The *Suśrutasaṃhitā* on the Plastic Surgery of the Ears and Nose: The Nepalese Recension

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Draft of 18th October 2021

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Introduction

The Aim of the Article

The Compendium of Suśruta ($Suśrutasaṃhit\bar{a}$) is amongst the most important treatises on medicine to survive from the ancient world. It has been studied seriously by historians since it first became available in print in the mid-nineteenth century. The study of this work has yielded rich historical discoveries, for example about the earliest history of surgery, ancient pharmacology, toxicology and many other social and medical topics. Yet there remain fundamental unanswered questions about the history of the text itself and about related issues in the history of medicine in Asia (HIML: IA, 203-389).

In January 2007, a previously unknown manuscript of the *Suśrutasaṃ-hitā* was brought to scholarly attention (Dimitrov and Tamot 2007). MS Kathmandu KL 699 is a Nepalese manuscript covering about two thirds of the text. It is dated to 878 CE and is amongst the earliest dated manuscripts known from South Asia (Harimoto 2011: 87–88). The manuscript has been declared by UNESCO to be part of the Memory of the World (UNESCO 2013).

The newly-discovered manuscript in Nepal is related to two other early palm-leaf manuscripts in the National Archives in Kathmandu (NAK 5/333, 1/1079). **kleb-2011**; Klebanov (2021*a*) has assembled compelling evidence for believing that these Nepalese manuscripts present a version of the text that was in wider circulation in northern India, especially Bengal, in the period up to about 1200 ce. Generally speaking, the Nepalese version of the *Suśrutasaṃhitā* is more rudimentary than the versions commented on by Cakrapāṇidatta (*fl.* tenth century ce) and Dalhaṇa (*fl.* twelfth century ce), the latter of which has formed the basis of modern printed editions, such as those of Trivikramji Acharya and others (Su 1915; Su 1938; P. V. Sharma 1999–2001).

This article presents a critical edition and annotated translation of the sixteenth chapter of the Ślokasthāna, the first book of the Nepalese version of the Suśrutasaṃhitā (SS.1.16).² This chapter is important in the history of

A selection of prominent contributions includes: Hoernle 1897; 1906; 1907; Strauss 1934; Singhal et al. 1972–82; Sharma 1975; Rây et al. 1980; Adriaensen et al. 1984; Yano 1986; Meulenbeld 1999–2002; Sharma 1999–2001; Valiathan 2007. HELP!

² This book is called the *Sūtrasthāna* in subsequent versions of the *Suśrutasaṃhitā*.

Indian medicine because of its discussion of surgical methods for repairing torn ears and severed noses. In addition to discussing the manuscripts and published editions used in this new edition, the introduction of the article addresses some of the challenges of editing the Nepalese manuscripts and the salient differences between the Nepalese version and those known to Cakrapāṇidatta and Dalhaṇa, as exemplified by the sixteenth chapter. The notes to the edition incorporate alternative readings mentioned by the commentators, and the annotations to the translation discuss instances where the text is uncertain; non-standard spellings and syntax; the meaning of technical and obscure terms; relevant remarks by the commentators; ambiguities in the identification of medical ingredients, in particular, plant names; and the additional compounds, verses and passages in Dalhaṇa's version of the text. In short, this article is a pilot for undertaking a complete edition and translation of the Nepalese version of the Suśrutasaṃhitā.

Importance of SS.1.16 in the History of Medicine

Simple forms of surgery have a long history in South Asia. In works datable to at least 1200 BCE we learn how a reed was used as a catheter to cure urine retention.³ Cauterization too was used to prevent wounds from bleeding. The *Brāhmaṇa* literature of the early first millennium BCE contains more detailed descriptions of animal butchery in the context of religious sacrifice that involved the enumeration of internal organs and bones.⁴ This exemplifies an early Sanskrit vocabulary for internal parts of bodies, but it is not the same as medical dissection, whose methods and purpose is quite different.⁵ With the *Suśrutasaṃhitā* we find ourselves in the presence of something quite different and more developed, in which the body was studied specifically for medical and surgical purposes.⁶ The text gives us a historical window onto a school of professionalised surgical practice which existed almost two millennia ago, and which in its day was perhaps the most advanced school of surgery in the world.

The author of the Suśrutasaṃhitā describes how a surgeon should be

³ Zysk 1985: 70-71.

⁴ Malamoud 1996.

Keith (1908) pointed out that the enumeration of the bones in the Brāhmaṇas was derived from correspondences with the numbering of various verse forms, not from anatomical observation.

⁶ Zysk 1986.

trained and how various operations should be done. There are descriptions of ophthalmic couching (the dislodging of the lens of the eye), perineal lithotomy (cutting for stone in the bladder), the removal of arrows and splinters, suturing, the examination of dead human bodies for the study of anatomy, and other procedures.⁷ The author of *Suśrutasaṃhitā* claimed that surgery is the most ancient and most efficacious of the eight branches of medical knowledge (1.1.15–19 (Su 1938: 4)). Discussion with contemporary surgeons suggests that many details in the descriptions could only have been written by a practising surgeon: it is certain that elaborate surgical techniques were a reality in the author's circle.

Torn ear lobes

Suśruta's description of the repair of torn ear lobes is again unique for its time. Majno noted that 'through the habit of stretching their earlobes, the Indians became masters in a branch of surgery that Europe ignored for another two thousand years'. The different types of mutilated ear lobe which the *Suśrutasaṃhitā* describes are not always easy to understand from the Sanskrit: the illustrations supplied in Majno's text help visualization.

Rhinoplasty

One of the best-known surgical techniques associated with *Suśrutasaṃhitā* is rhinoplasty, the repair or rebuilding of a severed nose. The history of this operation and a translation of the *Sanskrit* passage from the vulgate edition of the *Suśrutasaṃhitā* have been published in Wujastyk (2003: 67–70, 99–100). This fascinating technique is certainly old in South Asia, having been witnessed by travellers from Marco Polo in the seventeenth century onwards. Many witnesses, including the most famous, Cruso and Findlay, describe an operation that differs from *Suśrutasaṃhitā* in that it takes the grafting skin from the forehead, not the cheek. But the nineteenth-century account of Thorburn is especially interesting, since the technique

⁷ Wilson 1823; Mukhopādhyāya 1913; Deshpande 2000; Wujastyk 2003; Narayana and Thrigulla 2011 and many other studies.

⁸ Majno 1975: 291.

⁹ Majno 1975: 290–291; reproduced with permission in Wujastyk 2003: 92–93.

¹⁰ See also HIML: IB, 327–328, note 186 for further literature and reflections.

¹¹ Manucci 1907–8: ii.301.

¹² Longmate 1794: 883, 891 f.

follows *Suśrutasaṃhitā* exactly in taking flesh from the cheek, not the forehead.¹³

As noted by Meulenbeld, none of the known commentators – Jejjaṭa, Gayadāsa, Cakrapāṇi or Ḍalhaṇa – explained the technique in any detail beyond lexical glosses.¹⁴ This suggests that the commentators did not in fact know the technique at first-hand. Perhaps by the late first millennium, the technique had moved into the professional competence of barber-surgeons? On the other hand, perhaps the influence was in the other direction, and a technique known to practitioners elsewhere in South Asia in the late first millennium was written into the text of *Suśrutasaṃhitā*. The description consists of only five verses and they are written in the Upendravajrā metre, which is different from the rest of the chapter. The description's appearance at the very end of the chapter, its terseness, its ornate metre, and the paucity of the commentators' treatment could all be taken as pointing in this direction.

The Sanskrit Text

The Nepalese Version

Andrey's contribution here

Cakrapāṇidatta and Dalhaṇa's Versions

The commentaries of Cakrapāṇidatta and Dalhaṇa, called the *Bhānumatī* and *Nibandhasaṅgraha* respectively, are based on similar versions of the *Su-śrutasaṃhitā*, both of which are significantly different to the Nepalese version. Dalhaṇa was aware of Cakrapāṇidatta's work and reiterated many of his predecessor's remarks, so the commentator's interpretation of the root text is largely consistent.

Trikamajī Ācārya's edition of the *Sūtrasthāna* of the *Bhānumatī* (Su 1939)

¹³ Thorburn 1876: 352–3.

¹⁴ HIML: IB, 328. Dalhaṇa also noted that a rather different version of the text, cast in śloka metre, was also known to him from other sources (1.16.27–31 (Su 1938: 81a)). Dalhaṇa's variant bears a resemblance to the description of the operation given in printed editions of the *Aṣṭāṅgahṛdayasaṃhitā* (Ah Utt.18.59–65 (Ah 1939: 841)).

duplicates the version of the *Suśrutasaṃhitā* in his edition of the *Nibandhasaṅgraha* (Su 1938), except in a few obvious cases where Cakrapāṇidatta glosses a word or compound that is different to the one glossed by Ḥalhaṇa. The duplication of the root text creates the somewhat misleading impression that both commentators had an almost identical version of the *Suśrutasaṃhitā*. However, there is evidence in SS.1.16 that this was not the case. For example, Ḥalhaṇa comments on four verses (1.16.11–14, Su 1938: 78) that Cakrapāṇidatta cites separately in his commentary (Su 1939: 128–129), introducing each one as 'some people read' (*ke cit paṭhanti*). This clearly indicates that these verses were not in the version of the *Suśrutasaṃhitā* upon which Cakrapāṇidatta was commenting, yet Ācārya includes them in the root text of the *Bhānumatī*.

Also, Cakrapānidatta does not acknowledge or comment on some verses in the version of the *Suśrutasaṃhitā* known to Dalhaṇa. Although it is possible that a commentator may not have remarked on a verse because its meaning was clear, in some cases the commentarial convention of citing the first words of a new verse or passage provides firmer ground for suspecting the absence of a verse in the root text. For example, the prose passage of SS.1.16.18 in the the *Bhānumatī* (Su 1939: 130), which is SS.1.16.19 in the Nibandhasangraha (Su 1938: 79), is followed by several verses that elaborate on the content of the prose passage, and both commentators introduce these verses and cite the opening words of the first verse before glossing specific terms. However, Cakrapānidatta does not introduce, cite or comment on the same verses as Dalhana (SS.1.16.20–22ab, Su 1938: 79), and yet the first of the verses commented on by Dalhana appears in the root text of Ācārya's edition of the Bhānumatī (SS.1.16.19, Su 1939: 130), and the others (SS.1.16.20–21ab) are included in parenthesis. A similar instance of this occurs at Bhānumatī SS.1.16.31, where Acārya includes a verse in parenthesis that was commented on by Dalhana (SS.1.16.32, Su 1938: 81) but not by Cakrapānidatta. It appears that the manuscript on which Acārya's edition of the Bhānumatī was based does not include the root text. 16 Therefore, the inclusion of SS.1.16.19–21ab and 31 in the root

¹⁵ For example, in SS.1.16.18, Cakrapāṇidatta glosses *rājasarṣapa* whereas Dalhaṇa glosses *gaurasarṣapa*, and Ācārya reflects this in the root texts of the *Bhānumatī* (Su 1939: 130) and *Nibandhasangraha* (Su 1938: 79).

This observation is based on the opening passage of MS 1887-1935 of the *Bhānumatī*, which is transcribed in Eggling 1896: 928. The transcription has the commentary without the root text. See the section below on Ācārya's 1939 edition for details of the

text of the *Bhānumatī* is an unsubstantiated hypothesis.

In fact, there is some evidence that the Nepalese version was more similar to Cakrapāṇidatta's version than to Dalhaṇa's. 1.16.5 of the Nepalese version begins with the compound dosasamudayāt whereas the version known to Dalhana (SS.1.16.6, Su 1938: 77) inserts two compounds, kliṣṭajihmāpraśastasūcīvyadhāt and gāḍhataravartitvāt, before this. Cakrapāṇidatta (SS.1.16.5, Su 1939: 126–127) begins his comment on this passage by glossing doṣasamudayāt, which suggests that he was not aware of any compounds prior to this one. If one looks beyond SS.1.16, there are instances where the Nepalese version (1.1.28) and the root text of Cakrapāṇidatta have the same reading, which Dalhaṇa mentions as an alternative read by others. For example, 1.1.28 of the Nepalese version has tatrāsmiñ chāstre, which is the reading commented on by Cakrapānidatta (Su 1939: 17). However, Dalhana (SS.1.1.22, Su 1938: 5) comments on asmiñ chāstre and states that others read tatrāsmiñ chāstre. Also, in his commentary on SS.1.1.8.1, Dalhana (Su 1938: 5) notes the variant reading sastyā vidhānaih, which is not in his root text but evidently was in Cakrapāṇidatta's (SS.1.1.6, Su 1939: 11). As discussed elsewhere (Birch 2021), the reading of sastyā vidhānaiḥ is likely a corruption of sastyābhidhānaiḥ in the Nepalese version (1.1.9).

Differences between the Nepalese and Subsequent Versions of SS.1.16

The structural differences between the Nepalese and subsequent versions has been discussed by Klebanov (2021a: 27–44), which include the frame story,¹⁷ the name of the first book (Ślokasthāna), the structuring of the text according to chapter and section colophons, and an additional passage in the *Kalpasthāna*. Klebanov (2021a: 44–55) also makes general observations on distinct features of the Nepalese version's content and looks specifically at lists of skin lesions arising from urinary disease and vital energies. And in an effort to demonstrate the possibility of greater coherence in the Nepalese version, Harimoto (2011: 101–104) has compared its classification of snakes with Dalhaṇa's version.

sources Ācārya used for this edition.

¹⁷ On this topic, also see the more recent Birch et al. (2021).

On the whole, these observations indicate that [...synopsis of general conclusions here, Andrey?...]

The following detailed comparison of 1.16 of the Nepalese version with Palhaṇa's *Nibandhasaṅgraha* unfolded as the chapter was edited. The differences appear to emanate largely from attempts to standardise, simplify or clarify the language of the Nepalese version, add and redact information, and introduce changes to recipes and treatments. Examples from 1.16 have been provided to demonstrate the general observations which, it is hoped, a larger survey of the text will verify.

Table 1 reveals the extent to which 1.16 of the Nepalese version was redacted to create the one known by Dalhaṇa. In this particular case, twenty-seven verses have been added, eight (11-14, 21–22ab, 23cd–24, 32) of which are well-integrated with the existing material in so far as they reiterate and elaborate on the content of passages in the Nepalese version. A block of nineteen verses (26.1–19) at the end of this chapter in Ācārya's edition of the *Nibandhasaṅgraha* (Su 1938: 80) was known by Dalhaṇa. These verses cover additional diseases of the ear lobes, as well as their treatment and complications. Although Dalhaṇa concedes that some read them in this chapter, he concludes that they were not composed by sages and, therefore, should not be read. Ācārya probably included these verses because they were in his manuscripts, ¹⁸ and Dalhaṇa's comments prompted him to place them in parentheses. Be this as it may, this large block of verses is absent in the Nepalese version.

In Table 1, one can also see that verses 17 and 18 of the Nepalese version were transposed in the redaction of Dalhana's version, in which they are 26 and 25 respectively. Although this only occurs once in 1.16, such transposing of verses and even their hemistiches is more prevalent in the redaction of other chapters of the *Suśrutasaṃhitā*.

Apart from the addition of verses, the redacting of the version known to Dalhana involved many small, yet sometimes significant, changes that are summarised below.

¹⁸ Ācārya does not state that these verses were absent in some or all of his manuscripts, which he usually does in a footnote if this is the case. A broader survey of manuscripts would be helpful for establishing whether these verses were part of the transmission of the *Suśrutasaṃhitā* in India. For example, they are in MS Hyderabad Osmania 137-3(b).

Nepalese version Dalhaṇa's version

	•
1	1
_	2
2-9	3–10
_	11–14
10–15	15–2 0
_	21–22ab
16	22cd-23ab
-	23cd-24
- 0	2 5
17	26
	26.1-19
18	_
19–23	27-31
_	32

Table 1: A Comparison of Verses in 1.16 of the Nepalese and Dalhaṇa's Versions

Changing Spelling, Sandhi and Syntax

In the majority of cases, efforts were made by redactors to standardise, simplify or improve the language of the Nepalese version. Such changes include the standardising of spelling,¹⁹ sandhi,²⁰ and verbal forms,²¹ as well as interventions to simplify and clarify syntax,²² which often involved splitting compounds.²³ In some instances, these changes improved the grammar,²⁴ or altered the meaning.²⁵ However, some prefixes of verbal forms,²⁶ case endings,²⁷ and indeclinables were changed for less apparent reasons.²⁸ There is also a tendency to replace uncommon words with generic ones,²⁹ add indeclinables,³⁰ omit the verb to be at the end of sentences,³¹ and introduce verses after a prose passage with the phrase *bhavati cātra*.³²

- 20 or example, °hastena rju (SS.1.16.2) \rightarrow °hastena rju (1.16.3, Su 1938: 76).
- 21 For example, $unn\bar{a}mayitv\bar{a}$ (SS.1.16.21) $\rightarrow pr\bar{a}nnamya$ (1.16.29, Su 1938: 81); $avac\bar{u}rnay\bar{\imath}ta$ (SS.1.16.21) $\rightarrow upaharet$ (1.16.29, Su 1938: 81).
- 22 For example, śoṇitabahutvanivedanāyāṃ cānyadeśaviddham iti jānīyāt | nirupadravatā taddeśaviddhalingam | (SS.1.16.3) → śoṇitabahutvena vedanayā cānyadeśaviddham iti jānīyāt | nirupadravatayā taddeśaviddham iti | (1.16.4, Su 1938: 76); āmatailapariṣekeṇopacaret (SS.1.16.6) → āmatailena pariṣecayet (1.16.7, Su 1938: 77); suparigṛhītaṃ (SS.1.16.10) → suparigṛhītaṃ ca kṛtvā (1.16.15, Su 1938: 78); anena (SS.1.16.15) → snehenaitena (1.16.20, Su 1938: 79).
- 23 For example, yadṛcchāviddhāyāṃ sirāyām (SS.1.16.4) → yadṛcchayā viddhāsu sirāsu (1.16.5, Su 1938: 76); dhānyāmlakapālacūrṇaṃ (SS.1.16.10) → dhānyāmlaṃ kapālacūrṇaṃ (1.16.20, Su 1938: 78).
- 24 For example, $sur\bar{a}mandaks\bar{i}ram$ (SS.1.16.10) $\rightarrow sur\bar{a}mandam$ $ks\bar{i}ram$ (1.16.15, Su 1938: 78).
- 25 For example, *kṣīṇālpamāṃsaḥ* (SS.1.16.12) → *kṣīṇo 'lpamāṃsaḥ* (1.16.17, Su 1938: 79).
- 26 For example, samvarddhitaḥ (SS.1.16.8) \rightarrow vivarddhitaḥ (1.16.9, Su 1938:77); niveśya (SS.1.16.10) \rightarrow sanniveśya (1.16.15, Su 1938:78); avabadhya (SS.1.16.10) \rightarrow ca baddhvā (1.16.15, Su 1938:78).
- 27 For example, $m\bar{a}se$ (SS.1.16.2) $\rightarrow m\bar{a}si$ (1.16.3, Su 1938: 76).
- 28 For example, *api* (SS.1.16.13) $\rightarrow v\bar{a}$ (1.16.18, Su 1938: 79); *ca* (SS.1.16.16) $\rightarrow tu$ (1.16.23, Su 1938: 79); tu (SS.1.16.18) $\rightarrow ca$ (1.16.25, Su 1938: 80).
- 30 For example, [absent] (SS.1.16.6) \rightarrow *ca* (1.16.7, Su 1938: 77); [absent] (SS.1.16.10) \rightarrow *tatra* (1.16.15, Su 1938: 78); [absent] (SS.1.16.12) \rightarrow *api* (1.16.17, Su 1938: 79).
- The words *bhavati* or *bhavanti* are omitted four times in Dalhana's version (1.16.10 (twice), 1.16.17 and 1.16.18, Su 1938: 77, 79).
- 32 For example, [absent] (SS.1.16.11) \rightarrow bhavati cātra (1.16.16, Su 1938: 79).

¹⁹ For example, $patt\bar{a}nga$ (SS.1.16.21) $\rightarrow patanga$ (1.16.29, Su 1938: 81). For more information on this, see the relevant footnote to the translation.

Changing Technical Terms

Augmenting the Text

Transposing Words, Verses and Passages

Redacting Recipes and Elaborating on Treatments

The Edition

Manuscripts

Andrey

Features of the manuscript transmission

Andrey

Palaeographical features

- śrita for śṛta.
- yātri for yātr (Su.ka.1.63)
- punarṇṇavā (Su.ka.1.61)
- ś and s in KL 699.
- b and v in KL 699 and NAK 5-333.
- cha and ccha
- line-fillers
- n for n (punarnnavā)

Chart of characters

[[[Put a chart from QuickPalaeographer here.]]]

The Printed Editions

The careful survey of printed editions of the *Suśrutasaṃhitā* by Meulenbeld lists no fewer than 44 entries.³³ These range from the first edition by Madhusūdana Gupta (1835) to editions in the 1970s. The number of reprints and editions since that time might almost double that number. Translations begin with Hessler's Latin translation in 1844 and continue up to the present in scores of publications in many languages.³⁴

³³ HIML: IIB, 311–314.

³⁴ E.g., HIML: IIB, 314-315; Zysk 1984.

The Vulgate

The great ayurvedic scholar Yādavaśarman Trivikrama Ācārya produced three successive editions of the *Suśrutasaṃhitā* with the commentary of Palhaṇa, in 1915, 1931 and 1938. These editions, especially the last, are generally considered the most scholarly and reliable editions of the work, and have been constantly reprinted up to the present day. We refer to the last of these editions as "the vulgate."

The 1915 edition was based on three manuscripts. The 1931 edition used another seven manuscripts plus two printed editions. For his final 1938 edition, Ācārya used a further three manuscripts.³⁶ These sources are described as follow, with an overview in Table 2.

The sources of the 1915 edition

- 1 Calcutta, Royal Asiatic Society. Covers the *sūtra*, *nidāna*, *śārīra and kalpa sthānas*.
- 2 Jaipur, Pandit Gaṅgādharabhaṭṭaśarman, lecturer at the Royal Sanskrit University. Covers the *cikitsāsthāna* and the *uttaratantra*.
- 3 Bundi, my great friend the royal physician Pam. Śrīprasādaśarman Covers the *uttaratantra*.

The sources of the 1931 edition

- 1 Vārāṇasī, professor of literature, the great Gaurīnāthapāṭhaka. With the *Nibandhasaṅgraha*. Covers the *nidānasthāna* and *uttaratantra*.
- 2 Ahmedabad. My friend Sva. Vā. Vaidya Raṇachoḍalāla Motīlālaśarman. With the *Nibandhasaṅgraha*. Covers the śārīrasthāna.
- 3 From the personal library of my great friend Sva. Vā. Vaidya Murārajīśarman. Extremely old. No commentary. Covers the śārīrasthāna.
- 4 Puṇe, BORI library. With the *Nibandhasaṅgraha*. Covers the śārīra-sthāna.³⁷
- 5 Puṇe, BORI library. With the *Nibandhasaṅgraha*. Complete. With some damaged folia.

³⁵ See also the study of these editions by Klebanov (2021*a*: §1.2) and Wujastyk (2013: 143–144).

The following account of the sources is paraphrased from Y. T. Ācārya and N. R. Ācārya's own account of his sources (Su 1938: 22).

³⁷ Not one of the three MSS of the śārīrasthāna described in H. D. Sharma 1939.

- 6 Bombay, Asiatic Society. Incomplete.³⁸
- 7 Varanasi, the private library of Vaidya Tryambakaśāstrī. Covers the *cikitsāsthāna*. The variant readings of this MS were compiled by Prof.
- 8 A printed edition together with the commentary *Suśrutasandīpana-bhāṣya* by Professor Hārāṇacandra Cakravārtti. Complete work. This is the 1910 Calcutta edition numbered "t" by Meulenbeld (HIML: IB, 312).³⁹
- 9 A printed edition of the first 43 chapters of the *sūtrasthāna*, printed in Bengali script, with the commentaries *Bhānumatī*, *Nibandhasaṅgraha*, edited by Vijayaratnasena and Niśikāntasena. This is the 1886 Calcutta edition numbered "g" by Meulenbeld (HIML: IB, 311).⁴⁰

The sources of the 1938 edition

- 1 Gwalior, from the library of my great friend Pam. Rāmeśvaraśāstrin Śukla. Covers the sūtra, nidāna, śārīra, cikitsā and kalpasthānas.
- 2 Bikaner, from the library of the Royal Palace, supplied by Pam. Candraśekharaśāstrin. Contains the commentary *Nyāy-acandrikāpañjikāvyākhyā* by Gayadāsa. Covers the *nidānasthāna*. This is almost certainly MS Bikaner Anup 4390.⁴³
- 3 Kathmandu, located in the private library of the Royal Guru Hemarāja Śarman. An extremely old palm-leaf manuscript. Readings from this MS were compiled by Paṃ Nityānandaśarman Jośī and sent to Ācārya. Covers from the beginning of the work to the end of the ninth chapter of the *cikitsāsthāna*. The siglum for this manuscript in footnotes was tā for tālapatrapustake.

³⁸ Possibly MS Mumbai AS B.I.3 or MS Mumbai AS B.D.109 (Velankar 1925–30: v. 1, # 212 and 213). But both these have the *Nibandhasangraha*. The first covers only the *śārīrasthāna*; the second may be complete, but Velankar calls it only "disorderly."

³⁹ Bhaṭṭācārya 1910–7.

⁴⁰ Sena et al. 1886-93.

⁴¹ Covers chapters 1–43 only.

⁴² Covers chapters 1–9 only.

⁴³ See Dominik Wujastyk, "MS Bīkāner AnupLib 4390." Pandit. http://panditproject.org/entity/108068/manuscript.

Table 2: The sources of Yādavaśarman T. Ācārya's three editions: manuscript coverage (\bullet) and print coverage (\circ) .

edition		1915	5					1931	L					193	8
source	1	2	3	1	2	3	4	5	6	7	8	9	1	2	3
sthāna															C'
$s\bar{u}$.	•								?		0	041	•		•
ni.	•			•					?		0				
śā.	•								?		0				•
ci.									?	lacktriangle	0		•		● ⁴²
ka.	•								?		0				
utt.		•	•					•	?		0				

Evaluation

Estimates show that there are approximately 230 extant manuscript witnesses for the *Suśrutasaṃhitā*.⁴⁴ Many of these manuscripts cover only one or more or its chapters. Nevertheless, this is an order of magnitude more evidence than was considered by Ācārya for his vulgate editions.

While the descriptions provided by Ācārya of his source materials seems at first to be moderately comprehensive, Table 2 reveals the underlying paucity of textual sources for these editions. At first, it appears that fifteen manuscripts were consulted. However, we quickly see that two of the sources were other people's printed editions, and one of those covered less than a quarter of the work (no. 9 of 1931). That reduces the manuscript base to 13 manuscripts. Ācārya does not appear to have seen two of the manuscripts at all, having been sent collations prepared for him by others (7 of 1931 and 3 of 1938). Thus, Ācārya's final edition was based on the personal consultation of eleven partial manuscripts. One of them remains unidentified (6 of 1931). Only a single manuscript covers the whole of the *Suśrutasaṃhitā*, no. 5 of the 1931 edition. Manuscript 1 of 1938 is the next most complete, but it omits the *uttaratantra*, which comprises a third of the work. Manuscript 1 of the 1915 edition is third in size, but it still omits both of the longest chapters, and thus offers less than half the work. For the

This figure is arrived at by summing the MSS mentioned in NCC and in the NGMCP. The real figure could be many scores higher.

rest, the evidence is spotty, with each part of the work being supported by only between four and eight manuscripts, excluding the printed editions.

Two sources stand out for their historical importance. The first is no. 3 of 1931, which Ācārya calls "extremely old." It covered the śārīrasthāna only, and unfortunately we know nothing of the later history of this manuscript. The second is no. 3 of 1938, which is one of the important Nepalese manuscripts being considered in the present project. Ācārya's remarks and references to Hemarājaśarman's introduction to the *Kāśyapasaṃhitā* allow us to identify this manuscript as MS Kathmandu NAK 5-333. But that manuscript covers the whole work, not just up to the ninth chapter of the *cikitsāsthāna* as Y. T. Ācārya and N. R. Ācārya stated. Perhaps the editors only received collations for this portion of the manuscript and did not know that it was a witness for the whole work.

The 1939 edition

In 1939, Yādavaśarman Trivikrama Ācārya and Nandakiśora Śarman coedited an edition of the *sūtrasthāna* of the *Suśrutasaṃhitā* that was published by the Swami Laxmi Ram ayurvedic centre in Jaipur, and printed at the famous Nirṇayasāgara Press in Mumbai (see Fig. 1).⁴⁷ The text was edited on the basis of the following sources.

For the Bhānumatī

1. A printed edition. Covered the *Bhānumatī* up to chapter Su.sū.40. The siglum was **mu** for *mudrita*.⁴⁸

⁴⁵ Su 1938: 22; Hemarāja Śarman 1938: 56–57. Discussed by Klebanov (2021*a*: §1.1, 2.3). See also HIML: IIB, 25–41; Wujastyk 2003: 161–169.

⁴⁶ Su 1938: 22.

⁴⁷ Su 1939. The description of the sources below is based on Yādavaśarman T. Ācārya's remarks in his introduction (pp. 3–4). See also the remarks on this edition by Klebanov (2021*b*: 7). On the Swami Laxmi Ram centre, see Hofer 2007

⁴⁸ Sena et al. 1886–93. The manuscript on which this edition was based is probably in the library of the Calcutta Sanskrit College, and described in H. Sastri and Gui 1895–1917: v. X.1, which is not available to me. See also HIML: IB, 495, n. 57 for mention of this manuscript. The reference at Rama Rao et al. 2005: 217 to CSCL accession number 97 in Bengali script may be this manuscript.

चरके—''लाभोपायो हि शस्तानां रसावीनां रसायनम्'' (च.चि. अ. १ पा. १)। पारिशेष्याद्वाजीकरणतन्त्रम् । अवाजिनं वाजीकुर्वेन्ति येन तद्वाजीकरणम् । 'अन्येषामिष दृश्यते' (पा. अ. ६।३।१३७) इति वीर्घलम् । येन वाऽत्यर्थं स्त्रीषु व्यज्यते तद्वाजी-करणम् । तद्वकं चरके—''येन नारीषु सामर्थ्यं वाजिवल्लमते नरः । वजेचाप्यधिकं येन वाजीकरणमेव तत्'' (च.चि. अ. २, पा. ४) इति ॥ ५॥

अथास्य प्रत्येकाङ्गलक्षणसमासः—तत्र, शल्यं नाम विविधत्णकाष्टपाषाणपांशुलोहलोष्टास्थिवालनलपूर्यास्वावदुष्टवणान्तर्गर्भशाल्योद्धरणाथ षष्ट्या विधानैः, यन्त्रश्रास्थ्रसाराग्निप्रणिधानवणविनिश्चयार्थं चः शालाक्यं नामोध्वेजन्नगतानां श्रवणनयनवद्नन्नाणादिसंश्रितानां व्याधीनामुपश्मनार्थः, कायचिकित्सा नाम सेवाङ्मसंश्रितानां व्याधीनां ज्वररक्तपित्तशोषोन्मादापसारक्रष्टमेहातिसारादीनामुपश्मनार्थः, भूतविद्या नाम देवासुरगन्धवेयक्षरक्षःपितृपिशाचनागम्बाद्यपस्प्रचेतसां
शान्तिकर्मविष्ठहरणादिश्रहोपश्मनार्थः, कौमारभृत्यं नाम कुमारमरणधात्रीक्षीरदोपसंशोधनार्थं दुएस्तन्यग्रहसमुत्थिनां च व्याधीनामुपशमनार्थमः, अगदतन्त्रं नाम सप्कीटल्लामूषकादिद्प्रविषव्यक्षनार्थं
विविधविपसंशोगोपश्मनार्थं चः, रसायनतन्त्रं नाम वयःस्थापनमार्थुमेधावलकरणं रोगापहरणसमर्थं चः वाजीकरणतन्त्रं नामाहण्दुएक्षीणशुकरेतसामाप्यायनप्रसादोपचयजनननिसत्तं प्रहर्षणजननार्थं च ॥ ६॥

शस्याङ्गविशेषात्र् शातुं प्रतिरुक्षणं संक्षेषेणाह—अथासेखादि । एकमेकमङ्गं प्रति रुक्षणानां समासः संक्षेपः प्रत्येकाङ्गरुक्षणसमासः । तृणादीनां, तथा दुष्टवणस्य, तथाऽन्तगंत(भेशस्य)स्य उद्धरणार्थमिति प्रत्येकमुद्धरणशन्दः संवध्यते । दुष्टवणस्यान्तरःतृणाद्याहरणार्थमित्यन्ये । षष्ट्या विधानैरिति द्विवणीयोक्तैरपत्रपणाद्यै रक्षाविधानान्तैः; इत्यंभूतरुक्षणे
तृतीया । जत्रु ग्रीवामूरुं, जत्रुण कर्ष्वमूर्ध्वेजतु । प्राणादीत्यादिग्रहणान्द्यिरःकपालादिग्रहणम् । उत्तरतन्त्रे प्रतिपादितकमप्राप्त्या ज्वरानन्तरमतीसारः पठितः, तस्यान्ते पाठोऽतिसारस्य सर्वाङ्गीणदोपार्व्यस्यत् , अन्येपामि तन्मध्यपाठेन सर्वाङ्गीणदोषार्व्यस्यप्रतिपादनाव्यतिकमं वदन्ति । शान्तिकमं विष्टहरणादिना त्रहाणां देवादीनामुपशमो यस्तदर्थः; यदि
ह्या ग्रह्णं ग्रहो देवानामावेशस्त्रदुपशमार्थम् । दुष्टस्तन्यग्रहसमुत्थितानामिति दुष्टस्तन्यन

Figure 1: A page of the 1939 $Bh\bar{a}numat\bar{\iota}$ edition, showing the variant readings in the footnotes.

१ 'सर्वशरीरावस्थितार्नी व्याधीनां सुपश्चमकरणार्थ ज्वरश्चोफगुरमरक्तिपत्तोनमादापसार-भमेदातीसारादीनां च' इति सा.। १ 'देवदानव' शति सा.। १ 'विनायकनागग्रहोप-सृष्टचितसां' इति सा.। ४ 'विषयेगोपश्चमनार्थ' इति सा.। ५ 'श्चमाप्यायन' इति सा.। ६ 'सृणादीनां शस्यान्तानां' शति सु. ७ 'अन्ये तु तस्यान्ते पाठेन' इति पा०। ८ 'अहणाद्' इति सु.।

2. A manuscript in the India Office Library library provided through the Bhandarkar Oriental Research Institute in Pune.⁴⁹ This manuscript covered the *Bhānumatī* b up to the end of the *sūtrasthāna*. The siglum was ha for hastalikhita.⁵⁰

For the Suśrutasamhitā

- 1. A palm leaf manuscript from Hemarājaśarman's personal library.⁵¹ The siglum was tā for tāḍapatra.
- 2. His own published edition. The siglum was da for dalhaṇasaṃmataḥ pāṭhaḥ.⁵²
- 3. Hārāṇacandra Cakravarti's published edition with his own commentary.⁵³ The siglum was hā.

Evaluation

The main innovation of this publication was to present the only surviving part of the commentary on the *Suśrutasaṃhitā* by the great eleventh-century medical scholar Cakrapāṇidatta, namely the *Bhānumatī*.⁵⁴ A secondary purpose was to present the text of the *sūtrasthāna* as read in MS Kathmandu NAK 5-333, that had recently been brought to the editors' attention. In their judgement, the Kathmandu manuscript presented a text that was closer to what Cakrapāṇidatta had before him than the text according to palhaṇa. This was the first *Suśrutasaṃhitā* edition in which Ācārya used sigla to identify the sources from which variant readings were reported, so while it has limitations, it for the first time enables us to get some idea of origins of the text (see Figure 1).

Ācārya noted in his introduction that the manuscripts containing the Dalhaṇa's commentary all came together with the root-text of the *Suśrutasaṃhitā*, and thus the main *Suśrutasaṃhitā* text reflected the readings

⁴⁹ At this time, manuscripts from Britain were routinely lent to scholars in India and vice versa.

⁵⁰ Wujastyk 2021
MS London BL H. T. Colebrooke 908 (PanditProject #109978, consulted on July 03, 2021).

⁵¹ I.e., MS Kathmandu NAK 5-333.

⁵² Su 1938. It is noteworthy that Ācārya refers to his 1938 edition as representing "the Dalhaṇa recension."

⁵³ Bhaṭṭācārya 1910-7.

⁵⁴ HIML: IA, 374–375 and IB, 495–496.

chosen by Dalhana. But the manuscripts of the *Bhānumatī* contained the commentary alone, without the root-text, and had many explanations based on different readings of the root-text than those of Dalhana. In many of these cases it was hard to know what the text that Cakrapāṇidatta had before him. But Ācārya noted that Cakrapāṇidatta had a text before him that had much in common with the text of the Nepalese manuscript.⁵⁵

There is compelling evidence that Cakrapāṇidattas's *Bhānumatī* commentary once covered the whole text of the *Suśrutasaṇhitā*. The loss of the rest of the work ranks amongst the greatest disasters in Āyurvedic literature. Remarkably, the whole *Bhānumatī* may still have existed in the early twentieth century. In 1903, Palmyr Cordier reported being privately informed of a complete copy of the work in a personal manuscript collection in Benares. 57

Editorial Principles

⁵⁵ Su 1939: 3–4. See discussion by Klebanov (2021*b*: 7).

⁵⁶ **HIML**: IA, 375.

⁵⁷ Cordier 1903: 332.

The Translation

Sūtrasthāna, adhyāya 16

- 1 Now we shall expound the method for piercing the ear.⁵⁸
- One may pierce a child's ears for the purpose of preserving and decorating. On renowned days, half days, hours and constellations during the first half of the sixth or seventh lunar month, the boy who has received a benediction (*kṛtamaṅgala*), blessings pronounced (*svastivācana*)⁵⁹ should be placed on the lap of a wet-nurse.⁶⁰ Then, while pacifying him and having pulled his ear with the left hand, the physician should use his right hand to pierce the ear straight through at a naturally oc-

Revise translation of participle abhisāntvayamānah or emend.

- The topic of piercing the ear (kaṛnavyadha) is not discussed in the Carakasaṃhitā (HIML: IB, 326, n. 175), but it is mentioned in some texts that followed the Suśrutasaṃhitā, such as the Kaśāpyasaṃhitā (HIML: IIA, 30). Also, the instrument for piercing the ear is described in the Aṣṭāṅgahṛdayasūtra 1.26.26 (kunt-1902). In the versions of the text known to Dalhaṇa (Su 1938: 76) and Cakrapāṇidatta (Su 1939: 125), the heading of this chapter is karṇavyadhabandhavidhi ('the method of piercing and joining the ear'), instead of the Nepalese version's karṇavyadhavidhi. The topic of karṇabandha is discussed in passages 17–20 of the Nepalese version. However, it appears that only subsequent redactors reflected its importance by including it in chapter headings. The Nepalese version also omits the opening remark on Dhanvantari that appears in subsequent versions. For a discussion of the frame story in the Nepalese version, see Birch et al. 2021. Dalhaṇa (Su 1938: 76) and Cakrapāṇidatta (Su 1939: 125) state that only the ears of healthy people should be pierced, and they quote Bhoja to affirm this: 'When piercing the ears of children who are free of disease at these times, their ear flaps and apertures, as well as limbs, increase' (for the Sanskrit, see Su 1938: 76).
- The syntax here is unclear. The expression *svastivācana* may have been a gloss inserted into the text at an earlier period to clarify *maṅgala*. But as it stands, it is not syntactically connected to the rest of the sentence. In the versions of 1.16.3 known to Cakrapāṇidatta (Su 1939: 126) and Dalhaṇa (Su 1938: 76), the words are united in a compound that reads more naturally.
- 60 The versions of 1.16.3 known to Cakrapāṇidatta (Su 1939:126) and Dalhaṇa (Su 1938:76) have the additional compound kumāradharāṅke ('on the lap of one who holds the child') after dhātryaṅke. The gender of kumāradhara is made clear by Dalhaṇa's gloss 'a man who holds the child'. Also, both versions add bālakrīḍanakaiḥ pralobhya ('having enticed with children's toys') to indicate that the child should be enticed with toys to stay on the assistant's lap. According to Dalhaṇa on 1.16.3 (Su 1938:76), the toys include replica elephants, horses, bulls and parrots. Dalhaṇa further mentions that others read bhakṣyaviśeṣair vā ('or by special treats') before bālakrīḍanakaih.

- curring cleft.⁶¹ For a boy, do the right ear first; for a girl, do the left one. Use a needle on a thin ear; an awl $(\bar{a}r\bar{a})$ on a thick one.⁶²
- If there is excess blood or pain one should know that it was pierced in the wrong place. The absence of side-effects is a sign that it has been pierced in the right place.⁶³
- In this context, if an ignorant person accidentally pierces a duct (*sirā*) there will be fever, burning, swelling (*śvayathu*), pain, lumps (*granthi*), paralysis of the nape of the neck (*manyāstambhā*), convulsions (*apatānaka*), headache or sharp pain in the ear.⁶⁴
- Having removed the wick (*varti*) in the hole because of the aggravation of humours or a culpable piercing, one should smear it with a paste of the roots of barley, liquorice, Indian madder (*mañjiṣṭhā*), and the castor oil tree (*gandharvahasta*), thickened with honey and ghee. When it has healed well, one should pierce it again.

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- 61 The versions of 1.16.3 of Cakrapāṇidatta (Su 1939: 126) and Dalhaṇa (Su 1938: 76) add *ādityakarāvabhāsite* to clarify that this naturally occurring cleft is illuminated by sunshine
- Dalhaṇa on 1.16.3 (Su 1938: 76) clarifies that the awl is a shoe-maker's knife for piercing leather.
- 63 At this point, MS Kathmandu KL 699 is missing a folio, so the rest of this chapter is constructed on the basis of witnesses MS Kathmandu NAK 5-333 and MS Kathmandu NAK 1-1079.
- 64 This passage is significantly augmented in 1.16.4 of Cakrapāṇidatta's version (Su 1939: 126) and 1.16.5 of Palhaṇa's (Su 1938: 77) to outline the specific problems caused by piercing three ducts called kālikā, marmikā and lohitikā. In fact, the order of the problems mentioned in the Nepalese version has been retained in the other versions and divided between each duct. Cakrapāṇidatta's commentary on 1.16.4 (Su 1939: 126) cites several verses attributed to Bhoja on the problems caused by piercing these three ducts in the ear flap: 'Lohitikā, marmikā and the black ones are the ducts situated in the earflaps. Listen in due order to the problems that arise when they are pierced. Paralysis of the nape of the neck and convulsions, or sharp pain arise from piercing lohitikā. Pain and lumps are thought to arise from piercing marmikā. Piercing kālikā gives rise to swelling, fever and burning.'
- 65 In addition to these reasons, 1.16.5 of Cakrapāṇidatta's version (Su 1939: 126–127) and 1.16.6 of Palhaṇa's (Su 1938: 77) add kliṣṭajihmāpraśastasūcīvyadhāt ('because of piercing with a painful, crooked and unrecommended needle') and gāḍhataravartitvāt ('because of a wick that is too thick'). Palhaṇa was aware of the reading in the Nepalese version because he notes in his commentary on 1.16.6 (Su 1938: 77) that some read 'because of the accummulation of humours' rather than 'because of piercing with a painful, crooked and unrecommended needle or because of a wick that is too thick.' On the meaning of samudāya, see ?? and Meulenbeld 1992: 1–5.

- 6 One should treat the properly-pierced ear by sprinkling it with raw sesame oil. After every three days one should apply a thicker wick (*varti*) and sprinkle oil right on it.⁶⁶
- 7 Once the ear is free from humours or side-effects, one should loosen it with a light dilator (*pravardhanaka*) in order to enlarge it.⁶⁷
- 8 A person's ear enlarged in this way can split in two, either as a result of the humours⁶⁸ or a blow. Listen to me about the joins (*sandhāna*) it can have.
- 9 Here, there are, in brief, fifteen ways of mending the ear flap. ⁶⁹ They are as follows: Rim-join (nemīsandhānakaḥ), Lotus-splittable (utpalabhedyaka), Dried Flesh (vallūraka), Fastening (āsaṅgima), Cheek-ear (gaṇḍakarṇa), Take away (āhārya), Ready-Split (nirvedhima), Multi-joins (vyāyojima), Door-hinge (kapāṭasandhika), Half door-hinge (ardhakapāṭasandhika), Compressed (saṃkṣipta), Reduced-ear (hīnakarṇa), Creeper-ear (vallīkarṇa), Stick-ear (yaṣṭīkarṇa), and Crow's lip (kākauṣṭha). ⁷⁰

In this context, among these,

"Rim-join" (nemīsandhānaka): both flaps are wide, long, and equal.

"Lotus-splittable" (*utpalabhedyaka*): both flaps are round, long, and equal.

"Dried flesh" (vallūraka): both flaps are short, round, and equal.

"Fastening" (āsaṅgima): one flap is longer on the inside.

⁶⁶ The manuscripts support the reading *sthūlatarīm* that is either a non-standard form or a scribal error.

⁶⁷ Cakrapāṇidatta on 1.16.6 (Su 1939: 127) and Dalhaṇa on 1.16.8 (Su 1938: 77) point out that the dilator can be made of wood, such as that of the prickly chaff flower (apāmarga), the neem tree (nimba) and the cotton plant (kārpāsa). Dalhaṇa adds that it can also be made of lead (sīsaka) and should have the shape of the datura flower (dhattūrapuṣpa).

Palhaṇa on 1.16.9 (Su 1938: 77) notes that the word doṣa here can refer to either a humour, such as wind $(v\bar{a}ta)$, as we have understood it, or a disease generated from a humour.

⁶⁹ The Nepalese version uses the word *sandhāna* to refer to joining a split in an ear flap, which is consistent with the terminology in the verse cited above (8). However, 1.16.10 of Dalhaṇa's version (Su 1938: 77) uses the term *bandha* here and at the very beginning of the chapter (i.e., 1.16.1) to introduce the topic of repairing the ear.

For an artist's impression of these different kinds of joins in the ear flap, see Majno 1975: 290 (reproduced as Figure 3.2 in Wujastyk 2003: 154).

- "Cheek-ear" (gaṇḍakarṇa): one flap is longer on the outside.⁷¹
- "Take-away" ($\bar{a}h\bar{a}rya$): the flaps are missing, in fact, on both sides.
- "Ready-split" (*nirvedhima*): the flaps are like a dais (*pīṭha*).
- "Multi-joins" (*vyāyojima*): one flap is small, the other thick, one flap is equal, the other unequal.
- "Door-hinge" (*kapāṭasandhika*): the flap on the inside is long, the other is small.
- "Half door-hinge" (ardhakapāṭasandhika): the flap on the outside is long, the other is small.

These ten options (*vikalpa*) for joins (*sandhi*) of the ear should be bound. They can mostly be explained as resembling their names.⁷² The five from compressed (*saṃkṣipta*) on are incurable.⁷³ Among these, "compressed" has a dry ear canal and the other flap is small. "Reduced ear" has flaps that have no base and have wasted flesh on their edges. "Creeper-ear" has flaps that are thin and uneven. "Stick-ear" has lumpy (*granthita*) flesh and the flaps are stretched thin and have stiff (*stabdha*) ducts (*sirā*). "Crow-lip" has a flap without flesh with compressed (*saṃ-kṣipta*) tips and little blood. Even when they are bound up, they do not heal because they are hot, inflamed, suppurating (*srāva*), or swollen.⁷⁴

For an artist's impression of this join, see Majno 1975: 291 (reproduced as Figure 3.3 in Wujastyk 2003: 155).

Cakrapāṇidatta on 1.16.9–13 (Su 1939: 128–129) and Dalhaṇa on 1.16.10 (Su 1938: 77–78) provide examples of how the names of these joins describe their shapes. For example, the rim-join ($nem\bar{i}sandh\bar{a}naka$) is similar to the join of the rim of a wheel ($cakradh\bar{a}r\bar{a}$).

⁷³ Palhaṇa on 1.16.10 (Su 1938: 77–78) mentions that some do not read the statement that only five are incurable, and they understand the causes of unsuccessful joins given below (i.e., heat, inflammation, suppuration and swelling) as also pertaining to the first ten when they do heal.

The version of 1.16.11–13 known to Dalhaṇa (Su 1938:78) has four verses (śloka) at this point that are not in the Nepalese manuscripts. The additional verses iterate the types of joins required for ear flaps that are missing, elongated, thick, wide, etc. All four verses were probably absent in the version of the *Suśrutasaṃhitā* known to Cakrapāṇidatta. He cites the verses separately in his commentary, the *Bhānumatī* (Su 1939: 128–129), introducing each one as 'some people read' (*ke cit paṭhanti*). However, in Trikamajī Ācārya's edition of the *Sūtrasthāna* of the *Bhānumatī*, the root text is largely identical to the one commented on by Dalhaṇa (Su 1938), even in instances

A person wishing to perform any of these joins should therefore have supplies prepared according to the recommendations of the 'Preparatory Supplies' chapter. And in this regard, he should particularly gather decanted liquor (surāmaṇḍa), milk, water, fermented rice-water (dhānyāmla), and powdered earthenware crockery (kapālacūrṇa).

Next, having made the woman or man tie up the ends of their hair, eat lightly and be firmly held by qualified attendants, one considers the joins (bandha) and then applies them by means of cutting (chedya), splitting (bhedya), scarification (lekhya), or piercing (vyadhana).⁷⁸ Next, he should examine the blood of the ear to know whether it is tainted (duṣṭa) or not. If it is tainted by wind, the ear should be bathed with fermented rice-water (dhānyāmla) and water; if tainted by choler, then cold water and milk should be used; if tainted by phlegm, then decanted liquor (surāmaṇḍa) and water should be used, and then he should scarify it again.

Then, arranging the join in the ear so that it is neither proud, depressed, nor uneven, one should make the join. Having seen that the bloood has stopped, one should anoint it with honey and ghee, bandage each ear with cotton (picu) and gauze (prota), and bind it up with a thread, neither too tightly nor too loosely. Then, the earthenware powder should be sprinkled on, and medical advice ($\bar{a}c\bar{a}rika$) given. And he should supplement with food as taught in the 'Two Wound' chapter.⁷⁹

One should avoid rubbing, sleeping during the day, exercise, overeating, sex, getting hot by a fire, or the effort of speaking.

like this where Cakrapāṇidatta's commentary indicates that he was reading a different version of the *Suśrutasaṃhitā*.

⁷⁵ Suśrutasamhitā 1.5 (Su 1938: 18–23).

The reading in the Nepalese manuscripts of *viśeṣataś cāgropaharaṇīyāt* has been emended to *viśeṣataś cātropaharet* to make sense of the list of ingredients, which is in the accusative case. Also, the repetition of *agropaharaṇīyāt* in the Nepalese version suggests that its second occurrence, which does not make good sense here, is a dittographic error.

⁷⁷ The term *kapālacūrṇa* is unusual. Þalhaṇa (Su 1938:79) defines it as the powder of fragments of fresh earthen pots and Cakrapāṇidatta (Su 1939: 129) as the powder of earthenware vessels.

⁷⁸ There are syntactic difficulties in this sentence. We have adopted the reading in Dalhaṇa's version (Su 1938: 78), which has *ca kṛtvā* following *suparigṛhītaṃ*. It is likely that a verb, such as *kṛtvā*, dropped out of the Nepalese transmission.

⁷⁹ Suśrutasamhitā 4.1 (Su 1938: 396–408).

- One should not make a join when the blood is too pure, too copious, or too thin. For when the ear is tainted by wind, then it is obstructed by blood (raktabaddha), unhealed and will peel. When tainted with choler, is becomes pinched ($g\bar{a}dha$), septic ($p\bar{a}ka$) and red. When tainted by phlegm, it will be stiff (stabdha) and itchy. It has excessively copious suppuration ($sr\bar{a}va$) and is sopha (puffedup). It has it has a small amount of wasted ($ks\bar{n}a$) flesh and it will not grow. Si
- When the ear is properly healed and there are no complications, one may very gradually start to expand it. Otherwise, it may be inflamed (saṃrambha), burning, septic or painful. It may even split open again.
- Now, massage for the healthy ear, in order to enlarge it. One should gather as much as one can the following: a monitor lizard ($godh\bar{a}$, scavenging (pratuda) and seed-eating (viṣkira) birds, and creatures that live in marshes or water,⁸² fat, marrow, milk, and sesame oil, and white mustard oil.⁸³ Then cook the oil with an admixture ($prativ\bar{a}pa$) of the following: purple calotropis (arka, white calotropis (alarka, country mallow ($bal\bar{a}$, 'strong Indian mallow' ($atibal\bar{a}$, country sarsaparilla ($anant\bar{a}$ beggarweed ($vid\bar{a}ri$, liquorice (madhuka), hornwort ($jalaś\bar{u}ka \rightarrow jalan\bar{l}ik\bar{u}^{84}$), items having the 'sweet' savour

^{80 1.16.17} of Palhaṇa's version (Su 1938: 79) reads "impure" for the Nepalese "too pure," which would appear to make better medical sense. Emending the text to nāśuddha- for nātiśuddha- in the Nepalese recension would yield the same meaning as the Palhaṇa's version.

⁸¹ In his edition of *Suśrutasaṃhitā*, Ācārya (Su 1938:79 n. 1) includes in parentheses the following treatment for these conditions, which according to a footnote is not found in the palm-leaf manuscript he used: 'One should sprinkle it with raw sesame oil for three days and one should renew the cotton bandage after three days' (āmatailena trirātraṃ pariṣecayet trirātrāc ca picuṃ parivartayet).

⁸² For such classifications, see Zimmermann (1999) and Smith (1994).

^{83 1.16.19} of Dalhaṇa's version (Su 1938: 79) includes ghee (sarpis). However, Dalhaṇa's remarks on 1.16.19 and Cakrapāṇidatta's on 1.16.18 (Su 1939: 130) indicate that they knew a version of this recipe (perhaps, similar to the Nepalese) that does not have ghee. Dalhaṇa also notes that others simply read four oils, beginning with fat and without milk, whereas Cakrapāṇidatta says some read that it is made with four oils and milk.

⁸⁴ Ceratophyllum demersum, L. This name is not certain. In fact, Dalhana on 1.16.19 (Su 1938: 79) notes that some people interpret it as a poisonous, hairy, air-breathing, underwater creature.

- ($madhuravarga^{85}$) and 'milk flower'($payasy\bar{a} \rightarrow vid\bar{a}r\bar{\imath}^{86}$). This should then be deposited in a well-protected spot.
- The wise man who has been sweated should rub the massaged (*mardita*) ear with it. Then it will be free of complications, and will enlarge properly and be strong.⁸⁷
- 16 Ears which do not enlarge even when sweated and oiled, should be scarified at the edge of the hole (*apānga*), but not outside it.⁸⁸
- In this tradition, experts know countless repairs to ears. So a physician who is very intent (*suniviṣṭa*) on working in this way may repair (*yojayed*) them.⁸⁹
- 18 If an ear has grown hair, has a nice hole, a firm join, and is strong and even, well-healed, and free from pain, then one can enlarge it slowly.90
- Now I shall describe the proper method of repairing a severed nose. First, take from the trees a leaf the same size as the man's nose and hang it on him.
- 85 The items which exemplify the 'sweet' savour (*madhuravarga*) are enumerated at SS.1.42.11.
- 86 Pueraria tuberosa (Willd.) DC. The version of 1.16.19 known to Dalhaṇa (Su 1938: 79) adds several ingredients to this admixture, including apāmārga, aśvagandhā, kṣīraśuklā, madhuravarga and payasyā. Also, it has vidārigandhā instead of vidāri. When commenting on 1.16.19, Dalhaṇa (Su 1938: 79) notes that some do not read madhuravarga and payasyā. Therefore, there were probably other versions of this recipe with fewer ingredients, as seen in the Nepalese version.
- 87 For these aims (i.e., healing and enlarging the ear), the text known to Dalhaṇa (Su 1938:79) has an additional verse and a half describing an ointment for rubbing the ear (*udvartana*) and sesame oil (*taila*) cooked with various medicines for massage. Cakrapāṇidatta (Su 1939: 131) does not comment on these verses, nor verse 15 of the Nepalese version, and so the version of the *Suśrutasaṃhitā* known to him may not have included them.
- 88 Dalhaṇa's version of 1.16.23 adds another hemistich that states more explicitly that the scarification should not be done on the outside of hole as it will cause derangement.
- After verse 17, the 1938 edition of Ācārya (Su 1938: 80) has in parentheses nineteen verses on diseases of the ear lobes, treatments and complications. It is possible that these verses were in some of the witnesses used by Ācārya to construct the text as they occur in other manuscripts, such as MS Hyderabad Osmania 137-3 (b). However, Cakrapāṇidatta (Su 1939: 132) and Palhaṇa (Su 1938: 80) state that some read about the diseases of the ear lobes in this chapter whereas others read about them in the chapter on various treatments (*miśrakacikitsa*) (SS 5.25), which does indeed begin with a discussion of the disease *paripoṭa*. Palhaṇa goes on to say that some believe that these verses were not composed by sages and, therefore, do not read them.
- 90 The order of verses 17 and 18 are reversed in Dalhana's version (Su 1938: 80).

- Next, having cut a slice of flesh (*vadhra*)⁹¹ with the same measurements off the cheek, the end of the nose is then scarified.⁹² Then the diligent (*apramatta*) physician, should quickly put it back together so that it is well joined (*sādhubaddha*).
- Having carefully observed that it has been well sown up, two tubes should be fixed in place.⁹³ Then, having lifted them up,⁹⁴ the powder of sappanwood (*pattāṅga*),⁹⁵ liquorice and Indian barberry.⁹⁶ should be applied to it.

añjana

- The wound should be covered properly with cotton (picu) and should be moistened repeatedly with sesame oil. Ghee should be given to the man to drink. His digestion being complete, he should be oiled and purged in accordance with the instructions specific to him.⁹⁷
- And once healed and really come together, what is left of that slice of flesh (*vadhra*) should then be trimmed. If it is reduced (*hīna*), however, one should make an effort to stretch it, and one should make its overgrown flesh smooth.⁹⁸
- 91 The version of 1.16.28b known to Dalhana (Su 1938: 81) reads bound, connected (baddham) instead of slice of flesh (vadhra). This is a critical variant from the surgical point of view. If the slice remains connected, it will have a continuing blood supply. This is one of the effective techniques that so astonished surgeons witnessing a similar operation in Pune in the eighteenth century (see Wujastyk 2003: 67–70).
- 92 Or 1.16.20 could be mean, '... off the cheek, it is fixed to the end of the nose, which has been scarified.' Unfortunately, the Sanskrit of the Nepalese version is not unambiguous on the important point of whether or not the flap of grafted skin remains connected to its original site on the cheek. However, Dalhaṇa (Su 1938: 81) clarifies the meaning of the vulgate here by stating that one should supply the word 'flesh' when reading 'connected,' thus indicating that he understood the flesh to be connected to the face.
- 93 Dalhaṇa notes that the two tubes should be made of reed (nala) or the stalk of the leaf of castor oil plant (eraṇḍapatranāla) (on 1.16.21 (Su 1938: 81)). They should not be made of lead or betel nut because the weight will cause them to slip down.
- 94 The Sanskrit term *unnāmayitvā* in 1.16.21 is non-Pāṇinian.
- 95 Caesalpinia sappan, L. For *pattāṅga* there are manuscript variants *pattrāṅga* (MS Kathmandu NAK 5-333) and *pattaṅga* (MS Kathmandu NAK 1-1079). Also, MS Kathmandu KL 699 (f. 14r:1) has *pattrāṅga* in a verse in 1.14 (cf. 1.14.36 (Su 1938: 66)). The text known to Dalhaṇa has *pataṅga* (1.16.29 (Su 1938: 81)) and this term is propagated in modern dictionaries.
- 96 Berberis aristata, DC. Palhaṇa understands it as elixir salve (rasāñjana) (Su 1938: 81).
- 97 The expression *svayathopadeśa* is ungrammatical but supported in all available witnesses.
- 98 Palhana accepts a verse following this, which points out that the procedure for joining

Abbreviations

Ah 1939 Kuṃṭe, Aṇṇā Moreśvara, Navare, Kṛṣṇaśāstrī, and Parādkar,

Hariśāstrī (1939) (eds.), śrīmadvāgbhaṭaviracitam aṣṭāṅga-hṛdayam, śrīmadaruṇadattaviracitayā sarvāṅgasundarā-khyayā vyākhyayā, hemādripraṇitayā āyurvedarasāyanā-hvayā ṭīkayā ca samullasitam = *The Astāngahṛidaya* (6th edn., Mumbayyām: Nirnayasāgara Press), ark:/13960/t3tt6967d.

Anup Anup Sanskrit Library (n.d.).

AS Asiatic Society (n.d.).

As 1980 Āṭhavale, Anamta 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, 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-samhitā. 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.), maharṣiṇā

punarvasunopadiṣṭā, tacchiṣyeṇāgniveśena praṇītā, carakadṛḍhabalābhyāṃ pratisaṃskṛtā carakasaṃhitā, śrīcakrapāṇidattaviracitayā āyurvedadīpikāvyākhyayā saṃvalitā (3rd edn., Mumbayyāṃ: Nirnaya Sagara Press),

URL, accessed 01/01/2018.

the nose is similar to that of joining the lips without fusing the ducts (Su 1938: 81). He notes that earlier teachers did not think this statement on the nose and lips was made by sages, but includes it because it was accepted by Jejjaṭa, Gayadāsa and others. However, Cakrapāṇidatta does not comment on this additional verse, which suggests that either he did not know of it or was not inclined to accept it (Su 1939: 133).

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

KL Kaiser Library (n.d.).

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 (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.), suśrutaḥ. sūtra-nidāna-śārīra-cikitsā-kalpottara-tantra-kalpita āyurveda. bhagavatā dhanvantariņopadiṣṭaḥ suśruta-nāmadheyena tacchiṣyeṇa viracitaḥ (3rd edn., Calcutta: Saratī Press), ark:/13960/t1nh6j09c; HIML: IB, 311, edition b.

Ācārya, Yādavaśarma Trivikrama (1915) (ed.), suśrutasaṃhitā, suśrutena viracitā, vaidyavaraśriḍalhaṇācāryaviracitayā nibandhasaṃgrahākhyavyākhyayā samullasitā, ācāryopāhvena trivikramātmajena yādavaśarmaṇā saṃśodhitā = The Sushrutasamhita of Sushruta, the Nibandhasangraha Commentary of Shri Dalhaṇāchārya (Mumbayyāṃ: Nirṇayasāgaramudrāyantrālaye), ark:/13960/t3sv0mt50, accessed 29/07/2020; HIML: IB, 312 edition *v.

Ācārya, Yādavaśarma Trivikrama (1931) (ed.), suśrutasaṃhitā, vaidyavaraśrīḍalhaṇācāryaviracitayā nibandhasaṃgrahākhyavyākhyayā samullasitā, maharṣiṇā suśrutena viracitā, sūtra-nidāna-śārīra-cikitsākalpasthānottaratantrātmakaḥ. ācāryopāhvena trivikramātmajena yādavaśarmaṇā saṃśodhitā = 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.), śrīḍalhaṇācāryaviracitayā nibandhasaṃgrahākhyavyākhyayā nidānasthānasya śrīgayadāsācāryaviracitayā nyāyacandrikākhyapañjikāvyākhyayā ca samullasitā maharṣiṇā suśrutena viracitā suśrutasaṃhitā (3rd edn., Bombay: Nirṇayasāgara Press), ark:/13960/t09x0sk1h; HIML: IB, 313, edition cc ('the vulgate').

Su 1938² Ācārya, Yādavaśarma Trivikrama and Ācārya, Nārāyaņa Rāma (2004) (eds.), maharṣiṇā suśrutena viracitā suśrutasaṃhitā, śriḍalhaṇācāryaviracitayā nibandhasaṃgrahākhyavyākhyayā nidānasthānasya śrigayadāsācāryaviracitayā nyāyacandrikākhyapañjikāvyākhyayā ca samullasitā (Vārāṇasī: Caukhambhā Kṛṣṇadāsa Akādamī); Reprint of the third, 1938 edition (Su 1938).

Ācārya, Yādavaśarma Trivikrama and Śarman, Nandakiśora (1939) (eds.), suśrutasaṃhitāyāḥ sūtrasthānam. śrīcakrapāṇidattaviracitayā bhānumatīvyākhyāyā sametam = Sushrut-sañhitā (sūtra Sthān) with Bhānumatī Commentary by Chakrapāṇi Datta with Introduction by Gaṇanāth Sen (Śrīsvāmi Lakṣmīrāma Nidhi Granthamālā = Shrī Swāmī Lakshmī Rām Trust Series, 1; [Jaipur]: Śyāmasundara Śarman), ark:/13960/t54g0d12m; Printed at the Nirṇayasāgara Press, Bombay.

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

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

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Glossary

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medical advice 25	saṃkṣipta 24	elixir salve
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āhārya	convulsions	stalk of the leaf of
take away 23	apatānaka 22	castor oil plant 28
apāmarga	cotton	•
prickly chaff flower	picu 25	fastening
23	cotton plant	āsaṅgima 23
арāṅgа	kārpāsa 23	fermented rice-water
edge of the hole 27	creeper-ear	dhānyāmla 25
apatānaka	vallīkarņa 23	
convulsions 22	crow's lip	gāḍha
apramatta	kākauṣṭha 23	pinched 26
diligent 28	cutting	gaṇḍakarṇa
ārā	chedya 25	cheek-ear 23
awl 22	enengu 2 9	gandharvahasta
ardhakapāṭasandhika	dais	castor oil tree 22
half door-hinge 23	pīṭha 24	gauze
āsaṅgima	datura flower	prota 25
fastening 23	dhattūrapuṣpa 23	ghee
awl	decanted liquor	sarpis 26
ārā 22	surāmaṇḍa 25	granthi
WW 22	dhānyāmla	lumps 22
baddham	fermented	granthita
bound, connected	rice-water 25	lumpy 24
28	dhattūrapuṣpa	10111p) =4
bandha	datura flower 23	half door-hinge
joins 25	dilator	ardhakapāṭasandhika
bhedya	pravardhanaka 23	23
splitting 25	diligent	hīna
blessings pronounced	apramatta 28	reduced 28
svastivācana 21	door-hinge	hīnakarṇa
bound, connected	kapāṭasandhika 23	reduced-ear 23
baddham 28	dried flesh	100.0000 001 29
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cakradhārā	duct	mañjiṣṭhā 22
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castor oil tree	ducts	samrambha 26
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chedya	dușța	joins
cutting 25	tainted 25	bandha 25
cheek-ear	tunited 25	sandhāna 23
gaṇḍakarṇa 23	edge of the hole	sandhi 24
0	200 21 216 11016	

kākauṣṭha	vyāyojima <mark>23</mark>	scavenging 26
crow's lip 23		pravardhanaka
kapālacūrņa	nala	dilator 23
powdered	reed 28	prickly chaff flower
earthenware	neem tree	apāmarga 23
crockery 25	nimba 23	prota
kapāṭasandhika	nemīsandhānaka	gauze 25
door-hinge 23	rim-join 24	puffed up
kaṛnavyadha	nemīsandhānakaḥ	sopha 26
piercing the ear 21	rim-join 23	
kārpāsa	nimba	raktabaddha
cotton plant 23	neem tree 23	obstructed by
kṛtamaṅgala	nirvedhima	blood 26
received a	ready-split 23	rasāñjana
benediction 21		elixir salve 28
kṣīṇa	obstructed by blood	ready-split
wasted 26	raktabaddha 26	nirvedhima 23
	ointment for rubbing	received a benediction
lead	the ear	kṛtamaṅgala 21
sīsaka 23	udvartana 27	reduced
lekhya	options	hīna 2 8
scarification 25	vikalpa <mark>24</mark>	reduced-ear
lotus-splittable		hīnakarṇa 23
utpalabhedyaka 23	pāka	reed
lumps	septic 26	nala 28
granthi 22	paralysis of the nape of	rim of a wheel
lumpy	the neck	cakradhārā 24
granthita 24	manyāstambhā 22	rim-join
	pattāṅga	nemīsandhānaka 24
mañjiṣṭhā	sappanwood 28	rim-join
indian madder 22	ріси	nemīsandhānakaḥ 23
manyāstambhā 💎 🧡	cotton 25	· ·
paralysis of the	piercing the ear	sādhubaddha
nape of the neck 22	kaṛnavyadha 21	well joined 28
mardita	piercing	saṃkṣipta
massaged 27	vyadhana 25	compressed 24
massaged	pinched	compressed 23
mardita 27	gāḍha <mark>26</mark>	saṃrambha
may repair	pīṭha	inflamed 26
yojayed <mark>27</mark>	dais 24	sandhāna
medical advice	powdered earthenware	joins 23
ācārika 25	crockery	sandhi
miśrakacikitsa	kapālacūrņa 25	joins 24
various treatments	prativāpa	sappanwood
27	admixture 26	pattāṅga <mark>2</mark> 8
multi-joine	nratuda	carnic

ghee 26 scarification l&hya 25 scavenging protuida 26 synta 24 seed-cating ryskin 26 septic paka 26 sesame oil talla 27 stri duct 22 ducts 24 swelling lead 23 slice of flesh valling 25 spopha puffed up 26 splitting head 25 strior suppuration 26 strior strior suppuration swelling 22 strior splitting head 25 strior suppuration 24 suppuration swelling 22 strior suppuration swelling 22 strior suppuration swelling 22 strior suppuration swelling 22 strior suppuration swelling 23 strior suppuration 24 suppuration 25 strior swelling 25 strior suppuration 26 stabilia stiff 24, 26 stiff 27 stiff 27 stiff 27 stiff 27 stiff 28 stiff 24, 26 stiff 29 stiff 20 stiff 21 stiff 24, 26 stiff 20			
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Todo list Revise translation of participle abhisāntvayamānaḥ or emend 21
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