's testicles, having a bifurcated form on the lower side, and a tiny mouth.

When someone is bitten by them, the symptoms are: a swelling at the site of the bite, excessive itching and fainting, fever, a temperature, and vomiting. In that context the Great Antidote (*mahāgada*) should be applied in drinks and liniments (*ālepana*), etc.⁶⁰ A bite by the Rainbow leech is not treatable. These venomous ones have been explained together with their remedies.

12 Now the ones without venom.⁶¹

- Tawny (*kapilā*)
- Ruddy (*piṅgalā*)
- Dart-mouth (*śaṅkumukhī*)
- Mouse (*mūṣikā*)
- Lotus-mouth (*puṇḍarīkamukhī*)
- Sāvarikā (*sāvarikā*)

Amongst these,

(2014: 1023, verse 20 and cf. commentary). But if गर्द is to be taken from $\sqrt{\text{गर्द}}$ then we might have “crying from the sting.”

59 The manuscripts all read गोवन्दना against the vulgate's गोचन्दना.

60 The “Great Antidote” is described in the Kalpasthāna, at 5.5.61–63ab (Su 1938: 578). Ḍalhaṇa and the vulgate included errhines in the list of therapies, and Ḍalhaṇa added that “etc.” indicated showers and baths too.

61 The translations of the names of these leeches are slightly whimsical, but give a sense of the original; *sāvarikā* remains etymologically puzzling.

- The one called Tawny has sides that look as if they are dyed with realgar and is the colour of glossy mung beans on the back.⁶²
- The one called Ruddy is a bit red, has a round body, is yellowish, and moves fast.
- The one called Dart-mouth is the colour of liver, drinks fast and has a long mouth.
- The one called Mouse is the colour and shape of a mouse and has an undesirable smell.
- The one called Lotus is the colour of mung beans and has a mouth that looks like a lotus.
- The one called Sāvarikā has the colour of a lotus leaf and is eighteen centimetres long. But that one is used when the purpose is an animal.

The non-venomous ones have been explained.

13 Their lands are Yavana, Pāṇḍya, Sahya, Potana and so on.⁶³ Those in

62 The compound *स्निग्धमुद्गवर्णा* is supported by all the manuscript witnesses and is translated here. Nevertheless, the reading of the vulgate, that separates *स्निग्धा*, f., “slimy” as an adjective for the leech, seems more plausible: “it is slimy and the colour of a mung bean.”

63 This passage is discussed by Karttunen (2015: 109–110, 388–389). At the time of the composition of the *Suśrutasaṃhitā*, Yavana would most likely have referred the Hellenistic Greek diaspora communities in Bactria and India (Law 1984: 136–137; Mairs 2013; 2014). Unproblematically, the Pāṇḍya country is the extreme south-eastern tip of the Indian subcontinent (Schwartzberg, Bajpai, et al. 1978: E8, p. 20 *et passim*), and Sahya refers to the Western Ghats (Schwartzberg, Bajpai, et al. 1978: D5–7, p. 20 *et passim*). The vulgate reading “Pautana” is not a known toponym. Potana was the ancient capital of the Aśmaka Mahājanapada mentioned in Pali sources and in inscriptions at Ajāntā and elsewhere, and identified by Law (1984: 142, 179) and P. Gupta (1989: 18) with Pratiṣṭhāna, modern Paithan on the Godavari river. The recurring ancient epithet describing the Aśmaka kingdom is that it was on the Godāvarī, and Paithan is flanked to the south west and south east by this river.

Some scholars have identified the name with modern Bodhan in Telangana (Sircar 1971: 189; Schwartzberg, Bajpai, et al. 1978: E6, p. 14, 140 *et passim*; Sen 1988: 102), but this implausible identification is traceable to a speculative suggestion by Raychaudhuri (1953: 89, n. 5, 143) based on a variant form “Podana” found in some early manuscripts of the *Mahābhārata*: “This name reminds one of Bodhan in the Nizam’s dominions,” “possibly to be identified with Bodhan.”

Ḍalhaṇa on 1.13.13 (Su 1938: 57) anachronistically identified “Yavana” as the land of the Turks (तुरुष्क) and “Pautana” as the Mathurā region. He also noted, as did Cakra-pāṇidatta (Su 1939: 97), that this passage was not included by some authorities on the grounds that the habitats of poisonous and non-poisonous creatures are defined by

- particular have large bodies and are strong, they drink rapidly, consume a lot, and are without venom.
- 14 In that context, the venomous leeches are those originating in decomposing venomous insects, frogs, urine, feces and in polluted water.⁶⁴ The , non-venomous ones originate in decomposing *sacred lotus, blue water-lily, white water-lily, fragrant lotus, pondweed* and in pure waters.
- 15 There is a verse on this:
- These ones move about in sweet-smelling habitats that are abundant with water. Traditionally, they do not behave in a confused manner or lie in the mud.*⁶⁵
- 16 They can be caught with a fresh hide or after being caught in other ways.⁶⁶
- 17 Then these should be put into a large new pot furnished with mud and the water from lakes or wells. One should provide what they need to eat. One should grind up *pondweed, dried meat*, and aquatic tubers, and one should give them grass and aquatic leaves to lie on, and every three days water and food. Every week, one should transfer them into a different pot.
- 18 And on this:

*One should not **nurture** those that are thick in the middle, that are*

other criteria.

64 The vulgate on 4.13.14 (Su 1938: 57) includes fish in this list.

65 Ḍalhaṇa on 1.13.14 (Su 1938: 57) discussed why the leeches would not “behave in a confused manner” (सङ्कीर्णचारिन्), saying that they do not “eat a diet that is unwholesome because of poison etc.” (विषादिविरुद्धाहारभुजः). The use of विरुद्ध is odd here, but cf. Ḍalhaṇa’s suggestion at 4.23.4 (Su 1938: 485) that विरुद्ध refers to the chapter on wholesome and unwholesome foods (हिताहिताध्याय, 1.20 (Su 1938: 94–99)).

66 “Fresh hide” (आर्द्रचर्मन्) may suggest that the animal skin still includes meat or blood that is attractive to a leech.

The Nepalese witnesses all read गृहीत्वा “having (been) caught” for the vulgate’s गृहीयात् “one may grasp (by other means).” This is hard to construe clearly.

Ḍalhaṇa on 1.13.15 (Su 1938: 57) quoted “another treatise” (तन्त्रान्तरवचनात्) that said that autumn is the time to collect leeches. He also explained that “other methods” of collecting leeches included smearing a leg or other limb with cream, butter or milk, etc., or using a piece of flesh from a freshly killed animal.

*injured,⁶⁷ or **thin**, those that are not born in the proper habitat, those that will not attach, that drink little or those that are venomous.*

- 19 First of all, get the patient who has an ailment that is treatable by leech-bloodletting to sit or lie down. Then, dry any site that has a wound with powders of earth and cow-dung. Then make them free from impurities, with their limbs smeared with **Indian mustard** and **turmeric** and moving about in the middle of a cup of water. After all this, make them attach to the ailment. Now, for those that are not attaching, add a drop of milk or a drop of blood. Alternatively, make incisions. And if it still will not attach, make other ones attach.
- 20 One can know that it is attached when it moves in, hunching its shoulders and making a mouth like a horse's hoof. Then, one should cover it with a wet cloth and keep it there.
- 21 Now, when there is a bite, one may know from the appearance of pricking and itching that it is receiving cleanly. Take it off. Now, it does not release because of the scent of blood: one should sprinkle its mouth with powdered **rock salt**.

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67 Pace Dalhaṇa on 1.13.18 (Su 1938: 57) who glossed अमनोद्गर्शन as “nasty looking.”

Editions and Abbreviations

- Ah 1939 Kumṭe, Aṇṇā Moreśvara, Navare, Kṛṣṇaśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्वाग्भटविरचितम् अष्टाङ्गहृदयम्, श्रीमदरुणदत्तविरचितया सर्वाङ्गसुन्दराख्यया व्याख्यया, हेमाद्रिप्रणीतया आयुर्वेदरसायनाह्वया टीकया च समुल्लसितम् = *The As-tāṅgahṛidaya* (6th edn., Mumbayyām: Nirṇayasāgara Press), ark:/13960/t3tt6967d.
- Anup *Anup Sanskrit Library.*
- Apte Apte, Vaman Shivaram (1992), *The Practical Sanskrit-English Dictionary* (Kyoto: Rinsen Book Company), ISBN: 4-653-00038-7; Reprinted from Gode and Karve 1957–59.
- AS *Asiatic Society.*
- As 1980 Āṭhavale, Ananta Dāmodara (1980) (ed.), अष्टाङ्गसङ्ग्रहः श्रीमद्बृह्मवाग्भटविरचितः इन्दुव्याख्यासहितः [= *Vāgbhaṭa's Aṣṭāṅgasan̄graha with Indu's Commentary*] (Pune: M. A. Āṭhavale, Śrīmad Ātreya Prakāśanam), ark:/13960/s25bwqsd0n7.
- AyMahā Jośī, Veṇīmādhavaśāstrī, and Jośī, Nārāyaṇa Harī (1968), आयुर्वेदीय महाकोशः अर्थात् आयुर्वेदीय शब्दकोशः संस्कृत-संस्कृत (Mumbai: Mahārāṣṭra Rājya Sāhitya āṇi Saṁskṛti Maṁḍala), ark:/13960/t22c41g8t.
- Bhela 1921 Mookerjee, Ashutosh, and Ananta Krishna Shastri, Ved-antabisharad (1921) (eds.), *The Bhela Samhita. Sanskrit Text* (Calcutta: University of Calcutta), ark:/13960/t3sv3157j; Based on two copies made of the Thanjavur codex unicus (MS Thanjavur TMSSML 10773, Burnell 1880: 63–4, P. P. S. Sastri 1933: #11085).
- Bhela 2000 Krishnamurthy, K. H. (2000), *Bhela-saṁhitā. Text with English Translation, Commentary and Critical Notes* (Haridas Ayurveda Series, 8; Varanasi: Chaukhambha Visvabharati).
- BL *British Library.*

- Ca. 1941 Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्वसुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसं-स्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्यया संवलिता (3rd edn., Mumbayyām: Nirnaya Sagara Press), [ark:/13960/t48q2f20n](https://nirnayasangraha.org/ark:/13960/t48q2f20n).
- EWA Mayrhofer, Manfred (1986–2001), *Etymologisches Wörterbuch des Altindoarischen* (Heidelberg: Carl Winter, Universitätsverlag), ISBN: 3-533-03826-2.
- HIML Meulenbeld, Gerrit Jan (1999–2002), *A History of Indian Medical Literature*, 5 vols. (Groningen: E. Forsten), ISBN: 9069801248.
- IOLR Eggeling, Julius, et al. (1887–1935), *Catalogue of the Sanskrit Manuscripts in the Library of the India Office* (London: Secretary of State for India), [ark:/13960/s2kbb5zcrg9](https://nirnayasangraha.org/ark:/13960/s2kbb5zcrg9).
- KEWA Mayrhofer, Manfred (1953–72), *Kurzgefaßtes etymologisches Wörterbuch des Altindoarischen; a Concise Etymological Sanskrit Dictionary* (Heidelberg: Carl Winter, Universitätsverlag).
- KL *Kaiser Library*.
- MN₁ Ācārya, Yādavaśarma Trivikrama (1920) (ed.), महामतिश्री-माधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाख्यव्याख्यया, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुल्लसितम् = *Mādhavanidāna by Mādhavakara with the Two Commentaries, Madhukosha by Vijayarakshita & Shrikanthadatta and Ātankadarpaṇa by Vāchaspati Vaidya* (1st edn., Bombay: Nirnaya Sagara Press), [ark:/13960/t9z08jn5j](https://nirnayasangraha.org/ark:/13960/t9z08jn5j).
- MN₃ Ācārya, Yādavaśarma Trivikrama (1932) (ed.), महामतिश्री-माधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाख्यव्याख्यया, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुल्लसितम् = *Mādhavanidāna by Mādhavakara with the Two Commentaries, Madhukosha by Vijayarakshita & Shrikanthadatta and Ātankadarpaṇa by Vāchaspati Vaidya* (3rd edn., Bombay: Nirnaya Sagara Press), [ark:/13960/t66452x0h](https://nirnayasangraha.org/ark:/13960/t66452x0h); Reprinted Varanasi: Chowkhambha, 1986.

MW	Monier-Williams, Monier, Leumann, E., Cappeller, C., et al. (1899), <i>A Sanskrit–English Dictionary Etymologically and Philologically Arranged, New Edition</i> (Oxford: Clarendon Press); 1970 reprint.
NAK	<i>National Archives of Kathmandu.</i>
NCC	Raghavan, V., et al. (1949–), <i>New Catalogus Catalogorum, an Alphabetical Register of Sanskrit and Allied Works and Authors</i> , 39 vols. (Madras University Sanskrit Series; Madras: University of Madras); v.1: revised edition, 1968. Searchable at https://vmlt.in/ncc/ .
NGMCP	NGMCP (2014), “Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue,” Universität Hamburg and Deutsche Forschungsgemeinschaft, URL .
RORI	<i>Rajasthan Oriental Research Institute.</i>
Su 1889	Bhaṭṭācāryya, Jivānanda Vidyāsāgara (1889) (ed.), सुश्रुतः. सूत्र-निदान-शारीर-चिकित्सा-कल्पोत्तर-तन्त्र-कल्पित आयुर्वेद. भगवता धन्वन्तरिणोपदिष्टः सुश्रुतनामधेयेन तच्छिष्येण विरचितः (3rd edn., Calcutta: Saratī Press), ark:/13960/t1nh6j09c ; HIML: IB, 311, edition b.
Su 1915	Ācārya, Yādavaśarma Trivikrama (1915) (ed.), सुश्रुतसंहिता, सुश्रुतेन विरचिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया समुल्लसिता, आचार्योपाद्वेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = <i>The Sushrutasamhita of Sushruta, the Nibandhasangraha Commentary of Shri Dalhanāchārya</i> (Mumbayyām: Nirṇaya-sāgaramudrāyantrālaye), ark:/13960/t3sv0mt50 , accessed 29/07/2020; HIML: IB, 312 edition *v.
Su 1931	Ācārya, Yādavaśarma Trivikrama (1931) (ed.), सुश्रुतसंहिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया समुल्लसिता, महर्षिणा सुश्रुतेन विरचिता, सूत्र-निदान-शारीर-चिकित्सा-कल्पस्थानोत्तरतन्त्रात्मकः. आचार्योपाद्वेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = <i>The Sushrutasamhitā of Sushruta with the Nibandhasangraha Commentary of Shree Dalhanāchārya</i> (2nd edn.,

- Mumbayyām: Pāṇḍuraṅga Jāvajī at the Nirṇayasāgara-mudrāyantrālaye), [ark :/ 13960 / t9j41sg94](#), accessed 09/06/2020; [HIML](#): IB, 312 edition *v.
- Su 1938 Ācārya, Yādavaśarma Trivikrama, and Ācārya, Nārāyaṇa Rāma (1938) (eds.), श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिकाख्यपञ्जिकाव्याख्यया च समुल्लसिता महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (3rd edn., Bombay: Nirṇayasāgara Press), [ark :/ 13960 / t09x0sk1h](#); [HIML](#): IB, 313, edition cc ('the vulgate').
- Su 1938² Ācārya, Yādavaśarma Trivikrama, and Ācārya, Nārāyaṇa Rāma (2004) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता, श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिकाख्यपञ्जिकाव्याख्यया च समुल्लसिता (Vārāṇasī: Caukhambhā Kṛṣṇadāsa Akādamī); Reprint of the third, 1938 edition ([Su 1938](#)).
- Su 1939 Ācārya, Yādavaśarma Trivikrama, and Śarman, Nandakiśora (1939) (eds.), सुश्रुतसंहितायाः सूत्रस्थानम् श्रीचक्रपाणिदत्तविरचितया भानुमतीव्याख्याया समेतम् = *Sushrut-saṅhitā (sūtra Sthān) with Bhānumatī Commentary by Chakrapāṇi Datta with Introduction by Gaṇanāth Sen* (Śrīsvāmī Lakṣmīrāma Nidhi Granthamālā = Shrī Swāmī Lakshmi Rām Trust Series, 1; [Jaipur]: Śyāmasundara Śarman), [ark :/ 13960 / t54g0d12m](#); Printed at the Nirṇayasāgara Press, Bombay.
- Su 1945 Ācārya, Yādavaśarma Trivikramācārya, and Ācārya, Nārāyaṇa Rāma (1945) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (मूलमात्रा). पाठान्तर-परिशिष्टादिभिः संवलितः = *the Suśrutasaṅhitā of Suśruta with Various Readings, Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), [ark :/ 13960 / t8kd4jh7n](#).
- TMSSML *Tanjore Maharaja Serfoji Saraswati Mahal Library.*
- Viṣṇudh. Śarman, Madhusūdana, and Śarman, Mādhavaprasāda (1912) (eds.), विष्णुधर्मोत्तरपुराणम् = [*Viṣṇudharmottarapurāṇa*] (Mumbai: Khemarāja Śrīkṛṣṇadāsa at the Śrīveṅkaṭeśvara Steam Press), [ark :/ 13960 / t6qz6fr23](#); Lithograph format. Edited on the basis of a manuscript belonging to the

astrologer Śudhākaraśarman of the Varanasi Sanskrit
Pāṭhaśālā.

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Kathmandu NAK 1-1146: 21

Kathmandu NAK 5-333: 14

Thanjavur TMSSML 10773: 75

References

Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्वसुनोपदिष्टा, तच्छि-
ष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया
आयुर्वेददीपिकाव्याख्यया संवलिता (3rd edn., Mumbayyām: Nirṇaya Sagara
Press), [ark:/13960/t48q2f20n](https://nirṇaya.org/ark:/13960/t48q2f20n).

Ācārya, Yādavaśarma Trivikramācārya, and Ācārya, Nārāyaṇa Rāma
(1945) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (मूलमात्रा). पाठान्तर-
परिशिष्टादिभिः संवलिता = *the Suśrutasaṃhitā of Suśruta with Various Readings,
Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye),
[ark:/13960/t8kd4jh7n](https://nirṇaya.org/ark:/13960/t8kd4jh7n).

Acharya, Diwakar (2012), “Description of Microfilm A 45/5,” NGMCP,
[URL](https://ngmcp.org/), accessed 27/02/2023.

Adriaensen, Rob, Barkhuis, Roelf, and Ruijters, Jean-Louis (1984), “An
English Translation of Suśrutasaṃhitā, Nidānasthāna 1, 1–39, Together
with Gayadāsa’s Nyāyacandrikā,” in Gerrit Jan Meulenbeld (ed.),
*Proceedings of the International Workshop on Priorities in the Study of Indian
Medicine* (Groningen: Forsten), 277–310.

- Adriaensen, Rob C. R., Barkhuis, Roelf, and Ruijters, Jean-Louis (1984), "An English Translation of Suśrutasaṃhitā, Nidānasthāna 1, 1–39, Together with Gayadāsa's Nyāyacandrikā," in Gerrit Jan Meulenbeld (ed.), *Proceedings of the International Workshop on Priorities in the Study of Indian Medicine* (Groningen: Forsten), 277–310.
- Āgāṣe, Ve. Śā. Rā. Rā. Kāśīnātha Śāstrī, and Āpaṭe, Hari Nārāyaṇa (1904) (eds.), वाचस्पतिमिश्रविरचितटीकासंवलितव्यासभाष्यसमेतानि पातञ्जल-योगसूत्राणि तथा भोजदेवविरचित्रराजमार्तण्डाभिध्वृत्तिसमेतानि पातञ्जलयोगसूत्राणि (Ānandāśramasaṃskṛtagranthāvaliḥ, 47; Puṇyākhyā-pattana: Ānand-āśramamudraṇālaya), [ark:/13960/t40s27g36](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t40s27g36).
- Agrawal, V. S. (1963), *India As Known to Pāṇini: A Study of the Cultural Material in the Aṣṭādhyāyī* (2nd edn., Varanasi: Prthvi Prakashan); First published in 1953.
- Angermeier, Vitus (2020), *Regenzeiten, Feuchtgebiete, Körpersäfte. Das Wasser in der klassischen indischen Medizin* (Wien: Österreichische Akademie der Wissenschaften).
- Azeez Pasha, M. (1971), "English Translation of Madan-ul-Shifa, Tibbe Sikandar Shahi (Sikandar Shah's Mine of Medicine)," *Bulletin of the Department of History of Medicine (Osmania University, Hyderabad)*, 2/4: 227–2324; continued in BDHM 3(1) 29–38; BIHM 1(3/4) 127–134; & BIHM 2(1), 17–22.
- Baber, Zaheer (1996), *The Science of Empire: Scientific Knowledge, Civilization, and Colonial Rule in India* (Albany: State University of New York Press).
- Bakker, Hans T. (2019), "Some Methodological Considerations with Respect to the Critical Edition of Puranic Literature," in *Holy Ground: Where Art and Text Meet* (Leiden: Brill), 175–84. doi: [10.1163/9789004412071_010](https://doi.org/10.1163/9789004412071_010).
- Barceloux, Donald G. (2008), *Medical Toxicology of Natural Substances. Foods, Fungi, Medicinal Herbs, Plants, and Venomous Animals* (Hoboken, NJ, etc.: John Wiley & Sons), ISBN: 047172761X.
- Bausi, Alessandro, et al. (2015), *Comparative Oriental Manuscript Studies. An Introduction* (Hamburg: Tredition). doi: [10.5281/ZENODO.46784](https://doi.org/10.5281/ZENODO.46784).
- Bedekar, V. M. (1967), "The Legend of the Churning of the Ocean in the Epics and the Purāṇas: A Comparative Study," *Purāṇa*, 9/1: 7–61, [ark:/13960/t57d2r97r](https://nbn-resolving.org/urn:nbn:de:bsz:13960-t57d2r97r).

- Bendall, Cecil (1883), *Catalogue of the Buddhist Sanskrit Manuscripts in The, University Library, Cambridge: With Introductory Notices and Illustrations of the Palaeography and Chronology of Nepal and Bengal* (Cambridge: University Press), [ark:/13960/t03x8vz7b](https://nbn-resolving.org/urn:nbn:uk:2019-06-01-13960-t03x8vz7b).
- Bhaṭṭācārya, Candrakānta (1910–17) (ed.), सुश्रुतसंहिता प्रथमखण्डम् सूत्रस्थानात्मकम् हाराणचन्द्रचक्रवर्तिकविराजविरचितसुश्रुतार्थसन्दीपनभाष्य-समेतम्... चन्द्रकान्त भट्टाचार्य-प्रमुखैः संशोधितम् = [The *Suśrutasaṃhitā* with the Commentary *Suśrutārthasandīpanabhāṣya* by Hārāṇacandra Cakravarti] (Kalikātā: Satya Press); Edition "t" in [HIML](https://www.himl.org/): IB, 312.
- Bhattarai, Bidur (2020), *Dividing Texts. Conventions of Visual Text-Organisation in Nepalese and North Indian Manuscripts* (Studies in Manuscript Cultures; Berlin/Boston: de Gruyter), 388.
- Birch, Jason, Wujastyk, Dominik, Klebanov, Andrey, Parameswaran, Madhu K., et al. (2021), "Further Insight into the Role of Dhanvantari, the Physician to the Gods, in the *Suśrutasaṃhitā*," *Academia Letters*. doi: [10.20935/AL2992](https://doi.org/10.20935/AL2992).
- Birch, Jason, Wujastyk, Dominik, Klebanov, Andrey, Rimal, Madhusudan, et al. (2021), "Dāhaṇa and the Early 'Nepalese' Version of the *Suśrutasaṃhitā*." doi: [10.20935/a13733](https://doi.org/10.20935/a13733).
- Bollée, Willem (2010), "Remarks on the Cultural History of the Ear in India," in Nalini Balbir (ed.), *Svasti: Essays in Honour of Professor Hampa Nagarajaiah for His 75th Birthday* (Bangalore: K. S. Mudappa Smaraka Trust), 141–67, [URL](https://www.bollée.org/), accessed 23/01/2022.
- Breton, P. (1826), "On the Native Mode of Couching," *Transactions of the Medical and Physical Society of Calcutta*, 2: 341–82, [ark:/13960/t3dz8nn5t](https://nbn-resolving.org/urn:nbn:uk:2019-06-01-13960-t3dz8nn5t), [URL](https://www.breton.org/), accessed 02/06/2021.
- Bronkhorst, Johannes (2016), *How the Brahmins Won: From Alexander to the Guptas* (Leiden: Brill). doi: [10.1163/9789004315518](https://doi.org/10.1163/9789004315518).
- (2021), "Patañjali's Āryāvarta = Śuṅga realm?," *Academia Letters*. doi: [10.20935/a1291](https://doi.org/10.20935/a1291); Article 291.
- Bronner, Yigal (2021) (ed.), "The Pandit Project" (30 Sept.), [URL](https://www.bronner.org/).
- Brooks, Lisa Allette (2018), "Epistemology and Embodiment: Diagnosis and the Senses in Classical Ayurvedic Medicine," *Asian Review of World Histories*, 6: 98–135. doi: [10.1163/22879811-12340027](https://doi.org/10.1163/22879811-12340027).

- Brooks, Lisa Allette (2020a), "A Surgeon's Hand: Reflections on Surgical Tactility in Early Ayurveda," *Asian Medicine*, 15/1: 30–62. doi: <https://doi.org/10.1163/15734218-12341460>, URL.
- (2020b), "The Vascularity of Ayurvedic Leech Therapy: Sensory Translations and Emergent Agencies in Interspecies Medicine," *Medical Anthropology Quarterly*, 35/1: 82–101. doi: [10.1111/maq.12595](https://doi.org/10.1111/maq.12595).
- (2020c), "Whose Life is Water, Whose Food is Blood: Fluid Bodies in Āyurvedic Leech Therapy," in Natalie Köhle and Shigehisa Kuriyama (eds.), *Fluid Matter(s): Flow and Transformation in the History of the Body* (Asian Studies Monograph Series, 14; Canberra: ANU Press). doi: [10.22459/fm.2020](https://doi.org/10.22459/fm.2020).
- Burghart, Marjorie (2016), "The TEI Critical Apparatus Toolbox: Empowering Textual Scholars through Display, Control, and Comparison Features," *Journal of the Text Encoding Initiative*, 10/Issue 10. doi: [10.4000/jtei.1520](https://doi.org/10.4000/jtei.1520).
- (2017), "Textual Variants," in Marjorie Burghart, James Cummings, and Elena Pierazzo (eds.), *Digital Editing of Medieval Texts: A Textbook* (DEMM), URL, accessed 04/07/2021.
- Burnell, Arthur Coke (1880), *A Classified Index to the Sanskrit Mss. in the Palace at Tanjore* (London: Trübner), [ark:/13960/t4xh86j61](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-p0044-4); Bhelaṣaṃhitā described on pp. 67 ff.
- Carpue, J. C. (1816), *An Account of Two Successful Operations for Restoring a Lost Nose from the Integuments of the Forehead...Including Descriptions of the Indian and Italian Methods* (London: Longman et al.), [ark:/13960/t2q57fn42](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-p0044-4), accessed 20/03/2019.
- Chadha, Gita, and Thomas, Renny (2022) (eds.), *Mapping Scientific Method: Disciplinary Narrations* (Science and Technology Studies; Abingdon and New York: Routledge). doi: [10.4324/9781003298908](https://doi.org/10.4324/9781003298908).
- Cone, Margaret (2001), *A Dictionary of Pāli* (Oxford: The Pali Text Society), ISBN: 0 86013 394 x.
- Cordier, P. (1903), "Récentes découvertes de mss. médicaux sanscrits dans l'Inde (1898–1902)," *Muséon, Nouvelle Série*, 4: 321–52, [ark:/13960/t26b2j457](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-p0044-4), accessed 02/01/2020; Reprinted in Roṣu 1989: 539–70.
- Coults, Ro. (1731), "An Account of the Diseases of Bengall," in *Indian Science and Technology in the Eighteenth Century* (Impex India), 141 f., 276.

- Crawford, D. G. (1930), *Roll of the Indian Medical Service, 1615–1930* (London, Calcutta, Simla: Thacker).
- Dave, K. N. (1985), *Birds in Sanskrit Literature* (Delhi: Motilal Banarsidass), ISBN: 0-89581-676-8, [ark:/13960/t2c94cv80](https://nbn-resolving.org/urn:nbn:in:bbri:13960-t2c94cv80).
- Deshpande, Madhav (1988), “Pāṇini and the Northwestern Dialect: Some Suggestions on Sūtra 3.3.10,” in Mohammad Ali Jazayery and Werner Winter (eds.), *Languages and Cultures: Studies in Honor of Edgar C. Polomé*, xxxvi (Trends in linguistics. Studies and monographs; Berlin, New York: Mouton de Gruyter), 111–23.
- Deshpande, Madhav M. (2010), “Pañca Gauḍa and Pañca Drāviḍa: Contested Borders of a Traditional Classification,” in Klaus Karttunen (ed.), *Anantaṃ Śāstram. Indological and Linguistic Studies in Honour of Bertil Tikkani* (Studia Orientalia, 108; Helsinki: Finnish Oriental Society), 29–58, ISBN: 9789519380742.
- Deshpande, Vijaya (1999), “Indian Influences on Early Chinese Ophthalmology: Glaucoma As a Case Study,” *Bulletin of the School of Oriental and African Studies*, 62: 306–22. DOI: [10.1017/S0041977X00016724](https://doi.org/10.1017/S0041977X00016724).
- (2000), “Ophthalmic Surgery: A Chapter in the History of Sino-Indian Medical Contacts,” *Bulletin of the School of Oriental and African Studies*, 63/3: 370–88, ISSN: 0041-977X. DOI: [10.1017/s0041977x00008454](https://doi.org/10.1017/s0041977x00008454).
- Deshpande, Vijaya Jayant (2019), “An Investigation into Ancient Greco-Indian Medical Exchanges: Sostratus vs Suśruta,” *Indian Journal of History of Science*, 54/2: 144–61. DOI: [10.16943/ijhs/2019/v54i2/49659](https://doi.org/10.16943/ijhs/2019/v54i2/49659).
- Dimitrov, Dragomir, and Tamot, Kashinath (2007), “Kaiser Shamsher, His Library and His Manuscript Collection,” *Kaiser Shamsher, His Library and His Manuscript Collection*, 3 (Jan.): 26–36, [URL](https://www.kashinath.com/).
- Eaton, Richard M. (1993), *The Rise of Islam and the Bengal Frontier, 1204–1760* (Berkeley: University of California Press), [ark:/13030/ft067n99v9/](https://nbn-resolving.org/urn:nbn:in:bbri:13030-ft067n99v9/).
- Edgerton, Franklin (1939), “The Epic Triṣṭubh and Its Hypermetric Varieties,” *Journal of the American Oriental Society*, 59/2: 159–74. DOI: [10.2307/594060](https://doi.org/10.2307/594060).
- (1953), *Buddhist Hybrid Sanskrit Grammar and Dictionary. Vol. 2: Dictionary* (William Dwight Whitney Linguistic Series; New Haven: Yale University Press).

- Eggeling, Julius, et al. (1887–1935), *Catalogue of the Sanskrit Manuscripts in the Library of the India Office* (London: Secretary of State for India), [ark:/13960/s2kbbk5zcrg9](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-s2kbbk5zcrg9).
- Elliot, Robert Henry (1918), *The Indian Operation of Couching for Cataract: Incorporating the Hunterian Lectures Delivered before the Royal College of Surgeons of England on February 19 and 21, 1917* (London: H. K. Lewis).
- Emeneau, M. B. (1969), “Sanskrit Syntactic Particles – “kila, khalu, nūnam”,” *Indo-Iranian Journal*, 11/4: 241–68.
- Falk, Harry (1991), “Silver, Lead and Zinc in Early Indian Literature,” *South Asian Studies*, 7/1: 111–7. DOI: [10.1080/02666030.1991.9628430](https://doi.org/10.1080/02666030.1991.9628430).
- Fan, Ka Wai (2005), “Couching for Cataract and Sino-indian Medical Exchange From the Sixth to the Twelfth Century AD,” *Clinical and Experimental Ophthalmology*: 188–90. DOI: [10.1111/j.1442-9071.2005.00978.x](https://doi.org/10.1111/j.1442-9071.2005.00978.x); Unaware of V. Deshpande 1999; 2000.
- Fitzgerald, James L. (2009), “A Preliminary Study of the 681 Triṣṭubh Passages of the Mahābhārata,” in Robert P. Goldman and Muneo Tokunaga (eds.), *Epic Undertakings* (Papers of the 12th World Sanskrit Conference; Delhi: Motilal Banarsidass Publisher), 95–117.
- Froese, R., and Pauly, D. (2022) (eds.), “Fishbase: The Global Encyclopedia about Fish,” [URL](https://www.fishbase.org/).
- Gaṇapatiśāstrī, T. (1920–25), *Āryamañjuśrīmūlakalpaḥ* (Trivandrum Sanskrit Series, 70; Anantaśayane: Rājākīyamudraṇayantrālaye), [ark:/13960/t4pk5sj0j](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t4pk5sj0j).
- Gode, P. K., and Karve, C. G. (1957–59) (eds.), *Revised and Enlarged Edition of Prin. V. S. Apte’s the Practical Sanskrit-English Dictionary* (Poona: Prasad Prakashan), [ark:/13960/t3gx47212](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t3gx47212), accessed 20/10/2017.
- Gombrich, Richard (1979), “‘He Cooks Softly’: Adverbs in Sanskrit Grammar,” *Bulletin of the School of Oriental and African Studies*, 42/2: 244–56. DOI: [10.1017/s0041977x0014580x](https://doi.org/10.1017/s0041977x0014580x).
- Gupta, Parmanand (1973), *Geography In Ancient Indian Inscriptions (Up to 650 A.D.)* (Delhi: D. K. Publishing House), [ark:/13960/t3907cf2d](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t3907cf2d).
- (1989), *Geography from Ancient Indian Coins & Seals* (New Delhi: Concept Publishing Company), ISBN: 9788170222484.

Gupta, Sri Madhusudana (1835–36) (ed.), *Āyur-veda-prakāśa* [also Called *Suśruta-saṃhitā*] by Suśruta. the Suśruta, or System of Medicine, Taught by Dhanwantari, and Composed by His Disciple Suśruta, 2 vols. (Calcutta: Education Press and Baptist Mission Press), [ark:/13960/t6841qw6x](https://nnparks.org/ark:/13960/t6841qw6x).

Haas, E. (1876), “Über die Ursprünge der Indischen Medizin, mit besonderem Bezug auf Suśruta,” *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, 30/4: 617–70, [URL](#).

Harimoto, Kengo (2010), “[Preliminary Edition of the Nepalese MSS of the *Suśrutasaṃhitā*, adhyāyas 1.1–3, 6.4]” (prepublished).

— (2011), “In Search of the Oldest Nepalese Manuscript,” *Rivista degli Studi Orientali*, 84/1–4: 85–106, ISSN: 0392-4866, [URL](#), accessed 08/09/2019.

— (2013), “Description of microfilm C 80/7,” NGMCP, [URL](#), accessed 27/02/2023.

— (2014), “Nepalese Manuscripts of the *Suśrutasaṃhitā*,” *Journal of Indian and Buddhist Studies (Indogaku Bukkyogaku Kenkyu)*, 62/3: 23–29 (1087–1093). DOI: [10.4259/ibk.62.3_1087](https://doi.org/10.4259/ibk.62.3_1087), [URL](#), accessed 08/09/2019.

Hayashi, Takao (2017), “The Units of Time in Ancient and Medieval India,” *History of Science in South Asia*, 5/1: 1–116. DOI: [10.18732/h2ht0h](https://doi.org/10.18732/h2ht0h).

Hemarāja Śarman (1938) (ed.), काश्यपसंहिता (वृद्धजीवकीयं तन्त्रं वा) महर्षिणा मारीच-कश्यपेनोपदिष्टा ... हेमराजशर्मणा लिखितेन विस्तृतेन उपोद्धातेन सहिता ... सत्यपाल भिषगा कृतया विद्योतिनी हिन्दीव्याख्यया ... समुल्लसिता (1st edn., Mumbai: Nirṇayasāgara Press), [ark:/13960/t3mw5gb9p](https://nnparks.org/ark:/13960/t3mw5gb9p).

Hendley, T. Holbein (1895), *A Medico-topographical Account of Jeypore, Based on the Experience of Twenty Years’ Service As a Residency Surgeon and Thirteen As Superintendent of Dispensaries at Jeypore, Rajputana* (Calcutta: Calcutta Central Press Company).

Hessler, Franciscus (1844–55), *Suśrutasaṃhitā Ayurvéda: id est Medicinae Systema a Venerabili Dhanwantari Demonstratum a Susruta Discipulo Compositum; Nunc Primum Ex Sanskrita in Latinum Sermonem Vertit, Introductionem, Annotationes Et Rerum Indice Franciscus Hessler* (Erlangen: Ferdinandum Enke), [ark:/13960/t17m45r97](https://nnparks.org/ark:/13960/t17m45r97).

- Hoernle, A. F. Rudolf (1893–1912) (ed.), *The Bower Manuscript: Facsimile Leaves, Nagari Transcript, Romanised Transliteration and English Translation with Notes* (New Imperial Series, 22; Calcutta: Government of India and under the patronage of the Bengali Government, Archaeological Survey of India), [ark:/13960/t05z1bg4q](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t05z1bg4q).
- (1897), *सुश्रुतसंहिता* = *The Suśruta-Saṃhitā or the Hindū System of Medicine According to Suśruta Translated from the Original Sanskrit* (Bibliotheca Indica, 911; Calcutta: Asiatic Society), [ark:/13960/t8pd1kw9r](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t8pd1kw9r), accessed 03/01/2018; No more published; Hoernle does not state which edition he is translating, but it includes the “Dhanvantari phrase”.
- (1906a), “Studies in Ancient Indian Medicine I: The Commentaries on Suśruta,” *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 283–302, [URL](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t8pd1kw9r), accessed 26/06/2019.
- (1906b), “Studies in Ancient Indian Medicine II: On Some Obscure Anatomical Terms,” *Journal of the Royal Asiatic Society of Great Britain and Ireland*, 4: 915–41, [URL](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t8pd1kw9r), accessed 25/06/2019.
- (1907a), “Studies in Ancient Indian Medicine II: On Some Obscure Anatomical Terms (Continued from the the Journal, 1906, p. 941),” *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 1–18, [URL](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t8pd1kw9r), accessed 25/06/2019.
- (1907b), *Studies in the Medicine of Ancient India: Osteology or the Bones of the Human Body* (Oxford: Clarendon Press), [ark:/13960/t1pg9cq8b](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t1pg9cq8b).
- Hofer, Theresia (2007), “Swami Laxmi Ram’s Ayurvedic Pharmacy in Jaipur, India,” *Wellcome History*, 34: 2–3, [URL](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t1pg9cq8b), accessed 16/03/2022.
- Holwell, J. Z. (1767), *An Account of the Manner of Inoculating for the Small Pox in the East Indies With...Observations on The...Mode of Treating That Disease in Those Parts* (London: T. Becket & P. A. de Hondt), [ark:/13960/t3ws9h63c](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t3ws9h63c).
- Jack, David Morton (1884), “A Thesis on Cataract in India: Its Pathology and Treatment,” Wellcome Library, London, MS 3007, [URL](https://nbn-resolving.org/urn:nbn:in:cc0:13960-t3ws9h63c), accessed 02/06/2021.
- Jamison, Stephanie W., and Brereton, Joel P. (2014), *The Rigveda* (South Asia Research; New York: Oxford University Press), ISBN: 9780199370184; With commentary at <http://rigvedacommentary.alc.ucla.edu/>.

- Kangle, R. P. (1969), *The Kauṭīliya Arthaśāstra* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 81-208-0042-7, [ark:/13960/t3gz6qh1s](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0042-7-9), accessed 23/09/2021.
- Karttunen, Klaus (2015), *Yonas and Yavanas in Indian Literature* (Studia Orientalia, 116; Helsinki: Finnish Oriental Society), 454, ISBN: 978-951-9380-88-9, [URL](https://www.finlandia.fi/en/works/116); Published electronically in 2016 as a back issue of *Studia Orientalia*.
- Keith, Arthur Berriedale (1908), review of A. F. Rudolf Hoernle (1907), "Studies in Ancient Indian Medicine II: On Some Obscure Anatomical Terms (Continued from the the Journal, 1906, p. 941)," *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 1–18, [URL](https://www.jstor.org/stable/2512512), accessed 25/06/2019, in *Zeitschrift Der Deutschen Morgenländischen Gesellschaft*, 1/62: 134–9, [URL](https://www.jstor.org/stable/2512512), accessed 17/04/2021.
- Klebanov, Andrey (2010), "The *Nepalese Version of the Suśrutasamhitā and Its Interrelation with Buddhism and the Buddhists," MA thesis (Hamburg: Hamburg University, Sept.), [URL](https://www.hamburg.academia.edu/AndreyKlebanov), accessed 08/09/2019.
- (2012), "Description of microfilm B 29/19," NGMCP, [URL](https://www.ngmcp.org/), accessed 27/02/2023.
- (2021a), "On the Textual History of the Suśrutasamhitā (1): A Study of Three Nepalese Manuscripts," *eJIM: Electronic Journal of Indian Medicine*, 12/1: 1–64. DOI: [10.21827/ejim.12.1.37385](https://doi.org/10.21827/ejim.12.1.37385).
- (2021b), "On the Textual History of the Suśrutasamhitā, (2): An Anonymous Commentary and its Identified Citations," in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos: Studies in Early Indian Medical and Astral Sciences in Honor of Kenneth G. Zysk* (Leiden, Boston: Brill), 110–39. DOI: [10.1163/9789004438224_008](https://doi.org/10.1163/9789004438224_008).
- Kuist, James M. (1982), *The Nichols File of The Gentleman's Magazine* (Madison: University of Wisconsin Press), ISBN: 0-299-08480-9, [ark:/13960/t53g2ct2z](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63862-p0042-7-9).
- Kulikov, Leonid (2006), "The Sanskrit -yet- Optative: A Formation Not Yet Recorded in Sanskrit Grammars," *Wiener Zeitschrift für die Kunde Südasiens*, 50: 27–68. DOI: [10.1553/wzks1s27](https://doi.org/10.1553/wzks1s27), [URL](https://www.wzks1s27.org/).

- Lariviere, Richard W. (2003), *The Nārada-smṛti. Critically Edited with an Introduction, annotated Translation, and Appendices* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 8120818040; First edition: Philadelphia, 1989.
- Law, Bimala Churn (1984), *Historical Geography of Ancient India* (New Delhi: Orient Books Reprint), [ark:/13960/t3d01t737](https://nbn-resolving.org/urn:nbn:in:cc0:t3d01t737); Reprint of 1954 Paris edition.
- Leffler, Christopher T., et al. (2020), "The History of Cataract Surgery: From Couching to Phacoemulsification," *Annals of Translational Medicine*, 8/22: 1551–97, ISSN: 2305-5847. DOI: [10.21037/atm-2019-rs-04](https://doi.org/10.21037/atm-2019-rs-04), URL, accessed 02/11/2020.
- Li, Charles (2017), "Critical Diplomatic Editing: Applying Text-critical Principles As Algorithms," in Peter Boot et al. (eds.), *Advances in Digital Scholarly Editing. Papers Presented at the Dixit Conferences in the Hague, Cologne, and Antwerp* (Leiden: Sidestone Press), 305–10, ISBN: 978-90-8890-485-1, URL, accessed 10/11/2020.
- (2017–), "Saktumiva," URL, accessed 21/01/2023.
- (2018), "Limits of the Real: A Hypertext Critical Edition of Bhartṛhari's *Dravyasamuddeśa*, with the Commentary of Helārāja," en, PhD thesis (Cambridge: University of Cambridge). DOI: [10.17863/CAM.31454](https://doi.org/10.17863/CAM.31454).
- (2022a), "Helayo: Reconstructing Sanskrit Texts from Manuscript Witnesses," *Journal of Open Source Software*, 7/71: 4022. DOI: [10.21105/joss.04022](https://doi.org/10.21105/joss.04022).
- (2022b), "Reconstructing a Sanskrit Text" (19 Nov.), URL, accessed 20/01/2023.
- Lienhard, Siegfried (1978), "On the Meaning and Use of the Word *Indragopa*," *Indologica taurinensia*, 6: 177–88, URL, accessed 06/02/2021; The *indragopa* is a 'red velvet mite'.
- Longmate, Barak (1794), "A Curious Chirurgical Operation," *The Gentleman's Magazine and Historical Chronicle*, 64.4 (Oct.): 883, 891, 892; I am grateful to the late John Symons of the Wellcome Library who identified the author 'B. L.' as the journalist Barak Longmate. See also Kuist [1982](#): 87.

- Maas, Philipp André (2013), "A Concise Historiography of Classical Yoga Philosophy: leslie," in Eli Franco (ed.), *Historiography and Periodization of Indian Philosophy* (Vienna: Sammlung de Nobili), 53–90, [URL](#), accessed 27/05/2016.
- Mairs, Rachel (2013), "Greek Settler Communities in Central and South Asia, 323 BCE to 10 CE," in Ato Quayson (ed.), *A Companion To Diaspora And Transnationalism* (Oxford: John Wiley and Sons Ltd), 443–54, ISBN: 9781405188265.
- (2014), *The Hellenistic Far East: Archaeology, Language, and Identity in Greek Central Asia: Archaeology, Language, and Identity in Greek Central Asia* (Berkeley: University of California Press), 250, ISBN: 9780520292468. DOI: [10.1525/9780520959545](#).
- Majno, Guido (1975), *The Healing Hand. Man and Wound in the Ancient World* (Cambridge, MA: Harvard University Press), [ark:/13960/t4hm7xf2c](#).
- Malamoud, Charles (1996), "Paths of the Knife: Carving up the Victim in Vedic Sacrifice," in *Cooking the World: Ritual and Thought in Ancient India. Translated from the French by David White* (Delhi, Bombay, etc.: Oxford University Press), 169–80.
- Mānasa-taraṅgiṇī (2019), "Kaiṭabha, Poison and Death: Meanderings through Tradition," mAnasa-taraMgiNI Blog (1 Sept.), [URL](#), accessed 31/01/2023.
- Manucci, Niccolò (1907–08), *Storia Do Mogor or, Mogul India, 1653–1708 by Niccolao Manucci, Venetian; Translated with Introduction and Notes, by William Irvine* (The Indian Texts Series; London: J. Murray), [URL](#), accessed 04/10/2021.
- Masai, François (1950), "Principes et conventions de l'édition diplomatique," *Scriptorium*, 4: 177–93. DOI: [10.3406/scrip.1950.2294](#).
- McHugh, James (2021), *An Unholy Brew: Alcohol in Indian History and Religions* (New York: Oxford University Press), 416 pp., ISBN: 9780199375936.
- Meulenbeld, Gerrit Jan (1974b), *The Mādhavanidāna and Its Chief Commentary: Chapters 1–10. Introduction, Translation, and Notes* (Leiden: Brill), ISBN: 978-90-04-03892-9, [ark:/13960/t25b8q97g](#).

- Meulenbeld, Gerrit Jan (1984), "The Surveying of Sanskrit Medical Literature," in id. (ed.), *Proceedings of the International Workshop on Priorities in the Study of Indian Medicine* (Groningen: Forsten), 37–56.
- (1989), "The Search for Clues to the Chronology of Sanskrit Medical Texts As Illustrated by the History of Bhaṅgā (cannabis Sativa Linn.)," *Studien zur Indologie und Iranistik*, 15: 59–70.
- (1992), "The Characteristics of a Doṣa," *Journal of the European Āyurvedic Society*, 2/1: 1–5, [ark:/13960/t8hf69z8j](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t8hf69z8j).
- (2008), *The Mādhavanidāna with "Madhukośa," the Commentary by Vijayarakṣita and Śrīkaṇṭhadatta (Ch. 1-10). Introduction, Translation, and Notes* (Delhi: Motilal Banarsidass).
- (2011), "The Relationships between Doṣas and Dūṣyas: A Study on the Meaning(s) of the Root Murch-/murch," *eJournal of Indian Medicine*, 4/2: 35–135, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t8hf69z8j), accessed 13/10/2017.
- Miles, M. (1999), "Personal Communication," Mar.; Letter of 4 March.
- Moureau, Sébastien. (2015), "The Apparatus Criticus," in Alessandro Bausi et al. (eds.), *Comparative Oriental Manuscript Studies: An Introduction* (Hamburg: Tredition), 348–52, ISBN: 978-3-7323-1768-4, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t8hf69z8j), accessed 04/07/2021.
- Mukhopādhyāya, Girindranāth (1913), *The Surgical Instruments of the Hindus, with a Comparative Study of the Surgical Instruments of the Greek, Roman, Arab, and the Modern European (sic) Surgeons* (Calcutta: Calcutta University), [ark:13960/t1zd2pq29](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t1zd2pq29), accessed 29/01/2018; Vol.2: [ark:/13960/t9r25qd8m](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t9r25qd8m). Reprinted as a single volume, New Delhi, 1987.
- Narayana, Ala, and Thrigulla, Saketh Ram (2011), "Tangible Evidences of Surgical Practice in Ancient India," *Journal of Indian Medical Heritage*, 16: 1–18, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t8hf69z8j), accessed 02/06/2021.
- NGMCP (2014), "Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue," Universität Hamburg and Deutsche Forschungsgemeinschaft, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t8hf69z8j).
- Oberlies, Thomas (2003), *A Grammar of Epic Sanskrit* (Indian Philology and South Asian Studies, 5; Berlin: De Gruyter), ISBN: 9783110144482. DOI: [10.1515/9783110899344](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t8hf69z8j).

- Olivelle, Patrick (2005), *Manu's Code of Law: A Critical Edition and Translation of the Manava-dharmasastra*, With the editorial assistance of Suman Olivelle (South Asia research; New York: Oxford University Press), ISBN: 0195171462.
- (2013), *King, Governance, and Law in Ancient India: Kauṭilya's Arthaśāstra. a New Annotated Translation* (New York: Oxford University Press), ISBN: 9780199891825. DOI: [10 . 1093 / acprof : osobl / 9780199891825.003.0001](https://doi.org/10.1093/acprof:osobl/9780199891825.003.0001).
- Osbaldeston, Tess Anne, and Wood, R. P. A. (2000), *Dioscorides. De Materia Medica. Being an Herbal with Many Other Medicinal Materials Written in Greek in the First Century of the Common Era. a New Indexed Version in Modern English* [Introductory Notes by R. P. Wood] (Johannesburg: IBIDIS Press), ISBN: 0-620-23435-0, [URL](#).
- Pandey, Anshuman (2012), "Proposal to Encode the Newar Script in ISO/IEC 10646," [URL](#).
- Pass, Gregory (2003), *Descriptive Cataloging of Ancient, Medieval, Renaissance, and Early Modern Manuscripts* (Chicago: American Library Association), ISBN: 0-8389-8218-2, [URL](#).
- PBS (2020), "Modern Day Blood-letting in North Africa," PBS (11 Dec.), [URL](#); Filmed in Farchana, Chad, amongst Sudanese refugees from Darfur, for the series *Our Human Planet*.
- Pillay, V. V. (2013), *Modern Medical Toxicology* (New Delhi: Jaypee Brothers Pvt. Ltd), ISBN: 9789350259658.
- Pillay, Vijay V., and Sasidharan, Anu (2019), "Oleander and Datura Poisoning: An Update," *Indian Journal of Critical Care Medicine*, 23/Supplement 4: 5250–5. DOI: [10.5005/jp-journals-10071-23302](https://doi.org/10.5005/jp-journals-10071-23302).
- Preisendanz, Karin (2007), "The Initiation of the Medical Student in Early Classical Āyurveda: Caraka's Treatment in Context," in Birgit Kellner et al. (eds.), *Pramāṇakīrtiḥ. Papers Dedicated to Ernst Steinkellner on the Occasion of His 70th Birthday. Part 2*, ii, 2 vols. (Wiener Studien zur Tibetologie und Buddhismuskunde, 70.2; Wien: Arbeitskreis für Tibetische Und Buddhistische Studien Universität Wien), 629–68, ISBN: 9783902501097, [URL](#).

- Price, Kenneth M. (2013), "Electronic Scholarly Editions," in Ray Siemens and Susan Schreibman (eds.), *A Companion to Digital Literary Studies* (Chichester, UK: John Wiley & Sons, Ltd), 434–50. DOI: [10 . 1002 / 9781405177504 .ch24](https://doi.org/10.1002/9781405177504.ch24), URL, accessed 04/07/2021.
- Rādhākāntā Deva, Rājā (1876), *शब्दकल्पद्रुमः = Shabda Kalpadrumah, Or, the Tree Bearing All the Words That May Be Wished For* (Calcutta: Baradākānta Mitra & Co. at the New Bengal Press), [ark:/13960/t9x10x61b](https://nbn-resolving.org/urn:nbn:in:shabdkalpadrumah).
- Rai, Saurav Kumar (2019), "Invoking 'Hindu' Ayurveda: Communalisation of the Late Colonial Ayurvedic Discourse," *The Indian Economic & Social History Review*, 56/4: 411–26. DOI: [10 . 1177 / 0019464619873820](https://doi.org/10.1177/0019464619873820); Online first.
- Rama Rao, B., et al. (2005), *Sanskrit Medical Manuscripts in India* (New Delhi: Central Council for Research in Ayurveda & Siddha), [ark:/13960/t88h7763b](https://nbn-resolving.org/urn:nbn:in:sanskritmedicalmanuscripts).
- Rama Sastri and Krishnamurthi Sastri, S. R. (1952) (eds.), *पातञ्जलयोग-सूत्रभाष्यविवरणम्। (शङ्करभगवत्पादप्रणीतम्) = Pātñjala[sic]-yogasūtra-bhāṣya Vivaraṇam of Śaṅkara-Bhagavatpāda. Critically Edited with Introduction* (Madras Government Oriental Series, 94; Madras: Government Oriental Manuscripts Library), [ark:/13960/t7jq3m14w](https://nbn-resolving.org/urn:nbn:in:patanjalyogasutra), accessed 20/10/2017.
- Rây, Priyadarajan, Gupta, Hirendra Nath, and Roy, Mira (1980), *Suśruta Saṁhita (a Scientific Synopsis)* (New Delhi: Indian National Science Academy), [ark:/13960/t64511t6v](https://nbn-resolving.org/urn:nbn:in:susrutasamhita), accessed 13/09/2019.
- Raychaudhuri, Hemachandra (1953), *Political History of Ancient India* (Calcutta: University of Calcutta), [ark:/13960/s25hz0hz29p](https://nbn-resolving.org/urn:nbn:in:raychaudhuri).
- Renou, Louis (1940), "Sur certaines anomalies de l'optatif Sanskrit," *Bulletin de la Société de Linguistique de Paris*, 41: 5–17, [ark:/12148/bpt6k121049](https://nbn-resolving.org/urn:nbn:fr:bsl).
- Rhys Davids, Thomas William, and Stede, William (1921–25), *The Pali Text Society's Pali-English Dictionary* (London: The Pali Text Society), [ark:/13960/t4nk3nc12](https://nbn-resolving.org/urn:nbn:in:palienglishdictionary).
- Rimal, Madhusudana, and Wujastyk, Dominik (2022), "MS Kathmandu NAK 1/1146," Pandit Project (18 May), URL.
- Roelli, Philipp (2020) (ed.), *Handbook of Stemmatalogy* (Berlin: De Gruyter). DOI: [10.1515/9783110684384](https://doi.org/10.1515/9783110684384).

- Roelli, Philipp, and Macé, Caroline (2015), “Parvum Lexicon Stemmatologicum. A Brief Lexicon of Stemmatology.” DOI: [10.5167/uzh-121539](https://doi.org/10.5167/uzh-121539).
- Roşu, Arion (1989), *Un demi-siècle de recherches āyurvédiques. Gustave Liétard et Palmyr Cordier: Travaux sur l'histoire de la médecine indienne* (Paris: Institut de Civilisation Indienne).
- Saha, Mridula (2015), *The History of Indian Medicine Based on the Vedic Literature Satapatha Brahmana* (Kolkata: The Asiatic Society), ISBN: 978-9381574294.
- Sarukkai, Sundar (2016), “Translation As Method: Implications for History of Science,” in Bernard Lightman, Gordon McOuat, and Larry Stewart (eds.), *The Circulation of Knowledge Between Britain, India and China* (Leiden: BRILL), 309–29. DOI: [10.1163/9789004251410_014](https://doi.org/10.1163/9789004251410_014).
- Sastri, Hrishikesh, and Gui, Siva Chandra (1895–1917), *A Descriptive Catalogue of Sanskrit Manuscripts in the Library of Calcutta Sanskrit College* (Calcutta: Baptist Mission Press).
- Sastri, P. P. S. (1933), *A Descriptive Catalogue of the Sanskrit Manuscripts in the Tanjore Maharaja Serfoji's Sarasvati Mahal Library Tanjore: Natya, Sangita, Kamasastra, Vaidya & Jyotisa, nos. 10650–11737* (Srirangam: Sri Vani Vilas Press), [ark:/13960/t3nw8bc12](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t3nw8bc12).
- Śāstrī, Vardhamāna Pārśvanātha (1940) (ed.), *उग्रादित्याचार्यकृत कल्याणकारक (राष्ट्रभाषानुवादसहित) = The Kalyāṇa-kāraṇam of Ugrādityacharya, Edited with Introduction, Translation, Notes, Indexes and Dictionary* (Sakhārāma Nemacanda Gramthamālā, 129; Solāpura: Seṭha Goviṃdajī Rāvajī Doṣī), [ark:/13960/t2q617g4d](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t2q617g4d).
- Schwartzberg, Joseph E., Bajpai, Shiva G., et al. (1978) (eds.), *A Historical Atlas of South Asia* (Chicago: University of Chicago Press), [URL](https://www.uchicago.edu/press/).
- Scott, H. (1817), “Some Remarks on the Arts of India, with Miscellaneous Observations on Various Subjects,” *Journal of Science and the Arts*, 2: 67–72, ill. after 133, [ark:/13960/t9870jt4g](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t9870jt4g); Breton 1826: 358–363 cites Scott's description of cataract couching.
- Semeka-Pankratov, Elena (1979), “A Semiotic Approach to the Polysemy of the Symbol *nāga* in Indian Mythology,” in Irene Portis Winner and Jean Umiker-Sebeok (eds.), *Semiotics of Culture* (Approaches to Semiotics, 53; The Hague, Paris, NY: Mouton), 237–90. DOI:

- 10 . 1515 / 9783110823134 - 009; The contents of this volume were published simultaneously in *Semiotica* (1/3) 1979.
- Sen, Sailendra Nath (1988), *Ancient Indian History and Civilization* (Delhi: New Age International), [ark:/13960/t8gf8pz34](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t8gf8pz34).
- Sena, Gaṅgāprasād, et al. (1886–93) (eds.), *सुश्रुतसंहिता...दल्लनाचार्य-कृत-निबन्ध-संग्रह, चक्रपाणिदत्त-कृत-भानुमती-टीका...वङ्गानुवाद...इंरेजि प्रतिशब्द* (Calcutta: Maṇirāma Press); Edition "g" in *HIML*: IB, 311.
- Sharma, Har Dutt (1939), *Descriptive Catalogue of the Government Collections of Manuscripts Deposited at the Bhandarkar Oriental Research Institute, Vol. XVI, Part I, Vaidyaka* (Descriptive Catalogue of Manuscripts in the Government Manuscripts Library, XVI.I; Pune: Bhandarkar Oriental Research Institute), [ark:/13960/t0ms6rc70](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t0ms6rc70), accessed 23/10/2019.
- Sharma, Priya Vrat (1972), *Indian Medicine in the Classical Age* (Varanasi: Chowkhamba Sanskrit Series Office).
- (1975), *Āyurved Kā Vaijñānik Itihās* (Jayakṛṣṇadāsa Āyurveda Granthamālā; Vārāṇasī: Caukhambā Orientalia).
- (1982), *Dalhaṇa and his Comments on Drugs* (Delhi: Munshiram Manoharlal).
- (1999–2001), *Suśruta-Saṃhitā, with English Translation of Text and Dalhaṇa's Commentary Alongwith (sic) Critical Notes*, 3 vols. (Haridas Ayurveda Series, 9; Varanasi: Chaukhambha Visvabharati).
- Shastri, R. Shama (1920) (ed.), *बोधायनगृह्यसूत्रम् The Bodhāyana Grihyasutra* (Mysore: University of Mysore), [ark:/13960/t2t492622](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t2t492622).
- Shiffman, Melvin A. (2013), "History of Otoplasty: Review of Literature," in id. (ed.), *Advanced Cosmetic Otoplasty: Art, Science, and New Clinical Techniques* (Berlin, Heidelberg: Springer), chap. 5, 43–64. doi: [10.1007/978-3-642-35431-1_5](https://doi.org/10.1007/978-3-642-35431-1_5).
- Siddiqi, Muhammad Zubayr (1959), *Studies in Arabic and Persian Medical Literature*, [ark:/13960/s25bxqt84xm](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-s25bxqt84xm).
- Singhal, G. D., et al. (1972–82), *Diagnostic [and Other] Considerations in Ancient Indian Surgery* (Varanasi: Singhal Publications); A translation of the *Suśrutasaṃhitā* in 10v.

- Sircar, Dinesh Chandra (1971), *Studies in the Geography of Ancient and Medieval India* (2nd edn., Delhi: Motilal Banarsidass), [ark : / 13960 / t72w2zd8w](https://n2t.net/ark:/13960/t72w2zd8w).
- (1987), “6. Rākshaskhālī (Sundarban) Plate; Śaka 1118,” *Epigraphia Indica* (1953–54), 30: 42–3, [ark : / 13960 / t80m25q3w](https://n2t.net/ark:/13960/t80m25q3w).
- Sleeman, W. H. (1893), *Rambles and Recollections of an Indian Official* (London: Constable), [ark : / 13960 / t22c4bx7w](https://n2t.net/ark:/13960/t22c4bx7w); v. 2 at [http : // n2t . net / ark : / 13960 / t2s52bq7w](http://n2t.net/ark:/13960/t2s52bq7w).
- Smith, Brian K. (1994), *Classifying the Universe: The Ancient Indian Varṇa System and the Origins of Caste* (New York, Oxford: Oxford University Press), ISBN: 0-19-508498-5.
- Spencer, Walter George (1935–38), *Celsus: De Medicina. with an English Translation by W. G. Spencer*, 3 vols. (Loeb Classical Library, 292, 304, 336; Cambridge, MA; London: Harvard University Press; William Heinemann), [URL](#), accessed 02/06/2021.
- Speziale, Fabrizio (2019), “Rasāyana and Rasaśāstra in the Persian Medical Culture of South Asia,” *History of Science in South Asia*, 7: 1–41. DOI: [10 . 18732 / hssa . v7i0 . 40](https://doi.org/10.18732/hssa.v7i0.40).
- Spink, M. S., and Lewis, G. L. (1973) (eds.), *Albucasis on Surgery and Instruments: A Definitive Edition of the Arabic Text with English Translation and Commentary* (London: Wellcome Institute of the History of Medicine), [ark : / 13960 / t95823n1k](https://n2t.net/ark:/13960/t95823n1k).
- Srikantha Murthy, K. R. (2000–02), *Illustrated Suśruta Saṃhitā: Text, English Translation, Notes, Appendices and Index* (Jaikrishnadas Ayurveda Series, 102; 1st edn., Varanasi: Chaukhambha Orientalia).
- Steingass, F. (1930), *A Comprehensive Persian-English Dictionary Including the Arabic Words and Phrases to Be Met with in Persian Literature* (London: Kegan Paul, Trench, Trubner), [ark : / 13960 / s25bwz0337d](https://n2t.net/ark:/13960/s25bwz0337d); Reprint, Delhi: Oriental Reprint, 1973.
- Storey, C. A. (1971), *Persian Literature, a Bio-bibliographical Survey*. Vol. II.2: Medicine (London: Royal Asiatic Society of Great Britain and Ireland), [ark : / 13960 / t9v18bf68](https://n2t.net/ark:/13960/t9v18bf68).

- Strauss, Bettina (1934), “Das Giftbuch des Sānāq: eine Literaturgeschichtliche Untersuchung,” *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin*, 4/2: [89]–[152] followed by Arabic text, [ark:/13960/s2hb5j66s95](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63695-p0085-9).
- Suvedī, K. S., and Tivārī, N. (2000) (eds.), सौश्रुतनिघण्टुः ग्रन्थादौ विस्तृतेन ग्रन्थवैशिष्ट्यप्रकाशकेनोपोद्धातेन अवसाने च द्रव्याणामनेकभाषानामावली-पर्यायसङ्ग्रहाभ्यां समलङ्कृतः सुश्रुतसंहितायां प्रयुक्तानामौषधद्रव्याणां पर्याय-गुणकर्मवर्णात्मकोऽपूर्वग्रन्थः (Belajhūṇḍī, Dān: Mahendrasaṃskṛtavīśvavidyālayaḥ).
- Talwar, P. K., and Kacker, R. K. (1984), *Commercial Sea Fishes of India* (Calcutt: Zoological Survey of India), [ark:/13960/t5s841v5m](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63695-p0085-9).
- Tavernier, Jean-Baptiste (1684), *Collections of Travels through Turkey (sic), into Persia, and the East-Indies* (London: M. Pitt), [ark:/13960/t9g45vn74](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63695-p0085-9).
- TEI Consortium (2010), *TEI P5: Guidelines for Electronic Text Encoding and Interchange*, ed. C. M. Sperberg-McQueen et al. (Oxford, Providence, Charlottesville, Nancy: TEI Consortium), [URL](https://www.tei-c.org/).
- Thorburn, S. S. (1876), *Bannu; or Our Afghan Frontier* (London: Trübner & Co.), [ark:/13960/t39z96g7m](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63695-p0085-9); Reprinted Lahore: Niaz Ahmad, 1978.
- UNESCO (2013), “International Memory of the World Register Susruta Samhita (Nepal),” UNESCO, [URL](https://www.unesco.org/), accessed 11/09/2019.
- Unicode Consortium (1991), “The Unicode Standard 15.0, Newa Range,” [url: https://unicode.org/charts/PDF/U11400.pdf](https://unicode.org/charts/PDF/U11400.pdf).
- Unschuld, Paul Ulrich (1984), *Medicine in China: A History of Ideas* (Berkeley: University of California Press), ISBN: 0520050231.
- Valiathan, M. S. (2007), *The Legacy of Suśruta* (Hyderabad, Chennai, etc.: Orient Longman).
- Velankar, H. D (1925–30), *Descriptive Catalogue of the Sanskr̥ta and Prākṛta Manuscripts in the Library of the Bombay Branch of the Royal Asiatic Society* (Bombay: Royal Asiatic Society, Bombay), [ark:/13960/t53g00h0n](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63695-p0085-9); Biswas #0115.
- Whitney, William Dwight (1885), *The Roots, Verb-forms, and Primary Derivatives of the Sanskrit Language. A Supplement to his Sanskrit Grammar* (Leipzig: Breitkopf and Härtel), [ark:/13960/t3qv3p906](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63695-p0085-9).

- Wilson, H. H. (1823), "On the Medical and Surgical Sciences of the Hindus," *The Oriental Magazine and Calcutta Review*, 1: 207–12, 349–56, [URL](#).
- Woodcock, Martin W. (1980), *Collins Handguide to the Birds of the Indian Sub-continent, Including India, Pakistan, Bangladesh, Sri Lanka and Nepal* (Collins), ISBN: 0-00-219712-X; Reprinted 1990.
- Wujastyk, Dagmar (2012), *Well-mannered Medicine: Medical Ethics and Etiquette in Classical Ayurveda* (New York: Oxford University Press). DOI: [10.1093/acprof:oso/9780199856268.001.0001](#).
- (2013a), "Perfect Medicine. Mercury in Sanskrit Medical Literature," *Asian Medicine: Tradition & Modernity*, 8/1 (Sept.): 15–40, ISSN: 1573-4218. DOI: [10.1163/15734218-12341278](#).
- (2019), "Iron Tonics: Tracing the Development from Classical to Iatrochemical Formulations in Ayurveda," *HIMALAYA: The Journal of the Association for Nepal and Himalayan Studies*, 39/1. DOI: [10.5281/zenodo.7746874](#).
- Wujastyk, Dominik (1993), "Indian Medicine," in W. F. Bynum and Roy Porter (eds.), *Companion Encyclopedia of the History of Medicine*, i (London: Routledge), chap. 33, 755–78, ISBN: 0-415-04771-4, [URL](#).
- (2002), "Cannabis in Traditional Indian Herbal Medicine," in Ana Salema (ed.), *Āyurveda at the Crossroads of Care and Cure. Proceedings of the Indo-European Seminar on Ayurveda held at Arrábida, Portugal, in November 2001* (Lisbon: Centro de História de Além-Mar, Universidade Nova de Lisboa), 45–73, ISBN: 972-98672-5-9, [URL](#), accessed 27/05/2019.
- (2003a), "Black Plum Island," in *2nd International Conference on Indian Studies. Proceedings* (Kraków: Jagiellonian University, Institute of Oriental Philology and Księgarnia Akademicka), 637–49.
- (2003b), *The Roots of Ayurveda: Selections from Sanskrit Medical Writings* (Penguin Classics; 3rd edn., London, New York, etc.: Penguin Group), ISBN: 0-140-44824-1.
- (2004), "Agni and Soma: A Universal Classification," *Studia Asiatica: International Journal for Asian Studies*, IV–V, ed. Eugen Ciurtin: 347–70. DOI: [10.5281/zenodo.7742068](#).

- Wujastyk, Dominik (2013*b*), “New Manuscript Evidence for the Textual and Cultural History of Early Classical Indian Medicine,” in *Medical Texts and Manuscripts in Indian Cultural History*, ed. Dominik Wujastyk, Anthony Cerulli, and Karin Preisendanz (New Delhi: Manohar), 141–57, [URL](#).
- Wujastyk, Dominik, et al. (2020), “Suśrutasamhitā,” PanditProject (6 Oct.), [URL](#), accessed 14/09/2022.
- Wujastyk, Dominik (2021*a*), “A New Translation of Carakasamhitā, Vimānasthāna, Chapter 1, Based on the Vienna Critical Edition,” in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos. Studies in Early Indian Medical and Astral Sciences in Honor of Kenneth G. Zysk* (Leiden, Boston: Brill), chap. 6, 77–109. doi: [10.1163/9789004438224_007](#).
- (2021*b*), “MS London BL H. T. Colebrooke 908,” [URL](#), accessed 03/07/2021.
- (2021–), “Sushrutaproject: Version Control for Suśruta Text TEI Transcriptions: Suśruta Project Manuscript Transcriptions,” University of Alberta, [URL](#), accessed 21/01/2023; archived at doi: [10.5281/zenodo.6471655](#).
- Wujastyk, Dominik, et al. (2021–), “The Suśruta Project: The Textual and Cultural History of Medicine in South Asia Based on Newly-Discovered Manuscript Evidence,” ed. Dominik Wujastyk, Jason Birch, Andrey Klebanov, et al., [URL](#), accessed 21/01/2023.
- Wujastyk, Dominik, Birch, Jason, Klebanov, Andrey, et al. (2021–) (eds.), “New Digital Edition of the Suśrutasamhitā: The Suśruta Project at Saktumiva,” University of Alberta, [URL](#).
- Wujastyk, Dominik, Pollock, Sheldon, et al. (2008–), “SARIT: Search and Retrieval of Indic Texts,” [URL](#), accessed 21/01/2023.
- Yagi, Toru (1994), “A Note on bhojya- and bhakṣya-,” in Yasuke Ikari (ed.), *A Study of the Nīlamata. Aspects of Hinduism in Ancient Kashmir* (Kyoto: Kyoto Institute for Research in Humanities, Kyoto University).

- Yano, Michio (1986), "A Comparative Study of *Sūtrasthānas*: Caraka, Suśruta, and Vāgbhaṭa," in Teizo Ogawa (ed.), *History of Traditional Medicine: Proceedings of the 1st and 2nd International Symposia on the Comparative History of Medicine—East and West* (Osaka: Division of Medical History, the Taniguchi Foundation), 325–44.
- Zimmermann, Francis (1983), "Suśrutasamhita," review of G. D. Singhal et al. (1972–82), *Diagnostic [and Other] Considerations in Ancient Indian Surgery* (Varanasi: Singhal Publications); A translation of the *Suśrutasamhitā* in 10v. In *Bulletin of the History of Medicine*, 57/2: 291–3, ISSN: 00075140, eprint: [44441590](https://doi.org/10.2307/44441590), URL.
- (1999), *The Jungle and the Aroma of Meats* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 8120816188.
- Zysk, Kenneth G. (1984), "An Annotated Bibliography of Translations into Western Languages of Principle Sanskrit Medical Treatises," *Clio Medica*, 19/3–4: 281–91.
- (1985), *Religious Healing in the Veda: With Translations and Annotations of Medical Hymns from the Rgveda and the Atharvaveda and Renderings from the Corresponding Ritual Texts* (Transactions of the American Philosophical Society; Philadelphia: American Philosophical Society), ISBN: 0871697572.
- (1986), "The Evolution of Anatomical Knowledge in Ancient India with Special Reference to Cross-cultural Influences," *Journal of the American Oriental Society*, 106: 687–705. DOI: [10.2307/603532](https://doi.org/10.2307/603532).
- (2000), *Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery* (Indian Medical Tradition; 2nd edn., Delhi: Motilal Banarsidass); First published 1991. Reprint of 1998 edition.

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Materia Medica Reference Works

ADPS	Sivarajan, V. V., and Balachandran, Indira (1994), <i>Ayurvedic Drugs and Their Plant Sources</i> (New Delhi, Bombay, Calcutta: Oxford & IBH Publishing).
AVS	Warrier, P. K., Nambiar, V. P. K., and Ramankutty, C. (1994–96) (eds.), <i>Indian Medicinal Plants: A Compendium of 500 Species. Vaidyaratnam P. S. Varier's Arya Vaidya Sala, Kottakal</i> (Madras: Orient Longman).
BIA	Prater, S. H. (1993), <i>The Book of Indian Animals</i> (3rd edn., Bombay, Delhi, etc.: Oxford University Press); 4th impression of 3rd corrected 1980 edition.
Chopra	Chopra, R. N., Nayar, S. L., and Chopra, I. C. (1956), <i>Glossary of Indian Medicinal Plants</i> (3rd reprint, 1992, New Delhi: Council of Scientific and Industrial Research); vol. 2: R. N. Chopra, I. C. Chopra, and Varma (Chopra_{sup}).
Chopra IDG	Chopra, R. N., Chopra, I. C., Handa, K. L., et al. (1958), <i>Chopra's Indigenous Drugs of India</i> (2nd edn., Calcutta: Dhur & Sons), ark:/13960/t9673t140 .

- Chopra^{sup} Chopra, R. N., Chopra, I. C., and Varma, B. S. (1969), *Supplement to Glossary of Indian Medicinal Plants* (Reprint 1986, New Delhi: National Institute of Science Communication), ISBN: 8185038872.
- CIPP Pillay, V. V. (2010), "Common Indian Poisonous Plants," in D. A. Warrell, T. M. Cox, and J. D. Firth (eds.), *Oxford Textbook of Medicine* (5th edn., Oxford University Press), 1371–5. doi: [10.1093/med/9780199204854.003.090302](https://doi.org/10.1093/med/9780199204854.003.090302).
- Dutt Dutt, Uday Chand (1922), *The Materia Medica of the Hindus...with a Glossary of Indian Plants by George King. Revised Edition...by Binod Lall Sen and Ashutosh Sen and Pulin Krishna Sen* (Krishnadas Sanskrit Studies; 3rd edn., Calcutta: Madan Gopal Dass for the Adi-Ayurveda Machine Press), [ark:/13960/t59c7tg9z](https://nopr.scribd.org/ark:/13960/t59c7tg9z); Reprinted Varanasi: Chowkhamba Saraswatibhavan, 1980.
- Dymock Dymock, William, Warden, C. J. H., and Hooper, David (1890), *Pharmacographia Indica: A History of the Principal Drugs of Vegetable Origin Met with in British India* (London, Bombay, Calcutta: Kegan Paul), [URL](#), accessed 16/03/2023.
- GJM1 Meulenbeld, Gerrit Jan (1974a), "Sanskrit Names of Plants and their Botanical Equivalents," in id., *The Mādhavanidāna and Its Chief Commentary: Chapters 1–10. Introduction, Translation, and Notes* (Leiden: Brill), chap. Appendix Four, 520–611, [ark:/13960/t25b8q97g](https://nopr.scribd.org/ark:/13960/t25b8q97g).
- GJM2 Meulenbeld, Gerrit Jan (1988), "G. J. Meulenbeld's Additions to his "Sanskrit Names of Plants and their Botanical Equivalents"," in Rahul Peter Das, *Das Wissen von der Lebensspanne der Bäume: Surapālas Vṛkṣāyurveda* (Stuttgart: Franz Steiner Verlag), chap. Appendix 1, 425–65, ISBN: 9783515046633; Supplement to [GJM1](#).
- GVDB Singh, Thakur Balwant, and Chunekar, K. C. (1972), *Glossary of Vegetable Drugs in Brhatṭrayī* (Varanasi: Chowkhamba Sanskrit Series Office), [ark:/13960/s2cvp72x58j](https://nopr.scribd.org/ark:/13960/s2cvp72x58j).
- IGP Griffiths, Mark (1994), *The New Horticultural Society Index of Garden Plants* (London: Macmillan).

Issar	Issar, T. P. (1994), <i>Blossoms of Bangalore</i> (Bangalore: T. P. Issar).
IW	Israel, Samuel, et al. (1988), <i>Indian Wildlife: Sri Lanka Nepal</i> (Insight Guides; Singapore etc.: APA Publications), ISBN: 9780245545238.
K&B	Kirtikar, K. R., Basu, B. D., and an I.C.S (1987), <i>Indian Medicinal Plants</i> , ed. E. Blatter, J. F. Caius, and K. S. Mhaskar, 8 vols. (2nd edn., Dehradun: International Book Distributors); First published in Allahabad, 1918.
NK	Nadkarni, K. M. (1982), <i>Dr. K. M. Nadkarni's Indian Materia Medica, with Ayurvedic, Unani-tibbi, Siddha, Allopathic, Homeopathic, Naturopathic & Home Remedies, Appendices & Indexes ... in Two Volumes</i> , ed. A. K. Nadkarni, 2 vols. (3 ed., revised and enlarged by A. K. Nadkarni, Bombay: Popular Prakashan), ISBN: 8171541429, URL ; First published in 1954.
Potter	Wren, R. C. (1956), <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , ed. R. W. Wren (7th edn., Rustington, Sussex: Health Science Press), ark:/13960/t14n65c9g .
Potter _{rev}	Wren, R. C., Williamson, Elizabeth M., and Evans, Fred J. (1994), <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> (Saffron Walden: C. W. Daniel Company Ltd.); Reprint of revised 1988 edition.
Reptiles	Daniel, J. C. (1983), <i>The Book of Indian Reptiles</i> (Bombay: Oxford University Press).
Trees	Bole, P. V., and Vaghani, Yogini (1986), <i>Field Guide to the Common Trees of India</i> (Bombay, Delhi, Oxford, etc.: World Wildlife Fund – India and Oxford University Press), ISBN: 0-19-561595-6; 4th reprint.
Watt _{Comm}	Watt, George (1908), <i>The Commercial Products of India, Being an Abridgement of "the Dictionary of the Economic Products of India"</i> (London: John Murray), ark:/13960/t8cg7dm79 .
Watt _{Dict}	Watt, George (1889–96), <i>A Dictionary of the Economic Products of India</i> (Calcutta: Dept. Revenue and Agriculture, Government of India), URL , accessed 28/04/2021.

Glossary and Index of Medical Substances

- amaranth (*taṇḍulīyaka*) *Amaranthus hypochondriacus*, L. See King 321, NK: v. 1, #144, *Potter*_{rev}: 15. Cf. *AVS*: v. 1, 121, 32
- axlewood (*dhava*) *Anogeissus latifolia* (Roxb. ex DC.) Wall. ex Guill & Perr. See *AVS*: v. 1, 163 f, *Chopra*: 20, 51
- bamboo leaves (*veṇupatrikā*) *Bambusa bambos*, Druce. See NK: v. 1, #307, 32
- beautyberry (*priyaṅgu*) ← *śyāmā*. *Callicarpa macrophylla*, Vahl. See *AVS*: v. 1, 334, NK: v. 1, #420. Some say also *Setaria italica* Beauv. *GVDB*: 263–264. See also *GVDB*: 413, 48, 52
- beautyberry (*śyāmā*) *Callicarpa macrophylla*, Vahl. See *AVS*: v. 1, 334, NK: v. 1, #420, 30, 32
- beggarweed (*aṃśumatī*) *Desmodium gangeticum* (L.) DC (*Dymock*: v. 1, 428, *GJM1*: 602, NK: v. 1, #1192; *ADPS*: 382, 414 and *AVS*: v. 2, 319, 4.366 are confusing), 48
- beggarweed (*vidārigandhā*) → *śālaparṇī*. *Desmodium gangeticum* (L.) DC. See *Dymock*: v. 1, 428, *GJM1*: 602, cf. NK: v. 1, #1192; *ADPS*: 382, 414 and *AVS*: v. 2, 319, 4.366 are confusing, 31
- black creeper (*pālindī*) *Ichnocarpus frutescens*, (L.) R.Br. or *Cryptolepis buehneri*, Roemer & Schultes. See *AVS*: v. 3, 141, 3.145, 3.203, NK: v. 1, #1283, 1210, *ADPS*: 434, 32, 35, 47, 48
- blackboard tree (*saptachada*) *Alstonia scholaris* R. Br. *GVDB*: 420, 31
- blackbuck (*hariṇa*) *Antelope cervicapra*, L. See *BIA*: 270 *IW*: 95, 165, *et passim*, 35
- blue water-lily (*utpala*) *Nymphaea stellata*, Willd. See *GJM1*: 528, *IGP* 790; *Dutt*: 110, NK: v. 1, #1726, 25, 30, 47, 48
- cardamom (*elā*) *Elettaria cardamomum*, Maton. See *AVS*: v. 2, 360, NK: v. 1, #924, *Potter*_{rev}: 66, 48, 52
- cassia cinnamon (*patra*) *Cinnamomum tamala*, (Buch.-Ham.) Nees. See *AVS*: v. 2, 84, NK: v. 1, #589, 32, 48
- castor oil tree (*gandharvahaṣṭa*) → *eraṇḍa*. *GVDB*: 135, *K&B*: v. 3, 2277, 28
- castor-oil (*eraṇḍa*) *Ricinus communis*, L. See NK: v. 1, #2145, *Chopra*: 214, 33
- certain minerals (*tārāvitāra*) Unknown. It is not even certain that these are minerals. The variant reading in the vulgate, *tāraḥ sutāraḥ* was glossed by Ḍalhaṇa on 5.3.14 (*Su* 1938: 568) as follows *tāro rūpyaṃ, sutāraḥ pāraḍaḥ*, “tāra means silver; sutāra means mercury.”, 52
- chebulic myrobalan (*haritakī*) *Terminalia chebula* Retz. *GVDB*: 466, 31
- cherry (*elavālu*) *Prunus cerasus*, L.?. See *BVDB* 58, NK: v. 1, #2037, *GVDB*: 58, 48
- chital deer (*pr̥ṣata*) *Axis axis*, Erxleben. See *BIA*: 292, *IW*: 93, 35
- cobra’s saffron (*nāgapuṣpa*) → *nāgakeśara*. *Mesua ferrea*, L. See NK: v. 1, #1595, *GVDB*: 220, 48
- corky coral tree (*pāribhadra*) *Erythrina suberosa* Roxb. See *GVDB* 245, 51
- costus (*kuṣṭha*) *Saussurea costus*, Clarke. See NK: v. 1, #2239, 32, 48, 52
- country mallow (*atibālā*) *Abutilon indicum*, (L.) Sweet, but may be other kinds of mallow, e.g., *Sida rhombifolia*, L.. See NK: v. 1, #11, *IGP*: 1080, NK: v. 1, #2300, *ADPS*: 71, 77, 31
- country sarsaparilla (*anantā*) *Hemidesmus indicus*, (L.) R. Br. See *ADPS*: 434, *AVS*: v. 3, 141–5, NK: v. 1, #1210. But see *GVDB*: 13 for complications that may suggest that it is to be equated with *sārivā*, which may sometimes be *Cryptolepis* or *Ichnocarpus frutescens* R. Br. (*GVDB*: 429–431), 31, 37, 47, 48, 51
- crape jasmine (*nata*) → crape jasmine

- GVDB: 215, 107, 109
crape jasmine (*tagara*) *Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schultes. See GJM1: 557, AVS: v. 5, 232. Synonym of *crape jasmine*. But some say *Valeriana jatamansi*, Jones See GVDB: 173–174 for discussion (and charming comments on brain liquid testing). Some say *tagara* is Indian rose-bay or Indian valerian, but there remain many historical questions about the ancient and regional identities of this plant See, e.g., AVS: v. 5, 334, 32, 48, 107, 109
- crimson trumpet-flower tree (*pāṭalā*) *Stereospermum chelonides*, (L. f.) A. DC. See GJM1: 573, AVS: v. 5, 192 ff, ADPS: 362 f, AVS: v. 3, 1848 f, IGP 1120, Dymock: v. 3, 20 ff, 51
- cuscut grass (*uśīra*) *Andropogon murcatus*, Retz. Also “vetiver grass.” See NK: v. 1, #180, 32
- datura (*dhattūra*) *Datura metel*, L. See AVS: v. 2, 305 (cf. *Abhidhānamāñjarī*), NK: v. 1, #796 ff. Potter_{rev}: 292 f, ADPS: 132, 28
- decanted liquor (*surāmaṇḍa*) K&B: v. 2, 502, NK: v. 2, appendix VI, #49, 30
- deodar (*bhadradāru*) *Cedrus deodara*, (Roxb.ex D.Don) G. Don. See AVS 41, NK: v. 1, #516, 48
- dried meat (*vallūra*) MW: 929, AyMahā: v. 1, 730. The term is used, rarely, in both the CS (1.5.10) and SS (1.13. 16, 6.42.75–76). It is a Dravidian loanword and occurs in the *Arthaśāstra* etc. (KEWA: v. 3, 167), 25
- elixir salve (*rasāñjana*) → *añjana*. See Indian barberry, 33
- embelia (*viḍaṅga*) *Embelia ribes*, Burm. f. See ADPS: 507, AVS: v. 2, 368, NK: v. 1, #929, Potter_{rev}: 113, 48
- emetic nut (*madana*) *Randia dumetorum*, Lamk. See NK: v. 1, #2091, 30
- false daisy (*subhaṅgurā*) (*su*)bhaṅgura = *bhṛṅga*? *Eclipta prostrata* (L.) L. See GVDB: 288, 37
- fermented rice-water (*dhānyāmla*) → *kāñjī*, *kāñjikā*, *sauvīra*. GVDB: 458, NK: v. 2, appendix VI, #18, 30
- fern (*ajaruḥā*) *Nephrodium* species GVDB: 7, uncertain. Perhaps *Christella dentata*(Forssk.) Brownsey & Jermy, which is reported to have folk applications against skin diseases in India, 34
- fire-flame bush (*dhātakī*) *Woodfordia fruticosa* (L.) Kurz. See AVS: v. 5, 412, NK: v. 1, #2626, 31
- fragrant lotus (*saugandhika*) A type of *kumuda* or *utpala* (GVDB: 457), 25
- garjan oil tree (*aśvakarṇa*) *Dipterocarpus turbinatus* Gaertn. f. See GVDB: 28, Chopra: 100, 51
- giant potato (*kṣīravidārī*) possibly → *kṣīraśukla*. *Ipomoea mauritiana*, Jacq. See ADPS: 510, AVS: v. 3, 222, AVS: v. 3, 1717 ff, 109–111
- ginger (*mahaṣadha*) *Zingiber officinale*, Roscoe. See ADPS: 50, NK: v. 1, #2658, IGP: 1232, 35
- gold (*hema*) gold, 48
- gold and sarsaparilla (*surendragopa*) Unknown. Ḍalhaṇa on 5.3.15 (Su 1938: 568) glossed *surendra* as “gold” and *gopā* as “Indian sarsaparilla.” He also noted other opinions that *surendra* was “Tellicherry bark”, 52
- golden shower tree (*rājadruma*) *rājadruma* = *āragvadha*. *Cassia fistula* L. See GVDB 37, 51
- gourd (*alābu*) *Lagenaria siceraria* Standl. GVDB: 25. Some say *Lagenaria vulgaris*, Seringe (NK: v. 1, #1419) but this is not appropriate for blood-letting, 21, 22, 31
- heart-leaf sida (*balā*) *Sida cordifolia*, Linn. See ADPS: 71, NK: v. 1, #2297, 31, 48

- heart-leaved moonseed (*amṛtā*) → *guḍūcī*.
Tinospora cordifolia, (Willd.) Hook.f.
 & Thoms.?. See [ADPS](#): 38, [NK](#): v. 1,
 #2472, 624, [Dastur](#) #229, [32](#), [47](#)
- heart-leaved moonseed (*somavallī*)
Tinospora cordifolia (Thunb.) Miers.
[GVDB](#): 456. Likely, but uncertain, [32](#)
- henna (*madayantikā*) *Lawsonia inermis*, L.
 See [AVS](#): v. 3, 303, [NK](#): v. 1, #1448,
[Potter_{rev}](#): 151, [33](#)
- Himalayan mayapple (*vakra*)
Podophyllum emodi, Wall.
 ([NK](#): #1971). But perhaps a synonym of
[crape jasmine](#) and [crape jasmine](#)
 ([GVDB](#): 354), [52](#)
- Himalayan monkshood (*ativiṣā*)
Aconitum heterophyllum Wall.
[GVDB](#): 12, [NK](#): v. 1, #39. Also “atis
 roots”, [33](#), [35](#), [52](#)
- hogweed (*punarnavā*) *Boerhaavia diffusa*,
 L. See [ADPS](#): 387, [AVS](#): v. 1, 281,
[NK](#): v. 1, #363, [33](#), [47](#)
- Holostemma creeper (*jīvantī*) →
sūryavallī? *Holostemma ada-kodien*,
 Schultes. See [ADPS](#): 195, [AVS](#): v. 3, 167,
[NK](#): v. 1, #1242, [AVS](#): v. 3, 1619, [110](#)
- horned pondweed (*śaivāla*) also *śaivāla*,
śevāra. *Zannichellia palustris* L. The
 uncertainties of this identification are
 discussed by Singh and Chunekar
 ([GVDB](#): 409). Sometimes identified
 with [scutch grass](#) (*dūrvā*) ([GVDB](#): 409).
 Identified as *Ceratophyllum demersum*
 Linn. (“hornwort”) by
[AVS](#): v. 2, 56–57x, [109](#), [111](#)
- hornwort (*jalaśūka*) ← *jalanīlikā*.
Ceratophyllum demersum, L. See
[AVS](#): v. 2, 56, [IGP](#): 232. Singh and
 Chunekar ([GVDB](#): 166) suggest [horned](#)
[pondweed](#). Ḍalhaṇa noted on 1.16.19
 (Su 1938: 79) that some people
 interpret it as a poisonous, hairy,
 air-breathing, underwater creature, [31](#)
- Indian barberry (*añjana*) → *rasañjana*,
dāruharidrā. *Berberis aristata*, DC.
[Dymock](#): v. 1, 65, [NK](#): v. 1, #335,
[GJM1](#): 562, [IGP](#): 141, [33](#), [34](#), [108](#)
- Indian barberry (*dāruharidrā*) *Berberis*
aristata, DC. See [Dymock](#): v. 1, 65,
[NK](#): v. 1, #685, [GJM1](#): 562, [IGP](#) 141,
[47](#), [48](#)
- Indian barberry (*kālīyaka*) → *dāruharidrā*,
añjana. *Berberis aristata*, DC. See
[Dymock](#): v. 1, 65, [NK](#): v. 1, #685,
[GJM1](#): 562, [IGP](#): 141, [32](#)
- Indian ipecac (*payasyā*) Uncertain.
 Possibly *Tylophora indica* (Burm.f.)
 Merr. Perhaps a synonym of [panacea](#)
[twiner](#), [giant potato](#), [purple roscoe](#),
 and plants like [asthma plant](#) and [Gulf](#)
[sandmat](#) ([GVDB](#): 237–238). Also
 “curds” when not a plant, [31](#), [110](#)
- Indian kudzu (*vidārī*) → *payasyā*. *Pueraria*
tuberosa (Willd.) DC. See [ADPS](#): 510,
[AVS](#): v. 1, 792 f, [AVS](#): v. 4, 391; not
[Dymock](#): v. 1, 424 f. See [GJM2](#): 444, 451,
[AVS](#): v. 1, 187, but [AVS](#): v. 3, 1719 =
Ipomoea mauritiana, Jacq, [31](#)
- Indian madder (*mañjiṣṭhā*) *Rubia*
cordifolia, L. See [IGP](#), [Chopra](#): 215,
[GVDB](#): 289, [28](#), [48](#)
- Indian mottled eel (*varmimatsya*) Almost
 certainly the mottled eel. [MW](#): 962c
 noted that the *varmi* fish “is commonly
 called *vāmi*.” The “vam fish,” or “বান
 মাছ (*bān māch*)” in Bengal, is a marine
 and freshwater eel, *Anguilla bengalensis*.
 It is the most common eel in Indian
 inland waters and a prized food fish
 (Froese and Pauly 2022). However,
 some NIA languages identify the
 “vam” fish with the Indian Pike
 Conger, *Congresox talabonides* (Bleeker)
 (Talwar and Kacker 1984: 235, 236), [23](#)
- Indian mustard (*sarsapa*) *Brassica juncea*,
 Czern. & Coss. See [AVS](#): v. 1, 301,
[NK](#): v. 1, #378, [26](#)
- Indian sarsaparilla (*sārivā*) → *anantā*.
Hemidesmus indicus, (L.) R. Br.
[ADPS](#): 434, [AVS](#): v. 3, 141–5, [NK](#): v. 1,

- #1210; and black creeper, pālinḍi.
Ichnocarpus frutescens, (L.) R.Br. or
Cryptolepis buchanani, Roemer &
 Schultes [AVS](#): v. 3, 141, 3.145, 3.203,
[NK](#): v. 1, #1283, 1210, [ADPS](#): 434, 47,
 48, 108
- jambul (*jambū*) *Syzygium cumini*, (L.)
 Skeels. See [ADPS](#): 188, [NK](#): v. 1, #967,
[Potter_{rev}](#): 168, Wujastyk 2003a, 31
- jasmine (*mālātī*) *Jasminum grandiflorum*,
 L. See [NK](#): v. 1, #1364, 32
- jequirity (*guñjā*) *Abrus precatorius*, L. See
[AVS](#): v. 1, 10, [NK](#): v. 1, #6, [Potter_{rev}](#): 168,
 37
- lac (*lākṣā*) *Kerria lacca* (Kerr.). See
[GJM1](#): 445, [NK](#): v. 2, #32. Watt
 ([Watt_{Comm}](#): 1053–1066) is
 characteristically informative, and is
 definite about the antiquity of lac in
 India, 52
- liquorice (?) (*klītaka*) *Glycyrrhiza glabra*,
 L.? [GVDB](#): 123–124 discuss the many
 difficulties in identifying this plant, 37
- liquorice (*madhuka*) see *yaṣṭīmadhuka*, 31,
 35, 46, 48
- liquorice (*yaṣṭīmadhuka*) *Glycyrrhiza*
glabra, L. [AVS](#): v. 3, 84, [NK](#): v. 1, #1136,
[GVDB](#): 329 f., 33
- lodh tree (*lodhra*) *Symplocos racemosa*,
 Roxb. See [GJM1](#): 597, [ADPS](#): 279 f,
[NK](#): v. 1, #2420. Singh and Chuneekar
 ([GVDB](#): 351–352) notes that there are
 two varieties, *S. racemosa*, qualified as
śāvāra, and *S. crataegoides* Buch.-Ham.
 for *paṭṭikā lodhra*, 48
- long pepper (*māgadha*) *Piper longum*, L.
 See [NK](#): v. 1, #1928; but cf.
[AVS](#): v. 3, 245, 34
- long pepper (*pippalī*) *Piper longum*, L. See
[ADPS](#): 374, [NK](#): v. 1, #1928, 35, 48
- luffa (*koṣṭakī*) = *kośātakī*. *Luffa cylindrica*,
 (L.) M. J. Roem. or *L. acutangula*, (L.)
 Roxb. [ADPS](#): 252–253, [NK](#): v. 1, #1514
 etc. [GVDB](#): 121, 31, 47, 110
- luffa gourd (*kośavatī*) = *koṣṭakī*, luffa, 47
- mango (*āmra*) *Mangifera indica* Linn.
[GVDB](#): 37, 31
- marking-nut tree (*bhallātaka*) *Semecarpus*
anacarium, L. See [NK](#): v. 1, #2269,
[AVS](#): v. 5, 98, 34
- medhshingi (*vijayā2*) *Dolichandrone*
falcata (DC.) The *Sauśrutaniḥaṇṭu*
 gives a number of synonyms for *vijayā*
 (Suvedī and Tivārī 2000: 5.77, 10.143).
 But one of them, *viṣāṇī* (also
meṣaśṛṅgī), is sometimes equated with
Dolichandrone falcata (DC.) Seemann
 ([ADPS](#): 518; [GVDB](#): 373 f, a plant used
 as an abortifacient and fish poison
 ([NK](#): #862), 37
- migraine tree (*agnimantha*) *Premna*
corymbosa, Rottl. See [AVS](#) 1927,
[ADPS](#): 21, [NK](#): v. 1, #2025,
[AVS](#): v. 4, 348; [GJM1](#): 523: = P.
integrifolia/serratifolia, L, 47
- milk-white (*kṣīraśuklā*) An unidentified
 plant. [GVDB](#): 126: see purple *roscoea*
 and giant potato, 31, 111
- monitor lizard (*godhā*) *Varanus*
bengalensis, Schneider. See
[Reptiles](#): 58, 31, 35
- mung beans (*māśaka*) *Phaseolus mungo*
 Linn. [GVDB](#): 308, 32
- myrobalan (*abhayā*) *Terminalia chebula*,
 Retz. See [ADPS](#): 172, [NK](#): v. 1, #2451,
[Potter_{rev}](#): 214, 47, 52
- natron (*suvarcikā*) Sodium carbonate.
[NK](#): v. 2, #45. Ḍalhaṇa identifies
suvarcikā with svarjikṣāra 4.8.50
 ([Su 1938](#): 441), 48
- neem tree (*nimba*) *Azadirachta indica* A.
 Juss. [GVDB](#): 226, 28
- nutgrass (*kuruvinda*) Unknown. Ḍalhaṇa
 on 5.3.15 ([Su 1938](#): 568) glossed the
 term as nutgrass, but noted other
 opinions that it was a whetstone or a
 very special metallic gem. Singh and
 Chuneekar ([GVDB](#): 108) added that it
 could be a variety of rice, *ṣaṣṭika dhānya*,
 52

- nutgrass (*mustā*) *Cyperus rotundus*, L.
See [ADPS](#): 316, [AVS](#): v. 2, 296, [NK](#): v. 1, #782, 110
- panacea twiner (*arkapuṣpī*) → *arkaparnī*,
Tylophora indica (Burm. f.) Merr.
[GVDB](#): 23–24. Maybe identical to
[Indian ipecac](#), [giant potato](#) and similar
sweet, milky plants. See [GVDB](#): 24, 127,
238, 441, 443 for discussion. For
discussion in the context of
[Holostemma creeper](#), see [ADPS](#): 195
and [AVS](#): v. 3, 171. The etymology of
the name suggests *Helianthus annuus*
Linn., but this plant is native to the
Americas, [47](#), [109](#)
- peas (*hareṇu*) *hareṇu* = *saṭīna*. *Pisum*
sativum, L. Singh and Chuneekar
([GVDB](#): 419–420, 467–468) notes that
two plants are usually meant under this
name, but there is no agreement on the
identity of the second, [47](#), [48](#), [52](#)
- peepul tree (*aśvattha*) *Ficus religiosa*, L.
See [ADPS](#): 63, [55](#)
- periploca of the woods (*meṣaśrṅga*)
Gymnema sylvestre (Retz.) R. Br. See
[AVS](#): v. 3, 107, [NK](#): v. 1, #1173, [34](#)
- plants like asthma plant and Gulf
sandmat (*kṣīrīṇī*) various milky plants,
perhaps including *Euphorbia hirta*
Linn. (asthma plant) and *E.*
microphylla Heyne (Gulf sandmat)
([GVDB](#): 127), [109](#)
- pointed gourd (*paṭola*) *Trichosanthes*
dioica, Roxb. [GVDB](#): 232–233, [47](#)
- poison berry (*br̥hatī*) *Solanum violaceum*,
Ortega. See [ADPS](#): 100, [NK](#): v. 1, #2329,
[AVS](#): v. 5, 151, [47](#), [48](#)
- pondweed (*paripelavā*) Normally a neuter
noun. Singh and Chuneekar
([GVDB](#): 238, 264–265, 409) argued that
plava and *śaivāla* are the same thing, and
may be either *Zannichellia palustris*, L.,
or *Potamogeton pectinatus*, L., [48](#)
- pondweed (*śevāla*) *Zannichellia palustris*
L. See [horned pondweed](#), [25](#)
- prickly chaff-flower (*apāmārga*)
Achyranthes aspera, L. See [GJM1](#): 524 f,
[AVS](#): v. 1, 39, [ADPS](#): 44 f, [AVS](#): v. 3,
2066 f, [Dymock](#): v. 3, 135, [28](#), [31](#)
- purging nut (*mūṣikā*) *Jatropha curcas*, L.
See [AVS](#): v. 3, 261, [NK](#): v. 1, #1374, [34](#)
- purple calotropis (*arka*) *Calotropis*
gigantea, (L.) R. Br. See [ADPS](#): 52,
[AVS](#): v. 1, 341, [NK](#): v. 1, #427,
[Potter_{rev}](#): 57, [Chopra IDG](#): 305–308, [31](#)
- purple roscoeia (*kṣīrakākolī*) [GVDB](#): 89
notes that many physicians use *Roscoeia*
procera Wall. in this context. But the
identification is uncertain. Possibly
connected to [milk-white](#) or [giant](#)
[potato](#)., [109](#), [110](#)
- rajmahal hemp (*moraṭa*) → *mūrvī*,
Marsdenia tenacissima (Roxb.) Wight
et Arn. Good discussion at
[GVDB](#): 314–316, 324, [47](#)
- red chalk (*gairika*) *gairika*, [48](#)
- red gourd (*bimbī*) *Coccinia indica*, W. &
A. See [PVS](#) 1994.4.715; [NK](#): v. 1, #534, [31](#)
- rock salt (*saindhava*) See [NK](#): v. 2, M#48,
[Watt_{Comm}](#): 963–971, [26](#)
- rosha grass (*dhyāmaka*) *Cymbopogon*
martinii (Roxb.) Wats. See
[AVS](#): v. 2, 285, [NK](#): v. 1, #177, [48](#)
- sacred lotus (*padma*) *Nelumbo nucifera*,
Gaertn. See [NK](#): v. 1, #1698, [25](#), [32](#)
- sage-leaved alangium (*aṅkollā*) *Alangium*
salvifolium (Linn. f.) Wang.
[GVDB](#): 5–6, [31](#)
- sandalwood (*candana*) *Santalum album*,
L. See [ADPS](#): 111, [NK](#): v. 1, #2217, [48](#)
- sappanwood (*pattāṅga*) Also *pattāṅga*.
Caesalpinia sappan, L. [AVS](#): v. 1, 323,
[K&B](#): v. 2, 847 f, [GVDB](#): 234, [33](#)
- scarlet mallow (*bandhujīva*) *Pentapetes*
phoenicea, L. [NK](#): #1836, [GVDB](#): 268, [33](#)
- scented pavonia (*bālaka*) *Pavonia odorata*,
Willd. See [ADPS](#): 498, [NK](#): v. 1, #1822,
[48](#)
- scutch grass (*dūrvā*) *Cynodon dactylon*
(Linn.) Pers. ([GVDB](#): 205), [109](#)

- selu plum (*śelu*) *Cordia myxa*, L. non Forssk. See [GJM1](#): 529 (2), [IGP](#): 291b, cf. [AVS](#): v. 3, 1677 f; cf. [AVS](#): v. 2, 180 (*C. dichotoma*, Forst.f.), [NK](#): v. 1, #672 (*C. latifolia*, Roxb.), 47
- sesame oil (*taila*) *Sesamum indicum* L. [GVDB](#): 183, 32
- siris (*śirīṣa*) *Albizia lebbbeck*, Benth. See [AVS](#): v. 1, 81, [NK](#): v. 1, #91, 47
- siris seeds (*śirīṣamāṣaka*) *Albizia lebbbeck*, Benth. See [AVS](#): v. 1, 81, [NK](#): v. 1, #91, 31
- small-flowered crape myrtle (*sidhraka*) *Lagerstroemia parviflora* Roxb. See [GVDB](#): 432, 51
- spikenard (*māmsī*) *Nardostachys grandiflora*, DC. See [NK](#): v. 1, #1691, 48
- spikenard (*nalada*) → *māmsī*. *Nardostachys grandiflora*, DC. See [NK](#): v. 1, #1691, 29
- sugar (*sitā*) *Ḍalhaṇa* makes this equation at 1.37.25 ([Su 1938](#): 162), 48
- sunflower (*sūryavallī*) → *ādityavallī*, *sūryamukhī*, *Helianthus annuus* Linn. [GVDB](#): 35, 443, 47
- sweet plants (*madhuravarga*) The sweet plants are enumerated at *Suśrutasaṃhitā* 1.42.11. See also [GVDB](#): 127, 31
- sweet-scented oleander (*aśvamāraka*) *Nerium oleander*, L. See [ADPS](#): 223, [NK](#): v. 1, #1709, 37
- Tellicherry bark (*kuṭaja*) *Holarrhena pubescens* Wall. ex G. Don, with *Wrightia tinctoria* and *W. arborea* considered [GVDB](#): 101–102, [ADPS](#): 267–270, 108
- thorn apple (*karambha*) *Datura metel*, L. See [AVS](#): v. 2, 305 (cf. *Abhidhānamāñjarī*), [NK](#): v. 1, #796 ff. [Potter_{rev}](#): 292 f, [ADPS](#): 132, 38
- three heating spices (*tryūṣaṇa*) *śunṭhī* (Dried ginger) *Zingiber officinale*, Roscoe. [ADPS](#): 50, [NK](#): v. 1, #2658, [AVS](#): v. 5, 435, [IGP](#) 1232, *pippalī* (long pepper) *Piper longum*, L. [ADPS](#): 374, [NK](#): v. 1, #1928, and *marica* (black pepper) *Piper nigrum*, L. [ADPS](#): 294, [NK](#): v. 1, #1929, 47
- three-leaved caper (*varuṇa*) *Crataeva magna* (Lour.) DC. See [AVS](#): v. 2, 202; cf. [NK](#): v. 1, #696, 34
- tree cotton (*kārpāsa*) *G. arboreum* L. [ADPS](#): 231. Pace the identifications of Singh and Chuneekar ([GVDB](#): 92, 247), since *G. barbadense* L. is native to South America and *G. herbaceum* L. which is native to Africa, 28
- tree cotton (*picu*) See *kārpāsa*, 30, 33
- turmeric (*haridrā*) *Curcuma longa* Linn. [GVDB](#): 465, 47, 52
- turmeric (*rajanī*) *Curcuma longa*, L. [ADPS](#): 169, [AVS](#): v. 2, 259, [NK](#): v. 1, #750, 26, 48
- velvet-leaf (*pāṭhā*) *Cissampelos pariera*, L. See [ADPS](#): 366, [NK](#): v. 1, #592, [GJM1](#): 573, [AVS](#): v. 1, 95; cf. [AVS](#): v. 2, 277, 47
- velvet-mite (*indragopa*) *Kerria lacca* (Kerr.). Lienhard 1978, 30
- verbena (*phañjī*) *Clerodendrum serratum*, L. See [AVS](#): v. 2, 121, [ADPS](#): 87, 33
- watered buttermilk (*udaśvit*) [MW](#): 183, 31
- weaver's beam tree (*muṣkaka*) *Schrebera swietenoides*, Roxb. See [AVS](#): v. 5, 88, Lord, [NK](#): v. 1, #2246, 51
- white calotropis (*alarka*) *Calotropis procera*, (Ait.) R. Br. See [NK](#): v. 1, #428, [Chopra](#): 46b, [Chopra IDG](#): 305–308, 31
- white clitoria (*śvetā*) → *giryāhvā*. *Clitoria ternatea*, L. See [AVS](#): v. 2, 129, [NK](#): v. 1, #621, 32
- white cutch tree (*somavalka*) *Acacia polyacantha*, Willd. See [AVS](#): v. 1, 30, [IGP](#) 7, [GJM1](#): 602, [AVS](#): v. 2, 935; pace [NK](#): v. 1, #1038, 33, 51
- white siris (*kiñihī*) *Albizia procera*, (Roxb.) Benth. See [GVDB](#) 98, [NK](#): v. 1, #93, 47
- white water-lily (*kumuda*) *Nymphaea alba*, Linn. [GVDB](#): 105, 25

wild asparagus (*bahuputrā*) → *nandana*?

Asparagus racemosus, Willd. See
ADPS: 441, AVS: v. 1, 218, NK: v. 1,
#264, IGP: 103, AVS: v. 4, 2499 ff,
Dymock: v. 3, 482 ff, 33

wild celery (*agnika*) → may be *bhalātaka*,
lāṅgalī, *ajamodā*, *moraṭa*, or *agnimantha*,
GVDB: 4. Uncertain, 47

wild celery (*ajamodā*) *Apium graveolens*,
L., 47

Withania (*aśvagandhā*) *Withania*
somnifera (L.) Dunal. See AVS: v. 5,
409 f, Dymock: v. 2, 566 f., Chevallier

150, 31

wood apple (*kapittha*) *Limonia acidissima*,
L. See AVS: v. 3, 327, NK: v. 1, #1021,
32, 34

woodrose (*mūṣikakarṇī*) *Jatopha curcas*, L.
AVS: v. 3, 261, NK: v. 1, #1374.
GVDB: 317; ADPS: 23–25 discuss this
issue well, 32

yellow-berried nightshade (*kṣudrā*)
Solanum virginianum, L. See
ADPS: 100, NK: v. 1, #2329,
AVS: v. 5, 164, 47, 48

Todo list

■ Cf. Arthaśāstra 1.21.8.	28
■ I'm still unhappy about this verse.	31
■ Mention this in the introduction as an example of the scribe knowing the vulgate.	31
■ fn about sadyas+	31
■ Bear's bile instead of deer's bile.	32
■ punarṇṇavā in the N & K MSS	33
■ śrita for śṛta	33
■ explain more	33
■ Medical difference from Sharma.	34
■ example where the vulgate clarifies that these should be used separately; appears to be a gloss inserted into the vulgate text.	34
■ The two uses of prāpta are hard to translate. prāptāḥ → kṣipraṃ is an example of the vulgate banalizing the Sanskrit text to make sense of a difficult passage.	34
■ √ vyadh not √ vedh (also elsewhere and for the ears), causative optative.	34
■ opposite of the vulgate Same as 1.8.89 (As 1980: 79).	35
■ -> ativiṣa	43
■ Look up the ca. reference.	43
■ Come back to the issue of "kalpa". Look up passages in the Kośa.	49
■ write footnote: don't repeat ativiṣā; vulgate similar to H.	52
■ material corresponds to SS.1.45.205ab, where it describes how alcohol affects the body.	55
■ where is cutting with a knife related to removing bile or phlegm.	57
■ maṣī burned charcoal. Find refs.	58
■ find ref.	63
■ Check out these refs.	64
■ meaning of kalpa	64
■ or a dual?	68

