

# On the Plastic Surgery of the Ears and Nose: The Nepalese Version of the *Suśrutasaṃhitā*

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# Preface

The *Compendium of Suśruta* (Sanskrit: *Suśrutasaṃhitā*) is a world classic of ancient medicine, comparable in age and importance to the Hippocratic Corpus and the Huangdi Neijing. It is a substantial treatise, written in the Sanskrit language, that presents a systematic, scholarly form of medicine for diagnosing and treating the many ailments that patients presented in South Asia two thousand years ago. *The Compendium* is a text written by physicians for physicians and is one of the founding treatises of the indigenous medical system of India, Ayurveda. As such, it still informs indigenous medical practice in India and Ayurvedic complementary and alternative medicine internationally.

Amongst historians of medicine, *The Compendium* is perhaps most famous for its passages describing remarkable forms of surgery. These techniques were used in South Asia and beyond: *The Compendium's* method of couching for cataract circulated in China in the seventh century and a form of facial plastic surgery described in *The Compendium* was witnessed by British surgeons in India in the eighteenth century and subsequently formed the basis of certain types of facial reconstruction as practised even today.

In 2007, a previously unknown manuscript of *The Compendium* from the uncatalogued collections of the Kaiser Library in Kathmandu was announced in a scholarly publication. This manuscript, MS Kathmandu KL 699, is datable to 878 CE, almost a thousand years before any other known manuscript of the work. Furthermore, it became clear that two other manuscripts in Kathmandu were close copies of KL 699, albeit from later dates.

These exciting discoveries provide a time machine by which we can directly examine the medical thought of Nepalese physicians of the ninth century. We can also start to see the changes and additions to the text that have happened in the last millennium. Almost all of these later changes to the text have tended to obscure its clarity and directness, banalizing the language and inflating the recipes. Through the critical study of MS Kathmandu KL 699 and its companions we are beginning to recover an older, more authentic and more meaningful version of this medical classic.

This book presents a single chapter from *The Compendium* that is of unique interest to medical history. The book also lays out the basic parameters and methods of the project that will also apply to future publications. The members of the Suśruta Project have already read, edited and translated several other chapters. These materials are already

available in digital format through the project website.<sup>1</sup> It is our intention to continue to publish both digitally and in print. We are currently preparing a critical edition and annotated translation of the *Kalpasthāna*, *The Compendium*'s book on plant and animal poisons and their remedies.

Beyond the present funded project, the important work of editing and translating the other five books of the treatise remains for the future. Therefore the present book aims to establish an academically sound model for disseminating this older version of *The Compendium* to an international audience that will pave the way for future editions of the rest of the work.

When one sees an authorial collaboration such as the present book, it is natural to be curious about who did what. The bulk of the words of this book were co-written by myself and Jason Birch. Andrey Klebanov contributed an important section describing the manuscripts; Madhu K. Paramesvaran wrote about the evolution of recipes through time. The text of the translation was a fully collaborative effort, arising out of weekly seminar meetings that we all attended and to which we all contributed. Usually, Jason or I would present a first draft, and that was discussed word by word, together with re-visiting difficult manuscript readings and refining the critical edition. Additionally, Vandana Lele, Harshal Bhatt, Madhusudan Rimal and Deepro Chakraborty and Paras Mehta all spent many hours carefully transcribing the old Nepalese manuscripts so that the text could be edited using the methods of Digital Humanities. The book could not have been written without the participation of the whole project team.

I would like to thank other project participants who have also contributed to the project at different times, including Jane Allred, Devayani Shenoy and Gauri Vyaghrambhare.

On a personal note, I would like to thank my former colleagues and friends from the University of Vienna, especially Karin Preisendanz, Philip Maas and Alessandro Graheli, from whom I learned and continue to learn so much about Indology and textual criticism, and my wife Dagmar Wujastyk, discussions with whom inform and improve all my scholarly efforts.

The project owes its existence to Canada's Social Science and Humanities Research Council who have generously funded the work through an Insight Grant. I am grateful to my academic home, the University of Alberta, for hosting and supporting the project.

— Dominik Wujastyk  
Edmonton 2023

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<sup>1</sup> Wujastyk et al. 2021—.

# 1 Introduction

The *Compendium of Suśruta* (*Suśrutasamhitā*) 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 *Suśrutasamhitā* 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, 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 Ḟalhaṇa (*fl.* twelfth century).

<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.

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

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 Ḏalhaṇa 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 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 *Suśrutasamhitā*.

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

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

<sup>9</sup> For discussion of “the vulgate,” represented by [Su 1938](#), see p. 23 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.

<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.

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 Ḍalhaṇa'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 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

<sup>13</sup> Zysk 1985: 70–71.

<sup>14</sup> Translation by Hoernle (1907b: §43, §100). Further bibliography: HIML: 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 2003b; Valiathan 2007; Narayana and Thrigulla 2011 and many other studies.

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 *Suśrutasaṃhitā*.<sup>20</sup>

## 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>

<sup>19</sup> *Suśrutasaṃhitā* 1.1.15–19 (*Su* 1938: 4).

<sup>20</sup> Leffler et al. (2020) provide a detailed discussion of the *Suśrutasaṃhitā*'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 (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 2003b: 92–93.

## 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 – Jejāṭa, Gayadāsa, Cakrapāṇi or Ḏalhaṇa – explained the technique in any detail 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, Ḏalhaṇa 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

<sup>24</sup> Wujastyk 2003b: 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, 891f.

<sup>27</sup> Thorburn 1876: 352–353.

<sup>28</sup> HIMAL: IB, 328. Ḏalhaṇa 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. Ḏalhaṇa’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 2003b: 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., Carpe 1816: *passim*).

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

<sup>32</sup> See p. 50 below.

probably known to the redactors of the vulgate, and was certainly known to Ḏalhaṇa 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,

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 Ḏalhaṇa was even more explicit in his gloss on this passage:

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

Thus, Ḏalhaṇa’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 Ḏalhaṇa 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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33 1.16.11–14 (Su 1938: 78).

34 1.16.14 (Su 1938: 78): गण्डादुत्पाट्य मासेन सानुवन्त्येन जीवता | कर्णपालीमापालेस्तु कुर्यान्निर्लिख्य शास्त्रवित्। Cf. the translation of the whole passage by Wujastyk (2003b: 94).

35 1.16.14 (Su 1938: 78): जीवते शोणितसहितेनत्यर्थः।

## 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 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

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<sup>1</sup> Klebanov 2021a: 2–3.

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 versions of the work are preserved in manuscripts from Nepal. Also, the word "recension" suggests conscious editorial intervention at some point in the transmission, for which we do not yet have evidence.<sup>3</sup> At the same time, we do wish to indicate the provenance of the oldest witnesses.

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>4</sup> What can be said with certainty is that the Nepalese version preserves many archaic features of an early transmission 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.

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>5</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 *Suśrutasamhitā*. 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

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<sup>2</sup> Rimal and Wujastyk [2022](#).

<sup>3</sup> Editorial terminology in this area is not absolute: "recension," "version" and "redaction" are sometimes used interchangeably, or differently in various communities of scholars. See Roelli and Macé [2015](#): 164 ff.

<sup>4</sup> For a list of known manuscript copies of the *Suśrutasamhitā*, see the sources mentioned in footnote [10](#) below.

<sup>5</sup> Earlier publications include Harimoto [2011](#); Wujastyk [2013b](#); Birch, Wujastyk, Klebanov, Parameswaran, et al. [2021](#); Birch, Wujastyk, Klebanov, Rimal, et al. [2021](#).

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 *Suśrutasamhitā*. Rather, the Nepalese version is a witness to a hyparchetype, not the archetype, of the *Suśrutasamhitā*. 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 Ḏalhaṇa in the twelfth century and that is reproduced in most printed editions of the *Suśrutasamhitā*. 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 *Suśrutasamhitā* and that, due to its regional character, has suffered relatively little contamination. We term this hyparchetype the “Nepalese version.”

## 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 *Suśrutasamhitā*. Both versions differ significantly from the Nepalese version.<sup>6</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>7</sup> Ḏalhaṇa also had several manuscripts of the *Suśrutasamhitā* available to him, as we know because he frequently mentioned their variant readings.<sup>8</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

<sup>6</sup> See [HIML: IA 374–379](#) on these authors. Meulenbeld already noted that “the text of the *Suśrutasamhitā* 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>7</sup> [HIML: IB, 499](#), n. 162.

<sup>8</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 Jejjāta and Gayadāsa were, “not to be found in current manuscripts” (स च वर्तमानपुस्तकेषु न दृश्यते).

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>9</sup> This duplication of the root text in the two books creates the entirely misleading impression that both commentators had the same *Suśrutasamhitā* text before them.<sup>10</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 1.16.11–14, as part of his root text, that Cakrapāṇidatta cited separately only in his commentary.<sup>11</sup> Cakrapāṇidatta had introduced each verse with “some people say” (केचित्पठन्ति). This clearly indicated that these verses were not in the version of the *Suśrutasamhitā* upon which he was commenting. But a century or so later they had become part of the main text that was read by Ḏalhaṇa. In spite of this, the editors Y. T. Ācārya and N. Śarman included these verses in their 1939 edition of the *Suśrutasamhitā* with Cakrapāṇidatta's commentary as if they had been part of the main text of the *Suśrutasamhitā* 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 *Suśrutasamhitā*.

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 *Suśrutasamhitā*. 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 *Suśrutasamhitā*.

For example, there is a prose passage at SS 1.16.18 that Cakrapāṇidatta commented on in his *Bhānumatī* (Fig. 2.1, left).<sup>12</sup> It is followed by several verses also in the main text of the *Suśrutasamhitā* that elaborate on the content of the prose passage.<sup>13</sup> Ḏalhaṇa commented on these explanatory verses (Fig. 2.1, right), citing keywords that show they all formed part of the main text of the *Suśrutasamhitā* that was before him.<sup>14</sup> However, Cakrapāṇidatta's

<sup>9</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>10</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 Āpaṭe (1904) which is significantly different from that on which Śaṅkara was commenting (Maas 2013: 77–78).

<sup>11</sup> Su 1938: 78 and Su 1939: 128–129 respectively.

<sup>12</sup> Su 1939: 130, i.e., अथाप्रदुष्टस्याभिवर्धनार्थम्... निदव्यात्। It is numbered Su.1.16.19 in Ḏalhaṇa's *Nibandhasaṅgraha* (Su 1938: 79).

<sup>13</sup> SS 1.16.19–23 in Su 1939, i.e., स्वेदितो..., यवाश्य..., तैलं..., तेषाम्..., वद्ध....

<sup>14</sup> 1.16.19–23 (Su 1938: 79–80).

स्वेदितोन्मर्दितं कर्णं स्नेहेनैतेन योजयेत् ॥  
 अथानुपद्रवः सम्यग्बलवांश्च विवर्धते ॥ १६ ॥  
 ( यवाश्वगन्धायष्टाहैस्तिलैश्चोद्धर्तनं हितम् ॥  
 शतावर्यश्वगन्धाभ्यां पयस्यैरण्डजीवनैः ॥ २० ॥  
 तैलं विपकं सक्षीरमभ्यङ्कात् पालिवर्धनम् ॥ )  
  
 कर्णवर्धनार्थं सम्मर्दनयोगिनेहमाह—तथा गोपेत्यादि । प्रतुदा लङ्घादयोऽजपान-  
 वफल्याः, विनिरा लावादयः, आनूपा महियादयः । राजसंयेपः वेतसंयेपः, तस्य  
 तैलम्, एवं हि लेहोऽध्यम् । पयश्चात्र पाकार्थं इवान्तरानुकैश्चतुर्युणमेव । ये हु पयःस्थाने  
 सर्विः पठन्ति, तन्मर्ते जलसाध्योऽध्यम्; थन्ये हु चतुःस्नेहेनैव पयःस्थाणं पठन्ति ।  
 अलक्ष्मीः अर्कसेदः, जलदूजो जलतृणासको भवति 'जलतृणा' इति प्रसिद्धः । प्रतीचापः  
 कलः । ये लत्र भवुत्तराणं पठन्ति पयसा च, तन्मर्ते पयसा क्षीरविदारी । तैलं वेति  
 तैलसेव वा ॥ १६-२० ॥

स्वेदितोन्मर्दितं कर्णं स्नेहेनैतेन योजयेत् ॥  
 अथानुपद्रवः सम्यग्बलवांश्च विवर्धते ॥ २० ॥  
 अस्य तैलयाव चारणमाह,—स्वेदितोन्मर्दितमित्यादि ॥ २० ॥  
 यवाश्वगन्धायष्टाहैस्तिलैश्चोद्धर्तनं हितम् ॥  
 अभ्यक्तयोद्धर्तनमाह,—यवेत्यादि ॥—  
 शतावर्यश्वगन्धाभ्यां पयस्यैरण्डजीवनैः ॥ २१ ॥  
 तैलं विपकं सक्षीरमभ्यङ्कात् पालिवर्धनम् ॥  
 कर्णपालिविश्चार्थमपरं तैलमाह,—शतावर्यश्वगन्धाभ्यामि-  
 त्यादि । शतावर्यादिकाङ्क्षेन लेहवतुर्यशेन केवलक्षीरेण चतुर्यु-  
 णेन तैलमत्र पद्मनीयम् । पयसा अर्कपुणी । जीवनैः काका-  
 त्यादिद्रव्यैः ॥ २१ ॥—

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

( नाडीयोगं विनौष्टस्य नासासन्धानवद्विधिम् ॥  
 य एवमेव जानीयात् स राह्वः कर्तुमर्हति ॥ ३१ ॥ )  
  
 इति सौश्रुते शब्द्यतन्त्रे सूत्रस्थाने कर्णव्यधवन्धविधिर्नाम  
 पोडशोऽध्यायः ॥ १६ ॥

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

older commentary showed no awareness of the first few verses in this group, SS 1.16.19–21ab.<sup>15</sup> Apparently, they were *not* part of the text of the *Suśrutasamhitā* 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 *Suśrutasamhitā* known to him. Incidentally, the editors remarked in a footnote that verses 20–21a were not in the Nepalese manuscript that they 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>16</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>17</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

<sup>15</sup> Su 1939: 130–131.

<sup>16</sup> Su 1939: 130, n. 2.

<sup>17</sup> The verse begins नाडीयोगं विनौष्टस्य. 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).

BL H. T. Colebrooke 908, does not include the root text of the *Suśrutasaṃhitā*.<sup>18</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 *Suśrutasaṃhitā* 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 *Suśrutasaṃhitā* 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, क्षिरजिह्वाप्रशस्तसूचीव्यधात् and गाढतरवर्त्तिवात्, before this.<sup>19</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>20</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 तत्रास्मिज्ञात्वे..., which is also the reading commented on by Cakrapāṇidatta.<sup>21</sup> However, Ḏalhaṇa commented on अस्मिज्ञात्वे and stated that “others read तत्रास्मिज्ञात्वे”<sup>22</sup>.

Another example is the reading of षष्ठा 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>23</sup> This reading is likely to be derived from the expression षष्ठाभिधानैः in the main text of the Nepalese version, and to have been rewritten before Ḏalhaṇa's time because it was hard to understand.<sup>24</sup>

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

Several differences between the text of the *Suśrutasaṃhitā* as reconstructed on the basis of the Nepalese MSS and as found in its multiple contemporary printed editions have already

<sup>18</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. [26](#) below, describes the sources that the editors used for that edition.

<sup>19</sup> 1.16.6 ([Su 1938](#): 77).

<sup>20</sup> 1.16.5 ([Su 1939](#): 126–127).

<sup>21</sup> 1.1.20 (*sic*) ([Su 1939](#): 17).

<sup>22</sup> 1.1.22 ([Su 1938](#): 5).

<sup>23</sup> 1.1.8.1 ([Su 1938](#): 3).

<sup>24</sup> See the discussion by Birch, Wujastyk, Klebanov, Rimal, et al. ([2021](#): 4–5).

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>25</sup> Others have explored variations in the frame story of the work as a whole.<sup>26</sup> Klebanov discussed the interchangeable use of two titles for the first book of the text, namely “*Ślokasthāna*” and “*Sūtrasthāna*.<sup>27</sup> 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>28</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>29</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>30</sup> The first dealt with the list of skin lesions associated with urinary disease.<sup>31</sup> Their signs and pathogenesis are described in the *Nidānasthāna* and their treatment in the *Cikitsāsthāna*.<sup>32</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>33</sup>

The second case study by Klebanov focussed on the variation in the list of bodily winds (प्राण) in SS 3.4.<sup>34</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, Jejjāta (fl. ca. 650 – c. 750). It is Jejjāta’s reading that is known to modern readers of the *Suśrutasamhitā* from the vulgate version of the text.

<sup>25</sup> Klebanov 2021a: 27 f.

<sup>26</sup> Wujastyk 2013b; Klebanov 2021a: 28–32; Birch, Wujastyk, Klebanov, Parameswaran, et al. 2021; Birch, Wujastyk, Klebanov, Rimal, et al. 2021: 2–4.

<sup>27</sup> Klebanov 2021a: 32–44.

<sup>28</sup> Harimoto 2011: 101–104.

<sup>29</sup> Klebanov 2021a: 44–55.

<sup>30</sup> प्रमेहपिटका in the Nepalese spelling.

<sup>31</sup> *Suśrutasamhitā* 2.6 (*Su* 1938: 289–294) and 4.12 (*Su* 1938: 454–455) respectively.

<sup>32</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>33</sup> Klebanov 2021a.

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 *Suśrutasaṃhitā* 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 judgements 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 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>34</sup> Be this as it may, this large block of verses is not present in the Nepalese version.

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<sup>34</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).

Nepalese version	Ḍalhaṇa'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 Ḍalhaṇa's versions.

One can also see in Figure 2.3 that verses 17 and 18 of the Nepalese version were transposed in the redaction of Ḍalhaṇa'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 Ḍalhaṇa involved many small, yet sometimes significant, changes that are described below.<sup>35</sup>

### Changing Spelling, Sandhi and Syntax

Later commentators like Ḍalhaṇa often made efforts to standardise, simplify or improve the language of the Nepalese version. Such changes include the standardising of

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<sup>35</sup> The present study focusses on the commentary of Ḍalhaṇa, 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. 28.

spelling,<sup>36</sup> sandhi,<sup>37</sup> and verbal forms,<sup>38</sup> as well as interventions to simplify and clarify syntax.<sup>39</sup> These efforts often involved splitting compounds.<sup>40</sup> In some instances, these changes improved the grammar,<sup>41</sup> or altered the meaning.<sup>42</sup> However, some prefixes of verbal forms,<sup>43</sup> case endings,<sup>44</sup> and indeclinables were changed for less apparent reasons.<sup>45</sup> There is also a tendency to replace uncommon words with generic ones,<sup>46</sup> add indeclinables,<sup>47</sup> omit the verb “to be” at the end of sentences,<sup>48</sup> and introduce verses after a prose passage with the phrase भवति चात्र.<sup>49</sup>

## Technical Terms

There is evidence of standardising and altering technical terminology in versions of the *Suśrutasaṃhitā* subsequent the Nepalese one. Two examples of this in *Suśrutasaṃhitā* 1.16 are the terms for “joins” (बन्ध) and “a slice of flesh” (वश्र). 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>50</sup> However, the use of the term सन्धान was retained in verses, perhaps because of the metrical challenges of making such a change or

<sup>36</sup> 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.

<sup>37</sup> For example, ०हस्तेन ऋजु (SS 1.16.2) → ०हस्तेन जर्जु (1.16.3, *Su 1938*: 76).

<sup>38</sup> For example, उञ्जामयिता (SS 1.16.21) → प्राज्ञम्य (1.16.29, *Su 1938*: 81); अवचूर्णीत (SS 1.16.21) → उपहरेत् (1.16.29, *Su 1938*: 81).

<sup>39</sup> For example, शोणितबहुत्वनिवेदनायां चान्यदेशविद्धिमिति जानीयात्। निरुपद्रवता तदेशविद्धिलिङ्गम्। (SS 1.16.3) → शोणितबहुत्वेन वेदनया चान्यदेशविद्धिमिति जानीयात्। निरुपद्रवतया तदेशविद्धिम् इति। (1.16.4, *Su 1938*: 76); आमतैलपरिषेकणापचरेत् (SS 1.16.6) → आमतैलेन परिषेचयेत् (1.16.7, *Su 1938*: 77); सुपरिगृहीतं च कृत्वा (1.16.15, *Su 1938*: 78); अनेन (SS 1.16.15) → स्नेहनैतेन (1.16.20, *Su 1938*: 79).

<sup>40</sup> For example, यद्यच्छाविद्धयां सिरायाम् (SS 1.16.4) → यद्यच्छया विद्धासु सिरासु (1.16.5, *Su 1938*: 76); धान्यामूकपालचूर्णं (SS 1.16.10) → धान्यामूकं कपालचूर्णं (1.16.20, *Su 1938*: 78).

<sup>41</sup> For example, सुरामण्डक्षीरम् (SS 1.16.10) → सुरामण्डं क्षीरम् (1.16.15, *Su 1938*: 78).

<sup>42</sup> For example, क्षीणाल्पमांसः (SS 1.16.12) → क्षीणोऽल्पमांसः (1.16.17, *Su 1938*: 79).

<sup>43</sup> For example, सम्बृद्धिः (SS 1.16.8) → विवर्द्धिः (1.16.9, *Su 1938*: 77); निवेश्य (SS 1.16.10) → सन्निवेश्य (1.16.15, *Su 1938*: 78); अवबृच्य (SS 1.16.10) → च बद्धा (1.16.15, *Su 1938*: 78).

<sup>44</sup> For example, मासे (SS 1.16.2) → मासि (1.16.3, *Su 1938*: 76).

<sup>45</sup> 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).

<sup>46</sup> For example, प्रक्षयेत् (SS 1.16.15) → योजयेत् (1.16.20, *Su 1938*: 79); नद्येत् (SS 1.16.21) → बद्धा (1.16.29, *Su 1938*: 81).

<sup>47</sup> 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).

<sup>48</sup> 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)).

<sup>49</sup> For example, [absent] (SS 1.16.11) → भवति चात्र (1.16.16, *Su 1938*: 79).

<sup>50</sup> For example, पञ्चदशसन्धानाकृतयः (SS 1.16.9) → पञ्चदशवन्धाकृतयः (see 1.16.10 (*Su 1938*: 77)); दशकर्णसन्धिविकल्पः (SS 1.16.9) → कर्णवन्धविकल्पः (see 1.16.10 (*Su 1938*: 77))

perhaps because the verses had greater traditional authority. Also, the names of joins which incorporate सन्धान and सन्धि remained the same.<sup>51</sup>

The Nepalese version contains the rather obscure term वश for the slice of flesh that a surgeon cuts from the cheek in order to construct a new nose.<sup>52</sup> Modern dictionaries define वश as a leather strap or a slice of bacon,<sup>53</sup> the latter of which is more indicative of its meaning in the Nepalese version. This word was written out of subsequent versions,<sup>54</sup> and it was not mentioned as an alternative reading by either Cakrapānidatta or Dalhana, which suggests that its use and meaning may not have been known to them. However, वश was used by the author of the *Aṣṭāṅgahṛdayasāṃhitā* in the context of rhinoplasty, so it likely to be the correct reading in the Nepalese version.<sup>55</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>56</sup> and phrases added to elaborate on diseases and treatments.<sup>57</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 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>58</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

<sup>51</sup> These names are नेमीसन्धानक, कपाटसन्धिक, and अर्धकपाटसन्धिक in SS 1.16.9 (cf. 1.16.10 (Su 1938: 77)).

<sup>52</sup> SS 1.16.20 and 23.

<sup>53</sup> Apte: 1385; MW: 917.

<sup>54</sup> वशम् (SS 1.16.20) → वद्धम् (SS 1.16.28, Su 1938: 81) and तद्वशेषं (SS 1.16.23) → तद्वशेषं (SS 1.16.31, Su 1938: 81).

<sup>55</sup> Utt.18.62 (Ah 1939: 841). This may suggest some independence between the text of the *Suśrutasāṃhitā* as transmitted to its direct commentators and as transmitted to Vāgbhaṭa. The word वश is old, occurring also in the form वर्श, from the *Atharvaveda* onwards (Mayrhofer 1986–2001: v. 2, 521–522).

<sup>56</sup> For example, छिद्रे (1.16.2, Su 1938: 76) → छिद्रे आदित्यकरावभासिते (1.16.3, Su 1938: 76); [absent] (1.16.2) → शनैः शनैः (1.16.3); [absent] (SS 1.16.3) → आशु (1.16.5, Su 1938: 77).

<sup>57</sup> For example, धात्र्यङ्के (SS 1.16.2) → धात्र्यङ्के 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).

<sup>58</sup> For example, पीठोपमपालिन्विधिमः (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).

Ḍalhaṇa (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>59</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>60</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, respectively, in Ḍalhaṇa'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 *Suśrutasamhitā* 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 Ḍalhaṇa'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>61</sup> This statement anticipates the instructions in the 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 Ḍalhaṇa's version elucidates the role of the wick in the procedure of piercing the ear.

A similar clarification occurs in Ḍalhaṇa's version at 1.16.18 (Su 1938: 70),<sup>62</sup> which reiterates the cure for an ear tainted by a humour that was described earlier in 1.16.7.<sup>63</sup> The reiteration is quite apt because it follows a passage that outlines the various symptoms of

59 In Ḍalhaṇa'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 Cakrapānidatta (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 Ḍalhaṇa.

60 For example, अणुस्थूलं (SS 1.16.9) → स्थूलाणुं (1.16.10, Su 1938: 77); तत्रैते दशकर्णं (SS 1.16.9) → तत्र दशैते कर्णं (1.16.10, Su 1938: 77); नातिगाढनातिशयिलं सूत्रेणाववध्य (SS 1.16.9) → सूत्रेणानवगाढमनतिशयिलं च वद्धा (1.16.10, Su 1938: 77); पूर्वन्दक्षिणं कुमारस्य वामङ्गल्यायाः | प्रतनुं सूच्या वहलमारया (SS 1.16.2) → प्रतनुं सूच्या वहलमारया। पूर्वं दक्षिणं कुमारस्य वामङ्गल्यायाः (1.16.3, Su 1938: 76).

61 For example, [absent] (SS 1.16.2) → पिञ्चुवर्ति प्रवेशयेत् (1.16.3, Su 1938: 76).

62 Corresponding to SS 1.16.13 in the Nepalese version, lines 50–51 of the edition.

63 SS 1.16.6 in the Nepalese version, lines 13–14 of the edition.

ear disease arising from each of the three humours.<sup>64</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 Ḏalhaṇa's version, the treatment is reiterated.

In Ḏalhaṇa'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 Ḏalhaṇa's version, the recipe was rewritten to include sesame seeds.<sup>65</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 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>66</sup> It also has *beggarweed* instead of *Indian kudzu*.<sup>67</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*, *Aṣṭāṅgasaṅgraha*, 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 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 *Aṣṭāṅgasaṅgraha*, namely *Uttarasthāna*, chapters 1 and 22, titled “*bālopacaraṇīya*” and “*karṇarogapratīṣedha*,” and *Aṣṭāṅgahṛdayasamhitā*, *Uttarasthāna* 1 and 18 with the same chapter names.<sup>68</sup>

First, let us return to the comments on the insertion of a wick that were mentioned above (p.18). The Nepalese version says nothing, while Ḏalhaṇa's version says “one

<sup>64</sup> Ḏalhaṇa 1.16.17 (Su 1938:79), corresponding to Nepalese SS 1.16.12, lines 46–49 of the edition.

<sup>65</sup> Nepalese version SS 1.16.5 (lines 11–12): यवमधुकमञ्जिष्ठागन्धवहस्तमूलैर्मधुघृतप्रगाढैरालेपयेत् which become, in Ḏalhaṇa 1.16.7 (Su 1938:77): मधुकैरण्डमूलमञ्जिष्ठायवतिलक्क्वैर्मधुघृतप्रगाढैरालेपयेत्.

<sup>66</sup> Ḏalhaṇa's version 1.16.7 (Su 1938:77).

<sup>67</sup> Nepalese version SS 1.16.14 (lines 52–54): अर्कालर्कवलातिवलानन्ताविदारीमधुकजलशूकप्रतिवापन्तैलम्पाचयित्वा which become, in Ḏalhaṇa 1.16.19 (Su 1938:79): अर्कालर्कवलातिवलानन्तापामार्गाश्वगन्धाविदारिगन्धाक्षीरशुक्खा-जलशूकमधुरवर्गपयस्याप्रतिवापं तैलम्बा पाचयित्वा.

<sup>68</sup> As 1980:619–629 and 734–744 and Ah 1939:777–781 and 837–841, respectively.

should insert a cloth wick” (पिचुवर्ति प्रवेशयेत्). A little later, both versions say, “one should remove the wick”.<sup>69</sup> It seems likely that the editor of Dalhaṇa’s version added the initial phrase about 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 version of the text on the principle of *lectio difficilior potior*. Both the *Aṣṭāṅgasāṅgraha* and the *Aṣṭāṅgahṛdayasāṃhitā* describe first inserting a thread in the pierced earlobe and subsequently replacing it every third day.<sup>70</sup> In this respect, they agree with Dalhaṇa’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 *Aṣṭāṅgahṛdayasāṃhitā*. As pointed out above, Dalhaṇa’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 (आज्ञ) is found. However, when checking the manuscripts of the *Aṣṭāṅgasāṅgraha*, one of them reads आच्यै instead of आज्ञ्यैः (यवैण्डजटायश्चिद्विष्टाज्यैः प्रलेपयेत्).<sup>71</sup> Interestingly, the paste of sesame seeds (तिलकल्क) of Dalhaṇa’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 Dalhaṇa’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

<i>Text</i>	<i>Instances of sesame seed paste</i>
<i>Carakasāṃhitā</i>	6
<i>Suśrutasaṃhitā</i>	11
<i>Aṣṭāṅgasāṅgraha</i>	16
<i>Aṣṭāṅgahṛdayasāṃhitā</i>	4

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

the combination of the paste of sesame seeds, ghee and honey are not rare either, with four instances each in *Suśrutasaṃhitā* and *Aṣṭāṅgasāṅgraha* and two instances in *Aṣṭāṅgahṛdayasāṃhitā*. A combination of the paste of sesame seeds, ghee and honey has also been

69 तत्र वर्त्तिमपहृत्य in the Nepalese version (line 11), and the less clear तत्र वर्त्तिमुपहृत्य in Dalhaṇa’s version (1.16.6 (Su 1938: 77)).

70 6.1.58 (As 1980: 626) and 6.1.36 (Ah 1939: 780) respectively.

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

specifically quoted as a general healing recipe.<sup>72</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>73</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 *Dalhana* and later authors.

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<sup>72</sup> E.g., *Suśrutasamhitā* 1.11.22ab ([Su 1938: 49](#)), *Aṣṭāṅgasarīgraha* 1.38.21 ([As 1980: 249–250](#)) and *Aṣṭāṅgahṛdaya-samhitā* 1.30.34 ([Ah 1939: 357](#)).

<sup>73</sup> E.g., *Aṣṭāṅgasarīgraha* 1.37.30 ([As 1980: 246](#)) for श्वतकपूर and *Aṣṭāṅgasarīgraha* 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 Ḟalhaṇa, 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*, *śārīra* and *kalpa sthāna*.

2 Jaipur, Pandit Gaṅgādhara Bhāṭṭāśarman, lecturer at the Royal Sanskrit University. Covers the *cikitsāsthāna* and the *uttaratatantra*.

3 Bundi, my great friend the royal physician Paṁ. Śrīprasādaśarman Covers the *uttaratatantra*.

1 [HIML](#): IIB, 311–314.

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

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

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

## The sources of the 1931 edition

- 1 Vārāṇasī, professor of literature, the great Gaurīnāthapāṭhaka. With the *Nibandhasaṅgraha*. Covers the *nidānasthāna* and *uttaratantra*.
- 2 Ahmedabad. My friend Sva. Vā. Vaidya Ranachodālālā Motilālaśarman. With the *Nibandhasaṅgraha*. Covers the *śārīrasthāna*.
- 3 From the personal library of my great friend Sva. Vā. Vaidya Murārajīśarman. Extremely old. No commentary. Covers the *śārīrasthāna*.
- 4 Pune, BORI library. With the *Nibandhasaṅgraha*. Covers the *śārīrasthāna*.<sup>5</sup>
- 5 Pune, 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 *Suśrutasandīpanabhāṣya* 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 *Bhānumati*, *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 Pām. Rāmeśvaraśāstrin Śukla. Covers the *sūtra*, *nidāna*, *śārīra*, *cikitsā* and *kalpasthānas*.
  - 2 Bikaner, from the library of the Royal Palace, supplied by Pām. Candraśekharāśāstrin. 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 Pām Nityānandaśarman Jośī and sent to Ācārya. Covers from the beginning of the work to the end of the ninth chapter of the *cikitsāsthāna*.
- The siglum for this manuscript in footnotes was ता for तालपत्रपुस्तके.

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

<sup>6</sup> 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.”

<sup>7</sup> HIML: IB, 312; Bhaṭṭācārya 1910–7.

<sup>8</sup> HIML: IB, 311; Sena et al. 1886–93.

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

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

<sup>†</sup> Covers chapters 1–43 only. <sup>††</sup> Covers chapters 1–9 only.

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

## Evaluation

Estimates show that there are approximately 230 extant manuscript witnesses for the *Suśrutasamhitā*.<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.

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 *uttaratana*, 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

<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.

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 *Kāśyapasamñhitā* 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.

## The 1939 edition

In 1939, Yādavaśarman Trivikrama Ācārya and Nandakiśora Śarman co-edited an edition of the *sūtrasthāna* of the *Suśrutasamñhitā* 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 Suśrutasamñhitā

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

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

<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 HIMAL: 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 2021b; 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—“लभोपायो हि शस्त्रानां रसायीनां रसायनम्” ( च. चि. अ. १ पा. १ ) । पारिशेष्याद्वाजीकरणतत्त्वम् । अवाजिनं वाजीकुर्वन्ति येन तद्राजीकरणम् । ‘अन्येषामपि दृश्यते’ ( पा. अ. ६।३।१३७ ) इति वीर्घलम् । येन वाडलयर्थं खीषु व्यज्यते तद्राजी-करणम् । तदुक्तं चरके—“येन नारीषु सामर्थ्यं वाजिवलभते नरः । व्रजेष्वाप्यथिकं येन वाजीकरणमेव तत्” ( च. चि. अ. २, पा. ४ ) इति ॥ ५ ॥

अथास्य प्रत्येकाङ्गलक्षणसमासः—तत्र, शब्दं नाम विविधरूणकाष्ठ-प्राणपांशुलोहलोष्टास्थिवालनखपूयाक्षावदुष्टवणान्तर्गम्भेशलयोद्धरण-र्थं पष्ट्वा विधानैः, यच्चशस्त्रक्षाराग्निप्रणिधानवृणविनिश्चयार्थं च; शालाक्यं नामोद्धर्वजन्मुग्नतानां श्रवणनयनवदनद्वाणादिसंश्रितानां व्याधी-नामुपशमनार्थं; कायचिकित्सा नाम सर्वाङ्गसंश्रितानां व्याधीनां ज्वर-रक्तपित्तशोषोन्मादापसारकुप्रमेहातिसारादीनामुपशमनार्थं; भूत-विद्या नाम देवांसुरगन्धवैष्यक्षरक्षःपितॄपिशाचनैग्रहाद्युपसृष्टचेतसा शान्तिकर्मवलिहरणादिग्रहोपशमनार्थं; कौमारभृत्यं नाम कुमारभर-णधारीक्षीरदोपसंशोधनार्थं दुष्टस्तन्यग्रहसमुत्थिनां च व्याधीनामुप-शमनार्थम् ; अगदतत्रां नाम सर्पकीटलूतामूष्पकादिदृष्टव्यञ्जनार्थं विविधविपैसंयोगोपशमनार्थं च; रसायनतत्रां नाम वयःश्वापनमायुर्मे-धावलंकरणं रोगापहरणसमर्थं च; वाजीकरणतत्रां नामावपदुष्टक्षीणशु-र्करेतसामाप्यायनंप्रसादोपचयजनननिमित्तं प्रहृष्टप्रजननार्थं च ॥ ६ ॥

शस्त्राङ्गविशेषाङ् ज्ञातुं प्रतिलक्षणं संक्षेपेणाह—अथासेयादि । एकमेकमङ्गं प्रति लक्ष-णानां समासः संक्षेपः प्रत्येकाङ्गलक्षणसमासः । तृणादीनां, तथा दुष्टवृणस्य, तथाऽन्तर्गत(भृत्य)स्य उद्धरणार्थमिति प्रत्येकमुद्धरणशब्दः संबध्यते । दुष्टवृणस्यान्तस्तुणाद्य-हरणार्थमित्यन्ये । षष्ठा विधानैरिति द्विवाणीयोक्तैरपतर्पणाचैरक्षाविधानान्तैः; इत्थंभूतलक्षणे तृतीया । जनु ग्रीवामूलं, जनुरुण ऊर्ध्वरञ्जनु । प्राणादीलादिग्रहणाच्छरःकपालादिग्रह-णम् । उत्तरतत्रे प्रतिपादितक्रमग्रास्या ज्वरानन्तरमतीसारः पठितः, तस्यान्ते पाठोऽतिसां-रस्य सर्वाङ्गीणदोपारब्धलात्, अन्येषामपि तन्मध्यपाठेन सर्वाङ्गीणदोषारब्धलप्रतिपादना-व्यतिकर्मं वदन्ति । शान्तिकर्म वलिहरणादिना प्रहणां देवादीनामुपशमो यस्तदर्थः; यदि वा अर्हणं प्रहो देवानामावेशतदुपशमार्थम् । दुष्टस्तन्यग्रहसमुत्थितानामिति दुष्टस्तन्येन

१ ‘सर्वशरीरावस्थितानां व्याधीनामुपशमकरणार्थं ज्वरशोफुक्तमरक्तपित्तोन्मादापसार-प्रमेहातीसारादीनां च’ इति ता. । २ ‘देवदानव०’ इति ता. । ३ ‘विनायकनागग्रहोप-सृष्टचेतसा’ इति ता. । ४ ‘विपवेगोपशमनार्थं’ इति ता. । ५ ‘शुक्राप्यायन०’ इति ता. । ६ ‘तृणादीनां शस्त्रान्तानां’ इति सु. । ७ ‘अन्ये तु तस्यान्ते पाठेन’ इति पा० । ८ ‘ग्रहणाद०’ इति सु. ।

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

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

## 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 *sūtra-sthāna* 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 informed of a complete copy of the work in a personal manuscript collection in Benares.<sup>23</sup>

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<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.

<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 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

<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> Bhattarai (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 Bhattarai (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.

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 Harśacandra.<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) 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

<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).

<sup>9</sup> 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)/

<sup>10</sup> See also the description by Klebanov (2021a: §2.3).

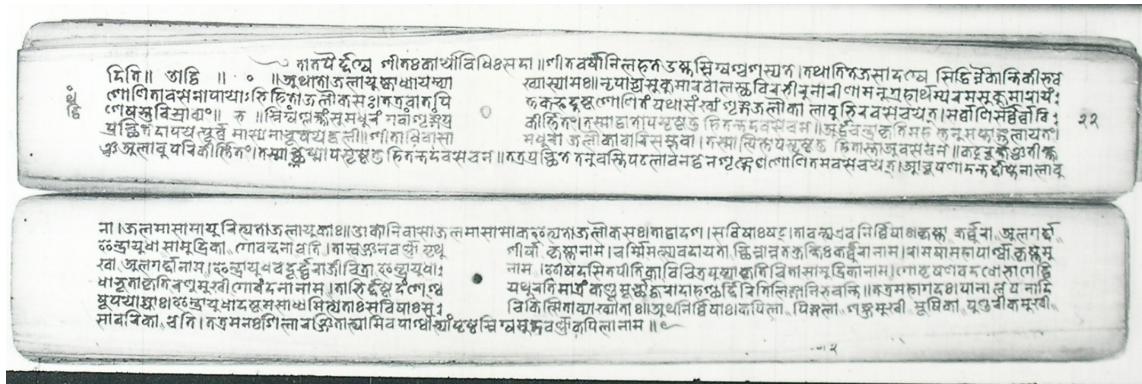


Figure 4.3: Folios 22v and 23r of MS Kathmandu National Archives 5-333.

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 the complete *Suśrutasamhitā* and the *Sauśrutanighaṇṭu*. The final colophon identifies the scribe of the MS as Vaidya Amarasiṃhaka, 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

<sup>11</sup> 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).

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

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>

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 *daṇḍas*, 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

<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.

<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. Joši and N. H. Joši (1968), Meulenbeld (HIML), and the literature on *materia medica* cited on pp. 75 ff. below.

<sup>17</sup> Wujastyk 2021–.

<sup>18</sup> Wujastyk et al. 2021–: "The toolbox".

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

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

more closely related to one another than K and N.<sup>21</sup> Given 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, ऽवचनन्धात्र्य०), although the *anusvāra* is sometimes used (1.16.15, उद्कं धान्यास्त०). In most cases, the consonant following a रेफ is doubled, but this is not always the 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 *danya* at the end of a sentence or verse. Whether these *anusvāras* should be changed to the consonant म् is a moot question

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

<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.”

<sup>23</sup> Examples of the germination of consonants are कण्ण (1.16.1 ff), मुहूर्त (1.16.2), पूर्व (1.16.2), गन्धर्व (1.16.5), ऽमूर्तेर् मप्तु० (1.16.5), वर्ति० (1.16.6) and पुनर्विष्टे० (1.16.6). Examples where it does not occur in 1.16 are ऽआर्थम् (1.16.8, 19), कुर्यात् (1.16.16, 32), ऽपालिवल्लूर० (1.16.10); ऽपालिर्ब्यायोजिमः (1.16.10) and दीर्घेक० (1.16.10).

d<sub>NE</sub>śkr̥̄m 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

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 ष. Nonetheless, this remains an assumption about how the text would be pronounced. Therefore, in a critical edition, inserting *dañdas* and changing *anusvāras* to ष before them are subjective decisions by the editors. The scribal use of *dañdas* and *anusvāras* in the Nepalese manuscripts can be seen in the digital edition if one switches off the filters for ignoring *dañdas* 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, 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>

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

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

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.

<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

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 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 विद्वलिङ्गम् 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 प्रतनू, 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

१ 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 Ḏalhaṇa. 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 ātmāneṣṭa 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] ०मञ्जिष्ठायवतिलक्लै० 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] ०तरी० 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 । हस्ववृत्तसमोभयपालिर्वल्लूरकर्णकः । 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-

MS variants

४० अवलिखेत्] अवलिखेत N. ४१ ०सन्धिन्] ०सन्धिं N. ४१--४२ ०गुण्ठ्य] ०गुण्ठो H. ४२ ०गाढन्] ०गाढं  
N. ४२ ०बध्य] ०बद्ध N. ४३ ०चान्नेनोपचरेत्] उपोचरेत् N. ४३ ॥ १० ॥ ] add. भ N. ४४ विघट्टनन्]  
विघट्टनं N. ४५ अग्रिसन्तापम्] आग्रिसन्ताप N. 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.

Variants from Su 1938

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 A. ५८ अपाङ्गे त्वबहिः] अपाङ्गदेशो तु A. ५८ च] तु A. ५९ inserted  
passage] बाह्यच्छेदं न कुर्वीत व्यापदः स्युस्ततो ध्रुवाः॥ बद्धमात्रं तु यः कर्णं सहस्रैवाभिवर्धयेत्। 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 राजसर्षपजं in the place of गौरसर्षपजं. This reading appears to have been accepted by Cakrapāṇi, who glossed राजसर्षपज as श्वेतसर्षप (1.16.18-20 (Su 1939: 130)). Cakrapāṇi also said that some read sarpis in the place of पयस. In the compound beginning with अर्क, Dalhaṇa noted that some read अर्कपुष्टी.

<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 तेषामपाङ्गच्छेद्यं 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 ॥

इति ओम् ॥

1.16.31

## MS variants

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.

## Variants from Su 1938

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 straight through with his right hand at a naturally-occurring cleft.<sup>4</sup> For a boy, do the right ear first; for

<sup>1</sup> The topic of piercing the ear (कन्धनव्यय) is not discussed in the *Carakasaṃhitā* (HIML: IB, 326, n. 175), but it is mentioned in some texts that followed the *Suśrutasaṃhitā*, such as the *Kaśāpyasaṃhitā* (HIML: IIA, 30). Also, the instrument for piercing the ear is described in the *Aṣṭāṅgahṛdayasaṃhitā* 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” (कर्णव्यधवन्यविधि), instead of the Nepalese version’s “the method of piercing the ear” (कर्णव्यधविधि). The topic of joining the ear (कर्णवन्य) 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-वेधनी rather than कर्णवन्य.

- 2 The causative form व्यधयेत् is known in Classical Sanskrit (Whitney 1885: 166). The compound कृतमङ्गलस्वस्तिवाचनं “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 कुमारधराङ् (“on the lap of one who holds the child”) after धात्र्यङ्. The gender of कुमारधर is made clear by Ḏalhaṇa’s gloss “a man 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 भक्षणविशेषैर्वा (“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

- 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>
  - 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>

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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 Dalhaṇa 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" (*Lakṣmaṇatippaṇī*) 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 *Suśrutasanhitā* that was available to Dalhaṇa 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 Dalhaṇa'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.'
- 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" (क्षिणजिह्वाप्रशस्तसूचीव्यथात्) 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 (समुदय), 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

- 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 (उत्पलभेद्यक), Dried Flesh (वृद्धरक), Fastening (आसंज्ञिम), Cheek-ear (गण्डकर्ण), Take away (आहार्य), Ready-Split (निर्वेदिम), Multi-joins (व्ययोजिम), Door-hinge (कपाटसन्धिक), Half door-hinge (अर्धकपाटसन्धिक), Compressed (संक्षिप्त), Reduced-ear (हीनकर्ण), Creeper-ear (वृद्धीकर्ण), 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

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construe plausibly. It is possible that the unusual verb form आ+√मुच् puzzled the scribes and caused the implausible scribal readings and emendations.

<sup>11</sup> Ḏalhaṇa 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.

<sup>12</sup> 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 Ḏalhaṇa'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.

<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 [2003b: 154](#)).

<sup>14</sup> For an artist's impression of this join, see Majno [1975: 291](#) (reproduced as Figure 3.3 in Wujastyk [2003b: 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 (चकधारा).

<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.

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 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 anoint it with honey and ghee, bandage each ear with **tree cotton** and gauze (**स्नोत**), 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>

<sup>17</sup> The version of 1.16.11–13 known to Dalhaṇa (*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 *Sūstrasthāna* of the *Bhānumatī*, the root text is largely identical to the one commented on by Dalhaṇa (*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. 5 above.

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

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

<sup>20</sup> The term **कपालचूर्ण** is unusual. Dalhaṇa (*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.

<sup>21</sup> There are syntactic difficulties in this sentence. We have adopted the reading in Dalhaṇa’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.

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

- 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 cholera, it becomes pinched (गाढ़), 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 (सरम्प), 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, 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>

<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 version 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 पिण्डं परिवर्तयेत).

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

<sup>26</sup> Dalhana's version of 1.16.19 (*Su* 1938:79) includes ghee. However, Dalhaṇa'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. Dalhana 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.

<sup>27</sup> The version of of this verse known to Dalhaṇa (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, Dalhana (*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.

<sup>28</sup> For these aims (i.e., healing and enlarging the ear), the text known to Dalhana (*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 *Suśrutasamhitā* known to him may not have included them.

<sup>29</sup> Dalhana's version of 1.16.23 (*Su* 1938:79–80) added another hemistich that stated more explicitly that the

- 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 (वश्र),<sup>32</sup> with the same measurements, off the 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 (वश्र) should then

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 Ḏalhaṇa's version (*Su 1938*: 80).
- 32 The version of 1.16.28b known to Ḏalhaṇa (*Su 1938*: 81) reads "bound, connected (वद्धम)" instead of "slice of flesh (वश्र)." This is a critical variant from the surgical point of view. If the slice remains connected, it will have a continuing blood supply. This is one of the effective techniques that so astonished surgeons witnessing a similar operation in Pune in the eighteenth century (see Wujastyk 2003b: 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 उत्तामयित्वा 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 पत्तङ्ग (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.

*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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39 The vulgate transmission has lost the word वृश्च and replaced it with अर्ध “half,” which makes little sense in this surgical context.

40 Ḑalhaṇa 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 Jejjāṭa, 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	Kumte, Anñā Moreśvara, Navare, Kṛṣṇaśāstrī, and Parādkar, Hariśāstrī (1939) (eds.), श्रीमद्वाग्भटविरचितम् अष्टाङ्गहृदयम्, श्रीमद्रुणदत्तविरचितया सर्वाङ्गसुन्दराख्यया व्याख्याया, हेमाद्रिप्रणीतया आयुर्वेदरसायनाहृया टीकया च समुल्सितम् = <i>The Astāṅgahṛidaya</i> (6th edn., Mum̄bayyām: Nirṇayasāgara Press), <a href="http://n2t.net/ark:/13960/t3tt6967d">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 1957–9.
AS	<i>Asiatic Society.</i>
As 1980	Āṭhavale, Anañta Dāmodara (1980) (ed.), <i>Aṣṭāṅgasaṅgrahaḥ. Śrīmad Vṛddhavāgbhaṭaviracitāḥ Induvyākhyāsaḥitāḥ</i> (Puṇe: Maheśa Anañta Āṭhavale, Śrīmad Ātreya Prakāśanam), <a href="http://n2t.net/ark:/13960/t9773bb9z">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="http://n2t.net/ark:/13960/t3sv3157j">ark:/13960/t3sv3157j</a> ; Based on two copies made of the Thanjavur codex unicus (MS Thanjavur TMSSML 10773, Burnell 1880: 63–4, P. P. S. Sastri 1933: #11085).
Bhela 2000	Krishnamurthy, K. H. (2000), <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, तच्छब्देणाभिवेशेन प्रणीता, चरकदृढबलाभ्यां प्रतिसंस्कृता चरकसंहिता, श्रीचक्रपाणिदत्तविरचितया आयुर्वेददीपिकाब्याख्यासंवलिता (3rd edn., Mumbaiyām: Nirnaya Sagara Press), [ark:/13960/t48q2f20n](#).
- HIML Meulenbeld, Gerrit Jan (1999–2002), *A History of Indian Medical Literature*, 5 vols. (Groningen: E. Forsten), ISBN: 9069801248.
- IOLR Eggeling, Julius, et al. (1887–1935), *Catalogue of the Sanskrit Manuscripts in the Library of the India Office* (London: Secretary of State for India), [ark:/13960/s2kbk5zcrg9](#).
- KL Kaiser Library.
- MN<sub>1</sub> Ācārya, Yādavaśarma Trivikrama (1920) (ed.), महामतिश्रीमाधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाब्यव्याख्याया, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुद्धसितम् = *Mādhavanidāna* by Mādhavakara with the Two Commentaries, *Madhukosha* by Vijayarakshita & Shrikanthadatta and *Ātankadarpaṇa* by Vāchaspati Vaidya (1st edn., Bombay: Nirnaya Sagara Press), [ark:/13960/t9z08jn5j](#).
- MN<sub>3</sub> Ācārya, Yādavaśarma Trivikrama (1932) (ed.), महामतिश्रीमाधवकरप्रणीतं माधवनिदानम् श्रीविजयरक्षित-श्रीकण्ठदत्ताभ्यां विरचितया मधुकोशाब्यव्याख्याया, श्रीवाचस्पतिवैद्यविरचितया आतङ्कदर्पणव्याख्याया विशिष्टांशेन च समुद्धसितम् = *Mādhavanidāna* by Mādhavakara with the Two Commentaries, *Madhukosha* by Vijayarakshita & Shrikanthadatta and *Ātankadarpaṇa* by Vāchaspati Vaidya (3rd edn., Bombay: Nirnaya Sagara Press), [ark:/13960/t66452x0h](#); Reprinted Varanasi: Chowkhambha, 1986.
- MW Monier-Williams, Monier, Leumann, E., Cappeller, C., et al. (1899), *A Sanskrit–English Dictionary Etymologically and Philologically Arranged, New Edition* (Oxford: Clarendon Press); 1970 reprint.
- NAK National Archives of Kathmandu.
- 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 सुश्रुत-नामधेयेन तच्छिष्येण विरचितः (3rd edn., Calcutta: Saratī Press), [ark : / 13960/t1nh6j09c](#); [HIML](#): IB, 311, edition b.
- Su 1915 *Ācārya, Yādavaśarma Trivikrama* (1915) (ed.), सुश्रुतसंहिता, सुश्रुतेन विरचिता, वैद्यवरश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहारब्यव्याख्यया समुद्धसिता, आचार्योपाहेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = *The Sushrutasamhitā of Sushruta, the Nibandhasangraha Commentary of Shri Dalhanāchārya* (Mumbayyām: Nirṇayasāgaramudrāyantrālaye), [ark : / 13960 / t3sv0mt50](#), accessed 29/07/2020; [HIML](#): IB, 312 edition \*v.
- Su 1931 *Ācārya, Yādavaśarma Trivikrama* (1931) (ed.), सुश्रुतसंहिता, वैद्यव-रश्रीडल्हणाचार्यविरचितया निबन्धसंग्रहारब्यव्याख्यया समुद्धसिता, महर्षिणा सुश्रुतेन विरचिता, सूत्र-निदान-शारीर-चिकित्सा-कल्पस्थानोत्तरतत्त्वात्मकः. आचार्योपाहेन त्रिविक्रमात्मजेन यादवशर्मणा संशोधिता = *The Sushrutasamhitā of Sushruta with the Nibandhasangraha Commentary of Shree Dalhanāchārya* (2nd edn., Mumbayyām: Pāṇḍuraṅga Jāvajī at the Nirṇayasāgaramudrāyantrālaye), [ark : / 13960/t9j41sg94](#), accessed 09/06/2020; [HIML](#): IB, 312 edition \*v.
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- Su 1938<sup>2</sup> *Ācārya, Yādavaśarma Trivikrama*, and *Ācārya, Nārāyaṇa Rāma* (2004) (eds.), महर्षिणा सुश्रुतेन विरचिता सुश्रुतसंहिता, श्रीडल्हणाचार्यविरचितया निबन्धसंग्रहारब्यव्याख्यया निदानस्थानस्य श्रीगयदासाचार्यविरचितया न्यायचन्द्रिका-रब्यपञ्चिकाव्याख्यया च समुद्धसिता (*Vārāṇasī: Caukhambhā Kṛṣṇadāsa Akādamī*); Reprint of the third, 1938 edition ([Su 1938](#)).
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# Glossary and Index of Medical Substances

- beggarweed (*vidārigandhā*) → *sālaparṇī*. #49, 48  
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, 19, 49  
castor oil tree (*gandharvahasta*) → *eranda*. *GVDB*: 135, *K&B*: v. 3, 2277, 46  
castor-oil (*eranda*) Ricinus communis, L. See *NK*: v. 1, #2145, *Chopra*, *GIMP*: 214, 50  
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, 49  
country sarsaparilla (*anantā*) Hemidesmus indicus, (L.) R. Br. See *ADPS*: 434, *AVS*: v. 3, 141–5, *NK*: v. 1, #1210. But see *GVDB*: 13 for complications that may suggest that it is to be equated with *sārivā*, which may sometimes be Cryptolepis or Ichnocarpus frutescens R. Rr. (*GVDB*: 429–431), 49  
datura (*dhattūra*) Datura metel, L. See *AVS*: v. 2, 305 (cf. *Abhidhānamāñjari*), *NK*: v. 1, #796 ff. *Potter<sub>rev</sub>*: 292 f, *ADPS*: 132, 46  
decanted liquor (*surāmaṇḍa*) *K&B*: v. 2, 502, *NK*: v. 2, appendix VI, #49, 48  
elixir salve (*rasāñjana*) → *añjana*. See *Indian barberry*, 50  
fermented rice-water (*dhānyāmla*) → *kāñjī*, *kāñjikā*, *sauvīra*. *GVDB*: 458, *NK*: v. 2, appendix VI, #18, 48  
giant potato (*kṣīravidārī*) possibly → *kṣīraśukla*. Ipomoea mauritiana, Jacq. See *ADPS*: 510, *AVS*: v. 3, 222, *AVS*: v. 3, 1717 ff, 80  
heart-leaf sida (*balā*) Sida cordifolia, Linn. See *ADPS*: 71, *NK*: v. 1, #2297, 49  
Holostemma creeper (*jīvantī*) → *sūryavallī*? Holostemma ada-kodien, Schultes. See *ADPS*: 195, *AVS*: v. 3, 167, *NK*: v. 1, #1242, *AVS*: v. 3, 1619, 80  
hornwort (*jalaśūka*) ← *jalanilikā*. Ceratophyllum demersum, L. See *AVS*: v. 2, 56, *IGP*: 232. Singh and Chunekar (*GVDB*: 166) suggest pondweed. Dalhaṇa noted on 1.16.19 (*Su 1938*: 79) that some people interpret it as a poisonous, hairy, air-breathing, underwater creature, 49  
Indian barberry (*añjana*) → *rasāñjana*, *dāruharidrā*. Berberis aristata, DC. *Dymock*: v. 1, 65, *NK*: v. 1, #335, *GJM1*: 562, *IGP*: 141, 50, 79  
Indian ipecac (*payasyā*) Uncertain.

- Possibly *Tylophora indica* (Burm.f.) Merr. Perhaps a synonym of *panacea twiner*, *giant potato*, *purple roscoea*, and plants like *asthma plant* and *Gulf sandmat* (GVDB: 237–238). Also “curds” when not a plant, 19, 49, 80
- 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, 19, 49
- Indian madder (*mañjisthā*) *Rubia cordifolia*, L. See IGP, Chopra, GIMP: 215, GVDB: 289, 46
- liquorice (*madhuka*) *Glycyrrhiza glabra*, L. See AVS: v. 3, 84, NK: v. 1, #1136, 49
- liquorice (*yastimadhuka*) *Glycyrrhiza glabra*, L. AVS: v. 3, 84, NK: v. 1, #1136, GVDB: 329 f., 50
- milk-white (*kṣīraśuklā*) An unidentified plant. GVDB: 126: see *purple roscoea* and *giant potato*, 19, 49, 80
- monitor lizard (*godhā*) *Varanus bengalensis*, Schneider. See *Book of Indian Reptiles*, 58, 49
- neem tree (*nimba*) *Azadirachta indica* A. Juss. GVDB: 226, 46
- panacea twiner (*arkapuṣṭī*) → *arkaparṇī*, *Tylophora indica* (Burm. f.) Merr. GVDB: 23–24. Maybe identical to *Indian ipecac*, *giant potato* and similar sweet, milky plants. See GVDB: 24, 127, 238, 441, 443 for discussion. For discussion in the context of *Holostemma creeper*, see ADPS: 195 and AVS: v. 3, 171. The etymology of the name suggests *Helianthus annus* Linn., but this plant is native to the Americas, 80
- 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), 80
- pondweed (*śaivāla*) *Zannichellia palustris* L. or *Zannichellia palustris* L. Sometimes identified with *dūrvā*.
- GVDB: 409, 79
- 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, 19, 46, 49
- purple calotropis (*arka*) *Calotropis gigantea*, (L.) R. Br. See ADPS: 52, AVS: v. 1, 341, NK: v. 1, #427, Potter<sub>rev</sub>: 57, Chopra's IDG: 305–308, 49
- 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*, 80
- sappanwood (*pattāṅga*) Also *pattaṅga*. *Caesalpinia sappan*, L. AVS: v. 1, 323, K&B: v. 2, 847 f, GVDB: 234, 50
- sesame oil (*taila*) *Sesamum indicum* L. GVDB: 183, 49
- spikenard (*jaṭāmāṇsi*) *Nardostachys jatamansi* DC GVDB: 163, etc, 20
- sweet plants (*madhuravarga*) The sweet plants are enumerated at *Suśrutasamhitā* 1.42.11. See also GVDB: 127, 19, 49
- 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, 46, 80
- tree cotton (*picu*) See *tree cotton*. Singh and Chunekar (GVDB: 247) mentions other meanings, 48, 50
- white calotropis (*alarka*) *Calotropis*

procera, (Ait.) R. Br. See **NK**: v. 1, #428,  
**Chopra, GIMP**: 46b, **Chopra's**  
**IDG**: 305–308, **49**  
Withania (*aśvagandhā*) *Withania somnifera*

(L.) Dunal. See **AVS**: v. 5, 409 f.,  
**Dymock**: v. 2, 566 f., Chevallier 150,  
**19, 49**