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Āyurveda_(9,474 words)

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The classical medical science of India is known as *āyurveda*, which is a Sanskrit word that means "knowledge (*veda*) for long life (*āyus*)." As a recognized Indian knowledge system, *āyurveda* started to take shape in the early centuries before the Common Era. At this time medical theories and practices were systematized and recorded in the Sanskrit language as formally arranged collections of medical knowledge called Samhitās (also occasionally called Tantras, loosely translated as "scientific works"). In many ways the early medical Samhitās were like our modern day encyclopedia insofar as they exhaustively strung together material on diverse issues pertaining to human life. A number of the Sanskrit medical sources from the classical period (spanning roughly from the 2nd century BCE to the 7th century CE) have survived and are available today. Textual evidence suggests that several more medical works were produced in the classical era but have been lost. For example, the 15th century commentator on the *Carakasamhitā*, Śivodāsa, claimed to know numerous classical ayurvedic Samhitās that have not survived to the present day, including the *Atrisamhitā*, *Gautamatantra*, *Jatūkarņatantra*, *Kapilatantra*, *Kharanādasamhitā*, *Parāśarasamhitā*, and *Viśvamitrasamhitā* (Roy, 1986, 157–158).

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The Sanskrit medical sources available today are not *verbatim* reproductions of the earliest compositions. They are products of several revisions, some of which are only partially intact today, and none of them, save perhaps the present version of the *Carakasamhitā*, were likely produced prior to the 4th century CE, around the time of the <u>Gupta</u> Empire. Though each of the classical sources are ascribed to authors, such as Caraka, Suśruta, Bhela, Kaśyapa, Vāgbhaṭa, and others, none of them were composed by individual authors at fixed dates in time; they were composed over centuries by many people. The types of knowledge held to be important and useful to *āyurveda* – the data, methods, and values that characterize the general concern to ensure long life (*āyus*) – are quite diverse. To some extent, each ayurvedic treatise draws upon a reticulate set of earlier and coeval Indian intellectual traditions, such as <u>Nyāya</u>, <u>Vaiśeşika</u>, *dharmaśāstra*, *jyotisa*, <u>Sāmkhya</u>, and <u>Buddhism</u>, to address subjects ranging from internal medicine to demonology, rhinoplasty to gynecology, among numerous other topics pertaining to the body, disease, and well-being. And while some of the basic principles that appear to undergird most of the Sanskrit medical sources plainly have common origins, it is clear that the processes of development, the central foci, and even the medical traditions to which each work belongs were different. Be that as it may, there are a sufficient number of principles and practices that consistently interweave ayurvedic literature in the classical period, so that we may talk about *āyurveda* as a distinct Indian tradition of medicine.

The Literature

Since the 19th century, it has been common among historians of Indian medicine to employ the term *brhattrayī*, "great trio," to refer to three significant medical sources from the classical period: the *Carakasaṇhitā*, the *Suśrutasaṇhitā*, and the *Aṣtāṅgaḥrdayasaṇhitā*. Since there is no evidence of the use of the term *brhattrayī* in the classical sources themselves, it is likely that the word was coined only recently in an effort to organize a kind of ayurvedic canon, with these three texts at the head, followed by another trio, the so-called *laghutrayī*, or "light trio": the *Mādhavanidāna*, the *Śarigadhārasaṇhitā*, and the *Bhāvaprakāśa*.

There appear to be some historical connections between classical ayurvedic literature and earlier, vedic literature. The earliest evidence of medical discourse in the <u>Vedas</u> occurs in the <u>Rgvidhāna</u> of the <u>Rgveda</u>. A later vedic text, however, the <u>Kauśikasūtra</u> of the <u>Atharvaveda</u>, contains more "medical" material among its otherwise magical and religious discourse than we find in the <u>Rgveda</u> (Zysk, 1996, 5). Whereas much of the *materia medica* in the <u>Atharvaveda</u> appears to have evolved into, or served as a kind of botanical baseline for the *materia medica* of classical *äyurveda*, K. Zysk has shown that very little of the theoretical understanding of health and the empirical approach to disease in the classical tradition can be found in vedic medicine (Zysk, 1996, 1). In general, the significance of the <u>Atharvaveda</u> is nominal among the "big three" medical classics. The <u>Suśrutasamhitā</u> considers <u>äyurveda</u> to be a "supplementary limb" (*upānga*) of the <u>Atharvaveda</u>, while the compilers of the <u>Carakasamhitā</u> instruct their students to invoke the <u>Atharvaveda</u> as the source of inspiration for their work should they ever be asked by enquiring physicians (<u>Suśr S.Sū</u>. 1.6; <u>CarS.Sū</u>. 30.20–21). Textual claims of descendance from the <u>Atharvaveda</u> notwithstanding, there appears to be very little actual correspondence in the clinical practice and anatomico-physiological theorizing of the early ayurvedic classics of Caraka, Bhela, Suśruta, and Vägbhata and the writings of the <u>Atharvaveda</u>.

Among the great trio, the compilation of the *Carakasaṇhitā*, which is arguably the oldest and certainly the most comprehensive ayurvedic compendium, is customarily regarded as the foundation stone of *āyurveda*. It is the first fully sustained medical work in Sanskrit literature. It covers a remarkably wide range of material that tends to undertake theoretical and philosophical questions more than do the other classical compendia. To get an idea of medicine in India before it, D. Wujastyk has noted,

"we are reduced to searching through books on other – mainly religious – subjects, looking for oblique references which may tell us something about the position of medicine at the time" (Wujastyk, 2003, 3).

The *Carakasamhitā* has 120 chapters spread out over eight sections, each of which varies stylistically in mixtures of verse and prose. The primary focus of the *Carakasamhitā* is internal medicine (*kāyacikitsā*). One of the earliest commentators on the text is the 7th-century author Jejjața (also spelled Jajjața). P.V. Sharma (2003b, 226) places Jejjața's commentary on the *Carakasamhitā* in the early 9th century. His commentary, the *Nirantarapadavyākhyā*, of which only parts have survived, is notable for its scrupulous attempt to discern which readings in the *Carakasamhitā* were authentic and which were spurious intercalations (Meulenbeld, vol. IA, 1999, 191–194). Cakrapāmidatta (11th cent. CE) is the commentator of the *Carakasamhitā* most often cited by tradition, and his work, the *Āyurvedadīpikā*, is completely available today.

There are references to an Indian physician named Caraka in a Chinese text of Buddhist history and legend, the *Saṃyuktaratnapiṭakasūtra*, which dates from the 5th century CE (Deshpande, 1988, 116; Wujastyk, 2003, 3). In this text, Caraka, along with the *bodhisattva* Aśvaghoşa and the minister Māṭhara, is a regular companion of King Devaputra Kanişka. The *Saṃyuktaratnapiṭakasūtra* that we have today, however, is a Chinese translation of the original Sanskrit text, which we do not have. Hence dating the South Asian original is problematic. Yet because King Kanişka lived during the <u>Kushana</u> Empire in South Asia (1st–3rd cents. CE), we can reasonably conjecture that Caraka lived during the early centuries of the Common Era. Noting that the jury is still out concerning the likely origin of the work, if we use the prosopographical information in the Chinese Buddhist source about King Kanişka and the Kushana Empire, we may furthermore surmise that the source ascribed to Caraka came from the northwestern region of the Indian subcontinent, in an area that today includes Kashmir, Pakistan, and the Punjab (Varier, 2005, 78–79; Sharma, 2003b, 105; Valiathan, 2003, i; Kaul and Kaul, 2001, 85).

The *Carakasamhitā*'s sphere of influence reached portions of Western Asia, South Asia, Southeast Asia, and East Asia. At the time of the *Carakasamhitā*'s production, the northwestern region of South Asia was fast becoming extremely active with cross-cultural exchanges because of the extensive sections of the Silk Road trading routes that stretched across it. Some of the important centers of knowledge production in this region, such as Takshashila and Gandhara, were cynosures for international travelers, merchants, and religious pilgrims coming from locations as far away as the Mediterranean Sea in Europe, the Iranian plateau and Afghanistan in Central Asia, and Japan and China in East Asia. That the edition of the *Carakasamhitā* that we have today is a thoroughly cosmopolitan work is therefore no surprise. Caraka's medical compendium was produced in a remarkably diverse cultural area and time. The global activity of the area in which it was produced and compiled is directly reflected in the compendium's references to people from outside of South Asia, including Persians, Chinese, Greeks, and Scythians (Lochan, 2003, 77–81; Wood, 2002, 13, 36–41; Grotenhuis, 2002, 15–23; Thapar, 2002, 237–244). What is more, the *Carakasamhitā* has long been thought to be closely associated with the Buddhist monasteries and medical centers in and around Takshashila during the Kushana dynasty (Zysk, 1991, 46–47). The legendary physician and instructor of Caraka, Ātreya Punarvasu, is said to have been a teacher at Takshashila. As a center of pilgrimage for seekers of medical information and training, Takshashila during the Kushana Empire was a valuable conduit between India and China, and the spread of Indian Buddhism made the connection between the two locations even greater (Thapar, 2002, 239).

Daksa Prajipar Airins Fig. 1: The Atreya School (genealogy of the Carakasamhitā).

When we get beyond the title and into the text itself, we see that the name Caraka is titular for the most part. The historical figure of Caraka was not the original author, but rather an editor of an already existing text named the *Agniveśatantra*. Moreover, Caraka was not the last editor of the edition of the *Carakasamhitā* that we have today. An editor by the name of Drdhabala (c. 5th cent. CE) edited Caraka's edition. We learn from Drdhabala that someone named Caraka expanded and revised an older source composed by one of Ātreya's pupils named Agniveśa, from whom we get the title *Agniveśatantra* (Drdhabala claims to have added 17 chapters to the *Cikitsāsthāna* and the entire *Kalpasthāna* and *Siddhisthāna*). Who Caraka actually was and how and for what reasons the *Agniveśatantra* came to be called the *Carakasamhitā* continues to be a regular point of debate and speculation (Meulenbeld, vol. IA, 1999, 105–109).

The style of the *Carakasanhitā*'s compendium is largely didactic. It is arranged in the form of numerous tutorials that Ātreya delivered to Agniveśa. Accordingly, tradition holds that the *Carakasanhitā* belongs to the "Ātreya School," which is to say it belongs to the following mythological genealogy: the god Brahmā created the knowledge system of *āyurveda*, and he taught it to Dakşa Prajāpati; Dakşa Prajāpati taught it to the divine physicians, the Aśvins, who in turn taught <u>Brahmā</u>'s medical system to the god <u>Indra</u>: Indra then taught it to the sage Bharadvāja, who passed on the knowledge to Ātreya Punarvasu; Ātreya Punarvasu then shared his understanding of Brahmā's "knowledge for long life" (*āyurveda*) to six pupils, who collectively are the founding members of the so-called Ātreya School: Agniveśa, Bhela, Jatūkarṇa, Parāśara, Hārīta, and Kşārapāṇi (see fig. 1; *CarS.Sū*. 1.4–5; *CarS.Ci*. 1.4.3).

The *Suśrutasaṃhitā* is important for many reasons, but above all this compendium is renowned for its progressive expositions on surgery (*śalya; Suśr.S.ū.* 1.7, 18; 3.45). Suśruta's text is traditionally thought to have been compiled around one to two centuries after Caraka's text, which places the composition of the *Suśrutasaṃhitā* somewhere between the 3rd and 4th centuries CE. This is of course just an approximation, and in fact some textual evidence suggests that the text could be much older than this. D. Wujastyk has shown that a reference to Suśruta by the grammarian Kātyāyana from approximately 250 BCE could push the date of the *Suśrutasaṃhitā* four or five centuries earlier (Wujastyk, 2003,

63). Yet as was the case with the *Carakasamhitā*, we are not able to work with original manuscripts in the case of Suśruta's compendium, and must look instead to the most recent edited editions of the text that are available today, all of which come from a period ranging roughly one to two centuries after the *Carakasamhitā*.

The historical person to whom the *Suśrutasamhitā* is ascribed, Suśruta, was purportedly the son of the sage Viśvāmitra and a student of King Divodāsa of Kāśī (modern day Varanasi). Following G.J. Meulenbeld's warning to any prospective biographer of the historical Suśruta, it is prudent to note that there are many people with the name Suśruta in Sanskrit medical and nonmedical literature that might or might not be the same person as the namesake of this Sanskrit medical compendium (Meulenbeld, vol. IA, 1999, 333–342). In nonmedical literature, for instance, a surgeon named Suśruta in the *Anuśāsanaparvan* of the *Mahābhārata* has the same familial profile as the Suśruta of *āyurveda* (*MBh*, *Anuśāsanaparvan*, 4.54–55). The *Garuḍapurāna* mentions a Suśruta who was a son of Viśvāmitra, and the *Agnipurāna* states that a man by the name of Suśruta was a student of King Divodāsa in the arts of human and equine medicines (*GaP*. 149.43; *AgP*. 279, 292). Whether all of these Suśrutas are in fact referents to the person to whom the classical ayurvedic work on surgery is ascribed is debatable (although, for one historian of Indian medicine, the "name Susíruta is virtually unique and synonymous with the [*Suśrutasamhitā*]" [Wujastyk, 2003, 63]). Occasionally, when numerous Sanskrit sources are taken into account to determine familial relations of quasi-historical figures, from one historical period to another, relationships and personal profiles appear to change. Such is the case with Suśruta's relationship to Viśvāmitra. For, the *Rgveda* and the *Rāmāyaṇa* both say that Viśvāmitra is the father of Suśruta, and it is fairly well accepted that the Viśvāmitras of these two works are not one and the same figure.

According to the *Suśrutasaṇhita* itself, a physician named Suśruta acquired his medical knowledge as a student of the "Dhanvantari School," which, alongside the Ātreya School, is one of the two dominant medical traditions of classical Indian medicine. The lineage of transmission of the Dhanvantari School is identical to the Ātreya School up to the god Indra, at which point, instead of the "knowledge for long life" (*āyurveda*) moving to the sage Bharadvāja, Indra is said to have passed on the medical system created by Brahmā to Dhanvantari (also known as Divodāsa, the king of Kāśī). Dhanvantari then established his own school of medicine by teaching the following seven pupils: Aupadhenava, Vaitaraṇa, Aurabhra, Pauşkalāvata, Karavīrya, Gopurarakṣita, and Suśruta (see fig. 2; *SuśrS.Sū*. 1.3, 21).

Structurally, the *Suśrutasaṃhitā* consists of 120 chapters divided over six sections (including a kind of appendix, or "Supplementary Section," *Uttaratantra*). Of the *Suśrutasaṃhitā*'s commentators, Jejjaţa was among the first. Jejjaţa's commentary has been only partially preserved, and the name of his work is not known. G.J. Meulenbeld has argued that the name of Jejjaţa's commentary on the *Suśrutasaṃhitā* is unknown (vol. IA, 1999, 192, 285). S. Dasgupta, however, suggested that "Jejjaţa's commentary passed by the name of *Bṛhallaghupañjikā*" (vol. II, 1968, 428). Apart from Jejjaţa, commentaries on the *Suśrutasaṃhitā* include Cakrapāṇidatta's *Bhānumatī* (1th cent. CE), which we do not have today, and the extant and widely cited 12th-century *Nibandhasaṃgraha* of Palhaṇa (on Cakrapāṇidatta's *Bhānumatī*, see Meulenbeld, vol. IA, 1999, 374–375; Srikanta Murty, 1992, 201; Dasgupta, vol. II, 1968, 427–428; on Palhaṇa's *Nibandhasaṃgraha*, see Meulenbeld, vol. IA, 1999, 376–379; Srikanta Murty, 1992, 201; Dasgupta, vol. II, 1968, 427–428; on Palhaṇa's *Nibandhasaṃgraha*, see Meulenbeld, vol. IA, 1999, 376–379; Srikanta Murty, 1992, 201; Dasgupta, vol. II, 1968, 427). In the *Nibandhasaṃgraha*, Palhaṇa explains that a person named Nāgāṛjuna redacted the *Suśrutasaṃhitā*, although he provides precious little information about whether this Nāgāṛjuna was the famous Buddhist Madhyamaka philosopher (c. 150–250 CE) of the same name or a different Nāgāṛjuna, such as the famous military surgeon from the Gupta era, or one of the many other Nāgāṛjuna! Of course not all of these texts are from the classical period. For an overview of the long standing debate about who the redactor Nāgāṛjuna might have been, see Dasgupta, vol. II, 1968, 424–427; Meulenbeld, vol. IA, 1999–2002, 338–341, 363–368).

Brahmä _____ Dalou Projipeti _____ Alvers ____ Indra Dhervarte Augustaners Ca ana Visianana Arribben Ear Summers Fig. 2: The Dhanvantari School (genealogy of the Suśrutasamhitā).

The *Aştāngahṛdayasamhitā* is attributed to Vāgbhata. It is an extraordinary synthesis of the medical doctrine and principles presented in the *Carakasamhitā* and the *Suśrutasamhitā*. The name *Aştāngahṛdaya* (The Heart of the Eight Parts) is testament to Vāgbhata's central aim in composing this work: to take the chief ideas in ayurvedic works produced before him and present them in an economical yet understandable manner. The "eight parts" refer to the original eight categories of medicine in *āyurveda* (see below), of which Vāgbhata set out to capture the quintessential elements of each and thereby the entire system of *āyurveda*. The *Aştāngahṛdayasamhitā* has enjoyed enormous clinical popularity throughout South Asia, largely because its conciseness lends itself to handy reference and in some cases complete memorization of the text by physicians (*vaidyas*).

By most accounts, the *Aştānġahṛdayasaṇhitā* was composed in the early 7th century CE (Meulenbeld, vol. IA, 1999, 635). Originally composed in Sanskrit, the text enjoyed wide distribution outside of India within a century of its composition, and it was translated into several foreign languages, including Arabic and Tibetan (Wujastyk, 2003, 194). Information about the historical author of the *Aştānġaḥrdayasaṇhitā*, which would be useful to help situate the place of the text's composition, is not clear. Historically it seems that Vāgbhaṭa's compendium was mostly studied and used in South India. G.J. Meulenbeld has argued that Vāgbhaṭa was not South Indian, however, but likely from the northwestern area of the Indian subcontinent, around Sind, not far from present day Karachi (Meulenbeld, 1974, 424). Tradition explains that his father, Siṇhagupta, and someone named Avalokita trained Vāgbhaṭa in medicine. There is some evidence that Vāgbhaṭa even trained Jejjaṭa, the commentator on both the *Carakasaṇhitā* and the *Suśrutasaṇhitā*, in ayurvedic medicine (Meulenbeld, 1974, 406–407). There are several instances in the *Aṣṭānġaḥrdayasaṇhitā* that suggest Vāgbhaṭa was a Buddhist. Vāgbhaṭa mentions the "middle way" in the *Aṣṭānġaḥrdayasaṇhitā*, and he refers to several names known in Buddhist literature, such as his early teacher, Avalokita, but also Bhaiṣajyaguru, Avalokiteśvara, Ratnaketu, and others. He uses the Buddhist title *arhant* for Bhaiṣajyaguru; he refers to a healer (*dhāriṇī*) who prepares a collyrium paste meant to purify the three eyes (of *prajñā, jñāna*, and *vijñāna*, or discernment, knowledge, and consciousness) as *tathāgata* and *samyaksaṇbuddha*; and he also mentions the Buddhist deity Tārā in his work. Of course, we know that the early Indian medical authors and

practitioners were often in close proximity to, if not in direct conversation with, Buddhist healers. So while the Buddhist accents in his text are not at all surprising, it is worthy of note that among the Sanskrit medical classics Vāgbhaṭa's work stands as the most obviously aligned with Buddhist teachings.

On the matter of Vagbhata's medical work, there is another ayurvedic text attributed to a someone named Vagbhata, the Aşţāngasamgrahasamhitā (The Catalogue of the Eight Parts). The relationship between the Asţāngahrdayasamhitā and the Astānigasamgrahasamhitā has been for a long time a point of scholarly disagreement. The Astānigasamgrahasamhitā is considerably longer than the Aşţāngahrdayasamhitā, and it is written largely in prose like the Carakasamhitā and the Suśrutasamhitā. The Asţāngasamgrahasamhitā does not lend itself to complete memorization or quick reference like the Astāngahrdayasamhitā. But it is nevertheless a solid summary of the ayurvedic medical system, for which the text has enjoyed wide usage throughout South Asia. In contemporary Ayurvedic Colleges the Aşţāngasamgrahasamhitā is regularly included on syllabi for the teaching of Sanskrit medical literature, while the Astāngahrdayasamhitā typically is not (although this may be changing in some colleges today). This is because the Sanskrit of the Astāngasamgrahasamhitā tends to be clearer since its prose explanations are thorough and detailed, whereas the Astāngahrdayasamhitā requires a good deal more work to unpack the data contained within the parameters of its verses. The relationship between the two texts is far from certain. Simply put we do not know if the same person wrote both works or if two different authors (or teams of authors) produced the two texts. For a long time scholars believed that the works were written by two different people, so-called Vāgbhața I and Vāgbhața II. Nowadays scholars of Indian medical history tend to argue that both texts were composed by the same person, with perhaps the Astāngasangrahasanhitā being an expansion of the Astāngahdrayasamhitā. If both texts were composed by the same Vāgbhata, we might ask: which text came first, the shorter verse text or the longer prose text? Current scholarship on this question, though by no means unanimous, appears to side with the notion that Vagbhata composed the shorter verse text, the Astāngahrdayasamhitā, first, after which he expanded and commented on his earlier work in the Aştāngasamgrahasamhitā (Wujastyk, 2003, 196).

Apart from the compendia of the classical "big trio," other Sanskrit medical sources from the classical period warrant mention. The *Kāśyapasaŋhitā* stands out among the classical ayurvedic corpus because it is the only existing Sanskrit source from the period that deals exclusively with gynecology, obstetrics, and pediatrics, all of which collectively fall within the ayurvedic field of *kaumārabhṛtya*. While this branch of ayurvedic medicine deals with women's health, *kaumārabhṛtya* literally means "support of the young," with the young here referring both to children (hence the specialization also includes pediatrics) and primiparas, or first time and soon-to-be mothers. Of all the Sanskrit medical compendia, the *Kāśyapasaŋhitā* most closely resembles the works of Caraka and Bhela, which suggests an affiliation of the compilers of this text with the Ātreya School. Today only 78 of its original 200 chapters are available, and almost half of them have been only partially preserved (Meulenbeld, vol. IIA, 2000, 27). In terms of style, the *Kāśyapasaŋhitā* appears very old. Both G.J. Meulenbeld and D. Wujastyk have noted the use of archaic phraseology in the text (Meulenbeld, vol. IIA, 2000, 39–41; Wujastyk, 2003, 164). And its reference to certain deities like Prajāpati, Agni, and Soma (vedic gods), vedic rituals and *mantras* (for example, the *somapavana* and Sāvitṛ *mantras*), among other things, reflect the stylings of the <u>Vedas and Brāhmanas</u> (Varier, 2005, 131; Wujastyk, 2003, 164). Nevertheless, these observations account for just small segments of the entire text, and it is likely that the Sanskrit work we have today underwent its final redaction around the same time as Vāgbhaṭa's *Aṣṭāŋaµtdayasaŋhitā*, which places it around the 7th century CE.

The entire *Kāśyapasaņhitā* is arranged in the form of a protracted dialogue between a teacher, Kaśyapa, and his pupil, Vrddhajīvaka ("Old Reviver"). The text is also sometimes called the *Vrddhajīvakatantra*, alluding to the importance of Kaśyapa's pupil in the assembly and dissemination of the work. The adjective *vrddha* (meaning "old and full-grown" as well as "experienced and wise") affixed to the name of Kaśyapa's pupil, Jīvaka, sets him apart from other important physicians bearing the name Jīvaka in the long course of Sanskrit literary history. It also suggests that the medical knowledge of this specific Jīvaka is in some way superior to the medical knowledge of the other Jīvakas in the literature, such as, to name the two most famous of the bunch, Jīvaka the pediatrician in the Bower Manuscript and Jīvaka Komārabhacca, the legendary Buddhist physician.

According to the mythic history of the *Kāśyapasaṃhitā*, during the fourth and most deleterious epoch of the Hindu cosmic calendar, the *kaliyuga* (see <u>cosmic cycles</u>), Jīvaka's rendering of Kaśyapa's medical teachings were temporarily lost. They were eventually recovered and preserved by a charitable *yakṣa* named Anāyāsa. A sage in the same lineage as Jīvaka, Vātsya, procured the medical teaching from Anāyāsa, and upon obtaining it, he promptly undertook a rigorous study of the *Rgveda, Yajurveda, Sāmaveda*, and their auxiliary disciplines. He also undertook severe religious austerities (*tapas*) and sacrificed regularly to <u>Śiva</u>. Kaśyapa, and the *yaksas*. Vātsya then revised Jīvaka's work to support the future of humankind. The *Kāśyapasaṃhitā* that we have today is Vātsya's putative revision of the legendary sage Kaśyapa's original medical formulations.

The *Bhelasamhitā*, like the *Carakasamhitā*, derives from the Ātreya School (see fig. 1). The text attributed to Bhela (also spelled Bhela and Bheda) bears some striking resemblances to the *Carakasamhitā*, and some scholars have suggested that Bhela's text is in fact older than the *Carakasamhitā*. As T. Yamashita has shown, the *Bhelasamhitā* differs from the *Carakasamhitā* in style and philosophical orientation: Bhela's text is written much more concisely than the *Carakasamhitā*, and it contains far fewer philosophical speculations (Yamashita, 2009, 199). Bhela's extensive knowledge of *āyurveda* is noted in a number of early medical sources, including the Bower Manuscript, the *Aṣtāngahṛdayasamhitā*, and the *Aṣtāngaangrahasamhitā*. By the time of the *Aṣtāngahṛdayasamhitā*, it appears that the *Bhelasamhitā* had lost its standing in the ayurvedic corpus, for Vāgbhaṭa comments that during his day no one read the work of Bhela any longer (Yamashita, 2009, 199).

The last text of the classical ayurvedic corpus to be discussed here is the Bower Manuscript. This is a collection of seven incomplete manuscripts that date from the early 6th century CE, placing them among the earliest surviving ayurvedic texts available today. Of the seven manuscripts, three of them are on ayurvedic medicine, two are on dicing divination, and two deal with *mantras* for the prevention of snakebites (Wujastyk, 2003, 149). It is named not after the texts' author(s), as A.F.R. Hoernle documented, but rather from its former owner, British colonel Bower, who bought the manuscripts in 1890. Before Bower acquired them, it appears that the manuscripts were the property of a Buddhist monk named Yasomitra who lived in the Silk Road trading town of Kuqa, or present day Sinkiang, in western China (Hoernle, 1893–1912).

The texts of the "light trio" (*laghutrayī*) are considerably more recent than the texts of the "great trio," beginning with Mādhava's late-classical *Mādhavanidāna*, which was likely composed in the 8th century; the medieval work, the *Śarngadhārasāmhitā* of Śarngadhāra, was composed in the early 14th century; and Bhāvamiśra's *Bhāvaprakāśa* was composed in the 16th century.

Ayurveda's Eight Parts

The ancient Indian physicians and medical teachers of *āyurveda* identified eight specific domains, or "limbs" (*aigas*), of knowledge that would be useful to treat the human body to ensure long life. Just like the origin of each classical ayurvedic source, the origin of the medical system itself, including the eight parts of *āyurveda*, has a mythological etiology. When the god Brahmā originally composed the medical knowledge of *āyurveda*, his work consisted of 100,000 verses (*ślokas*) spread over 1,000 chapters. Brahmā quickly discovered that humans did not live long enough, not to mention lacked the brainpower, to memorize so many verses. So he divided the teachings of *āyurveda* into eight divisions to make it easier for humans to learn and remember. The eight divisions include:

-	internal medicine (<i>kāyacikitsā</i>);
-	ear-, nose-, and throat-related medicine (<i>śālākya</i>);
-	surgery (śałya);
-	poison treatment or toxicology (<i>viṣacikitsā</i> or <i>agadatantra</i>);
-	demonology (<i>bhūtavidyā</i>);
-	embryological-, obstetric-, and pediatric-related medicine (kaumārabhītya);
-	rejuvenation therapy (<u>rasāyana</u>); and
-	sexual enhancement ($v \bar{a} j \bar{i} kara n a$, lit. making like a stallion)

Every medical compendium treats these eight divisions differently. Each compendium tends to focus on one or a few of the divisions depending on its specialization(s). So, for example, the medical work specializing in surgery, the *Suśrutasamhitā*, declares *śalya* to be the foremost branch of ayurvedic medicine, whereas the classical source that focuses on embryology, obstetrics, and pediatrics, the *Kāśyapasamhitā*, gives *kaumārabhṛtya* pride of place among the eight areas of focus. To call each of these eight types of Indian medicine a division, part, or area – *aṅga* – can be somewhat misleading. The Sanskrit sources are not typically divided into sections according to these eight divisions of medical knowledge. Instead, one or more of the eight *aṅgas* of *āyurveda* are usually interspersed throughout a compendium's various theoretical and methodological "Sections" (*Sthānas*), which regularly include some, if not all, of the following: an initial overview (*Sūtrasthāna*), a section on pathology (*Nidānasthāna*), a section on measurements (*Vimānasthāna*), a section on anatomy (*Śārīrashtāna*), a section on the sense organs (*Indriyasthāna*), a section on internal medicine (*Cikitsāsthāna*), a section on ritual precepts (*Kalpasthāna*), and a section on efficacious treatment (*Siddhisthāna*). Some of the classical sources also have an appendix, or supplementary section (*Uttaratantra*).

The Body, Disease, and Therapy

Several words in ayurvedic literature designate the human <u>body</u>, including *śarīra*, *deha*, *tanus*, *kāya*, and *vapus*, to name the most common. Occasionally the terms *gātra* and *aiga*, both of which mean "limb," synecdochically signify the entire physical body as well. What is more, the term <u>ātman</u>, commonly rendered as "self," is also used in some of the classical sources to indicate the physical body. It is worth pointing out that the variety of names employed to denote the human body reflects the highly synonymic nature of the Sanskrit language. The lexical range of Sanskrit terms meaning "body" does not suggest certain alternative therapies, which are designated according to one of the terms (*śarīra*, *deha*, *tanus*, etc.), to apply ayurvedic knowledge in pursuit of long life.

More often than not the classical medical compendia include a "Section on the Body" (*Śārīrasthāna*), though this does not hold true across the entire ayurvedic corpus. The *Carakasamhitā*, *Suśrutasamhitā*, *Bhelasamhitā*, and *Kāśyapasamhitā*, and the two works attributed to Vāgbhaṭa, *Aṣṭāṅgahṛdayasaṃhitā* and *Aṣṭāṅgasaṃgrahasaṃhitā*, have sections on the body. There is no uniformity across these texts, however. Hence there is not a consistent representation of the *minutiae* of the human body from one source to the next. The details of the tradition's anatomical diversity are rather extensive, so I will not rehearse all of discrepancies here but will, by way of explanation, point to just a few of them: *Carakasaṃhitā* and *Bhelasaṃhitā* identify six layers of skin (*tvac*), while *Suśrutasaṃhitā* identifies seven; *Carakasaṃhitā*, *Bhelasaṃhitā*, and *Kāśyapasaṃhitā*, tally the number of bones (*asthi*) in the human body, including teeth and nails, to be 360, and *Suśrutasaṃhitā* numbers just 300; *Carakasaṃhitā*, *Suśrutasaṃhitā*, *Aṣṭāṅgahṛdayasaṃhitā*, and *Aṣṭāṅgasaṃgrahasaṃhitā* indicate 900 ligaments (*snāyus*), whereas *Bhelasaṃhitā* simply states that the body has ligaments; the body has 200 arteries (*dhananī*) in *Carakasaṃhitā* and *Kāśyapasaṃhitā*, yet there are 24 in *Suśrutasaṃhitā*, *Aṣṭāṇġaḥṛdayasaṃhitā*, and *Aṣṭāṅġasaṃgrahasaṃhitā*.

Discrepancies in somatic representation in the Sanskrit medical classics may be attributable to a number of different factors. One certain reason stems from the extensive durations of time over which the sources were composed and compiled, sometimes spanning centuries. People from different generations, with different knowledge of and access to the human body, redacted, emended, and added to these works. The diversity of authorship within a specific text's genealogy (including a text's redactors and commentators) may account for a lot of the anatomical inconsistencies across the ayurvedic corpus. Another reason may have to do with the fact that – apart from physicians trained according to the *Suśrutasaņhitā*, which specializes in surgery and contains the most elaborate anatomical account in classical *āyurveda* – among classical Indian physicians there appears to have been a glut of inexperience in the practice of dissection, which is central to anatomical explanation (Mazars, 2006, 84–85). While the surgical skills of the physicians who compiled the *Suśrutasaņhitā* were clearly far more advanced than the compilers of the other classical compendia, the accuracy of their conceptions of the human body should be viewed with the knowledge that they, like their contemporaries in classical India, had limited access to human bodies for dissection. Even physicians associated with the *Suśrutasamhitā*, the texts explains, trained on nonhuman objects and bodies, such as animal carcasses, gourds, and the hollow trunks of plants to prepare for surgery

on humans. Prevailing concerns with ritual purity and pollution in classical Hindu societies suggests a possible third reason: anxiety about ritual purity because the practice naturally involved contact with polluting substances, and thereby familial and social ostracization, could have deterred physicians from engaging in dissection.

Despite inconsistencies in descriptions of the body there are some general classificatory schemes in the Sanskrit medical sources that reflect a relative somatic systematization that extends across the literature. *Āyurveda* claims to identify and explain illness using a logical system of pathobiology and, moreover, it applies its therapeutics according to theoretical models, such as the theory of the "three humors" (*tridoşa*): wind, bile, and phlegm (*vāta, pitta,* and *kapha* or *śleşman*). Although each humor has a natural seat in the body (wind-pelvic region, bile-abdomen, phlegm-chest), the humors are constantly active, intermingling with the seven fundamental substances (*dhātus*) of the body: chyle, blood, flesh, fat, bone, marrow, and semen. They also interact with the three categories of waste products of the body: urine, feces, and perspiration. *Āyurveda* further classifies the humors according to their locations in the body (for instance, *prāṇavāta* is located in the head, chest, and neck region; *pacakapitta* is located in the duodenum and intestines; *kledakakapha* is located in the chest and stomach). A significant difference between the body's humors and its substances in *āyurveda* is that unlike other somatic elements, the humors are the body's primary pathogenic arbiters. An excess or deficiency of one humor or an unnatural combination of humors in any area of the body will generate disease. Nearly any discussion of the material body in the Sanskrit medical sources will in some measure touch upon the physiological principle of the three bodily humors, for it is critical to the system's understanding of disease causation and physiological well-being. Ayurvedic physicians diagnose diseases according to the predominance of one or more humors in a certain location in the body, and they prescribe medicines that will accordingly reorient the humoral makeup of the patient.

The precise source of $\bar{a}yurveda$'s classical doctrine of the three humors is not known, although H. Scharfe has argued that the humoral theory of Caraka, Suśruta, and Vāgbhata developed on the basis of Buddhist canonical sources (Scharfe, 1999; Zysk, 1991, 29ff.). Despite the absence of a clearly identifiable source for the ayurvedic humoral model, it is relatively clear that the theory remains relatively unchanged from Sanskrit source to Sanskrit source. More than any other theoretical construct, humoral theory underlies the representation and conception of the human body in $\bar{a}yurveda$. What is more, since the 17th century, when internal medicine arose as $\bar{a}yurveda$'s strong suit alongside the virtual demise of a yurvedic surgery and obstetrics, the humoral model of the body has persisted today as a diagnostic and therapeutic guide in clinical practice in India. The Sanskrit word for "humor," *doşa*, literally means "fault" or "taint." In ayurvedic literature, the *doşas* are not conceptual entities or indexical measures for speculation on diseases and their origins. They are real, semifluid substances that circulate throughout the body. In the earliest layer of Indian medical literature – namely, the *Carakasamhitā* and the Pali Canon – bile and phlegm were classified neutrally as somatic elements, not negatively as "faults" of any kind, and only later, with the *Suśrutasamhitā* and thereafter, were these elements considered to be "taints" or "faults" when they were found to be in excess or deficient in areas of the body (Scharfe, 1999). Some scholars have suggested that there are reasons within $\bar{a}yurveda$ itself to translate the term *doşa* as "humor" on similar grounds that the Greeks used the term "humor" ($\chi v \mu \delta \varsigma$) in the Hippocratic tradition (Zimmermann, 1989, 127–130, 177–187; Filliozat, 1964, 28–31, 197ff.). In ancient and medieval European medical history, there were thought to be four cardinal humors in the human body: blood, phlegm, choler (or yellow bile), and black choler (or mela

Also integral to the ayurvedic conception of the human body are the "sense organs" or "sense faculties." In Sanskrit the word for these is *indriya*. A body's *indriyas* function in the human body to ascertain and process knowledge. An *indriya* is not an internal bodily mechanism in the biomedical sense of the word "organ," however. In fact, in *āyurveda* the body's organs, such as the stomach or the liver, appear by the rather vague label of "containers" (*āśayas*). The organs of the human body are not understood to operate in *āyurveda* in the same way as they are understood and described to operate in biomedical discourse – as industrious mechanisms that digest food, churn out nutrients, remove toxins from the blood, and so on (Wujastyk, 2002, 77–78, 80). Classical *āyurveda*'s conception of the sense organs likely comes from the Vedic use of the word *indriya* as "power" or "force" (usually associated with the god Indra). In Sanskrit medical literature, *indriya* signifies a force or power of the body, namely, the body's sense faculties. The classical medical sources characteristically use the term *indriya* to address questions of perception. The *indriyas* are "organs" insofar as they are "means," that is, forces or *modi operandi*, which enable a person to know and interact with the world of objects. Yet the *indriyas* are not organs in the same way that biomedical anatomists represent the heart, liver, and eyes. The *indriyas* are not visible. Their existence is inferable as present in the ears, nose, eyes, tongue, and skin. People know the *indriyas* are present and working properly because they pick up specific auditory, olfactory, visual, tasteable, and tactile objects that are principally associated with them (as in fig. 3).



In *āyurveda*, the body's "containers" are somewhat like the organs in characteristic biomedical description inasmuch as they hold and circulate fluids, humors, and blood throughout the body. These containers, sometimes also called "action organs" (*karmendriyas*: e.g. larynx, genitals, feet, anus, hands), house the sense organs (*indriyas*), without which the hands would not apprehend, the feet would not ambulate, the eyes would not see, and so on.

Diseases in *āyurveda* typically assail just the body, just the mind, or just the sense organs. Examples of diseases that affect, respectively, the body, mind, or sense organs include: a tumor, adherence to untruths, and partial blindness (or cataracts). The types of disease that attack the body, mind, or sense organs are typically classified according to a two-, three-, or fourfold system. In the *Astangahrdayasanhitā*, Vāgbhata presents a twofold classification of disease: endogenetic or internal (*nija*) and exogenetic or invasive (*āgantu; AstS.Sū.* 1.20–21). The *Carakasanhitā* identifies three types: endogenetic, exogenetic, and mental (*mānasa; CarS.Sū.* 1.45). The *Suśrutasanhitā* recognizes four types: exogenetic, bodily (*śārīra*), mental, and natural (*svābhāvika; SuśrS.Sū.* 1.23–26). Endogenetic diseases in the *Carakasanhitā* and the *Astangahrdayasanhitā* agree with *Suśrutasanhitā*'s so-called bodily diseases. These are generally attributable to the morbidity of the bodily humors and a person's diet. Exogenetic diseases in all three works are attributable to influences outside of the body, such as demons (*asuras*), gods, poisons, wind, and war.

Often a person's actions, his or her <u>karman</u>, are tied to exogenetic disease. Mental diseases in the *Carakasanhitā* are said to arise from not getting what one wants or, conversely, getting what one does not want. In the *Suśrutasanhitā*, mental diseases arise from emotional temperaments like anger, grief, fear, pleasure, lust, and so on. The natural category of disease in the *Suśrutasanhitā* includes things that are physiologically given for every human body, such as hunger, thirst, old age, and death .

Disease prognoses in classical $\bar{a}yurveda$ generally fall within the following threefold classification: curable ($s\bar{a}dhya$), treatable but not curable ($y\bar{a}pya$), and incurable ($as\bar{a}dhya$; $K\bar{a}sS.Ka.$ 6.30–31). This threefold arrangement is fairly standard in classical $\bar{a}yurveda$. The *Carakasaṇhitā* and Vāgbhaṭa's *Asṭaṅagahṛdayasaṇhitā* further distinguish two types of curable diseases: those diseases that are easily curable ($sukhas\bar{a}dhya$) and those that are difficult to cure ($krcchras\bar{a}dhya$). Likewise for the incurable, there are two types: those that may be palliated ($sy\bar{a}dy\bar{a}pya$) and those that are irreversible ($anupakramay\bar{a}pya$; *CarS.Sū.* 10.9–10; *AsţS.Sū* 30–35). The *Carakasaṇhitā* adds that physicians who cannot properly distinguish between the three types of disease will lose their money, knowledge, and fame, and will incur a bad reputation (*CarS.Sū.* 10.7–8). Students training to be ayurvedic physicians (*vaidyas*) are regularly advised to avoid taking on patients with diseases of the incurable type (Sharma, 2003a, 383; Wujastyk, 2003, 13).

According to the *Carakasanhitā*, there are three general types of remedial therapy in *āyurveda*. One involves the gods and goddesses; another entails the physician's ability to reason during the physical evaluation of a patient; and the last one concerns mental health (*CarS.Sū.* 1.54; *AşţS.Sū.* 1.25–26). Among other things, the kind of medicine that involves deities includes recitation of *mantras*, religious austerities, ritual practice, sacrifice (*yajña*), deity worship, and <u>pilgrimage</u>. The 11th-century commentator Cakrāpaņidatta explains that medicine dependent on divine influence can in fact eliminate human disease but its efficacy ultimately comes from the power of the gods, not the physician or the patient ($\bar{AyD\bar{p}}$). On *CarS.Sū.* 11.54). The *Kāśyapasaņhitā* classifies ayurvedic therapies according to two categories: medicine that uses pharmaceutical therapies (*auşadha*) and medicine that uses nonpharmaceutical therapies (*anauşadha*), also simply called *bheşaja* (*KāśS.In.* 1.3–4). *Bheşaja* literally means "medicine" or "healing." The medical category of *bheşaja* in the *Kāśyapasaņhitā* is akin to Caraka's identification of medicine dependent on divine power, called *adravyabhūta*, or medicine "consisting of no material ingredients" (*CarS.Vi.* 8.87). Both *bheşaja* and *adravyabhūta* echo the older, curative therapies of the *Atharvaveda* that involve mythic etiologies and fix spells, rituals, and chants for healing.

Another way to understand the therapeutic approach in $\bar{a}yurveda$ is to consider one of the tradition's core truisms: ayurvedic medicine should always treat the person, not simply the disease (or the symptoms of the disease). This statement begs a few questions: What is a person in $\bar{a}yurveda$? How does a physician come to know a person in order to assign treatment? And what is the grand goal of the treatment given the view of the human person? The *Carakasaṃhitā* explains that the person (*puruṣa*) is a combination of mind, self, and body. These three things serve as the substratum for all living entities (*CarS.Sū*. 1.46–47). When a person comes to an ayurvedic doctor for treatment, generally a physician will conduct a comprehensive examination of the overall condition of the person – who in this encounter, it is worth noting, is not just a person, but is also a "patient" (*rogin*, "diseased one") – in addition to his or her manifest symptoms. This type of exam might include an evaluation of a patient's likes and dislikes, temperament, mental state, class, and caste. The classical texts also suggest that a physician ascertain a patient's association with the land and environment to learn about such things as the nutrient quality of the soil in the region from which the patient hails, whether or not known diseases have been reported in the area in which the patient was reared, the food habits of people in the region, and so on (Kakar, 1982, 228).

The person in *āyurveda* is seen to exist simultaneously on physical, psychological, and social planes of being. The boundaries between these planes are thought to be quite fluid. So porous are they in fact that much of a person's everyday life may be seen as transactional, à la M. Marriott's notion of Hindu "dividual identity" on account of the regular transference of "substance codes" (1976, 1989). The very stuff that constitutes a person, the thoughts and social intercommunication that a person enjoys all have the capacity to transfer from one person to another. In the Hindu religious context, the transactional view suggests that a person's life is constantly in danger of coming into contact with ritually polluting substances (such as certain foodstuffs, bodily fluids, and refuse that might litter the air and ground). In the medical context, the reality of ongoing substance exchanges in everyday life indicates the physiological continuum of each person's existence with other living beings and the environment. At the atomic level, the physical person is comprised of the five fundamental elements (*pañcamahābhūtas*; see <u>mahābhūtas</u>): earth, wind, fire, water, and space. Everything that is "out there," outside of one's body, is also "in there," and vice versa, and these things are always flowing back and forth. The *Carakasamhitā* explains that the body is an independent system with a regular structure and standard working apparatuses that are at once a part of and independent from a far greater, cosmological body. The medical sage Punarvasu Ātreya commented on the relationship in this way:

"The individual is of the same measure as the universe. As much as there is elemental diversity in the universe, in equal measure there is elemental diversity in the individual. As much as there is elemental diversity in the individual, in equal measure there is elemental diversity in the universe" (*CarS.Śā.* 5-3).

A person's body is effectively a cosmos in miniature, or the microscopic counterpart to the macroscopic cosmos:

"Earth comprises the solid form of the human being. Water makes up the moisture. Fire is the heat. Wind makes the breath. Atmosphere constitutes the hollow parts. *Brahman* is the interior self" (*CarS.Śa*. 5.5).

The three bodily humors, F. Zimmermann has argued, convey the five elements throughout the body, acting as "forces, powers which foment disorders, pathogenic principles between which the doctor must establish justice" (Zimmermann, 1999, 31). For the traditional ayurvedic physician, to reestablish integrity in a sick body a regimen must be devised that realigns the body's humoral flow. By the very act of doing that the physician also calibrates the transactional flow of the physical, psychological, and social planes of being.

The Study and Teaching of Ayurveda Then and Now

The study of *āyurveda* in India has changed a great deal roughly since the period of British colonial rule in South Asia, when the Indian subcontinent saw the rise of institutionalized western-style biomedical schools, such as Calcutta Medical College in 1835, and Ayurvedic Colleges, such as the Government Ayurveda College of Thiruvananthapuram in 1889. Many of the early biomedical schools in India attempted to chart a dual-natured course in their curricula by teaching Western science while engaging local Indian medicine as well. British physicians'

interest in "native medicine" was largely for recruitment purposes, however, rather than bona fide interest in the medical traditions they encountered in India, because they required the involvement of native doctors to work as medical assistants, apothecaries, clinical technicians, and the like. By the mid to late 19th century, it was standard policy that no native Indian doctors were allowed to treat British company employees if they had not received at least a minimal amount of training in Western biomedicine. With the obvious influence of Western science well entrenched in India, when Ayurvedic Colleges started to crop up in major metropolitan areas across India they routinely designed their curricula according to the educational model of modern Western biomedical schools. The impact of colonialism on the study and future of *āyurveda* in India has been enormous, and the consequences of this impact, which have been quite diverse in every region of India, are still playing out today. A number of excellent studies of colonial medical history in India and the encounter of Western and Indian science have been written, and I refer the interested reader to these works (see e.g. Panikkar, 1992; Arnold, 1993, 2000; Harrison, 1999; Chakrabarti, 2004; Bhattacharya, Harrison & Worboys, 2005; Pati & Harrison, 2009; Sharma, 2011; Bala *et al.*, 2012; Bhattacharya, 2013).

At Ayurvedic Colleges in India today the standard degree that is offered is the Bachelor of Ayurvedic Medicine and Surgery (BAMS). This degree usually takes four and half years, plus one year of residency, to complete. After the BAMS, many Ayurvedic Colleges offer a three-year graduate program en route to an MD (Ayurveda) degree, or Doctor of Ayurvedic Medicine. Since the rise of institutionalized ayurvedic institutions in India, perhaps the largest change in the educational model of *āyurveda* has occurred in the use of the tradition's texts. Ayurvedic Colleges tend to stress the importance of secondary literature and deemphasize the Sanskrit medical classics in their curricula. The secondary literature that BAMS students use consists of textbooks that combine tenets of both modern biomedicine and classical avurveda. When the classical texts themselves are included in a syllabus, often translations are used in place of the original Sanskrit sources. When the Sanskrit sources are part of the curriculum, invariably they are not studied in toto, but taken up piecemeal for little more than a semester or two. One reason for this is that most students embarking on the BAMS degree are not sufficiently equipped with the skills to read Sanskrit from their elementary and secondary schooling. Another reason for the turn away from the Sanskrit medical classics in modern ayurvedic education appears to be a drive on the part of Ayurvedic College administrators to structure their curricula along the lines of Western biomedicine. In some instances, Sanskrit neologisms have been coined to mirror modern biomedical subjects while retaining the air of Indian classicality. So, for example, the standard curriculum at a Ayurvedic College today includes textbooks and courses on racanavijñāna (anatomy), śārīrakriyavijñāna (physiology), and dravyaguna (pharmacology). The names of these Sanskrit subject divisions are entirely modern. They do not exist in the Sanskrit medical classics, where of course terms and concepts like sarīra, "body," and dravya, "(medicinal) substance" are there but not isolated into specific disciplines of the medical system. Modern anatomy, the study of the body (*śārūra*), is integral to all eight areas of *āyurveda*, and in the Sanskrit sources the suggestion of a study of the body independently as a subject, apart from all other teachings pertaining to the beginning and end of life (such as obstetrics, pediatrics, internal medicine, rejuvenation therapy) is not present.

The classical ayurvedic texts were the basis of medical education in the traditional *gurukula* ("family of the teacher") setting. This type of ayurvedic training is quickly becoming extinct in India today, although in a few locations in Kerala, South India one can still find the *gurukula* method of instruction in operation. The Sanskrit medical classics are structured so that if they are studied from beginning to end, preferably memorizing the entire text, a student of *āyurveda* will become sensitive to an exhaustive array of connections between body, mind, and society that contribute to the production of disease and the maintenance of health. Traditionally, these texts should be introduced to a student by a master, one who has him or herself already gone through the *gurukula* education and been practicing medicine for some time. Although the initiation by an experienced teacher (*adhyāpana*) is critical to ensure that a student understands the text(s) under study, the classical sources insist that the successful student will be driven and take initiative (*svādhyāya*) to begin observing clinical practice and getting involved in experimentation as soon as it is appropriate.

The traditional method of ayurvedic instruction is laid out in the *Carakasamhitā*. It is a three-part method largely dependent on rote memorization of an entire text by a student under the direction of an experienced teacher (*guru*). This kind of training in Kerala, where Vāgbhaṭa's *Aṣṭānġahrdayasamhitā* has been and continues to be the most widely studied and clinically used medical textbook among traditionally trained physicians, is called "face-to-face" (*mukhāmukham*). The name highlights the actual physical relationship between teacher and student during the medical education, which generally occurs in "the house of the *guru*" (*gurukula*). Usually both people sit cross-legged, facing each other, with a text between them. The first part of face-to-face medical education, "saying" (*vākyaśa*), consists of going over an entire medical compendium with a focus on recitation and proper pronunciation of the text line-by-line from beginning to end. The second part, "sentence meaning" (*vākyārthaśa*), involves an examination of each sentence of the text for the precise meanings underlying every textual passage with respect to the theories and principles of *āyurveda*. The third part, "analysis" ([*vākya*] *arthāvayavaśa*), consists of a teacher walking a student through the more complicated concepts and challenging scenarios of each passage of a text to understand its significance in light of context, intra- and inter-textual references, potential influence on treatment, and so on (*CarS.Sū*. 30.16–19).

The traditional face-to-face rote learning prescribed in the Sanskrit medical classics is entirely missing nowadays in the training of ayurvedic doctors at colleges in India, where knowledge of Sanskrit is increasingly becoming less compulsory. Naturally, there is a healthy debate today about whether the traditional *gurukula* method of ayurvedic education or the modern, biomedically-influenced method of the Ayurvedic Colleges is more effective. The traditional methods of ayurvedic education continue to diminish in India as the old guard of the Sanskrit-based clinical practice retire and pass away, and as *āyurveda* continues to become a global medical system with both popular and scientific appeal, it is important not to forget that the literary corpus of India's classical medicine was not simply a cultural specialty, a body of knowledge strictly resigned for so-called medical purposes. The Sanskrit medical sources are in many ways mirrors of classical Indian society, to be sure, but they are also creative commentaries on and advocates for certain social and religious structures. The central goal of the Sanskrit medical classics is to ensure long life, and in this sense *āyurveda* is a knowledge system that determines to address multiple areas of human flourishing and social culture. The health of the body is the baseline for this system, for without a healthy body the opportunity for individuals and societies to thrive is unlikely.

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