

THE VITAL FORCE
IN HEALTH
AND DISEASE

Prof. S.K. Ramchandra Rao

The principle of Vital Force, animating not only the body of a living being but all thing in this world, is probably the oldest of human beliefs. The present book deals with the concept of Vital Force in Ayurveda, Chinese Medicine, Pneuma, Yunani, Tantra-yoga and Tibetan Medicine.

THE VITAL FORCE
IN HEALTH,
AND DISEASE

Indian Medical Science Series No.141

THE VITAL FORCE
IN HEALTH
AND DISEASE

Prof. S.K. Ramchandra Rao

Sri Satguru Publications
A Division of
Indian Books Centre
Delhi, India

Published by
Sri Satguru Publications,
Indological and Oriental Publishers
A Division of
Indian Books Centre
40/5, Shakti Nagar,
Delhi-110007
India

Email: ibcindia@vsnl.com

Website: <http://www.indianbookscentre.com>

All Rights Reserved.

First Edition : Delhi 2002

ISBN 81-7030-741-4

Printed at Chawla Offset Printers, Delhi 110 052

CONTENTS

1. INTRODUCTION	1
2. THE BACKGROUND	13
3. ĀYURVEDA	22
4. YIN-YANG	48
5. PNEUMA	55
6. YUNĀNI	61
7. TANTRA-YOGA	67
8. RGYUD-BZI	85

1

INTRODUCTION

The principle of Vital Force, animating not only the body of a living being but all things in this world, is probably the oldest of human beliefs. It is illustrated not only in the religious practices but also in the health care programmes, of all so-called 'primitive' or preliterate societies. Anthropologists have repeatedly referred to this 'error' of animism, encouraged by witchdoctors, medicinemen and sorcerers. However, they have also referred to the successful palliative of 'magical' treatments. Careful research has also shown that although the witchdoctor's treatment is primarily 'magical', it does not ignore empirical cause nor neglect to prescribe 'material' remedies (principally herbal).

It is important to recognize that while empirical causes are recognized (by way of symptoms being detected and distinguished), the witchdoctor perceived and emphasized the 'mystical' or 'magical' cause lying behind and beyond these empirical causes, and the treatment provided by his focussed attention on this latter fact. The 'gift' of healing consists not so much in eliminating the empirical causes as in correcting the mystical cause, which has somehow brought about the sickness and which also brought into being the 'empirical causes' manifested in the disease.

This naturally entailed what is called 'faith healing'. And much of early medical practices in all countries in the world involved 'faith' (on the part of the physician as well, as of the patient). Faith in this context was concerning the power of the Vital Force of the patient to heal itself at the instance of the healing Vital Force of the physician. And it has been admitted that early medical practices were by and large successful. Further, it has been recognized that success even in modern

medical practice is to a considerable extent the function of 'faith'.

The religio-magical medicine practised by the early witchdoctor came to be regarded as irrational, when science began to raise its head in the middle ages. The group of anthropologists led by E. B. Tylor has dubbed the early health practices as based on the 'animistic error', and it has highlighted the close connection between the indefensible religious practices and the empirical healing methods. Anthropologists, operating as spokesmen for the 'scientific spirit', have tended to perceive the replacement of 'magic' by 'logic', of faith by reason, of the shamanistic approach by the 'scientific' approach, in course of time as society became more civilized and sophisticated.

The reason for this replacement has not been sufficiently explained. The result of this replacement, however, has been eulogized as the most precious gift of science and technology to human weal; that our exclusive reliance on the 'scientific' approach in modern medicine has not delivered the goods is becoming increasingly apparent. Despite the most enlightened health care programmes and a phenomenal increase in medical practitioners, and in paramedical facility, diseases have multiplied, and spread more diseases are being classed as 'killer diseases', and human suffering has by no means been mitigated; adequate medicare for the whole of mankind is very much in the nature of a wild fancy. One begins to wonder whether the replacement is not really the replacement of one kind of ritual treatment by another kind of ritual treatment, both probably equally erroneous, the replacement of theological faith by technological ardour.

The replacement, however, is a fact. But the early medical practices worked, while their modern counterparts have not. This should prompt us to pause and consider where the difficulty lies. Early medical practices were justifiably part of religious cults, for both were based alike on the belief in the vital force or spirit in man, and the world around him. The spirit of man could be well or ill, wholesome or unwholesome,

3 *The Vital Force*

strong or weak. This was an important consideration in diagnosis, prognosis and treatment. The task of the early physician, who combined in himself the role of a shaman-priest, was principally to reinforce the spirit of a patient, and to exorcize all influences deleterious to the spirit. This he did, not only by magical abracadabra, ritualistic incantations and exorcisms, but also by the administration of drugs which were considered correct and potent so far as the sick spirit was concerned.

The employment of drugs alongside magical rites implied that the spirit or the vital force comprehended both the physical body and the mind. In the mind of the witchdoctor, as in the mind of the patient in early society, the prevailing notion was that of unity of life. Notwithstanding the 'primitive' knowledge of human anatomy and physiology, the 'primitive' man did not miss the wood for the trees. The parts of the body and the organs of function did not in any way jeopardize the unity of life, which was regarded as the operative counterpart of the spirit or vital force. The treatment, therefore, was directed at this unitary principle.

When during the middle ages in Europe, there was a sharp cleavage between the rational medical practices that were breaking new ground and the essentially Semitic religious sanctions that were already becoming obsolete, the first casualty was the belief in the spirit. Increased acquaintance with multitudinous anatomical parts and variegated physiological functions led the devotee of reason to attend to the details and forget the whole. Engrossed in the parts of the body, he allowed the unitary principle slip out of his vision. Reason, crystallized by the illustrious Descartes, had after all taught him that the body is a machine; and living as he did in this age of growing technology, he knew all about machines, how they worked, how they went wrong, and how they were repaired. Why should body be different? No machine had a vital force or spirit. Why should body have?

The approach of the so-called scientific medicine naturally became increasingly mechanistic and analytical. The emphasis

was on the observable and empirical details of the individual, healthy or otherwise, and the superempirical principle of unity was severely left alone, for it was altogether unobservable. It was becoming fashionable for intelligent people to espouse the cause of science, which they hardly understood, in preference to religion, which they failed to understand or appreciate; for the former was rational, while the latter was mystical and therefore irrational. However, the norms of normality were delightfully vague.

As the present century (dominated by science and technology) took shape, the appeal of the scientific thought (including the scientific method) and the lure of technology (which was inevitable for making money) for the common man are overwhelming. Medical practice, to be meaningful and profitable in this context, had necessarily to be 'rational' or 'scientific,' and must necessarily develop an appropriate technology. Obviously the assumption of a vital force or spirit could not be classed as rational, for it could not become an object of scientific investigation, nor could it be handled technologically. It was best to give it up!

The medical practitioners, in their eagerness and anxiety to be classed as a body of professional scientific workers (for that would mean prestige and thereby profit), loudly rejected the fact and utility of the concept of the vital force or spirit. They claimed to rely exclusively on empirical details, on their skill to handle instruments and appliances and on their knowledge of anatomy, physiology and pathology. They pretended that what they adopted (and began multiplying, refining and complicating indefinitely) was perfectly rational; heavy instrumentation that was involved in diagnostic methods was regarded as evidence enough for their absolute objectivity. Disease was looked upon as disturbed physiology; and physiology after all was a matter of interrelation of anatomical parts and their functions. The vital force could not figure in human anatomy, and its unifying function was not evident in physiology. Thus it was of no import to the rational medical practitioner.

5 The Vital Force

Once the unifying factor was left out of account, the multitudinous details assumed individual ascendancy, and medical practice disintegrated into numerous and almost mutually exclusive specialities. The body was little more than a bundle of parts, and each part posed a potential distress. That the body in actuality functioned as a whole, or that the disease, as health, is an attempt at general adaptation did not strike as significant to the mechanistic medical practitioner. He started with the presumption that the body had no wisdom of its own; that it had no healing powers of its own, and that the disease was a condition of the breakdown of the organism. This can very well be described as "therapeutic nihilism."

It is against this background that the significance of the work of Hahnemann can be realized. In his classic *Organon of the Healing Art* (the first edition of which appeared in 1810) he made this statement, which at that time was not only unorthodox in the medical field, but was regarded as outlandish:

"In the healthy condition of man, the spirit-like vital force, the dynamis that animates the material body, rules with unbounded sway and retains all parts of the organism in admirable harmonious vital operation as regards both sensations and functions, so that our indwelling, reason-gifted mind can freely employ this living healthy instrument for the higher purposes of our existence."

This indeed was a remarkable statement, for it postulated a principle that was at once superempirical and mystical, and it came from a qualified medical man trained in thoroughly rational methods of investigation. Of course, the concept of a vital force was by no means unknown, even in the medical field. Several earlier medical writers had hinted, although feebly, about the possibility of some such force operating within the body. And it was the main plank on which the witchdoctor worked, and folk-medicine had throughout implicitly believed in it. But after more than a century of "scientific medical work," that a prominent and intelligent medical writer should espouse its cause, and bring back the ghost, was remarkable!

Amongst the various accomplishments and equipment of Hahnemann, anthropology was not included, nor was Indology included. His writings do not provide evidence that he was conversant with the theories or practices of the witchdoctor or the shamanistic priest. Nor do we feel sure that he was acquainted with the Indian (or Chinese) theories concerning the vital force. This was rather unfortunate, for had he been acquainted with these two areas, the philosophy of Homoeopathy might have been on firmer grounds; and the kinship of Homoeopathy with Ayurveda might have been more profound.

This, however, is in parenthesis. It was doubtless Hahnemann's genius that suggested to him the enormous significance of the concept of vital force in general therapeutics. The statement, cited above, comprehends almost the entire picture of the vital force : 1) that it is a spirit; 2) that it is different from the body which could still be looked upon as a machine but vital to it; 3) that its main function is to co-ordinate and regulate the multiple factors that constitute the physical body so that functional harmony prevails; 4) that it is an active and proper instrument for mind; and 5) that there are higher purposes for our body-mind complex to strive.

The statement distinguishes between (a) 'the material body' (which is animated' by the vital force, hence called dynamis), (b) the 'indwelling and reason-gifted mind' (which employs this vital force), and (c) the vital force itself which is 'spirit-like,' 'living' and 'healthy.' The three together constitute what we call life. The statement also mentions 'organism', which consists of parts. While he has not spelt out what he means by the 'organism' or the vital force, it is reasonable to assume that he means by it the unity of the three factors distinguished above. For he writes again :

"No organ, no tissue, no cell, no molecule, is independent of the activities of the others, but the life of each one of these elements is merged into the life of the whole. The unit of human life cannot be the organ, the tissue, the cell, the molecule, the atom, but the whole organism, the whole man."

7 *The Vital Force*

This leaves us in no doubt as to the totalistic approach that was in the mind of Hahnemann. He is here challenging the tendency of modern medicine to regard part-structures and organ-functions as independent considerations, missing the wood for the trees. He hearkens to the fact that while for purposes of understanding it is helpful to think of the body, the mind, and the vital force as three units, it is the organization of the three that can truly be called the organism, the "whole organism."

Thus life, or man (in health or in sickness), is more a configuration (Gestalt) than an aggregation. Hahnemann makes it clear that we can speak of life only for the whole, and not for the parts severally. He speaks of the energy provided by the vital force for all the vital functions of the organism, and the providing of energy, in his outlook, is tantamount to the 'life-giving principle.' The enlivening of the organ, of the tissue, of the cell, of the molecule and of the atom is possible only through the vital force. Hence his concept of the vital force as "the guiding energy which governs and regulates all the organs and parts of the body." Without it, the material body or the indwelling mind is incapable of sensation, function or preservation.

Now two questions, no doubt of theoretical importance, arise:

(1) what is the source of this vital force ? and (2) if it is the dynamis, where is it heading ? All accounts of the vital force given by Hahnemann and his followers agree that the vital force is in the individual, that its primary function is to animate the individual material body. They even suggest that the vital force occurs in the individual as the ego ("the most intimate spark of the individual which is in itself the essence of the individual"), and therefore the individual is to be distinguished from all other individuals so far as the role of the vital force is concerned. There are thus as many vital forces as there are individuals. But the nature and function of the vital force are self-same in all individuals, despite their having isolate egos. The ego cuts up and keeps apart each individual

from all other individuals, and from all other beings and things in the world. How then is identity of nature and function of the vital force secured ?

The answer is simple. Because of the common source of all the multitudinous vital forces represented as so many egos in so many individuals. Here the philosophy of the vital force passes rather into the metaphysical realm; it may even be looked upon as mystical. The vital force (called by Kent 'the simple substance') is shared alike by all living beings and even minerals. In this sense, the individual is related to all other human beings and all living creatures, and is even tied to all life and all existence. Presumably it is this primordial, universal or fundamental vital force that is responsible for the evolution, growth and order in the world, for the harmony between the individual and the environment, and for the co-ordination of the material body and the mind in the individual. There is a hierarchial arrangement of the physical energy, dynamic energy manifest in the brain, and the spiritual energy as aspects of the vital force, each more general than the succeeding.

This question is closely related to the other question about the direction which the vital force is pursuing both in the world and in the individual. The ideological problem is answered by Hahnemann by referring to the 'higher purposes of our existence' of which the vital force is the 'living, healthy instrument.' And the higher purpose of our existence is in terms of maximal and possible improvement of ourselves and of all things around us. The improvement in turn is manifested by health in the individual and harmony in the environment. The vital force is directly concerned with this improvement.

The problem of health and disease should naturally be discussed in medicine in this limited context of the push on the part of the vital force towards improvement. Hahnemann writes:

"The material organism without the vital force, is capable of no sensation, no function, no self-preservation; it derives all sensation and performs all the functions of life solely by

9 *The Vital Force*

means of the immaterial being (the vital force) which animates the material organism in health and in disease."

He proceeds to point out that in disease, it is really the vital force (spiritual and self-acting) which is deranged. It is present everywhere in the organism and therefore the impact of the derangement is felt in all parts of the body and in all the organismic functions. Sensations become disagreeable, and the physiological processes incline to become irregular. This is what we call disease, the source of the derangement (which is primarily of the vital force) is some "morbific agent inimical to life," which may be called a disease-force, which acts primarily on the vital force. The symptoms by means of which the disease is recognized constitute the language of the vital force crying for help; that is how the vital force expresses its diseased condition.

It is important to note that the vital force is free and unhampered in its expression of health as well as of the diseased condition.

The symptoms of the disease are as freely expressed as healthy coördination of organismic functions. Hahnemann's concept of individuation of the vital force becomes supremely relevant here. Despite the generality of the vital force, each individual has claim to a unique personality, meaning thereby the establishment of a separate individual life depending on several factors including parentage, heredity, early influences and so on. It is this particularized vital force, characteristically and functionally different from all other vital forces, that governs the human economy in the individual when he is well or ill. When the vital force is disturbed, it is also uniquely disturbed in the individual.

The impact of the condition in which the vital force obtains in the individual is said to be exceedingly delicately adjusted all over the organism involving all the organs and physiological processes; and hence the course taken by the individual human economy in health as in disease is hard to predict. But the vital force may be relied upon to direct it with absolute precision. In disease, the symptoms are actually the unerring

and unhampered expressions of the unique vital force of the individual patient. Thus the disease-symptoms, albeit localized in discrete parts of the body, or manifested as pertaining to this or that physiological function, are dynamic expressions of the disturbance of the whole human economy guided by the vital force. They are then individual reactions to the dynamic disturbance and they reveal the individual tendencies of the vital energy. It follows that they ought not to be suppressed, for that will confound the diseased condition of the vital force.

Another consideration is that the vital force is constantly concerned with the maintenance of its normal healthy state and will doggedly seek to recover health whenever disturbed (*viz.* due to the onset of disease). The vital force is capable of restoring the disturbed condition on its own. The physician's job would be to reinforce the natural tendency of vital force to recover its normal healthy condition; any remedy must first be directed towards setting the vital force in order; for until the vital force regains its character of being the 'dynamis' there can be no cure. The ailment is really of the vital force, and the restoration must naturally begin there; when that is set right, it can manage the disturbances which are local.

I have refrained till now from referring to a confusion caused by the indiscriminate use by Hahnemann himself of two expressions : Dynamis and life-force. It would appear that the former expression was originally used by him to denote a power, life-power, in the sense of Kent's "simple substance" viewed objectively. The latter, as he used it in his earlier writing, is operational in connotation, in the sense of the function of the power, an action manifested in the "simple substance." While the early distinction was meaningful, he was not consistent or clear in making this distinction; nor did he make this distinction always. To add to the confusion, the sixth edition of the *Organon* (which was also revised) employs another expression, 'Vital Principle,' almost in the sense of a metaphysical postulate. Probably this expression was meant to comprehend ideas of both the power and force, but it does not become clear whether he subscribed to the view that the

11 *The Vital Force*

Principle was a substance, or to the view that it was a phenomenon. However, when we come across expressions like "the Vital force of the Vital Principle" (in the same edition of the *Organon*), it may sound reasonable to assume that he regarded the Principle more in the nature of a substance.

The supposition gains strength when we note that the principle (*Dynamis*) must exist prior to action, for action requires energy, and energy properly inheres only in an object, in some substance. Hahnemann makes life precede organization, and it produces, controls, regulates, synthesizes, corrects, and is responsible in general for all the vital functions (such as evolution, growth, preservation, reproduction and so on), which are aspects of general universal processes. The vital principle (or Life) in this sense can only be some primordial substance of universal significance (in Kent's words, "the Simple Substance"), and not an action or a condition.

Further, Hahnemann appears to hold the view that what he calls the vital principle is not 'mass-power' but 'an infinite number of egocentric sparks.' The expressions are vague but the underlying idea is clear enough. The vital principle cannot be construed as a solid, elaborate substance existing objectively and independently, enduring in time and occupying space beneath, above or behind the phenomenal world. In other words, it is not some sort of a divine or causal substance externally controlling the world, known to the religious as God. It is a power indistinguishable from the life-processes. Nor is it a mere summation of the multitudinous life-processes constituting the phenomenal world or individual life.

The power manifests itself in each of these processes in the individual, not as a part of some mass-power that is extraneous to him, but in its own right as so many modes of ego in the individual. It is present in every single cell that is involved in human economy and has an impact on the whole organism through all the parts and organs. The 'ego' which develops in the ovum unfolds itself consistently and continually into a unique individuality. The ego is itself a power which manifests

itself in a unique manner in all the actions, reactions, sensations, thoughts etc., of the individual in health as well as in sickness. As these processes are innumerable the expressions are irrevocably tied to the individuated vital principle, viz. ego. In this sense, they are 'ego-centric sparks.'

The point of interest is that these "ego-centric sparks" are extremely subtle and infinitesimal; quite different from, and contrary to, material mass. To operate effectively at the level of the infinite plurality of "ego-centric sparks", the remedy must also be appropriately rendered subtle and infinitesimal in quantity, viz. rid of material mass. That the decisive dosage of medicine must be minimal and infinitesimal (Finake) agrees with the mathematical law concerning the infinitely delicate balance of the vital force. The involvement here is of the principle that the energy is dependent not upon the material mass (or crude quantity) but upon the inter-relation between the positive and negative poles of the ultimate units of matter.

When Hahnemann spoke of the "Vital force of the Vital Principle," he probably had in mind three essential modes of action emanating from the substantial Dynamis : motion, direction and balance. Any action involving the expenditure of energy is a function of the Dynamis, for that is the powerhouse of all forms of energy. The concept of direction is illustrated by growth, development, unfoldment and so on. The success with which the action is carried out, or the effectivity with which the direction is maintained is ascertained by balance, which is a concept relating to harmony, co-ordination and organization.

2

THE BACKGROUND

Āyurveda, the history of which medical system goes back to several thousands of years, is distinguished by an elaborate and profound theoretical framework. Perhaps no other medical system in the world is thus equipped. The very word 'Āyurveda'



Dhanvantari

means the science or art (*veda*) of life or the vital force (*āyus*). The background of Ayurveda is to be sought in the Vedic literature itself, which is the earliest of human documents and the source of all Indian thought. *Rgveda* is replete with references to the life-force (*prāṇa* in singular) that animates the whole world (*viśvasya hi prāṇam jīvanam..*), and the life-forces that regulate individual life (*prāṇas* in plural) ; references are also there to the essential unity of the two. In the Upanishadic texts, we come across a more systematic account of the Vital Principle in its motivational, physical, biological, transactional, behavioural and spiritual aspects. In fact, the body and mind are themselves regarded here as the gross (*sthūla*) and subtle (*sūkshma*) modifications of the vital principle.

The importance of the idea of the vital principle has been accepted in all schools of Indian thought, including the materialistic Lokāyata and the nihilistic Buddhist schools. And the schools of philosophy (*Darśanas*) discuss the problem of the vital principle not as a divine mechanization, but as a phenomenal reality with an individual as well as cosmic involvement. Of these systems, Sāmkhya and Yoga which are essentially physiopsychological, have provided the major framework for Āyurveda. We find in these two systems an elaborate account of the life-principle in its physical, psychological and metaphysical aspects. They are founded upon the Tāntrik approach, which has a remarkable persistence in the country, and which has exerted an enormous, though not always obvious, influence on all the thought-structures and behaviour-patterns of our people.

The Sāmkhya system, which incidentally was the first systematic effort by the human mind to organize its appraisals concerning the physical world and individual life, starts with an initial dichotomy between the light of pure and undifferentiated consciousness (*purusha*) and the inert but ubiquitous matter (*prakṛti*), both however comprehended in the unmanifest, primordial unit (*avyakta*). The Sāmkhya system postulates the theory of evolution (*pariṇāma*) as a



Kapila the founder of Sāmkhya system
(Relief in Rock, Isurumuniya Vihara, Srilanka)

dynamic unfoldment of the twin aspects of the primordial unity into multitudinous details. The two aspects are consciousness and matter, but when they come together life emerges, energy is provided for infinite but directed proliferation into names and forms. Matter thus becomes enlivened, and consciousness gets materialized. Illustrations are given of the iron-filings becoming active in the neighbourhood of a magnet (*Sāmkhya-Sūtra* 1,96) or the iron becoming red-hot when put on fire (*ibid.*, 99).

The world, in other words, is a system ; it exhibits an orderly arrangement and sequential transformation. It is a play of three fundamental, primordial and ubiquitous tendencies of the *prakṛti*, namely the *guṇas* : *sattva*, representing 'being', *rajas*, 'becoming,' and *tamas*, inhibiting both these. Nature is nothing other than these three tendencies, but they are applicable equally to the cosmos and the individual. The dichotomy really is between the 'purusha' and the *guṇas* : and

the *guṇas* are basically only two, *sattva* and *tamas*, representing 'light' and 'darkness', 'Being' and 'Non-being'. Their interaction brings about the third '*guṇa*', as an emergent factor, *rajas*, which is change, movement, activity, force. The world is essentially a play of *rajas*.

The doctrine of evolution (*pariṇāma*) in the Sāṃkhya system implies the concept of equilibrium of the *guṇas* in original nature viz., the balance of *sattva* and *tamas*,) which is disturbed as a function of time by *rajas*. All evolutionary change involves the force of *rajas* pushing along differentially *sattva* and *tamas*, which together contribute the foundation or ground for *rajas* to emerge and operate. Incidental to this urge to evolve, there is a manifestation of the initial differentiation (as yet indefinite) into the subject and the object, the twin poles of all experience. This swelling or appearance of a manifest rustle in the quiet but luminous dark (*sattva-tamas*) of the unmanifest (*prakṛti*) is technically termed *mahat* ; also called *buddhi*, it suggests waking up to an undifferentiated objective existence. Alongside this awareness of the object, there is also an organization of the unmanifest into a subjective counterpart; the individualization of the undifferentiated and unmanifest *guṇa* duo (*sattva-tamas*) which represents the emergence of *rajas*. It is this initial *rajas* that the Sāṃkhyans call *prāṇa* (or the vital force).

In this thought, *buddhi* (the principle of awareness) and *prāṇa* (the principle of activity) are concurrent and coeval evolutes. Both together constitute the individuality. *Prāṇa* is not air-current ; nor is it a product of the air-element (*vāyu*), as the later Vedānta regarded it. It is a biomotor force, which is self-active, and an active counterpart to the *buddhi*, which is merely the principle of empirical awareness. The *buddhi* - *prāṇa* complex (which is an expression of *rajas*, the original *sattva* being retained in *buddhi* and the *tamas* in *prāṇa*) evolves the egoity (*ahamkāra*), which crystallizes the subjective framework for the individual.

The subjective framework as crystallized by the egoity (or subjectivity) operates in the individual as the bio-psycho-

motor principle, differentiated into mind (*manas*), which represents *buddhi* at this level, the five sense-functions (*jñānendriyas*), the five corresponding objective details (sensible factors, *tanmātras*, the essential vital framework of the world of objects), and the 'five organs' of actions (*karmendriyas*). The early Sāmkhya postulates power to perform (*kriyā - śakti*) common to all the five organs of action, corresponding to mind (or power to be aware, *jñāna-śakti*) which is common for all the cognitive organs. These sixteen factors that constitute the transactional individual are called in Sāmkhya thought *vikṛti*. The complex of eight 'factors' (the unmanifest or *avyakya*, the *buddhi*, the *ahamkāra*, and the 'five subtle' elements of objectivity or *tanmātras*) which constitute the individual is in fact an organization of these twenty-four factors (*tattvas*).

One can see in this analysis the nucleus of ideas relevant to all systems of thought in general and to Āyurveda as a practical system in particular. The distinction between the cosmic context and the individual context is not absolute. Both are alike creatures of *rajas*, and represent a play of *guṇas*. The *mahat* is also called 'power' (*śakti*), in Vijñāna-bhikṣu's interpretation of Sāmkhya (in his *Sāmkhya-Sāra*), and it is inclusive of *buddhi* and *prāṇa* which (together characterizing individuality) may properly be described as 'forces' (*prāṇa-śakti*). The individual in the true sense is thus an aspect of the cosmos ; the *prāṇa-śakti* (or the individual vital force) is an aspect of the *mahat-śakti* (the cosmic vital power). The latter is the unitary ground on which the vital forces individualized in living beings occur as figures.

Characteristic of individual vital forces is the systemic structuring into the focus factors that connect them to the foundational vital power (*śakti*); factors that facilitate the individual's transaction with the outside world (viz., sense-functions, organs of action and mind), and the factors that preserve the individual (i.e. the body, being composed of matter or *mahābhūta*). The first of these groups of factors illustrates *sattva*, the second *rajas*, and the third *tamas*. The



The Āśvins
(Divine Physicians)

body is thus an aspect of the cosmic vital power and an expression of the individual vital forces, only the most material of the forms assumed by the vital forces. And owing to this common framework, the Sāṃkhya system finds no justification in distinguishing between body and mind. Both alike are vital forces, the former dominated by *tamas* and the latter by *rajas*.

19 The Vital Force

It may be interesting to note that in Indian thought, three are the conditions in which an individual operates : (1) waking (*jāgrat*, viz. transactional; the physical body apprehending through the five organs of sense the physical world, and through five organs of action acting with regard to it); (2) dream (*svapna* viz., transactional or mental); and (3) sleep (*sushupti*) viz., the vital forces functioning in two ways, (a) preserving the body dominated by *taṃas*, and (b) connecting the individual forces with the cosmic vital power, by *sattva*. In all the three conditions, all three *guṇas* operate, but in the waking condition *sattva* prevails, in dream *rajas*, and in sleep *taṃas*.

With regard to the vital activities in the three states, the egoity (*ahamkāra*) is manifest in the first, immanent in the second, and suspended in the third. They may be likened respectively to the *ahamkāra*, the *maḥat*, and the *avyakta* phases of evolution. The point of interest is that the phases are repeated in every phenomenon, in every individual, in every action, even in every thought. It may also be mentioned here that in the Sāṃkhya system, *maḥat* is described as *māyā* (primordial productive principle), and it is said to be a composite of two factors, *buddhi* (individualizing awareness) and *prāṇa* (individuating energy).

These two together further evolve into awareness of self-identity (*vaikārika-ahamkāra*) and awareness of the objective world (*taijasa-ahamkāra*) in turn evolves into 'mind' (*manas*, awareness part of egoity) and power to act (*kriyā-śakti*). The former gets involved with the five organs of cognition, while the latter with the five organs of action. The former represents *buddhi* and *vaikārika-ahamkāra*, while the latter represents *prāṇa* and *taijasa-ahamkāra*. In the primordial condition, *puruṣa* and *prakṛti* are indistinguishable (and hence called *avyakta*); the condition of *maḥat* had *buddhi* and *prāṇa* as distinguishable (and therefore *vyakta*), but *prāṇa* is immanent in *buddhi*, and so not counted as a separate factor (*tattva*). Later, when from the egoity (*ahamkāra*) the sense-organs characterized by *buddhi* (awareness) and the organs of action

characterized by *prāṇa* (dynamis) evolve, mind (or *manas*) evolves along with them as the inner sense, characterized by both awareness and action (*ubhayātmaka*). While classical Sāṃkhya does not postulate the power to act (*kriyā-śakti*) as a distinct principle, it is included in mind, even as *prāṇa* is included in *buddhi*.

It is from the egoity (*ahamkāra*) stage onwards that we find the material and objective world, with which the individual has to transact. It may be recalled that from the *tamas*-dominated *bhūtādi*-aspect of *ahamkāra*, the primordial and subtle elements of matter (called *tan-mātra*) evolve, and they in turn give rise to the gross five-fold matter (viz., the material world). This is how the world of matter is explicitly devoid of *buddhi* and *prāṇa*, but is made up of the three *guṇas* (even as in the earlier *maḥat* stage), in common with the individual. However, while the objects of the material world (as also the physical body of the individual) are entirely composed of the *tamas*-aspect of egoity (*sattva* and *rajas* being insignificantly involved), the instruments of cognition and action at the disposal of the individual (viz., the five organs of sense-perception, the five organs of action, and mind) are predominantly *sattva* and *rajas*.

The import of this discussion is that the vital power (*śakti*) and the vital forces (*prāṇa-śakti*) are directly manifest only in the world of living things. The living individuals (organisms viz. plants, animals, birds and humans) have all the twenty-four principles that compose the universe, spelt out and differentiated, while the material of the external world of objects is made up only of the five gross elements (*mahābhūta*). And they are fashioned out of the five subtle forms of matter (*tan-mātra*), even as the physical body of the organism is. They only implicitly contain the *buddhi* and the *prāṇa* composing the *maḥat*. Thus, although the entire universe is the product of the vital power (*śakti*), the manifestation of this power is confined to living beings.

The involvement of the three *guṇas* in the vital forces represented by the ten faculties of cognition and action, mind

21 *The Vital Force*

and the five life-currents (*pañcha-vāyavah*) is also interesting. Among the faculties of cognition, hearing is predominantly *sattva*, sight *rajas*, and taste both *rajas* and *tamas*. Among the faculties of action, speech is dominated by *sattva*, locomotion by *rajas*, reproduction by *tamas* (viz., preservation), prehension by *sattva* and *rajas*, and elimination of waste by *rajas* and *tamas*. Among the five life-currents, *prāṇa* (outgoing or exhalation) is characterized by *sattva*; *vyāṇa* (pervading) by *rajas*, and *apāna* (inhaling or descending) by *rajas* and *tamas*.

3

ĀYURVEDA

For Charaka, the father of Indian Medicine, Āyurveda was a "Science of life" : It "instructs us about life". Suśruta, the well-known Indian surgeon of antiquity, on the other hand, suggests that Ayurveda is that "by which life is obtained or examined". Life in both definitions stands for health, or



Atreya, an ancient authority in Ayurveda.
From a Mahāyāna MSS (Hobogirin: Japanese-Chinese
Dictionary of Buddhist Terms)

diseaselessness (*ārogya*). And the basic postulate is that man is a vital conglomeration of physical elements, a living pattern of inert factors ; and when these elements or factors are properly balanced (*samyagyoga*) by the vital agency, it is beneficial (*hita*) and pleasant (*sukha*). The balance which is doubtless dynamic involves the sense-functions (*kalā*), sense-objects (*artha*) and the three-fold behaviours (*karma*, bodily, vocal and mental). Treatment (*chikitsā*) becomes necessary when the effective balance gets weakened (*hīna*) or distorted (*mithyāyoga*), owing to influences that weaken the vital force that by itself heals. While Ayurveda in theory concedes the curative value of Atharvanic practices (*daiva-vyapāśraya*), it advocates rational procedures like proper medicine, prevention of ailments or complications, beneficial diet, and favourable habits.

Although Ayurveda, owing to its Tāntric background, is committed to the body-principle (*deha-tattva*) and to the idea of making the body efficient (*kāyasādhana*), there is in it an acceptance of the vital power, which here has been called the 'Psyche' (*ātman*), a spiritual and animating principle (a dynamis), different from, and independent of, the physical body. The person (*purusha*) in health or sickness is regarded in this system as the frame of reference for all medical speculation, and the object of all treatment; he is a configuration (*samavāya*) of the physical body (including the sense-organs), the psychophysical mind, and the aforementioned 'psyche' which in fact organizes the others and itself into a single system in the manner of a tripod (*tridaṇḍavat*). The body is doubtless grossly material, made up of the five physical elements (*pañchabhūtas*) : space (or ether), air, fire, water and earth. Senses are sensitive sockets in the body made up of the same elements but in their subtle form. Mind is likewise physical, but exceedingly subtly so; and has a psychological involvement. It transcends the sense-faculties, and is, therefore, termed meta-sensory (*atīndriya*); the senses are activated by it, guided by it, and in that capacity, it is described as "supporting" or "providing the ground" (*adhishṭhāyaka*). The

'psyche' upholds, bears up, and preserves these factors ; and therefore, it is 'the upholder' (*dhārin*). In so doing, it actively binds the disparate factors into a single system; in other words, it is a designer (*anubandha*). Life (*jīvita*) is thus essentially an organization, a phenomenological unity (*samyoga*), characterized by the vital power (*Jīva* or *prāṇa-śakti*).

The individual person who is thus dynamic, and a product of psychophysical transaction, is known in Āyurvedic literature by two expressions : *Karma-purusa* (Charaka) and *Samyogi purusha* (Suśruta). The former word emphasises the activity aspect of the individual, while the latter the integrational aspect. Both words bring out the vital nature of phenomenological transaction, and the dynamic character of the individual. The person may be viewed as the 'field' of activity and also the dynamis providing motivation for all action, and organizing the physical factors that go to make up the psycho-physical complex. It is in this sense that it is described as 'one with a body' (*śarīrin*). While the 'psyche' is involved in this field as one of the factors, it is also the factor that animates and organizes, balances and heals.

Ayurveda explains the function of this factor which upholds the other factors (known collectively as the body-mind complex). The 'psyche', when active, excites the mind (*manas*) into action, for the 'psyche' is invariably associated with the mind (which incidentally is a doctrine peculiar to Ayurveda). The cognition occasioned by mind may not necessarily be of the external world, for, as explained by Charaka's commentator Chakrapāṇi, there can be no cognition of the external world without the participation of sense-organs. In the absence of sense participation, cognition of the 'psyche' as is occasioned by the mind alone persists. This is not transactional cognition, but what may be called introverted cognition (*ātmajñāna*), independent of objects (*nirvishaya*), indeterminate, unstructured and devoid of form.

But this introverted cognition is not to be construed in terms of *ātmajñāna* of the *Vedānta*. Here, it is purely a psychophysical process, only unstructured and indeterminate.

And Charaka specifically subscribes to the notion of psychophysical parallelism. And his doctrine of invariant association of mind with the 'psyche' would adequately explain also the formulation of the phenomenological person (*samyogīpuruṣa*), dominated by the 'psyche'.

Ayurveda's indebtedness to the Sāṃkhya school of thought has expressed itself in the concept of the subtle-body (*sūkṣhma śarīra* or *līṅgadeha*). Constituted by consciousness, ego, eleven senses, and five subtle elements, this body is said to survive the physical body at death, and transmigrate. It is like a little space no bigger than a thumb, yet pervading the entire body, even as a small lamp lights the whole room. This body is called 'līṅga' because it merges thoroughly (*līyate*) with the constitution, and is indistinguishable from the psychophysical complex.

In Ayurveda, the subtle body is composed of air, fire, water, earth and mind : it is exceedingly subtle and is carried over (*ātivāhika*). This is sometimes referred to as 'elemental consciousness' (*bhūtātma*), a mass of fine particulars integrated and directed by the 'psyche' (*jīva*). The individual as determined by this subtle mass of directions within is the *karma-puruṣa* whose disorders medicine seeks to correct. The subtle body is a substrate, a foundation, a ground for the psychophysical constitution to take shape, and also to function. The foetus is said to be formed as a result of the father's sperm (*śukra* or *sattva*) and the mother's blood (*śoṇita* or *rajas*) coming together, but not until the subtle body has migrated into this union, owing to the impact of the vital principle, namely the 'psyche.'

The subtle body, mind, heat-power (*agni*), watery contents (*soma*), breath *vāyu*, and the five senses (cognitive functions) are together described as the vital forces or currents (*prāṇa*), which are located in the one hundred and seven vital centres (*marmas*), of which head, heart and pelvis (*vasti*) are considered most important. Sensory and mental functions are associated with the head, while consciousness (*chitta*) is located in the heart. It is interesting that Charaka calls heart by the characteristically Sāṃkhyan word for elemental consciousness,

mahat. In heart it is that all modes of consciousness are gathered and all the vital forces or currents are centred.

Human constitution, according to Suśruta, is distinguished by the following functions : physiological functions (like breathing), reflex actions (like winking), sensory functions (*vishayopalabdhi*), intellectual functions like decision (*niśchaya*), inquiry (*vichāraṇā*), scrutiny and apperception (*adhyavasāya*). These functions are organized on the basis of a network of elemental modifications that work together to 'uphold' the body (*dhātu*).

There is a normal pattern that may be described as 'health'. When in this normal pattern all processes are properly balanced in an equilibrium, the flow is unitary and is at an even pace (*samayogavāhī*) ; the factors that 'uphold' the body, viz., the *dhātus*, are in their proper and natural proportions (*prākṛta-māna*) so that the balance (*sāmyāvasthā*) of the vital forces is maintained. When however, these factors are deficient or in excess, the balance of the vital forces is disturbed, and disease results.

Disease thus is essentially in the nature of departure from normalcy or disturbance (*vikāra*). There are forces within the body that make the body foul (*mala*), and disturb its normal processes. It is important to note that there are also forces within the body which strive to keep the body clean and its processes normal (*prasāda*). The aim of Ayurveda as a curative discipline is to strengthen the 'prasāda' forces against the 'mala' forces, both of which are equally vital. The struggle between them is normal and natural, and health or sickness is a necessary concomitant of this struggle. The job of a physician is merely to aid nature in its normal struggle, to help the vital power in the body so that the proper balance of the basic design in the body (*dhātu-sāmya*) is secured.

Important in Ayurveda is the notion of equivalence of the macrocosm (*brahmāṇḍa*) and the microcosm (*piṇḍāṇḍa*), inherited from the Tāntric tradition. The structure of the individual organism is essentially similar to the structure of the universe. This refers to the five primary elements (*pañchabhūtas*)

that enter into composition : earth (density, solidity), water (cohesion liquidity), air (expansion, movement), fire (heat, light), and ether (space, extension). The body is as material and physical as the world around it : its growth, maturation, decay and disappearance follow the same natural laws.

The primary elements combine and modify to produce and maintain the inorganic as well as the organic world. In the organic world, however, their modifications assume a particular pattern, best illustrated in the human body. But the Ayurvedic theory, applies equally to human beings as to the lower animals or even plants. There are not only branches of Ayurveda to treat elephants (*Hastyāyurveda*), cows (*Gavāyurveda*) and horses (*Aśvavaidyaka*), but there is a discipline which specializes in maintaining the health, and curing diseases, of plants (*Vṛikshāyurveda*). There are treatises written on these branches, and there is no doubt that these specialities were once actually practised.

Suśruta quotes an ancient opinion : The constitution (*prakṛti*) of human beings is physical : it is made up of air, fire and water. Of the five classical elements (the *pañcabhūtaū*) these three were held in high regard even by the Vedic poets who personified them as wind-gods (*maruts* or *vāyu*), fire-god (*agni*) and water-divinities (*varuṇa*). "The wind-god is the most powerful ; it is indeed the soul of all gods, essence of the very worlds, first-born of the natural order, king of the cosmos". The fire-god, of course, was the living divinity in a ritualistic society. And waters were "the causes of creation, " rich in *rasas*" and containing the 'liquor of immortality.' Perhaps this recognition follows an earlier thought-complex.

In any case, the five primary elements in the cosmos were supposed to be represented by these three in man. In the Tantra-Sāmkhya speculation, each of the elements is characterized by one or more of the three modes of being (*guṇa*) : *sattva* *rajas*, and *tamas*. The earth element is characterised by *tamas*, air by *rajas*, and fire by *sattva*. In the human body the air factor is composed of the elements ether

and air ; the fire factor by the element fire, and the water factor by the elements earth and water.

These factors are named in Ayurveda *vāta* (or *vāyu*), *pitta*, and *kapha* (or *śleshman*), characterised by the three modes *rajas*, *sattva* and *tamas* respectively. It is usual to translate these factors as *wind*, *bile (gall)* and *phlegm (mucous)*, following the humoral doctrine of the Greeks. While the Indian factors theory and the Greek humoral theory are not identical, we may



Agastya

take these expressions as meaning more or less what the Sanskrit terms connote, but with reservations.

These factors are the component parts of the functional system that we call a vital process or an organism. In their normalcy they support the body-mind complex, and therefore they are called 'dhātus.' But when they are thrown out of balance, or are excited, they can be troublesome. They become, in that condition, pathogenic and so are called 'doshas'. In Ayurveda, the expression 'dhātu' (elements or component parts) is confined to the seven physical and structural aspects : plasma-tissues or chyle (*rasa*), blood (*rakta*), flesh (*māṁsa*), fat (*medas*), bone (*asthi*), marrow (*majjā*) and sperm (*śukla*). And, therefore, the three factors that we spoke of earlier are generally, though incorrectly, called *doshas* (pathogenic factors).

It is essential to distinguish *dhātus* from *doshas* ; the former are physical and structural, while the latter are entirely vital and functional. *Dhātus* are body-constituents while *doshas* are behavioural motivators. It should, however, be noted that some authorities have taken even *dhātu* as not so much structural as functional aspects ; an even proportion of the *dhātus* (*dhātu-sāmya*), for instance, is interpreted in terms of satisfaction in sense-function (*pariṇāma*), a quality of chyle; a contribution to vitality (*jīvana*), a characteristic of blood; production of oiliness (*sneha*) representing fat ; support of the burden (*dhāraṇā*), namely bones; filling up of cavities (*pūraṇā*), the work of marrow; and reproduction (*garbhotpāda*) by means of the sperm.

Even then the *dhātus* are essentially specific in their function, and actually are bound with particular physical organs. The *doshas*, on the other hand, are rather abstractions. When *vāta* is referred to as 'wind,' *pitta* as 'bile', and *kapha* as 'phlegm,' they are not to be taken in their actual specific connotations. It would probably be nearer the Ayurvedic intentions if we regard them as the windy aspect, the fiery mechanism and the watery network in the organism respectively. But they are not merely philosophical expressions

without practical significance in the body. Their areas of function have been specified ; their ascendance periods have been noted; their excitation, deficiency and distortion have been described.

The *dosha* concept is really very old, as old as *R̥gveda* (1,34, 6 and 1, 12, 3), and probably older. We have references to 'wind' and 'bile' in *R̥gveda* itself, and 'phlegm' in *Śatapatha-brāhmaṇa*. The *Vinaya* texts (370-360 B.C.) contain the idea of *dosha* and *dhātu*. We find the three-*dhātu* theory in *Mahābhārata* (12, 343, 83-85).

We read in the *Atharva-veda* about 'bile' being the liquid fire (18,3, 5). Kātyāyana's *Vārttika* on *Pāṇini* (5, 1, 38) prepared about 300 B.C., mentions the appeasement (*śamana*) and excitation (*kopana*) of the three *doshas*. And there may have been different schools with regard to the nature and function of the *doshas*. There was a line of thought which regarded the *doshas* as merely discrepancies, as the expression really means, and counted the three factors mentioned above under *dhātus* (constituents). Suśruta, for instance, held the three as responsible for the formation of the body, with the active co-operation of blood (and sperm, according to his commentator *Ḍalhaṇa*).

Charaka, on the other hand, was inclined to emphasize that these factors are indeed agents of discrepancies and causes of all morbidity, quite distinct from the *dhātus*.

By the time, however, when Ayurvedic thought became crystallized, *dhātus* and *doshas* were regarded as structural constituents and functional factors respectively, of the human body viewed as the twin aspects of the vital principle (*jīva*), basic to health and source of disturbance. The notion of 'mala' as the group of waste products (faeces, urine, and sweat) that render the body foul unless they are promptly eliminated, highlighted the constituent elements that contribute to health (*prāsāda-dhātu*) and those that cause disturbance and disorder (*mala-dhātu*). The *doshas* in balance (*svamāna*) are bound up with the former, while out of balance they relate to the latter. The *dhātu* by itself is regarded as 'neutral', preserved or

destroyed by *dosha* and *mala*. This explains the paradoxical interpretation in Ayurveda of 'discrepancy' (*dosha*) as a constituent factor. The 'tridosha' theory is as valid in understanding normal health as in understanding pathology.

The factors (*dosha*) are said to depend upon *dhātu* and *mala* ; and when they themselves become errant, they disturb and pollute the latter too. They are essentially emergent and functional, although each of them is associated with different bodily areas and physiological functions. Each factor is in actuality a complex of processes working in a common direction, and resulting in a common benefit or disturbance. A *dosha* has its emergent aspect (*chaya*, arousal in its own specific area), excitational aspect (*prakopa*; overflowing from their own specific areas into other regions), and the normalization or tranquillization aspect (*praśamana*, returning to their own areas of action). Normal health involves necessary and sufficient arousal of the *doshas*. Disease is a result of excitation, and treatment consists in the normalization of the *doshas*.

The three constitutional factors are intimately interconnected in a complex network of behaviour patterns. In the life-span of an individual, early years are dominated by "phlegm", middle age by 'bile', and old age by 'wind'. During the first four hours of the day (morning), and of the night 'phlegm' will be in ascendance; the hours between 10 and 2 during night is the period of the ascendance of 'wind'. Ascendance of a factor is a natural phenomenon all through an individual's life and in all his activities. Even when he eats his food, for instance, in the beginning 'phlegm' will predominate, but when food starts getting digested, 'bile' will become important; and then 'wind' will take over.

The involvement of human constitution in the natural order is emphasized by the periodical ascendance of the three *doshas* in the several seasons of the year. In winter (*hemanta*, November-December), rains (*varsha*; July—August) and the cool season (*śiśira*, January-February) 'wind' is said to be the king ; in summer (*grishma*, May—June) 'bile' rules; and in

spring (*vasanta*, March—April), 'phlegm' dominates. The occurrence of diseases as well as their treatment procedures take into consideration the individual constitution with reference to the ascendance of the factor and the time of the year. Health is considered to be the result of a proper balancing of the factors (*sama-dosha*), for disease is symptomatic of an imbalance in them (*dosha-vaishamya*).

In the body, the area of arousal of 'wind' is below the navel (between the pelvic region and the rectum), the area of 'bile' is the region between the heart and the navel (mid-stomachic region and the small intestine); and the area of 'phlegm' is the region about the heart (chest and throat). While 'wind' fills all the interspaces in the body (like bladder, intestines, ear, skin etc.) bile' is active in liver, blood, spleen, heart, eyes and skin; and 'phlegm' in the upper parts of the stomach (*āmāśaya*). 'Wind' is related to the element air, 'bile' to the fire element and phlegm' to earth and water.

To repeat what was said earlier, the three factors in the body are comparable to the three principal elements (air, fire and water) in the cosmos. And they represent the *rajas*, *sattva* and *tamas* modes of being respectively. Of these, 'wind' is the most important factor; it is the prime mover. It is the vital current. It is because of this factor, that the other two factors become active. But the 'bile' factor (fire in the body) is principally associated with digestion, and there is a school of Ayurvedic thought that regards all ailments as fundamentally due to indigestion. But even this 'fire' is fanned by wind.

Because of the excessively unstable nature of the 'wind,' the factors get frequently thrown out of balance. Disturbances of the factors are thus inherent in nature. Causes of health, they can be causes of trouble also. What is important in health or in disease is the particular organization of the factors, for the three factors always function together, although they occur in varying proportions and intensities.

The combinations and the ascendance of the factors in the constitutions are responsible for personality types (*prakṛti*), which also determine the types of disease one is prone to.

Ayurveda speaks of the 'pure wind - type' (*śuddha-vāta-prakṛti*), the 'pure bile-type' (*śuddha-pitta-prakṛti*) and the 'pure phlegm-type' (*śuddha-kapha-prakṛti*). There are types in which the mentioned factor is obviously on the ascendant, the other two being subordinated to it.

But pure types are rare ; more frequent are the mixed types. Although this classification was originally made with reference to the pathogenic factors only, it assumed a general significance in course of time. When two of the factors combine in equal proportion to determine a type, it is called 'pair-determined' (*dvandvaja*). And when all three factors are involved more or less significantly but not equally, the constitution is miscellaneously assorted (*samnipāta*).

When, however, the three factors combine in equal quality and strength, the type is perfectly balanced (*sama*). The ascendance tendency of the factors commences even at the foetal stage of development and becomes settled in late childhood. Influencing factors include heredity (*kula*), vocational affiliation (*jāti*), climate and country (*deśa*), age (*vayas*), and 'the inclinations of the subtle body' (*vāsanā*).

The 'wind' as a factor sustains the entire bodily system, the physical machinery as well as the physiological functions (including psychological process). Efficiency of the sense-organs and alertness of mind are alike dependent upon it. When associated with *rajas*, it is described as red in colour, productive of energy and highly unstable (or constantly in motion). Dryness, lightness, instability, cold, roughness and solidity are given as its characteristics.

In function it is five-fold: 'forward breath' (*prāṇa*, the breath that governs respiration and prevails in the whole body from toe to nostrils, but especially located in the head and moving in chest and throat contributing to mental alertness and sensory efficiency); 'downward breath' (*apāna*, prevailing in the lower regions but moving in navel, intestinal canals, sex-organs and legs, contributing to production of sperm, and responsible for expelling faeces and urine); 'pervading breath' (*vyāna*, prevailing in the heart but pervading all over the body).

characterised by great speed in circulation, making for sensory-motor functions, blood circulation, reflexes like winking, all sensory perceptions and distribution of the vital sap to all parts of the body); 'ascending breath' (*udāna*, prevailing in the chest but moving in throat, nostrils, palate, skull and navel, responsible for speech, intentions, energy, strength, memory and complexion); and finally 'equalising breath' (*samāna*, prevailing in close proximity to the 'stomachic fire' and moving in the digestive organs, navel and the joints helping digestion and assimilation).

The concept of multiple vital forces, as was mentioned earlier, is an old one, perhaps pre-Vedic. Ayurveda has defined the vital functions as well as its anomalies. When 'wind' as a factor is excited, sensory function is weakened, insensibility for touch sets in, pain in body is felt, constipation results, one feels thirsty and restive, palpitation and trembling are noticed, and one gets weak, and is emaciated.

The constitution that is dominated by this factor, known as '*vāta-prakṛti*' is identified by several physical and psychological traits. Scanty hair, a lean and fragile figure, high body-temperature, dry skin, dark complexion and low voice suggest this type. The person belonging to this type has a weak constitution and has frequent trouble with his digestion ; his resistance is low and immunity poor, with the result that he is often sick. His ailments are mostly of the nervous system. His intelligence, however, is above average and receptivity high ; he is imaginative. But he is likely to be nervous, timid, suspicious, jealous, quick in his likes and dislikes, fickle-minded, and rather talkative. He is a light sleeper, and when he dreams, he soars in the sky.

The second factor *pitta* (bile) is described as 'bodily fire' (*dehāgni*, *kāyāgni*). According to Suśruta, this is the only 'fire' in the body. It cooks all that we eat and is responsible for warmth, digestion and metabolic changes. The concept of bodily fire is a collective one; it includes 'cooking heat' (*pāchakāgni*), the five elemental fires (*bhūtāgnis*) and the fires of the seven constituents (*dhātvaṅnis*); covering enzymes and hormones of metabolism. It is described as a hot yellow fluid

35 The Vital Force

exuding an unpleasant odour; it is the 'fiery liquid'.

The five-fold aspects of this factor are: 'cooking' (*pāchaka*, prevailing in the midregion between the upper and lower parts of the stomach, composed of the five elements, responsible for assimilation and digestion, and contributing to the other *pittas* in the body), colouring (*rañjaka*, prevailing in the upper parts of the stomach where undigested food is received, liver and spleen responsible for the conversion of chyle into blood), 'realizing' or 'accomplishing' (*sādhaka*, prevailing in the heart, and responsible for intellection, memory and self-regarding), 'perceiving' (*lochaka* or *ālochaka*, shining in the eyes and responsible for visual perceptions), and 'irradiating' (*bhrājaka*, lustre-giving and illumining, occurring as a quality of the skin as complexion). When this factor is excited, one is dejected, feels thirsty, sweats much, and may even faint ; there appear on the face pimples and there is excessive heat within the body.

The constitutional type determined by this factor is characterised by good appetite and good digestion, unsteady muscles, loose joints, glowing complexion and premature greying. The body of the person of this type tends to be soft and odorous. He frequently has burning sensations in parts of his body, and his urine is often high in colour; his eyes too have an yellowish tinge. His sleep is easily disturbed. He is intelligent, and inclines to be imaginative. He is irritable, impatient and rather boastful. He is proud, sometimes haughty; he is prone to anger, and can be cruel. His perserverance however, is poor, and his moods change quickly. His dream-contents reveal association with heavenly bodies (sun, moon, and stars). He has greater stamina than the previous group, but is susceptible to ailments of the digestive system.

The third factor, *kapha* or *śleshman* (phlegm), is related to the earth and water elements and to the *tamas* mode of being. Therefore, it inclines its possessor to heaviness, dullness and indolence. Its main function appears to be to neutralise the heat that is produced by *pitta*, which would otherwise burn the system down. It also unites the joints (and that is why it

is called *śleshman*, from the root 'ślish,' to connect), and eliminates friction. It is this factor that gives firmness and strength to the body, and also the capacity to resist disturbances within the organism.

Its five-fold functions are : permeation of the entire body with watery essence (*kledaka*, moistening, with stomach as its principal centre and enhancing the activity of the other phlegm centres), supporting the action of the heart (*avalambaka*, located in the chest, imparting energy and strength), salivation etc. (*bodhaka*, chief centres being throat and tongue, ensuring gustation), co-operations (*śleshmaka*, located in the joints, uniting them firmly and lubricating), and cooling the sense-organs (*tarpaka*, located in the head, and favouring all sensory activities). When this factor is excited, the body becomes dense and hard, with a tendency towards cold and numbness of limbs ; digestion is disturbed, and sleep becomes excessive ; there is an inclination to be drowsy and the skin pales.

This constitution, being dominated by the element of lubrication and integration, is distinguished by the body which is a well integrated mechanism. Persons belonging to this type are endowed with robust physique, well-proportioned and rather heavily built. They are inclined to obesity, vigorous in sex-activity, courageous, and free from envy and greed. They are the healthiest of the three groups and their powers of endurance are great. They do not sweat much ; their gait is firm and their steps even. Their digestion, however, is rather weak. Their sleep is heavy and not easily disturbed. When they dream, it is usually about watery stretches like lakes and rivers. When they do fall ill, the ailments are usually of the respiratory and lymphatic systems. Dominated by *tamas*, their temperament tends to be indolent and indulgent.

Interesting in Ayurveda is the consideration of another aspect of the vital principle, of what is known as 'the stomachic fire, (*jātharāgni*) or the bodily fire (*kāyāgni*, according to Bhela). That there is a fire within man that keeps him alive and active is indeed a very ancient notion, by no means peculiar to Indian people. That the organism is enlivened

by a mysterious fire that glows within concealed in the dark recesses of the heart is a belief that is almost universal. Vedic literature contained this notion : this panhuman fire (*agnir—vaiśvānarah*) inside man by means of which the food that we eat is cooked. The association between fire and water is likewise an old belief. The Veda considers fire as the descendant of water (*apām napāt*) ; there is mention of the fire of the clouds. Ayurveda developed this ancient idea into a clinical concept.

Within the stomach, at a distance of about two inches from the navel, to the left in men and to the right in women, is supposed to be the seat of this fire. Although small like a grain of paddy or of barely, it lights up the whole being and its heat pervades the entire body. In obese persons it is said to be of the size of a barely-grain, while in slim persons it is atomic in size. It is present in all living beings ; in minute organisms (like flies and insects), it is like mere air. Another view locates this fire in the mystic space within the heart-lotus (*dahara-puṇḍarika*), extremely subtle and yellowish, flaming like a light. A third view regards it as a spring of sour water located in the visceral cavity. Bhela records Ātreya-Punarvasu's view: The bodily fire which is of the nature of heat (*ushṇa*) and light (*tejas*) digests the food we eat. Even as the sun quickly dries up the pouddle and small water holes by his rays, the fire in stomach digests all food that enters.

This is the principal agent not only in cooking (*pāka*) but in 'specially' cooking (*vipāka*) so that the food is absorbed into body tissues. It is responsible for the transformation of what we eat into organic juices (*rasas*), which are the primordial substances of the organism, and the essence of which is water. Charaka cites the opinion of the ancient 'vāryo-vidas' : "Organisms are born of *rasa* and so also are the various diseases, because waters are rich in these juices, they are the causes of creation." Bhela makes the position more explicit : "The heat residing, in the organic juices in the body, continues gathering up life ; man is after all born of these juices, and therefore it is the juices that go by the name of



Agni
(From Khajuraho)

life." One is reminded of the Vedic description of fire as the descendant of water (*apām napāt*).

That the stomachic fire is intimately connected with the fiery liquid, bile (*pitta*), is also to be considered in this context. Bhela speaks of the five-fold functions of this fire; but his explanations are more intriguing and psychologically significant.

Perceiving (*ālōchaka*) as a function of the stomachic fire is two-fold, according to Bhela ; one is specialized in the visual

apparatus, and the other covers general consciousness. The former generates knowledge by the contact of the sense-organs with ego and mind, while the latter located between the eyebrows on a mound (or at the road-cross), is responsible for the subtle thoughts which are not only prehended, but retained, remembered, recalled, and projected as occasions demand. Irradiating (*bhrājaka*), in Bhela's opinion, refers to the specific characteristics and functionings of the various organs in the body. Colouring (*rañjaka*) is appropriating the external sense-objects as one's own, because of the age, and inclining towards them with an emotional set. Performing, realizing or relating (*sādhaka*) refers to the achieving of the proximate and distant objectives. Cooking (*pāchaka*) digests the various kinds of food eaten ; it is a physiological function, but with a mental involvement.

Bhela's analysis opens up an interesting mass of psychological speculations (dealt with by the author later in this section), but it is sufficient here to note that Bhela preserves an old tradition concerning the association of the stomachic fire with waters within the viscera. He likens it to a lamp that is placed in the hollow of a bitter-gourd (*ikshvāku-kosha*) and set floating. When the water is undisturbed, the lamp burns steadily; but when it is disturbed the lamp is no longer steady and constant.

All the three essential factors (*vāta*, *pitta* and *kapha*) are involved in this fire. They determine its nature, although it is the fire that burns by its own fuel. The excitation or disturbance in the factors brings about changes in the fire. An excitation of the 'wind' will produce irregular fire (*vishamāgni*); an excess of 'bile' will intensify the fire (*tikshṇāgni*) and when the phlegm is excited we have the sluggish fire (*mandāgni*).

The changes in the fire have their direct impact on the digestive process. When, however, the three factors are evenly distributed in the body, the fire will be steady and even (*samāgni*), which makes for sound health. Life in fact rests on this fire. Our strength, vitality, health, pleasures and sorrows

are all rooted in this. The warmth (*ushṇa*) that makes man alive indicates the presence of this fire ; when it cools, he dies.

The Ayurvedic concept of stomachic fire is an important aid in reconstructing the early phase of *ātmavāda* or the doctrine of soul which matured in the Upanishads. The *śāktivāda* of the Tantras is undoubtedly related to it. The five fundamental elements (*pañchabhūta*), the three constitutional factors (*tridosha*), the seven essential substances that emerge from the organic juice (*rasādi-sapta-dhātu*), the three modes of being (*guṇa*), the intra-organic energetics and psychological integration are all involved here.

The notion of the fire within the visceral waters appears to hold the key for understanding the transitional stage between the old Tantra culture and the classical Vedic tradition. Being a practical discipline, Ayurveda was interested in understanding the causes of disturbances of the fire as well as in the methods of restoring its normalcy. The Ayurvedic regimen and treatment procedures are meant to calm the waters within (and this signifies the purification of the constitution (*sattvaśuddhi*) so that the fire in it retains or resumes its natural glow; and this is the prototype of the Vedāntic getting back to the original nature (*svarūpāvasthānam*). The importance attached to nature (*sva-bhāva*, being in one's own natural mode) in Ayurveda is to be considered in this context. Health is significantly termed "abiding in oneself" (*sva-stha*), composure, being at ease, comfort. This refers to the even and steady fire in the still waters, deep within the constitution. The early Sāmkhyan concept of *purushāvastham-avyaktam*, already explained in a previous section, has probably relevance here. The state of equilibrium (*sāmyāvasthā*) of the Sāmkhyan school of thought and the process of perfect settling down (*samādhi*) of Yoga are no doubt intimately related to the even fire (*samāgni*) of Ayurveda.

Of the early medical authorities in India Charaka and Suśruta achieved great celebrity, and have held the field in Āyurveda till our own day. Although the problem of their

historicity has still not been laid at rest, the *Samhitās* ascribed to them have been regarded as unquestionable authorities by all subsequent medical writers and physicians of the Ayurvedic persuasion. These two treatises merited redaction, reconstruction, annotation and commentaries by such eminent personages as Nāgārjuna, Ḍalhaṇa, Chakrapāṇi and Chakradatta, and even the great Patanjali is said to have commented on *Charaka-samhitā*. We do not know the exact circumstances in which earlier writers like Bhēla, Hārīta, Kshārāpāṇi and Parāśara belonging to the Ātreya school of Charaka, Aupadhenava, Aurabhra, Paushkalāvata, Vaitaraṇa and Gopurarakshita of the Dhānvantara School of Suśruta were forgotten and their works lost. Charaka himself has written that Bhela and other disciples of Ātreya wrote their own 'tantras'. How did they all disappear? There is an intriguing statement by Vāgbhāṭa, who mainly favours Charaka and Suśruta, although he cites the views of Bhela and Hārīta in his *Aṣṭāṅgahr̥daya*:

ऋषिप्रणीते प्रीतिश्चेन्मुक्त्वा चरकसुश्रुतौ।
भेलाद्याः किं न पठ्यन्ते तस्माद् ग्राह्यं सुभाषितम्॥

It becomes clear from this reference that already about 1200 A.D. Bhela and other pre-Charaka authorities were no longer consulted by medical students, whose studies were confined to Charaka and Suśruta. The reason suggested by Vāgbhāṭa is not, however, clear.

Āyurvedic tradition makes *Charaka-Samhitā* a reconstruction of an earlier work by Agniveśa as is evident from the colophon इत्यग्निवेशकृते तन्त्रे चरकप्रतिसंस्कृते। and this Agniveśa was a disciple of Ātreya, who in his turn was a student of Bharadvāja. It is impossible to identify who this Bharadvāja was, and about Ātreya we are not sure if the mere Ātreya, Kṛṣṇātreya, and Punarvasu-Ātreya that are referred to in the *Samhitās* of Charaka and Bhela were different persons or were different names of the same person. Chakrapāṇi, the commentator on Charaka, however, refers to an old tradition

that it was the same person. Whatever the truth, both Charaka and Bhela cite his views with a hush of reverence, and frequently affiliate themselves with his school of thought. Expressions like इत्याह भगवानात्रेयः, इति हस्माह भगवानात्रेयः occur again and again. Ātreya must doubtless have been a very great master of medicine, and naturally the therapeutic medicine. *Kāyachikitsā* in this country is claimed to be his formulation. There is a suggestion that he was a Buddhist; but we cannot be sure. He had several students like Agniveśa, Bhela, Hārīta, Kṣhārapāṇi and Jatūkarna, each of whom, according to Charaka, prepared a corpus embodying the master's teachings. While these works have been lost, it is fortunate that Bhela's corpus (*saṁhitā*) has survived the ravages of time, albeit in a mutilated and fragmentary manner.

Due to an unknown reason, Bhela (as others) lost favour with the physicians, and his compendium ceased to be studied. This explains the unfortunate circumstance that we have today but a solitary manuscript of *Bhelasaṁhitā*, that too incomplete and worn out. This manuscript, written about 1650, in Telugu characters was discovered in the Tanjore Palace library (Burnell's catalogue No. 10773), and Hoernle got it copied in 1905. Asutosh Mookerjee got the manuscript again copied twice, and these transcripts formed the basis for the first edition of *Bhelasaṁhitā* in the *University of Calcutta Journal of the Department of Letters* (Vol. VI) in 1921. Aufrecht had noticed another manuscript of this work in a Lahore collection (Catalogus Catalogorum, No. 416), but subsequent search for it by Hoernle was futile. A manuscript of the same work was announced among Kieth's finds in Turkistan. However, the Tanjore Mss. is our principal material. In recent years, the Chowkhamba Vidyabhavan of Banaras has brought out another edition of *Bhelasaṁhitā*, based principally on the Calcutta Edition but giving better readings and emendations (ed. Girijadayalu Sukla, 1959).

As the principal manuscript of Bhela that has reached us is badly damaged, especially in its initial portions (the first three sections and a part of the fourth section are missing),

it is difficult to identify the author's personal details, philosophical leanings or religious affiliations. In the portions that are extant *dēvapūjā*, *svastyayana*, *bali*, *māṅgalyahoma* are found prescribed, thereby suggesting that the author belonged to the Vedic tradition: but we cannot be very certain. He makes an explicit reference to a contemporary prince, Nagnajit of Gāndhāra, whom *Śatapatha-brāhmaṇa* and *Aitareya-brāhmaṇa* also mention, equally specifically. Bhela therefore lived during the early Upanishadic period, several centuries before the present era. Vedic tradition as we know it in the classical period had not as yet got crystallised when Bhela lived. There is close agreement between Charaka's views and Bhela's views on several important details of medical theory and practice, and therefore it is likely that Bhela also subscribed to the early Sāṃkhya of the Pañchaśikha type.

The general orientations of Bhela with regard to the basic ideas of Āyurveda are the same as those of Charaka and Suśruta: the theory that the organism is made up of five elements (*pāñchabhautika* theory), the concept of component parts (*dhātus*), the notion of the basic modes of being (*guṇa*), the factors of equilibrium and sources of disturbance (*doshas*), and the pathogenesis. But there are some notions which appear peculiar to Bhela. The fragmentary nature of the manuscript is all the more regrettable when we find that even in the extant portions there are highly interesting suggestions. An attempt at partial reconstruction may, however, be made.

Bhela's ideological position seems to be based on the type of Sāṃkhya that was prior even to Charaka. He speaks of a strongly materialistic nature (*prakṛti*) which is seven-fold: the five ultimate constituent elements (*mahābhūtas*), the consciousness that is unitary (*mahat*) and the unmanifest (*avyakta*). To this conglomeration he adds the nature of things (*svabhāva*) and time in the sense of seasons (*kāla*) as causative agents. All organisms are produced from them, and return to them at death. The senses, the sense-objects as well as the understandings arising from their contact do likewise. The human being is composed of six material elements, five of

them being the elements (space, air, fire, water and earth) and the other the unmanifest *brahman*.

Bhela employs the expression *purusha* only in the sense of a human being, as is the case with the later Vedic texts. We may note in this connection that Charaka takes the word to mean pure consciousness, in line with later Upanishadic thought; he equates this with *chetanā*. Bhela uses the word *chetanā* in a different sense; for him it is not the idealistic pure consciousness, but the concrete organic awareness invariably associated with vital functions. That is why he locates *chetanā* in the heart. It would appear that Bhela regards understanding (*buddhi*) as a function of this *chetanā*. The unmanifest *brahman* that Bhela speaks of as involved in the human being probably refers to the consciousness which is not tied to the organism. For he refers to the settling down of mind and understanding in the *brahman* at the time of death when the material components return to the respective elements. The expression *brahman* occurs in another context: while dealing with the phenomenon of sleep. Bhela thinks that it is an arrangement of *brahman* (*brahmaṇā vihitā purā*): what he means probably is that it is an old order established by nature. There is also a reference to *bhūtātma*, the elemental soul involved in transmigration.

Bhela's employment of the expression *buddhi* is clearly in the sense of understanding, determinate and concrete. And it is a function of *chitta*, which is more general but indeterminate although concrete. It is *chitta* that is responsible for all understanding (*buddhi*), for all action in the individual, for all his feelings. *Chitta* and *chetanā* are interchangeable expressions for embodied consciousness that supports the individual's individuality, identity and uniqueness: this is the function that is centred in the heart. Bhela distinguishes between *buddhi* as understanding and *manas* as mind.

Mind, according to him, is localised in the brain; and Dasgupta is right when he says that this is a unique view in the field of Sanskrit literature. Mind's centre is said to be the area between the head and the palate (*śirastālvantaragatam*).

It concerns itself with all senses; and due to its location it can apprehend all details obtained by the sense organs. Both the senses and the mind alike are sustained by the *chitta* situated in the heart. The understanding (*buddhi*) in the form of judgments arises when the mind 'knows' (*viditam*) the *chitta* and the choice of action is actualised. Here, 'knowing' may mean inward direction or introspection.

Bhela is here discussing the problem of motivation in action. Mind initiates the consideration of the object with regard to its desirability, urgency, and possibility; understanding is in reality an evaluation and decision-making. It is called 'buddhi' because it instructs (*bodhanam*) the man about what to do and how. In its *chitta* aspect (aspect of undifferentiated consciousness) it is in fact the 'embodied soul' (*śarīrī*), the highest spirit (*paramātmā*), and the main director of all behaviour. Mind's field is more limited: it is responsible for cognitions.

There is an interesting discussion in *Bhelasamhitā* on what he calls *unmāda*, which is a general expression for mental ailments (Nidānasthāna, sections 7 and 8). Bhela is definite that these ailments are all bodily in origin, confined to the body, and harm the body itself, even as fire destroys the very things that support it. This somatopsychic approach is remarkable, considering the age in which Bhela lived. The disturbances (*doshas*) which occur in the area between the head and the palate, viz., the brain, will first affect the mind and immediately it is transmitted to the *chitta* (basic consciousness which is also vital), and when *chitta* is thus touched, understanding (*buddhi*, judgment) is destroyed: the person would then not know what to do and what not to.

There is also an attempt to fix the causes of such disturbance in the *chitta-manas* complex: grief, anger, excessive delight and insecurity (loss of wealth) are mentioned as causes. As a result of this disturbance sets in insanity. The individual so disturbed is preoccupied, he cries without a reason, he laughs all on a sudden, he becomes reticent, he is excessively sleepy, he loses energy and enthusiasm, he is frightened, he feels

helpless, or he is irritable. It is interesting that Bhela recommends various ways of shocking the mental patient like caning, whipping, confronting him with elephants or snakes, surrounding him with fire, and throwing cold water on him. Bhela has also a theory: shocks such as these would intensify the disturbances in the mind because of fear, and fear may set the mind in order even as it throws it out of order.

Equally interesting is Bhela's treatment of dysentery as a psychosomatic ailment: disturbances in the *doshas* could be occasioned by fear or grief, and they are treated by reassurance by friends or wise folk in whom the patient has trust; relief is to be obtained by relaxing the mind.

The problem of the manner in which the mind can enter into contact with the vital and pure consciousness has been raised by Bhela. How does the mind cognise the objects that are presented to the senses? Bhela answers that the bodily fire (*kāyāgni*) has five varieties one of which is perceptive (*ālochaka*). This is considered to be one of the functions of fire-element in the body known as bile (*pitta*). According to Bhela, this function is two-fold: vision-specific (*chakṣurvaiśeshika*) and understanding-specific (*buddhivaiśeshika*). The former occasions knowledge by bringing the mind into contact with *chitta* (—Bhela uses the expression *ātmā* here —) and also projecting the mental details on the plane of consciousness. This makes visual experience properly structured so that different details are both separately apprehended and integrated. This function is centered in the eye, as it is the principal sense-organ. The latter is located in the area between the eyebrows; it grasps the subtle details that one has apprehended, organises what one has grasped, integrates what one has organised, with reference to past experience, remembers what is past and imagines what is in the future. This function is involved in planning our actions, focussing our mind, and gathering our thoughts.

In his discussion on sleep, Bhela points out that when sense-functions cease mind also ceases, so far as perceptions are concerned; in this condition mind settles in the

47 The Vital Force

undifferentiated consciousness (*chitta*) in the heart. The individual being (*jīva*) is overcome by *tamas* (quality of inertia, inactivity, clouding, darkness) and then the sense-organs gradually withdraw themselves from their activities. It is at this time that the food eaten is digested; with phlegm (*śleshman*) entering the heart the streams from the eyes and ears are arrested. Heavy sluggishness enters into consciousness, and this is called sleep (*nidrā*). Nature arranges sleep for all beings because it wards off anxiety, dissatisfactions and fatigue.

The earliest medical treatise available to us, *Bhelasamhitā*, is refreshingly original and bold: it is a great pity that the complete work is not available.

4

YIN-YANG

Medicine in China is said to have originated with two partriarchs : Shen-Nung (2757 B.C., author of the first *Materia Medica* in the world) and Huang-ti (2697 B.C., author of the 'Canon of Medicine'). Both are legendary heroes, and Chinese medicine really dates from about 205 B.C., when the earliest physician, Chang-chung-K'ung, lived and practised. He wrote a treatise on fevers, their diagnosis, clinical examination, symptomatology, course, management and treatment. Contemporaneous with him was the first surgeon in China, Hua-tu, who employed anaesthesia. These two are the Charaka and Suśruta of China.

The foundation on which the entirety of Chinese medicine rested and developed is the Taoist doctrine of the twin forces of 'Yin' and 'Yang,' which constitute and govern the entire creation. Formulated around 300 B.C., the doctrine spoke of the two vital forces as curiously antagonistic and complementary. 'Yin' representing 'Earth' is dark, feminine and passive; it corresponds with the Moon. 'Yang,' on the other hand, represents 'Heaven' and corresponds with the Sun; it is luminous, strong, masculine and active. Human body, being a miniature of the universe, not only accommodates these two fundamental forces, but is subject to them. These two forces correspond to the Sāmkhya dichotomy between the *buddhi* and the *prāṇa*, two aspects of the one *maḥat* as manifest.

Balance between the twin forces means health, and the disruption of this balance can occur owing to the momentary weakening of one of the five elements that enter into the constitution of the body : water, wood, metal and earth. There are five organs intimately related to the five elements; kidney,

heart, liver, lungs and spleen, in order. The disruption of the balance is located principally in one or other of these five organs.

The identification of the organ in which the disturbance has occurred is made possible by examining the pulse. Pulse-examination is an important detail in Chinese Medicine. The other examinations (of colours, viscerae, bowels and bodily appearance) follow closely the pulse-examination. Each hand has three sets of pulses connected with the organs; and each pulse in its turn has an outer and an inner pulselet, the 12 pulses being thus connected with the entire body.

The normal rate of pulse beats was considered to be four, viz., time taken for the physician to complete an act of breathing (one inhalation and one exhalation). The pulses are three in number in each hand, technically designed as 'inch,' 'bar,' and 'cubit'. As they are felt by the physician with light touch or with some pressure, they indicate the condition of the twelve major parts of the body wherein disturbances are likely to occur. As the physician feels the pulse, he watches whether the pulse is superficial or deep, or irregular, gentle or frisky.

The pulse-examination is essentially of diagnostic value: it gives the physician the clue as regards the part of the body in which the disease originates, and also whether it is the 'Yin' or 'Yang' that is disturbed. It can also be a prognostic aid: it will enable the physician to assess the curability or otherwise of the ailment. Further, the line of treatment that the physician must prescribe is also indicated.

The aim of the treatment would be to restore the natural balance between the two fundamental forces 'Yin' and 'Yang'. The treatment is divided into two major kinds: preventive and curative. The former is given the greater importance: diseases are prevented (or health is maintained) by the individual being harmoniously adjusted to nature, viz., following the Tao. A simple life, eschewing excesses and observing the laws of nature, is advocated. Treatment of the 'Spirit' of the vital

current (Ch'i), which is thereby vouchsafed, is the essence of preventive medicine.

The food that we eat and the habits that we cultivate regarding it can constitute a mode of treatment that nourishes the physical body. Proper diet and right habits of eating can treat the ailments without any medicine.

The treatment procedure that is curative in character relies on drugs. Each drug is regarded as a judicious mixture of the two vital forces 'Yin' and 'Yang', so that the disturbed balance between them in the body, 'which the disease means' is corrected and restored. Herbal drugs predominate Chinese medicine. The first *Materia Medica* which was composed around 2000 B.C., was later expanded to include 400 kinds of herbs. In the 16th Century, it came to contain 8000 prescriptions with 2000 drugs, the majority of which was from the vegetable kingdom. During the early part of 19th Century, the names and virtues of plants ran into 60 volumes. The basic idea is that herbs abound in the twin vital forces, and thus are most useful in correcting the disorders.

The basic idea in treatment is that most of the illnesses are caused by an imbalance between 'Yin, and 'Yang', reflected in the disharmony of the five elements known as 'dyscrasia' owing to the external influences of weather and season (in terms of wind, fire, heat, cold, dryness or humidity) or by internal factors (joy, anger, desire, surprise, grief, fear or worry). The treatment is directed towards the restoration of the balance. Herbs, being most in line with the Tao, are regarded as most effective in correcting the 'dyscrasia' of the elements.

An alternate line of treatment is 'acupuncture,' which has made Chinese medicine celebrated all over the world. Also based on the theory of the interaction of the twin principles of 'Yin' and 'Yang', this system works on the rather unusual conception of surface anatomy of the vital principle in the body.

The two forces are unequally distributed in the physical body, and the strife between the parts in which 'Yang' is

superfluous, and the parts in which 'Yin' is deficient manifests itself as disease. The two forces together with the superfluity or deficiency are carried to different parts of the body along 12 (or 14, according to some) channels which distribute blood and breath throughout the body. The channels are connected with all the vital organs. The surface anatomy accepted by the advocates of acupuncture recognizes 365 (or 349 in another account) vital spots distributed all over the body, especially in the head and the extremities and it is at these spots that the channels (which are deep within the musculature) surface.

Breath and blood, in a healthy person, would flow evenly within the channels, and the vital spots would reflect this smooth flow. Pulse-examination reveals this state of affairs as also any disturbances in the flow. When the vital forces that course through the channels become superfluous or abundant, the tension is felt at the spots in the shape of blocks. When they become deficient, the spots reveal a certain slackness. Puncturing the chosen spots would rectify the error. The blocks are supposed to be caused by the accumulation of foul breath at these junctures; puncturing in the case would help the excess air to escape, thus relieving the tension of the breath when the flow is deficient. Puncturing would energize and stimulate. In either case, the disturbed co-ordination of 'Yin' and 'Yang' is corrected.

Proper puncturing (also called 'needling') is accomplished by special needles made of gold, silver, copper or steel. There is a mention of nine different kinds of needles in use. The kind of needle to be used, choice of the spots to be punctured, the discovery of the deficiency of 'Yin' or the superfluity of 'Yang,' the amount of pressure to be exerted while needling, the direction in which the needle should slant (along the vital flow or against it) and so on are some of the complex aspects of this art of healing.

All types of diseases are claimed to be treated and healed by acupuncture. The 'Canon of Medicine' (*Nei-Ching-su-Wen*) which Huang-ti is said to have written around 2690 B.C., gives a detailed account of the ailments that are sought to be

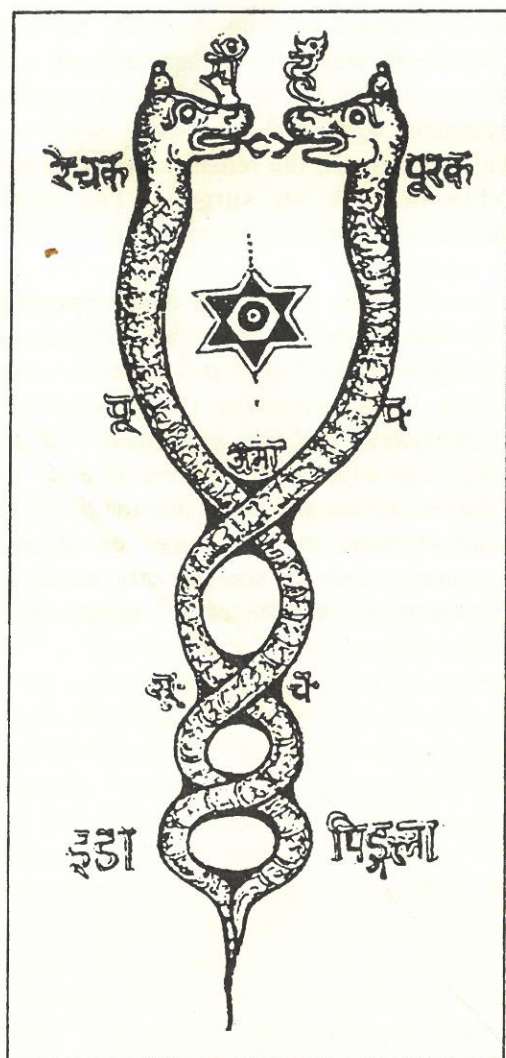
cured by acupuncture; it also contains a comprehensive account of the art of acupuncture, and of the theoretical foundation (Yin and Yang).

The same author, who is regarded as the 'Father of Chinese medicine' also prescribes another treatment procedure to be employed along with acupuncture. This is known as 'moxibustion' (also called 'Moxa'), after the material from the plant moxa (*Artemisia Vulgaris*) that constitutes the main therapeutic ingredient. The leaves of this plant are dried and powdered and rolled into the shape of cigarettes or cones. The spot on the skin is chosen precisely as in acupuncture, and the cigarette or cone is placed on it vertically and is lighted; the cigarette is allowed to burn for specified periods (upto 30 min.), and the heat is said to draw off the ailing conditions that is deep within the channel that carry the 'yin' and 'yang' forces. The heat that is principally employed here for the therapeutic purpose shares the property of 'yang' (masculine and active force). It will therefore correct the superfluity of 'yin'. The cigarettes may be allowed to burn long enough to burn the skin and leave a blister on the spot.

The technique of moxibustion is said to be older than acupuncture, and Confucius himself is supposed to have evolved this technique. However, there are conditions in which both are employed; and these are explained in great detail in the classic *Nei-Ching*. Both the techniques are based on the original taoist idea of twin forces ('Yin' and 'Yang') that constitute the vital principle in man.

Although surgery began in China in the distant past, it did not make a headway; and its appeal gradually weakened, probably because of the doctrinal emphasis on non-interference with nature. Therefore, the anatomical knowledge of the ancient Chinese was also limited. But the exceedingly rich pharmacopea that they developed and the highly sophisticated techniques of acupuncture and moxibustion that they evolved and perfected more than compensated for this lacuna.

One can readily recognise the numerous correspondences that exist between Chinese medicine and Indian medicine. The



IDA-PINGALĀ

basic ideas appear to be almost identical: the individual being a miniature of the universe, the elemental constitution of the organism, the life-force working itself through the individual,

the concept of strategic spots in the body, the need for living in close conformity with nature, the medicinal value of food, the twin energy strands, the emphasis on restoration of balance as the physicians' task, the importance attached to personal hygiene and prophylaxis, the reliance on herbal drugs, and the unfavourable outlook on surgery. The chief point of correspondence is the primacy given to the vital force in health as well as healing.

It has recently been discovered that acupuncture was also practised in ancient India. Massaging (*aṅga-mardana*) was another art that was developed as auxiliary to medicine both in China and India. Likewise the practice of modulated breathing (*prāṇāyāma*) that was prescribed in Yoga as well as Ayurveda was also advocated in China as early as 2000 B.C.

It was only in China and India that medicine was provided with a sound philosophical foundation based on the idea of the vital principle, and an attempt was made to relate the therapeutic practices with theoretical constructs.

PNEUMA

The concept of *doshas* in Indian medicine is often compared to the Greek theory of 'humours.' While there are ideas that are common or very similar, there are also differences which are fundamental. One of the main points of difference is the importance attached to the vital force in the Indian system as contrasted by the mechanistic model adopted in the Greek system.

The theory of humours is usually associated with Hippocrates of Cos (460 B.C.—377 B.C.), but it dates back to the philosophical speculations of Anaximander (about 611 B.C.) and the medical suppositions of Empedocles of Arringtonum (504—433 B.C.). The latter belonged to one of three pre-Hippocratic medical schools in Greece, viz., the Silician school of Croton, founded by the celebrated Pythagoras in 532 B.C. He held that all things in the world including the human body were basically composed of only four physical elements (earth, air, fire and water), each with its own specific quality (dry, cold, warm and moist respectively).

The concept of qualities had been suggested a little earlier by another early medical authority belonging to the same school, Alcamaeon (about 500 B.C.). He viewed health as the physiological balance of these four physical qualities occurring in two opposites : dry-moist, and cold-warm. When any one of the qualities is in excess, the balance is disturbed; and this is what we all disease. The physician must then endeavour to introduce into the system the opposite quality, so that the quality which is in excess is readily counter-balanced.

Empedocles improved upon this notion, and taught that the body was constituted of the four elements in varying

proportions, and that alteration in the associated qualities was incidental to life. Opposition of qualities determined the state of health or its disturbance. Hippocrates worked on these two basic ideas (the four physical elements and the dynamic phenomenon of opposition), and propounded his theory of humours.

The four elements with their respective qualities (viz., earth-dry, air-cold, fire-warm, water-moist) are responsible for the four humours in the body: blood, yellow-bile, black bile and phlegm. The humours were characterized by combination of qualities; blood (warm and moist), yellow bile (warm and dry), black bile (cold and dry), phlegm (cold and moist).

The four humours occur in the individual in different proportions. This variance is responsible for all individual differences with regard to physical and mental abilities, dispositions and susceptibility to disease. When the proportion is proper the condition is known as 'eucrasia', which is reflected in health. When there is an imbalance in the quality of humours in the body, the condition is 'dyscrasia', symptomatic of ailment or disease. This is the state of stress, calling for the physician's attention.

The theory further involves that the condition of *dyscrasia* or stress would automatically be productive of a curative process. To correct the imbalance or restore the equilibrium is a natural urge. There is a constitutional provision and facility for this: and that is the heat of the body. It drains off the excess of the humour that has brought about *dyscrasia*. The draining off was called 'crisis', and it was supposed to take several forms such as sweating, purging, and blood-letting (haemorrhage). The concept of heat within the body was again a contribution of Empedocles. It is this heat that restores the state of balance (*eucrasia*). This may very well be likened to the concept of the vital power (*prāṇa-śakti*) of the Indian thought, but it was not developed in Greece.

The dynamics of the four humours is related to natural variations that are seasonal, climatic or elemental. The natural

tendency is for one of the humours to dominate over the others in a season; and this would bring about the characteristic ailments, manifestations of which were noted by the physician. Blood in spring, yellow-bile in summer, black-bile in autumn, and phlegm in winter are generally on the ascendant.

It is significant that the Greek theory of humours did not consider it necessary to postulate a vital principle, of which the humours were functional modes. The humours could not possibly be the ultimate sources of human behaviour or pathology, and their opposition (which in reality is an aspect of organization) could not be satisfactorily explained.

The theory of humours thus lost its ground in Greek medicine in course of time. Eristratus of Chos (about 290 B.C.), whose anatomical knowledge and studies on brain gave a new dimension to ancient medicine, opposed the doctrine of four elements as well as the theory of humours. He looked upon the body as constituted of concrete atoms. Humour, in its original meaning, was a 'fluid' comparable to the Indian idea of *rasa*, and did not have an anatomical location. Asclepiades of Bythria (about 125 B.C.) also rejected the relevance of the theory of humours to diagnosis or treatment.

The Hippocratic theory was revived by Galen (130—200 A.D.), who involved the notion of four humours in his concept of pathology. However, he propounded the idea of a 'spirit' (*pneuma*) to explain the favourable and unfavourable dynamics of the humours. Theophilus of Protospatharius (160-641 A.D) was greatly influenced by the views of Galen, and the theory of humours was again popular in the medical world, with the assumption of spirit thrown in.

When Greek medicine moved, during the middle ages, to Constantinople, then to Syria, and finally to Arabia, the redacted theory of humours was widely accepted. The medical school at Jundi-Shapur (founded about 480 A.D.) which became celebrated in the Abbasid world during the 8th century was mostly Greek in its orientation, and regarded Galen almost

as an oracle. The physicians who studied here and spread the medical wisdom and practice all over the Middle East accepted the four qualities (cold, warm, dry, moist), and four elements (earth, water, fire, air), and the four humours (blood, yellow-bile, black-bile and phlegm).

The old Greek notion that health was a matter of balance between the humours conjoined with the adaptation by Galen continued to inspire the Arab physicians. But there was a change in the position: the humours in normalcy also would not be perfectly balanced. The qualities and quantities would depend upon several factors such as the age of the individual and the season of the year. The bodily organs also had an impact upon the dynamics of humours. Ordinarily however they mix evenly, and that is what we call health. Excess of a quality or a humour may vitiate this even mixture. That quality needs to be suppressed, or that particular humour to be isolated, in order that normal mixture is facilitated or restored. This is what the physician's drugs and treatments seek to achieve.

Of the humours, the two biles are to an extent stored in the bodily organs, the yellow-bile in gall-bladder and black-bile in spleen. The stored portion of the humours do not enter into the admixture of the humours. A humour may become vitiated by combination with another humour in excess, or by a quality that is not natural to it. This is symptomatic of disease.

It is easy to see that the Greek background of the modern allopathic medicine relied heavily on the mechanism of the dynamics of multiple humours, but ignored to account for the subtle source of that dynamics. And the dependance of the physician on his knowledge of anatomy and physiology (which of course excluded the idea of an ultimate vital principle animating the organs and directing the humours) further oriented the Greek medical thinkers and the subsequent inheritors of that tradition to look for mechanistic and gross models of health and disease. The orientation prevailed not

only in Greece but in Arabia, where Greek physicians flocked, and through which avenue the Greek influence on modern Western medicine may be traced.

It was Arabian medicine that contributed considerably to the crystallization of the modern medical theories and practices in the Western World. The medical school founded by Ptolemy in Alexandria in Egypt around 287 B.C., and developed by Herophilus of Chalcedon (300 B.C.) borrowed the Greek theory of humours and the Greek anatomy, and developed an 'empirical' outlook. The best representative of this outlook was Serapion of Alexandria (220 B.C.). By 'empirical' he meant experiential (from *empeira*, experience). The medical approach was characterised by direct observation of symptoms (*autopsy*), consultation of the records, profiting by the experiences of other physicians (*historia*), and reliance on the experiences of others (*peira*).

Claudius Galen (130—201 A.D.) who studied in Alexandria arrived in Roma around 162 A.D., and became the physician royal to the Antonine emperor Marcus Aurelius. Author of more than 500 medical treatises, he is known not only for his contributions to experimental physiology, but for his theory of three-fold spirit (*pneuma*). This has already been mentioned, but we may add here a brief account of this theory.

The *pneuma* is constantly renewed in the body from our breathing the air through the lungs and by sucking it through the skin-pores of the body. This constant renewal makes possible the persistence of the vital functions. Galen distinguishes the natural *pneuma* (located in the liver and distributed to all parts of the body through the veins) from the 'vital' *pneuma* (located in the left ventricle and distributed to all parts of the body through the heart and the arteries) and the 'animal' *pneuma* (located in the brain and distributed to all parts of the body through the nervous system). These three kinds of *pneuma* together constitute the foundation of the physiological system.

However, in practical therapeutics he tended to follow the

Hippocratic model and failed to involve his theory of *pneuma* within diagnosis or in treatment. This was how an opportunity was lost for the allopathic medical system to correct its heavily mechanistic bias. Arabian medicine, which was greatly indebted to Galen, did accept his theory of *pneuma*, but was influenced to a much larger extent by the Nestorian School of Edessa which stuck to the original Hippocratic approach.

6

YUNĀNI

The Graeco-Arabian system as it was crystallised in Baghdad entered India around 711 A.D, and this is known as Yunāni-Tibbi (lit. 'The Greek Physic'). It is an error, however, to call it Greek ('yavanāni,' Skt) for it represents a confluence of old Graeco-Roman, Syrian, Nestorian, Persian, Egyptian and Indian influences. It was encouraged by the Mughal emperors Akbar, Jehangir and Aurangazeb, and came to acquire an Islamic colour. The Indian *hakims*, patronised by royalty and nobility, wrote numerous manuals, and translated many Sanskrit works on medicine into Persian, and many Persian and Arabic works into Urdu. Important centres where this system flourished were Delhi, Lahore, Lucknow, Aligarh and Hyderabad.

There are naturally many points of correspondence between Yunāni and Āyurveda systems, for the contact between Indian and Greek medicines has a long history dating back to the Alexandrian, Syrian and Persian epochs. And after the Graeco-Arabian system reached India, the interaction became more extensive and intimate. The earlier error of ignoring the vital principle in Graeco-Roman medicine was here remedied.

The Yunāni system counts among its founders and promoters Plato (Aflatoon), Aristotle (Arastoo), Galen (Jalinoss), Avicenna, Ibn-i-Rashid, and Rhazes, who were incidentally also responsible for the development of European medicine.

The Yunāni medical theory and practice are accommodated in seven categories known as *Umoor-i-thabayeya* arranged in an order of decreasing importance: (1) basic material components of the body as well as the universe, which are four in number (arkan); (2) the human constitutions including temperaments (*mizaj*, *amziga*); (3) the structural constituents or humours (*akhlat*); (4) anatomical parts of the body (*azaa*);

(5) the life-force or the vital principle (*arvah, rooh*); (6) the faculties or the energy-dynamics of the body (*quwa*); and (7) the physiological functions (*affaal*). All these constitute a holistic unity (*wahdat*), viz., the organism which is well or ill.

This analysis applies equally to healthy and unhealthy conditions of the body. The basic idea is that the world consists of two types of matter; gross (earth, water, and air) and subtle (fire or soul). And the human constitution (composed ultimately of these two kinds) is the field in which four drivative "humours" (*khoon, safra, sauda* and *balgham*) act and interact, so that the tissues that are worn out are continually replenished, and energy is provided for physiological functions. When the interaction between them is abnormal, the resistance is lowered (*ufoonath*), and disease results.

While the organs and their physical functions can be understood by individual experience and by analysis, some functions can only be appreciated by reason and logic, and the physician needs to assume axiomatically some principles, like the four ultimate elements, the different temperaments, humours and their properties, faculties and their location, and the vital force. Neither analysis nor observation, neither reason nor logic, may justify these principles, but they are nevertheless real.

The elements are basic to the constitution of various bodies in the universe. They are four in number, after Hippocrates: Fire, Air (both of which are light), Water and Earth (both of which are heavy). The elements by definition are simple, indivisible, indestructible but changeable substances which produce the primary components of the body, and which, by combining variously, become responsible for all orders in nature.

What we call perception is dependent upon four senses: touch, taste, smell, audition and vision. The primary sense, however, is touch, the other senses being merely modifications thereof. It is called the 'mother of senses'. And there are four fundamental qualities of touch: heat, cold, moisture and dryness. Heat and cold are opposite directions of energy in

space. Heat produces warmth; it disperses, resolves, melts, destroys and evaporates, while cold makes things cool, aggregates, freezes and extinguishes heat. Moisture and dryness are two contrary reactions of mass in time. Moisture makes things soft, humid, greasy, thin and fluid, while dryness makes things dense, hard, stable and resistant.

The elements, although mutually exclusive in quality and action, resemble mutually. There are similarities as well as differences between them. And that is how they are able to act and react upon each other. Fire and Air alike have heat as their temperament; Earth and Water equally have cold as their temperament; Water and Air have moisture; and Fire and Earth have dryness.

The faculties (*qawa*) are biological systems, each having its own specific function (*aflaal*). The system and its function is mutually related. Three systems are recognised: (1) The physical system, consisting of two aspects, one designed to preserve, nourish, and help the individual grow, and the other intended to preserve the race, and involved in all activities connected with sex and reproduction. The former aspect operates from the liver, while the latter operates from the testicles and the ovaries. (2) The nervous system, consisting of the cognitive (external; sensations) and the conative (internal; inner perceptions) processes, operating mainly from the brain. (3) The vital system, operating from the heart, conditions and appropriately prepares the vital energies in the individual for all sensory and motor function. This system is involved in the carrying of the vital force into all the organs and tissues of the body.

The concept of vital force (*arwah*, *rooh*) is an important one in this system of medicine. It is distinguished from 'soul' and 'breath' (Galen's *pneuma*) and is looked upon as a quasi-material substance, which is luminous and approaches the likeness of a celestial being although emerging from an admixture of the elements. It is produced from the lighter and vapour portions of the humours in the heart, and is carried

through the blood vessels (by the pulsating action, viz., contraction and dilation of the vessels, which is said to have as its object the sustenance of the vital force through a supply of pure air). Air enters into the composition of the body as also of the vital force; it constantly replenishes the vital force, by eliminating hot vapour during expiration. Hot vapour is to the vital force what waste products are to the body.

It may be regarded as the basal metabolic energy, which is behind all the activities in life. When it is produced in a normal manner, it becomes capable of making all the organs of the body function efficiently.

Because it is likened to a ray of light, it may be assumed that it is manifested as 'inner heat' which is necessary for the efficient functioning of all the organs in the body. When it moves in the direction of the inner organs of the body, it gets hot; but when its movement is towards the outer side of the body, it gets cold.

The vital force moves under the influence of emotional changes as well as mental factors. Its movement may be inward or outward, sudden (violent) or gradual (slow). An instance of the sudden inward movement is when the individual is stricken with terror. When one is in sorrow, the movement is inward and gradual. The outward sudden movement is illustrated when one is angry; and the outward gradual movement when one is experiencing pleasure or mild delight. Occasionally, the movement may be both inward and outward, as for instance, in anxiety associated with anger or sorrow (when conflicting emotions are present).

Sleep too is a function facilitated by the vital force, in order that digestion may take place without distraction. Heat is thus enclosed within the body so that the nutritive faculties are stimulated. Innate heat is the main tool in the performance of all the faculties. Differences between individuals are due to variations of this innate heat.

And this innate heat is founded in the heart. Heart, in this system, is not to be confused with the anatomical heart that

the moderns are acquainted with. It is located in the brain and being the earliest function to evolve, it regulates and assists all the organs and the systems.

The organs are classified according to the four-fold 'temperaments': heat, cold, moisture and dryness. The 'hottest' organ is the heart, followed in the descending order by blood, liver, flesh, muscles, spleen, breasts, testicles, veins and skin. The skin is evenly balanced with regard to all the four 'temperaments'. The coldest part of the body is phlegm, followed by hair, bone, nerves, spinal cord, brain, body-fat and skin (the least cold). The most 'moist' part is again phlegm, followed by blood, fats, brain, spinal cord, breasts, testicles, lungs, liver, spleen, kidney, muscles and skin. The 'driest' part is hair, followed by bones (which is not so dry, because of the presence of blood in it), cartilages and membranes, veins, heart, sensory nerves and skin.

The inner heat is also responsible for determining the life span of the individual, and to repair and replenish the various organs as they are damaged and fatigued during the course of normal life. Death is caused by the process of drying up and dispersal of the inner fluids of the body, or by the impact of inimical factors (like accident, injury, etc).

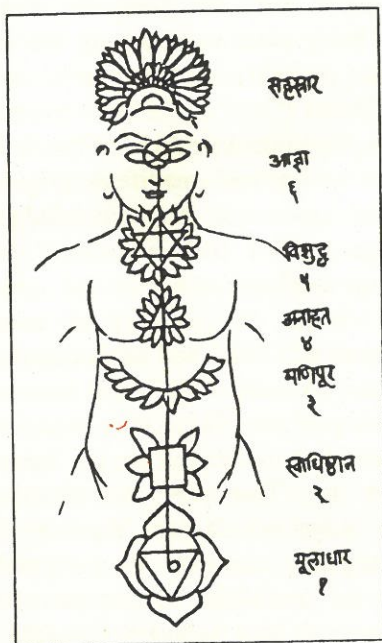
The concept of *dosha* in Āyurveda has its correspondence with the notion of *khilt*, which, however, is fourfold: (1) 'sauda' (*vāta*), coarse and cold in nature, being predominantly the earth element; (2) 'saffra' (*pitta*), coarse and warm in nature, being predominantly the fire element; (3) 'balgam' (*kapha*), unctuous and cold in nature, being predominantly the water element, and (4) 'khun' (blood), unctuous and warm in nature, being predominantly the wind element. Of these four, blood is the most important. It may be noted that while Āyurveda generally regards *dosha* as three-fold, Suśruta regards blood (*rakta*) as the fourth *dosha* to be taken into account.

The conditions of these four aspects are ascertained by pulse-examination. The pulse or the nerve-channel is known

in the Yunāni system as *nabj* (lit. twitching of a nerve). The vital spirit in man contributing to his happiness is of two orders: 'hayavani' located in the region of the heart, and 'napshani,' located in the head. Connected with these orders are the nerve-channels known as 'suriyan' (located in the heart) and 'asav' (located inside the head). They pervade the whole body, and their nature varies according to the individual's constitution, his state of health, time of the day, and so on.

TANTRA-YOGA

Derived from the Sāṃkhya system, Yoga provides the practical supplement to the theoretical outlook. Yoga has actually its foundation in the pre-historic Tāntrik practices, but was greatly influenced by the early Sāṃkhya thought. The Yoga-Tantra complex relies almost exclusively on the idea that the entire existence is the manifold play of one vital principle, the power called *śakti* with its counterpart, consciousness, called *śiva*. This is the most complete and comprehensive account of the vital force which is philosophically valid and practically significant.



The Six Chakras

It may be mentioned that in the Tāntrik system, the universe consisting of thirty-six categories evolves in three strands, originating from the transcendental consciousness (*parā-samvit*) or the pure being (*sat*) devoid of all limitations, differentiations, obstructions, inclinations and urges. This transcendental awareness or *parā-samvit* is therefore represented as a point, devoid of dimensions (*bindu*). From this emanate the principle of subjective consciousness (as 'I' or 'aham') known as *śiva*, and the principle of objective consciousness (as 'this' or 'idam') known as *śakti*. The two principles are in reality, one; undifferentiated and unmanifest in the *parā-samvit*. However, in the phenomenal context, the *śiva* principle is the first evolute, followed by the *śakti* principle, which has three modalities of energy, viz, inclination (*icchā*), awareness (*jñāna*), and action (*kriyā*).

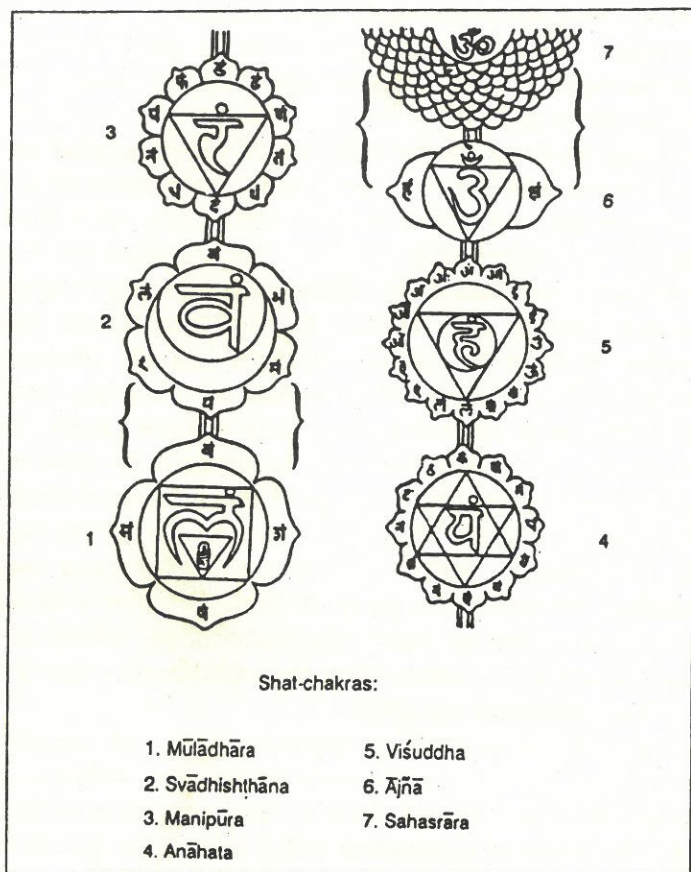
The modality of 'inclination' initially occurs as the principle of 'sadāśiva' (or *sādākhya*, where the first experience of the individuated being is had), involving the dichotomy between the 'I' and the 'this', with emphasis on the subjective aspect of experience; the modality of 'awareness' occurs initially as the principle of *Īśvara* ('lord of the phenomenal presentation'), with emphasis on the objective aspect of the 'I-This' dichotomy; and the modality of 'action' manifests originally as *śuddha-vidyā* (also called *sad-vidyā*, 'true knowledge'), representing complete recognition of the dichotomy involved in all experience without emphasis either on the subjective or on the objective aspect. While the modality of 'awareness' (*īśvara*) first becomes aware of 'This' and subsequently of the 'I', the modality of 'action' (*śuddha-vidyā*) first becomes aware of the 'I' and subsequently of the 'This', thus occasioning movement. But *Śuddha-vidyā* is characterized by the basic awareness that the 'I-ness' and the 'This-ness' are identical, while it is distinguished by *māyā* which sees them as distinct.

These five categories constitute 'the pure path' (*śuddhādhva*) characterized by the modalities of consciousness only (*Child-rūpa*). The *parā-samvit* thus acquires five-fold powers (*śakti*): enduring as consciousness (*śiva*), pervasive as bliss (*śakti*),

complete as ever-content inclination (*sadāśiva*), omniscient as awareness (*īśvara*), and omnipotent as pure knowledge (*śuddha-vidyā*). Their original direction is towards non-differentiation and unity.

Owing, however, to the influence of the primordial veiling power (*māyā-śakti*), there is the complete separation of the 'I-ness' (*ahantā*) and 'This-ness' (*idantā*). Thus, in a kind of negation of *śuddha-vidyā*, the five characteristics get limited or contracted, and hence the expression (*kañchuka*) : endurance becomes limited and defined by the time factor (*kāla*), pervasion defined by spatial restriction (*niyati*), omniscience particularized by circumscribed aspects of knowledge (*vidyā*), and omnipotence limited by restricted activity (*kalā*). These five modes of contraction are fundamentally aspects of consciousness (*chid-rūpa*) and pure in their nature (*śuddha*), but are subject to the impact of the principle of obscuration (viz., *māyā-śakti*), which is inert (*achid-rūpa*) and impure (*aśuddha*). Therefore, the group of these five modes is called 'the pure-and-impure path' (*śuddhāśuddha*), which is the second strand of evolution. Here the split between the 'I' and the 'This' becomes complete.

The third strand of evolution consists of twenty-six categories, all of them representing the impure path (*aśuddhādhva*) and characterized by non-consciousness (*achid-rūpa*). The power of obscuration (*māyā-śakti*) is the fundamental principle operating here, and the entirety of phenomenal transactions is occasioned by it. The categories, besides the power of obscuration, are the twenty-five categories postulated in the Sāmkhya system: the five 'bare details' (*tan-mātras* : form, taste, sound, smell and touch), the five 'formed elements' (*mahābhūta* : earth, water, air, fire and *ākāśa*), the five 'cognitive organs' (*jñānendriyas* : eyes, ears, nose, tongue and skin), the five 'organs of action' (*karmendriyas*: organs of prehension, locomotion, speech, elimination and reproduction), the mind (*manas*), the ego (*ahamkāra*), the potential but unformulated awareness (*mahat*), the primordial nature (*mūla-prakṛti*) and the individuated being (*purusha*). The last two



The Chakras

categories represent the objective (This) and subjective (I) counterparts of the dichotomy inherent in phenomenal experience.

Thus, the universe is composed of five categories in the 'pure' strand (symbolizing percipient consciousness), twenty-six in the 'impure' strand (symbolizing the presentational world of inert matter), and five in the 'pure-and-impure' strand (symbolizing the representational aspect or the transaction between the two extreme categories mentioned above),

altogether making thirty-six. This entire phenomenal context is the projection of the principle of universal energy (*śakti-tattva*), the second evolute representing the bliss (*ānanda*) of pure and transcendental consciousness (*parā-samvit*). It is undistinguished in its essence from the first evolute, viz., the principle of universal awareness (*śivaśakti*). However, the universal dynamics is better understood by referring to the causative principle as power of energy.

The principle of *śiva*, as the first evolute, is differentiated from the ultimate principle of pure and transcendental consciousness (*parā-samvit*) in that it is the principle of active consciousness (*chit*), providing the subjective framework in all experience (viz., the notion of 'I', *aham*), without however any involvement of the objective context. The principle of *śakti*, on the other hand, evolving directly from the principle of *śiva*, is the cosmic energy which defines the objective context (viz., the notion of 'This' *idam*). The phenomenal projection actually proceeds from the principle of *śakti* (therefore described as the mother-goddess), as the three modalities of energy : 'inclination' (*icchā*), 'awareness' (*jñāna*) and 'action' (*karma*).

The principles of *śiva* and *śakti* are undistinguished, and occur in perfect harmony in the ultimate state of cosmic dissolution (*samhāra* or *pralaya*). During creation (*sṛṣṭi*), however, the bipolarity of the 'I' and the 'This' (the function respectively of the principles of *śiva* and the principle of *śakti*) tends to become maximized ; and during preservation (*sthiti*) the dichotomy is steadily maintained. The twin functions resulting from this polarity are 'illumination' (*prakāśa*) and 'deliberation' (*vimarśā*), which pervade the entirety of phenomenal reality as well as the transactional experience of all living beings. The relation between the two principles is likened to that of the lamp and its light. The rays of light proceeding in all directions are responsible for the cosmic evolution in terms of thirty-six categories.

The function of 'deliberation' (*vimarśā*) is explained as the principle of 'illumination' becoming aware of the processes

in its own being as active consciousness ('percipient'; *pramāṭṛ*), more specifically, becoming conscious of itself as the subject. An extended meaning of 'deliberation' is also drawn out; "It renders even an extraneous thing its own : it renders itself alien to itself; it unifies the two processes (identification and alienation); and separates what is thus united". Principally, 'deliberation' signifies dichotomization in the act of awareness in terms of self-awareness (*ahamā*) and 'object-awareness' (*idamā*).

'Deliberation' is taken to represent the central 'channel' in the human constitution known as *sushumṇā*. The idea of 'channels' (*nāḍī*) in the body, gross and subtle, is prevalent not only in the Tantras and Yoga, but even in the Vedic thought. The Upanishads speak of one hundred and one 'channels' that originate in, and ramify from, the very core of human existence viz, 'the heart' (*hṛdaya*, as the seat of the soul). They are described as extremely subtle and minute, like unto a single hair split a thousand-fold. Each of these channels carry and convey the vital force (*prāṇa*); and all of them together not only sustain life but are responsible for all physiological, mental and spiritual functions.

One of them, the one that inclines upward, is the most important one. It enables one to accomplish the highest objective of human existence, viz. immortality (*amṛtatva*). While hundred channels bind the individual, the one liberates him. The early Upanishads, however, do not name this ascending and liberating 'channel'; we find the first reference to it by name in *Maitrī-Upanishad* (6,21).

The idea of 'channels' of energy figures prominently in the Tāntrik texts and in yogic practices. The number of channels that support life and sustain the organism is given here as three crores and half. The subtle body of man is composed of one hundred and one channels, which ramify from the 'heart', the 'basal pit' and other centres (*chakras*). Each of these is said to branch out into a hundred lesser 'channels', each of them in turn branching out, and making an elaborate network of 700 million 'channels', through which the vital currents flow.

The central ascending 'channel' known as '*sushumṇā*', has already been referred to. It occurs inside the most minute channel (called *chitriṇī*, representing the lunar energy in the body), enclosed within another channel known as *Vajriṇī*, representing the solar energy in the body, which runs inside and along the back bone (called *meru-daṇḍa*). It represents the principle of fire (*agni*) and is composed of the three *guṇas* (*sattva*, *rajas* and *tamas*). It originates in the basal centre (*mūlādhāra*, also called *kandayoni*, or *adhara-kuṇḍa*, representing the earth element in the body) and reaches upto the subtle opening on the top of the head (*brahma-randhra*, which represents the seat of pure elements (viz. *svādhi-shṭhāna*-water, *maṇipūra*-fire, *anāhata*-air, *visuddha*-ether and *ājñā* mind).

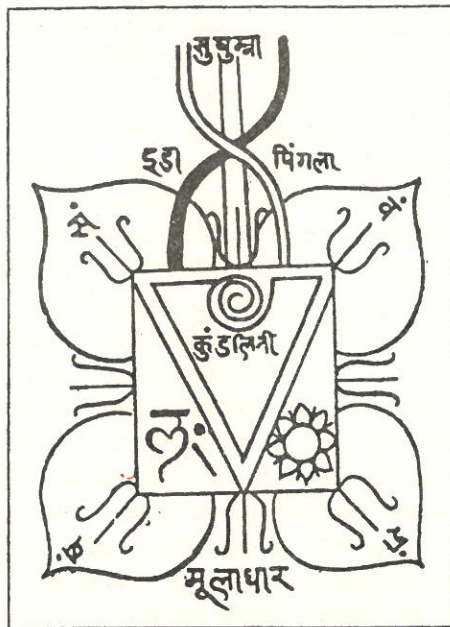
Thus the *sushumṇā* is the most fundamental chord in human existence, comprehending as it does the three basic strands (viz. the *guṇas*), the three regions (sun, moon and fire), and the five elements, and also providing the possibility of pushing on to the highest goal. It symbolizes the primordial nature (or *prakṛti*) as particularized in the human being. To its left but outside the *meru-daṇḍa* is another channel, called *idā*, originating from the same source as the *sushumṇā*, but ending in the left-nostril; and to its right, also outside the *meru-daṇḍa*, is the channel known as *piṅgalā*, originating as *idā* does but ending in the right-nostril. If *sushumṇā* represents the principle of fire, *idā* (masculine and white in colour) represents the lunar principle, and *piṅgalā* (feminine and red in colour) the solar principle.

The three channels are united in their origin in the basal centre (*mūlādhāra*), and hence they are called *yuktā-triveṇī*, (three streams united), and symbolize the new-moon (*amāvāsyā*), when sun and moon meet. The streams referred to here are imagined to be the subtle and organismic representatives of the river Gangā (*idā*), the river Yamunā (*piṅgalā*) and the hidden river Sarasvatī (*sushumṇā*).

The central channel is closely related to the cosmic energy that lies dormant in every living being, *kuṇḍalini* imagined to

be like a coiled serpent slumbering in the basal centre and blocking the central channel. It is the representative of the principle of Śakti in man, deliberation (*vimarśā*), removed from the principle of (Śiva), illumination (*prakāśa*), which is located in the 'thousand petalled lotus' (*sahasrāra*) on the crown of the head. The central channel being blocked is responsible for the separation of the two principles in transaction, although they are united in reality. The prescribed discipline in Tantra and Yoga is "to arouse" the *kuṇḍalinī*, which, uncoiling itself, would ascend along the central channel and reach the thousand - petalled lotus. The dichotomy between the twin principles is thus eliminated. The deliberation of śakti is *actualized* in the central channel.

The concept of *chakra* in Indian literature is varied. The word is derived from the root *kr* ('to do'), and etymologically it signifies an instrument of action. The potter's wheel which



Mulādhāra

helps the production of pots is called a 'chakra' in this sense; the wheel of the cart is also a 'chakra' for it enables the cart to move. The diagrams, implements and machines that are meant to accomplish certain pre-determined effects are also 'chakras'. Extended use of the word is in the sense of assemblage (*samūha*, *vraja*), army (*senā*), or empire (*rāshṭra*). We thus have stellar constellations (*nakshatra-chakra*), and expression like *chakravyūha* meaning the crucial deployment of army-units on the battle-field, and *chakra-vartin* meaning emperor. In the *Tāntrik* context, well-defined congregation of devotees for characteristic ritualistic ends is called a 'chakra'; hence expressions like *sādhaka-chakra* ('the assemblage of practitioners'), *chakra-pūjā* ('ritualistic worship in secret groups'), *yoginī-chakra* ('the assemblage of esoteric helpmates') and so on.

A special connotation of the word is to be found in the idea of the human constitution being composed of several channels of vital force (*nāḍī-chakra*). 'Chakra' here means a vortex, or plexus of forces, physical as well as psychic. They connect the subtle body (made up of the sensory organs and functions, mind, ego and consciousness) with the physical body (made up of the five elements). About thirty of them are listed in the Yoga manuals: the *nāḍīs* situated at the toe of the foot (*pādāṅgushṭa*), the heel (*pārshṇī*), the ankle (*gulphas*) and knee (*jānu*), anus (*guda*), the *mūlādhāra*, the sacral plexus, the perineum (*yonī*), the testes (*mushka*), the penis (*medhra*), the groin (*varikshṇa*), the *svādhisthāna*, the *idā*, and the *piṅgalā* in the *kanda-yonī*, the navel (*nābhi*, umbilical region), the *maṇipūra*, the thumb (*aṅguṣṭha*), the elbow (*aratnī*), the armpit (*iksha*), the *anāhata*, the tip of the tongue, (*jihvāgra*), the *viśuddha*, the soft palate (*ghaṇṭikā*), uvular (*tālu*), palate, the nose-tip (*nāsāgra*), between the eye-brows (*bhrū-madhya*), the *ājña*, below this region (*lalanā*), the mind (*manas*), the middle region of the cerebrum (*soma*).

Of these channels, six (*śaṭ-chakra*) which have already been mentioned, are regarded as especially important in yogic practice and hence designated *brahma-chakras* : (1) *mūlādhāra*

or the foundational *chakra* in the form of a triangular space in the midmost portion of the body, representing the earth element and symbolizing the source of physical desires : (2) the *svādishṭhāna* situated below the navel and in region around the root of the penis (*medhra*), representing the water element : (3) the *maṇipūra* (the *nirmāṇa-chakra* of the Buddhists) situated in the region of the heart and representing the air element: (5) the *viśuddha* (the *sambhoga-chakra* of the Buddhists) situated behind the throat ; and (6) *ājñā* ('parama-kula' in the Tantras), situated between the eye-brows and representing the sun and the moon.

In addition to these six, three more *chakras* are recognized as significant; (7) the *manaś-chakra* ('the mind centre'), situated just above the *ājñā-chakra* and responsible for all sense-cognitions, thoughts and dreams; (8) the *soma-chakra* ('the lunar centre') situated above the *manaś-chakra* and representing the emotional and spiritual aspects of life (sixteen in number) and (9) the *sahasrāra-padma* ('the thousand petalled lotus', called *uśṇīṣa-kamala* in Buddhist texts), situated about four finger-breadths above the crown of the head (thus located outside the body although regulating all bodily and mental functions). The last mentioned centre is the seat of consciousness (*śiva*), and there is an aperture on top of the head (called *brahma-randhra*) leading to it.

The central channel, *sushumṇā* (about which we have already spoken at length), springs up at the foundational centre (viz. *mūlādhāra*), runs along the back-bone (called *meru-daṇḍa*) and finally reaches this aperture leading to 'the thousand-petalled lotus'. And along its course, all the above *chakras* are located. These *chakras* are so many open spaces (*avakāśa*) within the organismic structure, kept open in constitution for the descent of pure consciousness (*śiva*) into the system through the *brahma-randhra* (the fissure on the crown of the head), and for the ascent of the *kuṇḍalinī* (*śakti*) through the *brahma-dvāra* (the gateway at the base of the *sushumṇā*, where the *chitrinī* channel opens up). The ascent of the *kuṇḍalinī*, which is the purpose of many yogic and



Sahasrāra

Tāntrik practices, involves breaking through three knots (*granthi*), named after the three principal divinities, *Brahma* (at the base, *mūlādhāra*), *Vishṇu* (at the heart, *anāhata*) and *Rudra* (between the eye-brows, *ājñā*, before it passes out of the *brahma-randhra* to reach 'the thousand-petalled lotus').

The principle of open space (*ākāśa*), represents pure consciousness (*śiva*), while the principle of energy (*kuṇḍalinī*) represents power (*Śakti*). The former provides the foundation

for the latter; and the two are related to each other as meaning (*artha*) and sound (*śabda*), the former generating forms (*rūpa*) and the latter names (*nāma*). The human body (as all other structures in the universe) is a projection of the Śiva principle, and the processes involving intentions (*icchā*), cognitions (*jñāna*), and behaviours (*kriyā*) are manifestations of the śakti principle.

The latter consists essentially of articulations. The Sanskrit alphabet ranging from 'a' to 'ha' contains forty-nine letters (excluding the composite letter *ksha* which is counted as the fiftieth). The entire alphabet is represented in the identifying activity of consciousness as 'a-ham' ('I'). This constellation includes the sixteen phases of the moon, the twenty-four phases of the sun, and the ten aspects of fire. And corresponding to the articulation-units, we have the channels of circulations in the body which carry fifty vital currents (*vāyu*) bringing into being the *nāḍi-chakra*. Forty-nine of the currents are distributed thus in the six *chakras*; the *mūlādhāra*-4; the *svādhishṭhāna*-6; the *maṇipūra*-3; the *anāhata*-12; the *viśuddha*-16; and the *ājñā*-3. Add to this the central channel (*sushumṇā*), and we have vital fifty currents.

The vital force or wind that springs forth from the *mūlādhāra* centre which is the foundation both to the Universe and to the individual organism at the base comes to be designated as the life-force (*prāṇa*), the body being made up of the five elements (earth, water, fire air, and ākāśa), and each element having a predominant role to play in a specific part of the body, the life-force assumes five major forms. Our manner of breathing is influenced by the five elements present in the body; and in turn the five elements are influenced by the way we breathe. Normally each of us breathes 360 times in a unit of time called a *nāḍikā* (equal to about twenty-four minutes). The duration of a day (*dina*) consists of sixty of such *nāḍikās*. Therefore, in a day (of 24 hours), we breathe (*śvāsa*) as many as 21,600 times. The collection of all the breaths is the mother-goddess herself. This is called '*nāḍi-chakra*', viz. the organization of the 'winds' within the body. The distribution

79 The Vital Force

of the breaths among the bodily centres is given as follows:

1. Mūlādhāra	600 breaths, taking 40 minutes
2. Svādhīsthāna	6000 breaths, 6 Hrs. 40 minutes
3. Maṇipūra	6000 breaths 6 hrs. 40 minutes
4. Anāhata	6000 breaths 6 hrs. 40 minutes
5. Viśuddha	1000 breaths 1 hr. 6 min-40 sec
6. Ājñā	1000 breaths 1 hr. 6 min-40 sec
7. Sahasrāra	1000 breaths 1 hr. 6 min-40 sec

(Total 21,600 breaths in 24 hours)

The navel is the central point of distribution for all the breaths; and the life-force moving along the channels is what makes consciousness possible. Normally the breath alternates between the channel reaching the left nostril (*idā*, representing the lunar principle in the body) and the channel reaching the right nostril (*piṅgalā*, representing the solar principle). The former cools and the latter warms the body, and between them all the body-building and body-breaking processes take place. The two channels meet at the *mūlādhāra*, close to the *kuṇḍalinī*, which is the source of the bodily energy (*Vāyu* the life-force (*bindu*) and the expressive tendency (*nāda*, lit. sound). The channel that is central (having the *idā* to its left, and *piṅgalā* to its right, the two twining round itself) is called *sushumṇā* (or *avadhūtikā*), corresponding to the principle of fire. This is the channel through which the *Kuṇḍalinī* can ascend to 'the thousand - petalled lotus' on the crown of the head. The *Kuṇḍalinī* is imagined as a serpent with three coils and a half, asleep at the mouth of the *sushumṇā*. She is the mother-goddess, having her home in the subtle body of every individual.

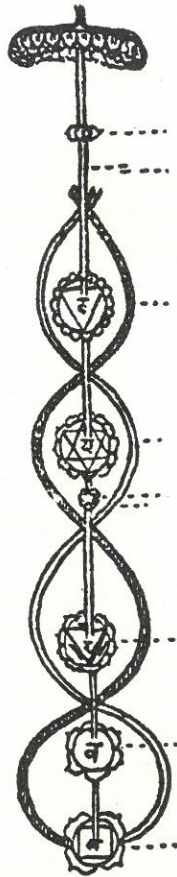
Around the central channel is the network of 72,000 channels, of which the most important are fourteen :

(1) The *Alambushā*, corresponding to the letter 'ka' is the channel starting from the base of the central channel and

reaching the anus (*pāyu*); (2) the channel called *kuhū* starts from both sides of the central channel and reaches the penis ((*dhvaja*); it corresponds with the letter 'kha'; (3) The channel known as *Viśvodārā* is inside the stomach (*jaṭhara*) but it reaches alround; it corresponds with the letter 'ga' (4) *Varṇa* (sometimes called *Varuṇa*) extends upwards and downwards from the same region; it is identified by the letter 'gha'; (5) *Hasti-jihvā* begins at the eastern side of *idā* and goes to left toe; it is the letter 'na'; (6) *Yośavatī* (or *Yaśovatī*) begins at the same place and attaches to the right toe, it is the letter 'cha'; (7) *Payasvinī* is the channel reaching the right ear and is the letter 'chha'; (8) *Gāndhārī* reaches the left eye and is identified with the letter 'ja'; (9) *Pūshā* reaches the right eye and is the letter 'jha'; (10) *Śaṁkhinī* is the channel reaching the left ear is the letter 'na' ; (11) *Sāravatī* reaches the tip of the tongue and is the letter 'ta' ; (12) *idā* is the channel to the left of the central channel and reaches the left nostril; it is identified with the letter 'tha'; (13) *piṅgalā* is to the right of the central channel and reaches the right nostril; it is identical with the letter 'da'; and (14) *Sushumṇā*, the central channel which reaches the opening at the crown of the head (*brahma-randhra*); it is identified with the letter 'dha'.

The locations and the directions of the *nāḍīs* are given slightly differently in different texts. The above account mainly follows *Tantra-rāja-tantra* (27,33-41) and *Darśanopanishad*, belonging to *Sāma-veda*. Another text, *Yoga-chūḍāmaṇi-Upanishad* enumerates ten imporant channels; and gives their places of function. Besides *Sushumṇā*, *Idā* and *Piṅgalā*, it mentions that *Alambushā* functions in the mouth, *Kuhū* in the genitals, *Gāndhārī* in the left eye, *Hastijihvā* in the right eye, *Pūshā* in the right ear, *Yaśasvinī* in the left ear, and *Śaṁkhinī* in the anus.

The *nyāsa*-procedure given by Bhāskara-rāya in his gloss on *Bhāvanopanishat*, however, has different places. According to him, the channels mentioned in the Upanishadic text are to be located in the centre of the forehead (*Alambusā*), on the right side of the forehead (*Kuhū*), on the right cheek



Kuṇḍalini

(Viśvodarā), on the right shoulder (Varaṇā), on the right side (Hasti-jihvā), on the right thigh (Yaśovati), on the right ankle (Payasvinī), on the left ankle (Gāndhārī), on the left thigh (Pūshā), on the left side (Śamkhinī), on the left shoulder (Sarasvatī), on the left cheek (Idā), on the left side of the forehead (Piṅgalā), and at the back of the forehead (Sushumṇā).

The concept of Vāyu ('wind', i.e., the 'vital current', Prāṇa) is fundamental to the concept of the channels. The different

vital currents dealt with here are so many 'manifestations of consciousness' (*chaitanya-jṛmbhaṇam*) derived from the capacity to combine on the part of the five bodily constituent factors (earth, water, fire, air and *ākāśa*) and the individualized consciousness (*buddhi*). The principle that organizes these several factors of the body and the sense-organs is the soul (*jīva*), which is nothing other than the individualized consciousness in its condition of non-discrimination (viz. the phenomenal state)

We have spoken of the channels which are 72,000 in number. Of them ten are most important because they carry the vital currents and thus sustain the 'soul-hood' (*jīva*), viz, the efficient organization of the bodily factors, mental modalities and the sensory functions. The ten vital currents are grouped into the *prāṇa*-pentad (*prāṇa-pañchaka*) and *nāga*-pentad (*nāga-pañchaka*). In the first pentad are included;

(1) *Prāṇa*, located principally in the heart, although moving about in the nostrils, the head and the navel, moving upward causing food to be swallowed, respiration and all other bodily movements; (2) *Apāṇa*, located principally in the navel, although moving about in the navel, the thighs and the stomach, causing evacuation of faeces, urine, semen and menstrual fluid, as well as bearing down foetus; (3) *Vyāna*, located principally in the nostrils and stomach, although it pervades all over the body, causing circulation of blood and chyle, growth, building of the body and sustenance of life; (4) *Udāna*, located principally in the throat, although it moves about in the hands and feet accompanying *Prāṇa* and causing speech and alimentation; and (5) *Samāna*, located principally in the navel (near the digestive fire or *jāṭharāgni*) and the toes of the feet, although its function is pervasive in the body, causing reception of food, digestion, separation of the nutrients from the waste products, and nourishment for the body.

In the second pentad are included minor vital currents: (1) *nāga*, whose function is to cause belching act ; (2) *kūrma*, which causes the movement of eyelids; (3) *Kṛkara*, which is responsible for fatigue and yawning; (4) *devadatta* and (5)

dhanāñjaya, which causes various sounds within the body during bodily functions, and which does not leave the body even at death.

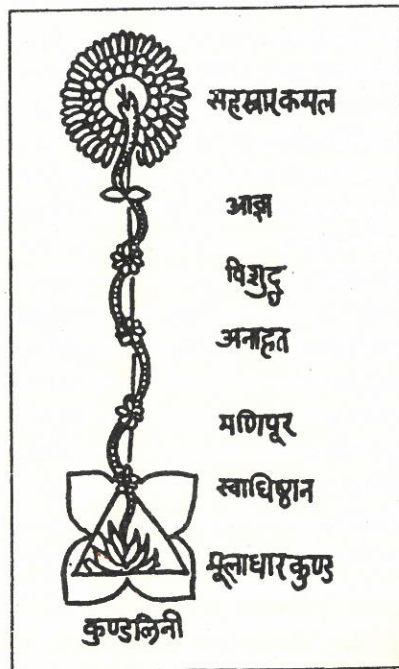
Bhāvanopaniṣat which is a tāntrik text dealing with Śrī-Chakra has the following passage describing the functions of the vital current:

"This vital current (or wind) led by *prāṇa*, becomes the five-fold stomachic fire, owing to differences in the conditioning factors, viz, the one that eliminates, the one that digests, the one that dries up (the *doshas* of the stomachic fire), the one that burns, and the one that floods. The vital current, led by *nāga*, becomes five-fold fires in the body of human beings, viz., the one that secretes bile, the one that throws out, the one that churns (food), the one that swells, and the one that dissolves, and the one helps digest the five kinds of food, viz., what is eaten without mastication, what is masticated, what is sucked, what is licked up and what is drunk. These are the ten aspects of the vital fire".

The *Tantra-rāja-tantra* (35,10), which is probably the source for the above passage, mentions merely ten 'fires' (*vahnayah*). The commentary thereon explains that the ten fires refer to the fires in the seven bodily constituents, (chyle, blood, muscle, fat-tissue, bone, marrow and semen, *dhātvagnis*, viz., responsible for metabolism, enjoined with the fires in the three doshas (*vāta*, *pitta* and *kapha*).

The function called "rechaka" eliminates or ejects the waste-products after the separation of the nutrient portion of the food (*sāra*) from the waste (*kiṭṭa*). The function called *pāchaka* is the actual process of digestion; *śoshaka* is absorption of the watery portion of the digested food, and aiding the action of the 'stomachic fire'; *dāhaka* is burning in the sense of metabolic action; *plāvaka* is flooding the food with chyle in order to help the 'stomachic fire' burn; *kshāraka* secretes the bile; *udgrāhaka* drives out the wind that might interfere with proper digestion; *kshobhaka* churns the food well in the stomachic cavity; and *mohaka* assimilates the food in the body.

Thus, the Tantra-Yoga complex postulates not only the primacy of the vital principle, but explains the entire existence as a play of this principle. The life force that operates in the individual is in essence one with the life-principle that is responsible for all phenomenal existence. Health as a mode of existence reflects the consonance of individual life-force (*prāṇa*) with the cosmic life-principle (*śakti*); and hence harmony and happiness. Ill-health is the expression of dissonance, and therefore stress. Health is an aid in the realization of the individual's oneness (or belongingness) with the universe. Hence the Indian word for health, *svāsthya* meaning "abiding in ones own true condition"



RGYUD-BZI

Indianization of Tibet began around 620 A.D., when the Tibetan emperor Sroṅg-behan-sgarṃ Po (620-649) sent the Tibetan scholar Thon-mi Sam-bhoṭa to Kashmir to evolve a suitable script for the Tibetan language. Even before this time, an earlier emperor (gNah-Khri-behan-Po) had invited two physicians from India to visit Tibet. Both of them stayed in Tibet for over ten years, during which time Indian medicine (viz. Āyurveda) took root in the Himalayan region. One of the Indian physicians married a Tibetan woman, and their son



Nāgārjuna

became a famous physician. Medical wisdom was being orally transmitted until Saṃ-bhoṭa developed the art of writing in Tibet.

The next great event in Tibet was the arrival of Śānta-rakṣita and Padma-sambhava (both paṇḍitas of Nālandā), invited by the celebrated emperor Khri-gehang-lde-byan (755-780). It was under their influence that Indian Buddhism took firm root in Tibet and the adjoining areas. They founded the monastery at bSam-yas on the model of the Indian Odantapuri-vihāra and combining three styles of architecture, Indian, Tibetan and Chinese. The monastery, founded some time between 763 and 767 A.D. (according to the *Blue Annals*) served as the focal point of Tibetan culture for centuries to come.

It should be mentioned that Buddhism and medicine were closely associated all along. The Pāli text *Itivuttaka* describes the Buddha as the physician (bhishak) and as the surgeon (salla-kattā). The epic poem *Buddha-charita* of Aśvaghoṣa calls the Master mahā-bhishak. There is a form of the Buddha in later Buddhism, known as 'Bhaishajya guru', which became popular in China, Japan and Central Asia. The Śākyan ascetic appeared as the 'sovereign-healer' in his saṃbhoga-kāya, holding a fruit of the myrobolan in his right hand, to offer protection from all ailments, and holding in his left hand a bowl containing three kinds of ambrosia (amṛta), to cure diseases, to counteract ageing and to facilitate meditation and enlightenment. There were also many deities within the context of folk Buddhism, which were specially associated with healing. Simha-nāda Avalokiteśvara, for instance, was the sovereign healer of all ailments. Ārya-Tārā was the healer of leprosy; Paṇa-śabari was worshipped to counteract fever and to ward off small pox and other epidemics; Jāṅguli provided the antidote for all poisons, especially of snakes and scorpions.

The association between Buddhism and medicine is not unwarranted. The gospel of the Buddha recognizes the phenomenon of suffering and seeks to unravel the aetiology thereof, to understand the state of utter elimination of all

suffering, and to prescribe the methodology favourable to such elimination. This procedure involving four steps (which also is to be found in the Sāṃkhya-Yoga schools of thought) is compared to the four-fold approach of the physician: recognition of the ailment, diagnosis, visualization of health and prescription of therapy. In the general context of phenomenal suffering, bodily and mental diseases naturally got included, and in texts like *Bhaishajya-vāstu* the Buddha is made not only to speak in medical terminology but to suggest actually curative procedures.

It is well-known that the celebrated physician Jivaka who was the personal physician to the King Bimbisāra of Rājagṛha and who became celebrated for his operations like craniotomy and laparotomy, and was skilled in curing diseases like jaundice and fistula in-ano was also a friend and physician to the Buddha. A contemporary of his, Ākāśa-gotra was reputed as a surgeon. During the early centuries of the Christian era, the name of Nāgārjuna, the great Buddhist saint, scholar and mystic is also associated with medicine, especially with the system which makes use of minerals and precious stones for therapeutic ends.

The influence of Buddhism even on Āyurveda is not inconsiderable. It is possible to find numerous references in *Charaka-saṃhitā* to Buddhist ideas and principles. The redaction of *Suśruta-saṃhitā* is ascribed to Nāgārjuna himself. Recipes like 'Simhanāda-guggulu', 'Tārā-maṇḍūra', 'Nāgārjuna-bhasma' and so on have unmistakable Buddhist associations. The Buddhist mendicants who travelled extensively in the Himalayan regions and in Central Asia were responsible for the spread of Indian medicine in those regions (as is evident from the famous Bowers Mss).

Vāgbhaṭa (latter half of 4th cent), the greatest name in Indian medicine after Charaka and Suśruta, was himself a Buddhist. Belonging to the Sindhu country, he was the son of Simha-gupta and student of Avalokita. His two works, *Ashṭāṅga-saṃhitā* and *Ashṭāṅga-hṛdaya* contain many references to the Buddha and the Buddhist deities (like

Avalokiteśvara, Tārā, Mañibhadra, and Jina-suta). His acquaintance with Mahāyāna folk cults was intimate, and probably that is how his celebrity spread in the Himālayan regions. Tibetan medicine was greatly influenced by Vāgbhaṭa's works, especially as interpreted by the Buddhist savant Chandranandana (author of *Vaidyāṣṭāṅga-hṛdaya-vṛtti*). Vāgbhaṭa is known to Tibetans as Pha-Gol, and his works are included in the bsTan-hGyur division of the Canon. Besides Chandranandana's *Vivṛti* on Vāgbhaṭa's *Aṣṭāṅga-hṛdaya* (Padārtha-chandrikā?), Vāgbhaṭa's own commentary on *Aṣṭāṅga-hṛdaya*, known as *Vaidūryaka-bhāṣya* (which is not available in the original Sanskrit) has been preserved in the Tibetan translation.

The steady stream of Indian scholars and teachers into Tibet, and of Tibetan scholars and students into India, since the days of the emperor Sroṅ-lde-bTsan (755-780) made it possible for the Indian concepts of health, diseases, cures and methods of treatment to become a part of Tibetan culture. It was during this emperor's reign, and it was by his persistent efforts, that the great Indian saint Vimīla-mitra visited Tibet and trained a number of translators (Lo-tsa-ba) who rendered Sanskrit works into Tibetan. One of his trainees was the Tibetan youth Vairocana-rakṣita (reputed to be a student of Padmasambhava himself) who was prolific in his translation work, and included many medical texts its scope. He visited India to study the famous text of Vāgbhaṭa under the Buddhist medical authority Chandranandana of Kāśmīr, mentioned above.

In the court of this emperor (Khri-Sroṅ-lde-bTsan) was a Tibetan physician who achieved great celebrity by his wisdom and competence. Named gYu-THog-pa Yon-Tan-mGon-po rÑing-Ma, he visited India three times to study the medical theory and practice here, and he wrote many medical works, including a book on diagnosis by pulse. This physician convened a medical conference in bSam-Yas monastery in the year 794 A.D., and eminent physicians from Tibet, India, Nepal, Persia, Afghanistan, Sikiang and China participated

in the deliberations, discussing theoretical issues and practical problems concerning health and disease. This fact made Tibetan medicine broad-based and open to other influences, although its core continued to be Ayurveda.



Chakras

The official translators working at the great bSam-Yas monastery rendered many medical texts, long and short, from Sanskrit into Tibetan; about twenty of them have been included in the bsTan-gyur collection of the Canon. And in many cases, the Sanskrit originals have been lost in India, but

their Tibetan versions have been preserved. One such was a work known in Sanskrit as "Amṛta-aṣṭāṅga-guhyopadeśa-tantra" ("The treatise containing secret instructions regarding the eight branches of essential immortality, viz. health"), translated by Vairocana-rakṣita himself, 'the prince of translators'. This work, familiar by its short title *rGyud-bzi* (*Chatuṣṭ-tantra* in Sanskrit, 'Four Treatises') has all along been held in great and universal regard by the Tibetan physicians; and has been regarded as the source-book of Tibetan medicine. Of the seventy odd medical texts that the Tibetan physicians generally consult, this is the most authoritative and fundamental. There are numerous annotations and notes on this work in Tibetan, like *Bai-Dūrya-sñon-Po* by Saṅgs-rGyas-mTse (composed earlier than 1700 A.D.), and *Ihan-Thabs* (annotating only the third part of *rGyud-bzi*) by the same author. These two annotations together with the main text of *rGyud-bzi* are held as three most important texts by Tibetan physicians.

It is usual for the Tibetan physicians to carry this book with them when they are itinerant, and get oral explanations from competent masters. The formal training of a physician in Tibet takes as many as ten years, and often more, during which period the main book for study is *rGyud-bzi*.

While the contents of *rGyud-bzi* leave no doubt that it is based entirely on the *Samhitās* of Charaka, Suśruta and Vāgbhaṭa, the form in which the Tibetan text is composed is rather unique. It is divided into four parts, each part being called a 'tantra' or treatise: the first is *rTsa-bahi-rGyud* (in Skt. *mūla-tantra*) 'root treatise in six chapters; the second *bSad-pahi-rGyud* (in Skt. *ākhyāta-tantra*, 'explanatory treatise') in 31 chapters; the third *Man-ñag-gi-rGyud* (in Skt. *upadeśa-tantra*, 'treatise of instructions') in 92 chapters, and finally *PHyi-Mahi-rGyud* (*uttara-tantra*, 'final treatise') in 27 chapters. The first part mentions the eight branches of medicine, corresponding exactly to the *aṣṭāṅga-āyurveda*, except for the branch dealing with diseases of women, which in the Tibetan text is substituted for minor surgery (*śālākya*) in

Āyurveda (which is included under treatment of wounds or śalya in Tibetan).

It is difficult to ascertain which was the original text in Sanskrit of which this *rGyud-bzi* is a Tibetan version. It bears little resemblance to any of the texts that are now in vogue in the country. But it is recorded, as has already been mentioned, that the Tibetan translator Vairochana-rakshita visited India in order to study Vāgbhaṭa's *Aṣṭāṅga-hṛdaya-saṃhitā* tradition under the celebrated authority Chandranandana-panḍita of Kashmir who had also written a gloss (Vṛtti) on this text known as *Chandrikā* or *Padārtha-chandrikā*. It is known that Vāgbhaṭa, who belonged to the Sind region, had become popular in the North Western regions of the country and the adjoining Himālayan tracts before the seventh century A.D. I-tsing, the Chinese traveller, makes an obvious reference to his celebrity. But *rGyud-bzi* does not conform to the scheme adopted either in the *Hṛdaya* or in *Samgraha*. And there is a distinct work entitled in Sanskrit *Vaidyāṣṭāṅga-hṛdaya-vṛtti*, which is an exact rendering in Tibetan of Vāgbhaṭa's *Aṣṭāṅga-hṛdaya-Saṃhitā*, included in *bsTan-hGyur*; this translation has been done by Rin-chen bZang-po (between 1013-1055 A.D.)

Before a brief description of *rGyud-bzi* is given, it may be noted that Tibetan medicine is entirely Āyurveda in its origination, approach, assumptions, diagnostic methods, prognosis, pharmacy, treatment procedures, and materia medica. The theory that all substances, all physical and mental constitutions, all ailments and all curative processes, are pāñcha-bhautika in character (viz. composed of earth, water, fire, air and ākāśa elements), the assumption that the patient's constitution, health and disease are determined by the tri-dosha (vāta, pitta and kapha) are common to Āyurveda and Tibetan medicine. The Indian tradition that the science of medicine was handed down from Brahmā to Prajāpati, from Prajāpati to the Aśvins, and from the Aśvins to Indra has been accepted in Tibet, with a slight ammendment that it was Buddha-Kāśyapa who taught Brahmā this art and science.

Vāgbhaṭa's *Ashṭāṅga-saṁgraha* mentions merely that Brahmā learnt this immortal art, not however spelling out from whom Tibetan tradition fills this gap.

It recognizes the father of Indian medicine, Ātreya, as the teacher of Dhanvantari (Thang-la bar), and the lineage continues with Dka-'gnis Spryod, Mu-khyud-'dzin, gshol'-gro skyed, Me-bzin-jug (Agniveśa), Lug-rg (Kṛṣṇa-mesha?), and rGya-sKegs-sna. These are Tibetan names of Indian medical authorities, but it is difficult to identify them except for Dhanvantari and Agniveśa. The medical works of all these authorities are clubbed together under the title Rtsa-ra-kasde (viz. Charaka ashta-varga). The *Samhitās* of Charaka, Suśruta and Vāgbhaṭa (the so-called Vṛddha-trayi) have been rendered into Tibetan and accorded a prestigious position in the canonical literature, bsTan-hGyur.

Likewise, several other useful and authentic works in Sanskrit have entered into this collection, like Nāgārjuna's *Yoga-śataka*, and *Vaidya-Jīva-sūtra*. Thus the framework of classical Āyurveda has been entirely adopted. Working concepts of Ayurveda like pāñcha-bhūta, tri-dosha, sapta-dhātu, malatraya, śodhana, śamana, pāñcha-karma, nidāna, dina-charyā, ṛtu-charyā and svastha-vṛtta have constituted the main features of Tibetan medicine also.

But, as mentioned earlier, the bSam-yas Medical Conference (around 974 A.D.) represented a confluence of several medical traditions, and the Tibetan leader of the conference had visited India thrice to learn about Āyurveda. Among the many medical books that he wrote, however, one dealt with diagnosis of diseases by reading the pulse (mñNon-Śes-gNad kyi hPhrul hKHar). It is uncertain if he could have picked up this diagnostic and prognostic aid in India; probably he did not. We do not find references to this detail in any of the classical texts of Āyurveda; the mention of nāḍi-parīkṣhā occurs for the first time in *Śārīga-dhara-samhitā*, a work of the 14th Century. Tibetans were acquainted with this art, and had perfected it long before this time. It is likely that the Chinese medical tradition provided them with the preliminary motivation; and

pulse-reading constitutes an important detail in Tibetan medicine right from the days of the bSam-Yas Conference. In fact, it forms a major section in *rGyud-bzi*, which had become celebrated even by the time the Conference at bSam-Yas was convened.

The *rGyud-bzi*, or the 'four-fold Tantra' in 156 chapters and 5900 stanzas, is in the form of a dialogue between two sages: Yid-las-SKyes seeks to be enlightened about the art of medicine and Rig-pahi Ye-Śes explains it as he had heard it from the Buddha himself, appearing as sMan-pahi-rGyal-po (Bhaishajya-guru). The Tantra begins with a description of the charming 'realm of medicinal treasures', which cures 404 diseases of man. It goes on to enumerate eight branches of medicine, all of which are discussed both concisely and comprehensively in the four treatises of the Tantra.

The eight branches are: (1) treatment of diseases of the adult body (Lus); (2) diseases of children (bYis-pa); (3) diseases of women (Mo Nad); (4) diseases caused by evil spirits, occult influences etc. (gDon), viz. nervous and mental ailments; (5) diseases caused by spears etc. (inchon), viz. wounds and other bodily afflictions needing surgical intervention; (6) diseases caused by poisons (Dug); (7) diseases caused by senile degeneration from ageing (rGas); and (8) diseases needing rejuvenation and sexual invigoration (Ro-Cha-Pa). One can see that these eight branches correspond exactly with our *kāya-chikitsā*, *kaumāra-bhṛtya*, *strī-roga* (not, however, enumerated separately in the *aṣṭāṅga*; instead we have *śālākya* or *ūrdhva-jatru-roga-chikitsā* here), *bhūta-vidyā*, *śalya*, *agada-tantra*, *rasāyana* and *vājikaṛaṇa*.

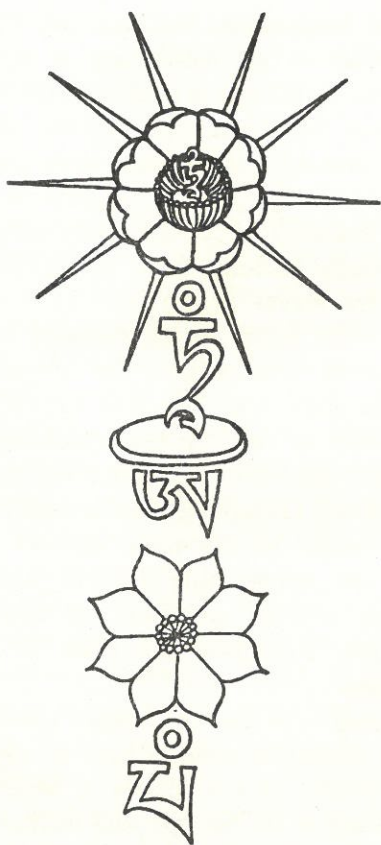
The text goes on to describe health and define disease. We find here the usual *Āyurveda* ideas of foetal formation, foetal development, anatomical structure, physiological processes, aetiology of diseases, classification of diseases, differential diagnostics, prescription and preparation of medicines, methods of treatment, behavioural therapy and the physician's moral responsibilities (which are all dealt with in the second or 'explanatory' treatise); specific diseases coming under each of

the eight branches, and their treatment (which form the bulk of the third or 'instructional' treatise); the forms of medicament (decoctions, powders, pills, ashes, butter, syrup etc.) and various methods of treatment (internal like purgatives, emetics, elixirs, clysters etc. and external like blood-letting, bath, ointment and surgery).

The arrangement of topics in the book is excellent: it is at once clear, orderly and meaningful. For instance, in the second treatise, after discussing treatment of diseases that are due to *vāta*, *pitta* and *kapha* severally and conjointly, fever is taken up: ordinary fever, high fever, rising fever, latent fever, hidden fever, persistent fever, spreading fever, fluctuating fever and infectious fever. In the next division of the treatise, diseases that afflict the head and the several sense-organs are dealt with in an orderly fashion. Following this, the diseases of the organs which are hollow (the two intestines, stomach, urinary bladder, uterus, seminal vesicle) and solid (heart, lungs, liver, spleen and kidney) are discussed; and then the diseases of the urogenital system in men and women. The discussion concludes with 'minor diseases' (like loss of appetite, abnormal thirst, hiccough, colic, constipation, nausea, diarrhoea and skin diseases).

The unique feature of Tibetan medicine is its ideological structure of medical theory and practice in the image of a tree. There is a section devoted to it (Treatise I, 6), and there are oral explanations and charts based on this account. While the details of this picture are to be found also in the *Āyurvedic* texts, the picture itself appears to be unique to the Tibetan text. We have references to the 'medicine in three divisions' (*tri-skandha-āyurveda*) in classical works such as *Ashtāṅga-samgraha* (the three aspects being cause, *hetu*, symptoms, *liṅga* and therapy, *aushadha*), which undoubtedly suggest the imagery of a tree (*skandha*, meaning 'stem', 'trunk'). But the idea did not develop here as it did in Tibet.

If medical theory and practice together can be likened to a tree, it would have three Roots (*rTsa-ba*), nine trunks (*sDong-po*), forty-seven branches (*yal-ga*), and two hundred and twenty-four leaves (*La-ma*). The three roots (constitute the



Visualised Mantra

major divisions of medical theory and practice, viz. (1) psychophysical constitution of the individual (gNas Lugs) in health and in disease; (2) diagnosis or clinical examination (Nos-hjin); and (3) therapeutics (gSo-ba). The roots are arranged in terms of primacy and importance; Root (1) is fundamental and foundational, the other two being entirely dependent upon it; Root (2) is dependent on Root (1) but fundamental to Root (3); and Root (3) is immediately dependent upon Root (2) but ultimately supported by Root (1).

1. The most fundamental Root has two Trunks. The first of them is relevant to all individuals at all times, and is especially involved to achieve a healthy condition of body and mind ('undisturbed' MahGyur, 3kt. avikṛta). Constituting this Trunk are three branches, the doṣhas (five forms of each of the three: vāta or rLung, pitta or mKHris-pa, and kapha or Bad-kan), the dhātus (the seven body-constituents, Lus-Zungs) and the malas (Dri-ma, three: urine, faeces and sweat), having twenty five leaves in all.

The second Trunk refers to the diseased condition of the individual ('disturbed' rNam-hGyur, Skt. vikṛta). This has nine branches, and has sixty three leaves in all. Of interest and of unique significance is the Tibetan reckoning of the three phenomenological processes: 'attachment' (h Dod-changs, Skt. rāga), 'aversion' (Ze-sDang, Skt. dvesha) and 'delusion' (gTi-Mug, Skt. moha) as the three primary poisons (Dug-gSum) which are responsible for 42 and 33 diseases respectively. They together constitute the first branch of the pathological trunk, signifying the main or primary cause (rGyu) of diseases.

It may be noted here that in Tibetan culture, medicine is more intimately related to religion than in any other culture. The Tibetan physician is not merely a healer of body and mind; he is responsible for the spiritual welfare of his patient. His office combines the normal functions of diagnosis, management and treatment of diseases, with teaching scriptural texts and performance of magical rites for the patient. Medicine and religion are thus interwoven with each other.

The job of a physician is really to help maintain the first Trunk of the first Root (viz. to maintain a balanced or undisturbed condition of health) by counteracting the second Trunk (viz. disturbed condition or disease) with the help of the other Trunks of two other Roots (viz. diagnosis and therapy). The first Trunk is important in as much as its fruits are health and longevity, which are necessary for the three goals of life (virtue, wealth and happiness) to be accomplished.

While 'attachment', 'aversion' and 'delusions' are the primary causes of any disease, four conditions which co-operate with them to aggravate the disease are also recognized: (1) time (Dus), viz. time of the year, time of the day, age of the patient; (2) evil influences (gDon), (3) food (Zas) and (4) conduct (Spyod-pa). These are called secondary or supporting causes (rKyen) constituting the second branch.

The third branch relates to the manners in which the disease enters into the body viz, how it percolates into the body (Pags-pa) through the skin, spreads through the flesh (Sa), moves about the body along the veins (rTsa), gets established in the bones (Rus-pa), descends into the 'solid organs' (Don, heart, liver, lungs, spleen and kidneys), and finally accumulates in the 'hollow organs' (sNod, intestines, stomach, gall and urinary bladders, uterus, and seminal vesicle). These constitute the entrances of diseases (hJug sGo, Skt roga-praveśa-dvāra), which are six in number.

The fourth branch relates to how the disease gets localized and stays within the body-constitution. They are 'spheres' 'abodes', 'dwelling places', 'places of residence', 'sites' (gNas) so far as the disease is concerned. The body for this purpose is broadly divided into three parts: upper part (Stod), where the diseases that originate from disorders of kapha (Bad-Kan) are localized; middle part (Bar), where the diseases that originate from disorders of pitta (mKHris-pa), are localized; and lower part (Smad), where the diseases that originate from disorders of vāta (rLuṅg) are localized.

The fifth branch comprises of the channels (Lam, Skt. srotas) of the bodily organs through which the three dhātus travel and communicate disease. They are fifteen in number in three groups of five each: sense-organs (dBang-po), 'solid' organs (Don) and 'hollow' organs (SNod).

The sixth branch refers to the three factors, each in three variations, that are attendant upon the occurrence of diseases: age of the person (Na-so, kapha in early age, pitta in middle age, and vāta in old age, being mainly responsible for diseases), place of his residence (Yul, windy and cold, dry and

hot, damp and sticky), and the time of the year, and the period of the day or night (Dus, summer, autumn, spring; early hours, middle hours, and late hours of day or night). These are regarded as the nine leaves of this branch.

The seventh branch relates to the impact of the diseases (severity, amenability, impossibility, malignity etc.) which is felt as nine-fold. It is called 'consequence' or 'effect' (hBras-bu).

The eighth branch, called the factors that oppose each other (lDog) and thus become causes (rGyu) of diseases, relate to the antagonistic positions in which each of the three doshas arrange themselves in the diseased body. There are twelve such positions possible, and therefore they are described as the twelve leaves of this branch.

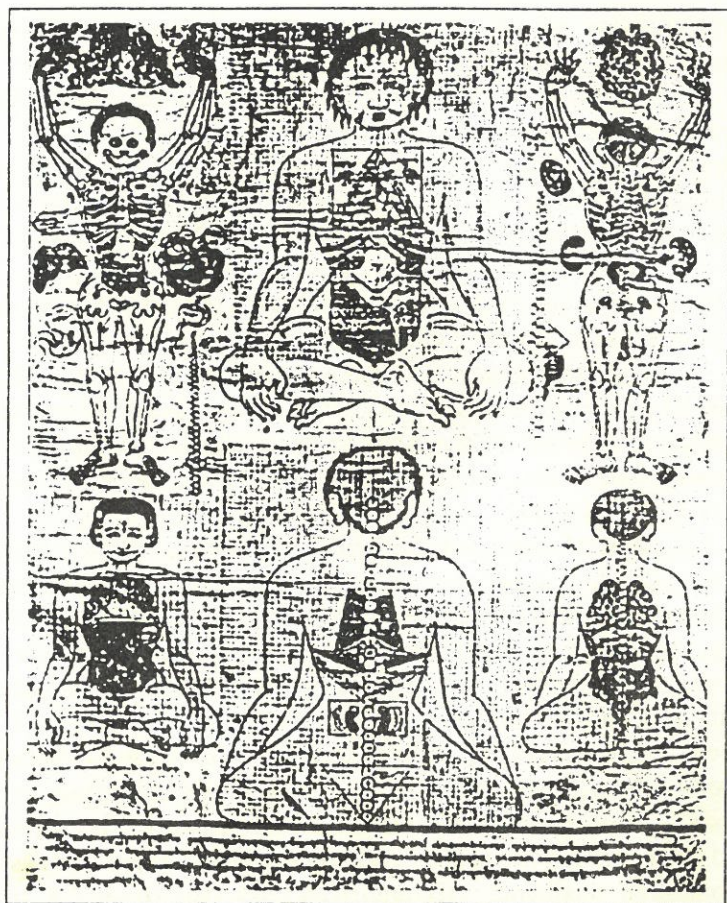
The ninth branch consists of two leaves, called 'cool' (Grang-ba, Skt. śīta or soma) and 'warm' (Tsa-ba, Skt. uṣṇa or āgneya), which are fundamental conditions of diseases.

Thus the second Trunk of the first Root has in all nine branches and sixty-three leaves, representing the causes, conditions, courses, varieties and effects of the pathological element in the human constitution.

II The second Root (Diagnosis or clinical examination) refers to how the diseases are understood by the physician so as to enable him to decide on the proper line of treatment. The Trunks here are three in number: examination by sight, examination by touch, and questioning the patient.

(1) The Trunk of visual examination of the patient's condition (blTa-ba, 'to see', 'to view', Skt. darśana), involves two branches and six leaves: examining the tongue's colour, moisture and texture (three leaves), and examining the urine's colour, density and bubbles (three leaves);

(2) The examination by touch (Reg-pa, Skt. sparśana) is mainly the reading of the condition of health or ill-health by feeling the pulse or distal artery (nāḍi) at the wrist. The pulse-reading involves the understanding of the individual conditions of the three doshas. Thus the Trunk is said to have three branches and three leaves.



Tibetan chart of Nāḍis

(3) Questioning the patient (Dri-ba) involves the eliciting of information regarding three causative factors (Slong-rKyen), regarding the symptoms or disease conditions (Na-Lugs), which are 23 in number, and the habits and conduct of the patient (Goms-pa) in three areas (food, drink, surrounding), thus providing this Trunk with twenty-nine leaves.

III The third Root pertains to the lines of treatment, which are principally four-fold (thus described as having four

Trunks): food (nutrition), conduct, regimen, internal medicine, and external treatment.

(1) The importance of proper food (Zas, Skt. āhāra) has been recognized not only in maintaining normal health but in correcting the ailments. Prescriptions of corrective articles of food (Zas) and drink (sKom) constitute the first Trunk, and their variations in disorders of each of the three doshas give us six branches and thirty-five leaves in all. Tibetan medicine believes that in cases of any disease, the initial line of treatment must be to correct food-habits.

(2) The importance of hygienic conduct (sPyod-pa, Skt. āchāra) is likewise underlined. The prescriptions of correct conduct is relative to the state of the dosha prevalent in the disease. Thus this Trunk has three branches, each of them having two leaves.

(3) Internal medicine (sMan) comprehends the remedial tastes (Ro, Skt. rasa) and the active properties (Nus-pa, Skt. vīrya) of the drugs to be used in the diseases caused by the three doshas, thus contributing six branches (taste and active properties in the three doshas) and eighteen leaves (nine tastes and nine active properties); the alleviative medicines (Zi-Byed, Skt. śamana) for each of the three disorders (including three kinds of liquid drinks, five kinds of medicinal butter, four kinds of decoctions, four kinds of powders, two kinds of pills and five kinds of paste, altogether twenty-three leaves); eliminative medicines (sByong-byed, Skt. śodhana), for the errant doshas viz. cleansing by enemata, by purgation and by vomiting. Thus there are three branches; three varieties for vāta, four for pitta and two for kapha, and thus nine leaves. Altogether this Trunk of internal medicine has fifteen branches and fifty leaves.

(4) External treatment including surgery (dPyad-pa, lit. use of instruments) appropriate to each of the three doshas, two for vāta, three for pitta and two for kapha, thus giving us three branches and seven leaves.

While the foregoing analysis of the Tibetan classic clearly illustrates its indebtedness to the nucleus of ideas incorporated

in the texts of Charaka, Suśruta and Vāgbhaṭa, we find in it many ideas that appear alien to the Indian texts, at any rate in the form in which they appear now, e.g. the primary causation of all diseases by the three phenomenal errors (attachment, aversion and delusion), persistent relating of all theoretical constructs, diagnostic tools and therapeutic prescriptions to the tri-dosha theory, the great importance attached to pulse-examination as a diagnostic as well as a prognostic aid, the use of urine examination, the distinction in order to arrive at the case-history of the patient, the dosha-oriented grouping of various forms of medicine, and the theoretical constructs of śamana and śoṣaṇa. It may also be mentioned here that the simplicity of terminology, the orderliness of the arrangement of topics, and the homely metaphors that are frequently used to drive home medical constructs are the characteristic features of this work, which we miss in the Sanskrit texts that are available now.

One of the details found in this text is reading of pulse for diagnosis and prognosis, which detail, as was said earlier, is conspicuous by its absence in the early Āyurvedic texts. How the Tibetan physicians acquired it, and how it came to be so elaborately developed are uncertain. The text rGyud-bzi, which deals with it, was celebrated even during the bSam-yas medical conference (794 A.D.). The principal influences that stemmed from this conference were Indian, Tibetan and Chinese. If rGud-bzi, mentioned the value of pulse-reading, Indians must already have been conversant with the diagnostic tool. And we know for certain that the Chinese had developed it much earlier, and had made it an important equipment for a physician. The Tibetan leader who organized this medical convention, gYu-Thog-pa Yon-Tan, was himself an authority on pulse-reading; he had written a book on it which had become well-known. The pulse-reading as developed in Greek medicine had reached Persia during the early centuries of the Christian era; and a Persian physician, Gelanos, participated in the bSam-Yas conference. It is to be expected, therefore, that the conference highlighted the diagnostic value

of pulse-reading. And, during the rule of the emperor Khri-gTsang-lde-bTsan (815-838 A.D.), the Chinese influence on Tibet was marked. This may be how this aspect of medicine assumed an enormous importance in Tibet.

Whatever the circumstances, it is a fact that Tibetan medicine holds this examination by touch as most valuable in understanding the relative conditions of the three doshas as well as the state of each of the ten organs (five 'solid' and five 'hollow') inside the body. It provides for the physician a vivid picture of the health of the individual or the diseased condition of the body. It also enables him to foresee the course the doshas are likely to take in the patient's body. The method of pulse-reading that the Tibetan physicians have evolved is very elaborate, and the Tibetan physician spends as many as three years learning to master its details. This method is characteristically different both from the Chinese and the Indian methods, although the impact of both on it can readily be seen. In Tibet, it can operate like a complete, self-sufficient diagnostic method.

Although pulse can be read at different parts of the body, it is read satisfactorily only at the distal artery at the wrists of the two hands ("shouting, in summer, across an open field"), for near the vital organs, the pulse is too close to the scene of activity ("talking near a waterfall"), and at the extremities it is too far removed ("message from a distant merchant"). Pulse is best read after the night's rest, and before one gets busy with the day; "when the sun has arisen but his rays have not reached the hill-top yet". Preferably the body and mind of the patient are prepared for pulse-reading a day earlier by avoiding excess of food, physical or emotional stress, loss of sleep etc. The energies would then be sufficiently well settled to enable the doshas to be articulated distinctly through the pulse. The physician who reads the pulse must likewise prepare himself. Pulse-reading is thus a transaction between the energy-dynamics of the patient and the energy-dynamics of the physician.

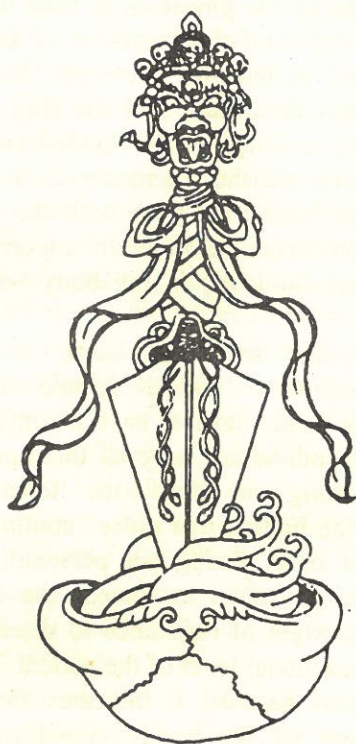
Three fingers (forefinger, middle finger and ring-finger) of

each hand are used by the physician to read the pulses at both wrists of the patient. And the pressures of the fingers of the artery are regulated so that the forefinger 'feels the skin', the middle finger 'feels the flesh', and the ring finger 'feels the bone'. Each finger is conceptually divided into two units, the upper and the lower, and thus there are six units of the fingers in each hand. The twelve units on both the hands are meant to provide the physician information concerning the twelve organs ('solid' and 'hollow') in the body which are relevant to all diseases.

Three are the pulses that the physician looks for to ascertain the patient's constitution: 'male', 'female' and 'bodhisattva'. Expressions 'male' and 'female' have no reference to the sex of the person. All individuals have all three pulses. The 'male' pulse appears "strong and thick", the 'female' pulse "subtle and quick", and the bodhisattva pulse "continual and smooth". These pulses not only distinguish personality characteristics but also help the physician to foresee the life-span, general state of health, strength of resistance to disease, the nature of progeny, and transactional level of the patient. The 'bodhisattva' pulse is so named because it indicates the most desirable constitution, where all the bodily constituents are perfectly balanced, health is maximized, and mind is ready for higher attainments. It is the superior pulse, not frequently found; but it is by no means impossible for normal folk to have it. The name of the pulse does not mean that it is confined to, or peculiar to, the superhuman bodhisattvas.

There are other details of pulse-reading, such as 'hot' or 'cold' pulses in accordance with 'hot' or 'cold' diseases that the body had succumbed to, general and specific pulses (indicating disorders of ali, two, or one of the doshas), relation of the pulses to the 'hollow' and 'solid' organs inside the body, the nature of pulse when death is imminent (extreme irregularity, periodical cessation, unequal lengths, quick changes etc.) and 'collective pulse' (like 'guest', 'enemy', 'friend' etc.).

While Tibetan medicine follows in general the rational line adopted in the Indian medical texts like the *Samhitās* of



Phur-Bu

Charaka, Suśruta and Vāgbhaṭa, it does not confine itself to the 'yukti-vyapāśraya' mode of treatment involving reason, diagnosis, analysis, trial, and examination. It recognizes, more effectively than Indian medicine does, the value of supernatural influences in the curative process (daiva-vyapāśraya).

The man who falls ill is also the man who is spiritual (hence the expression Gaṅg-jag, Skt. pud-gala). There is an aspect of him that is not exhausted by the psychophysical details, and which in fact lords over the latter. There are practices in Tibetan medicine which seek to influence this aspect by such devices as prayers, incantations, rituals and contemplative

practices. The use of amulets, talismans, magical pills (Ril-bu) 'wondrous, medicines' (rDzas) and queer potions (Nang-mCHod) is also resorted to.

While the role of evil spirits (hDre) in the causation of diseases is accepted by the folk, the value of the pacification of the mind-body complex of the patient in all such cases is recognized by the Tibetan physician. The real 'nectar' (bDkud-rTsi) is tranquillity (Zi-ba, Skt. śiva, in the sense of śamana). The body should not be subjected to undue or improper exertions, and the mind should be free from excitements and anxieties. It is only then that the balance of the basic principles of the body-mind complex is restored. In order to effect this pacification in the patient, the physician attempts to transmit his own cultivated calm to him during diagnosis as well as administration of drugs. The presence and proximity of the physician (who is most often also a saintly person) have by themselves a salutary effect on the patient.

Vidyalankara, Sastra-Chudamini, Sangita-Kalaratna, Professor
Saligrama Krishna

Ramachandra Rao, is a well-known scholar who combines traditional learning with modern research. Well versed in Sanskrit, Pali, Ardhamagadhi and several modern Indian languages and acquainted with Tibetan and some European languages, he has written extensively on Vedanta, Buddhism, Janism, Indian Culture, Art and Literature. In his professional career, however, he was a Professor of Psychology. He has headed the Department of Clinical Psychology in the National Institute of Mental Health and Neuroscience's, Bangalore and the Department of Indian Culture in the Collision College Study Center of the University of the Pacific (U.S.A.) He was the senior associate of National Institute of Advanced Studies (Indian Institute of Science), Bangalore, and Guest Faculty, Indian Institute of Management, Bangalore and member of the Governing Council of TTD (SVCL Research Center), Tirupati.

He has been member of Karnataka State Lalitha Kala Academy and Sangita Nritya Academy and Sangita Nritya Academy; he has served on the Agama Board (Govt. of Karnataka). He is President of Silpa-Kala Pratisthana. The Govt. of Karnataka has honored him with the 1986 Rajyotsava Award. He has received awards from Lalitha-Kala Academy and Sangita Nritya Academy. He has been Awarded the Veda-Sanman for the year 2000 by the Govt. of India (Ministry of HRD, Sandipani Mahavidhyalaya, Ujjain).

He has written more than Sixty Books in Kannada, a Play in Sanskrit, and a Pali Commentary on a Buddhist classic. One of his books on Iconography in Kannada has won the State Sahitya Academy Award, as also another of his Book on the Tirupati Temple.

Among his numerous English Publications are three Vols. of Encyclopaedia of Indian Medicine, Tibetan Tantrik Tradition and Tibetan Meditation, Consciousness in Advaita, and a series of Six Books on Indian Temples Origins of Indian thought; Kalpatharu Research Academy has published his Pratima Kosha in Six Vols. Agama Kosha in Twelve Vols. Art & Architecture of Indian Temples in Three Vols. He is present engaged in a project on Rgveda-Darsana (Eight Volumes of which have appeared). He is also Musicologist, a Sculptor and Painter, and has held some one man shows.

SRI SATGURU PUBLICATIONS

A Division of

INDIAN BOOKS CENTRE

40/5, Shakti Nagar, Delhi-110007 INDIA
