A Translation of the New Edition of the *Suśrutasaṃhitā*

Jason Birch Dominik Wujastyk Andrey Klebanov

Draft of 4th February 2022

Abstract

The Suśruta Project is producing a new Sanskrit text edition of the *Suśrutasaṃhitā* based on the early Nepalese manuscripts.[1] As we gradually transcribe and edit the manuscripts, we are producing this new translation of the classic work.

1 MS Kathmandu KL 699, MS Kathmandu NAK 1-1079, and MS Kathmandu NAK 5-333.

Contents

Kalpasthāna, adhyāya 2

Translation

1 And now I shall explain what should be known about stationary poisons.[100]

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:
  1. liquorice (*klītaka*)[101],[102]
  2. sweet-scented oleander (*aśvamāraka*)[103],
  3. jequirity (*guñjā*)[104],
  4. aconite (*subhaṅgurā → bhaṅgura = ativiṣā?*)[105] [106],
  5. *karaṭā*,[107]

  and ending with
  6. leadwort (*vidyutśikhānta → agni- or rakta-śikhā?*)[108],[109] and
  7. cannabis (*vijayā*)[110];[111]

100 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.

101 Glycyrrhiza glabra, L.; see AVS 3.84, NK #1136

102 Licorice eaten in excess can be poisonous.

103 Nerium oleander, L.; see ADPS 223, NK #1709

104 Abrus precatorius, L.; see AVS 1.10, NK #6, Potter 168

105 Aconitum ferox, Wall. ex Ser.; see NK #38

106 The plant is usually called just *bhaṅgurā* without the prefix *su-* "good."

107 This poisonous root cannot at present be identified. Similar-sounding candidates include *karkaṭaka*, *karaghāṭa* (emetic nut), and *karahāṭa*, 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.

108 Plumbago zeylanica (or rosea?), L.; see NK #1966, 1967

109 The plant's name is normally *vidyutśikhā* without the suffic *-anta*.

110 Cannabis sativa, L.; see AVS 1.356, NK #442

111 The roots of sweet-scented oleander are highly toxic, as are most parts of the plant. Jequirity does indeed contain a dangerous toxin called Abrin in its seeds and to a

- the five leaf-poisons are:
  - 'poison-leaf' (*viṣapatrikā*)[112],
  - 'dangling' (*lambā*)[113],
  - 'choice tree' (*varadāru*)[114],
  - thorn apple (*karambha*)[115], and
  - 'big thorn apple' (*mahākarambha*)[116];
- the twelve fruit-poisons are:
  - kumudvatī (*kumudvatī*)[117],
  - 'little bamboo' (*veṇukā*)[118],
  - thorn apple (*karambha*)[119],
  - 'big thorn apple' (*mahākarambha*)[120],
  - ribbed gourd (*karkoṭaka*)[121],
  - black cardamom (*hareṇu*)[122],
  - purple calotropis (*khadyotaka* → *arka?*)[123],

---

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**). The dose can be quite small.
Large doses of the root-extract of rauwolfia can be fatal.
In large doses luffa is emetic and a drastic purgative.
The roots of both rose and white leadwort are very toxic.
Cannabis was not known in India at the time of the *Suśrutasaṃhitā* (Wujastyk 2002; McHugh 2021: 270). Meulenbeld (1989: 61, note 3) addresses the present text and notes specifically that the name is masculine, not feminine.

112 unknown; see ?
113 unknown; see ?
114 unknown; see ?
115 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
116 Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
117 unknown; see ?
118 Bambusa bambos, Druce?; see NK #307
119 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
120 Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
121 Luffa acutangula, (L.) Roxb.? (Mormodica cochinchinensis, Spreng.? Cf. Luffa tuberosa); see AVS 3.347 (NK #1640, 1643; NK #1520)
122 Amomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154
123 Calotropis gigantea, (L.) R. Br.; see ADPS 52, AVS 1.341, NK #427, Potter 63

- carmarī (*carmarī*)[124],
- heliotrope (*ibhagandhā* → *hastiśuṇḍa?*)[125],
- 'snake-killer' (*sarpaghāti*)[126],
- 'gladdener' (*nandana*)[127], and
- 'juice-cooker' (*sārapāka*)[128];[129]

- the five flower-poisons are:
  - rattan (*vetra*)[130],
  - wild chinchona (*kādamba*)[131],
  - black pepper (*vallīja* → *marica*)[132],
  - thorn apple (*karambha*)[133], and
  - big thorn apple (*mahākarambha*)[134];

- the seven bark, pith (*sāra*) and resin (*niryāsa*) poisons are:
  - 'gutboiler' (*antrapācaka*)[135],
  - 'blade' (*kartarīya*)[136],
  - wild mustard (*saurīyaka*)[137],
  - emetic nut (*karaghāṭa* → *karahāṭa?* → *madana*)[138],
  - thorn apple (*karambha*)[139],
  - wild asparagus (*nandana* → *bahuputrā?*)[140], and

124 unknown; see ?
125 Heliotropium indicum, L.; see AVS 3.136, NK #1203
126 unknown; see ?
127 unknown; see ?
128 unknown; see ?
129 Bamboo is not toxic. Heliotrope flowers are abortifacient in large doses.
130 Calamus rotang, L.; see AVS 1.330, NK #413
131 Anthocephalus cadamba, Miq.; see NK #204
132 Piper nigrum, L.?; see NK #1929; Rā.6.115, Dha.4.85, Dha.2.88
133 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
134 Datura metel, L.?; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
135 unknown; see ?
136 unknown; see ?
137 Cleome viscosa, L.? (cf. Rā.4.144); see AVS 2.116, NK #615
138 Randia dumetorum, Lamk.; see NK #2091
139 Datura metel, L.; see AVS 2.305 (cf. Abhidhānamañjarī), NK #796 ff., Potter 292 f., ADPS 132.
140 Asparagus racemosus, Willd.; see ADPS 441, AVS 1.218, NK #264, IGP 103, IMP 4.2499ff., Dymock 482ff.

    - munj grass (*nārācaka*)[141];[142]
- the three milky sap (*kṣīra*)-poisons are:
    - purple calotropis (*kumudaghnī* → *arka?*)[143],[144]
    - oleander spurge (*snuhī*)[145], and
    - 'web-milk' (*jālakṣīri*)[146];
- the two element (*dhātu*)-poisons are:
    - 'foam-stone' (*phenāśma*)[147], and
    - orpiment (*haritāla*)[148];[149]
- the thirteen tuber-poisons are:
    - jequirity (*kālakūṭa*)[150],[151]
    - wolfsbane (*vatsanābha*)[152],
    - Indian mustard (*sarṣapa*)[153],

141 Saccharum bengalense, Retz.?; see NK #2184
142 The bark of wild asparagus (*Asparagus racemosus*, Willd.) is toxic.
143 Calotropis gigantea, (L.) R. Br.; see ADPS 52, AVS 1.341, NK #427, Potter 63
144 The name of this poison, *kumuda-ghnī*, 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.
145 Euphorbia neriifolia, L., or E. antiquorum, L.; see ADPS 448, AVS (2.388), 3.1, NK #988, IGP 457b
146 unknown; see ?
147 unknown; see ?
148 Arsenii trisulphidum; see NK v. 2, p. 20 ff.
149 **Dutt-1922** conjectured that 'foam-stone' may be impure white arsenic obtained by roasting orpiment.
150 Abrus precatorius, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.
151 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.
152 Aconitum napellus, L.; see AVS 1.47, NK #42, Potter 4 f.
153 Brassica juncea, Czern. & Coss.; see AVS 1.301, NK #378

- leadwort (*pālaka → citraka*)[154],
- 'muddy' (*kardama*)[155], the
- 'Virāṭa's plant' (*vairāṭaka*)[156],
- nutgrass (*mustaka*)[157],
- atis root (*śṛṅgīviṣa*)[158],
- sacred lotus (*prapuṇḍarīka*)[159],
- radish (*mūlaka*)[160],
- 'alas, alas' (*hālāhala*)[161],
- 'big poison' (*mahāviṣa*)[162], and
- galls (*karkaṭa*)[163].[164]

Thus, there are fifty-five stationary poisons.

6 There are believed to be four kinds of wolfsbane, two kinds of nutgrass, and six kinds of Indian mustard. But the rest are said to be unique types.

The effects of poisons

7–10 Root-poisons cause writhing (*udveṣṭana*), moaning (*pralāpa*), and delirium (*moha*). Leaf-poison is known for causing yawning, writhing limbs, and wheezing (*śvāsa*). Fruit-poisons cause swelling of the scrotum, a burning feeling, and a repugnance for food. Flower-poisons will cause vomiting, distension (*ādhmāna*), and delirium (*moha*). The use

154 Plumbago zeylanica (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967
155 unknown; see ?
156 unknown; see ?
157 Cyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782
158 Aconitum heterophyllum, Wall. ex Royle; see AVS 1.42, NK #39
159 Nelumbo nucifera, Gaertn.; see Dutt 110, NK #1698
160 Raphanus sativus, L.; see NK #2098
161 unknown; see Cf. Soḍhalanighantu p.43 (sub bola) = stomaka = vatsanābha
162 unknown; see ?
163 Rhus succedanea, L.; see NK #2136
164 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. **agra-indi** 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 (**stei-pers** cites Persian *halāhil* 'deadly (poison)' as a loan from Sanskrit). **mayr-kurz** also cites a claim for an Austro-Asiatic origin for the word.

of bark, pith (*sāra*) and resin (*niryāsa*) poisons will cause foul-smelling breath, coarseness (*pāruṣya*), a headache, and a flow of phlegm (*kapha*). The milky sap (*kṣīra*)-poisons make one froth,[165] and make the tongue feel heavy. The element (*dhātu*)-poisons give one a pain in the chest, make one faint, and cause a burning feeling on the palate. These poisons are classified as ones which are normally 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*)[166], there is numbness, trembling, and rigidity. With wolfsbane (*vatsanābha*)[167], there is rigidity of the neck, and the faeces, urine, and eyes become yellow. With Indian mustard (*sarṣapa*)[168], the wind becomes defective (*vātavaiguṇya*), there is constipation (*ānāha*), and lumps (*granthi*) start to appear. With leadwort (*pālaka* → *citraka*)[169], everyone agrees that there is weakness in the neck, and speech gets jumbled. With the one called 'muddy' (*kardama*)[170], there is a discharge (*praseka*), the faeces pour out, and the eyes turn yellow. With the 'Virāṭa's plant' (*vairāṭaka*)[171], one's limbs hurt, and one's head becomes ill. With nutgrass (*mustaka*)[172], one's arms and legs grow stiff, and start to tremble.

15b With atis root (*śṛṅgīviṣa*)[173], one's limbs grow weak, there is a burning feeling.

16a With sacred lotus (*prapuṇḍarīka*)[174], one's eyes go red, and one's belly becomes distended.

16b With radish (*mūlaka*)[175]es, one is drained of colour, one vomits, one has hiccups, distension, and passes out.

---

165 This is indeed the observed effect of the milky sap of *Calotropis procera*, R. Br. (**NK**).
166 Abrus precatorius, L.? Cf. RRS 21.14.; see AVS 1.10, NK #6, Potter 168.
167 Aconitum napellus, L.; see AVS 1.47, NK #38, Potter 4 f.
168 Brassica juncea, Czern & Coss.; see AVS 1.301, NK #378
169 Plumbago zeylanica (indica? rosea?), L.; see Rā. 6.124, ADPS 119, NK #1966, 1967
170 unknown; see ?
171 unknown; see ?
172 Cyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782
173 Aconitum heterophyllum, Wall. ex Royle; see AVS 1.42, NK #39
174 Nelumbo nucifera, Gaertn.; see Dutt 110, NK #1698
175 Raphanus sativus, L.; see NK #2098

17a With 'alas, alas' (*hālāhala*)[176], a man starts, after a while, to gasp and turn brown.

17b With 'big poison' (*mahāviṣa*)[177], one gets violent knots (*granthi*) and stabbing pains in the heart.

18a With galls (*karkaṭa*)[178], one leaps up laughing and gnashing one's teeth.

19a These thirteen cited poisons which originate from tubers are fearfully potent. Experts know them all by these ten features: they are traditionally said to be dry (*rūkṣa*), hot, sharp, rarified (*sūkṣma*), fast-acting, pervasive, expansive (*vikāśin*), limpid (*viśada*), light, and indigestible.

19b- Because of their dryness they cause inflammation of the wind; their heat inflames the choler and blood. Because of their sharpness they unhinge the mind, and they cut through the connections with the sensitive points (*marman*). Because of being rarified they infiltrate and disconnect the parts of the body. Because they are fast-acting they kill quickly, and because of their pervasiveness they blend with one's physical constitution (*prakṛti*). Because they expand they destroy the humour (*doṣa*)s, element (*dhātu*)s, and the impurities. Because they are limpid they overflow, because they are light they are difficult to cure, and because they are indigestible they are hard to eliminate. And so they cause long suffering.

24 One can be certain that any poison which is instantly lethal, whether it be stationary, mobile, or artificial, will have all ten of these features.

Slow-acting poison

25 A poison, whether it be stationary, mobile, or artificial, which has not completely gone from the body, but which is worn out or damaged by anti-toxic medicine, or else dried up by blazing fire, wind, or sunshine, or which has just lost its virulence by itself, becomes a 'slow-acting poison (*dūṣīviṣa*)'. Because it has lost its potency it is no longer lethal. It is surrounded by phlegm (*kapha*) and has an aftermath that lasts for years.

27 If he is suffering from this, his stools and complexion deteriorate, he gets bad breath and a nasty taste in his mouth, and is very thirsty. He

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

177 unknown; see ?

178 Rhus succedanea, L.; see NK #2136

faints, vomits, his speech is slurred, and he is depressed. Also, he has the symptoms of contaminated dropsy (*duṣyodara*).[179]

28 If it lodges in his stomach (*āmāśaya*), his wind and phlegm become diseased; if it lodges in his intestines (*pakvāśaya*), his wind and choler become diseased. The man's hair and body are ruined, and he looks like a bird whose wings have been chopped off.

29a-c If it lodges in one of the body tissue (*dhātu*)s such as the chyle (*rasa*), it causes the diseases that were described as arising from the elements, and it rapidly becomes inflamed on nasty days which are cold and windy.

29d-31 Now listen to the preliminary signs of such a case: sleepiness, heaviness, yawning, slackness (*viśleṣa*) and exhilaration (*harṣa*), and a chafing of the limbs (*aṅgamarda*). Next, it causes food-mania (*annamada*) and indigestion, appetite-loss (*arocaka*), round blotches (*maṇḍala*), skin disease (*koṭha*), and delirium (*moha*). The body tissues dwindle away (*kṣaya*), the feet, hands, and face get swollen, dropsy develops, and there is vomiting and diarrhoea. Perhaps his colour may drain away and he may faint or have irregular fever (*viṣamajvara*). It may cause heightened, powerful thirst.

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 deplete the semen. One may cause slurred speech, while another pallid skin disease (*kuṣṭha*).

33 Traditionally, 'slow-acting poison' (*dūṣī-viṣa*) is so called because it corrupts (*dūṣayate*) the body tissue (*dhātu*)s. This corruption is caused by repetitively keeping to certain locations, times, foods, and sleeping in the daytime.

34- The stages of slow poisoning

In the first shock of having taken a stationary poison, a person goes a brown colour, his tongue becomes stiff, he grows faint, and starts to gasp.

35 In the second, he trembles, collapses, has a burning feeling, as well as a

179 'Contaminated dropsy' (*duṣyodara* or *dūṣyudara*) is described elsewhere as a condition which arises when women of ill-character mix nail clippings, hair, urine, faeces, or menstrual blood with a man's food, in order to gain power over him (2.7.11–13).

sore throat. When the poison reaches the stomach (*āmāśaya*), it causes pain in the chest (*hṛd*).

36 In the third, the roof of his mouth goes dry, he gets violent shooting pains (*śūla*) in the stomach (*āmāśaya*), and his eyes swell up and go a nasty, yellow colour.

37 In the fourth shock, it causes the stomach and intestines to sting (*toda*), he gets hiccups, a cough, a rumbling in the gut (*antra*), and his head becomes very heavy.

38 In the fifth he dribbles phlegm (*kapha*), is drained of colour, his joints crack (*parvabheda*), all his humours are inflamed, and he also has a pain in his belly (*pakvādhāna*).

39a In the sixth, his consciousness is annihilated and he completely loses control of his bowels.

39b In the seventh, his shoulders, back and loins break, and he is finished.

Remedies for the stages of slow poisoning

40 In the first shock of the poison, he should vomit and be sprinkled with cold water. Then he should be made to drink an antidote (*agada*) together with honey and ghee.

41a In the second, he should vomit as before, and then be given a purgative to drink.

41b In the third, it is good for him to drink an antidote and take a nasal medicine (*nasya*) as well as an eye salve (*añjana*).

42a In the fourth, he should drink a medical antidote mixed with oil.

42b In the fifth, he should be prescribed the antidote together with a decoction (*kvātha*) of honey and liquorice (*madhuka*)[180].

43 In the sixth, the cure is the same as for diarrhoea. And in the seventh, he should have medicated powder blown up his nose, and after having a 'crow's foot (*kākapada*)' cut made on his head, he should have a piece of bloody meat put on it.[181]

180 Glycyrrhiza glabra, L.; see AVS 3.84, NK #1136

181 Suśruta explains the term *avapīḍa* 'medicated nasal powder' as the procedure either of administering nasal drops (*avapīḍa*), or blowing medicated powder into the nose (4.40.44–46): it is particularly recommended for unconscious or incapable patients. The 'crow's-foot' procedure is also recommended later in the 'Section on Procedures'

44 In the intervals between each shock, assuming that the above actions have been performed, one should give the patient cold porridge together with ghee and honey, to take away the poison.

45–46 Both kinds of poison are destroyed by a porridge prepared with the stewed juice (*niṣkvātha*) of the following: luffa (*koṣātakya*)[182], migraine tree (*agnimantha*)[183], velvet-leaf (*pāṭhā*)[184], 'sun-creeper' (*sūryavallī* → *jīvantī?*)[185], heart-leaved moonseed (*amṛtā*)[186], myrobalan (*abhayā*)[187]s, siris (*śirīṣa*)[188], white siris (*kiṇihī*)[189], selu plum (*śelu*)[190], white clitoria (*giryāhvā*)[191], the two kinds of turmeric (*rajanī*)[192], the two hogweed (*punarnavā*)[193]s (red and white), black cardamom (*hareṇu*)[194], the three pungent spices (*trikaṭu*) (dried ginger (*śuṇṭhī*)[195], long pepper (*pippalī*)[196], and black pepper (*marica*)[197]), the two Indian sarsaparillas (*sārive*) (country sarsaparilla (*anantā*)[198] and black creeper (*pālindī*)[199]) and country mallow (*balā*)[200].

(5.5.24a) in cases of snake-bite. It is also described by Caraka (see p. **??** below).

182 Luffa cylindrica, (L.) M. J. Roem. or L. acutangula, (L.) Roxb.; see ADPS 252, NK #1514 etc.

183 Premna corymbosa, Rottl.; see IMP 1927, ADPS 21, NK #2025, AVS 4.348; GJM 523: = P. integrifolia/serratifolia, L.

184 Cissampelos pariera, L.; see ADPS 366, NK #592, GJM 573, IMP 1.95; cf. AVS 2.277

185 Holostemma ada-kodien, Schultes; see ADPS 195, AVS 3.167, NK #1242, IMP 3.1619

186 Tinospora cordifolia, (Willd.) Hook.f. & Thoms.?; see ADPS 38, NK #2472 & 624, Dastur #229

187 Terminalia chebula, Retz.; see ADPS 172, NK #2451, Potter 214

188 Albizia lebbeck, Benth.; see AVS 1.81, NK #91

189 Albizia procera, (Roxb.) Benth.; see GVDB 98, NK #93

190 Cordia myxa, L. non Forssk.; see GJM 529 (2), IGP 291b, cf. IMP 3.1677f; cf. AVS 2.180 (C. dichotoma, Forst.f.), NK #672 (C. latifolia, Roxb.)

191 Clitoria ternatea, L.; see AVS 2.129, NK #621

192 Curcuma longa, L.; see ADPS 169, AVS 2.259, NK #750

193 Boerhaavia diffusa, L.; see ADPS 387, AVS 1.281, NK #363

194 Amomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154

195 Zingiber officinale, Roscoe.; see ADPS 50, NK #2658, AVS 5.435, IGP 1232

196 Piper longum, L.; see ADPS 374, NK #1928

197 Piper nigrum, L.; see ADPS 294, NK #1929

198 Hemidesmus indicus, (L.) R. Br.; see ADPS 434, AVS 3.141–5, NK #1210

199 Ichnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes; see AVS 3.141, 3.145, 3.203, NK #1283, #1210, ADPS 434

200 Sida cordifolia, L.; see ADPS 71, NK #2297

47–49 The 'invincible' ghee

There is a famous ghee called 'Invincible' (*ajeya*). It rapidly destroys all poisons and 'always conquers'. It is made with a mash (*kalka*) of the following plants: liquorice (*madhuka*)[201], Indian rose-bay (*tagara*)[202], costus (*kuṣṭha*)[203], deodar (*bhadradāru*)[204], black cardamom (*hareṇu*)[205], Alexandrian laurel (*punnāga*)[206], cherry (*elavāluka*)[207], cobra's saffron (*nāgapuṣpa*)[208], water-lily (*utpala*)[209], white clitoria (*sitā* → *śvetā?*)[210], embelia (*viḍaṅga*)[211], sandalwood (*candana*)[212], cassia cinnamon (*patra*)[213], 'going-to-my-darling' (*priyaṅgu*)[214], rosha grass (*dhyāmaka*)[215], the two turmerics (ordinary turmeric (*rajanī*)[216] and Indian barberry (*dāruharidrā*)[217]), the two Indian nightshade (*bṛhatī*)s (poison berry (*bṛhatī*)[218] and yellow-berried nightshade (*kṣudrā*)[219]), the two Indian sarsaparillas (*sārive*) (country sarsaparilla (*anantā*)[220] and black creeper (*pālindī*)[221]), beggarweed (*sthirā* → *śālaparṇī*)[222], and 'spotted-leaf' (*sahā* →

201 Glycyrrhiza glabra, L.; see AVS 3.84, NK #1136
202 Tabernaemontana divaricata (L.) R.Br. ex Roem. & Schultes.; see GJM 557, AVS 5.232
203 Saussurea costus, Clarke; see NK #2239
204 Cedrus deodara, (Roxb.ex D.Don) G. Don; see AVS 41, NK #516
205 Amomum subulatum, Roxb.?; see PVS Caraka 2.734, AVS 1.128, NK #154
206 Calophyllum inophyllum, L.; see AVS 1.338, NK #425
207 Prunus cerasus, L.?; see BVDB 58, NK #2037
208 Mesua ferrea, L.; see NK #1595
209 Nymphaea stellata, Willd.; see GJM 528, IGP 790; Dutt 110, NK #1726
210 Clitoria ternatea, L.; see AVS 2.129, NK #621
211 Embelia ribes, Burm. f.; see ADPS 507, AVS 2.368, NK #929, Potter 113
212 Santalum album, L.; see ADPS 111, NK #2217
213 Cinnamomum tamala, (Buch.-Ham.) Nees; see AVS 2.84, NK #
214 Callicarpa macrophylla, Vahl.; see AVS 1.334, NK #420
215 Cymbopogon martinii (Roxb.) Wats; see AVS 2.285, NK #177
216 Curcuma longa, L.; see ADPS 169, AVS 2.259, NK #750
217 Berberis aristata, DC.; see Dymock 1.65, NK #685, GJM 562, IGP 141
218 Solanum violaceum, Ortega; see ADPS 100, NK #2329, AVS 5.151
219 Solanum virginianum, L.; see ADPS 100, NK #2329, AVS 5.164
220 Hemidesmus indicus, (L.) R. Br.; see ADPS 434, AVS 3.141–5, NK #1210
221 Ichnocarpus frutescens, (L.) R.Br. or Cryptolepis buchanani, Roemer & Schultes; see AVS 3.141, 3.145, 3.203, NK #1283, #1210, ADPS 434
222 Desmodium gangeticum (L.) DC; see Dymock 1.428, GJM 602, NK #1192; ADPS 382, 414 and AVS 2.319, 4.366 are confusing

pṛśniparṇī)[223].

50–52 Curing the 'slow-acting' poison

Someone suffering from 'slow-acting poison (*dūṣīviṣa*)' should be well sweated, and purged both top and bottom. Then he should in all cases be made to drink the following antidote which removes 'slow-acting poison':

Take long pepper (*pippalī*)[224], rosha grass (*dhyāmaka*)[225], spikenard (*māṃsī*)[226], lodh tree (*śāvara* → *lodhra*)[227], nutgrass (*paripelava* → *plava* → *mustā?*)[228], soda crystals (*suvarcikā* → *suvarjikā*)[229], cardamom (*sūkṣmailā*)[230], 'scented pavonia' (*toya* → *bālaka*)[231], and 'gold-chalk' ochre (*kanakagairika*). This antitoxin, taken with honey, eliminates 'slow-acting poison'. It is called 'slow-acting poison antidote (*dūṣīviṣāri*)', and there is no situation where it is not recommended.

53–54 If there are any side-effect (*upadrava*)s, such as fever, a burning feeling, hiccups, constipation (*ānāha*), depletion of the semen, distension, diarrhoea, fainting, illness in the heart, bellyache (*jaṭhara*), madness, trembling, or others, then one should treat each one in its own terms, as well as using the anti-toxic medicines.

55 'Slow-acting poison' is curable (*sādhya*) if caught immediately; it is treatable (*yāpya*) if it is of a year's standing; but it cannot be cured in someone who has unhealthy habits or who is weak (*kṣīṇa*).

---

223 Uraria lagopoides, DC; see GJM 577, Dymock 1.426, IMP 1.750ff., NK #2542; ADPS 382, AVS 2.319 4.366 are confusing
224 Piper longum, L.; see ADPS 374, NK #1928
225 Cymbopogon martinii (Roxb.) Wats; see AVS 2.285, NK #177
226 Nardostachys grandiflora, DC.; see NK #1691
227 Symplocos racemosa, Roxb.; see ADPS 279, NK #2420
228 Cyperus rotundus, L.; see ADPS 316, AVS 2.296, NK #782
229 Sodium carbonate; see NK 2, p. 101
230 Elettaria cardamomum, Maton; see AVS 2.360, NK #924, Potter 66
231 Pavonia odorata, Willd.; see ADPS 498, NK #1822

Thus ends the second chapter, called ‘on the knowledge of stationary poisons’, in the Procedures Section of Suśruta’s *Compendium*.

Abbreviations

Ah 1939 — Kuṃṭe, Aṇṇā Moreśvara, Navare, Kṛṣṇaśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्वाग्भटविरचितम् अष्टाङ्गहृदयम्, श्रीमद्-रुणदत्तविरचितया सर्वाङ्गसुन्दराख्यया व्याख्यया, हेमाद्रिप्रणीतया आयुर्वेदर-सायनाह्वया टीकया च समुल्लसितम् = *The Astāngahṛidaya* (6th edn., Muṃbayyām: Nirṇayasāgara Press), ark:/13960/t3tt6967d.

Anup — *Anup Sanskrit Library* (n.d.).

Apte — Apte, Vaman Shivaram (1992), *The Practical Sanskrit-English Dictionary* (Kyoto: Rinsen Book Company), ISBN: 4-653-00038-7; Reprinted from Gode and Karve 1957–9.

AS — *Asiatic Society* (n.d.).

As 1980 — Āṭhavale, Anaṃta Dāmodara (1980) (ed.), *Aṣṭāṅgasaṅgrahaḥ. Śrīmad Vṛddhavāgbhaṭaviracitaḥ Induvyākhyāsahitaḥ* (Puṇe: Maheśa Anaṃta Āṭhavale, Śrīmad Ātreya Prakāśanam), ark:/13960/t9773bb9z.

Bhela 1921 — Mookerjee, Ashutosh and Ananta Krishna Shastri, Vedantabisharad (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* (n.d.).

Ca. 1941 — Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्व-सुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता च-रकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्यया संवलिता (3rd edn., Mumbayyāṃ: Nirnaya Sagara Press), URL, accessed 01/01/2018.

HIML — Meulenbeld, Gerrit Jan (1999–2002), *A History of Indian Medical Literature*, 5 vols. (Groningen: E. Forsten), ISBN: 9069801248.

KL — *Kaiser Library* (n.d.).

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* (n.d.).

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.

NGMCP — NGMCP (2014), 'Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue', Universität Hamburg and Deutsche Forschungsgemeinschaft, URL.

RORI — *Rajasthan Oriental Research Institute* (n.d.).

Su 1889 — Bhaṭṭācāryya, Jīvānanda Vidyāsāgara (1889) (ed.), सुश्रुतः. सूत्र-निदान-शारीर-चिकित्सा-कल्पोत्तर-तन्त्र-कल्पित आयुर्वेद. भगवता धन्वन्तरिणोपदिष्टः सुश्रुतनामधेयेन तच्छिष्येण विरचितः (3rd edn., Calcutta: Saratī Press), ark:/13960/t1nh6j09c; HIML: IB, 311, edition b.

Su 1915 — Ācārya, Yādavaśarma Trivikrama (1915) (ed.), सुश्रुतसंहिता, सुश्रुतेन विरचिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया समुल्लसिता, आचार्योपाह्वेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = *The Sushrutasamhita of Sushruta, the Nibandhasangraha Commentary of Shri Dalhaṇāchārya* (Mumbayyāṃ: Nirṇayasāgaramudrāyantrālaye), 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 Sushrutasaṃhitā of Sushruta with the Nibandhasangraha Commentary of Shree Dalhaṇāchārya* (2nd edn., Mumbayyāṃ: Pāṇḍuraṅga Jāvajī at the Nirṇayasāgaramudrāyantrālaye), ark:/13960/t9j41sg94, accessed 09/06/2020; HIML: IB, 312 edition *v.

Su 1938 Ācārya, Yādavaśarma Trivikrama and Ācārya, Nārāyaṇa Rāma (1938) (eds.), श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्य-व्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिकाख्यप-ञ्जिकाव्याख्यया च समुल्लसिता महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (3rd edn., Bombay: Nirṇayasāgara Press), ark :/ 13960 / t09x0sk1h; HIML: IB, 313, edition cc ('the vulgate').

Su 1938[2] Ācārya, Yādavaśarma Trivikrama and Ācārya, Nārāyaṇa Rāma (2004) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता, श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्यया निदानस्थानस्य श्री-गयदासाचार्यविरचितया 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-sañhitā* (*sūtra Sthān*) *with Bhānumatī Commentary by Chakrapāṇi Datta with Introduction by Gaṇanāth Sen* (Śrīsvāmi Lakṣmīrāma Nidhi Grantha-mālā = Shrī Swāmī Lakshmī Rām Trust Series, 1; [Jaipur]: Śyāmasundara Śarman), ark:/13960/t54g0d12m; Printed at the Nirṇayasāgara Press, Bombay.

Su 1945 Ācārya, Yādavaśarma Trivikramācārya and Ācārya, Nārāy-aṇa Rāma (1945) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (मूलमात्रा). पाठान्तर-परिशिष्टादिभिः संवलिता = *the Suśrutasaṃhitā of Suśruta with Various Readings, Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), URL.

TMSSML *Tanjore Maharaja Serfoji Saraswati Mahal Library* (n.d.).

Viṣṇudh. Śarman, Madhusūdana and Śarman, Mādhavaprasāda (1912) (eds.), विष्णुधर्मोत्तरपुराणम् = [*Viṣṇudharmottarapurāṇa*] (Mumbai: Khemarāja Śrīkṛṣṇadāsa at the Śrīveṅkaṭeś-vara Steam Press), ark :/ 13960 / t6qz6fr23; Lithograph format. Edited on the basis of a manuscript belonging to the astrologer Śudhākaraśarman of the Varanasi Sanskrit Pāṭhaśālā.

Index of Manuscripts

The numbers after the colon refer to pages in this document.

References

Ācārya, Yādavaśarma Trivikrama (1941) (ed.), **महर्षिणा पुनर्वसुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्यया संवलिता** (3rd edn., Mumbayyāṃ: Nirnaya Sagara Press), URL, accessed 01/01/2018.

Ācārya, Yādavaśarma Trivikramācārya and Ācārya, Nārāyaṇa Rāma (1945) (eds.), **महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (मूलमात्रा). पाठान्तरपरिशिष्टादिभिः संवलिता** = *the Suśrutasaṃhitā of Suśruta with Various Readings, Notes and Appendix etc.* (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), URL.

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

Angermeier, Vitus (2020), *Regenzeiten, Feuchtgebiete, Körpersäfte. Das Wasser in der klassischen indischen Medizin* (Wien: Österreichische Akademie der Wissenschaften).

Baber, Zaheer (1996), *The Science of Empire: Scientific Knowledge, Civilization, and Colonial Rule in India* (Albany: State University of New York Press).

Bausi, Alessandro et al. (2015), *Comparative Oriental Manuscript Studies. An Introduction* (Hamburg: Tredition). DOI: 10.5281/ZENODO.46784.

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.

Bhaṭṭācārya, Candrakānta (1910–7) (ed.), सुश्रुतसंहिता प्रथमखण्डम् सूत्रस्थानात्मकम् हाराणचन्द्रचक्रवर्तिकविराजविरचितसुश्रुतार्थसन्दीपनभाष्य-समेतम्...चन्द्रकान्त भट्टाचार्य्य-प्रमुखैः संशोधितम् = [*The Suśrutasaṃhitā with the Commentary Suśrutārthasandīpanabhāṣya by Hārāṇacandra Cakravarti*] (Kalikātā: Satya Press); Edition "t" in HIML: IB, 312.

Bhattarai, Bidur (2020), *Dividing Texts. Conventions of Visual Text-Organisation in Nepalese and North Indian Manuscripts* (Studies in Manuscript Cultures; Berlin/Boston: de Gruyter), 388.

Birch, Jason, Wujastyk, Dominik, Klebanov, Andrey, Parameswaran, Madhu K., et al. (2021), 'Further Insight into the Role of Dhanvantari, the Physician to the Gods, in the Suśrutasaṃhitā', *Academia Letters*. DOI: 10.20935/AL2992.

Birch, Jason, Wujastyk, Dominik, Klebanov, Andrey, Rimal, Madhusudan, et al. (2021), 'Ḍalhaṇa and the Early 'Nepalese' Version of the Suśrutasaṃhitā'. DOI: 10.20935/al3733.

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, 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, URL, accessed 02/06/2021.

Bronkhorst, Johannes (2021), 'Patañjali's Āryāvarta = Śuṅga realm?', *Academia Letters*. DOI: 10.20935/al291; Article 291.

Bronner, Yigal (2021) (ed.), 'The Pandit Project' (30 Sept.), URL.

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, URL, accessed 12/12/2017.

—— (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; Bheḷasaṃhitā described on pp. 67 ff.

Carpue, J. C. (1816), *An Account of Two Successful Operations for Restoring a Lost Nose from the Integuements of the Forehead…Including Descriptions of the Indian and Italian Methods* (London: Longman et al.), ark:/13960/t2q57fn42, accessed 20/03/2019.

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, 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.

Dave, K. N. (1985), *Birds in Sanskrit Literature* (Delhi: Motilal Banarsidass), ISBN: 0-89581-676-8, ark:/13960/t2c94cv80.

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.

—— (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.

Dimitrov, Dragomir and Tamot, Kashinath (2007), 'Kaiser Shamsher, His Library and His Manuscript Collection', *Kaiser Shamsher, His Library and His Manuscript Collection*, 3 (Jan.): 26–36, URL.

Edgerton, Franklin (1939), 'The Epic Triṣṭubh and Its Hypermetric Varieties', *Journal of the American Oriental Society*, 59/2: 159–74. DOI: 10.2307/594060.

Elliot, Robert Henry (1918), *The Indian Operation of Couching for Cataract: Incorporating the Hunterian Lectures Delivered before the Royal College of Surgeons of England on February 19 and 21, 1917* (London: H. K. Lewis).

Emeneau, M. B. (1969), 'Sanskrit Syntactic Particles – "kila, khalu, nūnam"', *Indo-Iranian Journal*, 11/4: 241–68.

Falk, Harry (1991), 'Silver, Lead and Zinc in Early Indian Literature', *South Asian Studies*, 7/1: 111–7. DOI: 10.1080/02666030.1991.9628430.

Fan, Ka Wai (2005), 'Couching for Cataract and Sino-indian Medical Exchange Fromthe Sixth to the Twelfth Century Ad', *Clinical and Experimental Ophthalmology*: 188–90. DOI: 10.1111/j.1442-9071.2005.00978.x; Unaware of Deshpande 1999; 2000.

Fitzgerald, James L. (2009), 'A Preliminary Study of the 681 Triṣṭubh Passages of the Mahābhārata', in Robert P. Goldman and Muneo Tokunaga (eds.), *Epic Undertakings* (Papers of the 12th World Sanskrit Conference; Delhi: Motilal Banarsidass Publishe), 95–117.

Gaṇapatiśāstrī, T. (1920–5), *Āryamañjuśrīmūlakalpaḥ* (Trivandrum Sanskrit Series, 70; Anantaśayane: Rājakīyamudraṇayantrālaye), ark:/13960/t4pk5sj0j.

Gode, P. K. and Karve, C. G. (1957–9) (eds.), *Revised and Enlarged Edition of Prin. V. S. Apte's the Practical Sanskrit-English Dictionary* (Poona: Prasad Prakashan), ark:/13960/t3gx47212, accessed 20/10/2017.

Gombrich, Richard (1979), ''He cooks softly': dverbs in Sanskrit grammar', *Bulletin of the School of Oriental and African Studies*, 42/2 (June): 244–56. DOI: 10.1017/s0041977x0014580x.

Gupta, Sri Madhusudana (1835–6) (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.

Harimoto, Kengo (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.

—— (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, URL, accessed 08/09/2019.

—— (pre-published), '[Preliminary Edition of the Nepalese MSS of the Suśrutasaṃhitā, adhyāyas 1.1–3, 6.4]'; Unpublished document dated 2010.

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.

Hemarāja Śarman (1938) (ed.), **काश्यपसंहिता (वृद्धजीवकीयं तन्त्रं वा) महर्षिणा मारीचकश्यपेनोपदिष्टा ... हेमराजशर्मणा लिखितेन विस्तृतेन उपोद्घातेन सहिता ... सत्यपाल भिषगा कृतया विद्योतिनी हिन्दीव्याख्यया ... समुल्लसिता** (1st edn., Mumba: Nirṇayasāgara Press), URL, accessed 02/02/2018.

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

Hessler, Franciscus (1844–55), *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), URL, accessed 04/11/2017.

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.

—— (1907), *Studies in the Medicine of Ancient India: Osteology or the Bones of the Human Body* (Oxford: Clarendon Press).

Hofer, Theresia (2007), 'Swami Laxmi Ram's Ayurvedic Pharmacy in Jaipur, India', *Wellcome History*, 34: 2–3, URL, accessed 01/07/2021.

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.

Jack, David Morton (1884), 'A Thesis on Cataract in India: Its Pathology and Treatment', Wellcome Library, London, MS.3007, URL, accessed 02/06/2021.

Jośī, Veṇīmādhavaśāstrī and Jośī, Nārāyaṇa Harī (1968), *Āyurvedīya Mahākośaḥ arthāt Āyurvedīya Śabdakośaḥ Saṃskṛta–Saṃskṛta* (Muṃbaī: Mahārāṣṭra Rājya Sāhityta āṇi Saṃskṛti Maṃḍaḷa), URL.

Kangle, R. P. (1969), *The Kauṭilīya* Arthaśāstra (2nd edn., Delhi: Motilal Banarsidass), ISBN: 81-208-0042-7, ark:/13960/t3gz6qh1s, accessed 23/09/2021.

Keith, Arthur Berriedale (1908), review of A. F. Rudolf Hoernle (1907), *Studies in the Medicine of Ancient India: Osteology or the Bones of the Human Body* (Oxford: Clarendon Press), in *Zeitschrift Der Deutschen Morgenländischen Gesellschaft*, 1/62: 134–9, URL, accessed 17/04/2021.

Klebanov, Andrey (2010), 'The *Nepalese Version of the Suśrutasaṃhitā and Its Interrelation with Buddhism and the Buddhists', MA thesis (Hamburg: Hamburg University, Sept.), URL, accessed 08/09/2019.

—— (2021*a*), 'On the Textual History of the Suśrutasaṃhitā (1): A Study of Three Nepalese Manuscripts', to be published in *eJIM: Electronic Journal of Indian Medicine*, URL, accessed 09/09/2019.

—— (2021*b*), '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.

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.

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, URL, accessed 02/11/2020.

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.

Majno, Guido (1975), *The Healing Hand. Man and Wound in the Ancient World* (Cambridge, MA: Harvard University Press), URL, accessed 26/08/2021.

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.

Manucci, Niccolò (1907–8), *Storia Do Mogor or, Mogul India, 1653–1708 by Niccolao Manucci, Venetian; Translated with Introduction and Notes, by William Irvine* (The Indian Texts Series; London: J. Murray), URL, accessed 04/10/2021.

Masai, François (1950), 'Principes et conventions de l'édition diplomatique', *Scriptorium*, 4: 177–93. DOI: 10.3406/scrip.1950.2294.

McHugh, James (2021), *An Unholy Brew: Alcohol in Indian History and Religions* (New York: Oxford University Press), 416 pp., ISBN: 9780199375936, URL.

Meulenbeld, Gerrit Jan (1974), *The Mādhavanidāna and Its Chief Commentary: Chapters 1–10. Introduction, Translation, and Notes* (Leiden: Brill), ISBN: 978-90-04-03892-9; Meulenbeld provided a supplement to his 1974 listing of plant identities as an appendix in Das 2003.

—— (1984), 'The Surveying of Sanskrit Medical Literature', in id. (ed.), *Proceedings of the International Workshop on Priorities in the Study of Indian Medicine* (Groningen: Forsten), 37–56.

—— (1989), 'The Search for Clues to the Chronology of Sanskrit Medical Texts As Illustrated by the History of Bhaṅgā (cannabis Sativa Linn.)', *Studien zur Indologie und Iranistik*, 15: 59–70.

—— (1992), 'The Characteristics of a Doṣa', *Journal of the European Āyurvedic Society*, 2/1: 1–5, URL, accessed 31/08/2021.

—— (2008), *The Mādhavanidāna with "Madhukośa," the Commentary by Vijayarakṣita and Śrīkaṇṭhadatta (Ch. 1-10). Introduction, Translation, and Notes* (Delhi: Motilal Banarsidass); Meulenbeld provided a supplement to his 1974 listing of plant identities as an appendix in Das 2003.

—— (2011), 'The Relationships between Doṣas and Dūṣyas: A Study on the Meaning(s) of the Root Murch-/mūrch', *eJournal of Indian Medicine*, 4/2: 35–135, URL, accessed 13/10/2017.

Miles, M. (1999), 'Personal Communication', Mar.; Letter of 4 March.

Moureau, Sébastien. (2015), 'The Apparatus Criticus', in Alessandro Bausi et al. (eds.), *Comparative Oriental Manuscript Studies: An Introduction* (Hamburg: Tredition), 348–52, ISBN: 978-3-7323-1768-4, URL, 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 Eouropean* (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.

Nadkarni, K. M. (1954), *Dr. K. M. Nadkarni's Indian Materia Medica, with Ayurvedic, Unani-tibbi, Siddha, Allopathic, Homeopathic, Naturopathic & Home Remedies, Appendices & Indexes ... in Two Volumes*, ed. A. K. Nadkarni, 2 vols. (3 ed., revised by A. K. Nadkarni, Bombay: Popular Prakashan), ark:/13960/t6rz4h160.

—— (1982), *Dr. K. M. Nadkarni's Indian Materia Medica, with Ayurvedic, Unani-tibbi, Siddha, Allopathic, Homeopathic, Naturopathic & Home Remedies, Appendices & Indexes ... in Two Volumes*, ed. A. K. Nadkarni, 2 vols. (3 ed., revised and enlarged by A. K. Nadkarni, Bombay: Popular Prakashan), ISBN: 8171541429, URL.

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.

Oberlies, Thomas (2003), *A Grammar of Epic Sanskrit* (Indian Philology and South Asian Studies, 5; Berlin: De Gruyter), ISBN: 9783110144482. DOI: 10.1515/9783110899344.

Olivelle, Patrick (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.

Osbaldeston, Tess Anne and Wood, R. P. A. (2000), *Dioscorides. De Materia Medica. Being an Herbal with Many Other Medicinal Materials Written in Greek in the First Century of the Common Era. a New Indexed Version in Modern English* [Introductory Notes by R. P. Wood] (Johannesburg: IBIDIS Press), ISBN: 0-620-23435-0, URL.

Pandey, Anshuman (2012), 'Proposal to Encode the Newar Script in ISO/IEC 10646', URL.

Pass, Gregory (2003), *Descriptive Cataloging of Ancient, Medieval, Renaissance, and Early Modern Manuscripts* (Chicago: American Library Association), ISBN: 0-8389-8218-2, URL.

Preisendanz, Karin (2007), 'The Initiation of the Medical Student in Early Classical Āyurveda: Caraka's Treatment in Context', in Birgit Kellner et al. (eds.), *Pramāṇakīrtiḥ. Papers Dedicated to Ernst Steinkellner on the Occasion of His 70th Birthday. Part 2*, ii, 2 vols. (Wiener Studien zur Tibetologie und Buddhismuskunde, 70.2; Wien: Arbeitskreis für Tibetische Und Buddhistische Studien Universität Wien), 629–68, ISBN: 9783902501097, URL.

Price, Kenneth M. (2013), 'Electronic Scholarly Editions', in Ray Siemens and Susan Schreibman (eds.), *A Companion to Digital Literary Studies* (Chichester, UK: John Wiley & Sons, Ltd), 434–50. DOI: 10.1002/9781405177504.ch24, URL, accessed 04/07/2021.

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; 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.

Rhys Davids, Thomas William and Stede, William (1921–5), *The Pali Text Society's Pali-English Dictionary* (London: The Pali Text Society), URL.

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).

Sastri, Hrishikesh and Gui, Siva Chandra (1895–1917), *A Descriptive Catalogue of Sanskrit Manuscripts in the Library of Calcutta Sanskrit College* (Calcutta: Baptist Mission Press).

Sastri, P. P. S. (1933), *A Descriptive Catalogue of the Sanskrit Manuscripts in the Tanjore Maharaja Serfoji's Sarasvati Mahal Library Tanjore: Natya, Sangita, Kamasastra, Vaidya & Jyotisa, nos. 10650 – 11737* (Srirangam: Sri Vani Vilas Press), ark:/13960/t3nw8bc12.

Śāstrī, Vardhamāna Pārśvanātha (1940) (ed.), उग्रादित्याचार्यकृत कल्याणकारक (राष्ट्रभाषानुवादसहित) = *The Kalyāṇa-kārakam of Ugrādityacharya, Edited with Introduction, Translation, Notes, Indexes and Dictionary* (Sakhārāma Nemacaṃda Graṃthamālā, 129; Solāpura: Seṭha Goviṃdajī Rāvajī Dośī), ark:/13960/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; Breton 1826: 358–363 cites Scott's description of cataract couching.

Sena, Gaṅgāprasād et al. (1886–93) (eds.), सुश्रुतसंहिता...दल्हनाचार्य्य-कृत-निवन्ध-संग्रह, चक्रपाणिदत्त-कृत-भानुमती-टीका...वङ्गानुवाद...इरैजि प्रतिशब्द (Calcutta: Maṇirāma Press); Edition "g" in HIML: IB, 311.

Sharma, Har Dutt (1939), *Descriptive Catalogue of the Government Collections of Manuscripts Deposited at the Bhandarkar Oriental Research Institute, Vol. XVI, Part I, Vaidyaka* (Descriptive Catalogue of Manuscripts in the Government Manuscripts Library, XVI.I; Pune: Bhandarkar Oriental Research Institute), ark:/13960/t0ms6rc70, accessed 23/10/2019.

Sharma, Priya Vrat (1972), *Indian Medicine in the Classical Age* (Varanasi: Chowkhamba Sanskrit Series Office).

—— (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).

Shastri, R. Shama (1920) (ed.), बोधायनगृह्यसूत्रम् *The Bodhāyana Grihyasutra* (Mysore: University of Mysore), ark:/13960/t2t492622.

Singh, Thakur Balwant and Chunekar, K. C. (1972), *Glossary of Vegetable Drugs in Brhattrayī* (Varanasi: Chowkhamba Sanskrit Series Office).

Sircar, Dinesh Chandra (1987), '6. Rākshaskhāli (Sundarban) Plate; Śaka 1118', *Epigraphia Indica (1953–54)*, 30: 42–3.

Sivarajan, V. V. and Balachandran, Indira (1994), *Ayurvedic Drugs and Their Plant Sources* (New Delhi, Bombay, Calcutta: Oxford & IBH Publishing).

Sleeman, W. H. (1893), *Rambles and Recollections of an Indian Official* (London: Constable), ark:/13960/t22c4bx7w, accessed 14/03/2018; V. 2 at http://n2t.net/ark:/13960/t2s52bq7w.

Smith, Brian K. (1994), *Classifying the Universe: The Ancient Indian* Varṇa *System and the Origins of Caste* (New York, Oxford: Oxford University Press), ISBN: 0-19-508498-5.

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).

Srikantha Murthy, K. R. (2000–2), *Illustrated Suśruta Saṃhitā: Text, English Translation, Notes, Appendices and Index* (Jaikrishnadas Ayurveda Series, 102; 1st edn., Varanasi: Chaukhambha Orientalia).

Suvedī, K. S. and Tīvārī, N. (2000) (eds.), *Sauśrutanighaṇṭuḥ: granthādau vistṛtena granthavaiśiṣṭyaprakāśakenopodghātena avasāne ca dravyāṇām anekabhāṣānām āvalī- paryāyasaṅgrahābhyāṃ samalaṅkrtaḥ Suśrutasaṃhitāyāṃ prayuktānām auṣadhadravyāṇāṃ paryāya-guṇakarmavarṇātmako pūrvagranthaḥ* (Belajhuṇḍī, Ḍāṅ: Mahendrasaṃskr□taviśvavidyālayaḥ).

Tavernier, Jean-Baptiste (1684), *Collections of Travels through Turky* (sic), *into Persia, and the East-Indies* (London: M. Pitt).

The Unicode Consortium (1991–2020), 'The Unicode Standard 13.0, NewaRange: 11400–1147F', URL, accessed 20/07/2021.

Thorburn, S. S. (1876), *Bannu; or Our Afghan Frontier* (London: Trübner & Co.), URL, accessed 10/09/2019; Reprinted Lahore: Niaz Ahmad, 1978.

Unschuld, Paul Ulrich (1984), *Medicine in China: A History of Ideas* (Berkeley: University of California Press), ISBN: 0520050231.

Velankar, H. D (1925–30), *Descriptive Catalogue of the Sanskṛta and Prākṛta Manuscripts in the Library of the Bombay Branch of the Royal Asiatic Society* (Bombay: Royal Asiatic Society, Bombay), ark:/13960/t53g00h0n; Biswas #0115.

Warrier, P. K., Nambiar, V. P. K., and Ramankutty, C. (1994–6) (eds.), *Indian Medicinal Plants: A Compendium of 500 Species. Vaidyaratnam P. S. Varier's Arya Vaidya Sala, Kottakal* (Madras: Orient Longman).

Watt, George (1889–96), *A Dictionary of the Economic Products of India* (Calcutta: Dept. Revenue and Agriculture, Government of India), URL, accessed 28/04/2021.

—— (1908), *The Commercial Products of India, Being an Abridgement of "the Dictionary of the Economic Products of India"* (London: John Murray), ark:/13960/t9t14xh3x.

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.

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.

Wren, R. C. (1956), *Potter's New Cyclopaedia of Botanical Drugs and Preparations*, ed. R. W. Wren (Rustington, Sussex: Health Science Press), ark:/13960/t14n65c9g.

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.

—— (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, ISSN: 2471-3716, URL, accessed 23/07/2019.

Wujastyk, Dominik (1993), 'Indian Medicine', in W. F. Bynum and Roy Porter (eds.), *Companion Encyclopedia of the History of Medicine*, i (London: Routledge), chap. 33, 755–78, ISBN: 0-415-04771-4, URL.

—— (2002), 'Cannabis in Traditional Indian Herbal Medicine', in Ana Salema (ed.), *Āyurveda at the Crossroads of Care and Cure. Proceedings of the Indo-European Seminar on Ayurveda held at Arrábida, Portugal, in November 2001* (Lisbon: Centro de História de Além-Mar, Universidade Nova de Lisboa), 45–73, ISBN: 972-98672-5-9, URL, accessed 27/05/2019.

—— (2003), *The Roots of Ayurveda: Selections from Sanskrit Medical Writings* (Penguin Classics; 3rd edn., London, New York, etc.: Penguin Group), ISBN: 0-140-44824-1.

Wujastyk, Dominik (2004), 'Agni and Soma: A Universal Classification', *Studia Asiatica: International Journal for Asian Studies*, IV–V, ed. Eugen Ciurtin: 347–70, ISSN: 1582–9111, URL.

—— (2013), '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.

—— (2021), 'MS London BL H. T. Colebrooke 908', URL.

Zimmermann, F. (1983), 'Suśrutasamhita. Essay review.', *Bulletin of the History of Medicine*, 57/2: 291–3, ISSN: 00075140, URL.

Zimmermann, Francis (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.

Glossary

Todo list