On the Position of Classical Āyurveda in South Asian Intellectual History According to Global Ayurveda and Modern Research

Philipp A. Maas

Exponents of Global Ayurveda have managed to develop Āyurveda, an ancient native medical system of South Asia, into a renowned supplement to Western biomedicine. This commercial and promotional success has been bolstered by a number of characteristic assertions concerning the history of pre-modern Āyurveda. New Age Ayurveda, for example, maintains that Āyurveda is more than five thousand years old, that it is the origin of Greek humoral medicine, and that it is intrinsically connected with the Hindu spiritual tradition of yoga. From an academic perspective, these claims are easily refutable, since they contradict well-known results of modern indological research. Drawing upon these, the present paper sketches the South Asian intellectual history from its beginnings to the classical period, determines the intellectual milieu from which classical Āyurveda originated, describes some of its fundamental medical theories, and reconsiders their historical relationship to ancient Greek humoral medicine.

Over the last fifty years or so, \bar{A} yurveda, a native medical system of South Asia, was established well beyond its homeland as a supplement, or even an alternative, to modern Western biomedicine. In the course of this process, \bar{A} yurveda has been exposed to an unprecedented commercialization and has accepted innovations "which [do] not necessarily . . . [have] a real connection with pre-modern \bar{a} yurvedic knowledge." Moreover, the portrayal of \bar{A} yurveda's pre-modern history in South Asia and the description of its basic theories in a number of non-academic but

¹ Smith and Wujastyk, "Introduction," in Wujastyk and Smith, eds., *Modern and Global Ayurveda*, 3.

^{© 2011} by the Institute of Humanities, Seoul National University

influential publications of Global Ayurveda are highly contestable, if not unacceptable.² Among these there are four historical and theoretical assertions that Kenneth Zysk has identified as characteristics of New Age Ayurveda. This paper deals with the first two characteristic claims, which offer themselves for discussion from a philologic-historical perspective. These are "1. attributing a remote age to Ayurveda and making it the source of other medical systems [and] 2. linking Āyurveda closely to Indian spirituality, especially Yoga."3 These characteristics apparently reflect commercial and promotional goals.

In contrast to academic publications, printed books and online publications authored from the perspective of Global Avurveda reach large audiences. It is therefore difficult for a general reader to find reliable information on Ayurveda and to distinguish scholarly work from advertisement. The present overview—mainly consisting of indological handbook-knowledge—provides preliminary information for general readers and non-specialists.

- 1.1 Information about the earliest periods of South Asian intellectual history is quite rare, since we do not possess written records. Archaeological findings, some of which are over two million years old, indicate a long period of prehistoric human nomadic settlement in the northwest of South Asia.4 Traces of the oldest mud-brick houses and early forms of agriculture occur at ca. 6500 BCE in Mehrgarh in modern Pakistan. Graves of humans that contain large quantities of grave goods, such as tools, precious goods, and remains of animals,⁵ indicate the existence of a belief in some form of continued existence after death.
- 1.2 An early high culture, the Indus Valley Civilization, developed in the region of today's Pakistan and western India from about 3000 BCE. Its characteristics are a high development of architecture, irrigation, and city planning, as well as arts and crafts. The fact that some artefacts of this

² See the review of Western non-academic publications on Āyurveda in Smith and Wujastyk, "Introduction," 17-22.

³ Zysk, "New Age Ayurveda," 13.

⁴ Kenover, Ancient Cities of the Indus Valley Civilization, 33.

⁵ Ibid.

culture were found as far away from their homeland as the ancient cities of Mesopotamia indicates the existence of long-distance trade. The two most impressive sites of archaeological findings are called Harappa and Mohenjo-Daro, according to the modern names of the places where ruins of these ancient cities were found. The Indus Valley Civilization existed between ca. 3000 and 1500 BCE, with a cultural peak between 2150-1750 BCE. As in the case of the prehistoric settlement of India, nothing definite can be said about the religion of the Indus Valley Civilization, since there are no intelligible written records. What has been found, however, are many seals depicting human beings or anthropomorphic deities. Quite a number of artefacts—among them many steatite seals—bear symbols similar to a script. All attempts to decipher these symbols consistently have failed so far, and it has been strongly suggested that they may not even be a script at all in the proper meaning of the word.⁶

The standards of civilization in the Indus Valley declined from ca. 1900 BCE onward, when the cities came to be inhabited by an ever-smaller population and long-distance trade routes were interrupted. This decline was caused by internal factors, presumably reinforced by environmental changes that led to flooding and to the shift of the course of rivers.⁷ In contrast to the theories of early South Asian studies, there are no indications that it was the result of a military conflict with a foreign ethnic group.

1.3 What does the Indus Valley Civilization have to do with Ayurveda? As far as we know, presumably not much. As mentioned above, we do not have any literary records, and there are no archaeological findings that provide information about any medical system practiced in ancient Harappa and Mohenjo Daro.⁸ Moreover, as we shall see below, the medical concepts of Ayurveda originate from the intellectual environment of a much later time. Although this is virtually indisputable using historical arguments, we find the claim in New Age Ayurveda that Āyurveda is

⁶ Farmer, Sproat, and Witzel, "Collapse of the Indus-Script Thesis."

⁷ Kenoyer, Ancient Cities of the Indus Valley Civilization, 173.

⁸ For a quite speculative account of medicine practiced in the Indus Valley Civilization, see Zysk, Asceticism and Healing in Ancient India, 11-13.

⁹ See also Filliozat, La doctrine classique de la médicine indienne, 187.

at least five thousand years old. This would place Ayurveda in the peak period of the Indus Valley Civilization. The reason for this claim is the simple equation of antiquity with authenticity by which Ayurveda tries to gain acceptance in the globalized world. 10

1.4 The next period of Indian history begins about 1750 BCE, when tribes speaking an Indo-European language entered the Indian subcontinent in successive currents of immigration. These tribes—probably descendents of the population of the Sintashta-culture that flourished in the Eurasian steppes south of the Ural Mountains from ca. 2100 BCE—called themselves $\bar{a}ryas$. This word means in the Vedic language "the hospitable ones." 12 The *āryas* were sociologically connected mainly by their common language (Vedic), their ritual, and by a number of civilizing accomplishments, such as the use of horse-drawn chariots; they lived vagrant or semi-settled lives. The society of the aryas was divided into different classes, consisting of a warrior nobility (ksatriya) and the class of the free (vis), to which a priestly nobility called brāhmanas added itself. A fourth class, called śūdra, was made up from the original inhabitants of the Indian subcontinent. The śūdras had to serve the other three classes and were only allowed to participate indirectly in the aryan society. They were, for example, not allowed to recite or even hear the religious works of the āryas, known as the Veda. 13

The Vedic religion was a polytheism, in which personified powers of nature and ethical principles played an important role.¹⁴ Two twin gods, the Aśvins, are particularly connected with providing remedies in distressing situations of life, and accordingly they are also regarded as the physicians to the gods.¹⁵

All Vedic gods were thought to provide well-being and help in thisworldly matters. Sacrifices were originally organized in order to thank the gods for their divine support, to make them favorably disposed

¹⁰ Zysk, "New Age Ayurveda," 23.

¹¹ Anthony, *The Horse, the Wheel, and Language*, 408–11.

¹² Thieme, Der Fremdling im Rgyeda, 145.

¹³ Rau, Staat und Gesellschaft im Alten Indien, 42, 62ff. For a different view on the early Vedic society, see Staal, Discovering the Vedas, 53-60.

¹⁴ For more details, see Witzel, *Das alte Indien*, 52–62.

¹⁵ See Maurer, *Pinnacles of India's Past*, 139–52.

toward one's own clan, and to feed them. In the course of time, sacrificing became an increasingly complicated matter that needed to be executed by specialists, the Brāhmanas. It was the status of religious specialists that eventually secured the Brāhmanas an important role in the aryan society.

The Brāhmanas' acquisition of prestige and power apparently also influenced the understanding of how the sacrifice worked. Sacrifices came to be seen not primarily as means to make the gods amicable, but as mechanical tools with which to accomplish the desired results. According to this new view, the power of the sacrifice was, so to speak, stronger than the power of the gods themselves. The objectives of sacrificing were located partly in this world (victory in battle, rich procreation, and wealth in cattle and horses) and partly in the other world (attainment of heaven after death).

Four collections of texts called Rg-, Sāma-, Yajur-, and Atharvaveda, which mean "knowledge (veda) of the sacred Hymns (rc), melodies (sāman), sacrificial formulas (yajus), and spells (atharvan)," basically make up the Vedic religious literature. 16 These collections belong to four classes of sacrificial priests. Each collection of texts comprises three different texttypes, i.e., the Samhitās, the Brāhmanas, and the Āranyakas with Upanisads. Samhitās contain mostly metrical hymns for use in sacrificial ceremonies, whereas Brāhmanas consist mainly of interpretations of the sacrificial mechanics. Āranyakas and Upanisads are either quite similar in content to the *Brāhmanas*, or they contain early philosophical speculations.

This Vedic literature was composed over a long period of time. The oldest parts of the Rgveda can be dated to ca. 1750 BCE, but the Vedic Samhitās received their final from only around 1200 BCE. The Brāhmanas were composed between 1200 and 850 BCE, and the youngest Vedic literature originates from a time between 850 BCE and 500 BCE.¹⁷

1.5 To what extent is Ayurveda connected with the Veda? The word āyurveda is a Sanskrit compound (a word made up of more than one wordstem) consisting of two parts, āyus ("lifespan") and veda ("knowledge"). Therefore, āyurveda means "knowledge of (how to obtain a long) duration

¹⁶ For more details, see Witzel, Das alte Indien, 4–24.

¹⁷ The time of composition of *Upanisads* extended into the following periods of South Asian religion.

of life." The final part of the word ayurveda is identical to the final wordstem of the Vedic text collections (-veda), but this does not in any way indicate that Āvurveda was practiced in Vedic times. As we shall see below, Ayurveda belongs to a much later period of South Asian intellectual history, in which the early Ayurvedic physicians successfully tied their medical system to orthodox Brahmanism by establishing a link with the Vedic tradition. Accordingly, basic theories of Ayurveda are absent from Vedic literature. Healing in the Veda was practiced primarily by magicritual means 18

1.6 Ancient Indian society changed considerably in the late Vedic period. The Āryas became settled in the middle part of North India, and a number of powerful city-states were founded. These social changes were favorable to the development of new religious ideas by new strata of the society. Already the *Upanisads* relate that new teachings were frequently developed not by Brāhmana-priests but by warriors, or even by women.

In this time we also find a new and very pronounced ascetic ideal of living. Acquiring wealth was no longer the primary objective of all religious activities. Techniques of asceticism (tapas) were developed, which were believed to accumulate power. Moreover, already in the older Upanisads we find for the first time in Indian history a number of preconceptions that developed into characteristics of Hinduism and other Indian religions. Among these concepts was the development of a cyclical world view according to which the world is without a real beginning and end; rather, periods of world creation, persistence, and destruction follow one another successively. Moreover, the theory of karmic retribution, which states that ethically good actions cause well-being, whereas bad deeds lead to suffering, gained wide acceptance. This theory was supplemented by the idea that life is not confined to a single existence but consists of a continuous series of countless rebirths. The conception of rebirth has a strongly negative connotation, because human existence (as well as any other form of existence) is characterized by suffering. Escape from suffering is, however, possible. The effects of former actions can be canceled and the accumulation of new karma prevented by means of true knowledge and/or ascetic practices, which lead to final liberation from the

¹⁸ On healing in the Veda, see Zysk, Medicine in the Veda.

realm of rebirth.19

The earliest sources reflecting this world view, which differs fundamentally from that of the Vedic sacrificial religion, belong to the socalled ascetic reform religions. These originated around the fifth century BCE in the northeastern part of India, in a region in which city-states had been founded not too long before, and which at that time was located on the periphery of the heartland of brahmanical norms. 20 Jainism and Buddhism are the two reform religions that have survived to the present day.²¹ Their earliest works were not composed in old Indo-Aryan (Sanskrit) but in middle Indo-Arvan languages.

The intellectual environment that gave rise to the ascetic reform religions is also the home of Āyurveda.²² Nevertheless, a part of the Indian tradition views Āvurveda to be a secondary auxiliary (upāṅga) of the Atharvaveda.²³ On the whole, however, there is no clear historical relationship between Ayurveda and the Atharvaveda, except that the latter contains magical formulas and other devices to cure illness. The magicritual form of treatment in the Veda is admittedly also an important aspect of classical Āyurveda. But Āyurveda in addition draws upon theoretical foundations completely different from those of the magic healing of the Veda.²⁴ Accordingly, Āyurveda is not genealogically connected with the Atharvaveda; there is no direct line of development from Vedic medicine to Āyurveda. The initial suggestion of a connection between Vedic literature and Ayurveda was motivated by an attempt on the side of Ayurveda to gain acceptance in a society in which brahmanical norms had regained

¹⁹ On karma and rebirth, see Halbfass, *Karma und Wiedergeburt im indischen Denken*.

²⁰ Bronkhorst's *Greater Magadha* argues that the so-called ascetic reform religions originally belonged to an ancient otherwise unknown civilization, which was located in the region of the city-state of Magadha in what is today northeast India.

²¹ For introductions to early Jainism and Buddhism, see Dundas, *The Jains*, and Lamotte, History of Indian Buddhism.

²² Zysk, Asceticism and Healing in Ancient India. Some aspects of Zysk's work were criticized by Wezler, who, however, concludes his review by stating, "Ironically Zysk may nevertheless ultimately be right." See Wezler, "On the Contribution of Ascetics and Buddhist Monks to the Development of Indian Medicine," 228.

²³ See Filliozat, La doctrine classique de la médicine indienne, 1.

²⁴ The *Carakasamhitā* (Vimānasthāna 8.87) distinguishes two kinds of medical remedies (bheṣaja). One is is said to depend on religious rites (daivavyapāśraya), while the other one depends on reasoning, or, more literally, "combination" (yuktivyapāśraya).

general acceptance.²⁵ From around 200 BCE onward, medical practitioners, who had not generally been respected in brahmanical society since middle-Vedic times, started to affiliate themselves with Brahmanism. They used Sanskrit as the medium of codifying their medical knowledge, and they established a connection between Ayurvedic medicine and the Atharvaveda. Other strategies included modeling the initiation into medical studentship in accordance with Vedic rituals, as well as tracing the origin of Āyurveda to mythical accounts of late Vedic and Vedic gods. The association with early Hinduism was successful to such a degree that the memory of Āyurveda's origin in the milieu of the ascetic reform religions was not preserved in the medical tradition.

The earliest literary sources reflecting characteristic Āyurvedic theories are, accordingly, not of brahmanical origin. Possibly the oldest completely transmitted medical work in Sanskrit is the sixteenth chapter of the Mahāyāna Buddhist Suvarnaprabhāsasūtra, which was translated into Chinese between 416 and 421 CE.²⁶ Ancient fragments of medical texts are the Qizil fragment (written ca. 200 CE on leather) and the Bower manuscript (written ca. 525 CE on birchbark).27 The oldest records of proto-āyurvedic theories are, however, much older. They have been traced by Zysk in the literature of early Buddhism, as reflected in some sutta (Skt. sūtra) passages of the Pāli canon of Theravāda Buddhism, as well as in the Vinaya (monastic rules) collections of different early Buddhist schools (nikāya). Therefore, these theories apparently were already current around 400 BCE.

The oldest transmitted classical Ayurveda works, the Carakasamhitā and the Suśrutasamhitā, are, however, of a later date. The Carakasamhitā may have been composed sometime around CE 50,28 and the Suśrutasamhitā

²⁵ Cf. Michaels, *Hinduism*, 38f.

²⁶ See Nobel, Ein alter medizinischer Sanskrit-Text und seine Deutung.

²⁷ Sander, "Origin and Date of the Bower Manuscript," 321b.

²⁸ Meulenbeld's History of Indian Medical Literature (vol. 1A, p. 114) dates Caraka's composition to a time span between 100 BCE and CE 200. The Carakasamhitā itself contains information about three different redactorial layers, the oldest of which would be the Agnivesatantra. This work was allegedly redacted by Caraka, and an additional layer would be Drdhabala's revision and completion of the work, presumably in the sixth century CE; cf. Maas, "On What Became of the Carakasamhitā after Drdhabala's Revision." Textual parallels between Carakasamhitā Śārīrasthāna 5.9-10 and Aśyaghosa's Buddhacarita 12,15f. and 12,23-33 indicate that both works were

is apparently a little bit younger, maybe from 200 CE. Both works, together with the Bhelasamhitā, were summarized by Vāgbhata, who composed his "collection of the heart of the science in eight parts" (Astāngahrdayasamhitā) in the early seventh century.²⁹

Although Ayurveda draws upon medical theories that were first developed in the circles of the ascetic reform religions, it does not share their basic spiritual orientation.³⁰ Whereas these religions aim at liberation from the cycle of rebirth and its innate suffering, the aim of Ayurveda is different: The physician aspires to success in medical practice, wealth, fame, and, after death, a stay in heaven.³¹ Thus there is no close link between Ayurveda and Indian spirituality as reflected in Buddhism, Jainism, or classical yoga. Moreover, yoga, as practiced today in countless modern voga-classes around the world, is in any case largely an invention of modern times³² that was heavily influenced by the Western modern physical-culture movement.³³

2.1 Āyurveda in its mature classical stage, as reflected in the composition of Vāgbhata's Astāngahrdayasamhitā, is characterized by the following theoretical foundations.34

The human body contains three pathogenetic substances called dosas, i.e., wind, bile, and phlegm. The dosas always exist latently, and due to outer or inner causes they may become active, either in pairs, singly, or

composed at approximately the same time. As can be concluded from the existence of roughly datable manuscripts, Aśvaghosa must have lived not much after the beginning of the first century CE.

²⁹ Cf. the extensive discussion on Vagbhata, his work(s), identity, and times, in Meulenbeld, History of Indian Medical Literature, 1A, 598-656.

³⁰ Cf. Zysk, "New Age Ayurveda," 24.

³¹ See Carakasamhitā, Sūtrasthāna 11.3 and 11.33, translated by Wujastyk in his Roots of Ayurveda, 22 and 28. See also Wujastyk, "Medicine and Dharma," 838.

³² De Michelis, *History of Modern Yoga*.

³³ Singleton, Yoga Body, 81-162.

³⁴ The following description is mainly based on Vogel, "Die theoretischen Grundlagen der indischen Medizin," 76-82, which draws upon Jolly, Medicin, 39-42. The medical works before Vāgbhata do not contain the standard theories of bodily elements (dhātu) and "faults" (dosa). On the development of these concepts, see Scharfe, "Doctrine of the Three Humors in Traditional Indian Medicine" (on dosas), and Maas, "Concepts of the Human Body and Disease in Classical Yoga and Avurveda" (on dhātus).

taken together.³⁵ Health is the existence of the dosas in a suitable ratio, and disease is its opposite.

Each dosa has specific qualities. Wind, for example, is dry, harsh, cold, fine, movable, clear, and rough, whereas bile is greasy, light, black or yellow, hot, sour, stinking, fluid, and soft, and phlegm is heavy, cold, soft, white, mild, and slow. An excess of one dosa may be reduced by the intake of medicine or food with contrary qualities, which cures the disease. For example, sour food produces bile, sweet food, phlegm, and hot food, wind.

The dosas generally occur in the whole body, but each also has a special place of occurrence. Wind occurs for the most part below the navel, bile between the heart and the navel, and phlegm occurs above the heart.

The prevalence of a single dosa does not necessarily cause disease, since this may also be a quite natural state caused by physiological processes. Wind is dominant in the final period of life, bile in the middle, and phlegm at the beginning. The same is true for the beginning, middle, and end of the day. The permanent dominance of one dosa determines the basic constitution of humans, which can be recognized from certain bodily or physical characteristics. According to the Suśrutasamhitā, a man who is larcenous, talkative, and slender or huge must have a windy constitution. Men whose constitution is dominated by bile are proud, bold, pure, and well-mannered, but they do not easily win the favor of women. Phlegmatic men are knowledgeable and reliable.

In cases of disease, it is the task of the physician to determine the responsible dosa and to prescribe medicine or food with qualities which are the opposite of those of the fault. Regardless of this, Ayurveda prescribes a healthy and balanced diet, and regular food intake. The handbooks list different kinds of food, arranged in groups according to the special qualities. Eating meat is not prohibited but is regulated, and the same holds true for drinking alcoholic beverages.

2.2 The three *dosas* are sometimes listed among the *dhātus* ("elements") of the body. This term designates, from Vagbhata onward, the seven bodily elements: chyle, blood, muscle flesh, fat, bones, marrow, and semen or menses. Chyle is the nutrient juice that is extracted from food. In the

³⁵ Causes for disease are, moreover, "variation in the weather during the seasons of the year . . . as well as other factors such as food, inappropriate behavior, emotional agitation, sins from past lives, or 'sins against wisdom'" (Wujastyk, Roots of Ayurveda, xlii).

course of one month, all elements develop in a series one from the other, so that food finally turns into semen or menses.³⁶ It flows from the heart through twenty-four pipes during the day and night through the whole body, freshens the body, and furnishes it with power. If chyle becomes corrupted, it causes a large variety of diseases.

Blood develops when chyle is heated and reddened by the liver and the spleen. Normal blood is red, and other colors or foaminess indicate that it is spoilt by one or more dosas. In this case, blood has to be extracted from the body by blood-letting.

Muscle flesh is cooked and dried blood. Fat is cooked flesh. The 360 bones are cooked and dried fat. Marrow is a tough juice consisting of cooked bones. Semen finally develops from marrow. It can be mainly located near the bladder, but it also occurs in other parts of the human body.

Also the surplus and deficiency of the seven bodily elements cause morbid modifications of the body. A deficiency of chyle, for example, results in heart pain, hunger, thirst, trembling, and impotence, whereas a surplus leads to nausea, salivation, and excessive ejaculation.

The essence of the seven elements is the vital force (ojas or bala), which is white, cold, greasy, etc., and pervades the whole body. A heavy affliction of the vital force is lethal.

3.1 The theory of the three pathogenic substances of wind, phlegm, and bile in Āyurveda, despite major differences, clearly resembles ancient Greek humoral medicine.³⁷ In its mature development, this medical system holds that the human body contains four humors, i.e., black bile, yellow bile, phlegm, and blood, and that these are responsible for disease and well-being. Even more striking is the similarity between Ayurveda and the medical system reflected in Plato's Timaeus (ca. 360 BCE), 38 in which the same substances as the Ayurvedic dosas, i.e., wind, phlegm, and bile, are said to be central for the well-being of humans. The similarities between Hellenistic medicine and Ayurveda are too close to be explained by coincidental parallel intellectual developments.

³⁶ On different concepts of dhātus in Caraka's and Suśruta's compendia, see Maas, "Concepts of the Human Body and Disease," 135-44.

³⁷ More parallels between Āyurveda and Hellenistic medicine have already been highlighted in Jolly, Medicin, 18.

³⁸ See Filliozat, La doctrine classique de la médicine indienne, 229–37.

Due to a lack of available sources, the direction of exchange of medical theories between ancient Greece and ancient South Asia has not been determined yet.³⁹ In any case, however, the claim of Global Ayurveda that Greek medicine is ultimately derived from Ayurveda has to be rejected. As we have seen above, the central pathogenic concepts of Ayurveda are not recorded in the oldest stratum of South Asian literature. Accordingly, humoral medicine is not a common heritage of Greek and South Asian culture from Indo-European times.

As we have also seen above, the oldest records of proto-avurvedic concepts in Buddhist literature are roughly contemporary with the composition of Plato's Timaeus. But it took a long time before these concepts were developed into early classical Ayurveda as reflected in the Carakasamhitā. After the composition of Caraka's compendium, another five hundred years elapsed before Vagbhata created a standardized system from earlier sources. Accordingly, claiming Ayurveda to be the source of Hellenistic medicine is clearly anachronistic. All we see is the possibility that early Greek humoral medicine either influenced or was influenced by proto-āyurvedic concepts. The direction of the flow of ideas remains to be determined.

University of Vienna, Austria

KEYWORDS | Äyurveda, Global Ayurveda, New Age Ayurveda, South Asian intellectual history, Greek humoral medicine, indology

This paper was originally read under the title "Yoga and Ayurveda: From Classical India to a Globalized World" at the Third World History Class with Scholars, I'Park Mall Culture Center, Seoul, South Korea, on 11 September 2009. Many thanks to my friend Dr. Dominik Wujastyk for his valuable comments on an earlier draft version of this paper.

Bibliography

Anthony, David W. The Horse, the Wheel, and Language: How Bronze-Age Riders

³⁹ See Karttunen, India and the Hellenistic World, 231.

- from the Eurasian Steppes Shaped the Modern World. Princeton, NJ: Princeton University Press, 2007.
- Bronkhorst, Johannes. Greater Magadha. Leiden: Brill, 2007.
- Caraka Samhitā by Agniveśa. Revised by Caraka and Drdhabala with the Āyurveda-Dīpikā commentary of Cakrapānidatta. Edited by Jādavji Trikamjī Ācārya. Varanasi: Krishnadas Academy, 2000. Reprint of the 1941 Bombay edition.
- De Michelis, Elizabeth. A History of Modern Yoga: Patañjali and Western Esotericism. London: Continuum, 2004.
- Dundas, Paul. The Jains. London: Routledge, 2002. 2nd ed.
- Farmer, Steve, Richard Sproat, and Michael Witzel. "The Collapse of the Indus-Script Thesis: The Myth of a Literate Harappan Civilization." Electronic Journal of Vedic Studies 11, no. 2 (2004): 19-57.
- Filliozat, Jean. La doctrine classique de la médicine indienne: Se origines et ses parallèles grecs. Paris: Imprimerie national, 1949. Translated by Dev Raj Chanana as The Classical Doctrine of Indian Medicine: Its Origins and Its Greek Parallels. Delhi: Munshiram Manoharlal, 1964.
- Halbfass, Wilhelm. Karma und Wiedergeburt im indischen Denken. Kreuzlingen: Heinrich Hugendubel Verlag, 2000.
- Jamison, S. W. and M. Witzel. Vedic Hinduism. Online publication at www.people. fas.harvard.edu/~witzel/vedica.pdf/ (accessed April 21, 2011).
- Jolly, Julius. Medicin. Strassburg: Trübner, 1901. Translated and supplemented with notes by C. G. Kashikar as Indian Medicine. Poona: C. G. Kashikar, 1951.
- Johnston, E. H. Aśvaghosa's Buddhacarita or Acts of the Buddha. Delhi: Motilal Banarsidass, 1972. Reprint of the 1936 Lahore edition.
- Karttunen, Klaus. India and the Hellenistic World. Helsinki: Finish Oriental Society, 1997.
- Kenoyer, Jonathan Mark. Ancient Cities of the Indus Valley Civilization: Dedicated to the Memory of Georg F. Dales, Jr. (1927-1992) and Walter A. Fairservis, Jr. (1924-1994). Oxford: Oxford University Press, 1998.
- Lamotte, Étienne. History of Indian Buddhism: From the Origins to the Śaka Era. Translated by Sara Webb-Boin. Louvain: Institute Orientaliste Louvain-la-neuve, 1988.
- Maas, Philipp A. "The Concepts of the Human Body and Disease in Classical Yoga and Ayurveda." Wiener Zeitschrift für die Kunde Südasiens 51 (2007): 125-62.
- __. "On What Became of the Carakasaṃhitā after Dṛḍhabala's Revision." eJournal of Indian Medicine 3, no. 1 (2010): 1-22.
- Maurer, Walter H. Pinnacles of India's Past. Amsterdam: John Benjamin's Publishing Company, 1986.
- Meulenbeld, Gerit Jan. A History of Indian Medical Literature. 3 vols. Groningen: Forsten, 1999-2002.
- Michaels, Axel. Hinduism: Past and Present. Translated by Barbara Harshav. Princeton, NJ: Princeton University Press, 2004.

- . Der Hinduismus: Geschichte und Gegenwart. Broschierte Sonderausgabe. München: Ch. Beck. 2006.
- Nobel, Johannes. Ein alter medizinischer Sanskrit-Text und seine Deutung. Baltimore, MD: American Oriental Society, 1951.
- Rau, Wilhelm. Staat und Gesellschaft im Alten Indien: Nach den Brähmana-Texten dargestellt. Wiesbaden: Harrassowitz, 1957.
- Sander, Lore. "Origin and Date of the Bower Manuscript, a New Approach." In Investigating Indian Art, edited by Marianne Yaldiz and Wibke Lobo, 313-23. Berlin: Staatliches Museum Preußischer Kulturbesitz, 1987.
- Scharfe, Hartmut. "The Doctrine of the Three Humors in Traditional Indian Medicine and the Alleged Antiquity of Tamil Siddha Medicine." Journal of the American Oriental Society 119, no. 4 (1999): 609-29.
- Singleton, Mark. Yoga Body: The Origins of Modern Posture Practice. Oxford: Oxford University Press, 2010.
- Smith, Frederick M. and Dagmar Wujastyk, "Introduction." In Modern and Global Ayurveda: Pluralism and Paradigms, edited by Dagmar Wujastyk and Frederick M. Smith, 1-28. New York: SUNY Press, 2008.
- Staal, Frits. Discovering the Vedas: Origins, Mantras, Rituals, Insights. New Delhi: Penguin Books, 2008.
- Thieme, Paul. Der Fremdling im Rgveda: Eine Studie über die Bedeutung der Worte ari, arya, aryaman und ārya. Leipzig: Brockhaus, 1938.
- Vogel, Claus. "Die theoretischen Grundlagen der indischen Medizin." In Heil und Heilung in den Religionen, edited by Karl Hoheisel and Hans-Joachim Klimkeit, 75-87. Wiesbaden: Harrassowitz, 1995.
- Wezler, Albrecht. "On the Contribution of Ascetics and Buddhist Monks to the Development of Indian Medicine." Journal of the European Ayurvedic Society 4 (1995): 219-28.
- Witzel, Michael. Das alte Indien. München: Beck, 2003.
- Wujastyk, Dominik. "Medicine and Dharma." Journal of Indian Philosophy 32 (2004): 831-42.
- . The Roots of Ayurveda: Selections from Sanskrit Medical Writings. London: Penguin Books, 2003.
- Zysk, Kenneth G. Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery. New York: Oxford University Press, 1991.
- ___. Medicine in the Veda: Religious Healing in the Veda. Delhi: Motilal Banarsidass, 1996.
- . "New Age Ayurveda or What Happens to Indian Medicine When It Comes To America." Traditional South Asian Medicine 6 (2001): 10-26.