

Book Review

***Āyurvedic Inheritance — A Reader's Companion* by M S Valiathān,
Manipal University Press, Manipal, 2017, ISBN 978-93-82460-58-9,
Pages 232 (Hardback), Rs 650.**

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From the desk of a highly respected cardio-thoracic surgeon and a higher-education leader of India, Marthandavarma Sankaran Valiathan (MSV), another book on the science and art of Āyurveda has appeared. He wrote on Caraka in 2003, followed by volumes on Śuśruta in 2007 and Vāgabhaṭā in 2010, followed by the *Introduction to Āyurveda* in 2012, all of which are being intently consulted by everyone interested in Indian traditional-medical heritage. *Āyurveda* (literally translating into the *veda* [the book of knowledge, deriving from *vidyē*] of life [*āyus*]) evolved through recording observations and experiential learning in the Indian subcontinent, millennia ago. A popular Āyurvedic physician of the erstwhile Madras, V Narayanaswamy, speaks of the ancientness of *Āyurveda* by referring to its roots in *Atharva Veda*, but does not specify a date (Narayanaswamy, 1981). Indian mythology associates Danvantari, the divine master of medicine, as the creator of *Āyurveda*. In principle, *Āyurveda* explores human wellness in the context of immortality (read as longevity) by building on sound health. We need to recognize here that *Mṛga-Āyurveda* dealing with the wellness of animals and *Vṛkṣa-Āyurveda* dealing with the wellness of plants too are available (Kaushik et al. 2016). The key underpinning element of *Āyurveda* is holism. *Āyurveda* perceives humans similar to Mother Earth and sees the alterations

that sway the health of humans similar to the perturbations that would occur in the Earth due to either natural or induced causes. *Āyurveda*, a discipline that evolved among Nature-worshipping Indians, therefore confides in managing alterations *via* natural means, which could be anything from regulated breathing exercises (*pranāyāma*) to administration of defined doses of natural materials, such as mercury (Hg, *rasa*) and arsenic (As, *kunaṭi*, *naipāli*) and plants, such as *Calotropis gigantea*, Apocynaceae (*arkā*) and *Aconitum ferox*, Ranunculaceae (*vatsanābha*).

The theory of humorism (also referred as humorism, estimated at at least 2000 years of human knowledge) explains that human body functions well because of the balanced action of humors: the black and yellow biles, phlegm, and blood. However, a near-identical theory, but pitched on three humors only, *viz.*, wind, bile, and phlegm, forms the bedrock of *Āyurveda*. Āyurvedic worldview reinforces that a balance among the three humors enables attainment and maintenance of sound human health. Illnesses manifest because of either excesses of or deficiencies in one or more humors. Humorism ruled Western-medical thinking until the 17th century. Greater understanding of human anatomy and chemistry, say, from the late 16th century

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(Mitchell et al., 2011), buttressed by Francis Bacon's arguments of inductive reasoning marshalled in *Novum Organum* of 1620 CE (Devey, 1902) gradually changed the focus of western-medical thinking and its underpinning philosophy (Magner, 2002), by emphasizing biological fitness – survival and procreation – as the sole purpose of human life (Lennox, 1995). Improvement of chances of human survival and the ability to reproduce as successfully as possible became the focal themes of western-medical thinking, leaning gradually towards reductionism. This thinking influenced the divergence and cleavage of philosophical directions of Western-medical practice drastically from the Eastern-medical practice (*Āyurveda*). Relief of pain (*pathos*, *παθος*, means 'suffering', 'sadness inducing') got on to the centre-stage in the post-18th century western-medical practice, thus shifting towards reductionism, whereas *Āyurveda* maintained its commitment to holism.

It may be guessed that MSV, at some stage of his life, was impressed and influenced by the holistic paradigm of *Āyurveda* as against the reductionistic paradigm of modern western-medical practice. This transformation becomes apparent when we think of his training in western medical practice in the best cardio-thoracic hospitals of the world and his contributions to pioneering heart research institute and hospital developed on western medical philosophy in Trivandrum rising to the leadership of Manipal University.

I am basically an amatelior historian of science in India, not a medical practitioner. The present commentary however will reflect the beauty and interest in the book uncompromisingly.

Chapter 1 (pages 1-11) of MSV's *Āyurvedic Inheritance, A Reader's Companion* begins with a breezy context with a few stories on the genesis of *Āyurveda*. Stories fascinate every one, a child or an adult. It is worth mentioning

that stories, metaphors, and similes in classes, help in communicating the intents and interest of students. It is enjoyable the way MSV has driven this chapter by embedding detailed notes on the archaeological findings made in the civilization that flourished in the Indus Valley (3300-1900 BCE), thus delineating the understanding of 'sanitation and public health'. MSV argues in these pages whether *Āyurveda* is a *veda* of independent standing or an *upa-veda* of *Atharva Veda*. With profound authority, he illustrates *Caraka's* medical brilliance in the management and treatment of jaundice (*kāmalā*). This illustration highlights a clear shift from faith-based healing (*daiva-vyapāśraya cikitsā*) to reason-based healing (*yukti-vyapāśraya cikitsā*). At this point, MSV reiterates how Buddhist philosophy influenced *Caraka's* thinking in designing and developing healing measures by negating the *Atharva-Veda*-based *daiva-vyapāśraya* and by validating the Buddhist-thinking based *yukti-vyapāśraya*. I could feel the vibration of logic (*nyāya*, see Chandra, 1913) here. Enchanting.

It is to be admitted, how the tradition and faith did have a profound influence on this healing art of India. The captivating interventions made by MSV, such as the above, generate a sense of gratification in a science-biased reader, such as myself, that after all, *Āyurveda* includes not only mythic elements and esotericism, but also sophisticated and rational thinking. The latter enabled *Āyurveda* to shape itself as a science with the passage of time. One of the intense dimensions of *Āyurveda*, as we understand it today, from the practices we see around, is the intricate intertwining of this healing art on the one hand and faith in divinity (Kessler et al. 2013) and in astrology (Dwivedi, 2013) on the other. Such a faith does not evoke an iota of surprise, since *Āyurveda* has arisen as a discipline fully accepting the superiority of Nature [seen as 'God'] (Raman, 2002; Coward, 2003). *Āyurveda's* ancient practice *daiva-vyapāśraya cikitsā* includes *manidārānā*

and chanting *mantra-s* in appeasement of natural forces, recognized in the Indian heritage as the *pañca mahābhuta-s*: the sky, water, fire, air, and earth and perceived as the divine forms, *Indrā*, *Varuṇa*, *Agni*, *Vāyu*, and *Bhū Devī*, respectively. In this context, the delightful verses of *Bhū Sukta* (*Paippalada* version of *Atharva Veda*, http://greenmesg.org/mantras_slokas/bhoomi-bhoomi_sukta.php). Verse 2 of *Bhū Sukta*, cited below reverberating the thought is worth mentioning:

असंबाधं बध्यतो मानवानां यस्या उद्वतः प्रवतः समं बहु ।
नानावीर्या ओधीर्या बिभर्ति पृथिवी नः प्रथतां राध्यतां नः ॥

[Salutations to Mother Earth, who extends unlimited freedom from within and without to humans via mountains and plains, and through plants of varied potencies; may She extend Her riches to us and make us healthy.]

The 18 verses of this *sukta* gently tell us of our integral position in the great Earth, which, the Indian thinking portrays as the most benevolent mother — *Bhū Devī* — who offers us everything we need, in the most unhesitating and plentiful manner.

Chapters 2-16 (pages 15-202) refer to various dimensions of the evolution and practice of *Āyurveda*, some briefly and others lengthily. Chapter 10 (Medical treatment of diseases, pages 122-130) speaks on the different hospital-like facilities as followed in *Āyurvedic* practice. Chapter 12 (Surgical treatment of diseases, pages 141-160) speaks eloquently on basic surgical procedures, bandages, surgical instruments (blunt, sharp, and tubular, for example), and those specifically used in venesection. Chapter 16 (pages 197-202) is all the more interesting. The intricately intertwined exploration of plants and its influence on the evolution of medicine in India has been gracefully recounted by MSV. He speaks on this aspect referring to Garcia da Orta (1502-1568), the Portuguese physician, who practiced in Goa, and Hendrik van Rheedee (1636-1691), the Dutch Governor of Cochin (Malabar), who brought out

the remarkable, multi-volume publication *Hortus Malabaricus*, referring to the plants of Malabar and their medicinal relevance, taking substantial help from the local physician Itty Achutan. At this point, it is but appropriate to pay our homage to the untiring efforts of Kattungal Subramaian Manilal (2003), a Calicut botanist, who rendered van Rheedee's *Hortus Malabaricus* in English and included the current names of the plants referred to in *Hortus Malabaricus*. MSV also refers to Ram Nath Chopra, whose monumental volume, *Indigenous Drugs of India: Their Medical and Economic Aspects*, published in 1933, and his other contributions, which revolutionized Indian phytochemical and pharmacognostic research.

In the concluding chapter, which MSV enchantingly calls 'Musings on *Āyurveda*', delicately dilates on the value attributed to recognizing Nature — referred as the *prakṛti* by Suśruta — as the one key regulating factor of *Āyurveda*. *Prakṛti* in *Āyurvedic* epistemology has been beautifully explained as a collective term for *svabhāva* (innate disposition), *Īsvara* (providence), *kāla* (time), *yadṛaccha* (chance), *niyati* (destiny), and *parināma* (evolution) as one among the six spokes of on the philosophy of Caraka along with the details are expounded in Chapter 4 under the title 'Philosophical ideas in *Āyurveda*'. MSV derives from Caraka's explanation that human body is constructed with the *pañca mahābhutā-s*. The explanation is that at the time when the universe did not exist, the *guṇa-s* (*sattva*, *rajasa*, and *tamasa*) existed as latent, undifferentiated, and primeval forms. With a sudden and obscure trepidation, distinct changes such as *avyakta* (formlessness), *buddhi* (intelligence), and *ahankāra* (arrogance) evolved, heralding diversification in the universe. Building further on Caraka, MSV declares that in *Āyurvedic* epistemology, humans are an integral component of the most supreme Nature. That Nature is sovereign and powerful, in a sense even synonymous with what we generically refer to as

God. Human existence is an interchange between action (eating, breathing) and Nature's components (grains, air). This interchange is enabled by the catalytic action of consciousness (*cetana*). A powerful message that it is *cetana* that breathes 'life' in humans through the interchange between action and Nature's components as per Caraka's worldview. Otherwise, the human body and its parts would senselessly and aimlessly function similar to a robot. MSV elaborates on Caraka's comment that the even less-evolved animals seek plants naturally, when sick. The wonder of wonders is how do they know of and recognize those plants that they could chew to realize a cure? Abraham Cressy Morrison's *Seven Reasons Why a Scientist believes in God* (1962), which I read, years ago, quotes an oft-seen example, domestic dog (*Canis familiaris*) chewing the leaf blades of *Cynodon dactylon* (Poaceae, Durva), which is today scientifically demonstrated as a genetically programmed (?) effort of curing gastro-intestinal disorders (Mckenzie et al., 2010). Speaking on the eternity of this medical practice, MSV clarifies: 'health and disease, happiness and misery, substances and their properties are no more than the products of the evolutionary cycle, which are eternal. Āyurveda did not arise out of nothing, but represented a channel in the eternal flow of nature' (p. 206). Absolutely fascinating.

MSV explains the relevance of Āyurveda as seen through the lens of Western medical science. In pages 210–214, he explains the relevance under the sub-themes: 'Consciousness and the foetus', 'Epidemics as an equaliser', 'Righteous conduct in preventive medicine', 'Control of sense organs', 'Adverse drug reactions', and 'A difficult surgical decision', which offer interesting reading, since a well-reasoned effort becomes apparent in these pages. For example, MSV's comments that drugs (medications) are similar to nectar, but when administered in excess that nectar turns poisonous; the physician's skill lies (a) in detecting and

determining the level of imbalance in his/her patients and choosing the drugs that will have the properties exactly opposed to those characterizing the imbalance and (b) in the cleverness of justifiably determining the patient's strength vis-à-vis the prevailing climate. The explanation that a slip-up in any of these by the handling physician would result in intense damage and even in death of the patient. MSV's following remark is a punchline (p. 213):

'Āyurveda held that medical treatment which cures or palliates a disease but, at the same time, gives rise to another disease sooner or later is not genuine or authentic. As the adverse drug reactions could be harmful or dangerous, it is incumbent on the physician to exercise extreme care in choosing appropriate drugs and planning the specific treatment for each patient so that adverse reactions to the drug may not turn to another disease.'

Moreover, the above remark alerts that Āyurvedic physician training was thorough in a sense that the 'physician-to-be' needs to be alert and careful in judging the disease (or illness) correctly and selecting the most-suitable drug, which will cure the patient with the least, adverse reactions. These words reminded me of the current approaches in epidemiology and strains of immunology and serology that enable the detection of many a common infective disease (e.g., tuberculosis) further to complex metabolic setbacks (say, various cancers). The last two-three pages of this section deal with the vitality and vibrancy of teaching done to the physicians-in-training.

The glorious fullness of Nature and the subsumed oneness of *Homo sapiens* within that giant wholesomeness is driven by the most spectacular and all-powerful *Helios* (Apollo, *Āditya*), The primer *Āyurvedic Inheritance, A Reader's Companion* by Marthadavarma Sankaran Valiathan is engaging and a source book of great enlightenment. I am sure others would equally benefit reading this Valiathan volume.

'Je sens des extases, des ravissements inexprimables à me fondre pour ainsi dire dans le système des êtres, à m'identifier avec la nature entière.'

[I feel an indescribable ecstasy and delirium in melting, as it were, into the system of being, in identifying myself with the whole of nature.]

– Jean Jacques Rousseau

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