

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

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# Preface

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# 1 Introduction

The *Compendium of Suśruta* (*Suśrutasaṃhitā*) 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.<sup>1</sup> Meulenbeld listed forty-four editions of the work since the first edition of 1835 by Gupta in Calcutta, and eight translations, starting from the Latin translation of 1844 by Hessler.<sup>2</sup> Many more translations have appeared in recent decades and reprints of the early twentieth-century editions continue to be reprinted frequently.

The study of this work has yielded rich historical discoveries 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.<sup>3</sup>

In January 2007, a manuscript of the *Suśrutasaṃhitā* in the Kaiser Library, Kathmandu, previously unknown to contemporary scholarship, was brought to international attention by Dimitrov and Tamot.<sup>4</sup> MS Kathmandu KL 699 is a Nepalese palm-leaf manuscript covering about two thirds of the Sanskrit text. It is dated to 878 CE, making it one of the earliest dated manuscripts known from South Asia.<sup>5</sup> The manuscript has been declared by UNESCO to be part of the Memory of the World.<sup>6</sup>

The newly-discovered manuscript in Nepal is related to two other early palm-leaf manuscripts in the National Archives in Kathmandu,

<sup>1</sup> The edition princeps was that of Gupta (1835–6). A selection of prominent studies includes: Hoernle 1897; 1906a,b; 1907a,b; Strauss 1934; Singhal et al. 1972–82; P. V. Sharma 1975; Rây et al. 1980; R. Adriaensen et al. 1984; Yano 1986; HIML; P. V. Sharma 1999–2001a; Valiathan 2007; and Meulenbeld’s magnum opus HIML.

<sup>2</sup> HIML: IB, 311 ff.

<sup>3</sup> HIML: IA, 203–389.

<sup>4</sup> Dimitrov and Tamot 2007.

<sup>5</sup> Harimoto 2011: 87–88.

<sup>6</sup> UNESCO 2013.

MS Kathmandu NAK 5-333 and MS Kathmandu NAK 1-1079. Klebanov 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.<sup>7</sup> Generally speaking, the Nepalese version of the *Suśrutasamhitā* is shorter and sometimes clearer than the versions commented on by Cakrapāṇidatta (fl. eleventh century) and Ḏalhaṇa (fl. twelfth century). The version of the *Suśrutasamhitā* commented on by Ḏalhaṇa has formed the basis of modern printed editions and translations, such as those of Yadavaśarman Trivikramātmaja Ācārya and others.<sup>8</sup> Some of the changes in the text between the Nepalese version and what we might call the Dalhana version, or the vulgate version,<sup>9</sup> consist of the addition and loss of numerous verses, changes to medical recipes, and reordering of chapters, especially in the *Uttaratanaṭra* or last part of the work. Lariviere hypothesized long ago, in a different context, that Sanskrit texts tended to continue to expand through the addition of new materials,

The process of addition to these compilations must have gone on for centuries. The hearers or readers of these compilations must have known other verses ... and it would be natural for them to include these verses in the compilation. This type of addition may have continued until a commentary on the collection was composed. A commentary would have served to fix the text. and the expansion of the text would have been more difficult after that.<sup>10</sup>

In the case of the *Suśrutasamhitā*, the Nepalese manuscripts appear to present us with the last recoverable snapshot of this stage of the work when it was still open to absorbing new materials, most notably the *Uttaratanaṭra*, and before the text was fixed as a result of the authority of

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<sup>7</sup> Klebanov 2010; 2021a.

<sup>8</sup> Su 1915; Su 1938; P. V. Sharma 1999–2001b. Note that Ācārya himself referred to this text as “Dalhaṇa’s version” (see footnote 18 below).

<sup>9</sup> For discussion of “the vulgate,” represented by Su 1938, see p. 27 below.

<sup>10</sup> Lariviere 2003: xii, cited with agreement by Olivelle (2005: 51) in the context of legal literature and by Bronkhorst (2016: 62–63) in the context of epic literature. See the latter citation for further discussion of Sanskrit text formation between the empires.

the major commentators, Cakrapāṇidatta and Ḏalhaṇa.<sup>11</sup> It is in this sense that we use the expression, “Ḍalhaṇa’s version,” when referring to the vulgate text of the *Suśrutasaṃhitā*.

The present study offers a critical edition and annotated translation of the sixteenth chapter of the *Ślokasthāna*, the first book of the Nepalese version of the *Suśrutasamhitā*.<sup>12</sup> This chapter is important in the history of 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 this study addresses some of the challenges of editing the Nepalese manuscripts and the salient differences between the Nepalese version of the *Suśrutasamhitā* 1.16 and the text as known to Cakrapāṇidatta and Ḏalhaṇa. The notes to the edition incorporate alternative readings mentioned by the commentators. The annotations to the translation discuss the following topics: 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 Ḏalhaṇa’s version of the text. In short, this is a pilot study for undertaking a complete edition and translation of the Nepalese version of the *Suśrutasamhitā*.

## 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.<sup>13</sup> Cauterization too was described in the same ancient sources, to prevent wounds from bleeding. The *Atharvaveda*, in the early first millennium BCE, described the bones of the human body, showing

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<sup>11</sup> The roles of earlier commentators including Jejjata, Gayadāsa and Candraṭa in closing the text and influencing Cakrapāṇidatta and Ḏalhaṇa remains an open research problem.

<sup>12</sup> This book is called the *Sūtrasthāna* in later versions of the *Suśrutasamhitā*. Note that the *Suśrutasamhitā* itself used the name *Ślokasthāna* at several places, e.g., 6.42.61 ([Su 1938: 721](#)), 6.65.30 and 31 ([Su 1938: 818](#)), usually referring to identifiable passages in that part of the work. The name is also used in the *Ślokasthāna* itself, at 1.1.40 of the Nepalese version.

<sup>13</sup> Zysk 1985: 70–71.

early anatomical awareness in a religious context.<sup>14</sup> The Brāhmaṇa literature of the only slightly later period contained more detailed descriptions of animal butchery in the context of religious sacrifice that involved the enumeration of internal organs and bones.<sup>15</sup> This exemplifies an early Sanskrit vocabulary for internal parts of bodies. However, this is not the same as anatomical dissection, whose methods and intentions are quite different. As Keith pointed out long ago, the enumeration of the bones in the *Brāhmaṇas* was derived from correspondences with the numbering of various verse forms, not from anatomical observation.<sup>16</sup> With the *Suśrutasamhitā*, we find ourselves in the presence of something quite different and far more sophisticated from the medical point of view, where the body was studied specifically for medical and surgical purposes.<sup>17</sup> The text gives us a historical window onto a school of professionalised medicine, including surgical practice, that 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 *Suśrutasamhitā* described how a surgeon should be 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.<sup>18</sup> The author of the *Suśrutasamhitā* claimed that surgery was the most ancient and most efficacious of the eight branches of medical knowledge.<sup>19</sup> Anecdotal discussion with contemporary surgeons suggests that many details in the descriptions could only have been written by a practising surgeon: it is beyond reasonable doubt that elaborate surgical techniques were a reality amongst those whose practices were recorded in the *Suśrutasamhitā*.<sup>20</sup>

<sup>14</sup> Translation by Hoernle ([1907b](#): §43, §100). Further bibliography: HML: IIB, 819.

<sup>15</sup> Malamoud [1996](#); Saha [2015](#).

<sup>16</sup> Keith [1908](#).

<sup>17</sup> Zysk [1986](#). The *Carakasamhitā* too has brief descriptions of surgical techniques, but the *Suśrutasamhitā* goes into greater detail.

<sup>18</sup> Wilson [1823](#); Mukhopādhyāya [1913](#); V. Deshpande [2000](#); Wujastyk [2003](#); Valiathan [2007](#); Narayana and Thrigulla [2011](#) and many other studies.

<sup>19</sup> *Suśrutasamhitā* 1.1.15–19 ([Su](#) [1938](#): 4).

<sup>20</sup> Leffler et al. ([2020](#)) provide a detailed discussion of the *Suśrutasamhitā*'s surgical technique in the case of ophthalmic cataract, with references for further reading. The manuscript account by Jack ([1884](#)) provides a fascinating quantitative comparison of traditional couching operations with his contemporary nineteenth-century methods

## Torn ear lobes

The *Suśrutasaṃhitā*'s description of the repair of torn ear lobes is unique for its time.<sup>21</sup> Majno, a practising surgeon, 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".<sup>22</sup> The different types of mutilated ear lobe that the *Suśrutasaṃhitā* described are not always easy to understand from the Sanskrit: the illustrations supplied in Majno's text greatly help with the visualization of the most likely scenarios.<sup>23</sup>

## 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 has been discussed by Wujastyk, and a translation of the Sanskrit passage from the vulgate edition of the *Suśrutasaṃhitā* was given.<sup>24</sup> This fascinating technique is certainly old in South Asia, having been witnessed by travellers from Niccolo Manucci in the seventeenth century onwards.<sup>25</sup> Many witnesses, including the most famous, Cruso and Findlay,<sup>26</sup> described an operation that differs from *Suśrutasaṃhitā* in that it takes the grafting skin from the forehead, not the cheek. But the nineteenth-century operation witnessed by Thorburn is especially interesting, since the technique followed the *Suśrutasaṃhitā* exactly in taking flesh from the cheek, rather than the forehead.<sup>27</sup>

As noted by Meulenbeld, none of the extant commentators – Jejjāta, Gayadāsa, Cakrapāṇi or Dalhaṇa – explained the technique in any detail

(MS London Wellcome 3007).

<sup>21</sup> The comprehensive study of ears in the history of Indian culture by Bollée (2010) oddly omits reference to *Suśrutasaṃhitā*'s surgery, although it mentions the text's description of ear diseases.

<sup>22</sup> Majno 1975: 291.

<sup>23</sup> Majno 1975: 290–291; reproduced with permission in Wujastyk 2003: 92–93.

<sup>24</sup> Wujastyk 2003: 67–70, 99–100. See also HIMAL: IB, 327–328, note 186, for further literature and reflections.

<sup>25</sup> Manucci 1907–8: v. 2, 301.

<sup>26</sup> Longmate 1794: 883, 891 f.

<sup>27</sup> Thorburn 1876: 352–353.

beyond short lexical glosses.<sup>28</sup> This suggests that the commentators may not all have known the technique at first-hand.

## The skin flap

It is worth highlighting here a point of critical medical importance: the continued attachment of the skin flap. One of the crucial innovations of the “Hindu Method” of nasal reconstruction, as observed and internationally reported in the eighteenth century, was that the skin flap taken from the face remained partially connected to its original location.<sup>29</sup> This ensured the blood flow essential to keeping the skin alive while it healed in its new location.<sup>30</sup> The Sanskrit of the vulgate is ambiguous on this critical point and the wording of the Nepalese version is unclear. However, Ḑalhaṇa clarified the meaning of the vulgate here by stating that when reading the expression “connected,” one should understand “connected flesh”.<sup>31</sup> He thus indicated that he understood the flesh to be connected to the face.<sup>32</sup> Thus, we cannot know definitively at present whether the connection of the flap was known to the redactors of the Nepalese version, although it seems likely. It was probably known to the redactors of the vulgate, and was certainly known to Ḑalhaṇa in the twelfth century.

Earlier in the chapter, in the context of ear-piercing and repair, the vulgate has a passage that is more explicit and conclusive. After listing the names and characteristics of different types of earlobe, the vulgate cites some summary verses from an unknown source.<sup>33</sup> The last of these verses says,

<sup>28</sup> HML:IB, 328. Ḑalhaṇa noted cryptically, on 1.16.27–31 (Su 1938: 81a), that a rather different version of the text, cast in *śloka* metre, was also known to him from other sources. Ḑalhaṇa’s variant bears a resemblance to the description of the operation given in printed editions of the *Aṣṭāṅgahṛdayasaṃhitā* at Utt.18.59–65 (Ah 1939: 841).

<sup>29</sup> See Wujastyk 2003: 67–70.

<sup>30</sup> This surgical innovation distinguished the “Hindu Method” from sixteenth-century European methods associated with Gaspar Tagliacozzo and others (see, e.g., Carpue 1816: *passim*).

<sup>31</sup> *Suśrutasaṃhitā* 1.16.28 (Su 1938: 81).

<sup>32</sup> See p. 60 below.

<sup>33</sup> 1.16.11–14 (Su 1938: 78).

If no lobe exists, an expert may create an ear lobe by scarifying and then using living flesh still attached to the cheek from which it has been sliced.<sup>34</sup>

The commentator Ḑalhaṇa was even more explicit in his gloss on this passage:

“Living” [flesh] means “together with blood”.<sup>35</sup>

Thus, Ḑalhaṇa’s comment gives us unequivocal evidence for the concept of a living skin flap in the twelfth century, and it is almost certain that this is also what the text of the *Suśrutasaṃhitā* intended by the word “living.” The one remaining historical problem is that these specific verses, 1.16.11–14, are not present in the Nepalese version of the text. This suggests that they were part of a different tradition of practice with a verse literature that was integrated into the vulgate text of the *Suśrutasaṃhitā* at a time after the Nepalese version as recorded in 878 CE, but at the latest by the time of Ḑalhaṇa in the twelfth century.

If we can assume that the descriptions of ear-surgery and rhinoplasty were part of a single professional tradition of surgical method, then the above passage, in the context of ear-lobe repair, strongly supports the idea that rhinoplastic surgery too was conducted with attention to keeping a living skin flap.

By the late first millennium, had the rhinoplastic technique moved from the professional competence of scholar-physicians (*vaidyas*) to that of barber-surgeons (*Ambaṣṭhas* and others)? Or perhaps the influence was in the other direction, and a technique known to practitioners elsewhere in South Asia in the first millennium was integrated into the text of *Suśrutasaṃhitā*. The rhinoplastic 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.

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34 1.16.14 (Su 1938: 78): गण्डादुत्पात्व मांसेन सानुबन्धेन जीवता । कर्णपालीमापालेस्तु कुर्यान्निर्लिख्य शास्त्र-  
वित्। Cf. the translation of the whole passage by Wujastyk (2003: 94).

35 1.16.14 (Su 1938: 78): जीवेति शोणितसहितेनेत्यर्थः ।



## 2 The Transmission of the Work

### The Nepalese Version

In the present study and the other publications of our research group, we focus on the study of what we call the ‘Nepalese version’ of the *Suśrutasamhitā*. The primary rationale behind using this designation was outlined by Klebanov,<sup>1</sup> but we consider it necessary to reflect upon its meaning here, given the conceptual significance that this term occupies in our research. It is possible that in the course of our research, we will refine our understanding of this designation and, consequently, review and modify our current interpretation.

Put plainly, the ‘Nepalese version’ refers to a hypothetical text-critical reconstruction of the wording of the *Suśrutasamhitā* that is based primarily on the evidence of three ancient Nepalese manuscripts that we have briefly introduced above and that we will describe in more detail in a later section. We call these MSS “Nepalese” not just because they were preserved and discovered by modern scholarship in the Kathmandu Valley but also because we believe that they were produced in the same area. We conclude this because all three MSS are written in a specific variety of Indic script which was not used outside of the region.

Furthermore, we speak of a single “version” because these manuscripts attest to a specific line of transmission of the text. That is to say, in terms of stemmatic analysis they share a common ancestor or hyparchetype, while at the same time, they bear no signs of significant contamination. This hypothesis was first postulated by Klebanov (2010) and later reiterated by him (2021b) as the result of a systematic analysis of two complete chapters, SS 1.3 and SS 1.15, and several shorter excerpts from the *Suśrutasamhitā* transmitted in the Nepalese manuscripts. On the one hand, these studies highlighted that all three MSS preserve a highly uniform text with very few

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<sup>1</sup> Klebanov 2021a: 2–3.

variations, virtually all of which can be explained as standard scribal errors or corrections. On the other hand, Klebanov (2010; 2021b) systematically compared the relevant textual excerpts with four printed editions, alternative readings reported by several commentators, parallel passages in other texts, and with a number of additional manuscripts of the *Suśrutasamhitā*. This analysis demonstrated that the text of the *Suśrutasamhitā* supported by the Nepalese MSS of our study differs evidentially from all these other sources. But the mere fact of Nepalese provenance does not guarantee that a manuscript transmits the Nepalese version of the *Suśrutasamhitā*. For example, Klebanov also established that in spite of its Nepalese provenance, MS Kathmandu NAK 1-1146,<sup>2</sup> does not support the “Nepalese version” and need not be taken into consideration when reconstructing the readings of the latter’s hyparchetype. Thus, we do not feel that it is justified to use the technical term “Nepalese recension,” since at least two recensions of the work are preserved in manuscripts from Nepal. Nevertheless, we wish to indicate the provenance of the oldest witnesses. However, more than two hundred manuscripts of the *Suśrutasamhitā* are preserved in different libraries across South Asia and until they have been studied and placed into a stemmatic relationship with our present witnesses, any hard assumption about the regional character of the transmission line remains premature.<sup>3</sup> What can be said with certainty is that the Nepalese version preserves many archaic features of an early version of the *Suśrutasamhitā* and that some of these features have already been identified in other manuscripts of this work have been studied briefly.

Our research group builds upon the above hypothesis about the existence of a distinct Nepalese version of the *Suśrutasamhitā* and concentrates primarily on the study of this text in its own right and, additionally, frequently compares it with the version of the *Suśrutasamhitā* promulgated by the late medieval commentator Ḏalhaṇa and recorded in the widely-used Su 1938. The present study of SS 1.16 also considers the readings found in Su 1939, that reflects Cakrapāṇidatta’s readings, and incorporates various observations made by both medieval commentators, Cakrapāṇidatta and Ḏalhaṇa, into the notes of the edition and some annotations of the translation.

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<sup>2</sup> Rimal and Wujastyk 2022.

<sup>3</sup> For a list of known manuscript copies of the *Suśrutasamhitā*, see the sources mentioned in footnote 10 below.

The current study and several earlier publications furnish a catalogue of uniform features that are characteristic of the Nepalese version and set it apart from the vulgate version.<sup>4</sup> These features of the Nepalese version include orthographic variants, peculiarities in the structure and structuring elements, as well as the actual wording of the text. As argued elsewhere in this article, many of these variants appear to represent an archaic version of the *Suśrutasaṃhitā*. This is partly because they preserve a version of the text that appears to be less edited, that is, more rudimentary in content and original in expression, that in turn suggests that it precedes later editorial intervention. We also assign a high historical value to many Nepalese readings because they constitute an internally more consistent and coherent text that is at times further supported by external testimonia.

Additionally, we want to make it clear that we do not think that the Nepalese version provides a so-called original text of the *Suśrutasaṃhitā*. Rather, the Nepalese version is a witness to a hyparchetype, not the archetype, of the *Suśrutasaṃhitā*. The Nepalese version provide us with an intermediary node in the history of this work between the oldest reconstructable text and the vulgate version that was known to Dalhana in the twelfth century and that is reproduced in most printed editions of the *Suśrutasaṃhitā*. The oldest reconstructable text will only come into focus when all surviving witnesses for the work have been studied. Having said that, our belief is that the Nepalese version is certain to be closer to the oldest reconstructable text than are contemporary printed versions of the work. One of the reasons for this belief is simply that the Nepalese MSS give us physical evidence for the state of the work in the ninth century, which cannot be many centuries later than the original assembly of the work in the form we are familiar with, i.e., a work of five topical sections with a large added sixth section, the Uttaratantra, that has a somewhat independent character.

To summarize: the evidence arising from our studies to this point leads us to think that the Nepalese MSS of this study provide access to single line of textual transmission that goes back to a hyparchetype that predates the composition of all major commentaries on the *Suśrutasaṃhitā* and that, due to its regional character, has suffered relatively little contamination. We term this hyparchetype the “Nepalese version.”

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<sup>4</sup> Earlier publications include Harimoto 2011; Wujastyk 2013b; Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021; Birch, Wujastyk, Klebanov, Rimal, et al. 2021.

## The Versions of Cakrapāṇidatta and Ḏalhaṇa

The commentaries of Cakrapāṇidatta and Ḏalhaṇa, titled *Bhānumatī* and *Nibandhasaṅgraha* respectively, are based on similar but not identical versions of the *Suśrutasaṃhitā*. Both versions differ significantly from the Nepalese version.<sup>5</sup> Ḏalhaṇa was aware of Cakrapāṇidatta’s work and reiterated many of his predecessor’s remarks, so the interpretation of the root text by these two commentators is, broadly speaking, consistent.<sup>6</sup> Ḏalhaṇa also had several manuscripts of the *Suśrutasaṃhitā* available to him, as we know because he frequently mentioned their variant readings.<sup>7</sup>

In addition to the fine-grained issues raised by the relationship between these commentators, there are added issues introduced by the way the editors of the printed versions of these commentaries handled the texts. The most obvious difficulty is that Y. T. Ācārya and N. Śarman’s text of the *Sūtrasthāna* as commented on by Cakrapāṇidatta ([Su 1939](#)) simply duplicated the main text of that section from Y. T. Ācārya and N. R. Ācārya’s edition of Ḏalhaṇa’s commentary ([Su 1938](#)).<sup>8</sup> This duplication of the root text in the two books creates the entirely misleading impression that both commentators had the same *Suśrutasaṃhitā* text before them.<sup>9</sup> However, there is much evidence, including in the chapter treated in the present study, that this was not the case.

To give a concrete example, Ḏalhaṇa commented on four verses, SS

<sup>5</sup> See [HIML: IA](#) 374–379 on these authors. Meulenbeld already noted that “the text of the *Suśrutasaṃhitā* in the [1939] edition of the *Bhānumatī* differs at many places from the text of the [vulgate edition of 1938]” and gave examples from the *sūtrasthāna* ([HIML: IB](#), 496, note 76).

<sup>6</sup> [HIML: IB](#), 499, n. 162.

<sup>7</sup> See [HIML: IA](#), 377. Meulenbeld drew attention to Ḏalhaṇa’s commentary on 5.8.24cd–25ab ([Su 1938: 587](#)) as a particularly striking example of such awareness ([HIML: IB](#), 497, n. 112). In this passage, Ḏalhaṇa noted that certain readings known to the earlier commentators Jejjīṭa and Gayadāsa were, “not to be found in current manuscripts” (स च वर्तमानपुस्तकेषु न दृश्यते).

<sup>8</sup> There are a few exceptions where Cakrapāṇidatta glossed a word or compound that is different to the one glossed by Ḏalhaṇa. For example, in SS 1.16.18, Cakrapāṇidatta glossed राजसर्षप whereas Ḏalhaṇa glossed गौरसर्षप. The editors reflected this in the root texts of the *Bhānumatī* ([Su 1939: 130](#)) and *Nibandhasaṅgraha* ([Su 1938: 79](#)) respectively.

<sup>9</sup> A similar situation exists with the edition of the *Yogasūtravivaraṇa* by Rama Sastri and Krishnamurthi Sastri ([1952](#)) that is printed with the base text of the *Pātañjalayogaśāstra* taken the edition of Āgāśe and Āpate ([1904](#)) which is significantly different from that on which Śaṅkara was commenting (Maas [2013: 77–78](#)).

1.16.11–14, as part of his root text, that Cakrapāṇidatta cited separately only in his commentary.<sup>10</sup> Cakrapāṇidatta had introduced each verse with “some people say” (केचित्पठन्ति). This clearly indicated that these verses were not in the version of the *Suśrutasaṃhitā* upon which he was commenting. But a century or so later they had become part of the main text that was read by Ḍalhaṇa. In spite of this, the editors Y. T. Ācārya and N. Śarman included these verses in their 1939 edition of the *Suśrutasaṃhitā* with Cakrapāṇidatta’s commentary as if they had been part of the main text of the *Suśrutasaṃhitā* that Cakrapāṇidatta read. Such cases make it hard for the reader to clearly see that these two important commentators were responding to different versions of the *Suśrutasaṃhitā*.

Furthermore, the duplication of the root text is questionable in instances where Cakrapāṇidatta did not acknowledge or comment on some verses that appear in what we might call “Ḍalhaṇa’s version” of the *Suśrutasaṃhitā*. In some cases, this is an *argumentum ex silentio* because it is possible that Cakrapāṇidatta may not have remarked on a verse when its meaning was obvious. However, in other cases, the commentarial convention of citing the first words of a new verse or passage suggests leads us to suspect the absence of a verse in the root text of the *Suśrutasaṃhitā*.

For example, there is a prose passage at SS 1.16.18 that Cakrapāṇidatta commented on in his *Bhānumatī* (Fig. 2.1, left).<sup>11</sup> It is followed by several verses also in the main text of the *Suśrutasaṃhitā* that elaborate on the content of the prose passage.<sup>12</sup> Ḍalhaṇa commented on these explanatory verses (Fig. 2.1, right), citing keywords that show they all formed part of the main text of the *Suśrutasaṃhitā* that was before him.<sup>13</sup> However, Cakrapāṇidatta’s older commentary showed no awareness of the first few verses in this group, SS 1.16.19–21ab.<sup>14</sup> Apparently, they were *not* part of the text of the *Suśrutasaṃhitā* as he knew it. In spite of that, the editors printed these verses in their edition of Cakrapāṇidatta’s work as if they were indeed part of the *Suśrutasaṃhitā* known to him. Incidentally, the editors remarked in a footnote that verses 20–21a were not in the Nepalese manuscript that they

<sup>10</sup> Su 1938:78 and Su 1939: 128–129 respectively.

<sup>11</sup> Su 1939: 130, i.e., अथाप्रदुष्टस्याभिवर्धनार्थम् ... निदध्यात्। It is numbered Su.1.16.19 in Dalhaṇa’s *Nibandhasaṅgraha* (Su 1938: 79).

<sup>12</sup> SS 1.16.19–23 in Su 1939, i.e., स्वेदितो ..., यवाश्व ..., तैलं ..., तेषाम् ..., वद्ध ....

<sup>13</sup> 1.16.19–23 (Su 1938: 79–80).

<sup>14</sup> Su 1939: 130–131.

सेदितोन्मर्दितं कर्णं खेहैनैतेन योजयेत् ॥  
 अथानुपद्रवः सम्यग्बलचांश्च विवर्धते ॥ १९ ॥  
 ( यवाश्वगन्धायष्ट्वाहैस्तिलैश्चोद्धर्तनं हितम् ॥  
 शतावर्यश्वगन्धाभ्यां पयसैरण्डजीवनैः ॥ २० ॥  
 तैलं विपक्षं सक्षीरमभ्यङ्गात् पालिवर्धनम् ॥ )  
  
 कर्णवर्धनार्थं सम्पर्वनयोतिलेहमाह—तथा गोवेलादि । प्रहुदा लहादयोजपान-  
 वक्ष्याः, विकिरा लावादयः, आनुपा गहियादयः । राजसर्पः वेतसर्पः, तस्म-  
 रैलम्, एवं हि लेहोऽथम् । पयश्चात्र पाकार्थं इवान्तरात्मकेवल्लुप्तिमेव । ये हु पयसाने  
 सार्पः पठन्ते, तन्मते जलास्योऽयम्; अन्ये हु चतुर्हैनेव पयःस्त्राघं पठन्ते ।  
 अलक्षः अर्कमेदः, जलक्षो जलतृणासको भवति ‘जलतृणा’ हस्ति प्रसिद्धः । प्रतीवापः  
 कल्पः । ये तत्र सधुरागं पठन्ति पयसां च, तन्मते पयसा शीरविदारी । तैलं वेति  
 तैलमेव वा ॥ १९-२० ॥

सेदितोन्मर्दितं कर्णं खेहैनैतेन योजयेत् ॥  
 अथानुपद्रवः सम्यग्बलचांश्च विवर्धते ॥ २० ॥  
 अथ तैलसाव चारणमाह,—सेदितोन्मर्दितमिल्यादि ॥ २० ॥  
 यवाश्वगन्धायष्ट्वाहैस्तिलैश्चोद्धर्तनं हितम् ॥  
 अभ्यक्षसोद्धर्तनमाह,—यवेलादि ॥—  
  
 शतावर्यश्वगन्धाभ्यां पयसैरण्डजीवनैः ॥ २१ ॥  
 तैलं विपक्षं सक्षीरमभ्यङ्गात् पालिवर्धनम् ॥  
 कर्णपालिविद्यर्थमपरं तैलमाह,—शतावर्यश्वगन्धाभ्यामि-  
 ल्यादि । शतावर्यादिककेन लेहचतुर्थांशेन केवलक्षीरेण चतुर्थ-  
 गेन तैलमत्र पचनीयम् । पयसा अर्कपुण्डी । जीवनैः काको-  
 ल्यादिदत्यैः ॥ २१ ॥—

Figure 2.1: The text as it appears in Cakrapāṇi (left) and Dalhaṇa (right) (Su 1939: 130, Su 1938: 79).

**( नाडीयोगं विनौष्ठस्य नासासन्धानविद्विधिम् ॥**  
**य एवमेव जानीयात् स राज्ञः कर्तुमर्हति ॥ ३१ ॥ )**  
**इति सौश्रुते शब्दयतन्त्रे सूत्रस्याने कर्णव्यधवन्धविधिर्नाम**  
**पोडशोऽन्ध्यायः ॥ १६ ॥**

Figure 2.2: *Suśrutasamhitā* 1.16.31 in the 1939 printed edition.

consulted. This shows that the version of the *Suśrutasamhitā* that Cakrapāṇidatta knew is similar to the Nepalese version, at least in this particular case.<sup>15</sup>

A similar instance occurs in the edition of the *Bhānumatī* at SS 1.16.31, where the editors of the 1939 printed edition included a verse in parenthesis that was commented on by Dalhaṇa but not by Cakrapāṇidatta (see Fig. 2.2).<sup>16</sup> This verse was almost certainly not in the text of the *Suśrutasamhitā* known to Cakrapāṇidatta. The manuscript on which the editors' edition of Cakrapāṇidatta's *Bhānumatī* commentary was mainly based, MS London BL H. T. Colebrooke 908, does not include the root text of the *Su-*

<sup>15</sup> Su 1939: 130, n. 2.

<sup>16</sup> The verse begins नाडीयोगं विनौष्ठस्य. It is printed in the vulgate as 1.16.32 (Su 1938: 81), with Dalhaṇa's commentary. It is printed in parentheses as 1.16.31 in the edition of the *Bhānumatī* (Su 1939: 133).

śrutasamhitā.<sup>17</sup> Therefore, it requires a careful reading of the commentary itself to reverse-engineer, as it were, what its author, Cakrapāṇidatta, was seeing in the manuscripts of the *Suśrutasamhitā* that he had before him in the eleventh century. But there is no evidence that they included the verses SS 1.16.19–21ab and 31 that are printed in the [Su 1939](#) edition as if they were present to Cakrapāṇidatta.

## Cakrapāṇidatta and the Nepalese version

We have already seen one case where Cakrapāṇidatta's version of the *Suśrutasamhitā* was more similar to the older Nepalese version than to the later version of Ḏalhaṇa. There is more evidence for this. For example, SS 1.16.5 of the Nepalese version begins with the compound दोषसमुद्यात्; Cakrapāṇidatta began his comment on this passage by glossing this very expression. By contrast, Ḏalhaṇa's version inserted two compounds, क्षिटिजिह्वाप्रशस्तसूची-व्यधात् and गाढतरवर्त्तिलात्, before this.<sup>18</sup> It appears that Cakrapāṇidatta was not aware of the compounds that Ḏalhaṇa saw in his later version, but was indeed reading a text similar to the Nepalese version.<sup>19</sup>

If one looks beyond SS 1.16, there are further instances where the Nepalese version and the root text as read by Cakrapāṇidatta have the same reading, but Ḏalhaṇa mentioned it as an alternative that is, “read by others.” For example, the Nepalese version of SS 1.1.22 begins तत्रास्मिज्ञास्ते..., which is also the reading commented on by Cakrapāṇidatta.<sup>20</sup> However, Ḏalhaṇa commented on अस्मिज्ञास्ते and stated that “others read तत्रास्मिज्ञास्ते”.<sup>21</sup>

Another example is the reading of पष्टा विधानैः in Ḏalhaṇa's commentary on SS 1.1.8.1 that is not in his main text but that he ascribes to “some others”.<sup>22</sup> This reading is likely to be derived from the expression पष्टाभिधानैः:

<sup>17</sup> This observation is based on an examination of the opening passage MS London BL H. T. Colebrooke 908. The MS is described in [IOLR](#): v. 1.5, 928, #2647. The section “The 1939 Edition,” on p. [31](#) below, describes the sources that the editors used for that edition.

<sup>18</sup> 1.16.6 ([Su 1938](#): 77).

<sup>19</sup> 1.16.5 ([Su 1939](#): 126–127).

<sup>20</sup> 1.1.20 (*sic*) ([Su 1939](#): 17).

<sup>21</sup> 1.1.22 ([Su 1938](#): 5).

<sup>22</sup> 1.1.8.1 ([Su 1938](#): 3).

in the main text of the Nepalese version, and to have been rewritten before Dalhaṇa's time because it was hard to understand.<sup>23</sup>

## Differences between the Nepalese and later versions of SS 1.16

Several differences between the text of the *Suśrutasamhitā* as reconstructed on the basis of the Nepalese MSS and as found in its multiple contemporary printed editions have already been pointed out in previous publications. For example, Klebanov listed differences in the chapter sequences as they affect the overall organization and structuring of themes and elements of the text.<sup>24</sup> Others have explored variations in the frame story of the work as a whole.<sup>25</sup> Klebanov discussed the interchangeable use of two titles for the first book of the text, namely “Ślokasthāna” and “Sūtrasthāna.” He also discussed another feature of the Nepalese version, namely the additional colophons found at the end of each book and also at the end of each decade of chapters of the work.<sup>26</sup>

### The greater internal coherence of the Nepalese version

In an exemplary investigation of textual variants in the Nepalese version, Harimoto studied the classification of snakes in SS 5.4 and revealed that the Nepalese version preserves a text that is internally more consistent and coherent than the versions of the *Suśrutasamhitā* found in different printed sources.<sup>27</sup>

Klebanov contributed some further general remarks and examples of substantive differences between the Nepalese and vulgate versions, and provided two more case studies.<sup>28</sup> The first dealt with the list of skin lesions associated with urinary disease.<sup>29</sup> Their signs and pathogenesis are

<sup>23</sup> See the discussion by Birch, Wujastyk, Klebanov, Rimal, et al. (2021: 4–5).

<sup>24</sup> Klebanov 2021a: 27 f.

<sup>25</sup> Wujastyk 2013b; Klebanov 2021a: 28–32; Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021; Birch, Wujastyk, Klebanov, Rimal, et al. 2021: 2–4.

<sup>26</sup> Klebanov 2021a: 32–44.

<sup>27</sup> Harimoto 2011: 101–104.

<sup>28</sup> Klebanov 2021a: 44–55.

<sup>29</sup> प्रमेहपिटका in the Nepalese spelling.

described in the *Nidānasthāna* and their treatment in the *Cikitsāsthāna*.<sup>30</sup> This list of skin lesions exemplifies a case where the Nepalese version of the *Suśrutasamhitā* is internally more coherent than that commented on by Ḏalhaṇa. The incoherence of Ḏalhaṇa's version was already identified by an earlier commentator, Gayadāsa (fl. ca. 1000), who proposed a textual conjecture that corresponds to the reading of the Nepalese version.<sup>31</sup>

The second case study by Klebanov focussed on the variation in the list of bodily winds (प्राण) in SS 3.4.<sup>32</sup> This discussion too relied upon Gayadāsa's learned remarks. He commented on a version of the *Suśrutasamhitā* corresponding to the Nepalese version and reported an alternative reading and its interpretation preferred by another ancient commentator, Jejjaṭa (fl. ca. 650 – c. 750). It is Jejjaṭa's reading that is known to modern readers of the *Suśrutasamhitā* from the vulgate version of the text.

As the present study demonstrates, many features pertaining to the actual content of the Nepalese version continue to come to light as we proceed with our study of the manuscripts. On the whole, these observations indicate that many features of the Nepalese version of the *Suśrutasamhitā* are likely to go back to an early state of the work that was common to other versions of the compendium. However, there are also textual features, such as the text-structuring colophons concluding every tenth chapter, are likely to have occurred within a local Nepalese transmission of the text and it is unlikely that they will be attested in MSS from other regions, when a study of those is done. When evaluating the Nepalese readings historically, it is necessary to keep in mind that there is plentiful evidence that Ḏalhaṇa's version of the text also included extremely early readings and variants, suggesting that some of the readings accepted by Ḏalhaṇa were ancient, if not original. Each case has to be weighed, and we are not yet in a position to make definitive judgments about the early divergence of textual recensions.

The detailed comparison that follows of 1.16 of the Nepalese version with Ḏalhaṇa's *Nibandhasaṅgraha* unfolded as the chapter was edited. The differences appear to emanate largely from attempts in Ḏalhaṇa's version to standardise, simplify or clarify the language that appears

<sup>30</sup> *Suśrutasamhitā* 2.6 ([Su 1938](#): 289–294) and 4.12 ([Su 1938](#): 454–455) respectively.

<sup>31</sup> MS Kathmandu KL 699 was copied a century or more before Gayadāsa's time, so its version cannot have been influenced by Gayadāsa's innovations or suggestions. The reverse is more likely, although we are still uncertain of whether Gayadāsa was aware of the Nepalese version. Being from Bengal, it is not unlikely that he knew it.

<sup>32</sup> Klebanov [2021a](#).

in the Nepalese version, to add and redact information, and introduce changes to recipes and therapies. Examples from 1.16 have been provided to demonstrate these general observations which, we expect, will be supported by a larger survey of the text.

## Transpositions

Figure 2.3 reveals the extent to which 1.16 of the Nepalese version was redacted to create the one known by Ḏalhaṇa. In this particular case, twenty-seven verses have been added in the vulgate. Eight of these verses (11–14, 21–22ab, 23cd–24, 32) 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 Ḏalhaṇa. These verses cover additional diseases of the ear lobes, with their treatment and complications. Although Ḏalhaṇa conceded that some predecessors 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, but Ḏalhaṇa's comments prompted him to place them in parentheses.<sup>33</sup> Be this as it may, this large block of verses is not present in the Nepalese version.

One can also see in Figure 2.3 that verses 17 and 18 of the Nepalese version were transposed in the redaction of Ḏalhaṇa's version, where they are numbered 26 and 25 respectively. Although this only occurs once in 1.16, such transposing of verses and even their hemistiches is common in the redaction of other chapters of the *Suśrutasaṃhitā*.

Apart from the addition of verses, the redacting of the version known to Ḏalhaṇa involved many small, yet sometimes significant, changes that are described below.<sup>34</sup>

<sup>33</sup> Ācārya (Su 1938: 80) did not state that these verses were absent in some or all of his manuscripts, which he usually did in a footnote if this was the case. A broader survey of manuscripts would be helpful for establishing whether these verses were part of the transmission of the *Suśrutasaṃhitā* in other parts of India. For example, they are present in MS Hyderabad Osmania 137-3(b).

<sup>34</sup> The present study focusses on the commentary of Ḏalhaṇa, but many of the same investigations could be made with regard to the surviving parts of the other early commentaries. See the discussion below, p. 33.

Nepalese version Ḏalhaṇa's version

1	1
–	2
2–9	3–10
–	11–14
10–15	15–20
–	21–22ab
16	22cd–23ab
–	23cd–24
–	25
17	26
–	26.1–19
18	–
19–23	27–31
–	32

Figure 2.3: A Comparison of verses in 1.16 of the Nepalese and Ḏalhaṇa's versions.

## Changing Spelling, Sandhi and Syntax

Later commentators like Ḏalhaṇa often made efforts to standardise, simplify or improve the language of the Nepalese version. Such changes include the standardising of spelling,<sup>35</sup> sandhi,<sup>36</sup> and verbal forms,<sup>37</sup> as well as interventions to simplify and clarify syntax.<sup>38</sup> These efforts often in-

35 For example, पत्ताङ्ग (SS 1.16.21) → पतङ्ग (1.16.29, Su 1938: 81). For more information on this, see footnote 36 to the translation.

36 For example, ०हस्तेन ऋजु (SS 1.16.2) → ०हस्तेन र्जु (1.16.3, Su 1938: 76).

37 For example, उन्नामयित्वा (SS 1.16.21) → प्रान्नम्य (1.16.29, Su 1938: 81); अवचूर्णयीत (SS 1.16.21) → उपहरेत् (1.16.29, Su 1938: 81).

38 For example, शोणितबहुत्वनिवेदनायां चान्यदेशविद्धमिति जानीयात् । निरुपद्रवता तदेशविद्धलिङ्गम् । (SS 1.16.3) → शोणितबहुत्वेन वेदनया चान्यदेशविद्धमिति जानीयात् । निरुपद्रवतया तदेशविद्धम् इति । (1.16.4, Su 1938: 76); आमतैलपरिषेकोपचरेत् (SS 1.16.6) → आमतैलेन परिषेचयेत् (1.16.7, Su 1938: 77); सुपरिगृहीतं (SS 1.16.10) → सुपरिगृहीतं च कृत्वा (1.16.15, Su 1938: 78); अनेन (SS 1.16.15) → स्वहे-नैतेन (1.16.20, Su 1938: 79).

volved splitting compounds.<sup>39</sup> In some instances, these changes improved the grammar,<sup>40</sup> or altered the meaning.<sup>41</sup> However, some prefixes of verbal forms,<sup>42</sup> case endings,<sup>43</sup> and indeclinables were changed for less apparent reasons.<sup>44</sup> There is also a tendency to replace uncommon words with generic ones,<sup>45</sup> add indeclinables,<sup>46</sup> omit the verb “to be” at the end of sentences,<sup>47</sup> and introduce verses after a prose passage with the phrase भवति चात्र.<sup>48</sup>

## Technical Terms

There is evidence of standardising and altering technical terminology in versions of the *Suśrutasamhitā* subsequent the Nepalese one. Two examples of this in *Suśrutasamhitā* 1.16 are the terms for “joins” (बन्ध) and “a slice of flesh” (वध). The Nepalese version uses three terms for “joining” splits in the ear flaps and the flesh of nose (बन्ध, सन्धान, सन्धि). Redactors of subsequent versions appear to have tried to standardise this terminology by replacing सन्धान and सन्धि with बन्ध in prose passages.<sup>49</sup> However, the use of the term सन्धान was retained in verses, perhaps because of the metrical challenges of making such a change or perhaps because the verses had greater

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- 39 For example, यदच्छाविद्धायां सिरायाम् (SS 1.16.4) → यदच्छया विद्धासु सिरासु (1.16.5, Su 1938: 76); धान्याष्टकपालचूर्ण (SS 1.16.10) → धान्याष्टुं कपालचूर्ण (1.16.20, Su 1938: 78).
- 40 For example, सुरामण्डकीरम् (SS 1.16.10) → सुरामण्डं कीरम् (1.16.15, Su 1938: 78).
- 41 For example, क्षीणाल्पमांसः (SS 1.16.12) → क्षीणोऽल्पमांसः (1.16.17, Su 1938: 79).
- 42 For example, सम्वर्द्धितः (SS 1.16.8) → विवर्द्धितः (1.16.9, Su 1938: 77); निवेश्य (SS 1.16.10) → सन्निवेश्य (1.16.15, Su 1938: 78); अवव्य (SS 1.16.10) → च वद्धा (1.16.15, Su 1938: 78).
- 43 For example, मासे (SS 1.16.2) → मासि (1.16.3, Su 1938: 76).
- 44 For example, अपि (SS 1.16.13) → वा (1.16.18, Su 1938: 79); च (SS 1.16.16) → तु (1.16.23, Su 1938: 79); तु (SS 1.16.18) → च (1.16.25, Su 1938: 80).
- 45 For example, ब्रक्षयेत् (SS 1.16.15) → योजयेत् (1.16.20, Su 1938: 79); नद्येत् (SS 1.16.21) → बद्धा (1.16.29, Su 1938: 81).
- 46 For example, [absent] (SS 1.16.6) → च (1.16.7, Su 1938: 77); [absent] (SS 1.16.10) → तत्र (1.16.15, Su 1938: 78); [absent] (SS 1.16.12) → अपि (1.16.17, Su 1938: 79).
- 47 The words भवति or भवन्ति are omitted four times in Dalhana’s version (1.16.10 (twice), 1.16.17 and 1.16.18 (Su 1938: 77, 79)).
- 48 For example, [absent] (SS 1.16.11) → भवति चात्र (1.16.16, Su 1938: 79).
- 49 For example, पञ्चदशसन्धानाकृतयः (SS 1.16.9) → पञ्चदशबन्धाकृतयः (see 1.16.10 (Su 1938: 77)); दशकर्णसन्धिविकल्पाः (SS 1.16.9) → कर्णबन्धविकल्पाः (see 1.16.10 (Su 1938: 77))

traditional authority. Also, the names of joins which incorporate सन्धान and सन्धि remained the same.<sup>50</sup>

The Nepalese version contains the rather obscure term वध्र for the slice of flesh that a surgeon cuts from the cheek in order to construct a new nose.<sup>51</sup> Modern dictionaries define वध्र as a leather strap or a slice of bacon,<sup>52</sup> the latter of which is more indicative of its meaning in the Nepalese version. This word was written out of subsequent versions,<sup>53</sup> and it was not mentioned as an alternative reading by either Cakrapāṇidatta or Dalhana, which suggests that its use and meaning may not have been known to them. However, वध्र was used by the author of the *Aṣṭāṅgahṛdayasamhitā* in the context of rhinoplasty, so it likely to be the correct reading in the Nepalese version.<sup>54</sup>

## Augmenting the Text

Apart from adding whole passages and verses (as seen in Figure 2.3), redactors of subsequent versions augmented the text by expanding existing compounds and inserting new compounds and words. Within the microcosm of 1.16, adjectives and adverbs were inserted to clarify statements,<sup>55</sup> and phrases added to elaborate on diseases and treatments.<sup>56</sup> In particular, the characteristics and number of symptoms of a disease, as well as their reasons for arising, tend to increase in subsequent versions. For example, the Nepalese version (SS 1.16.5) said that the wick in a newly

<sup>50</sup> These names are नेमीसन्धानक, कपाटसन्धिक, and अर्धकपाटसन्धिक in SS 1.16.9 (cf. 1.16.10 ([Su 1938: 77](#))).

<sup>51</sup> SS 1.16.20 and 23.

<sup>52</sup> [Apte: 1385](#); [MW: 917](#).

<sup>53</sup> वध्रम् (SS 1.16.20) → बद्धम् (SS 1.16.28, [Su 1938: 81](#)) and तद्वप्तशेषं (SS 1.16.23) → तद्वप्तशेषं (SS 1.16.31, [Su 1938: 81](#)).

<sup>54</sup> Utt.18.62 ([Ah 1939: 841](#)). This may suggest some independence between the text of the *Suśrutasamhitā* as transmitted to its direct commentators and as transmitted to Vāgbhaṭa. The word वध्र is old, occurring, also in the form वध्र॑, from the *Atharvaveda* onwards ([Mayrhofer 1986–2001: v. 2, 521–522](#)).

<sup>55</sup> For example, छिद्रे (1.16.2, [Su 1938: 76](#)) → छिद्र आदित्यकरावभासिते (1.16.3, [Su 1938: 76](#)); [absent] (1.16.2) → शनैः शनैः (1.16.3); [absent] (SS 1.16.3) → आश्य (1.16.5, [Su 1938: 77](#)).

<sup>56</sup> For example, घात्यङ्के (SS 1.16.2) → घात्यङ्के कुमारधराङ्के वा (1.16.3); [absent] (SS 1.16.2) → बालकीडनकैः प्रलोभ्य (1.16.3); [absent] (SS 1.16.3) → पिचुवर्ति प्रवेशयेत् (1.16.5).

pierced ear should be removed because of aggravated humours or a culpable piercing whereas the version known to Dalhaṇa (1.16.6 ([Su 1938: 77](#))) included two further reasons, namely, because of piercing with a painful, crooked and unrecommended needle or because of a wick that is too thick. Some of the split ear flaps in Dalhaṇa's version have additional characteristics,<sup>57</sup> and a list of four symptoms associated with incurable joins in the Nepalese version (SS 1.16.19) was increased to six in Dalhaṇa's version (1.16.10 ([Su 1938: 77](#))). Also, models of classifying symptoms were introduced in subsequent versions. For example, the Nepalese version (SS 1.16.4) lists the symptoms of mistakenly piercing a duct in the ear whereas the version known to Dalhaṇa (1.16.5, [Su 1938: 76–77](#)) classifies these symptoms according to three ducts called कालिका, मर्मरिका and लोहितिका, which results in some repetition of the symptoms mentioned.<sup>58</sup>

## Transposing Words, Verses and Passages

A close comparison of the Nepalese version with the vulgate reveals changes in the order of words, sentences and verses. Examples of such transpositions occur in SS 1.16. In most cases, the changes in word order are insignificant and may be result of different preferences in syntax or even scribal eye-brain-hand miscommunication.<sup>59</sup> However, the transposition of verses and passages is usually the result of efforts at redacting the text to add new material. A good example of this is the transposition of SS 1.16.17 and SS 1.16.18 in the Nepalese version to 1.16.26 and 1.16.25,

<sup>57</sup> For example, पीठोपमपालिर्निर्विधिमः (1.16.9, [Su 1938: 77](#)) → पीठोपमपालिरुभयतः क्षीणपुत्रिकाश्रितो निर्विधिमः (1.16.10, [Su 1938: 77](#)); इतराल्पपालिः संक्षिप्तः (SS 1.16.9) → उत्सन्नपालिरितराल्पपालिः संक्षिप्तः (1.16.10); तनुविषमपालिः (SS 1.16.9) → तनुविषमाल्पपालिः (1.16.10).

<sup>58</sup> In Dalhaṇa's version (1.16.5, [Su 1938: 76–77](#)), the symptoms of fever and pain (ज्वर, वेदना) are repeated. This repetition does not occur in the Nepalese version. It is possible that this classification was not in the version of the *Suśrutasamhitā* known to Cakrapāṇidatta (1.16.4, [Su 1939: 126](#)) because he mentions that some read classifications of ducts at this point in the text and he cites verses from Bhoja on कालिका, मर्मरिका and लोहितिका, but he does not gloss or comment on the passage known to Dalhaṇa.

<sup>59</sup> For example, अपुस्थूल० (SS 1.16.9) → स्थूलाण्ज० (1.16.10, [Su 1938: 77](#)); तत्रैते दशकर्ण० (SS 1.16.9) → तत्र दशैते कर्ण० (1.16.10, [Su 1938: 77](#)); नातिगाढन्नातिशिथिलं सूत्रेणाववध्य (SS 1.16.9) → सूत्रेणानवगाढमनतिशिथिलं च वद्धा (1.16.10, [Su 1938: 77](#)); पूर्वन्दक्षिणं कुमारस्य वामङ्गन्यायाः | प्रतनुं सूच्या बहलमारया (SS 1.16.2) → प्रतनुं सूच्या बहलमारया। पूर्व दक्षिणं कुमारस्य वामङ्गन्यायाः (1.16.3, [Su 1938: 76](#)).

respectively, in Ḑalhaṇa's. It seems that this transposition may have resulted from the insertion of new verses 1.16.23cd–24 and 1.16.26.1–19 in the latter.

## Redacting Recipes and Elaborating on Treatments

Some of the additional text in subsequent versions of the *Suśrutasaṃhitā* introduces new ingredients in recipes and different procedures in treatments. In many instances, the new material merely clarifies or elaborates on the original but sometimes it changes the recipe or treatment significantly. An example of a suppletion that clarifies the text of the Nepalese version can be seen in 1.16.3 of Ḑalhaṇa's version (Su 1938: 76), which contains a statement that the physician should insert a wick of cotton after the ear has been pierced.<sup>60</sup> This statement anticipates the instructions in the Nepalese version (SS 1.16.5–6) on removing the wick because of aggravated humours and replacing the wick with a thicker one every three days. In this case, the additional statement of Ḑalhaṇa's version elucidates the role of the wick in the procedure of piercing the ear.

A similar clarification occurs in Ḑalhaṇa's version at 1.16.18 (Su 1938: 70),<sup>61</sup> which reiterates the cure for an ear tainted by a humour that was described earlier in 1.16.7.<sup>62</sup> The reiteration is quite apt because it follows a passage that outlines the various symptoms of ear disease arising from each of the three humours.<sup>63</sup> The author of the Nepalese version probably assumed that, after reading SS 1.16.12, the reader would refer back to SS 1.16.6 for the cure of an ear affected by a humour. However, in Ḑalhaṇa's version, the treatment is reiterated.

In Ḑalhaṇa's version of 1.16, there are two instances in which ingredients were added to recipes of medicines in the Nepalese version. The first is the recipe of an ointment that should be applied to a pierced ear that has not healed. In Ḑalhaṇa's version, the recipe was rewritten to include sesame seeds.<sup>64</sup> A more significant change occurs in another recipe for an admixture of an oil that is supposed to be rubbed into a healthy ear to

<sup>60</sup> For example, [absent] (SS 1.16.2) → पिचुवर्ति प्रवेशयेत् (1.16.3, Su 1938: 76).

<sup>61</sup> Corresponding to SS 1.16.13 in the Nepalese version, lines 50–51 of the edition.

<sup>62</sup> SS 1.16.6 in the Nepalese version, lines 13–14 of the edition.

<sup>63</sup> Ḑalhaṇa 1.16.17 (Su 1938: 79), corresponding to Nepalese SS 1.16.12, lines 46–49 of the edition.

<sup>64</sup> Nepalese version SS 1.16.5 (lines 11–12): यवमधुकमञ्जिष्ठागन्धवहस्तमूलैर्मधुघृतप्रगाढैरालेपयेत्

enlarge it. Ḏalhaṇa's version of the admixture has five additional ingredients, namely, *prickly chaff-flower*, *Withania*, *milk-white*, *sweet plants* and *Indian ipecac*.<sup>65</sup> It also has *beggarweed* instead of *Indian kudzu*.<sup>66</sup>

The general tendency in redacting a recipe from the Nepalese version was to preserve most ingredients of the original and to add new ones.

## Comparative therapeutics

For at least two reasons, it is interesting to compare the text materials of the *Suśrutasamhitā* 1.16 with parallel materials found in other texts, including the *Carakasamhitā*, *Aṣṭāṅgasānigraha*, and *Aṣṭāṅgahṛdayasamhitā*. The latter two works, both ascribed to Vāgbhaṭa, can safely be dated to a period after the composition of the *Suśrutasamhitā* but before the commentator Ḏalhaṇa, thus throwing light on a period of development for which witnesses are limited and also broadly the period at which the Nepalese version was current. Secondly, the manner in which Vāgbhaṭa's works incorporate and modify materials from the *Suśrutasamhitā* can help us to understand how recipes and therapies evolved within specific lines of textual transmission.

The materials presented in *Suśrutasamhitā* 1.16 are parallel to those in two chapters of the *Aṣṭāṅgasānigraha*, namely *Uttarasthāna*, chapters 1 and 22, titled “*bālopacaraṇīya*” and “*karṇarogapratiṣedha*,” and *Aṣṭāṅgahṛdayasamhitā*, *Uttarasthāna* 1 and 18 with the same chapter names.<sup>67</sup>

First, let us return to the comments on the insertion of a wick that were mentioned above (p.23). The Nepalese version says nothing, while Ḏalhaṇa's version says “one should insert a cloth wick” (पिचुवर्ति प्रवेशयेत्). A little later, both versions say, “one should remove the wick”.<sup>68</sup> It seems likely that the editor of Ḏalhaṇa's version added the initial phrase about

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which become, in Ḏalhaṇa 1.16.7 (*Su* 1938:77): मधुकैरण्डमूलमञ्जिष्ठायवतिलकल्कैर्मधुघृतप्रगादैरालेपयेत्.

65 Ḏalhaṇa's version 1.16.7 (*Su* 1938:77).

66 Nepalese version SS 1.16.14 (lines 52–54): अर्कालर्कबलातिवलानन्ताविदारीमधुकजलशूकप्रतिवापन्तैलम्पाचयित्वा which become, in Ḏalhaṇa 1.16.19 (*Su* 1938:79): अर्कालर्कबलातिवलानन्तापामागार्धगन्धाविदारिगन्धाक्षीरशुक्राजलशूकमधुरवर्गपयस्याप्रतिवापं तैलम्बा पाचयित्वा.

67 *As* 1980: 619–629 and 734–744 and *Ah* 1939: 777–781 and 837–841, respectively.

68 तत्र वर्त्तिमपहृत्य in the Nepalese version (line 11), and the less clear तत्र वर्त्तिमपहृत्य in Ḏalhaṇa's version (1.16.6 (*Su* 1938:77)).

inserting the wick because it seemed necessary to say that the wick was applied before being removed. The older Nepalese version seems slightly less coherent on this point, but is perhaps represents an earlier recension on the principle of *lectio difficilior potior*. Both the *Aṣṭāṅgasāṅgraha* and the *Aṣṭāṅgahṛdayasaṁhitā* describe first inserting a thread in the pierced earlobe and subsequently replacing it every third day.<sup>69</sup> In this respect, they agree with Ḏalhaṇa's version.

Secondly, it is interesting to consider again the recipe prescribed to treat the vitiation of humours in the pierced ear, mentioned above. A slightly modified recipe is found in the *Aṣṭāṅgasāṅgraha* 6.1.63 (As 1980: 626), but the same is not present in *Aṣṭāṅgahṛdayasaṁhitā*. As pointed out above, Ḏalhaṇa's version adds a paste of sesame seeds (तिलकल्क) to the recipe attested by the Nepalese version. In the parallel version of recipe found in the printed editions of *Aṣṭāṅgasāṅgraha*, honey (मधु) is missing, but ghee (आज्ज्य) is found. However, when checking the manuscripts of the *Aṣṭāṅgasāṅgraha*, one of them reads आचैः instead of आञ्जैः(यवैरण्डजटायष्टीमञ्जिष्ठाज्यैः प्रलेपयेत्).<sup>70</sup> Interestingly, the paste of sesame seeds (तिलकल्क) of Ḏalhaṇa's version is not present in the *Aṣṭāṅgasāṅgraha* and is replaced by जटा, which is most probably spikenard.

Since the paste of sesame seeds is the main differentiating factor between the recipe versions attested by the Nepalese version and Ḏalhaṇa's version, a general review of the contexts of its use in the major texts may be enlightening. References for the paste of sesame seeds are found in the texts shown in Table 2.1. Among them, references with the

<i>Text</i>	<i>Instances of sesame seed paste</i>
<i>Carakasaṁhitā</i>	6
<i>Suśrutasamhitā</i>	11
<i>Aṣṭāṅgasāṅgraha</i>	16
<i>Aṣṭāṅgahṛdayasaṁhitā</i>	4

Table 2.1: Sesame seed paste (तिलकल्क) in different texts.

combination of the paste of sesame seeds, ghee and honey are not rare either, with four instances each in *Suśrutasamhitā* and *Aṣṭāṅgasāṅgraha*

69 6.1.58 (As 1980: 626) and 6.1.36 (Ah 1939: 780) respectively.

70 MS Mumbai, Asiatic Society 162, catalogue no. BD 263/1–6

and two instances in *Aṣṭāṅgahṛdayasaṁhitā*. A combination of the paste of sesame seeds, ghee and honey has also been specifically quoted as a general healing recipe.<sup>71</sup>

Another matter of interest is the combination of ghee and honey. We find many instances where this unique combination alone or in combination with other drugs is used in a variety of clinical contexts including those prescribed for the healing of ulcers or surgical wounds.<sup>72</sup>

This material evidence points to the general trend that medicines in the older Nepalese version of the *Suśrutasamhitā* present a central core recipe, consisting of a few drugs, that develops with ever-increasing complexity in the more recent version of Dalhaṇa and later authors.

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<sup>71</sup> E.g., *Suśrutasamhitā* 1.11.22ab ([Su 1938: 49](#)), *Aṣṭāṅgasaṅgraha* 1.38.21 ([As 1980: 249–250](#)) and *Aṣṭāṅgahṛdayasaṁhitā* 1.30.34 ([Ah 1939: 357](#)).

<sup>72</sup> E.g., *Aṣṭāṅgasaṅgraha* 1.37.30 ([As 1980: 246](#)) for क्षतकण्ठ and *Aṣṭāṅgasaṅgraha* 4.17.22 ([As 1980: 517](#)) for healing of the surgical wound in उदररोग.

## 3 The Printed Editions

The careful survey of printed editions of the *Suśrutasaṃhitā* by Meulenbeld lists no fewer than 44 entries.<sup>1</sup> 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 began with Hessler's Latin translation in 1844 and continue up to the present in scores of publications in many languages.<sup>2</sup>

### The vulgate

The great ayurvedic scholar Yādavaśarman Trivikrama Ācārya produced three successive editions of the *Suśrutasaṃhitā* with the commentary of Ḏalhaṇa, 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.<sup>3</sup> 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.<sup>4</sup> These sources were described by Ācārya as follows; we provide an overview in Table 3.1.

### The sources of the 1915 edition

- 1 Calcutta, Royal Asiatic Society. Covers the *sūtra*, *nidāna*, *sārīra* and *kalpa sthānas*.

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<sup>1</sup> [HIML](#): IIB, 311–314.

<sup>2</sup> E.g., Zysk 1984; [HIML](#): IIB, 314–315.

<sup>3</sup> See also the studies of these editions by Klebanov (2021a:§1.2) and Wujastyk (2013b:143–144).

<sup>4</sup> The following account is paraphrased from Y. T. Ācārya and N. R. Ācārya's own account of their sources ([Su](#) 1938: 22).

- 2 Jaipur, Pandit Gaṅgādharabhaṭṭāśarman, lecturer at the Royal Sanskrit University. Covers the *cikitsāsthāna* and the *uttaratatantra*.
- 3 Bundi, my great friend the royal physician Paṇḍī. Śrīprasādaśarman  
Covers the *uttaratatantra*.

### The sources of the 1931 edition

- 1 Vārāṇasī, professor of literature, the great Gaurīnāthapāṭhaka. With the *Nibandhasaṅgraha*. Covers the *nidānasthāna* and *uttaratatantra*.
- 2 Ahmedabad. My friend Sva. Vā. Vaidya Raṇachodālāla Motīlālaśarman. With the *Nibandhasaṅgraha*. Covers the *śārīrasthāna*.
- 3 From the personal library of my great friend Sva. Vā. Vaidya Murāra-jīśarman. Extremely old. No commentary. Covers the *śārīrasthāna*.
- 4 Puṇe, BORI library. With the *Nibandhasaṅgraha*. Covers the *śārīrasthāna*.<sup>5</sup>
- 5 Puṇe, BORI library. With the *Nibandhasaṅgraha*. Complete. With some damaged folia.
- 6 Bombay, Asiatic Society. Incomplete.<sup>6</sup>
- 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 *Sūśrutasandīpanabhāṣya* by Professor Hārāṇacandra Cakravārtti. Complete work. This is the 1910 Calcutta edition numbered “t” by Meulenbeld.<sup>7</sup>
- 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.<sup>8</sup>

### The sources of the 1938 edition

- 1 Gwalior, from the library of my great friend Paṇḍī. Rāmeśvaraśāstrin Śukla. Covers the *sūtra*, *nidāna*, *śārīra*, *cikitsā* and *kalpasthānas*.

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

6 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 *Nibandhasaṅgraha*. The first covers only the *śārīrasthāna*; the second may be complete, but Velankar calls it only “disorderly.”

7 HIML: IB, 312; Bhaṭṭācārya 1910–7.

8 HIML: IB, 311; Sena et al. 1886–93.

<i>edition</i>	1915			1931						1938					
<i>source</i>	1	2	3	1	2	3	4	5	6	7	8	9	1	2	3
<i>sthāna</i>															
<i>sū.</i>	●						●	?		○	○	†	●		●
<i>ni.</i>	●			●			●	?		○			●	●	●
<i>śā.</i>	●			●	●	●	●	?		○			●	●	●
<i>ci.</i>		●					●	?	●	○			●		●
<i>ka.</i>	●						●	?		○			●		
<i>utt.</i>		●	●	●			●	?		○				●	††

† Covers chapters 1–43 only. †† Covers chapters 1–9 only.

Table 3.1: The sources of Yādavaśarman T. Ācārya’s three editions: manuscript coverage (●) and print coverage (○).

- 2 Bikaner, from the library of the Royal Palace, supplied by Paṇ. Candraśekharasāstrin. Contains the commentary *Nyāyacandrikāpañjikāvyākhyā* by Gayadāsa. Covers the *nidānasthāna*. This is almost certainly MS Bikaner Anup 4390.<sup>9</sup>
  - 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 Paṇ Nityānandaśarman Joṣī 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 ता for तालपत्रपुस्तके.

## Evaluation

Estimates show that there are approximately 230 extant manuscript witnesses for the *Suśrutasaṃhitā*.<sup>10</sup> Although most of these manuscripts cover only parts of the whole work, they amount to approximately twenty times the evidence that was used by Ācārya for his vulgate editions.

<sup>9</sup> See Dominik Wujastyk, “MS Bīkāner AnupLib 4390.” *Pandit*. <<http://panditproject.org/entity/108068/manuscript>>.

<sup>10</sup> This figure is arrived at by summing the MSS mentioned by Raghavan et al. (NCC:v. 39, 373–375) and in the NGMCP. The real figure could be many scores higher. Cf. the overview at Wujastyk, SKSEC Team, et al. 2020.

While the descriptions provided by Ācārya of his source materials seems at first to be moderately comprehensive, Table 3.1 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 witnesses. 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 *Suśrutasamhitā*, 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 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 *Kāśyapasamhitā* allow us to identify this manuscript as MS Kathmandu NAK 5-333.<sup>11</sup> The editors of the vulgate, Y. T. Ācārya and N. R. Ācārya, stated that this manuscript covered up to the ninth chapter of the *cikitsāsthāna*, but in fact it covers the whole work.<sup>12</sup> 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.

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<sup>11</sup> Su 1938: 22; Hemarāja Śarman 1938: 56–57. Discussed by Klebanov (2021a: §1.1, 2.3). See also HIML: IIB, 25–41; Wujastyk 2003: 161–169.

<sup>12</sup> Su 1938: 22.

## The 1939 edition

In 1939, Yādavaśarman Trivikrama Ācārya and Nandakiśora Śarman co-edited an edition of the *sūtrasthāna* of the *Suśrutasamhitā* that was published by the Swami Laxmi Ram ayurvedic centre in Jaipur, and printed at the famous Nirṇayasāgara Press in Mumbai (see Fig. 3.1).<sup>13</sup> 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 मु for मुद्रित.<sup>14</sup>
2. A manuscript in the India Office Library library provided through the Bhandarkar Oriental Research Institute in Pune.<sup>15</sup> This manuscript covered the *Bhānumatī* up to the end of the *sūtrasthāna*. The siglum was ह for हस्तलिखित.<sup>16</sup>

### For the Suśrutasamhitā

1. A palm leaf manuscript from Hemarājaśarman's personal library.<sup>17</sup> The siglum was ता for ताडपत्र.
2. His own published edition. The siglum was ड for डल्हणसंमतः पाठः.<sup>18</sup>

<sup>13</sup> [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 ([2021b:7](#)). On the Swami Laxmi Ram centre, see Hofer [2007](#)

<sup>14</sup> 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.

<sup>15</sup> At this time, manuscripts from Britain were routinely lent to scholars in India and vice versa.

<sup>16</sup> Wujastyk [2021 b](#); MS London BL H. T. Colebrooke 908 ([PanditProject #109978](#), consulted on July 03, 2021).

<sup>17</sup> I.e., MS Kathmandu NAK 5-333.

<sup>18</sup> [Su 1938](#). It is noteworthy that Ācārya refers to his 1938 edition as representing “the Dalhaṇa version.”

१ अध्यायः ]

सुश्रुतसंहिता

११

चरके—“लभोपयो हि शस्तानां रसादीनां रसायनम्” ( च. चि. अ. १ पा. १ ) । पारिशेष्याद्वाजीकरणतत्त्वम् । अवाजिनं वाजीदुर्बेन्ति येन तद्वाजीकरणम् । ‘अन्वेषामपि दृश्यते’ ( पा. अ. ६।३।१३७ ) इति शीर्घलम् । येन वाऽत्यर्थं शीषु व्यज्यते तद्वाजी-करणम् । तदुक्तं चरके—“येन नारीषु सामर्थ्यं वाजिवलभते नरः । व्रजेचाप्यधिकं येन वाजीकरणमेव तद्” ( च. चि. अ. २, पा. ४ ) इति ॥ ५ ॥

अथास्य प्रत्येकाङ्गलक्षणसमासः—तत्र, शल्यं नाम विविधरुणकाष्ठ-पाषाणपांशुलोहलोष्टास्थिवालनखपूयास्त्रावदुष्ट्रवणान्तर्गंभेशल्योद्धरणा-र्थं षष्ठ्या विधानैः, यच्चशास्त्रक्षाराद्विप्रणिधानवणविनिश्चयार्थं च; शा-लाक्यं नामोर्ध्वंजनुगतानां श्रवणनयनवदनप्राणादिसंभितानां व्याधी-नामुपशमनार्थं; कायचिकित्सा नाम सर्वाङ्गसंभितानां व्याधीनां ज्वर-रक्तपित्तशोषोन्मादापस्मारकुष्ठमेहातिसारादीनामुपशमनार्थं; भूत-विद्या नाम देहौसुरगन्धर्वयक्षरक्षःपितृपिशाचनैग्रहाद्युपसृप्तचेतसा-शान्तिकर्मवलिहरणादिग्रहोपशमनार्थं; कौमारभूत्यं नाम कुमारभर-णधात्रीक्षीरदोपसंशोधनार्थं दुष्टस्तन्यग्रहसमुत्थिनां च व्याधीनामुप-शमनार्थम् ; अगदतत्रं नाम सर्पकीटलूतामूषकादिदृष्टविषव्यक्षनार्थं विविधविर्खंसंयोगोपशमनार्थं च; रसायनतत्रं नाम वयःश्शापनमायुर्मे-धावलकरणं रोगापहरणसमर्थं च; वाजीकरणतत्रं नामावपदुष्टक्षीणशु-ष्करेतसामाप्यायेनप्रसादोपचयजननिसितं प्रदृष्टं जननार्थं च ॥ ६ ॥

शल्याङ्गविशेषात् ज्ञातुं प्रतिलक्षणं संक्षेपेणाह—अथायेत्यादि । एकमेकमहें प्रति लक्ष-णानां समासः संक्षेपः प्रत्येकाङ्गलक्षणसमासः । तृणादीनां, तथा दुष्ट्रवणाय, तथाऽन्तर्गत(भैशल्य)स्य उद्धरणार्थमिति प्रत्येकमुद्धरणशब्दः संवृद्धते । दुष्ट्रवणस्यान्तस्तुणाद्य-हरणार्थमित्यन्ते । षष्ठ्या विधानैरिति द्वितीयोक्तरपत्रपादैरक्षाविधानान्तैः; इस्तंभूतलक्षणे तृतीया । जनु ग्रीवामूलं, जनुण ऊर्ध्वमूर्धजनु । प्राणादीत्यादिग्रहणाच्छरःकपालादिग्रह-णम् । उत्तरतत्रे प्रतिपादितकमप्राप्त्या ज्वरानन्तरमतीसारः पठितः, तस्यान्ते पाठेऽतिसारस्य सर्वाङ्गीणदोपारव्यत्वात्, अन्येपामपि तन्मध्यपाठेन सर्वाङ्गीणदोपारव्यत्वलप्रतिपादना-व्यतिक्रमं चदन्ति । शान्तिकर्म वलिहरणादिना ग्रहाणां देवादीनामुपशमो यस्तदर्थः; यदि वा ग्रहणं ग्रहो देवानामावेचास्तुदुपशमार्थम् । दुष्टस्तन्यग्रहसमुत्थितानामिति दुष्टस्तन्येन

१ ‘सर्वशरीरावस्थितानां शीर्घादीनांमुपशमकरणार्थं ज्वरशोफगुच्छरक्तपित्तोन्मादापसार-प्रमेहादीसारादीनां च’ इति ता. । २ ‘देवदानव०’ इति ता. । ३ ‘विनायकनागग्रहोप-सृष्ट्येतसा’ इति ता. । ४ ‘विषवेगोपशमनार्थं’ इति ता. । ५ ‘शुक्राप्यायन०’ इति ता. । ६ ‘शुणादीनां शल्यान्तानां’ इति मु. ७ ‘अन्ये तु तस्यान्ते पाठेन’ इति पा० । ८ ‘ग्रहणाद०’ इति मु. ।

Figure 3.1: A page of the 1939 *Bhānumati* edition, showing the variant readings in the footnotes.

3. Hārāṇacandra Cakravarti's published edition with his own commentary.<sup>19</sup> The siglum was इ.

## 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*.<sup>20</sup> 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 Ḏalhaṇa. In spite of this, the editors largely reproduced the root text of Ḏalhaṇa's version. 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 his readings at the level of individual words and sentences (see Figure 3.1).

Ācārya noted in his introduction that the manuscripts containing Ḏalhaṇa's commentary all came together with the root-text of the *Suśrutasaṃhitā*, and thus the main *Suśrutasaṃhitā* text reflected the readings chosen by Ḏalhaṇa. 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 Ḏalhaṇa. In many of these cases it was hard to infer what readings 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.<sup>21</sup>

There is compelling evidence that Cakrapāṇidatta's *Bhānumatī* commentary once covered the whole text of the *Suśrutasaṃhitā*.<sup>22</sup> 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

<sup>19</sup> Bhaṭṭācārya 1910–7.

<sup>20</sup> HIML: IA, 374–375 and IB, 495–496.

<sup>21</sup> Su 1939: 3–4. See discussion by Klebanov (2021b: 7).

<sup>22</sup> HIML: IA, 375.

informed of a complete copy of the work in a personal manuscript collection in Benares.<sup>23</sup>

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<sup>23</sup> Cordier 1903: 332.

## 4 The Manuscripts

Our edition is based on the textual evidence of three manuscripts. All three were produced in the Kathmandu Valley, Nepal and preserved in libraries there. Klebanov (2021a: §2.1) provided a comprehensive description of the individual manuscripts, quotes and translates their colophons and thoroughly examines various problems involved in their interpretation.<sup>1</sup> That is why we will present only the key data essential for the study of our edition in the present book. In referring to the manuscripts, we use the sigla K, N and H, which correspond to the initial letters in the names of the libraries and collection where the respective bundles were discovered.

**MS Kathmandu KL 699, siglum K** This manuscript has been preserved at the Kaiser Shamsher (KL) library in Kathmandu, accession number KL 699.<sup>2</sup> See Fig. 4.1. It was microfilmed and catalogued by the NGMPP/ NGMCP as C 80-7.<sup>3</sup> The MS comprises 152 palm-leaf folios that originally belonged to several different codicological units written by different scribes.<sup>4</sup> The folios are 53.5 × 4.4 cm in size and have two string holes. The text is written in the so-called transitional Gupta script, with six to eight lines per folio.<sup>5</sup> The MS is incomplete and contains a large part of the *Suśrutasamhitā* as well as the *Sauśrutanighaṇṭu*.<sup>6</sup> The date stated in the colophon at the end of the compendium is verified for Sunday, April 13, 878 ce. However, physical damage to the manuscript folio containing the colophon means

<sup>1</sup> See also Harimoto 2010; 2011; 2014.

<sup>2</sup> See also the description by Klebanov (2021a: §2.1).

<sup>3</sup> See [http://catalogue-old.ngmcp.uni-hamburg.de/mediawiki/index.php/C\\_80-7\\_Suśrutasamhitā](http://catalogue-old.ngmcp.uni-hamburg.de/mediawiki/index.php/C_80-7_Suśrutasamhitā) (accessed on October 22, 2021).

<sup>4</sup> Bhattacharai (2020: 46) and Klebanov (2021a: 11) agree that four to five scribes were involved in the manuscript's production.

<sup>5</sup> Codicological features of the manuscript, such as the layout, peculiarities of the script, various ornamental and text-dividing symbols and many more, were scrutinized in Bhattacharai (2020).

<sup>6</sup> Klebanov (2021a: 11) provided a detailed description of the content.



Figure 4.1: Folio 17r of MS Kathmandu Kaiser Library 699.

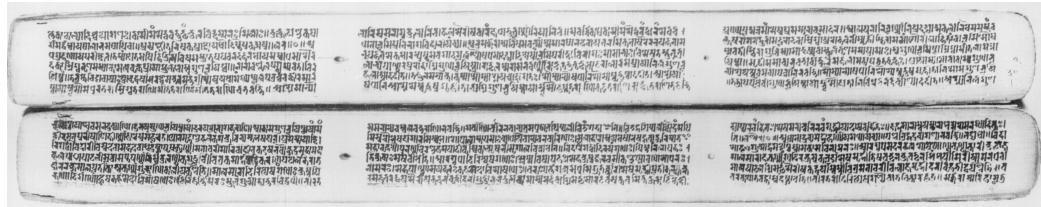


Figure 4.2: Folios 30r and 30v of MS Kathmandu NAK 1-1079.

that it is no longer possible to interpret it definitively. In particular, two persons are mentioned in the concluding remarks, someone called Śrī Harṣacandra and Vaidya Vasuvarman, but their roles are not perfectly clear. Klebanov (2021a: 16) thinks that the former,

...either sponsored the copying enterprise or wrote the manuscript himself, [and that he subsequently] donated it to Vaidya Vasuvarman on the condition that he (Vasuvarman) would study the text and explain it to others. The second condition was that the manuscript should remain in the family and not be given away either for sale or as a pawn. If the manuscript sat unused, it should be returned to Śrī Harṣacandra.<sup>7</sup>

**MS Kathmandu NAK 1-1079, siglum N** This MS is kept at the National Archives Kathmandu (NAK), under accession number 1-1079 क.<sup>8</sup> See Fig. 4.2. It was microfilmed twice by the NGMPP as A 45-5(1)

<sup>7</sup> Klebanov (2021a: 13–17) provides a translation and study of the colophon, as well as an exposition of different positions related to its interpretation.

<sup>8</sup> See also the description by Klebanov (2021a: §2.2).

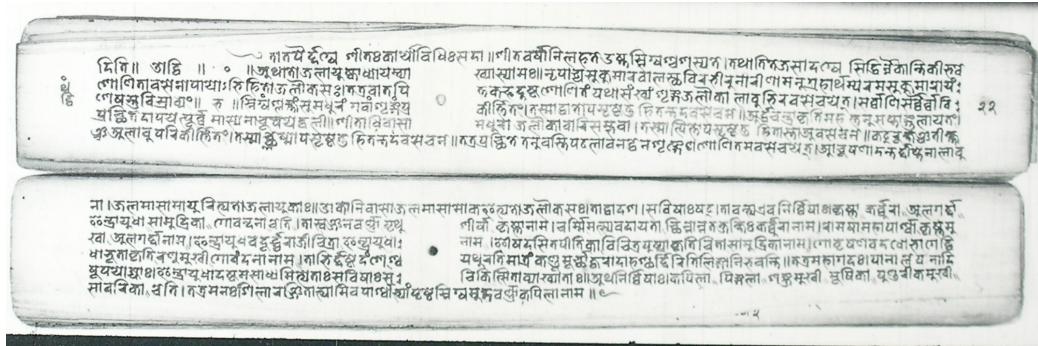


Figure 4.3: Folios 22v and 23r of MS Kathmandu National Archives 5-333.

and A 1267-11(2).<sup>9</sup> The MS comprises 65 palm-leaf folios, 56 × 5 cm in size, with two string holes each, and it is bundled together in a composite manuscript with at least one other medical work. The text is written in a variety of Newari script, with seven lines per folio on average. Although the text contained in the MS does not cover the entire *Suśrutasamhitā* and breaks off abruptly in the second chapter of the *śārīrasthāna*, the actual MS, as a codicological unit, appears complete, that is, no leaf seems to be missing from the originally unitary artefact. Based on paleographic considerations, the MS can be dated tentatively to the twelfth or thirteenth century.

**MS Kathmandu NAK 5-333, siglum H** This MS belonged to the historical collection of Hemarāja Śarman (fl. 1878–1953) and is currently kept at the NAK under accession number NAK 5-333.<sup>10</sup> See Fig. 4.3. It has been microfilmed twice by the NGMPP as B 29-19 and B 30-15, but the latter microfilm is incomplete.<sup>11</sup> The manuscript comprises 435 palm-leaf folios, 34 × 5 cm in size, with one string-hole left of centre. It is written in a type of Newari script that is more recent than that of N, with approximately six lines per folio. The MS is exceptionally well preserved. Most importantly for the present project, the MS supports

9 See [http://ngmcp.fdm.uni-hamburg.de/mediawiki/index.php/A\\_45-5\\_\(Suśrutasamhitā\)](http://ngmcp.fdm.uni-hamburg.de/mediawiki/index.php/A_45-5_(Suśrutasamhitā)) (accessed on October 22, 2021).

10 See also the description by Klebanov (2021a: §2.3).

11 See [http://ngmcp.fdm.uni-hamburg.de/mediawiki/index.php/B\\_29-19\\_Suśrutasamhitā](http://ngmcp.fdm.uni-hamburg.de/mediawiki/index.php/B_29-19_Suśrutasamhitā) (accessed on October 22, 2021).

the complete *Suśrutasamhitā* and the *Sauśrutanighaṇṭu*. The final colophon identifies the scribe of the MS as Vaidya Amarasiṁhaka, son of Kamaladatta, and states the date on which he concluded the copying of the text. Both reading the colophon, that is, deciphering the actual characters, and the interpretation of the concerned passage involve diverging opinions, all of which concur, however, in assigning the MS to the sixteenth century. Klebanov (2021a: 21–26) gave an analytical account of the views expressed in literature, considered further options, and proposed that the MS was completed on Sunday, July 29, 1543.

## Editorial Principles

### Method

The data for the critical edition comes from the witnesses of the Nepalese version, described above. Diplomatic transcriptions of SS 1.16 of these manuscripts have been created by researchers of the *Suśruta Project* according to a subset of TEI Guidelines that has been formulated by Charles Li and tailored for the Saktumiva platform.<sup>12</sup> MS Kathmandu NAK 5-333 was transcribed first because its script is relatively easy to read, the scans are clear, it is the most complete of the manuscript witnesses, and its text is extremely close to that of MS Kathmandu KL 699. Following that, MS Kathmandu KL 699 and MS Kathmandu NAK 1-1079 were transcribed.

The diplomatic transcriptions were uploaded to Li's manuscript collation platform called Saktumiva, chapter by chapter as they were completed.<sup>13</sup> An electronic edition of the vulgate of the *Suśrutasamhitā*, that was transcribed, without the commentaries, by Tsutomu Yamashita and Yasutaka Muroya on the basis of Ācārya's 1931 and 1938 Bombay editions has also been included on the Saktumiva platform and is available for collation.<sup>14</sup>

<sup>12</sup> See Wujastyk et al. 2021–3, The TEI Consortium 2010 and Li 2017–: “TEI Tagging”.

<sup>13</sup> See the Saktumiva interface Li 2017–.

<sup>14</sup> This electronic edition is also available on the SARIT website (Wujastyk, Pollock, et al. 2008–: sub “*Suśrutasamhitā*”). The version at Saktumiva has received several corrections and the intention is to merge these back into the SARIT edition eventually.

Saktumiva's collation function standardises punctuation and orthographic variants according to filters which can be turned off or on.<sup>15</sup> These filters enable the editors to ignore *dandas*, numbers and floral punctuation marks (*puṣpikā*) in the transcripts, as well as orthographic variants, such as ङ and ङ, certain germinated consonants, and *visarga* variants. On the basis of the automatic collation, Jason Birch created a provisional edition of SS.1.16, which the project's researchers read together at weekly seminars. Manuscript images were routinely checked to verify the transcripts, particularly when a reading was uncertain; the commentaries of Cakrapāṇidatta and Ḟalhaṇa were read, and variant readings reported by these commentators were included in notes to the edition. Also, various reference books were consulted, to elucidate the meaning of technical terms and identify relevant information in other medical works.<sup>16</sup>

An initial draft of the translation and many annotations were written by Wujastyk during the seminars as the Project researchers discussed the text's meaning. The transcripts, provisional edition and translation were uploaded to the project's repository at Github on a weekly basis.<sup>17</sup> Therefore, the project's work has been publicly available as it evolves. The software tools used in the project have been described on the project website.<sup>18</sup>

## Stemma

The data from transcripts collated by Saktumiva can be exported as a FASTA file and aligned according to characters, syllables or words by a program called Helayo.<sup>19</sup> The resulting NEXUS file can be read by phylogenetic software to build a stemmatic tree.<sup>20</sup> This procedure was done with transcripts of several chapters of the Nepalese witnesses, and the results confirmed the editors' preliminary stemmatic hypothesis that K and H are more closely related to one another than K and N.<sup>21</sup> Given

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<sup>15</sup> On the rationale for implementing text-critical principles as algorithms, see Li 2017 and Li 2018: §4.4.

<sup>16</sup> Particularly valuable reference resources included V. Jošī and N. H. Jošī (1968), Meulenbeld (HIML), and the literature on *materia medica* cited on pp. 89 ff. below.

<sup>17</sup> Wujastyk et al. 2021–3.

<sup>18</sup> Wujastyk et al. 2021b–b: “The toolbox”.

<sup>19</sup> Li 2022a.

<sup>20</sup> This process is discussed in greater detail by Li (2022b).

<sup>21</sup> See chapter 2 above for further discussion.

the early date of K and the small number of other surviving witnesses of the Nepalese version, the relationship between the manuscripts at our disposal is reasonably clear and, in the case of SS.1.16, the manuscript data was largely confined to N and H owing to a missing folio of K. Rather than have to assess numerous variant readings from a large number of witnesses, the challenge of editing has been to repair the text where it has become corrupt in the few witnesses available to us.

## The Edition and Apparatus

The critical edition of SS.1.16 in this article retains many of the peculiarities of MS Kathmandu KL 699 because the editors have endeavoured to present to the reader a hyparchetype of the text that was transmitted by this ninth-century manuscript. Therefore, the Sanskrit has been standardised as little as possible and, although the text has been corrected and repaired wherever it was corrupt in the witnesses, it has not been normalized or conventionalized to the extent of many modern editions of Sanskrit works.

The editors have assumed that the authors of the Nepalese *Suśrutasamhitā* were familiar with Pāṇinian Sanskrit and, although there are some non-standard spellings and grammatical forms in the text, there are very few instances of hyper-Sanskritization, Buddhist-Hybrid Sanskrit or Epic forms that would suggest that this assumption is unreasonable.<sup>22</sup> Therefore, the editors of SS.1.16 have opted to retain some perhaps unfamiliar features of the Sanskrit in MS Kathmandu KL 699 when they are grammatically correct. For example, in external *sandhi*, the class nasal is usually used at the end of a word instead of an *anusvāra* (e.g., 1.16.3, ऽवाचनन्धात्र्य०), although the *anusvāra* is sometimes used (1.16.15, उदकं धान्धास०). In most cases, the consonant following a रेफ is doubled, but this is not always the

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<sup>22</sup> On the contrary, the text of the *Suśrutasamhitā* sometimes retains legitimate Pāṇinian forms that are rare or unknown elsewhere in Sanskrit literature. For example, the term *kārmuka* “effective,” formed by P.5.1.103, is virtually unknown in classical Sanskrit, and is said even by the authors of the *Kāśikāvṛtti* to occur uniquely as an adjective describing a bow. Yet it occurs in both the *Suśrutasamhitā* (1.41.5 ([Su 1938: 182](#))) and the *Carakasamhitā* (1.26.13 ([Ca. 1941: 138](#))), describing “effective” drug substances. Cf. the observation by M. Deshpande ([1988: 118](#)) that other rare Pāṇinian usages in the early Sanskrit medical texts provide evidence that, “... in all likelihood there was a dialect of Sanskrit closer to Pāṇini’s time and region in which [such peculiar Pāṇinian usage existed]. This peculiarity did not exist in most other dialects of Sanskrit.”

case.<sup>23</sup> Since these inconsistencies seem inherent to the transmission of the text and may have even been authorial, the critical edition reflects them as they occur in K and, when the testimony of K is not available, the witness most similar to K, which is H.

The Nepalese manuscripts often have an *anusvāra* before a *dandā* at the end of a sentence or verse. Whether these *anusvāras* should be changed to the consonant म् is a moot question because there is no formal Pāṇinian concept of 'end-of-sentence' and his rules on *sandhi* are contingent on the close contact of sounds (*samhitā*).<sup>24</sup> However, it is reasonable to assume that at the end of a verse, paragraph or sentence the speakers would have paused for breath or thought, so *sandhi* should be applied, in which case a final *anusvāra* or class nasal of the following consonant is changed to म्. Nonetheless, this remains an assumption about how the text would be pronounced. Therefore, in a critical edition, inserting *dandas* and changing *anusvāras* to म् before them are subjective decisions by the editors. The scribal use of *dandas* and *anusvāras* in the Nepalese manuscripts can be seen in the digital edition if one switches off the filters for ignoring *dandas* and final *anusvāra* variants.

Unconventional spellings and grammatical forms have been retained and noted in the annotations to the translation. However, the editors have corrected scribal errors and repaired corruptions in the transmitted text with conjectures wherever possible. Therefore, although the edition retains many of the peculiarities of the Nepalese manuscripts, it is not a diplomatic transcript or a hybrid of diplomatic and critical editing because the features of the transmitted text have been retained or changed deliberately, and the reasons for doing so are given in either the introduction or, in more specific cases, the annotations to the translation.

## Digital Edition

The editors are producing both printed and digital editions of the Nepalese *Suśrutasamhitā*. Since the print and digital environments differ markedly,

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<sup>23</sup> Examples of the germination of consonants are कण्ठ (1.16.1 ff), मुहूर्त (1.16.2), पूर्व (1.16.2), गन्धर्व (1.16.5), ॐलौर् मधु० (1.16.5), वर्ति (1.16.6) and पुनर्जिघ्येत् (1.16.6). Examples where it does not occur in 1.16 are ॐार्थम् (1.16.8,19), कुर्यात् (1.16.16, 32), ॐपालिर्वल्लूर० (1.16.10); ॐपालिर्वयोजिमः (1.16.10) and दीर्घैक० (1.16.10).

<sup>24</sup> Pāṇini 1.4.109 परः सञ्चिकर्षः संहिता, *et passim*.

d **N E S K** m kumārasya vāmañ kanyāy  
 pratanum sūcyā bahalam ārayā ||2||

( A: tataḥ N, H: pratanū )  
 A: [ADD] picuvartim A: [OM]  
 A: praveśayet ||

Figure 4.4: The digital edition of SS.1.16.3

each edition has its own format.

Instructions for reading the digital edition have been provided by Li at [Saktumiva](#). In brief, you can generate the apparatus by choosing a base text and one or more of the other witnesses. You can also choose to hide or ignore in varying degrees TEI tags, punctuation and orthographical variants in the transcripts of the witnesses. On the right side of the text, the digital edition displays an apparatus that is negative in so far as the lemma and its witnesses are not included. This apparatus intelligently truncates variants where possible.

For example, as seen in Figure 4.4, the apparatus for the words *pratanum sūcyā bahalam ārayā* is on the right side of the display. This entry means that the editors have chosen to read *pratanum*, which the reader must infer is attested by K, whereas A has *tataḥ* and N and H *pratanū*. Witness A has added the word *picuvartim* after *tataḥ*, omitted *sūcyā bahalam*,<sup>25</sup> and has *praveśayet* instead of *ārayā*, which is attested by all of the Nepalese witnesses.

A popup on a dark background, as shown in Figure 4.4, displays the manuscript sigla for the witnesses that support the selected reading, which is labelled “NE” (“New Edition”). As seen in Figure 4.5, the positive apparatus of *pratanum sūcyā bahalam ārayā* appears in a pop-up window in which the lemma and variants are aligned according to letters, and the variations are highlighted in yellow. The positive apparatus can be expanded by highlighting one or more words, and even entire passages or verses, and clicking on the collapsed menu icon.

In both the negative and positive apparatuses of the digital edition, you must infer conjectures and corrections by the editors. Testimonia and notes are in the apparatus on the right side of the “provisional edition” text. They give an opportunity for the editors to provide scholarly commentary of various kinds, but the editors cannot write comments directly into the

<sup>25</sup> The omitted words are displayed by hovering the cursor over [OM] adjacent to A in the apparatus.

<b>SP:</b> pratanum	sūcyā bahalam ārayā	
A: tataḥ [ADD]	picuvartim [OM]	praveśayet
K: pratanum	sūcyā bahalam ārayā	
N: pratanū	sūcyā bahalam ārayā	
H: pratanū	sūcyā bahalam ārayā	

Figure 4.5: The witnesses to a selected passage of SS.1.16.3

textual apparatus itself, since it is constructed live each time the text is displayed.

The digital form of the edition is “soft,” in the sense that editorial work on the files that generate the critical text is potentially continuous, adding ever greater refinement and precision. And, especially, as more manuscript witnesses come to light and are transcribed, the edition is open to continuous enrichment.

## Printed Edition

The printed edition of SS.1.16 has four layers of footnotes. The first layer reports the witnesses that have been collated. Line numbers and lemmata have been used to identify the witnesses that have been collated for a particular section of the text, as seen in the following example.

१-७ अथातः – ०विद्वलिङ्गम् ] MSS K, H, and N

The above entry means that a textual passage beginning with अथातः on line 1 and ending with ०विद्वलिङ्गम् on line 7 is attested by manuscripts K, H and N. This layer also indicates passages that are missing or omitted in a particular witness.

The second layer of footnotes reports the variant readings of the Nepalese witnesses. This apparatus is negative, that is to say, only the testimony of the variant readings have been reported, and not that of the lemma. The following entry is an example of the apparatus’ syntax:

५ प्रतनुं ] प्रतनू N H

This entry means that on line five of the edition the editors have chosen to read प्रतनुं, instead of प्रतन्, which is attested by witnesses N and H. The reader can infer that प्रतनुं is attested by K because the first layer of footnotes indicates that K has been collated here. In prose passages, the lemmata and variants consist of corresponding words and, in verses, corresponding syllables. Emendations by the editors are indicated by the abbreviation *em.*, and omissions and suppletions in the witnesses are indicated by *om.* and *add.*, respectively. A wavy line under a letter means that it is unclear to the editors. Text deleted by a scribe is shown underscored by double lines, and the scribe's substitution is appended in quotation marks.

There are minor notational variations between the online digital edition and the printed edition presented here. For example, a scribal "crow's foot" mark (काकपद), often indicating a marginal insertion, is displayed in the digital edition as,

N: ane~~X~~ ]

and in print as

अनेन ] अने X N.

The third layer of footnotes contains the variant readings of the vulgate, which have been presented in the same format as the second layer. If a reading of the vulgate has been accepted by the editors against different readings in the Nepalese witnesses, the siglum for the vulgate (i.e., A) has been placed next to lemma in the second layer of footnotes.

The fourth layer of footnotes notes includes various testimonia and notes. The testimonia mainly consists of the variant readings noted by the commentators Cakrapāṇidatta and Dalhaṇa. Those known to Gayadāsa may be added in future publications. The notes include brief comments on certain emendations and editorial decisions. More elaborate discussions on such issues have been included in the annotations to the translation.

In the printed edition below, the numbering of passages has been adjusted to follow the text of the Nepalese version of the work. The numbering of the corresponding passages in the vulgate is presented in small digits in the right margin.

## 5 Critical edition of Sūtrasthāna 16

अथातः कर्णव्यधविधिं व्याख्यास्यामः ॥ १ ॥

1.16.1

रक्षाभूषणनिमित्तम्बालस्य कर्णो व्यधयेत्। तौ षष्ठे मासे सप्तमे वा शु-  
क्रपक्षे प्रशस्तेषु तिथिकरणमुहूर्तनक्षत्रेषु कृतमङ्गलस्वस्तिवाचनं<sup>१</sup> धात्र्य-  
ङ्के कुमारमुपवेश्याभिसान्त्वयमानो<sup>२</sup> भिषग्वामहस्तेनाकृष्य कर्णन्दैवकृते  
छिद्रे दक्षिणहस्तेन ऋजु विध्येत्। दक्षिणं कुमारस्य वामङ्गन्यायाः। प्रतनुं  
सूच्या बहलमारया ॥ २ ॥

1.16.3

Witnesses

१--८ अथातः--०विद्वलिङ्गम्] MSS K, H, and N

MS variants

१ व्याख्यास्यामः] व्या K. २ सप्तमे] om. N. ३ ०मङ्गलस्वस्तिवाचनं] A; ०मङ्गलं स्वस्तिवाचनं K, H, N. ३-४ धात्र्यङ्के] धात्र्यङ्के K. ४ कुमार] कुमारकम् N. ५ ऋजु] जुम् N H. ५ प्रतनुं] प्रतनू N H.

Variants from Su 1938

१ कर्णव्यधविधिं] कर्णव्यधबन्धविधिमध्यायं A. १ व्याख्यास्यामः] add. यथोवाच भगवान्धन्वन्तरिः॥ A. २ व्य-  
धयेत्] विध्येते A. २ मासे] मासि A. ३-४ धात्र्यङ्के] add. कुमारधराङ्के वा A. ४ मुपवेश्याभिसान्त्वयमानो] उपवेश्य वालकीडनकैः प्रलोभ्याभिसान्त्वयन् A. ४ कर्णन्] कर्ण A. ५ छिद्रे] छिद्र A. ५ छिद्रे] add. आदि-  
त्यकरावभासिते शनैः शनैर् A. ५ ऋजु] जु A. ५ विध्येत्] add. प्रतनुकं सूच्या बहलमारया A. ५ कन्यायाः] कुमार्याः A. ६ आरया] add. ततः पिचुवर्ति प्रवेशयेत्॥ A.

Notes

<sup>१</sup>The compound कृतमङ्गलस्वस्तिवाचनं is an emendation based on the similar text at 3.2.25 (Su 1938: 346).

<sup>२</sup>The ātmanepada participle is a permitted form, although the vulgate has the *parasmaipada*. Dalhaṇa, on 1.16.3 (Su 1938: 76), recorded the alternative reading भक्ष्यविशेषैर्वा before वालकी-डनकैः प्रलोभ्य in the vulgate.

शोणितबहुत्वेऽतिवेदनायां चान्यदेशविद्धमिति जानीयात्। निरुपद्रवता  
तदेशविद्धलिङ्गम् ॥ ३ ॥

1.16.4

१० तत्र यद्यच्छाविद्धायां सिरायामज्जेन ज्वरदाहश्यथुवेदनाग्रन्थिमन्या-  
स्तम्भापतानकशिरोग्रहकण्णशूलानि भवन्ति ॥ ४ ॥

1.16.5

दोषसमुदयादप्रशस्तव्यधाद्वा तत्र वर्त्तिमपहृत्य यवमधुकमञ्जिष्ठागन्ध-  
व्वहस्तमूलैर्मर्मधुघृतप्रगाढैरालेपयेत्। सुरूढश्वैनम्पुनर्विध्येत् ॥ ५ ॥ <sup>३</sup>

1.16.6

११ सम्यग्विद्धमामतैलपरिषेकेणोपचरेत् । अ्यहात्यहाद्वर्त्ति स्थूलतरीङ्  
कुर्वीत परिषेकश्च तमेव ॥ ६ ॥

1.16.7

१२ अथ व्यपगतदोषोपद्रवे कण्णैलंप्रवर्द्धनार्थं लघुप्रवर्द्धनकमामुच्चेत्  
॥ ७ ॥

1.16.8

## Witnesses

९ तत्र] MSS H and N. From here to the end of 1.16, MS K is missing a folio.

## MS variants

९ ०श्यथु०] em.; ०श्यथु० N; ०श्यथु० H. ११-१२ ०गन्धव्वहस्तमूलै०] ०गन्धव्वहस्तमूलै० N. १३ ०परिषेके-  
णोप०] ०परिषेकणोप० H. १३ ०तरीङ्] ०तरी० N १५ लघुप्रवर्द्धनकम्] ल प्रवर्द्धनकमो० N; प्रवर्द्धनकमा० “मै” H.  
१५-१६ आमुच्चेत्] em.; मुच्चेत् N H.

## Variants from Su 1938

७ बहुत्वे] बहुत्वेन A. ७ ऽतिवेदनायां] वेदनया A. ७ ०द्रवता] ०द्रवतया A. ८ ०विद्धलिङ्गम्] ०विद्धमिति A.  
९ तत्र] तत्राज्जेन A. ९ यद्यच्छाविद्धायां] यद्यच्छाविद्धासु A. ९ सिरायाम्] सिरासु A. ९ सिरायाम्] add.  
कालिकामर्मरिकालोहितिकासूपद्रवा भवन्ति। तत्र कालिकायां A. ९ ज्वर०] ज्वरो ९ ०दाह०] दाहः ९ ०श्यथु०]  
श्यथु० A. ९ ०वेदना०] add. च भवति मर्मरिकायां वेदना ज्वरो A. ९ ०ग्रन्थिं०] ग्रन्थयश् A. ९ ०ग्रन्थिं०] add.  
च लोहितिकायां A. १० भवन्ति] add. तेषु यथास्वं प्रतिकुर्वीत ॥ क्षिणिज्ञाप्रशस्तसूचीव्याद्वाढतरवर्तित्वाद् A. ११  
वा] add. यत्र संरभ्मो वेदना वा भवति A. ११ अपहृत्य] उपहृत्याशु A. ११-१२ यवमधुक०] मधुकैरण्डमूल० A.  
११-१२ ०मञ्जिष्ठागन्धव्वहस्तमूलै०] ०मञ्जिष्ठायवतिलकल्कैर् A. १२ आलेपयेत्] add. तावद्यावत्सुरूढ इति ॥ A. १२  
विध्येत्] add. विधानं तु पूर्वोक्तमेव ॥ A. १३ सम्यग०] तत्र सम्यग० A. १३ आमतैलपरिषेकेणोपचरेत्] आमतैलेन  
परिषेचयेत् A. १३ अ्यहाद्] add. च A. १३ ०तरीङ्] ०तरा० A. १४ कुर्वीत] दद्यात् A. १५ ०लंप्रवर्द्धनार्थ०]  
om. A. १५ लघुप्रवर्द्धनकम्] लघुव० A. १५-१६ आमुच्चेत्] कुर्यात् ॥ A

## Notes

<sup>३</sup>Dalhana, on 1.16.6 (Su 1938: 77), stated that some do not read सुरूढश्वैनम्पुनर्विध्येत्.

<sup>४</sup>The unusual form स्थूलतरी० is supported by both manuscripts and we have retained it in spite of only meagre evidence for the form in epic Sanskrit.

एवं सम्बद्धितः कर्णशिष्यते तु द्विधा नृणाम्।  
दोषतो वाभिधाताद्वा सन्धानान्तस्य मे शृणु ॥८॥

1.16.9

तत्र समासेन पञ्चदशसन्धानाकृतयो भवन्ति ।<sup>५</sup> तद्यथा । नेमीसन्धा-  
नकः । उत्पलभेद्यकः । वल्लूरकः । आसङ्गिमः । गण्डकर्णः । आहार्यः ।  
निर्वेधिमः । व्यायोजिमः । कपाटसन्धिकः । अर्द्धकपाटसन्धिकः । सङ्गि-  
सः । हीनकर्णः । वल्लीकर्णः । यष्टीकर्णः । काकौषः । इति । तेषु तत्र  
पृथुलायतसमोभयपालिन्मीसन्धानकः । वृत्तायतसमोभयपालिरुत्पलभे-  
द्यकः । हस्तवृत्तसमोभयपालिर्वल्लूरकर्णकः । अभ्यन्तरदीर्घैकपालिरास-  
ङ्गिमः । बाह्यदीर्घैकपालिर्गण्डकर्णकः । अपालिरुभयतोऽप्याहार्यः । पी-  
ठोपमपालिर्निर्वेधिमः । अणुस्थूलसमविषमपालिर्व्यायोजिमः । अभ्यन्त-  
रदीर्घैकपालिरितराल्पपालिः कपाटसन्धिकः । बाह्यदीर्घैकपालिरितराल्प-  
पालिश्चार्द्धकपाटसन्धिकः । तत्रैते दशकर्णसन्धिविकल्पा बन्ध्या भवन्ति ।  
तेषान्नामभिरेवाकृतयः प्रायेण व्याख्याताः । संक्षिप्तादयः पञ्चासाध्याः । तत्र

## MS variants

१७ नृणाम् ] नृणा N. १८ ] A; दोषटो N H. १९ ०सन्धाना० ] ०सन्धा० N. २१ अर्द्धकपाटसन्धिकः ] om. N.  
२२ काकौषः ] काकौषभः H. २२ इति ] ति H. २३ ०यतसमो० ] A; ०यसमो० H; ०तसमो N. २४ ०भेद्यकः ]  
०भेदः N; ०भेदकः H. २४ वल्लूर० ] वल्लूर० N. २५ बाह्य ] A; बाह्यैक N H. २६ अणुस्थूल० ] अशुस्थूल० H  
२७ कपाट० ] कपाटा० H. २८ चार्द्धकपाट० ] em.; वार्द्धकवाट० H; चार्द्धकवाप० N.

## Variants from Su 1938

१७ सम्बद्धितः ] विवर्धितः A. १८ सन्धानान् ] सन्धानं A. १९ ०दशसन्धानाकृतयो ] ०दशकर्णवन्धाकृतयः A. १९  
भवन्ति ] om. A. २० नेमी० ] नेमि० A. २१ ०सन्धिकः । अर्द्ध० ] ०सन्धिको ०र्द्ध० A २२ यष्टी० ] यष्टिं A.  
२२ काकौषः ] काकौषक A. २२ तत्र ] om. A. २३ नेमी० ] नेमि० A. २४ वल्लूर० ] वल्लूरकः A. २५-२६  
पीठोपमपालिर् ] add. उभयतः क्षीणपुत्रिकाश्रितो A. २६ अणुस्थूल० ] स्थूलाणु० A. २८ चार्द्ध० ] अर्ध० A. २८  
तत्रैते ] तत्र A. २८ दशकर्णसन्धिविकल्पा ] दशैते कर्णवन्धविकल्पाः A. २८ बन्ध्या भवन्ति ] साध्याः A. २९  
तेषान् ] तेषां A. २९ नामभिर् ] स्वनामभिर् A.

## Notes

<sup>५</sup>Cakrapāṇidatta, on 1.16.9–13 (Su 1939: 128), and Ḑalhaṇa, on 1.16.10 (Su 1938: 78), pointed out that others read पञ्चदशकर्णकृतयः (instead of पञ्चदशसन्धानाकृतयः). At the same place, Ḑalhaṇa also mentioned that some read समुन्नतसमोभयपालिः (instead of वृत्तायतसमोभयपालिः) and others do not read संक्षिप्तादयः पञ्चासाध्याः.

३० शुष्कशङ्कुलिरितराल्पपालिः संक्षिप्तः। अनधिष्ठानपालिः पर्यन्तयोश्च क्षी-  
णमांसो हीनकर्ण्णः। तनुविषमपालिर्वल्लीकर्ण्णः। ग्रन्थितमांसः स्तब्धसि-  
राततसूक्ष्मपालिर्यष्टीकर्ण्णः। निर्माससंक्षिप्ताग्राल्पशोणितपालिः काकौष्ठ  
इति। बद्धेष्वपि दाहपाकस्नावशोफयुक्ता न सिद्धिमुपयान्ति ॥९॥<sup>६</sup>

1.16.10

३५ अतोऽन्यतमस्य बन्धश्चिकीर्षुः अग्रोपहरणीयोक्तोपसमृतसम्भारः  
विशेषतश्चात्रोपहरेत्<sup>७</sup> सुरामण्डक्षीरमुदकं धान्यामूकपालचूर्णं च्छ्रेति। त-  
तोऽङ्गनां पुरुषम्वा ग्रथितकेशान्तं लघुभुक्तवन्तमासैः सुपरिगृहीतं च कृत्वा  
बन्धानुपधार्य छेद्यभेद्यलेख्यव्यधनैरुपपाद्य कर्णशोणितमवेक्ष्यैतदुष्टमदु-  
ष्टम्वेति ततो वातदुष्टे धान्यामूलोदकाभ्यां पित्तदुष्टे शीतोदकपयोभ्यां श्लेष्मदुष्टे

## MS variants

३० पर्यन्तयोश्च ] om. N. ३१ ग्रन्थितमांसः ] ०ग्रन्थितमान्सः N H. ३२ निर्मास० N; निर्मास० H. ३३ ०स्नाव० ] ०श्वाव० H. ३३ ०शोफ० ] ०सोफ० N. ३५ ] ततो N. ३५ ०पहरणीयो० ] ०पसंहरणीयो० N. ३६ चात्रोपहरेत्] A; चात्रोपहरणीयात् N H. ३७ पुरुषम्] पुरुषज् N. ३७ च कृत्वा] A; om. N H. ३८ उपधार्य] उपपाद्य H. ३८ ०शोणितमवेक्ष्यैतद्] ०शोणितत अवेक्ष्यैतद् N. ३८-३९ अदुष्टम्] अदुष्टश् N. ३९ वेति] A; चेति N H. ३९ धान्यामूल०] धान्यामूल० N ३९ शीतोदक०] शीतोदक० N.

## Variants from Su 1938

३० शुष्कशङ्कुलिर्] add. उत्सन्नपालिर् A. ३० च] om. A. ३१ ०षमपालिर्] ०षमाल्पपालिर् A. ३१ ग्रन्थित-  
मांसः] ग्रन्थितमांस० A. ३१-३२ ०सिराततसूक्ष्म०] ०सिरासंततसूक्ष्म० A. ३२ काकौष्ठ] काकौष्ठक A. ३३ अपि] add. तु शोफ A. ३३ ०दह०] add. ०राग० A. ३३ ०पाक०] add. ०पिडका० A. ३३ ०शोफ०] om. A.  
३४ inserted passage] भवन्ति चात्र। यस्य पालिद्वयमपि कर्णस्य न भवेदिह। कर्णपीठं समे मध्ये तस्य विज्ञा विवर्धयेत्॥  
बाह्यायामिह दीर्घायां सन्धिराभ्यन्तरो भवेत्। आभ्यन्तरायां दीर्घायां बाह्यसन्धिरुदाहृतः॥ एकैव तु भवेत्पालिः स्थूला पृथ्वी  
स्थिरा च या। तां द्विघा पाटविता तु छिन्ना चोपरि सन्धयेत्॥ गण्डादुत्पात्य मांसेन सानुवर्णेन जीवता। कर्णपालीमापालेस्तु  
कुर्यान्निर्लिख्य शास्त्रवित्॥ A. ३५ अतोऽन्यतमस्य] ०न्यतम् A. ३५ ०सम्भारः] ०सम्भारं A. ३६ सुरामण्डक्षीरम्] सुरामण्डं क्षीरम् A. ३६ धान्यामूल०] धान्यामूल० A. ३८ बन्धान्] बन्धम् A. ३८ ०व्यधनैर्] add.  
उपपन्नैर् A. ३८ अवेक्ष्यैतद्] अवेक्ष्य A. ३९ ततो] तत्र A. ३९ धान्यामूलोदक०] धान्यामूलोदक० A.

## Notes

<sup>६</sup>The vulgate passage inserted between 9 and 10 (from भवन्ति चात्र to शास्त्रवित्) was probably also absent in the version of the *Suśrutasamhitā* commented on by Cakrapāṇi, who cited it in his commentary as being “read by some” in regard to the joins (*सन्ध्यान*) that they describe (1.16.9–13 (Su 1939: 128)).

<sup>७</sup>विशेषतश्चात्रोपहरणीयात् of the MSS has been emended to विशेषतश्चात्रोपहरेत् to make sense of the list of ingredients, which is in the accusative case. Also, the repetition of अग्रोपहरणीयात् in the Nepalese version suggests that its second occurrence, which does not make good sense here, is a dittographic error.

४० सुरामण्डोदकाभ्यां प्रक्षाल्य कर्णम्पुनरवलिखेत्। अनुन्नतमहीनमविषमञ्च  
कर्णसन्धिन्निवेश्य स्थितरक्तं सन्दर्श्य मधुघृतेनाभ्यज्य पिचुप्लोतयोरन्य-  
तरेणावगुण्ठ्य नातिगाढन्नातिशिथिलं सूत्रेणावबध्य कपालचूर्णनावकी-  
र्याचारिकमुपदिशेत्। द्विवर्णीयोक्तेन चान्नेनोपचरेत् ॥ १० ॥

1.16.15

विघट्टनन्दिवास्वप्नं व्यायाममतिभोजनम् ।

व्यायामग्रिसन्तापम्वाकश्चमञ्च विवर्जयेत् ॥ ११ ॥

1.16.16

नातिशुद्धरक्तमतिप्रवृत्तरक्तं क्षीणरक्तं वा सन्दध्यात्। स हि वातदुष्टे  
रक्तबद्धोऽरुद्धो परिपुटनवान्भवति। पित्तदुष्टे गाढपाकरागवान्। श्लेष्मदुष्टे  
स्तब्धकर्णः कण्डूमानतिप्रवृत्तस्त्रावः शोफवान्क्षीणाल्पमांसो न वृद्धिमु-  
पैति ॥ १२ ॥

1.16.17

५० स यदा रुद्धो निरुपद्रवः कर्णो भवति तदैनं शनैः शनैरभिवर्द्धयेत्।  
अन्यथा संरम्भदाहपाकवेदनावान्भवति। पुनरपि छिद्येत् ॥ १३ ॥

1.16.18

अथाप्रदुष्टस्याभिवर्द्धनार्थमभ्यङ्गः। गोधाप्रतुदविष्किरानूपौदकवसाम-

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MS variants

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४० अवलिखेत्] अवलिखेत N. ४१ ०सन्धिन्] ०सन्धिं N. ४१--४२ ०गुण्ठ्य] ०गुण्ठो H. ४२ ०गाढन्] ०गाढं  
N. ४२ ०बध्य] ०बद्ध N. ४३ ०चान्नेनोपचरेत्] उपोक्तेनोपचरेत् N. ४३ ॥ १० ॥ ] add. भ N. ४४ विघट्टनन्]  
विघट्टनं N. ४५ अग्रिसन्तापम्] आग्रिसन्ताप A. ४५ विवर्जयेत्] वर्जयेत् N. ४६ ०शुद्ध०] ०सुद्ध० N. ४६  
०वृत्तरक्तं] ०वृत्तं रक्तं N. ४७ रक्तबद्धोऽरुद्धो] em.; रक्तबद्धो रुद्धो N; रक्तबद्धो रुद्धो H. ४७ ०पुटनवान्] ०पुटवाम्  
N; ०पुटनवाम् H. ४७ ०दुष्टे] ०दुष्टै N. ४७ श्लेष्म०] श्लेष० N. ४८ ०कर्णः] ०वर्णणः N. ४८ ०स्त्रावः] ०श्वावः H.  
४८ क्षीणाल्प०] क्षीणो ल्प० N. ५० रुद्धो] रुद्धो N. ५१ ०पाकवेदनावान्] ०पाकरागवेदनावान् N;  
०पाकवेदनावाम् H. ५२ अथाप्र०] अथास्याः प्र० H. ५२ ०दुष्टस्याभिवर्द्धनार्थम्] ०दुष्टस्याविवर्धनार्थम् N.

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Variants from Su 1938

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४० ०मण्डोदकाऽ] ०मण्डोष्णोदकाऽ A. ४० कर्णम्] कर्णौ A. ४० अवलिखेत्। अनुन्नतम्] अवलिख्यानुन्नतम् A.  
४१ ०सन्धिन्] ०सन्धिं A ४१ निवेश्य] सन्धिवेश्य A. ४१ सन्दर्श्य] सन्दध्यात् A. ४१ सन्दर्श्य] add. ततो A.  
४२ नातिगाढन्] सूत्रेणावगाढमन् A. ४२ नातिं] अतिं A. ४२ सूत्रेणावबध्य] च बद्धा A. ४३ ०चान्नेनोपचरेत्]  
च विघानेनोपचरेत् A. ४३ ॥ १० ॥ ] add. भवति चात्र। A. ४४ विघट्टनन्] विघट्टनं A. ४६ नातिं] न चाशु० A.  
४७ रक्तबद्धोऽरुद्धो] रक्ते रुद्धोऽपि A. ४७ भवति] om. A. ४७ गाढपाकरागवेदनावान् A. ४८ ०स्तब्ध०] स्तब्धः A.  
४८ ०वृत्तस्त्रावः शोफवान्] ०वृत्तरक्ते श्यावशोफवान् A. ४८ क्षीणाल्प०] क्षीणोऽल्प० A. ५० inserted passage] आमतैलेन त्रिरात्रं परिषेचयेत्विरात्राच्च पिचुं परिवर्तयेत्। A. ५० रुद्धो] सुरुद्धो A. ५० कर्णौ]  
सवर्णौ A. ५१ अन्यथा] अतोऽन्यथा A. ५१ ०पाकवेदनावान्] ०पाकरागवेदनावान् A. ५१ भवति] om. A.  
५१ अपि] om. A. ५१ छिद्येत्] छिद्यते वा A. ५२ अथाप्र०] अथास्याप्र० A. ५२ अभ्यङ्गः] add. तद्यथा A.  
५२--५३ ०मज्जापयस्तैलं] ०मज्जापयस्तैलं A.

ज्ञापयस्तैलं गौरसर्षपजन्न यथालाभं संभृत्याकार्लक्बलातिवलानन्तावि-  
दारीमधुकजलशूकप्रतिवापन्तैलम्पाचयित्वा स्वनुगुप्तन्निदध्यात् ॥ १४ ॥<sup>c</sup>

1.16.19

५५

स्वेदितो मर्दितङ्कण्ठमनेन म्रक्षयेद्वृधः ।  
ततोऽनुपद्रवः सम्यग्बलवांश्च विवर्जते ॥ १५ ॥<sup>९</sup>

1.16.20

ये तु कण्ठा न वर्जन्ते स्नेहस्वेदोपपादिताः ।  
तेषामपाङ्गे त्वबहिः कुर्यात्प्रछानमेव च ॥ १६ ॥<sup>१०</sup>

1.16.22cd--23ab

अमिताः कण्ठं बन्धास्तु विज्ञेयाः कुशलैरिह ।

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MS variants

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५३-५४ ०आर्कालक्बलाति० ] ०आर्कालक्बलाति० N. ५३-५४ ०प्रतिवापन्] ०प्रतिवापं N. ५४ ०गुप्तं N. ५४ निदध्यात्] निदध्यात् N. ५५ स्वेदितो] स्वेदितो N. ५५ अनेन] अने X N. ५६ ततोऽनुपद्रवः] ततो नुपद्रवः H; ततो नुपद्रवम् N. ५८ अबहिः] अवर्हि N. ५८ कुर्यात्] कुयात् N. ५८ प्रछानम्] प्रछन्नम् H. ५९ ०बन्धास्] ०बन्धो H. ५९ तु] स्तु H.

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Variants from Su 1938

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५३-५४ ०बलानन्ताऽ] ०बलानन्तापामार्गाश्वगन्धा A. ५३-५४ ०विदारीमधुकजलशूकः] ०विदारिगन्धाक्षीरशुक्राज-  
लशूकमधुरवर्गपयस्या० ५३-५४ ०प्रतिवापन्] ०प्रतिवापं A. ५४ तैलम्] add. वा A. ५४ ०गुप्तन्] ०गुप्तं A.  
५५ स्वेदितो मर्दितङ्क] स्वेदितान्मर्दितं A. ५५ अनेन म्रक्षयेद्वृधः] स्नेहनैतेन योजयेत् A. ५७ inserted passage] यवाश्वगन्धायष्टाहौस्तिलैश्चोद्वर्तनं हितम्। शतावर्यश्वगन्धाभ्यां पयस्यैरण्डजीवनैः॥ तैलं विपकं सक्षीरमभ्यङ्गात्पालिवर्धनम्। A. ५७ स्नेहस्वेदोपो०] स्वेदस्नेहोपो० A. ५८ अपाङ्गे त्वबहिः] अपाङ्गदेशो तु A. ५८ च] तु A. ५९ inserted  
passage] वाह्यच्छेदं न कुर्वीत व्यापदः स्युस्तो ध्रुवाः॥ बद्धमात्रं तु यः कर्णं सहस्राभिवर्धयेत्। आमकोशी समाधातः क्षिप्रमेव विमुच्यते॥ A.

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Notes

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<sup>c</sup>Dalhaṇa, on 1.16.19 (Su 1938: 79), noted that some read राजसर्षपं in the place of गौरसर्षपं. This reading appears to have been accepted by Cakrapāṇi, who glossed राजसर्षपं as श्वेतसर्षप (1.16.18-20 (Su 1939: 130)). Cakrapāṇi also said that some read sarpis in the place of पयस्. In the compound beginning with अर्क, Dalhaṇa noted that some read अर्कपुष्णी.

<sup>९</sup>N has a काकपाद after अने, but the missing letter (one would expect 'न') has not been supplied in a margin or elsewhere.

<sup>१०</sup>Dalhaṇa, on 1.16.23 (Su 1938: 80), noted that some read तेषामपाङ्गच्छेदं हि कार्यमाभ्यन्तरं भवेत्.

६०

यो यथा सुनिविष्टः स्यात्तत्था योजयेद्दिष्क् ॥ १७ ॥ ११

1.16.26.1

जातरोमा सुवर्त्मा च श्लिष्टसन्धिः समः स्थिरः ।  
सुरूढोऽवेदनो यस्तु तं कण्णं वर्जयेच्छनैः ॥ १८ ॥

1.16.25

६५

विश्लेषितायामथ नासिकायां  
वक्ष्यामि सन्धानविधिं यथावत् ।  
नासाप्रमाणं पृथिवीरुहाणां  
पत्रं गृहीत्वा त्ववलम्बितस्य ॥ १९ ॥ १२

1.16.27

तेन प्रमाणेन हि गण्डपार्श्वाद्

MS variants

६० योजयेद्] योजये N. ६१ सुवर्त्मा] सुपर्मा N; सुवर्मा H. ६१ ०सन्धिः] ०सन्धिम् N. ६२ तु] em.; तत् N H. ६३ नासिकायां] नासिकाया N. ६५ ०प्रमाणं] ०प्रमाण० N. ६५ ०वीरुहाणां] ०वीरुहाणम् N. ६६ पत्रं] पत्र N.

Variants from Su 1938

६० सुनिविष्टः] सुविशिष्टः A. ६० स्यात्] तं A. ६० योजयेद्दिष्क्] विनियोजयेत् A. ६० *inserted passage*] (कण्णपात्यामयान्नां पुनर्वक्ष्यामि सुश्रुत्) ॥ १ ॥ द्विद्या वाऽप्यथ संसृष्टाः कुर्वन्ति विविधा रुजः। विस्फोटः स्तव्यता शोफः पाल्यां दोषे तु वातिके दाहविस्फोटजननं शोफः पाकश्च पैत्तिके। कण्डूः सश्वयथुः स्तम्भो गुरुत्वं च कफात्मके ॥ ३ ॥ यथादोषं च संशोद्य कुर्यात्तेषां चिकित्सितम्। स्वेदाभ्यङ्गपरीधेकैः प्रलेपासृग्विमोक्षणैः ॥ ४ ॥ मृद्दीं क्रिया बृहणीयेर्थास्वं भोजनैस्तथा। य एवं वेति दोषाणां चिकित्सां कर्तुर्मर्हति ॥ ५ ॥ अत उर्ध्वं नामलिङ्गैर्वक्ष्य पात्यामुपद्रवान्। अत्पाटकश्चोत्पुटकः श्यावः कण्डूयुतो भृशम् ॥ ६ ॥ अवमन्थः सकण्डूको ग्रन्थिको जम्बुलस्तथा ॥ स्नावी च दाहवाश्वैव शृण्वेषां क्रमशः क्रियाम ॥ ७ ॥ अपामार्गः सर्जरसः पाटलालकुचत्वचौ ॥ उत्पाटके प्रलेपः स्यात्तैलमेभिश्च पाचयेत् ॥ ८ ॥ शम्पाकशिशुपूरीकान्नोदमेदोऽथ तद्वसाम् ॥ वाराहं गव्यमैणेयं पितं सर्पिश्च संसुजेत् ॥ ९ ॥ लेपमुन्युटके दद्यात्तैलमेभिश्च साधितम् ॥ गौरीं सुग्रन्थां सश्यामामनन्तां तण्डुलीयकम् ॥ १० ॥ श्यावे प्रलेपनं दद्यात्तैलम् एभिश्च साधितम् ॥ पाठां रसाञ्जनं क्षौद्रं तथा स्यादुष्णकाञ्जिकम् ॥ ११ ॥ दद्याल्लेपं सकण्डूके तैलमेभिश्च साधितम् ॥ ब्रणीभूतस्य देयं स्यादिदं तैलं विजानता ॥ १२ ॥ मधुक्षीरकाकोलीजीवकादौर्विपाचितम् ॥ गोधावराहसर्पाणां वसा: स्युः कृतवृहणे ॥ १३ ॥ प्रलेपनमिदं दद्यात्वासिन्यावमन्थके ॥ प्रपौण्डरीकं मधुकं समज्ञां ध्वमेव च ॥ १४ ॥ तैलमेभिश्च संपकं शृणु कण्डूमतः क्रियाम् ॥ सहदेवा विश्वदेवा अजाक्षीरं ससैन्यवमेतैरालेपनं दद्यात्तैलम् एभिश्च साधितम् ॥ १५ ॥ ग्रन्थिके गुटिकां पूर्वं स्नावयेदवपाट्य तु ॥ ततः सैन्यवचूर्णं तु घङ्गा लेपं प्रदापयेत् ॥ १६ ॥ लिखित्वा तत्त्वतं घङ्गा चूर्णलींगस्य जम्बुले ॥ क्षीरणं प्रतिसार्यैनं शुद्धं संरोपयेत्ततः ॥ १७ ॥ मधुपर्णीं मधुकं च म मधुकं मधुना सह ॥ लेपः स्नाविणि दातव्यस्तैलमेभिश्च साधितम् ॥ १८ ॥ पञ्चवल्कैः समधुकैः पिष्टैस्तैश्च घृतान्वितैः ॥ जीवकायैः सर्सापिर्कैर्द्दह्यमानं प्रलेपयेत् ॥ १९ ॥) A. ६२ यस्तु] च A. ६३ विश्लेषितायाम] विश्लेषितायास्त्वं A. ६३ नासिकायां] नासिकाया A.

Notes

<sup>११</sup>Dalhana, on 1.16.26 (*Su 1938*: 80), stated that some read सुनिविष्टः (i.e., the reading of the Nepalese version) instead of सुविशिष्टः.

<sup>१२</sup>Cakrapāṇidatta, on 1.16.26 (*Su 1939*: 133), said that others read नासासन्धानविधिम् here. Dalhana, on 1.16.27–31 (*Su 1938*: 81), stated that some read, छिन्नां तु नासिकां दद्वा वयःस्थस्य शरीरणः। नासानुरूपं सञ्चिद्य पत्रं गण्डे निवेशयेत्॥

उत्कृत्य वशं त्वथ नासिकाग्रम् ।  
विलिरव्य चाशु प्रतिसन्दधीत  
तं साधुबद्धमिषगप्रमत्तः ॥ २० ॥

७०

1.16.28

सुसीवितं सम्यगतो यथावन्  
नाडीद्वयेनाभिसमीक्ष्य नह्येत् ।  
उन्नामयित्वा त्ववचूर्णयीत  
पत्ताङ्गयष्टीमधुकाञ्जनैश्च ॥ २१ ॥

७१

1.16.29

संछाद्य सम्यक्पिचुना ब्रणन्तु  
तैलेन सिंचेदसकृत्तिलानाम् ।  
घृतञ्च पाय्यः स नरः सुजीण्णे  
स्तिंधो विरेच्यः स्वयथोपदेशम् ॥ २२ ॥

८०

1.16.30

रूदञ्च सन्ध्यानमुपागतं वै  
तद्वध्रशोषं तु पुनर्निकृन्तेत् ।  
हीनम्पुनर्वद्धयितुं यतेत  
समञ्च कुर्यादतिवृद्धमांसम् ॥ २३ ॥

1.16.31

इति ओम् ॥

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MS variants

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६८ वशं ] वन्ध H. ७० वद्धम् ] वद्ध० N. ७१ सुसीवितं ] em.; सुसीवित N; सुसीवितं H. ७४ पत्ताङ्ग० ] em.; पत्ताङ्ग० H; पत्ताङ्ग० N. ७५ ब्रणन्तु ] ब्रण तुन् N. ७८ विरेच्यः ] A; विरेच्य N H. ७८ वदेशम् ] वदेशः N.  
७९ सन्ध्यानम् N. ७९ उपागतं ] उपागतश् H. ७९ वै ] चै H. ८० वशोषं ] वसेष्ण N. ८१ यतेत ]  
यतेतः N. ८२ वमांसम् ] वमांसम् N. ८३ ओम् ] om. N.

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Variants from Su 1938

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६८ वशं ] वद्धं A. ७० तं ] तत् A. ७० वद्धम् ] वद्धैर् A. ७१ सुसीवितं ] सुसंहितं A. ७२ नह्येत् ] वद्धा  
A. ७३ उन्नामयित्वा ] प्रोन्नम्य चैनाम A. ७३ अवचूर्णयीत ] अवचूर्णयेत् ७४ पत्ताङ्ग० ] पत्ताङ्ग० A. ७५ ब्रणन्तु ]  
सितेन A. ७८ स्वयथो० ] स यथो० A. ७९ वै ] स्यात् A. ८० तद्वध० ] तदर्घ० A. ८१ हीनम् ] हीनां A. ८२  
समज् ] समां A. ८२ वमांसम् ] वमांसम् A. ८३ ओम् ] om. A. ८४ inserted passage ] नाडीयोगं विनौष्ठस्य  
नासासन्ध्यानवद्विधिम्। य एवमेव जानीयात्स राङ्गः कर्तुमर्हति॥ A.

## 6 Translation of Sūtrasthāna 16

- 1 Now we shall expound the method for piercing the ear.<sup>1</sup>
- 2 One may pierce a child's ears for the purpose of preserving and decorating. During the bright fortnight, when the child is in the sixth or seventh month, on renowned days, half days, hours and constellations, the physician, with a calming presence, sits the boy, who has received a benediction and the recitation of a blessing,<sup>2</sup> on the lap of a wet-nurse.<sup>3</sup> Then, he should pull the ear with his left hand and pierce

<sup>1</sup> The topic of piercing the ear (कन्धनव्यध) is not discussed in the *Carakasamhitā* (HIML: IB, 326, n. 175), but it is mentioned in some texts that followed the *Suśrutasanhitā*, such as the *Kaśipyasamhitā* (HIML: IIA, 30). Also, the instrument for piercing the ear is described in the *Aṣṭāṅgahṛdayasamhitā* 1.26.26 (Ah 1939: 321). In the versions of the text known to Ḏalhaṇa (Su 1938: 76) and Cakrapāṇidatta (Su 1939: 125), the heading of this chapter is “the method of piercing and joining the ear” (कर्णव्यधबन्धविधि), instead of the Nepalese version’s “the method of piercing the ear” (कर्णव्यधविधि). The topic of joining the ear (कर्णबन्ध) 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 of the text. For a discussion of the frame story in the Nepalese version, see Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021.

When commenting on this statement, Ḏalhaṇa (Su 1938: 76) and Cakrapāṇidatta (Su 1939: 125) observed that only the ears of healthy people should be pierced, and they quoted the lost authority 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” (1.16.1 (Su 1938: 76)).

Some texts use the adjective कर्ण-वेघनी rather than व्यधनी.

- 2 The causative form व्यधयेत् is known in Classical Sanskrit (Whitney 1885: 166). The compound कृतमङ्गलस्वस्त्रिवाचनं “who has received a benediction and the recitation of a blessing” is an emendation based on the similar text at 3.2.25 (Su 1938: 346). Cf. also 3.10.8, 24 (Su 1938: 388, 390) that have slightly different formulations.
- 3 The versions of 1.16.3 known to Cakrapāṇidatta (Su 1939: 126) and Ḏalhaṇa (Su 1938: 76) have the additional compound कुमारधराङ्के (“on the lap of one who holds the child”) after धात्र्यङ्के. The gender of कुमारधर is made clear by Ḏalhaṇa’s gloss “a man

straight through with his right hand at a naturally-occurring cleft.<sup>4</sup> For a boy, do the right ear first; for a girl, do the left one. Use a needle on a thin ear; an awl on a thick one.<sup>5</sup>

- 3 One may know that it was pierced in the wrong place if there is excess blood or too much pain. The absence of side-effects is a sign that it has been pierced in the right place.<sup>6</sup>
- 4 In this context, if an ignorant person randomly pierces a duct there will be fever, burning, swelling, pain, lumps, paralysis of the nape of the neck, convulsions, headache or sharp pain in the ear.<sup>7</sup>

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who holds the child." Also, both versions add बालकीडनकैः प्रलोभ्य ("having enticed with children's toys") to indicate that the child should be tempted with toys to stay on the assistant's lap. According to Ḏalhaṇa on 1.16.3 ([Su 1938: 76](#)), the toys include replica elephants, horses, bulls and parrots. Ḏalhaṇa further mentions that others read भक्ष्यविशेषैर्वा ("or by special treats") before बालकीडनकैः, but we see no trace of these small kindnesses in our witnesses.

- 4 The versions of 1.16.3 of Cakrapāṇidatta ([Su 1939: 126](#)) and Ḏalhaṇa ([Su 1938: 76](#)) add that this naturally-occurring cleft is illuminated by a ray of sunshine (आदित्यकरावभासिते).

The syntax of this slightly long sentence is unusual because of the dual object तौ "the two (ears)" at the start of the sentence, which is remote from the main verb. The other singular accusatives referring to the ear being pierced are governed by absolutives.

- 5 Ḏalhaṇa on 1.16.3 ([Su 1938: 76](#)) clarifies that the awl is a shoe-maker's knife for piercing leather. He also cites the authority of "the notes of Lakṣmaṇa" (*Lakṣmaṇatippaṇaka*) on the issue of the thickness of the needle. *The Notes of Lakṣmaṇa* is not known from any earlier or contemporary sources and was presumably a collection of glosses on the *Suśrutasamhitā* that was available to Ḏalhaṇa in twelfth-century Bengal. See Meulenbeld ([HIML: IA, 386](#)).
- 6 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.

- 7 This passage is significantly augmented in Cakrapāṇidatta's and Ḏalhaṇa's versions, to outline the specific problems caused by piercing three ducts called कालिका, मर्मिका and लोहितिका (1.16.4 ([Su 1939: 126](#)) and 1.16.5 ([Su 1938: 77](#)) respectively). 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: 'लोहितिका, मर्मिका 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 लोहितिका. Pain and lumps are thought to arise from piercing मर्मिका. Piercing कालिका gives rise to swelling, fever and burning.'

- 5 Having removed the wick (वर्ति) because of the accumulation of humours or an unsatisfactory piercing at that location,<sup>8</sup> he should smear it with barley, liquorice, Indian madder, and the root of the castor oil tree, thickened with honey and ghee. And when it has healed well, he should pierce it again.<sup>9</sup>
- 6 He should treat the properly-pierced ear by sprinkling it with raw sesame oil. After every three days one should make a thicker wick and do the very same sprinkling.
- 7 Once the ear is free from humours or side-effects, one should put in a light dilator (प्रवर्धनक) in order to enlarge it enough.<sup>10</sup>
- 8 *A person's ear enlarged in this way can split in two, either as a result of the humours<sup>11</sup> or a blow.*  
*Listen to me about the ways of joining it can have.*
- 9 Here, there are, in brief, fifteen ways of mending the ear flap.<sup>12</sup> They are as follows: Rim-join (नेमीसन्धानक), Lotus-splittable (उत्पलभेदक), Dried Flesh (वहूरक), Fastening (आसङ्गिम), Cheek-ear (गण्डकर्ण), Take away (आ-

8 In addition to these reasons, Dalhaṇa at 1.16.6 (*Su 1938*: 77) added “because of piercing with a painful, crooked and unsatisfactory needle” (क्षियजिह्वाप्रशस्तसूचीव्यधात) and “because of a wick that is too thick” (गाढतरवर्तित्वात्). Dalhaṇa was aware of the reading in the Nepalese version because in his commentary on 1.16.6 (*Su 1938*: 77) he noted that some read “because of the accumulation of humours” rather than “because of piercing with a painful, crooked and unsatisfactory needle or because of a wick that is too thick.” On the concept of humoral accumulation (*समुदाय*), see the important analysis by Meulenbeld (1992).

9 The description of the drug is ambiguous: the word “root” could be taken with each plant, or just with the last. The vulgate reads just “castor oil root” so we assume that is the traditional interpretation.

10 Cakrapāṇidatta on 1.16.6 (*Su 1939*: 127) and Dalhaṇa on 1.16.8 (*Su 1938*: 77) pointed out that the dilator can be made of wood, such as that of the *prickly chaff-flower*, the *neem* tree and *tree cotton*. Dalhaṇa added that it can also be made of lead and should have the shape of the *datura* flower. The manuscripts have variant readings for लघुप्रवर्धनकमामुच्चेत् at this point that include a scribal emendation, none of which construe plausibly. It is possible that the unusual verb form आ+√मुच् puzzled the scribes and caused the implausible scribal readings and emendations.

11 Dalhaṇa on 1.16.9 (*Su 1938*: 77) notes that the word दोष here can refer to either a humour, such as wind, as we have understood it, or a disease generated from a humour.

12 The Nepalese version uses the word सन्धान 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 बन्ध here and at the very beginning of the chapter (i.e., 1.16.1) to introduce the topic of repairing the ear.

हार्य), Ready-Split (निर्वेधिम), Multi-joins (व्यायोजिम), Door-hinge (कपाटसन्धिक), Half door-hinge (अर्धकपाटसन्धिक), Compressed (संक्षिप्त), Reduced-ear (हीनकर्ण), Creeper-ear (वल्लीकर्ण), Stick-ear (यष्टीकर्ण), and Crow's lip (काकौष्ठ).<sup>13</sup>

In this context, among these,

Rim-join:	both flaps are wide, long, and equal.
Lotus-splittable:	both flaps are round, long, and equal.
Dried flesh:	both flaps are short, round, and equal.
Fastening:	one flap is longer on the inside.
Cheek-ear:	one flap is longer on the outside. <sup>14</sup>
Take-away:	the flaps are missing, in fact, on both sides.
Ready-split:	the flaps are like a dais (पीठ).
Multi-joins:	one flap is small, the other thick, one flap is equal, the other unequal.
Door-hinge:	the flap on the inside is long, the other is small.
Half door-hinge:	the flap on the outside is long, the other is small.

These ten options for joins of the ear should be bound. They can mostly be explained as resembling their names.<sup>15</sup> The five from compressed (संक्षिप्त) on are incurable.<sup>16</sup> 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 flesh and the flaps are stretched thin and have stiff ducts. “Crow-lip” has a flap without flesh with compressed tips and little blood. Even when they are bound

<sup>13</sup> 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).

<sup>14</sup> For an artist’s impression of this join, see Majno 1975: 291 (reproduced as Figure 3.3 in Wujastyk 2003: 155).

<sup>15</sup> Cakrapāṇidatta on 1.16.9–13 (Su 1939: 128–129) and Ḏalhaṇa 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 (नेमीसन्धानक) is similar to the join of the rim of a wheel (चक्रधारा).

<sup>16</sup> Ḏalhaṇa 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.

up, they do not heal because they are hot, inflamed, suppurating, or swollen.<sup>17</sup>

- 10 A person wishing to perform a join of any of these should therefore have supplies specially prepared according to the recommendations of the “Preparatory Supplies” chapter.<sup>18</sup> And in this regard, he should particularly gather<sup>19</sup> **decanted liquor**, milk, water, **fermented rice-water**, and powdered earthenware crockery (**कपालचूर्ण**).<sup>20</sup>

Next, having made the woman or man tie up the ends of their hair, eat lightly and be firmly held by qualified attendants, the physician considers the joins and then applies them by means of cutting, splitting, scarification, or piercing.<sup>21</sup> Next, he should examine the blood of the ear to know whether it is tainted or not. If it is tainted by wind, the ear should be bathed with **fermented rice-water** and water; if tainted by choler, then cold water and milk should be used; if tainted by phlegm, then **decanted liquor** and water should be used, and then he should scarify it again.

After arranging the join in the ear so that it is neither proud, depressed, nor uneven, and observing that the blood has stopped, one should

17 The version of 1.16.11–13 known to Ḑalhaṇa (Su 1938: 78) has four verses (श्लोक) 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 *Suśrutasamhitā* known to Cakrapāṇidatta. He cites the verses separately in his commentary, the *Bhānumatī* (Su 1939: 128–129), introducing each one as ‘some people read’ (के चित्पठन्ति). However, in Trikamajī Ācārya’s edition of the *Sūtrasthāna* of the *Bhānumatī*, the root text is largely identical to the one commented on by Ḑalhaṇa (Su 1938), even in instances like this where Cakrapāṇidatta’s commentary indicates that he was reading a different version of the *Suśrutasamhitā*. See further the discussion on p. 6 above.

18 *Suśrutasamhitā* 1.5 (Su 1938: 18–23), probably verse 6 especially, that lists the equipment and medications that a surgeon should have ready.

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

20 The term **कपालचूर्ण** is unusual. Ḑalhaṇa (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.

21 There are syntactic difficulties in this sentence. We have adopted the reading in Ḑalhaṇa’s version (Su 1938: 78), which has च कृत्वा following सुपरिगृहीतं. It is likely that a verb, such as कृत्वा, dropped out of the Nepalese transmission.

anoint it with honey and ghee, bandage each ear with **tree cotton** and gauze (झोत), and bind it up with a thread, neither too tightly nor too loosely. Then, the physician should sprinkle earthenware powder on it and provide medical advice (आचारिक). And he should supplement with food as taught in the “Two Wound” chapter.<sup>22</sup>

- 11 One should avoid rubbing, sleeping during the day, exercise, overeating, sex, getting hot by a fire, or the effort of speaking.
- 12 One should not make a join when the blood is too pure, too copious, or too thin.<sup>23</sup> For when the ear is tainted by wind, then it is obstructed by blood, unhealed and will peel. When tainted with choler, it becomes pinched (गाढ), septic and red. When tainted by phlegm, it will be stiff and itchy. It has excessively copious suppuration and is swollen. It has a small amount of wasted (क्षीण) flesh and it will not grow.<sup>24</sup>
- 13 When the ear is properly healed and there are no complications, one may very gradually start to expand it. Otherwise, it may be inflamed (संरभ), burning, septic or painful. It may even split open again.
- 14 Now, massage for the healthy ear, in order to enlarge it. One should gather as much as one can the following: a **monitor lizard**, scavenging and seed-eating birds, and creatures that live in marshes or water,<sup>25</sup> fat, marrow, milk, and sesame oil, and white mustard oil.<sup>26</sup> Then cook the oil with an admixture of the following: **purple calotropis**, **white calotropis**, **heart-leaf sida**, **country mallow**, **country sarsaparilla**,

<sup>22</sup> *Suśrutasamhitā* 4.1 (*Su* 1938: 396–408).

<sup>23</sup> 1.16.17 of Dalhaṇa’s version (*Su* 1938: 79) reads “impure” for the Nepalese “too pure,” which would appear to make better medical sense. Emending the text to नाशुद्ध- for नातिशुद्ध- in the Nepalese recension would yield the same meaning as Dalhaṇa’s version.

<sup>24</sup> In his edition of *Suśrutasamhitā*, 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’ (आमतैलेन त्रिरात्रं परिषेचयेत्तिरात्राच्च पिञ्चु परिवर्तयेत्).

<sup>25</sup> For such classifications, see the analyses by Zimmermann (1999) and Smith (1994).

<sup>26</sup> Dalhaṇa’s version of 1.16.19 (*Su* 1938: 79) includes ghee. However, Dalhana’s remarks on this passage and Cakrapāṇidatta’s on 1.16.18 (*Su* 1939: 130) indicate that they knew a version of this recipe, perhaps similar to the Nepalese one, that did not include ghee. Dalhaṇa also noted that others simply read four oils, beginning with fat and without milk, whereas Cakrapāṇidatta said that some say it is made with four oils and milk.

Indian kudzu, liquorice, and hornwort.<sup>27</sup> This should then be deposited in a well-protected spot.

- 15 *The wise man who has been sweated should rub the massaged ear with it. Then it will be free of complications, and will enlarge properly and be strong.*<sup>28</sup>
- 16 *Ears which do not enlarge even when sweated and oiled, should be scarified at the edge of the hole, but not outside it.*<sup>29</sup>
- 17 *In this tradition, experts know countless repairs to ears. So a physician who is very intent on working in this way may repair them.*<sup>30</sup>
- 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.*<sup>31</sup>
- 19 *Now I shall describe the proper method of making a repair when a nose is severed. First, take from the trees a leaf the same size as the man's nose and hang it on him.*
- 20 *Next, having cut a slice of flesh (वृश्च),<sup>32</sup> with the same measurements, off the*

27 The version of of this verse known to Ḏalhaṇa (vulgate ([Su 1938:79](#))) adds several ingredients to this admixture, including prickly chaff-flower, *Withania*, milk-white, sweet plants and Indian ipecac. Also, it has beggarweed instead of Indian kudzu. When commenting on 1.16.19, Ḏalhaṇa ([Su 1938:79](#)) noted that some do not read sweet plants and Indian ipecac. Therefore, at his time there were other versions of this recipe circulating, with fewer ingredients, as seen in the Nepalese version.

28 For these aims (i.e., healing and enlarging the ear), the text known to Ḏalhaṇa ([Su 1938:79](#)) had an additional verse and a half describing an ointment for rubbing the ear and sesame oil cooked with various medicines for massage. Cakrapāṇidatta ([Su 1939:131](#)) did 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.

29 Dalhaṇa's version of 1.16.23 ([Su 1938:79–80](#)) added another hemistich that stated more explicitly that the scarification should not be done on the outside of hole as it will cause derangement.

30 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 Ḏalhaṇa ([Su 1938:80](#)) stated that some read about the diseases of the ear lobes in this chapter whereas others read about them in the chapter on various treatments (मिश्रकचिकित्स) (SS 5.25), which does indeed begin with a discussion of the disease परिपोट. Ḏalhaṇa went on to say that some believe that these verses were not composed by sages and, therefore, do not read them.

31 The order of verses 17 and 18 is reversed in Dalhana's version ([Su 1938:80](#)).

32 The version of 1.16.28b known to Ḏalhaṇa ([Su 1938:81](#)) reads "bound, connected (बद्धम्)" instead of "slice of flesh (वृश्च)." This is a critical variant from the surgical point of view. If the slice remains connected, it will have a continuing blood supply. This

- cheek, the end of the nose is then scarified.<sup>33</sup> Then the undistracted physician, should quickly put it back together so that it is well joined.*
- 21 *Having carefully observed that it has been sewn up properly, he should then fasten it along with two tubes.<sup>34</sup> Having caused it to be raised,<sup>35</sup> the powder of sappanwood,<sup>36</sup> liquorice and Indian barberry should be sprinkled on it.<sup>37</sup>*
- 22 *The wound should be covered properly with tree cotton 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.<sup>38</sup>*
- 23 *And once healed and really come together, what is left of that slice of flesh (वध) should then be trimmed.<sup>39</sup> If it is reduced, however, one should make an effort to stretch it, and one should make its overgrown flesh smooth.<sup>40</sup>*

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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).

- 33 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, Ḏalhaṇa (Su 1938: 81) clarified 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.
- 34 Ḏalhaṇa noted that the two tubes should be made of reed or the stalk of the leaf of the castor-oil plant (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.
- 35 The Sanskrit term उन्नामयित्वा in 1.16.21 is non-Pāṇinian.
- 36 For पत्ताङ्ग (sappanwood), there are manuscript variants पत्ताङ्ग (MS Kathmandu NAK 5-333) and पत्तङ्ग (MS Kathmandu NAK 1-1079). Also, MS Kathmandu KL 699 (f. 14r:1) has पत्ताङ्ग in a verse in 1.14 (cf. 1.14.36 (Su 1938: 66)). The text known to Ḏalhaṇa has पतङ्ग (1.16.29 (Su 1938: 81)) and this term is propagated in modern dictionaries.
- 37 Ḏalhaṇa glossed अङ्गन as रसाङ्गन, elixir salve (Su 1938: 81).
- 38 The expression स्वयथोपदेश is ungrammatical but supported in all available witnesses.
- 39 The vulgate transmission has lost the word वध and replaced it with अर्ध “half,” which makes little sense in this surgical context.
- 40 Ḏalhaṇa accepted a verse following this, 1.16.32 (Su 1938: 81), which pointed out that the procedure for joining the nose is similar to that of joining the lips without fusing the ducts. He noted that earlier teachers did not think this statement on the nose and lips was made by sages, but he included it because it was accepted by Jejjāta, Gayadāsa and others, although they did not comment on it because it was easy to understand. Cakrapāṇidatta also did not comment on this additional verse (Su 1939: 133).

# Abbreviations

ARK references can be found by prefixing the resolver "<http://n2t.net>,"  
e.g., <http://n2t.net/ark:/13960/t3tt6967d>.

Ah 1939	Kumṭe, Aṇṇā Moreśvara, Navare, Kṛṣṇāśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्भाग्मटविरचितम् अष्टाङ्गहृदयम्, श्रीमद्रुणदत्तविरचितया सर्वाङ्गसुन्दराख्यया व्याख्यया, हेमाद्रिप्रणीतया आयुर्वेदरसायनाह्यया टीकया च समुल्सितम् = <i>The Astāngahṛidaya</i> (6th edn., Mum̄bayyām: Nirṇayasāgara Press), <a href="#">ark:/13960/t3tt6967d</a> .
Anup	<i>Anup Sanskrit Library.</i>
Apte	Apte, Vaman Shivaram (1992), <i>The Practical Sanskrit-English Dictionary</i> (Kyoto: Rinsen Book Company), ISBN: 4-653-00038-7; Reprinted from Gode and Karve <a href="#">1957–9</a> .
AS	<i>Asiatic Society.</i>
As 1980	Āṭhavale, Anamta Dāmodara (1980) (ed.), <i>Āṣṭāṅgasāṅgrahāḥ. Śrīmad Vṛddhavāgbhaṭaviracitāḥ Induvyākhyāsaḥitāḥ</i> (Puṇe: Maheśa Anaṁta Āṭhavale, Śrīmad Ātreya Prakāśanam), <a href="#">ark:/13960/t9773bb9z</a> .
Bhela 1921	Mookerjee, Ashutosh and Ananta Krishna Shastri, Vedantabisharad (1921) (eds.), <i>The Bhela Samhita. Sanskrit Text</i> (Calcutta: University of Calcutta), <a href="#">ark:/13960/t3sv3157j</a> ; Based on two copies made of the Thanjavur codex unicus (MS Thanjavur TMSSML 10773, Burnell <a href="#">1880: 63–4</a> , P. P. S. Sastri <a href="#">1933: #11085</a> ).

Bhela 2000	Krishnamurthy, K. H. (2000), <i>Bhela-saṃhitā. Text with English Translation, Commentary and Critical Notes</i> (Haridas Ayurveda Series, 8; Varanasi: Chaukhambha Visvabharati).
BL	<i>British Library.</i>
Ca. 1941	Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्वसुनोपदिष्टा, तच्छुष्येणाग्निवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्या संवलिता (3rd edn., Mumbaiyām: Nirnaya Sagara Press), <a href="#">ark:/13960/t48q2f20n</a> .
HIML	Meulenbeld, Gerrit Jan (1999–2002), <i>A History of Indian Medical Literature</i> , 5 vols. (Groningen: E. Forsten), ISBN: 9069801248.
IOLR	Eggeling, Julius et al. (1887–1935), <i>Catalogue of the Sanskrit Manuscripts in the Library of the India Office</i> (London: Secretary of State for India), <a href="#">ark:/13960/s2kbk5zcr9</a> .
KL	<i>Kaiser Library.</i>
MN	Ācārya, Yādavaśarma Trivikrama (1932) (ed.), महामतिश्रीमाधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षितश्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाव्याख्याया, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुद्धसितम् = <i>Mādhavanidāna</i> by Mādhavakara with the Two Commentaries, <i>Madhukosha</i> by Vijayarakshita & Śrīkanthadatta and <i>Ātankadarpaṇa</i> by Vāchaspatti Vaidya (3rd edn., Bombay: Nirnaya Sagara Press), <a href="#">ark:/13960/t66452x0h</a> ; Reprinted Varanasi: Chowkhambha, 1986.
MW	Monier-Williams, Monier, Leumann, E., Cappeller, C., et al. (1899), <i>A Sanskrit–English Dictionary Etymologically and Philologically Arranged, New Edition</i> (Oxford: Clarendon Press); 1970 reprint.
NAK	<i>National Archives of Kathmandu.</i>

- NCC Raghavan, V. et al. (1949–), *New Catalogus Catalogorum, an Alphabetical Register of Sanskrit and Allied Works and Authors*, 39 vols. (Madras University Sanskrit Series; Madras: University of Madras); v.1: revised edition, 1968. Searchable at <https://vmlt.in/ncc/>.
- NGMCP NGMCP (2014), “Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue,” Universität Hamburg and Deutsche Forschungsgemeinschaft, URL: <http://catalogue.ngmcp.uni-hamburg.de/>.
- RORI *Rajasthan Oriental Research Institute.*
- Su 1889 Bhaṭṭācāryya, Jīvānanda Vidyāsāgara (1889) (ed.), सुश्रुतः. सूत्र-निदान-शारीर-चिकित्सा-कल्पोत्तर-तत्त्व-कल्पित आयुर्वेद. भगवता धन्वन्तरिणोपदिष्टः सुश्रुतनामधेयेन तच्छिष्येण विरचितः (3rd edn., Calcutta: Saratī Press), ark:/13960/t1nh6j09c; [HTML](#): IB, 311, edition b.
- Su 1915 Ācārya, Yādavaśarma Trivikrama (1915) (ed.), सुश्रुतसंहिता, सुश्रुतेन विरचिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्या समुद्धसिता, आचार्योपाहेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = *The Sushrutasamhita of Sushruta, the Nibandhasangraha Commentary of Shri Dalhaṇāchārya* (Mumbayyāṁ: Nirṇayasāgaramudrāyantrālaye), ark:/13960/t3sv0mt50, accessed 29/07/2020; [HTML](#): IB, 312 edition \*v.
- Su 1931 Ācārya, Yādavaśarma Trivikrama (1931) (ed.), सुश्रुतसंहिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहाख्यव्याख्या समुद्धसिता, महर्षिणा सुश्रुतेन विरचिता, सूत्र-निदान-शारीर-चिकित्सा-कल्पस्थानोत्तरतत्त्वात्मकः. आचार्योपाहेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = *The Sushrutasamhitā of Sushruta with the Nibandhasangraha Commentary of Shree Dalhaṇāchārya* (2nd edn., Mumbayyāṁ: Pāṇḍuraṅga Jāvajī at the Nirṇayasāgaramudrāyantrālaye), ark:/13960/t9j41sg94, accessed 09/06/2020; [HTML](#): IB, 312 edition \*v.

- Su 1938 *Ācārya, Yādavaśarma Trivikrama and Ācārya, Nārāyaṇa Rāma* (1938) (eds.), श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहारब्दव्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिकारब्दपञ्जिकाव्याख्यया च समुद्धसिता महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (3rd edn., Bombay: Nirṇayasāgara Press), [ark : / 13960 / t09x0sk1h](#); [HIML](#): IB, 313, edition cc ('the vulgate').
- Su 1938<sup>2</sup> *Ācārya, Yādavaśarma Trivikrama and Ācārya, Nārāyaṇa Rāma* (2004) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता, श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहारब्दव्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिकारब्दपञ्जिकाव्याख्यया च समुद्धसिता (Vārāṇasī: Caukhambhā Kṛṣṇadāsa Akādamī); Reprint of the third, 1938 edition ([Su 1938](#)).
- Su 1939 *Ācārya, Yādavaśarma Trivikrama and Śarman, Nandakiśora* (1939) (eds.), सुश्रुतसंहितायाः सूत्रस्थानम्. श्रीचक्रपाणिदत्तविरचितया भानुमतीव्याख्याया समेतम् = *Sushrut-saṅhitā* (*sūtra Sthān*) with *Bhānumati* 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.
- Su 1945 *Ācārya, Yādavaśarma Trivikramācārya and Ācārya, Nārāyaṇa Rāma* (1945) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता (मूलमात्रा). पाठान्तर-परिशिष्टादिभिः संवलिता = the *Suśrutasaṅhitā* of *Suśruta* with Various Readings, Notes and Appendix etc. (Mumbāi: Nirṇayasāgarākhyamudraṇālaye), [ark : / 13960 / t8kd4jh7n](#).
- TMSSML *Tanjore Maharaja Serfoji Saraswati Mahal Library*.
- Viṣṇudh. *Śarman, Madhusūdana and Śarman, Mādhavaprasāda* (1912) (eds.), विष्णुधर्मोत्तरपुराणम् = [Viṣṇudharmottarapurāṇa] (Mumbai: Khemarāja

Śrīkrṣṇadāsa at the Śrīveṅkaṭeśvara Steam Press),  
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Edited on the basis of a manuscript belonging to  
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# Bibliography

Ācārya, Yādavaśarma Trivikrama (1941) (ed.), महर्षिणा पुनर्वसुनोपदिष्टा, तच्छिष्येणाग्निवेशेन प्रणीता, चरकटृष्णबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाव्याख्या संवलिता (3rd edn., Mumbaiyām: Nirnaya Sagara Press), [ark:/13960/t48q2f20n](https://ark:/13960/t48q2f20n).

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

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

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

Āgāśe, Ve. Śā. Rā. Rā. Kāśīnātha Śāstrī and Āpaṭe, Hari Nārāyaṇa (1904) (eds.), वाचस्पतिमिश्रविरचितटीकासंवलितव्यासभाष्यसमेतानि पातञ्जलयोगसूत्राणि तथा भोजदेवविरचितराजमार्तण्डाभिधवृत्तिसमेतानि पातञ्जलयोगसूत्राणि (Ānandāśramasamaskṛtagranthāvalih, 47; Puṇyākhya-pattana: Ānandāśramamudraṇālaya), [ark:/13960/t40s27g36](https://ark:/13960/t40s27g36).

- Agrawal, V. S. (1963), *India As Known to Pāṇini: A Study of the Cultural Material in the Aṣṭādhyāyī* (2nd edn., Varanasi: Prthvi Prakashan); First published in 1953.
- Angermeier, Vitus (2020), *Regenzeiten, Feuchtgebiete, Körpersäfte. Das Wasser in der klassischen indischen Medizin* (Wien: Österreichische Akademie der Wissenschaften).
- Āṭhavale, Anamta Dāmodara (1980) (ed.), *Aṣṭāṅgasaṅgrahāḥ. Śrīmad Vṛddhavāgbhaṭaviracitāḥ Induvyākhyāsahitāḥ* (Puṇe: Maheśa Anamta Āṭhavale, Śrīmad Ātreya Prakāśanam), [ark:/13960/t9773bb9z](https://ark:/13960/t9773bb9z).
- Baber, Zaheer (1996), *The Science of Empire: Scientific Knowledge, Civilization, and Colonial Rule in India* (Albany: State University of New York Press).
- Bakker, Hans T. (2019), "Some Methodological Considerations with Respect to the Critical Edition of Puranic Literature," in *Holy Ground: Where Art and Text Meet* (Leiden: Brill), 175–84. doi: [10 . 1163 / 9789004412071 \\_ 010](https://doi.org/10.1163/9789004412071_010).
- Barceloux, Donald G. (2008), *Medical Toxicology of Natural Substances. Foods, Fungi, Medicinal Herbs, Plants, and Venomous Animals* (Hoboken, NJ, etc.: John Wiley & Sons), 1196 pp., ISBN: 047172761X, URL: [https://www.ebook.de/de/product/6928604/barceloux\\_natural\\_substances.html](https://www.ebook.de/de/product/6928604/barceloux_natural_substances.html).
- Bausi, Alessandro et al. (2015), *Comparative Oriental Manuscript Studies. An Introduction* (Hamburg: Tredition). doi: [10 . 5281 / ZENODO . 46784](https://doi.org/10.5281/ZENODO.46784).
- Bendall, Cecil (1883), *Catalogue of the Buddhist Sanskrit, Manuscripts in The, University Library, Cambridge: With Introductory Notices and Illustrations of the Palaeography and Chronology of Nepal and Bengal* (Cambridge: University Press), [ark:/13960/t03x8vz7b](https://ark:/13960/t03x8vz7b).
- Bhaṭṭācārya, Candrakānta (1910–7) (ed.), सुश्रुतसंहिता प्रथमखण्डम् सूत्रस्थानात्मकम् हाराणचन्द्रचक्रवर्तिकविराजविरचितसुश्रुतार्थसन्दीपनभाष्य-समेतम्...चन्द्रकान्त भट्टाचार्य-प्रमुखैः संशोधितम् = [The Suśrutasaṃhitā with the Commentary Suśrutārthaśandīpanabhāṣya 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 Suśrutasamhitā," *Academia Letters*. doi: [10.20935/AL2992](https://doi.org/10.20935/AL2992).
- Birch, Jason, Wujastyk, Dominik, Klebanov, Andrey, Rimal, Madhusudan, et al. (2021), "Ḍalhaṇa and the Early 'Nepalese' Version of the Suśrutasamhitā." doi: [10.20935/al3733](https://doi.org/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: <https://jainelibrary.org/book-detail/?srno=007006>, 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: <https://archive.org/details/s8id13658440/page/338/mode/2up>, accessed 02/06/2021.
- Bronkhorst, Johannes (2016), *How the Brahmins Won: From Alexander to the Guptas* (Leiden: Brill). doi: [10.1163/9789004315518](https://doi.org/10.1163/9789004315518).
- (2021), "Patañjali's Āryāvarta = Śunga realm?," *Academia Letters*. doi: [10.20935/al291](https://doi.org/10.20935/al291); Article 291.
- Bronner, Yigal (2021) (ed.), "The Pandit Project" (30 Sept.), URL: <http://panditproject.org>.
- Burghart, Marjorie (2016), "The TEI Critical Apparatus Toolbox: Empowering Textual Scholars through Display, Control, and Comparison Features," *Journal of the Text Encoding Initiative*, 10/Issue 10. doi: [10.4000/jtei.1520](https://doi.org/10.4000/jtei.1520).
- (2017), "Textual Variants," in Marjorie Burghart, James Cummings, and Elena Pierazzo (eds.), *Digital Editing of Medieval Texts: A Textbook* (DEM), URL: <https://www.digitalmanuscripts.eu/wp-content/uploads/2017/09/04-Textual-variants-MB.pdf>, 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; Bhelasamhitā described on pp. 67 ff.

- Carpue, J. C. (1816), *An Account of Two Successful Operations for Restoring a Lost Nose from the Integuments of the Forehead...Including Descriptions of the Indian and Italian Methods* (London: Longman et al.), [ark:/13960/t2q57fn42](https://ark.org/ark:/13960/t2q57fn42), accessed 20/03/2019.
- Chadha, Gita and Thomas, Renny (2022) (eds.), *Mapping Scientific Method: Disciplinary Narrations* (Science and Technology Studies; Abingdon and New York: Routledge). doi: [10.4324/9781003298908](https://doi.org/10.4324/9781003298908).
- Cone, Margaret (2001), *A Dictionary of Pāli* (Oxford: The Pali Text Society), ISBN: 0 86013 394 x.
- Cordier, P. (1903), "Récentes découvertes de mss. médicaux sanscrits dans l'Inde (1898–1902)," *Muséon, Nouvelle Série*, 4: 321–52, [ark:/13960/t26b2j457](https://ark.org/ark:/13960/t26b2j457), accessed 02/01/2020; Reprinted in Roșu 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).
- Dave, K. N. (1985), *Birds in Sanskrit Literature* (Delhi: Motilal Banarsi-dass), ISBN: 0-89581-676-8, [ark:/13960/t2c94cv80](https://ark.org/ark:/13960/t2c94cv80).
- Deshpande, Madhav (1988), "Pāṇini and the Northwestern Dialect: Some Suggestions on Sūtra 3.3.10," in Mohammad Ali Jazayery and Werner Winter (eds.), *Languages and Cultures: Studies in Honor of Edgar C. Polomé*, xxxvi (Trends in linguistics. Studies and monographs; Berlin, New York: Mouton de Gruyter), 111–23.
- Deshpande, Madhav M. (2010), "Pañca Gauda and Pañca Drāvida: Contested Borders of a Tradition Classification," in Klaus Karttunen (ed.), *Anantam Śāstram. Indological and Linguistic Studies in Honour of Bertil Tikkanen* (Studia Orientalia, 108; Helsinki: Finnish Oriental Society), 29–58, ISBN: 9789519380742.
- Deshpande, Vijaya (1999), "Indian Influences on Early Chinese Ophthalmology: Glaucoma As a Case Study," *Bulletin of the School of Oriental and African Studies*, 62: 306–22. doi: [10.1017/S0041977X00016724](https://doi.org/10.1017/S0041977X00016724).
- (2000), "Ophthalmic Surgery: A Chapter in the History of Sino-indian Medical Contacts," *Bulletin of the School of Oriental and African Studies*, 63/3: 370–88, ISSN: 0041-977X. doi: [10.1017/S0041977X00008454](https://doi.org/10.1017/S0041977X00008454).

- 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: <http://www.uni-hamburg.de/ngmcp/newsletter.html>.
- Edgerton, Franklin (1939), "The Epic Triṣṭubh and Its Hypermetric Varieties," *Journal of the American Oriental Society*, 59/2: 159–74. DOI: [10.2307/594060](https://doi.org/10.2307/594060).
- (1953), *Buddhist Hybrid Sanskrit Grammar and Dictionary. Vol. 2: Dictionary* (William Dwight Whitney Linguistic Series; New Haven: Yale University Press).
- Eggeling, Julius et al. (1887–1935), *Catalogue of the Sanskrit Manuscripts in the Library of the India Office* (London: Secretary of State for India), [ark:/13960/s2kbk5zcr9](https://ark:/13960/s2kbk5zcr9).
- 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, nū-nam"," *Indo-Iranian Journal*, 11/4: 241–68.
- Falk, Harry (1991), "Silver, Lead and Zinc in Early Indian Literature," *South Asian Studies*, 7/1: 111–7. DOI: [10.1080/02666030.1991.9628430](https://doi.org/10.1080/02666030.1991.9628430).
- Fan, Ka Wai (2005), "Couching for Cataract and Sino-indian Medical Exchange Fromthe Sixth to the Twelfth Century Ad," *Clinical and Experimental Ophthalmology*: 188–90. DOI: [10.1111/j.1442-9071.2005.00978.x](https://doi.org/10.1111/j.1442-9071.2005.00978.x); Unaware of V. Deshpande 1999; 2000.
- Fitzgerald, James L. (2009), "A Preliminary Study of the 681 Triṣṭubh Passages of the Mahābhārata," in Robert P. Goldman and Muneo Tokunaga (eds.), *Epic Undertakings* (Papers of the 12th World Sanskrit Conference; Delhi: Motilal Banarsidass Publishe), 95–117.
- Gaṇapatiśāstrī, T. (1920–5), Āryamañjuśrīmūlakalpaḥ (Trivandrum Sanskrit Series, 70; Anantaśayane: Rājakīyamudraṇayantrālaye), [ark:/13960/t4pk5sj0j](https://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](https://ark:/13960/t3gx47212), accessed 20/10/2017.

- Gombrich, Richard (1979), "'He Cooks Softly': Adverbs in Sanskrit Grammar," *Bulletin of the School of Oriental and African Studies*, 42/2: 244–56. doi: [10.1017/s0041977x0014580x](https://doi.org/10.1017/s0041977x0014580x).
- Gupta, Sri Madhusudana (1835–6) (ed.), *Āyur-veda-prakāśa [also Called Suśruta-saṃhitā] by Suśruta. the Suśruta, or System of Medicine, Taught by Dhanvantari, and Composed by His Disciple Suśruta*, 2 vols. (Calcutta: Education Press and Baptist Mission Press), ark:/13960/t6841qw6x.
- Harimoto, Kengo (2010), "[Preliminary Edition of the Nepalese MSS of the Suśrutasamhitā, adhyāyas 1.1–3, 6.4]" (prepublished).
- (2011), "In Search of the Oldest Nepalese Manuscript," *Rivista degli Studi Orientali*, 84/1–4: 85–106, ISSN: 0392-4866, URL: <https://www.academia.edu/4128593/>, accessed 08/09/2019.
- (2014), "Nepalese Manuscripts of the Suśrutasamhitā," *Journal of Indian and Buddhist Studies (Indogaku Bukkyogaku Kenkyū)*, 62/3: 23–29 (1087–1093). doi: [10.4259/ibk.62.3\\_1087](https://doi.org/10.4259/ibk.62.3_1087), URL: <https://www.academia.edu/6695321/>, accessed 08/09/2019.
- Hayashi, Takao (2017), "The Units of Time in Ancient and Medieval India," *History of Science in South Asia*, 5/1: 1–116. doi: [10.18732/h2ht0h](https://doi.org/10.18732/h2ht0h).
- Hemarāja Sarman (1938) (ed.), काश्यपसंहिता (वृद्धजीवकीयं तत्रं वा) महर्षिणा मारीच-कश्यपेनोपादिष्टा ... हेमराजशर्मणा लिखितेन विस्तृतेन उपोद्घातेन संहिता ... सत्यपाल भिषगा कृत्या विद्योतिनी हिन्दीव्याख्यया ... समुल्लसिता (1st edn., Mumba: Nirṇayasāgara Press), ark:/13960/t3mw5gb9p.
- Hendley, T. Holbein (1895), *A Medico-topographical Account of Jeypore, Based on the Experience of Twenty Years' Service As a Residency Surgeon and Thirteen As Superintendent of Dispensaries at Jeypore, Rajputana* (Calcutta: Calcutta Central Press Company).
- Hessler, Franciscus (1844–55), *Suśrutas Ayurvédas: id est Medicinae Systema a Venerabili D'hantare Demonstratum a Susruta Discipulo Compositum; Nunc Primum Ex Sanskrita in Latinum Sermonem Vertit, Introductionem, Annotationes Et Rerum Indice Franciscus Hessler* (Erlangen: Ferdinandum Enke), ark:/13960/t17m45r97.

- Hoernle, A. F. Rudolf (1893–1912) (ed.), *The Bower Manuscript: Facsimile Leaves, Nagari Transcript, Romanised Transliteration and English Translation with Notes* (New Imperial Series, 22; Calcutta: Government of India and under the patronage of the Bengali Government, Archaeological Survey of India), [ark:/13960/t05z1bg4q](https://hdl.handle.net/13960/t05z1bg4q).
- (1897), सुश्रुतसंहिता = *The Suṣrata-Saṃhitā or the Hindū System of Medicine According to Suṣruta Translated from the Original Sanskrit* (Bibliotheca Indica, 911; Calcutta: Asiatic Society), [ark:/13960/t8pd1kw9r](https://hdl.handle.net/13960/t8pd1kw9r), accessed 03/01/2018; No more published; Hoernle does not state which edition he is translating, but it includes the "Dhanvantari phrase".
- (1906a), "Studies in Ancient Indian Medicine I: The Commentaries on Suśruta," *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 283–302, URL: <https://www.jstor.org/stable/25210249>, accessed 26/06/2019.
- (1906b), "Studies in Ancient Indian Medicine II: On Some Obscure Anatomical Terms," *Journal of the Royal Asiatic Society of Great Britain and Ireland*, 4: 915–41, URL: <http://www.jstor.org/stable/25210334>, accessed 25/06/2019.
- (1907a), "Studies in Ancient Indian Medicine II: On Some Obscure Anatomical Terms (Continued from the the Journal, 1906, p. 941)," *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 1–18, URL: <http://www.jstor.org/stable/25210361>, accessed 25/06/2019.
- (1907b), *Studies in the Medicine of Ancient India: Osteology or the Bones of the Human Body* (Oxford: Clarendon Press), [ark:/13960/t1pg9cq8b](https://hdl.handle.net/13960/t1pg9cq8b).
- Hofer, Theresia (2007), "Swami Laxmi Ram's Ayurvedic Pharmacy in Jaipur, India," *Wellcome History*, 34: 2–3, URL: [https://eprints.whiterose.ac.uk/64252/1/Wellcome\\_History\\_34\\_Spring\\_2007\\_.pdf](https://eprints.whiterose.ac.uk/64252/1/Wellcome_History_34_Spring_2007_.pdf), 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](https://hdl.handle.net/13960/t3ws9h63c).

- Jack, David Morton (1884), "A Thesis on Cataract in India: Its Pathology and Treatment," Wellcome Library, London, MS 3007, URL: <https://catalogue.wellcomelibrary.org/record=b1842019~S8>, accessed 02/06/2021.
- Jośī, Veṇīmādhavaśāstrī and Jośī, Nārāyaṇa Harī (1968), आयुर्वेदीय महाकोशः अर्थात् आयुर्वेदीय शब्दकोशः संस्कृत-संस्कृत (Mumbai: Mahārāṣṭra Rājya Sāhitya āṇi Saṃskṛti Maṇḍala), ark:/13960/t22c41g8t.
- Kangle, R. P. (1969), *The Kauṭilya 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 Ancient Indian Medicine II: On Some Obscure Anatomical Terms (Continued from the Journal, 1906, p. 941)," *Journal of the Royal Asiatic Society of Great Britain and Ireland*: 1–18, URL: <http://www.jstor.org/stable/25210361>, accessed 25/06/2019, in *Zeitschrift Der Deutschen Morgenländischen Gesellschaft*, 1/62: 134–9, URL: <https://www.jstor.org/stable/43367361>, accessed 17/04/2021.
- Klebanov, Andrey (2010), "The \*Nepalese Version of the Suśrutasamhitā and Its Interrelation with Buddhism and the Buddhists," MA thesis (Hamburg: Hamburg University, Sept.), URL: <https://www.academia.edu/12177425/>, accessed 08/09/2019.
- (2021a), "On the Textual History of the Suśrutasamhitā (1): A Study of Three Nepalese Manuscripts," *eJIM: Electronic Journal of Indian Medicine*, 12/1: 1–64. doi: [10.21827/ejim.12.1.37385](https://doi.org/10.21827/ejim.12.1.37385).
- (2021b), "On the Textual History of the Suśrutasamhitā, (2): An Anonymous Commentary and its Identified Citations," in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos: Studies in Early Indian Medical and Astral Sciences in Honor of Kenneth G. Zysk* (Leiden, Boston: Brill), 110–39.
- 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.

Kumte, Aññā Moreśvara, Navare, Kṛṣṇāśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्ब्रागभटविरचितम् अष्टाङ्गहृदयम्, श्रीमद्रुणदत्तविरचितया सर्वाङ्ग-सुन्दराख्यया व्याख्यया, हेमाद्रिप्रणीतया आयुर्वेदरसायनाह्या टीकया च समुद्धसितम् = *The Astāṅgahṛidaya* (6th edn., Mumbayyām: Nirnayasāgara Press), ark:/13960/t3tt6967d.

Lariviere, Richard W. (2003), *The Nāradasmṛti. Critically Edited with an Introduction, annotated Translation, and Appendices* (2nd edn., Delhi: Motilal Banarsidass), ISBN: 8120818040; First edition: Philadelphia, 1989.

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-rcc-04, URL: <http://atm.amegroups.com/article/view/54993>, accessed 02/11/2020.

Li, Charles (2017), "Critical Diplomatic Editing: Applying Text-critical Principles As Algorithms," in Peter Boot et al. (eds.), *Advances in Digital Scholarly Editing. Papers Presented at the Dixit Conferences in the Hague, Cologne, and Antwerp* (Leiden: Sidestone Press), 305–10, ISBN: 978-90-8890-485-1, URL: <https://www.sidestone.com/bookviewer/9789088904837>, accessed 10/11/2020.

— (2017–), "Saktumiva," URL: <https://saktumiva.org>, accessed 21/01/2023.

— (2018), "Limits of the Real: A Hypertext Critical Edition of Bhartṛhari's Dravyasamuddeśa, with the Commentary of Helārāja," en, PhD thesis (Cambridge: University of Cambridge). doi: 10.17863/CAM.31454.

— (2022a), "Helayo: Reconstructing Sanskrit Texts from Manuscript Witnesses," *Journal of Open Source Software*, 7/71: 4022. doi: 10.21105/joss.04022.

— (2022b), "Reconstructing a Sanskrit Text" (19 Nov.), URL: <https://chchch.github.io/sanskrit-alignment/docs/index.html>, accessed 20/01/2023.

- Lienhard, Siegfried (1978), "On the Meaning and Use of the Word Indragopa," *Indologica taurinensis*, 6: 177–88, URL: [http://www.asiainstitutetorino.it/Indologica/volumes/vol06/vol06\\_art14\\_Lienhard.pdf](http://www.asiainstitutetorino.it/Indologica/volumes/vol06/vol06_art14_Lienhard.pdf), accessed 06/02/2021; The indragopa is a 'red velvet mite'.
- Longmate, Barak (1794), "A Curious Chirurgical Operation," *The Gentleman's Magazine and Historical Chronicle*, 64.4 (Oct.): 883, 891, 892; I am grateful to the late John Symons of the Wellcome Library who identified the author 'B. L.' as the journalist Barak Longmate. See also Kuist 1982: 87.
- Maas, Philipp André (2013), "A Concise Historiography of Classical Yoga Philosophy: leslie," in Eli Franco (ed.), *Historiography and Periodization of Indian Philosophy* (Vienna: Sammlung de Nobili), 53–90, URL: <http://www.academia.edu/3520571/>, accessed 27/05/2016.
- Majno, Guido (1975), *The Healing Hand. Man and Wound in the Ancient World* (Cambridge, MA: Harvard University Press), ark:/13960/t4hm7xf2c.
- Malamoud, Charles (1996), "Paths of the Knife: Carving up the Victim in Vedic Sacrifice," in *Cooking the World: Ritual and Thought in Ancient India. Translated from the French by David White* (Delhi, Bombay, etc.: Oxford University Press), 169–80.
- 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: [https://archive.org/search.php?query=storia%20do%20mogor&and\[\]=collection:%22robarts%22](https://archive.org/search.php?query=storia%20do%20mogor&and[]=collection:%22robarts%22), accessed 04/10/2021.
- Masai, François (1950), "Principes et conventions de l'édition diplomatique," *Scriptorium*, 4: 177–93. doi: [10.3406/script.1950.2294](https://doi.org/10.3406/script.1950.2294).
- Mayrhofer, Manfred (1953–72), *Kurzgefaßtes etymologisches Wörterbuch des Altindoarischen; a Concise Etymological Sanskrit Dictionary* (Heidelberg: Carl Winter, Universitätsverlag).
- (1986–2001), *Etymologisches Wörterbuch des Altindoarischen* (Heidelberg: Carl Winter, Universitätsverlag), ISBN: 3-533-03826-2.
- McHugh, James (2021), *An Unholy Brew: Alcohol in Indian History and Religions* (New York: Oxford University Press), 416 pp., ISBN: 9780199375936.

- Meulenbeld, Gerrit Jan (1974b), *The Mādhavanidāna and Its Chief Commentary: Chapters 1–10. Introduction, Translation, and Notes* (Leiden: Brill), ISBN: 978-90-04-03892-9, [ark:/13960/t25b8q97g](http://ark:/13960/t25b8q97g).
- (1984), “The Surveying of Sanskrit Medical Literature,” in id. (ed.), *Proceedings of the International Workshop on Priorities in the Study of Indian Medicine* (Groningen: Forsten), 37–56.
- (1989), “The Search for Clues to the Chronology of Sanskrit Medical Texts As Illustrated by the History of Bhaṅgā (cannabis Sativa Linn.),” *Studien zur Indologie und Iranistik*, 15: 59–70.
- (1992), “The Characteristics of a Doṣa,” *Journal of the European Āyurvedic Society*, 2/1: 1–5, URL: <https://archive.org/details/journalofeuropea02unse/page/n7/mode/2up>, accessed 31/08/2021.
- (1999–2002), *A History of Indian Medical Literature*, 5 vols. (Groningen: E. Forsten), ISBN: 9069801248.
- (2008), *The Mādhavanidāna with "Madhukośa," the Commentary by Vijayarakṣita and Śrīkaṇṭhadatta (Ch. 1–10). Introduction, Translation, and Notes* (Delhi: Motilal Banarsidass).
- (2011), “The Relationships between Dosas and Dūṣyas: A Study on the Meaning(s) of the Root Murch-/mūrch,” *eJournal of Indian Medicine*, 4/2: 35–135, URL: <http://ugp.rug.nl/eJIM/article/view/24740>, accessed 13/10/2017.
- Miles, M. (1999), “Personal Communication,” Mar.; Letter of 4 March.
- 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.
- 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: <http://hdl.handle.net/2078.1/155652>, accessed 04/07/2021.
- Mukhopādhyāya, Girindranāth (1913), *The Surgical Instruments of the Hindus, with a Comparative Study of the Surgical Instruments of the Greek, Roman, Arab, and the Modern European (sic) Surgeons* (Calcutta: Calcutta University), [ark:/13960/t1zd2pq29](http://ark:/13960/t1zd2pq29), accessed 29/01/2018; Vol.2: [ark:/13960/t9r25qd8m](http://ark:/13960/t9r25qd8m). Reprinted as a single volume, New Delhi, 1987.

- Narayana, Ala and Thrigulla, Saketh Ram (2011), "Tangible Evidences of Surgical Practice in Ancient India," *Journal of Indian Medical Heritage*, 16: 1–18, URL: <https://ayushportal.nic.in/pdf/108234.pdf>, accessed 02/06/2021.
- NGMCP (2014), "Nepal-german Manuscript Cataloguing Project. Online Title List and Descriptive Catalogue," Universität Hamburg and Deutsche Forschungsgemeinschaft, URL: <http://catalogue.ngmcp.uni-hamburg.de/>.
- Oberlies, Thomas (2003), *A Grammar of Epic Sanskrit* (Indian Philology and South Asian Studies, 5; Berlin: De Gruyter), ISBN: 9783110144482. doi: [10.1515/9783110899344](https://doi.org/10.1515/9783110899344).
- Olivelle, Patrick (2005), *Manu's Code of Law: A Critical Edition and Translation of the Manava-dharmasutra*, With the editorial assistance of Suman Olivelle (South Asia research; New York: Oxford University Press), ISBN: 0195171462.
- (2013), *King, Governance, and Law in Ancient India: Kauṭilya's Arthaśāstra. a New Annotated Translation* (New York: Oxford University Press), ISBN: 9780199891825. doi: [10.1093/acprof:osobl/9780199891825.003.0001](https://doi.org/10.1093/acprof:osobl/9780199891825.003.0001).
- Osbaldiston, 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: <http://panaceavera.com/demateriaindex.html>.
- Pandey, Anshuman (2012), "Proposal to Encode the Newar Script in ISO/IEC 10646," URL: <https://www.unicode.org/L2/L2012/12003r-newar.pdf>.
- Pass, Gregory (2003), *Descriptive Cataloging of Ancient, Medieval, Renaissance, and Early Modern Manuscripts* (Chicago: American Library Association), ISBN: 0-8389-8218-2, URL: [http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/booksanddigitalresources/digital/AMREMM\\_full.pdf](http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/booksanddigitalresources/digital/AMREMM_full.pdf).
- Pillay, V. V. (2013), *Modern Medical Toxicology* (New Delhi: Jaypee Brothers Pvt. Ltd), ISBN: 9789350259658.

- Pillay, Vijay V. and Sasidharan, Anu (2019), "Oleander and Datura Poisoning: An Update," *Indian Journal of Critical Care Medicine*, 23/Supplement 4: 5250–5. doi: [10.5005/jp-journals-10071-23302](https://doi.org/10.5005/jp-journals-10071-23302).
- Preisendanz, Karin (2007), "The Initiation of the Medical Student in Early Classical Āyurveda: Caraka's Treatment in Context," in Birgit Kellner et al. (eds.), *Pramāṇakīrtih. 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: [https://www.istb.univie.ac.at/caraka/file\\_download/36](https://www.istb.univie.ac.at/caraka/file_download/36).
- Price, Kenneth M. (2013), "Electronic Scholarly Editions," in Ray Siemens and Susan Schreibman (eds.), *A Companion to Digital Literary Studies* (Chichester, UK: John Wiley & Sons, Ltd), 434–50. doi: [10.1002/9781405177504.ch24](https://doi.org/10.1002/9781405177504.ch24), URL: <http://www.digitalhumanities.org/companionDLS/>, accessed 04/07/2021.
- Rādhākāntā Deva, Rājā (1876), शब्दकल्पद्रुमः = *Shabda Kalpadrumah, Or, the Tree Bearing All the Words That May Be Wished For* (Calcutta: Baradākānta Mitra & Co. at the New Bengal Press), ark: [/13960/t9x10x61b](https://ark.naxos.com/13960/t9x10x61b).
- Raghavan, V. et al. (1949–), *New Catalogus Catalogorum, an Alphabetical Register of Sanskrit and Allied Works and Authors*, 39 vols. (Madras University Sanskrit Series; Madras: University of Madras); v.1: revised edition, 1968. Searchable at <https://vmlt.in/ncc/>.
- Rai, Saurav Kumar (2019), "Invoking 'Hindu' Ayurveda: Communalisation of the Late Colonial Ayurvedic Discourse," *The Indian Economic & Social History Review*, 56/4: 411–26. doi: [10.1177/0019464619873820](https://doi.org/10.1177/0019464619873820); Online first.
- Rama Rao, B. et al. (2005), *Sanskrit Medical Manuscripts in India* (New Delhi: Central Council for Research in Ayurveda & Siddha), ark: [/13960/t88h7763b](https://ark.naxos.com/13960/t88h7763b).
- Rama Sastri and Krishnamurthi Sastri, S. R. (1952) (eds.), पातञ्जल्योग-सूत्रभाष्यविवरणम्। (शङ्करभगवत्पादप्रणीतम्) = *Pātñjala[sic]-yogaśūtra-bhāṣya Vivaraṇam of Śaṅkara-Bhagavatpāda. Critically Edited with Introduction* (Madras Government Oriental Series, 94; Madras: Government Oriental Manuscripts Library), ark: [/13960/t7jq3m14w](https://ark.naxos.com/13960/t7jq3m14w), accessed 20/10/2017.

- Rây, Priyadarjan, Gupta, Hirendra Nath, and Roy, Mira (1980), *Suśruta Saṃhitā (a Scientific Synopsis)* (New Delhi: Indian National Science Academy), [ark:/13960/t64511t6v](https://ark.org/13960/t64511t6v), accessed 13/09/2019.
- Rhys Davids, Thomas William and Stede, William (1921–5), *The Pali Text Society's Pali-English Dictionary* (London: The Pali Text Society), [ark:/13960/t4nk3nc12](https://ark.org/13960/t4nk3nc12).
- Rimal, Madhusudana and Wujastyk, Dominik (2022), "MS Kathmandu NAK 1/1146," Pandit Project (18 May), URL: <https://www.panditproject.org/entity/104942/manuscript>.
- Roelli, Philipp (2020) (ed.), *Handbook of Stemmatology* (Berlin: De Gruyter). DOI: [10.1515/9783110684384](https://doi.org/10.1515/9783110684384).
- Roșu, Arion (1989), *Un demi-siècle de recherches āyurvédiques. Gustave Liétard et Palmyr Cordier: Travaux sur l'histoire de la médecine indienne* (Paris: Institut de Civilisation Indienne).
- Saha, Mridula (2015), *The History of Indian Medicine Based on the Vedic Literature Satapatha Brahmana* (Kolkata: The Asiatic Society), ISBN: 978-9381574294.
- Sarukkai, Sundar (2016), "Translation As Method: Implications for History of Science," in Bernard Lightman, Gordon McOuat, and Larry Stewart (eds.), *The Circulation of Knowledge Between Britain, India and China* (Leiden: BRILL), 309–29. DOI: [10.1163/9789004251410\\_014](https://doi.org/10.1163/9789004251410_014).
- Sastri, Hrishikesh and Gui, Siva Chandra (1895–1917), *A Descriptive Catalogue of Sanskrit Manuscripts in the Library of Calcutta Sanskrit College* (Calcutta: Baptist Mission Press).
- Sastri, P. P. S. (1933), *A Descriptive Catalogue of the Sanskrit Manuscripts in the Tanjore Maharaja Serfoji's Sarasvati Mahal Library Tanjore: Natya, Sangita, Kamasashastra, Vaidya & Jyotisa, nos. 10650–11737* (Srirangam: Sri Vani Vilas Press), [ark:/13960/t3nw8bc12](https://ark.org/13960/t3nw8bc12).
- Śāstri, Vardhamāna Pārvanātha (1940) (ed.), उग्रादित्याचार्यकृत कल्याणकारक (राष्ट्रभाषानुवादसंहित) = *The Kalyāṇa-kārakam of Ugrādityacharya, Edited with Introduction, Translation, Notes, Indexes and Dictionary* (Sakhārāma Nemacāmḍa Gramthamālā, 129; Solāpura: Seṭha Govīmdajī Rāvajī Dośī), [ark:/13960/t2q617g4d](https://ark.org/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](https://ark:/13960/t9870jt4g); Breton 1826: 358–363 cites Scott's description of cataract couching.

Semeka-Pankratov, Elena (1979), "A Semiotic Approach to the Polysemy of the Symbol *nāga* in Indian Mythology," in Irene Portis Winner and Jean Umiker-Sebeok (eds.), *Semiotics of Culture* (Approaches to Semiotics, 53; The Hague, Paris, NY: Mouton), 237–90. doi: [10.1515/9783110823134-009](https://doi.org/10.1515/9783110823134-009); The contents of this volume were published simultaneously in *Semiotica* (1/3) 1979.

Sena, Gaṅgāprasād et al. (1886–93) (eds.), *सुश्रूतसंहिता...दल्लनाचार्य-कृत-निवन्ध-संग्रह, चक्रपाणिदत्त-कृत-भानुमती-टीका...वज्ञानुवाद...इरेजि प्रतिशब्द* (Calcutta: Maṇirāma Press); Edition "g" in [HTML](#): IB, 311.

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

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

— (1975), *Āyurved Kā Vaijñānik Itihās* (Jayakṛṣṇadāsa Āyurveda Granthamālā; Vārāṇasī: Caukhambā Orientalia).

— (1982), *Dalhaṇa and his Comments on Drugs* (Delhi: Munshiram Manoharlal).

— (1999–2001a), *Suśruta-Saṃhitā, with English Translation of Text and Dalhaṇa's Commentary Alongwith (sic) Critical Notes*, 3 vols. (Haridas Ayurveda Series, 9; Varanasi: Chaukhambha Visvabharati).

— (1999–2001b), *Suśruta-Saṃhitā, with English Translation of Text and Dalhaṇa's Commentary Alongwith (sic) Critical Notes*, 3 vols. (Haridas Ayurveda Series, 9; Varanasi: Chaukhambha Visvabharati).

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

- Singhal, G. D. et al. (1972–82), *Diagnostic [and Other] Considerations in Ancient Indian Surgery* (Varanasi: Singhal Publications); A translation of the *Suśrutasāṃhitā* in 10v.
- Sircar, Dinesh Chandra (1987), “6. Rākshashkhāli (Sundarban) Plate; Śaka 1118,” *Epigraphia Indica* (1953–54), 30: 42–3.
- Sleeman, W. H. (1893), *Rambles and Recollections of an Indian Official* (London: Constable), [ark:/13960/t22c4bx7w](http://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).
- Steingass, F. (1930), *A Comprehensive Persian-English Dictionary Including the Arabic Words and Phrases to Be Met with in Persian Literature* (London: Kegan Paul, Trench, Trubner), [ark:/13960/s25bwz0337d](http://ark:/13960/s25bwz0337d); Reprint, Delhi: Oriental Reprint, 1973.
- Strauss, Bettina (1934), “Das Giftbuch des Śānāq: eine Literaturgeschichtliche Untersuchung,” *Quellen und Studien zur Geschichte der Naturwissenschaften und der Medizin*, 4/2: [89]–[152] followed by Arabic text, [ark:/13960/s2hb5j66s95](http://ark:/13960/s2hb5j66s95).
- Suvedī, K. S. and Tīvārī, N. (2000) (eds.), सौश्रुतनिधण्टुःः ग्रन्थादौ विस्तृतेन ग्रन्थवै-शिष्यप्रकाशकेनोपोद्धातेन अवसाने च द्रव्याणाम् अनेकभाषानाम् आवली- पर्यायसङ्घाभ्यां समलङ्घतः सुश्रुतसंहितायां प्रयुक्तानाम् औषधद्रव्याणां पर्याय-गुणकर्मवर्णात्मको पूर्वग्रन्थः (Belajhundī, Dāñ: Mahendrasamskr̥taviśvavidyalayah).
- Tavernier, Jean-Baptiste (1684), *Collections of Travels through Turkey (sic), into Persia, and the East-Indies* (London: M. Pitt), [ark:/13960/t9g45vn74](http://ark:/13960/t9g45vn74).

- The TEI Consortium (2010), *TEI P5: Guidelines for Electronic Text Encoding and Interchange*, ed. C. M. Sperberg-McQueen et al. (Oxford, Providence, Charlottesville, Nancy: TEI Consortium), URL: <http://www.tei-c.org/Guidelines/P5/>.
- The Unicode Consortium (1991–2020), “The Unicode Standard 13.0, NewRange: 11400–1147F” URL: <https://unicode.org/charts/PDF/U11400.pdf>, accessed 20/07/2021.
- Thorburn, S. S. (1876), *Bannu; or Our Afghan Frontier* (London: Trübner & Co.), ark:/13960/t39z96g7m; Reprinted Lahore: Niaz Ahmad, 1978.
- UNESCO (2013), “International Memory of the World Register Susruta Samhita (Nepal),” UNESCO, URL: <http://tinyurl.com/susruta>, accessed 11/09/2019.
- Unschuld, Paul Ulrich (1984), *Medicine in China: A History of Ideas* (Berkeley: University of California Press), ISBN: 0520050231.
- Valiathan, M. S. (2007), *The Legacy of Suśrata* (Hyderabad, Chennai, etc.: Orient Longman).
- Velankar, H. D (1925–30), *Descriptive Catalogue of the Sanskrta 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.
- Watt, George (1889–96), *A Dictionary of the Economic Products of India* (Calcutta: Dept. Revenue and Agriculture, Government of India), URL: <https://tinyurl.com/watt1889>, 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/t8cg7dm79.
- 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: <https://books.google.ca/books?id=OhkoAAAAYAAJ>.

- 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](https://ark.org/t14n65c9g).
- Wren, R. C., Williamson, Elizabeth M., and Evans, Fred J. (1994), *Potter's New Cyclopaedia of Botanical Drugs and Preparations* (Saffron Walden: C. W. Daniel Company Ltd.); Reprint of revised 1988 edition.
- Wujastyk, Dagmar (2012), *Well-mannered Medicine: Medical Ethics and Etiquette in Classical Ayurveda* (New York: Oxford University Press). DOI: [10.1093/acprof:oso/9780199856268.001.0001](https://doi.org/10.1093/acprof:oso/9780199856268.001.0001).
- (2013a), "Perfect Medicine. Mercury in Sanskrit Medical Literature," *Asian Medicine: Tradition & Modernity*, 8/1 (Sept.): 15–40, ISSN: 1573-4218. DOI: [10.1163/15734218-12341278](https://doi.org/10.1163/15734218-12341278).
- (2019), "Iron Tonics: Tracing the Development from Classical to Iatrocchemical Formulations in Ayurveda," *HIMALAYA, the Journal of the Association for Nepal and Himalayan Studies*, 39/1, ISSN: 2471-3716, URL: <https://digitalcommons.macalester.edu/himalaya/vol39/iss1/11>, 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: <https://www.academia.edu/492290>.
- (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: <https://www.academia.edu/188844/>, 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.
- (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: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2585368/>.

- (2013b), “New Manuscript Evidence for the Textual and Cultural History of Early Classical Indian Medicine,” in *Medical Texts and Manuscripts in Indian Cultural History*, ed. Dominik Wujastyk, Anthony Cerulli, and Karin Preisendanz (New Delhi: Manohar), 141–57, URL: <https://www.academia.edu/4125988/>.
- (2021a), “A New Translation of Carakasamhitā, Vimānasthāna, Chapter 1, Based on the Vienna Critical Edition,” in Toke Lindegaard Knudsen, Jacob Schmidt-Madsen, and Sara Speyer (eds.), *Body and Cosmos. Studies in Early Indian Medical and Astral Sciences in Honor of Kenneth G. Zysk* (Leiden, Boston: Brill), chap. 6, 77–109. doi: [10.1163/9789004438224\\_007](https://doi.org/10.1163/9789004438224_007).
- Wujastyk, Dominik et al. (2021a–a), “New Digital Edition of the Suśrutasamhitā: The Suśruta Project at Saktumiva,” ed. Dominik Wujastyk, Jason Birch, Andrey Klebanov, et al., University of Alberta, URL: <https://saktumiva.org/wiki/wujastyk/susrutasamhita/start>.
- (2021–3), “Sushrutaproject: Version Control for Suśruta Text TEI Transcriptions: Suśruta Project Manuscript Transcriptions,” URL: <https://wujastyk.github.io/sushrutaproject/>, accessed 21/01/2023.
- (2021b–b), “The Suśruta Project: The Textual and Cultural History of Medicine in South Asia Based on Newly-Discovered Manuscript Evidence,” ed. Dominik Wujastyk, Jason Birch, Andrey Klebanov, et al., URL: <https://sushrutaproject.org>, accessed 21/01/2023.
- Wujastyk, Dominik (2021 b), “MS London BL H. T. Colebrooke 908,” URL: [panditproject.org/entity/109978/manuscript](https://panditproject.org/entity/109978/manuscript).
- Wujastyk, Dominik, Pollock, Sheldon, et al. (2008–), “SARIT: Search and Retrieval of Indic Texts,” URL: <http://sarit.indology.info>, accessed 21/01/2023.
- Wujastyk, Dominik, SKSEC Team, and Kessler, O. (2020), “Suśrutasamhitā,” PanditProject (6 Oct.), URL: <http://panditproject.org/entity/42004/work>, accessed 14/09/2022.

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

# Botanical sourcebooks

- ADPS Sivarajan, V. V. and Balachandran, Indira (1994), *Ayurvedic Drugs and Their Plant Sources* (New Delhi, Bombay, Calcutta: Oxford & IBH Publishing).
- AVS 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).
- BIA Prater, S. H. (1993), *The Book of Indian Animals* (3rd edn., Bombay, Delhi, etc.: Oxford University Press); 4th impression of 3rd corrected 1980 edition.
- Chopra GIMP suppl. Chopra, R. N., Chopra, I. C., and Varma, B. S. (1969), *Supplement to Glossary of Indian Medicinal Plants* (Reprint 1986, New Delhi: National Institute of Science Communication), ISBN: 8185038872.
- Chopra, GIMP Chopra, R. N., Nayar, S. L., and Chopra, I. C. (1956), *Glossary of Indian Medicinal Plants* (3rd reprint, 1992, New Delhi: Council of Scientific and Industrial Research); vol. 2: R. N. Chopra, I. C. Chopra, and Varma ([Chopra GIMP suppl.](#)).
- Chopra's IDG Chopra, R. N., Chopra, I. C., Handa, K. L., et al. (1958), *Chopra's Indigenous Drugs of India* (2nd edn., Calcutta: Dhur & Sons), [ark:/13960/t9673t140](#).

- CIPP Pillay, V. V. (2010), "Common Indian Poisonous Plants," in D. A. Warrell, T. M. Cox, and J. D. Firth (eds.), *Oxford Textbook of Medicine* (5th edn., Oxford University Press), 1371–5. doi: [10.1093/med/9780199204854.003.090302](https://doi.org/10.1093/med/9780199204854.003.090302).
- Dutt Dutt, Uday Chand (1922), *The Materia Medica of the Hindus...with a Glossary of Indian Plants by George King. Revised Edition...by Binod Lall Sen and Ashutosh Sen and Pulin Krishna Sen* (Krishnadas Sanskrit Studies; 3rd edn., Calcutta: Madan Gopal Dass for the Adi-Ayurveda Machine Press), [ark:/13960/t59c7tg9z](https://doi.org/10.13960/t59c7tg9z); Reprinted Varanasi: Chowkhamba Saraswatibhavan, 1980.
- Dymock Dymock, William, Warden, C. J. H., and Hooper, David (1890), *Pharmacographia Indica: A History of the Principal Drugs of Vegetable Origin Met with in British India* (London, Bombay, Calcutta: Kegan Paul), URL: [https://archive.org/search.php?query=Dymock+Pharmacographia&&and\[\]=collection:%22rcpedinburgh%22](https://archive.org/search.php?query=Dymock+Pharmacographia&&and[]=collection:%22rcpedinburgh%22), accessed 24/10/2022.
- GJM1 Meulenbeld, Gerrit Jan (1974a), "Sanskrit Names of Plants and their Botanical Equivalents," in id., *The Mādhavanidāna and Its Chief Commentary: Chapters 1–10. Introduction, Translation, and Notes* (Leiden: Brill), chap. Appendix Four, 520–611, [ark:/13960/t25b8q97g](https://doi.org/10.13960/t25b8q97g).
- GJM2 Meulenbeld, Gerrit Jan (1988), "G. J. Meulenbeld's Additions to his "Sanskrit Names of Plants and their Botanical Equivalents"," in Rahul Peter Das, *Das Wissen von der Lebensspanne der Bäume: Surapālas Vṛkṣāyurveda* (Stuttgart: Franz Steiner Verlag), chap. Appendix 1, 425–65, ISBN: 9783515046633; Supplement to GJM1.
- GVDB Singh, Thakur Balwant and Chunekar, K. C. (1972), *Glossary of Vegetable Drugs in Brhattrayī* (Varanasi:

- Chowkhamba Sanskrit Series Office), [ark:/13960/s2cvp72x58j](https://ark:/13960/s2cvp72x58j).
- IGP Griffiths, Mark (1994), *The New Horticultural Society Index of Garden Plants* (London: Macmillan).
- K&B Kirtikar, K. R., Basu, B. D., and an I.C.S (1987), *Indian Medicinal Plants*, ed. E. Blatter, J. F. Caius, and K. S. Mhaskar, 8 vols. (2nd edn., Dehradun: International Book Distributors); First published in Allahabad, 1918.
- NK Nadkarni, K. M. (1982), *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: <https://books.google.ca/books?id=RA4Npohz4CEC>; First published in 1954.
- Trees Bole, P. V. and Vaghani, Yogini (1986), *Field Guide to the Common Trees of India* (Bombay, Delhi, Oxford, etc.: World Wildlife Fund – India and Oxford University Press), ISBN: 0-19-561595-6; 4th reprint.



# Glossary and Index of Medical Substances

- beggarweed (*vidārigandhū*) → *śālaparṇī*. Desmodium gangeticum (L.) DC. See **Dymock**: v. 1, 428, **GJM1**: 602, cf. **NK**: v. 1, #1192; **ADPS**: 382, 414 and **AVS**: v. 2, 319, 4.366 are confusing, 24, 59
- castor oil tree (*gandharvahasta*) → *erāṇḍa*. **GVDB**: 135, **K&B**: v. 3, 2277, 55
- castor-oil (*erāṇḍa*) Ricinus communis, L. See **NK**: v. 1, #2145, **Chopra**, **GIMP**: 214, 60
- country mallow (*atibalā*) Abutilon indicum, (L.) Sweet, but may be other kinds of mallow, e.g., Sida rhombifolia, L.. See **NK**: v. 1, #11, **IGP**: 1080, **NK**: v. 1, #2300, **ADPS**: 71, 77, 58
- country sarsaparilla (*anantā*) Hemidesmus indicus, (L.) R. Br. See **ADPS**: 434, **AVS**: v. 3, 141–5, **NK**: v. 1, #1210. But see **GVDB**: 13 for complications that may suggest that it is to be equated with *sārivā*, which may sometimes be *Cryptolepis* or *Ichnocarpus fruitescens* R. Br. (**GVDB**: 429–431), 58
- datura (*dhattūra*) Datura metel, L. See **AVS**: v. 2, 305 (cf. *Abhidhānamāñjari*), **NK**: v. 1, #796 ff. Wren et al. 1994: 292 f, **ADPS**: 132, 55
- decanted liquor (*surāmanḍa*) **K&B**: v. 2, 502, **NK**: v. 2, appendix VI, #49, 57
- elixir salve (*rasāñjana*) → *añjana*. See **Indian barberry**, 60
- fermented rice-water (*dhānyāmla*) → *kāñjī*, *kāñjikā*, *sauvīra*. **GVDB**: 458, **NK**: v. 2, appendix VI, #18, 57
- giant potato (*kṣīravidārī*) possibly → *kṣīraśukla*. Ipomoea mauritiana, Jacq. See **ADPS**: 510, **AVS**: v. 3, 222, **AVS**: v. 3, 1717 ff, 94, 95
- heart-leaf sida (*balā*) Sida cordifolia, Linn. See **ADPS**: 71, **NK**: v. 1, #2297, 58
- Holostemma creeper (*jīvantī*) →

- sūryavallī?* Holostemma ada-kodien, Schultes. See **ADPS**: 195, **AVS**: v. 3, 167, **NK**: v. 1, #1242, **AVS**: v. 3, 1619, 95
- hornwort (*jalaśuka*) ← *jalaniłikā*. Ceratophyllum demersum, L. See **AVS**: v. 2, 56, **IGP**: 232. Singh and Chunekar (**GVDB**: 166) suggest pondweed. Dalhana noted on 1.16.19 (**Su 1938**: 79) that some people interpret it as a poisonous, hairy, air-breathing, underwater creature, 59
- Indian barberry (*añjana*) → *rasāñjana, dāruharidrā*. Berberis aristata, DC. **Dymock**: v. 1, 65, **NK**: v. 1, #685, **GJM1**: 562, **IGP**: 141, 60, 93
- Indian ipecac (*payasyā*) Uncertain. Possibly *Tylophora indica* (Burm.f.) Merr. Perhaps a synonym of sun-flowered, giant potato, purple roscoea, and plants like asthma plant and Gulf sandmat (**GVDB**: 237–238), 24, 59, 95
- Indian kudzu (*vidārī*) → *payasyā*. *Pueraria tuberosa* (Willd.) DC. See **ADPS**: 510, **AVS**: v. 1, 792 f, **AVS**: v. 4, 391; not **Dymock**: v. 1, 424 f. See **GJM2**: 444, 451, **AVS**: v. 1, 187, but **AVS**: v. 3, 1719 = *Ipomoea mauritiana*, Jacq, 24, 59
- Indian madder (*mañjiṣṭhā*) *Rubia cordifolia*, L. See **IGP, Chopra, GIMP**: 215, **GVDB**: 289, 55
- liquorice (*madhuka*) *Glycyrrhiza glabra*, L. See **AVS**: v. 3, 84, **NK**: v. 1, #1136, 59
- liquorice (*yaṣṭimadhuka*) *Glycyrrhiza glabra*, L. **AVS**: v. 3, 84, **NK**: v. 1, #1136, **GVDB**: 329 f., 60
- milk-white (*kṣīraśuklā*) An unidentified plant. **GVDB**: 126: see **purple roscoea** and **giant potato**, 24, 59, 95
- monitor lizard (*godhā*) *Varanus bengalensis*, Schneider. See *Book of Indian Reptiles*, 58, 58
- neem tree (*nimba*) *Azadirachta indica* A. Juss. **GVDB**: 226, 55
- plants like asthma plant and Gulf sandmat (*kṣīriṇī*) various milky plants, perhaps including *Euphorbia hirta* Linn. (asthma plant) and *E. microphylla* Heyne (Gulf sandmat) (**GVDB**: 127), 94
- pondweed (*śaivāla*) *Zannichellia palustris* L. or *Zannichellia palustris* L. Sometimes identified with *dūrvā*. **GVDB**: 409, 94
- prickly chaff-flower (*apāmārga*) *Achyranthes aspera*, L. See **GJM1**: 524 f, **AVS**: v. 1, 39, **ADPS**: 44 f, **AVS**: v. 3, 2066 f, **Dymock**: v. 3, 135, 24, 55, 59
- purple calotropis (*arka*) *Calotropis gigantea*, (L.) R. Br. See **ADPS**: 52, **AVS**: v. 1, 341, **NK**: v. 1, #427, Wren et al. 1994: 57, **Chopra's IDG**: 305–308, 58
- purple roscoea (*kṣīrakākolī*) **GVDB**: 89 notes that many

physicians use *Roscoea procera* Wall. in this context. But the identification is uncertain. Possibly connected to [milk-white](#) or [giant potato.](#), 94

sappanwood (*pattāṅga*) Also *pattāṅga*. *Caesalpinia sappan*, L. AVS: v. 1, 323, K&B: v. 2, 847 f, GVDB: 234, 60

sesame oil (*taila*) *Sesamum indicum* L. GVDB: 183, 59

spikenard (*jatāmāmsī*) Nardostachys jatamansi DC GVDB: 163, etc, 25

sun-flowered (*arkapuṣpi*) Maybe identical to [Indian ipecac](#), [giant potato](#) and similar sweet, milky plants. See GVDB: 24, 127, 238, 441, 443 for discussion. For discussion in the context of [Holostemma creeper](#), see ADPS: 195 and AVS: v. 3, 171. The etymology of the name suggests *Helianthus annus* Linn., but this plant is native to

the Americas., 94

sweet plants (*madhuravarga*) The sweet plants are enumerated at *Suśrutasaṃhitā* 1.42.11. See also GVDB: 127, 24, 59

tree cotton (*kārpāsa*) *G. arboreum* L. ADPS: 231. Pace the identifications of Singh and Chunekar (GVDB: 92), since *G. barbadense* L. is native to South America and *G. herbaceum* L. which is native to Africa, 55, 95

tree cotton (*picu*) See [tree cotton](#). Singh and Chunekar (GVDB: 247) mentions other meanings, 58, 60

white calotropis (*alarka*) *Calotropis procera*, (Ait.) R. Br. See NK: v. 1, #428, Chopra, GIMP: 46b, Chopra's IDG: 305–308, 58

Withania (*aśvagandhā*) *Withania somnifera* (L.) Dunal. See AVS: v. 5, 409 f, Dymock: v. 2, 566 f., Chevallier 150, 24, 59