

A Translation of the Nepalese Text of the *Suśrutasamhitā*

Dominik Wujastyk Jason Birch Andrey Klebanov
Lisa A. Brooks Paras Mehta Madhusudan Rimal
Deepro Chakraborty Harshal Bhatt Jane Allred
et alii

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Contents

| | |
|--|-----------|
| Part 1. Sūtrasthāna | 11 |
| Sūtrasthāna 1: The Origin of Medical Knowledge | 13 |
| Literature | 13 |
| Translation | 13 |
| Sūtrasthāna 2: The Initiation of a Student | 21 |
| Literature | 21 |
| Translation | 21 |
| Sūtrasthāna 3: The Table of Contents | 23 |
| Literature | 23 |
| Translation | 23 |
| Sūtrasthāna 13: On Leeches | 25 |
| Literature | 25 |
| Translation | 25 |
| Sūtrasthāna 14: On Blood | 33 |
| Previous scholarship | 33 |
| Translation | 33 |
| Sūtrasthāna 16: Repairing Pierced Ears | 41 |
| Previous literature | 41 |
| Translation | 41 |
| Sūtrasthāna 28: Unfavourable Prognosis in Patients with Sores | 51 |
| Literature | 51 |
| Translation | 51 |

| | |
|--|---------------|
| Sūtrasthāna 46: The Rules about Food and Drink | 53 |
| Introduction | 53 |
| Part 2. Nidānasthāna | 55 |
| Nidānasthāna 1: The Diagnosis of Diseases Caused by Wind | 57 |
| Literature | 57 |
| Subject matter | 57 |
| Translation | 57 |
| Part 3. Śārīrasthāna | 67 |
| Śārīrasthāna 2: On Semen and Menstrual Fluid | 69 |
| Literature | 69 |
| Translation | 69 |
| Diagnosis by humours | 70 |
| Therapies for menstrual blood | 73 |
| During menstruation | 74 |
| Śārīrasthāna 3: On Conception and the Development of the Embryo | 77 |
| Literature | 77 |
| Translation | 77 |
| Part 4. Cikitsāsthāna | 85 |
| Cikitsāsthāna 4: On the Treatment of Wind Diseases | 87 |
| Literature | 87 |
| Translation | 87 |
| Cikitsāsthāna 5: On the Treatment of Serious Wind Diseases | 95 |
| Literature | 95 |
| Translation | 95 |
| Cikitsāsthāna 15: On Difficult Delivery | 107 |
| Literature | 107 |
| Translation | 107 |

| | |
|---|------------|
| Part 5. Kalpasthāna | 111 |
| Kalpasthāna 1: Protecting the King from Poison | 113 |
| Introduction | 113 |
| Literature | 114 |
| Manuscript notes | 114 |
| Translation | 115 |
| [Threats to the king] | 115 |
| Kalpasthāna 2: Poisonous Plants | 125 |
| Introduction | 125 |
| Literature | 126 |
| Translation | 126 |
| The effects of poisons | 130 |
| Slow-acting poison | 134 |
| The invincible ghee | 138 |
| Curing the ‘slow-acting’ poison | 138 |
| Kalpasthāna 3: Poisonous Insects and Animals | 139 |
| Literature | 139 |
| Translation | 139 |
| The origin of poison | 143 |
| Patients beyond help | 145 |
| Kalpasthāna 4: Snakes and Envenomation | 147 |
| Introduction | 147 |
| Literature | 148 |
| The Seven Stages of Toxic Shock | 149 |
| Translation | 150 |
| [The Taxonomy of Snakes] | 150 |
| [Behaviours] | 151 |
| [Enumeration of Snakes] | 154 |
| [Breeding and Gender] | 156 |
| [Symptoms of snakebite] | 157 |
| [Summary Verses] | 160 |

| | |
|--|------------|
| Kalpasthāna 5: Therapy for those Bitten by Snakes | 163 |
| Introduction | 163 |
| Literature | 163 |
| Translation | 164 |
| The application of mantras | 165 |
| Blood letting | 166 |
| Internal medications | 166 |
| Therapies at each pulse of toxic reaction | 167 |
| Kalpasthāna 6: Beating Drums | 173 |
| Introduction | 173 |
| Kalpasthāna 8: Poisonous insects | 175 |
| Introduction | 175 |
| Literature | 175 |
| Translation | 175 |
| Part 6. Uttarantra | 177 |
| Uttarantra 17: Preventing Diseases of the Pupil | 179 |
| Literature | 179 |
| Translation | 179 |
| [Complications] | 189 |
| [Characteristics of the probe] | 189 |
| [Complications] | 189 |
| Uttarantra 38: Diseases of the Female Reproductive System | 193 |
| Introduction | 193 |
| Literature | 193 |
| Placement of the Chapter | 193 |
| Parallels | 195 |
| Philological notes | 196 |
| Metrical alterations | 196 |
| The original opening verses | 196 |
| Translation | 198 |

| | |
|--|------------|
| Uttaratantra 65: Rules of Interpretation | 201 |
| Literature | 201 |
| Early Sources | 201 |
| The <i>Arthaśāstra</i> | 202 |
| The <i>Yuktidīpikā</i> | 202 |
| Tamil literature | 202 |
| The <i>Viṣṇudharmottarapurāṇa</i> | 203 |
| The <i>Saddanīti</i> | 204 |
| Āyurvedic literature | 209 |
| Tantrayukti-inventories | 215 |
| Earlier Listing | 216 |
| Later Listing | 216 |
| Terminology | 217 |
| 1. <i>adhikaraṇa</i> | 217 |
| 2. <i>yoga</i> | 219 |
| 3. <i>padārtha</i> | 222 |
| 3. <i>hetvartha</i> | 226 |
| 5–6. <i>uddeśa</i> and <i>nirdeśa</i> | 228 |
| Notes on Significant Variants | 228 |
| ...द्वितीये पादे... | 228 |
| यत्र तु स्नेहस्वेदाभ्यञ्जनेषु...पूर्वापरयोगसिद्धो भवति । | 228 |
| सामवेदादयश्च वेदाः | 229 |
| ...विद विन्द इत्येतयोश्च धात्वोः... | 229 |
| ...धात्वोरेकार्थः । पश्चात् पदं भवति... | 231 |
| यदुक्तं साधनं भवति स हेत्वर्थः | 232 |
| ...तथा माषदुग्धप्रभृतिभिर्व्रणः क्लिद्यते | 233 |
| समासवचनं समुद्देशः | 233 |
| Characteristics of the Manuscript Transmission | 234 |
| Translation | 235 |
| Editions and Abbreviations | 241 |
| Index of Manuscripts | 249 |
| Bibliography | 251 |

| | |
|-------------------------|------------|
| Materia Medica | 283 |
| Abbreviations | 283 |
| Flora | 286 |
| Fauna | 300 |
| Glossary | 303 |

Part 1. Sūtrasthāna

Part 2. Nidānasthāna

Part 3. Śārīrasthāna

Part 4. Cikitsāsthāna

Part 5. Kalpasthāna

Kalpasthāna 2: Poisonous Plants

Introduction

This section begins with several lists of poisonous plants. The Sanskrit names for these plants are mostly not standard or familiar from anywhere in Sanskrit or ethnobotanical literature. It remains a historical puzzle why these particular names are so difficult to interpret. However, we are not the first to encounter these difficulties. In the twelfth century, the learned commentator on the text, Ḍalhaṇa, remarked,

In spite of having made the greatest effort, it has been impossible to identify these plants. In the Himalayan regions, Kirātas and Śabarās are able to identify them.³⁵⁷

Ḍalhaṇa also recorded variant readings of these poison names from the manuscripts that he consulted of the lost commentary of Gayadāsa (fl. c. CE 1000). The identities of these poisons have been in doubt for at least a thousand years.³⁵⁸ Identifications have in many cases been equally impossible for us today.

One path for exploration in this situation is to attempt to reverse-engineer some identifications by considering the known toxic plants of India.³⁵⁹

³⁵⁷ After *Suśrutasaṃhitā*, *kalpasthāna* 2.5 (Su 1938: 564). From the view of Sanskrit authors, Kirātas and Śabarās were tribal peoples. The eleventh-century author Bhikṣu Govinda, however, cast his treatise as a dialogue with a Kirāṭa king called Madana who was a master of the alchemical art (HIML: IIA, 620).

³⁵⁸ See Wujastyk 2003b: 80–81.

³⁵⁹ Valuable reference sources on Indian plant toxicology in general include Pillay 2013: chs. 10, 11 and Barceloux 2008: parts 1.II, 3 and 4.

Literature

Meulenbeld offered an annotated overview of this chapter and a bibliography of earlier scholarship to 2002.³⁶⁰

Translation

- 1 And now I shall explain **what should be known** about stationary poisons.³⁶¹
- 3 It is said that there are two kinds of poisons, stationary (*sthāvara*) and mobile (*jaṅgama*). The former dwells in ten sites, the latter in sixteen places.
- 4 Traditionally, the ten are: root, leaf, fruit, flower, bark, milky sap (*kṣīra*), pith (*sāra*), resin (*niryāsa*), the elements (*dhātu*), and the tuber.
- 5 In that context,
 - the eight root-poisons are:³⁶²
 1. liquorice (?),³⁶³
 2. sweet-scented oleander,³⁶⁴
 3. jequirity,³⁶⁵
 4. false daisy,³⁶⁶

³⁶⁰ HIML: IA, 290–291.

³⁶¹ No reference is made to Dhanvantari (see Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021). “Stationary” here is a term contrasted with “moving,” and signifies plants as opposed to animals and insects.

³⁶² Some South Asian plants with poisonous roots that we would have expected to see in this list include *Croton tiglium*, L., *Calotropis* spp., *Citrullus colocynthus* L. Schrad., and *Ricinus communis* L. (CIPP).

³⁶³ Liquorice eaten in excess can be poisonous, but it is unlikely to be the plant intended here. T. B. Singh and Chuneekar (GVDB: 124) noted that the poisonous root mentioned in this passage, “remains to be identified.”

³⁶⁴ The roots of sweet-scented oleander are highly toxic, as are most parts of the plant (Pillay and Sasidharan 2019).

³⁶⁵ Jequirity contains a dangerous toxin called Abrin in its seeds and to a lesser extent in its leaves, but apparently not in its roots or bulb. Abrin is not harmful if eaten, but an infusion of the bruised (not boiled) seeds injected or rubbed in the eyes can be fatal (NK: # 6). The dose can be quite small.

³⁶⁶ The plant is usually called just *bhaṅgurā* without the prefix *su-* “good.” However, there is no reported toxicity associated with *E. prostrata*. The vulgate reads सुगन्धा (snakeroot).

5. (?),³⁶⁷ and ending with
 6. leadwort,³⁶⁸
 7. country sarsaparilla (?),³⁶⁹ and
 8. medhshingi,³⁷⁰
- the leaf-poisons include:
 - aconite leaf (?),
 - drum-giver (?),
 - thorn apple, and
 - big thorn apple;
 - the fruits of items like: jequirity, marking-nut, and poison-altar (?) are
 - water snowflake (?),
 - pollen (?),
 - bluebell barleria,
 - ??,
 - thorn apple
 - big thorn apple (?)
 - ??,
 - crow (?),
 - the flower-poisons include those of:

³⁶⁷ This poisonous root cannot at present be securely identified. Similar-sounding candidates include *karkaṭaka*, *karahāṭa* (emetic nut), and *karaghāṭa*, but since this is a prose passage, there would be no reason to alter the word to fit a metre. Monier-Williams et al. (MW: 255) cite an unknown lexical source that equates *karaṭa* (mn.) with safflower (*Carthamus tinctorius*, L.), but this plant does not have a poisonous root.

³⁶⁸ The roots of both rose and white leadwort are very toxic.

³⁶⁹ The text reads masculine *ananta*, which is not a plant name. Gayī's commentary on 5.2.5 (Su 1938: 564) noted a variant reading of feminine *anantā* in place of *gargaraka*, earlier in the compound. But the feminine *anantā*, country sarsaparilla, is not a poisonous plant.

³⁷⁰ Meulenbeld (1989: 61, n. 3) argued that our text reads a masculine or neuter noun *vijaya*, which never signifies cannabis. However, unlike the vulgate, the unanimous readings of the Nepalese manuscripts give feminine *vijayā*. Nevertheless, even the feminine form only started to signify *Cannabis sativa* L. after the end of the first millennium (Meulenbeld 1989; Wujastyk 2002; McHugh 2021). The *Sauśrutanighaṇṭu* gives a number of synonyms for *vijayā*, almost none of which have any poisonous parts (Svedī and Tivārī 2000: 5.77, 10.143). But one of them, *viṣāṇī* (also *meṣaśṛṅgī*), is sometimes equated with *Dolichandrone falcata* (DC.) Seemann (ADPS: 518), a plant used as an abortifacient and fish poison (NK: #862). This identification is tenuous.

- rattan (*vetra*)ⁱ,
- wild chinchona (*kādamba*)ⁱⁱ,
- black pepper (*vallīja* → *marica*)ⁱⁱⁱ,
- thorn apple (*karambha*)^{iv}, and
- big thorn apple (*mahākarambha*)^v;
- the seven bark, pith (*sāra*) and resin (*niryāsa*) poisons are:
 - ‘gutboiler’ (*antrapācaka*)^{vi},
 - ‘blade’ (*kartarīya*)^{vii},
 - wild mustard (*saurīyaka*)^{viii},
 - emetic nut (*karaghāṭa* → *karahāṭa?* → *madana*)^{ix},
 - thorn apple (*karambha*)^x,
 - wild asparagus (*nandana* → *bahuputrā?*)^{xi}, and
 - munj grass (*nārācaka*)^{xii};³⁷¹
- the three milky sap (*kṣīra*)-poisons are:
 - purple calotropis (*kumudaghñī* → *arka?*)^{xiii}; ³⁷²

371 The bark of wild asparagus (*Asparagus racemosus*, Willd.) is toxic.

372 The name of this poison, *kumuda-ghñī*, means ‘lotus killer’. In Sanskrit literature, the *kumuda* lotus is associated with the moon, since it blossoms by night. Since the sun causes this lotus to close, it is therefore an ‘enemy’ of the lotus. One of the chief words for the sun, *arka*, is also the name of *Calotropis gigantea*, which indeed has a milky juice which is a violent purgative, poison and abortifacient.

i Calamus rotang, L.; see AVS 1.330, NK #413

ii Anthocephalus cadamba, Miq.; see NK #204

iii Piper nigrum, L.; see NK #1929; Rā.6.115, Dha.4.85, Dha.2.88

iv Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.

v Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.

vi unknown; see ?

vii unknown; see ?

viii Cleome viscosa, L.? (cf. Rā.4.144); see AVS 2.116, NK #615

ix Randia dumetorum, Lamk.; see NK #2091

x Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.

xi Asparagus racemosus, Willd.; see ADPS 441, AVS 1.218, NK #264, IGP 103, IMP 4.2499ff., Dymock 482ff.

xii Saccharum bengalense, Retz.; see NK #2184

xiii Calotropis gigantea, (L.) R. Br.; see ADPS 52, AVS 1.341, NK #427, Potter 63

- oleander spurge (*snuhī*)^{xiv}, and
- ‘web-milk’ (*jālakṣīri*)^{xv};
- the two element (*dhātu*)-poisons are:
 - ‘foam-stone’ (*phenāśma*)^{xvi}, and
 - orpiment (*haritāla*)^{xvii};³⁷³
- the thirteen tuber-poisons are:
 - jequirity (*kālakūṭa*)^{xviii},³⁷⁴
 - wolfsbane (*vatsanābha*)^{xix},
 - Indian mustard (*sarṣapa*)^{xx},
 - leadwort (*pālaka* → *citraka*)^{xxi},
 - ‘muddy’ (*kardama*)^{xxii}, the
 - ‘Virāṭa’s plant’ (*vairāṭaka*)^{xxiii},
 - nutgrass (*mustaka*)^{xxiv},
 - atis root (*śṛṅgīviṣa*)^{xxv},

373 Dutt (Dutt: 38–42) conjectured that ‘foam-stone’ may be impure white arsenic obtained by roasting orpiment.

374 The much later (perhaps sixteenth century) alchemical *Rasaratnasamuccaya* of pseudo-Vāgbhaṭa (21.14) says that the *kālakūṭa* poison, here translated as ‘jequirity’, is similar to ‘*kākacañcu*’ or ‘Crow’s Beak’, which is indeed a name for the plant jequirity or *Abrus precatorius*, L., more commonly called *guñjā* (not to be confused with *gañjā*). The black seed-pod is described as having a ‘sharp deflexed beak’ in botanical descriptions, so the Sanskrit name is quite graphic and appropriate. The poisonous scarlet seeds of *A. precatorius* can have a distinct black dot or tip, which could perhaps be translated ‘*kāla-kūṭa*’, or ‘Black Tip’.

The *Rājanighaṇṭupariśiṣṭa* (9.35) gives *kālakūṭaka* as a synonym for *kāraskara*, or *Strychnos nux-vomica*, L., whose seeds are notoriously poisonous.

xiv *Euphorbia neriifolia*, L., or *E. antiquorum*, L.; see ADPS 448, AVS (2.388), 3.1, NK #988, IGP 457b

xv unknown; see ?

xvi unknown; see ?

xvii *Arsenii trisulphidum*; see NK v. 2, p. 20 ff.

xviii *Abrus precatorius*, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.

xix *Aconitum napellus*, L.; see AVS 1.47, NK #42, Potter 4 f.

xx *Brassica juncea*, Czern. & Coss.; see AVS 1.301, NK #378

xxi *Plumbago zeylanica* (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967

xxii unknown; see ?

xxiii unknown; see ?

xxiv *Cyperus rotundus*, L.; see ADPS 316, AVS 2.296, NK #782

xxv *Aconitum heterophyllum*, Wall. ex Royle; see AVS 1.42, NK #39

- sacred lotus (*prapūṇḍarīka*)^{xxvi},
- radish (*mūlaka*)^{xxvii},
- ‘alas, alas’ (*hālāhala*)^{xxviii},
- ‘big poison’ (*mahāviṣa*)^{xxix}, and
- galls (*karkaṭa*)^{xxx}.³⁷⁵

Thus, there are fifty-five stationary poisons.

- 6 There are believed to be four kinds of wolfsbane, two kinds of *mustaka*, and six kinds of Indian *sarṣapa*. But the rest are said to be unique types.

The effects of poisons

- 7–10 People should know that root-poisons cause writhing (*udveṣṭana*), ranting (*pralāpa*), and delirium (*moha*), and leaf-poisons cause yawning, writhing, and wheezing (*śvāsa*).

Fruit-poisons cause swelling of the scrotum, a burning feeling and writhing. Flower-poisons will cause vomiting, distension (*ādhmāna*) and sleep (*svāpa*).

The consumption of poisons from bark, pith (*sāra*) and resin (*niryāsa*) will cause foul breath, hoarseness (*pāruṣya*), a headache, and a discharge of phlegm (*kapha*).³⁷⁶

375 Leadwort root is a powerful poison. Nutgrass is tuberous, but non-toxic. Atis has highly toxic tuberous roots. Neither sacred lotus nor galls are toxic. The ‘alas, alas’ poison (*hālāhala*) is the mythical poison produced from the churning of the ocean at the time of creation: it occurs in medical texts such as the present one, and commentators identify it with one or other of the lethal poisons such as wolfsbane or jequirity. Agrawal (1963: 126) makes the intriguing suggestion that the word *hālāhala*, possibly to be identified with Pāṇini’s *hailihila* (P.6.2.38), may be of Semitic origin, although his evidence seems uncertain (Steingass (1930: 1506a) cites Persian *halāhil* ‘deadly (poison)’ as a loan from Sanskrit). KEWA: iii.585 also cites a claim for an Austro-Asiatic origin for the word.

376 At 1.2.6 (Su 1938: 11), Ḍalhaṇa glossed hoarseness (*pāruṣya*) as *vāgrūḥṣatā*, “a rough, dry voice.”

xxvi *Nelumbo nucifera*, Gaertn.; see Dutt 110, NK #1698

xxvii *Raphanus sativus*, L.; see NK #2098

xxviii unknown; see Cf. Soḍhalanighantu p.43 (sub bola) = stomaka = vatsanābha

xxix unknown; see ?

xxx *Rhus succedanea*, L.; see NK #2136

The milky sap (*kṣīra*)-poisons make one froth at the mouth, cause loose stool, and make the tongue feel heavy.³⁷⁷ The element (*dhātu*)-poisons give one a crushing pain in the chest, make one faint and cause a burning feeling on the palate.

These poisons are classified as ones which are generally speaking lethal after a period of time.

11–17 Symptoms of tuber poisoning

The tuber-poisons, though, are severe. I shall talk about them in detail. With jequirity (*kālakūṭa*)^{xxx}, there is numbness and very severe trembling. With wolfsbane (*vatsanābha*)^{xxxii}, there is rigidity of the neck, and the faeces, and urine become yellow.

With sārṣapa (*sārṣapa*),³⁷⁸ the wind becomes defective (*vātavaiguṇya*), there is constipation (*ānāha*), and lumps (*granthi*) start to appear. With leadwort (*pālaka* → *citraka*)^{xxxiii}, there is weakness in the neck, and speech gets jumbled.³⁷⁹

With the one called ‘muddy’ (*kardama*)^{xxxiv}, there is a discharge (*praseka*), the faeces pour out, and the eyes turn yellow. The ‘Virāṭa’s plant’ (*vairāṭaka*)^{xxxv} causes pain in the body and illness in the head. Paralysis of one’s arms and legs and trembling are said to be caused by mustaka (*mustaka*).³⁸⁰

- 15b With great aconite (*mahāviṣa*) one's limbs grow weak, there is a burning feeling and swelling of the belly.³⁸¹
- 16a With puṇḍarīka (*puṇḍarīka*), one's eyes go red, and one's belly becomes distended.³⁸²
- 16b With mūlaka (*mūlaka*), one's body is drained of colour and the limbs are paralysed.³⁸³
- 17a With aconite (*hālāhala*), a man turns a dark colour (*dhyāma*), and gasps.³⁸⁴
- 17b With atis root (*śṛṅgīviṣa*)^{xxxvi}, one gets violent knots (*granthi*) and

Look up
the ca. ref-
erence.

-> ativiṣa

377 At 6.54.10 (Su 1938: 773), Ḍalhaṇa glossed loose stool (*viḍbheda*) as *dravapurīṣatā*, "having liquid stool."

378 *Sārṣapa* would normally mean "connected with mustard," and excessive consumption of mustard oil can be harmful. However, the *Sauśrutaniḥaṇṭu* (156) gives *rakṣoghnā* as a synonym for *sārṣapā*. This can be *Semecarpus anacardium*, L.f., which has some poisonous parts.

379 The verse in the Nepalese version ends with a plural verb that does not agree with the dual of the sentence subject.

380 The substitution in MS NAK 5-333 affecting 15cd is caused by an eye-skip to the word *viṣeṇa* in 2.17. *Mustaka* commonly refers to *Cyperus rotundus*, L.; the root is used in āyurveda but is not poisonous. However other dictionaries list *mustaka* amongst serious poisons, for example *Rājanighaṇṭu* (22 v. 42) and *Rasaratnasamuccaya* 16, v. 80. However, its ancient identity is still doubtful.

381 The poisonous root great poison (*mahāviṣa*) is not clearly identifiable, although *viṣa* is commonly aconite. Verse 6 above notes that there are several kinds of aconite.

382 The word *puṇḍarīka* very commonly means sacred lotus, *Nelumbo nucifera*, Gaertn. The entire plant is edible and cannot be the poison intended here. T. B. Singh and Chunekar (GVDB: 252) noted that this poison is unidentified and that it is also listed as a poison in *Carakasamhitā*. 23.12.

383 The word *mūlaka* very commonly means the radish, *Raphanus sativus*, L. The root is edible and cannot be the poison intended here. T. B. Singh and Chunekar (GVDB: 317) noted that this poison is unidentified.

384 Identification of *hālāhala* is uncertain. It may simply be a mythical poison, or its specific identity may have been lost over the centuries. Late *nighaṇṭus* identify it as *stomaka* = *vatsanābha*, i.e., *Aconitum napellus*, L. (*Soḍhalanighaṇṭu* p.43). Ḍalhaṇa on 5.2.17 (Su 1938: 564) interprets our "gasps" as "the man laughs and grinds his teeth." But this gloss is probably displaced and intended to apply to verse 2.18.

xxxi *Abrus precatorius*, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.

xxxi *Aconitum napellus*, L.; see AVS 1.47, NK #38, Potter 4 f.

xxxi *Flumbago zeylanica* (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967

xxxi unknown; see ?

xxxi unknown; see ?

xxxi *Aconitum heterophyllum*, Wall. ex Royle; see AVS 1.42, NK #39

stabbing pains in the heart.³⁸⁵

18a With markāṭa (*monkey*), one leaps up, laughs, and bites.³⁸⁶

18b-19a Experts have said that one should know that the thirteen highly potent tuber-poisons, which are mentioned here, have ten qualities (*guṇa*).

19b-20a The ten are:

- dry (*rūkṣa*),
- hot,
- sharp,
- rarified (*sūkṣma*),
- fast-acting,
- pervasive (*vyavāyin*),
- expansive (*vikāśin*),
- limpid (*viśada*),
- light, and
- indigestible.

20b Because of dryness, it may cause inflammation of the wind; because of heat it inflames the choler and blood. Because of the sharpness it unhinges the mind, and it cuts through the connections with the sensitive points (*marman*). Because it is rarified it can infiltrate and distort the parts of the body.³⁸⁷

22 Because it is fast-acting it kills quickly, and because of its pervasiveness it affects one's whole physical constitution (*prakṛti*).³⁸⁸ Because of its expansiveness it enters into the humour (*doṣa*)s, bodily constituents (*dhātu*)s, and even the impurities. Because it is limpid it overflows, and because it is light it is difficult to treat. Because it is indigestible it is hard to eliminate. Therefore, it causes suffering for a long time.

24 Any poison that is instantly lethal, whether it be stationary, mobile, or artificial, will be known to have all ten of these qualities.

³⁸⁵ T. B. Singh and Chuneekar (GVDB: 407) noted that *vatsanābha* and *śṛṅgīviṣa* are two different varieties of poisonous Aconites that are difficult to distinguish.

³⁸⁶ T. B. Singh and Chuneekar (GVDB: 299) said of *markāṭa*, "an unidentified vegetable poison." Cf. Suvedī and Tivārī 2000: v.36 for synonyms that lead to the non-toxic jujube tree.

³⁸⁷ We read the active *vikaroti* with Ḍalhaṇa against the transmitted passive *vikriyeta*, since it must be the parts of the body that are distorted, not the poison.

³⁸⁸ Ḍalhaṇa on 5.2.22 (Su 1938: 565) explained this as "takes the form of pervading the whole body (*akḥiladehavyāptirūpam*)."

Slow-acting poison

- 25cd–26 A poison that is old or destroyed by anti-toxic medicines, or else dried up by blazing fire, wind, or sunshine, or which has just spontaneously lost its features,³⁸⁹ becomes a slow-acting poison (*dūṣṭviṣa*).³⁹⁰ Because it has lost its potency it is no longer perceived. Because it is surrounded by phlegm (*kapha*) it has an aftermath that lasts for a very long time.
- 27 If he is suffering from this, the colour of his stools changes, he gets a sour, bad taste and is very thirsty. Speaking nonsensically and close to death, wandering about, he may feel faint, giddy, and aroused.³⁹¹
- 28 If it lodges in his stomach (*āmāśaya*), he becomes sick because of wind and phlegm; if it lodges in his intestines (*pakvāśaya*), he becomes sick because of wind and choler. A man's hair and limbs fall away and he looks like a bird whose wings have been chopped off.
- 29a–c If it lodges in one of the body tissues such as chyle (*rasa*), it causes the diseases arising from the body tissues, that have been said to be wrong.³⁹² and it rapidly becomes inflamed on days that are nasty because of cold and wind.
- 29d–31 Listen to its initial symptoms (*liṅga*): it causes heaviness due to sleep, yawning, disjunction (*viśleṣa*) and horripilation (*harṣa*) and a bruising of the limbs (*aṅgamarda*).³⁹³ Next, it causes intoxication from food (*annamada*) and indigestion, loss of appetite (*arocaka*), the condition of having a skin disease (*koṭha*) with round blotches (*maṇḍala*),³⁹⁴ **dwindling away (*kṣaya*) of flesh**, swelling of the feet, hands, and face, **the fever called *pralepaka***, vomiting and diarrhoea.³⁹⁵ The slow-acting poison might cause **wheezing, thirst and fever, and it might also cause distension of the abdomen.**

389 Ḍalhaṇa specified that this refers to the ten qualities that are mentioned above (5.2.26 (Su 1938: 565)).

390 Ḍalhaṇa cited this verse at 1.46.83 (Su 1938: 222) while explaining *dūṣṭviṣa* (see p. 135).

391 Similar symptoms of slow-acting poison are described at 2.7.11–13 (Su 1938: 296) in the context of contamination dropsy (*duṣyodara*). This this may explain why the vulgate inserted reference to this disease at this point.

392 The expression *ayathāyathoktān* “stated to be unsuitable” is hard to understand here, but is clearly transmitted in the Nepalese version.

393 Ḍalhaṇa 5.2.30ab (Su 1938: 565) glossed “disjunction” as the loss of function of the joints in regard to movement.

394 The last ailment could perhaps be ringworm.

395 The *pralepaka* fever was described by Ḍalhaṇa, at 6.39.52 (Su 1938: 675), as an accumulation of phlegm in the joints. Its symptoms are described in 6.39.54

- 32 These various disorders are of many different types: one poison may produce madness, while another one may cause constipation (*ānāha*), and yet another may ruin the semen. One may cause **emaciation**, while another pallid skin disease (*kuṣṭha*).
- 33 Something is “corrupted” by repetitively keeping to bad locations, times, foods, and sleeping in the daytime. Or, traditionally, “corrupting poison” (slow-acting poison (*dūṣī-viṣa*)) is so called because it may corrupt (*dūṣayet*) the body tissue (*dhātu*)s.
- 34- **The stages of toxic shock**
- In the first shock of having taken a stationary poison, a person’s tongue becomes dark brown and stiff, he grows faint, and panics.
- 35 In the second, he trembles, feels exhausted, has a burning feeling, as well as a sore throat. When the poison reaches the stomach (*āmāśaya*), it causes pain in the chest (*hṛd*).
- 36 In the third, his palate goes dry, he gets violent pain (*śūla*) in the stomach (*āmāśaya*), and his eyes become weak, swollen and yellow.
- 37 In the fourth shock, it causes the intestines and stomach to be exhausted (*sāda*), he gets hiccups, a cough, a rumbling in the gut (*antra*), and his head becomes heavy too.
- 38 In the fifth he dribbles phlegm (*kapha*), goes a bad colour, his **ribs crack** (*parśvabheda*), all his humours are irritated, and he also has a pain in his intestines (*pakoādhāna*).
- 39a In the sixth, he loses consciousness and he completely loses control of his bowels.
- 39b In the seventh, there are breaks in his shoulders, back and loins, and he stops breathing.³⁹⁶

Remedies for the stages of slow poisoning

- 40 In the first shock of the poison, the physician should make the man, who has vomited and been sprinkled with cold water, drink an antidote (*agada*) mixed with with honey and ghee.

³⁹⁶ Here at 5.2.24 (Su 1938: 566) Ḍalhana glossed *sannirodha* as “complete cessation, i.e., of breath” (*sannirodhaḥ samyānnirodhaḥ, ucchvāsasya iti śeṣaḥ*). The manuscripts all read *skanda* where *skandha* must be intended; this confusion is known from Buddhist Hybrid Sanskrit (Edgerton 1953: 2, 608).

- 41a In the second, he should make the man who has vomited and been
 41b purged drink as before;
 41b on the third, drink an antidote and a beneficial nasal medicine (*nasya*)
 as well as an eye salve (*añjana*).
 42a In the fourth, the physician should make him drink an antidote that is
 salt with a little oil.³⁹⁷
 42b In the fifth, he should be prescribed the antidote together with a decoc-
 tion (*kvātha*) of honey and liquorice.
 43 In the sixth, the cure (*siddhi*) is the same as for diarrhoea. And in the
 seventh, he perishes.³⁹⁸
 44 In between any one of these shocks, once the above treatment has been
 done, he should give the patient the following cold gruel (*yavāgū*) to-
 gether with ghee and honey, that will take away the poison.
 45–46 A gruel (*yavāgū*) made of the following items in a stewed juice (*niḥk-*
vātha) destroys the two poisons: luffa gourd,³⁹⁹ wild celery,⁴⁰⁰ velvet-

397 At 6.52.30 (Su 1938: 769) Ḍalhaṇa noted that *sindhu* can be interpreted as salt (*saind-*
hava).

398 The vulgate text here is quite different, recommending that the patient have med-
 icated powder blown up his nose. It may be possible to detect the evolution of
 the Nepalese अवसीदेत् to the vulgate's अवपीडश्. The vulgate version is hard to con-
 strue, and we see Ḍalhaṇa struggling to interpret it in his commentary on 5.2.43ab
 (Su 1938: 566). This sternutatory is, however, recommended in the Nepalese ver-
 sion at 5.5.30ab (Su 1938: 576), for the seventh shock of poisoning by a striped snake
 (*rājimat*). It is possible the text migrated from that location to this.

Another difference at this point is that the Nepalese version also does not support
 the vulgate's passage on the crow's foot (*kākapada*) therapy (Wujastyk 2003b: 145,
 n. 106). The same is the case at 5.5.24 (Su 1938: 575) and the clear description at
 5.5.45 (Su 1938: 577), in neither of which is the therapy supported in the Nepalese
 version. This therapy seems unknown to the Nepalese transmission. The therapy
 may have migrated into the vulgate *Suśrutasamhitā* from the *Carakasamhitā* 6.23.66–67
 (Ca 1941: 574).

399 At 4.10.8 (Su 1938: 449) Ḍalhaṇa glossed कोशवती as देवदाली and at 4.18.20
 (Su 1938: 472) as कटुकोशातकी, vocabulary pointing to *Cucumis cylindrica*, *Cucumis act-*
angula or *Luffa echinata*. See glossary under *luffa*.

400 A plant often cited in *Suśrutasamhitā*, but rarely in *Carakasamhitā* (GVDB: 4). Ḍalhaṇa
 glossed it here, 5.2.45 (Su 1938: 566), as *ajamodā*, wild celery, but noted that others con-
 sider it to be *moraṭa*, rajmahal hemp. There is considerable complexity surrounding
 the identification of *moraṭa*/*mūrvā* and related synonyms (GVDB: 314–316). Taking
agnika as a short reference to *agnimantha*, often identified as migraine tree, might be
 plausible, since that is antitoxic or anti-inflammatory, but such a short reference is not
 known elsewhere.

leaf, sunflower,⁴⁰¹ heart-leaved moonseed, myrobalan siris, and selu plum, white siris, **the two kinds of turmeric**,⁴⁰² and the two kinds of poison berry,⁴⁰³ hogweed, peas, **the three heating spices**, the two kinds of Indian sarsaparilla⁴⁰⁴ **and** blue water-lily.

⁴⁰¹ At 5.2.45 (*Su* 1938: 566) Ḍalhaṇa said that this plant has leaves like the *paṭola*, **pointed gourd**, T. B. Singh and Chunekar (*GVDB*: 280, 443) argued plausibly that this is a synonym for *arkapuṣpī*, **panacea twiner**, as Ḍalhaṇa also stated in 1.45.120 (*Su* 1938: 206), and the leaves of *Holostemma* and *Trichosanthes* are indeed strikingly similar. The appearance of the plant, a creeper with sun-like flowers, fits the name. But there remains much controversy about the identities of these candidates (e.g., *ADPS*: 195–198).

⁴⁰² I.e., **turmeric** and **Indian barberry**.

⁴⁰³ I.e., **poison berry** and **yellow-berried nightshade**.

⁴⁰⁴ I.e., **country sarsaparilla** and **black creeper**.

The invincible ghee

- 47–49 There is a famous ghee called “Invincible” (*ajeya*). It rapidly destroys all poisons but is itself unconquered. It is prepared with a mash (*kalka*) of the following plants: liquorice, crape jasmine, costus, deodar, peas, Indian madder, cardamom and cherry, cobra’s saffron, blue water-lily, sugar, embelia, sandalwood, cassia cinnamon, foxtail millet, rosha grass, the two turmeric⁴⁰⁵ the two Indian nightshades,⁴⁰⁶ the two kinds of Indian sarsaparilla,⁴⁰⁷ beggarweed, and heart-leaf sida.

Curing the ‘slow-acting’ poison

- 50–52 Someone suffering from “slow-acting poison (*dūṣṭviṣa*)” should be well sweated, and purged both top and bottom. Then he should be made to drink the following eminent antidote which removes “slow-acting poison:”
Take long pepper, rosha grass, spikenard, lodh tree, cardamom, natron, scented pavonia, red ochre, as well as gold, and pondweed.
This antitoxin, taken with honey, eliminates slow-acting poison. It is called the “enemy of slow-acting poison (*dūṣṭviṣāri*),” and it is not prohibited in other situations.
- 53–54 If there are any other side-effects (*upadrava*), such as fever, a burning feeling, hiccups, constipation (*ānāha*), depletion of the semen, distension, diarrhoea, fainting, skin problems, bellyache (*jaṭhara*), madness, trembling, then one should treat each one in its own terms, using anti-toxic medicines.
- 55 For a prudent person, the slow-acting poison can be cured (*sādhya*) immediately. It is treatable (*yāpya*) if it is of a year’s standing. Other than this, it should be avoided for the person who eats unwholesome things.

⁴⁰⁵ I.e., turmeric and Indian barberry.

⁴⁰⁶ I.e., poison berry and yellow-berried nightshade.

⁴⁰⁷ I.e., country sarsaparilla and black creeper.

Kalpasthāna 5: Therapy for those Bitten by Snakes

Introduction

Literature

A brief survey of this chapter's contents and a detailed assessment of the existing research on it to 2002 was provided by Meulenbeld.⁵⁰²

⁵⁰² [HIML](#): IA, 294–295. In addition to the translations mentioned by Meulenbeld ([HIML](#): IB, 314–315), a translation of this chapter was included in P. V. Sharma [1999–2001](#): 3, 35–45.

Translation

Passage numbers refer to the canonical numbering of the vulgate edition (*Su* 1938).

- 1 Now we shall explain the procedure (*kalpa*) that is the therapy for someone bitten by a snake.⁵⁰³
- 3 For a person bitten on a limb by any snake, one should first of all make a strong binding, at four fingers measure above the bite.⁵⁰⁴
- 4 Poison does not move around into the body if it is prevented by bandages (*ariṣṭā*) or by any other soft items of cloth (*plota*), leather (*car-mānta*) or bark.⁵⁰⁵
- 5 Where a bandage (*bandha*) is not suitable, one should **raise the bite up** and then cauterize it.⁵⁰⁶ Suction, cutting and cauterizing are recommended in all cases.
- 6 Suction will be good after filling the mouth with **earth** (*pāṃśu*).⁵⁰⁷ Alternatively, the snake should be bitten **by the person who knows** that they have just been bitten.⁵⁰⁸

503 On कल्प, see note 459.

504 Application of a tourniquet is deprecated by modern establishment medicine, which relies on antivenom medications (e.g., Pillay 2013: 150–151 et passim in the literature). The vulgate introduces the word अरिष्टा at this point. This may be a borrowing from Ci.23.251cd (*Ca* 1941: 582).

505 It is hard to translate the word अरिष्टा otherwise than “bandage,” as referred to by बन्धियात् in the previous verse, and apparently similar to items of cloth etc., and called a बन्ध in the next verse. But in general Sanskrit literature, including medical literature, the word (in masc. gender) means either “an alcoholic tonic” or “an omen of death,” (1.30.3 (*Su* 1938: 137)), or is a plant name. This raises a question mark over its unique meaning in the present context. The *Aṣṭāṅgahṛdayasaṃhitā* (Utt.36.42cd (*Ah* 1939: 910)) seems to be a gloss on अरिष्टा, saying “An expert in mantras may bind using a braid made of silk etc., empowered with mantras” (see also 5.5.8 (*Su* 1938: 575)). On problems that can arise from tying a bandage too tightly, see 5.5.56 (*Su* 1938: 577) below.

506 The vulgate reads उत्कृत्य “having excised” rather than translate उद्धृत्य “having raised up.”

507 The vulgate recommends cloth, not earth (5.5.6 (*Su* 1938: 574)).

508 The syntax is odd here, and the vulgate has removed the difficulties. Ḍalhaṇa on 5.5.6 (*Su* 1938: 574) noted that one should hold the snake firmly and give a good bite to its head and tail (हस्ताभ्यामुपसंगृह्य पुच्छे वक्रे च सर्पः सम्यग् दष्टव्यः). Our colleague Dr Madhu K. Paramesvaran reports that this procedure is known in Malayalam *viṣavaidya* treatises and is practiced in Kerala, though rarely: “this practice has been described as one of

- 7 Now, one should in no way cauterize someone bitten by a Maṇḍalin. Because of the over-abundance of poison in the bile (*pittaviṣa*), that bite will **be lethal** as a result of cauterization.⁵⁰⁹

The application of mantras

- 8 An expert in mantras should tie on a bandage (*ariṣṭā*) too, with mantras. But they say that a bandage that is tied on with cords and so on causes the **poison to be purified**.⁵¹⁰
- 9 Mantrās prescribed by gods and holy sages (*brahmarṣi*), that are imbued with truth and religious power (*tapas*) are inexorable and they rapidly destroy intractable poison.
- 10 Drugs cannot eliminate poison as quickly as the application of mantras imbued with religious power (*tapas*) and imbued with truth, holiness (*brahma*) and religious power.⁵¹¹
- 11 The mantras should be received by a person who is abstaining from women, meat and mead (*madhu*), who has a **restricted** diet, and who is pure and lying on a bed of **halfa grass**.
- 12 For the mantras to be successful, one should diligently worship the deity (*devatā*) with perfume, garlands, and oblations (*upahāra*), as well as sacrificial offerings (*bali*), and with mantra repetition (*japa*) and rituals.⁵¹²

the first-response cares for snakebite in most of the Malayalam texts of Viṣhavaidya. I have never seen this happening in real life and my teachers used to consider it to be a method (albeit a bit outrageously dangerous) for self-reassurance by the patient.” (Paramesvaran 2023). Cf. the Viṣhavaidya text edited by Mahādeva Śāstrī (1958).

509 Verses 5.4.29, and 37 above note that the venom of Maṇḍalins particularly irritates the bile.

510 Ḍalhaṇa on 5.5.8 (Su 1938: 575) clarified that on the one hand the bandage must be accompanied with mantras, but on the other hand, it may also be used without mantras. The verse seems to put two points of view.

511 Ḍalhaṇa on 5.5.10 (Su 1938: 575) noted that mantras like “kurukullā” and “bheruṇḍā” are explained in other treatises and therefore not explained further in his commentary. These two mantras are the names of tantric Śaiva and Buddhist goddesses. For a study on this specific subject see Slouber (2016b). HIMAL: IIB, 151, n. 344 provides a bibliography to 2002 of studies on Kurukullā, who is mentioned in Māhuka’s *Hara-mekhalā*, and Meulenbeld 2008a: 30–34 includes discussion of Bheruṇḍa as a bird, with related terms.

512 Ḍalhaṇa on 5.5.12 (Su 1938: 575) noted that उपहार includes incense, while बलि refers to sacrifice with an animal (सपशुनैवेद्य).

- 13 But mantras pronounced illicitly or that are deficient in accents (*svara*) and letters do not give success. So antitoxic (*agada*) procedures need to be employed.

Blood letting

- 14 A skilled physician should puncture a duct (*sirā*) which is located on the limb (*śākhāśrayā*), and comes from the bite and the general area. If the poison has spread, one on the forehead should be pierced.
- 15 The blood being drawn out draws away all the poison.⁵¹³ Therefore one should cause blood to flow, for that is his very best procedure.
- 16 After incising (*pracchāna*) the area around the bite, one should smear it with antidotes and sprinkle it with water infused with sandalwood and cuscus grass.⁵¹⁴

Internal medications

- 17 One should make him drink various antidotes together with milk, honey and ghee. If they are unavailable, the earth of black ants can be good.⁵¹⁵
- 18 Alternatively, he should consume orchid tree, siris and purple calotropis or white siris too. He should not drink sesame oil or horse gram, nor wine or Indian jujube.
- 19 But after drinking any other liquid at all, he should throw up after drinking it. For on the whole, poison is easily removed by means of vomiting.

⁵¹³ The Nepalese version uses a present passive participle construction here, that is less common than the vulgate's locative absolute. The Nepalese version states that it is the blood coming out of the patient that carries away the venom; the vulgate text says merely that the venom emerges while the blood comes out.

⁵¹⁴ प्रच्छान is the second of the two methods of blood letting described in the vulgate text of the *Suśrutasaṃhitā* at 1.14.25 (Su 1938: 64); this verse does not appear in the Nepalese version of the *Suśrutasaṃhitā*.

⁵¹⁵ This refers to earth taken from an anthill. In South Asia, there is a long tradition of considering such earth to be beneficial and even holy (e.g., Irwin 1982).

Therapies at each pulse of toxic reaction

- 20 In the case of hooded snakes, when there is a toxic reaction (*vega*) first one should let blood. At the second, **one** should make him drink an antidote (*agada*) together with honey and ghee.⁵¹⁶
- 21 At the third one should use errhines and collyrium (*añjana*) that destroy poison.⁵¹⁷ At the fourth, when he has vomited, the physician should make him drink a gruel (*yavāgū*) that destroys poison.
- 22 At the fifth and sixth toxic reactions one should make the person drink something that aids cooling, that is cleansing and sharp (*tikṣṇa*), and a well-regarded gruel too.
- 23 **But at the seventh, one should purge ($\sqrt{\text{śodh}}$) his head with a sharp sternutatory.**⁵¹⁸

In the case of Maṇḍalins

- 24 Amongst Maṇḍalins, the earliest toxic reaction (*vega*) should be treated in the same way as with Darvīkaras.⁵¹⁹
- 25 **At the second, one should make him drink ghee and honey and then make him vomit.**⁵²⁰
- 26 At the third, one should give the purged patient healthy gruel. At the fourth and the fifth too, one should do the same as for the Darvīkara.

⁵¹⁶ This section reproduces some of the therapies from *Suśrutasamhitā* 5.2.40–43 (Su 1938: 566) on the stages of slow poisoning (*dūṣṭviṣa*) by plant poisons; see translation on p. 135 above.

⁵¹⁷ The rare word नस्तः “from or into the nose” in नस्तःकर्म “errhine” is supported by both Nepalese manuscripts. The term is more common in the *Carakasamhitā*, occurring eleven times, e.g., at 1.20.13 (Ca 1941: 114), 2.1.36 (Ca 1941: 203), *et passim*.

The *Carakasamhitā* describes how collyriums, especially रसाञ्जन, cause phlegm to flow, thus clearing the eyes (1.5.14–19 (Ca 1941: 38–39)). This could be appropriate in expelling poisons.

⁵¹⁸ The vulgate adds a half-verse here recommending the application of a collyrium (*añjana*) to a cut made on the patient’s head.

⁵¹⁹ The vulgate again adds a half-verse here, recommending the “crow’s foot” incision on the patient’s head. On this procedure, described in *Carakasamhitā* 6.23.66–67 (Ca 1941: 574), see Wujastyk 2003b: 145. This text is not supported here, as it was not in the Nepalese text at *Suśrutasamhitā* 5.2.43 (Su 1938: 566) either. See footnote 398, p. 136 above. As stated there, it appears that this procedure was known in the tradition of the *Carakasamhitā*, but not in the earliest text of the *Suśrutasamhitā*.

⁵²⁰ Again, the vulgate text differs substantively, adding another half-verse. But the general idea of the treatment is the similar.

- 27 At the sixth, wholesome things from the group of plants starting with **cottony jujube** should be drunk and a sweet antidote.⁵²¹ And at the seventh, a wholesome antidote that destroys poison in a sternutatory (*avapīḍa*).⁵²²

In the case of Rājimats

- 28 **Now, Amongst Rājimats, one should let blood at the first toxic shock.**⁵²³
 29 At the second, a patient who has vomited should be made to drink an antidote that destroys poison. At the third, fourth and fifth, the rule that applies to the Darvīkara is suitable.
 30 At the sixth, use a very sharp collyrium (*añjana*), and at the seventh a sternutatory (*avapīḍa*). There is a prohibition on using blood-letting for pregnant women, children and the elderly.
 31ab In those who are in pain because of poison, it is advised that the prescribed procedures be applied gently.

31ab In animals

In goats and sheep, bleeding and collyriums are the same as for people.

- 32cd In cows and horses, that is twice as much; three times as much for buffaloes and camels, four times for elephants and simply (*kevala*) for all birds.⁵²⁴⁵²⁵

write note
on par-
isekān pra-
dehāms

521 The “group of seventeen plants beginning with **cottony jujube**” (काकोल्यादि गण) is described at *Suśrutasamhitā* 1.38.35–36 (*Su 1938*: 167). These plants pacify the bile, blood and wind and increase phlegm, body-weight, semen and breastmilk.

522 The अवपीड is described at *Suśrutasamhitā* 4.40.44–45 (*Su 1938*: 556), where it is also recommended for victims of snakebite. It is a type of head-evacuant. Commenting on that passage, Ḍalhaṇa cited “other treatises” as saying that अवपीड treatment was suitable for restoring the consciousness of those who have been poisoned. He also quoted a text by an authority called Videha, that says the same. Videha was an author known to Dr̥ḍhabala (according to Cakrapāṇidatta) and often cited in the *Madhukośa* on the topic of eye diseases (*HIML*: IA, 132 *et passim*). See also *Mahākośa*: 1, 62–63.

523 The vulgate text says that the blood-letting should be done with a **gourd**. It also has an extra half-verse here, prescribing an antitoxin to be drunk together with honey and ghee.

524 Ḍalhaṇa on 5.5.32 (*Su 1938*: 576) explained “simply for all birds” as meaning that birds should receive just drugs, and not blood-letting or collyriums. See p. 160 for the toxic reactions in birds and other animals.

- 34 One should consider carefully with one's intellect the location, constitution (*prakṛti*), suitability (*sātmya*), the season, the poison, and the strength or weakness of the toxic reaction and then proceed with therapy.⁵²⁶
- 47–48ab One should eliminate this poison completely. It is extremely hard to overcome. For even a small amount remaining can strongly bring about a toxic reaction.⁵²⁷
- 48cd–49 Or it may lead to dejection, pallor, fever, cough and headaches, dessication, swelling, catarrh, poor vision, disinterest in food (*aruci*) or rigidity (*jādyatā*).⁵²⁸ And in such cases one should apply the cure as appropriate.⁵²⁹
- 50–51ab One should also treat the secondary ailments (*upadrava*) of a poisoned patient each as appropriate.
Now, after the bandage (*ariṣṭā*) has been removed and after the place marked by it has been quickly incised (*pracchāna*) one may see poison that has leaked out there, and a toxic reaction may strongly result.

525 The vulgate includes several verses after this sentence that give a recipe and also a list of specific items like place and constitution that should be given careful consideration. Ḍalhaṇa on 5.5.33 (Su 1938: 576) cited the opinions of Gayadāsa and Jejjāta on this recipe but stated that he preferred to follow the contrasting opinions of Vṛddhavāgbhaṭa (1.25.24cd–25aba (As 1980: 184)) and Suśruta (4.31.29cd–30ab (Su 1938: 511)) on this topic, as well as several citations “another work” (तन्त्रान्तर) that is unidentified.

526 The vulgate here has twelve verses not found in the Nepalese version. These verses explicitly switch subject away from assessments according to toxic reactions and to the treatment of both mobile and immobile poisons, starting from physical symptoms such as swelling and discolouration as well as humoral theory. At the point where the vulgate summarizes the extra verses, saying that cases should be treated “according to their humors” (यथादोषं), the Nepalese witnesses have “as is appropriate” (यथायोगं, 5.5.49cd (Su 1938: 577)). This suggests that the text has been edited to fit the insertion of the verses referring to humoral therapy. These verses also include therapies such as the crow's foot treatment (see footnotes 398 and 519, pp. 136, 167 above) and the beating of drums that have been smeared with antidotes, as discussed in *Suśrutasaṃhitā* 5.6 (Su 1938: 580–582) (see p. 173 below).

527 The word अवतिष्ठ “remaining” is hard to parse. It cannot be a णमुल् formation (Pāṇini 3.4.22 ff), because of the root's reduplication, and should not be a present participle because it is not neuter. However, lack of gender concord is not unknown in Epic Sanskrit; several of the examples cited by Oberlies (2003: § 10.2.1) even involve present participles without gender concord. Cf. Edgerton 1953: 1, § 6.12 for examples in BHS.

528 Ḍalhaṇa on 5.5.49ab (Su 1938: 577) reported a reading from Jejjāta of स्तैमित्य “immobility” instead of प्रतिश्याय “catarrh.”

529 The vulgate introduces दोष theory here, which is absent in the Nepalese version.

- 52.1 Once the poison has disappeared one can conquer irritated wind using items that restrain the wind.⁵³⁰
- 53 One can conquer bile using substances that remove bile-fever (*pittajvara*), with decoctions, oleation and purges, combined with substances that remove poison, with the exception of sesame oil (*taila*), **wine**, **horse gram**, and **mangosteen**.⁵³¹
- 54 One can conquer phlegm with the group that starts with **golden shower tree**, together with honey.⁵³²
- 56 *If the the bandage (ariṣṭā) is bound tightly, or if it is incised (pracchita) with sharp ointment or with the remnants of the poison, then, when the limb swells up, the flesh weeps, smells a great deal and is is putrid (śīrṇa), it is designated “poison-stink (viṣapūti).”*⁵³³
- 57–58ab *One may be certain that a person has been struck by something poisoned (digdha) if their wound immediately starts to suppurate has black blood that flows and is inflamed, as well as having black, weeping and exceptionally foul-smelling flesh coming out of the wound and also someone who has thirst, fainting (mūrcchā), fever and a temperature.*⁵³⁴
- 58.1–60 *One who is known to have these exact symptoms may have poison in their wound that is † given by mistake.† And they may have a wound that has been hit by something poisoned (digdha) and is full of poison. And others are sick because of a wound that stinks because of poison. The wise person debrides the excess flesh of such people and then, after removing the blood by means of leeches and after removing the humours from above and below, he should irrigate with cold bark decoctions from milky trees. And he should ap-*

530 This half-verse is not present in the vulgate, but has broadly the same sense as 5.5.52cd (Su 1938: 577), that is not present in the Nepalese version.

531 The vulgate reads “fish” in place of “wine.”

532 The आरम्बधगण is listed at *Suśrutasamhitā* 1.38.6 (Su 1938: 164). These herbs are there explicitly said to pacify phlegm and to remove poison, etc. (1.38.7 (Su 1938: 164)).

533 *Suśrutasamhitā* 5.5.16 (Su 1938: 575) (p. 166 above) suggests smearing an incised area with antidotes.

534 The Nepalese witnesses describe someone who has been struck or hurt (क्षत, आहत), while the vulgate describes someone who is pierced (विद्ध). Ḍalhaṇa on 5.5.58ab (Su 1938: 576) interpreted the latter wording as being struck by a poison-smeared arrow.

ply items that destroy poison such as cloths containing ointments together with cold liquids mixed with ghee.

61ab When the bone is *injured* by poisons, the very same rule should be followed as for bile poison.

61cd–63ab The following items are powdered, mixed with honey and put in a horn: *turpeth, weaver's beam tree, liquorice, the two kinds of turmeric, the Indian madder group*,⁵³⁵ and all kinds of salt.⁵³⁶ This antidote, taken with drinks, collyrium (añjana), oil rubs (abhyañjana), errhines and drugs, destroys poison.

With its relentless potency (vīrya) and as a destroyer of the toxic reaction (vega) to poison, it is called “The Great Antidote” and has great power.

63cd–65ab Very fine *embelia, velvet-leaf, the three myrobalans, wild celery, and devil's dung*, as well as *Himalayan mayapple and the three pungent drugs*, the whole group of salts, together with *leadwort* and honey should be placed in a cow's horn and covered with something made of cow's horn. It should be set aside for two weeks. This antidote is called “Unbeaten” because it conquers both stationary and mobile poisons.

65cd–68ab One should make a fine powder of the following items and place them in a horn, together with honey: *sacred lotus, deodar, grey orchid, black creeper, kutki, Himalayan yew, rosha grass, wild Himalayan cherry, Alexandrian laurel, scrambleberry, natron, sedge, cardamom, blue Indian symphorema, powdered ruffle lichen, costus, crape jasmine, foxtail millet, lodh tree, Indian bdellium-tree, red ochre, rock salt, long pepper, and dried ginger*. This antidote (agada) is identified as “Garuḍa (tārksya).” It can even destroy the poison of the snake prince Takṣaka (takṣaka).

69cd–72ab One should make powder of the following items and place it in a horn: *spikenard, peas, the three myrobalans, horseradish tree, Indian madder, liquorice, wild Himalayan cherry, embelia, scrambleberry, Indian sarsaparilla, cardamom, cinnamon, costus, Himalayan mayapple, sandalwood, verbena, bitter gourd, white siris, velvet-leaf, colocynth, hare foot uraria, black creeper, Asoka*

535 There is no मञ्जिष्ठा group. There is a plant वक्र, so a reading मञ्जिष्ठवक्रे “Indian madder and Himalayan mayapple,” instead of मञ्जिष्ठवर्गे, is conceivable.

536 There is a लवणवर्ग (1.46.313–321 (Su 1938: 236–237)).

*tree, mulberry, toothed-leaf limonia, and the flower that is the blossom (prasūna) born from the fruit of the marking-nut.*⁵³⁷ The bile derived from boars, monitor lizards, peacocks, and porcupines is to be added, with honey, and the products of *civet, chital deer and mongoose.*⁵³⁸

This properly-prepared antidote is called “Bull.” Someone who has it in the house is called “Bull Amongst Men.” There will be no snakes there, nor even insects: they lose their potency and their toxins too.

72cd–73ab *Drums and tabors smeared with this rapidly destroy poison when they are sounded. Smeared flags flags being looked upon easily and quickly overcome poison.*

73ab–75ab One should make a powder of the following items and place the collection in a cow’s horn, mixed with *turmeric*, and mingled with honey and ghee. As before, there is a cover: *lac*, the two *peass*, *spikenard*, *fox-tail millet*, *Indian madder*, *liquorice* and *gummy gardenia*. *It should then be used with collyrium (añjana), drinks and errhines.* This antidote is called “Resuscitator (*sañjīvana*)” because it brings to life the dead whose breath is almost gone.

75cd–76ab The the best antidote is *Indian cherry*,⁵³⁹ *bayberry*, *citron*, *white clitoria*, *winged-stem canscora*, *white siris*, and *sugar*, taken with *amaranth*.

78 540

537 Ḍalhaṇa on 5.5.70 (Su 1938: 579) glossed प्रसून more specifically as तुलसीपुष्प “the Tulasi flower.”

538 All three animals produce musk. Ḍalhaṇa on 5.5.71 (Su 1938: 579) remarked that some people thought शिखी was a cock, not a peacock. He also here glossed पृषत as चित्तल.

539 Ḍalhaṇa on 5.5.75 (Su 1938: 579) noted the common name बहुवार for श्लेष्मातकी.

540 After this verse, the vulgate text adds five verses, 79–83, that do not appear in the Nepalese version.

Part 6. Uttarat Tantra

Editions and Abbreviations

| | |
|-------------|--|
| Ah 1939 | Kuṁṭe, Anṇā Moreśvara, Navare, Kṛṣṇaśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्वाग्भटविरचितम् अष्टाङ्गहृदयम्, श्रीमदरुणदत्तविरचितया सर्वाङ्गसुन्दराख्यया व्याख्यया, हेमाद्रिप्रणीतया आयुर्वेदरसायनाह्वया टीकया च समुल्लसितम् = <i>The Astāṅgahṛidaya</i> (6th edn., Mumbayyām: Nirṇayasāgara Press), ark:/13960/t3tt6967d . |
| AHS 1940 | Müss, C. N. Nārāyaṇan (1940) (ed.), श्रीमद्वाहटाचार्यप्रणीतम् अष्टाङ्गहृदयम् श्रीदासपण्डितविरचितया हृदयबोधिकाख्यया व्याख्यया समलङ्कृतम् (Śrīcitrāyurveda-granthamālā, 4; Trivandrum: Rājakīyamudrāśālā), ark:/13960/s23qzpqc61j . |
| Anup | <i>Anup Sanskrit Library</i> . |
| Apte | Apte, Vaman Shivaram (1992), <i>The Practical Sanskrit-English Dictionary</i> (Kyoto: Rinsen Book Company), ISBN: 4-653-00038-7; Reprinted from Gode and Karve 1957–59. |
| Arthaśāstra | Kangle, R. P. (1960), <i>The Kauṭīliya Arthaśāstra</i> (University of Bombay Studies Sanskrit, Prakrit and Pali, 1; Bombay: University of Bombay), accessed 23/09/2021. |
| AS | <i>Asiatic Society</i> . |
| As 1980 | Āṭhavale, Ananta Dāmodara (1980) (ed.), अष्टाङ्गसङ्ग्रहः श्रीमद्वाग्भटविरचितः इन्दुव्याख्यासहितः [= <i>Vāgbhaṭa's Aṣṭāṅgasaṅgraha with Indu's Commentary</i>] (Pune: M. A. Āṭhavale, Śrīmad Ātreya Prakāśanam), ark:/13960/s25bwqsd0n7 . |
| Aṣṭādhyāyī | Sharma, Rama Nath (2002–03), <i>The Aṣṭādhyāyī of Pāṇini</i> , 6 vols. (Second revised and enlarged edition, New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd.). |

- BhaGī Paṇśīkar, Wāsudev Laxman Shāstrī (1936) (ed.), श्री-मद्भगवद्गीता श्रीमच्छाङ्करभाष्येण-आनन्दगिरिकृतव्याख्यायुजा संवलिता तथा नीलकण्ठी-भाष्योत्कर्षदीपिका-श्रीधरीयसुबोधिनी-अभिनवगुप्ताचार्यव्याख्या-श्रीमधुसूदनसरस्वतीस्वामिकृतगूढार्थदीपिकारव्यव्यासहिता तद्व्याख्यानेन श्रीधर्मदत्तशर्म(प्रसिद्धबच्चाशर्म)विरचित-गूढार्थतत्त्वलोकेन युता च (2nd edn., Bombay: Nirṇaya-Sāgar Press), [ark:/13960/t7jq76w6m](#).
- 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-saṃhitā. Text with English Translation, Commentary and Critical Notes* (Haridas Ayurveda Series, 8; Varanasi: Chaukhambha Visvabharati).
- BL *British Library*.
- Ca 1877 Bhaṭṭācāryya, Jīvānanda Vidyāsāgara (1877) (ed.), चरकसंहिता सूत्र-निदान-विमान-शारीरेन्द्रिय-चिकित्सित-कल्प-सिद्धिस्थानात्मका । भगवता आत्रेयेण पुनर्वसुना उपदिष्टा अग्निवेश-नामधेयेन तत् शिषेण विरचिता चरकाभिधेयेन ऋषिणा प्रतिसंस्कृता (Calcutta: Sarasvatī Yantra), [ark:/13960/t0sq9gf44](#).
- Ca 1904 Śarmā, Satīśacandra (1904) (ed.), छत्रकमंशिता (1st edn., Kalikātā: Bhaiṣajya Steam Machine Press), [ark:/13960/t51g4nm8m](#).
- Ca 1911 Vaidyopādhyāya, Rāmaprasāda (1911) (ed.), चरकसंहिता । श्रीमन्महर्षिप्रवरचरकप्रणीता । पण्डितरामप्रसादवैद्योपाध्यायविरचितप्रसादनी-भाषाटीकासंहिता । (mumbayī: Kṣemarāja-Śrīkṛṣṇadāśaśreṣṭhin), [ark:/13960/t2r59q189](#).
- Ca 1923 Śarmā, Satīśacandra (1923) (ed.), छत्रकमंशिता (3rd edn., Kalikātā: Bhaiṣajya Steam Machine Press), [ark:/13960/t17m5hp8c](#).

- Ca 1928-33 Senagupta, Narendranātha, and Senagupta, Balāicandra (1928-33) (eds.), चरक-संहिता। महामुनिना भगवताग्निवेशेन प्रणीता महर्षिचरकेण दृढबलेन च प्रतिसंस्कृता चरकचतुरानन-श्रीमच्चक्रपाणिदत्तप्रणीतया आयुर्वेददीपिकाख्यटीकया महामहोपाध्याय-श्रीगङ्गाधरकविरत्नकविराजविरचितया जल्पकल्प-तरुसमाख्यया टीकया च समलङ्कृता, 3 vols. (kalikātānagarī: Dhanvantari Electric Machine Yantra).
- Ca 1933 Ācārya, Yādavaśarma Trivikrama (1933) (ed.), महर्षिणा अग्निवेशेन प्रणीता चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता (3rd edn., Mumbayyām: Nirnaya Sagara Press), [ark:/13960/t42s3kk45](https://nir.nir.org/ark:/13960/t42s3kk45).
- Ca 1941 Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्वसुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्यया संवल्लिता (3rd edn., Mumbayyām: Nirnaya Sagara Press), [ark:/13960/t48q2f20n](https://nir.nir.org/ark:/13960/t48q2f20n).
- CDIAL Turner, R. L. (1966-85), *A Comparative Dictionary of the Indo-Aryan Languages* (London, New York, Toronto: Oxford University Press), ISBN: 0197135501, [URL](https://nir.nir.org/URL); With *Indexes* compiled by Dorothy Rivers Turner (OUP, London, 1969), *Phonetic Analysis* by R. L. and D. R. Turner (OUP, London, 1971), and *Addenda and Corrigenda* edited by J. C. Wright (School of Oriental and African Studies, London, 1985). Vol. 1: [ark:/13960/s22vppb4h8s](https://nir.nir.org/ark:/13960/s22vppb4h8s); v. 2:
- DED₂ Burrow, Thomas, and Emeneau, Murray B. (1984), *A Dravidian Etymological Dictionary* (2nd edn., Oxford: Clarendon Press), [ark:/13960/t4wj06g26](https://nir.nir.org/ark:/13960/t4wj06g26), [URL](https://nir.nir.org/URL).
- EWA Mayrhofer, Manfred (1986-2001), *Etymologisches Wörterbuch des Altindoarischen* (Heidelberg: Carl Winter, Universitätsverlag), ISBN: 3-533-03826-2.
- Garuḍapurāṇa Pāṇḍeya, Rāmateja (1963) (ed.), श्रीकृष्णद्वैपायनव्यासप्रणीतं गरुडपुराणम् (Vidyabhawan Prachyavidya Granthamala, 3; reprint, Caukhambā Vidyābhavana, Paṇḍita-Pustakālaya: Kāśī), [ark:/13960/t6pz7tg7j](https://nir.nir.org/ark:/13960/t6pz7tg7j).

- 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/s2kbbk5zcrg9](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-s2kbbk5zcrg9).
- KEWA Mayrhofer, Manfred (1953–72), *Kurzgefaßtes etymologisches Wörterbuch des Altindoarischen; a Concise Etymological Sanskrit Dictionary* (Heidelberg: Carl Winter, Universitätsverlag).
- KL *Kaiser Library*.
- Mahābhāṣya Kielhorn, F. (1880–85) (ed.), *The Vyākaraṇa-Mahābhāṣya of Patanjali*, 3 vols. (Bombay: Government Central Book Depot), [ark:/13960/s258g7r6bxf](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-s258g7r6bxf).
- Mahākośa* Jośī, Veṇīmādhavaśāstrī, and Jośī, Nārāyaṇa Harī (1968), *आयुर्वेदीय महाकोशः अर्थात् आयुर्वेदीय शब्दकोशः संस्कृत-संस्कृत* (Mumbai: Mahārāṣṭra Rājya Sāhitya āṇi Saṃskṛti Maṇḍala), [ark:/13960/t22c41g8t](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t22c41g8t).
- Mānasollāsa* Shrigondekar, Gajanan K. (1925–61) (ed.), *मानसोल्लासः = Mānasollāsa [or Abhilaṣitārthacintāmaṇi] of King Someśvara* (Gaekwad's Oriental Series; Baroda: Oriental Institute), [ark:/13960/t87h8tn95](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t87h8tn95); v. 2: [ark:/13960/t3gz41v8m](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t3gz41v8m).
- MN₁ Ācārya, Yādavaśarma Trivikrama (1920) (ed.), *महामति-श्रीमाधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाख्यव्याख्या, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुल्लसितम् = Mādhavanidāna by Mādhavakara with the Two Commentaries, Madhukosha by Vijayarakshita & Shrikanthadatta and Ātānkadarpaṇa by Vāchaspati Vaidya* (1st edn., Bombay: Nirnaya Sagara Press), [ark:/13960/t9z08jn5j](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t9z08jn5j).
- MN₃ Ācārya, Yādavaśarma Trivikrama (1932) (ed.), *महामति-श्रीमाधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाख्यव्याख्या, 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](#); Reprinted Varanasi: Chowkhambha, 1986.
- MW Monier-Williams, Monier, Leumann, E., Cappeller, C., et al. (1899), *A Sanskrit–English Dictionary Etymologically and Philologically Arranged, New Edition* (Oxford: Clarendon Press); 1970 reprint.
- NAK *National Archives of Kathmandu.*
- Nannūl Sripathi, Muthu Krishna (1995) (ed.), *Nannūl: A perceptive and comprehensive translation in English* (Madurai: MK Sripathi).
- NCC Raghavan, V., et al. (1949–), *New Catalogus Catalogorum, an Alphabetical Register of Sanskrit and Allied Works and Authors*, 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](#).
- PW Böhlingk, Otto, and Roth, Rudolph (1855–75), *Sanskrit-Wörterbuch* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](#), accessed 18/05/2023.
- PWK Böhlingk, Otto (1879), *Sanskrit-wörterbuch in kürzerer fassung* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](#), accessed 18/05/2023.
- RORI *Rajasthan Oriental Research Institute.*
- Śabdasindhu Gupta, Umeśachandra, and Sena, Nagendra Nātha (1983), *वैद्यक-शब्दसिन्धुः = Vaidyaka-Śabdasindhuh* (3rd edn., Varanasi & Delhi: Chaukhambha Orientalia); 3rd ed. first published in 1914.

- Saddanīti 3 Smith, Helmer (1930) (ed.), *Saddanīti la grammaire Palie d'Aggavaṃsa: III Sūttamālā (Pariccheda XX–XXVIII)* (Skrifter utgivna av Kungl. Humanistiska Vetenskaps-samfundet i Lund, XII:3; Lund: C. W. K. Gleerup), [ark:/13960/t1jh9w87b](https://nbn-resolving.org/urn:nbn:se:hb:ark:/13960/t1jh9w87b).
- SiddhKau Gāḍagilṇa, Dinakaraśāstrin, and Paṇaśīkara, Vāsudevaśarman (1904) (eds.), *तत्त्वबोधिनीसमाख्यव्याख्यासंवलित सिद्धान्तकौमुदी नाम भट्टोजिदीक्षितप्रणीता पाणिनीयव्याकरणसूत्रवृत्तिः* (3rd edn., Mumbai: Nirṇaya Sāgara), [ark :/ 13960 / t0zq08k33](https://nbn-resolving.org/urn:nbn:se:hb:ark:/13960/t0zq08k33).
- Su 1889 Bhaṭṭācāryya, Jīvānanda Vidyāsāgara (1889) (ed.), *सुश्रुतः सूत्र-निदान-शारीर-चिकित्सा-कल्पोत्तर-तन्त्र-कल्पित आयुर्वेद. भगवता धन्वन्तरिणोपदिष्टः सुश्रुतनामधेयेन तच्छिष्येण विरचितः* (3rd edn., Calcutta: Sarasvatī Press), [ark :/ 13960 / t1nh6j09c](https://nbn-resolving.org/urn:nbn:se:hb:ark:/13960/t1nh6j09c); HIML: IB, 311, edition b.
- Su 1915 Ācārya, Yādavaśarma Trivikrama (1915) (ed.), *सुश्रुतसंहिता, सुश्रुतेन विरचिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया समुल्लसिता, आचार्योपाह्वेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = The Sushrutasamhita of Sushruta, the Nibandhasangraha Commentary of Shri Dalhaṇāchārya* (Mumbayyām: Nirṇayasāgaramudrāyantrālaye), [ark:/13960/t3sv0mt50](https://nbn-resolving.org/urn:nbn:se:hb: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. आचार्योपाह्वेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = The Sushrutasamhitā of Sushruta with the Nibandhasangraha Commentary of Shree Dalhaṇāchārya* (2nd edn., Mumbayyām: Pāṇḍuraṅga Jāvajī at the Nirṇayasāgaramudrāyantrālaye), [ark :/ 13960 / t9j41sg94](https://nbn-resolving.org/urn:nbn:se:hb: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](http://13960/t09x0sk1h); HIML: IB, 313, edition cc ('the vulgate').
- Su 1938² Ācārya, Yādavaśarma Trivikrama, and Ācārya, Nārāyaṇa Rāma (2004) (eds.), *महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता, श्री-डल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया निदानस्थानस्य श्रीग-यदासाचार्यविरचितया 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-saṁhitā (sūtra Sthān) with Bhānumatī Commentary by Chakrapāṇi Datta with Introduction by Gaṇanāth Sen* (Śrīsvāmī Lakṣmīrāma Nidhi Granthamālā = Shri Swāmī Lakshmi Rām Trust Series, 1; [Jaipur]: Śyāmasundara Śarman), [ark : / 13960 / t54g0d12m](http://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 संवलिता = the Suśrutasaṁhitā of Suśruta with Various Readings, Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), [ark : / 13960 / t8kd4jh7n](http://13960/t8kd4jh7n).
- TMSSML *Tanjore Maharaja Serfoji Saraswati Mahal Library.*
- TY Nārāyaṇa, Śaṁkaraśarman (1949), *Tantrayuktiḥ*, ed. Vayaskara N. S. Mooss (Vaidyasārathigranthāvaliḥ, 6; Koṭṭayanagaryāṁ: Vaidyasarathi Press), [ark : / 13960 / t2d85pc4v](http://13960/t2d85pc4v).
- TYV Muthuswami, Nurani Easwara (1976) (ed.), *Tantrayuktivicāraḥ [by Nīlameghabhiṣaj]* (Kerala Praśāsanāyurveda Granthāvaliḥ, 1; 2nd edn., Trivandrum: Publications Division, Govt. Ayurveda College), [ark : / 13960 / s2j1p7k0526](http://13960/s2j1p7k0526).
- Viṣṇudh 3 Shah, Priyabala (1958) (ed.), *Viṣṇudharmottara-Purāṇa. Third Khaṇḍa* (Gaekwad's Oriental Series, 130; Baroda: Oriental Institute), [ark : / 13960 / t52g33q88](http://13960/t52g33q88).

- Viṣṇudh. Śarman, Madhusūdana, and Śarman, Mādhavaprasāda (1912) (eds.), *विष्णुधर्मोत्तरपुराणम्* = [*Viṣṇudharmottara-purāṇa*] (Mumbai: Khemarāja Śrīkrṣṇadāsa at the Śrīveṅkaṭeśvara Steam Press), [ark : / 13960 / t6qz6fr23](https://nnp.srujanika.org/ark:/13960/t6qz6fr23); Lithograph format. Edited on the basis of a manuscript belonging to the astrologer Śudhākaraśarman of the Varanasi Sanskrit Pāṭhaśālā.
- Yuktidīpikā Wezler, Albrecht, and Motegi, Shujun (1998) (eds.), *Yuktidīpikā : the most significant commentary on the Sāṃkhyakārikā* (Alt- und Neu-Indische Studien herausgegeben vom Institut für Kultur und Geschichte Indiens und Tibets an der Universität Hamburg, 44; Stuttgart: Franz Steiner Verlag).

Index of Manuscripts

Numbers after the final colon refer to pages in this book.

NAK 5-333: [132](#)

Thanjavur TMSSML 10773: [242](#)

Bibliography

- Ācārya, Yādavaśarma Trivikrama (1933) (ed.), *महर्षिणा अग्निवेशेन प्रणीता चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता* (3rd edn., Mumbayyām: Nirnaya Sagara Press), [ark:/13960/t42s3kk45](https://nirnayasangraha.org/ark:/13960/t42s3kk45).
- (1941) (ed.), *महर्षिणा पुनर्वसुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्यया संवलिता* (3rd edn., Mumbayyām: Nirnaya Sagara Press), [ark:/13960/t48q2f20n](https://nirnayasangraha.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://nirnayasangraha.org/ark:/13960/t8kd4jh7n).
- Acharya, Diwakar (2012), “Description of Microfilm A 45/5,” NGMCP, [URL](https://ngmcp.org/URL), accessed 27/02/2023.
- Achaya, K. T. (1994), *Indian Food: A Historical Companion* (Delhi: Oxford University Press), ISBN: 0195628454.
- (1998), *A Historical Dictionary of Indian Food* (Delhi: Oxford University Press), ISBN: 0195642546.
- 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. DOI: [10.5281/zenodo.8201537](https://doi.org/10.5281/zenodo.8201537).

- Āgāṣe, Ve. Śā. Rā. Rā. Kāśīnātha Śāstrī, and Āpaṭe, Hari Nārāyaṇa (1904) (eds.), वाचस्पतिमिश्रविरचितटीकासंवलितव्यासभाष्यसमेतानि पातञ्जल-योगसूत्राणि तथा भोजदेवविरचिताजमार्तण्डाभिधवृत्तिसमेतानि 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).
- (2021), “Agni and Soma Revisited: A Primordial Āyurvedic Concept?,” in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos* (Leiden: Brill), chap. 3, 15–32. doi: [10.1163/9789004438224_004](https://doi.org/10.1163/9789004438224_004).
- 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://nbl.ndl.nih.gov/data/ark:/13960/t03x8vz7b).
- Bhaṭṭācārya, Candrakānta (1910–17) (ed.), *सुश्रुतसंहिता प्रथमखण्डम् सूत्रस्थानात्मकम् हाराणचन्द्रचक्रवर्तिकविराजविरचितसुश्रुतार्थसन्दीपनभाष्यसमेतम्...चन्द्रकान्त भट्टाचार्य-प्रमुखैः संशोधितम्* = [The *Suśrutasaṃhitā* with the Commentary *Suśrutārthasandīpanabhāṣya* by Hārāṇacandra Cakravartī] (Kalikātā: Satya Press); Edition "t" in [HIML](https://sanskritdocuments.org/): IB, 312.
- Bhattacharai, Bidur (2020), *Dividing Texts. Conventions of Visual Text-Organisation in Nepalese and North Indian Manuscripts* (Studies in Manuscript Cultures; Berlin/Boston: de Gruyter), 388.
- Biardeau, Madeleine (1964), *Théorie de la connaissance et la philosophie de la parole dans la brahmanisme classique* (Paris & La Haye: Mouton & Co.), [ark:/13960/t42r7g950](https://nbl.ndl.nih.gov/data/ark:/13960/t42r7g950).
- 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), "Ḍalhaṇa and the Early 'Nepalese' Version of the *Suśrutasaṃhitā*." DOI: [10.20935/a13733](https://doi.org/10.20935/a13733).
- Böhtlingk, Otto (1879), *Sanskrit-wörterbuch in kürzerer fassung* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](https://nbl.ndl.nih.gov/data/ark:/13960/t42r7g950), accessed 18/05/2023.
- Böhtlingk, Otto, and Roth, Rudolph (1855–75), *Sanskrit-Wörterbuch* (St. Petersburg: Kaiserlichen Akademie der Wissenschaften), [URL](https://nbl.ndl.nih.gov/data/ark:/13960/t42r7g950), accessed 18/05/2023.
- 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://nbl.ndl.nih.gov/data/ark:/13960/t42r7g950), 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://nbl.ndl.nih.gov/data/ark:/13960/t3dz8nn5t), [URL](https://nbl.ndl.nih.gov/data/ark:/13960/t3dz8nn5t), 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/al291](https://doi.org/10.20935/al291); Article 291.
- Bronner, Yigal (2021) (ed.), “The Pandit Project” (30 Sept.), [URL](#).
- 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).
- (2020a), “A Surgeon’s Hand: Reflections on Surgical Tactility in Early Ayurveda,” *Asian Medicine*, 15/1: 30–62. doi: [10.1163/15734218-12341460](https://doi.org/10.1163/15734218-12341460).
- (2020b), “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).
- (2021a), “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).
- (2021b), “Translating Touch in Āyurveda: Medicine, Sense, and Subjectivity in Early south Asia and Contemporary Kerala,” PhD thesis (University of California, Berkeley).
- (forthcoming), “Leech Logic,” in An Editor (ed.), *A Book*.
- Brunton, Lauder (1909) (ed.), *On the Poison of Venomous Snakes and the Methods of Preventing Death from their Bite: Reprinted Papers of Joseph Fayrer and T. Lauder Brunton and Leonard Rogers* (London: Macmillan and Co.), 1–22, 23–110, [ark:/13960/t0bv7ts2c](https://nbn-resolving.org/urn:nbn:uk:2019-06-13-13960-t0bv7ts2c).
- Brunton, T. Lauder, and Fayrer, J. (1909), “On the Nature and Physiological Action of the Poison of Naja tripudians and other Indian Venomous Snakes, parts I and II,” in *On the Poison of Venomous Snakes and the Methods of Preventing Death from their Bite* (London: Macmillan and Co.), 1–22, 23–110, [ark:/13960/t0bv7ts2c](https://nbn-resolving.org/urn:nbn:uk:2019-06-13-13960-t0bv7ts2c).

- 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-t4xh86j61); Bhelaṣaṃhitā described on pp. 67 ff.
- Cardona, George (1976), *Pāṇini: A Survey of Research* (Trends in Linguistics State-of-the Art Reports, 6; The Hague: Mouton & Co. B.V., Publishers), [ark:/13960/s2mtq72w6s2](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-s2mtq72w6s2).
- 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-t2q57fn42), 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).
- Chevillard, Jean-Luc (2009), "The Metagrammatical Vocabulary inside the Lists of 32 Tantrayukti-s and its Adaptation to Tamil: Towards a Sanskrit-Tamil Dictionary," in Eva Wilden (ed.), *Between Preservation and Recreation: Tamil Traditions of Commentary. Proceedings of a Workshop in honour of T.V. Gopal Iyer* (École Française d'Extrême-Orient Collection Indologie, 109; Pondichéry: Institut français de Pondichéry / École Française d'extrême-Orient), 71–132, [URL](#), accessed 15/11/2023.
- Cohen, Jack (1990), "The Function of Human Semen Coagulation and Liquefaction In Vivo," in *Advances in Assisted Reproductive Technologies*, ed. Shlomo Mashiach et al. (NY & London: Plenum Press), 443–52, ISBN: 9781461306450. DOI: [10.1007/978-1-4613-0645-0_49](https://doi.org/10.1007/978-1-4613-0645-0_49).
- Comba, Antonella (1994), "L'enseignement médical en Inde. Un méthode d'exposition (tantra-yukti): l'adhikaraṇa ou spécification du sujet," in Nalini Balbir (ed.), *Genres littéraires en Inde* (Paris: Presses de La Sorbonne Nouvelle), 151–64, [ark:/13960/s2mb8kpr6px](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-s2mb8kpr6px).

- 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:fr:shs-266b2j457), accessed 02/01/2020; Reprinted in Roşu 1989: 539–70.
- Coult, 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).
- Das, Rahul Peter (2003), *The Origin of the Life of a Human Being. Conception and the Female According to Ancient Indian Medical and Sexological Literature* (Indian Medical Tradition; Delhi: Motilal Banarsidas), ISBN: 81-208-1998-5.
- Dasgupta, S.. N. (1952), "Speculations in the Medical Schools," in *A History of Indian Philosophy*, ii (Reprint of 1932 edition, Cambridge: Cambridge University Press), chap. 13, 273–436, [URL](https://nbn-resolving.org/urn:nbn:fr:shs-266b2j457), accessed 26/01/2018.
- 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:fr:shs-266b2j457).
- Deshpande, Adwait M., Sastry, K. Venkata, and Bhise, Satish B. (2022), "A Contemporary Exploration of Traditional Indian Snake Envenomation Therapies," *Tropical Medicine and Infectious Disease*, 7/6: 108, ISSN: 2414-6366. doi: [10.3390/tropicalmed7060108](https://doi.org/10.3390/tropicalmed7060108).
- 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 Traditonal Classification," in Klaus Karttunen (ed.), *Anantaṃ Śāstram. Indological and Linguistic Studies in Honour of Bertil Tikkane* (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).
- Deuti, Kaushik (2020), *Skinks of India*, ed. Sujoy Raha and Probath Bag (Kolkata: Zoological Survey of India), ISBN: 9788181715517.
- Dikshitar, V. R. Ramachandra (1930), "Tantrayukti," *Journal of Oriental Research*, 4: 82–9, [ark:/13960/t3b04m19g](https://nopr.ias.ac.in/jors/vol4/no4/1930/04082-09.pdf).
- Dimitrov, Dragomir, and Tamot, Kashinath (2007), "Kaiser Shamsheer, His Library and His Manuscript Collection," *Kaiser Shamsheer, His Library and His Manuscript Collection*, 3 (Jan.): 26–36, [URL](https://www.jstor.org/stable/2344888).
- Dixit, U., and Deole, Y. S. (2020), "Tantrayukti," in Basisht G. (ed.), *Charak Samhita New Edition* (Charak Samhita Research, Training and Skill Development Centre (CSRTSDC)), 151–1. DOI: [10.47468/csne.2020.e01.s09.022](https://doi.org/10.47468/csne.2020.e01.s09.022).
- Doniger, Wendy (2015), "Introduction: Sympathy for the Devi: Snakes and Snake Goddesses in Hinduism," in Kaiser Haq, *The Triumph of the Snake Goddess* (Cambridge, MA: Harvard University Press), 1–28. DOI: [10.4159/9780674089136-intro](https://doi.org/10.4159/9780674089136-intro).
- Eaton, Richard M. (1993), *The Rise of Islam and the Bengal Frontier, 1204–1760* (Berkeley: University of California Press), [ark:/13030/ft067n99v9/](https://nopr.ias.ac.in/foresight/vol13/no1/1993/130101-02.pdf).
- 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* (William Dwight Whitney Linguistic Series; New Haven: Yale University Press); vol. 1: Grammar, vol. 2: Dictionary.
- 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://nopr.ias.ac.in/foresight/vol13/no1/1935/130101-02.pdf).

- Eggermont, Pierre Herman Leonard (1975), *Alexander's Campaigns in Sind and Baluchistan and the Siege of the Brahmin Town of Harmatelia* (Louvain: Leuven University Press), ISBN: 9061860377, [ark:/13960/s2bf83pchxw](https://nbn-resolving.org/urn:nbn:nl:po:book-13960-s2bf83pchxw).
- Ellenhorn, Matthew J. (1997), *Ellenhorn's Medical Toxicology. Diagnosis and Treatment of Human Poisoning* (2. ed., Baltimore, MD: Williams & Wilkins), ISBN: 0683300318, [ark:/13960/s21qsb3jff1v](https://nbn-resolving.org/urn:nbn:nl:po:book-13960-s21qsb3jff1v); Previous ed.: London: Elsevier, 1988.
- 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).
- Elshakry, Marwa S. (2008), "Knowledge in Motion: The Cultural Politics of Modern Science Translations in Arabic," *Isis*, 99/4: 701–30. DOI: [10.1086/595767](https://doi.org/10.1086/595767), URL, accessed 24/02/2019.
- Emeneau, M. B. (1969), "Sanskrit Syntactic Particles – "kila, khalu, nūnam"," *Indo-Iranian Journal*, 11/4: 241–68.
- Emmerick, Ronald E. (1984), "Some Remarks on the History of Leprosy in India," *Indologica Taurinensia*, 12: 93–105. DOI: [10.5281/zenodo.10798623](https://doi.org/10.5281/zenodo.10798623).
- Ewart, Joseph (1878), *The Poisonous Snakes of India: For the Use of the Officials and Others Residing in the Indian Empire* (London: J & A Churchill), ISBN: 81-7002-011-5, [ark:/13960/t9z07w72g](https://nbn-resolving.org/urn:nbn:nl:po:book-13960-t9z07w72g); Reprinted Delhi: Himalayan Books, 1985.
- 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*, 33/2: 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.
- Fayrer, Joseph (1874), *The Thanatophidia of India, Being a Description of the Venomous Snakes of the Indian Peninsula with and Account of the Influence of their Poison on Life and a Series of Experiments* (2nd edn., London: Churchill), [ark:/13960/t9h49dg5c](https://nbn-resolving.org/urn:nbn:nl:po:book-13960-t9h49dg5c); First edition 1872.

- 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 Publishe), 95–117.
- Flood, Gavin D. (2022) (ed.), *Wiley Blackwell Companion to Hinduism* (2nd edn., Hoboken, NJ: Wiley & Sons, Limited), ISBN: 9781119144861.
- Frauwallner, Erich (1958), "Die Erkenntnislehre des klassischen Sāṃkhya-Systems," *Wiener Zeitschrift für die Kunde Süd- und Ostasiens und Archiv für indische Philosophie*, 2: 84–139, [ark:/13960/s2sdmmt8nf8](https://nbn-resolving.org/urn:nbn:de:bsz:551-195802-s2sdmmt8nf8).
- 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:bsz:551-192002-t4pk5sj0j).
- Ghosh, Ritwik, et al. (2023), "Snakebite Envenomation-Induced Posterior Reversible Encephalopathy Syndrome Presenting with Bálint Syndrome," *Neurología (English Edition)*, 38/6 (July): 440–2, ISSN: 2173-5808. DOI: [10.1016/j.nrleng.2022.06.001](https://doi.org/10.1016/j.nrleng.2022.06.001).
- Giesche, Alena, et al. (2023), "Recurring Summer and Winter Droughts from 4.2–3.97 Thousand Years Ago in North India," *Nature: Communications Earth & Environment*, 4/1: 1–10. DOI: [10.1038/s43247-023-00763-z](https://doi.org/10.1038/s43247-023-00763-z).
- 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:bsz:551-195702-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).
- Goswami, Pradip Kumar (2011), "Comparative Studies of Bhanumati and Nibandha Samgraha with Special Reference to Arista Vijnana (prognostic Science)," *AYU (An International Quarterly Journal of Research in Ayurveda)*, 32/2: 147. DOI: [10.4103/0974-8520.92540](https://doi.org/10.4103/0974-8520.92540).
- 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:bsz:551-197302-t3907cf2d).

- Gupta, Parmanand (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://nbn-resolving.org/urn:nbn:in:bbcl: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](#).
- Hamza, Muhammad, et al. (2021), “Clinical Management of Snakebite Envenoming: Future Perspectives,” *Toxicon: X* 11/100079: 1–12, ISSN: 2590-1710. DOI: [10.1016/j.toxcx.2021.100079](https://doi.org/10.1016/j.toxcx.2021.100079).
- 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).
- Hellwig, Oliver (2009), *Wörterbuch Der Mittelalterlichen Indischen Alchemie* (Groningen: Barkhuis & University of Groningen, University Library), ISBN: 9789077922620. DOI: [10.2307/j.ctt22728hs](https://doi.org/10.2307/j.ctt22728hs), [URL](#), accessed 19/06/2020.
- Hemarāja Śarman (1938) (ed.), *काश्यपसंहिता (वृद्धजीवकीयं तन्त्रं वा) महर्षिणा मारीचकश्यपेनोपदिष्टा ... हेमराजशर्मणा लिखितेन विस्तृतेन उपोद्धातेन सहिता ... सत्यपाल भिषगा कृतया विद्योतिनी हिन्दीव्याख्यया ... समुल्लसिता* (1st edn., Mumba: Nirṇayasāgara Press), [ark:/13960/t3mw5gb9p](https://nbn-resolving.org/urn:nbn:in:bbcl: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).
- Henkel, Friedrich-Wilhelm, and Schmidt, Wolfgang (1995), *Geckoes: Biology, Husbandry, and Reproduction*, trans. John Hackworth (Malabar, Florida: Krieger), ISBN: 0894649191, [ark:/13960/t6xx2kb2c](https://nbn-resolving.org/urn:nbn:de:bsz:551-1995010113960-t6xx2kb2c).
- Hessler, Franciscus (1844–55), *Suśrutas Ayurvédas: id est Medicinae Systema a Venerabili D'hanvantare 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://nbn-resolving.org/urn:nbn:de:bsz:551-1995010113960-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:de:bsz:551-1995010113960-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:de:bsz:551-1995010113960-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:de:bsz:551-1995010113960-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:de:bsz:551-1995010113960-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:de:bsz:551-1995010113960-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:de:bsz:551-1995010113960-t1pg9cq8b).

- Hofer, Theresia (2007), "Swami Laxmi Ram's Ayurvedic Pharmacy in Jaipur, India," *Wellcome History*, 34: 2–3, [URL](#), accessed 16/03/2022.
- (2017) (ed.), *Bodies in Balance. The Art of Tibetan Medicine: The Art of Tibetan Medicine* (Seattle: University of Washington Press), 1360 pp., ISBN: 9780295993591.
- 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](#).
- Irwin, John C. (1982), "The Sacred Anthill and the Cult of the Primordial Mound," *History of Religions*, 21/4: 339–60, ISSN: 00182710, 15456935, [URL](#), accessed 24/01/2024.
- Jack, David Morton (1884), "A Thesis on Cataract in India: Its Pathology and Treatment," Wellcome Library, London, MS 3007, [URL](#), 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/>.
- Jhalakīkar, Bhīmācārya (1978), न्यायकोशः (सकलशास्त्रोपकारकन्यायादिशास्त्रीयपदार्थप्रकाशकः) = *Nyāyakośa or Dictionary of Technical Terms of Indian Philosophy* (Poona: Bhandarkar Oriental Research Institute), [ark:/13960/t4cp7242f](#).
- Jolly, Julius (1951), *Indian Medicine, Translated from the German...by C. G. Kashikar* (Poona: C. G. Kashikar), [URL](#), accessed 08/11/2017; 2nd edition Delhi: Munshiram Manoharlal, 1977, 1994 etc.
- Joshi, S. D., and Roodbergen, J. A. F. (1991), *The Aṣṭādhyāyī of Pāṇini with Translation and Explanatory Notes* (New Delhi: Sahitya Akademi).
- Kangle, R. P. (1965a), *The Kauṭīlīya Arthaśāstra*, 3 vols. (2nd edn., Delhi: Motilal Banarsidass), ISBN: 978-81-208-0042-7, [ark:/13960/t3gz6qh1s](#); reprint of 2010, i: *The Kauṭīlīya Arthaśāstra: Part I, Sanskrit Text with a Glossary* (1969), ii: *The Kauṭīlīya Arthaśāstra: Part II, Translation with Critical and Explanatory Notes* (1972), iii: *The Kauṭīlīya Arthaśāstra: Part III A Study* (1965).

- (1965b), *The Kauṭīlīya Arthaśāstra: Part III A Study* (2nd edn., Delhi: Motilal Banarsidass), [ark:/13960/t3gz6qh1s](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s); reprint of 2010.
- (1969), *The Kauṭīlīya Arthaśāstra: Part I, Sanskrit Text with a Glossary* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 978-81-208-0039-7, [ark:/13960/t3gz6qh1s](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s); reprint of 2010.
- (1972), *The Kauṭīlīya Arthaśāstra: Part II, Translation with Critical and Explanatory Notes* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 978-81-208-0040-3, [ark:/13960/t3gz6qh1s](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s); reprint of 2010.
- 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://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s); 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://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s), accessed 25/06/2019, in *Zeitschrift Der Deutschen Morgenländischen Gesellschaft*, 1/62: 134–9, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s), accessed 17/04/2021.
- Khan, Zihan Rahman, et al. (2018), “Medicinal Values of Aquatic Plant Genus *Nymphoides* Grown in Asia: A Review,” *Asian Pacific Journal of Tropical Biomedicine*, 8/2: 113–9, ISSN: 2221-1691. DOI: [10.4103/2221-1691.225615](https://doi.org/10.4103/2221-1691.225615).
- Khosroheidari, Mahdieh (2008), “Antimicrobial activity of *C. cordifolius*,” *Journal of Young Investigators*, 11/6 (1 Aug.), [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s).
- Kieffer-Pülz, Petra (1996), “The Meaning of *Māla*(ka)/*māla*(ka) in Pāli,” in N. Balbir, G.-J. Pinault, and J. Fezas (eds.), *Langue, style et structure dans le monde indien, Centenaire de Louis Renou. Actes du Colloque international* (Paris, 25–27 janvier 1996 (Paris), 285–325, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s), accessed 17/05/2023.
- Klebanov, Andrey (2010), “The *Nepalese Version of the *Suśrutasaṃhitā* and Its Interrelation with Buddhism and the Buddhists,” MA thesis (Hamburg: Hamburg University, Sept.), [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s), accessed 08/09/2019.
- (2012), “Description of microfilm B 29/19,” NGMCP, [URL](https://nbn-resolving.org/urn:nbn:de:bsz:55-13960-t3gz6qh1s), accessed 27/02/2023.

- Klebanov, Andrey (2021a), "On the Textual History of the Suśrutasaṃhitā (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 Suśrutasaṃhitā, (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:5:1-39661-p0082-7).
- 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.
- Kutumbiah, P. (1962), *Ancient Indian Medicine* (Bombay, etc.: Orient Longmans), [ark:/13960/t6r01v93g](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39661-p0082-7); Often reprinted.
- Lamming, George E., and Marshall, Francis H. (1990) (eds.), *Marshall's Physiology of Reproduction: Reproduction in the Male* (4th edn., London: Chapman & Hall), ISBN: 0443019673.
- Lariviere, Richard W. (2003), *The Nāradaśmṛti. 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:de:hbz:5:1-39661-p0082-7); 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-rcs-04](https://doi.org/10.21037/atm-2019-rcs-04), URL, accessed 02/11/2020.
- Lele, W. K. (1981), *The Doctrine of the Tantrayukti-s: Methodology of Theoretico-scientific Treatises in Sanskrit* (Chaukhamba Surabharati Studies, 3; Varanasi: Chaukhamba Surabharati Prakashan), [ark:/13960/s28vqzhkdjq](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39661-p0082-7).

- (2006), *Methodology of Ancient Indian Sciences* (The Chaukhamba Surbharati Studies, 3; Varanasi: Chaukhamba Surbharati Prakashan), [ark:/13960/s2dc7zd8hf1](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-s2dc7zd8hf1).
- Leslie, I. Julia (1989), *The Perfect Wife* (New Delhi: Oxford University Press).
- 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.

- Mahādeva Śāstrī, K. (1958) (ed.), ജ്യോത്സനിക: വിഷവൈദ്യം *Jyotsnika* (*Viṣa Vaidya*) [*The Jyotsnikā of Kārāṭṭu Nārāyaṇan Nampūtir*] (Śrī Vañci Setu Lakṣmī series, 9; 3rd edn., Trivandrum: The Government of His Highness The Maharaja of Travancore); First published in 1927.
- 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](https://doi.org/10.1525/9780520959545).
- Majno, Guido (1975), *The Healing Hand. Man and Wound in the Ancient World* (Cambridge, MA: Harvard University Press), [ark:/13960/t4hm7xf2c](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-39660-p0044-7).
- 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](https://manasa-taramginiblog.wordpress.com/2019/09/01/kaitabha-poison-and-death-meanderings-through-tradition/), accessed 31/01/2023.
- Manevskaia, Ilona (2008), "Preliminary Observations on Compositional Methods in Haribhadra's Ālokā," in Richard Gombrich and Cristina Scherrer-Schaub (eds.), *Buddhist Studies* (Papers of the 12th World Sanskrit Conference, 8; Delhi: Motilal Banarsidass), 97–117.
- 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](https://www.indian-texts.com/manucci.htm), accessed 04/10/2021.
- Masai, François (1950), "Principes et conventions de l'édition diplomatique," *Scriptorium*, 4: 177–93. DOI: [10.3406/scrip.1950.2294](https://doi.org/10.3406/scrip.1950.2294).
- McHugh, James (2012), "The Disputed Civets and the Complexion of the God: Secretions and History in India," *Journal of the American Oriental Society*, 132/2: 245, ISSN: 0003-0279. DOI: [10.7817/jameroriesoci.132.2.0245](https://doi.org/10.7817/jameroriesoci.132.2.0245).

- (2021), *An Unholy Brew: Alcohol in Indian History and Religions* (New York: Oxford University Press), 416 pp., ISBN: 9780199375936.
- Mehta, S. R., and Sashindran, V. K. (2002), "Clinical Features And Management Of Snake Bite," *Medical Journal Armed Forces India*, 58/3: 247–9, ISSN: 0377-1237. DOI: [10.1016/s0377-1237\(02\)80140-x](https://doi.org/10.1016/s0377-1237(02)80140-x).
- Mejor, Marek (2000), "Some Observations on the Date of the *Yukti-dīpikā* (apropos of a New Edition)," in Piotr Błecrowicz and Marek Mejor (eds.), *On the Understanding of Other Cultures*, vii (Studia Indologiczne; Warszawa: Instytut Orientalistyczny, Uniwersytet Warszawski), 255–89.
- 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](https://nbn-resolving.org/urn:nbn:nl:0:13960-t25b8q97g).
- (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.
- (1990), "Conformities and Divergences of Basic Ayurvedic Concepts in Veterinary Texts," *Journal of the European Ayurvedic Society*, 1: 1–6, [URL](#), accessed 16/02/2022.
- (1991), "The Constraints of Theory in the Evolution of Nosological Classifications: A Study on the Position of Blood in Indian Medicine (Āyurveda)," in *Medical Literature from India, Sri Lanka, and Tibet*, 91–106, ISBN: 90-04-09522-5, [URL](#).
- (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:nl:0:13960-t8hf69z8j).
- (2008a), "A Quest for Poison Trees in Indian Literature, Along with Notes on Some Plants and Animals of the Kauṭīliya Arthaśāstra," *Wiener Zeitschrift für die Kunde Südasiens / Vienna Journal of South Asian Studies*, 51 (2007–2008): 5–75, [URL](#).
- (2008b), *The Mādhavanidāna with "Madhukośa," the Commentary by Vijayarakṣita and Śrīkaṇṭhadatta (Ch. 1-10). Introduction, Translation, and Notes* (Delhi: Motilal Banarsidass).

- Meulenbeld, Gerrit Jan (2011), "The Relationships between Doṣas and Dūṣyas: A Study on the Meaning(s) of the Root Murch-/mürch," *eJournal of Indian Medicine*, 4/2: 35–135, [URL](#), accessed 13/10/2017.
- Meyer, Johann Jakob (1926), *Das altindische Buch vom Welt- und Staatsleben. Das Arthaśāstra des Kauṭilya* (Leipzig: Otto Harrassowitz), [ark:/13960/s21gb96bcxv](#).
- Miles, M. (1999), "Personal Communication," Mar.; Letter of 4 March.
- Minton, Sherman A., and Minton, Madge Rutherford (1969), *Venomous Reptiles* (New York: Charles Scribners' Sons), [ark:/13960/t9k423s9k](#).
- 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](#), 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](#), accessed 29/01/2018; Vol.2: [ark:/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](#), accessed 02/06/2021.
- NGMCP (2014), "Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue," Universität Hamburg and Deutsche Forschungsgemeinschaft, [URL](#).
- Oberhammer, Gerhard (1968), "Notes on the Tantrayukti-s," *The Adyar Library Bulletin*, 31–32 (1967–1968): 600–16. DOI: [10.5281/zenodo.10440052](#).
- Oberhammer, Gerhard, Prets, Ernst, and Prandstetter, Joachim (1991), *Terminologie der frühen philosophischen Scholastik in Indien: Ein Begriffswörterbuch zur altindischen Dialektik, Erkenntnislehre und Methodologie* (Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse, Denkschriften, 223; Wien: Verlag der Österreichischen Akademie der Wissenschaften); Beiträge zur Kultur- und Geistesgeschichte Asiens; Nr. 9.

- 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://doi.org/10.1515/9783110899344).
- Olivelle, Patrick (1995), "Food in India," *Journal of Indian Philosophy*, 23/3: 367–80. DOI: [10.1007/bf01463136](https://doi.org/10.1007/bf01463136).
- (2001), *Food for Thought. Dietary Rules and Social Organization in Ancient India* (Gonda Lectures, 9; Amsterdam: Royal Netherlands Academy of Arts and Sciences), [URL](#), accessed 28/06/2023.
- (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](#).
- Özbulat, Mehmet, et al. (2021), "Factors Affecting Prognosis in Patients with Snakebite," *Eurasian Journal of Emergency Medicine*, 20/1 (Mar.): 6–11, ISSN: 2149-6048. DOI: [10.4274/eajem.galenos.2020.69885](https://doi.org/10.4274/eajem.galenos.2020.69885).
- Pandey, Anshuman (2012), "Proposal to Encode the Newar Script in ISO/IEC 10646," [URL](#).
- Pāṇḍeya, Rāmateja (1963) (ed.), *श्रीकृष्णद्वैपायनव्यासप्रणीतं गरुडपुराणम्* (Vidyabhawan Prachyavidya Granthamala, 3; reprint, Caukhambā Vidyābhavana, Paṇḍita-Pustakālaya: Kāśī), [ark:/13960/t6pz7tg7j](https://nbn-resolving.org/urn:nbn:in:bbia-2019050113960-t6pz7tg7j).
- Paramesvaran, Madhu K. (2023), "Personal email communication," 26 Dec.
- 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](#).
- Poudel, Ram C., et al. (2013), "Yews (Taxus) along the Hindu Kush-Himalayan Region: Exploring the Ethnopharmacological Relevance among Communities of Mongol and Caucasian Origins," *Journal of Ethnopharmacology*, 147/1: 190–203, ISSN: 0378-8741. DOI: [10.1016/j.jep.2013.02.031](#).
- 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](#).
- (2013), "Logic, Debate and Epistemology in Ancient Indian Medical Science: An Investigation Into the History and Historiography of Indian Philosophy. Part I," in Dominik Wujastyk, Anthony Cerulli, and Karin Preisendanz (eds.), *Medical Texts and Manuscripts in Indian Cultural History* (Delhi: Manohar Publishers and Distributors), 63–139, ISBN: 978-9350980194.
- Prets, Ernst, and Prandstetter, Joachim (1991–2006), *Terminologie der frühen philosophischen Scholastik in Indien: Ein Begriffswörterbuch zur altindischen Dialektik, Erkenntnislehre und Methodologie*, ed. Gerhard Oberhammer, 3 vols. (Österreichische Akademie der Wissenschaften, Philosophisch-Historische Klasse, Denkschriften, 223, 248, 343; Wien: Verlag der Österreichischen Akademie der Wissenschaften); *Beiträge zur Kultur- und Geistesgeschichte Asiens*; Nr. 9, 17, 49.

- 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.), *पातञ्जलयोगसूत्रभाष्यविवरणम् । (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, Priyadarshan, 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 Stemmataology* (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).
- Roşu, Arion (1978), *Les conception psychologiques dans les textes médicaux indiens* (Publication de l'institut de civilisation indienne, In-8 fascicule 43; Paris: Institut de civilisation indienne), [ark:/13960/t5p85ds09](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t5p85ds09).
- Ruben, Walter (1926), "Zur Frühgeschichte der indischen Philosophie," in W. Kirfel (ed.), *Beiträge zur Literaturwissenschaft und Geistesgeschichte Indiens – Festgabe Hermann Jacobi zum 75. Geburtstag <11. Februar 1925> dargebracht von Freunden, Kollegen und Schülern* (Bonn: Kommissionsverlag Fritz Klopp), 346–57.
- (1954a), *Geschichte der indischen Philosophie [collected articles]* (Berlin: Deutscher Verlag), [ark:/13960/t9v18cc78](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t9v18cc78).
- (1954b), "Medizin (Caraka) und Logik (Nyāya) (um 100 u. Z.)," in id., *Geschichte der indischen Philosophie [collected articles]* (Berlin: Deutscher Verlag), chap. 21, 212–22, [ark:/13960/t9v18cc78](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-3960-t9v18cc78).
- Saha, Mridula (2015), *The History of Indian Medicine Based on the Vedic Literature Satapatha Brahmana* (Kolkata: The Asiatic Society), ISBN: 978-9381574294.
- Saraswat, K. S. (1991), "Archaeobotanical Remains in Ancient Cultural and Socio-Economical Dynamics of the Indian Subcontinent," *Palaeobotanist*, 40: 514–45. doi: [10.54991/jop.1991.1797](https://doi.org/10.54991/jop.1991.1797).
- 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, Kamasutra, 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).

- Sastri, P. S. Subrahmanya (2002), *Tolkāppiyam. The Earliest Extant Tamil Grammar, with a Short Commentary in English: Volume II. Poruḷatikāram* (2nd edn., Chennai: The Kuppaswami Sastri Research Institute), ISBN: 81-85170-27-4, [ark:/13960/t7jq8k19s](https://nbn-resolving.org/urn:nbn:in:cc0:t7jq8k19s); reprint of 1936 edition.
- Śāstrī, Paraśurāma (1931) (ed.), *DāmodarasūnuŚārṅgadharācāryaviracitā Śārṅgadharasamhitā. BhiṣagvarĀḍhamallaviracitadīpikāKāśīrāmavaidyaviracitagūḍhārthadīpikābhyāṃ, ṭīkābhyāṃ, samvalitā* (2nd edn., Mumbai: Nirṇayasāgara Press), [ark:/13960/t7wn11g9r](https://nbn-resolving.org/urn:nbn:in:cc0:t7wn11g9r); 1st ed. 1920.
- Śāstrī, Vardhamāna Pārśvanātha (1940) (ed.), *उग्रादित्याचार्यकृत कल्याणकारक (राष्ट्रभाषानुवादसहित) = The Kalyāṇa-kārikam of Ugrādityacharya, Edited with Introduction, Translation, Notes, Indexes and Dictionary* (Sakhārāma Nemacanda Gramthamālā, 129; Solāpura: Seṭha Govindajī Rāvājī Dośī), [ark:/13960/t2q617g4d](https://nbn-resolving.org/urn:nbn:in:cc0:t2q617g4d).
- Scharfe, Hartmut (1993), *Investigations in Kauṭalya's Manual of Political Science* (2nd edn., Oxford: Harrassowitz), ISBN: 3447033304, [URL](https://nbn-resolving.org/urn:nbn:in:cc0:t2q617g4d); 2nd. rev. ed. of Untersuchungen zur Staatsrechtslehre des Kauṭalya.
- Schwartzberg, Joseph E., Bajpai, Shiva G., et al. (1978) (eds.), *A Historical Atlas of South Asia* (Chicago: University of Chicago Press), [URL](https://nbn-resolving.org/urn:nbn:in:cc0:t2q617g4d).
- 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:in:cc0:t9870jt4g); Breton 1826: 358–363 cites Scott's description of cataract couching.
- Selby, Martha Ann (2005a), "Narratives of Conception, Gestation, and Labour in Sanskrit Ayurvedic Texts," *Asian Medicine*, 1/2: 254–75, ISSN: 1573-420X. doi: 10.1163/157342105777996638.
- (2005b), "Sanskrit Gynecologies in Postmodernity: The Commoditization of Indian Medicine in Alternative Medical and New-age Discourses on Women's Health," in *Asian Medicine and Globalization*, chap. 8, 120–31, [URL](https://nbn-resolving.org/urn:nbn:in:cc0:t2q617g4d), accessed 22/03/2018.
- 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://nopr.scribd.org/13960/t8gf8pz34).
- Sena, Gaṅgāprasād, et al. (1886–93) (eds.), *सुश्रुतसंहिता...दल्लनाचार्य-कृत-निबन्ध-संग्रह, चक्रपाणिदत्त-कृत-भानुमती-टीका...वङ्गानुवाद...इरेजि प्रतिशब्द* (Calcutta: Maṇirāma Press); Edition "g" in HIML: IB, 311.
- Shamasastri, R. (1951), *Kauṭilya's Arthaśāstra* (4th edn., Mysore: Sri Raghuvver Printing Press), [ark:/13960/t04z1mp6c](https://nopr.scribd.org/13960/t04z1mp6c).
- 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://nopr.scribd.org/13960/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), *Ḍalhaṇa and his Comments on Drugs* (Delhi: Munshiram Manoharlal).
- (1999–2001), *Suśruta-Saṃhitā, with English Translation of Text and Ḍalhaṇa's Commentary Alongwith (sic) Critical Notes*, 3 vols. (Haridas Ayurveda Series, 9; Varanasi: Chaukhambha Visvabharati).
- Sharma, Priyavrat (1994), *Caraka-saṃhitā. Critical Notes (Incorporating the commentaries of Jejjāta, Cakrapāṇi, Gaṅgādhara and Yogīndranātha)* (Jaikrishnadas Ayurveda Series, 36; 1st edn., Varanasi, Delhi: Chaukhambha Orientalia).
- Sharma, Ram Karan, and Dash, Bhagwan (2006), *Agniveśa's Caraka Saṃhitā. Text with English translation & Critical Exposition Based on Cakrapāṇi Datta's Āyurvedadīpikā* (Chowkhamba Sanskrit Studies, 94; repr. Varanasi: Chowkhamba Sanskrit Series Office).
- Shastri, R. Shama (1920) (ed.), *बोधायनगृह्यसूत्रम् The Bodhāyana Grihyasutra* (Mysore: University of Mysore), [ark:/13960/t2t492622](https://nopr.scribd.org/13960/t2t492622).
- Shaw, Miranda Eberle (2006), *Buddhist Goddesses of India* (Princeton, NJ: Princeton University Press), 571 pp., ISBN: 9789780691127; Includes bibliographical references and index.

- 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).
- Shree Gulabkunverba Ayurvedic Society (1949), *The Caraka Saṃhitā. Expounded by the Worshipful Ātreya Punarvasu Compiled by the Great Sage Agniveśa and Redacted by Caraka & Dridhabala. Edited and Published in Six Volumes with Translations in Hindi, Gujarati and English* (First Impression, Jamnagar: Shree Gulabkunverba Ayurvedic Society), [ark:/13960/t5m95n971](https://nbn-resolving.org/urn:nbn:in:shreegulabkunverba:13960/t5m95n971).
- Siddiqi, Muhammad Zubayr (1959), *Studies in Arabic and Persian Medical Literature*, [ark:/13960/s25bxqt84xm](https://nbn-resolving.org/urn:nbn:in:siddiqi:13960/s25bxqt84xm).
- Sieler, Roman (2015), *Lethal Spots, Vital Secrets. Medicine and Martial Arts in South India* (New York: Oxford University Press), ISBN: 9780190243869.
- Singh, A. (2003), "Tantra Yukti: Method of Theorization in Ayurveda," *Ancient Science Of Life*, 22/3: 64–74.
- 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.
- Singhal, G. D., and Mitra, Jyotir (1980), *Paediatric & Gynaecological Considerations and Aphorisms in Ancient Indian Surgery* (Varanasi: Singhal Publications); Based on *Suśruta Saṃhitā*, Uttara-tantra Chapters 27–38 & 63–66.
- Sircar, Dinesh Chandra (1966), *Indian Epigraphical Glossary* (Delhi: Motilal Banarsidass), [ark:/13960/t85h7f98n](https://nbn-resolving.org/urn:nbn:in:sircar:13960/t85h7f98n).
- (1971), *Studies in the Geography of Ancient and Medieval India* (2nd edn., Delhi: Motilal Banarsidass), [ark:/13960/t72w2zd8w](https://nbn-resolving.org/urn:nbn:in:sircar:13960/t72w2zd8w).
- (1987), "6. Rākshaskhāli (Sundarban) Plate; Śaka 1118," *Epigraphia Indica* (1953–54), 30: 42–3, [ark:/13960/t80m25q3w](https://nbn-resolving.org/urn:nbn:in:sircar:13960/t80m25q3w).
- Śiromaṇi, Bharatacandra (1873) (ed.), *चतुर्वर्गचिन्तामणि-दानखण्डम्* (Calcutta: Asiatic Society of Bengal), [ark:/13960/t1rf9jd94](https://nbn-resolving.org/urn:nbn:in:siromaṇi:13960/t1rf9jd94).
- Sleeman, W. H. (1893), *Rambles and Recollections of an Indian Official* (London: Constable), [ark:/13960/t22c4bx7w](https://nbn-resolving.org/urn:nbn:in:sleeman:13960/t22c4bx7w); v. 2 at [ark:/13960/t2s52bq7w](https://nbn-resolving.org/urn:nbn:in:sleeman:13960/t2s52bq7w).

- Slouber, Michael (2016a), *Early Tantric Medicine: Snakebite, Mantras, and Healing in the Garuda Tantras* (New York: OUP), 392 pp., ISBN: 9780190461812.
- (2016b), “Snakebite Goddesses in the Śākta Traditions: Roots and Incorporations of Tvaritā, Kurukullā and Bheruṇḍā: History, practice and doctrine,” in Bjarne Wernicke Olesen (ed.), *Goddess Traditions in Tantric Hinduism* (Routledge studies in tantric traditions; London: Routledge,), chap. 4, ISBN: 9781317585213.
- Smith, Brian K. (1994), *Classifying the Universe: The Ancient Indian Varna System and the Origins of Caste* (New York, Oxford: Oxford University Press), ISBN: 0-19-508498-5.
- Solomon, Esther A. (1976–78), *Indian Dialectics. Methods of Philosophical Discussion*, 2 vols. (Sheth Bholabhai Jeshingbhai Institute of Learning and Research Research Series, 70/74; Ahmedabad: B. J. Institute of Learning and Research. Gujarat Vidya Sabha), [ark:/13960/t5jb4x70d](https://nbn-resolving.org/urn:nbn:in:bsr-2019050113960-t5jb4x70d).
- 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](https://nbn-resolving.org/urn:nbn:in:bsr-2019050113960-t5jb4x70d), 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://nbn-resolving.org/urn:nbn:in:bsr-2019050113960-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://nbn-resolving.org/urn:nbn:in:bsr-2019050113960-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://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0091-9).
- Strauss, Bettina (1934), "Das Giftbuch des Šānāq: 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:5:1-63868-p0091-9).
- Suvedī, K. S., and Tivārī, N. (2000) (eds.), *सौश्रुतनिघण्टुः ग्रन्थादौ विस्तृतेन ग्रन्थ-वैशिष्ट्यप्रकाशकेनोपोद्धातेन अवसाने च द्रव्याणामनेकभाषानामावली-पर्यायसङ्ग्रहाभ्यां समलङ्कृतः सुश्रुतसंहितायां प्रयुक्तानामौषधद्रव्याणां पर्याय-गुणकर्मवर्णात्मकोऽपूर्वग्रन्थः* (Belajhunḍī, Ḍāṇ: 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:5:1-63868-p0091-9).
- 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:5:1-63868-p0091-9).
- 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:5:1-63868-p0091-9); Reprinted Lahore: Niaz Ahmad, 1978.
- Tivārī, Premvatī (1990), *Āyurvedīya prasūti-tantra evaṃ strī-roga; pratham bhāga: Prasūti-tantra, dvitīya bhāga: Strī-roga* (Jayakṛṣṇadāsa Āyurvedīya Granthamālā, 41; Varanas: Caukhamba Orientalia).
- 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).
- Unni, N. P. (2006), *The Arthaśāstra of Kauṭalya with the Commentary "Śrīmūlā" of Mahāmāhopādhyāya T. Gaṇapati Śāstrī: Part III—8, 9, 10, 11, 12, 13, 14 & 15 Adhikaraṇas* (Delhi: New Bharatiya Corporation), [ark:/13960/t41s58879](https://nbn-resolving.org/urn:nbn:de:hbz:5:1-63868-p0091-9).
- Unschuld, Paul Ulrich (1984), *Medicine in China: A History of Ideas* (Berkeley: University of California Press), ISBN: 0520050231.

- Vaidyopādhyāya, Rāmaprasāda (1911) (ed.), चरकसंहिता । श्रीमन्महर्षिप्रवरचरकप्रणीता । पण्डितरामप्रसादवैद्योपाध्यायविरचितप्रसादनी-भाषाटीकासंहिता । (mumbai: Kṣemarāja-Śrīkṛṣṇadāsaśreṣṭhin), [ark:/13960/t2r59q189](https://nopr.scribd.org/handle/123456789/13960/t2r59q189).
- 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://nopr.scribd.org/handle/123456789/13960/t53g00h0n); Biswas #0115.
- Vosjoli, Philippe de (1997), *Lizard Keeper's Handbook* (Herpetocultural Library; Mission Viejo, California: Advanced Vivarium Systems), 176, ISBN: 9781882770250, [ark:/13960/t1pg5rf79](https://nopr.scribd.org/handle/123456789/13960/t1pg5rf79).
- Wall, Frank (1913), *The Poisonous Terrestrial Snakes of Our British Indian Dominions (Including Ceylon) and How to Recognize Them; With Symptoms of Snake Poisoning and Treatment* (3rd edn., Bombay: Bombay Natural History Society), [ark:/13960/t1zc8g94b](https://nopr.scribd.org/handle/123456789/13960/t1zc8g94b).
- (1921), *Ophidia Taprobanica or the Snakes of Ceylon* (Colombo: Cottle, Government Printer), [ark:/13960/t39z9q93n](https://nopr.scribd.org/handle/123456789/13960/t39z9q93n).
- Weinstein, Scott, et al. (2009), “Envenomations: An Overview of Clinical Toxinology for the Primary Care Physician,” *American family physician*, 80 (8): 793–802, ISSN: 1532-0650 (ppublish).
- 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://nopr.scribd.org/handle/123456789/13960/t3qv3p906).
- WHO (2019), *Snakebite Envenoming: A Strategy for Prevention and Control* (Geneva: WHO), ISBN: 978-92-4-151564-1.
- 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](https://nopr.scribd.org/handle/123456789/13960/t3qv3p906).
- 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](https://doi.org/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](https://doi.org/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](https://doi.org/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](#).
- (2000), “The Combinatorics of Tastes and Humours in Classical Indian Medicine and Mathematics,” *Journal of Indian Philosophy*, 28: 479–95. DOI: [10.1023/a:1017514013759](https://doi.org/10.1023/a:1017514013759).
- (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](https://doi.org/10.5281/zenodo.7742068).
- (2013b), “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 (2016), "Models of Disease in Ayurvedic Medicine," in Mark Jackson (ed.), *The Routledge History of Disease* (Abingdon: Routledge), chap. 3, 38–53, ISBN: 9780415720014. DOI: [10.4324/9781315543420-4](https://doi.org/10.4324/9781315543420-4).
- Wujastyk, Dominik, et al. (2020), "Suśrutasaṃhitā," PanditProject (6 Oct.), [URL](#), accessed 14/09/2022.
- Wujastyk, Dominik (2021a), "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](https://doi.org/10.1163/9789004438224_007).
- (2021b), "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](https://doi.org/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 Evidenc," ed. Dominik Wujastyk, Jason Birch, Andrey Klebanov, et al., [URL](#), accessed 21/01/2023.
- Wujastyk, Dominik (2022), "The Science of Medicine," in Gavin D. Flood (ed.), *The Wiley Blackwell Companion to Hinduism* (2nd edn., Hoboken, NJ: Wiley and Sons, Ltd.), chap. 23, 399–413, ISBN: 9781119144861. DOI: [10.1002/9781119144892.ch23](https://doi.org/10.1002/9781119144892.ch23).
- Wujastyk, Dominik, Birch, Jason, Klebanov, Andrey, et al. (2021–) (eds.), "New Digital Edition of the Suśrutasaṃhitā: The Suśruta Project at Sak-tumiva," University of Alberta, [URL](#).
- Wujastyk, Dominik, Birch, Jason, Klebanov, Andrey, et al. (2023), *On the Plastic Surgery of the Ears and Nose. The Nepalese Version of the Suśrutasaṃhitā* (Heidelberg: Heidelberg Asian Studies Publishing), ISBN: 978-3-948791-63-6. DOI: [10.11588/hasp.1203](https://doi.org/10.11588/hasp.1203).
- 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.
- Zhang, Zhi-Yun, Lu, Anmin, and D'Arcy, William G (2024), "Flora of China: *Mandragora caulescens*," ed. Zhengyi Wu, Peter H. Raven, and Deyuan Hong, [URL](#), accessed 30/03/2015.
- 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](#), [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](#).
- (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.

Materia Medica

Abbreviations

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| 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</i> . Vaidyaratnam P. S. Varier's Arya Vaidya Sala, Kottakal (Madras: Orient Longman). |
| BIA | Prater, S. H. (1993), <i>The Book of Indian Animals</i> (3rd edn., Bombay, Delhi, etc.: Oxford University Press), ark : / 13960 / t6356w32f ; 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), <i>Supplement to Glossary of Indian Medicinal Plants</i> (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://nbn-resolving.org/urn:nbn:in: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://nbn-resolving.org/urn:nbn:in: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 Chuneekar, K. C. (1972), *Glossary of Vegetable Drugs in Brhatrayi* (Varanasi: Chowkhamba Sanskrit Series Office), [ark:/13960/s2cvp72x58j](https://nbn-resolving.org/urn:nbn:in:13960-s2cvp72x58j).
- HK Hilgenberg, Luise, and Kirfel, Willibald (1941), *Vāgbhaṭa’s Aṣṭāṅgahrdayasaṃhitā, ein altindisches Lehrbuch der Heilkunde, aus dem Sanskrit ins Deutsche übertragen mit Einleitung, Anmerkungen und Indices* (Leiden: Brill), [ark:/13960/t52h05616](https://nbn-resolving.org/urn:nbn:in:13960-t52h05616).
- IGP Griffiths, Mark (1994), *The New Royal Horticultural Society Index of Garden Plants* (London: Macmillan).

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| 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, ark:/13960/s2p9d5pqd1w . |
| 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. |
| Kew | Kew Gardens (2024), "Plants of the World," Royal Botanic Gardens, URL . |
| MBG | Missouri Botanical Garden (2024), "Missouri Botanical Garden: Plant Finder," Missouri Botanical Garden, URL . |
| 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. |
| Peter | Peter, K. V. (2012) (ed.), <i>Handbook of Herbs and Spices</i> (Food Science, Technology and Nutrition, 228; 2nd edn., Oxford, Cambridge, Philadelphia, New Delhi: Woodhead Publishing), ISBN: 9780857090393. |
| 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), *Field Guide to the Common Trees of India* (Bombay, Delhi, Oxford, etc.: World Wildlife Fund – India and Oxford University Press), ISBN: 0-19-561595-6; 4th reprint.
- Watt_{Comm} Watt, George (1908), *The Commercial Products of India, Being an Abridgement of “the Dictionary of the Economic Products of India”* (London: John Murray), [ark:/13960/t8cg7dm79](https://nbn-resolving.org/urn:nbn:uk:2019-06-13960-t8cg7dm79).
- Watt_{Dict} Watt, George (1889–96), *A Dictionary of the Economic Products of India* (Calcutta: Dept. Revenue and Agriculture, Government of India), [URL](https://www.india.gov.in), accessed 28/04/2021.

Flora

- aconite leaf (?) (*viṣapatrikā*) Unknown. Cf. perhaps, *vatsanābha* (wolfsbane). Cf. [GVDB: 373: 127](#)
- Alexandrian laurel (*punnāga*) Calophyllum inophyllum, L. See [AVS: 1, 338](#), [NK: 1, #425: 171](#)
- amaranth (*tanḍulīya*) see [amaranth](#) (*tanḍulīyaka*): [172](#)
- amaranth (*tanḍulīyaka*) Amaranthus spinosus L. See [GVDB: 174](#), [Dutt: 321](#), [NK: 1, #144](#), [Potter_{rev}: 15](#). Cf. [AVS: 1, 121](#). Amaranth (etym. amṛta!) is a large family, many originally endemic to S. America. A. hypochondriacus L. is sometimes identified with *tanḍulīyaka*, but A. spinosus L. is better known and attested in the first millennium BCE ([Saraswat 1991](#)): [120, 286](#)
- arjun (*arjuna*) Terminalia arjuna, Bedd. See [HK: 738: 38, 72](#)
- Asoka tree (*aśoka*) Saraca indica Linn., [GVDB: 26: 91, 93, 171, 180](#)
- axlewood (*dhava*) Anogeissus latifolia (Roxb. ex DC.) Wall. ex Guill & Perr. See [AVS: 1, 163 f](#), [Chopra: 20: 38, 71, 142](#)
- bamboo leaves (*veṇupatrikā*) Bambusa bambos, Druce. See [NK: 1, #307: 120](#)
- banyan (*vaṭa*) Ficus benghalensis Linn., [GVDB: 356: 72, 75](#)
- barley (*yava*) Hordeum vulgare, L. See [HK: 752: 101](#)
- bayberry (*katphala*) M. esculenta Buch.-Ham. ex D. Don, which is native to the Himalaya, from Kashmir to Assam, as well as S. China and SE Asia. Nageia nagi (Thunb.) Kuntze (syn of Myrica nagi Thunb.), as suggested by T. B. Singh and Chuneekar ([GVDB: 66](#)), is native to East Asia, not India: [172](#)
- bearded premna (*vasuka*) Premna barbata Wall. (← *vasuhaṭṭa*), according to Cakrapāṇidatta. See the discussion by T. B. Singh and Chuneekar ([GVDB: 362–363](#)), where other candidate species such as Osmanthus, Calotropis, and Trianthema are discussed. T. B. Singh and Chuneekar ([GVDB: 363](#)) note that when *vasuka* is mentioned with *vasira*, two varieties of salt are often meant (see *vasukavasirā*). See also [NK: #1299](#) who identifies it with Indigofera enneaphylla, Linn.

- (Birdsville Indigo), apparently without controversy : 72
- beautyberry (*śyāmā*) *Callicarpa macrophylla*, Vahl. See *AVS*: 1, 334, *NK*: 1, #420 : 96, 118, 120
- beggarweed (*aṃśumatī*) *Desmodium gangeticum* (L.) DC (*Dymock*: 1, 428, *GJM1*: 602, *NK*: 1, #1192; *ADPS*: 382, 414 and *AVS*: 2, 319, 4.366 are confusing) : 138
- beggarweed (*vidārigandhā*) → *śālaparṇī*. *Desmodium gangeticum* (L.) DC. See *Dymock*: 1, 428, *GJM1*: 602, cf. *NK*: 1, #1192; *ADPS*: 382, 414 and *AVS*: 2, 319, 4.366 are confusing : 47, 101, 294
- beleric myrobalan (*bibhītaka*) *Terminalia bellirica* Roxb. One of the components of the three myrobalans (*triphalā*) *GVDB*: 274, 196 : 297
- Bengal quince (*bilva*) *Aegle marmelos* (L.) Corr. See *AVS*: 1, 62, Chevallier 159, *NK*: 1, #62, (*MW*: 732a) : 71, 91, 93, 98, 290
- big thorn apple (?) (*mahākarambha*) Perhaps *Datura metel*, L.?. See thorn apple (*karambha*) : 127
- bitter gourd (*paṭolī*) see pointed gourd (*paṭola*), cite[233]gvdb : 171
- bitumen (*adrija*) → *śilājī*. A tar-like, black, resinous rock exudate. See *Mahākośa*: 1, 21 : 153
- black creeper (*kālānusārī*) *Ichnocarpus frutescens* R. Br. or *Cryptolepis buechanani* Roemer & Schultes. Probably a synonym for *kṛṣṇasārīvā* (*GVDB*: 94–95). *I. frutescens* has dark, rust-colored stems, so has been preferred here. However, *Cryptolepis grandiflora*, Wight, also has black stems. Synonym of *kālānusārīṇī*, *kālānusārīvā*. *kālānusārīya* may be a synonym of *tagara*, itself hard to identify : 171
- black creeper (*pāṇḍī*) *Ichnocarpus frutescens*, (L.) R.Br. or *Cryptolepis buechanani*, Roemer & Schultes. See *AVS*: 3, 141, 145, 203, *NK*: 1, #1283, 1210, *ADPS*: 434. Ḍalhaṇa on SS 5.1.82 identified *pāṇḍī* with *trivṛt* (*turpeth*) and T. B. Singh and Chuneekar (*GVDB*: 246) supported this as a usual identification : 120, 123, 137, 138, 171
- black pepper (*marica*) *Piper nigrum*, L. See *ADPS*: 294, *NK*: 1, #1929 : 102, 180, 297
- blackboard tree (*saptachada*) *Alstonia scholaris* R. Br. *GVDB*: 420 : 119
- blackbuck (*hariṇa*) *Antelope cervicapra*, L. See *BIA*: 270 *IW*: 95, 165, *et passim* : 123
- blue water-lily (*utpala*) *Nymphaea stellata*, Willd. See *GJM1*: 528, *IGP* 790; *Dutt*: 110, *NK*: 1, #1726 : 29, 118, 137, 138, 180, 181
- bluebell barleria (*kuruvaka*) Or *kurubaka*. T. B. Singh and Chuneekar (*GVDB*: 108) notes that this is sometimes listed as a type of rice, as at *Suśrutasaṃhitā* 1.46.8 (*Su* 1938: 215). Further discussion at *GVDB*: 447–448, sub bluebell barleria (*saireyaka*), where *kurubaka* is said to be identifiable with *baka* and *būka*. T. B. Singh and Chuneekar (*GVDB*) finally propose a red-flowering *Rhododendron*, admitting that this is a novel suggestion : 127
- bluebell barleria (*saireyaka*) A *Barleria*, perhaps *B. cristata* L. that is particularly well-known in South India. Four kinds are distinguished in ayurveda, based on the colour of their flowers. See substantive discussion at *GVDB*: 444–449 : 287
- bull's head (*gokṣura*) *Tribulus terrestris* L. *GVDB*: 144–145, 193. A component of lesser five roots : 287
- bull's head (*trikaṇṭaka*) → bull's head (*gokṣura*) *GVDB*: 193. A component of lesser five roots : 294
- bulrush (*kaṣeru*) "Two species, *Scirpus kysoor* Roxb., and *S. grossus* Linn. f. are used" *GVDB*: 85. Also *kaṣeruka*

- and kaseru : 96, 97, 100
- cardamom (*elā*) *Elettaria cardamomum*, Maton. See AVS: 2, 360, NK: 1, #924, Potter_{rev}: 66 : 90, 91, 138, 143, 171
- carray cheddie (*viśvadevā*) → *gāṅgerukī* *Canthium parviflorum*, Lam. See AVS: 1, 366 f. Or *Sida rhombifolia* Linn. (GVDB: 372, 444 ff. et passim) : 75
- cassia cinnamon (*patra*) *Cinnamomum tamala*, (Buch.-Ham.) Nees. See AVS: 2, 84, NK: 1, #589 : 90, 91, 98, 120, 138
- castor oil tree (*gandharvahaṣṭa*) → *eraṇḍa*. GVDB: 135, K&B: 3, 2277 : 43, 93
- castor-oil (*eraṇḍa*) *Ricinus communis*, L. See NK: 1, #2145, Chopra: 214 : 48
- catechu (*khadira*) *Senegalia catechu* (L.f.) P. J. Hurter & Mabb = *Acacia catechu* Willd. GVDB: 129–130 : 72
- certain minerals (*tārāvitāra*) Unknown. It is not even certain that these are minerals. The variant reading in the vulgate, *tāraḥ sutāraḥ* was glossed by Ḍaḷhaṇa on 5.3.14 (Su 1938: 568) as follows *tāro rūpyaṃ, sutāraḥ pāradaḥ*, “*tāra* means silver; *sutāra* means mercury.” : 142
- chaff (*kāṇḍana*) The word *kāṇḍana* is not found in dictionaries; *kaṇḍana* is threshing, separating the chaff from the grain in a mortar. Cf. Hemādri’s *Caturvargacintāmaṇi* (PWK: 2, 8) (Śiromaṇi 1873: 1, 138: 21, citing the *Vāyupurāṇa*) : 31, 296
- chebulic myrobalan (*harītakī*) *Terminalia chebula* Retz. GVDB: 466 : 99, 119, 297
- cherry (*elavālu*) *Prunus cerasus*, L.?. See BVDB 58, NK: 1, #2037, GVDB: 58 : 138
- chir pine (*sarala*) *Pinus roxburghii*, Sarg. GVDB: 423 : 71, 100
- cinnamon (*tvac*) *Cinnamomum cassia*, Blume. See NK: 1, #579 : 288
- cinnamon (*tvak*) see cinnamon (*tvac*) : 171
- citron (*mātuluṅga*) *Citrus medica*, Linn. GVDB: 276, 306. Also spelled *mātuliṅga*, *mātulaṅga*, *mātulāṅga* : 71, 98, 103, 104, 172
- cobra’s saffron (*nāgapuṣpa*) → *nāgakeśara*. *Mesua ferrea*, L. See NK: 1, #1595, GVDB: 220 : 138
- colocynth (*indravāruṇī*) *Citrullus colocynthis* (L.) Schrad., GVDB: 46. The two varieties of this plant are discussed by (ADPS: 180–183); the first is agreed to be colocynth, the second is debated but is likely to be a *Curcubitaceae* : 288
- colocynth (*myḡāḍanī*) see colocynth (*indravāruṇī*) GVDB: 46, 318 : 171
- common smilax (*śvadaṃśtra*) *Smilax aspera* L., GVDB: 414 : 71
- convolvulus (*lakṣmaṇā*) Sivarajan and Balachandran (ADPS: 273–275) suggest *Ipomoea marginata* (Desr.) Verdc. or *I. obscura* (Linn.) AVS: 3, 237–238 suggests *Ipomoea sepiaria* Roxb. (looks like a little boy (*putraka*), and generates a boy (*putrajananī*), according to the *Bhāvaprakāśa*). Sivarajan and Balachandran (ADPS: 273–275) firmly reject *Mandragora officinalis* which is European; but possible consideration could be given to *Mandragora caulescens* C.B. Clarke, a variant that is known in South Asia. Cf. GVDB: 346–347. NK: #1546, #2323 suggests *Mandragora officinalum*, Linn., known as *putrada* : 75
- corky coral tree (*pāribhadra*) *Erythrina suberosa* Roxb. See GVDB 245 : 142
- costus (*kuṣṭha*) *Saussurea costus*, Clarke. See NK: 1, #2239 : 90, 91, 98, 120, 138, 143, 171
- cottony jujube (*kākolī*) *Ziziphus mauritania*, Lam. See IGP: 1233, NK: 1, #2663; IGP 1233. Cf. NK: 1, #1170 : 89, 97, 98, 168
- country mallow (*atibālā*) *Abutilon indicum*, (L.) Sweet, but may be other kinds of mallow, e.g., *Sida rhombifolia*,

- L.. See [NK: 1, #11](#), [IGP: 1080](#), [NK: 1, #2300](#), [ADPS: 71, 77: 47, 97, 100, 236](#)
country mallow (*sahadevā*) → *balā* ([GVDB: 428](#)). Contains ephedrine: [75, 100](#)
- country sarsaparilla (*anantā*) *Hemidesmus indicus*, (L.) R. Br. See [ADPS: 434](#), [AVS: 3, 141–5](#), [NK: 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. Rr. ([GVDB: 429–431](#)): [47, 127, 137, 138, 142](#)
- crape jasmine (*nata*) → [crape jasmine](#) [GVDB: 215: 289, 291](#)
- crape jasmine (*tagara*) *Tabernaemontana divaricata* (L.) R.Br. ex Roem. & Schultes. See [GJM1: 557](#), [AVS: 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 or a *Nymphoides* (see ??), but there remain many historical questions about the ancient and regional identities of this plant See, e.g., [AVS: 5, 334, 345](#). See also [IGP: 1147: 90, 91, 98, 120, 138, 171, 288, 291, 299](#)
- crimson trumpet-flower tree (*pāṭalā*) *Stereospermum chelonides*, (L. f.) A. DC. See [GJM1: 573](#), [AVS: 5, 192 ff](#), [ADPS: 362 f](#), [AVS: 3, 1848 f](#), [IGP 1120](#), [Dymock: 3, 20 ff: 142, 290](#)
- crow (?) (*kāka2*) an unidentified poisonous plant apparently called “crow.” T. B. Singh and Chuneekar ([GVDB: 86](#)) note that several drugs named after the crow are unidentifiable: [127](#)
- cuscut grass (*uśīra*) *Andropogon murcatus*, Retz. Also “vetiver grass.” See [NK: 1, #180: 72, 120, 166](#)
- datura (*dhattūra*) *Datura metel*, L. See [AVS: 2, 305](#) (cf. *Abhidhānamāñjarī*), [NK: 1, #796 ff](#). [Potter_{rev}: 292 f](#), [ADPS: 132: 44](#)
- deodar (*bhadradāru*) *Cedrus deodara*, (Roxb.ex D.Don) G. Don. See [AVS 41](#), [NK: 1, #516: 38, 97, 101, 138](#)
- deodar (*devadāru*) *Cedrus deodara* (Roxb.) Loud. [GVDB: 206–207: 71, 98, 236, 289](#)
- deodar (*suradāru*) see [deodar](#) (*devadāru*): [171](#)
- devil’s dung (*hiṅgu*) *Ferula foetida* Regel., [GVDB: 471–472: 72, 74, 171](#)
- dried ginger (*nāgara*) → [dried ginger](#) (*śuṇṭhī*) [GVDB: 221–222: 74, 171](#)
- dried ginger (*śuṇṭhī*) *Zingiber officinale*, Roscoe. See [ADPS: 50](#), [NK: 1, #2658](#), [AVS: 5, 435](#), [IGP: 1232: 96, 289, 297](#)
- dried meat (*vallūra*) [MW: 929](#), [Mahākośa: 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: 3, 167](#)): [30](#)
- drum-giver (?) (*lambaradā*) Unknown; cf. [GVDB: 348: 127](#)
- elixir salve (*rasāñjana*) → *añjana*. See [Indian barberry: 38, 48](#)
- embelia (*viḍaṅga*) *Embelia ribes*, Burm. f. See [ADPS: 507](#), [AVS: 2, 368](#), [NK: 1, #929](#), [Potter_{rev}: 113: 38, 71, 91, 138, 171](#)
- emblic myrobalan (*āmalaka*) *Phyllanthus emblica*, L. See [AVS: 4, 256: 72, 99, 100, 180, 297](#)
- emetic nut (*karaghāṭa*) Probably a synonym for *karahāṭa* ([emetic nut](#)), q.v., [GVDB: 74: 289](#)
- emetic nut (*karahāṭa*) *Randia dumetorum*, Lamk. See [GVDB: 291–292](#) and [NK: 1, #2091](#). T. B. Singh and Chuneekar ([GVDB: 74, 77–78](#)) noted that it may be a synonym for *karaghāṭa*, [emetic nut](#), and pointed rather to *Gardenia turgida* Roxb. on the basis of local knowledge in U. P.: [289, 293](#)

- emetic nut (*madana*) *Randia dumetorum*, Lamk. See NK: 1, #2091: 119, 238
- false daisy (*bhṛṅga*) *Eclipta prostrata* (L.) L. See GVDB: 288: 71
- false daisy (*subhaṅgurā*) (*su*)*bhaṅgura* = *bhṛṅga*? *Eclipta prostrata* (L.) L. See GVDB: 288: 126
- fermented rice-water (*dhānyāmla*) → *kāñjī*, *kāñjikā*, *sauvīra*. GVDB: 458, NK: 2, appendix VI, #18: 45, 46
- fern (*ajaruhā*) *Nephrodium* species GVDB: 7, uncertain. Perhbaps *Christella dentata* (Forssk.) Brownsey & Jermy, which is reported to have folk applications against skin diseases in India: 122
- fire-flame bush (*dhātakī*) *Woodfordia fruticosa* (L.) Kurz. See AVS: 5, 412, NK: 1, #2626: 72, 119
- five roots (*pañcamūla*) Described at *Suśrutasaṃhitā* 1.38.66–69 (Su 1938: 169). There are two *pañcamūlas*, the *laghupañcamūla* (the lesser five roots) and *bṛhatpañcamūla* (greater five roots), with differing properties. Combined they are called *daśamūla* (ten roots). See also *Mahākośa*: 1, 468: 71
- flame-of-the-forest (*palāśa*) *Butea monosperma* (Lam.) Taub. GVDB: 241. *pālāśa* in some sources: 72, 93
- flax (*atasī*) *Linum usitatissimum*, L. See NK#1495: 97
- foxtail millet (*priyaṅgu*) → *śyāmā*. *Setaria italica* (L.) P. Beauvois GVDB: 263–264, GJM1: 576. The most widely-grown species of millet in Asia. Some say *Callicarpa macrophylla*, Vahl. See AVS: 1, 334, NK: 1, #420. The fruits of *S. italica* and *C. macrophylla* are similar. See also GVDB: 413, where the authors suggest that *priyaṅgu* is meant by *gondī* or *gondanī* and may have originally been called *gundrabīja*: 38, 138, 143, 171, 172, 180
- fragrant lotus (*saugandhika*) A type of *kumuda* or *utpala* (GVDB: 457): 29
- fruit of the marking-nut (*āruṣkara*) see marking-nut (*aruṣkara*). “*āruṣkara* = *aruṣkara phala*” ADPS: 23; see also MW: 151: 172
- galangal (*galaṅgala*) *Alpinia galanga* (L.) Sw. Identified with grey orchid in Kerala (ADPS: 398). The name is borrowed from Chinese, perhaps via Persian or Arabic (Peter: 2, 304), and the name does not occur in early āyurvedic literature (GVDB): 290
- garjan oil tree (*aśvakarṇa*) *Dipterocarpus turbinatus* Gaertn. f. See GVDB: 28, Chopra: 100: 142
- giant potato (*kṣīravidārī*) possibly → *kṣīraśukla*. *Ipomoea mauritiana*, Jacq. See ADPS: 510, AVS: 3, 222, AVS: 3, 1717 ff: 97, 292, 294–296
- ginger (*mahaṣadha*) *Zingiber officinale*, Roscoe. See ADPS: 50, NK: 1, #2658, IGP: 1232: 123
- gold (*hema*) gold: 138
- 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”: 142
- golden shower tree (*rājadruma*) *rājadruma* = *āragvadha*. *Cassia fistula* L. See GVDB 37: 142
- golden shower tree (*rājavarṇa*) → *rājadruma* = *āragvadha*. *Cassia fistula* L. See GVDB: 37: 71
- golden shower tree (*āragvadha*) *Cassia fistula* L. GVDB: 37–38. The plant has many synonyms.: 99, 170
- gourd (*alābu*) *Lagenaria siceraria* Standl. GVDB: 25. Some say *Lagenaria vulgaris*, Seringe (NK: 1, #1419) but this is not appropriate for blood-letting: 25, 26, 119, 168

- greater five roots (*br̥hatpañcamūla*)
Described at *Suśrutasaṃhitā* 1.38.68–69
(*Su* 1938: 169). Consists of Bengal
quince, migraine tree, Indian trumpet
tree, crimson trumpet-flower tree, and
white teak: 290, 293, 297
- green gram (*māṣa*) *Vigna radiata* (L.) R.
Wilcz. See *ADPS*: 296, *IGP* 1204: 38,
97, 237
- grey orchid (*rāśnā*) *Vanda tessellata*
(Roxb.) Hook. ex G.Don, usually. But
Pluchea lanceolata, Oliver & Hiern, is a
more common identification in Punjab
and Gujarat (*GVDB*: 337–338); *Alpinia*
galanga (L.) Sw. is more common in
Kerala (*ADPS*: 398; *Peter*: 2, 303–318),
though this is usually identified with
galangal. As all authorities note, the
identification of this plant is debated.
Sivarajan and Balachandran
(*ADPS*: 398–401) note that sources
describe it as having leaves like
cardamom and sweet-smelling roots
and that “there is great confusion with
regard to the identity of the drug.”: 71,
96, 98, 171, 290
- gummy gardenia (*pr̥thvīkā*) ←
hiṅgupatrikā, *Gardenia gummifera* L.f.,
GVDB: 257, q.v. for discussion: 172
- hairy bergenia (*pāṣāṇabheda*) *Bergenia*
ligulata (Wall.) Engl. *GVDB*: 246–247:
72
- halfa grass (*darbha*) *Demostachya*
bipinnata Stapf. *GVDB*: 201. Synonym
of *kuśa*: 74, 97
- halfa grass (*kuśa*) *Desmostachya bipinnata*,
(L.) Stapf. *GVDB*: 111, *AVS*: 2, 326:
97, 165
- hare foot uraria (*kroṣṭakamekhalā*) see hare
foot uraria (*pr̥śniparṇī*)
Mahākośa: 1, 246. *kroṣṭaka* can mean
“jackal” *śṛgāla*, as in *śṛgālavinna*, “a kind
of *pr̥śnaparṇī*” *Mahākośa*: 1, 839: 171
- hare foot uraria (*pr̥thakparṇī*) → hare foot
uraria (*pr̥śniparṇī*) and rajmahal hemp
(*mūrvā*) *GVDB*: 257. A component of
lesser five roots: 99, 294
- hare foot uraria (*pr̥śniparṇī*) → *sahā*?
Uraria lagopoides, DC. and *U. picta*
Desv. See *GVDB*: 257–258, *GJM*₁: 577,
Dymock: 1, 426, *AVS*: 1, 750 ff, *NK*: 1,
#2542; *ADPS*: 382, *AVS*: 2, 319 and
AVS: 4, 366 are confusing. Also called
pr̥thakparṇī. A component of lesser five
roots: 96, 97, 291
- heart-leaf sida (*balā*) *Sida cordifolia*, Linn.
See *ADPS*: 71, *NK*: 1, #2297: 47, 97,
100, 102, 138, 236
- heart-leaved moonseed (*amṛtā*) → *guḍūcī*.
Tinospora cordifolia, (Willd.) Hook.f.
& Thoms.? See *ADPS*: 38, *NK*: 1, #2472,
624, *Dastur* #229: 120, 137
- heart-leaved moonseed (*guḍūcī*) *Tinospora*
cordifolia, (Thunb.) Miers. *ADPS*: 38,
NK: 1, #2472 & #624, *Dastur* #229,
GVDB: 141–142. Also identified as
Cocculus cordifolius DC. by Nadkarni
(*NK*) and others (see also the *Tropicos*
botanical database): 71, 98
- heart-leaved moonseed (*somavallī*)
Tinospora cordifolia (Thunb.) Miers.
GVDB: 456. Likely, but uncertain: 120
- heart-leaved moonseed creeper
(*amṛtavallī*) See *amṛtā*: 236
- henna (*madayantikā*) *Lawsonia inermis*, L.
See *AVS*: 3, 303, *NK*: 1, #1448,
*Potter*_{rev}: 151: 121
- Himalayan mayapple (*vakra*) *Podophyllum*
emodi, Wall. (*NK*: #1971). But perhaps
a synonym of crape jasmine and crape
jasmine, q.v. (*GVDB*: 354): 143, 171
- Himalayan monkshood (*ativiṣā*) → *viṣā*
Aconitum heterophyllum Wall.
GVDB: 12, *NK*: 1, #39. Also “atis
roots”: 88, 121, 123, 143
- Himalayan monkshood (*viṣā*) → *ativiṣā*
GVDB: 12, 373: 295
- Himalayan yew (*sthaṇḍeyaka*) T. B. Singh
and Chuneekar (*GVDB*: 458–459)
suggested *Taxus baccata* L., but that

- tree is endemic to the Mediterranean and not South Asia. Poudel et al. 2013 show that *T. contorta* Griff., *T. mairei* (Lemée & Lév.) and *T. wallichiana* Zucc. are distributed in the Hindu Kush - Himalaya region. The Nepalese name *Thunera* is etymologically cognate with the Sanskrit name. *T. contorta* is of medicinal importance, so its common name is used here : 171
- hogweed (*punarnavā*) *Boerhaavia diffusa*, L. See ADPS: 387, AVS: 1, 281, NK: 1, #363 : 99, 121, 137
- Holostemma creeper (*jīvantī*) → *sūryavallī*? *Holostemma ada-kodien*, Schultes. See ADPS: 195, AVS: 3, 167, 169, NK: 1, #1242 : 100, 295
- honey (*kṣaudra*) Eight varieties of honey are described in the *Suśrutasamhitā* (NK: 2, Appendix 192). *Kṣaudra* is the product of a small bee of tawny colour, called *kṣudra* : 105, 123, 180, 181
- horned pondweed (*śaivāla*) also *śaivāla*, *śevāra*. *Zannichellia palustris* L. The uncertainties of this identification are discussed by T. B. Singh and Chuneekar (GVDB: 409). Sometimes identified with *scutch grass* (*dūrvā*) (GVDB: 409). Identified as *Ceratophyllum demersum* Linn. ("hornwort") by AVS: 2, 56–57x : 98, 292, 295
- hornwort (*jalaśūka*) → *jalanīlikā*. *Ceratophyllum demersum*, L. See AVS: 2, 56, IGP: 232. T. B. Singh and Chuneekar (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 : 47
- horse gram (*kulattha*) See *horse gram* (*kulattha*) : 166
- horse gram (*kulattha*) *Macrotyloma uniflorum* (Lam.) Verdcourt, syn. *Dolichos biflorus*, L., *D. uniflorus*, Lam., GVDB: 109, Kew: sub *Macrotyloma uniflorum* : 101, 102, 170, 292
- horseradish tree (*muruṅgī*) see *horseradish tree* (*śigru*) (GVDB: 311) : 171
- horseradish tree (*śigru*) *Moringa oleifera* Lam. See IGP 759, GJM1: 603, Dymock: 1, 396 : 98, 99, 292
- hyacinth beans (*niṣpāva*) *Lablab purpureus* (L.) Sweet (1826) GVDB: 228 : 87
- Indian barberry (*añjana*) → *rasāñjana*, *dāruharidrā*. *Berberis aristata*, DC. Dymock: 1, 65, NK: 1, #335, GJM1: 562, IGP: 141 : 48, 122, 289
- Indian barberry (*dāruharidrā*) *Berberis aristata*, DC. See Dymock: 1, 65, NK: 1, #685, GJM1: 562, IGP 141 : 137, 138, 292
- Indian barberry (*dārvi*) → *Indian barberry* (*dāruharidrā*) GVDB: 203 : 181
- Indian barberry (*kālīyaka*) → *dāruharidrā*, *añjana*. *Berberis aristata*, DC. See Dymock: 1, 65, NK: 1, #685, GJM1: 562, IGP: 141 : 120
- Indian bat tree (*śuṅgā*) → *parkaṭīvrkṣa* according to *Śabdasindhu*: 1058; idem also suggests *vaṭavrkṣa*, i.e., *Ficus benghalensis* Linn. and *āmṛātaka*, *Spondias pinnata* (L.f.) Kurz. (native to S.E Asia but naturalized in S. Asia). Contrasted with *vaṭa* at *Suśrutasamhitā* 3.2.32. Cf. MW: 1081 : 75
- Indian bdellium-tree (*guggula*) See *Indian bdellium-tree* *guggulu* : 171
- Indian bdellium-tree (*guggulu*) *Commiphora wightii* (Arn.) Bhandari (GVDB: 140). This is a flowering shrub or small tree that produces a fragrant resin commonly called *guggulu*. The name sometimes refers to the plant and sometimes to the resin : 105, 292
- Indian beech (*naktamāla*) *Pongamia pinnata*, (L.) Pierre. See AVS: 4, 339, NK: 1, #2003 : 38, 93
- Indian cherry (*śleṣmātakī*) *Cordia dichotoma* G. Forst., AVS: 2, 180–183. See Kew, sub *C. dichotoma*; *Cordia*

- myxa L., according to T. B. Singh and Chunekar (GVDB: 413–414), although they also suggest *C. dichotoma* (synonym of *C. wallichii* G. Don.) and *C. rothii* (synonym of *Cordia sinensis* Lam. : 172
- 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 : 47, 98, 295
- Indian jujube (*sauvīraka*) *Zizphus jujuba* Mill., GVDB: 458, MBG: sub *jujuba* : 97, 166
- Indian kudzu (*vidārī*) → *payasyā*. *Pueraria tuberosa* (Willd.) DC. See ADPS: 510, AVS: 1, 792 f, AVS: 4, 391; not Dymock: 1, 424 f. See GJM2: 444, 451, AVS: 1, 187, but AVS: 3, 1719 = *Ipomoea mauritiana*, Jacq : 47, 71
- Indian madder (*mañjiṣṭhā*) *Rubia cordifolia*, L. See IGP, Chopra: 215, GVDB: 289 : 43, 138, 171, 172
- 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) : 27
- Indian mustard (*sarṣapa*) *Brassica juncea*, Czern. & Coss. See AVS: 1, 301, NK: 1, #378: 30
- Indian sarsaparilla (*sugandhikā*) see *Indian sarsaparilla* (*śvetasārīvā*) GVDB: 430, 436 : 171
- Indian sarsaparilla (*sārīvā*) → *anantā*. The *śveta* variety is *Hemidesmus indicus*, (L.) R. Br. ADPS: 434, AVS: 3, 141–145, NK: 1, #1210, GVDB: 430; and the black form, black creeper, *pālindī*. *Ichnocarpus frutescens*, (L.) R.Br. or *Cryptolepis buehanani*, Roemer & Schultes AVS: 3, 141, 145, 203, NK: 1, #1283, 1210, ADPS: 429–430 : 137, 138, 290, 293
- Indian sarsaparilla (*śvetasārīvā*) *Hemidesmus indicus*, (L.) R. Br. See *Indian sarsaparilla* (*sārīvā*). ADPS: 434, AVS: 3, 141–145, NK: 1, #1210, GVDB: 430 : 293
- Indian symphorema (*sinduvāra*) T. B. Singh and Chunekar (GVDB: 435) settles on *Symphorema polyandrum* Wight as the identity of this plant. Other authors choose *Vitex negundo* Linn. See further NK: 1, #2603 (cf. use of leaves), IGP: 1210a, MW: 1088b. Discussion by GVDB: 433–435 : 171
- Indian trumpet tree (*śyonāka*) *Oroxylum indicum* (L.) Benth. ex Kurz. GVDB: 172–173. A component of *greater five roots* : 293
- Indian trumpet tree (*ṭiṇṭuka*) → *Indian trumpet tree* (*śyonāka*). *Oroxylum indicum* (L.) Benth. ex Kurz. GVDB: 172–173. A component of *greater five roots* : 290
- Indrajao (*indrayava*) see *vrkṣaka* (Indrajao) *Holarrhena pubescens* Wall. ex G.Don 1837 GVDB: 376, 45 and 84 : 88
- Indrajao (*vrkṣaka*) → *indrayava*, *indrabīja*, *kaliṅga*, and *kuṭaja*. *Holarrhena pubescens* Wall. ex G.Don 1837 GVDB: 376, 45 and 84 : 73, 236, 293
- jambul (*jambū*) *Syzygium cumini*, (L.) Skeels. See ADPS: 188, NK: 1, #967, Potter_{rev}: 168, Wujastyk 2003a : 119, 180
- jasmine (*mālātī*) *Jasminium grandiflorum*, L. See NK: 1, #1364 : 120
- jequirity (*guñjā*) *Abrus precatorius*, L. See AVS: 1, 10, NK: 1, #6, Potter_{rev}: 168 :

- 126, 127
(?) (*karaṭā*) Not in GVDB. Cf. perhaps *karahāṭa* (emetic nut) : 127
- kutki (*kaṭukā*) *Picrorhiza kurroa* Royle ex Benth. (GVDB: 64–65) : 88, 105, 293
- kutki (*kaṭurohaṇī*) → kutki (*kaṭukā*) GVDB: 66 : 171
- lac (*lākṣā*) *Kerria lacca* (Kerr.). See GJM1: 445, NK: 2, #32. Watt (*WattComm*: 1053–1066) is characteristically informative, and is definite about the antiquity of lac in India : 143, 172
- leadwort (*agniśikhā*) *Plumbago zeylanica* (or *rosea*?), L. See NK: 1, #1966, 1967 : 293
- leadwort (*citraka*) *Plumbago zeylanica* (or *indica*?), L. See RĀ. 6.124, ADPS: 119, NK: 1, #1966, 1967 : 38, 72, 88, 93, 104, 171
- leadwort (*vidyutśikhā*) Synonym of *agniśikhā* (leadwort), q.v. : 127
- lesser five roots (*laghupañcamūla*)
Described at *Suśrutasaṃhitā* 1.38.66–67 (Su 1938: 169). Consists of bull's head, poison berry, yellow-fruit nightshade, hare foot *uraria*, and beggarweed : 287, 290, 291, 297, 300
- liquorice (?) (*klītaka*) *Glycyrrhiza glabra*, L.? GVDB: 123–124 discuss the many difficulties in identifying this plant : 126
- liquorice (*madhuka*) also *yaṣṭi* (*ka/kā*), *yaṣṭīmadhuka*, *Glycyrrhiza glabra*, L. AVS: 3, 84, NK: 1, #1136, GVDB: 329 f. : 47, 71, 96–101, 103, 123, 136, 138, 171, 181, 294
- liquorice (*yaṣṭī*) see liquorice (*madhuka*) : 171, 172
- liquorice (*yaṣṭīmadhuka*) see liquorice (*madhuka*) : 48
- lodh tree (*Symplocos racemosa*, Roxb. See GJM1: 597, ADPS: 279 f, NK: 1, #2420. T. B. Singh and Chunekar (GVDB: 351–352) notes that there are two varieties, *S. racemosa*, qualified as *śāvāra*, and *S. crataegoides* Buch.-Ham. for *paṭṭikā lodhra* : 38, 138, 171, 181
- long pepper (*kṛṣṇā*) see long pepper (*pippalī*) : 180
- long pepper (*māgadha*) see long pepper (*pippalī*) : 122
- long pepper (*pippalī*) see long pepper (*pippalī*) : 171
- long pepper (*pippalī*) *Piper longum*, L. See ADPS: 374, NK: 1, #1928, GVDB: 249–250, but cf. AVS: 3, 245 : 71, 72, 93, 99, 100, 103–105, 123, 138, 180, 236, 294, 297
- lotus (*nalina*) → sacred lotus (*kamala*) GVDB: 218 : 180, 181
- lotus stalk (*mṛṇālā*) “Leaf stalk of sacred lotus” GVDB: 318 : 98
- luffa (*koṣṭakī*) = *koṣṭakī*. *Luffa cylindrica*, (L.) M. J. Roem. or *L. acutangula*, (L.) Roxb. ADPS: 252–253, NK: 1, #1514 etc. GVDB: 121 : 119, 136
- luffa gourd (*koṣavatī*) = *koṣṭakī*, luffa : 136
- mahua (*madhūka*) *Madhuca longifolia*, (Koenig) Macbride. See AVS: 3, 362 f : 71, 184–186
- maidenhair fern (*haṃsāhvayā*) *Adiantum lunulatum* Burm f. GVDB: 463 : 236
- Malay beechwood (*śrīparṇī*) → *kāśmarī*. *Gmelina arborea* Linn., GVDB: 412, 96–97 : 71
- mango (*āmra*) *Mangifera indica* Linn. GVDB: 37 : 119, 180
- mangosteen (*amla*) *Garcinia pedunculata* Roxb. ex Buch.-Ham. See GVDB: 20–21 : 170
- marking-nut (*aruṣkara*) *Semecarpus anacardium* L. See *bhallātaka* (marking-nut tree), GVDB: 23, ADPS: 85–86 : 127, 290
- marking-nut tree (*bhallātaka*) *Semecarpus anacardium*, L. See NK: 1, #2269, AVS: 5, 98, ADPS: 85–86 : 93, 122, 294
- medhshingi (*vijayā*2) *Dolichandrone falcata* (DC.) The *Sauśrutaniḡhaṇṭu*

- 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) : 127
- migraine tree (*agnimantha*) *Premna corymbosa*, Rottl. See AVS 1927, ADPS: 21, NK: 1, #2025, AVS: 4, 348; GJM1: 523: = *P. integrifolia/serratifolia*, L: 136, 290
- milk-white (*kṣīraśuklā*) An unidentified plant. GVDB: 126: see purple *roscoe* and giant potato : 47, 296
- mulberry (*kramuka*) probably the mulberry (*tūda*); see discussion by T. B. Singh and Chuneekar (GVDB: 122) : 172
- mulberry (*tūda*) *Morus indica* L., GVDB: 189 : 294
- mung beans (*mudga*) *Phaseolus radiatus* L. GVDB: 310–311 : 97, 100, 186
- mung beans (*māṣaka*) *Phaseolus mungo* Linn. GVDB: 308 : 120
- myrobalan (*abhayā*) *Terminalia chebula*, Retz. See ADPS: 172, NK: 1, #2451, Potter_{rev.}: 214 : 88, 137, 143
- myrobalans (*pathyā*) *Terminalia chebula* Retz. See NK: 1, #2451 : 180
- natron (*suvarcikā*) Sodium carbonate. NK: 2, #45. Ḍalhaṇa identifies *suvarcikā* with *svarjikṣāra* 4.8.50 (Su 1938: 441) : 104, 138, 171
- neem tree (*nimba*) *Azadirachta indica* A. Juss. GVDB: 226 : 44, 236
- 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. T. B. Singh and Chuneekar (GVDB: 108) added that it could be a variety of rice, *ṣaṣṭika dhānya* : 142
- nutgrass (*mustā*) *Cyperus rotundus*, L. See ADPS: 316, AVS: 2, 296, NK: 1, #782 : 295
- orchid tree (*kovidāra*) *Bauhinia purpurea* Linn. or *B. variegata* Linn. (probably the former), GVDB: 120, AVS: 1, 256–260 : 166
- paddy rice (*śālī*) *Oriza sativa*, Linn. GVDB: 395–396 mentioning 33 Sanskrit sub-variety names; AVS: 4, 193 : 31, 296
- panacea twiner (*arkapuṣpī*) → *arkaparṇī*, *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: 3, 171. The etymology of the name suggests *Helianthus annuus* Linn., but this plant is native to the Americas : 137, 292
- peas (*hareṇu*) *hareṇu* = *satīna*. *Pisum sativum*, L. T. B. 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 : 98, 137, 138, 143, 171, 172, 180, 295
- peepul tree (*aśvattha*) *Ficus religiosa*, L. See ADPS: 63 : 145
- periploca of the woods (*meṣaśṛṅga*) *Gymnema sylvestre* (Retz.) R. Br. See AVS: 3, 107, NK: 1, #1173 : 122
- phalsa (*parūṣaka*) *Grewia asiatica* Linn., GVDB: 238 : 72
- plants like asthma plant and Gulf sandmat (*kṣīriṇī*) various milky plants, perhaps including *Euphorbia hirta* Linn. (asthma plant) and *E. microphylla* Heyne (Gulf sandmat) (GVDB: 127) : 292
- plumed cockscomb (*indīvara*) Uncertain; possibly *Celosia argentea* Linn. But see the useful discussion in GVDB: 44–45. Possibly another name for thorn apple

- (*karambha*), q.v. : 298
- pointed gourd (*paṭola*) *Trichosanthes dioica*, Roxb., *GVDB*: 232–233 : 98, 136, 287
- poison berry (*bṛhatī*) *Solanum violaceum*, Ortega. See *ADPS*: 100, *NK*: 1, #2329, *AVS*: 5, 151 : 93, 99, 137, 138, 294
- poison-altar (?) (*viśavedikā*) Unknown. Possibly, at a guess, *viśamuṣṭika* (*strychnine tree*)? *GVDB*: 373 Or *viśā* (*Himalayan monkshood*) : 127
- pollen (?) (*reṇukā*) An unidentifiable plant. Perhaps a misreading for *peas* (*hareṇu*), although this is a long shot. T. B. Singh and Chuneekar (*GVDB*: 339) suggests, on no authority, the synonyms *vṛkṣaruhā*, *māṃsarohiṇī*, or *durovā*, none of which help : 127
- pomegranate (*dāḍima*) *Punica granatum* Linn. *GVDB*: 201–202 : 71, 72, 103, 104
- pondweed (*paripelavā*) Normally a neuter noun. T. B. 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. : 138
- pondweed (*śevāla*) *Zannichellia palustris* L. See *horned pondweed* : 29, 30
- powdered ruffle lichen (*śaileyaka*) *Parmotrema perlatum* (Huds.) M.Choisy (1952), although there are some inconsistencies in groups and synonyms. See *GVDB*: 408–409, *AVS*: 4, 222–225. The plant has a notably complex taxonomic history : 171
- prickly chaff-flower (*apāmārga*) *Achyranthes aspera*, L. See *GJM1*: 524 f, *AVS*: 1, 39, *ADPS*: 44 f, *AVS*: 3, 2066 f, *Dymock*: 3, 135 : 43, 47, 97, 296
- prickly chaff-flower (*vasira*) also *vaśīra*. Perhaps *Achyranthes aspera*, L. *GVDB*: 362 describes several possible identities, including *sūryāvarta*, *prickly chaff-flower* and *markaṭatrṇa*. See also *vasukavasira* (*GVDB*: 363) : 72
- purging nut (*mūṣikā*) *Jatropha curcas*, L. See *AVS*: 3, 261, *NK*: 1, #1374 : 122
- purple calotropis (*arka*) *Calotropis gigantea*, (L.) R. Br. See *ADPS*: 52, *AVS*: 1, 341, *NK*: 1, #427, *Potter_{rev}*: 57, *Chopra IDG*: 305–308 : 38, 47, 93, 166
- 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* : 97, 292, 294
- radish (*mūlaka*) *Raphanus sativus*, L. See *NK*: 1, #2098 : 101, 102
- rajmahal hemp (*moraṭa*) → *mūrvī*, *Marsdenia tenacissima* (Roxb.) Wight et Arn. Good discussion at *GVDB*: 314–316, 324 : 136
- rajmahal hemp (*mūrvā*) *Gongronemopsis tenacissima* (Roxb.) S.Reuss, Liede & Meve (= *Marsdenia tenacissima* (Roxb.) Moon), *GVDB*: 314–316. One of the twenty-two drugs in the group *madanādi*. T. B. Singh and Chuneekar and *ADPS*: 310–313 discuss the long controversy about the identity of this plant. *Sansevieria roxburghiana* Schult. & Schult.f. (“Indian bowstring hemp”) was preferred by Meulenbeld (*GJM1*: 590) and the sources he cited, including *NK*: 1, #2216, *K&B*: 4, 2457; *ADPS*: 310 mention this identity as being local to Bengal, but note that the plant is not a creeper : 100, 291
- realgar (*manaḥśilā*) *Arsenii disulphidium* *NK*: 2, #11 : 180
- red gourd (*bimbī*) *Coccinia indica*, W. & A. See *PVS* 1994.4.715; *NK*: 1, #534 : 119
- red ochre (*gairika*) Hellwig 2009: 140–141. *NK*: 2, #40; the same source, at #6, gives kaoolinum or china clay : 138, 171, 180, 181
- rice grains (*taṇḍula*) *Oriza sativa*, Linn. Same as *paddy rice* (*śālī*) *GVDB*: 174; or

- just "grains" : 31
- rice-grain chaff (*śālitaṇḍulakāṇḍana*) See [chaff](#) : 30
- rock salt (*saindhava*) See [NK](#): 2, M#48, [WattComm](#): 963–971 : 30, 71, 104, 171, 180
- rosha grass (*dhyāmaka*) *Cymbopogon martinii* (Roxb.) Wats. See [AVS](#): 2, 285, [NK](#): 1, #177 : 138, 171
- sacred lotus (*kamala*) *Nelumbo nucifera* Gaertn., [GVDB](#): 73–74 : 294
- sacred lotus (*padma*) *Nelumbo nucifera*, Gaertn. See [NK](#): 1, #1698 : 29, 98, 120
- sacred lotus (*prapaunḍarika*) see [sacred lotus](#) (*prapaunḍarika*) : 171
- sacred lotus (*prapaunḍarika*) *Nelumbo nucifera*, Gaertn. See [Dutt](#) 110, [NK](#): 1, #1698 : 296
- sage-leaved alangium (*aikolla*) *Alangium salvifolium* (Linn. f.) Wang. [GVDB](#): 5–6 : 119
- sal group of trees (*śālasārādi*) *śālasārādi* is a group (*gaṇa*) of twenty-three trees listed at 1.38.8–9 ([Su 1938](#): 165), [Mahākośa](#): 1, 898 : 72
- sal tree (*śālā*) *Shorea robusta*, Gaertn.f. See [AVS](#): 5, 124 : 180
- sandalwood (*bhadraśriya*) *Santalum album* Linn. See [white sandalwood](#) (*bhadraśrī*) : 98
- sandalwood (*candana*) *Santalum album*, L. See [ADPS](#): 111, [NK](#): 1, #2217 : 73, 98, 100, 138, 166, 171, 299
- sappanwood (*pattāṅga*) Also *pattariga*. *Caesalpinia sappan*, L. [AVS](#): 1, 323, [K&B](#): 2, 847 f, [GVDB](#): 234 : 38, 48
- scarlet mallow (*bandhujīva*) *Pentapetes phoenicea*, L. [NK](#): #1836, [GVDB](#): 268 : 121
- scented pavonia (*bālaka*) *Pavonia odorata*, Willd. See [ADPS](#): 498, [NK](#): 1, #1822 : 138
- scramberry (*tālīsa*) see [scramberry](#) (*tālīsa*) : 171
- scramberry (*tālīsa*) T. B. Singh and Chuneekar ([GVDB](#): 179, 458–459) discusses the several identifications and regional differences in identifying this plant. *Taxus baccata* Linn. is a common candidate, as is *Flacourtia jangomas* (Lour.) Raeusch. (scramberry) : 98, 181, 297
- scutch grass (*dūrvā*) *Cynodon dactylon* (Linn.) Pers. ([GVDB](#): 205) : 292
- sedge (*kuṭannaṭa*) → *plava*, *tagara*, or *śyonāka*, according to commentators ([GVDB](#): 102–103). T. B. Singh and Chuneekar leans towards the *plava*, but that plant too is difficult to identify. Various sources identify *kuṭannaṭa* as *Cyperus rotundus* L., C, *scariosus* R. Br., *Oroxylum indicum* (L.) Benth. ex Kurz (= *Bignonia Indica* L.) or even *Cinnamomum verum* J.Presl. The *Cyperus* genus comprises about 700 species of sedges, and I have chosen "sedge" as a generic indication of the likely identity of this plant : 171
- selu plum (*śelu*) *Cordia myxa*, L. non Forssk. See [GJM1](#): 529 (2), [IGP](#): 291b, cf. [AVS](#): 3, 1677 f; cf. [AVS](#): 2, 180 (C. *dichotoma*, Forst.f.), [NK](#): 1, #672 (C. *latifolia*, Roxb.) : 99, 137
- sesame oil (*taila*) *Sesamum indicum* L. [GVDB](#): 183 : 47, 166
- siris (*śirīṣa*) *Albizia lebbeck*, Benth. See [AVS](#): 1, 81, [NK](#): 1, #91, [GVDB](#): 399–400. Cf. [white siris](#) : 137, 166, 180, 299
- siris seeds (*śirīṣamāṣaka*) *Albizia lebbeck*, Benth. See [AVS](#): 1, 81, [NK](#): 1, #91 : 119
- small-flowered crape myrtle (*sidhraka*) *Lagerstroemia parviflora* Roxb. See [GVDB](#): 432 : 142
- snakeroot (*sugandhā*) → *sarpagandhā* *Rauvolfia serpentina* Benth. ex. Kurz. See *sarpagandhā*. But may be *Aristolochia indica* Linn. Has been identified with *nākulī*, or *gandhanākulī*. See ([GVDB](#): 219, 436) : 126
- spikenard (*jaṭāmāṁsī*) *Nardostachys jatamansi* (D.Don) DC, [GVDB](#): 163. See

- also NK: 1, #1691 : 297
- spikenard (*māṃsī*) see **spikenard**
(*jaṭamāṃsī*) : 138, 171
- spikenard (*nalada*) see **spikenard**
(*jaṭamāṃsī*) : 117, 172
- strychnine tree (*viṣamuṣṭika*) Strychnos
nux vomica Linn. GVDB: 373 : 295
- sugar (*sitā*) Ḍalhaṇa makes this equation
at 1.37.25 (Su 1938: 162) : 138, 172
- sugar (*śarkara*) Saccharum officinarum,
Linn. NK: #2182 : 123
- sugar cane (*ikṣu*) Saccharum officinarum,
Linn. NK: #2182 : 123
- sunflower (*sūryavallī*) → *āḍityavallī*,
sūryamukhī, Helianthus annuus Linn.
GVDB: 35, 443 : 136
- sweet flag (*vacā*) Acorus calamus Linn. See
GVDB: 352–355 : 97, 104
- sweet plants (*madhuravarga*) The sweet
plants are enumerated at
Suśrutasaṃhitā 1.42.11. See also
GVDB: 127 : 47
- sweet-scented oleander (*aśvamāraka*)
Nerium oleander, L. See ADPS: 223,
NK: 1, #1709 : 126
- Tellicherry bark (*kuṭaja*) Holarrhena
pubescens Wall. ex G. Don, with
Wrightia tinctoria and W. arborea
considered GVDB: 101–102,
ADPS: 267–270 : 93, 290
- ten roots (*daśamūla*) Described at
Suśrutasaṃhitā 1.38.70–71 (Su 1938: 169)
as a combination of the **lesser five roots**
and the **greater five roots** : 290
- the three myrobalans (*triphalā*) **chebulic**
myrobalan **beleric myrobalan** and
emblic myrobalan (*harītakī bibhītaka*
and *āmalaka*) One of the most-often
mentioned drugs in the *Brhatṭrayī*
GVDB: 194–196 : 91, 171, 287
- the three pungent drugs (*trikaṭu*) **dried**
ginger, **long pepper**, and **black pepper**
(*śuṇṭhī*, *pippalī*, and *marica*) GVDB: 193 :
171
- thorn apple (*karambha*) Datura metel, L.
See GVDB: 76 for useful discussion.
Also, AVS: 2, 305 (cf.
Abhidhānamāñjarī), NK: 1, #796 ff.
Potter_{rev}: 292 f, ADPS: 132. Possibly the
same plant as **plumed cockscomb**
(*indīvara*) (GVDB: 76, 44–45) : 127, 295
- three heating spices (*tryūṣaṇa*) **śuṇṭhī**
(Dried ginger) Zingiber officinale,
Roscoe. ADPS: 50, NK: 1, #2658,
AVS: 5, 435, IGP 1232, **pippalī** (long
pepper) Piper longum, L. ADPS: 374,
NK: 1, #1928, and **marica** (black
pepper) Piper nigrum, L. ADPS: 294,
NK: 1, #1929 : 73, 137
- three-leaved caper (*varuṇa*) Crataeva
magna (Lour.) DC. See AVS: 2, 202; cf.
NK: 1, #696 : 122
- toothed-leaf limonia (*surasī*) Naringi
crenulata (Roxb.) Nicolson (formerly
Limonia crenulata Roxb.), GVDB: 439 :
172
- top layer of fermented liquor (*surāmaṇḍa*)
K&B: 2, 502, NK: 2, appendix VI, #49,
McHugh 2021: 39 : 45, 46
- tree cotton (*kārpāsa*) G. arboreum L.
ADPS: 231. Pace the identifications of
T. B. Singh and Chuneekar (GVDB: 92,
247), since G. barbadense L. is native to
South America and G. herbaceum L.
which is native to Africa : 44, 298
- tree cotton (*picu*) See **tree cotton** (*kārpāsa*) :
46, 48
- turmeric (*gaurī*) Curcuma longa, L. See
ADPS: 169, AVS: 2, 259, NK: 1, #750 : 98
- turmeric (*haridrā*) Curcuma longa Linn.
GVDB: 465 : 99, 137, 143, 171
- turmeric (*rajanī*) Curcuma longa, L.
ADPS: 169, AVS: 2, 259, NK: 1, #750 :
30, 138, 172
- turpeth (*trivṛt*) → *trivṛtā*. Operculina
turpethum (Linn.) Silva Manso =
Ipomoea turpethum R. Br. GVDB: 197 :
91, 123, 171, 238, 287
- two kinds of salt (*vasukavasira*) See the
discussion by T. B. Singh and Chuneekar

- (GVDB: 362–363), who note that when *vasuka* is mentioned together with *vasira*, two varieties of salt are often meant (see *vasukavasirā*) : 71
- velvet bean (*svayamguptā*) *Mucuna pruriens* DC., GVDB: 461 : 180
- velvet-leaf (*pāṭhā*) *Cissampelos pariera*, L. See ADPS: 366, NK: 1, #592, GJM1: 573, AVS: 1, 95; cf. AVS: 2, 277 : 38, 73, 88, 104, 136, 171
- velvet-mite (*indragopa*) *Kerria lacca* (Kerr.). Lienhard 1978 : 118
- verbena (*bhārgī*) see *verbena* (*bhārgī*) : 171
- verbena (*bhārgī*) → *phañjī*. *Clerodendrum serratum* (L.) Moon or *C. serratum*; see AVS: 2, 121, ADPS: 87 : 298
- verbena (*phañjī*) *Clerodendrum serratum*, L. See AVS: 2, 121, ADPS: 87 : 121
- viburnum (*tilvaka*) *Viburnum nervosum* D. Don T. B. Singh and Chuneekar (GVDB: 185–186) separate *tilvaka* from *lodhra*, a conflation they attribute to Drḍhabala. 5[219]avs makes the same separation, noting that in Kerala the plant *Jatropha curcas* L. is used in this context. Cf. many varieties listed at Griffiths (IGP: 1200 ff.). Kew confirms that *V. nervosum* has an appropriate Himalayan distribution : 91, 298
- viburnum extract (*tailvaka*) see *viburnum* (*tilvaka*) : 180
- water snowflake (?) (*kumudavatī*) This is an unidentifiable plant whose name means, etymologically, “with lilies”. MW: 292 gives *Nymphoides indica* (L.) Kuntze (formerly *Villarsia indica*) on no authority; I have used the common name of *N. indica* as a possibility, but this is not known to be poisonous; on the contrary, it is used medicinally (Khan et al. 2018). *N. indica* is illustrated on p. 6 of the Voynich manuscript. Khan et al. (2018) assert that this is the same plant as *tagara*, although this is not a widely-held view (see *crape jasmine*) : 127
- watered buttermilk (*udaśvit*) MW: 183 : 119
- weaver’s beam tree (*muṣkaka*) *Schrebera swietenoides*, Roxb. See AVS: 5, 88, Lord, NK: 1, #2246 : 93, 142
- weaver’s beam tree (*viśalyā*) *Schrebera swietenoides* Roxb. ← *kuberākṣī*. T. B. Singh and Chuneekar (GVDB: 371) notes that this name is a synonym for many other plants, including *lāṅgālī*, *indravāruṇī*, *guḍūcī* etc. Ḍalhaṇa identified it with *pāṭalā*, *kāṣṭhapāṭalā*, and *agniśikhā* tree, all of which may be called *śvetamokṣaka* or *kuberākṣī* : 171
- white babool (*arimeda*) *Acacia leucophloea*, (Roxb.) Willd. See AVS: 1, 23 : 38
- white calotropis (*alarka*) *Calotropis procera*, (Ait.) R. Br. See NK: 1, #428, Chopra: 46b, Chopra IDG: 305–308 : 47
- white clitoria (*śvetā*) *Clitoria ternatea*, L. See AVS: 2, 129, NK: 1, #621. GVDB: 416–417 notes that there are two types, *kṣudrā* (white, according to Ḍalhaṇa) and *mahā* (blue, , according to Ḍalhaṇa). Sometimes given as a synonym for *winged-stem canscora*, but sometimes as a contrasting plant : 120, 172
- white cutch tree (*somavalka*) *Acacia polyacantha*, Willd. See AVS: 1, 30, IGP 7, GJM1: 602, AVS: 2, 935; pace NK: 1, #1038 : 121, 142
- white dammer tree (*sarja*) *Vateria indica*, L. See NK: 1, #2571, AVS: 5, 349 f, AVS: 1, 292 f, Chopra: 253a : 38, 71
- white sandalwood (*bhadraśrī*) *Santalum album* Linn. see *sandalwood* (*candana*) GVDB: 152, 282 and *Carakasamhitā* ci.4.102 (Ca 1941: 434) where it is contrasted with *lohitacandana* : 73, 296
- white siris (*kaṭabhī*) *Albizia procera* (Roxb.) Benth. or *A. lebeck* (Linn.)

- Benth. [GVDB](#): 63–64, [AVS](#): 1, 81–84. Cf. [Cf. siris](#) : 166, 297
- white siris (*kiṇihī*) Albizia procera (Roxb.) Benth., [GVDB](#): 98, which also discusses past confusions; [NK](#): 1, #93 : 137, 171, 172
- white teak (*kārśmarī*) → *kāśmarī* : 181
- white teak (*kāśmaryā*) → *kāśmarī* : 72
- white teak (*kāśmarī*) → *kāśmarya*, *kārśmarī*, *madhuparṇī*. Gmelina arborea, Roxb. See [GJM1](#): 543, [Trees](#): 51, [ADPS](#): 240 : 98, 100, 290
- white teak (*madhuparṇī*) → *kāśmarī* : 71
- white water-lily (*kumuda*) Nymphaea alba, Linn. [GVDB](#): 105 : 29
- wild asparagus (*bahuputrā*) → *nandana*? Asparagus racemosus, Willd. See further [wild asparagus](#) (*śatāvarī*) : 121
- wild asparagus (*śatāvarī*) Asparagus racemosus, Willd. See [ADPS](#): 441, [AVS](#): 1, 218, [NK](#): 1, #264, [IGP](#): 103, [AVS](#): 4, 249 ff, [Dymock](#): 3, 482 ff : 96–98, 100, 186, 299
- wild celery (*agnika*) → may be *bhallātaka*, *lāṅgalī*, *ajamodā*, *morāṭa*, or *agnimantha*, [GVDB](#): 4. Uncertain A plant often cited in *Suśrutasamhitā*, but rarely in *Carakasamhitā* ([GVDB](#): 4). Ḍalhaṇa glossed it at 5.2.45 ([Su 1938](#): 566) as *ajamodā* but noted that others consider it to be *morāṭa*. There is considerable complexity surrounding the identification of *morāṭa*/*mūrvā* itself and related synonyms ([GVDB](#): 314–316) : 136, 299
- wild celery (*ajamodā*) Apium graveolens, L. Sometimes identified with *agnika* ([wild celery](#)), q.v. : 136, 171
- wild Himalayan cherry (*padmaka*) Prunus cerasoides D.Don, [GVDB](#): 236, [AVS](#): 4, 353–355. [MW](#): 585 is wide of the mark : 98–100, 171
- wild spider flower (*ajagandhā*) possibly Cleome gynandra L. (syn. Gynandropis gynandra L.); possibly also Basil (Ocimum basilicum Linn. or Crested Late Summer Mint (Elsholtzia ciliata Willd.) ([GVDB](#): 6). But E. ciliata is not native to South Asia : 104
- wild sugar cane (*kāṇḍekṣu*) Saccharum spontaneum L., [GVDB](#): 90 : 71
- winged-stem canscora (*giriḥvā*) see [winged-stem canscora](#) (*girikarṇikā*) : 172
- winged-stem canscora (*girikarṇikā*) sometimes → *śvetā*, in which case possibly Clitoria ternatea, L., see [AVS](#): 2, 129, [NK](#): 1, #621. Since *śvetā* and *giriḥvā* are cited as separate constituents of one formula (e.g., *Suśrutasamhitā* 5.5.75 ([Su 1938](#): 579) they cannot be the same plant. [GVDB](#): 138–139 argued for Symphorema polyandrum Wight, which they also assigned to *sinduvāra*. When discussing *śaṅkhaṇḍapūṣpī*, another possible synonym, Sivarajan and Balachandran ([ADPS](#): 425–427) also suggest Canscora alata (Roth) Wall. (syn of Canscora decussata Schultes & Schultes f.) and Convolvulus pluricaulis Choisy. The former has a more appropriate distribution and is chosen here : 300
- winged-stem canscora (*giryāḥvā*) see [winged-stem canscora](#) (*girikarṇikā*) : 299
- Withania (*aśvagandhā*) Withania somnifera (L.) Dunal. See [AVS](#): 5, 409 f, [Dymock](#): 2, 566 f., Chevallier 150 : 47, 92, 99
- wolfsbane (*vatsanābha*) Aconitum napellus, L. See [AVS](#): 1, 47, [NK](#): 1, #42, [Potter_{rev}](#): 4 f. Or Aconitum chasmanthum Stapf ex Holmes, [GVDB](#): 357 : 286
- wood apple (*kapittha*) Limonia acidissima, L. See [AVS](#): 3, 327, [NK](#): 1, #1021 : 99, 120, 122, 180
- woodrose (*mūṣikakarṇī*) Jatopha curcas, L.

- AVS: 3, 261, NK: 1, #1374. GVDB: 317;
ADPS: 23–25 discuss this issue well:
120, 121
yellow-berried nightshade (*kṣudrā*)
Solanum virginianum, L. See
ADPS: 100, NK: 1, #2329, AVS: 5, 164 :
137, 138
yellow-fruit nightshade (*kaṇṭakārī*)
Solanum virginianum L. (also called
Solanum xanthocarpum, Schrad. &
Wendl.) GVDB: 68–69. A component of
lesser five roots : 294

Fauna

- chital deer (*pr̥ṣata*) *Axis axis*, Erxleben.
BIA: 295–296. In *Suśrutasaṃhitā* 5.5.71
(Su 1938: 579) it seems to be specifically
the musk that is meant. so the
reference may be to the Musk Deer
(*Moschus moschiferus* L.). But all
species produce musk, so *pr̥ṣata* may
also be simply Chital or Spotted Deer.
See also IW: 93 : 123, 172
- civet (*mārjāra*) BIA: ch. 4 *et passim*,
McHugh 2012 : 172
- iguana (*godheraka*) The गौघेरक is described
in the *Carakasamhitā* as a four-legged
snake born of a ?? that is similar to a
black snake and has several species
(6.23.134 (Ca 1941: 577)). CDIAL: 1,
#4286 identifies this as an iguana :
175, 300
- large gecko (*galagoḍikā*) A poisonous
insect, amphibian or reptile described
in *Suśrutasaṃhitā* 5.8.29 (Su 1938: 588)
as a biting creature that may be white,
black, with red stripes or rings or
spotted. It is described just after the
iguanas (*godheraka*) and before
centipedes. The name is unstable, e.g.,
गलगोलिका, गलदोडी, गलगोली. Cf. the
remarks on geckos in note 420, p. 140.
The similarity of names suggests that a
गलगोलिका may be a non-domestic
creature that looks similar to a
domestic gecko. Cf. other IA parallels
at CDIAL: 1, #4324, 4431, which points
to a Dravidian origin for the lexeme
(DED₂: #1125) and suggests “iguana.”
The tokay gecko (*Gekko gecko*
(Linnaeus, 1758)) is a large gecko
endemic to South Asia having a
blue-gray skin with red or orange spots
and speckles that may change
according to its environment like a
chameleon. Tokay geckos, especially
males, are aggressive and territorial
and can inflict a strong bite. However,
many agamids and skinks are also
endemic to South Asia, and have
markings that could match the
description of the *Suśrutasaṃhitā*. See
further Deuti 2020; IW: 40, 135–136.: 76
- mongoose (*nakula*) *Urva edwardsii* or the
often sympatric *U. auropunctatus*
(small Indian mongoose, usually an
eater of smaller creatures than snakes)
(BIA: ch. 5), On mongooses and snakes,
see BIA: 98–99; IW: 112 : 123, 172

Glossary

“invincible” - *ajeya*: 138

√*śodh* - purge: 167

abhyañjana - oil rubs: 171

accents - *svara*: 166

aconite - *hālāhala*: 132

ādhmāna - distension: 130

agada - antidote: 135, 166f, 171 - antitoxic: 166

ajeya - “invincible”: 138

akhiladehavyāptirūpam - takes the form of pervading the whole body: 133

āmāśaya - stomach: 134f

ānāha - constipation: 131, 135, 138

aṅgamarda - bruising of the limbs: 134

añjana - collyrium: 167f, 171f - eye salve: 136

annamada - intoxication from food: 134

antidote - *agada*: 135, 166f, 171

antitoxic - *agada*: 166

antra - gut: 135

ariṣṭā - bandage: 164f, 169f

arocaka - loss of appetite: 134

aruci - disinterest in food: 169

avapīḍa - sternutatory: 168

bali - sacrificial offerings: 165

bandage - *ariṣṭā*: 164f, 169f - *bandha*: 164

bandha - bandage: 164

be exhausted - *sāda*: 135

bellyache - *jaṭhara*: 138

bherī - drum: 172

bile-fever - *pittajvara*: 170

blossom - *prasūna*: 172

bodily constituents - *dhātu*: 133

body tissue - *dhātu*: 135

brahma - holiness: 165

brahmarṣi - holy sages: 165

bruising of the limbs - *aṅgamarda*: 134

carmānta - leather: 164

chest - *hṛd*: 135

chyle - *rasa*: 134

cloth - *plota*: 164

collyrium - *añjana*: 167f, 171f

constipation - *ānāha*: 131, 135, 138

constitution - *prakṛti*: 169

contamination dropsy - *duṣyodara*: 134

crow's foot - *kākapada*: 136

cure - *siddhi*: 136

cured - *sādhya*: 138

dark colour - *dhyāma*: 132

decoction - *kvātha*: 136

deity - *devatā*: 165

delirium - *moha*: 130

devatā - deity: 165

dhātu - bodily constituents: 133 - body tissue: 135 - element: 126, 129, 131

dhyāma - dark colour: 132

digdha - poisoned: 170

discharge - *praseka*: 131

disinterest in food - *aruci*: 169

disjunction - *viśleṣa*: 134

distension - *ādhmāna*: 130

doṣa - humour: 133

dravya - liquid: 171

drum - *bherī*: 172

dry - *rūkṣa*: 133

duct - *sirā*: 166

dūṣi-viṣa - slow-acting poison: 135

dūṣīviṣa - slow poisoning: 167

- slow-acting poison: 138

dūṣīviṣāri - enemy of slow-acting poison: 138

duṣyodara - contamination dropsy: 134

dwindling away - *kṣaya*: 134

earth - *pāṃśu*: 164

element - *dhātu*: 126, 129, 131

enemy of slow-acting poison - *dūṣīviṣāri*: 138

expansive - *vikāsin*: 133

eye salve - *añjana*: 136

fainting - *mūrcchā*: 170

flag - *patāka*: 172

garuḍa - *tārṣya*: 171

granthi - knots: 132 - lumps: 131
 great aconite - *mahāviṣa*: 132
 great poison - *mahāviṣa*: 132
 gruel - *yavāgū*: 136, 167
guṇa - qualities: 133
 gut - *antra*: 135

hālāhala - aconite: 132
harṣa - horripilation: 134
 hoarseness - *pāruṣya*: 130
 holiness - *brahma*: 165
 holy sages - *brahmarṣi*: 165
 horripilation - *harṣa*: 134
hṛd - chest: 135
 humour - *doṣa*: 133

incised - *pracchāna*: 169 - *pracchita*: 170
 incising - *pracchāna*: 166
 intestines - *pakvādhāna*: 135 - *pakvāśaya*: 134
 intoxication from food - *annamada*: 134

jādyatā - rigidity: 169
jaṅgama - mobile: 126
japa - mantra repetition: 165
jaṭhara - bellyache: 138

kākapada - crow's foot: 136
kalka - mash: 138
kalpa - procedure: 164
kapha - phlegm: 130, 134f
kevala - simply: 168
 knots - *granthi*: 132
koṭha - skin disease: 134
kṣaya - dwindling away: 134
kṣīra - milky sap: 126, 128, 131
kuṣṭha - pallid skin disease: 135
kvātha - decoction: 136

leather - *carmānta*: 164
 limpid - *viśada*: 133
liṅga - symptoms: 134
 liquid - *dravya*: 171
 located on the limb - *śākhāśrayā*: 166
 loose stool - *viḍbheda*: 132
 loss of appetite - *arocaka*: 134

lumps - *granthi*: 131

madhu - mead: 165
mahāviṣa - great aconite: 132 - great
 poison: 132
maṇḍala - round blotches: 134
 mantra repetition - *japa*: 165
markaṭa - monkey: 133
mash - *kalka*: 138
 mead - *madhu*: 165
 milky sap - *kṣīra*: 126, 128, 131
 mobile - *jaṅgama*: 126
moha - delirium: 130
monkey - *markaṭa*: 133
mūlaka - *mūlaka*: 132
mūlaka - *mūlaka*: 132
mūrcchā - fainting: 170
mustaka - mustaka: 131
mustaka - mustaka: 131

nasal medicine - *nasya*: 136
nasya - nasal medicine: 136
niḥkvātha - stewed juice: 136
niryāsa - resin: 126, 128, 130

oblations - *upahāra*: 165
 oil rubs - *abhyāñjana*: 171

pain - *śūla*: 135
pakvādhāna - intestines: 135
pakvāśaya - intestines: 134
 pallid skin disease - *kuṣṭha*: 135
pāṃśu - earth: 164
parśvabheda - ribs crack: 135
pāruṣya - hoarseness: 130
paṭaha - tabors: 172
patāka - flag: 172
 pervasive - *vyavāyīn*: 133
 phlegm - *kapha*: 130, 134f
 pith - *sāra*: 126, 128, 130
pittajvara - bile-fever: 170
pittaviṣa - poison in the bile: 165
plota - cloth: 164
 poison in the bile - *pittaviṣa*: 165
 poison-stink - *viṣapūti*: 170
 poisoned - *digdha*: 170

potency - *vīrya*: 171
pracchāna - incised: 169 - incising: 166
pracchita - incised: 170
prakṛti - constitution: 169
pralāpa - ranting: 130
praseka - discharge: 131
prasūna - blossom: 172
procedure - *kalpa*: 164
puṇḍarīka - puṇḍarīka: 132
puṇḍarīka - *puṇḍarīka*: 132
purge - *śodh*: 167
putrid - *śīrṇa*: 170

qualities - *guṇa*: 133

rājimat - striped snake: 136
ranting - *pralāpa*: 130
rarified - *sūkṣma*: 133
rasa - chyle: 134
religious power - *tapas*: 165
resin - *niryāsa*: 126, 128, 130
resuscitator - *sañjīvana*: 172
ribs crack - *parśvabheda*: 135
rigidity - *jāḍyatā*: 169
round blotches - *maṇḍala*: 134
rūkṣa - dry: 133

sacrificial offerings - *bali*: 165
sāda - be exhausted: 135
sādhyā - cured: 138
saindhava - salt: 136
śākhāśrayā - located on the limb: 166
salt - *saindhava*: 136
sañjīvana - resuscitator: 172
sāra - pith: 126, 128, 130
sārṣapa - sārṣapa: 131
sārṣapa - *sārṣapa*: 131
sātmya - suitability: 169
secondary ailments - *upadrava*: 169
sesame oil - *taila*: 170
sharp - *tikṣṇa*: 167
siddhi - cure: 136
side-effects - *upadrava*: 138
simply - *kevala*: 168
sirā - duct: 166
śīrṇa - putrid: 170

skin disease - *koṭha*: 134
sleep - *svāpa*: 130
slow poisoning - *dūṣṭviṣa*: 167
slow-acting poison - *dūṣṭi-viṣa*: 135
 - *dūṣṭviṣa*: 138
stationary - *sthāvara*: 126
sternutatory - *avapīḍa*: 168
stewed juice - *niḥkvātha*: 136
sthāvara - stationary: 126
stomach - *āmāśaya*: 134f
striped snake - *rājimat*: 136
suitability - *sātmya*: 169
sūkṣma - rarified: 133
śūla - pain: 135
svāpa - sleep: 130
svāra - accents: 166
śvāsa - wheezing: 130
symptoms - *liṅga*: 134

tabors - *paṭaha*: 172
taila - sesame oil: 170
takes the form of pervading the whole
 body - *akṣiladehavyāptirūpam*: 133
takṣaka - the snake prince takṣaka: 171
tapas - religious power: 165
tārṣya - garuḍa: 171
the snake prince takṣaka - *takṣaka*: 171
tikṣṇa - sharp: 167
toxic reaction - *vega*: 167, 171
treatable - *yāpya*: 138

udveṣṭana - writhing: 130
upadrava - secondary ailments: 169
 - side-effects: 138
upahāra - oblations: 165

vega - toxic reaction: 167, 171
viḍbheda - loose stool: 132
vikāsin - expansive: 133
vīrya - potency: 171
viśada - limpid: 133
viṣapūti - poison-stink: 170
viśleṣa - disjunction: 134
vyavāyīn - pervasive: 133

wheezing - *śvāsa*: 130

writhing - *udveṣṭana*: 130

yāpya - treatable: 138

yavāgū - gruel: 136, 167

Todo list

| | |
|--|-----|
| Can't be "sedation" | 39 |
| add footnote here | 57 |
| add refs to Divodāsa as king. | 57 |
| find out about uttarabasti | 71 |
| to what? | 72 |
| 29, 30 missing? | 75 |
| Problematic passage in the edition. | 75 |
| Perhaps <i>kalka</i> here could also mean the <i>Terminalia Bellerica</i> (विभीतक). | 90 |
| Perhaps <i>kalka</i> here could also mean the <i>Terminalia Bellerica</i> (विभीतक). | 90 |
| Euphorbia Antiquorum (Antique spurge) | 93 |
| The webpage https://hindi.shabd.in/vairagya-shatakam-bhag-acharya-arjun-tiwari/post/117629 says that this verse belongs to the <i>Nītiratna</i> . I could not find this text. | 97 |
| The provisional edition should be modified accordingly. | 99 |
| There, Ḍalhaṇa comments that deliberation on <i>avapīḍa</i> had been done earlier when it was mentioned. Find that description to know more details. | 101 |
| Search for the section where the treatment of <i>ākṣepaka</i> is described. | 102 |
| Make the first letter of sentence capital. | 102 |
| ? | 108 |
| ? | 108 |
| ? | 108 |
| (?) | 108 |
| Is Dh. the teacher of Su. elsewhere? | 115 |
| Cf. Arthaśāstra 1.21.8. | 116 |
| I'm still unhappy about this verse. | 119 |
| Mention this in the introduction as an example of the scribe knowing the vulgate. | 119 |

| | |
|--|-----|
| ■ fn about sadyas+ | 119 |
| ■ Bear's bile instead of deer's bile. | 120 |
| ■ punarṇavā in the N & K MSS | 121 |
| ■ śrita for śṛta | 121 |
| ■ explain more | 122 |
| ■ Medical difference from Sharma. | 122 |
| ■ example where the vulgate clarifies that these should be used separately; appears to be a gloss inserted into the vulgate text. | 122 |
| ■ 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. | 122 |
| ■ √ vyadh not √ vedh (also elsewhere and for the ears), causative optative. | 122 |
| ■ -> ativīṣa | 132 |
| ■ Look up the ca. reference. | 132 |
| ■ Come back to the issue of "kalpa". Look up passages in the Kośa. | 139 |
| ■ write footnote: don't repeat ativīṣā; vulgate similar to H. | 143 |
| ■ material corresponds to SS.1.45.205ab, where it describes how alcohol affects the body. | 145 |
| ■ Or "There are 20 phaṇins and 6 maṇḍalins. The same number are known. There are 13 Rājīmats." Or even, "there are 20 Phaṇins and six of them are Maṇḍalins." Are phaṇins really the same as darvīkaras? | 151 |
| ■ grammar | 152 |
| ■ ri- ṛ-? | 154 |
| ■ varṇa means "colour" elsewhere? | 156 |
| ■ write note on pariṣekān pradehāṃś | 168 |
| ■ where is cutting with a knife related to removing bile or phlegm. | 180 |
| ■ maṣī burned charcoal. Find refs. | 180 |
| ■ find ref. | 186 |
| ■ Check out these refs. | 186 |
| ■ meaning of kalpa | 186 |
| ■ or a dual? | 191 |
| ■ See chapter 40 of Sūtrasthāna. | 238 |
| ■ vasā / medas / majjan | 238 |
| ■ Does bhūtādi a compound or it means ahaṅkāra or ego? | 239 |
| ■ triad? –DW | 239 |

