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THE SCIENCE OF RESPIRATION AND THE DOCTRINE OF THE BODILY WINDS IN ANCIENT INDIA

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The following historical and philological study traces the science of respiration and the doctrine of the bodily winds through ancient Indian religious and technical literature. Basic notions about respiration and bodily winds appear in the literature of the vedic saṃhitās and brāhmaṇas. By the end of the principal upaniṣads these early ideas begin to be codified into two separate systems. One, emphasizing a physiology of bodily winds, reaches its traditional formulation in the classical medical literature of Āyurveda, the other, focusing on respiration, attains its classical formulation in Yoga. The two unite later, when Yoga integrates medical theory into its science of respiration. Asceticism is the common thread connecting the various stages in the development of respiration and bodily winds.

ANCIENT INDIANS PAID PARTICULAR ATTENTION to respiration and the function of wind in the body by making the breathing process a focus of religious concern and practice. In the minds of the early Indians, respiration was the principal indicator of life; and what humans breathed was the motivating force of both the cosmos and human existence. This cosmic wind was mankind's vital breath (*prāṇa*), the principal manifestation of a person's immortal soul.

The word *prāṇa* is a derivative noun, originally meaning "the breath in front," or the inhaled air. When *prāṇa* is combined with its opposite, *apāna*, "the breath away," i.e., exhaled air, the process of respiration is indicated. Observation of the vital function of these complementary aspects of respiration, combined with intuitions about the function of wind after it entered the body, eventually led Indians to conceptualize and codify the bodily winds and their operations in the human organism. *Prāṇa* assumed the character of vital breath, inhaled air in the process of respiration, and was the principal wind in the upper part of the body, on which all other breaths depended. *Apāna* was the exhaled air, and the essential wind in the lower part of the body.

Ancient Indians identified organs resembling lungs (*pupphusa*, *kloman*) as part of human and animal anatomy, but they never understood their function in respiration. They conceived the lungs to be the locus of phlegm, and usually the heart to be the seat of vital breath. Respiration was simply the intake and expulsion of vital air from the body. Once in the body, it was carried throughout the organism by a series of vessels and stimulated the vital functions of the various bodily

organs and parts. Each bodily function or locus of bodily functions had a wind or breath that acted as its motivator, giving rise to innumerable vital breaths, which eventually became codified into five basic bodily winds: *prāṇa*, *apāna*, *vyāna*, *udāna* and *samāna*.

In addition to scrutinizing afresh certain Vedic sources on respiration, this study surveys classical āyurvedic treatises and yogic texts in order to trace more precisely the evolution of ancient Indian ideas about respiration and the bodily winds.¹ The analysis

¹ Scholars have given much attention to the notions of *prāṇa* and the bodily winds. Some of the most important works include: Arthur H. Ewing, "The Hindu Conception of the Function of Breath: A Study in Early Hindu Psycho-physics" (Ph.D. diss., Johns Hopkins University, 1901; also published in the *Journal of the American Oriental Society* 32 [1901]: 249–308); Paul Deussen, *The Philosophy of the Upanishads* (1906; rpt. New York: Dover, 1966); George William Brown, *The Human Body in the Upanishads* (Jubbulpore, India: The Christian Mission Press, 1921; originally his Ph.D. dissertation under Maurice Bloomfield, Johns Hopkins University, 1910), 201–30; A. A. Macdonell and A. B. Keith, *Vedic Index of Names and Subjects*, two vols. (1912; rpt. Delhi: Motilal Banarsidass, 1967), 1:25, 86; 2:47–48; Surendranath Dasgupta, *A History of Indian Philosophy* (1922; rpt. Delhi: Motilal Banarsidass, 1975), vols. 1 and 2; Henry R. Zimmer, *Hindu Medicine*, ed. Ludwig Edelstein (Baltimore: The Johns Hopkins Press, 1948), 61–75, 109–32, 142–62; Jean Filliozat, *La Doctrine classique de la médecine indienne* (Paris: Imprimerie nationale, 1949), 51–66 (English, 61–79), 141–52 (English,

that follows indicates that a central theory uniting respiration and the bodily winds appeared in the Vedic literature. Thereafter the two components split and developed in two distinct directions: medical circles focused on the physiology of bodily winds, and practitioners of Yoga advanced doctrines of respiration and techniques of arresting the breathing process. Gradually Yoga began to assimilate and adopt theories about the bodily winds developed by physicians. The result was a harmonious blending of medicine and Yoga.

Asceticism is the common thread running through and stitching together the science of respiration and the doctrine of the bodily winds. Focusing on the ultimate principle and its manifestation in the human body, ascetics strove to understand completely the operation of atmospheric wind when it entered the human body, then systematically codified and gradually recorded in Indian technical and scriptural literature a comprehensive theory of bodily wind and respiration.

1. RESPIRATION AND THE BODILY WINDS IN THE EARLY VEDA

In the *Rgveda*, *prāṇa* has a threefold association. It is associated with life; it is the representation of atmospheric wind (*vāta*, *vāyu*) in mankind;² and it is con-

nected with the process of respiration. Indicating the beginnings of a physiological understanding of the body, the Vedic theory of *prāṇa*'s relationship to respiration is our principal concern.

Rgveda 10.189.1–2 illustrates by way of analogy that respiration was rhythmic, involving an inbreath and an outbreath:

The spotted steer approached [and] rested on
Mother [Earth]
in the east; and going ahead to his Father Heaven,

He wanders between shining ones, breathing out
after his
inbreath. The bull peered out unto heaven.³

3.53.21; 10.121.3). The cosmic wind that blows in the atmosphere motivates and regulates the normal course of things or the cosmic order (*ṛta*) in the same way that breath in living beings motivates life. Thus, wind (*vāyu*) is the breath (*prāṇa*) of the cosmic person (Puruṣa) (*RV* 10.90.13), and the dead person's spirit (*ātman*) goes to the wind (*vāta*) (*RV* 10.16.3). In humans, speech results from mankind's wind, so that the cosmic voice (*vāc*) is said to blow forth like wind and cover all the worlds (*RV* 10.125.8). The association between *prāṇa*, life's indicator and motivator, and atmospheric wind (*vāta*) led to the establishment of the health-giving and healing virtues of wind. Wind blows medicines (*bheṣaja*) to the people and prolongs their lives. It bestows strength to live and contains the elixir of immortality (*amṛta*) (*RV* 10.186). The medicinal significance of wind, as Filliozat points out, is very ancient, occurring also in the *Avesta* of the ancient Iranians (Jean Filliozat, *La Doctrine classique de la médecine indienne*, 62 [English, 71]).

³ These verses with minor variations also occur at *SV* 2.726–27; *VS* 3.6–7; *TS* 1.5.3.1; *KS* 7.13; *MS* 1.6.1; and *AV* 6.31.1–2, which has *apānatāḥ* and *svaḥ*. This translation follows that of Whitney and Lanman who claim that the first verse is a description of a heavenly body in ascent, perhaps the moon, which seems to rest for a moment upon the earth (William D. Whitney, tr., Charles R. Lanman, ed., *Atharva-veda-saṃhitā*, pt. 1 [1905; rpt. Delhi: Motilal Banarsidass, 1971], 303). Karl Geldner, however, understands the spotted steer and bull to refer to the sun, and the shining one perhaps to the dawn, and incorrectly reverses the breathing process. He renders the two verses as follows:

Dieser bunte Stier ist hergeschritten und hat sich vor Mutter (Erde) und Vater (Himmel) gesetzt auf seinem Wege zur Sonne.

Die leuchtende (Uṣas?) geht zwischen (Himmel und Erde), von seinem Aushauch (Leben) einatmend. Der Büffel hat nach dem Himmel Ausblick gehalten. (Karl Geldner, tr., *Der Rig-Veda*, pt. 3 [Cambridge, Mass.: Harvard Univ. Press, 1951], 403.)

173–85), 161–84 (English, 196–218); Sergiu Al-George and Arion Roșu, "Indriya et le sacrifice des *prāṇa*," *Mitteilungen des Instituts für Orientforschung*, 5 (1957): 346–97; Mircea Eliade, *Yoga: Immortality and Freedom* (Princeton: Princeton Univ. Press, 1969); Franklin Edgerton, *The Beginning of Indian Philosophy* (Cambridge, Mass.: Harvard Univ. Press, 1965), 21, 25–26, passim; Eric Frauwallner, *History of Indian Philosophy*, two vols., tr. V.M. Bedekar (Delhi: Motilal Banarsidass, 1973); and H. W. Bodewitz, "Prāṇa, Apāna and other Prāṇa-s in Vedic Literature," *The Adyar Library Bulletin* (1986): 326–48 [Golden Jubilee Volume]. A lively discussion has ensued regarding the meaning of *prāṇa* and *apāna*, the two principal terms indicating respiration. In addition to the above-mentioned works, the following articles demonstrate that the final chapter on their meaning has yet to be written: Willem Caland, "Zur Exegese und Kritik der rituellen Sūtras," *ZDMG* 55 (1901): 261–65; 56 (1902): 556–60; George W. Brown, "Prāṇa and Apāna," *JAOS* 39 (1919): 104–12; Paul E. Dumont, "The Meaning of *prāṇa* and *apāna* in the Taittiriya-Brahmaṇa," *JAOS* 77 (1957): 46–47, with his "Rejoinder," in 78 (1958): 54–56; Franklin Edgerton's response to Dumont, "Prāṇa and Apāna," *JAOS* 78 (1958): 51–54, with his "Surrejoinder," in the same issue, pp. 56–57.

² In the *Rgveda*, *prāṇa*'s dominant role was to indicate and motivate life, for if breath was present, there was life, if it was absent, life departed (see especially *RV* 1.48.10, 66.1, 101.5;

The obscure allusion in these verses is to a celestial body, conceived of as both a spotted steer and a bull, which travels across the heavens, pausing before the Earth and moving between other bright objects in the sky in a seemingly regular fashion. The poet likely had in mind the (full) moon in one night-long course across the sky. Its normal appearance and disappearance on the cosmic scale resembled the regular process of a human's inhalation and exhalation (*asyā prāṇād apānatī [apānātāḥ]*). This is the earliest indication that breathing involved a twofold process of taking in and expelling air.

The *Atharvaveda* contains numerous references to vital breath and respiration, continuing the theory of breath begun in the *Rgveda* and further developing the notion of respiration indicated in the late *Rgvedic* passage. *Prāṇa* in the *Atharvaveda* is associated with life and the promotion of longevity. Often it is listed with other aspects of life, such as seeing, hearing, strength, and progeny. The lack of *prāṇa* signaled death and the loss of life,⁴ and charms were recited to kill enemies by removing their breath.⁵

The importance of *prāṇa* as life's promoter and sustainer is indicated by AV 11.4(6), an entire hymn devoted to life-breath. Here *prāṇa* controls the universe and is lord of all things in the cosmos, both those that breathe and those that do not. It protects humans, as a father safeguards his son, and rules over and destroys enemies.⁶

The association between human breath and atmospheric wind (*vāta*, *vāyu*), indicated in the famous "Puruṣa" hymn of the *Rgveda* (10.90.13), is developed in the *Atharvaveda*. Wind is breath's principal link to the cosmos,⁷ for breath comes from wind⁸ and wind purifies breath.⁹ But also the sun, the cosmic fire, is the source of breath and, because of its self-motivating and life-producing characteristics, it is equated with breath.¹⁰

⁴ AV 2.15.1–6, 16.1, 34.5; 3.11.5–6, 29.8; 4.15.10, 30.4; 5.4.7, 8.4, 30.13–14; 6.53.2, 135.2–3; 7.26.2, 31(32).1; 8.2.4; 9.1.2.4, 2.5.16; 10.2.29–30, 5.25–36, 8.2.6.11; 11.2.10, 3.54–56, 7(9).23; 12.1.3–4, 5.9; 13.4.11, 19; 16.7.13; 19.46.3, 58.1–2, 60.1, 63.1, 71.1.

⁵ AV 6.135.2–3; 10.5.25–35.

⁶ AV 11.4(6).1, 10, 23; see also AV 11.4(6).12; 11.5.22; 15.14.11; and 19.63.1, where *prāṇa* is called the Lord of Creatures (*Prajāpati*).

⁷ AV 5.10.8; 6.10.2; 10.7.34; 11.4(6).15; 19.43.2, 44.5.

⁸ AV 8.2.3.

⁹ AV 6.62.1.

¹⁰ AV 1.3.4, 11, 19; 11.4(6).12, 21–22 [see in particular Maurice Bloomfield, tr., *Hymns of the Atharva-Veda* (1897; rpt. Delhi: Motilal Banarsidass, 1964), 624–25]; 13.3.3–5; 19.27.7.

Both earthly and atmospheric fires (*agni*) have breath and breathe,¹¹ water (*ap*) gives breath,¹² and time (*kāla*) is said to contain breath and mind (*manas*).¹³ The last might refer to the seasonal winds.

From the joining together of the various cosmic aspects of breath come the life-producing and sustaining rainstorms of the monsoons that manifest breath as roaring wind, thunder, lightning and watering rains.¹⁴ Rain causes the earth to yield her life in the form of plants, which in turn sustain humans and other living beings. Earth therefore is said to give breath and longevity (*āyus*);¹⁵ and breath promotes the growth of all types of plants,¹⁶ which themselves breathe.¹⁷ Specifically the food plants rice and barley are products of *apāna* and *prāṇa*, respectively,¹⁸ and rice-gruel (*odana*) gives breath and possesses life-giving qualities.¹⁹ Wind, like plants, was also a remedy against life-threatening disease.²⁰ In the minds of the Vedic Indians, breath was equated with, contained in, and associated with all elements which produced and maintained life. In short, breath was life's universal witness.

The hymns of the *Atharvaveda* point to a fundamental connection between life and the process of breathing. The twofold mechanism of inhalation and exhalation was clearly recognized and defined by *prāṇa* and *apāna*, often occurring in compound form as *prāṇāpāna*. They are like two draft-oxen in the pen,²² and walking together, they are allies for maintaining a sound bodily condition and long life.²³ Although scientifically

¹¹ AV 3.15.7; 5.30.14; 6.53.2; 8.2.13; 19.27.5–7.

¹² AV 3.13.3.

¹³ AV 19.53.7.

¹⁴ AV 4.15.10; 11.2.3 (here *prāṇa* is Rudra, the god associated with thunderstorms); 11.4(6).2–6, 11 (here, *prāṇa* is *takman*, fever connected with the onslaught of the monsoons), 16–17. See also K. G. Zysk, *Religious Healing in the Veda* (Philadelphia: American Philosophical Society, 1985), 34–44.

¹⁵ AV 12.1.22.

¹⁶ AV 11.4(6).16–17.

¹⁷ AV 1.32.1.

¹⁸ AV 11.4(6).13.

¹⁹ AV 4.35.5.

²⁰ AV 11.4(6).9.

²¹ AV 2.28.3–4; 3.11.5–6; 5.10.8; 6.104.1; 7.53(55).2–6; 8.1.1, 3, 15, 2.11; 11.9(11).11; 16.4.3, 5, 7 (where the two forms of breath are associated with the dual gods Mitra and Varuṇa); 16.8; 18.2.46; 19.45.6–10, 51.1.

²² AV 3.11.5–6. When yoked to the plow, the two draft-oxen were important beasts of burden used in the process of life-sustaining food production.

²³ AV 7.53(55).2.

incorrect, a more sophisticated physiological understanding of respiration occurs at AV 11.4(6).14:

A human being breathes out (*āpānati*) and breathes in (*prāṇati*) when inside the womb (*gārbhe*). When you, O *Prāṇa*, urge him on he is born again.²⁴

As respiration was the primary life-force, it was natural for the Vedic Indians to imagine that it was present in the active fetus ready for birth and that the issuance of the fetus from the womb resulted from the functioning of the life-breath. Although modern medicine disproves the assertions in this ancient text, one can clearly understand its basis. Moreover, this conceptual connection between bodily wind and the fetus could have resulted from the observation of the breathing patterns of women in labor. Ancient medical doctrines are replete with similar “logical,” albeit scientifically inexact, explanations which contribute to ancient Indian medical intuition.

Respiration, Bodily Winds, and the Role of Ascetics

In classical Indian medicine, there are ordinarily five bodily winds or breaths operating in the body to regulate and stimulate various internal functions: 1. *prāṇa*, the “front breath,” located in the mouth, ensures respiration and swallowing; 2. *udāna*, the “upward moving breath,” produces speech; 3. *samāna*, the “concentrated breath,” promotes digestion; 4. *apāna*, the “downward moving breath,” ensures excretion and childbirth; and 5. *vyāna*, the “diffused breath,” circulates in the limbs and motivates their movement.²⁵

The same five terms occur as bodily winds in the *Atharvaveda*. They are found in pairs, like *prāṇāpāna*, and in groups of threes and fours; never does the group of five occur together as one unit, indicating that their classical formulation was not yet standardized. These *Atharvavedic* passages contain what Filliozat claims to be the germs of the āyurvedic physiological doctrine of bodily winds.²⁶ Further examination of the evidence suggests that it is unlikely that the Vedic understand-

ing of these words corresponded precisely to that expounded in the āyurvedic treatises. The sequence of their pairings are as follows: *prāṇa* and *vyāna*;²⁷ *prāṇa*, *apāna*, *vyāna*;²⁸ *prāṇa*, *apāna*, *vyāna*, *samāna*, as bodily parts;²⁹ and *prāṇa*, *apāna*, *vyāna*, *udāna*, as bodily parts.³⁰ It is likely that these words were originally conceived of in terms of manifestations and variations of respiration with some intuitions about their functions inside the body. From the acute awareness of the breathing process, *prāṇa* was “inhalation,” manifested as air carrying out the functions associated with the mouth, and *apāna* was “exhalation,” manifested as air associated with all functions of expulsion. They were the norms in comparison with which the following variations were understood by observation combined with intuition: *vyāna*, “different breath” (that breath situated between inhalation and exhalation, or the retained air, which circulates in the body and promotes internal functions), *samāna*, “complete breath” (that breath remaining after the twofold process of respiration, i.e., inhalation and exhalation, perceived to bring about digestion), and *udāna*, “up breath” (that inhaled breath which returns to the mouth as eructation).

Elsewhere, several different types of bodily winds (*prāṇa*), corresponding to every conceivable bodily function, are enumerated. There are the winds that approach, depart, stand, sit, breathe in, breathe out, turn away, and turn toward.³¹ Sometimes the number of winds is seven, called the seven seers (*rṣi*), corresponding to seven openings of the sense faculties of the head: two eyes, two ears, two nostrils and the mouth.³² Other times there are a thousand winds, said to be contained in the “unsubdued” (*astṛta*) amulet,³³ or, even more vaguely, an indefinite number of winds.³⁴

It is clear that particular attention was paid to the occurrence of human respiration, which was scrupulously observed. This was followed by assumptions about the functions of wind when it entered the body. The results of this empirical and intuitive process are recorded in the hymns of the *Atharvaveda*, which do not offer a

²⁴ The fourteenth-century commentator, Sāyaṇa, understands *prāṇa* here to be characterized by food (*anna*). Cf. Jean Filliozat, *La Doctrine classique*, 147 (English, 179), who points out that a similar connection between wind and delivery is found in classical āyurvedic medicine.

²⁵ Filliozat, *La Doctrine classique*, 22–23 (English, 28). Filliozat bases his definitions on *SuNi* 1.11ff.

²⁶ *Ibid.*, 175–85.

²⁷ AV 5.4.7. At Paip. 14.11.2cd, *apāna* replaces *vyāna*, pointing to the meaning of inhalation and exhalation.

²⁸ AV 6.41.2; 15.15, 16, 17.

²⁹ AV 10.2.13.

³⁰ AV 11.8.4, 26.

³¹ AV 11.4(6).7–8.

³² AV 2.12.7 and Sāyaṇa who cites *TB* 1.2.3.3: *sapta vai śiṛṣṇyaḥ prāṇāḥ*; AV 5.30.10; 11.3.2.

³³ AV 19.46.5–6.

³⁴ AV 3.15.7; 11.3.28; 12.1.3.

definite systematization of the physiology of respiration, but lay the groundwork for a doctrine of bodily winds that theoreticians of the medical tradition would codify several centuries later.

The detailed understanding of respiration expressed in the various hymns of the *Atharvaveda* also has close ties to ancient Indian ascetics who utilized techniques of breath control and rhythmic breathing in their meditative discipline to obtain quiet states and control of both mind and body. The archaic knowledge of respiratory stages likely derived from these ascetics who practiced breath control as a form of Yoga.

Evidence in the *Atharvaveda* indicates that the ascetic discipline was emerging by a process of "ritual interiorization," whereby aspects of external rituals were internalized by means of meditation.³⁵ Central to this process was a basic theory of mankind's principal life support system, respiration, which had links to the divine by means of the cosmic wind and was responsible for life and longevity. An Atharvavedic verse states that breath (*prāna*) is born of the soul (*ātman*), the single immortal part of a human.³⁶ Speech in its personified form (*vāc*) provides breath,³⁷ so that the reciter of incantations possesses the power to lengthen his breath,³⁸ an initial step in breath control, which in turn strengthens the incantations (*brahman*). Likewise, he, on whom rests the greatest thing, heats his head with truth (*satya*), surveys everything here with incantations (*brahman*), and breathes crosswise (*tiryāñ prāṇati*) with breath, i.e., retains his breath.³⁹ The reference in this obscure verse is to a ritualist, skilled in the recitation of incantations, whose head burns because of the self-generated heat of asceticism (*tapas*), which involves a form of breath control. The ascetic process of ritual internalization continued with the ritualist symbolically making his hand the sacrificial spoon and his breath the sacrificial stake to which the victim was attached.⁴⁰ Truth (*satya*) and faith (*śraddhā*) became the sacrificial goat's breath.⁴¹

The vrātyas, ascetics par excellence of the *Atharvaveda*, seemingly lived by breath alone and were

known for their ability to make their breaths long, a form of *prāṇāyāma* or yogic breath control.⁴² Part of their ascetic discipline involving respiration demonstrates an elaborate process of ritual internalization. For the vrātya, each of the three winds, *prāṇa*, *apāna* and *vyāna*, consists of seven types delineated by correspondences typical of the ritual process. The three winds obviously refer to inhalation, exhalation and retention of air, constituting the threefold technique of breath control, discussed in the later treatises of Yoga. The seven *prāṇas* are named with the following correspondences: 1. head (*ūrdhva*) is fire (*agni*), 2. flowing forth (*prauḍha*) is the sun (*āditya*), 3. flowing to (*abhyūḍha*) is the moon (*candramas*), 4. all pervading (*vibhū*) is the purifier (*pavamāna*), 5. uterus (*yonī*) is the waters (*ap*), 6. the beloved one (*priya*) is the domestic beasts (*paśu*), and 7. the limitless one (*aparimita*) is the creatures (*prajā*).⁴³ This enumeration of the various *prāṇas* indicates some location of the breaths and the physiological functions they stimulate. The seven *apānas* possess specific ritual correspondences: 1. the worship on the night of the full moon (*purnamāsi*), 2. the worship on the eighth night after the full moon (*aṣṭakā*), 3. the worship on the night of no moon (*amāvāsyā*), 4. faith (*śraddhā*), 5. consecration (*dikṣā*), 6. sacrifice (*yajña*), and 7. fees given to the officiating priest (*dakṣiṇā*).⁴⁴ The seven *vyānas* have macrocosmic correspondences: 1. the earth (*bhūmi*), 2. the atmosphere (*antarikṣa*), 3. the sky (*dyu*), 4. the lunar mansions (*nakṣatra*), 5. the seasons (*ṛtu*), 6. the combined seasons (*ārtava*), and 7. the year (*samvatsara*). The hymn concludes by stating that these are the vrātya's offerings.⁴⁵

Internalization of ritual by means of ascetic practices focusing on breath control and techniques of respiration led to a catalog of breaths according to existing ritual categories and terminology. In the midst of this classification there are hints that attempts were being made to associate certain types of breath with bodily functions, further anticipating the later medical authors' treatment of the subject. The development of a

³⁵ Mircea Eliade, *Yoga: Immortality and Freedom*, 101, 111–14.

³⁶ AV 11.5.22.

³⁷ AV 13.1.17–19.

³⁸ AV 9.6.19.

³⁹ AV 10.8.19.

⁴⁰ AV 9.6.22.

⁴¹ AV 9.5.21.

⁴² AV 15.11.5, 14.11.

⁴³ AV 15.15.

⁴⁴ AV 15.16; cf. Whitney and Lanman, who, without explanation, translate *dakṣiṇā* as "sacrificial gifts" (*Atharva-veda-saṃhitā*, 2:790). The meaning here given has late Rgvedic support. See RV 1.18.5; 10.103.8; cf. Sri Sampurnanand, *The Atharva Veda: Vrātyakaṇḍa with Śrutiprabha Commentary in English* (Madras: Ganesh & Co., 1956), 57.

⁴⁵ AV 15.17.

doctrine of bodily winds and respiration was localized among the ascetics whose principal concern was a discipline leading to long life and immortality through meditation and ecstatic techniques, among which controlling and arresting respiration played a key role.

Vedic poets conceived of a fundamental correspondence between atmospheric wind and breath. The beginnings of a codification of bodily winds occurred as techniques of respiratory control became an important ascetic discipline. These yogic techniques utilized preexisting categories to internalize Vedic ritual. In the literature of the later Vedic period, asceticism remained the principal vehicle for developments in ancient Indian theories of respiration and the bodily winds. And these ideas gradually became more refined and standardized.

2. RESPIRATION AND THE BODILY WINDS IN THE LATE VEDA

The notion of respiration and bodily winds in the exegetical *śaṃhitās*, the *brāhmaṇas* and the philosophical and mystical *upaniṣads* indicates a continuation of the conceptions advanced in the earlier Veda, but also demonstrates a further elaboration of breath in ritual and ascetic contexts, resulting in a codification of respiration and the bodily winds, with indications of their anatomical locations and physiological functions.

The ritual *śaṃhitās* and *brāhmaṇas* provided the context for connecting the bodily winds to the sacrifice and ritual process. In addition to being the principal indicators of life, *prāṇa* and *apāna*, as in the earlier treatises, are equated with various divinities including the Sun,⁴⁶ the Aśvins,⁴⁷ Agni,⁴⁸ Sarasvatī (Goddess of Speech),⁴⁹ Indra,⁵⁰ and Mitra and Varuṇa.⁵¹ More importantly, the bodily winds are enumerated in mantras accompanying different parts of the sacrificial ritual, for the sacrifice is said to succeed by *prāṇa*.⁵² Formulaic utterances involving two (*prāṇa*, *apāna*), three (*prāṇa*, *udāna*/*apāna*, *vyāna*), four (*prāṇa*, *apāna*, *vyāna*, *udāna*), and five (*prāṇa*, *apāna*, *vyāna*, *udāna*, *samāna*) winds are commonly employed. The twofold formula often forms a pair, as in inhalation and exhalation, as noticed in

their connection with the dual deities Mitra and Varuṇa.⁵³ Typically the threefold formula is accompanied with sense faculties such as eye, ear, speech and mind, and occurs in the context of the horse sacrifice and the enumeration of the parts of the horse's body.⁵⁴

The formula of the five bodily winds ritually symbolized the five sets of ten bricks, known as breath-supporters (*prāṇabhṛt*), making up the middle layer of the fire altar, situated to the east. Using mantras involving each of the winds, the ritualist constructed the fire altar. The middle layer of bricks corresponded to the atmosphere (the middle region in which the cosmic wind resides and from which the rain falls). This layer included the naturally perforated brick which the steed of the sacrifice was made to sniff and thereby receive his life-breath (*prāṇa*). Mankind's bodily winds or breaths (*prāṇas*) were nine in number, while the tenth was the navel (*nābhi*). The ritualist placed the breaths in the front, i.e., in the mouth. Therefore the breaths are in front.⁵⁵

The nine bodily winds referred to in this ritual procedure are the seven *prāṇas* of the head (two each of the eyes, nose, and ears, and one of the mouth) and two winds of the lower body (*avāñci*).⁵⁶ Identification of the seven *prāṇas* of the head with the previously mentioned seven seers is also found.⁵⁷ Elsewhere, and increasingly more frequently in the *upaniṣads*, *prāṇa* simply occurs in the plural, without specification as to constitution.⁵⁸ The plural may refer to any combination of the five bodily winds, the six organs of sense, the nine or ten winds, or others.⁵⁹

⁵³ TS 5.2.10.3–5 (see A.B. Keith, trans. *The Veda of the Black Yajus School, Entitled Taittiriya Saṃhita*, pt. 2 [1914, rpt. Delhi: Motilal Banarsidass, 1967], 415–16); TS 5.3.4.2; ŚB 8.4.2.1–3.20.

⁵⁴ VS 14.8, 14, 17; 17.25; 22.23; 23.18; 29.8; TS 4.4.1; 4.7.10; 7.4.21; cf. 1.5.11 (= 7.1.19); 1.1.6; 7.3.3.1.

⁵⁵ TS 4.3.5–7, 4.3.2; 5.3.1.2–3, 3.2; ŚB 8.2.1–4.20. cf. TS 4.3.2, 9, 4.3.2 (where the four breaths are mentioned); 5.2.10.3–5 (see Keith, *The Veda of the Black Yajus School*, 2:415–16); 5.3.2, 7.2–3; VS 9.21; 13.54–58; 14.8.17; 15.15–19, 62–64; ŚB 7.3.9–20; 8.4.2.1–3.20; 8.6.1.3–20.

⁵⁶ See TS 5.6.1.2 and Keith, *The Veda of the Black Yajus School*, 2:464 n. 1, and A. A. Macdonell and A. B. Keith, *Vedic Index of Names and Subjects*, 2:47–48.

⁵⁷ VS 14.28; 15.10; 18.58; cf. Macdonell and Keith, *Vedic Index*, 2:47–48.

⁵⁸ VS 25.2; 39.1.3.

⁵⁹ See Macdonell and Keith, *Vedic Index*, 2:47–48.

⁴⁶ VS 1.20; 31.22.

⁴⁷ VS 14.8.

⁴⁸ VS 13.19; 17.15.

⁴⁹ VS 8.37.

⁵⁰ TS 5.3.6.2–3; ŚB 5.3.3–8.

⁵¹ TS 5.3.4.2; ŚB 8.4.2.1–3.20.

⁵² VS 9.21; 18.22; TS 4.7.10.

In terms of physiology, the indefinite number of breaths indicates the very beginnings of a codification of knowledge concerning the bodily winds which were associated with all the bodily functions in various locations. The later standardized formula of five winds was already present, occurring in the context of other anatomical parts of the sacrificial horse. The connection of various winds with the senses and sense faculties and the winds situated in the head point to their generalized locations and their physiological functions with respect to other sense faculties. In particular, atmospheric wind (*vāta*) was gratified by the sacrificed steed's *prāṇa*, the two nostrils by his *apāna*, all *prāṇas* by his roar. Here a hint at the later medical formulation of the bodily winds can be observed. *Prāṇa* is, like the atmospheric wind, a breath outside the body waiting to be inhaled, and *apāna* is the bodily wind exhaled through the nostrils. All the *prāṇas* at one point or another come from within the body, and when expelled (through mouth or anus), produce various sounds resembling roars.

The ritual role played by breath in the recitation of mantras, many of which included the names of the various bodily winds, reflects the ongoing process of ritual internalization by means of ascetic practices involving breath control and rhythmic breathing. The enumeration of bodily winds reveals serious attempts to penetrate beyond the twofold process of inhalation (*prāṇa*) and exhalation (*apāna*), and to arrive at a comprehensive theory of wind's functions in the production and maintenance of life. The closely related philosophical and mystical literature of the upaniṣads shows a complete internalization of the sacrifice and a dominant focus on asceticism that utilized breathing techniques to attain an understanding of, and union with, the universal spirit, *brahman*, conceived to be the soul, *ātman*, in living beings.

In the principal upaniṣads, breath control and rhythmic respiration began to receive increasingly more attention, precipitating a codification of bodily winds similar to that found in the classical medical treatises. An examination of *prāṇa* and bodily winds in this important corpus discloses the crucial role asceticism played in the evolution of an ancient Indian doctrine of bodily winds and respiration. Persistent meditation on the nature and function of breath eventually led to a bifurcation of opinions concerning bodily wind. The medical branch focused on the physiology of bodily winds, and the yogic branch emphasized techniques of breath control.

The old notion that *prāṇa* represented the atmospheric wind (*vāta*) in humans and functioned as the animator and prolonger of all life was the starting point for the mystics' theory of respiration and the role wind

played in the body. In their spiritual quest through meditation for the universal principle behind all existence, these ascetics realized that breath was the closest physical manifestation of the ultimate, unchanging, creative force in man, his *ātman*, or soul, the embodiment of the *brahman*, or universal spirit. *Prāṇa* is the seat of the *brahman* and arises from the *ātman*.⁶⁰

Through a systematic internalization of the sacrifice by meditation on various aspects of the ritual through the use of mantras in conjunction with regulation of the bodily winds, the ascetics came ever closer to the realization of the ultimate principle so closely associated with breath. The upaniṣadic treatises detail every aspect of how this was accomplished, utilizing the information recorded in the ritual texts of the later Veda and creating mantras based on sacred syllables, such as *om*, and verses from the early Veda, on which to focus their thought and with which to control their respiration.⁶¹ Important in this process was the fundamental connection between atmospheric wind, *prāṇa*, and rain (water), as the three bases of life. Added to this was the further association with food, mouth, speech, and the mind, for food and water, like breath (*prāṇa*) taken through the mouth, sustain life, provide speech, which was so important in the recitation of the sacred sound, and altogether activated and stimulated the mind.⁶² In fasting, an important technique of the ascetic discipline, the practitioner would drink only water, itself imbued with *prāṇa*, and thereby take in life by the mouth.⁶³ One passage explains that before eating, the ascetic must wash his breath with water (i.e., rinse out his mouth), offer oblations with greetings to each of the five bodily winds (*prāṇa*, *apāna*, *vyāna*, *udāna* and *samāna*), eat the remainder of the offering, wash out his mouth again, and meditate on the *ātman* with the following mantra:

His breath and fire, the highest soul, has entered into the five bodily winds. May he, when pleased himself, please the all-enjoyer.⁶⁴

⁶⁰ BĀU 3.1.3; 4.2.2; KauśU 3.2–4; 4.20. See also KenaU 1.8; CU 4.10.5, 13.1; 7.15.1, 3–4, 26.1; 8.12.3 (cf. BĀU 4.4.2); BĀU 1.4.17, 6.3; 2.1.10; TU 2.2–3; 3.3.1–4, 7 (cf. 2.8.1; 3.1.10.5); KaṭhaU 4.7 (cf. 6.2); 5.3.5; MuṇḍU 2.2.5; 3.1.4; PrasnaU 2.13; 3.8–9, 11.

⁶¹ CU 1.1.5, 3.4, 6 (cf. BĀU 1.3.23), 5.3, 7.1, 8.4, 11.5, 13.2; 2.7.1, 11; 3.16; 5.7.1 (= BĀU 6.2.12), 19.24; BĀU 3.1.5; 5.13.1–4; 6.3.2, 4.24; TU 1.5.3; MaitriU 6.1.2 (cf. 1.1), 5 (cf. 6.3.7), 9; 6.33; MuṇḍU 2.1.1–4, 8; KauśU 2.3–5.

⁶² AU 3.4, 10; CU 1.2.7–9, 7.1; BĀU 1.3.2, 27.

⁶³ CU 6.5.2, 4, 6.3.5, 7.1, 5.

⁶⁴ MaitriU 6.9.

The object of the meditation process was to gain control of the mind and the sense functions, conceived to be the *prāṇas*.⁶⁵ These *prāṇas* were *prāṇa*, speech, sight, sound, and mind, or a combination of the five, of which the *ātman* consisted. The most important was *prāṇa* because all others contained *prāṇa*, the life-breath.⁶⁶ Therefore one should practice rhythmic breathing and thereby attain divine *prāṇa* and the heavenly realm.⁶⁷ Elsewhere the *prāṇas* are understood, as in the earlier texts, to be the seven seers or sense openings of the head, with an eighth, voice, added.⁶⁸ The principal seat of the *prāṇa* is said to be the heart.⁶⁹

Continued contemplation of the bodily winds gradually gave rise to a standardized list of five *prāṇas*, their anatomical locations, and their physiological functions; and, as aspects of the ongoing process of internalizing the Vedic sacrifice, they were often equated with aspects of ritual, most notably the Agnihotra, or fire sacrifice, in which the aforementioned bricks became the objects of the connections.⁷⁰

In the *Praśna Upaniṣad*, *prāṇa*, born of the *ātman* and part of the body by the action of the mind, controls the five bodily winds individually:

1. *Apāna* is located in the organs of excretion and generation.
2. *Prāṇa* is located in the eyes, ears, mouth, and nose.
3. *Samāna* is located in the middle and equalizes (in distribution) whatever has been offered as food. From it arise the seven *prāṇas* of the head (i.e., the seven seers).
4. *Vyāna* moves in the channels of the body, all of which originate in the heart, the seat of *ātman*.
5. *Udāna*, rising up from the central channel (*suṣumnā*), leads in consequence of good work to the good world, in consequence of evil work to the evil world, and in consequence of both to the world of humans.⁷¹

In the *Maitrī Upaniṣad*, definitions of these five, based on their physiological functions, are offered:

1. *Prāṇa* is the wind that passes upward.
2. *Apāna* is the wind that passes downward.
3. *Vyāna* is the wind that supports *prāṇa* and *apāna*.
4. *Samāna* is the wind that conducts into *apāna* the coarse element of food and distributes in each limb the most subtle element of food. It is a higher form of *vyāna*.
5. *Udāna* is the wind that is between *vyāna* and *samāna*. It belches forth and swallows down what is drunk and eaten.⁷²

Elsewhere, the five bodily winds are equated with the five vital functions through the Agnihotra sacrifice: *prāṇa* corresponds to sight, *vyāna* to hearing, *apāna* to speech, *samāna* to mind, and *udāna* to wind (breath).⁷³ Another enumeration gives slightly different correspondences with the vital functions and includes the principal anatomical parts: *prāṇa* corresponds to sight and skin, *vyāna* to hearing and flesh, *apāna* to mind and muscle, *udāna* to speech and bone, *samāna* to touch and marrow.⁷⁴

There can be little doubt that the ascetics of the upaniṣadic age, through their long meditations on breath and its importance to the life process of a human being, conceived of a wind-physiology codified according to the five fundamental bodily winds. The efforts of these mystics would serve as the basis for a more elaborate scheme of the physiology developed by the medical theoreticians, who were also inspired by ascetic insights.

In addition to providing the basis of later medical theories, the ascetics' conceptualization of bodily winds elaborated in the upaniṣads also led to developments in meditation techniques, and in particular to systematic Yoga, whose evolution seems to have run parallel to that of medicine. The earliest reference to the subsequent formulation of Yoga is found in the *Maitrī Upaniṣad*, where six of the later eight limbs of Yoga are enumerated. *Prāṇāyāma*, "the restraint of the breath" or breath control, is included among these six. By arresting both breath and mind through controlled respiration, the objects of the senses are restrained and a continued voidness of conception ensues, leading ultimately to the fourth superconscious condition (*turya*, *turiya*) in which one's soul (*ātman*) is free to dwell with the universal spirit (*brahman*). Restricting voice, mind and breath by pressing the tongue against the palate enabled the mystic to see *brahman* through meditation. The central channel or vessel (*suṣumnā*) (sometimes conceived to be the central nerve of the spinal column),

⁶⁵ CU 6.8.2; BĀU 1.5.21–23; 5.14.3–4; TU 1.6.2; cf. CU 3.17.6.

⁶⁶ CU 5.1 (= BĀU 6.1; cf. 1.3); BĀU 1.4.7, 5.20–23; 2.1.17, 20 (2.3.6); 4.3.7; 6.3.2, 4.24; TU 1.7; MaitrīU 6.31; MuṇḍU 3.1.9; PraśnaU 2.2–3, 6 (where the simile of *prāṇas* as spokes of a wheel occurs), 11–12.

⁶⁷ BĀU 1.5.21–23.

⁶⁸ BĀU 2.2.3–4; MuṇḍU 2.1.8.

⁶⁹ CU 3.12.3–4, 13.

⁷⁰ CU 2.7.1, 11; 3.13; 5.19–24; PraśnaU 4.3.4; cf. 3.1–12.

⁷¹ The latter is a reference to the theory of *karman*, PraśnaU 3.1–12.

⁷² MaitrīU 2.6.

⁷³ CU 5.19–24.

⁷⁴ TU 1.7.

leading upward, conveyed *prāṇa*, and pierced the palate. The ascetic also ascended (i.e., levitated) by joining together his *prāṇa*, the mystical syllable *om*, and his mind, for he drew in the sense functions (*prāṇas*) by means of *om* and breath control. Yoga was attained by joining *prāṇa*, *om*, and the manifold world, resulting in the oneness of *prāṇa*, mind, and senses and in the relinquishing of all conditions of existence.⁷⁵

Prāṇa and respiration continued to play a key role in the development of Yoga and its techniques of ecstasy in the later orthodox upaniṣads and textbooks on Yoga. But a medical physiology based on *prāṇa* and the bodily winds split from the upaniṣadic tradition and developed into a separate discipline with its own specialized treatises. This was probably due to the intimate partnership between medicine and the heterodox ascetic traditions such as Buddhism, whose followers utilized ascetic techniques referred to in the upaniṣads and contributed to the early codification of medical doctrines.⁷⁶ A brief survey of the bodily winds in Āyurveda and Yoga discloses how the basic doctrines formulated in the Vedic treatises were refined by specialists in each of the traditions, and affords an opportunity to discuss the possible connections between medicine and Yoga.

3. THE BODILY WINDS IN CLASSICAL ĀYURVEDA

Central to the teachings in the *Caraka-* and *Suśruta Samhitās* is an etiology based on three humors or *doṣas*, wind (*vāta*, *vāyu*), bile (*pitta*), and phlegm (*kapha*, *śleṣman*), which, much as in Hippocratic and Galenic medicine, acted as vitiators by disrupting the normal functioning of the body. Given the long connection between the atmospheric and human winds and the preoccupation with breath in the early texts, it is natural that wind would have had a significant place in the theories of the Indian medical tradition. Closely related to wind is *prāṇa* whose explanations in the classical medical treatises follow those of the upaniṣadic mystics, but also assume a technically specific sense lacking in the Veda.

As in previous literature, *prāṇa* was first and foremost the principal indicator and animator of life.⁷⁷ The physician (*bhīṣaj*) was called "the one who champions

prāṇa and destroys disease."⁷⁸ Unwholesome food damaged *prāṇa*, while wholesome food promoted it.⁷⁹ In particular, milk, soups, meat juices and certain elixirs increased and maintained it.⁸⁰ Expressive of obvious religious and ascetic sentiments, the most excellent promoter of *prāṇa* was nonviolence (*ahiṃsā*).⁸¹

The number of *prāṇa*'s seats varies in the two principal medical texts, indicating that the compilers indiscriminately included different explanations about *prāṇa* in their respective collections. Caraka enumerates the ten seats of *prāṇa* as the head, throat, heart, navel, anus, bladder, vital fluid, semen, blood, and flesh (the first six are also known as the vital organs [*marman*]).⁸² Elsewhere he locates them in the two temples, in three vital organs (heart, bladder, and head), in the throat, in blood, in semen, in vital fluid, and in the anus.⁸³ Suśruta claims that vital fluid is the highest seat of *prāṇa*.⁸⁴

Both compilers also speak of two channels which transport *prāṇa* throughout the body: the *prāṇa*-conveying vessels (*prāṇavahasrotas*) which originate in the heart, and the large vessels (*mahāsrotas*) which, along with *prāṇa*, convey the nutritive fluids (*rasa*). Injury to them due to emaciation, suppression of the natural urges, roughness, physical exercise, hunger, and other harsh factors, causes one to cry out with curses, double over, experience shallow or frequent loud and painful respiration, become bewildered, dizzy, tremble, or die.⁸⁵ When the channels are obstructed by wind and phlegm, the most frequent abnormalities are hiccup (*hikkā*), dyspnoea (*śvāsa*), and asthma (*tamakaśvāsa*).⁸⁶

Untypical of medical, but indicative of upaniṣadic discussions, are references to *prāṇa*'s connection to *ātman*. Inhalation and exhalation (*prāṇāpāna*), movement of the mind, shifting of one sense faculty to another, and memory are included as signs of the highest self (*paramātmā*) in a living being; but in the process of transmigration, the self (*ātman*) is responsible for its birth in different wombs, and in the process of life, the *prāṇas* regulate living beings (*prāṇin*).⁸⁷ These few

⁷⁵ *MaitriU* 6.18–26.

⁷⁶ See K. G. Zysk, *Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery* (New York and Oxford: Oxford Univ. Press, 1991).

⁷⁷ *CaCi* 3.5; *SuSū* 1.4, 45.48; *SuCi* 5.6, 6.7, 28.233–36a.

⁷⁸ *CaSū* 9.18.

⁷⁹ *CaSū* 28.7; *CaŚā* 3.17.

⁸⁰ *SuSū* 45.48; *SuSū* 46.359, 373–74; *SuCi* 27.12, 28.20.

⁸¹ *CaSū* 30.15.

⁸² *CaŚā* 7.9.

⁸³ *CaSū* 29.3; cf. *CaCi* 26.3–4.

⁸⁴ *SuSū* 15.21.

⁸⁵ *CaVi* 5.8, 18; *SuŚā* 9.12; cf. *SuŚā* 4.31.

⁸⁶ *CaCi* 17.17, 21–26, 31–33, 45, 52–55.

⁸⁷ *CaŚā* 1.70–74, 77.

references point to infiltrations from brāhmaṇic ideologies originating perhaps in the mystical upaniṣads.

The yogic technique of breath control (*prāṇāyāma*) finds two references in Suśruta. It is recommended as an effective cure for hiccup (*hikkā*);⁸⁸ and a foreign object is said to be easily detected in the body during the practice of *prāṇāyāma*.⁸⁹

The fundamental connection between atmospheric wind and breath and transmissions from the ascetic upaniṣadic philosophers led to the incorporation of the doctrine of the five bodily winds into the classical system of Indian medicine. Their names were standardized, but only through the observations and informed speculations of medical specialists did ideas about their locations, functions, and morbidities become crystallized. The physiology of the five bodily winds reached its full formulation in classical Indian medicine.

Caraka speaks of three kinds of bodily wind: unexcited, excited and normal wind. Unexcited wind has five forms: *prāṇa*, *udāna*, *samāna*, *vyāna* and *apāna*. As a group they indicate upward and downward movement, lead and control the mind (*manas*), employ all the sense organs in their activity, carry all sense objects, enhance union in the body, promote speech, touch and sound, emit excreta, and maintain longevity (*āyus*).⁹⁰ Both medical compilers detail in a similar way the locations and activities of the five winds, which coordinate and maintain the bodily structures and functions, summarized as follows:

1. *Prāṇa*, located in the head, chest, throat, tongue, mouth and nose, functions in spitting, sneezing, belching, respiration, and digestion and, according to Suśruta, causes swallowing and supports life. When excited, it produces hiccup and difficult breathing.
2. *Udāna*, located in the navel, chest, and throat, functions in speech, effort, energy, strength, and complexion. According to Suśruta, it goes up, is the best of the winds, initiates speech and songs, and, when excited, causes disruption in structures located above the clavicle.

⁸⁸ *SuUtt* 50.16. The twelfth-century commentator, Ḍalhaṇa, defines *prāṇāyāma* as “suppression of wind” (*vāyor nirodhaḥ*), and explains: “Although *prāṇāyāma* is threefold on account of its divisions of *recaka*, *pūraka*, and *kumbhaka*, nevertheless, because of the suppression of the upward-going [wind] only *kumbhaka* is here meant (*yady api recakapūrakakumbhakabhedāt prāṇāyāmas trividhaḥ* [cf. 1915 edition: . . . *kumbhaka-sātavāhibhedāt prāṇāyāmas caturvidhaḥ* !], *tathāpy ūrdhva-gatinirodhāt kumbhaka evātra*).” The technique of *prāṇāyāma* as a cure for hiccup is familiar to the Western world as well.

⁸⁹ *SuSū* 26.13.

⁹⁰ *CaSū* 12.8.

3. *Samāna*, located in the channels conveying sweat, humors, and watery fluids, sits beside the digestive fire, and strengthens digestion. According to Suśruta, it circulates in the stomach and colon, and, when connected with the digestive fire, cooks (i.e., digests) food and separates its end products. When excited, it causes abdominal swelling, indigestion, and diarrhea.
4. *Vyāna*, moving rapidly, pervades the entire body and performs the functions of movement, extension, contraction, and blinking. According to Suśruta, it diffuses throughout the body, constantly transports nutritive juices (*rasa*), and aids in sweating and the flow of blood. It has five movements (i.e., expansion, contraction, upward, downward, and oblique) and, when excited, brings about diseases all over the body.
5. *Apāna*, located in the testicles, bladder, penis, navel, thighs, groin, and anus, functions to release semen, urine, feces, menses, and the fetus. When excited in the colon, it obstructs the lower passages and causes a reverse movement of wind (*udāvarta*) and other gastric disorders. According to Suśruta, it is located in the lower bowels and transports downward and expels at the right time feces, urine, semen, the fetus, and menstrual fluid. When excited, it produces severe diseases situated in the bladder and anus.⁹¹

Caraka, abbreviating the comments found in Suśruta, states that when the bodily winds are in equilibrium and situated in their proper seats, they function normally and sustain the body free of disease; but, when they are unbalanced and move along wrong paths, they affect the body with disorders pertaining to their functions and locations, and quickly remove life-breath (*prāṇa*).⁹² Summarizing the teachings about the winds, he states that *udāna* should go up, *apāna*, down, *samāna*, in the middle, and *vyāna*, in all directions. In comparison, *prāṇa* deserves the greatest protection because its normal position is essential for life. Moreover, an effort should be made to restore and maintain the normal positions and functions of all the winds.⁹³

The medical compendia also detail the various disorders arising when one wind dominates another and when each wind is eclipsed by bile and phlegm.⁹⁴ Caraka states that all afflictions involving the winds become

⁹¹ *CaCi* 28.5–12; *SuNi* 12.20a; cf. *CaSū* 12.8; *CaCi* 15.36, 203–4.

⁹² *CaCi* 28.5–12; *SuNi* 1.12–20a; see also *CaCi* 26.3–4; cf. *CaCi* 15.36, 203–4; and *CaCi* 18.6, where cough (*kāsa*) results when wind, impeded from below, moves to the upper channels, attains the character of *udāna*, and sticks to the throat and chest.

⁹³ *CaCi* 28.219b–21a.

⁹⁴ *CaCi* 28.199–216; *SuCi* 1.34b–39.

incurable after one year, and specifies that a condition in which *prāṇa* and *udāna* are covered by bile and phlegm is particularly serious because life depends on *prāṇa* and strength relies on *udāna*.⁹⁵ Suśruta instructs us that the corruption of semen and urinary disorders result when *vyāna* and *apāna* are excited, and that death ensues when all winds are simultaneously excited.⁹⁶

The differences found in the medical compilers' respective discussions of the winds reveal a plurality of sources for information on doctrines pertaining to the five basic bodily winds. In general, Suśruta reflects a more standardized formulation of *prāṇa* and the *prāṇa*-doctrine than does Caraka. This indicates that Caraka's compilation incorporated both medical and non-medical data pertaining to wind and *prāṇa*, while Suśruta systematically limited his information to specialized medical teachings.⁹⁷

Continuing the development of previous doctrines of wind and breath, the classical medical tradition, as preserved in the *Caraka-* and *Suśruta Saṃhitās*, formulated a specifically medical approach to the bodily winds, almost completely devoid of lingering and intruding notions pertaining to respiration, rhythmic breathing, and breath control. It codified the physiology of *prāṇa* and the five winds, and the diseases arising from abnormalities in their proper functioning. In quite a different direction, a doctrine of the bodily winds developed around ascetic techniques and the importance of breath in the attainment of higher states of consciousness. These doctrines find their codification in the texts of Yoga. As both the medical and yogic traditions derived their fundamental understanding of breath and the bodily winds essentially from the ascetic upaniṣadic thinkers, certain similarities are encountered. The extent of their common approach will be discussed after briefly examining the role of *prāṇa* in Yoga.

4. RESPIRATION AND THE BODILY WINDS IN YOGA

The orthodox brāhmaṇic system of Yoga owes its textual traditions and praxis to the doctrines and practices

expounded in the upaniṣads, and therefore carries on the system of bodily winds indicative of that genre of Vedic literature. Most of what pertains to *prāṇa* occurs in discussions of *prāṇāyāma*, one of the eight limbs of classical Yoga, in a group of late upaniṣads known as the Yoga upaniṣads. These esoteric treatises were obviously composed by practicing yogins who based their knowledge on personal involvement with techniques and on intuitions handed down through the centuries. Along with this special group of upaniṣads, a separate textual tradition specifically devoted to Yoga and its eight limbs began to emerge probably around the second or third century B.C.E. The earliest extant treatise on Yoga is Patañjali's *Yogasūtra* which, being from the second century B.C.E., predates the Yoga upaniṣads, but most assuredly derives from upaniṣadic ascetic traditions.

The cryptic statements of the *Yogasūtra* outline the eight parts of an ascetic discipline leading to the perfection of Yoga, defined as "the cessation of the fluctuations of the mind,"⁹⁸ and to emancipation from the endless cycle of birth, death and rebirth. According to the *Yogasūtra*, the mind is calmed by exhaling and restraining *prāṇa* by the technique of *prāṇāyāma* (control of the breath) which is normally practiced after the postures (*āsana*) are perfected.⁹⁹ *Prāṇāyāma* involves a threefold operation: external (*vāhya*) or the expulsion of breath, internal (*ābhyantara*) or the drawing in of breath, and suppression (*stambha*) or suspension of breathing, which becomes long and subtle when observed according to time (calculation of short time units), space (the breath's scope and distance, i.e., from the tip of the nose or navel to the mouth), and number (the counting of breaths).¹⁰⁰ There is also a fourth *prāṇāyāma* which transcends both external and internal operations, and is more subtle than the third *prāṇāyāma*. It involves the perfection of *prāṇāyāma* when suppression of breathing is done all at once, resulting in the arresting of the modifications of the mind.¹⁰¹ *Prāṇāyāma* thins the veil over the manifestations of spiritual knowledge by separating the ego from the body and the organs of sense and prepares the mind for fixation on a particular point in space (*dhāraṇa*), the next step in the eightfold system leading to emancipating enstasis (*samādhi*).¹⁰²

The *Yogasūtra* contains only two references to the five bodily winds. At 3.39, Patañjali states that the con-

⁹⁵ CaCi 233–36a.

⁹⁶ SuNi 1.20b–21b.

⁹⁷ Caraka's inclusion of the Vedic similes of spokes around a hub and rays from the sun in relationship to *prāṇa* and the compound *prāṇāpāna* indicates the incorporation of earlier orthodox religious doctrines in this medical text. At CaSi 9.4, *prāṇa* and *apāna*, mind, intellect, consciousness, and the gross elements (*mahābhūta*) are established in the heart like spokes in a hub, and senses, channels conveying the senses and *prāṇas* are located in the head like rays in the sun.

⁹⁸ YS 1.2.

⁹⁹ YS 1.34; 2.49.

¹⁰⁰ YS 2.50.

¹⁰¹ YS 2.51.

¹⁰² YS 2.52–53.

quering of *udāna* results in the evasion of any chance of immersion in water or mud or entanglement in thorns, and assures exit from the body at death or any other time. Vyāsa's later commentary on this verse enumerates the five breaths and their standardized locations. At 3.40, the author claims that the conquering of *samāna* results in bodily radiance in which an aura is created around the yogin's body. The brevity of his style required Patañjali to emphasize only these two winds, relying on the teacher (*guru*) to explain the importance of the remaining three bodily winds to his student.

Unlike the laconic *Yogasūtra*, the Yoga upaniṣads provide detailed information concerning the technique of *prāṇāyāma*, during which discussions of the various bodily winds routinely occur. Examination of these texts indicates both a reliance on the doctrine of bodily winds contained in the earlier principal upaniṣads and a richer elaboration of the doctrines based on centuries of experience and reflection.

The early upaniṣadic emphasis on the internalization of sacrifice by means of meditation involving the five winds is transmitted to the later treatises and becomes formalized in the *Prāṇāgnihoṭra Upaniṣad* (1–2) which advocates the making of offerings to each of the five bodily winds with various hand gestures (*mudrā*), silently to five ritual fires corresponding to the five winds, and finally to the digestive fires. The result is a sacrifice offered in the body.

With the evolution of a system of Yoga divided into various steps, already indicated in the *Maitrī Upaniṣad*, teachings pertaining to respiration and the five bodily winds were codified under the doctrine of breath control (*prāṇāyāma*), arguably the oldest recorded ascetic technique of the Yoga system. The following summary of *prāṇāyāma* and the various bodily winds derives from the teachings of several of the Yoga upaniṣads which expound the system of *Hāṭhayoga*. The upaniṣads utilized include *Yogatattva* (vss. 24, 35–111), *Dhyānabindu* (19–21, 39–40, 51–61a, 95–100), *Śaṇḍīya* (1.1, 4, 6, 7, 13–15), *Amṛtanāda* (6–38), *Varāha* (5), and *Yogakuṇḍalī* (1).

Prāṇāyāma is the union of *prāṇa* and *apāna*, that is, the process of respiration. It is well established as one of the eight limbs or parts of Yoga and, as in the older *Yogasūtra*, is divided into three stages with regular names and divine associations: inhalation (*pūraka*) is Brahmā, retention of breath (*kumbhaka*) is Viṣṇu, and exhalation (*recaka*) is Rudra (Śiva). Retention of breath has a further two forms: retention involving the union of inhalation and exhalation (*sahita*) and retention without inhalation and exhalation (*kevala*). The former involves the holding of the breath after inhalation; the latter, after exhalation. The first, being easier than the second, should be practiced until perfected.

Mastering of *kevala* results in the attainment of all things in the three worlds (underworld, earth, and heaven) and in a healthy condition of mind and body.

According to Hāṭhayoga, *prāṇāyāma* purifies the vessels of the body (*nāḍī*), indicating a quasi-medical application. There are 72,000 vessels in the body, of which ten (some say fourteen) are most important: *idā*, *piṅgalā*, *suṣumnā*, *gandhārī*, *hastijahvā*, *pūṣā*, *yaśasvinī*, *alambusā*, *kuhū*, *śaṅkhinī* (*sarasvatī*, *vāruṇī*, *viśvodharī* and *payasini* make fourteen). *Idā*, *piṅgalā* and *suṣumnā* always convey *prāṇa* and have as their deities respectively the moon, the sun, and fire. *Idā* is the major vessel located on the left of *suṣumnā*, the central channel of the spine, and *piṅgalā* is the major nerve on its right. There are ten bodily winds which move through all the vessels and maintain life. Life under the influence of *prāṇa* and *apāna* goes up and down; and *prāṇa* draws itself from *apāna*, and *apāna* from *prāṇa*, like a bird (drawing itself and yet not free) from the string (to which it is attached).

To the five principal bodily winds are added five sub-winds with a discussion of their locations, functions, seed (*bija*) mantras, color, and elemental associations. Their explanations reflect meditative concerns, yet combine physiological information indicative of that found in classical Āyurveda:

1. *Prāṇa* is located in the heart and moves in the nostrils, throat, navel, the two great toes, and lower and upper parts of *kuṇḍalinī* (which, coiled like a snake, lies at the base of the spine). It functions in inhalation, exhalation and cough, has the seed mantra *ya*, the color of a blood-red gem, or resembles a blue cloud.
2. *Apāna* is located in the anus and moves in the anus, genitals, thighs, knees, stomach, semen, loins, calves, navel, and seat of the anal fire. It functions in the excretion of feces and urine, has the mantra *ra*, the color between white and red, or resembles the sun, and is equated to fire.
3. *Vyāna* is located in all parts of the body and moves in the ears, eyes, loins, ankles, nose, throat, and buttocks. It functions in giving and taking, has the mantra *la*, the color of a ray of light, or resembles the geulia flower (*bandhūka*), and is equated to earth.
4. *Udāna* is located in the throat or in all the joints and in the hands and the feet. It functions to keep the body erect, has the mantra *va*, the color pale white, or resembles the color of a conch shell, and is equated to atmospheric wind.
5. *Samāna* is located in the navel or permeates the entire body and moves in the 72,000 vessels. It functions in nourishing the body, or, along with fire, distributes food and drink throughout the body. It has the mantra *ha*, the color between pure milk and crystal or resembles the color of crystal, and is equated to ether.

Prāṇa and *apāna* carry out digestion; *prāṇa* and *sa-māna* transport the nutritive fluids (*rasa*) to all the vessels and move in the body in the form of breath. The bodily winds evacuate excrements through the nine bodily openings connected with atmospheric wind.

The five sub-winds are as follows:

1. *Nāga* nourishes the body and controls eructation and vomiting.
2. *Kūrma* moves the eyelids.
3. *Kṛkara* causes hunger and thirst (or sneezing).
4. *Devadatta* causes idleness and controls yawning.
5. *Dhanañjana* causes phlegm, pervades the entire body, and does not leave even a dead body.¹⁰³

These five sub-winds go towards the outer parts of the body, such as the skin and bones, and reside in the gross anatomical parts.

Yoga maintains the enumeration of the five basic winds, but also adds to it five sub-winds. Discussions of the five standard winds sometimes vary, indicating that more than one explanation was understood for several of the different winds. Moreover, the yogic theory of these five winds points to influences from the medical tradition, while the five sub-winds are unique to Yoga.

The process of purifying and maintaining the flow of the bodily winds through the vessels by means of *prāṇāyāma* receives detailed explanations in the Yoga upaniṣads. Assuming the lotus position (*padmāsana*), the yogin should practice *prāṇāyāma* in a suitably remote and sheltered place. He begins by inhaling through the left nostril while keeping the right nostril closed with the right thumb, filling the abdomen and holding the breath as long as possible while meditating on *om* as located in the middle of the body and surrounded by circling flames. He then exhales slowly through the right nostril while keeping the left nostril closed. Reversing the nostrils used, the same process is employed for a total of twenty repetitions. The inhaled air should travel through the three principal vessels (*iḍā*, *piṅgalā* and *suṣumnā*) and be absorbed in the middle of the eyebrows which is the root of the nose, the seat of immortality and the great abode of the universal spirit (*brahman*). The technique is to be carried out four times a day, at sunrise, at noon, at sunset, and at midnight, and after three months those vessels are purified. The number of respirations in one day was calculated to be 22,736, which by modern standards is approximately accurate.

Continued practice of *prāṇāyāma* leads to the acquisition of the accomplishments (*siddhi*), a step on the

way toward emancipation, and the perfect union of *prāṇa* and *apāna*, mind and intellect, and ultimately the individual soul and the supreme, universal spirit. With advancement of the technique, the length of time needed to practice *prāṇāyāma* decreases by three-fourths, so that it only need be done in the day and at evening for three hours. It brings about the withdrawal of the senses from their objects and the passage of *prāṇa* up the central channel (*suṣumnā*) to the highest point at the top of the head and the attainment of *samādhi* or the emancipation from the round of rebirths.

Prāṇa is also a focus of discussion in the *Yogavā-siṣṭharāmāyaṇa* (or simply, *Yogavāsiṣṭha*), a highly poetical work of philosophy dating from the seventh or eighth century C.E. Reminiscent of the Buddhist Vijñānavāda or the "Mind-only" school, it sets forth a doctrine explaining everything as the product of the human's thought process. According to this treatise, *prāṇa* is described as an entity that vibrates, and the fluctuation of the mind (*citta*) is a form of *prāṇa* energy. All the functions of *prāṇa* and the support of the body are due to the movement of the mind. Cessation of the mind's movement is achieved by control of *prāṇa* and the five bodily winds through *prāṇāyāma* and *dhyāna* (meditation). Root desires (*vāsanā*) set in motion the vibration of *prāṇa*. Vibratory activity in the upper part of the body is called *prāṇa*, while the same activity in the lower part of the body is called *apāna*.

According to the *Yogavāsiṣṭha*, the body has on its two sides the two *nāḍis*, *iḍā*, and *piṅgalā*, and a machine or magical diagram (*yantra*) of bone and flesh in the shape of three double lotuses with pipes attached to them running up and down, whose petals close upon each other. When the body is slowly filled with air by inhalation, the petals begin to move, increasing the air which passes upwards and downwards through different places. Depending on where the air passes, it is given the name of one of the five *prāṇas*. All *prāṇic* forces originate and issue from the threefold machinery of the lotus of the heart. They go out, repulse, draw, and circulate. The cardiac *prāṇa* moves the eyes, senses of touch, breathing through the nose, digestion, and speech.¹⁰⁴

In Sāṃkhya, *prāṇa* is an evolute of *prakṛti*, having activity as its power, and the five bodily winds are the common functioning of *buddhi* (intellect), *ahamkāra* (ego), and *manas* (mind). They operate in unison to maintain the body. The later commentaries express the view that *prāṇa* is sometimes known as the respiration

¹⁰³ See also Henry [Heinrich] Zimmer, *Hindu Medicine*, 157, 200 n. 11.

¹⁰⁴ See S. Dasgupta, *History of Indian Philosophy*, 2:256–60.

which, however, activates *prāṇa* and causes it to vibrate. Thus, as in the *Yogavāsiṣṭha*, *prāṇa* is the entity that moves rather than the motion it produces. In Vaiśeṣika, as in Āyurveda, *vāyu* or atmospheric air performs various physiological functions depending on its location in the body.¹⁰⁵

The *Yogavāsiṣṭha* advances the theories about *prāṇa* established in Yoga by describing its central activity as vibration and connecting it with the movement of the mind. Sāṃkhya follows closely this line of thought, while Vaiśeṣika adopts medical reasoning and ascribes to atmospheric wind and breath an essential physiological function.

The long tradition of the doctrine of bodily winds established by practicing ascetics attains its full theoretical development in the schools of Yoga. In these traditions, which can be traced ultimately to the upaniṣads, explanations of the bodily winds and their control seek an intuitive understanding of human physiology which blends over the course of time both medical and yogic conceptions. This is particularly evident in discussions involving the different bodily winds, the vessels through which they flow, and the means by which they are purified and maintained. The underlying principle running throughout the Yoga-based systems is that the mind can be restrained and eventually conquered by purifying and controlling the body.

5. CONCLUSIONS

In conclusion, we shall consider the possible relationship between āyurvedic and yogic conceptions of the bodily winds. The historical evolution of the ancient Indian doctrine of the bodily winds is one of those rare topics in which a relatively unbroken development can be traced from earliest times to the centuries around the beginning of the common era. Wind, breath, and respiration were of concern to the religious thinkers primarily because they indicated life. The connection between breath and atmospheric wind was the ideal metaphor for the universal spirit (*brahman*) and the individual soul (*ātman*). Techniques for prolonging life by controlling the bodily functions are probably as old as the Veda, but it was only in the philosophical and mystical upaniṣads that they became fully articulated. These treatises, which resulted from the thoughts and practices of ascetics in search of immortality and emancipation from the bonds of worldly existence, for the first time advanced a science of respiration focusing on life-breath (*prāṇa*). They presented in rudimen-

tary form a physiology of wind in the body and referred to techniques to acquire control of it.

This specialized knowledge evolved among the ascetics, whose mendicant life style and radical beliefs made them outsiders in a conservative environment of brāhmaṇic social and religious mores. In time these wandering mendicants separated themselves into two groups of ascetics delineated roughly by their beliefs vis-à-vis the dominant brāhmaṇic attitudes of social stratification and religious ritual and practice. The orthodox ascetics supported the brahmins, while the heterodox ascetics rejected them. The former became associated with Hinduism and Yoga, the latter with Buddhism, Jainism, Ājīvikism, and early medical doctrines. Both the yogic and medical practitioners maintained a science of the bodily winds which derived from the observations and intuitions of earlier ascetics of the upaniṣadic tradition. The bifurcation of the science probably corresponds to the split into the two ascetic traditions. The medical theoreticians emphasized the physiology of bodily wind; yogic mystics focused on techniques of breath control while advancing a physiology in relationship to respiration. Similarities and differences occur in both systems, and a brief comparison of the two will more clearly elucidate them.

Both medicine and Yoga adopted the five standard bodily winds formalized in the upaniṣads. Although minor variations occur, general agreement is found with respect to the explanations of their individual locations and functions. Yoga, however, adds five subwinds not found in the medical treatises. Moreover, medicine addresses the different abnormalities caused by the winds alone, combined, and along with the humors of bile and phlegm. Yoga makes only slight reference to diseases resulting from the bodily winds, and emphasizes the mystical associations of the breaths and the quasi-medical respiratory techniques for purifying them and maintaining their proper circulation in the vessels of the body. The classical medical texts contain no reference to breathing techniques in relationship to the five bodily winds.

Both traditions notice that wind flows through certain vessels in the body. The medical compendia mention two channels which convey *prāṇa*. One originates in the heart, the other in various large ducts that transport nutritive juices. The texts on Yoga speak of numerous vessels which convey all the bodily winds. Ten or fourteen of them are most important, and three of these, *idā*, *piṅgalā* and *suṣumnā*, generally associated with the major vessels of the spine, convey *prāṇa*. Moreover, later Yoga-inspired perceptions led to an idea that *prāṇa* vibrates and is associated with the movement of the mind. Since Yoga, like Āyurveda, locates *prāṇa* in the heart,

¹⁰⁵ Ibid., 262–63.

both systems probably derived this information ultimately from a common source. Again *prāṇāyāma* or control of respiration is peculiar to Yoga.

The ideologies of these two ancient Indian systems agree on fundamental concepts, but differ on particulars. Each derived the same basic information from a common ascetic tradition and developed that according to its own special concerns. The earliest works on Yoga and medicine indicate that neither system borrowed extensively from the other, but later technical and popular treatises, propounding a distinctive yogic ideology, illustrate a harmonious blending of medicine and Yoga.

In classical Āyurveda, reference to Yoga in its traditional formulation occurs in a discussion of bodily sensations (*vedanā*) at the end of first chapter in Caraka's book of anatomy (*Śārīrasthāna*). Embracing rather late orthodox brāhmaṇic ideology, the passages in Caraka's compilation state that the cessation of all feelings is accomplished through Yoga and emancipation (*mokṣa*) and that Yoga leads to emancipation. According to the Yoga system, happiness and misery come from contact between the self (*ātman*), the sense organs, the mind (*manas*), and the objects of the senses; but when the mind is still and situated in the self, happiness and misery cease because they do not arise, and supernatural powers (*vaśitva*) come forth in the body. The eight supernatural powers or *siddhis* of classical Yoga are enumerated. The most important of the *siddhis* is the recollection of the true state of things (*tattvasmṛtibala*), which, according to the yogins, the sāmkyas, and the emancipated, is the only means to final release from the round of rebirths.¹⁰⁶ The systems of Sāmkhya and Yoga occur together in another reference in the *Caraka Saṃhitā*,¹⁰⁷ and the first two "limbs" of the classical eightfold Yoga, *yama* (restraint) and *niyama* (observance), are among the things one must perform when using any one of the twenty-four varieties of the elixir *soma*, in Suśruta's compilation.¹⁰⁸ These references to orthodox brāhmaṇic ideology and to the systematic Hindu philosophies of Sāmkhya and Yoga occur rarely in the classical treatises of Caraka and Suśruta and reflect what is elsewhere explained as an orthodox Hindu veneer superimposed on a largely heterodox body of medical lore.¹⁰⁹

The blending of Yoga and Āyurveda in a single treatise occurs quite late and is not representative of

the medical tradition as a whole. The anonymous *Āyurvedasūtra* with the commentary of Yogānandanātha, dating from the 16th century C.E., contains sixteen chapters which attempt to connect Āyurveda with Patañjali's Yoga system. Both the text and the commentary attribute all diseases to indigestion (*ajirṇa*), brought about by the accumulation of undigested food (*āma*) in the intestines, yet the location of particular diseases in limbs or bodily parts is determined by the faint sounds connected to the limb or part and emitted by the patient. Treatment involves concentration (*saṃādhi*) and *prāṇāyāma*, and, in the case of diseases located in the limbs, bloodletting is recommended. Occasionally, oil massage and enemas are prescribed as remedial and preventive measures. Much attention is paid to dietetics, and foodstuffs are divided into three classes corresponding to the three *guṇas*, *sattva*, *rajas*, and *tamas*.¹¹⁰

Despite its title, the *Āyurvedasūtra* is a product of Yoga rather than of Āyurveda. It contains only the most rudimentary technical terms of the medical tradition (i.e., the three *doṣas*), and devotes most of its attention to specific aspects and doctrines of yogic praxis and their virtues in warding off and curing disease, and maintaining health.

Āyurveda and Yoga combine forces for the establishment of higher spiritual states in Ānandarāyamakhī's seventeenth-century popular dramatic allegory *Jivānanda*. Evil destructive forces of disease, headed by consumption (*yakṣman*) and jaundice (*pāṇḍu*), are aligned in a battle against the life-monoad (*jīva*). Jīva employs the forces of āyurvedic medicine to overcome the armies of disease and releases itself to pursue the perfect wisdom of Yoga by which it acquires the true knowledge of the essence of the soul and of the divine, and emancipation from all worldly sufferings and cares. At the end, Śiva imparts the central teaching of the treatise: "Only in so far as the city of the organism is maintained and firmly defended [through *āyurveda*], can Yoga unfold its magic power to the fullest degree conducive to the plenitude of transcendental bliss."¹¹¹

Although begun perhaps in the formulations of the *prāṇa*-doctrine reflected in earlier yogic treatises, the ultimate merging of Yoga and Āyurveda occurred quite late in the evolution of both of these Indian systems, and was accomplished by the proponents of Yoga.

¹⁰⁶ *CaŚā* 1.127–41, 150–51.

¹⁰⁷ *CaŚā* 5.17.

¹⁰⁸ *SuCi* 29.10.

¹⁰⁹ See Zysk, *Asceticism and Healing in Ancient India*, 4–5, 21–37.

¹¹⁰ See R. Shama Sastry, ed., *The Āyurvedasūtram, with the Commentary of Yogānandanātha* (Mysore: Government Branch Press, 1922), i–xv, and S. Dasgupta, *History of Indian Philosophy*, 2:436.

¹¹¹ Zimmer, *Hindu Medicine*, 71. The allegory is recounted and discussed by Zimmer on pages 61–71.

Teachers and practitioners of Āyurveda maintained the relative integrity of their discipline by avoiding involvement with Yoga and other Hindu religious systems. This same trend is witnessed at present, especially in the West, where Maharsi Mahesh Yogi's yogic discipline of Transcendental Meditation ("TM") actively embraces a modified form of āyurvedic medicine, while, in India, traditional Āyurveda maintains its classical approach to healing and preventative medicine.

Throughout its long history, the Indian science of respiration and the doctrine of the bodily winds developed under the influence of the ascetic traditions. In the beginning, they evolved as a unified doctrine among the mystics of the Veda. They then split, seemingly with

the separation of the ascetics, into a heterodox medical and an orthodox yogic system, both deriving their fundamental ideas about breath and bodily winds from a common source, and the two evolved individually for several centuries. Gradually, a unification began to occur, probably with the assimilation of medicine into the system of Hindu orthodoxy around the fourth or fifth century of the common era, and Yoga began to integrate medical ideas into its discipline and training. Today one finds that Yoga routinely employs the teachings and methods of Āyurveda in its spiritual exercises, while Āyurveda remains relatively free of yogic doctrines, principles, and techniques.

ABBREVIATIONS

<i>AB</i>	<i>Aitareya Brāhmaṇa</i>	<i>PraśnaU</i>	<i>Praśna Upaniṣad</i>
<i>AU</i>	<i>Aitareya Upaniṣad</i>	<i>RV</i>	<i>Ṛgveda</i>
<i>AV</i>	<i>Atharvaveda</i>	<i>Śā</i>	<i>Śārīrasthāna</i>
<i>BĀU</i>	<i>Bṛhadāraṇyaka Upaniṣad</i>	<i>ŚB</i>	<i>Śatapatha Brāhmaṇa</i>
<i>Ca</i>	<i>Caraka Saṃhitā</i>	<i>Si</i>	<i>Siddhisthāna</i>
<i>Ci</i>	<i>Cikitsāsthāna</i>	<i>Su</i>	<i>Suśruta Saṃhitā</i>
<i>CU</i>	<i>Chāndogya Upaniṣad</i>	<i>Sū</i>	<i>Sūtrasthāna</i>
<i>KapS</i>	<i>Kaṭṭhala Kaṭṭha Saṃhitā</i>	<i>SV</i>	<i>Sāmaveda</i>
<i>KaṭṭhaU</i>	<i>Kaṭṭha or Kāṭhaka Upaniṣad</i>	<i>TB</i>	<i>Taittirīya Brāhmaṇa</i>
<i>KauśU</i>	<i>Kauṣītaki Brāhmaṇa Upaniṣad</i>	<i>TS</i>	<i>Taittirīya Saṃhitā</i>
<i>KenaU</i>	<i>Kena Upaniṣad</i>	<i>TU</i>	<i>Taittirīya Upaniṣad</i>
<i>KS</i>	<i>Kāṭhaka Saṃhitā</i>	<i>Utt</i>	<i>Uttaratantra</i>
<i>MaitriU</i>	<i>Maitri or Maitrāyaṇī Upaniṣad</i>	<i>Vi</i>	<i>Vimānasthāna</i>
<i>MS</i>	<i>Maitrāyaṇī Saṃhitā</i>	<i>VS</i>	<i>Vājasaneyī Saṃhitā</i>
<i>MuṇḍU</i>	<i>Muṇḍaka Upaniṣad</i>	<i>YS</i>	<i>Yogasūtra</i>
<i>Ni</i>	<i>Nidānasthāna</i>		