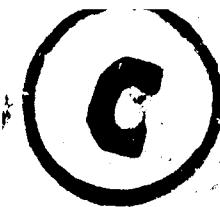


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Is Vedānta a Science of Reality?

By

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(Annamalai University.)

I propose to discuss the subject under two headings. The first part will be occupied with the question: "Can there be a science of Reality?" In the second part, the question of Vedānta being a science of Reality will be dealt with at length.

I.

CAN THERE BE A SCIENCE OF REALITY?

We live within the matrix of Nature which we try and hope to understand. How much do we know? What is life? No one knows. It emerges from darkness like a meteor, makes a transient trail and disappears into darkness again. What is Self, this 'I'? I rise from life and merge into life. The rising and merging belong to life as such. But Self includes life within itself and transcends it by overflowing it. It becomes the province of science and philosophy to rationalize the matrix of nature in which we live and act, for the trail of human nature is indeed over all our knowledge. Yet we must not forget that even these rationalisations grow out of tradition and prejudices that we have assimilated into our nature. The present day tendency is to emphasize science as the exclusive method of apprehending Reality. Far be it from me to minimize the importance of science which has so vastly



enlarged our vision of Reality. But the lure of the Abstract is so strong that the little gain is out-balanced by an irretrievable loss of integrity. Scientists and philosophers may hypostasize analyses and classifications into Essences or Ultimate Units. Surely this is only a trick of language, for the so-called Ultimate Units indeed subsist as abstractions in the realm of Thought, where they enjoy a dubious eternity. Nature is not any more real at the level of electrons and protons than at the level of human consciousness. If proton be at the one end the Ultimate of analysis, consciousness is at the other end the Ultimate of synthesis. Nature without spirit becomes mere weather, for it is by Spirit that matter and motion are standardized into patterns, meaningful and beautiful. The analyses of science are pragmatic and do not pretend to give the full implications of the postulates involved. The recent history of science shows too clearly that the scientific constants are pragmatic constants. What science requires is a metaphysical continuum in which, to use Einstein's language, "there are no parts that can be tracked through time." Nature viewed as a whole, does not seem to come into being or likely to pass away. It is self-sustaining and has a definite structure. Over and above the routine of Nature, there is the Creative Genius which spiritualizes Nature and does not emerge in nature's cycles. It has its own individual life of infinite richness and value and "in fullness of time incarnates itself into the flesh of mother earth to produce the kingdoms of beauty, order and value." The patterns might be of the stuff of which dreams are made, but surely, We, the weavers of the patterns, must be something else other than the dream stuff. It is Nature that seems to be rounded up in sleep and not 'We', the creators of values. So much for the complexity of our subject matter.

The term science, no matter to whatever sphere of life or existence it is applied, is currently understood to signify a systematic study and exposition of things and factors that have been, are and yet to be. In its modern usage and acceptance no science can boast of having actually achieved such a happy consummation, although the Ideal of such a perfection is necessarily implied not only by the different sciences of our time but also in our very life and existence. Without such an Ideal no science is worth the name nor life itself worth the pursuit. This urge towards an evergrowing perfection is present in varying degrees of explicitness as aspects of One Universal Life. So long as the manifold aspects and life processes have not been gathered together under a common view-point, life continues to be full of errors, contradictions and pitfalls. Hence science demands not only truths and facts to be accounted for, but also errors and illusions which, though really non-existent factors, have nevertheless been assumed to

be. It is quite logical that a science which explains successfully facts and figures, can also consistently account for error. The very value and function of a science depend upon its capacity to account for the error or ignorance besetting life and to remove such unreal factors by an exposition of the underlying truths. "If truth is not manifest, it must be made manifest, if it is manifest, it must be reached." So long as the basic truth of life is not understood and firmly grasped, life would be covered, as it were, with ignorance and contradictions. The phrase, "grades of Reality" being a misnomer, the differences in sciences are due to the different degrees of Reality emphasized by them. Thus we come to have a hierarchy of sciences based upon the degree of success actually achieved in life.

A science demands as its essentials the following facilities viz., observation, experiment, verification and inference. At the outset we must confess that these facilities are not given to us in their fullest measure. Error as such, is not in the Reality or even in life itself but rather in one or other of the organs and instruments of observation and experiment. Verification and inference themselves could be shown to be defective in one aspect or another and as yet, imperfect in every case. No body seems to be sure of his ground. Newton might have laughed at Ptolemy, but Einstein is making the present generation to laugh at Newton, possibly himself to be laughed at in turn by a future Copernicus. Is this pessimism? Human understanding! It is a frail thing and likely to pass away. Yet it is the only thing that counts for us as the real, and signifies our participation in the realm of nature. But let us not be fooled by our own self-delusions. Human mind has not once sifted out a grain of truth without letting twenty others slip by. In the words of Father Ogniben "Nobody has uttered truth but has presented twenty lies to support it". To see things as they are and understand their limitations are the characteristic marks of a scientific eye.

Further, factors like observation, experiment, inference, etc., are, to a large extent, factors of individual experience. And our ordinary human experience does admit of a variety of contradictions, to wit, unity and differences, freedom and constraint, the eternal and the contingent, the infinite and the finite, etc. Logically speaking these mutual oppositions must themselves be necessarily and eternally cancelling one another. If mutual opposition be the only truth, there would indeed be no truth at all, for truth will be contradicted by error. But without these opposing factors distinctly perceived as such, life or experience could not be possible; and experience is the only factor on which all sciences and knowledge are based and to be guaranteed. Bosanquet

might say that all these contradictions are resolved ultimately in the Absolute. This is putting the cart before the horse. Life alone is the sole repository of both knowledge and ignorance, and it alone can explain the truth of these contradictions. Every scientific problem is a life-problem only. And life contains the one solution of the different oppositions. Thus no science is independent of life, and life embraces all sciences within its fold and is infinitely more than a mere totality of sciences.

With the modern canons of scientific procedure, Reality can never be actually demonstrated, for, we have already pointed out how factors like observation, experiment etc., are not only limited in their scope but inherently defective in their nature and constitution. Let us take observation for example. What we observe seems to be real. But the illusions of the optic centres are too well known. The sun going round the earth seems to be perfectly real so far as the human eye goes. Our dreams and the optic illusions assure us that what is taken to be real, may not be so after all. A true scientific observation requires the whole of Reality including the observing subject as well, to be placed before us as an object for observation. Such a task is futile, for how could the observer be possibly objectified or treated as an object. As Sankara put it beautifully, the cognizer is ever the cognizer and the cognized ever the cognized only, and it is impossible for one to be both the cognizer and the cognized at the same time. This is the law of contradiction. The instruments of our observation, our very eyes and the microscopes, are vitiated by the danger of mal-observation or non-observation. While we cannot absolutely trust our senses, how can we pretend to have been assured by the merely external and artificial though wonderfully constructed and delicate instruments like microscopes, telescopes, stereoscopes etc? Are these instruments really more wonderful, complex or delicate than the human eye? What is not possible for the human eye becomes utterly impossible for the artifices of the human mind. Bertrand Russel put it correctly when he said that we could never be assured whether what we observed through the microscope was really a motion in ether or merely a reflection of a quiver in the retina of the observing eye. So much for scientific observation.

What about experiment? Man is given only one chance to know Truth. A theory of reincarnation might after all be an Oriental balm to the many disappointed and disheartened human souls, but to a scientist nothing more than a belief. The religious dogma does not alter or affect the scientific conception. It is a rational but pious hope that what could not possibly be achieved here and now, we hope to achieve after death or in a rebirth. What I want to emphasize is not the

rationality or the irrationality of the religious doctrine—this is a matter for the priests and *pundits* to fight over—but the tremendous and momentous significance of our present life. Have we really any positive proof or evidence to show conclusively that after death there is a sure return? Hence if any scientific experiment is to be conducted upon Reality, it must be done in the 'present' life, for science does not lie outside life. But experiment requires that the subject doing the experiment must live before, during and after the experiment. In other words the present experimenter must live as he was before birth, and continue to live after death. On the very face of it, it sounds absurd and impossible. Who knows anything of the 'Before' or of the 'Hereafter'? Our very limitations and littleness in this ruthless orderly machine of an immense universe seem to mock at our attempts to know Reality as it is. The little blade of a grass seems to scoff at man's vanity and his presumptive claim to wisdom and superiority. In the absence of correct observation and experiment, verification and inference are more or less speculative and dogmatic in character. Hence the reason why the best scientific truth is always open to be proved false and replaced by subsequent or more acute inference *ad infinitum*. The sum of all human endeavours has not even touched the Actual by the fraction of a millimeter. "Ages have past; still Thou pourest and still there is room to fill" (Tagore: Gitanjali.)

We are left on the brink of an abyss ready to be dashed to pieces. Are human existences and endeavours merely the accidents of a ruthless system of coincidences over which we have no control? What is this immense machine of a universe with its laws of evolution, development and growth? Who is its controller or is the controller himself its steering rod and wheel? What is the cause, purpose and the meaning of the whole affair? These must lie within this universe itself, for we cannot have the seed at one place and seek the tree elsewhere. Or is the whole thing a bit of constrained imagination and if so, whose? Hegel says "Reality is already an accomplished fact and does not wait for human cognition or recognition. That it does so wait is the illusion under which we live and have our interest in life." If the evolutionary laws and processes disclosing themselves in manifold ways and existences in Nature are nothing better than hallucinations, human endeavours and aspirations become meaningless and unnecessary. What about science? Its methods, if stretched to their logical limits, leave us between the Scylla and the Charybdis. But the question is "Is Reality so?" The Real in order to be real, must be artistically the most beautiful, morally the perfect and scientifically the most correct or the rational. Hence human endeavours must have their place and meaning within the system of Reality. As Spinoza put it,

if Reality had become the commonest of all things, humanity would not have waited so long for its salvation. The fault then does not and cannot lie in the Real, but only in the different methods we are pursuing. And the methods of modern sciences neither prove nor disprove anything in all the three worlds heaven, earth or hell.

II.

VEDANTA AS A SCIENCE OF REALITY.

As a science, Vedanta alone gives us some hope. It brings before us the whole of our experience for review. There is no mystery or mysticism about the Upanishads. One and all of the Upanishadic seers think that life alone will give the clue to the whole affair. They proclaim truth and also prove by reasoning how it cannot be the whole truth. Thus by viewing and reasoning from different angles of vision we arrive at certain facts. When we bring them all together, we will as a matter of course arrive at the right conclusion. This is the method pursued by Yajnavalkya in the Brihadaranyaka Upanishad. At first it takes the form of an appeal to our ordinary experience and passing judgment upon what is presented in experience as the real or as our immediate sense of the present. Beyond the perpetual and conceptual levels lie the aesthetic, moral and religious factors. These modes of construction are, according to Yajnavalkya, only one phase of the total experience. Sruti also says: "Brahman is four-footed. All this is one foot only, the other three feet are up in the sky."

"Philosophy contemplates experience as a whole and attempts to comprehend it under its scheme. . . . The clue to the nature of a Philosophy lies in the method pursued.¹ There is a fundamental difference between the methods of Vedanta and Western philosophers. Croce, the great Italian 'Actual' idealist, in praising the Indian system says that while the Indian system has everything to do with life and experience, the formal Logic of the West is dry and when applied to human experience is barren of any good result. Mr. Widgery in his recent book on "Contemporary Thought in Great Britain," remarks that in order to appreciate the great conclusions of the Indian Philosophers, modern Philosophers must first get familiar with their peculiar methods. But Hegel thought that he would have nothing to do with a system that landed him nowhere or in the 'Abyss of Brahman' as he called it. Mr. Stace, the author of 'Hegel's Philosophy' calls the system of the Upanishads a 'pseudo-philosophy.' Such contemptuous

1. Dr. Radhakrishnan: The Reign of Religion in Contemporary Philosophy.

references are excusable when we consider the peculiar nature of the *Vedic* methods (which they have failed to understand). The great metaphysical '*Vedic*' conclusions are based upon a correct valuation of facts in terms of experience as our great philosophers like Gaudapada, Sankara and Ramanuja have shown in their brilliant commentaries. The '*vedic*' methods and conclusions can be understood only through a clear understanding of those great '*vedic*' scholars who knew how to interpret the Upanishads.

The Western methods could broadly be divided into the empirical and the transcendental. Under the empirical come the positive, physical and physiological sciences and under the transcendental, the aesthetic, the moral and the religious. There is yet a third view which has escaped the attention of the Western philosophers and scientists. This is what is called the '*Avasthaic*' View, and the method of enquiry is commonly called the '*Avasthathrya*' which supplies the key to the understanding of the philosophy of the Upanishads. Till now Western scholars have not bestowed any serious attention on this subject. As this is a metaphysical method it is wrong to suppose, as some of our recent scholars do, that it has anything to do with psycho-analysis. It is not psychology but pure metaphysics, as all psychology is only a science based upon the observation of the enquirer in one state only, i.e., the waking. The method of *Avasthathrya* is a comprehensive view, more comprehensive than the usual transcendental and empirical views. It is the '*vedic*' view and peculiar to the Vedas only. No other system of thought has even thought of it. The study of Vedanta is never complete without an understanding of this method and its application. It is not mysticism but the means by which clear reasoning leads to a direct perception of Truth. The importance of this method as the surest proof for establishing Reality was realised by Gaudapada and Sankara. Sankara's greatness lies in the fact that as a true metaphysician he bases his whole system of thought upon this important method. The Vedanta Sutras deal with this Method in Chapter III, pada 2, where Sankara describes it as the unique '*vedic*' method. Gaudapada, his predecessor, gives it the foremost place as is evident from his Karikas on the Mandukya Upanishad. Sankara's system will remain a sealed book if the method with all its implications is not properly understood. Vidyaranya in his *Panchadasi*, takes up *Avasthathrya* in the very first chapter in order to establish the Reality by an appeal to reason and facts of our experience. Even now in India there are several *Mutts* or religious organisations where this method is taught only to the most ardent students of philosophy. A metaphysical enquiry into the nature of Reality should be based upon reason and experience and therefore not even one aspect of our experience

can be left out. Hence in the Upanishads, whenever the final teaching is taken up, this method is taught first and then only others follow. Also this is the only Method which has a whole Upanishad entirely devoted to it. Mandukya Upanishad provides the clue to the whole 'vedic' position.

This 'vedic' Method resolves the totality of our experience in three states or 'Avasthas,' waking, dream and sleep. This whole universe presented to our view, is a phenomena of the enquirer's waking state only. A shadow of it is presented in the dream state in which also the reality of the world is not doubted at that time. In deep sleep this world is nowhere. The first seven verses in the Mandukya Upanishad deal with the four modes or 'padas' of the soul's experience. The four are explained in the light of 'upasana' under the sacred syllable, AUM, where A stands for the Waking, U for Dream and M for Deep Sleep and AUM for the whole of experience.

Mandukya Upanishad.

१. ओमित्येतदक्षरमिदं सर्वं तस्योपगच्छानं भूतं भवन्नविद्यदिति
सर्वमोकार एव । यच्चान्यत्रिकालातीतं तदप्योकार एक ॥

Aum is the word. All this is an explanation of its past, present and future. All indeed is Aum, even all that is beyond the triple conception of time.

२. सोऽयमात्मा चतुष्पात् ॥

This Atman has four quarters.

३. जागरितस्थानो बहिः प्रज्ञः स्थूलभुवश्चैवानरः प्रथमः पादः ।

The first quarter is the Vaisvanara whose sphere is the state of waking, who is cognisant of the objective . . . whose fruition consists of the gross.

४. स्वप्नस्थानोऽन्तः प्रज्ञः प्रविबुक्तभुक् तैजसो द्वितीयः पादः ॥

The second quarter is the Taijasa whose region is the dream, whose is cognisant of the subjective only . . . whose fruition consists of the subtle.

५. यत्र सुप्तो न कंचन कामं कामयते न कंचन स्वप्नं पश्यति तत्सुषुप्तम् ।
सुषुप्तस्थान एकीभूतः प्रज्ञानघन एवानन्दमयो चेतोमुखः प्राज्ञस्तृतीयः पादः ॥

That is the state of deep sleep wherein the sleeper does not imagine anything and does not see any dream. The third quarter is therefore the Prajna whose sphere is the deep sleep, in whom all melt into one, who is a mass of sentiency, who is all bliss, and who is the way of sentiency.

६. एष सर्वेश्वर एष सर्वज्ञ एषोऽन्तर्याम्ये योनिः सर्वस्य प्रभवाप्यौ हि भूतानाम् ॥

This is the Lord of all, all-knowing, the Antaryamin, the source of all, the origin and final resort of all beings.

७. नान्तः प्रज्ञं न बहिः प्रज्ञं नोभयतः प्रज्ञं न प्रज्ञानघनं न प्रज्ञं नाप्रज्ञम् ।

अदृष्टमव्यवहार्यमग्राह्यमलक्षणमचिन्त्यमव्यपदेश्यमेकत्मप्रत्ययसारं
प्रपञ्चोपशम शान्तं शिवमद्वैतं चतुर्थं मन्यते स आत्मा स विज्ञेयः ॥

The fourth is that which is not conscious of the subjective nor that of the objective nor that of both, nor that which is mere consciousness and sentiency, nor that which is all darkness. It is unseen, transcendent, uninferable, indescribable, the sole basis of consciousness, the negative of all illusions, the One and the non-dual. This indeed is Atman; it should be known.

Analysing these seven verses we get :

Deep Sleep	(Prajna, M,)	Causal	Self plus ignorance.
Dream	(Taijasa, U,)	Subtle	Self plus dream-world.
Waking	(Visva, A,)	Gross	Self plus waking-world.
Thuriya	(Atman, Aum,)	Truth	True self or Absolute.

Here the enquirer finds out that the waking-world does not accompany him in deep sleep, and the dream-world is found to be illusory. The waking-world is the sphere of plurality, action and morality. Dream is a subjective illusion, and in deep sleep the Self perceives nothing. The Self is the permanent factor while everything else is a percept of the waking state or an illusion of the dream. As the invariable substratum of the states, the Self is the Reality, because no state is possible without the Self. The ignorance of anything in sleep is only a waking idea. The ignorance that is assumed to persist in deep sleep is nothing but the indefinability of the true nature of the Self in terms of the waking intellect. As the unbroken thread and witness of the three states, the Self is the Real, while the world, mind, body and the states have only a contingent relation to the Self, being found in two of its particular modes viz., waking and dream. Sleep is the region

of bliss as the Self reaches there its true nature of undifferentiated unity. Every one of us feels it as soon as we wake up from sound sleep. Sleep is not unconsciousness as the modern psychologist supposes it to be. It is the region of pure consciousness according to the Upanishad, i.e., consciousness bereft of its subject-object relationship which is the characteristic feature of the Waking and Dream. If otherwise, the return to waking consciousness after sleep would be irrational and unnatural. This is the truth taught by Brihaspati to Indra in the form of a story in Chandogya. Deep sleep is not an annihilation of the Self as Indra wrongly held it to be, but is the fullness of Self's existence as Prajapati taught Indra. In deep sleep, space, time and substance, the limiting adjuncts of the waking and dream, have become dissolved into the true nature of Self. There being nothing else other than the Self, the Self alone is the Real. This is the truth taught by the Mandukya. Is this solipsism? No. The 'I' that is conscious of having slept and dreamt, is the transcendental 'I' which is itself the 'thuriya' and which, therefore, is in reality free from sleep, dream and duality or plurality. Is the 'thuriya' impersonal or abstract? The 'thuriya' is the super-personal according to the Upanishad. It assumes the role of an ego in two of its states, waking and dream, where it has created a non-ego for its view. Personality is the highest in our experience, and therefore our Self cannot be impersonal as the impersonal is below the personal. It must be something more than what we mean by the term person, and never below that. The states dissolve in the Self but the Self is not lost in the states. The fact referred to as the person remains always as the 'I' in any experience, and never a 'he' or 'that'. It does not refer to any that we can discern as this or that in our experience. It refers to the whole of our person and thus transcends thought and speech, but is easily the only fact best known, as self-consciousness is always implied in experience. It is that which we feel but cannot express. Sankara describes the Self as Nitya, Buddha, Suddha, and Muktha—permanent, intelligent, pure and free. The person is That, "the highest and completest of all wholes, the most Real of reals."² "It exists; it is real; it has being, however it may be interpreted. . . . Personality not only proves to be the prime unit of reality and existence . . . but is the only solution of the sceptic's problem of the one and the many."³ This is the truth taught by the Mandukya Upanishad.

2. Holism and Evolution: By General Smuts.

3. The Problem of Personality: By E. N. Merrington, Part II, Chap. IV, page 192.

Vedanta as a science, goes so far and says that the Self alone is real and free from the temporary attachments made in each state. Going a step further, it examines the nature and meaning of the states themselves. What, then, are the three states and what do they signify? The Self's three states may not mean three for the Self. That we have a memory of the three states nobody can deny. But does 'three' mean the number? As numbers they must belong to the same time-space series. But each state has got its own time-space series. Dream has got its own series, while there is none in deep sleep. The three-ness of the Self's states is, therefore, an intellectual illusion of the waking intellect. And this question does not arise in dream or sleep. While the states are all fleeting, the Self alone remains as the one permanent Entity. "Dream becomes unreal in the waking, nor does the waking exist in the dream, both dream and waking are absent in deep sleep, and sleep too is absent in waking and dream. Their unreality is proved by their necessary intercancellations. But the Self is the Eternal Witness of the states and thus beyond them, the One which is of the nature of pure consciousness."⁴ Sankara's argument is a typical example of the 'vedic' reasoning.

Even an illusion must have some meaning in the Real. What do the three states signify? According to the Mandukya, deep sleep signifies the purity of our Being, dream, freedom, and waking, all-knowingness. The Self exists as the Knower in the waking; its aspect as Absolute Freedom is testified by its dream-creations. If in deep sleep the Self does not know anything, it is not because of the absence of knowledge in the Self but because of the absence of objects of knowledge. There is then nothing else, no second thing to be known, not even the sense of I-ness since individuation presupposes differentiation. The Self attains its pure nature in deep sleep and therefore there is no knowing there. It is such a Reality that we have in waking and dream but not realised so by the then ego which is only a byproduct of the states themselves.

How is this 'vedic' method superior to the scientific method? According to the state-view, the modern scientific methods deal only with one phase of experience, viz., the waking. Hence when applied to the study of dream and sleep, they interpret them wrongly, dream being treated as the subconscious and sleep as the unconscious state. Modern psychology commits this blunder in its study of dream and sleep. The questions of the subconscious and the unconscious are phenomena

4. Sankara: Aparokshanubhuti, Verses 57 and 58.

of the waking experience, and they do not arise in dream or sleep. What is true from the waking standpoint may not be true from dream or sleep standpoints. All casual explanations, to be true, must belong to the same time series. We have seen that the states are neither co-ordinate in space nor continuous in time. The conclusion according to the 'vedic' method is that no state is the cause of another state but in their metaphysical value all states as states, are unreal being contingent. Proceeding a step further, the method offers us a definite criterion of Reality: empirically it is the unchanging Witness of the states and transcendently the Sole Entity. Thus we come to know conclusively what is the Real and what is unreal.

Is the world real? According to this 'vedic' method, we have to answer thus: The Self being real, views what it sees as real also. Dream is absolutely real to the dreamer. The unreality of a state is seen only when the state is over, for, so long as a state lasts, it must be faithful to the character of its basis, the Self. It is the ever-present Self that accounts for the reality of a state. The order, correspondence, etc., adduced to prove the independence of the external world, is due to the presence of the Self whose nature is all-knowingness. The same accounts for the order and correspondence that we have in our dreams sometimes. Empirically this pure consciousness becomes an Act. Gentile, the Italian Realist, calls it an Act and makes it the Reality. Only he mistakes the empirical status for the transcendental, for act presupposes time. And Gentile's Mind is a creature of Time! Hegel's Absolute idea is merely a logical necessity. But the *Atman* is much more than that and therefore the Upanishad calls it '*Prajnanam*' or the Super-consciousness.

We have thus this distinct advantage in the method of *Avasthathrya*, that we are able to review the whole of our experience for observation and judgment. If we take waking alone, such a feat is impossible. Modern science errs in its conception that waking exhausts the whole of Reality, and thus in granting absolute reality to waking, subordinates the other two states to the waking as its adjuncts, without any warrant of reason or of justification. According to the 'vedic' view each state is independent and all the three constitute the totality of experience. Thus by taking dream and sleep the 'vedic' method leaves out nothing of the Self's experience. We come to know conclusively what is the Real and what is unreal. Recent American writers like Mary Whiton Calkins, Dr. Royce and others advocate a personalistic nature-philosophy "which makes it impossible to attribute sorrow or disappointment, yearning or doubt to the Absolute Self which is the all-knowing Person whose will is expressed in this existent uni-

verse of distinctively mental realities." Their Absolute Self is only assumed and not proven. And the 'vedic' method gives us the only possible proof of the existence of the Absolute Self.

If the Self is the only Reality what about the appearance of 'other minds' and their common stage of free play known as the world? How does this 'vedic' method answer the problem? We may say that the Self in its absolute freedom and by the very nature of that freedom, creates a whole world of illusory things and factors, all as mere ideas, and in its all-knowingness remains a Witness of them. Freedom seems to create free minds which in their enjoyment of their illusory freedom, forget their common basis, the really true and free Self. With the knowledge of the true Self, the false free minds or egos disappear and are merged beyond recognition in the Absolute Self just as the dream-figures get merged into the waking. The Real Self or *Atman* is neither benefitted nor emptied by the appearance and disappearance of worlds, minds or egos. This is described beautifully in *Brihad-aranyaka* thus: "Having gone to sleep, the Self creates for itself and out of itself a world of things and men. Having sported in those pleasure gardens and dallied with beautiful women, it withdraws the worlds again into itself." By calling the worlds, minds and egos as illusions, nothing is lost thereby. This is not a method of physical destruction of things and worlds, a consummation so devoutly wished for by Von Hartmann of Germany. The 'vedic' method is a purely metaphysical method of valuation in terms of human experience and of reconstruction upon the results of valuation. We will still continue to live and do, to sleep and dream, but a knowledge of their unreality will remove their sting for us once for all. It will then be a 'knowing' existence, whose truth can be verified by each and every individual by his or her own ordinary experience. Herein lie the greatness and superiority of the 'vedic' method over every other method.

Whatever the sceptics might say, a true Vedantin can assure the humanity that there is no cause for misery, that life is real and of the nature of bliss, that soul is free and all bondage is the result of one's free choice. What cannot be mended, should at least be clearly understood. This is what is done by the 'vedic' method. Knowledge is only a thorough change in the angle of vision, and in the wider outlook on life, is seen as the result 'in life' and not after death. Knowledge is meant for the living only. Death is a precept of the waking state, and one's own death is a metaphysical impossibility. Immortality is seen and proved to be our very nature by the method of *Asvathathrya*. There is no postponement of the day of release after death as all days and nights are only life's activities. Knowledge of the true

nature of our Self removes all fears, doubts and unnecessary hopes. Heaven and Hell are life's ideas, the one a mere solace and the other a threat—who knows anything of them? Here is bliss realisable in life itself, 'here and now' by every thinking creature. For the Self is immortal, all-knowing and absolutely free from any taint of sin or virtue. Vedanta alone can justify Wildon Carr's statement: "It is an illusion to imagine that we can pass out of Reality."

. . . Strangely graven
Is the orb of life . . .
And men in their millions float and flow
And seethe with a million hopes as leaven;
And they win their will or they miss their will,
And hopes are dead or are pined for still;
But who'er can know
As the long days go,
That to Live is Happy, hath found his Heaven!

The Chidambaram Temple

(Continued)

By

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INSTITUTIONAL.

IV

The Sabha Nayakar temple at Chidambaram is one of the famous shrines of South India and its history from epigraphical and literary references may be traced from the early centuries of the Christian era. Tradition takes its history still further back and according to traditional accounts, the pagoda arose when the Lord Nataraja together with 3,000 Dikshitaras appeared at this place to bless his great devotees, Vyaghrapada and Patanjali. The Dikshitaras claim themselves to be of divine origin and according to them, Brahma took them from Tillai to perform a 'Yagam' near Benares where they stayed till Hiranya Varman at the suggestion of the Chidambaram deity invited them back to Chidambaram. When they had arrived they found that there were only 2,999, and a voice from above announced that the God himself, Sabha Nayakar, was the missing one. These traditions seem to imply that from the inception of the temple the Dikshitaras have been regarded as a part and parcel of the institution. Tamil Literature tends to confirm the antiquity of the Dikshitaras. The earliest literary references to the Dikshitaras are to be found in *Dēvāram*. In *Dēvāram*, the sacred books of the Saivites, one of the poet-saints says, "I am the servant and devotee of 'Tillaimoovairavar'".¹ Sundaramurti, in his *Tiruthondathokai*, gives a list of the famous saints. Besides the names of the saints, the list gives the names of nine companies of saints called *Tolkai Adiyargal* to make room for all else who might have attained salvation. Of these, he mentions *Tillaivazh Andanar* (lit. the Brahmins living at Chidambaram, but really the 3,000 Brahmins) attached to the shrine as evident from the interpretation of *Sekkilar*.¹ Sambhandar, one of the *Dēvāram* hymnists, in one of his hymns, describes the *Tillaivazh Andanar* as he actually saw them.²

1. See தில்லைவாழ்ந்தனர் புராணம் in Periyapuramam.

2. "சீலத்தார் கரியமிடற்றூர்நல்ல
நெற்றிமேலுற்ற கண்ணினுர்பற்று
சூலத்தார் சுடலைப்பொடி நீறணிவர்கடையார்
சீலத்தார் தொழுதேத்து சிற்றம்பலஞ்"
(Dēvāram).

Nambi Andar Nambi refers to the *Tillaivazh Andanar* in his "Tirutondartiruvandhadi" in the following quotation:—

“செப்பத்தருப்புகழ் தில்லைப்பதியிற் செழுமையோ
ரொப்பப்புவனங் கண்முன்றினுமும்பரினாரொரித்த
வப்பர்க்கமுத்திருநடர்க்கந்திப் பிறையணிந்த
துப்பர்குரிமைத் தொழில்புரிவோர் தமைச்சொல்லுதுமே”

Sekkilar's description of the *Tillaivazh Andanar* in *Periyapuramam* makes it appear that the Dikshitaras were well versed in the Sastras and were animated by no other purpose than that of devotion and service to Nataraja. These references in Tamil Literature show very clearly that the Dikshitaras have been intimately associated with the Temple even before the hymnal period.

At present the number of Dikshitaras have dwindled, and there are now about 250 married members. They are an endogamous clan. They never live outside Chidambaram and they are enjoined not to resort to any other occupation or means of livelihood than that of service and devotion to Nataraja. The Dikshitaras have been the hereditary trustees of the temple and the management of the temple and its affairs have been vested entirely in their hands. Every Dikshitar boy, as soon as he is married, becomes as of right a trustee and 'archaka' of the Temple, and his trusteeship is inalienable. The trusteeship does not descend from father to son, but it inheres in every member of the community of the Dikshitaras at Chidambaram from his birth so that in a particular family there may be at the same time both father and sons having an equal voice in the management of the institution. In no other temple does a whole community form the trustees and 'archakas' at one and the same time with every member of the community having rights of management from his birth. The Dikshitaras are a democratic joint family group for religious purposes, the Lord Nataraja being the family 'Deity' and 'Upasanamoorthi' of every Dikshitar. The worship in the temple is conducted in what is known as 'Vaidik pooja,' and this temple is the one solitary instance in which this 'Vaidik pooja,' which resembles in its ritual that of domestic worship, is followed, while the 'pooja' in other temples in South India is of the *Agama* form.

This temple has had, unlike all other South Indian temples, no landed property. The temple has not received at any time, and does not receive any 'Mohini' or 'Tasdik' allowance from Government. No accounts are kept. Though inscriptions afford instances of permanent

grants of property or other endowments in the name of the Deity by Hindu kings, there is at present no property in the name of the temple. It can only be explained by the fact that the temple has been allowed to be entirely dealt with and managed by the Dikshitaras themselves, as if it were their own property. A Dikshitar is entitled to perform 'poojas' and 'archanas' only after he is initiated in the 'pooja'.

The temple worship has been conducted partly by contributions of the Dikshitaras themselves from their own funds and by the collection of subscriptions from their constituents, and in the major part, by the periodical benefactions of the numerous devotees. There are six daily 'poojas' which are met out of 'kaṭṭalais' established by pious and charitable devotees. The help given by the people by means of money for conducting the necessary affairs of the temple is called 'kaṭṭalai'. That these 'kaṭṭalais' have been instituted from early times is borne out by some inscriptions. For instance, an inscription on the south *Gōpura* of the temple (right of entrance),³ and another inscription on the west *Gōpura* of the temple⁴ (right of entrance), both dated Śaka 1510, record that provision made by Vaiyappa-Krishṇappa-Koṇḍama-Nāyaka for 20 offerings to be distributed among Saiva mendicants (*paradēsi*) in the temple was placed under the supervision of Namaśśivāya-Udaiyār, 'the superintendent of all services' (kaṭṭalai). The Dikshitaras have nothing to do with these 'kaṭṭalais.' The agents of the 'kaṭṭalaids' give the articles necessary for the daily 'pooja' in kind at the time of the 'poojas' and the accounts are kept by them. The Dikshitaras are not entitled to ask for the accounts. For every 'kala pooja' there are on an average about six such 'kaṭṭalais,' and each of them contributes a small portion of the articles necessary for the 'pooja.' The value of such daily contributions may vary from half rupee to Rs. 3 at the highest.

The numerous festivals celebrated in the temple may be classified as follows:—(a) The monthly or 'Panchaparva' festivals; (b) Other festivals during the year; and (c) The two 'Brahmothsavams' in the months of December and June.⁵ These festivals are also celebrated from out of the contributions of various 'Ubayakars'. As regards the two 'Brahmothsavams' which last for 10 days, entire castes, such as

3. Inscription No. 349 of 1913.

4. Inscription No. 362 of 1913.

5. Pachaiyappa, the great educational benefactor, with the assistance of Manali Chinniah Mudaliar, inaugurated the June festival on June 28, 1791. He had the car of the God renovated at that time.

Kaikolars, Vellalars, Oil-mongers, etc., perform the festivals on particular days in the 10 days from out of the subscriptions which they levy from every one of the members of their own caste. The expenses for other annual festivals and the 'panchaparva' festivals are incurred by individual 'Ubayakars.' In many cases, the individual 'Ubayakars' change from year to year.

The only source of income is that derived from the general offerings in the temple and such offerings are, from immemorial usage, the property of all the trustees and constitute the recognised mode of livelihood of the Dikshitars. This immemorial usage has been recognised by Muthuswami Iyer and Shepperd, JJ., as follows:—"About 250 families of Dikshitars reside at Chidambaram and the net income of the temple which is derived from the general offerings is their recognised means of livelihood. According to usage, every Dikshitar is entitled on marriage to take part in the management, to do 'pooja', or perform service in the minor shrines, and to share in the emoluments of the institution."

These offerings are divided among the Dikshitars in the temple. The right of collecting these offerings is given to a batch of 20 Dikshitars who are on duty in the pagoda for 20 days at a time, and they have the charge of the keys of the respective shrines within the temple known as the Five Koyils and the custody of the jewels and other valuable articles in those shrines which are examined once in four days, and they guard the temple during nights. In this manner the right goes round to all the trustees during the year. The key to the common treasury room is with 20 persons who are the 'turn' men. The daily incomes of the temple go to the 'turn' people. If there is a lessee, they will go to him; if not, they will go to the 'turn' men.

The temple servants were originally paid in kind out of the offerings of the temple, but now they are supplemented by small cash payments from the common fund. The ancient and undisputed rule of the temple is that all the Dikshitars manage its affairs in common and that the 'veto' of any one of them is sufficient to prevent the execution of the business. The 'common man' goes to every house and gives verbal instructions that a meeting will take place. The meetings are conducted in a particular portion of the temple. The system of management of the temple is peculiar and unique. Every Dikshitar has a vote and voice in the management of the temple, and they form a truly democratic body. All personal relations and private differences are set aside when the Dikshitars meet in a body to discuss affairs relating to the temple. All questions affecting the management of

the temple are decided at the periodical meetings of the community by the vote of the majority, and the resolutions of the community are recorded in regular books maintained for the purpose. There are elaborate rules and improvised checks for preventing mismanagement and misappropriation, and these rules are strictly followed in the conduct and procedure of their meetings, and in the actual management of temple affairs; and the delinquents are fined or suspended by the resolutions passed by the Dikshitars in their meetings. Rules have been framed for the purpose of checking the various items of jewellery in the temple, and for the purpose of guarding the temple during nights by the Dikshitars themselves. Particular individuals are made responsible for the proper conduct of festivals and other services in the temple by the system of leasing out the right to collect the offerings on these occasions to a few individuals among them at the assembly of the Dikshitars, and making them accountable to the whole body of Dikshitars for the successful conduct of these festivals and services.

The jewels of the Temple contain some which are presents made by various Rajahs. There are lists in the respective temples giving particulars of the names of the Rajahs, the jewels they presented and the places they are kept in. Among them there is a jewel called 'Nalan Pathakkam'. The jewels are safely kept in a box in the respective temples and the keys of the boxes are in the hands of some Dikshitars deputed for the purpose. The person having the key must hand it over the next day to the person taking charge.

V

The Chidambaram temple exemplifies one of the important dancing postures of Śiva.⁶ There are many references in early Tamil literature to the dance of Śiva at Chidambaram. Such expressions as செம்பொன்னிலில் எழுதிமேய்ந்த சிற்றம்பல கூத்தனை, தில்லையம்பலக்கூத்தனை, தில்லையம்பலத்தாடுகின்ற அத்தாவுண்ணாடல் of Appar and பொன்னம்பலகூத்தா of Manikkavasagar serve to indicate the sacredness of the temple as the place of Śiva's Dance, but the *Dēvāram* hymnners do not specify the name of the Deity.

There are many dances of Śiva. The fundamental idea underlying all these dances is more or less the same, viz., the outward expression of primal rhythmic energy. The origin of Śiva's dance is a

6. "The Lord of Tillai's Court, a mystic dance performs
What is that, my dear?" (Tiruvāṣaṁ—Pope's Edition.).

most interesting but baffling enquiry. Whatever the origins of Śiva's Dance, it became in time the clearest image of the *activity* of God. It is not possible to interpret here the various dances of Śiva. Some of the well-known dances are the Evening Dance, the Tāṇḍava and the Nadānta Dance of Nataraja.

The Evening Dance in the Himalayas is described in the *Śiva Pradosha Stotra*. In the Evening Dance, Śiva is only two-handed, and the co-operation of the gods is implied in their position of chorus. There is no prostrate Asura under Śiva's feet. One should like to know whether there is any special interpretation of this Dance in Saiva Literature.

Another well-known dance of Śiva is called the Tāṇḍava. It belongs to his *tāmasic* aspect as Bhairava and it is in the burning grounds that Śiva performs this dance with Devi. The Tāṇḍava Dance is in origin that of a pre-Aryan deity, afterwards merged in Śiva. An interpretation of this dance is given in Saiva and Sakta Literature.

The next and most important dance for us is the dance of bliss (Ananda-tāṇḍavam) of Nataraja in the golden hall of Tillai and this dance was performed by Śiva to the Gods and the Rishis, Vyaghrapada and Patanjali, who were performing penance in Tillai in order to enjoy the beatific sight of Śiva's Dance. Śiva is best known as the Dancer. His Dance is Evolution, Continuance and Involution. Nataraja is a form of Śiva and the word means 'Lord of the Dance.' Śiva as Nataraja has four arms; he has braided locks and these locks whirl in the dance. On the head are a cobra in a twisted form, a mermaid figure of the Ganges and the crescent moon. He has a man's ear-ring in the right ear, and a woman's in the left. One hand holds a drum sounding the call to all the people who are immersed in *samsara* to go to him for protection; another hand holds fire to give assurance of help to his devotees; of the other two hands, one is raised (*abhaya mudra*, 'do not fear') and the other points to the lifted foot (*kunjita pada*) which confers *moksha* or eternal bliss on all worshippers. Beneath the right leg, there lies the dwarf, Muyalakan. The concept of Nataraja is the synthesis of a long evolution. There are 108 postures of dancing according to the Bhāratiya Nāṭya-Śāstra. The postures recommended in dancing to please the *daityas* are numberless and a selected list of 108 of them called *Karanas* or single postures and 32 selected *Angahāras* (combinations of two or more of these *karanas*) are fully described. In the east and west Gōpuras of the Chidambaram temple, these *Karanas* are found cut on stones with appropriate

verses from the Nāṭya-Śāstra underneath each of the postures. Only 93 of these postures were recovered, the remaining 15 were either damaged or the compartments of the Gōpura altered during the repairs done to the temple. These postures are found in Bharata's order for about 60 numbers, and then owing to mason's or supervisor's ignorance or on account of some subsequent alteration in the construction, the remaining 48 are not in the order followed by Bharata. Kopperunjinga-deva, who set up an independent kingdom against the Cholas between 1243 and 1273 A.D., was the patron of these decorative sculptures in the Nataraja Temple. These sculptures are published in the report of the Archaeological Department—Epigraphy (1914).

The interpretation of the Dance of Nataraja is found in some of the well-known works in Tamil Literature, viz., Tirumular's *Tirumantram*, Unmaivilakkam, Chidambara Mummanikovai. Umapathi's *Koilpuranam* (Stanza 66) describes the Dance of Nataraja as representing the Panchakrityam (பஞ்ச கருத்தியம்.) What then is the significance of the Dance of Śiva at Tillai? The cosmic activity is the central motif of the Dance. The Dance represents his five activities (Panchakritya) viz., *Srishti* (creation), *Sthiti* (preservation), *Samhara* (destruction), *Tirobhava* (illusion, etc.), *Anugraha* (grace). Creation arises from the drum; protection proceeds from the hand of hope; from fire proceeds destruction; the raised foot implies salvation; and the fourth hand pointing to the lifted foot represents the refuge of the soul. All this symbolism is well explained in *Unmaivilakkam* (verse 36) and *Chidambara Mummanikovai*. Again, the symbolism of the Dance is explained in the *Tirukuttu Darshana* (Vision of the Sacred Dance) of Tirumular's *Tirumantram*. A true Bhakta is one who keeps in himself nothing but the thought of God so that He alone may abide and dance therein. A discerning and sympathetic critic of Indian art observes: "The essential significance of Śiva's Dance is three-fold: First it is the image of his Rhythmic Play as the source of all Movement within the cosmos which is represented by the Arch; secondly, the Purpose of his Dance is to Release the countless souls of men from the Snare of Illusion; thirdly, the Place of the Dance, Chidambaram, the centre of the Universe, is within the Heart."

The following extracts from the *Stalapuranas* explain the symbolism of the temple:—

(Canto 15):—There is a Sabha called Ambara which is the abode of all good. In it I constantly dance in happiness. It is known as Chidambaram, and consequently it is revered by all.

* * * *

(Canto 18):—As I who am pure occupy the soul which is in the body, even so in the world which is (like) the body, I sport in Chidambaram.

* * * *

(Canto 85):—This called Chidambaram is (my) body, and I am the free soul.

* * * *

(Pundarikapura Mahatmyam, Canto 59):—That Sabha (hall) is of the nature of Chit (Divine knowledge), and there is no doubt it is of the nature of Chit.

* * * *

(Thillavana Mahatmyam, Canto 63):—The Chit Sabha which is in the middle of Virat Purusha.

* * * *

Mahamaya is in the middle, facing the south. In the western wall, pure Shirodana is said to reside. But in the eastern part there is the independent Maya in the shape of a wall. It (the wall) is the cause of the creation and absorption of the nine Tattvas beginning with Brahma. The screen is said to be Thirodha Sakti having the shape of Prasada.

* * * *

Of the length of 96 Angulas of the same breadth.

* * * *

The Vedhi of Darsana shines on the southern part. The yantram of that name is small, invisible and imperceptible.

* * * *

It is the mine of Kama Dhenu; and it is the abode of Sankha and other Nidhis. It is well worshipped by Swarna Karshana Bhairava and the eight Lakshmis.

* * * *

On its left side is placed the excellent Sparsana Chakra.

* * * *

The Vedas, Rig, Yaju, Sama and Atharvana, the Puranas, Agamas, the Arts, the Mechanical Arts, sacred knowledge, etc., accordingly went soon to Pundarikapuram. The 64 Kalas and Vidyas (branches of knowledge) have on earth changed (their shape) as Vidyas.

* * * *

They separately took their abode in the several places in the shape of pillars, mountains, beams, windows, wood, nails, gold plates, silver, copper, stone and earth.

* * * *

In the south-east is Rig (Veda); the siras or head is in the middle. These two are said to be pillars. There are two (others) on the west.

* * * *

These reside in Sadasiva Pita over it. But in Iswara Pita there are shastras numbering as many as there are karmas, i.e., (six). These with the Angas exist in the shape of pillars under Sada.

* * * *

The pillars consisting of (representing) the five elements are in Rudra's Vedi.

* * * *

In the middle of Vishnu's Vedi there are various kinds of Tattvas. The Tattvas are in the shape of windows according to different sorts.

* * * *

The group of 96 Tattvas is clearly here in the shape of windows in five rows. In their midst the Agamas have come in the shape of pillars. The great Goddess of Divine Knowledge consisting of Chit has taken visible form and this incomparable salvation has taken its abode in the southern doorway.

* * * *

On the upper part ceiling of the Sabha all the 64 Kalas (Arts) taking the shape of beams existing separately.

* * * *

The various worlds numbering 224 are in the shape of planks.
The inspirations and expirations numbering 21,600 are like gold leaf.

* * * *

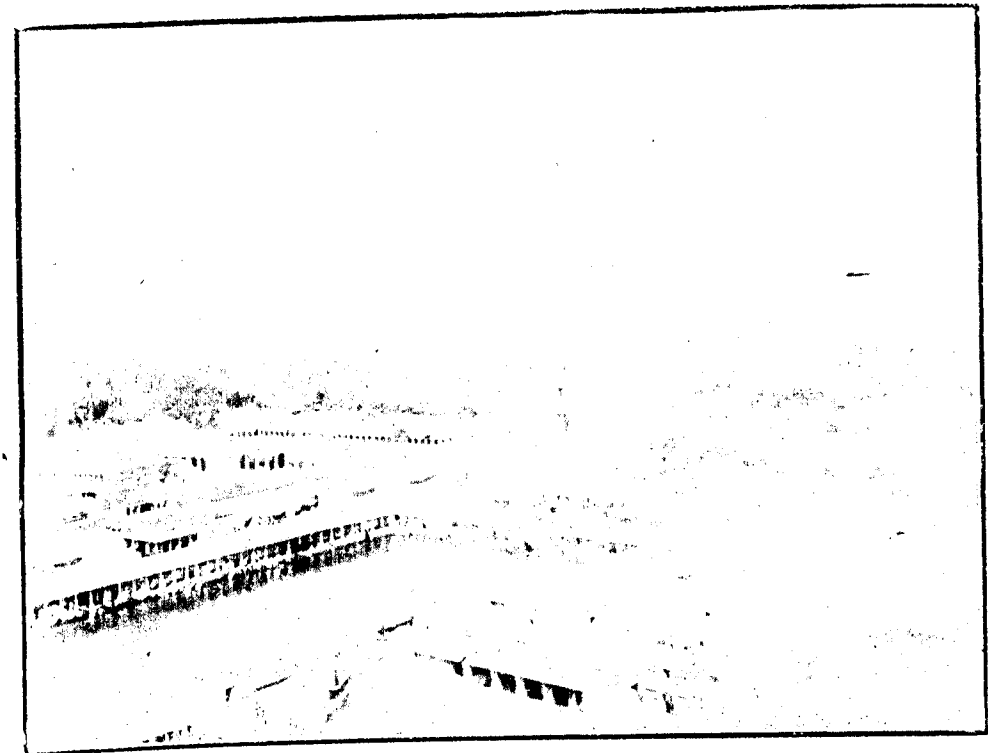
All the various kinds of nerves numbering 72,000 having taken the shape of nails.

* * * *

The saktis, Vama, Gyestha, Rowdri, Kali, Kalivikarini, Bali, Balavikarini, Pramathani, Manonmani, these exist in the shape of stupis (domes).

* * * *

In conclusion, I may add that the foregoing sketch of the temple is a tentative collection of materials rather than a finished work. It is hoped that students of South Indian history will work up these materials into a good monograph on the temple.



A GENERAL VIEW OF THE TEMPLE.

Industries in India.*

By

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India now ranks as one of the eight industrial countries of the world, yet agriculture is the principal industry and gives occupation to the vast majority of its population. The census returns of 1921 show that 73·9% of the population in British India are engaged in or dependent on agriculture and pastoral pursuits. The population of India living on agriculture has been steadily on the increase, for in the year 1891 it was about 61 per cent; it rose to 66 per cent in 1901, and to 73 per cent in 1921.

The Indian Famine commissions of 1880, 1898 and 1901, the Indian Irrigation Commission, 1903, the Taxation Enquiry Committee, 1925, the Economic Enquiry Committee, (Madras) 1931, the Royal Commission on Agriculture and other Commissions which have reported from time to time, have clearly pointed out that "the outstanding feature of Indian Rural Economy which is bound to arrest the attention of any one who enters on an investigation of the question is the appalling poverty of the rural population."

The cultivators in all parts of India are deeply involved in debt,¹ and speaking about the degree of poverty prevailing among them, Dr. G. Slater says: "Of the Pallans, Parayans, Cherians, etc., on whose toil the cultivation of the rice fields in South India mainly depends, it may be said generally that their earnings in grain and corn barely suffice for the subsistence of families large enough to maintain their numbers from one generation to another, the surplus offspring dying; they are habitually hungry and it is only because they make their own huts in their spare time, collect their own fuel, need scarcely any clothing, and enjoy abundant sunshine, that they can subsist at all."

Such then is the state of the agricultural population which forms the majority of the people of India. Owing to seasonal vicissitudes and the want of proper irrigation facilities there is often

* In a series of articles of which this forms a general introduction, I intend tracing the growth and development of industries such as Cotton, Iron, Steel, Jute, Coal, Sugar, Paper and Cement in India.

1. A very rough estimate of the total rural indebtedness of India is about Rs. 900 crores and the volume of agricultural indebtedness is increasing. (See The Indian Central Banking Enquiry Committee Report, 1931, Vol. I, page 55.)

a failure of crops, and the consequence is "that the average cultivator still continues to live on an insufficiency of food which reacts on his physical capacity for work and largely accounts for the high percentage of mortality in the country."²

In 1927-28 the total net area sown with crops was about 220 million acres which works out at one acre per head of the agricultural population, and if we take the total gross value of the agricultural produce on the basis of the 1928 price level it comes to about 1200 crores of rupees which means approximately Rs. 42 as the average annual income per agriculturist in British India. There can be no doubt whatsoever as to the reasons for the steady degeneration of the economic position of the cultivator in spite of his high inherited skill in husbandry. In 1880, the Indian Famine Commission pointed out that "a main cause of the disastrous consequences of Indian famines and one of the greatest difficulties in the way of providing relief in an effectual shape is to be found in the fact that the great mass of the population directly depends on agriculture and that there is no other industry from which any considerable part of the community derives its support. The failure of the usual rains thus deprives the labouring classes as a whole not only of the ordinary supplies of food obtainable at prices within their reach, but also of the sole employment by which they can earn the means for procuring them. The complete remedy for this condition of things will be found only in the development of industries other than agriculture, and independent of fluctuations of seasons. With a population as dense as that of India, these considerations are of the greatest weight, and they are rendered still more serious by the fact that the members who have no other employment than agriculture are, in large parts of the country, greatly in excess of what is really required for cultivation of the land. So far as this is the case, the result must be that the part of the population which is in excess of the requirements of agriculture eats up the profit that would otherwise spring from the industry of the community. It is not surprising in a country thus situated that material progress is slow."

It is clear from the above that in order to improve and accelerate the country's material progress, attempts should be made for the full utilisation of its natural resources. It is necessary that a thorough study of all possible ways and means should be made to give the people of the country diversified employment, to enable them to "participate to a much greater degree in the working of existing industries and to indicate the measures necessary to establish all those

2. The Indian Central Banking Enquiry Committee, Vol. I, page 40.

industries for which there are natural facilities which at present cannot be utilized for varied reasons, most of which are well known. That India can become a great industrial country is not possible and it must look to the improvement of agriculture for any great amelioration of the condition of its many millions. It can, however, advance far beyond its present status and it is urgent that progress in that direction should be accelerated."³

So it has been argued that in the interest of the agricultural population of India as well as from the purely economic point of view, the need for the industrialisation of India is great. To solve the question how we could best increase the agricultural holdings⁴ and income, it is essential that pressure on land should be relieved to a certain extent; other possible methods to improve the position of the masses in India are by emigration, extensive and intensive cultivation and industrial development.

Emigration from India to other parts of the British Empire exceeds two millions. The emigrants are distributed as follows.⁵

Ceylon	..	..	..	..	820,000
British Malaya	..	..	..	..	660,000
Mauritius	..	..	..	..	274,000
Union of South Africa	..	..	..	..	161,000
Trinidad	..	..	..	..	126,000
British Guiana	..	..	..	..	125,000
Fiji Islands	..	..	..	..	61,000
East Africa	..	..	..	..	55,000

This opening however has practically been closed, and the Indian people are opposed to sending Indian workers to other countries. The indentured system was first started in 1834; by this, simple and illiterate workers of India were recruited and sent to strange lands where they were bound to estates and could not move without a permit. In these conditions they had to stay for 5 years, and often they had no other recourse than to re-indenture themselves. The life of the average indentured labourer was extremely miserable. Indians who had developed land by their labour in such places as Kenya and Africa,

3. "Modern Economic Trend," by Sir A. Chatterton, C.I.E., Capital, February 27, 1930. page 465.

4. In extreme cases, the condition is ludicrous: in Ratnagiri, for instance, the size of individual plots is sometimes as small as 1/160th of an acre, or 30 1/4 square yards. (C.M.D. 3132, page 1341.)

5. Cmd. 3132, page 583.

on its being found that their labour was no longer required, had to submit to a policy of Asiatic exclusion by which every attempt was made to render the life of indentured labourers worse. It is not necessary here to recount the various hardships and difficulties that arose out of the indentured system, or the economic and political justification for such action. But in India a strong agitation against the indentured system was started and the Government of India was requested to stop recruitment of labour to Trinidad, British Guiana and Fiji. Nor is it possible here to enter in detail upon the various measures that were taken, but it is sufficient to say that in the end Lord Harding gave an assurance that this system would be abandoned, and by the passing of a law in 1922 the indentured system was completely abolished.

Owing to the low standard of Indian labour and the fear of severe competition, Indian labourers are not wanted in other countries and hence this medium of improvement too is completely closed. In present conditions emigration to improve the standard and relieve the overcrowded population is impossible and therefore only two other possible courses are left for bettering the conditions of the masses of India. These are extensive and intensive cultivation and industrial development.

It has been pointed out that in India agriculture is the basic industry, and in a country where large numbers of the population directly or indirectly live on agriculture, it is essential that this basic industry should be improved in order that the standard of life may be raised. But unfortunately, at present there is little intensive production, for, with the use of primitive implements, inferior seed and material, and without proper manure or sufficient capital, everything conduces to a very low yield. Hence the production of material commodities in India should be intensified and methods of production modernised.

According to the recent agricultural Commission's report, the areas under various crops are 80 million acres under rice, some 24 million acres under wheat, 33 million under great millets, 18 million under cotton, 14 million under the principal oil seeds and 14 million under grain.

According to agricultural statistics (1923-'24) the total area of British India is 667,468,000 acres, classified as follows:—

	Acres.	Per cent.
Forests	85,976,000	13
Not available for cultivation	151,841,000	23
Culturable waste other than fallow	154,602,000	23.5
Current fallow	49,600,000	7.5
Net area sown	222,490,000	33

Deducting the area covered by forests, barren and unculturable land, buildings and roads, there is a balance of 426,092,000 acres of which nearly 223,000,000 acres are cultivated, leaving approximately 203,699,000 not cultivated. Thus a large area available for cultivation is allowed to lie fallow or unused, and so even from the extensive point of view the maximum return is not obtained.

India is able to produce almost all she needs in the shape of food stuffs and raw materials. Taking the average of the five pre-war years, India exported 9% of her output of rice, 15% of her wheat, 36% of the production of oil seeds, 51% of jute and 56% of cotton. In spite of all this, cultivation covers only 59% of the total cultivable area and the method of production is inefficient. Low production in India is, as indicated earlier, due to various causes such as the use of bad implements, want of capital, want of scientific knowledge, want of manure, and the subdivision and fragmentation of the lands.

To be brief, India has a wealth of natural resources in the shape of fertile soil and plenty of water if properly tapped, and yet the backwardness of agriculture strikes even the casual observer. It is essential to awaken the agriculturalist to the adoption of scientific methods and to the efficient management of farms. There should be some scheme to bring under cultivation good land which at present lies fallow or uncultivated. The lands which belong to the Government should be distributed at cheap prices so that they may be cultivated. There is a tendency to increase the area under cultivation of such crops as jute and cotton, so that they may be exported and a return in money be obtained. This would not be possible if such crops as rice or wheat were cultivated instead. In order that the teeming millions of Indians should have food, Indian agriculture must be organised and intensified primarily to meet the requirements of the country itself. We cannot dwell upon the various ways of improving agriculture in India and raising the standard of the cultivators who form the larger proportion of the population. One can only refer to the Lord Linlithgow Commission which states: "The demand for a better life can, in our opinion, be stimulated only by a deliberate and concerted effort to improve the general conditions of the countryside, and we have no hesitation in affirming that the responsibility for initiating the steps required to effect this improvement rests with the Government." It goes on to say that in spite of the increased expenditure in recent years it is felt "that these forces are inadequately appreciated by the Government of India and by local Governments, and that the necessity that the rural problem should be attacked as a whole, and all points simultaneously, is still insufficiently

present in their minds. If the inertia of centuries is to be overcome, it is essential that all the resources at the disposal of the State should be brought to bear on the problem of rural uplift. What is required is an organised and sustained effort by all those departments whose activities touch the lives and the surroundings of the rural population."⁶

It is therefore essential, for raising the standard of life of the population of India, to promote the prosperity of the whole population and to enhance the national income at the source. To achieve this a comprehensive policy must be followed, and, as the commission says, "it must be undertaken immediately, and the responsibility to give effect to such a policy must remain that of Government and Government alone."

Apart from the improvement of agriculture, there is a dominant opinion in India, that a further solution might be found in rapid industrialisation. Mr. Moreland in 1917 observed: "It is matter of common knowledge that the present income of the country, even if it were equitably distributed, would not suffice to provide the population with even the indispensable elements of a reasonable life. This fundamental factor of poverty is unquestionably co-related with the undue preponderance of Agriculture as a means of livelihood."⁷ The Famine Commission of 1880 also pointed out "that the only remedy for the recurring disasters of famine is the rapid industrialisation of the country, providing diversified employments for the people."

It has been repeatedly said that India will primarily remain an agricultural country, but this does not mean that there should not be any industrial development. No doubt agriculture will continue to be the occupation of the great mass of the people, but at the same time India contains extensive deposits of coal, iron ore, lead, zinc, copper, as well as other valuable products out of which important industries can be built. In this connection, it is clear that India's industrial development can be continued without hindrance, if she takes lessons from other countries and tries to avoid those mistakes that have brought bitterness between capital and labour elsewhere. By this and this alone can her industrial development be accelerated.

The government of the country must also play its part. "India is exactly like America in regard to all the natural advantages for a successful organization of industry; why is the U. S. A. to-day in the forefront

6. Cmd. 3132, 1928, page 672.

7. Quarterly Review. 1917.

of industrial nations and India amongst the backward members? The answer to the query is to be found in the absence of a national economic policy on the part of the state. The American Government was determined to make the most of what nature has, in her abundance, given her; the Indian Government has been either ignorant of, or indifferent to, the great blessings which Nature has endowed this country with. We are firmly persuaded that if the Indian Government, like the American Government, makes up its mind now, measures could be taken for converting the potential wealth of the country into kinetic wealth, and India could occupy a proud place amongst the industrial nations of the world within a decade or two."⁸

The perquisites of Industrialisation viz., men, money, materials and motive power are available in plenty if only proper organizations can be established to tap them. Labour to work the factories can be found in any quantity, and there is abundance of raw material and primary agricultural products. The market is unlimited, for India, with one-fifth of the population of the world, affords one of the largest markets at the very door of the indigenous industries. Coal in certain provinces is obtainable for providing power for the factories at an economic price; hydro-electric sources could be developed for the purpose in certain other provinces. Already hydro-electric schemes are found in different places in India. The Cauveri falls have been harnessed in Mysore and the average power generated is 14,310,000 B.T. units per month. Then there is the enterprise of the Tata Hydro-Electric Scheme which embraces three companies, namely, Tata Hydro-Electric Power Company, Andhra Valley Power Company and Tata Power Company. The full investigation of the Pykara Hydro power scheme in Madras shows that it is capable of producing 100,000 horse power and thus could supply cheap power for many districts in the Madras Presidency. The hydro-electric scheme of the United Provinces and the Uhl project of the Punjab are of great potential promise. Hence all the necessities for the building up of industries in India are available and nothing further is required beyond a national economic policy on the part of the state for the achievement of the economic regeneration of the country which would make "India great and glorious alike for her own good and for the good of the world."

We need not dwell in detail upon the importance of such an industrial development but it may be summarised in a few words. Industrial development in India will achieve a general rise in level of

8. Indian Finance Year Book, 1932. page 5.

the wealth and welfare of the population, will tap the capital resources at present lying unused, will relieve the country from the danger of being too greatly dependent upon agricultural pursuits which are subject to seasonal fluctuations, will absorb much of the unemployed labour of the country, and, by raising the average condition of the individual, will enable the state to increase its revenue by further taxation. Lastly, opportunity will be afforded for the beneficial development of national character; the spirit of enterprise and commercial adventure will be stimulated; and ample scope for scientific work and inventions will be provided by commercial and industrial necessity.⁹ This would redound to the credit of the nation as a whole and enable her to take a higher place in the world of science and thought and education.

It has been maintained that India is destined by nature to be an agricultural country and that the idea of industrial organisation has never played a prominent part throughout her past. It cannot be disputed that the country has always been largely agricultural and has never been an industrial country in the modern sense of the term. The statement however that there have never been important industries in India can be disproved by an appeal to her past history.

The report of the Indian Industrial Commission begins with the following observation. "At a time when the West of Europe, the birth-place of the modern industrial system, was inhabited by uncivilized tribes, India was famous for the wealth of her rulers, and for the high artistic skill of her craftsman. And even at a much later period, when the merchant adventurers from the West made their first appearance in India, the industrial development of this country was at any rate not inferior to that of more advanced European nations." We are told in the same report that "the iron industry not only supplied all local wants, but it also enabled India to export its finished products to foreign countries. The quality of the material turned out had also a world-wide fame. The Indian steel was once in considerable demand even in England for making cutlery."

As regards iron manufactures, Professor Wilson says: "Casting iron is an art that has been practised in this manufacturing country (England) only recently. The Hindus have the art of smelting iron, of welding it, and of making steel, and have had these arts from time immemorial."

9. See Report of the Indian Fiscal Commission 1921-22, page 23.

10. Report of the Indian Industrial Commission, 1916-1919. Chairman Sir T. H. Holland, D.Sc., F.R.S. (Cmd. 51).

It is well known to all students of Indian history that the skill of Indians in producing fine muslins, and the arts of cotton spinning and cotton weaving reached a very high state of proficiency, and the products were in great demand in Western countries. "The skill of the Indians" says Professor Weber, "in the production of delicate woven fabrics, in the mixing of colours, the working of metals and precious stones, the preparation of essences and in all manner of technical arts, has from early times enjoyed a world wide celebrity."

"Less than a hundred years ago," wrote Sir Henry Cotton in 1890, "the whole commerce of Decca was estimated at one crore of rupees, and its population at 200,000 souls. In 1787 the exports of Decca muslin to England amounted to 30 lakhs of rupees; in 1817 they had ceased altogether. The arts of spinning and weaving, which for ages afforded employment to a numerous and industrial population, have now become extinct." Attempts were made to keep the industries from dying and according to Mr. Romesh Chandra Dutt, "In the first four years of the nineteenth century, in spite of all prohibitions and restrictive duties, six to fifteen thousand bales of cotton piece-goods were annually shipped from Calcutta to the United Kingdom. The figure rapidly fell until 1813. The opening of trade to private merchants in that year caused a sudden rise in 1815; but the increase was temporary. After 1820 the manufacture and export of cotton piece-goods declined steadily, never to rise again".¹¹

These goods were produced cheaply and India was thus able to compete with other countries. Commenting on the prosperity of the silk and cotton goods trade of India, Prof. Wilson, the historian of India, wrote¹² "that the cotton and silk goods of India up to the period (1813) could be sold for a profit in the British market, at a price from 50-60 per cent lower than those fabricated in England. It consequently became necessary to protect the latter by duties of 70-80% on their value, or by positive prohibition."

Another important industry was shipbuilding. This industry also gradually succumbed and never revived again. Lord Wellesly, reporting about the prosperity of the shipping industry in India, said: "The port of Calcutta contains about 10,000 tons of shipping, built in India, of a description calculated for the conveyance of cargoes to England. From the quantity of private tonnage now at command in the port of Calcutta, from the state of perfection which the art of shipbuilding has

11. Economic History of British India, by Mr. Romesh Chandra Dutt, page 296.

12. See The History of British India by James Mill, Vol. II, pages 14 and 15.

already attained in Bengal (promising a still more rapid progress and supported by abundant and increasing supplies of timber), it is certain that this port will always be able to furnish tonnage to whatever extent may be required for conveying to the port of London the trade of the private British Merchants of Bengal."¹³

Thus we see India had prosperous industries in the past, and her products especially her silk and cotton goods and the muslins of Decca were known all over the world, and therefore India according to the Sir Balfour Commission Report ranks as "one of the oldest seats of the cotton industry, and in the early days of the East India Company, her muslins and other fine products were unrivalled in quality."¹⁴

The East India Company and the European traders came, therefore, to India not to secure the raw produce of the country but to get the great variety of valuable manufactured goods available there. Mr. Moreland estimates that the annual demand of the English merchants alone was something over 100,000 pieces, and to this must be added Dutch exports. Indian weavers profited substantially by this new export trade, and the gain derived from it must have been considerable. In spite of all this it should be understood that there were no factories in the modern sense existing at that time in India. Nor were the goods made to suit the taste of the customers. Generally, weaving was done within reach of the seaboard, "to serve the specific purpose of providing cloth for particular Asiatic markets, and European merchants had to adapt themselves to the arrangements which they found at work".¹⁵ The weavers had little capital and therefore advances were taken against future delivery. The production was organized in numerous small units which were hindered to a large extent by a scarcity of capital, and the essence of the business was to adjust and to follow the market. As Mr. Moreland writes: "The position occupied by the weavers stands out clearly in the mercantile correspondence of the period; in one sense each man worked for himself, in another he was in the power of the capitalist who advanced the funds required to buy materials and support him while at work."

During the Sikh period (1819-46) thousands of men, women and children were employed in the woollen industry, and Kashmir shawls were exported to Europe. Moorcraft, an English traveller, visited

13. Quoted from Mr. Digby—Prosperous British India—page 86.

14. Committee on Industry and Trade. Survey of Textile Industries (Cotton, Wool and Artificial Silk), 1928, pages 99, 51, 148.

15. From Akbar to Aurangzeb. A Study in Indian Economic History, by W. H. Moreland, C.S.I., C.I.E., pages 135 and 136.

Kashmir in order to find out the methods of manufacture of shawls, and after learning the same sent full information which resulted in the manufacture of shawls in Paisley and the complete destruction of this industry in Kashmir. There were other industries flourishing in Kashmir during this period such as paper-making and carpet weaving, but the most flourishing industry was shawl-making and the prices of these shawls varied from Rs. 60 to Rs. 2,200 or from Rs. 180 to Rs. 6,600 in terms of the present currency. Next to land revenue, the duty on shawls formed the most important source of revenue, and out of the total production of 105 lakhs (of the present day British rupee), the government got 12 lakhs in the way of *ad valorem* duty.¹⁶

Such then were Indian conditions in the later half of the 18th century, but after 1817 the economic life of India began to change rapidly for the worse and India became a predominantly agricultural country. To make matters completely clear it would be essential here to discuss the whole economic history of India of this period, the political situation and the policy followed by the East India Company before we could point out all the causes that led to India's decline from the industrial point of view. Space, however, does not permit us to go into detail and describe and argue on those points, and hence we shall be content to limit ourselves to the discussion of only two or three important causes.

At the end of the eighteenth and the beginning of the nineteenth century, there were vast, revolutionary changes in the methods of production in Great Britain, and the domestic system was replaced by the factory system which, with the new inventions accompanying it, made possible production on a large scale. In order to push the export trade of cheap goods thus produced various methods of encouragement were given. The period which saw the rapid growth of English industries coincided with the growth of her control over her Indian possessions.

The capitalists who financed the building of the factories were out to accumulate wealth, no matter what this might involve to those who laboured for them. The prevalent theory of 'laissez faire', the absence of factory legislation and humanitarian ideals conduced to the extreme exploitation of the workers. Such capitalists did their best "to dis-

16. Kashmir under the Sikhs, by P. N. K. Banerji, B.A., I. J. of E., Vol. XIII, S. No. 48.

courage the manufactures of India and colonies." Indian cotton manufactures were liable to the following charges in England.¹⁷

	£	s.	d.
Calicoes for every £100 value	81	2	11
Cotton raw (per 100 lbs.)	6	16	11
Cotton manufactured	81	2	11
Hair or Goats' wool manufactured	84	6	3
Flowered and stitched muslins of white Calicoes (for every £100 in value)	32	9	2
Other manufactures of cotton not otherwise charged ..	32	8	2

Apart from the shutting out of Indian manufactures in this way, the superiority of British machinery enabled English merchants to sell their goods in Indian Markets. In this way British manufactures gained ground in Indian markets, and Indian manufactures lost grounds proportionately. Sir George Tucker observes that at this period (1823) "the silk manufactures of India and its piece goods of silk and cotton intermixed have long since been excluded altogether from our market; and of late, partly in consequence of the operation of a duty of 67%, but chiefly from the effect of superior machinery, the cotton fabrics which heretofore constituted the staple industry of India have not only been displaced in this country, but we actually export our cotton manufactures¹⁸ to supply part of the consumption of our Asiatic possessions. India is thus reduced from the state of a manufacturing to that of an agricultural country."¹⁹

Moreover at this time it was still held that the colonies were merely plantations, useful in supplying Britain with raw materials in order that she might manufacture goods and return them to the Colonies. This policy of discouraging the manufacture of goods in British possessions was vigorously followed till the American War of Independence. Thus India in the early part of the 19th century also began to supply raw materials and gradually became a plantation "growing raw produce to be shipped by British agents in British ships, to be worked into fabrics by British skill and capital, and to be re-exported to India by

17. Quoted from Cmd. 51, page 250.

18. Up to 1801, the cotton goods sent out from England to India amounted in value to £21,000; by 1813 they had risen to £108,824. At the end of the century it was just under £20,000,000. In the year before the war it had risen to £44,581,000. (Cmd. 51).

19. Taken from R. C. Dutt's *Economic History of British India*, page 262.

British merchants to their corresponding British firms in India and elsewhere".²⁰

It was in this way that India became mainly dependent "on the single and somewhat precarious resources of agriculture." This process of ruralization went on for a century and brought with it many miseries, especially during the series of famines that followed. At last the people of India have come to realize the importance of adopting modern methods of manufacture and the necessity of seriously applying themselves to the revival and encouragement of indigenous industries which have already died out or are on the way to extinction. During the opening years of this century a cry for industrialization began with the rise of a national feeling in India; this cry for industrialization increased, and the victory of Japan over Russia gave encouragement and "left an abiding impression on India's imagination." It was argued that wealth and production all round were low and that "the enormous population has little to spare for more than necessities of life." So in order that satisfactory conditions for the people as a whole might be secured, the national income must show a speedy rise which can be secured largely by industrialisation.

A country cannot depend entirely on agriculture alone for her prosperity and as a famine commission rightly says: "Much of the poverty of the people of India and of the risks they are exposed to in seasons of scarcity lies in the unfortunate circumstance that agriculture forms almost the sole occupation of the mass of population, and that no remedy for present evils can be complete which does not include a diversity of occupations through which the surplus population may be drawn from agricultural pursuits, and led to find the means of subsistence in manufactures or some such employments".²¹

Agricultural wealth can be developed only when industries and commerce flourish. The War gave a special emphasis to an active policy of stimulating industries, and the urgent necessity of such development is advocated by the authors of the Montague-Chelmsford report when they say that "on all grounds, a forward policy in industrial development is urgently called for, not merely to give India economic stability, but in order to satisfy the aspirations of her people who desire to see her stand before the world as a well poised, up-to-date country, in order to provide an outlet for the energies of her young men who are otherwise drawn exclusively to Govern-

20. Ranade: *Essays on Indian Economics* (1898), page 99.

21. Report of the Indian Famine Commission, 1880: Part II, page 175. C-2735.

ment service or to a few overstocked professions, and in order that the too speculative and literary tendencies of Indian thought may be bent to more practical ends, and the people may be better qualified to shoulder the new responsibilities which the new constitution will lay upon them".²²

We see therefore that both the people of India and the Government are trying to encourage the Indian Industrial movement and to develop indigenous industries. It can be safely said that the Government of India was unwilling to do anything in support of this policy up to 1916 and gave their support reluctantly even after that. The war and the Montague reforms however, made the Government of India abandon a 'laissez faire' policy towards Indian industries and take a somewhat active interest in them.

It should be noted however that the progress towards the industrialization of India will not be rapid but only gradual. England and other countries had and have facilities which India does not possess. India is not politically free and the geographical conditions and the mentality of her people make it impossible for the country to adapt herself quickly to new conditions that are required for the rapid development of industry. Apart from this, the immense size of the country and the lack of means of communication and various other difficulties make speedy progress impossible. The Government has now undertaken railway construction on a large scale and efforts are at last being made to exploit the mineral resources of the country, "but a more powerful and better directed stimulus is needed to start the economic development of India along the path of progress. Such a stimulus can only be supplied by an organised system of technical, financial, and administrative assistance."

(To be continued.)

22. Montague-Chelmsford Report (Cmd. 9109) of 1918, page 267.

On an Arithmetic Function concerning Primes*

By

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1. Let $p(n)$ be the greatest prime not exceeding n

and $n_{r+1} = n_r - p(n_r)$.

Then $n = n_1 = n_2 + p(n_1)$

$n_2 = n_3 + p(n_2)$

.....

$n_r = n_{r+1} + p(n_r)$

Adding, $n = p(n_1) + p(n_2) + \dots + p(n_r) + n_{r+1}$

Though 1 is not usually regarded as a prime, for convenience let us call 1 also a prime. So, in this paper, 'a prime' means either a prime in the ordinary sense or 1. When n_r is a prime, $p(n_r) = n_r$; and $n_{r+1} = 0$. Let us stop at that stage. Then

$$n = p(n_1) + p(n_2) + \dots + p(n_r). \quad (1)$$

It is clear that every positive integer can be represented in the above form. These primes are all different and are in decreasing order. This easily follows from Bertrand's postulate. Obviously the representation is unique. When n is a prime $r = 1$; when n_2 is a prime $r = 2$; and so on. This r is certainly a function of n and so let us represent it by $R(n)$. That is, $R(n)$ is the number of primes required

* This problem was suggested to me by Prof. K. Ananda Rao. I merely mentioned the main results in my paper "On some empirical theorems of Scherk" in the *Journal of the Indian Mathematical Society*, Vol. XVII (1928). The proofs are given here.

to represent n in the form (1). What can we say about $R(n)$ in the general case? The problem raises the following interesting questions:—

- (1) Is $R(n)$ bounded or not in the general case?
- (2) What is its maximum order?
- (3) For what classes of numbers is $R(n)$ maximum?

Except the first one, the others seem to be extremely difficult. The main results proved in this paper are

$$(1) \quad \lim_{n \rightarrow \infty} R(n) = \infty$$

$$(2) \quad R(n) = o(\log n)$$

$$(3) \quad R(n) < 2 \log \log n \quad \text{on the Riemann hypothesis.}$$

2. To answer question (1), we want the help of the following

Lemma:—If n be any positive integer, then we can find two consecutive primes p_1 and p_2 whose difference is greater than $n + 1$.

Let p be the prime immediately succeeding n , and P be the product of all the primes not exceeding p . Then, when t is a positive integer satisfying the condition

$$p + 1 \geq t \geq 2$$

$P + t$ is composite; for, any prime factor of t is also a factor of P . Hence, between $P + 2$ and $P + p + 1$ (both inclusive), there is no prime. So, if p_1 be the greatest prime not exceeding $P + 1$, and p_2 the prime immediately succeeding p_1 , then

$$p_2 \geq P + p + 2$$

$$\therefore p_2 - p_1 \geq P + p + 2 - (P + 1) = p + 1 \geq n + 2.$$

Hence the lemma.

Now we are in a position to answer question number (1). Taking the notation of the lemma, let $N = n + p_1$. Then, by the lemma, there is no prime between p_1 and N . Therefore, $p(N) = p_1$ and $p_1 > n$.

So, N requires one more prime than n . Consequently,

$$R(N) = R(n) + 1. \quad (2)$$

Thus, given any positive integer, we can find another which requires one more prime. So, given any positive integer r , we can find an integer n such that $R(n) \geq r$. Hence,

$$\lim_{n \rightarrow \infty} R(n) = \infty$$

3. A. If $\pi(x)$ denote the number of primes less than x , then it is known that

$$\pi(x) = \int_2^x \frac{du}{\log u} + O\left(x e^{-\lambda \sqrt{\log x}}\right), \quad \lambda > 9.$$

So, given t a positive integer, we can find x_0 such that for all $x \geq x_0$,

$$\text{there is at least one prime between } x \text{ and } x \left\{ 1 - \frac{1}{(\log x)^t} \right\} \quad (4)$$

Let n be very great compared to x_0 . Then with the notation in § 1, we get

$$n = n_1 = n_2 + p(n_1)$$

$$\text{From (4), it follows that } p(n_1) > n \left\{ 1 - \frac{1}{(\log n)^t} \right\}$$

$$\text{So, } n_2 < n (\log n)^{-t}$$

$$n_3 < n_2 (\log n_2)^{-t}$$

$$\dots \dots \dots$$

$$\dagger n_{r+1} < n_r (\log n_r)^{-t}, \quad \text{provided } n_r > x_0$$

Therefore,

$$n_{r+1} < n \left\{ \log n \log n_2 \dots \log n_r \right\}^{-t} < n (\log n_r)^{-rt} \quad (5)$$

$\dagger$ Here r has not the particular significance assigned in I.

$$\text{Let } 1 \leq n_{r+1} < \sqrt[n]{n} \leq n_r \text{ and } n_r > x_0 \quad (6)$$

Then, from (5) and (6)

$$1 \leq n_{r+1} < n (\log \sqrt[n]{n})^{-tr}$$

Therefore,

$$r < \frac{\log n}{(\log \log n - \log 2) t} \quad (7)$$

Let r_s be the number of primes required to reduce the remainder

from $x^{(\frac{1}{2})^{s-1}}$ to $x^{(\frac{1}{2})^s}$ where $x^{(\frac{1}{2})^s} \geq x_0$

Then, from (7)

$$r_s < \frac{\log x}{2^{s-1} t (\log \log x - s \log 2)} = T_s \text{ (say)}. \quad (8)$$

Now,

$$\frac{T_s}{T_{s+1}} = 2 \left\{ 1 - \frac{\log 2}{\log \log x - s \log 2} \right\}$$

$$\text{So, if } s < \frac{\log \log x}{\log 2} - 2, \text{ then } T_{s+1} < T_s \quad (9)$$

$$\text{Let } x^{(\frac{1}{2})^s} \geq x_0 > x^{(\frac{1}{2})^{s+1}} \text{ and } \frac{\log \log x}{\log 2} > 2 \quad (10)$$

Then, from (8) and (9),

$$r_k < T_1 \quad (k=1, 2, \dots, s).$$

Therefore,

$$r_1 + \dots + r_s < T_1 \times s = \frac{\log x}{t (\log \log x - \log 2)} \times \frac{\log \log x - \log \log x_0}{\log 2} < \frac{\log x}{t \log 2};$$

$$\text{for, from (10), } s \leq \frac{\log \log x - \log \log x_0}{\log 2}.$$

$$\text{Now, } x^{(\frac{1}{2})^s} < x_0^2.$$

$$\text{Let Maximum } R(m) = b, \quad (m=1, 2, \dots, x_0^2).$$

Then

$$R(x) \leq r_1 + r_2 + \dots + r_s + b \leq \frac{\log x}{t \log 2} + b < \frac{2 \log x}{t \log 2} \quad \text{when } x > a(x_0)^*$$

Now t can be taken as large as we please.

So

$$R(x) = o(\log x).$$

By assuming the Riemann hypothesis, the upper limit for $R(x)$ can be reduced further. On that hypothesis,

$$\pi(x) = \int_2^x \frac{du}{\log u} + O(\sqrt{x} \log x).$$

So, given δ , an arbitrarily small positive number, we can find x_0 such

that for all $x \geq x_0$, there is at least one prime between x and $x^{\frac{1}{2} + \delta}$

Let $x = n_1$. Then

$$p(n_1) > n_1 - n_1^{\frac{1}{2} + \delta} = x - x^{\frac{1}{2} + \delta}$$

$$\therefore n_2 = n_1 - p(n_1) < x^{\frac{1}{2} + \delta}$$

$$n_3 < n_2^{\frac{1}{2} + \delta} < x^{(\frac{1}{2} + \delta)^2}$$

$$\dots \dots \dots$$

$$n_{r+2} < x^{(\frac{1}{2} + \delta)^r} \text{ provided } n_r \geq x_0$$

Let $n_{r+2} < x_0 \leq n_{r+1}$. Then,

$$x^{(\frac{1}{2} + \delta)r} \geq x_0$$

$$\therefore (\frac{1}{2} + \delta)r \log x \geq \log x_0$$

$$\therefore r \log (\frac{1}{2} + \delta) + \log \log x \geq \log \log x_0 > 0$$

* $a(x_0)$ is a function of x_0

$$\therefore r < \frac{\log \log x}{\log \frac{2}{1+2\delta}}$$

Let $b = \max. R(m), (m = 1, \dots, x_0)$

Then

$$\begin{aligned} R(x) &\leq r + 1 + b < \frac{\log \log x}{\log \frac{2}{1+2\delta}} + 1 + b \\ &< 2 \log \log x, \text{ when } x > a(x_0) \end{aligned}$$

4. Regarding the class of numbers for which $R(x)$ is a maximum, I am not able to get anything except the following almost trivial results.

Obviously when $R(x)$ is maximum as a function of x , then it is for numbers for which $R(x)$ is greater than that for any lower number. Let us call such numbers L . Let $t_1, t_2, t_3, \dots$ be the L 's in order from the beginning. Then, it is easily seen that

$$(1) \quad t_r = p(t_r) + t_{r-1}$$

$$(2) \quad R(t_r) = r$$

(3) The L 's are alternately odd and even.

(4) two consecutive L 's are relative primes.

$$\text{For,} \quad t_r = p(t_r) + t_{r-1}$$

$$\text{and} \quad p(t_r) > t_{r-1}$$

$$\therefore \{p(t_r), t_{r-1}\} = 1$$

$$\therefore (t_r, t_{r-1}) = 1$$

(5) The Ratio of two consecutive L 's tends to ∞

Proof. Since $p(t_r) = t_r - t_{r-1}$ there should be no prime between t_r and $t_r - t_{r-1}$. But when t_r is large, there is at least one

prime between t_r and $t_r \left\{ 1 - \frac{1}{\log^s t_r} \right\}$

Therefore, we should have

$$p(t_r) \geq t_r \left\{ 1 - \frac{1}{\log^s t_r} \right\}$$

$$\therefore t_r - t_{r-1} \geq t_r \left\{ 1 - \frac{1}{\log^s t_r} \right\}$$

$$\therefore \frac{t_r}{t_{r-1}} \geq \log^s t_r; \text{ for every positive } s, \text{ when } t_r \text{ is large. On}$$

the Riemann hypothesis, we get

$$\frac{t_r}{t_{r-1}} > t_r^{\frac{1}{2} - \delta}$$

$$t_r > t_{r-1}^{2-2\delta}$$

Hence, the L 's increase with great rapidity.

So, it is very difficult to calculate even the first few L 's. The first four L 's are

$$1 = 1$$

$$4 = 3 + 1$$

$$27 = 23 + 3 + 1$$

$$1354 = 1327 + 23 + 3 + 1.$$

The fifth L may be calculated; but I do not think that it will be possible to calculate the sixth L .

5. We have proved the result

$$R(x) = o(\log x)$$

assuming all the known results about $\pi(x)$. But by elementary method also, we can prove something about $R(x)$. Now, by Bertrand's postulate, there is at least one prime between n and $\frac{n}{2}$ which is an elementary result. So

$$p(n_1) \geq \frac{n_1}{2}$$

So, since $n = n_1 = n_2 + p(n_1)$

$$n_2 \leq \frac{n}{2}$$

Similarly, $n_3 \leq \frac{n_2}{2} \leq \frac{n}{2^2}$

.....

$$n_r \leq \frac{n_{r-1}}{2} \leq \frac{n}{2^{r-1}}$$

Now let n_r be a prime or 1. Then $n_{r+1} = 0$ and $n_r \geq 1$.

So $2^{r-1} \leq n$

$$\therefore r \leq \frac{\log n}{\log 2} + 1 < 2 \log n$$

Thus, we have proved the following results

- (1) $R(x) < 2 \log x$ (Elementary)
- (2) $R(x) = o(\log x)$ (deep)
- (3) $R(x) < 2 \log \log x$ (On Riemann hypothesis).

Further, we have shown by elementary methods that $\max R(x)$ tends to ∞ . About the lower limit for the maximum order of $R(x)$, I am not able to do anything further than what I prove by elementary methods. In this direction one can improve the results if one can sharpen the results about the following function,

Let $P(n)$ be the smallest prime P such $Q - P > n$, where Q is the prime immediately succeeding P . Then, the following results can be proved about $P(n)$:—

$$(1) \quad 2n < P(n) < e^{2n} \quad (\text{elementary})$$

$$(2) \quad n (\log n)^t < P(n) < e^{(1+\delta)n} \quad \text{for every positive } t \text{ and } \delta \text{ when } n \text{ is large. (deep)}$$

$$(3) \quad P(n) > n^{2-\delta} \text{ for every positive } \delta \text{ (on assuming Riemann hypothesis).}$$

If the upper limit for $P(n)$ can be reduced, then, one can improve the result about the lower limit for the maximum order of $R(x)$. If p and q are two consecutive primes, then $q - p > p^{\frac{1}{2}-\delta}$ for infinity of p 's. Hence, it is not unlikely that $P(n) < n^{2+\delta}$, and consequently $R(x) > k \log \log x$ for infinity of x 's.

On a Metrical Invariant connected with four Coplanar Points.

By

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1. We define the θ normal to a curve at any point P, as the line obtained by rotating the tangent at P, in the positive sense about P, through an angle θ . It is known that for a given value of θ four such normals may be drawn to a conic from any point in its plane. The feet of these normals form a " θ -pedal tetrad" on the conic, the properties of which as tetrads on the conic have received some attention.¹

In this paper we study such tetrads not as points on their home conic, but as point sets in the plane. A set of four points in a plane requires 8 constants for its complete specification, while an arbitrary conic and an arbitrary point involve among themselves only 7 constants. It is therefore to be expected that when θ has been fixed, the θ -pedal tetrads are metrically specialised, while when θ is also allowed to vary they are quite general. This raises the following questions which are sought to be answered in this paper:—

(1) When θ is given (in particular when $\theta = \frac{\pi}{2}$) how is the pedal tetrad specialised?

(2) Given an arbitrary set of 4 points in a plane it is required to express the associated value of θ for which they form a θ -pedal tetrad as a metrical invariant of the set of four points.

As a set of four points in a plane may be taken as the base points of a unique pencil of conics, the answers to (1) and (2) may be sought in the specialisations of the associated pencil.

1. *Encyclopadie der Mathematischen Wissenschaften* III. C. 1, Kegelschnitte und Kegelschnittssysteme pp. 33, 34. Also: Vaidyanathaswami "On the quasi-normals of a central conic," *Journal of the Indian Mathematical Society*, Vol. XVIII. Part 2. Page 281.

2. Let C be a given conic subjected to an infinitesimal similarity transformation. This may be resolved into an infinitesimal rotation through an angle ϕ about the centre of similitude O and a uniform dilatation about O in the ratio $1 + \delta k : 1$. It will be seen that as a result of these operations, any point P moves so that P O is the θ normal at P where

$$\tan \theta = -\frac{\delta \phi}{\delta k} \quad (2.1).$$

Thus the above transformation carries the feet of the θ normals from O to the conic, into neighbouring points on the same conic. Hence

Any θ -pedal tetrad on a conic is the intersection of the conic with the one obtained from it by a general infinitesimal similarity transformation. (2.2).

In particular when θ is a right angle $\delta k = 0$ from (2.1), and the transformation reduces to a pure rotation. Remembering that any infinitesimal displacement in a plane is necessarily a rotation, we infer that

When a conic is subjected to an infinitesimal displacement, the common points form a pedal tetrad in the usual sense, i.e., for $\theta = \pi/2$. (2.3).

3. Consider a pencil of conics given by

$$M + \lambda R = (a_1 x^2 + 2h_1 xy + b_1 y^2 + \dots) + \lambda(a_2 x^2 + 2h_2 xy + b_2 y^2 + \dots) = 0 \quad (3.1).$$

We may without loss of generality take R to be a rectangular hyperbola so that

$$a_2 + b_2 = 0, \quad (3.2).$$

since in general every pencil contains a unique rectangular hyperbola. If the base points are orthocentric, so that every conic of the pencil is a rectangular hyperbola, R may be any member of the pencil.

The two parabolas in the pencil are then given by

$$C_\lambda = a_\lambda b_\lambda - h_\lambda^2 = (a_1 + \lambda a_2)(b_1 + \lambda b_2) - (h_1 + \lambda h_2)^2 = C_1 + \lambda C_{12} + C_2 \lambda^2 = 0.$$

If we now take M as the conic in the pencil such that the parameters of M and R separate harmonically those of the two parabolas we have

$$C_{12} = a_1 b_2 + a_2 b_1 - 2 h_1 h_2 = 0 \quad (3'3).$$

The angle ψ between the asymptotes of the conic (3'1) is given by $\frac{1}{2} \tan^2 \psi = \frac{h_\lambda^2 - a_\lambda b_\lambda}{(a_\lambda + b_\lambda)^2} = -\frac{C_1 + C_2 \lambda^2}{(a_1 + b_1)^2}$ by (3'2) and (3'3).

The two conics $M + \lambda R$ and $M - \lambda R$ have thus the same asymptotic angle and hence the same eccentricity. When these are identical, i.e., in the case of M and R the eccentricity will be an extremum.

Hence assuming that the base points are not orthocentric, we have:—

In every pencil of conics there are pairs of conics with equal eccentricities. These pairs belong to an involution whose double members are the rectangular hyperbola R and the conic M whose axes are parallel² to the asymptotes of R . The eccentricity is a minimum in the case of M and a maximum for R . (3'4).

Since all parabolas have the same eccentricity, the two parabolas in the pencil belong to the involution and their parameters separate harmonically those of M and R .

When the base points are orthocentric all the conics have the same eccentricity $\sqrt{2}$, and any two conics of the system are similar. In particular each conic is similar to its neighbours in the pencil.

In the general case, however, if two neighbouring conics are to have the same eccentricity they must be of the form

$$M + \delta\lambda . R \text{ and } M - \delta\lambda . R \quad \text{or} \quad \delta\lambda . M + R \text{ and } \delta\lambda . M - R$$

In order, however, that it may be possible to carry one conic into the other by a similarity transformation, the conics must not only have the same asymptotic angle, but must in both cases lie within the acute angle or obtuse angle. In the case of the conic M , the asymptotic angle is not a right angle and considerations of continuity lead to the conclu-

2. This is a geometrical interpretation of (3'3) which states that the asymptotes of R separate harmonically those of M and are therefore equally inclined to them.

sion that the two conics $M \pm \delta\lambda R$ whose equations differ infinitesimally from each other must be either both within the acute or both within the obtuse angle. These considerations do not hold in the case of $R \pm \delta\lambda . M$; for we may have two conics one lying within the angle $\frac{\pi}{2} + \epsilon$ and another within the angle $\frac{\pi}{2} - \epsilon$ and differing infinitesimally from each other. Further investigation shows that this is indeed the case and that the conics $R \pm \delta\lambda . M$ are not similar but conjugate hyperbolas. Thus:

The only conics of the system similar to their neighbouring conics are those in the neighbourhood of M .

We may now seek to find the rotation $\delta\phi$ and the dilatation $1 + \delta k$ necessary to carry $M - \delta\lambda . R$ into $M + \delta\lambda . R$ so that the formula (2'1) may be applied to determine the pedal angle of the tetrad formed by the base points of the pencil.

4. Consider now the effect of an infinitesimal similarity transformation on the points at infinity on $M - \delta\lambda . R = 0$ which are given by $(a_1 x^2 + 2h_1 xy + b_1 y^2) - \delta\lambda (a_2 x^2 + 2h_2 xy + b_2 y^2) = 0$ (4'1)

While the dilatation component leaves them invariant, the rotation through $\delta\phi$ carries them into the points given by

$$(a_1 x^2 + 2h_1 xy + b_1 y^2) - \delta\lambda (a_2 x^2 + 2h_2 xy + b_2 y^2) - 2\delta\phi (h_1 x^2 - h_1 y^2 + b_1 - a_1 xy) = 0 \quad (4'2)$$

omitting terms of the second order involving $\delta\lambda . \delta\phi$. If these are to be identical with the points at infinity on $M + \delta\lambda . R = 0$ we must have

$$\begin{aligned} \frac{a_1 - \delta\lambda a_2 - 2h_1 \delta\phi}{a_1 + a_2 \delta\lambda} &= \frac{h_1 - h_2 \delta\lambda + (a_1 - b_1) \delta\phi}{h_1 + h_2 \delta\lambda} = \frac{b_1 - b_2 \delta\lambda + 2h_1 \delta\phi}{b_1 + b_2 \delta\lambda} \\ &= \sqrt{\frac{(a_1 b_1 - h_1^2) - \delta\lambda (a_2 b_1 + a_1 b_2 - 2h_1 h_2)}{(a_1 b_1 - h_1^2) + \delta\lambda (a_2 b_1 + a_1 b_2 - 2h_1 h_2)}} \text{ approx.} \\ &= 1 \text{ by (3'3).} \end{aligned}$$

Passing to the limit when $\delta\lambda \rightarrow 0$ we have:

$$\frac{d\phi}{d\lambda} = -\frac{a_2}{h_1} = \frac{2h_2}{a_1 - b_1} = \frac{b_2}{h_1} = 2 \sqrt{\frac{h_2^2 - a_2 b_2}{(a_1 - b_1)^2 + 4h_1^2}} = \sqrt{\frac{-4C_2}{J_1^2 - 4C_1}} \quad (4'7)$$

$$\text{where } \left. \begin{aligned} J_1 &= a_1 + b_1 \\ J_2 &= a_2 + b_2 = 0 \end{aligned} \right\} \quad \left. \begin{aligned} C_1 &= a_1 b_1 - h_1^2 \\ C_2 &= a_2 b_2 - h_2^2 \end{aligned} \right\} \quad (4'8)$$

and the square root is to have the same sign as $\frac{b_2}{h_1}$.

When all the conics are rectangular hyperbolas the above investigation still holds so long as M and R are any two conics satisfying (3.3).

In this case both J_1 and J_2 vanish so that $\frac{d\phi}{d\lambda} = \sqrt{\frac{C_2}{C_1}}$

5. We have next to determine $\frac{dk}{d\lambda}$ where $1 + \delta k : 1$ is the dilatation in passing from the conic $M - \delta\lambda . R$ to the neighbouring similar conic $M + \delta\lambda . R$

The product of the squares of the semi-axes of a conic S are given by $P = \frac{\Delta^2}{C^3}$ where Δ is the discriminant, and $C = ab - h^2$.

Hence for the conic $M + \lambda R$ we have $P_\lambda = \frac{\Delta_\lambda^2}{C_\lambda^3}$

$$\therefore \frac{dP_\lambda}{P_\lambda} = \frac{2 d\Delta_\lambda}{\Delta_\lambda} - \frac{3 dC_\lambda}{C_\lambda} \quad (5.1).$$

But we have

$$\Delta_\lambda = \lambda^5 \Delta_{222} + \lambda^3 \theta_{122} + \lambda \theta_{112} + \Delta_{111}$$

where the Δ 's are the discriminants and θ 's the joint invariants of M and R, while

$$C_\lambda = C_1 + C_{12} \lambda + C_2 \lambda^2$$

where C_1, C_2 are given by (4.8) and $C_{12} = a_1 b_2 + a_2 b_1 - 2h_1 h_2 = 0$ from (3.3).

Hence as we pass from $M - \delta\lambda . R$ to $M + \delta\lambda . R$

$$d\Delta_\lambda = 2\theta_{112} d\lambda; \quad dC_\lambda = 0$$

to the first order of small quantities, so that

$$\frac{dP_\lambda}{P_\lambda d\lambda} = 4 \frac{\theta_{112}}{\Delta_{111}}$$

But if the dilatation be in the ratio $1 + \delta k : 1$

$$\frac{dP_\lambda}{P_\lambda} = \frac{P_\lambda (1 + \delta k)^4 - P_\lambda}{P_\lambda} = 4 \delta k$$

omitting δk^2 etc., since P_λ is of dimensions four in length.

We have therefore in the limit when $\delta\lambda \rightarrow 0$

$$\frac{dk}{d\lambda} = \frac{\theta_{112}}{\Delta_{111}} \quad (5.2).$$

6. We have now all the materials for determining the pedal angle of any tetrad of points A B C D. By (2.2) A B C D will be a pedal tetrad on that conic of the pencil which is similar to a neighbouring conic of the pencil. Using (3.5) we infer that

Any coplanar tetrad of points forms a pedal tetrad on the conic M of minimum eccentricity through them in the case of an ordinary tetrad, and on every conic of the pencil in the case of an orthocentric tetrad. The pedal angle θ is then given in both cases by

$$\tan \theta = - \frac{\Delta_{111}}{\theta_{112}} \sqrt{\frac{-4C_2}{J_1^2 - 4C_1}} \quad (6.1).$$

The last part follows from $\tan \theta = -\frac{d\phi}{dk} = -\frac{d\phi}{d\lambda} / \frac{dk}{d\lambda}$ as we pass from the conic $M - d\lambda . R$ to the neighbouring similar conic $M + d\lambda . R$.

In particular when $\theta_{112} = 0$, $\theta = \frac{\pi}{2}$ so that M is inpolar to R. In fact it is well known that the feet of the normals from a point to a conic M lie on the Apollonius hyperbola R passing through the centre and the points at infinity on the axes of M, and these points form a triangle self-polar with respect to M. We notice also that another case when $\theta = \frac{\pi}{2}$ is when $J_1^2 - 4C_1 = (a_1 - b_1)^2 + 4h_1^2 = 0$ which is the condition that M passes through one of the circular points. If the four points are real, so are the coefficients in M and R, so that in this case M is a circle.

The case when $\theta = 0$ i.e., the tangents at A B C D are concurrent will occur only when M is a pair of straight lines and accordingly we find Δ_{111} figuring as a factor in the numerator of (6.1). The vanishing of the other C_2 , coupled with $a_2 + b_2 = 0$ will involve in the case of real tetrads $a_2 = b_2 = h_2 = 0$ so that R breaks up into the line at infinity and another straight line. This can happen only when two of the points A B C D be at infinity.

The expression in (6.1) is homogeneous and of degree zero in the coefficients of the M and R so that it will not be affected by multiplying the equation of either conic by any constant. The invariant character of (6.1) for the transformations of the orthogonal group is perceived from the fact that the conics M and R are metrically specialised members of the pencil which will be carried into the corresponding members M' and R' of the transformed pencil, while Δ, θ are the projective invariants, and J, C, metrical invariants of these specialised members.

7. When the tetrad A B C D is orthocentric, M and R are any two members of the pencil satisfying (3.3) and the pedal angle θ for which θ -normals to M are concurrent is given by

$$\tan \theta = - \frac{\Delta_{111}}{\theta_{112}} \sqrt{\frac{C_2}{C_1}}$$

If any member $M + \lambda R$ be taken, this together with $M + \mu R$ satisfy (3.3) if

$$\lambda\mu + \frac{C_1}{C_2} = 0 \quad (7.1).$$

The pedal angle θ_λ for which the base points form a pedal tetrad on the conic $M + \lambda R$ is given by

$$\tan \theta_\lambda = - \frac{\Delta_{\lambda\lambda\lambda}}{\theta_{\lambda\lambda\mu}} \sqrt{\frac{C_\mu}{C_\lambda}} \quad (7.2).$$

Let us write,

$$\Delta_{\lambda\lambda\lambda} = a_\lambda^3; \quad C_1 + \lambda^2 C_2 = p_\lambda^2 = q_\lambda^2 = r_\lambda^2$$

where p, q, r are equivalent symbols for the quadratic giving the two parabolas. Then $\theta_{\lambda\lambda\mu}$ being the polar form of $\Delta_{\lambda\lambda\lambda}$ with respect to μ is represented by $3a_\lambda^2 a_\mu$, while the relation (7.1) between λ and μ takes the form

$$p_\lambda p_\mu = q_\lambda q_\mu = r_\lambda r_\mu = 0 \quad (7.3).$$

On substituting the above value for μ we have

$$\theta_{\lambda\lambda\mu} = 3 a_\lambda^2 a_\mu = 3 (ap) a_\lambda^2 p_\lambda$$

Again, from (7.3), $p_\mu = (pq) q_\lambda = (pr) r_\lambda$ so that

$$p_\mu^2 = (pq) (pr) q_\lambda r_\lambda = \frac{1}{2} (pq) r_\lambda \{ (pr) q_\lambda + (rq) p_\lambda \}$$

on interchanging the equivalent symbols p and q .

$$= \frac{1}{2} (pq)^2 r_\lambda^2 = \frac{1}{2} (qr)^2 p_\lambda^2$$

$$\text{Hence } \frac{C_\mu}{C_\lambda} = \frac{p_\mu^2}{p_\lambda^2} = \frac{1}{2} (qr)^2 = \text{discriminant of } p_\lambda^2.$$

Substituting these values in (7.2) we have

$$\sqrt{(pq)^2} a_\lambda^3 + 3\sqrt{2} \tan \theta (ap) a_\lambda^2 p_\lambda = 0 \quad (7.4).$$

Hence, summarising

An orthocentric tetrad is a pedal tetrad for every conic through the points, for the value θ given by (7.2); while for a given value of θ there are three conics given by (7.4) for which θ -normals are concurrent. Such triads belong to a pencil determined by a_λ^3 giving the parameters of the line pairs, and b_λ^3 the jacobian of a_λ^3 and the quadratic $p_\lambda^2 = 0$ which gives the two parabolas in the system. The pedal angle is zero for the conics given by $a_\lambda^3 = 0$ and is a right angle for those* for which $b_\lambda^3 = 0$. For any other conic of the system the pedal angle is given by (7.4).

If the roots of $p_\lambda^2 = 0$ are p_1 and p_2 , it is easy to see that the residual quadratics of p_1 and p_2 respectively in such a pencil are the polars of p_2 and p_1 with respect to a_λ^3 . This gives an alternative mode of specifying the pencil.

*For some geometrical properties regarding the centers of such rectangular hyperbolas, reference may be made to a paper by Dr. Vaidyanathaswami; "On the feet of concurrent normals of a conic" *Journal of the Indian Mathematical Society*, Vol. XVIII page 309.

Chemical Investigation of Indian Medicinal Plants.

PART I.

Preliminary Chemical Examination of the root bark of Capparis Horrida.

By

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One of us (S. N. C.) has been contemplating a systematic Investigation of Indian Medicinal plants for the last ten years. The object of this series of researches was to isolate the active principles of the medicinal plants with a view to determine their structures as also to study their physiological and Pharmacological action from a scientific point of view. We were interested in these studies from another point of view also. In spite of the pioneer work of Ehrlich, no far reaching generalisation has yet been discovered connecting chemical constitution of a substance with its physiological and chemotherapeutic action, this branch of medical science consisting merely of a series of empiricism hardly deserving the name of science. This is a problem which has been engaging our attention for the last few years, and we thought that by a systematic study of the chemical structure of the active principles of the various plants it may be possible to gather some material which may be of use in arriving at a generalisation of far reaching importance connecting chemical constitution and physiological and chemotherapeutic action.

The present paper deals with the preliminary investigation of the root bark of Capparis-horrida, a climbing shrub which thrives well in the Gangetic Valley and South India. The root bark is variously used by indigenous doctors as a cure for cholera, and also as sedative, stomachic and anti-idriotic. The root bark is supposed to be useful in relieving some of the symptoms of gastric irritation, as vomiting and pain, and in improving appetite. It has also been found useful in a few cases of excessive perspiration which it checked to a great extent.

A reference to the literature showed that no work had been done on the chemical constituents of this plant. A more or less complete and systematic analysis of the root bark has now been made. This investigation shows that the active principle of the root bark is an alkaloid with some remarkable properties.

A sample of the new alkaloid has been sent to Col. R. N. Chopra, I.M.S., of the Tropical School of Medicine, Calcutta, for the study of its physiological and Pharmacological action.

Experimental. Preliminary tests carried out in the usual manner (Compare Rosenthaler Grundzuge der Chemischen Pflanzenuntersuchung, pages 15 to 18) indicated the presence of an alkaloid and absence of glucosides and tannins.

In order to ascertain the general character of the constituents, 60 g. of the air-dried, finely-powdered, root bark were extracted with the following solvents successively in a soxhlet apparatus, and the extracts were dried at 100°:—

Petroleum ether (B.P. 35-40°) extracted	..	33%
Ethyl ether	..	33%
Chloroform	..	25%
Absolute alcohol	..	7%
70% alcohol	..	1.0%
Total		2.61%

Petroleum Ether extract. The yellowish extract was concentrated to a small volume and then extracted with acidified water. The acid extract did not give any precipitate with any of the usual alkaloidal reagents, and it did not give any of the tests of water soluble glucoside. The concentrated petroleum ether extract was then evaporated to dryness, when a brownish residue (2 g) was left. The residue was boiled with 90% alcohol, when a part did not dissolve. The insoluble residue was not saponified by boiling with alcoholic potash for 4 hrs. The hot alcoholic filtrate deposited on cooling a small amount of a substance (0.5 g.) which gave some of the tests of phytosterols. The final mother liquor was evaporated to dryness when a resinous substance, which did not give any of the tests of a glucoside or tannin, was obtained.

Ethyl Ether extract. This extract residue (2 g.) was very much similar to the residue obtained from petroleum ether. It did not contain any reducing sugar, tannin, glucoside, alkaloid, or an acid. It contained a non-saponifiable substance, traces of an essential oil, a small amount of a phytosterol and some resinous substance.

Chloroform extract. A dark brown sticky residue, which did not contain any glucoside, reducing sugar, alkaloid or tannin. On boiling with 90% alcohol an insoluble residue is left, which is not saponified by

boiling with alcoholic potash. The hot filtrate deposited a very small amount of a phytosterol. On evaporating the mother liquor to dryness, a caoutchouc-like substance was obtained which did not dissolve in sodium hydroxide.

Absolute Alcohol extract. On concentrating down the extract to a small volume a crystalline substance separated which did not melt even at 260°, and which was found to be a potassium salt, and not a glucoside. Ether was added to the alcoholic filtrate when a light yellow precipitate was thrown down. Part of this precipitate is soluble in dilute hydrochloric acid and gives tests for alkaloids. The part that is insoluble dissolves readily in sodium hydroxide and is reprecipitated by acids.

The ether-alcoholic solution was concentrated and lead acetate was added. There was a slight precipitation. The precipitate was soluble in boiling alcohol and on concentration gave a pale green sticky substance, soluble in sodium hydroxide. The filtrate from the precipitate gave no precipitate with basic lead acetate.

70% Alcohol extract. On concentrating down the extract to a small volume, a crystalline substance separated (2 g.) which was found to contain calcium. On further concentration, 15 g. more of a substance was deposited. Both these precipitates contained traces of an alkaloid. The mother liquors from these precipitates were evaporated to dryness, the residue extracted first with water and then with dilute hydrochloric acid. The extracts contained only traces of an alkaloid and an acid. The extracted residue was insoluble in water, chloroform, ether and sodium hydroxide.

Cold distilled water extract. The extract contained some protein and alkaloid.

Cold 1% hydrochloric acid extract. The extract gave voluminous precipitate with all the usual alkaloidal reagents.

Boiling water extract of the fresh bark. 200 g. of the powdered bark were boiled with a litre of distilled water for 4 hours. The filtrate from the bark was treated with slight excess of lead acetate, when a voluminous white precipitate (A) was thrown down, which was washed with lead acetate and then with water till the washings were no longer acidic to litmus. On decomposing the precipitate with hydrogen sulphide, a very small amount of a water soluble acid, and a mucilaginous substance was obtained. The filtrate from (A) was freed from lead, by passing hydrogen sulphide and filtering, and then concentrated

to a small bulk. A crystalline substance (7 g.) gradually separated, which did not melt even at 260°. It gave tests for calcium sulphate. On diluting the filtrate with absolute alcohol a mixture of calcium and potassium sulphates (1.6 g.) was precipitated. The filtrate from this was treated with basic lead acetate when a very slight precipitate (B) was obtained. All attempts to obtain crystalline products from the decomposition product of (B) were unsuccessful. The filtrate from (B) was freed from lead, and evaporated to dryness. The residue could not be obtained in a crystalline form, but it reduced fehling's solution and also gave tests for alkaloids. On being heated with phenylhydrazine in dilute acetic acid solution for 15 minutes on the water bath it gave an osazone which after repeated crystallisations melted at 209°. A mixed melting point with glucosazone caused no depression in the melting point.

Isolation of the alkaloid. A number of comparative experiments were first tried with a view to arrive at conditions under which the optimum yield of the alkaloid could be obtained. The following methods were tried:—(1) Extraction with neutral liquids viz. alcohol, chloroform and water; (2) Extraction with acidic solutions, viz. extraction with 1-2% hydrochloric, acetic or tartaric acid solutions in alcohol; (3) The powdered material mixed with quicklime, and dried on the water-bath and then extracted with benzene.

Very poor yields were obtained by the methods (1) and (3). A maximum yield of 10 g. of the crude periodide for 100 g. of the bark was obtained when the bark was extracted with 1.6% hydrochloric acid for 60 hours on the water-bath. On further heating for 40 hours with 1.6% hydrochloric acid, another 5 g. of the periodide was obtained, but the product was contaminated with impurities.

Eventually the following method was adopted, which gave a purer product but a poorer yield:—

100 g. of the bark was repeatedly extracted with 1.6% hydrochloric acid solution in the cold in a percolator till no more was extracted. The extract was treated with a solution of iodine potassium iodide till no more precipitate was thrown down. The precipitate was allowed to settle, and then filtered. On drying the periodide which was obtained as a dark brown powder weighed 2 g. The periodide was suspended in hot water and decomposed by passing sulphur dioxide. A clear yellow solution was obtained from which the iodide separated as a yellow powder. The filtration from this precipitate was a very slow process. On repeated crystallisation from water, the iodide separated as a yellow powder which did not melt even at 300° C.

On dissolving the iodide in water and adding ammonia in slight excess and then boiling off the excess of ammonia, the free alkaloid is precipitated. It seems to be soluble in excess of ammonia. It was insoluble in usual organic solvents and in water. It readily dissolves in dilute acids giving voluminous precipitates with all the usual alkaloidal reagents. The crude alkaloid did not melt even at 260°C .

An acid solution of the alkaloid on treatment with picric acid gives a yellow picrate. The picrate was insoluble in water, alcohol or acetic acid, but it dissolved readily in a mixture of water and acetone or acetic acid. It comes out from this mixture as a yellow powder which decomposes at 225°C .

2 g. of the iodide was converted into the chloride by heating with excess of silver chloride in aqueous solution. Unfortunately the chloride so far could not be obtained in a crystalline state.

The study of the composition and constitution of these compounds is reserved for a future paper.

Chemical Investigation of Indian Medicinal Plants.

PART II.

Preliminary Chemical Examination of the leaves of Pithecolobium Bigeminum.

By

SATYENDRANATH CHAKRAVARTI AND KRISHNAMURTI GANAPATI

(Annamalai University.)

Pithecolobium Bigeminum is a large tree which is commonly met with in the forests of the outer Himalayas and in South India. The leaves of this plant is used in Ayurvedic Medicine as a cure for leprosy and also as a stimulant to promote the growth of hair. The plant has also long been used in other systems of Indian Medicine as also in European countries. (Compare Rosenthaler, Z. Oesterr. Apoth. Ver. 1906, 44, 147.).

From the bark of this plant Greshoff isolated an amorphous alkaloid which has not yet been investigated (Ber, 1890, 23, 3541). A few years later, Rosenthaler isolated a saponin from the same plant (loc. cit.). We reserve for a future paper an account of the analytical experiments which are in progress for determining the constitution of the alkaloid present in the bark.

A reference to the literature showed that very little work had been done on the Chemical constituents of the leaves. The present investigation was undertaken to fill up this gap and also to elucidate, as far as possible, the Chemical constitution of the active principle present in the leaves.

The point of general interest which emerges from this investigation is that the leaves do not contain, even traces of an alkaloid, and that the active principle is a mixture of two acids, one of which is easily soluble in water but not readily in alcohol or ether, and the other is readily soluble in alcohol but not in water. The characterisation and the constitutions of these acids are reserved for a future paper.

Experimental. Preliminary tests carried out in the usual manner (Compare Rosenthaler Grundzüge der Chemischen Pflanzennutrienten-suchung, pages 15 to 18) indicated the presence of acids, saponins, en-

zymes and traces of essential oil, and absence of alkaloids, glucosides and tannins.

In order to ascertain the general character of the constituents, 45 g. of the air dried ground leaves were extracted with the following solvents successively in a Soxhlet apparatus and the extracts were dried at 100° :—

Petroleum ether (B.P. 35°—40°) extracted	..	2 %
Ethyl Ether	..	7%
Chloroform	..	21%
Absolute alcohol	..	34%
70% alcohol	..	32%
Total		114%

Petroleum Ether extract. On cooling the hot petroleum ether extract deposited a leafy grey white substance (A) (15 gm.). It dissolves readily in hot petroleum ether, ether and alcohol. From all these solvents it separates in an amorphous form. It is insoluble in hot water and it does not dissolve either in cold hydrochloric acid or sodium carbonate. It does not give any of the tests of alkaloids, glucosides, sugars, waxes or phytosterols. It is not an acid and gives an indefinite melting point. This substance is being further investigated.

The filtrate from (A) was extracted with acidified water, dried over sodium sulphate and the solvent removed, when a green pasty mass was left. The acid extract did not give any precipitate with any of the usual alkaloidal reagents, and it did not give any of the tests of water soluble glucosides. The green pasty mass was boiled with 90% alcohol. On filtering hot a green solution was obtained, and a residue (B) (15 g.) which turned dark and pasty on exposure to air. The residue, on being boiled for four hours with alcoholic potash, was partly saponified. The residue was found to be a mixture of fatty and unsaponifiable matter.

The green hot solution deposited on cooling a green substance (C) (25 g.). The filtrate from (C) on being evaporated to dryness gave a resinous residue (D).

The substance (C) gave most of the tests of Phytosterols. On re-crystallisation from alcohol it melted between 245-250°. The residue (D) was found to be a mixture of a resinous substance, and a solid volatile product which could be steam-distilled.

Ethyl Ether extract. The ethereal solution was extracted, after concentration, with very dilute hydrochloric acid, and then evaporated to dryness when a green pasty residue was obtained. The acid extract did not give any tests for glucosides or alkaloids. The residue was boiled with 90% alcohol when a part (A) was left undissolved (0.05 gm.).

(A) was left as a dark green powder. It has a pleasant smell and is insoluble in water, sodium hydroxide and hydrochloric acid. It is also insoluble in benzene and only very sparingly soluble in chloroform or acetic acid. It does not melt even at 280° and it does not give any of the tests of Phytosterols. On boiling for 3 hours with alcoholic potash, only part of the substance was saponified.

The filtrate from (A) was evaporated to dryness when a dark resinous substance was obtained. Part of this substance was soluble in sodium carbonate solution. The part that did not dissolve in sodium carbonate solution was found to be insoluble also in caustic potash and glacial acetic acid, but was soluble in chloroform and acetone. This substance did not give any of the tests of phytosterols, lecithins, alkaloids, etc. Attempts to obtain any crystalline materials from this were unsuccessful.

The part that was soluble in sodium carbonate was re-precipitated on acidification and was found to be an acid.

Chloroform extract. A dark green residue was obtained. A very small part of it was soluble in sodium carbonate and this part was found to be an acid. The part that was insoluble in sodium carbonate was found to be insoluble also in cold caustic potash or hydrochloric acid. It did not give any tests for tannins, alkaloids or phytosterols. It was found to contain some colouring matter, some resinous substance, and an indifferent substance, m.p. 132-35.

Absolute Alcohol extract. Nothing separated on cooling the extract or on concentrating it down to a small volume, indicating the absence of salts, saponins, glucosides, etc. To a little of the concentrated extract, ether was added when a small amount of a substance, which was neither an alkaloid nor a glucoside, was precipitated. The ether-alcoholic solution was evaporated to dryness. The residue does not give the tests of an alkaloid or a glucoside, but was found to contain an acid. On evaporating the original alcoholic extract to dryness, a green residue was obtained. The residue was extracted with sodium carbonate solution. On acidifying the sodium carbonate extract, a precipitate was obtained, indicating the presence of an acid. This substance is sparingly soluble in water. On attempting to crystallise it

from alcohol with the aid of animal charcoal, an amorphous grey powder was obtained which decomposes at 272° .

The part of the residue that was insoluble in sodium carbonate, could not be so far obtained in a crystalline form.

70% Alcohol extract. A brown residue having properties similar to that of the absolute alcoholic extract.

Cold distilled water extract. During the extraction there was much frothing indicating the presence of saponins. The extract did not contain any alkaloid, glucoside bitter or phenolic substances. On a little of the extract being treated with absolute alcohol, a very slight precipitate was obtained. The rest of the extract was then treated with lead acetate solution, when a bulky dark precipitate (A) was obtained. The precipitate was filtered, washed successively with lead acetate solution, acetic acid and then water, suspended in water and decomposed by passing hydrogen sulphide. The filtrate from lead sulphide precipitate was concentrated, after animal charcoaling, to a small volume, when a brown, more or less crystalline substance separated. This substance was soluble in sodium carbonate solution, but did not dissolve readily in alcohol, benzene or ether. It was readily soluble in water, contained nitrogen, and did not melt even at 280° . It may be an amino acid.

The filtrate from (A) was freed from excess of lead acetate by passing hydrogen sulphide through the solution, when lead was precipitated as sulphide. The filtrate was concentrated to a small bulk and a solution of basic lead acetate was added. Only a slight turbidity appeared.

Extract with boiling water. The extract was more or less similar to the previous extract. It contained in addition a larger amount of gummy substances. It did not contain any alkaloid, glucoside or tannins.

Cold 1% hydrochloric acid extract. The extract did not contain any alkaloid. The extract contained calcium and traces of magnesium in the form of salts.

Isolation of the acids. Preliminary experiments. *Water soluble acid.* 500 gms. of the finely powdered material was heated on the steam-bath with 2 litres of water for six hours and filtered hot. The extraction was repeated three or four times. A slight excess of lead acetate solution was added to the combined extract when most of the acid was precipitated as a lead salt. The lead salt was filtered off next day, washed with lead acetate, acetic acid and finally with water till free from acetic acid. The precipitate (4 gm.) was finely pow-

dered, suspended in water and decomposed by means of hydrogen sulphide. The filtrate from lead sulphide was concentrated in vacuo and finally evaporated to dryness. The residue (5 gm.) was very readily soluble in water and only sparingly soluble in absolute alcohol, or glacial acetic acid. Attempts to obtain it in a crystalline form from any of the solvents have so far been unsuccessful. The substance is unsaturated, turns black on exposure and readily decolourises permanganate. It contains nitrogen.

Experiments to purify it, though the purification of its ester or barium or silver salts, are in progress. It is also proposed to study the bromination and reduction product obtained from it.

From the filtrate from the lead salt, excess of lead was removed by passing hydrogen sulphide. The filtrate was concentrated to a small volume when calcium sulphate separated. On still further concentrating the mother liquor and allowing to cool a small amount of a mixture of calcium and magnesium salts was obtained. The last mother liquor was evaporated to dryness when a residue was obtained which gave some of the tests of carbohydrates, but which did not reduce fehling solution. In another experiment attempts to obtain crystalline products through the addition of alcohol or basic lead acetate to the concentrated mother liquors were unsuccessful. The last residue did not form either a phenyl-hydrazone or an osazone.

Isolation of the second acid. 500 gms. of the above material which had been completely extracted by means of water was dried on the steam-bath and then boiled for six hours on the water-bath with 2 litres of alcohol. Alcohol was filtered hot and the leaves were repeatedly extracted with alcohol till the residue was completely exhausted. The combined extracts were concentrated to a small volume and allowed to remain overnight. Next morning nothing separated. The solution was therefore evaporated to dryness. The residue (5.5 gm.) was shaken up with sodium carbonate solution and the latter solution acidified. On crystallising the precipitated acid from alcohol with the aid of animal charcoal, a substance was obtained which begins to decompose at 272° . The acid is unstable and readily decomposes into a dark product. It at once decolourises permanganate.

This acid differs markedly in its properties from the one previously obtained, being much more readily soluble in alcohol, acetone, acetic acid and chloroform, and much less in water.

Experiments to prepare large quantities of the acid by direct extraction of the leaves with dilute sodium carbonate solution, are in progress.

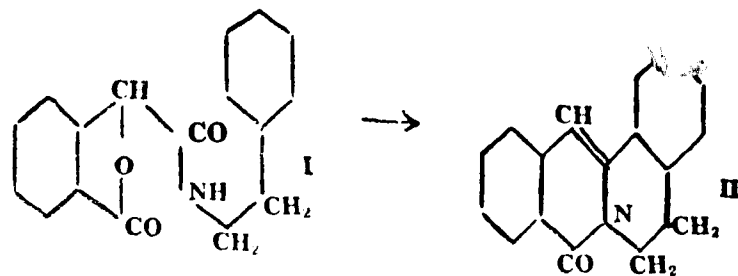
An attempted synthesis of Oxy-protoberberine and

a synthesis of 3-Methoxy-oxy-protoberberine

By

SATYENDRANATH CHAKRAVARTI AND A. P. MADHAVAN NAIR
(Annamalai University.)

An unsuccessful attempt to synthesise Oxy-protoberberine and tetrahydro-protoberberine, the parent substance of the Berberine and Palmatine group of alkaloids, for which the name "Berbin" has recently been suggested by Walter Awe (Arch. Pharm. 1932, 270, 161), was first made by Haworth, Perkin and Pink (J. C. S. 1925, 127, 1711). These compounds were first synthesised by one of us in 1927 (J. C. S. 1927, 2275). The melting point of tetrahydro-protoberberine was found to be 85°, and numerous derivatives of this compound were prepared. In the same year Kitasato prepared a compound having the melting point 254-260°, which he called tetrahydro-protoberberine (Kitasato, Acta Phytochimica 1927, 3, 175-258; Chem. Zentral 1927, 11, 1965). In view of this discrepancy, we sought to verify our results by synthesising tetrahydro-protoberberine by another method analogous to that employed by Perkin, Ray and Robinson for synthesising Oxy-berberine (J. C. S. 1925, 127, 740). For this purpose the acid chloride of Phthalide Carboxylic acid was condensed with β -Phenylethylamine when the amide (I) m.p. 155° was formed. Unfortunately all attempts to convert the amide (I) into oxy-protoberberine, (II) were unsuccessful, undoubtedly due to the absence of activating methoxy groups.

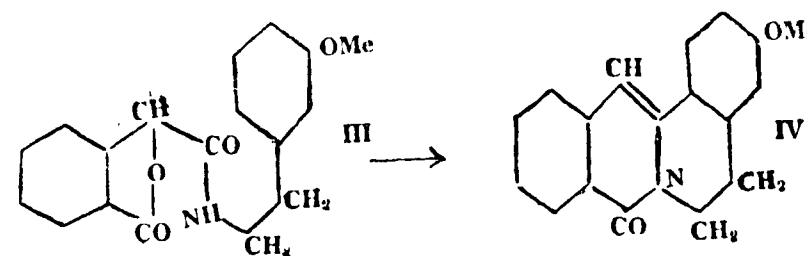


When phosphorus pentachloride was used to effect cyclisation in place of phosphorus oxychloride, a crystalline substance m.p. 153° was obtained in a poor yield. This substance was found to be quite different from oxy-protoberberine synthesised previously and its analysis did not agree with the values calculated for oxy-protoberberine.

While these experiments were in progress, Wolfgang Leithe published a paper which fully confirmed the results obtained previously by one of us. (S. N. C.) He synthesised tetrahydro-protoberberine anew by a slight modification of our previous method and found its melting point to be 85° C. (Ber., 1930, 2343). In view of this work, and the fact that Kitasato withdrew his statement in a private communication to one of us, further work on this subject was discontinued.

Incidentally, 3-Methoxy-oxy-protoberberine (IV) was synthesised—a synthesis which is of interest from the point of view of the determination of ease of formation of alkaloids of berberine-palmatine type containing no pyrocatechol nuclei (Compare Chakravarti, Haworth and Perkin, J. C. S. 1927, 2267, 2275; Chakravarti and Perkin, J. C. S. 1925, 196.).

The acid chloride of Phthalide Carboxylic acid condensed readily in benzene solution with β -m-Methoxy-phenylethylamine yielding phthalide Carboxy- β -m-Methoxy-phenylethylamide (III) m.p. 105°. When this was heated with phosphorus oxy-chloride and the product decomposed with ice, a basic substance separated (on basification of the aqueous solution), which, on reduction with Zinc dust and acetic acid, was converted into a pale yellow substance, m.p. 143°, having all the properties of a compound of the Oxy-berberine type, and this is doubtless 3-Methoxy-oxy-protoberberine (IV).



The point of general interest which emerges from this synthesis is that the synthetical experiments described proceed as readily when only one methoxy group is present in the meta position to ethylamine group, as they do in the case of the corresponding syntheses in the berberine group. The ease of formation in this case is doubtless due to the presence of an activating para methoxy group.

Experimental. *Phthalide-Carboxy β phenylethylamide* (1). Phthalide carboxylic acid (10 g.) prepared by the reduction of phthalonic acid which in its turn was prepared by the oxidation of naphthalene (Compare Ullmann and Uzbachian Ber, 1903, 36, 1805, and Graebe

and Trumpy Ber., 1898, 31, 373), was thoroughly mixed with the equivalent amount of phosphorus pentachloride and heated on the steam-bath for three hours. Phosphorus-Oxychloride formed was then completely removed by distillation in vacuo, and the residue dissolved in dry benzene and added gradually to a dry benzene solution of β phenylethylamine (prepared from 9 g. of the hydrochloride). After remaining overnight, the mixture was heated on the steam-bath for half an hour, cooled, and washed successively with sodium carbonate solution and dilute hydrochloric acid, and dried over sodium sulphate. On distilling off most of the benzene, the amide separated as a white powder (yield almost quantitative). On repeated recrystallisation from ethyl alcohol it melted at 155° (Found: C=72.8; H=5.3; $C_{17}H_{15}O_3N$ requires C=72.6; H=5.3).

An attempted synthesis of Oxy-protoberberine (II). An attempt was made to convert phthalide-Carboxy- β phenylethylamide (1) into Oxy-protoberberine, by treating the amide with phosphorus Oxychloride and then treating the basic substance thus formed with Zinc dust and glacial acetic acid exactly under conditions described by Perkin, Ray and Robinson for converting the Piperonylethylamide of meconine Carboxylic acid into oxy-berberine (loc. cit. page 742; compare also Chakravarti and Perkin J. C. S. 1929, 200). The final product obtained was a brown resinous substance which could not be obtained in a crystalline form, and which could not be further examined owing to the very poor yield. Phosphorus pentoxide in boiling Xylene solution was then tried as the cyclising agent. Again a very poor yield of the same resinous substance was obtained. When, however, phosphorus pentachloride was used as the cyclising agent, a distinctly crystalline pale yellow substance was obtained, which was repeatedly crystallised from methyl alcohol. The substance crystallises in beautiful needles, m.p. 153° , and is very readily soluble in the usual Organic solvents. (Found: C=72.2; H=4.45; N=4.3. $C_{17}H_{13}ON$ requires C=82.6; H=5.3; N=5.7%. We are indebted for this micro-analysis to Dr. Ing. A. Schoeller of Berlin).

The substance thus formed differs markedly in its properties from Oxy-protoberberine synthesised by one of us (J. C. S. 1927, 2280), and it could not be further investigated owing to the small amount of the substance at our disposal.

Phthalide-Carboxy- β m-Methoxy-phenylethylamide (III). β m-Methoxy-phenylethylamine was prepared by a slight modification of the method previously described by one of us (Chakravarti, Haworth and Perkin, J. C. S. 1927, 2269), m-hydroxybenzaldehyde being methy-

lated in the following manner in more than 90% yield:—50 g. of m-hydroxybenzaldehyde dissolved in 200 c.c. of 10% sodium hydroxide solution, is treated gradually with constant shakings with 55 c.c. of dimethyl sulphate. When all the dimethyl sulphate has been added, the mixture is further shaken for a few minutes and then warmed on the water-bath for an hour. M-methoxy benzaldehyde formed is then separated in the usual manner. M-methoxy-phenylethylamine was then condensed with the acid-chloride of phthalide—Carboxylic acid exactly under the conditions described above for the amide (I). Phthalide-carboxy- β m-methoxy-phenylethylamide was thus obtained in almost quantitative yield. It crystallises in colourless plates m.p. 105° . (Found: C=69.6; H=5.6; $C_{18}H_{17}O_4N$ requires C=69.4; H=5.5).

3-Methoxy-oxy-protoberberine (IV). The amide (III) (12 g.) was mixed with freshly distilled phosphorus oxychloride (120 c.c.), and the mixture heated for six hours on the water bath. A copious evolution of hydrogen chloride was observed, the liquid gradually undergoing a change in colour through yellow to dark red. The mixture was decomposed by means of cold water and the liquid filtered, leaving a dark resinous residue. The yellow filtrate was then basified when an orange red precipitate was obtained. This substance was collected, well washed with water, dried in the air, and boiled with Zinc dust (25 g.) and glacial acetic acid (135 c.c.) for five minutes. Then another 25 gms. of Zinc dust was added and the whole mixture further boiled for half an hour. The cooled solution was diluted with a large amount of ethyl-acetate, filtered and washed several times with dilute hydrochloric acid, then with aqueous sodium hydroxide and finally with water. The solution was dried over potassium carbonate and the solvent removed by distillation. A yellow crystalline residue was left behind, which was repeatedly crystallised from alcohol. The substance (2.5 g.) was then obtained as beautiful needles m.p. 143° . (Found: C=78.3; H=5.5. $C_{18}H_{15}O_3N$ requires C=78.0%; H=5.4%).

We wish to thank Dr. B. B. Dey of the Presidency College, Madras, for having kindly permitted the analyses required during this investigation to be carried out in his laboratory.

A new synthesis of 3 : 10 dimethoxy-tetrahydro-protoberberine

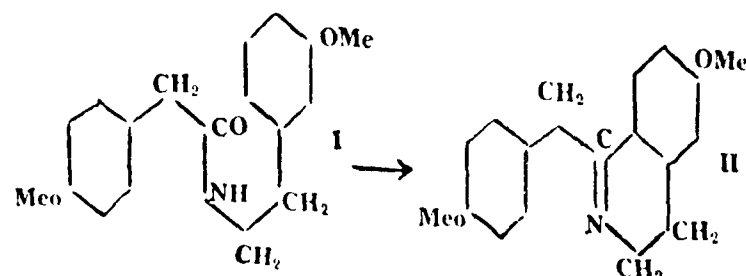
By

SATYENDRANATH CHAKRAVARTI, N. ANANTHAVIDYANATHAN AND

A. VENKATASUBBAN

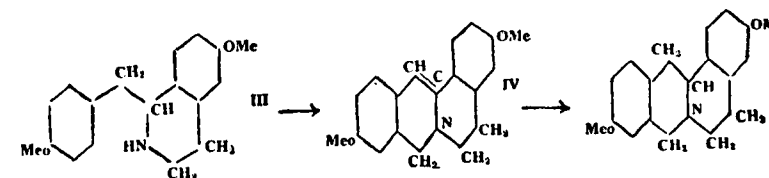
(Annamalai University.)

3 : 10 dimethoxy-tetrahydro-protoberberine (V), which had previously been prepared by one of us (Chakravarti and Perkin, J. C. S. 1929, 196) has now been synthesised by a method similar to that used for the synthesis of 3 : 11 dimethoxy-tetrahydro-protoberberine (Chakravarti, Haworth and Perkin J. C. S. 1927, 2265). *m*-methoxy- β -phenylethylamine, prepared by a slight modification of the method previously described, (J. C. S. 2269) was condensed with *p*-methoxy-phenylacetic acid (prepared by a modification of the method of Mauthner, Annaler 1909, 370 374, Wakeman and Dakin, J. Biol. Chem., 1911, 9, 150; and Cain, Simonson, Smith J. C. S. 1913, 103, 1036) and *p*-methoxy-phenylaceto- β -*m*-Methoxy-phenylethylamide (I) m. p. 81°, was converted in a yield of more than 80% into 6 methoxy-1(4' methoxybenzyl) 3 : 4 dihydro-isoquinoline (II). The base readily forms a hydrochloride and a picrate and oxidises rapidly on exposure to air and



is readily reduced by zinc and sulphuric acid to 6-methoxy-1-(4'-methoxybenzyl)-1,2,3,4 tetrahydro-isoquinoline (III) a base yielding a crystalline sulphate and picrate. Attempts to convert (III) into 3:10 dimethoxy-tetrahydroberberine by means of formaldehyde were unsuccessful, invariably gummy products being obtained. It was ultimately found that treatment of the *N*-formyl derivative of (III) with phosphorus oxy-chloride gave 3:10 dimethoxy-dihydroprotoberberine (IV) in 20% yield. The substitution of phosphorus pentoxide for the oxychloride did not effect any improvement in the yield. The base (IV) was not isolated as such, except in a preliminary experiment, but

directly reduced by zinc dust and hydrochloric acid to 3 : 10 dimethoxytetrahydroprotoberberine (V), m.p. 139°. A mixed melting point with a specimen synthesised by the previous method (loc. cit. J. C. S. 1929, 201) caused no depression.



The interesting point which arises from this investigation is that whilst the first cyclisation that is to say the conversion of (I) into (II) takes place readily, the second cyclisation i.e., the conversion of (III) into (IV) takes place with much less readiness. This is undoubtedly due to the presence of a para activating methoxy group in (I), and the absence of such a group in (III).

Experimental. *p*-methoxy phenylaceto-*m*-methoxy-phenylethylamide (I). β *m*-methoxy-phenylethylamine was prepared by a slight modification of our previous method (loc. cit.) the modification consisting in methylating *m*-hydroxy-benzaldehyde by shaking it with slight excess of dimethyl-sulphate in alkaline solution and then heating the product for one hour on the water-bath. Thus the use of methyl alcohol was obviated and a 90% yield of *m*-methoxy-benzaldehyde was obtained.

In preparing para-methoxy-phenyl-acetic acid the following modification was used :—

The azlactone obtained by the condensation of anisaldehyde and hippuric acid was hydrolysed by means of 10% sodium hydroxide solution, and the alkaline solution was then saturated with sulphur dioxide, the benzoic acid collected, and the filtrate acidified and boiled. *p*-methoxy-phenyl-pyruvic acid, which gradually separated, was collected and crystallised from glacial acetic acid. This acid m.p.192° was oxidized in cold alkaline solution with hydrogen peroxide. On acidifying the solution, *p*-methoxy. phenylacetic acid, m.p. 86°, separated in beautiful plates and in an excellent yield.

Equivalent quantities of β *m*-methoxy-phenylethylamine and *p*-methoxy-phenylacetic acid were heated at 180° for 2 hours. On crystallising the product from benzene through the aid of animal charcoal, *p*-methoxy-phenylaceto- β *m*-methoxy-phenylethylamide (I) m.p.

81°, was obtained as colourless plates in a good yield. (Found C=72.0; H=7.2. $C_{18}H_{21}O_3N$ requires C=72.2; H=7.0%).

6-Methoxy-1 (4'-methoxybenzyl) 3:4 dihydro-isoquinoline (II). The amide just described (10g.) was heated with phosphorus oxychloride (25 c.c.) for 2 hours on the steam bath and then kept overnight. The mixture was decomposed with cold water and the clear solution thus obtained was made alkaline with sodium hydroxide in presence of benzene in a separating funnel, the precipitate formed being immediately shaken up with benzene. The alkaline solution was once more extracted with benzene and part of the combined benzene extract (A) was dried over potassium carbonate, and concentrated to a small bulk when a colourless oil was obtained.

A crystalline hydrochloride and a crystalline picrate m.p. 146° (Found C=56.3; H=4.6; $C_{14}H_{12}O_9N_4$ requires C=56.5; H=4.32) was prepared from the above base by usual methods.

6-Methoxy 1 (4'-methoxy-benzyl) 1:2:3:4 tetrahydro-iso-quinoline (III). This was obtained by extracting the benzene extract (A) with dilute sulphuric acid, and reducing the acid solution with zinc dust. On cooling, the crystalline sulphate was deposited in the form of plates. The sulphate was dissolved in water and decomposed by means of ammonia, and the tetrahydrobase extracted with chloroform, dried over potassium carbonate and the solvent removed, leaving the base as an oil. The hydrochloride, obtained by dissolving the oil in hot dilute hydrochloric acid, and cooling, separated as a crystalline powder m.p. 196° (Found: C: 67.4; H=7.1; $C_{18}H_{21}O_4$ NoI requires C=67.6; H=6.9). The picrate prepared in alcoholic solution is sparingly soluble in cold alcohol and separates from this solvent as a crystalline powder m.p. 192° (decomp)

3:10 Dimethoxy-tetrahydro-protoberberine. (V). This base could not be obtained by treating the foregoing base with formaldehyde in the usual manner. This base was obtained in a 20% yield by the following method. The base (III) was heated with equivalent amount of anhydrous formic acid in an oil-bath at 200-210° until effervescence had ceased (3 hours.) The product was dissolved in toluene and boiled with phosphorus oxy-chloride for 1½ hours. After remaining overnight light petroleum was added and the clear liquid decanted from the dark coloured gum, the latter extracted with dilute hydrochloric acid (charcoal), and the solution of dihydroprotoberberine reduced by heating with excess of zinc dust for 2 hours, during which the yellow solution became colourless. The hot liquid was filtered, the filtrate decompos-

ed with ammonia, the base extracted with chloroform, dried over potassium carbonate, the chloroform removed, and the residue crystallised from methyl alcohol. On recrystallisation from methyl alcohol with the aid of animal charcoal, the substance was obtained in beautiful prisms, m.p. 139° (Found: C=77.1; H=7.3 $C_{19}H_{21}O_2N$ requires C: 77.3; H: 7.1%).

In a preliminary experiment, an attempt was made first to get 3:10 dimethoxy-dihydro-protoberberine (IV) in a crystalline state and then to reduce it to (V). It was found, however, that 3:10 dimethoxy-dihydroprotoberberine (IV), crystallised much less readily than 3:10 dimethoxy-tetra-hydro-protoberberine (V).

The Physiological Anatomy of *Ulex europaeus* (Linn.)

By

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Ulex europaeus (Linn.) is a hardy perennial shrub which grows on the higher ranges of the Nilgiri hills. On account of its extreme spinescence it is sometimes used as a hedge plant. All the organs of the shoot in this plant are modified into thorns. The leaves are spinescent; the primary branches borne in their axils are spinescent and the secondary branches springing from these are also in the form of thorns. This spinescence, according to Coulter¹ is induced by intense light and desiccation. All the parts, however, are green and it is, therefore, evident that in the absence of typical foliage leaves their work is carried on by these organs. Ootacamund, which is the highest hill of the Nilgiri range and in which this plant is of common occurrence, is more than eight thousand feet above the mean sea level. This corresponds very nearly to Schimper's⁵ Alpine region. In this region various climatic factors combine in one to make the vegetation markedly xerophytic. An investigation was undertaken into the anatomy of *Ulex* to find out how far the structure was or could be correlated to the external factors and whether it could anatomically be proved that it possessed xerophilous characters, i.e., anatomical features which tend to minimise transpiration. The material was collected in May 1931 and fixed in 4% Formaldehyde. On account of the hardness of the thorns only hand sections were taken and cleared in Lactic Acid.⁶

The Leaf

It is a small spinescent structure about 5 mm in length, slightly convex on its lower side and flat on the upper. Three veins traverse it parallel to one another of which the central one is the largest, while the other two, one on either side of it and running along the margin of the leaf are smaller. A transverse section of the leaf (Fig. 1) shows a thick coating of cuticle over the epidermis. The epidermal cells

according to Solereder⁷ have their inner membranes mucilaginous. The number of stomata on the upper surface is about 125 per square millimeter while on the lower it is 238. The number of epidermal cells for the same area is 475. The size of the cells, including the stomata are therefore comparatively small with a corresponding increase in the number of stomata. Each stoma (fig. 3) consists of two guard cells almost in a level with the rest of the epidermal cells; but the cuticle over the stoma forms a papillate protrusion (Fig. 3 p.p.). Below the epidermis are the palisade cells forming a compact tissue and arranged perpendicular to the surface of the leaf. The average length of the

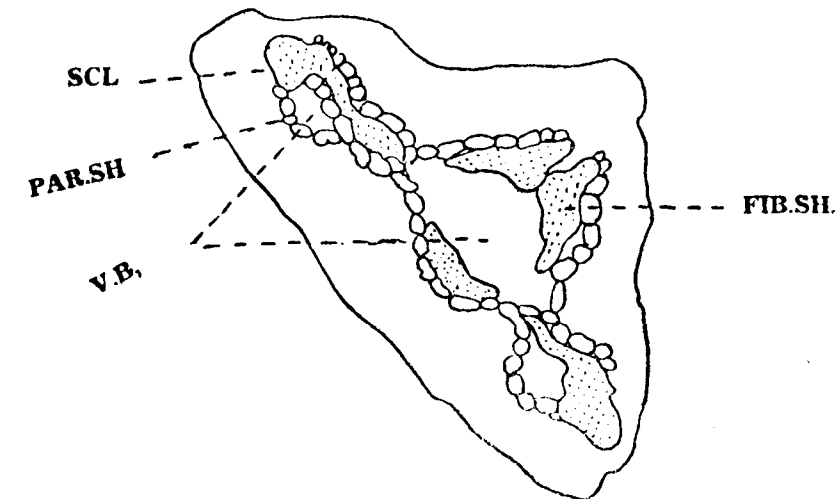


Fig. 1.

palisade cell is 18μ . and the breadth 5μ . The mean thickness of the leaf is .24 mm. of which the palisade parenchyma occupies .14 mm. or more than half the thickness of the leaf. It is noteworthy that the mesophyll is not differentiated into the spongy parenchyma and the number of intercellular spaces is very limited. In the centre of the leaf is a vascular strand flanked on either side by two smaller ones (Fig. 1 v.b.) which consist mainly of vessels. The central vascular bundle is protected by a V-shaped fibrous sheath towards the lower surface of the leaf. It does not however attain such a size on the upper surface and this is probably due to the fact that the xylem elements which are towards the upper surface being themselves thick walled do not need as much mechanical support as the thin walled phloem elements on the under surface. The combined effect of these two sheaths is that of an I girder which makes the leaf free from dangers of flexibility. The other two corners of the leaf are also pro-

vided with irregular bands of sclerenchyma cells (Fig. 1 Scl.) which take their origin in the hypodermal region and extend very nearly to the sides of the central vascular bundle. These two bands of sclerenchyma include in their angles two small mestome bundles one each (Fig. 1 v.b.). These sclerenchymatous bands running along the margin of the leaf are probably a means to make the leaf resist shearing stresses to which plants of the Alpine region are subjected to on account of the prevalent strong and drying winds. The combined effect of all these strips of mechanical elements is that of a compound girder. Between the palisade parenchyma and the conducting tissue, i.e., the vascular region, there is a sheath of ordinary parenchymatous cells which envelops the entire circle of veins and is in close contact with them (Fig. 1 Par. sh). This corresponds to Haberlandt's² second system of construction of photosynthetic cells. This system comprises two distinct tissues, one set apart for photosynthesis and the other for translocation, and a modification of this type is the association of the palisade tissue with a common parenchymatous sheath. From its position however it looks like the protective sheath or the endodermis. While it is likely that it may have taken on the function of an endodermis in a subsidiary manner, the structure of the cells, the presence of chloroplasts, etc., seem to indicate that this sheath is primarily a carbohydrate conducting tissue. But that it is also a protective layer, i.e., doing the function of the endodermis is shown by their walls being

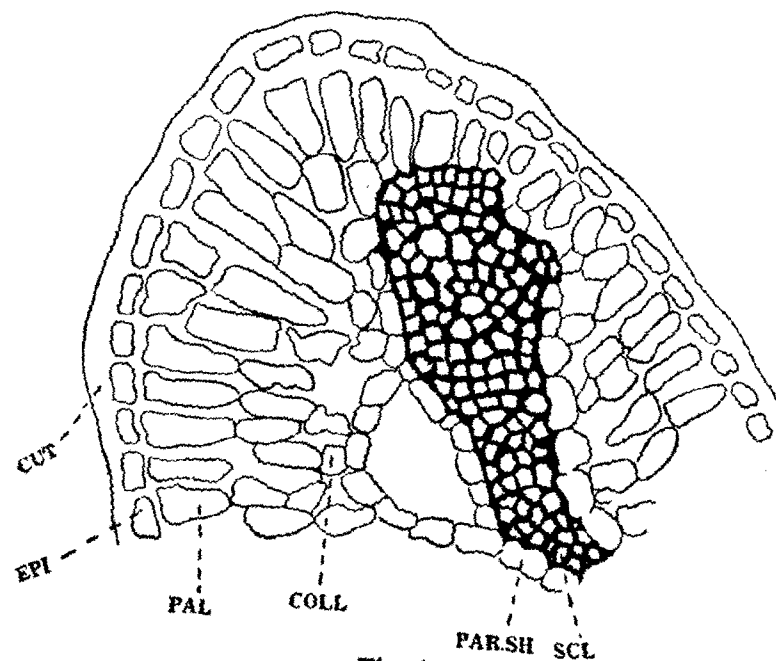


Fig. 2.

slightly thickened due to lignification. Such sheaths have been reported to occur in the leaves of certain grasses which do not possess a typical endodermis.² At the tips of a group of palisade cells are collecting cells (Fig. 2 Coll), which are in immediate contact with the parenchyma sheath and this supports the view that it is primarily a carbohydrate conducting tissue. It is likely that this may be the rudiments of the special "intermediary tissue"² which attains its highest development in the foliage leaf of a mesophytic dicotyledon where it takes the form of spongy parenchyma which receive the synthetic products from the collecting cells.

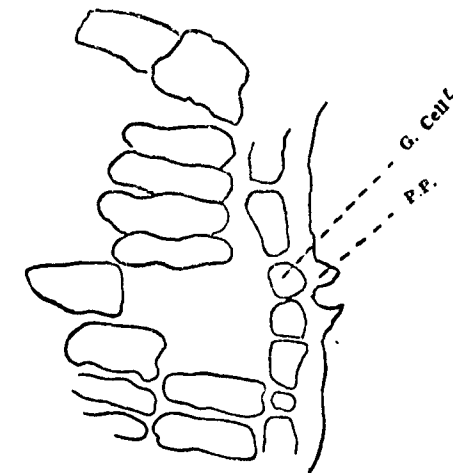


Fig. 3.

The Stem.

A very young branch of *Ulex* is more or less square in cross-section and below the four corners are the vascular bundles. Just above each of them is a linear column of sclerenchyma reaching up to the hypodermal region. Between the bundles rudiments of secondary ones are visible and above each such portion there is a knob like protuberance which, as the branch gets older, extends to the epidermis, and as more bundles are formed more of these sclerenchyma bands are developed. There is thus a dense net-work of vascular strands with a strong development of the mechanical tissue. The central medullary region is also occupied by thick walled cells (Fig. 5 Med). In a very young condition these have the structure of typical stone cells with very narrow lumen and walls stratified. Some of these sclerotic cells were found to contain starch grains in storage. The cortical cells (Fig. 5 Cor) are elongated and are of the same size as the palisade cells of the leaf and are full of chloroplasts. This tissue is also associated with a common parenchymatous sheath which surrounds the entire circle of vascular bundles. This is also the condition

sade tissue." This results in an increase of assimilative capacity by an increase in the assimilative surface. In the plant under investigation the chlorenchyma is composed of a compact palisade tissue with a well developed conducting tissue. An increase in the surface exposed for assimilative work is brought about by the branches and stems dividing into ridges and furrows. But this will also bring about an increase in the area exposed for transpiration, and this is opposed to the traditional belief that xerophytes possess adaptations to reduce transpiration. Salisbury⁴ has shown that high stomatal frequencies are associated with xerophytic structures and this is also confirmed by Maximov³ according to whom intense solar radiation brings about a decrease in the size of the cells with a corresponding increase in the number of them including the stomata. In *Ulex*, as it has been pointed out, stomata occur both on the upper and the lower side of the leaves, 125 per sq. mm. in the former and 237 in the latter. This number is much more than in the case of an ordinary mesophyte like *Thespesia populnea* where there are not only no stomata on the upper surface but the stomatal frequency in the lower is much less, i.e., 208. It is therefore natural that an increase of assimilative capacity which is correlated with an increased number of stomata per unit area results in a more rapid rate of transpiration. This necessitates an abundant water supply and a well developed conducting system together with a short and easy path along which water can travel from the veins to the evaporating cells of the leaf. Such a condition is clearly seen to occur in *Ulex* where the mesophyll cells are more or less directly connected with the large parenchymatous cells sheathing the veins. These seem to aid in the distribution of water to the mesophyll; and the deeply dissected nature of the plant, i.e., the replacement of ordinary foliage leaves by thorns is obviously not only a means to withstand the strong winds but also to reduce the distance between the water conducting veins and the evaporating cells of the mesophyll. It is not therefore to reduce the area of transpiring surface as it is traditionally thought to be. The thick coating of cuticle however is protective in that during wilting when the stomata are closed it prevents excessive loss of water through the cells of the epidermis. From all these considerations it is more or less quite evident that though *Ulex europaeus* is xerophytic it is not actually xerophilous, i.e., possessing anatomical characters tending to a minimal transpiration, but it is only drought resistant.

In conclusion, I have great pleasure in acknowledging with gratitude much valuable help and advice which I received at the hands of Professor Rai Bahadur Shiv Ram Kashyap during the preparation of this paper.

Explanation of Figures.

Ulex europaeus.

All figures were drawn with the Abbe drawing apparatus and the initial magnification of each is given below.

Figure I. Transverse section of leaf to show the general arrangement of the mechanical tissues, the vascular strands and the parenchyma sheath.

Fib. Sh.—Fibrous sheath; Scl.—Sclerenchyma.
Par. Sh.—Parenchyma Sheath; V. b. Vascular bundle (x 80).

Figure II. A portion of the leaf enlarged, to show cuticle over epidermis, structure of palisade cells and collecting cells, and the parenchyma sheath in close contact with these and the Sclerenchyma band in the edge of the leaf.

Cut.—Cuticle; Epi.—Epidermis; Coll.—Collecting Cells.
Scl.—Sclerenchyma; Pal.—Palisade cells. (x 440).

Figure III. A Stoma in cross-section.

G. Cell.—Guard cells; p. p. papillate projection above the guard cells. (x 440).

Figure IV. T. S. of an adult branch, to show ridges and furrows vascular bundles and hard bast bands above each and the parenchyma sheath.

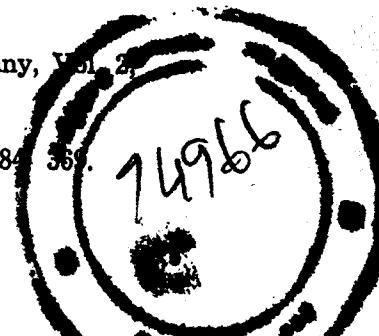
Cor.—Cortex; V. b.—Vascular bundle; Par. sh.—Parenchyma sheath; Scl. Sclerenchyma (x 70).

Figure V. One of the ridges enlarged and filled with respective tissue cells, to show the palisade like cortical cells, the sclerenchyma band above the vascular bundle, the parenchyma sheath around it and in close contact with the cortical cells, and the sclerotic medullary cells. (x 100).

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The Development of Tamilian Religious Thought

By

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I

Introductory.

The beginnings of Tamilian civilization may be traced far back to the ancient days when the waters of the *Pahruli* river brought fertility to the regions that extended southwards beyond *Kumari* (the present Cape Comorin.) The Pandya king *Mā Kīrti* at whose court the *Tholkāppiyam* was published flourished before the time of the great deluge¹ which submerged several ranges of hills, the river Pahruli and the fortynine countries adjoining it. The waters of the Indian Ocean roll over the spot where the proud city of *Kavadapuram*² stood. This city of great wealth, 'rich in gold, celestial and adorned with pearls and gems', was the second capital city of the Pandyan kingdom; the original seat of government, *Thenmadura*, was situated further south and was swallowed up by the sea at the end of the first *Oozhi*. The commentator *Nacchinārkiniyār* ascribes to king *Mā Kīrti*³ a long reign of twenty-four thousand years and proceeds to say that the scholars at this old king's court were, therefore, men of matchless wisdom. If years mean anything, *Mā Kīrti* and his courtiers should certainly be the possessors of very ripe wisdom. Never-the-less we, who belong to a short-lived race of mortals, whose average span of life does not exceed the proverbial three score years and ten, refuse to see eye to eye with *Nacchinārkiniyār* when he makes this pre-diluvian monarch go through the dull routine of a king's life for such a long number of years. Although the tradition may be unacceptable for purposes of historical investigation it may not be uninteresting to seek for and discover its origin. The existence of parallel traditions in Sumerian history suggests the possibility of a common source. The king lists⁴ of Larsa give the names of

1. Chilappadikaram XI, 17-22; Kali-thokai CIV 1-4; Tholkappiyam: Payiram Comm.; Karpiyal 4 Comm., and Marapiyal 94 Comm.; Purananuru VI, 2 and IX, 11.

2. Valmiki Ramayanam, Kishkindakandam, XLI, 19.

3. Tholkappiyam: Payiram Comm.

eight kings before the deluge who reigned for periods ranging between 18,600 and 43,200 years. The civilisation of the Mesopotamian valley has a special interest to students of Tamil culture, for the ancient Sumerians are said to bear most resemblance to the Dravidian ethnic type of India.⁵ The discovery of monuments⁶ belonging to the First Dynasty of Ur (3100-2930 B.C.), the third after the Flood has proved to a certain extent that the records left by the scribes of ancient Sumer are not altogether legendary. The archaeological finds at Harappa and Mohenji-Daro may throw fuller light on the racial and cultural connexions of the Sumerians and the ancient Dravidians, and the antiquity of the Sumero-Dravidian civilization. The account given by Berosus⁷ in the third or fourth century before Christ appears to suggest that the early settlers of Sumer arrived by sea, bringing with them a fully developed civilization. This civilization may possibly have arisen in the submerged Tamil-lands that extended to the south of Kumari.

Coming back to the court of king Mā Kirti, we see *Tholkappiyar* seated in the midst of an assembly of learned pandits, expounding his immortal treatise. Opposite to him sits *Athankōttāsan*, a relentless critic, who at the instigation of the sage *Agattiyar* (*Sanskrit—Agastya*) points out many flaws in the book. *Tholkappiyar* successfully meets the points raised by *Athankōttāsan* and the book receives the approbation of the wise men of Mā Kirti's court. From thenceforward the *Tholkappiyam* becomes the most authoritative treatise on Tamil language and Tamil culture. From internal evidence one is led to believe that the book was written at a time when the Aryan culture was just beginning to influence the social and religious life of the ancient Tamilians. *Nacchinārkinīyār* says that the *Tholkappiyam* existed before the time of Vyasa⁸ the compiler of the Vedas and the author of the Mahabharata. The high standard of excellence reached by the book shows that the Tamils at this time were a highly civilized people. The sage *Agattiyar* came into a land which was civilized and wealthy. There are a good many legends centering round the name of this sage. He is said to have started from the Meru; passing through *Dwarapathi* (*Dwarasamudram*), he proceeded southwards with a band of followers until he reached *Tamilakam*. After his arrival, the *Pothiya*⁹ hill, where he fixes up his abode becomes as famous as the Himalayas,

4, 5, 6, 7. C. L. Woolley: *The Sumerians* (Oxford) pages 21, 30, 187 and 189; H. R. Hall: *The Ancient History of the Near East* (Methuen) pages 173, 174 and 177.

8. *Tholkappiyam*: Payiram Comm.

9. *Chilappadikaram* I, 14; III, 1; VIII, 6; XV, 14; XXVII, 67.

the *Kaviri*¹⁰ river (Cauvery) which is said to have originated from his water-pot becomes the sacred Ganges of the South; *Kanta-man*¹¹ the Chola king who sought his protection is saved from the murderous battleaxe of Parasurama, the protagonist of priestly power; the mighty *Ravana*¹² crosses the sage's path and becomes subdued (*literally* bound) not by force of arms, but by the subtler persuasive power of music. The sage is said to have spent years in the island of Ceylon practising severe austerities. Later he becomes deified and we see temples erected to him in far-off Java. This half-mythical figure stands in the hoary past as the synthesis of two great cultures, the Aryan and the Dravidian which like the confluence of the Ganges and the Jumna was to progress ever afterwards as an undivided single life-giving current.

The earliest existing literary records of *Tamilakam* are to be found among the anthologies known as the Sangam classics. Rescued from palm-leaf manuscripts and brought to light during the last three or four decades these anthologies open up an entirely new world, entering into which one meets with a god-like race of men and women, strong in physique, possessed of a keen intellect, proud, valiant, active and energetic. They appear to have given little or no thought to metaphysical speculations. Life in those remote times was strenuous and the hero who won renown by steady perseverance and indomitable courage either in the battle-field or in the more peaceful avocations of life was held up as the ideal to be followed. He whose valour was sung by bards here on earth was sure of mounting the celestial car which carried the soul in its ascent to the abode of the Immortals.¹³ This earliest epoch in the civilization of the Tamils is the age in which Heroism was exalted to the position of a religion. The acquisition of fame was held up as the motive for virtuous action and the performance of strenuous deeds of valour.

The War-God *Muruga*, ruddy-complexioned, resembling the sun at dawn, was worshipped from the earliest times as the ideal of un-failing Achievement.¹⁴ His mother the great Goddess, whom the Tamilian soldiers invoked in the field of battle was known as *Korravai*,¹⁵ the Victorious One. Even in those early days there were philosophers, *Arivar*, who by years of mental discipline had attained the intuitive

10. *Manimekhalai*, Padikam 12.

11. *Manimekhalai* XXII, 35.

12. *Tholkappiyam*: Payiram Comm.

13. *Purananuru*, XXVII, 7-9.

14. *Purananuru*, LVI, 14.

15. See *Tholkappiyam* *Purattinai Iyal* and *Purapporul-venba-malai*.

insight into the past, the present and the future; and there were also anchorites, *Thapathar* who performed severe austerities; the Arivar and the Thapathar having the attainment of Truth as the sole aim of life worshipped Shiva, the unborn, the embodiment of Truth.¹⁶ To those who shrank from the path of Truth, the God of Truth appeared as the God of Wrath and Destruction. *Māyon*, the blue-complexioned was the embodiment of Fame.¹⁷ His brother, *Vāliyōn*, whose complexion was as white as a conch-shell was the personification of undisputed Strength.¹⁸ Indra and Varuna ranked only as demi-gods. It is said that the Chola King *Thodi-thōl-chempian*¹⁹ went as an ally of the king of the celestials and broke down the three hanging fortresses of the Asuras. In sealing a bond of friendship, the king of the celestials agreed to visit the Chola capital once a year and participate in the great festival which was held in his honour for eight and twenty days. This was the origin of the *Indravila*. Mention is made of a Pandya king *Vadimp-alambaninra-pandyan* who instituted a festival in honour of the Sea-god.²⁰ One of his descendants not only discarded this festival but also hurled a lance of defiance at the Sea-god, whereupon the enraged sea²¹ swept away the Pahruli river, several ranges of hills and a goodly portion of the Pandya dominions. The undaunted Pandya marched northwards and conquered new lands to make up for the loss he had sustained. Old king *Mā Kirti*²² defied the very gods and looked upon them as mere quarrelsome children. Once when he heard that hostilities were about to break out between the Devas and the Asuras he interposed and asked them to lay down their arms and added the threat that if either party were to resort to acts of violence, his strong right arm would smite down the miscreants. The threat went home and both parties slunk away in terror from the presence of the mighty monarch. These legends help us to gain some insight into the ideals and aspirations that stirred the heart of the old Tamil warrior.

Paripādal, one of the Sangam anthologies, makes mention of the Vedic pantheon²³ of gods, such as the twelve Adityas, the eight Vasus, the eleven Rudras and the twin Asvini-devas; but the worship of these deities had not yet taken root among the mass of the people. Some of

16. *Paripadal*, V, 33.

17. *Puram* LVI, 13.

18. *Puram* LVI, 12.

19. *Manimekhalai* I, 4-10.

20. *Puram* IX, 10.

21. *Chilappadikaram* XI, 17-22.

22. *Iraiyānar Akapporul Sutra* 35 Comm.

23. *Paripadal* III, 6-8; VIII, 4-8.

the kings were persuaded to perform Vedic sacrifices which they did more for the purpose of winning earthly renown than for the achieving of heavenly rewards. One of the Pandya kings *Muthu-kudumi Peru-Vazhuthi* who lived before the time of the submergence of the Pahruli river had the distinguishing epithet of *Pal-yaga-salai*, which means the possessor of many sacrificial halls and another Chola king is known as *Peru-nar-killi* who performed the *Rajasuya* sacrifice. Early Aryan thought appears to have been introduced into Tamilakam with Vedic ritualism.

The *Tholkappiyam* and the *Paripādal* make incidental mention of the early speculations concerning the Universe, man's place in it and the ultimate destiny of humanity. The Sankhya system of philosophy was in vogue from very early times; attention, however, does not appear to have been centred round the study of philosophy until the coming of the Jains and the Buddhists. Within a century or two after the time of their illustrious founders these great religions appear to have been introduced into Tamilakam. Somewhere about this time, there appeared on the firmament of Tamilakam a star of the first magnitude which continues to shed its lustre even to this day. *Tiruvalluvar*, whose name is known to all parts of the civilized world, and whose teachings have lent a unique grandeur to the language in which they were uttered lived in an age of great intellectual activity. The ferment introduced by the great heresies of Jainism and Buddhism made the exponents of Vaidika Dharma to revalue the traditional teachings and to formulate a course of conduct which while remaining within the established tenets of the ancient Dharma would also appeal to those who would not accept the authority of the Vedas. The Universal gospel of *Tiruvalluvar* met this demand and has ever since been acclaimed as the *Uttara Veda*.

When Buddhism and Jainism were first introduced they were considered merely as systems of thought and were received with open arms. The disciplined life of the monk and the self-sacrifice shown by him may have appealed to the hardy Tamil warrior. The old soldier who might have grown world-weary of the endless number of battles he was called upon to fight may have found a calm refuge in the seclusion of monasteries. Those who suffered great bereavements such as the fathers of *Kovalan* and *Kannaki* entered the monasteries to pass the last days of their lives. Princes of the royal blood such as *Ilanko-adikal* embraced a life of poverty to follow the example of the noble ascetic, the scion of the Sakya clan. Along with Buddhism and Jainism the Nyaya and Vaisesika philosophies were introduced into Tamilakam. In those remote times the Mimamsa system does not ap-

pear to have been divided into the Purva and the Uttara Mimamsas. Lokayata (materialism), Buddhism, the Sankhya, the Nyaya, the Vaiseshika and the Mimamsa systems are known as the six systems of philosophy in the time of the *Manimekhalai*.²⁴ A great impetus was given to the cultivation of learning and some of the Tamilian Buddhist scholars went to China, Tibet and the island of Java carrying with them the torch of knowledge. Mention is made in the *Manimekhalai* of a famous Buddhist teacher, *Ara-vana-adikal*. The name may be translated into Sanskrit as Dharma-swarupa. He is the hero of the epic as much as his disciple the Bhikshuni *Manimekhalai* is the heroine. The fact that he was extremely aged is mentioned in several places in the poem. The force of his personality appears to have gained many adherents to the path of Buddhism. Later on Buddhism and Jainism gained ground to such an extent that they gave up the spirit of toleration which characterized them at the beginning and became aggressive religions. They aimed at the conversion of the whole of Tamilakam and attempted to do this by winning over the exclusive patronage of princes and scholars. After the destruction of *Pukar* (*Kavirippūmpattinam*), which event took place somewhere about the end of the second century, the Chola capital is transferred to Uraiyur. Madura suffers from a severe drought and famine for twelve years. The poets of the Sangam disperse and the glories of the good old days become a mere memory of the past. Several Northern dynasties that cast covetous eyes upon the wealth of Tamilakam find an opportune moment to gain a foothold in the South; an Aryan expeditionary force from the North appears to have invaded Tamilakam as early as the time of the Pandya king mentioned in the *Chilappadikaram*. This invasion was successfully resisted and the king is, therefore, known to history as *Arya-padai-kadantha Neduncheliyan*. Subsequently the Aryan hordes make a clean sweep of the country and in the next century we see Pallava kings well-established in Kanchi. The Chola and the Pandya dynasties suffer a temporary eclipse and the whole country passes through a period of transition, at the end of which, we find that the North had achieved a cultural conquest even more pronounced than the political conquest. The very names of the Pandya and Chola kings become Sanskritized.

It was during this time, perhaps by the end of the third century or a little earlier, that the Yoga system of philosophy began to appear in Tamilakam. Tradition says that Patanjali lived at Chidambaram and wrote his commentary on Panini's grammar, a treatise on medicine, his

24. *Manimekhalai* XXVII.

immortal treatise on Yoga and the Tantric rules for the worship of Nataraja. The sage is represented as a Nāga and is considered as an incarnation of Sesa Nāga. This seems to suggest that the theory and practice of Yoga were developed among the ancient Nāgas. Patanjali's name is coupled with that of Vyagrapāda another sage who is said to have arrived at Chidambaram earlier. This sage is represented with eyes in his toes. Is he to be identified with Akshapāda, the father of Nyaya Sastra? These two sages are said to be the first to witness the cosmic dance of Nataraja. The account may be symbolic of the fact that the supreme truth of the Shaiva religion can only be discerned by the combined eyes of Yoga and Nyaya. By saying so, we do not in the least deny the historicity of the two sages mentioned above. The Agamic cult of worship which probably existed as a secret cult from early times was elaborated during this period. It was certainly enriched by the influx of Tantric thought from the North. The worship of Ganesha, the elephant-headed God, whose form is that of the Pranava mantra is recognised in the Yoga system.

Yoga and Tantra engaged the attention of Siddhars and recluses. Before they could filter down to the mass of the people it was necessary that the doctrines taught by them should be actualized in the lives of one or more saintly personages. *Karaikkal Ammaiyar* or *Karaikal Pei* (the demoness of Karaikkal) as she called herself, was blessed with a vision of the mystic dance at Tiruvalangādu, and having the gift of song she has sung in immortal verse the glory of the vision that was vouchsafed unto her, the first Alwars of Vaishnavism were probably contemporaries of Karaikal Ammaiyar. Cholan *Chenganān*, the builder of many temples also probably lived about this time. In the middle of the seventh century came *Tirugnana Sambandhar*, the child-saint of Shiyali who in his third year was blessed with the Divine vision and from thence-forward looked upon Shiva and Parvati as his parents. The saintly old *Appar*, who in his young days entered a Jain monastery and later on embraced Shaivism is a contemporary of Sambandhar. Many sects²⁵ of Shaivism which are at present known only by name were in active existence at the time of Appar. *Kapalis* who made use of human skulls as begging bowls, *Mavratīs* with long matted hair and garlands of bones, *Pāsupathars* and others were seen in the streets of Kanchi and Tiruvarur. There was a whole galaxy of saints at this epoch. *Andāl*, the mystic poetess, the beloved bride of Sri Ranganatha, and her saintly father, *Periyalwar*, lived about this time. *Sundaramurti-Nayanar* the last of the Devara hymnists came about

25. Appar, Devaram—Tiruvarur, Tiruvatirai-Tirupadikam.

two centuries later. *Tirumangaimannan*, the Vaishnava saint is probably a contemporary of Sundarar. Sambandhar, Appar and Sundarar have left behind beautiful songs in praise of Shiva which to this day form the holy book of the Shaivites. Alwars have left behind the *Tiruvaimoli*, the Tamil Veda of the Vaishnavites. *Manickavasagar*, the prince of mystics, completed the work of Shaiva revival started by the Devara hymnists.²⁶ Buddhism disappeared from South India; but the unseen gentle influence of the Buddha, the ideal of compassion to all living creatures and the ethical principles expounded by Him persisted and became permanently incorporated in the religious life of Tamilakam. Jainism, although it received a set-back, continued to exist in the monasteries which besides being centres of religious life were also functioning as a sort of grammar schools. The elementary treatises on Grammar, Prosody and Poetics and the metrical lexicons (*Nighantus*) placed in the hands of young students of Tamil even to this day, have come from mediaeval Jain monasteries.

The *Alwars* and the *Nayanmars* breathed new life into the people and roused them from their lethargy. The pessimistic attitude of mind fostered in the Jain and Buddhist monasteries gave place to a living faith. The glorious example of the Shaivite and Vaishnavite saints helped the votaries of these religions to lead a life of service and selfless devotion. Princes lavished their wealth in building temples and in patronising poets. The old dynasties of Tamilakam felt their own strength and refused to pay tribute to alien monarchs.²⁷ By successful encounters they not only freed themselves from the foreign yoke but also subdued their erstwhile rulers. Perhaps, it was during this time that the religion and culture of South India spread to far-off Champa and Cambodia. As a result of the awakening of the spirit, subsequent centuries witness an unprecedented literary revival. *Jayamkondan's Kalingattuparani* and Kamban's immortal epic reach such heights as were never before reached. Kamba-Ramayanam truly reflects the religious thought of the age in which it was written. The old cult of heroism which regarded valour as the supreme virtue and immortal fame here on earth as the equivalent of immortality hereafter, forms the basis of the lives so beautifully depicted by Kamban. The great God, who forgot His divinity on hearing the wails of a suffering world walks in the midst of kings, outcastes and recluses as a man among men sharing their joys and sorrows. In Him the Kshatriya ideal of life

26. The date of Manickavasakar is yet an open question; there are strong reasons in support of the claim put forward by some scholars fixing his date to the end of the third century.

27. Sundarar Devaram: Koil-padikam.

finds its fullest manifestation. Kamban has pictured this ideal to its utmost perfection. We find contemporary kings and princes of the royal blood vieing with one another in honouring this great poet, who stands unparalleled as the poet of manliness and Kshatriya prowess. The Devara hymns, the works of Manicka-vasagar and St. Tirumular and of various other Shaiva poets were collected and arranged into the eleven *Tirumurais* or holy books of Shaivism and *Sekkilar* wrote his story of the Shaiva saints which formed the twelfth *Tirumurai*. Ramānuja, the great exponent of Visishtadwaita lived about this time. The sacred utterances of the Alwars were collected and arranged and formed the authoritative scriptures of the Vaishnavas.

We pass on and come to an age in which men's minds turn once more to philosophical speculations. *Meikandān* appears on the scene. The same Divine power which made the child of Shiyali (St. Tirugnana-Sambandhar) utter words of wisdom couched in the language of poesy, speaks once more through the tongue of the child of *Tiruvennainallur*. The inspired message is now given in the language of philosophy, the language of dialectics and abstract thought. The message is, however, the same. It is not mere scholastic philosophy that Meikandān expounded. The first half of *Siva-gnana-bodham* discusses the nature of bondage and freedom and the second half points out the path to the attainment of freedom. Herein we find a synthesis of pure reason and Yogic mysticism which transcends the bounds of reason. *Sakala-agama-panditha*, the Brahman philosopher, surrenders at the feet of this Vellalah boy and becomes his first disciple taking the name of *Arul-nandi-Sivacharya*. He composes the *Siva-gnana-siddhiyar* and *Irupa-irupathu* and hands over the torch of knowledge to *Marai-gnana-Sambandhar* who hands it over to *Umapathi-Sivacharya*. Umapathi is the author of no less than eight works on Saiva Siddhanta of which one, the *Sankalpa-Nirakarana*, probably the last, was written in the Saka year 1235 (that is 620 years ago).

About the same time, Malik Kafur occupied the city of Madura and the subsequent centuries witness the decline and fall of the Pandyas and the Cholas. Foreign invasions, civil wars and internecine intrigues well-nigh exhaust the energy of the hardy Tamil race. With the fall of Vijayanagar, Hindu independence becomes a memory of the past and a sort of mental stupor sets down upon the people; they begin to dream of past glories. The world in which they lived and moved and had their being, had no attraction for them; they directed their thoughts to regions situated far beyond the mortal ken. Despair seizes the heart of the people, they feel tired of life and shrink in horror from the tortures that might await them on the other side of

the grave. The old Tamil warrior, who laughed at death, never thought of inventing a hell; the Buddhists introduced a few, but the priests who came into prominence in this age of degradation ushered into existence twenty-eight crores of hells. The heroic legends of the Sangam age were almost forgotten; the Jataka Tales imported by the Buddhists were metamorphosed into new shapes; stories centering round the sage Agastya, episodes from the great epics and tales fabricated by priestly story-tellers to illustrate the inexorable working of Karma supplied the material for unusually long poetical compositions called *Sthala-puranams*. The vast majority of these compositions are but the echoes of the only consolation which priest-craft has to offer to a fallen and degraded people. They exhort the readers not to mind their present trials and tribulations but to make regular offerings to the deities, bathe in the sacred waters, observe fasts and prepare themselves to gain safe entrance to the portals of heaven, ordering out their present life in strict conformity to the dictates of their rightful spiritual guardians, the priests. Monasteries sprung up all over the country. Founded upon Buddhist and Jain models, these institutions fostered to a certain extent religious and secular learning. But their main function was the offering of elaborate worship to the deities and the departed saints who founded the Order. The presiding abbot was paid divine honours even during his life-time. Slowly and steadily these houses of religion began to accumulate large funds. Flatterers appeared in the guise of poets and received sumptuous meals and costly presents from the presiding abbots. The abbot, secure in his exalted eminence, often led a life of irresponsible ease and knew little or nothing of the miseries of the poor and the downtrodden. The poor people were daily growing poorer, and genuine scholarship was languishing for want of patronage, while a motley crowd of idle parasites consisting of priests, flatterers and the like, were fattening themselves on the food produced by the labour of the poor untouchables. The courts of the chieftains who ruled over Tamilakam in these troubled times were also infested with the same kind of parasitic vermin. *Sthala-purānas* were made to order and wherever incidents or ideas were wanting they were freely drawn from the inexhaustible source of Sanskrit literature.

The monasteries were not all of one persuasion. All the various sects of Hinduism had their own *Maths*. In spite of the laxity that was spreading over these institutions they served the very useful purpose of preserving the old manuscripts and keeping inextinguished the lamp of learning that was handed down to them through the centuries. *Tiruvavaduthurai Athinam* which claims an unbroken line of succession from *Meikandān* has preserved the Saiva Siddhanta philo-

sophy and has also produced a school of grammarians well-versed both in Sanskrit and Tamil. The chronicles of this *Math* state that during the reign of Virupaksha Raja²⁸ (probably Virupaksha I of Vijayanagar), one *Sivaprakāsa Desikar* of the Thiruvavaduthurai Math preached the doctrines of Virashaivism in the presence of *Linganna*, one of the ministers of the king. The preaching was so good that the minister requested the monk to be the head of the Virashaiva Math at Tiruvannamalai. With the permission of his monastic superior, *Sivaprakāsar* took charge of the Tiruvannamalai Athinam. This *Sivaprakāsar* should not be confused with Thuraiyannamalai Sivaprakāsa Swamigal, the author of many standard works on Virashaiva philosophy. From the Dharmapura Athinam came *Kumara-guru-para Swamigal*, the gifted poet and founder of the Tiru-panandal Athinam. *Sivagra Yogigal* of Suriyanarkoil Athinam, is another great exponent of Saiva Siddhanta philosophy. By the beginning of the fourteenth century Vedanta philosophy which had its votaries from very early times had extended its influence to such an extent as to be considered a serious rival to Saiva Siddhanta. This is evident from the fact that Arul-nandi-Sivacharya as well as Umapathi-Sivacharya attempt to refute at length the doctrine of Vedantic idealism. There were Vedanta Maths in various parts of the country where instruction was imparted through the medium of Tamil. *Veerai Alawandar*, *Sri Pattar*, *Tatwa Rayar* and *Kannudaiya Vallalar* are among those who have enriched Tamil literature with Vedantic thought. The Vaishnava Maths were instrumental in bringing out commentaries on the *Divya Prabandhams*.

Towards the end of the seventeenth century, Father Beschi was preaching the doctrines of Roman Catholic Christianity and was creating a Christian Tamil literature. *Omar*, the Tamil poet and others of the Muhammadan faith were enriching Tamil with Islamic thought; *Pillai-perumal-aiyengar* was adding to Vaishnava Tamil literature. *Thayumānavar*, the mystic saint, sets at ease the warring schools of Vedanta and Siddhanta by pointing out the harmony that underlies the two schools of thought. About a century later, comes *Ramalinga Swamigal* whose devotional hymns are such as would melt the stoniest of hearts. *Arumuga Navalar* appears in Jaffna and with a reformer's zeal stems the tide of Christian proselytization and extensively makes use of the printing press to popularise the teachings of Shaivism. The general awakening in Bharat-varsha rouses the South from its slumber and the message of harmony propounded by Swami Vivekananda, Hinduism's representative to the world's parliament of religions,

28. Tiruvavaduthurai Athinam—Guru-param para vilakkam page 57.

broadens the outlook of the Hindus and makes them feel that their religion is wide enough to receive light from all quarters and strong enough to withstand all opposition.

We come to modern times. The venerable figure of Mahamahopadhyaya Dr. Swaminatha Iyer dominates the realm of Tamil literature for fully half a century. Ceaselessly labouring with untiring patience and industry, he carefully edits and brings out book after book of the ancient Tamil classics, thereby silently ushering in a renaissance in Tamil land. It may perhaps take another half century for Tamilakam to realise the extent of the services rendered to it by the venerable pandit. Only a small fraction of the material that lay hidden in these ancient books has so far been brought to light. But that little was sufficient to infuse new life into the Tamilians. The gloom that overshadowed the country during the past four centuries is slowly passing away and a new dawn is in sight. The harbinger of the approaching dawn is our latest poet Subrahmanya Bharathi. He is essentially a religious poet. With religious mysticism he combines an unbounded love for the poor and the downtrodden. The poems that he addresses to Kannan (Sri Krishna) are as sweet and soul-stirring as any that we meet with in ancient literature; the hymns to Shakti are grander than the old hymns addressed to Korravai. The charm of his lyrics, and the dignified tone of his patriotic songs have endeared him to his people. The healthy outlook on life underlying his poems has a universal appeal. He views humanity as a whole and stands ready to embrace the North and the South, the East and the West, the Brahman and the outcaste as well as the educated and the illiterate. May the Tamil people, the inheritors of a glorious civilisation, view the world with the eyes of Bharathi, their latest poet and rising above narrow sectarianism and petty social conventions march on the path that will lead them to the Divine Spirit, which is the source of all goodness, beauty and truth.

Pahruli பஹ்லுனி; Kumari குமரி; Mā Kīrti மாகீர்த்தி; Tholkappiyam தொல்காப்பியம்; Kavadapuram கபாடபுரம்; Thenmadurai தென்மதுரை; Oozhi ஊழி; Nacchinarkiniyar நச்சினர்க்கினியர்; Tholkappiyar தொல்காப்பியர்; Agattiyar அகத்தியர்; Athankōttāsan அதங்கோட்டாசான்; Dwarāpathi துவராபதி; Pothiyam பொதியம்; Kaviri காவிரி; Kānta-man காந்தமன்; Muruga முருகன்; Korravai கொற்றவை; Arivar அறிவர்; Thapathar தாபதர்; Māyōn மாயோன்; Vāliyōn வாலியோன்; Thodi-thol-Chempian தொடித்தோட் செம்பியன்; Indra-vila இந்திரவிலா; Vadimp-alamba-ninra-pandyan வடிம்பலம்ப நின்றபாண்டியன்; Paripadal பரிபாடல்; Muthu-kudumi-Peru-vazhuhi முதுகுடிப்பெருவழுதி;

Pal-yāga-salai பல்யாகசாலை; Peru-nar-killi who performed the Rajasuya sacrifice இராஜசூயம் வேட்ட பெருநற்கிள்ளி; Tiru-valluvar திருவள்ளுவர்; Uttara veda உத்தரவேதம்; Kōvalan கோவலன்; Kannaki கண்ணகி; Ilanko-adikal இளங்கோவடிகள்; Manimekhalai மணிமேகலை; Ara-vana-adikal அறவணவடிகள்; Pukār புகார்; Kavirippūmpattinam காவிரிப்பூம்பட்டினம்; Arya-padai-kadantha-nedun-cheliyan ஆரியப்படைகடந்த நெடுஞ்செழியன்; Tirumular திருமூலர்; Karaikal ammaiyaar காரைக்காலம்மையார்; Tirugnana-Sambandhar திருஞானசம்பந்தர்; Appar அப்பர்; Kāpālī காபாலி; Māvratī மாவிரதி; Pāsupathar பாசுபதர்; Andal ஆண்டான்; Periyālwar பெரியாழ்வார்; Sundara-murti Nayanar சுந்தரமூர்த்தி நாயனார்; Tiru-mangai-mannan திருமங்கைமன்னன்; Manicka-vasagar மாணிக்கவாசகர்; Nighantu நிகண்டு; Alwar ஆழ்வார்; Nayanmār நாயன்மார்; Jayankondan ஜயங்கொண்டான்; Kalingattupparanāli கலிங்கத்துப்பரணி; Meikandan மெய்கண்டான்; Tiruvennai-nallur திருவெண்ணைய் நல்லூர்; Siva-gnana-bodham சிவஞானபோதம்; Sakala-Agama-Panditha சகலாகமபண்டிதர்; Arul-nandi-Sivacharya அருணந்தி சிவாசாரியர்; Siva-gnana-Siddhiyār சிவஞான சித்தியார்; Irupa-irupathu இருபா இருபஃது; Marai-gnana-Sambandhar மறைஞான சம்பந்தர்; Umapathi-Sivacharya உமாபதி சிவாசாரியர்; Sankalpa-nirakaranam சங்கற்ப நிராகரணம்; Sthala-puranam ஸ்தலபுராணம்; Tiruvavaduthurai Athinam திருவாவடுதலை ஆதினம்; Sivaprakāsa Desikar சிவப்பிரகாச தேசிகர்; Linganna இலங்கணபத்தர்; Kumara guru-para-swamikal குமரகுருபர சுவாமிகள்; Sivagra-Yogikal சிவாக்ரீயோகிகள்; Veerai Alawandar வீரை ஆளவந்தார்; Sri Pattar ஸ்ரீபட்டர்; Tatwa Rayar தத்துவராயர்; Kannudaiya Vallalār கண்ணுடைய வள்ளலார்; Divya Prabandham திவ்யப்பிரபந்தம்; Omar உமறு; Pillai-perumal-Aiyengar பிள்ளைப்பெருமானையங்கார்; Thāyumānavar தாயுமானவர்; Ramalinga Swamigal இராமலிங்க சுவாமிகள்; Arumuga Navalar ஆறுமுகநாவலர்; Mahamahopadhyaya Dr. Swaminatha Aiyer மஹாமஹோபாத்யாய டாக்டர் சாமிநாதையர்; Subrahmanya Bharathi சுப்பிரமணிய பாரதி.

TAMIL THEATRE ARCHITECTURE.

The Ancient Tamil Theatre.

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SOURCES OF STUDY.

This paper attempts to give a more or less complete account of the theatre of the Tamils of many centuries ago. Any such study cannot but bank largely upon the *Silappadikāram* and particularly on the masterly commentary of Adiyārkunallār on the third canto called *Arangērru-kādai*, which describes Mādhavi's debut as a dancer. Several other classics such as *Maṇimēkalai*, *Jivakasintāmaṇi* and *Peruṅkadai* also contain very valuable though incidental references to the theatre. The literary source of information is further reinforced and clinched by a body of no less than forty inscriptions of the spacious days of the Tanjore Cholas. Lastly the sculptures of 108 dancing poses and jazz dancers of the Chidambaram temple shed an interesting light on an important aspect of the Tamil theatrical art of the past.

The arts of dancing and acting are ancient ones in Tamilaham. The oldest Tamil grammar attributed to Agattia and hence styled *Agattiyam* classifies Tamil literature into three categories, viz., *iyaḷ* or prose and poetry, *isai* or musical pieces, and *nāṭakam* or drama. This classification presupposes the existence of plays and their staging before and in the time of the author. It is unfortunate that not one of them has survived the wreck of time. Later on during the Augustan Age of Tamil literature,¹ as Dr. S. K. Ayyangar puts it, many specialised works on drama seem to have been written. Adiyārkunallār cites in his great commentary *Bharatam*, *Panchabhāratīyam*, *Bharatasēnapatīyam*, *Sayantam*, *Kūttanūl*, *Madivāṇan-nāṭakanūl*² and many others most of which had perished already in the days of the commentator himself. From the titles of some of the above books one may see clearly that a noble attempt was made to bring about a synthesis between the principles and practices of the Tamil and Sanskrit dramas. This literary activity is an index of the vogue and popularity of the theatre in the country of the Tamils in the past.

1. *Ancient India*. p. 337.2. *Silappadikāram*. (Swaminathier's Edition—1927). pp. 79f.

Let us now consider the Tamil theatre and its architecture. There were three kinds of theatres from their situation point of view. They were either temple theatres or palace theatres or public theatres. As regards the first an inscription of the time of Uttamasōḷa mentions a *nāṭakasāla-maṇḍapam* in the Siva temple at Tiruvadigai.³ A *nānāvidanāṭkasālai* is referred to in an inscription of Kulottunga I.⁴ Provision for the performance of plays in temples during festivals is made in certain inscriptions of Tiruvaduturai, Nallur and Tanjore.⁵ An example of the second type of theatres can be found in the *Unjaikāṇḍam* of *Peruṅkadai*, where the poet describes the *araṅgu* in which the heroine, Vāsavadatta, displays her attainments as a *vīṇā* player for the approval of the learned audience of the palace. The occurrence in the same work of a phrase "*kōin-nāṭaka-kuḷukkal*" means apparently corporations of players attached to the king's theatre.⁶

Of these the public theatres are the most numerous. Many references to *āḍambalam*, *kūṭṭaḍitam*, *kūṭṭar-paḷḷi* and *nāṭka-araṅgu* may be met with in a number of Sangam works. According to the *Silappadikāram* they were situated in the heart of the town and on car streets if not in bazaar streets.⁷ They were not merely "a small stage intended for dance"⁸ but of sufficient dimensions to suit the performance

3. M.E.R. No. 398 of 1921.

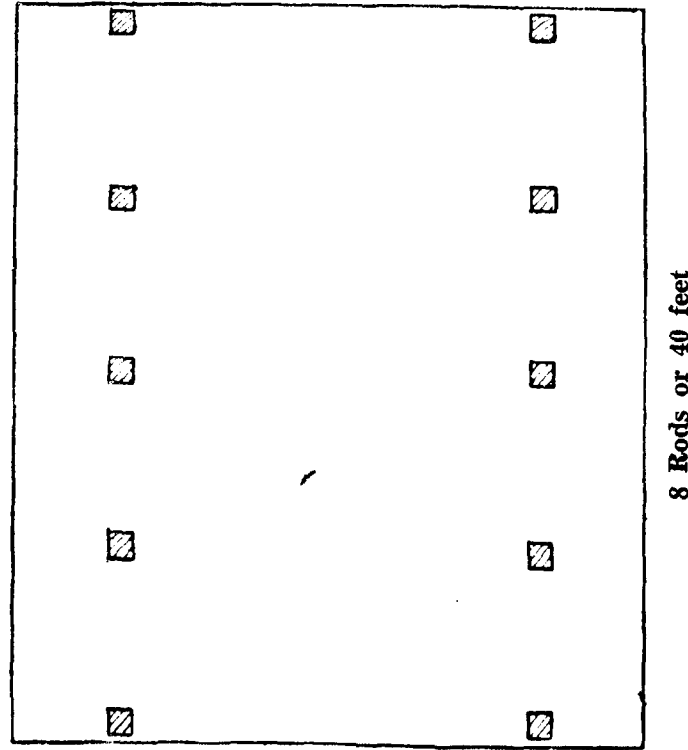
4. Ibid. No. 152 of 1925.

5. Ibid. No. 120 of 1925, 250 of 1926 and No. 124 of S. I. I. Vol. III, part 3.

6. "வாயிற் கூத்துஞ், சேரிப்பாடலுக்,
கோயினூடாகக் குழுக்களும் வருகென." *Unjaikāṇḍam*. ll. 87 and 88.7. "ஊரகத்தாகி யுனை மான் பூண்ட
தேரகத்தோடுத் தெருவுமுக நோக்கிக்
கோடல் வேண்டும் ஆடரங் கதுவே."
Silappadikāram. *Arangērrukkadai*. p. 114.8. "ஆடம்பலமு மாவண மருகுக்
தேசாலையும்" *Peruṅkadai*, *Unjaikāṇḍam*, ll. 130 and 131.8. Triveni. Vol. IV, No. 6, p. 76, fn. i, "The *Silappadikāram* describes a small stage intended for dance."

of plays. The measurements of a normal stage are given in the *Silappadikāram*.⁹ They were reckoned in terms of a measuring rod of the length of 24 thumbs of an average size. This gives us roughly a length of 5 feet for the rod. The floor of the stage was 7 rods or 35 ft wide, 8 rods or 40 ft long and 1 rod or 5 ft above the floor level. The height of the hall between the floor and the cross beam above was

Ground plan of the Stage



7 Rods or 35 feet

(Scale 1 Rod = 1/2")

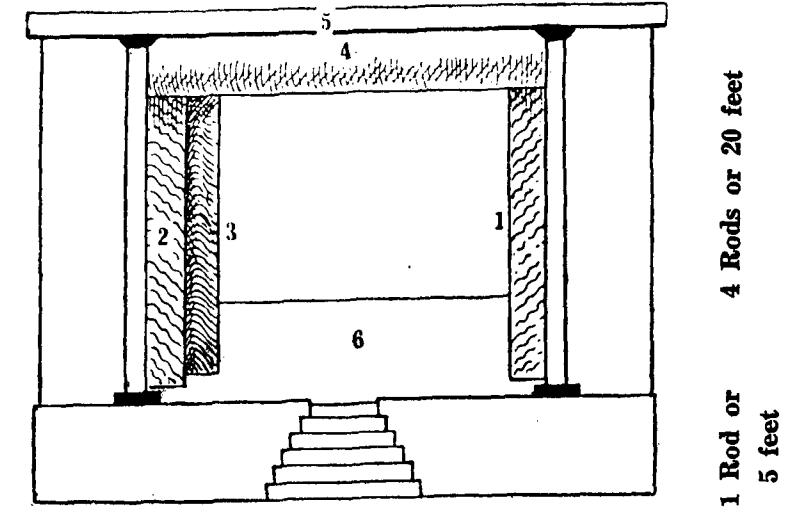
4 rods or 20 ft. In front of it there was a pit for the king and the nobles. Around the pit there was room for the common people. No measurements are given about the latter two.

9.

“அளக்குங்
கோலு விருபுத்து நால் விரலாக
எழுக்கோலகலத் தெண்கோ னீளத்
தொரு கோலுயரத் துறுப்பினதாகி
யுத்திரப்பலகை யோடாங்கின்பலகை
வைத்த விடைநில நாற்கோலாக”

Silappadikāram, Arangērrukkadaḥ, ll. 99-104.

Front view of the Stage



7 Rods or 35 feet (Scale 1 Rod = 1/2")

AUDITORIUM

1. ஒருமுக எழினி or side screen (left)
2. 3. ,, Two right side screens.
4. கரந்துவால் எழினி or 'Drop'
5. உத்தரப்பலகை or cross beam.
6. அரங்கின் பலகை or wooden floor of the stage

N.B.:—This reconstruction of the Tamil Stage is made with the help of *Silappadikāram*, *Arangērrukkadaḥ* ll. 100—114 and *Perunkadaḥ*, *Unjaikāṇḍam* ll. 54-56.

This stage was suitably furnished.¹⁰ The facade was tastefully decorated with the pictures of the representative *bhūtās* of the four

10. “ஏற்ற வாயி விரண்டுடன் பொலியத்
தோற்றிய வரங்கிற் றெழுதன ரேத்தப்
பூதரை யெழுதி மேனிலை வைத்துத்
தூணிழர் புறப்பட மாண்விளக் கெடுத்தாந்
கொருமுக வெழினியும் புரிந்துடன் வருத்தாந்
கோவிய விதானத் துரைபெறு நித்திலத்து
மாலைத்தாமம் வளையுடனாற்றி
விருந்து படக்கிடந்த வருந்தொழி லரங்கத்துப்”

Arangērrukkadaḥ, ll. 105-113.

“கொடியு மலருந் கொள்வழி யெழுதிப்
பிடியுந் களிற்றுப் பிறவுயின்னவை
வடிமாண் சோலையொடு வகைபெற வரைந்து
நயத்திறம் பொருந்த நாடகங் கண்டும்” *Unjaikāṇḍam, ll. 63-66.*

castes, the *navagrahās* and stars. The interior of the stage was illuminated with rows of standing lamps which were so skilfully disposed as to prevent the shadow of the pillars from falling either on the actors or on the spectators. The scenario consisted of an overhanging painted canopy, three side curtains or screens, one on the left and two on the right, and a drop which was hidden in the roof and let down as occasions arose. Sometimes the drop was painted over with the images of *dēvās*. Secreted in the floor were trap-doors. Scenes representing flower gardens, forests and caves of rishis were also used. There were two doorways which served as the way-in and the way-out for the actors. The finishing touch was given by strings of pearls which were arranged into flowing curves and waving pendants. In short, the ancient Tamils knew the art of stage furnishing.

VARIETIES OF PLAYS ENACTED.

The theatre was used both for dancing performances and the enactment of dramas. In fact in Tamil *kūttu* means dancing as well as drama. Two main varieties of plays were known. They were, namely, *sāndikūttu* and *vinōdakūttu*.¹¹ The former may be rendered as sober drama and the latter as extravaganza. The first was acted by well-born actors and the second by lower classes. *Sāndikūttu* is often mentioned in Chola inscriptions. For example, a record of the reign of Rajādirāja II says that an officer of the king provided for the performance of *sāndikūttu* on the occasion of the Arudra festival in a temple in the Pudukottah State.¹² *Sāndikūttu* comprised four kinds of *kūttu* viz., *sokkam*, *meikūttu*, *avinayakūttu* and *nāṭakam*. Of these the first was dance pure and simple involving the display of 108 poses of hands; the second was the expression of mental states through external form and songs. It was also called *agamārkkam*. An interesting inscription at Tiruvorriyur records that Rajaraja III witnessed the performance of *agamārkkam* by one Uṇavākkinnāt-talaikōli.¹³ *Avinaya-*

11. 'இருவகைக் கூத்தினி லக்கண மறிந்து
பலவகைக் கூத்தும் விலக்கினிற் புணர்ந்து.'

Arangērrukkādai, ll. 12 and 13 and pages 80-81.

12. No. 139, Pudukottah State Inscriptions.

13. M.E.R. No. 211 of 1912.

kūttu was of an amorous sort. It consisted in the interpretation of amatory songs by means of sensuous gestures. It was also called *valla-bam*. *Nāṭakam* was any story told through the medium of action, speech and song.

Vinōdakūttu was of seven kinds. They were *kuravai*, *kalinaṭam*, *kuḍakkūttu*, *karaṇam*, *nōkku*, *tōṇpāvai* and *vidhūshakakkūttu*. *Kuravai* resembled the Greek chorus. A band of young women sang the victories or the loves of a great hero or a king and danced as they sang. *Aychchiyar-kuravai* in *Silappadikāram*¹⁴ was one of love theme whereas the *Rajaraja-nāṭakam* performed in the Great Temple at Tanjore at the time of Gangaikondasōla had victory for its theme. Even to-day the *kuravanji-kūttu* is played during the festival of Chitirai-Sadayam, the natal star of Rajaraja the Great. *Kalinaṭam*, *kuḍakkūttu* and *karaṇam* were street shows of an acrobatic character like rope-dancing, pot-dancing and cutting of somersaults. The long belt of sculptures round the basement of the Thousand-pillared mandapam at Chidambaram illustrates these *kūttus*. *Nōkku* was necromancy and probably included mesmerism. *Tōṇpāvai* was marionette show which has not perished as yet in southern India. *Vidūshakakkūttu* was a farce or a rollicking comedy, the fun of which lay particularly in the caricaturing of well-known types of men and generally it was an extravaganza of any description. This was also known as *Vasai-kūttu*.

There was still another division of drama as Tamil and Āryam. *Āryakkūttu* was obviously an adaptation of Sanskrit plays to Tamil stage. This account of *Silappadikāram* is borne out by epigraphical evidence. A Tiruvaduturai inscription of the 10th century A.D., registers the grant of land to one Kumaran Sikandan for acting the seven *aṅkas* of *āryakkūttu*.¹⁵ Singalese and Vaḍuga varieties of *kūttu* seem to have also been known.

All the above described plays were essentially musical ones. Hence the importance attached to accompaniments. *Yāl*, an instrument of very high order, now forgotten, *kuḷal* or the flute, *taṇṇumai* or the drum now known as *mrdaṅgam* and cymbals were played in harmony with the songs of the vocalist and the dance of the actors. So the ancient Tamil drama was not merely the telling of a story in the form of dialogues but a complex of story, dialogue, dance and music.

14. 17th canto of *Silappadikāram*. p. 441.

15. M.E.R. No. 120 of 1925.

THE STATUS OF THE COMMUNITY OF ACTORS AND DANCERS.

Dancing and acting were confined to a separate *gaṇa* or corporation and hence the woman of the *gaṇa* came to be known as *gaṇika* which meant both a member of the *gaṇa* and a dancing woman and actor. In Chola inscriptions the men were called sometimes *sākkai* which in Malayalam denotes the offspring of the pre-marital liaison of a Nambudri woman.¹⁶ There is no doubt that they were an ancient institution and there was always a stigma on their community. It is problematic whether it was within the recognised pale of the Hindu caste system. Even to-day it is considered to be outside the caste frame-work though they themselves claim to be *Isai-vēlālās*. The Manual of the Pudukottah State records the fact that "they have a high opinion of their social status . . . stating that their profession is merely an accident."¹⁷

Their origin seems to be a mystery. The Hon. Mr. T. V. Seshagiri Iyer attempts an interesting explanation which deserves to be quoted *in extenso*. "These sea-nymphs (the *apsaras* born in the churning of the Milky Ocean) requested the *dēvās* and *asurās* to take them in wedlock. That was refused probably because they did not belong to the races inhabiting this land; ever after, they came to be known as *sādāraṇa* women . . . It looks as if these women were from a different land, very likely they were slaves and purchased."¹⁸ The Tamil tradition as embodied in literature gives them a legendary origin. *Ūrvasi*, one of the chorus-girls of the court of Indra, was cursed once, on account of her indifference, to be born as a mortal on the earth.¹⁹ She was the progenitor of the community of *gaṇikas* and *sākkaiyar*. This origin from a woman explains the custom of inheriting through the mother prevalent in the community. These facts go to show that they were outside the caste in the past. They might be foreigners stranded in India and later degenerated.

There is reason to believe that their ranks were augmented in the course of time by men and women of many castes. Economic considerations might well have played a large part in the process. An inscription of the 12th century records the sale of the wife of a *vellāla* and other fourteen individuals comprising his daughter, grandsons and

16. Q.J.M.S. Vol. X. p. 208.

17. M.P.S. p. 214.

18. Q.J.M.S. Vol. XIII. p. 690.

19. *Arangērrukkādai*, l. 4; *Kaḍalādukādai*. ll. 20-24.

others to the service of the temple. Even a soldier of a royal regiment assigned certain women of his family as *dēvaraḍiyār* to the Tiruvallam temple and they were branded with trident mark to show that they belonged to Siva.²⁰

In spite of the fact that they were despised for shady morality they enjoyed a privileged position in society. The explanation for this paradox is that they were usually learned and well-versed in the fine arts and remarkable for charming manners. *Mādhavi* in *Silappadikāram* is the portrayal of a lovely courtesan, born of a distinguished family and remarkable for proficiency as a singer, dancer, and even composer.²¹ Mr. H. C. Chakladar remarks that the *gaṇikas*, like the *hataerae* in the classical Greece, were generally more educated and better skilled than the married woman.²² Hence the society regarded them as a necessary evil. The powers that be patronised them. They were invited as a rule to all functions in the royal household. Distinguished talent among them was rewarded by the king with honours. A pair of fly whisks and a golden parasol, a betel-and-nut case set with jewels, an elephant and a bevy of handmaids besides a title were some of the honours they received from the ruler.²³ Classical Tamil literature informs us that expert women dancers were invested with the title of *talaikōli*.²⁴ An inscription from Tiruvorriyur mentions one *Urvakkina-talaikōli*. Houses were granted free to them by the king and also tax-

20. M.E.R. Nos. 219 of 1925, 230 of 1921; others to the same effect are 562 of 1921, 74 of 1925, 137 of 1925, 86 of 1911 and 80 of 1913.

21. "வானவர் மகளிர்
சிறப்பிற் குன்றிச் செய்கையொடு பொருந்திய
பிறப்பிற் குன்றிப் பொருந்தோண் மடந்தை
தாதவிழ் புரிசுழன் மாதவிதன்னை
யாடலும் பாடலு மழகு மென்றிக்
கூறிய மூன்றி ளென்றுகுறை படாமல்" *Arangērrukkādai*. ll. 6-9.
"கானல்வரிப் பாடற்பாணி
நிலத்தெய்வம் வியப்பெய்த நீணிலத்தோர் மனமகிழக்
கலத்தொடு புணர்ந்தமைத்த கண்டத்தாற் பாடத்தொடங்குமன்"
Kānalvari. v. 24.

22. *Studies in the Kāmasūtra*. p. 202.

23. "சாமரை யிரட்டையுந் தமனியக்குடையு
மாமணி யடைப்பையு மருப்பியலூர்தியும்
பைந்தொடி யாயமும் பட்டமு முடையோர்" *Unjaikāṇḍam*. ll. 21-24.

24. "தலைக்கோலரிவை குணத்தொடு பொருந்தி
நலத்தகு பாடலும் மாடலுமிக்கோள்" *Silappadikāram*. p. 118.

free lands.²⁵ Even villages were named after them. The above mentioned woman had the unique honour of lending her name to a village which was called Uravakkina-nallur. They sometimes formed an item in the presents or tributes made by one ruler to another. Not even did the temple authorities hesitate to accord certain honours and privileges to the dancing woman.

The men of the community were musicians and also tutors in dancing, singing and acting. They, in their turn, were the recipients of munificent gifts from the king of the country. Special proprietary rights over lands were given to them as *naṭṭuvakkāṇi*, *nrttyabhōga* and *sakkaikāṇi* for teaching dancing and coaching up actors.²⁶ Talented men among them were raised to high official ranks of *mārayan* and *arayan*. We meet with titles such a *vādyamārāyan*, *sakkaimārayan* and *niruttapērayan* in some Chola inscriptions.²⁷

உ
திருச்சிற்றம்பலம்
தேவாரப்பண்கள்.

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பண்ணைவிட்டு இசை நிலலாது; இசையைவிட்டுப் பண்ணில்லாது; ஆதலின். பண்ணுமிசையுமாகிய விரண்டும் பூவும் அதன் மணமும் போலவும். நீரும் அதன் மணமையும் போலவும் அத்துவிதமாக நிற்கும். இதனை:—

“பண்ணென்ற விசைபாடுமடியார்கள்” (திருஞான-பண்-சீகாமரம்)
“பண்ணும்பத மேழும்பல வோசைத்தமிழவையும்” (திருஞான-பண்-நட்டபாடை)
“பண்ணி லோசை பழத்தினிலின்சுவை” (திருநா-பண்-இந்-திருக்குறுந்தொகை)
“பண்பொருந்த விசைபாடும் பழனஞ்சேரப்பனை” (திருநா-பண்-பழந்தக்கராகம்)
“பண்ணி னிசையாகி நின்றாய் போற்றி” (திருநா-திருத்தாண்டகம்)
“பண்ணையு மோசையும் போல” (சிவஞானபோதம். 2. கு. க அதிகாரம்)
“பண்ணிசை வெம்பரிதிமதி” (சிவஞானசித்தியார்)

எனவரும் திருஞானசம்பந்தர் தேவாரத்தானுந் திருநாவுக்கரசர் தேவாரத்தானுந் சிவஞானபோதஞ் சிவஞானசித்தியாரிலுள்ள பாசரங்களானு மறிக.

அன்றியும், உமாபதிசிவாசாரியாருந் திருமுறைகண்ட புராணத்துப் பண்ணுமிசையும் அத்துவித மெனக்கொண்டிருத்தலை:—

“இன்னிசையாற்றருந் தக்கராகத்து”
“இசைக் காந்தார பஞ்சமத்தின்”
“புல்லுமிசைப் புறநீர்மைக்கு”
“ஈண்டிசைசே ரிந்தளத்துக்கு”
“இன்னிசைதேர் தக்கேசிப் பேரிசை யாருக்கி”
“கூறுமிசை யொன்றாகக் காமரத்துக்கு”
“உற்றவிசைக் குறிஞ்சிக்கு”

“கவுசிகப்பாற் றுற்றவிசை யிரண்டாக்கித் தூயவிசைப்பஞ்சமத்துக் கற்ற விசை யொன்றாக்கி” எனவரும் இப்பாசரங்களின் பிரிவுகளாலுங் காண்க

இன்னும் சிலப்பதிகாரம் அரங்கேற்று காதையில்,

“வங்கியத்தின் ஏழ்துளையில் சரிகமபதரி யென்னு மேழெழுத்தையும் மாத் திரைப்படுத்தித் தொழில்செய்ய இவற்றுள்ளே ஏழிசையும் பிறக்கும்; இவைபிறந்து இவற்றுள்ளே பண்கள் பிறக்கும்; என்னை,

‘சரிக மபதரியென் றேழெழுத்தாற் றுனம்
வரிபாரந்த கண்ணினாய் வைத்துத்—தெரிவரிய
ஏழிசையுந் தோன்று மிவற்றுள்ளே பண்பிறக்குஞ்
சூழ்முதலாஞ் சுத்தத் துளை’

என்றாகலின்.

25. “நெடு நீர்க்கழனி சூழ் நியமஞ் சேர்த்தி விழுவயர்ந்து
வடி நீர் நெடுங்கண்ணார் கூத்தும் பாட்டும் வருத்தாரே.”

Sivakasintamani, Muttillambakam, v. 2601.

26. M.E.R. Nos. 120 of 1925, 361 of 1924.

27. M.E.R. No. 255 of 1925 and 65 of 1914.

மூலாதாரத் தொடங்கி எழுத்தினதும் ஆளத்தியாய்ப் பின் இசையென்றும் பண்ணென்றும் பெயராம். என்னே?

‘பாவோ டணைத லிசையென்றார் பண்ணென்றார்
மேவார் பெருந்தான மெட்டானும்—பாவா
யெடுத்தன் முதலா விருநான்கும் பண்ணிப்
படுத்தமையாற் பண்ணென்று பார்’

பல இயற்பாக்களுடனே நிறத்தை இசைத்தலால் இசை யென்றுபெயராம் பெருந்தானம் எட்டினும் கிரியைக ளெட்டாலும் பண்ணிப் படுத்தலாற் பண்ணென்று பெயராயிற்று.

பெருந்தான மெட்டாவன:—நெஞ்சு மிடறு நாக்கு மூக்கு அண்ணாக்கு உதடு பல் தலை யெனவிலை

கிரியைக ளெட்டாவன:—எடுத்தல் படுத்தல் நலிதல் கம்பிதம் குடிலம் ஒலி உருட்டு தாக்கு எனவிலை”

என்றடியார்க்கு நல்லா ரெழுதிய உரைப்பகுதியானும் பண்ணுமிசையு மத்துவிதமென விளங்குமாறறிக.

பல இயற்பாக்களுடனே நிறத்தை இசைத்தலா லிசையாமென்பதனை,

“புறம்பயத் திறைவரை வணங்கிப் போற்றிசெய்
திறம்புரி நீர்மையிற் பதிகச் செந்தமிழ்
நிறம்பயி லிசையுடன் பாடி நீடிய
அறந்தரு கொள்கையா ரமர்ந்து மேவினார்”

“நிறம்பயி லிசை” எனச் சேக்கிழார் நாயனார் பெரியபுராணம் திருஞான சம்பந்தர் புராணம் 241 ம் பாடலிற் கூறியவாற்றானுமறிக.

தேவாரத்தில் வந்துள்ள பண்கள். 21.

தேவாரப்பண்கள் இருபத்து நான்கென்றும்; இருபத்தேழு என்றும், இருபத் தெட்டென்றுஞ் சிலர் கொள்கின்றனர். அங்ஙனங் கோடல் பொருந்தா தென்பதனைக் கீழ்வருமாற்றலுணர்க.

திருக்கழுமலம், திருத்தாளச்சதி, பண். வியாழக்குறிஞ்சி.

“பந்தத்தால்” என்னுந் திருப்பதிகக் கடைக்காப்பு.

“கஞ்சத்தே னுண்டிட்டே களித்துவண்டு சண்பகக்

கானே தேனே போராருங் கழுமல நகரிறையைத்

தஞ்சைச்சார் சண்பைக்கோன் சமைத்தநற்க லைத்துறை

தாமே போல்வார் தேனேரார் தமிழ்விந கனமொழிக

ளெஞ்சத்தேய் வின்றிக்கே யிமைத்திசைத் தமைத்தகொண்
டேழே யேழே நாலேமூன் நியலிசை யிசையியல்பா
வஞ்சத்தேய் வின்றிக்கே மனங்கொளப் பயிற்றுவோர்
மார்பே சேர்வாள் வாநோர்சீர் மதிதுதல் மடவரலே.”

என்னுந் திருக்கடைக்காப்பில் “ஏழே யேழே நாலே மூன் நியலிசை” எனத் திருஞானசம்பந்தமூர்த்தி நாயனாரே பண்க ளிருபத்தொன்றென்று வரையறை செய் தருளி யிருத்தலாலும் இதற்கேற்பத் தொன்றுதொட்டுத் திருவாவடுதுறை யாதீனத் தும் இருபத்தொரு பண்களென்றே கொண்டு நாளதுவரை யோதப்பட்டுவரு மாட்சி யனுபவ முண்மையாலும் பண்க ளிருபத்தொன்றென்று கோடலே பொருத்தமாம். ஆயின், திருஞானசம்பந்தருந் திருநாவுக்கரசருஞ் செய்தருளிய திருப்பதிகங்களிற் செந்துருத்திப் பண் பதிகமில்லாதிருக்க, அவ்விருவர்க்குப் பின்வந்த சுந்தரமூர்த் தியே அப்பண்ணமைந்த “மீளாவடிமை” என்னுந் திருப்பதிகஞ் செய்தருளினாராக லான் அச்சுந்தரார்க்கு முன்னிருந்த திருஞானசம்பந்தர் அச்செந்துருத்திப் பண்ணை யுஞ்சேர்த்து “ஏழே யேழே நாலே மூன்று” என்றெங்கன மிருபத்தொன்றாக வரையறுத்தாரெனில், அத்திருஞானசம்பந்தர் தாமோ திருநாவுக்கரசர் தாமோ செந்து ருத்திப் பண்பதிகம் செய்திருத்தல் வேண்டும்; அப்பதிகம் இரந்துபோன பதிகங் ளோடு சேர்ந்திருக்கலாமென்று ஊகிக்கத்தக்கதாகின்றது.

அன்றியும், “நரிரு பண்ணு மெழுமூன்று திறனு-மாகின்றன விலை” என்ற ராகலிற் பாலை குறிஞ்சி மருதம் செவ்வழி யென்னு நாற்பண்ணும் இருபத்தொன்று கின்றன வென்னு மிசையிலக்கணத்தை யனுசரித்து அங்ஙன மிருபத்தொன்றெனத் தொகைகொண்டருளினு ரென்றலுமாம்.

பண்ணும் இராகமும் அத்துவிதமாயிருத்தலினாலேயே ஆதியிலிருந்த ஆன் றோர்கள் ஒவ்வொரு பண்ணுக்குமுள்ள இராகங்களைக்கண்டே யோதிவந்திருக்கிறா் கள். திருவாவடுதுறையாதீன எட்டிப்பிரதிகளில், “கொல்லம் 917 னூ துன் முகி னூ மாசிமீ 4௨ எழுதிமுடிந்தது” என்று இறுதியிலெழுதியிருக்கும் ஒரு சித் தாந்த சாஸ்திர எட்டினோரிடத்திலே கண்டவை வருமாறு:—

பண்.	இராகம்.
1. புறநீர்மை	ஸ்ரீகண்டி
2. காந்தாரம், பியந்தைக்காந்தாரம்	இச்சிச்சி
3. கௌளிகம்	பயிரவி
4. இந்தளம், திருக்குறுந்தொகை ...	நெளிதபஞ்சமி
5. தக்கேசி	காம்போதி
6. நட்டராகம், சாதாரி	பந்துவராளி
7. நட்டபாடை	நாட்டைக்குறிஞ்சி
8. பழம்பஞ்சரம்	சங்கராபரணம்
9. காந்தாரபஞ்சமம்	கேதாரகௌளை
10. பஞ்சமம்	ஆகிரி

இப்பத்தும் பகற்பண்களாம். பகல் மூன்றுநாழிகையிலிருந்து மும்மூன்று நாழிகையாக ஒவ்வொரு பண்ணுக்கும் முறையே மேலேற்றிக் காலவரையறை கொள்க.

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| 11. தக்கராகம் | ... | ... | கன்னடகாம்போதி |
| 12. பழந்தக்கராகம் | ... | ... | சுத்தசாவேரி |
| 13. சீகாமரம் | ... | ... | நாதநாமக்கிரியை |
| 14. கொல்லி, கொல்லிக்கௌவாணம், திருநேரிசை, திருவிருத்தம் | ... | ... | வலிந்துகந்நடா |
| 15. வியாழக்குறிஞ்சி | ... | ... | சௌராஷ்டிரம் |
| 16. மேகராகக்குறிஞ்சி... | ... | ... | நீலாம்பரி |
| 17. குறிஞ்சி | ... | ... | மலகரி |
| 18. அந்தாளிக்குறிஞ்சி | ... | ... | ஸைலதேசாட்சி |

இவ்வெட்டும் இராப்பண்களாம் இராமுன்றேமுக்கா னாழிகையிலிருந்து மூன்றேமுக்கால் மூன்றேமுக்காநாழிகையாக ஒவ்வொரு பண்ணுக்கும் முறையே மேலேற்றிக் காலவரையறை கொள்க.

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| 19. செவ்வழி | ... | ... | எதுகுலகாம்போதி |
| 20. செந்துருத்தி | ... | ... | மத்தியமாவதி |
| 21. திருத்தாண்டகம் | ... | ... | பியாகடை |

இம்மூன்றும் பொதுப்பண்களாம். பகலிராவில் எக்காலமும் பொதுவாக வுரியன வாகையாற் பொதுப்பண்களாயின.

இராக கரங்கள்,

ஸ்ரீகண்டி — ஸ க ம ப த நி ஸ - ஸ நி த ப ம க ஸ

வலிந்துகந்நடா—ம க ம ரி க ம ப ஸ - ஸ நி த ப ம க ரி ஸ

ச - ரி - அம் - க - ச - த - கை - நி

ஸைலதேசாட்சி—ஸ ரி க ம ப ம த நி ஸ - ஸ நி ப ம க ம ரி ஸ

ஷ - ரி - அம் - கா - ஸ - த - கா - நி.

இவையே முன்சொன்ன எட்டிஞ்ஞரிடத்திற் கண்டவை. பிக்கலரிகண்டு முதலிய சில நூல்களிற்கண்ட சில பண்களின்,

பரியாய நாமங்கள்.

புறநீர்மைக்கு நேர்திறமென்பதும், காந்தாரத்துக்குச் சாரவென்பதும், இந்த ளத்துக்கு வடுகென்பதும், தக்கேசிக்கு நவிரென்பதும், சாதாரிக்கு முல்லையென்பதும், நட்டபாடைக்கு ரைவளமென்பதும், பழம்பஞ்சுரத்துக்குப் பஞ்சுரம் செருந்தி யென்பனவும், காந்தாரபஞ்சுமத்துக்கு உறழ்ப்பு நாட்டமென்பனவும், பஞ்சுமத்துக்கு

அயிர்ப்பென்பதும், கொல்லிக்கௌவாணத்துக்குப் படுமலையென்பதும், திருவிருத்தத்துக்குப் பாலையாழென்பதும் குறிஞ்சிக்கு அரற்றென்பதும், செந்துருத்திக்குச் செந்திறமென்பதும் பரியாயநாமங்களாகப் பிக்கலரிகண்டுமுதலிய சிலநூல்களிற் காணப்படுகின்றன.

காந்தாரபஞ்சுமத்துக்கனித் திருநேரிசைக்கும் நாட்டம் என்னும் பெயர் காணப்படுகின்றது.

திருவாய்மொழியில் வியந்தம், பாலையாழ், நாட்டம், செருந்தி, முதிர்ந்தகுறிஞ்சி, கைசிகம் முதலாகச் சில பண்களுள்ளன.

திருக்குழந்தொகை, ஈரடி, திருவிராகம், திருமுக்கால், யாழ்முறி; திருத்தாளச் சதியாதியாகச் சொல்லப்படுவன வெல்லாம் பண்ணுவந்தபெயர்களல்லனவாம்; பாவிதற்பத்தானும் பிறகாரணங்களானும் வந்த பெயர்களாம்.

செவ்வழிப்பண்ணமைந்த திருப்பதிகங்கள் திருஞானசம்பந்த நாயனாரொரு வரேயருளிய அம்மட்டிலுள்ளன. செந்துருத்திப் பண்ணமைந்த திருப்பதிகம் சுந்தரமூர்த்தி நாயனாரொருவரேயருளிய அம்மட்டிலுள்ளது. அதுவும் “மீளாவுடமை யுமக்கே” என்னும் திருவாரூர்த் திருப்பதிகமொன்றே திருத்தாண்டகம் திருநேரிசை திருவிருத்தம் திருக்குழந்தொகையாகிய இவையமைந்த திருப்பதிகங்கள் திருநாவுக்கரசுநாயனாரொருவரேயருளிய அம்மட்டிலுள்ளன.

யாழ்முறிப்பதிகமாகிய “மாதர் மடப்பிடியும்” என்பது மேகராகக் குறிஞ்சியிலும்; திருத்தாளச்சதிப்பதிகமாகிய “பந்தத்தால் வந்தெப்பால்” என்பது வியாழக் குறிஞ்சியிலும் அடங்கும். திருவிராகமென்பது இந்தளம் சாதாரி நட்டபாடையென்னு மிவையமைந்த திருப்பதிகங்களிலே சில முடுகிசையாயுள்ளனவற்றிற்குப் பெயராகிவருகின்றது; அஃது ஒரு பண் அன்று. இராகம் என்பது அராகமெனவும் வரும்.

‘அராகஞ் செந்திறமே பாலையாழ்முடு கிசைபாட்டாசை’ என்பது ரிகண்டாகலின் இராகம் என்பது முடுகிசையாம்.

பண்களோதுதற்குரிய காலவரையறை இசைநூல்களிற் சொல்லப்பட்டிள்ளனவோ வென்னில்; திருவாவடுதுறை யாதீனத்துந் தருமபுரவாதீனத்தும் ஒதுவாமூர்த்திகள் ஒதிவந்த ஆட்சியே காலவரையறை கோடற்குக் காரணமென்பதும். அவ்வாட்சி பற்றியே இறந்துபோன இசைநூல்களிற் காலவரையறை சொல்லப்பட்டிருத்தல் வேண்டுமென்பதும் கொள்ளக்கிடக்கும். இது பின்வருமாற்றால் விளங்கும்

“பாடல் பயிலும் பணிமொழி தன்பணைத்தோள்

கூடலவாவாற் குறிப்புணர்த்தும்—ஆடவற்கு

மென்றீந் தொடையாழின் மெல்லவே தைவந்தாள்

இன்றீங் குறிஞ்சி இசை”

என்று நுட்பவணிக்கு மேற்கோளாகத் தண்டியலங்காரத்திலே எடுத்துக் காட்டப்பட்ட இச்செய்யுட் பழையபுரையுள் “இக்கே குறிஞ்சியிசையைப் பாடுதலாகிய தொழிலினாலே இடையாமத்திலே கூடுதற்கு நேர்த்தாளென்பது அதுமானித்தரியப்படும். குறிஞ்சிக்குச் சிறுபொழுது இடையாமமெனவறிக” எனக் குறிஞ்சிப் பண்ணுக்குக் காலவரையறை இடையாமமெனக் காணப்படுகிறதற்கேற்ப முன்சொன்ன ஆதீனகர்த்தர்களாகிய மடாதிபதிகள் மார்கழிமாதத்தி லிடையாமத்தெழு

ந்து நித்யகர்மாறுட்டானங்களை முடித்துக்கொண்டு பூசாமட்டுசென்ற பூசிக்கும் அப்பூசாகாலத்திலேதான் குறிஞ்சிப்பண்ணேதுவதை ஒதுவாமூர்த்திகள் வழக்கமாகக் கொண்டிருக்கிறார்கள். பிறகாலத்திலோதுவதில்லை.

பெரியபுராணம் ஏயர்கோன் கலிக்காமநாயனார் புராணம்.

அன்றுதிரு நோக்கொன்ற லாரக்கண் டின்புற்றார்
நின்றுநில மிசைவிழ்ந்து நெடிதுயிர்த்து நேரிறைஞ்சி
வன்றெண்டர் திருவாரூர் மயங்குமா லையிற்புகுந்து
துன்றுசடைத் துவாயார் தமைமுன்னர் தொழுவணைந்தார். (302)

பொங்குதிருத் தொண்டருட னுள்ளணைந்து புக்கிறைஞ்சித்
துங்கவிசைத் திருப்பதிகந் துவாயா வெனவெடுத்தே
யிங்கெழுது துயர்களைந்து கண்காணக் காட்டாயென்
றங்கணர்த முன்னின்று பாடியருந் தமிழ்புனைந்தார். (303)

ஆறணியுஞ் சடையாரைத் தொழுதுபுறம் போந்தங்கண்
வேறிருந்து திருத்தொண்டர் விரவுவா ருடன்கூடி
யேறுயர்த்தார் திருமூலத் தானத்து ளிடைதெரிந்து
மாறிநிரு வத்தயா மத்திறைஞ்ச வந்தணைந்தார். (304)

ஆதிதிரு வன்பரெதி ரணையவவர் முகநோக்கிக்
கோதிலிசை யாற்குருகு பாயவெனக் கோத்தெடுத்தே
ஏதிலார் போல்வினவி யேசறவாற் றிருப்பதிகந்
காதல்புரி கைக்களையாற் பாடியே கலந்தணைவார். (305)

இந்நான்கு பாக்களில் ‘வன்றெண்டர் திருவாரூர் மயங்குமாலையிற்புகுந்து’
‘துங்கவிசைத் திருப்பதிகந் துவாயாவெனவெடுத்தே’ என்பவற்றிலும்; ‘அத்தயா
முறையே பகல் 27 நாழிகை தொடங்கி 30 நாழிகை வரையுமாகிய மாலக்காலத்
திற்குரிய பஞ்சமப்பண்ணமைந்த திருப்பதிகமும்; இரா-11½ நாழிகை தொடங்கி
15 நாழிகைவரையுமாகிய அர்த்தயாமகாலத்திற்குரிய கொல்லிப்பண்ணமைந்த திருப்
பதிகமுமாகின்றன. ஆகையால் தேவாரத் திருவாய்மலர்த்தருளிய சமயாசாரியர்கள்
பண்களையே பெரும்பாலு மமைத்துப் பாடினார்களென்பது பெறப்படுகின்றது.
ஆகவே, பஞ்சமப்பண் கொல்லிப்பண்ணாகிய இவ்விரண்டு பண்களுங் காலநியமம்
வருகின்றன. ஒதுவாமூர்த்திக ளோதிரும் பண்களில் குறிஞ்சி, பஞ்சமம், கொல்லி
யென்னும் இம்மூவகைப்பண்களுக் கேற்பட்ட காலவரையறை மேற்காட்டியவற்
றிற்கு ஒத்திருத்தலால் அவர்கள் ஏனைய பண்களுக்குக் கொண்டிருக்குங் காலவரை
யறையும் முன்னிருந்த இசைதூல்களுக்கு ஒத்ததென்றே கொள்ளத்தக்கது.

The Doctrine of Sphoṭa

By

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Three types of Monism in the Brāhmaṇas and the Upaniṣads.

The doctrine of Sphoṭa is generally explained as the conception of one eternal śabda—sound as the ultimate reality of the world. This is otherwise known as the śabdādvaita or śabda-monism as some Brāhmaṇas and Upaniṣads would have it; they also mention two other conceptions of monism—sattā-monism and vijñāna-monism. The germs of sattā-monism and vijñāna-monism are fully developed¹ into two different schools of philosophy by Śrī Śaṅkarācārya, the stadtholder of the advaita philosophy and by Gautama Buddha, the founder of the Buddhist philosophy respectively. The latter had the misfortune to impart his gospel to four disciples in whose hands four different unpopular schools of Buddhist philosophy² developed.

Śabdādvaita in the Upaniṣads and in other works.

One popular explanation of the śabda-monism is found in the oṅkāropāṣṭi³ of the Māṇḍūkyaopaniṣad. In other vedic texts⁴ also are

1. Reference may be made here to Jayanta-bhaṭṭa's Nyāyamañjarī where we have an elucidation of the three schools of monism. [No. 10. Vijayanagaram Series. pages 531-538.]

2. The four schools of Buddhism are:—

- (a) The Yogācāra or Vijñānavāda school;
- (b) The Nihilistic or Mādhyamaka school;
- (c) The Sautrāntika school; and
- (d) The Vaibhāṣika school.

3. Compare Śrī Śaṅkarācārya's remark—‘nediṣṭhamidaṁ brahmaṇaḥ abhi-dhānam yat Oṅkāraḥ iti’.

4. ‘Praṇava evaikaḥ tridhā vyabhajyata;’

‘nāmedam rūpatvena ca vṛttarūpam
rūpam cedam nāmabhāvena tasthe;
eke tadekamavibhaktam vibhejūḥ
prāgevānye bhedarūpam vadanti.”

‘Vāgeva viśvā bhuvanāni jajñe
vāca it sarvamamṛtaṁ yacca martyam.”

‘Oṅkāro vai sarvā vāk’

‘vācīmā viśvā bhuvanāyārpitā.’

found references to speech or śabda as the ultimate reality of the world. But it becomes systematised in the hands of the Sanskrit grammarians, Pāṇini, Kātyāyana and Patañjali. They hold—'ehaḥ śabdaḥ suṣṭu jñataḥ samyak prayuktaḥ svarge loke kāmadhuk bhavati'.

Pāṇini's Conception of Sphoṭa

The correct explanation of śabdādvaita in the form of sphoṭa is not given by Pāṇini and Kātyāyana in their works—the Aṣṭādhyāyī and the Vārtikas respectively; yet Pāṇini's very few sūtras like 'tad aśiṣyam saṁjñāpramāṇatvāt,' embody the essence of the sphoṭa-doctrine. He believes that words have long been in existence and their continuous usage alone is the best authority (pramāṇa) for their correctness (sādhutva). What the Grammarians can do is to record the correct usage of the correct words in language, in a systematic way; similarly on questions of gender, case etc., of the words, Pāṇini says that the time-honoured convention (anādivyavahāra) alone is the final authority.⁵ And it is in this sense that the Vyākaraṇa Śāstra is known as an *anvākhyānaśāstra*⁶—that which records and explains śabdas as they actually exist in usage.⁷

Kātyāyana's View of Śabdanityatva.

Kātyāyana's elucidation of śabda takes us nearer the sphoṭa doctrine. He does not, however, make mention of the word 'sphoṭa' but lays down in his famous Vārtika—'Siddhe śabdārthasambandhe lokato arthaprayukte śabdaprayoge śāstreṇa dharmaniyamo yathā laukika-vaidikeṣu'—the great principle that śabda is nitya, artha is nitya, and their relation viz. vācyavācakabhāva is nitya. This is the very fundamental of the sphoṭa doctrine.

5. Compare the vārtika—'līngamaśiṣyam lokāśrayatvāt līngasya.'

6. In his Mahābhāṣyapradīpodyota (Page 5. N. S. Edition) Nāgeśa explains the unique character of the Mahābhāṣya as both a commentary and an original treatise—'vyākhyātrtvepi asya iṣṭyādikathanena anvākhyātrtvāt itarabhāṣyavai-lakṣaṇyena mahatvam.'

7. Pāṇini's reference to the sage sphoṭāyana in the sūtras—'avaṁ sphoṭāyanasya,' etc., cannot be taken as fully establishing the view that the sphoṭa doctrine was founded by sphoṭāyana. The suggestion is only a conjecture in the absence of further materials.

Patañjali's Contribution to Sphoṭa.

Both Vyāḍi, the author of the Saṅgraha⁸ and Patañjali,⁹ the author of the Mahābhāṣya, have accepted the sphoṭa doctrine, as may be seen from the following passage in the Mahābhāṣya:—"atha gaurityatra kaḥ śabdaḥ? yenoccāritena sāsnaṅgūlakakudakhuraviṣāṇinam sam-pratyayo bhavati sa śabdaḥ." (Mahābhāṣya—Paspasāhnikā. N.S. Ed. Pages 12-16). That which is the seat of vācakatā is śabda, so maintain Patañjali and his followers,¹⁰ and this establishes the eternity of śabda, viz., sphoṭa, the sonant substratum. Patañjali makes mention of the sphoṭa doctrine in the Pratyāhārāhnikā¹¹ also. He distinguishes the sphoṭa śabda from dhvani in the following verse in his taparāsūtrabhāṣya 1, 1, 68:—"Dhvaniḥ sphoṭasca śabdānām dhvanistu khalu lakṣyate. Alpo mahāmśca keṣāñcit ubhayam tadviśeṣataḥ." (N. S. Ed. p. 517). Dhvani is produced by vibrations of air and it undergoes both modification and destruction. And this is not the real śabda. The cognitions or experiences of mahatva, alpatva, etc., in śabda are superimpositions (adhyāśas) of the properties of dhvani on śabda. The relation between dhvani and sphoṭa is the same as that between the prapañca and the Absolute, as explained by the Advaitins. Generally dhvani becomes the object of cognition or experience. The identity between dhvani and sphoṭa can be understood only by yogins who realise the Highest Reality—Brahman. This principle here enunciated by Patañjali, he himself says, is the theory of Pāṇini—'Sarve sarvapadādeśāḥ dākṣi-putrasya Pāṇineḥ.' (N. S. Ed. page 263).

Later Authors before Bhartṛhari on the Sphoṭa.

Besides Pāṇini, Kātyāyana and Patañjali, other important śāstra-kāras who flourished long before Bhartṛhari, the author of the Vākyapadīya, have mentioned this sphoṭa doctrine in their works and they

8. Nāgeśa in his Udyota (N. S. Edition p. 55.) remarks—'Saṅgraho vyādikṛto lakṣaślokaśaṅkhyo grandha iti prasiddhiḥ.' Also Puñjarāja in his commentary on Bhartṛhari's Vākyapadīya (Kāṇḍa II. verse 484. Benares Edition, page 283) says—'iha purā pāṇiniye asmin vyākaraṇe vyādyuparacitaṁ granthalakṣapari-māṇaṁ saṅgrābhidhānam nibandhanamāsīt.'

9. Patañjali is believed to be the incarnation of Ādiśeṣa and he is responsible for three works: (1) the Mahābhāṣya in Sanskrit Grammar, (2) Yogasūtras in the yoga system of Indian Philosophy, and (3) Carakasamhitā in Indian medicine. Compare Bhartṛhari's verse in his Vākyapadīya, Kāṇḍa I. verse 148.

10. Kaiyaṭa in his Bhāṣyapradīpa (N. S. Ed. p. 16) explains the above bhāṣya as an elucidation of the sphoṭa śabda which is only manifested by dhvanis.

11. "athavā ubhayaḥ sphoṭamātram nirdiśyate—rasruteḥ laśrutiḥ bhavati iti"—(N. S. Ed. page 107.).

have made adverse criticisms of it. Conspicuous among them are Upa-varṣa, the famous vṛttikāra in the Pūrva and Uttara Mīmāṃsā systems, Śabaravāmin, the author of the bhāṣya on the Pūrvamīmāṃsāsūtras and Vātsyāyana, the author of the Nyāyasūtrabhāṣya.

The Position of the Vyākaraṇa Śāstra just before Bhartṛhari.

During the first five or six centuries of the Christian era, great attention was not paid to the study of the Sanskrit grammar, much less of the philosophy of śabda. Bhartṛhari says at the end of the second kāṇḍa of his Vākyapadīya¹² that the southerners alone studied the text of the 'sacred' Mahābhāṣya, while the sacred āryāvarta concentrated on the dry logic (śuṣkatarka) of Baiji, Haryakṣa and Saubhava, etc. Candragomin whom Bhartṛhari refers to as Candrācārya and to whom a Brahmarakṣas gave the Vyākaraṇāgama written and kept hidden under a rock by Rāvaṇa at the Trikūṭa mountain,¹³ is the author next responsible for the revival and further development of the Pāṇiniyan school of Sanskrit grammar. This Candrācārya is known as the author of the Cāndravyākaraṇa which is nothing but an amplifica-

12. The Mahābhāṣya is known as āṛṣa and saṅgrahapratikañcuka—the sacred strong substitute for Vyāḍi's Saṅgraha which somehow fell into the hands of some petty grammarians and extinguished for ever. cf. Verses 484 to 493.

'Prāyeṇa saṅkṣeparucīn alpavidyāparigrahaṇ;
saṃprāpya vaiyākaraṇān saṅgrahastamupāgate.
Kṛte atha Patañjalīnā guruṇā tīrthadarsinā;
sarveśān nyāyabījānām mahābhāṣye nibandhane.
Alabdhaḡādhe gāmbhīryāt uttāna iva sauṣṭhavāt;
kasmin akṛtabuddhinām naivāvasthitaniścayaḡ.
Baiji-Saubhava-Haryakṣaiḡ śuṣkatarkānusāribhiḡ;
ārse viplāvite granthe saṅgrahapratikañcuke.
Yaḡ Patañjalīśiṣyebhyo bhraṣṭo vyākaraṇāgamah;
kāle sa dākṣiṇātyeṣu granthamātre vyavasthitah.
Parvatādāgamam labdhvā bhāṣyabījānusāribhiḡ;
sa nīto bahuśakhatvam Candrācāryādibhiḡ punaḡ
Nyayaprasthānamārgamstānabhyasya svañca darśanam;
praṇīto guruṇāsmākaḡ ayamāgamasāṅgrahaḡ.
Vartmanāmātra keṣāñcit vastumātramudāhṛtam;
kāṇḍe tṛtiye nyakṣeṇa bhaviṣyati vicāranā.
Prajñā vivekaḡ labhate bhinnairāgamadarśanaḡ;
kiyadvā śakyamunnetuḡ svatarkamanudhāvātā.
Tattadutprekṣamāṇām purānairāgamaiḡ vinā;
anupāsitaivrddhānām vidyā nātiprasīdatī'.

13. Puñjarāja comments the verse—'Parvatādāgamam labdhvā' etc., as follows:—Parvatāt Trikūṭaikadeśavartitṛilīṅgaikadeśāt iti. taṭra hi upalatale Rāva-ṇaviracito mūlabhūtavāyākaraṇāgamah tiṣṭhati kenacicca brahmarakṣasā ānīya candrācārya-vasurātaguruprabhṛtīnīm datta iti." (V. Padīya. p. 285.).

tion of the Pāṇiniyan system. From him, perhaps, Vasurātasūnu has studied the Mahābhāṣya which in turn was learnt and popularised by Bhartṛhari who, on the lines enunciated by Patañjali, systematised the sphaṭa doctrine in his famous Vākyapadīya.

Bhartṛhari's Date and works.

Before we speak of Bhartṛhari's contribution to the sphaṭa doctrine (as explained in the Brahmakāṇḍa of his Vākyapadīya), a word on his date and literary attainments may not be out of place.¹⁴ I-tsing, the Chinese traveller, mentions in his 'Travels' Bhartṛhari's death about 650 A.D. This is the most authentic external evidence for his date. This and the other internal evidences justify the conclusion that Bhartṛhari flourished during the first half of the 7th century. His famous commentary on the Mahābhāṣya known as Tripādī (which extends only to the first three pādas of the first chapter of the Aṣṭādhyāyī) and his metrical Vākyapadīya¹⁵ with his own vṛtti on the philosophy of grammar, his ṭikā, known as Hariṭikā, on the Pūrvamīmāṃsāsūtras quoted by Pārthasārathimīśra¹⁶ of 9th or 10th century A.D. and his

14. The identity between Bhaṭṭi and Bhartṛhari is suggested by Prof. Pathak on the supposition that the word Bhaṭṭi is a contracted prakṛtic form of Bhartṛhari. This suggestion is not yet finally accepted.

15. There is every probability for the Vākyapadīya being a fitting introduction to Hari's own ṭikā on the Mahābhāṣya.

16. In his Śāstradīpikā X. 2, 22, Pārthasārathi Mīśra quotes one Hari—'tathāca hariḡbhiḡ uktam (hariniruktam)' etc. Will this one quotation be sufficient to prove the above view? Similarly, many scholars base their view that Bhartṛhari has written a commentary on the Brahma Sūtras, on a reference made by Yāmunācārya in his Siddhitrāya "yadyapi bhagavatā Bādarāyaṇena ida-by Yāmunācārya in his Siddhitrāya "yadyapi bhagavatā Bādarāyaṇena idamarthānyeva sūtrāṇi pranīti tathāpi ācārya ṭaṅka-bhaṭṭaprapaṇca-bhartṛhari-brahmadatta-Śāṅkara-Śrī Vatsāṅka-bhāskarādiviracitasitāvitavidha-nibandhanaśraddhāvīpralabdhabuddhāyo na yathāvat anyathā ca pratipadyante iti tatpratipattaye ca yuktaḡ prakaraṇaprakramaḡ."—(Benares Edition pages 4-5.). I am, however, inclined to believe—until more positive evidence is forthcoming—that Bhartṛhari has discussed most of the mīmāṃsā doctrines of the 12 chapters as applied to loka and the Vyākaraṇa Śāstra in his Vākyapadīyaṭikā itself (from which P. Mīśra might have cited), a summary of which we have in Puñjarāja's commentary on Kāṇḍa II. Verses 79-85. (Benares Edition. pages 100-116.). Similarly, Bhaṭṭoji Dikṣita's remark in his Śabdakaustubha (Benares Edition. p. 12.) "tadevam varāṭikānveṣaṇāya pravṛttaḡ cintāmaṇīm labdhavāniti vāṣiṣṭha-rāmāyaṇoktābhāṇakan yāyena śabdavicārāya pravṛttaḡ san prasaṅgāt advaite aupaniṣade Brahmanyaḡpi vyutpādyatāmīti abhiprāyeṇa bhagavān Bhartṛhariḡ Vivarta-vādādikamapi prasaṅgāt vyudapādayat"—makes one believe that if Bhartṛhari had ever an idea to comment on the Brahmasūtras, he would not have so ably advocated his Vivarta doctrine in his Vākyapadīya.

Subhāṣitatriṣaṭi (300 popular verses on nīti, śṛṅgāra and vairāgya) often quoted by Abhinavagupta of 10th or 11th century—all these clearly indicate the versatility of his talents.

Bhartṛhari—a Śabda-monist.

In his Vākyapadīya, which is the only work we are here concerned with, Bhartṛhari clearly says that he is an out-and-out Advaitin (monist)¹⁷ who believes in the ultimate reality of the one Being, viz., śabda, from which this universe evolves. The first five verses¹⁸ sum up his views on śabda-monism and form a eloquent plea for the sphoṭa-doctrine. This śabda, the sonant substratum or the essence of speech which is equated with Brahman, is devoid of both beginning and end and manifests¹⁹ itself in this phenomenal world, Brahman being the efficient cause.

Śabdabrahman as one ultimate Reality.

What is known in the Vedas as the 'eka, advitiya Brahman' is ordinarily experienced by all in different forms and capacities; and this, Bhartṛhari says, is due to the various upādhis—limiting conditions imposed upon the Supreme Being. Hence the experiences representing

17. There is still a belief among the historians that Bhartṛhari was a Buddhist. But Bhartṛhari, the author of the Vākyapadīya was never a Buddhist, was always a believer in the apauruṣeyatva of the vedas and was ever a champion of the śabdabrahmavivartavāda.

18. Anādinidhanam brahma śabdatatvam yadaḥśaram
Vivartate arthabhāvena prakriyā jagato yataḥ
Ekameva yadāmnātām bhinnam śaktivyapāśrayāt
apṛthaktvepi śabdebhyaḥ pṛthaktvenaiva vartate
Avyāhataḥ Kalā Kālaśaktimupāśritāḥ
janmādayo vikārāḥ śaṭ bhāvabhedasya yonayaḥ
Ekasya sarvabījasya yasya ceyamanekadhā
bhoktr-bhoktavārūpeṇa bhogarūpeṇa ca sthitiḥ
Prāptyupāyonukāraśca tasya vedo maharṣibhiḥ
ekopyanekavartmeva samāmnātāḥ pṛthak pṛthak
[V. Padiya Kāṇḍa I. Verses 1-5.]

19. Bhartṛhari belongs to the school of Vivartavādins who explain this universe as a vivarta of Brahman (i.e.,) a seeming manifestation having no separate reality behind it except that of Brahman, in contrast with the school of Parī-nāmavādins who accept the transformation of Brahman into the separate existence or reality of, the world. e.p. svarūpānupamardena anyathābhāvo vivartaḥ—yathā—rajjuśarpe; svarūpānupamardena anyathābhāvaḥ parīnāmaḥ—yathā—kṣīradadhni' Or more accurately, 'atātvikānyathābhāvaḥ Vivartaḥ'; tātvikānyathābhāvaḥ parīnāmaḥ.'

the six stages of the phenomenal world—birth, existence, transformation, growth, decay and destruction—present the characteristics of Kālaśakti, popularly known as māyā in the system of Vedānta philosophy. As the Advaitins say, this Kālaśakti possesses different and sometimes opposite properties like satva and asatva and consequently this universe appears differently as bhoktr (enjoyer), bhoktavya (enjoyable) and bhoga (enjoyment). It is again through this Kālaśakti or māyā that the Absolute Brahman manifests itself in the form of this manifold world. This Kālaśakti is again described as neither sat nor asat—anirvacanīya, i.e., it is neither separate from nor identical with the Absolute.

The Vedas as sources of the Realisation of Śabdabrahman.

To realise this Absolute Brahman man aspires and hence he studies the Vedas which glorify Its nature. It is because of this glorification that the sages have called them 'Brahman.' So they are the Brahman in miniature (aṇukāra). Bhartṛhari strongly asserts here that mankind cannot find better means than the Vedas to understand the nature of the ultimate Reality in this world. Man may rely on his reason, but, as Bhartṛhari says, it has not only not helped him but has even spoiled him, firstly because it has not given him the satisfactory solution for many vital puzzling problems of life like the existence of Īśvara and the origin and true nature of this world; and secondly because it leaves a residue of doubt in him, so much so that he is disinclined to accept the solution given in the Vedas for the above-mentioned problems. As true revelations, they are of super-normal authority, and as such, are invaluable records of truth. It is on this main ground that Bhartṛhari lays down the general principle that on questions of at least a super-normal (alaukika) character, āgama (Vedas, Smṛtis, etc., generally known as śāstra)²⁰ is the only authority, and tarka (reason or reasonable arguments chiefly in the form of syllogism) is unreliable, for²¹ however great might be a man's intellectual attainments, his well-thought-out syllogism will in no time be proved fallacious by a greater intellectual giant. He adds²² that a man who relies simply on his reason in alaukika matters is for ever doomed just

20. Compare the Bhagavadgītā—tasmāt śāstram pramāṇam te kāryakā-ryavyavasthītau.'

21. 'Yatnenānumitopyarthaḥ kuśalaiḥ anumātrbhiḥ
abhiyuktataraiḥ anyaiḥ anyathaivopapādyate,
Kāṇḍa I. Verse 34.

22. 'Hastasparsādivāndhena viṣamepyabhidhāvātā
anumānapradhānena vinipāto na durlabhaḥ.'

as a blind man who only touches with his hands the slope of a huge precipice and advances further is doomed to death by an instantaneous fall.

The Vyākaraṇa Śāstra as the most important aṅga of the Vedas.

A proper study of the Vedas necessarily requires a proper study of the six vedāṅgas of which the Vyākaraṇa Śāstra is the most important.²³ Bhartṛhari, like Patañjali, believes in the doctrine of śadhu-śabda-pra-yoga begetting Dharma, cf. 'ekaḥ śabdaḥ suṣṭhu jñātaḥ samyak pra-yuktaḥ svarge loke kāmādhuk bhavati.' To use correctly a correct śabda involves great labour and investigation on the part of the speaker and this can be attained only by a systematic study of the vyākaraṇa śāstra. So patañjali says that the Vyākaraṇa Śāstra is the greatest among the six vedāṅgas, and a thorough study of it would certainly secure for the reader the fruits of the study of all the Vedas, cf. 'pradhānam ca ṣaṣṭsu aṅgeṣu vyākaraṇam, pradhāne ca kṛto yatnaḥ phalavān bhavati.' Bhartṛhari also concurs in Patañjali's view and explains the same more emphatically. He says²⁴ that the learned describe the Vyākaraṇa Śāstra as the nearest approach to Brahman, viz., Veda; as the highest of all austerities and as the first and foremost of the vedāṅgas.

It is again described²⁵ as the right or direct path which leads to the understanding of the true nature of speech, which is glorified in the Vedas²⁶ as the most brilliant light which illuminates this whole universe and whence this universe evolves. Again, it is called the door of apavarga—salvation and is a medicine to cure the diseases of language. Purest of all vidyās, it shines resplendent in every branch of knowledge.

23. The importance of the V. Śāstra lies in the fact that it directly helps the vedic student very much in the interpretation of the vedas by giving him correct derivation, accent and meaning, etc., of the words and thus unlike the other aṅgas, produces a dr̥ṣṭaphala (an immediate fruit). This idea is explained by Bhartṛhari in his V. Pāṇīya. Kāṇḍa I. Verse; "āsannaṁ brahmaṇaḥ tasya tapasāmuttamaṁ tapaḥ. Prathamam cchandasāmaṅgaṁ prāhuḥ vyākaraṇam budhāḥ." Compare the remarks made by Patañjali in the paspaśāhnikā of his Mahābhāṣya, under—'rakṣohāgamalaghavasandehāḥ prayojanam'.

24. V. Pāṇīya Kāṇḍa I. Verse 'āsannaṁ brahmaṇaḥ', etc.

25. ibid Kāṇḍa I. Verse 12. 'prāptarūpavibhāgāyāḥ yo vācaḥ paramo rasaḥ. yattatpūnyatamaṁ jyotiḥ tasya mārgoyamāñjasaḥ'.

26. "Triṇi jyotiṃśi trayāḥ prakāśāḥ yoyam jātavedāḥ yaśca puruṣeṣu āntaraḥ prakāśaḥ tatraitat sarvamupanibadham yāvat sthānu carīṣṇu ceti"—(See the commentary on Verse 12. Kāṇḍa Page 7 of the Benares Edition).

The Vyākaraṇa Śāstra as a Spiritual means of the realisation of Brahman.

Bhartṛhari even goes to the length of taking the Vyākaraṇa Śāstra as one of the chief upāyas for the realisation of Śabda Brahman. In this respect, Bhartṛhari's view is more philosophical and speculative than that of Patañjali. Vyākaraṇa is described²⁷ as the sole basis of all other vidyās; it is the first rung in the ladder of realisation, and as such the straight royal road for all who seek mokṣa. The vedic soul, free from error, sees His own form, viz., the Vedas which are described as originating from Him. Again in this Śāstra, various elements of speech are described in detail, which, serving as symbols for the remembrance of the Ākāśabrahman, appear to a yogin as the reflections of Brahman Himself. What is described as the one ultimate Being in all the Vedas—Rik, Yajus, Atharva and Sāma and what is also found manifested as manifold in the phenomenal world are both realised by him who understands the true purport of the Vedas; and this can be achieved only through the help of the Vyākaraṇa Śāstra.

The two kinds of Śabdās—Dhvani and Sphoṭa

According to the Śabda-monists, śabda is conceived in different ways:—(1) dhvani or varṇa, which is the audible sound manifesting the real śabda; and (2) sphoṭa or the real sound which is manifested by the dhvani.²⁸ Of these two śabdās only the latter is vācaka—that which conveys the ideas and it is nitya; the former perishes after its work of manifesting the eternal sphoṭa śabda and hence is anitya.

Artha, only a Vivarta of Sphoṭa

It is on the one hand accepted by all thinkers including Sanskrit grammarians that there is complete difference between śabda (vācaka) and artha (vācya), yet the metaphysicians among the Sanskrit grammarians of whom Bhartṛhari is the foremost, hold on the other, that there is identity between śabda and artha; in other words, artha is only a

27. taddvāramapavargasya vānmalānām cikitsitam.
pavitram sarvavidyānām adhidividyam prakāśate.
[V. Pāṇīya. Kāṇḍa I. Verse 14.]

28. Verses 15—22 'yathārthajātayaḥ sarvāḥ param brahmādhigamyate' eulogise the study of the Vyākaraṇa Śāstra as the spiritual means of the realisation of the supreme Brahman.

29. The term sphoṭa is derived in two ways:—(1) sphuṭyate (ahivyayate) dhvanibhiḥ ayaṁ (śabdaḥ)—that which is manifested by dhvanis, namely, the sphoṭa; (2) sphuṭati (arthaḥ) asmāt (abhivyaktaśabdāt)—that being manifested, conveys the ideas.

nivarta of *sphoṭa-śabda* when this latter is manifested and presented as possessing various properties. The relation between *śabda* and *artha*, generally known as *vācya-vācaka-bhāva* is *tādātmya*. This view is quite consistent with the theory of *śabdādvaita* which does not admit of the reality of anything other than the eternal *śabda*. And it also supports the idealistic theory of the grammarians that cognition is impossible without linguistic expression. cf. 'na sosti pratyayo loke yaḥ śabdānugamādrte.' (V. Padiya, Kāṇḍa I, verse 124.).

(To be continued.)

Śri Mukundamālā

with

Tātparyadipīka

of

Rāghavānanda.

—K. R. Pisharoti.

ननु 'प्रयाति परमं पारं विष्णुवाख्यं पदमव्यय' मिति श्रुतेस्संसारार्णवपारभूतस्य विष्णोस्तत्पोतत्वकथनमयुक्तं इत्याशंकायां स्वगतभक्तिनौकाऽभेदाभिप्रायेण तथात्वकथनात् न दोष इत्याह ; यद्वा—भवजलधिगतानामित्यत्र कथं भवस्य जलधित्वं विषमसञ्चारित्वं वेति तत् समर्थयन्नाह ; अथवा—अतीतश्लोके मुकुन्द इति अहमिति चरणाविति शरणमिति च गृहीतरूपस्य तत्र तत्र प्रकाशितार्थस्य च मौकुन्दमन्त्रस्य मुख्यभक्तिफलस्य दुःखिजनमात्मा-धिकारित्वमाविष्कुर्वन्तद्व्याख्यानमुपसंहरति—

तृष्णातोये मदनपवनोद्धूतमोहोर्मिमाले

दारावर्त्ते तनयसहजग्राहसंघाकुले च ।

संसाराख्ये महति जलधौ मज्जतां नस्त्रिधामन् !

पादाम्भोजे वरद ! भवतो भक्तिनावं प्रसीद ॥ १० ॥

तृष्णेति । त्रीण्यकारोकारमकाराख्यानि जाग्रत्स्वप्नसुषुप्तिसंज्ञानि च स्थानान्य-
स्येति वा, ब्रह्मविष्णुरुद्राख्यानि विश्वतैजसप्राज्ञाख्यानि च तेजांस्यस्येति वा, त्रिधामा, तत्र
संबोधनं त्रिधामन्निति । भोगमोक्षलक्षणं वरं ददातीति वरदः, तत्र संबोधनं
वरदेति । सम्बोधनद्वयमादरार्थम् । संसाराख्ये महत्यपारे जलधौ मज्जतां नोऽस्माकं
भवतः पादाम्भोजे, पाद एवाम्भोजं तस्मिन् विषये भक्तिनावं भक्तिर्निरतिशयप्रीतिरेव
नौस्तां प्रसीदानुगृहाण । कथमस्य जलधित्वमित्यत उच्यते—तृष्णातोये—नानानदीज-
लागमेऽपि समुद्रजलवन्नानाविधकामावासावपि प्रागिवावस्थितत्वसाम्यात् बहुविस्तार-
साम्याद्वा, तृष्णा भोगेच्छैव तोयं यस्मिन् तस्मिन् ; मदनपवनोद्धूतमोहोर्मिमाले
मदनो भोगसाधनेषु सक्चन्दनाङ्गनादिषु अभिषङ्गस्स एव पवनो महावायुः, निश्च-
लस्यापि चलयितृत्वात्, तेनोद्धूताः कम्पिताः मोहा द्वैतभ्रमा एवोर्मिमालाः कल्लोल-
कुलानि यस्मिन् तस्मिन् ; दारावर्त्ते दाराः कलत्रभिवावर्तो यस्मिन् तस्मिन्, संसारार्णव-
परिभ्रमावहत्वसाम्यात् ; तनयसहजग्राहसंघाकुले तनयाः सहजाश्च धनधान्यादिजीवन-
सर्वभ्रह्णहेतुत्वात् ग्राहाः तेषां संघेन प्रतिजन्म प्रकाशमानेनाकुले पूर्णे ; चकार उक्तसमु-
च्चये । अत्र मान्त्रिकश्रीमत्पदव्याख्या—त्रिधामन्निति, मुकुन्दपदव्याख्या वरदेति,

भवत इत्यध्याहृत्य योजनोपदेशः । चरणावित्यंशप्रकाशनं पादाम्भोज इति । तत्त्वंपदार्थमात्रपरमार्थयोर्विक्यार्थमूर्तेर्हे रेश्वरणयोश्चिदानन्दयोः “ सदेव सोम्येदमग्र आसी ” दिति सन्मात्रात्मनैक्यावद्योतनायैकवचनम् । भक्तिनावं प्रसीदेति प्रपद्ये पदार्थप्रकटनम् । तदयमर्थः—हे श्रीमन् ! लक्ष्मीवल्लभ ! ऐश्वर्यादिषड्गुणपरिपूर्णंति वा स्वप्रकाशचिदात्मनिति वा ब्रह्मविद्याप्रतिबिम्बितविग्रहेति वा सर्वाङ्गमुन्दरेति वा ब्रह्मरुदेन्द्रादिवन्दितपादपीठेति वा—मुकुन्द—मुक्तिप्रदं चतुर्विधपुरुषार्थप्रदेति वा अखण्डानन्द-विग्रहेति वा, एवं सामानाधिकरण्येन चिदानन्दभेदोऽपास्तः, चित आनन्दादन्यत्वे तत्परतन्त्रत्वेन कदल्यादिवज्जडत्वापत्तेः, आनन्दस्य चितोऽन्यत्वेऽप्रकाशमानत्वेनाऽस्पृहणीयतापत्तेः उभयोरपि सतोऽन्यत्वेऽसत्त्वापत्तेश्चाखण्डार्थत्वं सच्चिदानन्दपदानामवगन्तव्यम् । अहं त्वच्चरणानुस्मरणादन्यदशेषं विसृज्यात्रैवासामार्थ्येऽपि नित्योद्यतसंसारसर्पदष्टो मनुष्याभासो वा देहप्राणमनोबुद्धयहङ्कारशून्यद्रष्टृत्वा तद्विलक्षणश्चिदात्मा वा नित्यानित्यवस्तुविवेकेहामुत्रार्थफलभोगविरागशमदमादिसखमुमुक्षुत्वोपेतो वा त्वद्भजनाधिकारी तव सदात्मनः चरणौ शारदाम्भोरुहरमणीयौ पादौ चरणवत् समष्टिव्यष्टिदौ देहचेष्टाहेतुभूतौ चिदानन्दस्वलक्षणौ साक्षिशब्दलक्ष्यौ वा सदा जन्मनि जन्मनि नित्यं वाऽवस्थात्रयेऽपीति वा प्रपद्ये शरणं ब्रजामि स्मरामीति वाऽत्मत्वेनानुभवामीति वा, सदानन्दचिदात्मनो भवतोऽन्यत्वे ममासत्त्वदुःखित्वजडत्वापरिहारादिति ॥

॥ १० ॥

एवं तावत् साक्षाद्बोधशिरस्कभगवद्भक्त्येकफलं मन्त्रं प्रमाणीकृत्य भक्तिः प्रार्थिता । अथ “ भवजलधिगतानां नराणां विष्णुपोतदशरणं भवति ”त्यत्र संसारबन्धविध्वस्तये विष्णुभजनं कर्तव्यमित्युक्तम् ; तत्र कथं तत् कार्यमित्याकाङ्क्षायां भगवत्तत्त्वसाक्षाद्बोध-फलप्रधानं कार्णाष्टादशाक्षरं मन्त्रं प्रमाणीकृत्य प्रत्यक्चिन्मात्रतयेक्षिते तस्मिन् मनो-लयलक्षणं योगमुपदिशति—

हे लोकाश्शृणुत प्रसूतिमरणव्याधेश्चिकित्सामिमां
योगज्ञास्समुदाहरन्ति मुनयो यां याज्ञवल्क्यादयः ।

अन्तर्ज्योतिरमेयमेकममृतं कृष्णाख्यमापीयतां

तत् पीतं परमौषधं वितनुते निर्वाणमात्यन्तिकम् ॥११॥

हे लोका इति । अत्र मूलप्रमाणत्वेनाभिमतस्य मन्त्रस्य सर्ववर्णाधिकारत्वं लोक-शब्दाद्गम्यते । यथाहुः—

“ सर्वेषु वर्णेषु तथाश्रमेषु नारोषु नानाहयजन्मगेषु ।

दाता फलानामभिवान्छितानां द्रागेव गोपालकमन्त्र एषः ॥ ”

इति ।

हे लोकाः ! इमां मुख्यां सर्वसाधारणीं वा प्रत्यक्षसिद्धां वा प्रसूतिमरणव्याधेः जन्ममरणसंसाररोगस्य चिकित्सां परिहरणोपायं शृणुत आकर्णयध्वम् । नचात्राविश्वासः कार्यः प्रामाणिकसम्मतत्वादित्याह योगज्ञाः योगशास्त्रज्ञाः मुनयो मन-नशीलास्स्वयं योगमनुतिष्ठन्तश्च याज्ञवल्क्यादयो याज्ञवल्क्यसनत्कुमारनारदादयो यां समुदाहरन्ति तात्पर्येणोपदिशन्ति । का सेत्याह—कृष्णाख्यममृतमापीयतामिति ।

“ कृषिर्भूवाचकश्शब्दो णश्चनिर्वृतिवाचकः ।

तयोरैक्यं परब्रह्म कृष्ण इत्यभिधीयते ॥ ”

“ तदेवानुभूतं सदमृतत्वं प्रयच्छती ” त्यमृतम् । तत् किं प्रत्यक्चितोऽन्यत् ? किं वाऽनन्यत् ? अन्यत्वे जडत्वापत्तिः, द्वितीये दुःखितापत्तिरित्यत उक्तम्—अन्तर्ज्योतिरिति । ब्रह्मादिमशकान्तप्राणिधीवृत्तिसाक्षिचैतन्यमित्यर्थः । अनेन मान्त्रिकगोविन्द-पदार्थः प्रकाशितः । यथाहुः—“गोशब्दवाचकत्वाज्ज्ञानं तेनोपलभ्य इति (गो)विन्द इति ।” नेनेतीत्यंभावे तृतीया, ज्ञानस्वरूपतयोपलभ्य इत्यर्थः । तदेवं प्रत्यक्चिन्मात्रपरमार्थत्वाच्च कृष्णाख्यस्य ब्रह्मणो जडत्वं, नापि संसारित्वं, सुखदुःखादीनां दृश्यत्वेन दृक्सम्बन्धासम्भवाद् बुद्धिधर्मत्वप्रतीतेरिति परिहारः सिद्धो भवति । अत्र ‘ अन्तर्ज्योतिः ’ कृष्णाख्यममृतं मिति सामानाधिकरण्येन तदस्थेश्वरवादो जडात्मवादश्च ‘ तत्वमसि ’ वाक्यार्थप्रकाशयता प्रतिक्षिप्तः । आपीयतां अनुभूयतामित्येतत् । ननु ब्रह्मैव चेज्जीवः कुतस्सर्वे

देहिनः ‘अहं ब्रह्मास्मी’ति न पश्यन्तीत्यत उक्तं—अमेयमिति । प्रत्यक्षादिप्रमाणा-
विषयमित्यर्थः । “विज्ञातारमरे केन विजानीयात्, अदृश्यो नहि दृश्यते” इति श्रुतेः ।
प्रमाणमपि यमाश्रित्य प्रमाणं भवति तस्य प्रमाणतदधीनशरीरप्राणानिलमुखादिचेत्यनतिशय-
सदाभासमानस्य वेदनैकरूपस्य सर्वत्र प्रीतिभाजस्सिद्धावभिनवार्थप्रकाशरूपस्य प्रमाणस्य
तत्र नोपयोग इति न्यायाच्च । अप्रमेयत्वेऽपि स्वप्रकाशत्वान्नासिद्धिदोष इति ज्योतिः
पदेन सूचितम् । तथाच श्रुतिः—“अत्रायं पुरुषः स्वयंज्योतिर्भवत्यात्मैवास्य ज्योतिः”
रिति । ननु किमिदं स्वप्रकाशत्वं नाम ? अनन्याधीनप्रकाशत्वं चेत् न ; स्वपुष्पस्यापि
तथात्वात् । स्वस्य स्वयमेव प्रकाशत्वं चेत् । तदपि न, आत्माश्रयात् । प्रकाशान्तरमनपेक्ष्य
प्रकाशमानत्वं चेत् तदप्यसत्, सूर्यादीनामपि तथात्वात् । सजातीयविजातीयप्रकाशान्त-
रानपेक्षमेव प्रकाशत्वं चेत् तदप्यसारं, ब्रह्मणश्शास्त्रीयज्ञानविषयत्वात् तदविषयत्वेऽ-
ध्यात्मशास्त्रानारम्भप्रसङ्गाच्च । अतोऽनुपपन्न एवायं पक्ष इति प्राप्तम् । अत्र ब्रूमः—
स्वप्रकाशत्वं नामाज्ञानविरोधित्वं तच्चान्ततो ज्ञानत्वमेव, ‘ज्ञानमज्ञानस्यैव निवर्तक’
मिति न्यायात् । ज्ञानादन्यस्य ज्ञेयत्वेन ज्ञातृत्वानुपपत्तेश्च । आत्माधीनसत्ताकं विज्ञानं
तदधीनस्फुरण आत्मेतिचेत् न । ज्ञानोदयात्पूर्वमस्फुरद्रूपस्यात्मनः शशविषाणकल्पत्वेन
ज्ञानकारणतानुपपत्तेरप्रकाशरूपादात्मन उत्पन्नत्वे ज्ञानस्य प्रकाशलक्षणायोगादात्मनो
विकारित्वेनाऽनित्यत्वावताराच्च । अत आत्मैव ज्ञानशब्दार्थो मुख्यः । “अथाय-
मात्माऽनन्तरोऽबाह्यः कृत्स्नः प्रज्ञानघन एव”ति श्रुतेः । तदाभासानुवेधादन्तः—
करणवृत्तिरपि घटसुखाद्याकारज्ञानमिति गीयते । “तमेव भान्तमनुभाति सर्वं
तस्य भासा सर्वमिदं विभाति” इति श्रवणात् । यत् पुनश्शास्त्रीयज्ञानविषय-
त्वान्न ब्रह्मणस्स्वप्रकाशत्वमिति तदसत् । वाक्यीयबुद्धिवृत्त्यभिव्यक्तश्चिदात्मा स्वाध्य-
स्तमशेषानर्थबीजमज्ञानं स्वयमेव तत्फलं भूत्वा हन्तीति परसमवेतक्रियाफलशालित्व-
लक्षणकर्मत्वाभावात् । तथा च प्रयोगः—आत्मा स्वप्रकाशः आत्मत्वात् विप-
र्ययेण घटवदिति । तदेवं प्रत्यक्षाद्यविषयत्वात् कर्मत्वपरिहारेण शास्त्रस्यास्मिन् प्रवृ-
त्तिसम्भवाच्च ब्रह्मात्मनश्शास्त्रैकलभ्यतेति सर्वेषां तदप्रतीतिस्सम्भाव्यत इति सिद्धम् ।
ननु ब्रह्मणो ज्ञानात्मत्वे विज्ञानसन्तानत्वमापन्नमित्यत उक्तं एकमिति । ज्ञानस्य स्वतः

परतश्च जन्मविनाशभेदग्रहणासम्भवान्नित्यत्वमेकत्वञ्चाभ्युपेयम् । तथाहि न तावत्
ज्ञानस्य स्वतो जन्मविनाशग्रहणं जन्मविनाशदशयोस्स्वयं सत्त्वापातात् स्वदृश्ययोस्तयोस्स्वा-
त्मनि सत्त्वासम्भवाच्च । एवं स्वभेदस्यापि न स्वेनैव ग्रहणं, प्रागभिन्ने स्वात्मनि भेदग्रहण-
स्य भ्रान्तित्वात्, भिन्ने चेत् कुतः पूर्वं भेदस्सिद्ध इति वक्तव्यत्वाच्च, भेदस्य दृश्यत्वे
दृक्सम्बन्धश्च दुर्घटः । न चान्यतो ज्ञातजन्मविनाशभेदानां ग्रहणं ज्ञानादन्यस्याज्ञान-
त्वेन ज्ञापकत्वानुपपत्तेः ज्ञानस्य स्वप्रकाशत्वेनान्यतस्तद्ग्रहणायोगात् धर्मिग्रहणेन विना
धर्मिग्रहणासम्भवाच्च । अतो जन्मादिविक्रियाविहीनमेकमेव ज्ञानमास्थेयमित्याशयः ।
यद्वा ‘कृष्णारव्य’ मिति ब्रह्मणस्सदानन्दत्वं ‘अन्तर्ज्योति’ रिति चित्त्वञ्चोक्तम्,
तत्र सदानन्दचितां भेदे प्रसिद्धे ब्रह्मणोऽनेकरूपत्वं प्राप्तम्, तत्परिहारयोक्तं एकमिति ।
‘विज्ञानमानन्दं ब्रह्मे’ त्यादिवाक्येषु ‘प्रकृष्टप्रकाशश्चन्द्र’ इत्यादिलौकिकवाक्येष्वि-
वाखण्डार्थत्वं पदानाम् । तत्र ह्यस्मिन्ज्योतिर्मण्डले ‘कश्चन्द्र’ इति प्रश्नोत्तरत्वात् यथा
प्रकृष्टप्रकाशशब्दाभ्यां चन्द्रप्रातिपदिकार्थमात्रं जहदजहलक्षणया बोध्यते तथेहापि
‘किंलक्षणं ब्रह्मेति’ जिज्ञासायां पठितत्वाद्विज्ञानानन्दपदाभ्यामेको ब्रह्मशब्दार्थ एव
लक्ष्यते, ततस्सदानन्दचितामैक्यम् । न चात्र पदानां पर्यायतया सहप्रयोगानुपपत्तिः,
असज्जडदुःखव्यावर्तनार्थत्वात् सच्चिदानन्दपदानामित्यभिप्रायः । अथवा कृष्णारव्यस्य
ब्रह्मणोऽन्तर्ज्योतिर्ब्रह्म वदता महदादिपृथिव्यन्तोऽहंकारादिदेहान्तश्च बाह्याध्यात्मिकप्रपञ्चो
जडस्वभावत्वात्ततोऽन्यत्र सति निवेशित इति शङ्का स्यात्, तद्यपोहनायोक्तमेकमिति ।
सजातीयविजातीयस्वगतभेदशून्यमित्यर्थः । तदुक्तं श्रुत्या ‘सदेव सोम्येदमग्र आसी-
देकमेवाद्वितीय’ मिति । पञ्चमेवेदेन चानुगृहीतम्—

ज्ञानस्वरूपमत्यन्तनिर्मलः परमार्थतः ।

तदेवार्थस्वरूपेण भ्रान्तिदर्शनतः स्थितम् ॥

यदेतद्दृश्यते मूर्तमेतज्ज्ञानात्मनस्तव ।

भ्रान्तिज्ञानेन पश्यन्ति जगद्रूपमयोनिज ! ॥

ज्ञानस्वरूपमखिलं जगदेतदबुद्ध्यः ।

अर्थस्वरूपं पश्यन्तो भ्राम्यन्ते मोहसंज्ञे ॥

ये तु ज्ञानविदग्धाश्शुद्धचेतसस्तेऽखिलं जगत् ।
 ज्ञानात्मकं प्रपश्यन्ति तद्रूपं परमेश्वरम् ॥
 न्यग्रोधस्सुमहानरूपे यथा बीजे व्यवस्थितः ।
 संयमे विश्वमखिलं बीजभूते तथा त्वयि ॥
 ज्ञानमेव परं ब्रह्म ज्ञानं बन्धाय चेष्टते ।
 ज्ञानात्मकमिदं विश्वं न ज्ञानाद्विद्यते परम् ॥
 यदिदं दृश्यते किञ्चित् दर्शनात्तत्र भिद्यते ।
 दर्शनं द्रष्टुं नान्यत् द्रष्टैव हि ततो जगत् ॥

इत्यादि ।

यत् पुनर्जडस्वभावस्य विश्वस्य ज्ञानात्मनो ब्रह्मणोऽनन्यत्वन्न संभवतीति ; तदसत्, जडस्वभावत्वे सिद्धे ज्ञानादन्यत्वसिद्धिस्तत्सिद्धौ च जडस्वभावत्वसिद्धिरिति अन्योन्याश्रयात् । ननु प्रत्यक्षत एव घटसुखादेर्जाड्यमवसीयत इति चेत् न, मनुष्योऽहं कृशोऽहं स्थूलोऽहमित्यात्मनोऽपि प्रत्यक्षेण जाड्यप्रतीतिः । नन्विदं चिति देहतद्वर्माध्यासरूपा भ्रान्तिरेव न प्रमाणज्ञानमिति चेत् न ; घटं पश्यामि सुखमनुभवामीत्यपि चिति घटसुखाकारारोपरूपा भ्रान्तिर्न प्रमाणमित्यभ्युपगमात् । तस्मात् घटसुखादीनां देहप्राणादीनाञ्च वस्तुतश्चिन्मात्रत्वंमाययैव केवलमचिद्रूपता विपर्यये सतः प्रकाशमानादात्मनोऽत्यन्तेनासत्त्वाप्रकाशत्वयोरपरिहारादिति सिद्धम् । यद्वा कृष्णस्यान्तरात्मत्वे जीवानामनेकत्वादनन्त-भेदत्वं प्राप्तमित्यत उक्तमेकमिति । तथाच श्रुतिः—

“ एको देवस्सर्वभूतेषु गूढः

सर्वव्यापी सर्वभूतान्तरात्मा । ” इति ॥

स्मृतिश्च—

एक एव तु भूतात्मा भूते भूते व्यवस्थितः ।

एकधा बहुधा चैव दृश्यते जलचन्द्रवत् ॥ इति ॥

पुराणोपनिषच्च—

शुद्धः संलक्ष्यते भ्रान्त्या गुणवानिव योऽगुणः ।
 तमात्मरूपिणंदेवं नतास्मः पुरुषोत्तमम् ॥
 आत्मा शुद्धोऽक्षरश्शान्तो निर्गुणः प्राऽकृतोपरः ।
 प्रवृद्धत्रयचयौ नास्य ह्येकस्याखिलवस्तुषु ॥
 सितनीलादिभेदेन यथैकंदृश्यते नमः ।
 भ्रान्तदृष्टिभिरात्मापि तथैकस्स पृथक् पृथक् ॥
 इत्यादि ।

स्यादेतत् । प्रतिक्षेत्रं क्षेत्रज्ञभेदाभावे कथमेकस्मिन्मुक्ते सर्वे मुक्ताः एकस्मिन् बद्धे सर्वे बद्धाः, एकस्मिन्जाते मृते वा सर्वे जाता मृता वा, दुःखिन्येकस्मिन् सर्वे दुःखिनस्सुखिनि सर्वे सुखिनो वा न स्युरिति, तदेतदसमीक्षिताभिधानम् । स्वरूपभेदाभावेऽप्युपाधिभेदादेव बन्धमोक्षादिव्यवस्थोपपत्तेरन्तेः । पर्यथैकस्मिन्देहे सर्वेन्द्रियाधिष्ठातुरात्मन एकत्वेऽपि नयनोपहितस्यैव रूपज्ञत्वं श्रोत्रोपहितस्यैव शब्दज्ञत्वमित्यादिव्यवस्था तथा सर्वभूतेष्व्वात्मन एकत्वेऽपि शुक्रदेहोपहितस्य मुक्तत्वं पशुदेहोपहितस्य बद्धत्वमित्यादिव्यवस्था किं नाभ्युपेयते । किञ्च सिद्ध आत्मभेद एकस्मिन् सुखिन्यन्यो दुःखी दृश्यत इत्यादि व्यवस्थोपन्यासः सिद्धायाञ्च व्यवस्थायां भेद इत्यन्योन्याश्रयदोषः कथं प्रक्षालनीयः । तत्सिद्धमेतत्—विमत आत्मभेदो मिथ्या भेद-त्वाच्चन्द्रभेदवत् । यद्वा, उपाधिमन्तरेणानुपलभ्यमानत्वाद्ब्रह्मभेदवदिति । अपि च, योऽसौ भेदस्स किञ्जडस्वभावः, उताजडस्वभावः । आद्ये किं भेदिनस्स्वरूपं किं वा तद्वर्गः, स्वरूपञ्चेत् तत्प्रतीतिः प्रतियोगिसव्यपेक्षता न स्यात्, स्वरूपञ्च तदन्यापेक्षञ्चेति व्याघातात् । न भेदश्चात्मतत्वं स्याज्जडाजडयोरेकरूपत्वानुपपत्तेः । धर्मश्चेत् भेदभेदिभेदान्त-रानुपपत्तिरत्रापि तुल्या, अथाजडस्वभावोऽसौ तत्रापि किं सर्ववस्तुष्वेक उतानेकः । अनेकश्चेत् भेदानां परस्परभेदं विना नानेकत्वमिति भेदान्तरशतसहस्रपरम्परापेक्षायामन-वस्था, एकः सर्ववस्तुनगतोऽजडस्वभावश्च यदि भेदस्तर्ह्यैव भेदशब्दार्थस्यात् तत्कु-तोऽस्य भेदाशङ्का । अस्मिन् पक्षे सर्ववस्तुनामेकभेदभक्तत्वेनानेकताहानिश्च वाच्या । तदेवं क्षेत्रज्ञभेदाभावात्तत्स्वरूपभूतं ब्रह्मकमेवेति सिद्धम् । अथवा प्रसिद्धामृतप्रहाणेन किमिति कृष्णारुणस्यामृतस्य पानविधिरित्यत उक्तमेकमिति । प्रधानमित्यर्थः । जनिम-

त्वाज्जडत्वात् परिच्छिन्नत्वादूरस्थत्वाच्च प्रसिद्धममृतमप्रधानम् । ब्रह्मामृतमज्जडत्वान्नित्यत्वाद्यापकत्वात् सर्वान्तःस्थत्वाच्च प्रधानमित्याशयः । ननु व्याधिशान्तिरौषधसेवनेनैव भवेत् कुतोऽमृतपानविधानमित्यत आह—तदिति । यद्वा कुतोऽस्यामृतत्वमित्यत आह—तीदिति । यदेतत् कृष्णारुख्यममृतं विद्यते परमौषधं परमं सर्वोत्कृष्टमौषधं अतः पीतमात्मनानुभूतं सत् आत्यन्तिकं नित्यपुरुषार्थरूपं निर्वाणं मोक्षसुखं वितनुते, 'आत्मनि विज्ञाते सर्वमिदं विज्ञातं भवत्येतावदरे खल्वमृतत्व' मिति श्रुतेः ।

“ तावदार्तिस्तथा वाञ्छा तावन्मोहस्तथा सुखम् ।
यावन्न याति शरणं त्वामशेषाधनाशनम् ॥
तावद्रागादयस्तेनास्तावत् कारागृहं गृहम् ।
तावन्मोहांप्रियुगलो (?) यावत् कृष्ण नते जनाः ॥ (?)
एकोपि कृष्णे सुकृतः प्रणामो
दशाश्वमेधावभुत्थेन तुल्यः ।
दशाश्वमेधी पुनरेति जन्म
कृष्णप्रणामी न पुनर्भवाय ॥
प्राजापत्यं ब्राह्मणानां स्मृतं स्थानं क्रियावताम् ।
स्थानमैन्द्रं क्षत्रियाणां संग्रामेष्वनिवर्तिनाम् ॥
वैश्यानां मारुतं स्थानं स्वधर्ममनुवर्तताम् ।
गान्धर्वं शूद्रजातीनां परिचर्यानुवर्तिनाम् ॥
अष्टाशीतिसहस्राणि यतीनामूर्ध्वरेतसाम् ।
स्मृतंतेषान्तु यत् स्थानं तदेव गुरुवासिनाम् ॥
सप्तर्षीणाञ्च यत् स्थानं स्मृतं तद्वै वनौकसाम् ।
प्राजापत्यं गृहस्थानां ब्राह्मं सन्यासिनां स्मृतम् ॥
योगिनाममृतं स्थानं स्वधर्ममनुवर्तिनाम् ।
एकान्तिनस्सदा ब्रह्मध्यायिनो योगिनो हि ये ॥
तेषांतत्परमं स्थानं यच्च पश्यन्ति सूरयः ।

गत्वा गत्वा निवर्तन्ते चन्द्रसूर्यादयो ग्रहाः ।
अद्यापि न निवर्तन्ते द्वादशाक्षरचिन्तकाः ॥ ”

इत्यादिपञ्चमवेदवचनाच्च । “ आत्यन्तिकं निर्वाण ” मिति विशेषोक्तिर्मोक्षाभासभेदव्युदसनार्थम् । इह लोकायतिका देहात्मवादिनो मरणमेव मोक्षमाचक्षते तस्यास्य स्वदर्शनप्राप्तिरूपत्वान्मोक्षाभासत्वं सुप्रसिद्धम् । आर्हतास्सततोर्ध्वगमनरूपमिति रटन्ति, एतदपि सतताधोगतिवत् प्रयासमयत्वादाभासतांतातिवर्तते । बौद्धेषु क्षणिकवादिनो विज्ञानवादिनश्च विशुद्धविज्ञानसन्तानोदयं मोक्षमाहुः, तदप्यसत् । प्रकाशैकरूपे ज्ञाने विषयोपभोगमन्तरेण भेदानिर्वाहात् विशुद्धविज्ञानसन्तानासिद्धेर्मुमुक्षुसन्तानस्य नष्टत्वेनाऽकृताभ्यागमकृतविप्रणाशापत्तेश्च । यः पुनः बोधिसत्त्वाग्रणीः माध्यमिकस्स शून्यतावार्तिमुक्तिमिच्छति तत्पक्षस्सर्वशून्यताया द्रष्टृत्वासत्त्वयोरसिद्धेस्त्याज्यः । तार्किकास्तु आत्मनो बुद्ध्यादिनवगुणोच्छिन्ति मुक्तिमास्थिषत, तन्मोक्षदशायामीश्वरवज्जीवानामिच्छाज्ञानप्रयत्नवत्त्वसम्भवात् विपर्यये पाषणकल्पत्वाच्च नाङ्गीकार्यम् । सांख्योः प्रकृतिपुरुषविवेकमोक्षमनुस्मरन्ति । तत् मुक्तस्य प्रकृतिदर्शनादर्शनयोर्न युज्यते । दर्शने तत्कृतसंसारदर्शनानिवृत्तेः अदर्शने प्रकृतेः पुंसो विवेकज्ञानासिद्धेश्च, न खलु धर्मिणोऽदर्शने धर्मस्य विवेकग्रहणं संभवतीति । कर्ममीमांसकाः काम्यप्रतिषिद्धेतरकर्मसाध्यामात्मनः स्वरूपावस्थानलक्षणां मुक्तिमुपदिशन्ति । तत्कृतकत्वेनानित्यत्वानुमानात् प्राक्स्वरूपावस्थाने साध्यत्वाभावादन्वस्थाने स्वरूपत्वाभावाच्च न शोभनम् । पाशुपताः पाञ्चरात्रकाश्च परदेवतासालोक्यादिलक्षणात् ब्रह्मविष्ण्वीश्वरसदाशिवभेदेन वासुदेवसंकर्षणप्रद्युम्नानिरुद्धभेदेन च स्थितायाः परदेवतायाः श्रवणकीर्तनध्यानपूजनोपजनिततत्पसादलभ्यामुक्तिं मन्यन्ते । तदपि सालोक्यादीनां कर्मसाध्यत्वेन भेददर्शनमयत्वेन च नश्वरत्वसंभयत्वानुमानादयुक्तम् । अतः आत्माविद्यास्तमय एव साक्षान्मोक्षः, स च तद्विधैकसाध्यत्वान्नित्य इति स्थितम् ॥

अत्रायमुपदेशसारसंग्रहः—अहङ्कारादिदेहपर्यन्तस्य महदाद्यवन्यन्तस्य च व्यष्टिसमष्ट्यात्मकस्य प्रपञ्चस्य बीजस्य जाग्रत्स्वप्नसुषुप्त्यवस्थाभेदैर्विराडिदरुण्यगर्भव्याकृताकार

भेदैस्साक्षिणि भेदासंभवात् बीजभूताज्ञानरजस्सत्त्वतमोगुणभेदादेव ब्रह्मविष्णुरुद्रभेदाद्विश्व-
तैजसप्राज्ञभेदाच्च भिन्नसृष्टिस्थितिसंसारहेतुदुःखसुखमोहपात्रं वा परमेश्वरो जीवश्च सर्वक्षेत्र-
गतोऽहमेव एक 'सर्वव्यापी सर्वभूतान्तरात्मा च देव' इति श्रवणात् 'आत्मैवेदं सर्वं ब्रह्मै-
वेदं सर्वं'मिति श्रुत्यन्तरादिति कार्यकारणभेदन्यायात् सदानन्दचिद्धनो ब्रह्म अहमेव तत्त्वं-
मत्तोऽन्यत् किञ्चिन्नास्ति, अस्ति चेदपि गन्धर्वनगरकल्पं वाचारंभणं विकारो नामधेयंमृ-
त्तिकेत्येवं बुभुत्सुना मया मदन्वेषणमेव कार्यमिति निश्चित्य शब्दादिभ्यश्शनैर्मन आकृष्य
प्रत्यङ्मुखतांतीत्वाऽसज्जडदुःखपरिच्छिन्नद्वैतप्रपञ्चभूमाधिष्ठानत्वान्यथानुपपत्तिसिद्धे सच्चिदा-
नन्दानन्ताद्वितीयवपुषि तुरीये ब्रह्मात्मनि चिरं विहृत्य चरितार्थो भवेदिति । लक्ष्म्ययोगाच्च
कालान्तरे मुक्तिः किन्तु तदैवेति सूचितम् । तथा च श्रुतिः—

ब्रह्म वेद ब्रह्मैव भवति' इति ॥ ११ ॥

नन्वियं चिकित्सा विषयानाकृष्टचित्तैः कैश्चिदेव पुंभिः कर्तुं शक्यते तदन्येषां मुमु-
क्षूणां का चिकित्सेत्याह—

हे मर्त्याः ! परमं हितं शृणुत वो वक्ष्यामि संक्षेपतः
संसारार्णवमापदूर्मिबहुलं सम्यक् प्रविश्य स्थिताः ।
नानाज्ञानमपास्य चेतसि 'नमो नारायणाय' त्यमुं
मन्त्रं सप्रणवं प्रणामसहितं प्रावर्तयध्वं मुहुः ॥ १२ ॥

हे मर्त्या इति । अस्य मन्त्रस्यापि साधारण्यं मर्त्यशब्दात् व्यञ्जितम् । हे मर्त्याः
आपदूर्मिबहुलं विविधदुःखकलोलमालाकुलं संसारार्णवं जन्मादिसंसारसमुद्रं सम्यक्
नियमेन प्रविश्य स्थिताः एतेषां वः परमं सर्वोत्कृष्टं हितं तरणोपायं शृणुत । ननु
पूर्वश्लोक एवोपदिष्टं तदित्यत उक्तम्—वक्ष्यामि संक्षेपत इति । अल्पप्रमाणत्वेनोपदे-
क्ष्यामीत्यर्थः । चेतसि स्थितं नानाज्ञानं देवतागुरुमन्त्रात्मभेदभ्रान्तिमपास्य सप्रणवं
प्रणवादिकं नमो नारायणायेत्यमुं परिमिताक्षरं वेदप्रसिद्धं वा, 'ओमित्येकाक्षरं नम

इति द्वे अक्षरे नारायणाय इति पञ्चाक्षराणि, एतद्वै नारायणस्याष्टाक्षरं पदमिति श्रुतेः,
मन्त्रं मननकर्तृताशीलं शब्दरूपं प्रणामपूर्वकं मुहुः भूयो भूयः अष्टोत्तरसहस्रसंख्यं
द्वादशसहस्रसंख्यं वा प्रावर्तयध्वं नियमेनावर्तयध्वम् । यद्वा प्रकर्षेण 'अर्कौघाभं किरी-
टान्वितमकरलसत्कुण्डल' मित्युक्तध्यानमनुसृत्यावर्तयध्वम् जपध्वम् । यद्वा प्रकर्षेण
मानसोच्चोपांशुभेदेनावर्तयध्वम् । तदुक्तं—

“यदुच्चनीचस्वरितैश्शब्दैस्स्पष्टपदाक्षरैः ।

मन्त्रमुच्चारयेद्वाचा जपयज्ञस्स वाचिकः ॥

शनैरुच्चारयेन्मन्त्रं किञ्चिदोष्ठौ प्रचालयेत् ।

ईषच्छब्दं स्वयं विद्यादुपांशुस्स जपः स्मृतः ॥

ध्यानं यदक्षरश्रेण्या वर्णाद्वर्णं पदात्पदम् ।

शब्दार्थचिन्तनाभ्यासस्स उक्तो मानसो जपः ॥”

इति ॥ १२ ॥

कुतोऽस्य मन्त्रस्य संसारार्णवे मग्नानां परमहितत्वमित्यत्राह—

नारायणाय नम इत्ययमेव सद्य-

स्संसारघोरविषसंहरणाय मन्त्रः ।

शृण्वन्तु भव्यमतयो यतयोऽस्तरागा

उच्चैस्तरामुपदिशाम्यहमूर्ध्वबाहुः ॥

॥ १३ ॥

नारायणेति । एवकारो भिन्नक्रमः । नारायणाय नम इत्ययं मन्त्रः, सद्यः
सहायान्तरमनपेक्ष्य संसारघोरविषसंहरणाय संसारसर्पः यत् घोरं असह्यं विषं तस्य
संहरणाय भवत्येव । “यो हरेर्नारायणस्याष्टाक्षरं पदमध्येत्यनपब्रुवस्सर्वमायुरेति
विन्दते प्राजापत्यं रायस्पोषं गोपत्यन्ततोऽमृतत्वमश्नुते” इति श्रुतेः ।

“ कितस्य बहुभिर्मन्त्रैः कितस्य बहुभिर्व्रतैः ।
नमो नारायणायेति मन्त्रस्सर्वार्थसाधकः ॥ ”

इति स्मृतेश्च । अथवा —

“ तेनाधीतं श्रुतं सर्वं तेन सर्वमनुष्ठितम् ।
येनोनमश्शिवायेति मन्त्राभ्यासस्थिरीकृतः ॥
कोटयो ब्रह्महत्यानामगम्यागमकोटयः ।
सद्यः प्रलयमायान्ति महादेवेति कीर्तिनात् ॥ ”

इत्यादिश्रवणात् पञ्चाक्षरादिमन्त्राभ्यासादपि मुक्तिर्गम्यते, तत्कुतो विशेषोपदेश इत्यत्राह—नारायणायेति । नारायण इत्ययं मन्त्र एव सद्यः कालान्तरं देशान्तरं देहान्तरञ्चानपेक्ष्य संसारघोरविषसंहरणाय भवति शुद्धसत्त्वमूर्तिनिष्ठत्वात् ; मन्त्रान्तराणि तु तामसराजससात्विकत्रिगुणमूर्तिनिष्ठत्वात् सत्त्वमूर्तिभक्तिव्यवधानेनैव मुक्तये कल्पन्त इति कालादिव्यवहितफलानीत्याशयः । यथोक्तम्—

पार्थिवादारुणो धूमस्तस्मादभिलक्ष्यमोमयः ।
तमसस्तु रजस्तस्मात् सत्त्वं यत् ब्रह्मदर्शनम् ॥
स्वधर्मनिष्ठः शतजन्मभिः पुमान्
विरिञ्चतामेति ततः परं हि मा ।
अव्याकृतं भागवतोऽथ वैष्णवं ॥
इति ॥
पदं.....मेजिरे मुनयोऽथाग्रे भगवन्तमधोक्षजम् ।
सत्त्वं विशुद्धं क्षेमाय कल्पन्ते ये नु तानिह ॥ ”

इति चान्यत्र पञ्चमवेदेनाभ्यधायि । कस्माद्विष्णुभजनादेव सद्योमुक्तिरिति, तन्मन्त्रस्योपदेश उपपद्यत इति ; ये पुनः शुद्धसत्त्वमूर्तिः परमशिव एव, विष्णुस्तु तमोमूर्तिः तमोरजोमिश्रसत्त्वमूर्तिर्वेत्यङ्गीकुर्वन्ति, तेषां परमशिव एवाष्टार्णमन्त्रदेवता न विष्णुरित्यविरोधः ।

नारो नरसमूहस्यादयनं विम्बसंज्ञितम् ।
तस्य तद्भावनायोगात्तेन नारायणः स्मृतः ॥

इति स्मरणात् । सतारेण पञ्चाक्षरेणापि स एव चेदुपदिश्यते तर्हि सोऽपि मन्त्रस्सद्योमुक्तये भविष्यति । अत एवोक्तम् ।

यद्यक्षरं नाम गिरिरितं नृणां सकृत्प्रसंगादघमाशु हन्ति तत् ।
पवित्रकीर्तितमलङ्घ्यशासनं भवानहो द्वेष्टि शिवं शिवेतरः ॥
इति ।

किञ्च यद्ययमेव मन्त्रः सद्योमुक्तिहेतुरिति नियमस्तर्हि—“ ओमित्येवं ध्या-
यथ आत्मानमन्या वाचो विमुञ्चथ, अमृतस्यैष सेतुः । ”

“ ओमित्येकाक्षरं ब्रह्म व्याहरन्मामनुस्मरन् ।
यः प्रयाति स मद्भावं याति नास्त्यत्र संशयः ॥ ”

इत्यादि श्रुतिस्मृतिवचांसि बाध्येरन् । द्वादशाष्टादशार्णनृसिंहादिमन्त्राणां मूर्तिहेतुत्वसंकथापि साध्वी दूषिता स्यादित्यलमतिप्रलापेन । तदेवं शुद्धसत्त्वमूर्तिनिष्ठत्वा-
दयमष्टार्णो मन्त्रस्सद्योमुक्तये भवतीत्येव तात्पर्यम् । न पुनर्मन्त्रान्तराणां तन्निष्ठानामपि सद्योमुक्तिहेतुत्वं नास्तीति । त्रिगुणमूर्तिनिष्ठानां सत्त्वाद्येकैकगुणमूर्तिनिष्ठानाञ्च मन्त्राणां नास्मिन्नेव जन्मनि मुक्तिजनकतेति तेभ्योऽस्य वैशिष्ट्यमवधेयम् । तदेतदभिसन्धायानु-
गृहीतं हृषीकेशेन “ वासुदेवस्सर्वमिति स महात्मा सुदुर्लभः ” “ कामैस्तैस्तैर्हृतज्ञानाः
प्रपद्यन्तेऽन्यदेवताः ” इति ।

ओङ्कारस्सोऽहमर्थो न इति निषेधात्मको मो [यम ?] मर्थो ।
नासत्ता रा चिदर्थो य इति पुनरनन्तात्मको णा सुखार्थः ।
योऽद्वैतार्थस्तदुत्थामतिरिह गदिता सोऽस्मि नासौ प्रपञ्चः ।
सत्ता सत्यं स्वसंविन्निरवधिरमलानन्दरूपोऽद्वयोऽहम् ॥

अस्मिन्मन्त्रे के मुख्याधिकारिण इत्यत्राह शृण्वन्त्विति । तमिममुपदेशं यतय-
श्शृण्वन्तु । के ते भव्यमतयः शुद्धबुद्धयः ते, पि के अस्तरागाः रागद्वेषशून्या
इत्यर्थः । अहं प्रत्यक्षीकृततत्सामर्थ्यं उच्चैस्तरान्निश्चिन्नेनदुपदिशामि । तथाचोक्तम्—

“ सत्यं सत्यं पुनस्सत्यं मुद्धृत्य भुजमुच्यते ।
वेदशास्त्रात्परं नास्ति न दैवं केशवात् परम् ॥
आलोच्य सर्वशास्त्राणि विचार्य च पुनः पुनः ।
इदमेकं सुनिष्पन्नं ध्येयो नारायणस्सदा ” ॥ इति ॥ ॥ १३ ॥

यतयः शृण्वन्त्वित्यम् । तत्र रागिणामत्राधिकारो नास्तीति शङ्का स्यात्, तथाच
पूर्वापरविरोधः ‘हे मर्त्याः परमं हितं शृणुत वो वक्ष्यामि’ इत्यारब्धत्वात्, तत्परिहा-
रायाह —

आर्ताः विषण्णा दिशयिलाश्च भीता घोरेषु च व्याधिषु वर्तमानाः ।
संकीर्त्य नारायणशब्दमात्रं विमुक्तदुःखाः सुखिनो भवन्ति ॥ १४ ॥

आर्ता इति । न केवलं विरागिणोऽनेन संसारान्मुच्यन्ते, यावदार्तादयो रागिणश्च
शोकार्णवन्तरन्तीति चार्थः । अपरश्चकार आर्ताद्यन्योन्यसमुच्चयार्थः । आर्ताः प्रिया-
वियोगादिदुःखिनः विषण्णाः दरिद्राः शिथिलाः करचरणनयनाद्यङ्गहीनाः स्वपदच्युताः
वा भीताश्चोरव्याघ्रादिभ्यो भूतपिशाचादिभ्यो वा बिभ्यतः घोरेषु दुष्परिहारेषु कुष्ठम-
गन्दरराजयक्ष्मादिषु व्याधिषु वर्तमानाश्च ‘नारायणे’ति चतुरक्षरो यश्शब्दः श्रीभगव-
दात्मैक्यप्रमाणभूतं महावाक्यं भगवन्नामेति प्रसिद्धं एतावन्मात्रं नतारनतियुतन्तेषां
सर्वेषामनेन सहैकार्थत्वेन सहप्रयोगानवश्यंभावात् । संकीर्त्यं सखरनिरन्तरमभ्यस्य
विमुक्तदुःखास्सम्यक् परिहृततत्तदुःखाः सुखिनः प्राप्तपूर्वं [सुखाश्च] भोगसुखाश्च
भवन्ति । अत्र तत्त्वाप्रत्ययेन पौर्वापर्यार्थत्वेन हेतुहेतुमद्भावं प्रकाशयता संकीर्तनस्य
सुखदुःखप्राप्तिपरिहाररूपस्य फलस्य च भिन्नकालत्वं व्यञ्जितम् । लटा फलस्याचिरेण

सिद्धिः सूचिता । तेन श्रीभगवन्नामसंकीर्तनस्य दृष्टफलत्वात् तत्प्रामाण्येन वेदितव्यं
सद्भिरिति ध्वनितम् । तथा च भगवद्वचनम्—

“ चतुर्विधा भजन्ते मां जनास्सुकृतिनोऽर्जुन ।
आर्तो जिज्ञासुरर्थार्थी ज्ञानी च भरतर्षभ ॥
तेषां ज्ञानी नित्ययुक्त एकभक्तिर्विशिष्यते ॥ ” इति ।

यदा श्रीमदष्टार्णमन्त्रैकदेशस्यापीदृशी दशा, तदा समस्तस्य तस्य चतुर्विधपुरुषार्थ-
साधनत्वे किं नाम विचारणीयमिति श्लोकार्थः ॥ ॥ १४ ॥

अथाष्टार्णमभ्यासिभिरनुष्ठेये चरणोपासनकर्मण्यंशभूतमन्त्रमाविश्विकीर्षुस्तदाद्यं
श्रीमत्पदमाददानः पुल्कसादीनामप्यनेन मुक्तिमाह—

श्रीमन्नाम प्रोच्य नारायणारूढं के न प्राप्ता वाञ्छितान् पापिनोऽपि ।
हा नः पूर्वा वाक् प्रवृत्ता न तस्मिन् येन प्राप्तं गर्भवासादिदुःखम् ॥ १५ ॥

श्रीमन्नामेति । नारायणारूढं श्रीमन्नाम सुमंगलं नाम प्रोच्य संकीर्त्य पापि-
नः पापयोनयोऽपि वाञ्छितान् के न प्राप्ताः । यथोक्तम्—

“ किरातहूणान्प्रपुलिन्दपुल्कसाः
आभीरकङ्का यवनाः कषादयः [?] ।
येऽन्ये च पापा यदपाश्रयाश्रया-
श्शुद्धयन्ति तस्मै प्रभविष्णवे नमः ॥ ”

इति ।

यतः पापिनामपि सङ्कीर्तनादशेषपुरुषार्थावासिरत एतदनुमीयत इत्याह—
हा न इति । हा इति विषादे । नोऽस्माकं तस्मिन्नास्मि वाक् पूर्वं प्रवृत्ता । कुतः,
येन यस्मात् गर्भवासादिदुःखमस्मिञ्जन्मनि प्राप्तं अस्माभिः । यदि प्राचीनजन्मनि
श्रीभगवन्नामसंकीर्तनञ्चक्रम, न तर्हि संप्रति संसरेम । प्रागेवमुक्तत्वादित्यर्थः ॥ १५ ॥

अत्र ‘केन प्राप्तं गर्भवासादिदुःख’मिति केचित् पठन्ति । तत्र यदि तस्मिन्
वाक् पूर्वं प्रवृत्ता, तर्हि केन हेतुनाऽस्मिञ्जन्मनि गर्भवासादि दुःखं प्राप्तमिति योजनीयम् ॥

अथाष्टाक्षरमन्त्रनिष्ठैः कायिकवाचिकमानसव्यापाराणां भगवति योजनञ्च कार्यमित्याह ।

नमामि नारायणपादपङ्कजं
करोमि नारायणपूजनं सदा ।
वदामि नारायणनाम निर्मलं
स्मरामि नारायणतत्त्वमव्ययम् ॥ १६ ॥

नमामीति । सदेति सर्वत्र संबद्धयते । नारायणपादपङ्कजं सदा नमामि प्रह्वीभवामि । अनेन नारायणचरणौ शरणमहं प्रपद्ये इति मन्त्रशेष आविष्कृतः । नमस्कारस्य कायिकवाचिकमानसमेदेन त्रैविध्यात् कायादिसाधारणव्यापारार्पणञ्च दर्शितम् । सदा नारायणपूजनं करोमीति कायव्यापारस्यैवार्पणं, सदा निर्मलं नारायणनाम वदामीति वाग्व्यापारस्य, अव्ययं अविकारं, नारायणतत्त्वं नारायणस्य परमात्मनस्तत्त्वं सदानन्दचिद्घनं स्वरूपं सदा स्मरामीति मानसव्यापारस्य, भगवतो वासुदेवस्य शासनानतिवर्तित्वात् कायवाङ्मनोभिः शुभमशुभं वा यद्यत्कर्माऽहं करोमि तत्तत्सर्वन्त्वत्प्रीतये भूयादिति दृढसंकल्पः प्रणामादिकं विवक्षितमिति सदाशब्दात् गम्यते । सर्वदा नमस्कारादेरशक्यक्रियत्वात् । पुराणोपनिषच्च—

कायेन वाचा मनसेन्द्रियैर्वा
बुद्ध्यात्मना वाऽनुसृतस्वभावः ।
करोमि यद्यत्सकलं परस्मै
नारायणायेति समर्पयामि ॥ इति ॥

॥ १६ ॥

यदुक्तम्—

“ नारायणाय नम इत्ययमेव सद्यः
संसारघोरविषसंहरणाय मन्त्रः ” ।

इति । तत्र परतत्त्वनिष्ठानामपि मन्त्रान्तराणां सद्योमुक्तिफलतेति प्रतीयात्, तन्निवारयन् ध्यानयजनमननेभ्यस्सङ्कीर्तनस्य तत्त्वानुस्मारकत्वात् सर्वसुकरत्वाच्च प्राधान्यात् विशेषतः कार्यत्वमाह—

तत्त्वं ब्रुवाणानि परं परस्तात्
मधु क्षरन्तीव मुदां पदानि ।
प्रावर्तय प्राञ्जलिरस्मि जिह्वे
नामानि नारायणगोचराणि ॥ १७ ॥

तत्त्वमिति । हे जिह्वे भवत्यै प्राञ्जलिरस्मि । किमर्थं नारायणगोचराणि नारायण एव गोचरो विषयो येषां तानि नामानि विष्णुरित्यादीनि प्रावर्तय भक्तिपुरस्सरं गाय ।

‘शृण्वन् सुभद्राणि रथाङ्गपाणेः जन्मानि कर्माणि च यानि लोके ।
गीतानि नामानि तदर्थकानि गायन् विलज्जो विचरेदसंगः ॥’

इत्यादिविधानात् ।

“ एष मे सर्वधर्माणां धर्मोऽधिकतमो मतः ।
यद्भक्त्या पुण्डरीकाक्षं स्तवैरर्चयन्नरस्सदा ॥ ”

इति स्मरणञ्च ।

कः पुनर्नारायणो नामेत्यत उक्तं परस्तात् परं तत्त्वं ब्रुवाणानि इति ।

“ इन्द्रियेभ्यः परा ह्यर्थाः अर्थेभ्यश्च परमनः ।
मनसस्तु परा बुद्धिः बुद्धेरात्मा महान् परः ॥
महतः परमव्यक्तमव्यक्तात् पुरुषः परः ।
पुरुषान्न परं किञ्चित् सा काष्ठा सा परा गतिः ॥ ”

इति श्रुतेः । परस्तात् सर्वोपरिष्ठादवस्थिताव्यक्ततत्त्वादपि परं उपरिष्ठादवस्थितं तत्त्वं परमार्थवस्तु पुरुषस्समष्टिव्यष्टिदेहेषु क्षेत्रज्ञत्वेनान्तर्यामित्वेन च सदा प्रकाशमानादानन्दात्मनश्च पुरुषादन्यस्यातत्त्वाप्रकाशत्वदुःखत्वापरिहारात्तदधीनसत्तास्फूर्तिकतानियमेन

तत्तत्परतन्त्रता चास्तीति युक्तं पुंसः परत्वं तत् पुरुषतत्त्वं ब्रूवाणानि व्यक्तं भाषमाणानि । लक्षणयेति शेषः । अन्यथा “यतो वाचो निर्वर्तन्ते अप्राप्य मनसा सह” इति श्रुतिविरोधान्न आदिसाक्षिणस्तैर्विषयीकर्तुमयोग्यत्वाच्च । अत एव “यानि नामानि गौणानि विख्यातानि महात्मनः” इति स्मर्यते । तदेवमादिपुरुषो नारायण इत्युपदिष्टं भवति । तथाच भगवद्वचनम् ।

द्वाविमौ पुरुषौ लोके क्षरश्चाक्षर एव च ।
क्षरस्सर्वाणि भूतानि कूटस्थोऽक्षर उच्यते॥
उत्तमः पुरुषस्त्वन्यः परमात्मेत्युदाहृतः ।
यो लोकत्रयमाविश्य विभर्त्यव्यय ईश्वरः ॥
यस्मात् क्षरमतीतोऽहमक्षरादपि चोत्तमः ।
अतोऽस्मि लोके वेदे च प्रथितः पुरुषोत्तमः ॥

‘परस्तात् परं तत्त्वं ब्रूवाणानि नारायणगोचराणि नामानी’ त्यंशेनैतन्नि-
रस्तं यदाहुरेके शुकवामदेवयोरिव कृष्णदधीच्योस्तथा चैवेतरस्य भूतात्मयोगजं स्वस्वार्थ-
मेवैश्वर्यमाख्यात [?] मिति परस्तात् परतत्त्वरूपस्याऽखिलतत्त्वव्यापकत्वसंभवात् भूतमात्र-
व्यापकत्वकल्पनानुपपत्तेः, तत्कल्पने तद्वचनविरोधाच्च ।

“अहं सर्वस्य जगतः प्रभवः प्रलयस्तथा ।
मत्तः परतरं नान्यत् किञ्चदस्ति धनञ्जय
मयि सर्वमिदं प्रोतं सूत्रे मणिगणा इव ॥”

इति हि भगवद्वचनम् । ननु च कृष्णो नाम पुरुषतत्त्वम् ; अतः प्रकृतिमहदहङ्कार-
शब्दस्यैश्वर्यरूपसगन्धश्रोत्रत्वक्चक्षुजिह्वाघ्राणवाक्पाणिपादपायूपस्थाकाशवायुवन्निर्वार्यवनिव्या-
पकत्वेऽपि शिवशक्तिसदाशिवेश्वरशुद्धविद्यामायातत्त्वव्यापकत्वाभावाच्च सर्वात्मत्वमस्येति
चेत् मैवम् । “पुरुषात् परं किञ्चित्” इति श्रुत्या पुरुषतत्त्वादुपरि तत्त्वान्तरप्रति-

षेधात् “पुरुष एवेदं सर्वं यच्चूत यच्च भव्य” मिति श्रुत्यन्तराच्च शिवसदाशिवे-
श्वरतत्त्वानां षट्त्रिंशत्तत्त्ववादिभिः कल्पितानां पुरुष एवान्तर्भावावश्यंभावात् । अत
एवोक्तम्—

“त्वामेवान्ये शिवोक्तेन मार्गेण शिवरूपिणम् ।
ब्रह्माचार्यविभेदेन भगवन् समुपासते ॥”

शक्तिमायाविद्याऽविद्याकालकलानियतिरागाणां प्रकृत्यन्तर्भावाभ्युपगमाच्च । तथाच
भगवद्वचनं—

“विद्याविद्ये मम ननु विद्वद्युद्धवत्परीरणाम् ।
बन्धमोक्षकृती आद्ये मायया मे विनिर्मिते ॥
महाभूतान्यहङ्कारो बुद्धिरव्यक्तमेव च ।
इन्द्रियाणि दशैकञ्च पञ्च चेन्द्रियगोचराः ॥
इच्छा द्वेषः सुखं दुःखं संघातश्चेतना धृतिः ।
एतत् क्षेत्रं समासेन सविकारमुदाहृतम् ॥”

इति । “कालवृत्त्यां तु मायायाम्” इति कालस्य मायाकार्यत्वञ्च भागवत
उपदिष्टम् । नो चेत्तस्य सत्त्वेनात्माद्वैत श्रुतिविरोधः स्यादिति । तदयमिह परमार्थः । निर्वि-
कल्पकनित्यनिरस्तनिखिलद्वैतानुषङ्गे सदानन्दचिदेकरसे स्वात्मन्येवानवच्छिन्नाहंविमर्शसारे
क्रममाणः पुरुषो नारायण इति पञ्चविंशतितत्त्ववादिभिः, परमशिव इति षट्त्रिंशत्तत्त्व-
वादिभिश्च वर्ण्यते ।

“मूलप्रकृतिरविकृतिः महदाद्याः प्रकृतिविकृतयः सप्त ।
षोडशकश्च विकारो न प्रकृतिर्न विकृतिः पुरुषः ॥”

इति पञ्चविंशतितत्त्वानि ।

“पञ्चभूतानि तन्मात्रापञ्चकंचेन्द्रियाणि च ।
क्रियाज्ञान निमित्तानि [?] पञ्च पञ्च विभागशः ॥

मनो बुद्धिरहङ्कारो गुणाः प्रकृतिपुरुषौ ।
 रागो विद्या कला चैव नियतिः काल एव च ॥
 महामाया च विद्या च महेश्वरसदाशिवौ ।
 शक्तिश्शिवश्चेति विदुः षट्त्रिंशत्तत्त्ववादिनः ॥ ”

तत्र स्वात्मानमेव जगदात्मना विवर्तयितुमिच्छन् पुरुषश्शिवः “ आत्मा वा अय-
 मेक एवाग्र आसीन्नान्यत् किञ्चन मिषत्सोऽकामयते ”ति श्रुतेः, एषैवेच्छाशक्तिः अप्र(ति)
 हतेच्छत्वात् सदैवाङ्कुरायमाणं जगदहमिदमिति स्वात्ममात्रत्वेन पश्यन् सदाशिवः अङ्कुरि-
 तजगदिदमहमिति स्वात्मनो बहिरिव दर्पणनगरन्यायेन पश्यन्नीश्वरः अनयोस्सम्बन्धिन्यह-
 न्नेदन्तयोरैक्यप्रतिपत्तिश्शुद्धविद्या अहन्तेदन्ताभेदप्रतिपत्तिर्माया तया व्यामोहितः परम-
 पुरुष एव पुरुषः, अत एव नित्यस्यापि तस्य भवनाभवनहेतुः कालः सर्वस्य व्याप्तस्यापि
 वस्तुपरिच्छेदः, हेतुर्नियतिः सर्वकर्तुरपि किञ्चित्कर्तृत्वहेतुः कलास्सर्व[स्यापि]ज्ञस्यापि
 किञ्चिज्ज्ञत्वकारणमविद्या चिदेकरसत्वादसंगस्यापि देहदैहिकप्रपञ्चाभिषंगो रागः एतत्का-
 लादिपञ्चकभागमेषु स्वनिदानमायासहितं कञ्चुकषट्कमारुह्यते, अनेन वेष्टितः पुमान्
 सङ्कोचमुपगच्छतीति । अतः पुरुषतत्त्वं एव विद्योपहितरूपं शिवसदाशिवेश्वरत-
 त्वानि मायोपहितं रूपं पुरुषतत्त्वं कालनियतिकलाविद्यारागा मायाया एव रूपभेदाः, ते
 च मायाविद्ये वस्तुतः पुरुषाधिष्ठिता प्रकृतिरेव—

“विधाविद्ये मम तनु विद्वद्युद्धव शरीरिणाम् । बन्धमोक्षकरी विद्या ॥”

सत्वरजस्तमोगुणस(मवा)यात्मिका माया ; तत्रापि सत्त्वं ज्ञानशक्तिः, रजः
 क्रियाशक्तिः, तम आवरणशक्तिः ; सैव रजोगुणप्रधाना महदादि पृथिव्यन्तानान्तत्वानां
 सृष्टिहेतुस्तदधिष्ठाता पुरुषो ब्रह्मा ; सत्त्वगुणप्रधाना स्थितिहेतुस्तदधिष्ठाता विष्णुः ; तमोगु-
 णप्रधाना संहारहेतुस्तदधिष्ठाता रुद्रः ; मायाविद्याभेदमप्राप्ता प्रकृतिशक्तिर्या स्वरूपान्
 न्दानुभवतृप्तस्यापि पुंसश्शिवस्यपारमैश्वर्यप्रकाशनेच्छात्मिका भवति ; अतश्शिवशक्त्या-

दीनां पुरुषप्रकृत्योरन्तर्भावः सूपपाद एव महदाद्यवन्त्यन्तानां तत्त्वानां मूलकारणं प्रकृतिः,
 तस्याः प्रथमस्फन्दो महान् स तु द्रव्यज्ञानक्रियाशक्तिसङ्ग्रहात्मा तद्विलासोऽहङ्कारः
 तच्छक्तित्वविस्ताराकारः ; तत्र द्रव्यशक्तिः—तथा च पराशरः—

यानि मूर्तान्यमूर्तानि यान्यत्रान्यत्र वा क्वचित् ।

सन्ति वै वस्तुजातानि तानि सर्वाणि तद्वपुः ॥

इति ॥ अहङ्कारस्य कार्याणि शब्दादिपञ्चतन्मात्राण्याकाशादिपञ्चभूतानि च
 तेषाञ्च पूर्वपूर्वकार्याण्युत्तरोत्तराणि, तानि च ग्राह्याणि । कार्याणि च क्रियाशक्तेरहङ्कारात्सं-
 भूतानि श्रोत्रादीनि पञ्च ज्ञानेन्द्रियाणि शब्दादिज्ञानसाधनानि, वागादीनि च पञ्च कर्मेन्द्रि-
 याणि च वदनादिक्रियासाधनानि, तानि ग्राहकाणि करणानि च कथ्यन्ते । ज्ञानशक्ते-
 रहङ्कारादुत्थितमनोबुद्धयहङ्कारात्मकं सङ्कल्पनिश्चयाभिमानसाधनमन्तःकरणं दिग्वातार्क-
 प्रचेतोऽश्विबह्वीन्द्रोपेन्द्रमित्रब्रह्मचन्द्रप्रजापतिरुद्राख्यं करणदेवतावृन्दञ्च, तदिदं ज्ञातृकृतसंज्ञं
 भवति । यत् पुनः क्षेत्रज्ञाधिदैवतञ्चितं तन्मन आदित्रयसमष्टिरूपत्वात् चन्द्रादित्रिक-
 संग्रहरूपत्वाच्चानुसन्धानात्मककार्यान्तरानुमेयरूपमपि न पृथग्गण्यते त्वग्ग्राहौ गुणः स्पर्शः
 तदाश्रयो वायुः स चेष्टाहेतुः, चक्षुर्ग्राहो गुणो रूपं तदाश्रयं तेजः तद्वाचकं प्रकाशकञ्च
 जिह्वाग्राहो गुणो रसः तदाश्रया आपः, ता आप्यायनक्लेदनकर्त्र्यः, घ्राणग्राहो गुणो
 गन्धस्तदाश्रया भूमिः सा विश्वधारिका, वाय्वादिष्वाकाशादीनामनुप्रवेशाच्छब्दाद्याश्रय-
 त्वमपि द्रष्टव्यमिति । किं पुनः कीर्तितैर्नामभिरित्यत उक्तं—**मुदां पदानीति** । अशेषसुख-
 प्रदानीत्यर्थः । तथाच श्रुतिः— ।

‘ सत्यं ज्ञानमनन्तं ब्रह्म यो वेद निहितं गुहायां परमे व्योमन् ।

सोऽश्नुते सर्वान् कामान् सह ॥ ’

इति । तत्र हेतुर्मधु क्षरन्तीवेति । मधुब्राह्मणोक्ता ब्रह्मविद्या मधु तत् क्षरति
 स्रवति येभ्यस्तानि मधुक्षरन्ति, इवशब्द उत्प्रेक्षार्थः । ब्रह्मविद्याजनकानीत्यर्थः । तत्र हेतुः
 परस्तात् परं तत्त्वं भुवाणानीत्यनेनोक्तः ॥ १७ ॥

A Critique of Śaṅkara's Rendering of

'Yeyam prete.'

By

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When commentators differ about their interpretations one cannot stand silently by without offering some judgment on the conflict of views.

S. RADHAKRISHNAN.

The text: *Yeyam prete vicikitsā manuṣye*

Astityeke nāyamastīti caike

of the *Kaṭhapaniṣad* embodying the third boon of Naciketas has been differently interpreted by the famous Bhāṣyakāras. Śaṅkara¹ has it that the third boon relates to the question of the survival of the soul of man after death. Rāmānuja² rejects this view and refers the third boon to the problem of the nature of Final release—the persistence of personality in Salvation. Madhva³ declares that the third boon is concerned with the question of God's Government of released souls. The Upaniṣad itself bestows the most casual attention on the after-life of the soul and is preeminently concerned with the nature of the Supreme Being. If any conclusion is possible from this, it can only be that the question of the survival of the soul after death was not regarded as the subject-matter of the third boon at all.

Rāmānuja and Madhva maintain that Naciketas *prima facie* would not and could not at all have entertained any doubts about the survival of the soul after death. To judge from Naciketas' own admonition to his father that those who bestow decrepit cows on Brahmins find their way to "joyless regions," it is clear that the boy believed

1. Prete mṛte manuṣye asti ityeke—asti śarīrendriyamanobuddhivyatrikto dehāntarasambandhyātmā ityeke. Nāyam evamvidho astīticaike. Śaṅkara on *Kaṭha*, i, 1, 20.

2. Yeyam prete iti na śarīraviyogamātrābhiprāyam kintu sarvagandhavinir-mokṣābhiprāyam. *Śrībhāṣya* on 1, 2, 12.

3. Prete mukte manuṣye Niyāmakatvena Bhagavān asti iti jñānino vadanti. Nāstityajñāṇa. Madhva on *Kaṭha*, 1, 1, 20.

4. Anandā nāma te lokāstān sa gacchati tā dadat.

in an after-life. His lofty remarks on the transience of human beings who "mature and die like corn and are born again like corn"⁵ calculated to console his "repentent father"⁶ would make no sense if he had had the least doubt about the survival of the human personality after death.

For his second boon again, as Rāmānuja points out, Naciketas chooses the science of a Sacrificial Fire which is the means of experiencing some fruit to be attained by a Soul that has left the body; and this choice could not be made by one who knows not that the Soul is different from the body and is sure to survive the body.⁷ The point, in other words, is this. Naciketas asks for the *Agni Vidyā* which leads to Heaven (*Svargya*) and is evidently wanting *Svarga* for himself even as admitted by Śaṁkara.⁸ He knows too, that the denizens of Heaven attain immortality. It follows then that Naciketas was quite sure of the post-mortem existence of his Soul. For, otherwise, his second boon could not have been asked in the form in which we find it.

From another point of view also, Rāmānuja shows the inadequacy of Śaṁkara's interpretation of the third boon. The *Svarga* asked for in the second boon, says he, is nothing short of ultimate release⁹ His reasons are that (1) this state is held to transcend births and deaths and (2) that since later on Naciketas resolutely rejects the tempting offers of the joys of wealth, women and eternal life as impermanent, he could not, on an earlier occasion, have asked for such an impermanent state of *Svarga*.¹⁰ The impermanence of *Svarga* being a settled fact already in the Upaniṣadic literature,¹¹ the term *amṛtatva* in the text, with reference to the second boon, would not logically fit in with such an impermanent state. Śaṁkara makes an attempt to explain away the term *amṛtatva* here, as "devatva" but is not consistent. In another place in the *Kaṭha* he renders '*amṛtatva*' as limited immortality,¹² but in every other place in the *Kaṭha* the term has been ren-

5. Sasyamiva martyaḥ pacyate sasyamivājāyate punaḥ.

6. Kim mayoktam iti śokāviṣṭam āha pitaram. Śaṁkara on *Kaṭha* 1, 1, 6.

7. Dvitiyena vareṇa uttīrñadehātmanubhāvya phalasāadhanabhūtā agni vidyā vṛtā tadapi dehātriktātmānabhijñāsyā na sambhavati—

8. Mahyam Svargārthine—Śaṁkara on *Kaṭha* 1, 1, 13. Rāmānuja *Śrībhāṣya* 1, 2, 12.

9. Svarga śabdenātra paramapuruṣārthalakṣaṇamokṣo abhidīyate—*Śrī Bhāṣya* 1, 4, 5.

10. Tatrasṭhasya ca janmamaraṇābhāva śravaṇāt. Uttaratra ca Kṣayiphala-karmanindādarśanāt—*Śrī Bhāṣya* i, 4, 5.

11. Nākasya prṣṭhe Sukṛtenubhūtvā imam lokam hinataram vā Viśanti. Muṇḍaka Upaniṣad 1, 2, 10.

12. āpekṣikam (*Kaṭha* 2, 3, 16).

dered by him into Final release.¹³ On grounds of consistency, therefore, Rāmānuja finds it his duty to interpret the term *amṛtatva* as Final release everywhere. Naciketas, then, would not have asked for Final release in the second boon if he was not assured of the Soul's post-mortem existence. It is highly improbable, therefore, to suppose that he yet queried about the Survival of the Soul after death in the third boon.

The survival of the Soul is also clearly taught by Yama in *Kaṭha* 1, 1, 18—"One who performs the Naciketas fire-sacrifice, casts off all bonds of death and rejoices in Heaven-World."¹⁴ Even the latent doubts, if any, of Naciketas must have vanished after so clear a statement. Would it not then be disingenuous to expect him to ask a question about the survival of the Self immediately after Yama stopped his harangue, in 1, 1, 20?

The body of texts called *Upaniṣads* occupy a logical place in the history of Vedic Literature and Philosophy. According to received historical estimates, the *Upaniṣads* mark a definite advance on the *Mantra* and *Brāhmaṇa* portions in that they represent the *Jñāna Kāṇḍa*. The entire edifice of the *Karma Kāṇḍa* of the *Mantras* and *Brāhmaṇas* is built upon a tacit admission of the distinction of the Soul from the body and its survival after death. The fruits of Heaven held out in the texts of the *Karma Kāṇḍa* such as *Jyotiṣṭomena yajeta Svargakāmaḥ* would lose all meaning in the absence of such a recognition. Such a postulate must clearly be assumed in the case of *Jñāna Kāṇḍa* of the *Upaniṣads*, their *Ātman-Brahman* equations *et hoc*. A genetic view of the nature of contents and place of the *Upaniṣads* in Vedic Literature would easily show that the question of the survival of the human personality after death is a *res judicata* therein. It is admitted, on all hands, that the Vedic Seers, in spite of their polytheism and nature worship, had a firm faith and conviction in after-life. The *Upaniṣads* which represent a further advance on the speculations of the Vedic age could not, therefore, have raised such a question. One can understand such a question being asked with a view to adduce scientific proof and logical demonstration of the Survival of the Self. But, in the case of the *Kaṭha* no such attempt is traceable.¹⁵ The ques-

13. cf. *Kaṭha* 2, 1, 1; 2, 1, 2; 2, 2, 8; 2, 3, 1; 2, 3, 14.

14. Sa mṛtyu pāsān purataḥ prānodya śokātigo modate Svargaloke.

15. Anent the *Kaṭhopaniṣad* Dr. Sir S. Radhakrishnan opines: "The *Kaṭhopaniṣad* is later still. We find in it elements of the Sāṁkhya and Yoga Systems. It quotes freely from the other upaniṣads and from the *Gītā*." (p. 18 *Philosophy of the Upaniṣads*). The doctrine of the Transmigration of Souls and of the Survival of the Soul after death being unquestionably recognised in the earlier upaniṣads and elaborately established in the *Gītā*, it would appear quite superfluous for the *Kaṭha* to take it up again for treatment.

tion of the Survival of the Soul, supposed to be raised in i, 1, 20 and ii, 2, 4, receives a very wooden answer in ii, 2, 6 and we hear no more of the 'problem'!

The term 'prete' in the text 'Yeyam prete' does not necessarily refer to the physical death of quotidian occurrence with which we are all familiar. Pra+itaḥ=prakarṣeṇa itaḥ : : pretaḥ would as well fit in with ultimate release from the cycle of Samsāra. One need not look askance at such an interpretation as a piece of hairsplitting etymology. We have a classical instance of the root ī with pra used in the sense of ultimate release in the *Bṛhadāraṇyaka Upaniṣad* where Yājñavalkya is held to have declared the truth of there being no consciousness in Mokṣa: *Na pretya saṁjñā asti*.¹⁶ And Śaṅkara rightly interprets this as referring to Final release: *Na tatra pretya viśeṣa saṁjñā asti—kāryakaraṇa saṁghātebhyo vimuktasya*.¹⁷ And Anandagiri clarifies it: *Tatrete kaivalyoktiḥ*.¹⁸

Internal textual evidence too, supports the contention that *Yeyam prete* has reference only to the state of Final release. For, the same question is paraphrased and repeated in II, 2, 4:—

*Asya Visramsamānasya Śarīrasthasya dehinaḥ
Dehād vimucyamānasya Kimatra pariśiṣyate.*

where either of the two terms *Visramsamāna* or *Vimucyamāna*, if referring to mere death, would be redundant. *Visramsamāna* refers, admittedly, to mere death while *vi+mucyamāna* could better be taken to mean complete release from bondage.¹⁹ We are therefore left unconvinced by Śaṅkara's special pleading that *Vimucyamāna* is the same as *Visramsamāna* writ otherwise.²⁰

On Śaṅkara's view that the third boon concerns the question of the Soul's post-mortem existence, textual inconsistency is bound to arise. For, the *Kaṭha* itself in i, 2, 14, correlates the third boon with

16. *Bṛhadāraṇyaka Upaniṣad* iv, 5, 13.

17. Śaṅkara's comm., on *Bṛhadāraṇyaka*, Ibid.

18. Anandagiri's sub. comm., Ibid.

19. Dehād viśeṣeṇa mocanam nāma Muktireva. Sthūladehāparityāgastu Visramsamānasyetyanenaiva ukto bhavati. Madhva, *Kāṭhaka Bhāṣya*, *Sarvamūla*, p. 648.

20. Visramsamāna śabdārthamāha: dehādvimucyamānasyeti—Śaṅkara, *Kāṭhaka Bhāṣya* ii, 2, 4.

the nature of the Supreme Being. However inconvenient it may be, Śaṅkara has to admit that '*Anyatra dharmāt . . .*' (i, 2, 14) raises a question with reference to the Supreme Being.²¹ Now, this makes four questions in all and not three. But, the *Kaṭha* itself clearly states that Naciketas asked for three boons and three alone. It must be admitted therefore that '*Anyatra dharmāt . . .*' is a continuation of the subject-matter of the third boon itself and constitutes no new query. The text '*Anyatra dharmāt*' referring admittedly to the Supreme Being, it follows that '*Yeyam prete*' too, must refer to the same subject and not to the Individual Self. It is necessary that of the two texts '*Yeyam prete . . .*' and '*Anyatra dharmāt . . .*' one must be made to lose its surface interpretation if the aforesaid numerical contradiction is to be avoided. One cannot stick to the surface interpretations of both and yet explain the numerical contradiction. When it comes to a question of one of the texts losing its surface interpretation '*Yeyam prete . . .*' will have to be subordinated to '*Anyatra dharmāt*' both because of the superiority of the *upsamhāra* (conclusion) over the *upakrama* (initial statement) as well as of the principle of precedence being given to the Superior (*abhyarhitam pūrvam*). The subject of the Supreme Being is easily superior to that of the Individual; and hence '*Anyatra dharmāt*' takes the lead and has a right to determine what '*Yeyam prete*' must mean. The application of the contrary method of *upkrama parākrama* would not be of any avail to Śaṅkara since he too, would hardly think of subordinating '*Anyatra dharmāt*' referring to the Supreme to '*Yeyam prete*'—a text confined admittedly to the Individual.

Fully alive to the difficulty in adopting the principle of textual subordination to explain the numerical contradiction, Śaṅkara presses into service the dual aspect theory of the Self. His argument in essence is that the contradiction could be removed if we posit that the texts '*Yeyam prete . . .*' and '*Anyatra dharmāt . . .*' deal with two different but not mutually exclusive aspects of the same Self:²² the one with its embodied aspect and the other with its transcendental. But, even this ingenious device of a two-aspect theory fails to save him. In spite of all his laborious explanations the numerical contra-

21. Yādīdṛśam Vastu Sarvavyavahāra gocarātītam paśyasi tad vada. (Śaṅkara on *Kaṭha* 1, 2, 14).

cf. also: *Anyatra dharmāt iti paramātma Viśayaḥ*—Śaṅkara on *Vedānta Sūtra* 1, 4, 6.

22. Tasmāt 'Yeyam prete' ityasyaiva prāśnasya anukarṣaṇam etat 'anyatra dharmāt' iti; yattu prāśnacchāyāvāilakṣaṇyam uktam tadadūṣaṇam. Tādīyasyaiva Viśeṣasya punaḥ prachyamānatvāt. Śaṅkara *Bhāṣya* on *Vedānta Sūtra* 1, 4, 6.

diction asserts itself once again. Śaṅkara makes out that the question 'Yeyam prete' deals with the general features of the Individual as fundamentally distinct from the body whilst 'Anyatra dharmāt' takes up the special problem of that Self's identity with the Supreme,²³ which fact is, for the nonce, clouded by a foundational Nescience. On Śaṅkara's own showing, then, 'Yeyam prete' and 'Anyatra dharmāt' constitute only one question. Added to the Agni-vidyā, the subject of the second boon, there will only be two questions and one more is wanting to make up the number three insisted upon in the text of the Upaniṣad²⁴ and by the author of the Vedānta Sūtras!²⁵ The ingenious device of the dual-aspect theory ultimately lands Śaṅkara in a blind alley. Not only that. It also suffers from a schematic fallacy. There is more of passion than reason in the methodological device of the dual-aspect theory set up by Śaṅkara. For, if the text 'Yeyam prete' deals with the embodied aspect of the Self and 'Anyatra dharmāt' is meant to 'take up' its transcendental aspect, we should expect to find the discussion of the former aspect closed and answer to the first question given before launching into the latter problem—the Transcendental aspect of the Self. But, as a matter of fact, we do not find the first question answered and the matter clinched until we come to ii, 2, 7 while the topic of the Transcendental Self is taken up as early as i, 2, 14, i.e., as many as forty-nine verses earlier. Surely, Naciketas would not have sprung a new question, albeit concerning another 'aspect' of the Self, on Yama while his first question about the embodied Soul still remained unanswered!

DID NACIKETAS DIE?

Madhva, in his criticism of Śaṅkara's interpretation of 'Yeyam prete', opines that the doubt as to the survival or otherwise of the human Soul after death would simply not arise in the case of Naciketas who had himself died consequent on his father's curse.²⁶

23. Pūrvatra hi dehādivyatiriktasya ātmano astitvam Prṣtam. Uttaratra tu tasyaiva asamsāritvam prachyata iti. Yāvadyavidyā na nivartate tāvaddharmādigocaratvam jīvasya, jīvatam ca na nivartate. Tannivrttau tu prājña eva—Op., cit.

24. Trīṇ varāṇ vṛṇīṣva.

25. Trayāṇāmevacaivamupanyāsaḥ praśnaśca i, 4, 6.

26. Na ca mṛtvā yamam prāptasya Naciketaso mṛto 'asti naveti samśayo Yujyate. Madhva understands Uddālaka's angry retort: 'To death I give thee' as tantamount to a curse that he should die. Mṛtyave tvā dadāmi-Mriyasveti: Rāghavendra Tīrtha's *Khaṇḍārtha*. The soundness of this view is borne out by a statement in the *Taittirīya Brāhmaṇa*, which contains a parallel version to our story, that "when the boy stood up, a Voice said unto him"

Madhva's assumption that Naciketas died and left his material body before proceeding to Yama is confirmed by the boy's request in the form of the first boon that his father shall "recognise him as his own son" and greet him when he returned to him. If the boy had not died in any sense, but had simply undertaken an excursion into the regions of Yama, corporeally intact, there would have been no conceivable difficulty for his father to have "recognised" his son! Śaṅkara himself fully endorses the view that the boy was anxious to be "recognised" by his father "as his own son":—*Pratītaḥ labdha smṛtiḥ Sa evāyam putraḥ mamāgata ityevam pratyabhijānan ityarthah*. If the boy returned to his father in his own person, the latter could not possibly take any time to "recollect" (*labdha smṛtiḥ*) and "recognise" him. Could the father have forgotten his own son within the lapse of three days?

On the other hand, there is strong external evidence in support of Madhva's contention that (1) the boy Naciketas died actually before he went to Yama; (2) that the doubt as to the post-mortem existence of the Soul could not have arisen in his case; and (3) that therefore, the text 'Yeyam prete' does not refer to the survival of the Self but to the far more transcendental problem of Final release. The story of Naciketas occurs in another version in the *Taittirīya Brāhmaṇa* of the *Black Yajur Veda* which, as translated by Max Müller, runs:—

Vājaśravasa, wishing for reward, sacrificed all his wealth. He had a son called Naciketas. While he was still a boy, Faith entered him at a time when the cows that were to be given as presents to the priests were brought in. He said, "Father, to whom wilt thou give me?" He said so a second and a third time. But the father turned round and said to him, "To Death I give thee."

Then a Voice said unto young Gautama as he stood up. ²⁷ "He said, 'Go away to the house of Death. To Death I give thee.' Go, therefore, to Death when he is not at home, and dwell in his house for three nights without eating. If he should ask thee, boy, how many nights hast thou been here, say three. When he asks thee: what didst thou eat the first night, say, thy offspring. What didst thou eat the second night? say, thy cattle. What didst thou eat the third night? say, thy good works."

He went to Death while he was away from home and dwelt in his house for three nights without eating. When death returned and asked, "Boy, how many nights hast thou been here?" He answered: Three.

"What didst thou eat the first night?"

"Thy offspring."

"What didst thou eat the second night?"

"Thy cattle."

"What didst thou eat the third night?"

"Thy good works."

Then he said, "My respects to thee, Venerable Sir, choose a boon."

"May I return living to my Father?"²⁸ he said.

"Choose a second boon!"

"Tell me how my good works may never perish."

Then he explained to him the Naciketas Fire and hence his good works do not perish.

"Choose a third boon!"

"Tell me the conquest of Re-Death."²⁹

Then he explained to him this Naciketas Fire³⁰ and he conquered Re-Death. (Italics mine.)

The foregoing account clearly states that Naciketas' first boon was that he may return living to his father. Mark the term *Jīvan*, which means but one thing: that the boy died once, was conscious of it and wants to regain a material body. From his own experience, then, Naciketas would have certainly realised that human souls *do survive* after death and could not have entertained the least doubt about it. Still more significant is the third boon which he asks for: "the conquest of Re-Death." The term '*punar-mṛtyu*' is not mere death but complete annihilation of the cycle of births and deaths, i.e., to say ultimate release or Mokṣa.³¹ This shows that the third boon asked for did not

27. This evidently means that a Voice from on high addressed his spirit as it rose from the body.

28. Pitārameva Jīvan ayāni iti. *Taittirīya Brāhmaṇa*.

29. *Punar mṛtyorme apacitim brūhiti hovāca*.

30. The reference to the Naciketas Fire (Vide *Svargyāgni*) in connection with the Second and Third boons also lends weight to Rāmānuja's contention that the Agni Vidyā of the Second boon does not refer to some sort of ordinary Fire Sacrifice leading to the popular *Svarga* but to the Agni Vidyā leading to Mokṣa.

31. Sāyaṇa clearly endorses this view. *Janma svikāram vinā muktau satyām Soyam punar mṛtyurapakṣiyate* Sāyaṇa's Comm., on *Taittirīya Brāhmaṇa* III, 11, 8.

relate to physical death or the Survival of the Self after death. In any case, conquest of Re-Death assumes firm conviction in the *Survival of the Conqueror after the event*. Cogito ergo sum. The terms *preta*, *marāṇam prāpya*, *marāṇam mānuprākṣiḥ*, etc., would thus automatically resolve themselves into Final release even as indicated by the terms *Mahati sāmparāye*, *dehāt Vimucyamāna* and *punarmṛtyorapaciti*. Thus, the *Taittirīya Brāhmaṇa* fully endorses the contention of Rāmānuja and Madhva that Naciketas, by his third boon, asked for instruction on the nature of Final release. In the light of which Śaṁkara's confinement of the third boon to the question of the post-mortem existence of the Soul turns out to be erroneous.

There can be no two opinions that in interpreting the ancient texts of the Upaniṣads, it is always safe and sound to rely on the help and guidance afforded by the Vedic Literature itself. Even the orthodox Vedāntins have always entertained a genuine suspicion for the *āpāta pratīti* or surface-interpretation of texts, and have always insisted on the employment of the six canons of interpretation *upakrama*, *upasaṁhāra*, etc., while the Mimāṁsakas have emphasised the supreme value of *Samākhya* or parallel texts in support of any given interpretation.

The *Kāthopaniṣad* is believed to have originally belonged to the *Kāthaka Saṁhitā* of the *Black Yajur Veda* and the occurrence of another version of the story of Naciketas in the *Taittirīya Brāhmaṇa* makes it probable that the Upaniṣad itself, representing, *qua* Upaniṣad, a later literary stratum than a well-known *Brāhmaṇa* of its own original *Samhitā*, is presumably indebted to that *Brāhmaṇa* for the episode in question; in which case, the latter's interpretation in the light of its original and parallel version in the *Taittirīya Brāhmaṇa* would be the only legitimate manner of approach. Even supposing that the *Taittirīya Brāhmaṇa* it is that represents the later version, the fact still remains that its evidence, in so far as it furnishes the earliest commentary on the Naciketas episode, must be superior to that of a latter-day commentator like Śaṁkara.

University Notes.

Pro-Chancellor.—The Hon'ble Rajah Sir S. R. M. Annamalai Chettiar, LL.D., Kt., of Chettinad, the Founder and Pro-Chancellor of this University, has recently had the distinction of Doctor of Laws conferred upon him by the Madras University. It is a fitting tribute to one who has done so much for the cause of Education in South India and has perpetuated his name by founding the Annamalai University which is called after him. We felicitate the Pro-Chancellor on this new distinction.

Vice-Chancellor.—Rao Bahadur S. E. Runganadhan, M.A., I.E.S., Vice-Chancellor, Annamalai University, on the expiry of his term of office, has been re-appointed for a further period of three years. The University is indeed to congratulate itself upon retaining the services of such an eminent and distinguished educationalist. Rao Bahadur S. E. Runganadhan has been at the head of the administration since its inception and the successful running of this new University is largely due to his untiring efforts on its behalf. We congratulate him on his re-appointment and we congratulate ourselves no less.

New Courses.—Two new courses have been instituted this year:

A four-year course in the theory and practice of Music leading to the Diploma of Sangitha Bhushana, and a one-year course of training to Pandits leading to the Pandits' Training Certificate.

University Special Lectures.—Dr. W. Blaschke, Director of the Mathematische Seminar, Hamburg University, delivered a course of two lectures on "Integral and Topological questions of Differential Geometry" in February 1932.

Mrs. F. M. B. Rosenthal, F.R.C.S., A.R.C.M., of the Nizam Educational Service, delivered a lecture on "Goethe and His Masterpiece 'Faust'" in February 1932, on the occasion of the Goethe Centenary Celebration.

The Rev. Father H. Heras, S.J., Director of the Indian Historical Research Institute, St. Xavier's College, Bombay, delivered a lecture on "Was Conjeevaram always a Pallava capital?" in March 1932.

Congress and Conferences.—The Vice-Chancellor attended the annual meeting of the Inter-University Board, held at Lahore in March 1932.

Mr. L. K. Govindarajulu Naidu, B.A., B.L., Director of Physical Education, was deputed to attend the Physical Education section of the Provincial Teachers' Conference held at Madura in May 1932. He read a paper on "Some problems of Physical Culture."

Endowments.—The Hon'ble Rajah of Chettinad has given a sum of Rs. 25,000 to be added to the permanent Endowment Fund of the University besides a free gift of 168 acres of land.

Research Students 1930-1932: History.—Mr. B. V. Ramanujam, M.A., "History of Sri Vaishnavism in the Tamil country."

Economics.—Mr. A. R. Kuppuswamy, B.A. (Hons.), "Co-operative Movement in South Arcot."

Mathematics.—Mr. P. Ganapathi B.A. (Hons.), "Differential Geometry."

Physics.—Mr. G. Sivaramakrishnan, B.A. (Hons.), "The Magnetic Susceptibilities of Polar Liquids."

Sanskrit.—Mr. D. Subrahmanyam, B.A. (Hons.), "Transport in Ancient India."

Chemistry.—Mr. A. Venkatasubban, B.A., "Synthetical and Analytical Experiments on Alkaloids and Chemical Investigation of some of the Indian Medicinal Plants."

1932-1933: Economics.—Mr. C. V. Sundararaman, B.A. (Hons.), "Land Revenue administration in South Arcot."

Mathematics.—Mr. S. Venkatachari, B.A. (Hons.), "Mathematical Economics."

Tamil.—Mr. N. K. Srinivasan, B.A., "The History of Tamil Literature from A.D. 1100—1400."

Sanskrit.—Mr. R. Ramakrishnan, B.A. (Hons.), "A Critical Study of the Vakyapadiya."

Research Grants.—Mr. N. S. Subba Rao, Lecturer in Physics, was deputed for advanced study and research work in Spectroscopy under

the guidance of Dr. A. L. Narayanan at the Kodaikanal Observatory. Mr. G. V. Krishnaswami Ayyangar, Reader in Mathematics, also completed his research work in Astronomy under Dr. Royds.

Dr. M. O. Thomas, M.A., Ph.D., the Librarian of the University, who went to England to take a course in Librarianship, has returned and taken up his duty after his successful completion of the Diploma Course of Librarianship in the University of London.

Improvements.—The departments of Chemistry, Botany and Zoology have been further extended and equipped to meet the growing demand for teaching in these subjects. The Physics Department has already been enlarged to facilitate the carrying on of Honours work and higher research.

Bibliographical Notes.

A.

THE DEVELOPMENT OF JAINISM IN NORTH INDIA*

A recent publication throwing light on this little known topic forms No. 6 of the Studies in Indian History of the Indian Historical Research Institute of St. Xavier's College, Bombay, and is a thesis submitted to the University of Bombay, for the degree of Master of Arts, in March, 1929. The Rev. H. Heras, S.J., the enthusiastic and indefatigable Director of the Institute, has put forth a fairly rapid succession of historical monographs embodying the research work of his scholars, including this and the previous publication of the *Kadamba Kula* by Mr. G. M. Moraes, M.A. Mr. C. J. Shah, the author of the present monograph, is a Gujarati Jain and has rightly limited his treatment of the subject to the tracing of the fortunes of Jainism in North India till the epoch of the Council of Valabhi, in A.D. 526, which drew up the final list of canonical works and brought the unrecorded period of Jaina history to an end, the inscriptions referring to the Jaina community becoming numerous from the 6th century onwards. He does not take into his treatment the institutional and doctrinal development of that religion, nor the profound part played by it in the political, religious and literary development of South India or in the Deccan. His estimation of the Jaina contribution in the cultural and religious life of the country is naturally generous and perhaps a little bit over-valued. But it is the natural reaction that a long period of neglect of Jaina contributions to India, broken only by occasional glimpses into them rendered possible by the labours of scholars like Colebrooke, Bühler, Hoernle, Jacobi, J. Charpentier and others, should result in the new wave of enthusiastic research of which this work is a good illustration.

The historicity of Pārśvanātha is attempted to be proved by means of indirect references drawn from inscriptions and monuments and by a reference to Nātaputta's system in the *Sāmaññaphala Sutta*, interpreted by Jacobi as referring to the term *Cāturyāma*, as distinguished from Mahāvira's *Pāñcyāma*. Dr. Guerinot declares, in his *Bibliographie*

*By Chimanlal J. Shah, M.A., with a Foreword by the Rev. H. Heras, S.J.—Longmans Green & Co., 1932. pp. xxiv and 292.

Jaina, that there can no longer be any doubt that Pārśvanātha was a historical personage; while Dr. Jacobi says that the last perceptible point in the prehistorical development of Jainism is Parsva, before whom all is hidden in the midst of fable and fiction.

Coming down to Mahāvira and his times, the author tries to explain away the legend of the Jina taking the form of an embryo, in the womb of a Brahman lady and the transfer of the embryo to the Kshatriyāṇi Trisālā, in the light of the dogmatic canonical assertion that a Brahman can be everything but a Tirthaṅkara. The date of Mahāvira's *Nirvāṇa* is a highly controversial point. Jacobi maintained that this event took place about 480 B.C., some years before the Buddha's death. Svetambara tradition would date the event in 527 B.C., and the Digambaras would date it 18 years later. Proceeding on the basis of historical data merely, like the traditional date of Bhadrabāhu's death, his connection with Chandragupta Maurya and the connection of Suhastin with Samprati and on the assumption that a precise date for the accession of Chandragupta is still impossible, he would arrive at *cir* 480-467 B.C., as the date of Mahāvira's *Nirvāṇa* and maintain that this would not bring any contradictions into play; while the choice of an earlier date would disregard some real historical facts and coincidences of the Jain annals. But he is careful enough to add that these years define only the limits of possible hypotheses in this very slippery ground of conjectures and probabilities. The author devotes an amount of space to the elaboration of the ideas of *ahimsa* and *syādvāda* in the third section of Chapter II; and he supplements this with a treatment of the most important schisms of the Jaina church, like those of the seven *Ninhagas* of whom the most important was Mankaliputta Gosala who was a self-styled *Jina* or *Tirthaṅkara*. Mr. Shah tries to rebut the conclusion of Dr. Barua, regarding the priority of Gosala's *Jinahood* and the association of Mahāvira with the Ajivikas. The detected attempt to chisel away the word '*Ājivikehi*' in the cave inscriptions in the Barabar and Nāgārjuni Hills is attributed to the Jaina King, Kharavela of Kalinga. It is also pointed out how, in many inscriptions after the 6th century A.D., the term *Ājivika* is used for the Digambara sect which was developed by the traditions of Bhadrabāhu of the great famine and of Jinacandra and Śivabhūti of *cir* A.D. 80. The germs of the schism existed even in the infancy of the faith; and Mr. Shah is inclined to accept Sir Charles Eliot's conclusion that the Swētambaras "may represent an older sect reformed or exaggerated by Mahāvira." The rise of the *Sthānakavāsī* sect of the Jains which was to a large extent a direct result of Muhammadan influence is also noticed. The explanation of the still continuing vitality of the Jain Church given at the end of the second chap-

ter is sufficient and satisfactory; but one cannot agree fully with the statement that an adamantine conservatism has been the strongest safeguard of the Jaina faith.

The importance of Magadha in the light of early Jaina history is stressed; and we are definitely told that Bimbisara, the Saisunāga, was definitely a follower of Nātaputta and his doctrines, "whatever may be the claims of the Buddhists about him." The Jaina account of Bimbisara's death is given to show that the Jains were in the good books of Kunika, about whom the *Aupapātika*, the first *upāṅga* of their canonical literature, as well as the *Bhagavati*, the *Uvāsaga-Dasāo*, the *Antagaḍa Dasāo* and other works have references. Jaina tradition also exempts Udāyin from the crime of parricide with which he is charged by the *Mahāvamsa*. Mr. Shah maintains that Hemachandra did not confuse Nandivardhana with Mahāpadma Nanda and identifies the Nandaraja of the Khāravela Inscription of Hāthigumphā as only Nanda I of the Jains (or the Mahāpadma Nanda of the Puranas). He examines at length the Jaina tradition about Chanakya's revolution and Chandragupta Maurya and concludes that the date of Bhadrabāhu's *Nirvāṇa* exactly coincides with that of Chandragupta (*cir* 297 B.C.); while arguing that the Asokan *Dharma* contains nothing particularly Buddhistic and the edicts of the Emperor do not, *ipso facto*, mean that he was or had become a Buddhist, he says that the term '*Śramaṇa*,' occurring in the edicts, distinctly refers to Jaina ascetics as well as Bauddha monks and when Asoka referred to Buddhists alone, he always used the word *Samgha*. The first Swētambara contact with South India was established by Samprati; and the great schism is connected both with the migration of Bhadrabāhu and with the Suhastin-Mahāgiri tradition.

A full chapter is devoted by our writer to Jainism in the time of Khāravela of Kalinga who is stated to be the contemporary of Sri Sātakarṇi and Demetrios and of Bahasati-Mitra, here equated with Pushyamitra Sunga. Khāravela is stated to have attacked Magadha twice, in the second of which he recovered the image of the Jina of Kalinga which had been carried off by Nanda Raja. The reference in the inscription to Yāpa professors is explained as well as the term *Nishidi*, which denotes an ornamental tomb of a saint. Mr. Shah claims Vikramāditya of Ujjain, successor of Gardabhilla, as a great Jaina patron and maintains that the Mathura Inscription of Mahākshatrapa Śoḍāsa was dated in the Vikrama era, agreeing with Dr. Sten Konow. But the Kushāṇa inscriptions ranging from Śaṁvat 4 to 98 are dated A.D. 82-176. These inscriptions are shown to be important as disclosing particular aspects of the Jain church and also serving as

land-marks in the history of the Northern Jainas, during the epoch of Indo-Scythian rule. Two Gupta records at Mathura and in the Udayagiri Cave and the Kahāum Stone Pillar Inscription are discussed as throwing light on Jainism in the Gupta age. The tradition of *Kuvalaya-māla* tells us of Ācārya Harigupta of Sri Torarāya who is equated with Toramāna, the Hūṇādhipati.

Harigupta and his pupil Devagupta are shown to belong to the Gupta royal family; and the coins of one, Harigupta, are, according to Allan, of the 5th century A.C. The suggestion is also made by Mr. Shah that it may be possible to identify Devagupta of the Jaina tradition with the Malwa ruler of that name mentioned in the *Harsha-carita*. The two chapters at the end deal with Jaina literature and art. The former includes a survey of Swētāmbara literature, both canonical and non-canonical; and the latter is devoted to an account of the Jaina caves in Orissa, and in Girnar and the sculptural remains and mounds near Mathura. Mr. Shah is rightly cautious about disclaiming a special Jaina style of architecture and sculpture; but perceives a strange mixture of Greek and Indian elements not only in the Mathura sculptures, but also in the friezes of the Udayagiri caves. He devotes special attention to the description of the sculptural tablets, known as *Āyāgapatas* which were a prominent feature of ancient Jaina art. The bibliographical, illustrative and other equipment of the book is sumptuous and, perhaps a little bit, overdone. The typographical and other excellences call for special mention and illustrate the thoroughness characteristic of Father Heras and his school.

C. S. S.

B

RECENT INTERPRETATIONS OF THE POLITICAL HISTORY OF NORTHERN INDIA*

The Political History of Ancient India is now out in its third edition. It was first written in 1923, with a view to present an authentic chronological history of ancient India, the scope taking in the little-known and less-cared-for pre-Bimbisaran epoch which has been stretched back to the age of Parikshit and forms part I of the book. The II part brings the narrative down to the last days of Gupta Imperialism in the 6th century A.C. and the beginning of the 7th. The last book of the *Atharva-Veda*, the more ancient of the *Brahmana* books and the classical *Upanishads* have been made use of; and our author rightly holds the balance even between the views of Pargiter which would give excessive value to Kshatriya tradition whose date allowed of manipulation to serve dynastic ends and the value of Vedic tradition whose two strong points are its priority of date and freedom from textual corruption. His sequential treatment of the Kurus and the Vaidēhas and their contemporary states is followed by a notice of the political condition of the Deccan in the time of the later Vaidēhas, in the course of which he says that it might be that the name Mūchīpas became transformed into Mūshikas. The political history of the period between the fall of the Videhan monarchy and the rise of Anga, Kosala, Kasi and Magadha is based on the Puranic lists and Jain and Buddhist sources; and it is supplemented with an account of monarchy and its principal varieties, its household, civil and military services and the checks on its authority.

The second part of Dr. Raychadhuri's book—the Post-Bimbisaran History—is marked by a detailed and critical examination of the causes of the dismemberment of the Mauryan Empire and by views, different from the generally accepted ones, regarding the history and chronology of the Early Śātavāhanas, the Indo-Greeks and the Saka-Pahlavas. He rejects completely the theory of a Brahmanical revolution as the main

**Political History of Ancient India, from the Accession of Parikshit to the Extinction of the Gupta Dynasty*, by Dr. Hemchandra Raychaudhuri, Lecturer in History, Calcutta University (Third edition, revised and enlarged)—published by the University of Calcutta, 1932. pp. xix and 469.

The Dynastic History of Northern India (Early Mediaeval Period)—with a Foreword by Dr. L. D. Barnett—by Dr. H. C. Ray, Lecturer in History and Sanskrit, Calcutta University—Vol. I—published by the University of Calcutta, 1931. pp. xl and 663.

cause of the Mauryan dismemberment which had really begun long before the raids of the Bactrians. He holds that Simukha should come after the Kanvas and Kharavela could not be a contemporary of Pushyamiitra Sunga, contrary to the views of Mr. Jayaswal, Rapson and others. The prevalence of Naga rule over a greater part of Northern and Central India in the 3rd and 4th centuries A.D. is noticed in some detail; and the history of the later Guptas is as clear as can be desired. Among the Appendices, there is a useful note on the chronological relations of Kanishka and Rudradaman I, in which he tries to refute the contention that Rudradaman's sway over Sindhu-Sauvira between 130 and 150 A.D. does not imply control over Sui Vihar and Multan and consequently Kanishka's sovereignty over Sui Vihar in the year 11 of an era starting from A.D. 128-129, is not irreconcilable with the rule of the Great Satrap in Sindhu-Sauvira at the same time. Another note examines the causes of the decline of the earlier Guptas; and the Appendices are all additions to this edition. The chronological list of the Trans-Vindhyan Kingdoms, Peoples and Dynasties and the synchronistic tables are highly valuable; and the bibliographical index helps ready reference.

A natural supplement to Dr. Raychaudhuri's book is the publication of Dr. H. C. Ray, which is the first of two volumes devoted to the dynastic history of Northern India during the period of transition between the decline of the Gurjara-Pratihara Empire of Kanauj and the Muslim conquest under Muhammad Ghūri and his slave-generals. This dynastic history is proposed to be supplemented by a third volume devoted to the treatment of minor dynasties, administrative, economic and social history, the origin of the Rajputs and the causes of Hindu decline. This volume is well-equipped with comprehensive bibliographical lists for each chapter, and clear and carefully-drawn maps for the history of each dynasty and a synchronistic table in the end. Dr. Ray is at some pains to prove that A.D. 647 being regarded as the beginning of a steady decline is not correct, that there was no general decline in everything from the close of the Harshan epoch, that the Gurjara-Pratihāra Empire of Kanauj rivalled that of the Guptas and was more extensive than that of the Puspabhūtis and that the line between the ancient and mediæval periods is best drawn about 916 A.D. when the Pratihāra Empire began to break to pieces. The incidents of the three centuries that elapsed between 916 A.D. and the establishment of the Indo-Moslem Empire at Delhi under Kutbu'd-din deserve to be studied in great detail and with reference to the evidence of archæology and more reliable Hindu chronicles some of which have been recently discovered. Also, Dr. Ray would maintain that a critical study of these three centuries would enable the reader to grasp some of the forces

that vitally influenced Hindu society and to estimate, aright, the indebtedness of Turkish and Afghan administration to its Hindu predecessor.

Taking up the history of Sind first, Dr. Ray stresses on the part played by the Gurjaras in stemming the tide of Arab and Muslim expansion and on the barrenness of the region in serving as a political force or as a centre of missionary enterprise. From the 11th century the Arab was definitely replaced by the Turk as the dominant power in the lower Indus Valley whose fortune is traced down to the epoch of Akbar's conquest in 1591. In the second chapter, the fortunes of the obscure Shahis and the steps which gradually brought Islam into the Kabul valley are traced. The Turki Shahiyas and their successors, the Hindu Shahiyas, are shown in their unenviable position, pressed by formidable enemies; and Kallār, the Brahman founder of the Hindu Shahiya line, is identified with Kalhana's Lalliya Sahi. Dr. Ray shows how, in his campaign of 1008 A.D., Sultan Mahmud of Ghazna had not to confront a confederacy as is held by Ferishta, but merely encountered Anandapal. Trilochanpal, the son of Anandapal, made heroic efforts, even after a decisive defeat, to regain his kingdom. The Shahis remained a factor in the Kashmirian court, long after their kingdom was extinguished.

The author has made the fullest possible use of Kalhana (who finished his work in A.D. 1149-50) for the vigorous period of Kashmir history. The tracing of the decadence of the Hindu power till its extinction in 1339 is relatively thin and does not require any elaboration. In the construction of Nepal history from the time of Amsuvarman, much ingenuity has been displayed, particularly in the explanation of the references to Nānyadeva's conquest of the land and the consequent revolution in the political power of the Thākuris. The detailed history of the Nepal Valley is brought down to 1480. The history of Assam and of the Palas and the Senas is perhaps overfull; and the account of each important king is supplemented by a notice of his epigraphs. It is clearly brought out how the Gahadvalas of Kanauj faced the Senas in Magadha after the disappearance of the Palas. The history of Orissa, in its different dynasties like the Banjas, the Sulkis, etc., that of the Gahadvalas of Kanauj and the relations between the latter and the Rashtrakutas of Panchala close the present volume which ends with a notice of the later Gurjara-Pratihāras. In such a diffuse and detailed treatment, it naturally so happens that we forget the wood in the trees. But for sober and critical scholarship and interpretation the treatment of Dr. Ray is hard to beat.

C. S. S.

UNIVERSITY PUBLICATIONS

Names of Publications	Price. Rs. A. P.	Where available
1. Factory Labour in India— By Prof. A. Mukhtar .. 3 0 0		The Secretary, The Students' Co- operative Socie- ty, Annamalai- nagar.
The University Journal Published by the University. Annual Subscription .. 4 0 0		The Editor, The University Journal, Annamalainagar.
The Annamalai University Miscellany. Per issue .. 1 0 0		The Editor, The Annamalai Uni- versity Miscellany Annamalainagar.

RECENT PUBLICATIONS.

2. Bhoja Raja— By Prof. P. T. Srinivasa Ayyangar .. 1 8 0		The Secretary, The Students' Co- operative Socie- ty, Annamalai- nagar.
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NO. 2.

Time and the Novel

By

A. MENDELOFF

(Annamalai University)

Time, like Space, may be considered as relative, in the sense that it has a cognitive value only in relation to sensible phenomena as one of the co-ordinates of all forms, and as absolute, in the sense that it cannot be interpreted or defined in more fundamental terms being itself the most fundamental of all things. Man is essentially a creature of the senses and his attitude towards the universe is naturally empirical; yet, having no senses for the perception of time and space and these problems defying any material interpretation we are forced to realise that these simplest elements of the universe are the most complex to apprehend. Moreover, any solution of time and space is rendered the more difficult because it involves the abandonment of the one form in which thought can intelligently express itself—language, which being finite and discontinuous, cannot adequately interpret the infinite and the continuous. 'Quid est tempus?' asked Augustine. 'Si nemo a me quaerat, scio, si quaerenti explicari velim, nescio;' which is as much as most of us ever will achieve.

Time can, however, enter into literature as an element indirectly suggested by language, and the novel, in particular, derives much of its variety of form and conception from the different interpretations of the single concept 'time' as manifested in its different values—philosophical, psychological, chronological and so on. In the novel we have action, character and emotion defined and regulated by some pattern, for the difference between art and life is one of form. To define is to limit, and

limitation in art is, as it were, the negative experiences by which alone we can achieve awareness of the great ultimate positives—time and space. The evolution of the novel, therefore, the various traditions and experiments the sum of which constitutes progress may derive an additional significance when analysed according to the treatment of time obtaining therein.

There are many different values of time in operation when we are reading a novel: the chronological time which we take to read; the pseudo-chronological time of the content of the novel which may extend over generations as in the 'Forsyte Saga' or a lifetime as in 'The Old Wives' Tale' or even one day as in Virginia Wolfe's 'Mrs. Dalloway'. This time consists of an arbitrary selection of incidents or feelings by the author, since 'of the continuous procession of events only a few have emotional intensity and therefore importance or even relevance in fiction'.¹ Selection is the condition of literature and the power of the author is as much revealed by what he omits as by what he includes, which is the equivalent of stating that the artist estimates this pseudo-chronological time according to his particular sense of values. In 'Ulysses', one of the most important of modern experiments, Joyce has tried to avoid this arbitrary selection by the author from the totality of the responses of consciousness, to the pious horror of the anti-'high-brow-low-loins' traditionalists and unholy delight of the 'épater les bourgeois' pseudo-experimentalists. Not only is this interior dimension or description of life by intensity within the novel, but it occurs also in the mind of the reader. It may appear to him while reading that he is living more rapidly or more slowly than the clock suggests, for 'a period that is rich in experience appears short in the living and long in the memory'² and vice versa. Shakespeare had long realised that 'Time travels in divers paces with divers persons', slowly with the lover waiting at the trysting-place and quickly when he is with his loved one. With an interesting novel, indeed, we forget the 'absolute now'—the moment of present sensation, and are only subsequently aware of the 'relative now'—the point in a past series of sensations considered as a now, and what preceded or followed that point as relatively future and past.³ Scott, in particular, has the disturbing trick of calling us back to the absolute now by addressing us as 'reader' or referring to 'our hero' thus bringing us back to ourselves and shattering 'that willing

1. Grant Overton: 'The Philosophy of Fiction'.

2. Titchener: 'Text-book of Psychology', Vol. II, p. 342.

3. Stout: 'A Manual of Psychology', Vol. II, p. 496.

suspension of disbelief' which constitutes artistic faith. There is further the peculiar sense of time which is conveyed by a succession of ideas or emotions instead of a succession of events. This method of inner time is common with the moderns having first been regularly used by the Russians, especially Dostoevsky, though Sterne had already chanced on it in 'Tristram Shandy' where he actually discusses how 'the rapid succession of ideas and the eternal scampering of the discourse from one thing to another had lengthened out so short a period to so inconceivable an extent'. He expressly states his method which is based upon Locke in the first book, maintaining that the idea of duration and of its simple modes is got merely from the train and succession of ideas, and this constitutes the true clock of the writer. Sterne, in short, was the first novelist to realise that 'space and time and their relations are not only a part of those aspects of reality we call *things* but of those we call *values*'.⁴ Apart from this there is the 'tempo' of the novel which the novelist may express *accelerando* or *rallentando* thereby giving intensity values to duration; this variation of tempo is effectively used in such novels as Knut Hamson's 'Hunger' and a familiar example can be found in Marlowe's 'Dr. Faustus'. The tempo of a character-novel is, as a rule, much slower than that of a novel of action, as modern novelists are consciously aware. 'When a man has reached the age of thirty, time when he is thinking becomes inordinately long; time when he is doing becomes inordinately short', writes V. Wolfe in 'Orlando'. Time can even be treated objectively as material explicitly valid for artistic treatment—directly as in Wells's 'Time Machine' or indirectly in historical novels or novels of the future such as Huxley's 'Brave New World'. Also, the novelist may shift his points of reference from which he takes his perspectives in the manner adopted by Conrad in 'Lord Jim' or by means of introducing stories within stories, as in the 'Arabian Nights', the 'Decameron' or Wandering Willie's Tale in 'Redgauntlet'.

The Classical 'Unity of time' attempted to approximate the chronological and pseudo-chronological aspects of time 'ut quam proxime accedant ad veritatem'. Aristotle's analysis of the 'Unity of action' with his definitions of the beginning, middle and end have long been abandoned by most serious novelists; like the 'tranche de vie' principle which succeeded the self-complete patterned plot, it has yielded before a new method by which the continuity of sensation and the interpenetration of past, present and future are expressed as far as is allowed by language.

4. Wilbur Urban: 'The Intelligible World', p. 246.

The earliest form of story consisted in a series of events in time, as in the Hebrew tale which has parallels in many languages: 'Death struck the man who killed the ox which drank the water which quenched the fire which burnt the stick which beat the dog which bit the cat . . . ' and so on. This elementary time-sequence may be considered as a straight line, though, as Bergson points out, succession in time cannot be symbolised as a straight line without introducing the idea of a space of three dimensions. However, we are not considering spatial but temporal relations, though philosophically as well as artistically they are inextricably connected.

The next stage is the episodic or picaresque novel as practised by Le Sage, Smollett and most of the early eighteenth century French writers, in which the hero is the sole link in a series of independent events in time. Plot, which demands a spatial treatment, is absent as a unified architectonic structure, only existing in a slight, undeveloped form in each incident. The measuring points of the series are the unrelated incidents and accidents occurring to a single individual. The basis is still the line of time as in the primitive novel, but swelling out at the incidents into proto-plots. Such works may be figuratively described as elliptical chains.

With Richardson, the first serious attempt was made to elaborate the inner or subjective sense of time which is made to go slower than the clock 'like a slow-motion picture of life in its purely sentimental side'.⁵ The chief contribution of Richardson and Fielding, however, lies in their development of plot, the structural pattern adhering to the beginning, middle and end as enunciated by Aristotle.

To understand and follow a plot it is essential to remember what has happened previously, since in the plot novel 'the sense of causality overshadows the pure time-sequence'.⁶ That is, the recollection of the relation of the three tenses as far as they obtain within the plot is implied for the understanding of the pattern, whereas it is not essential in following simple unrelated action-sequences. The 'post-hoc' novel corresponds to physical time 'which is based on the fundamental feature of before-and-after, i.e. the succession of events',⁷ while the 'propter-

5. Priestley: 'The English Novel'.

6. Forster: 'Aspects of the Novel', p. 116.

7. J. A. Gunn: 'The Problem of Time', p. 254.

hoc' novel corresponds to mental time, 'based on past-present-and-future, which arises from the relation of events to a perceiving mind'.⁸

Sterne, who broke away from the tradition, marks a great step in the advance of the novel. He achieved his bizarre effects by deliberately exploiting the inconsistencies consequent on relating ideas in free association with a specific time-point, as, for example, the birth of Tristram. He is thus able to fly forwards or backwards at will, always emphasising however how the incident stands with regard to the fixed moment he is ostensibly concerned with. This enables him to write such things as 'a cow broke in to-morrow morning to my uncle Toby's fortifications'. He even disregards the three features of Time which, according to Alexander,⁹ correspond to the three dimensions of Space, namely:—duration in succession, irreversibility and transitivity.

After Sterne, various other means of arousing interest in a novel by experimenting with the time-element were adopted. Simultaneity was commonly utilised in character novels to contribute to the emotional intensity of one incident by contrast with another at the same time, as in the dramatic passage in 'Vanity Fair':—'The darkness came down on the field and the city: and Amelia was praying for George, who was lying on his face, dead, with a bullet through his heart', or more crudely, 'while the army is marching from Flanders . . . there are a number of people living peaceably in England who have to do with the history in hand . . . ' Scott frequently uses the artificial device for dealing with parallel series of actions of taking one character through a chapter and then switching back and bringing another character up to date, thereafter proceeding with the first, and so on, until the two join and can be considered together in the same time-interval.

Just as our conception of 'now' has a certain element of concrete duration which infringes on the past and future and is different from the abstract 'now', so our emotions cannot be fixed but permeate into one another. The abstract 'now' has no more real existence than the Euclidean point which has position but no magnitude. If it had, Time, as Alexander points out, would be perpetually re-creating itself at each moment, and would therefore cease to be infinite. The essential unreality of all novelists, even the so-called realists like Balzac or Zola, lies in the inability to translate this fluid continuity into language because 'We instinctively tend to solidify our impressions in order to

8. loc. cit.

9. Alexander: 'Space, Time and Deity', Vol. I, p. 50.

express them in language. Hence we confuse the feeling itself, which is in a perpetual state of becoming, with its permanent external object, and especially with the word which expresses this object'.¹⁰ 'The feeling itself is a being which lives and develops and is therefore constantly changing; otherwise how could it gradually lead us to form a resolution? Our resolution would be immediately taken. But it lives because the duration in which it develops is a duration whose moments permeate one another. By separating these moments from each other, by spreading out time in space, we have caused this feeling to lose its life and its colour. Hence, we are now standing before our own shadow: we believe that we have analysed our feeling, while we have really replaced it by a juxtaposition of lifeless states which can be translated into words, and each of which constitutes the common element, the impersonal residue, of the impressions felt in a given case by the whole of society. And this is why we reason about these states and apply our simple logic to them: having set them up as genera by the mere fact of having isolated them from one another, we have prepared them for use in some future deduction. Now, if some bold novelist, tearing aside the cleverly woven curtain of our conventional ego, shows us under this appearance of logic a fundamental absurdity, under this juxtaposition of simple states an infinite permeation of a thousand different impressions which have already ceased to exist the instant they are named, we commend him for having known us better than we knew ourselves. This is not the case, however, and the very fact that he spreads out our feeling in a homogeneous time, and expresses its elements by words, shows that he in his turn is only offering us its shadow: but he has arranged this shadow in such a way as to make us suspect the extraordinary and illogical nature of the object which projects it; he has made us reflect by giving outward expression to something of that contradiction, that interpenetration, which is the very essence of the elements expressed. Encouraged by him, we have put aside for an instant the veil which we interposed between our consciousness and ourselves. He has brought us back into our own presence'.¹¹

I have given this extract in full because it forms the starting-point of what has been called the 'stream of consciousness method' adopted by Joyce, Virginia Wolfe and Lionel Britton, who use a 'semi-articulate soliloquy, or jottings of cerebral events to record the process of thought'.¹²

10. Bergson: 'Time and Free Will', transl. Pogson, p. 130.

11. Bergson: 'Time and Free Will', transl. Pogson, p. 134.

12. Sherard Vines: 'Movements in Modern English Poetry and Prose', p. 249.

Gertrude Stein, by seeking to go beyond even this subterfuge loses all claim to be considered as a novelist. 'The demand that time shall be taken seriously is one of the fundamental notes of modernism' says Urban, and the truth becomes obvious on an examination of these writers. Apart from their new treatment of duration they each have different methods of emphasising the wider aspects of time. When the Hebrew poet-king sang: 'One day is with the Lord as a thousand years, and a thousand years is as one day',¹³ he was crediting God with the ability to see time in a perspective different from our own, but this aspect of divinity is shared by ordinary mortals too in moments of vision, as in Rupert Brooke's 'Dining-Room Tea'. 'An hour', says Virginia Wolfe in 'Orlando', 'once it lodges in the queer element of the human spirit may be stretched to fifty or a hundred times its clock length; on the other hand, an hour may be accurately represented on the time-piece of the mind by one second', or as the psychologist puts it 'the rapid passage of time or its monotonous dragging are subjective experiences which can be explained only by relation to desires or interests'.¹⁴

In 'Orlando', time is represented in two dimensions; the progressive development of an individual is interpreted in terms of successive generations, on the analogy of the foetus which passes through the stages of evolution of millions of years from the unicellular cell onwards, all within a period of nine months. There is a similar analysis of Bloom's character in the parody chapter of 'Ulysses', where he is treated as 'a type and a succession of types through history . . . one person in himself and many persons in time'.¹⁵ Yet another method is used in 'To the Lighthouse'. The first and third parts are in the 'stream of consciousness' style, but in the second part, a different technique is adopted. Ten years elapse between the two days described, and the passing of time is an essential factor. The proportion is maintained by a complete change in perspective. The view-point taken is not from the inner consciousness of individuals but from the mutable immutability of nature, of day and night and the seasons, where human matters are intruded irrelevancies. Indeed the vital occurrences to the characters are here sparsely referred to within brackets. Then the human threads are taken up again and the same situation is repeated as in the first part, but with a difference. The interim has left its mark; the characters have altered, some are dead; the plan of visiting the lighthouse which

13. Psalms, xc., 4.

14. J. A. Gunn: 'The Problem of Time'.

15. Edwin Muir: 'James Joyce'.

had been previously frustrated is achieved. Storm Jameson¹⁶ compares it to the second round of an ascending spiral 'where all that has happened on the first repeats itself, on the different plane, with just that change of circumstance, that ironic twist, which Time, who plays the role of dramatic artist in the life of this universe, has given it'.

Lionel Britton in 'Hunger and Love' adopts an even more unusual technique. He tries to relate part of the life of one man, who is also a whole class of men in the lower strata of society, to all the cosmic laws which, operating on the universe, operate on him too, 'a human being up against immensity, a thousand million years of evolution behind him', a phenomenon in time-space. A very typical quotation will best illustrate this idea: 'It was just a chance if a passing star came near enough to rip a great spurt of flame out of the sun ten thousand million miles, and leave it behind to condense among other things into earth. It was all a chance in that condensation, into rock and carbon ring and open-chain, that the particular sequence of motions should have formed which has resulted in him to-day, at six pounds a week'. There are long disquisitions on the nature of time and space interspersed in the book, and some of the chapter-titles are significant: 'The Space-time Franchise', 'The Time-scape', 'Fourth Dimension'. Obviously there is no room for the old-fashioned plot in such a novel, and the long tirade against plots by one of the characters is quite in keeping with the book. To Gertrude Stein, any method of considering time, even on this scale, is inadequate; the alternative is to dispense with time completely, and supplant it with pure values. But this involves abolishing succession in thought, in logic, in language itself, and that way madness lies. The only adequate way to express such pure negation is by perfect silence which is the logical conclusion of her later writings. The most noticeable feature of Joyce's 'Ulysses' is his deliberate ignoring of the internal dimension of selected values by professing to describe everything within a certain chronological period, at the same time embodying past and future concepts blended into present duration. 'Ulysses' is the negation of the plot novel, a negation indeed of all the formal artistic categories of the tragic, the comic and so on, which convention has caused to be considered as fixed moulds in which the invention of the author stereotypes itself. The resultant feeling on reading the book is that Joyce has 'found the infinitely small in his search for the infinitely great'.

16. 'The Georgian Novel and Mr. Robinson'.

The interrelation of the arts has often been considered, and analogies from one to another are not uncommon in modern criticism. It would not be difficult thus to associate music and the novel; melody would correspond to the episodic novel, the temporal relation of the units—the note in the one and the incident in the other—being one of succession; harmony could be compared to the character-novel, the chord corresponding to the character with its many facets, each producing a complex but unified resultant impression. Chamber-music (Jane Austen) and fully orchestrated pieces are easy to find, and the apparent discords of a Bartok have their counterparts in many modern novels. De Quincey was one of the first to experiment in contrapuntal effects, as the title 'dream-fugue' in 'The English Mail-coach' shows. We have here the enunciation of the theme, which is repeated with variations in different keys of emotion, leading to their resolution in a finale. Aldous Huxley in his 'Point Counter-point' is even more explicit, explaining his method in detail in the note-book of Quarles, the novelist-character. At intervals he presents us with spatial cross-sections of time (in 'Orlando' we have temporal perspectives of space) laying bare the interwoven themes proceeding simultaneously. We are given, to speak figuratively, horizontal as well as vertical values of time, just as in a Bach fugue the voices give an effect of harmony at the same time as they pursue their own way through the piece. This is the way he expresses the passing of time:—"The clock ticked. The moving instant which, according to Sir Isaac Newton, separates the infinite past from the infinite future advanced inexorably through the dimension of time. Or if Aristotle was right, a little more of the possible was every instant made real; the present stood still and drew into itself the future, as a man might suck for ever at an unending piece of macaroni'.

An even better example of the contrapuntal method may be found in Andre Gide's 'The Counterfeiters', a book whose extraordinary similarity in numerous respects to 'Point Counter-point' is too great to be a coincidence. The novelist-character there puts forward his new theory of novel-technique: "My novel hasn't got *one* subject . . . 'a slice of life', the naturalist school said. The great defect of that school is that it always cuts its slice in one direction; in time, lengthwise . . . As for me I should like to put everything into my novel. I don't want any cut of the scissors to limit its substance at one point rather than another." This idea is further developed later on in the book, presenting a complete antithesis to Aristotle's 'beginning, middle and end' unity of action: "I consider that life never presents us with anything which may not be looked upon as a fresh starting point, no less than as a

termination." A new realism is suggested for the novel which aims, not at working photographically accurate details into an artificial mould, but at stylising the very formlessness of life itself.

Not a little of the interest aroused by Thornton Wilder's 'Bridge of San Luis Rey' was due to the unusualness of its structure. It begins with the final climax—the breaking of the bridge which precipitated five people to their death; then the life of each of these characters is developed, radiating to the common catastrophe like spokes to the hub of a wheel. Gunnar Gunnarsson's 'Seven Days Darkness', a modern version of the 'Othello' theme, likewise begins with the climax of the seventh day, and then goes back to the first and thence works forward. This story of disintegration is plotted against the symbolical background of the seven days of creation, the pillar of fire linking the two contrasted series of described and suggested times. One of the most noticeable effects of Thomas Mann's masterpiece 'Der Zauberberg' is the way he suggests the lack of value of time in the sanatorium in contrast with the world below. He suggests that people there have almost achieved timelessness, in the same way as the mystic who, by exalting himself to a different plane of reality, claims to eliminate time from his consciousness.

Time is frequently used for exploiting emotional values—spun out interminably to convey misery and monotony as in Hamsun's 'Hunger' or telescoped and foreshortened as in Bennet's 'Old Wives' Tale'. 'The mystery or detective element occurs through the suspension of the time-sequence'¹⁷ followed by a forward description of the backward reconstruction of the interim time, and the serial 'to-be-continued-in-our-next' kind of novel derives most of its effect through the crude exploitation of this, together with the 'race-against-time' method. Climax and suspense also are often achieved by manipulating the time-element. We have flash-backs into the past, a common trick of cinema technique, though it still remains for some enterprising writer in the search for novelty to imitate the film which was recently shown projected backwards arousing considerable interest in England. Incidentally, Rene Clair and other producers, mostly French, are attempting the musicalisation of the film in much the same way as others are experimenting with the musicalisation of the novel.

17. Forster: 'Aspects of the Novel'.

One thing I have tried to make clear in this necessarily cursory survey: not only the form but the conception itself of the novel is largely conditioned by the different attitudes adopted towards time and duration. It is not insignificant that experimentalists like Sterne, Wolfe, Britton, Mann, Huxley and Gide have been so preoccupied with the problem as to include discussion on it within the novel itself, though the majority of readers take up the attitude of my uncle Toby¹⁸: 'For if you will turn your eyes inward upon your mind', continued my father, 'and observe attentively, you will perceive, brother, that whilst you and I are talking together . . . or whilst we receive ideas in our minds, we know that we do exist, and so we estimate the existence, or the continuation of the existence of ourselves, or anything else, commensurate to the succession of any ideas in our minds, the duration of ourselves, or any such other thing co-existing with our thinking—and so according to that preconceived—' 'You puzzle me to death', cried my uncle Toby.

18. L. Sterne: 'Tristram Shandy'.

Some Modern Views on Sankara

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Sankara as a historical phenomenon is all that we are taught and expected to teach in our Indian universities. The result is that regarding the exact view-point of Sankara, there exist to-day hundred and one opinions causing unnecessary differences. No two *Advaitins* agree about the meaning of *Maya*. Nor do the different types of *Advaitavadins* meet without a clash! Yet one and all of them adore the Teacher as the world's greatest one. Differences somehow crop up when they try to interpret the basis of their essential agreement.

Long before the appearance of Hegel we have ample evidence of Western thought being familiar with the general principles of Sankara's philosophy. Owing to the honest efforts of Max Muller, Deussen, Thibaut and others, Sankara's system has found a permanent place in the thought of Europe. In spite of their denials we can easily detect the influence of Sankara on the development of Modern Thought in the 18th, 19th, and 20th centuries. The rational monism of Sankara appears time and again under different names but under queer conditions of approach. Their scientific speculations based upon an imperfect knowledge of Sankara's philosophy, are merely different aspects of Faith in the intellect or in the will or in both as one. Hegel's Absolute Idea, Schopenhaur's Will, Bergson's Life, Gentile's Mind, Bradley's Reality, etc., are only some new names for Sankara's Brahman—unsuccessful attempts to go higher than Sankara, futile intellectual struggles to get rid of solipsism with a view to giving scientific meaning for the merely phenomenal within the Reality. They share the same fate as that of other speculations. Each new system of thought seems to destroy the existing one. The book of the hour has a short span of life before it inevitably passes into the 'debris of thought.' There seems to be no end to this so-called speculative thought; and consequently no philosopher seems to be secure of his ground. The History of Philosophy occupies a greater position of importance than the actual science.

We are not concerned with the Western intellectual speculations but with its views and criticisms of Sankara. When the European

philosophers criticise the Upanishads, they attack also Sankara's position which by some unaccountable intuition they identify with the former. Their colour prejudices and race-superiority blind their vision, their avowals and denials. A few rare souls like Deussen and Rene Guenon ask us to keep to Vedanta the highest possible achievement by human thought. Rene Guenon, in his book on "Man and his becoming according to Vedanta" answers the usual charge levelled against Vedanta thus: "The doctrines are not to be degraded to the scope of the limited and vulgar understanding; they are for those who can raise themselves to the comprehension of them in their integral purity; and it is only in this way that a genuine intellectual elite can be formed." But it is to be regretted that even the most unprejudiced minds of the West are not able to appreciate the full implications of Sankara's philosophy because of their lack of insight into his metaphysical methods. It requires the keenest insight and the greatest self-sacrifice, the sacrifice of age-old prejudices, to get into the spirit of Sankara to understand him. Mere intellectual appreciations leave their ignorance of Sankara's system untouched. Hence with regard to their views on Sankara, each new book on the subject differs from the previous one. Perpetual doubts are arising about the only possible solution of the world problem which Sankara offers or as to its final disposal. Most of the criticisms levelled against Sankara by the modern thinkers are alike concerned only with his 'Maya' doctrine so-called. But have they succeeded in attacking his unassailable metaphysical position? Does Sankara really postulate a central cosmic principle independent of Reality, which gives rise to this world of name and form? It is this so-called independent cosmic principle attributed to Sankara, that is attacked with varying degrees of success by the different schools of thought.

What does Sankara really state in his *Bhashyas*? From certain undeniable facts of experience he establishes that *Prajnanam* is Brahman or the Reality which is proved to be identical with our Self. Here we get a definite criterion of Reality: Reality is that which transcends time and yet is the sole entity that endures for ever from the time view i.e., from the empirical stand-point. Even an ordinary thinker would never then believe in an extra-cosmic force or entity that can give rise to the consciousness of a world—the world that consists of individuals and exists in their consciousness. The only possible way in which we can understand Sankara when we take into consideration his sound metaphysical position, is that he points out '*Adhyasa*' or Mistaken-transference as the cause of bondage and misery, which we can easily note in all beings—an individual's illusion or a natural prejudice that veils Truth. The word, 'illusion', need not give rise to unnecessary fears in

the minds of the realists. Life consists of a series of memories; the event of the present becomes a memory of the past. The elusive handful of the 'present' is as unsubstantial as the achievements of a dream. The substance of this world consists only of a bundle of sensations arranged in order by the presence of Reason which is identical with our Real Self. The order and consistency that are instanced to prove the reality of an external world, are entirely due to the presence of the Real Self, and the former are the evidences of the permanent and unchanging nature of the Self which appears as the consistent whole in any state or in any conceivable situation. It is the invariable presence of Self that gives the appearance of reality to every situation.

A born Hindu familiar with Sankara's teachings will be surprised at the different views held by modern thinkers. Sankara is called a Nihilist, a Mystic, a Tantric and so forth. These are the opinions of the Westerners who have a fascination for his bold conclusions but have no idea of their ground. In our country it is a fashion to quote Sankara as an authority even for obscure and irrational beliefs. There are any number of such theories about Sankara which I need not consider now at length. I am dealing only with the views of the intellectuals not only of the West but also of the present Indian interpreters of Sankara. When so many of our own Acharyas and philosophers, not understanding the methods of Sankara, have attacked his so-called theories, how can we expect the philosophers of the West, who have not the least idea about the peculiar Vedic methods, to understand and give the legitimate value to the most rational outlook of the great philosopher?

In trying to give a wider meaning to the term, 'Maya' than what Sankara gave it, we move on to slippery ground. 'Maya' is the cause of all the existing disputes! Even in our country there are several possible explanations—theories on the meaning of *Maya*. One will get really confused by hearing all the different *Vadas* about it. Therefore the safest course is to read his *Adhyasa Bhashya* a number of times and form one's own independent conclusion based upon his metaphysical position. To treat *Maya* as a real cause of an unreal world or an unreal cause of an unreal world would lead us on to an endless array of speculative efforts. The cause ceases to be a cause if there is no effect apart from it. The unreal cause of an unreal effect ceases to be with the unreal. What does not really exist, needs neither an explanation nor an accounting for; and the attempt would be impossible because the real position does not allow it. Facts are superior to mere theories and the problem does not exist in the final comprehension of the Fact or in the Fact itself.

What is the cause or purpose of this world? That is all the question which worries the philosophers. They do not pause to consider whether this problem arises at all in an enlightened enquiry. "What world?" we ask. Is it an independent entity? If it is only the consciousness of a world we have to deal with, causality is included within it and can never be traced beyond consciousness. Sankara never troubled himself seriously about this illusory problem. For the problem of the cause of the world, the crux of all philosophy, is an intellectual illusion by its very nature in an enlightened enquiry. There is no occasion for such a problem if only we analyse our experience and get rid of our ignorance. When one great American philosopher asked Swami Vivekananda how he could explain the creation of the relative universe out of an absolute Reality, the Swamiji said that he would give the same answer that Sankara had given us long ago, viz., to request the questioner to put his question in a syllogistic form. The questioner of course thought and thought for a long time but had to confess in the end that he could not find the middle term!

We generally mistake one thing for another, to wit, the unreal for the real. Knowledge removes this ignorance. What then is the problem that would still exist in the sphere of knowledge? To establish or even to think of a relationship between the absolute and the relative is illogical from the very start. The worrying problem of the origin of this world is grounded in such an ignorant and illogical outlook. Hence Sankara analyses first our ordinary experience and arrives at the permanent and undeniable aspect of it. I need not deal in detail the methods of *Avasthathrya* and *Pancha-kosa*, both of which prove beyond doubt that the Self of the enquirer is the permanent reality, the Self that merely witnesses its percepts in two of its states, waking and dream, and reveals its true nature in what is known as *Sushupti*; the Self that appears as one perfect whole in each and every *kosa* (the universe of discourse) and on serious enquiry is proved to be none of these manifested spheres. The *Pancha-kosa* method proves that this 'I', the self of the enquirer, is not anything that it comprehends nor anything that it witnesses but is that which remains unaffected after the most rational process of elimination of the phenomenal. To deny this 'I' is at least to exist in order to deny or to doubt. Now the *Avasthathrya* and the *Pancha-kosas* are viewed together as a whole. There are all the five *kosas* even in a dream as per our experience. But after waking we find that the individual of the dream and all his five *kosas* and all activities connected with them are unreal. So too in the sheath of Reason or *Vijnanamaya-kosa* we arrive at the conclusion that the

three states or *Avasthas* are unreal and the Self is free from its temporary attachments created with each state. Thus the five *kosas* and the three *Avasthas* are found to be mere passing appearances and situations, and this Self is actually free from them.

Self's nature as pure or perfect consciousness is proved by the method of *Avasthathrya* which disposes of all the existing problems of causality, world, etc. Cause demands time, and time has meaning only within the waking or the dream. The sense of time snaps in our deep sleep. Therefore the problem of the cause of the three states on which hangs the consciousness of the world, does not arise, and if it arises at all, it can arise only in those who are ignorant of the nature of cause. About this question of causality, Mr. K. A. Krishnaswami Iyer of Bangalore, has dealt with at length in his recent valuable book on "Vedanta as a Science of Reality" (Ganesh & Co., Madras).

The knowledge of Reality arrived at by an enquiry into the nature of our experience makes the problem of the cause of the world meaningless and illogical. If there still remains a craving for the cause of the world, Vidyanaraya humourously asks those that want it, to find it out—all within the waking state. Few are aware that the greatest scientists of to-day have arrived at the same conclusion about the cause as that of Sankara.

Here I have to say a few words on a most controversial point. It is not a small family quarrel among ourselves, for it affects seriously our notions of freedom and bondage and release, etc. I think that most of the criticisms levelled against Sankara would appear very reasonable if it is proved that he believed in the existence of *Avidya* as *cause* in any form in *Sushupti*. It is left for great scholars to decide the issue textually. But one familiar with the canons of pure philosophy and modern science, cannot think of a cause in a timeless sphere. As *Vasana-matra* or as *Bija-rupa* or in any conceivable form, the presence of *Avidya* as the cause in *Sushupti*, would make time greater than the Self. Fortunately our Self is free from such an imaginary curse! *Sushupti* is the one occasion, so to speak, when we can realise Self's absolute purity and freedom. The waking intellect that demands a cause in its time-bound form, must imagine its cause in *Sushupti* which is then viewed by it as *its previous* state from the same time-bound view. It thus includes the timeless sphere within its time sphere and imagines an ought-to-be something in *Sushupti* to account for the *subsequent* rise of a world in consciousness. The power of ignorance is so great that such unconscious slips in logic become possible even in very great thinkers.

Such an irrational position is mistakenly transferred to Sankara himself, the world's greatest thinker, who never uses such a term as '*Mula-vidya*' anywhere, according to Mr. Y. Subba Rao of Bangalore, in his recent scholarly work in Sanskrit on "*Mula-vidya Nirasa*". (Advaita Press, Chamrajpet, Bangalore.) Even if the interpreters and scholars prove by texts that Sankara says that, we know for certain that the greatest philosopher must have meant it for those who are still in the sphere of ignorance and who will get confused or even get mad if it is proved to them the unreality of cause. In his *Bhashya* on Gaudapada *Karikas* and also in several places in *Sutra Bhashya*, he has clearly pointed out the errors of all such unphilosophical positions. To the *Poorvapakshi* who asks the question: "Whose is this *Avidya*?" Sankara replies in his *Gita Bhashya*: "To you, the individual, who asks this question". One may ask here, "If the individual's ignorance is removed by the individual's knowledge, what have you to say about other individuals? There ought to be a universal force or something whatever we might call it, that should account for the *Avidyas* of the other individuals". We say that the idea of a universal force and the other individuals are all included within the individual's *Avidya* and ceases to be with it when knowledge arises. Where individuality is absent as in *Sushupti*, it will be a futile attempt to seek for the trace of *Avidya* there in any form. *Avidya* in *Sushupti* i.e., I did not know anything then, is not a conscious experience but is only a created memory of the waking intellect. He who establishes the unreality of an external world by *Avasthathrya* would never undo himself by postulating a central cause for such an unreality outside the actual sphere of ignorance, and much less within the sphere of Absolute Reality. The cause is not available *there or then for this or now*.

I will also refer to another existing fashion of some of the modern Indian thinkers. A few of the exuberent *Advaitins*, in their zest for reconciliation and moderation, say that Ramanuja is the best commentator for Sankara. Can ignorance of Sankara's position go further? It arises out of a confusion of religion with philosophy, faith with science. The one is a mere poetical description of the Lord according to the *Sruthies* and *Smrities*, while the other is the proof for such a Reality. Both talk no doubt about Vasu Deva, but Sankara's Vasu Deva is a rationally proved entity stripped of all *our* illusions about it. To Sankara the *Sruthies* that declare the truths about Reality are sacred because of the *rational* outlook. They can be proved by reason—reason reaching its logical limit in experience and revealing intuition by which the nature of Reality is comprehended. Here, in this position, there is greater room for Bakthi, for it is in perfect accordance with know-

ledge. Mere faith in the Lord has its own uses of course. But faith based upon certainty means eternal release from doubt, despair and unnecessary hopes. To think of a unity in philosophy of the type referred to, is only a compromise with ignorance.

Ramanuja's Vasu Deva, in spite of all the glorious attributes that we can imagine, is outside the sphere of both reason and experience, the only reliable instruments of knowledge. Knowledge does not arise merely by a denominational allegiance to a particular creed or sect or by accidents of birth, time and place. Ramanuja's system is a leap in the dark with the talisman of individual consolation or satisfaction for one's own safety. It is an interesting speculation based upon religious instincts without entering into the meaning of their deep basis. Moreover his idea of Reality, 'as a whole composed of parts', reifies the essential distinctions, and God as the ultimate unity becomes then a mere illusion—one among several wholes!

God, religious experience, urge of Truth, sacredness of the Sruthies, all these get their deep meaning and glory in Sankara's system of thought where God is proved to be the very urge and the ideal of all conscious existence and therefore the only Reality that is identified with our Self. Any other view can only be an illusion based upon mere ignorance of the situation. God alone is; there is nothing else but God. We can get at Him, intellectually and intuitively. This is the glorious position of Sankara. This high rational outlook is bound to endure for millions of these illusory years, whose value and meaning he so boldly pointed out that even a thoughtful *child* can try and understand.

Thibaut tries to prove that Ramanuja's commentary of the Vedanta Sūtras is more in accordance with the spirit of the *Sūtras* than Sankara's, while he also admits that Sankara's is more in line with the philosophy of the Upanishads. This is entirely irrelevant when we know that the Vedanta Sūtras are meant only for revealing the consistent doctrines of the Upanishads. What concerns the modern thinker is not the faithfulness of the interpretations or even consistency with the Sruthies. Which is the *rational* view? The greatness of Sankara consists in taking a most rational outlook while agreeing with the Sruthies, thereby showing the rational basis of the *Maha Vakhyas* themselves. He does not give up either textual authority or reason based upon actual experience, because his metaphysical position is entirely in agreement with that of the Sruthies, as he proves at every step. An appeal to reason will hold good for all time to come but an appeal merely to the religi-

ous instincts of a particular set of human beings cannot stand the ultimate tests of reason. Sankara yields to none in his reverence for the Sruthies. But in his view knowledge demands the fullest use of reason necessary for the discrimination of the Real from the Unreal in experience. A '*Vichara-Buddhi*' is absolutely necessary before trying to understand the deep meaning of the Sruthies. What appears as reason under the first limited view becomes exalted as intuition; and what is intuitively grasped as Truth is what is revealed in the Sruthies. And hence their sacredness. Mere quotations without taking into consideration their full implications do not take us even one step higher. That is where Sankara scores a victory over every other philosopher! Sankara's victory is virtually a victory to truth! He alone has a right to talk about the limitations of reason, for he has reasoned it out and found its meaning in the Reality. The legitimate purpose of intellect, the instrument of reason, seems to be to know its own limitations and obtain the satisfaction that the very limitation is thoroughly rational from the point of view of ultimate reason.

What are the proofs for the existence of God? All speculative efforts to answer this question have failed. And Ramanuja's is one of them. The splendid superstructure of his theological speculation is built upon the genuine but uncertain foundations of human beliefs, hopes and fears! But Sankara's system is based upon the solid ground of Reason and undeniable experience. If Self is proved to be the only Reality, what seems to hide this glaring fact is only one's own ignorance and nothing else. If that is seen to be the one obstacle, then we can truly say with Sankara that God's mercy is infinite! A little serious thought in the right direction—and we find that we are actually free from all bondage. The greatness and genuine goodness of the Lord is once for all vindicated in Sankara's system of thought, and not in any theological or other speculations. Only a true follower of Sankara can exclaim with ample justification and perfect sincerity: "*Vasu Deva Sarvamithi*", and therefore, "*Om Namo Bhagavethe Vasudevaya*" and ultimately, "*Aham Brahmasmi*".

The Distribution of Indian Income-tax

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The income-tax is a permanent feature of public finance in all modern states. War and post-war finance have made this form of taxation practically universal. One of the important questions regarding the income-tax is whether it should be mainly a central or provincial source of revenue in countries with a federal constitution. If India adopts a federal constitution, what is the place of the income-tax in Indian federal finance.

What is the experience of other countries with a federal constitution? In the financial systems of modern federations, income-tax was generally regarded as a source of state or provincial revenue but the recent experience of some of the federations has shown that in practice the raising of considerable sums through an income-tax can only be done on a national scale. In the U. S. A., Australia, and Canada, the federal governments abandoned their previous reliance on indirect taxation as soon as an emergency arose. In most of the federations, income-taxes are now levied both by the federal government and by the constituent states. In Germany and Switzerland income-taxes are administered by the provinces but the control is federal. In fact, it may be noted that there is very little similarity between the systems that have been evolved in the different federations and that the distribution of resources between the federal government and the component states is not based upon strictly theoretical principles. As the Indian Taxation Committee have pointed out, the systems adopted by the different countries have been "moulded by widely differing influences emanating from the past history of the particular states, the psychology of their people, the religious differences prevailing among them and their trade and foreign relations with other states". So in dealing with the distribution of the income-tax in India we must beware of sedulously following the practice that obtains in other countries. While federations in European countries have come about through association of states for common ends, the problem in India is to break up one unitary state into a number of separate provinces whose govern-

ments will each exercise a large part of the powers of the old Central Government.

The question of the allocation of income-tax was first discussed by the authors of the Report on Indian Constitutional Reforms (1918). They argued in favour of income-tax as a central subject and assigned two strong reasons for making income-tax a central subject: first there is the necessity of securing a uniform rate throughout the country. Different rates in different provinces are highly inconvenient; secondly, in the case of businesses with their centres of production in one province, and their headquarters in another, the province in which the tax is paid is not necessarily the province in which the income was earned. Provincialisation of the income-tax might mean that some provinces having large commercial and industrial interests like Bombay would be benefited more than purely agricultural provinces like the United Provinces and Madras. The answer to this objection is that equality of treatment as between one province and another must be reached so far as it is possible in the settlements as a whole, and it is not possible to extend the principle of equality to individual heads of revenue. Another practical argument against centralising income-tax is that in so far as they are collected by provincial agency, there will be a tendency to slackness in collection and a falling-off in receipts, if provincial governments are given no inducement in the form of a share of the receipts. The best way of meeting this difficulty is for the Central Government to have an agency of its own for the collection of the tax.

The possible methods of dividing the income-tax have been the subject of controversy since the Reforms. The problem has been examined very exhaustively by the Indian Taxation Committee in paragraphs 528 to 538 of their report. The main reason for the division of the income-tax between the Central Government and the Provinces is that the taxation systems of the provinces must be theoretically unsound so long as they do not embrace some method of levying progressive taxation based upon ability to pay as is the case with the income-tax. A division of the proceeds of income-tax is already in force under Devolution Rule 15. It provides that the Provincial Government shall receive 3 pies in each rupee on that portion of the assessed income in a province which is in excess of the assessed income of the year 1920-21. This rule has however failed to give the commercial and industrial provinces a share in the income-tax. So this plan of division has been a failure in practice. There are also other reasons which render it unsuitable as a permanent method of dividing the income-tax with the provinces. Firstly, its dependence on a datum line leads to arbitrary

results. A province which has failed to assess income-tax properly up to 1920-21 stands to gain out of the arrangement while a province which collected its income-tax efficiently stands to lose. Moreover the income-tax in the commercial provinces depends largely on the main industries and periods of prosperity and depression in each of these do not necessarily synchronise. Again the Devolution Rule (except in the case of businesses transferred for assessment from one province to another) takes no account of the claims of residents and enables the province of origin to appropriate a share of the tax which is really paid by the inhabitants of another. This is the case with the income-tax collected in Calcutta on the profits of tea companies in Assam. Another serious defect is that it does not enable a province to reach the capacity of the income-tax paying classes as a whole. The share which a province receives is merely a proportion of the income which exceeds that of the datum line. The Indian Taxation Committee therefore condemned the system of distribution laid down in Devolution Rule 15 as fundamentally unsound.

Other possible methods of dividing the income-tax have been discussed in paragraph 530 of the Taxation Committee's Report. They are:

- (1) The provinces might be empowered to levy and administer an income-tax separate and distinct from that levied by the Government of India.
- (2) The income-tax might continue to be levied by the Government of India, which might at the same time levy *centime additionnels* for the benefit of the provinces.
- (3) The income-tax might continue to be levied by the Government of India, but a definite share of the yield might be allotted to the various provinces on principles to be determined.

The first method is contemplated in various federal constitutions such as Australia, Canada, and U. S. A. The objection to this method is that it leads to the existence of independent taxing authorities operating within the same sphere causing thereby considerable irritation to the tax-payers. The system involves the submission of separate returns to two different authorities and the understanding of the provisions of two taxing schemes. It may be noted that quite recently Australia has discarded the method in favour of the third and in Canada the provinces in actual practice derive their income-tax revenue from some form of corporation tax.

The second method, viz., the levy of *centimes additionnels* obtains as between the state and local taxation in France, Belgium and various

other European states. This method has also been rejected by the Indian Taxation Committee.

The third method, in the opinion of the Taxation Committee, provides the most appropriate solution because it involves no additional trouble either to the assessing authority or to the taxpayer and it permits of variations in the respective shares of the Central and Provincial Governments without any dislocation of the machinery of assessment and collection. The manner in which an allocation between the several provinces of the total share allotted to them might be made is explained in detail in the Committee's report. The Committee's recommendations briefly were:

(a) The provinces should be given the proceeds of a basic rate on personal incomes graduated proportionately to the general rate. For this purpose the basis of calculation would be the personal returns submitted under Sec. 22 (2) of the Indian Income-tax Act which provides for a statement of the income derived by the assessee from all sources, including dividends from companies wherever situated.

(b) In partial recognition of the principles of origin, each province should be given a small portion of the receipts of the corporation profits tax.

Under the scheme proposed by the Committee, the Government of India would get (a) the whole of the collections on incomes that do not appertain to residents in particular provinces, such as the tax on the undistributed dividends of companies. (b) the tax on incomes of persons resident abroad or resident in places outside the boundaries of the provinces; and (c) the whole of the super-tax.

In fact the object of the Taxation Committee in suggesting the assignment of the proceeds of a graduated rate on personal incomes was to give each province an amount varying with the taxable capacity of the inhabitants of that province. The Taxation Committee's scheme is theoretically sound, but a graduated basic rate would be inconvenient in practice especially if the Government of India decided to adopt some other system of graduation. It is not also worthwhile either from the imperial or provincial point of view, to graduate the rate with reference to taxable capacity so long as the Provincial Governments were not given the power to alter the rates. A flat rate on the total assessable personal incomes would be simpler and more convenient, since the provincial share under this formula would be quite independent of the system of graduation adopted by the Government of India.

The second proposal of the Taxation Committee that in partial recognition of the principle of origin a small portion of the receipts of super-tax on companies or the corporation profits tax should be allotted to the provinces is open to certain objections, theoretical and practical.

(a) The principle of origin may be weighty in the case of two independent countries for every country attempts by means of protective tariffs and other means to develop its industries. It is doubtful whether the same importance should be attached to the principle of origin in considering the question of the division of income-tax between the provinces in India. For example many of the mining industries and the steel industry are located in the province of Bihar and Orissa, but the capital of the companies working the mines has been largely supplied by Bengal and Bombay.

(b) The distribution of the super-tax on companies on an equitable basis requires the preliminary adjustment of collections of each province to meet the case of profits earned in several provinces but taxed only in one province. For example, take the case of a railway company which operates over several provinces and Indian States and is managed from Bombay and financed by British capital. In such a case, it would be difficult to state definitely where the income of such a company is earned and how it should be distributed among the various provinces. In fact, as Sir Josiah Stamp observes, "the division of profits according to the place of origin presents an almost insoluble problem of accountancy, and is of course not strictly determinable."

But these difficulties have been overcome in Germany and the Government of India are of opinion that the problem is not as formidable as in Germany. There are at present about 1000 companies subject to this tax, and in most cases, the place of collection coincides with the place of earning, but it requires some sort of reasonable agreement among the provinces concerned and the provinces likely to be benefited by this measure are Bombay, Bengal, Bihar and Orissa.

The question of surcharge on central taxes arises in the case of the income-tax and has come in for a good deal of discussion in regard to the distribution of the income-tax. Surcharges (*centimes additionnels*) on the central income-tax are levied in France, Belgium, Italy and various other European states for local purposes. The possibility of a levy in India was considered by the Indian Taxation Committee who rejected the proposal on two grounds. *First* in their opinion the system can only be employed successfully where the income-tax

machinery is directed to taxing either all revenues at the source or all revenues at the destination of income and not where a combination of both methods is adopted; *secondly*, if Provincial Governments were empowered to determine the rates of a surcharge on the central income-tax, an inevitable result would be a variation in the rates in different provinces which is to be deprecated in the interests of commerce and industry. But there can be no theoretical objection to a system of surcharges, provided that such surcharges are levied only on personal incomes of residents within the province, and not on the collections within the province. The principal objection to surcharges is that they might encroach seriously on the sphere of central taxation. This objection would be removed if surcharges were limited to a definite percentage of the rates prescribed by the Government of India.

Sir Walter Layton, the financial expert of the Simon Commission, made certain important proposals with regard to future allocation of revenues between the Central Government and the provinces. Layton begins his report with an interesting chapter on India's inadequate revenue. He shows how the revenue per head is low not only absolutely but relatively, being only 6% of the national income as against 20% in Japan and one assumption that underlies his financial proposals is that it is both possible and desirable to improve the economic and social condition of the Indian people by substantial increase in expenditure on the nation-building services, and secondly that it is possible to raise additional revenue for the purpose. This position is really incontestible because Layton has pointed out that more revenues lie at the root of all reform and that in the years to come the spending powers of the provinces must largely increase. From a nationalistic point of view this appears to be a sound principle in regard to the future of India's finance. The principal argument in favour of a federal constitution in India is to fix the responsibility for a rapid social and economic development on the various local authorities.

Layton's proposals for the composition of new taxation are re-grading of the income-tax, income-tax on agricultural incomes, death duties, excise on cigarettes and matches and an increase in local rates. Layton has suggested that within a period of 10 years from the working of the new constitution, the Central Government would surrender to the provinces revenues amounting to 12 crores, 6 crores representing the entire proceeds of salt import and excise duty, and another 6 crores representing 50% of the *personal* income-tax collected in the

provinces.¹ It is also proposed to tax agricultural incomes and the proceeds of the tax on agricultural income in each province should be made over to the local governments. A revenue of 5 crores is expected from these sources for the provinces. Under the Layton scheme, the provinces are also endowed with the right to levy a surcharge on income-tax on all persons to the extent of a quarter the rate at which the income-tax is levied by the Central Government and the surcharge on income-tax is expected to yield 3 crores to the provinces. The net result of all the financial proposals of Layton is that the provinces will benefit by a revenue of 24 crores from new taxation and by 12 crores a few years later from surrender of existing revenue of the Central Government.

The Layton proposals have been criticised from several points of view. They go against the federal principle. There are at least 5 taxes—the personal and the agricultural income-tax, and the three national excises (tobacco, matches and salt) which Layton would allocate to the provinces but to be administered by the Central Government. It is the central legislature which is to possess the power of annually voting the income-tax and the national excises. No financial arrangement could be more subversive of the political autonomy of the provinces. Again the proposal of deciding the personal income-tax² between the Central Government and the provinces suggests

1. Vide para 66 of the Government of India's Despatch on Constitutional Reforms wherein is given the proportion in which the provinces would share in a distribution of the personal income-tax.

2. It may be pointed out that the distribution between 'personal' income-tax and general income-tax is in a sense misleading. Strictly speaking, all income may, in the end, become personal income and the whole of the taxes which are now, under the Indian system, included as taxes on income may become 'personal' income-taxes with the sole exception of the super-tax payable by companies which is really a corporation tax. Apart from this, the difference in any year between the total taxes on income and that amount which can be regarded as personal income-tax in India would represent the tax on the undistributed profits of companies and on that portion of the profits which is distributed to persons liable to Indian income-tax, but from which the tax nevertheless is deducted at source. Analysed in this way, it appears that rather too much was made of this distinction in Layton's proposals. Moreover, if too great reliance is placed on this distinction for working out a practicable scheme for distribution as between the centre and the provinces, it may lead to really embarrassing results. Thus for example it might happen that in some particular year the total body of companies in India might retain undistributed a very large proportion of their profits earned in that particular year and transfer these to reserve, and that then in a subsequent year when profits were low, substantial dividends might be paid from these reserves.

clearly the danger of the provinces being overtaxed in order to meet the urgent needs for revenue of the Central Government or of the Central Government having to overtax itself to meet the urgent need for revenue of the provinces. These proposals fit in well with the constitution of a Central Legislature proposed by the Simon Commission, namely that it should be representative of the provincial legislatures and not of general tax-payers electing members on a popular basis. In fact, in so far as Layton's proposals aim at giving to the provinces sources of revenue which are leviable by the Central Legislature alone, they seem to imply a negation of Federal Government. From a fiscal point of view, the Layton Scheme would appear to deprive the central revenues almost entirely of an element of elasticity. In a bad year, it would be difficult to raise the income-tax. Under the prospective balance sheet which Layton has drawn up, out of the total revenue of 82 crores, no less than 68 crores are proposed to be raised from 2 items, viz., income-tax and customs, but it is these 2 items that are likely to be affected in times of trade depression.

One important condition for an ideal system of distribution of revenues is that it should be one to suit the States as well as the Provinces. Throughout the whole of this discussion, it is assumed that the new constitution should from the beginning proceed on a federal basis, and this is one of great importance in dealing with the financial relations between the States and the Provinces. If a federation of British Indian Provinces is to be formed now, and if its conventions are established without regard to the States, it will be much more difficult for the States to enter it later than if their point of view has been considered from the first. It is reasonable to think that what the States want is a fair financial deal, and a voice in common affairs. Any system of distribution of taxes applicable to the States as well as the Provinces must involve as little interference as possible with their internal administration. Applying this

In such a case, if the scheme of distribution were an allocation of personal taxes on income to the provinces and of the balance of taxes on income collected to the centre, the central authority would in the earlier year have retained a large share of the tax, while in the later year it might have to distribute to the provinces as their share in 'personal' income-tax a larger amount than was actually earned in that year, so that the centre itself might be actually out of pocket. Nevertheless, as affording a rough and ready basis for distribution among the provinces, the classification of part of the taxes collected in any year as 'personal income-tax' is one of value.

principle to the proposals of Layton, there is a real difficulty in the case of income-tax. There are many States which have no income-tax at all. Those that levy it do not levy it at the same rate as the Government of India. It would be difficult to induce all the States to impose the income-tax at the Government of India rate and to secure efficiency in its administration. So the only way of meeting this difficulty seems to be to leave the whole of the present income-tax to the units of the federation and to give to the Government of India a larger share of the Excises.

Sir Walter Layton in his scheme proposed to make over to the Provinces large proceeds of the income-tax *i.e.*, nearly half of what is collected on *personal* income and the other half being retained for the Central Government. Here is a practical difficulty overlooked by Layton. The income-tax is a graduated tax and the rate must be expected to vary from time to time. It may have to be varied at the instance either of the Central or the Provincial Governments. For the latter he suggests a surcharge on their own behalf, and in the case of the former, he seems to contemplate a revision of the rates, but if the gross amount of the tax on the personal incomes is divided into 2 halves, it would be impossible for the Central Government to take something extra for its own purposes without at the same time increasing the share of the Provincial Governments which may not need any increase. The obvious remedy proposed by some is to substitute for a division into 2 halves, the allotment to the provinces of a basic rate which could be graduated proportionately to the general rates for the time being in force.

The constitutional difficulties which are involved in the Layton proposals will be met to some extent if the tax on personal income is *entirely* provincialised. The provincialisation of the personal income-tax will however, mean a drop in the revenue of the Central Government of 9 crores in round figures. This deficit can be made good by centralising the proposed general excises on tobacco and matches. These 2 revenues are estimated to yield an income of about 8 crores. The salt revenue need not be provincialised even at a future date. The continuance of the national excises as central revenues and the provincialisation of all personal income-tax would remove the anomalous constitutional position that taxes intended to benefit the provinces are required to be voted by the Central Legislature and from a fiscal point of view would give more elasticity to the central revenues. How far will the transfer of personal income-tax to the provinces work out in the case of the provinces? The Government of India in their

despatch on the report of the Simon Commission have given certain figures to show that the provinces will benefit in widely varying amounts as a result of transfer of even half the personal income-tax. If the entire personal income-tax be provincialised, the variation in the increased spending power of the provinces will cover a still wider range. If this is open to criticism, it may be pointed that even now in their present revenue, provinces vary on a common denominator of population. The following figures are noteworthy:—

Province	Revenue according to accounts 1928-29.	Estimated Proceeds of income-tax to be transferred.	Present Expenditure per head of population.
	(In Lakhs.)	(In Lakhs.)	Rupees.
Madras	1753	101.6	4.1
Bombay	1522	181.2	8.2
Bengal	1099	192	2.5
U. P.	1145	65.2	2.7
Punjab	1166	61.5	5.5
Bihar & Orissa	578	47.2	1.8
C. P.	536	33.4	3.7
Assam	274	17.8	3.9

It will be seen that though the provinces will emerge out of the new arrangement with benefits varying between province and province, the variation is not more marked than what exists in their present financial position. It does not seem possible to assess the needs of each province and then to formulate the proposals of allocation so as to meet the needs of all. Past neglect in the development of individual provinces is bound to reflect itself in their present financial resources—a fact which is writ large on the provincial finance. The spending power per head of the population cannot be applied as an unerring test. What is most important is to formulate a scheme of financial allocation on a uniform principle.

The main lines of Indian federal finance were laid down by the Federal Finance Sub-Committee (of the 2nd Round Table Conference). This Committee known popularly as the Peel Committee recommended that the taxes on income should be transferred to the provinces with the exception of the Corporation Tax but the whole question of the

distribution of the income-tax has been more fully gone into by the Percy Committee.

The Percy Committee have made a forecast of the Federal and Provincial budgets and according to the Committee, on the existing basis of taxation, a surplus in normal times of $4\frac{1}{2}$ crores may be expected in the central budget. They have also come to the conclusion that the new taxes, central and provincial suggested by the Peel Committee are hardly promising excepting the excise. An excise duty on matches is the only possible source of additional taxation and its estimated proceeds are about 3 crores, of which $2\frac{1}{2}$ crores will be raised in British India. This gives a total surplus for the central revenue of 7 crores. Forecasts of the provincial budgets show deficits in all provinces except the U. P. and the Punjab. The largest deficit is that for Bengal, namely 2 crores; the deficit for Bihar and Orissa is 70 lakhs and those for Bombay and Assam 65 lakhs.

The only items by means of which it was open to the Committee to deal with such a situation is the income-tax with regard to which it makes the following proposal. The Committee therefore regard themselves as being forced back upon the problem which the Meston Committee tackled and on a solution which is closely similar to it. The distribution of the income-tax and the fixation of the provincial contributions seem to go hand in hand. The distribution of the income-tax implies that a system of statistics now in being should be modified in such a way as to facilitate the ascertainment of the personal income-tax creditable to each province. The Committee, therefore, remark, "pending the collection of such statistics, the only practicable course appears to be to throw all the personal income-tax (i.e. exceeding personal super-tax) into a common pool and to distribute this pool between the provinces on the basis of the best estimate that can be made from time to time, having regard to formally assessed incomes and to the probable amount of incomes paying tax at source but not formally assessed, in each province. Personal super-tax is to be credited to the province in which the assessment is made. As regards the tax on income other than "personal income", (i.e., the income of non-residents and undistributed profits of companies amounting to about one-seventh of the revenue) we are of opinion that in view of the difficulty of tracing the origin of such income, the proceeds should be distributed on the basis of population. This would incidentally help the poorer provinces with large populations like Bihar and Orissa and the United Provinces."

On this basis, the net proceeds of the income-tax which amount to Rs. 17.20 crores would be available for distribution between the Federal and the Provincial Governments. Of this, Rs. 3.70 crores representing super-tax on companies, tax on salaries of Federal officers and in Federal areas would go to the Federal Government; Rs. 2 crores representing collections of personal super-tax, i.e. other than company super-tax would be distributed on the basis of actual collections from residents. Of the balance of Rs. $11\frac{1}{2}$ crores, about $\frac{1}{7}$ th would represent the estimated tax on the undistributed profits of companies and on the incomes of persons resident outside British India. This one-seventh should be distributed on the basis of population and the remaining $\frac{6}{7}$ ths on the basis of the personal income-tax.

The following table shows the result of the apportionment of the three parts into which the pool is divided, the first referring to the Rs. 2 crores of personal super-tax, the second to the $\frac{1}{7}$ th of Rs. $11\frac{1}{2}$ crores, and the third to the remaining six-sevenths.

(IN LAKHS OF RUPEES)

Province	(1)	(2)	(3)	Total
Madras ..	7	30	146	183
Bombay ..	50	14	279	343
Bengal ..	110	32	263	405
U. P. ..	8	31	84	123
Punjab ..	2	15	74	91
Bihar & Orissa ..	18	24	65	107
C. P. ..	3	10	46	59
Assam ..	1	6	22	29
N. W. Frontier Province ..	1	2	7	10
Total ..	200	164	986	1350

It has also been suggested that these amounts should be fixed on a quinquennial basis determined according to income-tax statistics.

Next comes the question of the basis of the contributions to be made by the provinces. The Committee came to the conclusion that the payments should be in proportion to the amount of the income-tax distributed—i.e. the contribution of the provinces to the Federal

Government is assessed primarily with reference to the additional resources of the provincial Government. In other words, the Committee proposed the distribution to the provinces of that proportion only of the income-tax revenue that the centre can afford. But as on this basis, the provinces of Bengal, Bihar and Orissa, and Assam are left with deficits of Rs. 50 lakhs, Rs. 31 lakhs, and Rs. 54 lakhs respectively, these amounts are spread over the other 5 provinces which will have surpluses and the net result is shown in the following table:—

(IN LAKHS OF RUPEES)

Province.	Surplus (+) or Deficit (-) on the basis of present provincial revenues.	Share of income-tax.	Full contributions payable proportionately to the amount under column B.	Surplus (+) or deficit (-) if full contribution is paid.	Contribution proposed.
Madras ..	-20	183	115	+48	141
Bombay ..	-65	322	203	+54	248
Bengal ..	-200	405	255	-50	205
U. P. ..	+25	123	78	+70	95
Punjab ..	+30	91	57	+64	70
Bihar & Orissa ..	-70	107	68	-31	35
C. P. ..	-17	59	37	+5	37
Assam ..	-65	29	18	-54	Nil

In fact the only way of meeting the deficits of some provinces is at the expense of the income-tax revenue of the other provinces which have substantial surplus. In other words the Percy Committee have suggested not that the income-tax should be a prerogative of the units concerned but that it must in fact be used to meet the provincial deficits.

At the 3rd Round Table Conference the Secretary of State made a statement that the Government were anxious to give the Provinces real autonomy and the greatest possible freedom over the disposal of their revenue. But the latest figures indicated that, taking India as a whole, receipts could not balance expenditure on the present scale. Unless the Federal Government had the main part of the income-tax now being collected, it could not remain solvent and the application

of the proposals of the Peel Report in present circumstances would mean that transference to the Provinces of the proceeds of the income-tax must result in the whole amount being taken back in the form of contributions. He therefore suggested tentatively that special measures should be taken by means of central contributions to start deficit provinces on an even keel; that Provincial Governments should be vested with a limited right of surcharging income-tax; and that central revenue should be transferred to the provinces as and when the financial position improved. This suggested retention of the income-tax by the centre has elicited strong criticism from several quarters.

The conclusions of the Third Round Table Conference in regard to the income-tax may be briefly stated as follows. The objectives kept in view in regard to Indian federal finance are:—(1) to provide that all provinces should start with a reasonable chance of balancing their budgets. (2) to offer them the prospect of revenue sufficiently elastic for future development. (3) to ensure the solvency of the Federation. (4) to ensure that, after an initial period, the Federal sources of revenue shall be derived from the British India and the States alike. The income-tax is used as a balancing factor to realise in part these objectives. The proceeds of the income-tax are to be divided into two shares to be assigned to the Federal Government and the provinces. The Federal Government would be entitled to a share based on the proceeds of the income-tax not derived solely from residents in British India e.g. corporation tax, tax on federal officers, tax in federal areas, tax on Government of India securities and tax upon persons not resident in British India. These five heads should be permanently federal and their yield which would be $5\frac{1}{4}$ crores out of the $17\frac{1}{4}$ estimated by the Percy Committee would be the normal net revenue from taxes on income. The Indian States Representatives agreed to assume the burden of corporation tax only on the assumption that the Federal Government should be secured a share of the taxes on income yielding at the outset at a minimum of $8\frac{1}{4}$ crores but the representatives of British India were not prepared to go beyond 5 crores.

The remaining proceeds from taxes on income would be assigned to the provinces subject to certain demands of the Federation. It was proposed that for a period of X years the Federal Government should retain a block amount of the provincial share of taxes on income and the rest should be distributed to the provinces. The Federal Government should also have special powers, in cases of emergency to levy, so far as British India is concerned, an additional tax on the heads of income-tax permanently assigned to the provinces. As regards the pro-

posal that each province individually should have a right of surtax up to a minimum of 12½% of the tax centrally imposed, there is no unanimity of opinion. Critics of this provincial surcharge point out that this would traverse the valid principle of uniform rights throughout India and would affect the reserve of taxable capacity available to the Federation in times of emergency.

In fact, the scheme of distribution proposed is highly complex, tentative and experimental. The corporation tax in India is a growing head of revenue and if accepted by the Princes would make the Federal revenues more elastic. But the amount likely to be relinquished by the centre to the provinces will, for many years to come, represent only a minor proportion of the total revenue and the provinces would not find it possible to count on a steady revenue from taxes on income.

Industrial Finance

(Continued from page 70. Vol. II. No. 1.)

By

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In any scheme for the financing of Industries the importance of capital cannot be overestimated. Though many factors contribute to healthy industrial development, it must be admitted that capital is the backbone of industry. In an age of large-scale industrial enterprise, large output and mass production, a large capital outlay is of the utmost importance. Large-scale industries are as yet few in India though the need for industrial development is beyond dispute. When the need for increased capital is, therefore, greater than ever, the gravest problem that faces the entrepreneur in India is the securing of adequate capital on reasonable terms for his industrial enterprise. With the solution of this problem most of the difficulties in the way of a speedy and extensive industrial development can certainly be overcome.

Considering the industrial and material resources of India, what little increase in the capital invested in industries there has been appears inadequate and has been very slow in coming. The following table shows the growth of Joint-Stock Companies working in India.

Number of companies at work in India and their paid-up capital, at the end of each year from 1903-4 to 1927-28:¹

Year.	Companies at work.	Paid up Capital. Rs.	Year.	Companies at work.	Paid up Capital. Rs.
1903—4	1,488	38,73,66,713	1917—18	2,668	99,11,20,816
1904—5	1,550	40,32,25,678	1918—19	2,789	1,06,61,45,465
1905—6	1,728	41,83,52,329	1919—20	3,668	1,23,21,35,739
1906—7	1,922	44,26,88,739	1920—21	4,708	1,64,46,25,392
1907—8	2,061	50,81,38,938	1921—22	5,189	2,30,54,88,592
1908—9	2,156	57,03,18,222	1922—23	5,190	2,59,78,52,074
1909—10	2,216	61,44,31,661	1923—24	5,211	2,65,33,41,668
1910—11	2,304	64,04,96,826	1924—25	5,204	2,75,52,84,580
1911—12	2,465	69,37,78,595	1925—26	5,311	2,77,28,35,689
1912—13	2,552	72,10,13,855	1926—27	5,535	2,77,03,18,926
1913—14	2,744	76,56,18,274	1927—28	5,831	2,76,61,39,221
1914—15	2,545	80,18,81,472	1928—29	6,630	2,79,30,81,281
1915—16	2,476	85,02,45,528	1929—30	6,925	2,86,90,86,897
1916—17	2,513	90,89,56,218			

1. Compiled from (a) Statistical Abstract for British India No. 2321. (b) Joint-Stock Companies in British India No. 2212.

The Director-General of Commercial Intelligence, Calcutta, gives the following figures showing the net Capital invested annually in Joint-Stock Companies :—

Year.	Rupees in Crores.	Year.	Rupees in Crores.
1910—11	2.6	1920—21	41.2
1911—12	5.3	1921—22	66.1
1912—13	2.7	1922—23	29.2
1913—14	4.5	1923—24	5.5
1914—15	4.2	1924—25	10.2
1915—16	4.3	1925—26	1.4
1916—17	5.9	1926—27	.05
1917—18	8.2	1927—28	.5
1918—19	7.5	1928—29	2.9
1919—20	16.6		

The above table makes clear how Joint-Stock enterprises have been slow to grow and how the amounts available for investment in industries each year have been very small except in the years 1920—23.

The inadequate investment of indigenous capital becomes evident when we consider the vast amount of non-Indian capital invested in various industrial and commercial establishments in this country. Large amounts of money have been invested in India by foreigners in such industries as Jute, Mining, Woollen and Cotton Mills and Tanneries. The following table gives the amounts invested by companies working in India but incorporated in other countries :—

Number, Description and Capital (in sterling) of Companies incorporated elsewhere than in India but working in India in the year ending the 31st March 1928.²

Companies.	No.	Paid up capital. £.	Debentures. £.
Banking, Loan and Insurance	181	135,505,787	4,277,998
Transit and Transport	49	74,278,274	52,432,686
Trading and Manufacturing	316	308,076,296	63,390,352
Mills and Presses	20	3,836,536	422,092
Tea and other Planting Companies	224	30,562,958	2,193,918
Mining and Quarrying	44	74,160,923	2,155,622
Others	27	5,881,244	817,369
Total of all Companies	.. 861	632,302,018	125,690,037

2. Compiled from "Joint-Stock Companies in British India and in the Indian States of Mysore, Baroda, Gwalior, Hyderabad, Indore and Travancore, 1927-28" Page 41.

In fixing the amount of foreign capital invested in India the investments by foreigners in companies registered and incorporated in India have also to be considered. It is estimated that about 12% of the total capital of such companies is non-Indian. Giving evidence before the Simon Commission, the Associated Chambers of Commerce estimated the amount of British capital invested in India at about a thousand million pounds. If we compare this with the amount of Indian capital invested in industries in 1929-30 (vide table above) the meagreness of Indian capital becomes patent.

The inflow of foreign capital was pointed out as inimical to the best interests of India by a number of witnesses before the Indian Fiscal Commission and they wanted it to be checked by various restrictions; but the Commission, in its Majority Report, remark that the free use of foreign capital and foreign resources would only accentuate the economic advantages of increased industrialisation. However, the Minority Report, recognising the need for restriction, insist that companies should be registered and incorporated in India with a rupee capital, that there should be a reasonable proportion of Indian Directors on the Boards, and that facilities should be offered for the training of Indian apprentices, and quote Sir Frederic Nicholson in their support. Sir Frederic says: "I beg to record my strong opinion that, in the matter of Indian Industries, we are bound to consider Indian interests firstly, secondly and thirdly I mean by firstly that the local raw products should be utilized; by secondly, that industries should be introduced; and by thirdly, that the profits of such industries should remain in the country." ³ A good case has certainly been made out for the restriction of the free flow of foreign capital into India in the minute of dissent of the Indian Fiscal Commission. Only by adopting their suggestion can India derive the maximum benefit out of the policy of discriminating protection that she has adopted at a sacrifice.

This inadequacy of Indian capital can be attributed to various causes. One is the shyness of the Indian Investor. Though exaggerated accounts have often been given of the hoarding habits of the Indian people it cannot be doubted that large amounts of money now spent on gold and silver ornaments could be more usefully diverted into productive channels. This nervousness of the public may be attributed to the absence of any recognised method of advice and

3. See report of the Indian Fiscal Commission 1921-22 p. 201.

assistance regarding investments. Since the banking habit has not developed much in India very few people can get help or advice from Banks in these matters. Stock-Exchange facilities are also limited to the sea-ports and large cities. The failure or lack of growth of small enterprises has also helped to shake the confidence of the public. The following table gives the Number, Description and Capital of Companies which ceased to work during the year 1927-28.

	No.	Subscribed.	Paid up.
		Rs.	Rs.
Banking, Loan, and Insurance	54	45,81,373	32,72,351
Transit and Transport	17	33,04,565	24,77,984
Trading and Manufacturing	170	2,54,88,136	2,61,75,004
Mills and Presses	46	3,66,36,115	3,11,83,811
Tea and other Planting Companies	11	10,68,175	9,77,345
Mining and Quarrying	22	1,19,51,170	1,18,11,190
Others	15	9,22,660	5,41,090
Total of all Companies	335	8,39,52,194	7,64,38,775

Again, insurance companies do not invest their surplus capital in debentures. Heavy stamp duties have also impeded such investments. Sometimes, adequate facilities for the purchase of debentures have not been given. Perhaps another cause for the shyness of Indian Capital is the uncertainty about Government Fiscal Policy.⁴ At least in the early stages of Industrial development, sufficient capital can be secured only if the state adopts a policy of progressive assistance to infant industries. Till very recently little financial assistance was given to them by the State. For example, up to June 1928, under the Madras State-Aid Industries Act 1923, only seven applicants received assistance under the Act and they are as follows :—

Carnatic Paper Mills	..	..	Rs. 4,00,000
A firm of Silk Cloth Manufacturers	..	..	Rs. 50,000
A Co-operative Agricultural and Industrial Society	..	..	Rs. 18,600
A Saw Mill	..	..	Rs. 9,600
A Rice Mill	..	..	Rs. 5,000
A Match Factory	..	..	Rs. 20,000
A Dye Works Syndicate	..	..	Rs. 10,000

4. Vide Indian Central Banking Enquiry Committee, p. 275.

In the Punjab no loan appears to have been given during the years 1924-26, and only six applicants received loans of Rs. 5,000 each in 1926-27. Under the Bihar and Orissa State-Aid to Industries Act the largest amount of assistance given is about Rs. 5,00,000 which is taken as debentures in the Indian Steel-Wire Products, Limited. Some such grants were given in the United Provinces, in Assam and in Bombay. The Central Government has hitherto given very little financial assistance to industrial enterprises. The only help that they have given is by way of bounties to steel industries, some financial assistance to a Paper mill, and to a Soap Factory at Calcutta.

In other countries the State has fostered the growth of industries by assistance direct as well as indirect. In Japan, the State has taken the initiative not only by starting and running industries itself but also by entrusting them to private agencies as soon as they can manage them, by a liberal policy of loans and subsidies, by establishing technical schools and experimental laboratories, and by the purchase and loan of foreign machinery.⁵ Most industries in Japan to-day owe their continued prosperity to Government support. Even in England the State has given considerable help to industries under the Trade Facilities Acts and helped certain industries by subsidies; for example, the Beet-Sugar (Subsidy) Act, 1925, provided for the payment of a subsidy on sugar and molasses manufactured in Great Britain, and it is estimated that from 30th September 1924 to 31st March 1931 about £ 29,710,000 have been given to this industry by way of subsidy. Apart from that, in order that industries might get further financial assistance, the May Committee supported the creation of a Bankers' Industrial Development Company.⁶

Banks also play a prominent part in the financing of industries in such countries as France, Germany, England and America. Dr. Goldschmidt giving evidence before the Macmillan Committee describes thus the part played by Banks in the financing of industry in Germany: "It should never be forgotten that Germany owes the great industrial development of the sixties, nineties, and the first decade of this century in a large measure to what one may well describe as the '*entrepreneur*' spirit in banking The relationship between a Bank and an industrial or trading company commences with the latter's found-

5. Japan's Economic Position—The progress of Industrialisation.—John E. Orchard. p 90.

Modern Japan and its problems.—G. C. Allen.

6. See report of the Committee on National Expenditure. Cmd. 3920 p. 126.

ation. Scarcely a single important company in Germany has been founded without the collaboration of a bank. Whether it is a case of converting a private firm into a limited company, or of exploiting a new invention by establishing a new enterprise, the assistance of a bank is always invoked. The bank examines the situation, and, when necessary, obtains reports from experts in the particular line.... If the bank, after examination, decides to found the company, it draws up the scheme of financing, determines the amount and the type of capital to be issued, and then, in some cases, itself takes a part of the shares into its security portfolio with the idea of issuing them at a later date. In this way the founding bank becomes at the same time the issuing bank, the latter functions beginning, however, only with the introduction of the shares to the Stock Exchange—through the intermediary of the Bank.”⁷ In France also, close connection is maintained between the banks and the industries, and people rely for their investment mainly on the advice tendered to them by the banks. In Paris, especially, powerful banks have built up a great and influential business by keeping close contact with the industries and developments in foreign countries. American banks have also contributed a good deal to the development of industries in their country. In floating companies large or small, in building them up or merging, in the issue of shares and in giving loans to investors they have played a prominent and decisive part.

The attitude of Banks in India towards Indian Industries presents a striking contrast. Close connection between banks and industries is nowhere in evidence in this country. Certain witnesses before the Central Banking Enquiry Committee have suggested that non-Indian concerns get better and fuller assistance from banks like the Imperial Bank, and that there has been a certain amount of racial discrimination. Banks in India prefer to invest their capital in Government securities rather than advance funds to Indian enterprises even on reasonable security. They do not take into account the personal credit and integrity of the borrower but advance money only on tangible and easily realizable goods. Even here they insist upon a margin of about 30% and refuse to consider the existence of valuable block capital. During times of depression, instead of nursing industries by a bold and sympathetic policy they hesitate to give further advances and thus cripple the progress of industry. The policy of short-term loans which is favoured by many banks in India renders the industries only a precarious

7. Report of the Committee on Finance and Industry, Cmd. 3897 p. 163.

assistance, and “the rates of interest charged to industries for loans and advances are said to be generally much higher than the industries can bear.” The Banking Enquiry Committees, Central and Provincial, endorse the view that banks have not been giving adequate credit facilities to Indian concerns. The lack of banking facilities, the high rates of interest, the rigid rules that are followed and the conservative policy adopted by banks make it difficult for industries to get the required finance.⁸

It must now be evident that in India neither the state nor the existing banking institutions have seriously tackled the problem of the financing of industries. Indian industries have, no doubt, resorted to managing agents to meet their monetary needs. The Managing Agency System is a unique phenomenon which has no counterpart in the industrial system of any other country. The managing agents are usually men of independent means who advance substantial funds to industrial enterprises, take risks, promote companies, provide capital for the preliminary operations incidental to the creation of any large industry, and manage and assist the industries they have financed. They work as Under-Writing Houses and help to bring investors to companies by their status in the money-market. The Capital they supply is either from their own resources or from borrowed monies. This system is advantageous neither to the investing public nor to the industrialist. But it continues because of the conservative policy adopted by banks in regard to industrial loans, and to a certain extent because of the lack of adequate facilities for investment on the part of the general public. Though the managing agency system has played an important part in the industrial development of the country, yet it has to be admitted that it has outlived its usefulness. This system has many disadvantages: the managing agents usually look to their own interests first and the interests of the shareholders become secondary; they take large shares of the profits, speculate with the shares of the concerns, and thus make industry as a whole less attractive to the investor. Their activities, therefore, often tend to check rather than encourage the inflow of capital into industry. Moreover, since the interests of managing agents are heritable assets, agencies might pass into the hands of inefficient persons who are unable to shoulder such heavy responsibilities. Thus Indian industries suffer from a handicap from which rival industries in

8. See the Madras Provincial Banking Enquiry Committee Report Vol. I. p. 130. Report of the Bombay Provincial Banking Enquiry Committee 1929-30 Vol. I, p. 137.

other countries are exempt. This system can be commended neither for effecting speedy and extensive industrial development nor for bringing about co-ordination between capital and organising ability nor for successful management of industry.

The problem of the financing of industries can be successfully solved only after a full realization of the peculiar needs of industry. Industrial enterprises need capital for two purposes: for financing fixed assets and for financing floating assets. Large amounts of money are needed when industries have to be started and built up; for buying lands, machinery and other fixed assets. Money may also be required for extensions and replacements. As opposed to this block capital, comes the working capital necessary for acquiring floating assets. Money is needed for the purchase of raw materials, for working expenses and for expenses incidental to marketing. For the successful working of industry long term credit is necessary not only for financing block capital investments but also for providing adequate working capital.

These needs of industry can be met in some measure by a re-orientation of policy on the part of the existing commercial banks. As the German Banks do, they can take an active part in the issue of shares and debentures. If they shed their usual conservatism they can invest in debentures and industrial shares a certain percentage of their total capital and reserves. The Imperial Bank alone has got at the present day a total capital and reserve of eleven crores of rupees; while nine other big Indian Joint Stock banks have 7.5 crores. Transactions between banks and industries can be facilitated if banks retain on their staff experts who can correctly estimate the value and assets of industries. Liaison Officers can also be appointed who will supply the banks with exact information regarding industries. In advancing loans to industries, banks can adopt a more liberal policy and take into account the personal credit and rectitude of the borrower.

However, even when this change of policy is effected by existing banks the needs of industry cannot be fully met. They are unable to provide the large initial capital necessary for the starting of new industries on modern lines. Even the demands for adequate working capital cannot be fully met by them. The need for special institutions devoted exclusively to industry becomes manifest when we consider that ordinary banks can devote only a fraction of their time and resources to industry. Having regard to the demands of industry in this country special Industrial Banks are an imperative necessity. In addition to providing adequate funds for industrial expansion, banks of this kind

can also serve as connecting links between industries and the general public by giving technical advice whenever necessary.

When the necessity for such banks is conceded one has to consider how they should be constituted. These banks should be based primarily on share capital from the public. If need be, Government should assist by taking shares themselves and thus help to inspire confidence in the investing public. The shares may be supplemented by debentures for which Government should not only subscribe but also offer a guarantee of interest for a special number of years. It has been debated whether Industrial Banks should be on a provincial or on an all-India basis. Some contend that all-India Banks can command larger resources and can secure a co-ordination of policy throughout the country thereby preventing overlapping and waste. But the central authority is remote from the provincial seat of industry and may find it difficult to obtain exact and reliable information regarding industrial conditions. Besides, the less advanced provinces may be a drag on the industrial advancement of the more progressive ones. Provincial Banks will, beyond doubt, fit in better in a scheme of provincial autonomy towards which political thought is at present tending. However, industries in centrally administered areas and also those of national importance have to be taken into account. The needs of the situation can be met by the establishment of an *All-India Industrial Corporation* which will answer to these special requirements as well as secure co-ordination among the various Industrial Banks functioning in different Provinces.

Therefore, the problem of the adequate financing and development of Indian Industries can be best solved by the establishment of a net work of Industrial Banks throughout the important cities of India.

The Tamil Drama

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INTRODUCTORY

The question whether there is a Tamil dramatic literature worthy of serious discussion we shall not take up now; we shall consider that subject at a later stage. In this paper we shall try to give an idea of the origin, development and progress of the Tamil stage from the ancient times to our own day. We shall also point out the present-day tendencies in our theatre and find out which way we ought to proceed to improve. A careful study of the condition of our stage at present would reveal that the position is not very much different from that of the English Drama, when mystery and miracle plays were the order of the day; the University wits have not yet entered the field. The traditions of the Sanskrit Drama are still as strong as ever. Music is an all-important part of the play; strictly speaking we should not call our performances "dramas," they are only "operas," where action and realism, truth to life, are sacrificed to music. These songs, are usually applied with certain minor changes to any play whatever. In the professional troupes there is no written text for the plays enacted. The dialogue is spun out on the inspiration of the moment; on perhaps the same lines as the Italian "*Commedia Del Arte*", and some plays in certain parts of Ireland. The audience forms an integral part and very often a very inconvenient and uncomfortable part of the play. The theory of the non-existence of the audience for dramatic purpose is unknown in our stage. Mythology and "Purānas" still continue to be the main sources of our material for the plays. "Sampūrna Rāmāyanams and Mahābārathams" we are not satisfied with, we must not leave "Bāghavatham" alone by any chance, we find it dramatised as the "Bhagavat-Gīta" or as "Gitōdayam", both of which are tremendously popular—certainly not because of their dramatic value. In addition to this, we find that the lives of the saints, both Saivite and Vaishnavite are rifled for themes. Sankarāchārya, Ramanujāchārya, Sri Madhwachārya, Manikkavāchakar, Sambandar, Āndāl, Thondaradippodi Azhwar—and many others with equally un-

pronounceable names have been made heroes, in plays which depict their lives. These plays could be compared with the early English Miracle plays, like "Noah's Ark", and the plays of Chester and Wakefield cycles. As in those plays realism is obtained only in the comic interludes. Social plays are conspicuous by their absence; but, any number of Health Week dramas and Temperance plays are being written and produced for propaganda purposes. In these health dramas the various diseases are personified much in the same fashion as the representations of the "deadly sins" in the old English plays, or the "Comedy of types" in Ben Jonson.

The Bengali Theatre stands foremost in India. The work of great dramatists and able producers like M. Madhusūdhān Dutt, Tagore, Giris Chandra, and a host of others has made it what it is. It fell under the influence of Western dramatic traditions and methods, even as early as the middle of the 18th century, and ever since then it has been progressing on the same lines. The Mahrathi and Hindi drama also are not far behind. Taking our own province, we find that the Kannada and Telugu stages are forging ahead rapidly. Their advance is in no small means due to the great and monumental works of Messrs. B. M. Srikantiah, K. V. Puttappa, T. P. Kailāsam and a number of other University educated men in the case of Kannada; with regard to Telugu, the names of Vireshlingam Pantulu, Venkatarāya Sāstri, Bellary Krishnamāchāri, stand out pre-eminent among those who worked for their stage. Even Malayalam has some very interesting original social farces. It is curious how the Tamil theatre alone has managed to remain unaffected, while such great changes are taking place everywhere else all around.

THE ANCIENT TAMIL STAGE

The dramatic literature in Tamil is very scanty, and most of the dramas are of recent origin. No dramas of either the "Agastian" or "Sangam" age are extant to serve as models. But still from a careful study of the ancient Tamil classics we come to know that they had a well developed branch of literature called "Nātakam." As in ancient Greece dancing¹ of an improved kind in honour of a God at a festival commemorating some incident in his life seems to have been the origin of Tamil drama. Traces of this art, are still to be seen in the "Kathakali" performances of Malabar. In "Silappadikāram" and "Manimēkhalai" we get accounts of a number of festivities; for instance that

1. M. S. Purnalingam Pillai: "History of Tamil Literature."

of "Indrā," when there was dancing and singing as also a kind of dialogue carried on by the performers. Stories of Gods and heroes were rendered in this manner. Kings and emperors used to arrange for these dances with songs and dialogues occasionally, when they rewarded the performers with various costly presents. During festivals in temples similar performances were arranged and the stories of the Gods and Goddesses represented. This tradition still continues in our temples; in Vishnu temples we find "Rāmā's Marriage with Sītā" represented elaborately during festivals; in the Srivilliputtur temple, the whole story of "Āndāl's love and marriage with God, is shown vividly. We can say that in all festivals celebrated in all our temples, some exploit or episode in the life of the particular deity is represented. The late Mr. V. G. Sūryanārāyana Sāstri agrees with this view of the origin² of Tamil Drama; he says "Tamil drama must have had a religious origin; it started from the singing and dancing indulged in during festivals in temples. Sometime later conversations in prose and songs were added. It was encouraged and patronised both by kings and people. It must have reached its zenith of perfection by about 300 B.C. All the great works in our drama must have been produced at about that time. The art of drama was regarded with respect and admiration. Afterwards it fell on evil days, and all the works were lost."

We can say a few words here, about the construction of the stage in those days. The stage was erected in a suitable place, forty two feet in breadth, forty eight feet long, and twenty four feet high. At a height of six feet from the ground was the platform on which took place the actual dancing and singing to the accompaniment of musical instruments. At the top was a canopy painted with pictures of different sizes; they represented Gods and Goddesses worshipped by all classes of people. There were two gates, one for entrance and the other for exit. The pillars were arranged in such a manner as not to cast any shadow on the stage. The lights were artistically hung up, interspersed with hangings of flowers and bright pearls. At some distance from the entrance there were three screens beautifully painted and decorated with designs. The first was a general screen which would be completely rolled up, when the performance began. The second one was of two different pieces of cloth, open at the middle for the performers to pass to and fro freely. The last one was a secret screen meant for showing Gods and Goddesses descending on the earth from their

2. "Nataka Iyal" by V. G. Suryanarayana Sastri.

heavenly abode. The principal actress stood near the pillar on the right. Those who played on the musical instruments took their seats, on the left. The performance always commenced with music. After it ended, usually the best actor or actress was given presents. There was a caste of actors who perpetuated the tradition orally; unlike as at present they were held in high esteem among all the people.³

After this period we must presume that the drama declined and gradually disappeared altogether. We cannot find references to any dramas or dramatic performances in any works after this time. It is not quite easy to ascertain the reasons for this dearth of dramatic literature. It is probable that because the kings and poets as also the common people began to interest themselves in religious matters, they had no time to devote to this branch of literature. We find a lot of polemical literature produced about this time, the Jain writers extolling their faith and religious practices, while the Saivite poets, preach the excellence of Hinduism and the worship of Sivā. Not only drama, but also all other kinds of original literary production are neglected, and a good deal of energy is wasted in barren religious controversies. Amidst a plethora of "Sthala purānams," we only very occasionally come across beautiful patches of fine poetry. We could say, that the drama was dead for all practical purposes, until its revival in the nineteenth century, about which we shall speak later.

But, it is certain that some form of crude drama must have lingered on in the villages. These village performances continue even to-day; we shall notice them later. Ordinarily there is a man in each village or group of villages, who is the custodian of the songs for different village dramas; the rest is made up by the actors on the spur of the moment. The make-up is usually traditional, serving the same purpose as the masks in classical plays. Later, in the Nineteenth Century some varieties of old drama were revived, for example the "Vanchi" and the "Pallu." We shall here notice briefly these forms of the art. The "Kura vanchi" belongs to the class of street dramas, which survives even now, but which unfortunately is slowly dying out. Nature provides the stage and the lighting, and the players depend upon charity and voluntary contributions. Generally it is a love-tale which captures the imagination; it is blended artistically with the story of the human soul in quest of God, a common theme in our literature.

3. For this account of the ancient Tamil Stage I am indebted to the description of the same in V. R. Dikshitar's 'Studies in South Indian History.'

The heroine, a lovely and accomplished maiden while playing, sees "Thirukkōdanāthar," the deity of Kuttālam in procession, and falls in love with him immediately. The moonlight and the breeze make her miserable; she chides them for their cruelty. She does not know that she has been smitten with love for "Thirukkōdanāthar"; she consults her companions and finds out the cause of her malady. A "Kurathi" comes in at the moment; she tells all about the mysterious lover, his country and abode. She departs after receiving her reward. This is the main story, representing the thirst of the human soul for union with God; it is connected with the love-story of "Singan"—a snarer of birds, and "Singi"—the "Kurathi." He follows her and woos her; he is madly jealous of her when he finds her wearing costly dress and ornaments. She consoles him saying, that she got them as rewards during her travels. In this story a man falls in love with a woman, and also a woman is enamoured of God. Divine love wins in the end, because the woman's love is superior to the man's; it is purer and more lasting. The soul seeking God is like a noble maiden, who after having had just a glimpse of her royal-lover, misses him and yearns for him heart and soul. The individual soul imprisoned in the body is always thirsting for its union with the universal soul.

The "Pallu" is another variety of drama. The "Mukkūdal Pallu" of Ennaiya Pulavar is a fine example of this kind of composition. "Alagan" a "palla" of "Mukkūdal" has two wives, one a Saivite, and the other a Vaishnavite. Jealousy rages between them; the senior wife charges him with theft and a host of other petty crimes before the lord of the "pannai." The "palla" is laid in stocks. When the junior spouse sees this she accuses the other of cruelty and wickedness. Their quarrel is very vividly described. The younger wife appeals to the lord, in vain. Then, the elder one after seeing the pitiable condition of the "palla" in stocks appeals to the master and gets him released. The two wives agree to live peacefully and amicably. In the course of the dialogues exquisite descriptions of the various varieties of paddy grown in the several fields are given. Another work on the same model is "Sivasaila Pallu" by "Rāmanātha Kavirāyar" of "Alvār Kurichi".⁴

(To be continued.)

Kalidasa-the Dramatist

By

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An intensive study of the greatest of India's bards, Kalidasa, based on an examination of his works from all conceivable points of view—historical, geographical, social, religious and literary—is something that yet remains to be undertaken. Documentation has already been made for a variorum edition of the works of Kalidasa long ago by Professor Oppert in four sumptuous volumes which now probably are out of print, but since then nothing more has been done. We have had introductions to the numerous editions of Kalidasa's poems and dramas and, besides these, a number of interesting and important papers, developing some aspect or other of the great poet. But these, so far as I know, serve only to introduce the poet to us and nothing more. A full, complete, exhaustive study of Kalidasa, both as a poet and dramatist, and both from the historical and literary points of view, has long been a desideratum and this would be bound to spring many surprises upon us. To mention but one example—something that I discovered for myself some time back: *the first act of Vikramorvaśīya is located in the air*. This was a pleasant surprise for me, and I believe it will be a surprise to many others also. An intensive detailed discipline into the actual contents of the works, I feel, is sure to provide us with many more surprises of that kind. I propose to examine here the nature of the opening of the poet's three dramas and thus show that some new view-points are possible in the study of this dramatist.

Students of Sanskrit drama must have been struck by the fact that the first act of a Sanskrit drama is divided into two technical divisions—the *Sthāpanā* or *Prastāvanā*, the prologue, and the main scene. From the point of view of dramatic action the first of these does not count. The action proper begins with the main scene, and the main scene of the first acts in the three dramas of Kalidasa is the subject we are proposing to consider just at present. But before taking leave of *Sthāpanā* I wish to offer one remark on a particular aspect, which from the point of view of the present day student of Sanskrit dramaturgy appears to be important. Except for the so-called Bhāsa's dramas and the others published in the Trivandrum Sanskrit Series, or in other words except for

4. M. S. Purnalingam Pillai: 'History of Tamil Literature'.

those dramas which may be included in the *Kerala-nāṭaka-cakra*, all other dramas open with the statement *Nāndī* which is followed by the verse so-called, generally of a benedictory nature; this is followed by the sentence (*nāndyante tataḥ praviśati sūtradhāraḥ*) *Sūtradhāraḥ* (*nepthyābhimukhamvalokya*) *ārye itastāvat*, etc. No information is given us as to who recites the *Nāndī*; one supposition is that it is recited behind the curtain. Accepting this, or for the matter of fact any other interpretation that may be offered, the reading as is given to us presents a queer situation if adopted in actual practice. The *Sūtradhāra* comes upon the stage—he is indeed the first character to appear—and as soon as he comes, without uttering a single word or making a single gesture to the audience, he takes, as the present texts will have it, a right about turn and hails his mistress. The absurdity that is entailed in adopting this reading in actual practice is too palpable to need further comment. Why is this reading accepted and how is it that the absurdity is not generally felt? The answer is very clear. The editors and commentators who accepted this reading might not have been conversant with actual stage-practice. Naturally, therefore, when a new reading was announced with the publication of the so-called *Bhāsa-nāṭaka-cakra*, it was hailed as a new technicality and a wonderful theory was built upon it. In point of fact, however, it is not a new technique at all. It is the old method preserved wherever the indigenous theatre had not died out. According to this reading the *Sūtradhāra* comes upon the stage, makes obeisance to the audience, utters a *Man-gala* verse and then turns back and hails his mistress, a process that is perfectly normal and natural. I shall not further digress on this topic, but shall proceed to the main scene of the *Śākuntala*.

A careful study of the main scene of the first act enables us to analyse it into three distinct sections: (1) outside the hermitage; (2) within the hermitage; and (3) near Kaṇva's residence. The first is located in the outskirts of the hermitage in the forest, the second within the skirts of the hermitage and along the approaches to the interior and the third in Kaṇva's garden not far away from his residence; the passage from the first to the last is very cleverly revealed; *from wild nature, through nature subdued for man's use, to man-made nature*. It is worthy of note that all these major divisions are closely knit together: nature and man live in what may be termed a *samavāyasambandha*: the one cannot be removed without destroying the other, since both are complementary.

The first scene opens with the rushing in of a chariot drawn by four horses, along a forest path-way, carrying King Duṣyanta who is out hunting. The king is not in search of game, but is actually pursuing a

particular animal he has already caught sight of: his bow and arrows are kept ready and his eyes are steadfastly directed at the terrified deer flying before him. The opening words of the king suggest that he has been drawn further and further into the forest. The quickness of the deer's motion, his scrambles and jumps, make him a difficult target even for Duṣyanta's never failing missile, while the uneven forest path-way through which the chariot is jolting along, gradually enables the deer to outstrip the range of the king's arrow, and ultimately to escape through the timely intervention of the forest-dwellers. Now concentrating our attention on the opening of the drama, we have necessarily to admit that it is dramatically one of the most successful: grand in conception, grand in execution, it is most grand in effect. It takes the unprepared audience by surprise and steepens them in astonishment, immerses them in *adbhuta-rasa* which is at its highest pitch. This *adbhutarasa*, be it noted, runs throughout the whole Act—there is *adbhuta* in the exquisitic dramatic opening, *adbhuta* in the escaping of the deer, *adbhuta* in the unconscious reaching of Kaṇva's hermitage, *adbhuta* in the glimpsing of a peerless pearl of a woman, an unmarried Kṣatriya lady, *adbhuta* no less in the king's precipitate love for her—now *adbhuta* and *bhaya*, then *adbhuta* and *śānta*, and last *adbhuta* and *śṛṅgāra*—and everywhere *adbhuta* predominating. From the point of view of dramatic construction I would call this scene the *adbhuta* scene. And the wonder predominance is strikingly brought out in the very opening of the drama, not merely in the scenic presentation, but also in the verse of the *sūtradhāra*, for he says—*Mṛgānusāriṇam sākṣāt paśyāmīva pinākinam!*

Equally dramatic, but not predominated by *adbhutarasa* to the same extent is the opening scene of the *Vikramorvaśīya*, second of his dramas both from the chronological and literary points of view. The main scene in the first act, as we have already said, is located in the air—the characters come floating or riding in the air, carry on their conversation while afloat in the air, and dramatic action progresses in the air. The scene opens with the entrance of the lovely divine nymphs, bewailing the loss of the peerless maiden Urvaśī, and their sense of loss and fear has at once superimposed upon it the sense of wonder, in the sudden and unexpected arrival of powerful succour in the person of king Purūravas. The king shows no signs of gallantry—for this is no time for it—but announces himself as the gallant soldier king to whom they may freely reveal the source of their sorrow. The sentiments of fear and astonishment, no less than those of hope and confidence are here intermingled, a sufficiently complex amalgam of three distinct types of *bhāvas*, or aesthetic senses, all equally well balanced. The high

tension of the *bhāvas* is considerably enhanced by the nature of the scenic presentation. For, while the bemoaning *apsaras* calling for succour are presented floating in the air amidst a picturesque surrounding, the king who strikes the note of hope and faith is introduced in an aerial car with horses yoked and driven by a charioteer, as if ready for any and every emergency. The opening of the drama in such wise, where heaven and earth are made to meet in air, where divine fear is dispelled by human valour, and where *bhaya* resolves itself in *viśrambha*, strikes a truly dramatic note pitched in high key.

Now let us proceed to consider the nature of the opening scene in the *Mālavikāgnimitra* which is admittedly the earliest of Kalidasa's dramas and which is looked upon as the third in rank from the point of view of aesthetic criticism. Unlike the two dramas we have considered, here the first act is divided into three technical divisions: first there is the usual *Sthāpanā* followed by what is called a *Miśraviṣkambhaka*, which generally relates some minor detail, a knowledge of which is essential for following the story, and then last we have the main scene. Leaving aside the conventions of Sanskrit dramaturgy, one interesting question can be raised as to what constitutes the real beginning of the drama, the *Miśraviṣkambhaka* or the main scene. We may take either the one or the other according to our individual predilections and yet we are forced to admit that the opening of the drama has been undramatic and dull. In either case, there is no dramatic tension nor thrill. The *Miśraviṣkambhaka* opens with the entrance of the maid of honour of queen Dhārīnī who explains her errand in a soliloquy, saying that she has been sent by the queen to inquire how her protegee Mālavikā is getting on with her dancing lessons. Then she runs against another maid, a friend of hers, and they indulge in common-place talk, as to how the king chanced to see Mālavikā's portrait and how he learnt her name from his daughter and how, as a result of that, Mālavikā—was kept under close scrutiny. The second stage in the same scene helps us to discover something about the antecedents of Mālavikā—how she fell a captive of war in a frontier raid conducted by the queen's brother and how she was presented to the queen. Thus it will be seen that there is nothing stirring, nothing lively, nothing dramatic in the first 'post-hoc' scene. Coming to the second, we have necessarily to admit that there is some life. The king is introduced as being waited upon by his minister and as engaged in discussing an important state matter—the decision to lead a campaign against the King of *Vidarbha*. But the little life presented at the opening is soon stifled when the minister retires, and the king gives a rousing reception to his *Vidūṣaka* who has been entrusted with his love intrigue, the securing of Mālavikā for him.

Thus whether we accept the *Miśraviṣkambhaka* or the main scene as the real opening of the drama, we have necessarily to concede that it has no claim to be considered dramatic: it is dull and prosaic. It is an interesting question to inquire why the poet did not give it a dramatic opening. It is no answer to say that this particular type of drama does not require a dramatic opening. Every one of the *rūpakas* is something to be staged, and in every one of the varieties, a dramatic opening must necessarily be a valuable asset. Nor is it an explanation to say that this is the dramatist's first work, and the poet is only feeling his way, for wherever we look in his works, we see the trained hand of a great poet. Hence the possible immaturity of the poet does not appeal to us as an explanation for such a dull, undramatic opening. Nor again can it be said that there was a lack of dramatic situation in the opening scene. There is a beautiful dramatic incident, but this is suppressed by the poet by relegating it to the background. The capture of Mālavikā and her arrival at court under an armed escort could easily have lent itself to a tense dramatic construction. In view of this the question deserves to be considered why the poet should have given the *Mālavikāgnimitra* such a dull and prosaic beginning.

We believe that the poet purposely gave this drama such an opening. A real, powerful motive can be made out if we read the drama a little more carefully between the lines. All our great poets, and particularly Kalidasa, work by suppression, by *vyañjana*. If we are able to understand and appreciate this suppressed element, the *vyañjana*, then we can get at the true explanation of this dull opening given to this drama. *The whole drama seems to me to be a satire on the royal family of the time.*

The reference to the frontier excursions, mentioned in the second part of the *Miśraviṣkambhaka*, which led to the capture of Mālavikā, the insulting letter sent to the king by the lord of *Vidarbha* which necessitated the launching of a campaign against *Vidarbha*, where a new dynasty or a new regime has just begun its rule, are clear indications that all is not well with the king and the kingdom; and this is in no measure lessened by the knowledge of Puṣyamitra conducting an *Aśva-medha* sacrifice in Northwest India. As we read on, we seem to hear the clang of weapons all around, attacks on the frontiers and preparations for war and actual war. In the midst of war and preparations for war, the whole royal household is astir with a petty love intrigue! The way in which the *Vidūṣaka* is received by the king, the remarks of the queen Dhārīnī, the various complications and resolutions which hang on the war in progress, all these are indicative of the fact that Agnimitra is more concerned with and more solicitous for the success

of his love intrigues than for the victory of his son or of his general against the enemies of his kingdom. The king is absolutely unconcerned with the fate of his son who has been in charge of the *Aśvamedha* horse, while the glad news of his success he weighs in the balance against his disappointment at not getting *Mālavikā*; and he says he is steeped in misery! A greater condemnation of the king, a more virulent satire on him cannot be imagined. This undercurrent of satire reaches its climax in the *bharatavākya*, where it is said that the absence of *ītis* particularly is to be prayed for during the time of Agnimitra:

*āśāsyamītivigamaprabhṛtiḥ prajānām
sompatsyate na khalu goptari nāgnimitre.*

And this is in striking conformity with the opening stanza where God is invoked to give light to men so that they may see the path of righteousness!

I do not wish at present to dilate still further upon this topic. I am inclined to think that in the *Mālavikāgnimitra*, the author is engaged in satirising the reigning monarch of his time, as one who paid scant attention to the affairs of the kingdom and to the welfare of the state and its people, but devoted all his time and energy to love intrigues, to further his selfish interests and enjoyments within the four walls of his palace. And in this, the first drama of our peerless poet, he evidently attempts to rouse the king from his licentious lethargy to a sense of duty and responsibility. When this view is accepted, we can easily see why our poet did not give a dramatic opening for his drama. He purposely sacrificed a good opportunity for a dramatic opening in favour of a dull uninteresting one. Such an opening has been consciously introduced by the poet: he was sacrificing his dramatic purpose for another equally important purpose, the national political purpose. This is a new point of view that I have introduced, and if this interpretation is correct or acceptable, one can come to the legitimate conclusion that at the time of the poet the king of the country had begun to stray away from the ideals laid down for a Kṣatriya prince.

As we have already mentioned, the satire in the *Mālavikāgnimitra* is a veiled satire: it runs as an under-current. The same finds open expression in the concluding section of the *Raghuvamśa*. The court was steeped in misery and rumour was even rife that the king had passed away, the king named Agnivarṇa, and the ministers were hiding the sad news. Naturally there was a clamour and numbers of the populace thronged the palace to have a vision of their monarch, their crowned and anointed king. The wretched king, ill with consumption resulting from dissipation and sexual extravagance, could not bear even at

that moment to tear himself away from the caresses of his women and so put out his bare foot only to the anxious multitude below. To such a depth had a descendant of the glorious dynasty of Raghu sunk! This clearly shows that satire is not something unknown to Kalidasa, and therefore the interpretation put on the *Mālavikāgnimitra* is nothing strained.

We have now touched upon the method of opening the three dramas of Kalidasa and we have seen that the poet displays a keen dramatic insight and has given an effective opening to two of his dramas. In the third drama he goes out of his way, keeps back truly dramatic elements and opens the drama in a dull prosaic way. And this he does, not because he lacks the requisite materials or the vision to realise the effect of giving his work a truly dramatic opening, but because he has a motive for it. He is evidently trying to admonish the reigning king for falling away from the time honoured *dharma*.

It may be pointed out here that the motive force in all the complications introduced in his best poems is a violation of *dharma*—*pūjya-pūjāvyatikrama* or *Svādhikārapramāda*, to quote his own words and this steeps his best and noblest creations in an atmosphere of distress. To mention a few examples, *Dilīpa* begets no issue, because he failed to honour *Nandini*; *Daśaratha* suffers, and with him his sons and kingdom, because he unknowingly killed the blind sage's son. *Yakṣa* is exiled for a year, because he failed in duty. *Duṣyanta* and *Śakuntalā* suffered, because the latter failed to pay obeisance to *Durvāsa*. *Urvaśī* had to banish herself to the earth, because she showed a human failing, and *Purūravas* suffered, because he dared to make love to a celestial maid. Such instances could be easily multiplied, but these, I believe, will suffice to show that we will not be far wrong if we make a general inference that Kalidasa stands for the maintenance of *dharma*. Now in the hands of king Agnimitra he probably sees the waning of *dharma*, and by means of a gentle satire he tries to bring him back to his senses. This admonition fails and in another of his works, when the situation is worse, he throws off the veil and openly satirises the reigning king; but, alas! it is of no avail. It is an age of transition when old ideas, old ideals, old *dharma* are in the melting pot and are gradually yielding place to new. He sees the old *dharma* wiped off through the licentious dissipation in responsible quarters, and the kingdom well on the road to a great change, if not to ruin. What is this change? What is the change to bring forth? Even the prophetic vision of the poet cannot pierce into the future. He only feels that a change is impending but nothing more. What he sees and feels he has exquisitely expressed in a way a poet alone can do. The kingdom which

was ruled over by the glorious line of kings belonging to the Raghu's dynasty, India and all that she stands for, is left in the hands of the widowed queen of Agnivarṇa, to keep it as a trust for the progeny she is carrying—the first instance of the kind recorded in our traditions. Note the queen is pregnant and on the issue depends the future of India. The poet does not know, does not anticipate what the future is likely to be. He leaves the future of India in the making—he leaves it entirely and literally in the womb of the widowed queen of Agnivarṇa.

The interpretation that I have put on the *Mālavikāgnimitra* and the concluding section of the *Raghuvamśa*, would have it, if acceptable, that during the days of Kalidasa, the world of India was passing through a crisis, a momentous change. He figures as the connecting link between the glorious India he had known, respected and loved; he lived long enough to see the old order given up, to see new forces taking shape and undermining the strength of Hindu kingdoms, Hindu culture and Hindu *dharma*; but he did not live long enough to see the changed condition. In other words, I would assign Kalidasa to an age which forms the connecting link with the past and the present, the age which saw the passing away of the Hindu age, the age of olden ideals and olden *dharma*, the age which saw India in the pangs of birth of a new India with other ideals and other *dharma*s than those with which Kalidasa was familiar. And the immortal poet passed away before the birth of a New India.

The question now naturally rises where such an age can be assigned in the course of the history of India. This is a question which the historians must tackle. If a layman in the field may be permitted, I venture to express an opinion. The glorious Mauryan dynasty which from the time of Aśoka actively emphasised and patronised Buddhism was followed by the Śunga dynasty founded by Puṣpamitra who introduced an intensive Hindu revival. Vincent Smith tells us that this dynasty ended because of the licentious dissipation of the last of its kings. This dynasty was followed by the Brahmin dynasty of four kings about whom nothing is known. And this again was over-thrown by the Āndhras after 45 years' existence. And this whole period is blank and dark. This is enough for our purpose, for it tells us that the first century B. C. was a century of great turmoil, when old ideals and old *dharma* and old dynasties were being quickly thrown into the melting pot and were giving place to new. From the point of view of the discipline we have introduced it will be clear that we might place Kalidasa in this century; and this curiously enough agrees with the traditional date of 56 B.C.—the tradition which assigns Kalidasa to the court of Vikramāditya whose reign began a new era, the Vikrama era.

Jagannātha Paṇḍita

By

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INTRODUCTION

In the absence of reliable historical records about the lives and lineage of our ancestors in ancient and medieval India, the student of Sanskrit literature has very often to resort to vague and inaccurate traditions which are of doubtful value. Some literary men do, indeed, make scanty references to themselves in the colophons to their works; but even these do not go a long way. In refreshing contrast to this usual rule, there are ample materials to fix the time and the main events of the life of Jagannātha Paṇḍita. His works abound in references to his contemporary sovereigns and to some of his immediate literary predecessors whose dates are, more or less, fixed and preserved in Indian literary history. A close study of his extant works in conjunction with well-known contemporary historical facts would, therefore, help us not only to fix his age but also to understand his private life as well as to appreciate correctly his poetic and critical achievements.

(1) HISTORICAL

(a) *Introduction.* In the galaxy of Sanskrit poet-rhetoricians, Jagannātha Paṇḍita is a luminary of the greatest magnitude. His important contributions to Sanskrit literature are: two works in Sanskrit poetics, the *Rasagaṅgādhara* and the *Citramīmāṃsākhaṇḍana*; a unique production in Sanskrit grammar, the *Manoramākucamardana*; five famous *laharīs* (devotional poems), the *Suddhālaharī*, the *Amṛtalaharī*, the *Lakṣmīlaharī*, the *Karuṇālaharī* and the *Gaṅgālaharī*; three biographical works, the *Prāṇābharaṇa* (with *Ṭikā*), the *Jagadābharaṇa* and the *Āsaphavilāsa*; and two more literary works, the *Bhāminīvilāsa* and the *Yamunāvarṇanākhyāyikā*. Even on a cursory glance of these works, the modern student of Sanskrit would unhesitatingly subscribe to the generally accepted view that Jagannātha Paṇḍita has achieved in himself the rare combination of creative faculty and appreciative genius.

(b) *The Date of Jagannātha*. Jagannātha Paṇḍita was a Telugu (Taliṅga) brahmin, descended from an ancient family named Veginad. His father was Perubhaṭṭa, otherwise known as Perama Bhaṭṭa, one of the famous literary scholars of his age. His mother was called Lakṣmī.¹ Jagannātha received instruction in all branches of knowledge except in Sanskrit grammar under his own literary father whom he extols in glowing terms:

“ पाषाणादपि पीयूषं स्यन्दते यस्य लीलया ।

तं वन्दे पेरुभट्टाख्यं लक्ष्मीकान्तं महागुरुम् ॥ ”²

In Sanskrit grammar he acquired proficiency under the able tutorship of Śeṣa-vireśvara, the grammar-teacher of his own father.³ That Jagannātha was able to study most śāstras under his own father was a great advantage to him unlike his own father who had to learn different subjects under different teachers. One of the introductory verses of Jagannātha's Rasagaṅgādhara gives the names of his father's teachers:

“ श्रीमज्जानेन्द्रभिक्षोरधिगतसकलब्रह्मविद्याप्रपञ्चः

काणादीराक्षपादीरपि गहनगिरो यो महेन्द्रादवेदीत् ।

देवादेवाध्यगीष्ट स्मरहरनगरे शासनं जैमिनीयं

शेषाङ्कप्राप्तशेषामलभणितिरभूत्सर्वविद्याधरो यः ”

Perubhaṭṭa studied Vedānta under one Jñānendrabhikṣu and Nyāya and Vaiśeṣika systems under Mahendra. He received instruction in the Pūrvamīmāṃsā system at Benares from Deva who is, on the authority of Nāgeśabhaṭṭa,⁴ the commentator of the Rasagaṅgādhara, identified with Khaṇḍadeva, the reputed author of Bhaṭṭadīpikā, the Bhaṭṭa-kaustubha and the Bhaṭṭarahasya. Perubhaṭṭa studied grammar under

1. See the last verse in his Prāṇābharāṇa Kāvya and the colophon to his Bhāminivilāsa:

(a) तैलङ्गान्वयमङ्गलालयमहालक्ष्मीदयालालितः ।

श्रीमत्पेरुभट्टसूनुनिशं विद्वल्ललाटन्तपः ॥

(b) इति श्रीमदखिलान्धवेगिनाडिकुलावतंसः ।

2. Rasagaṅgādhara. Kāvya-māla Ed. p. 2.

3. See the introductory passage in his Manoramākucamardana in the Sanskrit Preface of the Rasagaṅgādhara, Kāvya-māla Ed., p. 3 and 4.

4. “ साच (प्रौढमनोरमा) प्रक्रियाप्रकाशकृतां पौत्रैरखिलशास्त्रमदार्णवम-
न्याचलायमानमानसानां अस्मद्गुरुपण्डितवीरेश्वराणां तनयैर्दुषितापि
स्वमतिपरीक्षार्थं पुनरस्माभिर्निरीक्ष्यते ॥ ”
‘ देवादेव—एवः प्रसिद्धौ । खण्डदेवादेवेत्यर्थः ।

Rasagaṅgādhara—Commentary. p. 2.

Śeṣa whose full name was Śeṣavireśvara.⁵ This Śeṣavireśvara and the famous Bhaṭṭojidīkṣita were pupils of Śeṣa-śrī-kṛṣṇa, the father of Śeṣavireśvara and the author of the Prakriyāprakāśa, a commentary on the Prakriyākaumudī.

The above facts are very important from the standpoint of history in ascertaining Jagannātha's date. Khaṇḍadeva referred to in the verse as one of the teachers of Jagannātha's father, flourished in North India (perhaps at Benares) during the time of the famous Appayya Dīkṣita who lived in South India a flourishing literary life about between 1550 and 1625 A.D. or more accurately, between 1520 and 1593 A.D.⁶ As a contemporary of Appayya Dīkṣita, Khaṇḍadeva respectfully referred to him as a great Mīmāṃsaka (Mīmāṃsaka-mūrdhanya), though he had to dissent from Appayya Dīkṣita's views in the definitions of the three-fold vidhis and such other important questions in the Pūrvamīmāṃsā.⁷ So Perubhaṭṭa, the father of Jagannātha, would be a young contemporary of Khaṇḍadeva and Appayya Dīkṣita and would, therefore, be assigned to the end of the 16th century and the beginning of the 17th century. From this, Jagannātha's date may be fixed to about the middle of the 17th century.

Other evidences also lend support to this view. Nāgeśabhaṭṭa, the commentator of the Rasagaṅgādhara, etc., must have lived towards the close of the 17th century and the beginning of the 18th century. He flourished under the esteemed patronage of Rāma, King of Śṛṅgiverapura,⁸ and was invited by Jayasing, the King of Jayapura, to preside over the Aśvamedha sacrifice which the king performed in the year 1714 A.D. But Nāgeśa had to refuse it on the ground that he had to remain at Benares on a religious vow: ‘ अहं क्षेत्रसन्यासं गृहीत्वा काश्यां स्थितोऽस्मि । अतस्तां परित्यज्यान्वत्र गन्तुं न शक्नोमि ’⁹ ।

Therefore, Nāgeśa is only removed by two generations from Jagannātha, as the following table shows:

5. ‘ शेषइत्यङ्क उपनाम यस्य तस्माद्विरेक्षवरपण्डितात्प्राप्ता ’

6. Vide A. V. Gopalachari's Introduction to the Yādavābhyudaya, Vol. II—the date of Appayya Dīkṣita, and Y. Mahāliṅga Śāstri's article on the age and life of Appayya Dīkṣita, in the Journal of Oriental Research, Madras, Vol. II, Parts III and IV.

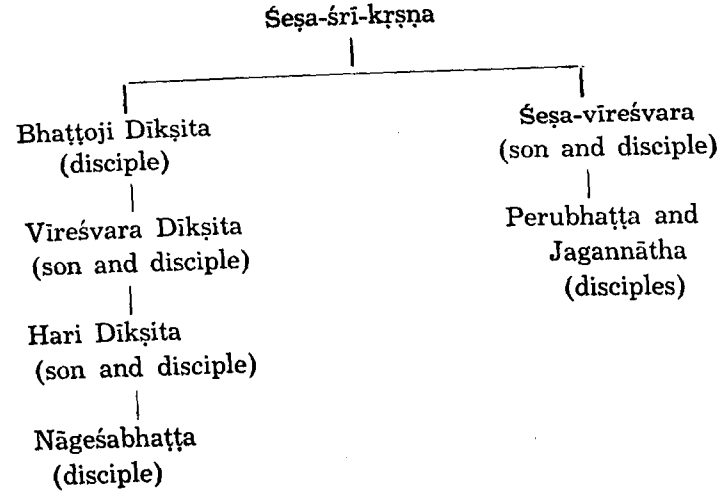
7. Vide the concluding remarks on I. 1. 4 in the Bhaṭṭadīpikā.

8. “ याचकानां कल्पतरोररिक्कशुताशनात् ।

नागेशः शृंगिवेरेशरामतो लब्धजीविकः ॥ ”

Rasagaṅgādhara—Commentary—p. 1.

9. Vide B. G. Bal's introduction to his edition of Bhāminivilāsa.



(c) *Youth and literary fame.* When Jagannātha grew into a full-blown literary scholar, he went one day to the King of Āndhradeśa with some eulogistic verses on him. But the king did not welcome him. Quite enraged at the cruel and unjust behaviour of the king, he left his own native province for ever and went to Jayapura where he instituted a new school under his own patronage and management. He met there a Muslim Pandit from the court of Shah Jehan, a scholar well-versed in Persian language and religion. Jagannātha engaged him in hot discussions and finally defeated him; and the Persian scholar went back to Delhi in dejection and spoke in glowing terms to his imperial master and Mogul courtiers of the unrivalled scholarship of Jagannātha. This roused the curiosity of the emperor who requested the great scholar to go over to his court; since then Jagannātha settled at Delhi as a recognised scholar of the Mogul Court.

(d) *Jagannātha at the Mogul Court.* At the end of his Bhāminīvilāsa, Jagannātha clearly says that he passed his youth under the benevolent patronage of the all-powerful emperor of Delhi—

“दिल्लीवल्लभपाणिपल्लवतले नीतं नवीनं वयः”

He has solely dedicated his poem *Jagadābharana* to the praise of the Delhi emperor, perhaps of his eldest son, Dara, the reputed translator of the Upaniṣads into Persian. It is probably from this poem that Jagannātha quotes a number of commendatory verses in his *Rasagaṅgādhara*. One such which clearly refers to the Mogul emperor may be quoted¹⁰:

10. *Rasagaṅgādhara* p. 405.

“सृष्टिः सृष्टिकृता पुरा किल परित्यातुं जगन्मण्डलं
त्वं चण्डातप ! निर्दयं दहसि यज्ज्वालाजटालैः करैः ।
संरम्भाहणलोचनो रणभुवि प्रस्थातुकामोऽधुना
जानीमो भवता न हन्त ! विदितो दिल्लीधरावल्लभः ॥”

Jagannātha opens his *Āsaphavilāsa*, an eulogy of Asaf Khan, with the remark that he had a benefactor in Asaf Khan who might have recommended him to the Mogul emperor and got for him the title of *Paṇḍitarāja*.¹¹ It is now clear, therefore, that Shah Jehan, his son Dara Shukho and Asaf Khan were Jagannātha's patrons during his middle age. The *Āsaphavilāsa* bears ample testimony to the protection and support that our author received from the hands of that courtier. A brother to Queen Nurjehan (the step-mother of Shah Jehan) and the father of Arjumand Banu Begum, the wife of Shah Jehan, Asaf Khan was very influential in the Mogul Court. He was both a man of letters and a lover of the sublime and beautiful. It is well known also that he was a highly educated courtier of versatile talents who was especially interested in Persian literature.¹² Jagannātha himself being a sound scholar in Persian language and literature, probably found in Asaf Khan a munificent and sympathetic patron during his stay at the Mogul Court. Unfortunately, Asaf Khan died in 1641 and Jagannātha mourns his loss in most pathetic terms:

युक्तन्तु याते दिवमासफेन्दौ तदाश्रितानां यदभूद्विनाशः ।
इदन्तु चित्रं भुवनावकाशे निराश्रया खेलति तस्य कीर्तिः ॥¹³

11. “अथ सकललोकविस्तारविस्तारितमहोपकारपरम्पराधीनमानसेन प्रति-
दिनमुद्यदनवद्यगद्यपद्याद्यनेकविद्याविद्योतितान्तःकरणैः कविभिरुपास्यमानेन कृतयु-
गीकृतकलिकालेन कुमतिदृणजालसमाच्छादितवेदवनमार्गविलोकनाय समुदीपित-
सुतर्कदहनज्वालाजालेन मूर्तिमतेव नवावासफखानमनःप्रसादेन द्विजकुलसेवाहे-
वाकिवाङ्मनःकायेन माथुरकुलसमुद्रेन्दुनारायमुकुन्देनादिष्टेनसार्वभौमश्रीशाहजहा-
प्रसादादधिगतपण्डितराजपदवीविराजिनेत तैलङ्गकुलावतंसेन पण्डितजगन्नाथेना-
सफविलासाख्येयमाख्यायिका निरमीयत । सेयमनुग्रहेण सहृदयानामनुदिनमुल्ला-
सिता भवतात् ॥

(Pandit Durgaprasad's Sanskrit Introduction to the *Rasagaṅgādhara*, foot-note, p. 2.)
One Rāyamukunda is mentioned in this passage, at whose command Jagannātha seems to have written this Akhyāyikā. Who is this Rāyamukunda is yet to be known.

12. Vide Beni Prasad's *History of Jahangir*, p. 189.

13. *Rasagaṅgādhara*, p. 457.

"It is but natural now that Asaf Khan is dead that all his dependents should perish; but it is a wonder how his fame sports unsupported in the wide expanse of the earth."

Thus in another place, Jagannātha writes of his patron:

“सुधेव वाणी वसुधेव मूर्तिः सुधाकरश्रीसदृशी च कीर्तिः ।
पयोधिकल्पा मतिरासफेन्द्रोः महीतलेऽन्यस्य नहीति मन्ये ॥”¹⁴

'I believe there is none on earth to equal Asaf Khan; his words are like nectar; his person resembles the earth crested with Jewels; his fame is like unto the brilliance of the nectar-rayed moon; his wisdom is deep as the ocean.'

(e) *Jagannātha at Kamatā (Assam)*. Sometime after 1641 A.D., probably when signs of political and religious dissensions were witnessed in the Mogul empire, Jagannātha left Delhi and settled in the court of Kamatādhīpa, the King of Kamatā or the modern Assam. His work, the *Prāṇābharaṇa*, testifies to the fact that he enjoyed the high favour of *Prāṇanārāyaṇa* who was a Mogul vassal and lord of Kamatā, 'which then included the four districts of Rangpur, Kuch Bihar, Goal-pura and Kamrup's Prof. Jadunath Sircar says¹⁵ that *Prāṇanārāyaṇa* died in 1666 A.D. and in all probability Jagannātha would have left Kamatā for ever by that time.

(f) *Some Traditions examined from historical standpoint*. Jagannātha's acquaintance with Appayya Dikṣita has traditionally come down to us and in this connection are narrated many tales of his liaison with a Muhammadan beauty. It is believed that during his stay at the court of Delhi, he fell in love with a Muslim lady, married her and spent his youth with her in happiness. During his old age, he went to Benares, quite disgusted with the worldly cares and pleasures. But there he was condemned and excommunicated by the orthodox brahmins led by Appayya Dikṣita on the ground that he was polluted by his liaison with a Muhammadan woman. Afterwards sitting on the steps on the banks of the Ganges in despair, he composed some devotional verses on the sacred river. When his voice reached the highest pitch of pathos and devotion, the waters of the Ganges swelled up, came to him and carried him away as a mother would clasp her crying child to her bosom.

14. *Rasagaṅgādhara*, p. 166.

15. *History of Aurangzeb*, Vol. III, p. 192.

On this point there is another tradition but with a modification. He had a love-intrigue with a Muslim lady, who after giving birth to a child, passed away all on a sudden. Sunk in misery, quite alone and helpless in his old age, Jagannātha went to the Ganges, gave free vent to his grief, praised the river with his famous *Gaṅgālaharī* and at last was drowned in the current on a wintry day. Some people added to this that his misery was accentuated by the sudden death of his son which he expresses in elegant pathos:

‘अपह्राय सकलबान्धवचिन्तामुद्रास्य गुरुकुलप्रणयस् ।
हा ! तनय ! विनयशालिन् ! कथमिव परलोकपथिकोऽभूः ॥’

'Abandoning cares for all kinsmen and discarding affection for his family, parents, etc., how have, oh devoted son! you become a guest of the other world.'¹⁶ To support Jagannātha's liaison with a Muslim lady and to bring out his maddened erotic sentiment, some verses are cited:—

‘यवनी नवनीतकोमलाङ्गी शयनीये यदि नीयते कदाचित् ॥
अवनीतलमेव साधु मन्ये न वनी माधवनी विनोदहेतुः ।
यवनी रमणी विपदः शमनी कमनीयतमा नवनीतसमा ।
उहि ऊहिवचोऽमृतपूर्णमुखी स सुखी जगतीह यदङ्कगता ॥
इयं सुस्तनी मस्तकन्यस्तकुम्भा कुसुंभारुणा चारुचेलावसाना ।
अरं भासमानापि रम्भासमाना लवङ्गी कुरङ्गीदङ्गीकरोतु ॥

But these verses are not found in any one of the well-known works of Jagannātha. Perhaps this view might be based on the *Śṛṅgāra* and *Karuṇa Samullāsa* of his *Bhāminivilāsa*. In the *Śṛṅgāra Samullāsa*, he paints his *bhāminī* in all aspects of *sambhoga śṛṅgāra* while on the death of *bhāminī* he bursts out in unaffected pathos in the *Karuṇa Samullāsa*. As there is no direct reference to any Muslim beauty in this work, no credit can be given to these floating traditions. The stanzas cited might be the choicest productions of some of Jagannātha's contemporary literary enemies whom he did not spare. His revolutionary and reforming spirit, his erudite and frightening language, his unsparing and hairsplitting criticism and his acute and independent judgment, the clear exposition of which we find in the *Rasagaṅgādhara*, his monumental work on Sanskrit Poetics—these might have created in the glorious and happy days of his literary activities a good number of literary enemies as well as social and communal rivals, whom he

16. *Rasagaṅgādhara*, p. 35.

might have pulled down from the chances of high repute and equal station. These verses attributed to Jagannātha might, therefore, have been coined in revenge by his enemies.

Jagannātha's acquaintance with Appayya Dikṣita is a myth. It has already been mentioned that Appayya Dikṣita flourished in South India in the latter half of the 16th century and the first quarter of the 17th century. It is also mentioned that Appayya Dikṣita died at Chidambaram in South India. It is inconceivable, therefore, that Appayya Dikṣita could have met Jagannātha in his last days at Benares.

There is another tradition to the effect that Bhaṭṭoji Dikṣita, one of the Vedānta disciples of Appayya Dikṣita, has condemned Jagannātha as a *Mleccha* in an assembly of Pandits. From the introductory note of the *Manoramākucamardana*, it is clear that Jagannātha was very much enraged to see that Bhaṭṭoji Dikṣita, in his *Praudhamanoramā*, levelled a vehement criticism against some theories that Śeṣa-śrī-kṛṣṇa, (the teacher of Bhaṭṭoji Dikṣita and Śeṣa-vīreśvara) has put forward in his *Prakriyāprakāśa*. On this ground Jagannātha called Bhaṭṭoji Dikṣita a *gurudrohin*.

लक्ष्मीकान्तपदाम्भोजमानस्य श्रेयसां पदम् ।
पण्डितेन्द्रो जगन्नाथः स्यति गर्वे गुरुद्रुहाम् ॥¹⁷

It is, therefore, probable that Jagannātha's strong prejudice against Bhaṭṭoji Dikṣita extended also to his Vedānta teacher, Appayya Dikṣita; and this may be the true explanation of Jagannātha's antipathy to Appayya Dikṣita. This also accounts for the tinge of personal prejudice to be found in Jagannātha's criticism of Appayya Dikṣita's views on literary criticism; otherwise Jagannātha's literary views are to a great extent acceptable because of his sound logic and unbiassed judgment.

(To be continued.)

Life and Works of Trivikrama Paṇḍitācārya

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The name of Trivikrama Paṇḍitācārya circa (1258—1320) figures in the history of Indian Philosophy as that of a prominent champion and exponent of the Realistic Theism or Dvaita Vedānta of Madhva. He was one of the earliest and most powerful converts of Madhva. The importance of his conversion to the progress of Madhva's philosophy can easily be judged from the fact that till the conversion of Trivikrama Paṇḍita, late in his life, Madhva had not gained any wide-spread following to his system from among the population of his own province in general and the members of his own community, the Tulu Brahmins of S. Kanara in particular—even though he had created a profound impression and great stir in other provinces like Kalinga by the conversion of such personages as Svāmi Śāstrin (afterwards the famous Narahari Tirtha of the Chicacole and Simhāchalam Inscriptions) and Śobhanabhaṭṭa (afterwards the famous Padmanābha Tirtha). The conversion of Trivikrama Paṇḍita was thus a turning point, a landmark almost, in the history of the spread of Madhva's philosophy. As may be expected, the example of the conversion of a Paṇḍit of the highest calibre such as Trivikrama gave a mighty impetus to the spread of the new faith.

Apart from its bearings on the actual spread of the Dvaita creed, the story of his life leading up to his conversion and the facts connected with his community and parentage about which in the absence of authentic information wrong and misleading notions have gained currency, have every historical interest for us. And lastly, the personality of Trivikrama himself as the author of some superb classics not only in the realm of philosophy but of 'belles-lettres' as well, has far greater interest for us than anything else connected with his life. It is therefore proposed to attempt a brief sketch in the following pages of the events connected with the life of Trivikrama and notice a few of the outstanding features of his works, on which his chief claims to recognition rest.

The earliest source regarding the life of Trivikrama happens to be the *Madhvavijaya* or the metrical biography of Madhva by Nārāyaṇa

17. The introductory verse of the *Manoramākucamardana*.

Paṇḍitācārya, the son of Trivikrama himself. In the 13th, 14th and 15th cantos of the *Madhvavijaya* the story of Trivikrama, his birth, parentage, early life and studies, his meeting and debate with Madhva and his defeat and conversion at the hands of the latter are all vividly described.

From this account and from the traditions carefully preserved by the followers of Madhva and the Svāmis of the Uḍipi mutts and the lineal descendants of Trivikrama Paṇḍitācārya himself now surviving, it would appear that Trivikrama was, like Madhvācārya himself, a Shivalli (Tulu) Brahmin of the South Kanara district. Mr. K. Rama Pisharoti, writing in the December number of *Indian Historical Quarterly* for 1929, maintained the view that Trivikrama was a Nambūdri Brahmin of Kerala—relying mainly on the information that could be locally collected by him in Malabar and from hearsay evidence of old traditionalists. But this view can no longer be held as there is nothing authentic in support of it. Besides, the theory that Trivikrama was a Nambūdri was based on the alleged observance of certain peculiarly Nambūdri customs by the modern descendants of his—especially the adoption of Dvaita and Advaita Ācāras while in the northern and the southern wings (vaḍakkaṇi and tekkkaṇi) of the house and the observance of 'goṣā' by the ladies while going out or coming in by the southern wing alone, and the use of the Malayālam language by the present-day descendants of Trivikrama.

It must be mentioned here that the descendants of Trivikrama are no longer the followers of Madhva. Some generations after Nārāyaṇa Paṇḍitācārya, they seem to have seceded from the new faith and returned to the old Bhāgavata-sampradāya of their ancestors which even to-day continues to be the religion of a vast majority of the Tulu Brahmins of South Kanara¹ other than those who owe allegiance to the philosophy of Madhva. In fact, Madhva himself was born of parents professing the Bhāgavata-sampradāya. The followers of this Bhāgavata-sampradāya are not all of them Advaitins. Their main creed is the bhakti cult. They honor Viṣṇu and Śiva as equals in which they differ from the Mādhvas; but, like the latter, wear the twelve 'tracings' of Gopī-candana on their bodies (dvādaśa-puṇḍras) and believe in the survival of Bhakti even in the state of release and in the reality of the Divine Form—a position advocated not only by Madhva but also by the fam-

1. There is thus no truth in the statement that the residents of the Kāvu Mana at present follow both the Dvaita and Advaita philosophies. (I. H. Q., Vol. V., p. 683).

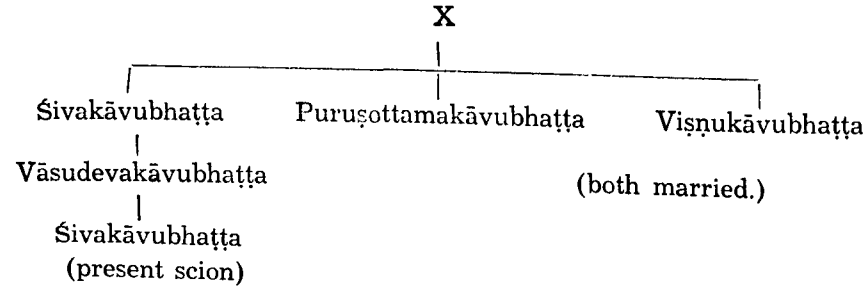
ous Śrīdharasvāmin in his commentary on the *Śrībhāgavata*. The observance of Smārta ācāras, therefore, by the modern descendants of Trivikrama does not necessarily prove their Nambūdri origin. It is neither safe nor sound to derive the manners and customs, the language and religion of Trivikrama solely from those of his modern descendants. The alleged Malayāli ācāras and the use of the Malayālam language itself might very well have been due—as indeed they were—to later-day causes such as migration and life for long in Kerala and the barriers to social intercourse with one's former kith and kin on a large scale which such continuous residence in or migration to alien provinces engender in the lives of a conservative people. I have personally satisfied myself with first-hand information on the subject that the creeping in of the obviously Nambūdri-ācāra of the observance of the 'goṣā' by the ladies amongst the descendants of Trivikrama and the use of the Malayālam language are due to migratory causes. When I visited Kāvu-goḷi, the native village of Trivikrama, lying at about a distance of two miles from Kāsargod, to make personal inquiries about the history of Trivikrama, I was given to understand by Śyṭ Śivakāvu Bhaṭṭar, the present surviving male descendant from Trivikrama Paṇḍitācārya, that it is the tradition current in his family that sometime during the regime of Ṭippu Sultān, his ancestors had migrated to the Kerala country and had become permanent residents there and thus were cut off from their other clansmen with the result that their marital relations thenceforth had to be confined to such other Tuluva-domiciled-Malayālis who or whose ancestors had like themselves migrated to Kerala. The brides who thus came from these Kerala-domiciled Tulu families happened to be mostly and nearly always Malayālam-speaking and had adopted the Nambūdri-ācāra of 'goṣā'.

But tho' the ladies of the household of the present-day descendants of Trivikrama speak Malayālam, the male members do converse in Tulu. Even apart from migratory causes, one can understand the use of Malayālam by the ladies as Kāsargod itself lies on the edge of Malabar territory and is itself thickly populated by myriads of Moplas whose number must have been augmented during the regime of Ṭippu.

The present descendant of Trivikrama, himself asserts that he is a Shivalli (Tulu) Brahmin and adds that he and his forefathers have been so termed in all the Government and public documents, lease-deeds, etc.

The peculiarly Nambūdri custom of permitting only the eldest son to marry within his own community and his own equal in caste, and making

the other sons of a Nambūdri father resort to a sort of “companionate alliance” (called Sambandha) is utterly absent amongst the descendants of Trivikrama Paṇḍita. This one fact is enough to show that they are not Nambūdris at all. The present Śivakāvubhaṭṭar himself and so far as he and other old men of his family could remember and produce evidence, all his forefathers were married in their own community to brides of their own status and no trace of a ‘Sambandham’ could be unearthed in their cases. A perusal of the following genealogical tree may also be helpful in this connection:—



The present Kāvubhaṭṭa has no hesitation in asserting that the two uncles of his father were both duly married to brides of their own community (Shivalli). This shows that the Nambūdri custom of marriage found no favour with them.

The family of Trivikrama Paṇḍitācārya does not seem to have betrayed any traces of its Nambūdri-origin in the matter of its marriage laws and customs at any time in its history. We have it on the authority of Trivikrama's own son, the author of the *Madhvavijaya*, that his father had two brothers and both these were respectable householders. In canto XV. 136 of the *Madhvavijaya* it is said that among the many house-holders who were admitted to his favour by Madhva were the “three crest-jewels of the Likuca clan”² which is further explained by the author in his own commentary on the *Madhvavijaya* as meaning Trivikramācārya himself, and his two brothers both named “Śamkarācārya”.³ Now, if Trivikrama and his brothers happened to be Nam-

2. बहवो गृहिणोऽप्यस्मात्समग्रानुग्रहं ययुः ।
दीप्ता यन्नाग्रय इव त्रयो लिङ्गचरोत्तराः ॥ *Madhvavijaya*, XV, 136.

3. त्रयः, त्रिविक्रमाचार्यः, शंकरायौ द्वौ ॥
Madhvavijayabhāvaṇṇāṣikā, Śrī Krishna Press Uḍipi 1928

būdris, only the eldest among them i.e., Trivikrama alone could have been married in his own community and to his equal in caste while his two brothers must have been content with a “Sambandha.” In that case, the term गृहिणः which their nephew applies to them in the *Madhvavijaya* would be too high an epithet for a companionate form of marriage such as theirs.

The most powerful piece of evidence in support of the fact that Trivikrama Paṇḍitācārya was not a Nambūdri at all, but was really a Tulu Brahmin (of the Shivalli class) is furnished by Trivikrama himself and his son Nārāyaṇa Paṇḍitācārya. The Shivalli or Tulu Brahmins of South Kanara are split up into various clans or “kulas.” There are as many as sixty-four ‘kulas’ with internal varieties of their own an account of which is said to be given in the *Sahyādri*. The names of these kulas usually end in the Tulu possessive-suffix ‘āya’ (lit. of the house or clan of). Cf. examples like: Mūḍillāya, Uḷiyattāya, Pejattāya, Toṭantillāya, Naḍuvantillāya, Maraḍittāya, etc. The author of the *Madhvavijaya* in giving the names of many a Tulu proper name as well as names of towns in S. Kanara connected with the life of Madhva usually gives a Sanskritised equivalent of the Tulu names. The clan-name of Trivikrama Paṇḍitācārya, we are told not only by the author of the *Madhvavijaya* in verse 136 of the XV canto of his work, but by Trivikrama himself at the outset of his *Uṣāharaṇa*⁴:—

विज्ञानपाथेयवतां विपश्चिदागन्तुकानामहमात्मशक्त्या ।

आतिथ्यकार्याय फले रसार्द्रं काव्याभिधानं लिङ्गचः प्रसोष्ये ॥

(उषाहरण)

was “Likuca” whose equivalent in Tulu is the word ‘Pejja’ = a species of jack fruit known as ‘Hebbalasu’ in Kanarese. Likuca as a patronymic, therefore, means Pejattāya in Tulu. That is to say, Trivikrama Paṇḍitācārya was a member of the “Pejattāya” clan of the Tulu Brahmins.⁵ The Nambūdris of Malabar do not have any such class-names and the term Likucakulatilaka or Pejattāya applied to Trivikrama clinches the matter once and for all.

In his *Uṣāharaṇa-kāvya*, Trivikrama gives the name of his father as Skanda. His father's name is traditionally given as Subrahmanya

4. Śloka 3 of *Uṣāharaṇa*, Uḍipi.

5. सुतपः कवितादिसङ्गणानां लिङ्गचानां कुलजैर्गिरोऽन्वयानां ।

Madhvavijaya, XIII, 43.

Paṇḍita of which the terms Guha⁶, and Skanda⁷ are equivalents. The name Subrahmaṇya Sūri is given at the end of his *Vāyu-stuti* by Trivikrama. 'Svārāma', Kāvu or Kāvugoli as it is called, lying at a distance of about two miles north of the modern town of Kāsargod in the South Kanara district, was the village of Trivikrama's birth. His father, Subrahmaṇya Sūri,⁸ belonged to the Āṅgīrasa-gotra⁹ and was himself a great scholar.¹⁰ A number of children were born to him; but all of them died one after the other. The Paṇḍita's wife thereupon redoubled her prayers to Lord Hari and Hara¹¹ and by the grace of the gods, a son was born, at last, who was named Trivikrama by his father.¹² Young Trivikrama gave unmistakable signs of his future greatness even while in his teens. It was at this time that he made his first literary début with his *Uṣāharaṇa*, a superb Kāvya of the classical type, featuring the sensational abduction of Aniruddha at the instance of Uṣā, the daughter of Bāṇāsura, and their love-affair.

Soon he mastered all the Śāstraic lore of his days and emerged as a scholar of extraordinary calibre. But his mind was not at rest with the Māyāvāda of Śamkara in which, however, he was born and bred. Even his aged sire had warned him on his death-bed against the emptiness of the Nirguṇopāsanā. Day and night he thought and pondered over the inconsistencies of the Māyāvāda, read and re-read the texts; but his mind was not at rest. At last he decided to stick to Saṅgopāsanā without however giving up his faith in the Advaita-vedānta. It was at this time that news reached him of growing success of Madhva. Batches and batches of Advaitins came from far and near to entreat

6. अभवद्गुहनामको विपश्चित्कविवर्योऽखिलवादिवन्दनीयः ।

(Ibid).

7. स्कन्दाभिधानगदितं गुरुमद्यमूर्ध्ना
ज्ञानामृतोपनिधिभूमिममुं नमामि ॥

(Uṣāharaṇa).

8. सुब्रह्मण्याख्यसूरेः सुत इति सुभृशं केशवानन्दतीर्थं
श्रीमत्पादाब्जभक्तः स्तुतिमकृतं हरेर्वायुदेवस्य चास्य ।

Vāyustuti, 41.

9. सुतपः कवितादि सद्गुणानां लिङ्गुचानां कुलजोगिरोऽन्वयानाम् ।

Madhvavijaya, XIII, 43.

10. अभवद्गुहनामको विपश्चित्कविवर्योऽखिलवादिवन्दनीयः ॥

(Ibid).

11. Presumably at the same temples which stand at present near the home of the family.

12. कृतकृत्यतया क्रियाः प्रकुर्वन्कविराख्यादुचितां त्रिविक्रमाख्याम्

Madhvavijaya, XIII, 46.

him to try conclusions with the Messiah of the new creed and nip here-
sy in the bud. Flattered by these entreaties, his courage seemed to re-
turn to him and he managed to confound a few people who now and
then came to him imbued with the doctrines of the new creed. The
author of the *Madhvavijaya* says that at this critical moment of his life,
Trivikrama, distracted by doubts, used now and then to turn to the
works of Madhva and ponder over their contents at nights unknown to
others.¹³ Trivikrama might, at this stage, have had access to some of the
works of Madhva through the help of his younger brother Śamkarācārya
who was then the Librarian of Madhva. This Śamkarācārya himself
was no mere keeper of books; but a sound scholar. He is the author of
a commentary entitled *Sambandhadīpikā* on Madhva's *Anuvyākhyāna*.

Soon news reached Trivikrama that Madhva himself was camping
at Viṣṇumaṅgala (about a mile from Kāvu). Trivikrama thereupon
presented himself before Madhva at Viṣṇumaṅgala.¹⁴ There he listened
to the daily discourses of Madhva. His heart was stirred to its depths
as he sat there listening to the lectures of Madhva characterised by
profound wisdom, matchless eloquence and irresistible logic. His
blood began to boil within him all the same, as he sat there watching
the citadel of Monism being razed to the ground without fear or favour.
He rose and offered himself for a debate. Madhva was only too glad to
meet such an illustrious champion of Advaita as Trivikrama who had
the entire lakh and a quarter granthas of Śamkara's Bhāṣya at his
fingers' ends.

The debate lasted for full fifteen days at the close of which Tri-
vikrama felt dazed and was completely routed.¹⁵ He owned himself
vanquished and begged to be admitted as a disciple of the Ācārya.^{15a} It
was done. The sterling worth, profound sincerity and prodigious
scholarship of Trivikrama did not escape the attention of Madhva. The
Paṇḍita was forthwith commanded to write a commentary on the

13. क्षणदासु विचक्षणः सवीक्ष्य प्रचुरं प्राश्नमनोऽशस्त्रसारं
अपराविदितः प्रसादगर्भे विदधे विस्मयमान्तरं महान्तम् ॥

Madhvavijaya, XIII, 67.

14. तं विष्णुमङ्गलगते बहुलप्रबोधं प्राप्याभ्यवन्दत तदायुगविक्रमार्थः ॥

Madhvavijaya, XIII, 69.

15. समाष्टानि दिनान्येवं वादं कृत्वा सहामुना ।
निरुत्तरं तं निश्चोद्यं चक्रे चक्रायुधप्रियः ॥

Madhvavijaya, XV, 69.

- 15a. Vide snapshot of the Jayastambha or pillar of victory set up in commemoration of the event.

Brahma-sūtra-bhāṣya of Madhva.¹⁶ The great scholar readily accepted the commission and produced his *magnum opus* the *Tattvapradīpa* and placed it at the feet of the Master as a brilliant token of his devout admiration. The *Madhvaviṇaya* goes on to record how sometime after the conversion of Trivikrama, Madhva wrote a special metrical commentary¹⁷ on the Sūtras at the request of his disciple. Sometime after the conversion of Trivikrama, Madhva moved north towards Udipi after making a number of converts round about the country of Kāsar-god. Trivikrama Paṇḍita, however, remained behind at his own place spending the rest of his life in teaching his sons and disciples, writing new works and visiting the Master occasionally.

The last days of Trivikrama were however eventless. He seems to have had three sons¹⁸ of whom Nārāyaṇa Paṇḍitācārya was the youngest. Tradition says that he became a sanyāsin toward the close of his life; and in the family house of his descendants, his alleged tomb is still pointed out to visitors along with that of his son Nārāyaṇa Paṇḍitācārya.^{16a} But in the *Madhvaviṇaya* of Nārāyaṇa Paṇḍitācārya, there is no evidence of Trivikrama's having turned an ascetic. It is very likely that he lived and ended his days as a householder. For, if he had had any leanings towards the fourth order, he would very probably have sought initiation as a monk at the hands of Madhva himself; and such an event, if it had happened, would most certainly have been chronicled.

II

Among the works of Trivikrama, the *Uṣāharāṇa* has already been mentioned as a Kāvya of great merit. It is a poem in nine cantos written by the author prior to his conversion by Madhva as can be seen from the following verse of the *Madhvaviṇaya*¹⁹:

16. गुर्वज्ञागौरवाद्दीकां कुर्वन्भाष्यस्य दुष्करां ।

Op. cit XV, 72.

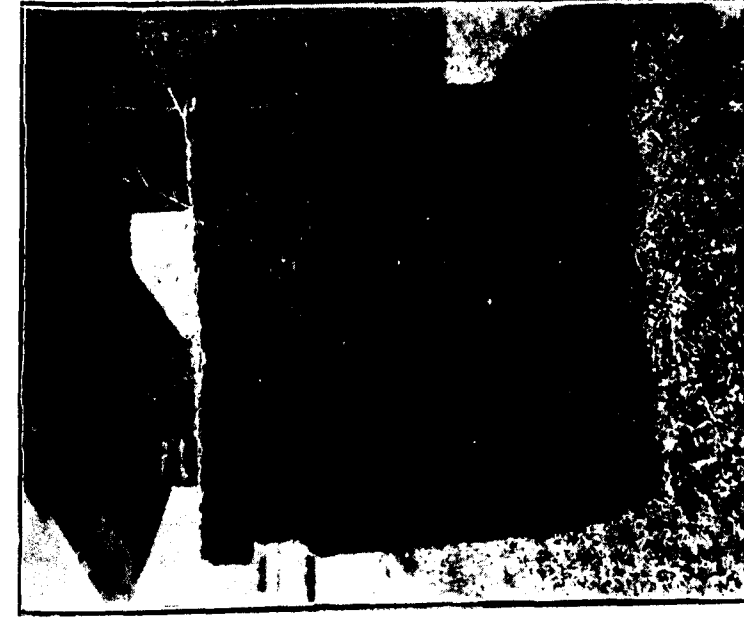
16a. Vide snapshot of Trivikrama's Tomb.

17. Called the *Anuvyākhyāna*. This work of Madhva must have been finished before the completion of Trivikrama's *Tattvapradīpa* which quotes from the *Anuvyākhyāna*.

18. त्रिविक्रमविपश्चितो गुणनिधेः सुशिष्याः सुताः
सतामभिमतः त्रयो यस्तृतीयोत्र नारायणः ।

Madhvaviṇaya-bhāvaprakāśikā of Nārāyaṇa, concluding verse. (Śri Krishna Press, Udipi).

19. *Madhvaviṇaya*, XIII, 48.



Tomb (Bṛndavana) of Trivikrama Paṇḍitācārya not far from his house. To the left is seen a pond.



The Jayastambha or pillar of Victory in the house of Trivikrama set up in commemoration of Madhva's Victory in debate over the former.

—Snaps thro' the kind courtesy of
Mr. G. Gopinathrao, Taluq Board Office, Kasargod.

सकलांगयुतावभातशाखः समये प्राप्त उदार पक्षिसेव्यः ।
स ससर्ज सदध्वगोपकृत्यै लिङ्गुचः काव्यफलं रसाभिरामम् ॥

wherein he simply echoes the wording of the *Uṣāharāṇa* itself²⁰:

विज्ञानपाथेयवतां विपश्चिदागन्तुकानामहमात्मशक्त्या ।
आतिथ्यकार्याय फलं रसाद्रै काव्याभिधानं लिङ्गुचः प्रसोष्ये ॥

Even apart from the information given by Nārāyaṇa Paṇḍitācārya, we can readily conclude, from the absence of any salutation to Madhva in the *Uṣāharāṇa* that it was written when the author was still an Advaitin. The work consists of nine cantos and has been published partly at Kumbakonam with the excellent commentary of Sumatindra Tirtha of the 17th century and in full with the same commentary at Udipi. The Pāncālī style of composition is adopted by Trivikrama who shows himself to be fully conversant with all the conventions of Sanskrit poets and a perfect master of all their niceties such as śleṣa, yamaka. It is worthy of note that he is equally a master of 'bandhas' and other poetical feats. Thus verse 25 of canto 8 is cast in 'Muraja-bandha'; verse 57 in 'Ardhabhramaka'; verse 61 in 'Gomūtrikābandha'; and verse 75 in 'Cakrabandha'. The first canto begins with the birth of Kṛṣṇa ending with the slaying of Kamsa and the coronation of Ugrasena. The second deals with the encounter with Kālayavana and the building of Dvāraka. The third narrates the story of the abduction of Rukmiṇī; the fourth describes the love scenes between the divine couple, the birth of Pradyumna, the abduction of the baby by Śambara, etc., till the return of Pradyumna after the slaying of the demon and the birth of Aniruddha. The fifth gives an account of the sportive activities of Aniruddha, the dream of Uṣā, the abduction of Aniruddha and his meeting with Uṣā and their secret scenes of love. The sixth describes the lamentations of Aniruddha's relatives, and the preparations for the rescue by them after hearing the story of his abduction to the city of Bāṇāsura, as well as the imprisonment of Aniruddha by Bāṇa in his palace after the detection of his daughter's *affaire de cœur*. The seventh deals with the arrival of Kṛṣṇa and his allies in Śoṇitapura, the capital of Bāṇa, and minor encounters there. In the eighth are described the sensational fight between Kṛṣṇa and Lord Śiva, the ally of Bāṇa; and the defeat of both Bāṇa and Śiva. The ninth rounds up the story with a description of the return home of the victorious hosts with Aniruddha, and his marriage with Uṣā.

20. *Uṣāharāṇa*, I, 3. (Śrī Krishna Press, Udipi).

Though for all practical purposes Aniruddha may be regarded as the hero of this Kāvya, the leanings of the author himself seem to incline to the side of Kṛṣṇa. A hint in this direction is almost thrown out by him in verse 5 of canto I. The engrossing attention paid by the poet to a detailed description of the early exploits of Kṛṣṇa, his fight with Kālayavana, the slaying of Kaṁsa, the abduction of Rukmiṇī and his marriage with her and even the description of the love scenes of the couple tend to confirm this view. So too the laudation of Kṛṣṇa (as Viṣṇu) in twelve verses put into the mouth of the vanquished Rudra and Rudra's reference to himself in the course of this stotra as Viṣṇu's own grandson (verse 4). The pointed statement in verse 5 of the first canto that "there is no fear of the Nirguṇa-theory in this work": न चात्र नैर्गुण्यकथा मुकुन्दपादाम्बुजसारकवाक्यबन्धे shows that the poet's leanings, even at this stage of his life when he was still an Advaitin, were beginning to show symptoms of inward discontent with the Monistic form of *upāsanā*. The poet uses a simple, yet polished style. His praise of the Divine Being in the first canto in 4 verses and the description of the Milky Ocean in 16 verses suggest every comparison with Kālidāsa. The metres handled by him with distinct grace are, besides the Anuṣṭubh, the Upajāti, the Campakamālīkā, Mālinī, Rathoddhatā, Vamśastha, Praharsinī, Śārdūlavikrīḍita, and Vasantatilakā. Trivikrama, though he describes battle-scenes and ministerial meetings, etc., as a matter of routine, is pre-eminently a love-poet. His genius lies more in the field of the finer side of love than in the dry details of battle. Consequently, his descriptions of skirmishes and pitched battles, etc., between the hosts of Bāṇa and Kṛṣṇa and even his description of the encounter of Kṛṣṇa with Kālayavana, Bāṇa and Lord Śiva, make no impression on us; whereas his descriptions of the love scenes of Aniruddha with Uṣā, the Udyānakrīḍā, etc., of the former, and the love-scenes between Kṛṣṇa and Rukmiṇī though deftly described, carry one's erotic susceptibilities to the verge of Sublimation. (See IV, 10—12; II, 57; V, 68—76, espily. verses 61, 70, 73, 74, etc.). The use of the 'bandhas', etc., will not be too severely condemned as indicative of bad taste, if only we would remember that contemporary standards as evidenced in the works of Vedānta Deśika and other writers, fully approved of them.

The *Tattvapradīpa* of Trivikrama, as has been pointed out before, is a magnificent commentary on the *Brahma-sūtra-bhāṣya* of Madhva. It is his *magnum opus*—in thought and in size. The work runs, roughly to nearly 5300 *gran̥thas* (units of 32 syllables). Barring the *Sattarka-dīpāvalī* of Padmanābha Tīrtha, it is the *earliest commentary* on Madh-

va's *Sūtra-bhāṣya* and coming from the pen of one who had the unique privilege of measuring swords with the Ācārya and then sitting under his feet, to learn the inmost secrets of the Ācārya's system imbedded in the short sūtra-like utterances of his Bhāṣya, it has all the characteristics of a superb classic: thorough exhaustiveness, a subtlety combined with transparency of thought, living sincerity and inimitable eloquence. Brilliance, grace, and music of style are discernible on every page of the work which very vividly attest his thorough familiarity with the masterpieces of Śamkara and Vācaspati. For, though Trivikrama renounced his old faith, and adopted a new creed, he could not so easily jump out of his former self and give up his wonted style for the grace and brilliance of which he was, it must be conceded, indebted in no small measure to born stylists like Śamkara and Vācaspati. It is a pity that such a monumental work as the *Tattvapradīpa* should yet remain in manuscript stage. Its publication would be a distinct addition to the stock of extant literature on the Vedānta and would add considerably to the prestige of the Dvaita-vedānta in the eyes of the modern print-worshipping world from the point of view of both literary and expository brilliance.²¹ But such a day seems to be farther off than

21. Mr. Pisharoti in his article in the I. H. Q. goes too far in overrating the importance of Trivikrama to the Dvaita school. His remarks that while "the Seer (Madhva) contented himself with outlining his system, it was the great Trivikrama who developed and elaborated his master's creed and raised it to a position of Sastraic equality with the Advaita"; and that for this reason he is looked upon as "the Śāstrācārya of the Dvaita creed" (p. 683) are a little bit exaggerated. Those who are acquainted with the works of Madhva will have no difficulty in seeing that Madhva himself had raised his system to a position of equality with the Advaita and had not been content merely with "outlining it". Trivikrama himself admits this fact in various places. Again, to say that Trivikrama is regarded as the Śāstrācārya in the Dvaita system, is anything but true. Trivikrama was, after all, a householder who did not take up the Cross and follow his Master. He had tried conclusions with Madhva, debated with him, accepted his creed, and, at his bidding, written a great commentary on the Bhāṣya. There he stopped. The honorific appellation of Śāstrācārya is ungrudgingly given universally among the followers of Madhva to Śrī Jayatīrtha who is more universally known and referred to by the epithet Tīkācārya (nirupapada Tīkācārya śabda-vācyāḥ) in recognition of the fact that Jayatīrtha has written brilliant commentaries on almost all the works of Madhva and occupied the Ācāryapīṭha after Akṣobhya Tīrtha. It is no exaggeration to say that Jayatīrtha's *magnum opus* the *Nyāya Sudhā* easily excels the *Tattvapradīpa* in its classical proportions, dignity and elegance of style and its expository and interpretative brilliance. Trivikrama's conversion took place late in the philosophical career of Madhva and it cannot be that Madhva had for so long contented himself merely with 'outlining his system'. The Dvaita system of Madhva is what it is to-day not because of the labours of Trivikrama but because of the yeoman services rendered by Jayatīrtha, Vyāsātīrtha, etc., who represented the ascetic line from Madhvācārya.

desirable. The present writer is however fortunate in possessing a complete and well-written copy of the work.^{22a} He is almost led to suspect that vested interests which if to-morrow they will it, could carry through the publication of this work are now manifestly lukewarm in this task for fear (no doubt ungenerous, but perhaps not entirely unreasonable) lest the publication should in any manner eclipse the popularity of the famous *Tattvaparakāśikā* of Jayatīrtha. However that may be, the work of Trivikrama is historically, in some respects, more important to us than that even of Jayatīrtha. For one thing, it is much earlier in date than that of Jayatīrtha. Trivikrama, as a direct disciple and contemporary of Madhva, wrote his work about the year 1300 A.D. Jayatīrtha who was the disciple of Akṣobhyatīrtha, the fourth in succession from Madhva among the latter's disciples, occupied the Pontificate from 1365-88 A.D. His *Tattvaparakāśikā* must, therefore, have been written at least fifty years after the *Tattvapradīpa* of Trivikrama. There is also a difference in methodology between the expositions of Trivikrama and Jayatīrtha. The former, very often, introduces lengthy and apparently digressive discussions touching alien systems of thought in the course of his commentary. Sometimes discussion of the categories of the Dvaita Vedānta are themselves subtly connected with an innocent-looking word or particle in the Bhāṣya. Thus, at the very outset of his commentary, Trivikrama bases a lengthy discussion of the concept of Viśeṣa on the word *Bhagavān* occurring in the Bhāṣya and a more lengthy discussion on the validity of Āgama is started on the basis of the statement एवं विधानि सूत्राणि in the Bhāṣya. Trivikrama, unlike Jayatīrtha, does not punctiliously set forth under each *adhikaraṇa* the अधिकरण सङ्गति, शास्त्रसङ्गति, सन्देहबीज etc. Trivikrama's work is in many respects a fighting treatise. Tho' going by the name of a commentary, it is assuredly a classic by itself. The first four Sūtras of Bādarāyaṇa are interpreted twice by Trivikrama; once in accordance with the scheme of the Sūtrakāra and again as a refutation of Advaita.

The *ṭīkā* of Jayatīrtha has many things methodologically in common with the *Bhāmatī* of Vācaspati Miśra on *Śaṅkara-bhāṣya* while the *Tattvapradīpa* of Trivikrama pursues a different line of approach to the Bhāṣya. In the matter of the interpretation of śrutis too, there are minor differences between the *ṭīkā* and *Tattvapradīpa*. Occasional differences in the interpretation of the sūtras are not wanting.²² A similar

22a. Quotations from the *Tattvapradīpa* in this paper are made from the Mss. in my possession.

22. These differences are reconciled by the famous Vyāsarāja Svāmin in his *Candrikā*.

divergence of views has been noticed in the interpretation of passages in the *Gītā-bhāṣya* in the commentaries of Naraharīrtha and Jayatīrtha. These differences were probably due mainly to the elasticity of the original and in some cases to the inheritance of different traditions of interpretation. The possibility of offering varied interpretations not only of the Sūtras but of the text of his own Bhāṣya as well, has been admitted by Madhva himself;²³ and he might very probably have given different explanations of his own texts on various occasions in teaching different disciples. But it is gratifying to note that these differences are all of minor account. They are not such as to cause serious split on metaphysical issues. The same cannot be said of the differences of opinion among the commentators of the Advaitavedānta. There is much that is common, on an external view of things, between the *Tattvapradīpa* of Trivikrama and the *Pancapādikā* of Padmapāda even as there is between the *ṭīkā* of Jayatīrtha and the *Bhāmatī* of Vācaspati. Both the *Tattvapradīpa* and the *Pancapādikā* were written by the immediate disciples of Madhva and Śaṅkara whereas the *Bhāmatī* and the *Tattvaparakāśikā* were written by writers who came after their Ācāryas. Again, the *ṭīkā* of Jayatīrtha has completely eclipsed the *Tattvapradīpa*, has almost ousted it and usurped its place. The same thing also has happened in the case of the *Pancapādikā*. But the comparison should not be stretched to the extent of serious differences in metaphysical tenets. The sharp differences that have divided the *Bhāmatī-prasthāna* from the *Vivaraṇa-prasthāna* have no parallel in the Dvaita-vedānta.

It would be manifestly impossible to attempt to do justice in the course of this sketch to the manner and method of the author of the *Tattvapradīpa*, his expository brilliance, his equipment and erudition and the nature of the dialectical machinery employed by him. One thing at least can be said. Steeped as he was in the profoundest Advaitic learning of his days which included the famous works of Gauḍapāda, Śaṅkara, Padmapāda, Śureśvara, Vācaspati, Sarvajñātman, Śrīharṣa, Vimuktātman, Anandabodha, etc., Trivikrama brought to the service of his new faith all that was great, good and covetable in the constructive, expository and dialectic machinery of the Advaita Vedānta.

Trivikrama shows himself to be as great a master of prose as of verse. His command over ornate prose of the 'Kāvya style' is truly

23. ग्रन्थोयमपि बह्वर्थः भाष्यं चात्यर्थविस्तरं ।
बहुधा एव जानन्ति विशेषणार्थमेतयोः ॥

remarkable. The following few sentences from a certain context of the *Tattvapradīpa* would be seen to do credit even to a Bāṇa:—

गौतमस्य हि वदान्यस्यान्नवन्तमाश्रमं द्वादशवर्षिक्यामनावृष्ट्यामृष्योऽ-
ध्युषुः । तत्राहरहस्तेन समीहितहव्यकव्याभ्यवहार्यातिसर्जनेन सुकृतसमाधिस्वा-
ध्यायवचनास्समवर्तन्त । सत्यां वृष्टौ निर्गन्तुमीहमानास्तं महामुनिमुज्जापयचक्रुः ।
तेन विनिवारिताः सुहृत्तमं तममी स्नेहभङ्गभयाच्चायवर्तन्त । तस्मिन्काले पतिशि-
रसः सपत्नीं निष्कासयन्त्या पार्वत्याप्रेरितो विनायको ब्रह्मचारिवेषप्रच्छन्न-
स्तानृषीनुपससार । “भगवन्तः, किमत्रभवतां तपोधनानां तपःक्षयकारेणाति-
चिरमेकत्र परान्नाशनेन ? स्वस्वमाश्रमं व्रजत । तद्वचोपायमाकर्णयत । तपोबला-
न्मायामयीं गां निर्मिमीध्वं । तांतु गौतमः स्वकीयतपःशक्त्यानुसवनं वर्षुकी-
कृतबलाहकावलीविगलितसलिलसंवर्धितसस्यग्रासिनीमपक्रामयितुं प्रयतिष्यते ।
सा ततः सहसा निपतिष्यति । तदा ब्राह्मणास्तं विव्रूत । यावदिदमशेषमातरं
सौरभेयीं नोत्थापयिष्यति तावन्न भवान्भोज्यान्नः अतो हरशिरसः सुरसरितम-
वतार्य, तद्वारिणासिच्य तामुज्जीवयतु भवानित्येवमुतापिने तमभितप्यापसरते”
त्युक्त्वा स व्रती स्वर्गतिं जगाम ॥ ते चामुना सुनिपुणेन प्रणिगदितं प्रायेणोपाय
मुपश्रुत्यान्वतिष्ठन् । तेनैव च पातिष्ठन्त-ततस्तावदसौ मुनेवृषभश्चिरकाले चीर्णया
तपस्यया परितोषितात्पशुपतेर्मौलिमालायितां मन्दकिनीमंसेन समानीय तद्वारिणा
सुरभिभमिषिषेच । ततः सान्तस्थौ तद्गतमेन गोदत्तंवारि गोदावरीति जगति
प्रसिद्धिं लेभे । अथ तस्य चिन्ता समजनिष्ट । किमिह किल कारणं यदनया भद्रया
केवलान्मे कमण्डलूदकविन्दुसंस्पर्शादपति, सहसा व्यमाहि । अथ च गिरिशान्तमा-
ङ्गागतसुरतरङ्गिणीतनुतरङ्गसंगमादेव चोदबोधि, झटितिचोदस्थायि, आश्चर्यमेत-
दिति स वितथाधिः समाधिं समाधत्त बुबुधेच तद्वत् । विबुधवरयोरंबिकाहेरम्बयोर्वि-
नाविचेष्टितेन चुक्रोधच ताभ्यां अहो अस्मत्तपोबलादतिमहतीं विपद्यमतितीर्णानामन्न-
पानादिभोगमत्तानां मुनीनां दुश्चेष्टितमेतत् । अस्तुनाम । तेषां धर्ममूढानां अस्स-
न्नमित्ताद्वासं ज्ञानं विनश्यतु इति गौतमशापः ॥
(तत्त्वप्रदीप)²⁴

Throughout his *Tattvapradīpa* Trivikrama quotes calmly, unsuspectingly and without the least trace of mistrust, numerous passages from the remotest corners of the strangely outlandish sources so often relied upon by Madhva. The problem of the authenticity of Madhva's quotations from unknown and unknowable sources that has been raised in ancient and modern circles and which is being made capital use of by those who have no love lost to him, did not simply exist in the case of Trivikrama an erstwhile veteran Advaitin! Surely, a combatant of the type of Trivikrama would not have been so easily bamboozled by

24. Commentary on the text of the Bhāṣya:

गौतमस्य क्रुषेः शापाज्ज्ञानेत्वज्ञानतां गते.

the “Kāṭhara and Māṭhara” śrutis, the Brhat-samhitā, Bhāgavata-tantra, Tantra-bhāgavata and Vyomasamhitā of Madhva nor by his Mahāvya-karaṇa sūtras, his Śabdanirṇayas and Vyāsaniruktas! Madhva could scarcely have hoped to make a stand for his own part, against his opponent, let alone his defeating him, in a debate of the kind that took place by a display of an array of forged śrutis, fabricated smṛtis and Purāṇic passages, such as they are alleged to be by the modern bigoted Advaitins and Oriental scholars. The fact that Madhva had no difficulty in convincing the greatest scholars of his days and hold his own against them in public debates shows that he could not have managed to found a new system and shake the mighty edifice of Advaitism to its foundations merely by parading a mass of forged śrutis and Smṛtis. The works of Trivikrama Paṇḍita, Padmanābha tirtha and others who became his disciples only after a strenuous fight, tend to show that the Ācārya must have been in a position to convince them of the genuineness of his authorities before he could have made them accept the reasonableness of his interpretations of Śrutis, Smṛtis and Sūtras based on them. The passages from the original sources of Madhva which are cited by Trivikrama in appropriate contexts of this commentary have thus, a great value in a critical consideration of the problem of the Texts and Sources of Madhva. It may be mentioned in passing that Trivikrama himself, in certain cases, locates passages whose original sources are not mentioned by Madhva and on other occasions mentions the actual sources of texts cited from different originals at a stretch in the Bhāṣya and removes serious confusions which might otherwise result. Two instances might be given in point:— In the course of his commentary on Ānandamayobhyāsāt (Brahma-sūtra), Madhva, among other texts, has cited: “वासुदेवात्मकं ब्रह्ममूलमंत्रेण वा यतिः” without mentioning the source of this mysterious text. In his *Tattvapradīpa*, however, Trivikrama locates this text as occurring in the *Vyāsa-smṛti*.²⁵ Again, in the course of his Bhāṣya on the Sūtra i, 2, 12 Madhva quotes without mentioning any sources whatever:—

यथेश्वरस्य जीवस्य भेदः सत्यो विनिश्चयात् ।

एवमेव हि मे वाचं सत्यां कर्तुमिहार्हति ।

यथेश्वरश्च जीवश्च सत्यभेदौ परस्परं ।

तेन सत्येन मां देवास्त्रयन्तु सहकेशवा ॥ इत्यादेर्नासत्यो भेदः ॥

25. And supplies the first half of this verse.

In his commentary on the Bhāṣya, Trivikrama says that the first verse is from the *Pādma* and the second from the *Skānda*,²⁶ but for which information, nothing could prevent a superficial reader from mistaking the whole as a quotation from the same source, whatever it might be. These two instances (and many more could similarly be cited), it is hoped, would be enough to demonstrate the need for patient research on the problem of Madhva's quotations and the immense help that the *Tattvapradīpa* and works of similar antiquity can give to an earnest student.

Another noteworthy point regarding the monumental work of Trivikrama lies in the glimpses into the personality of Madhva which it gives. Trivikrama's reflections on "The Master as I saw Him", afford interesting reading and bear eloquent testimony to the deep attachment, profound respect and overflowing admiration which Trivikrama had for the Ācārya, feelings which could not have been called forth in him but for sufficient reasons and deserts.

A few of Trivikrama's impressions of Madhva may be noted. In the first place, Trivikrama was fully imbued with the belief in Madhva's being an Avatāra of Vāyu as he claimed himself to be in the light of certain prophetic utterances in the Scriptures. The question of Avatārs is a large one and we need not be concerned with debating it here. Trivikrama writes:—

अश्रुतप्रतिभा यस्य श्रुतिस्मृत्यविरोधिनी ।
विश्रुता नृषु जाता च तं विद्यादेवसत्तमं ॥
इति नारायणश्रुतिः । प्रत्यक्षमेवैतल्लक्षणं दृश्यते भगवति भाष्यकारे ॥

Elsewhere, Trivikrama speaking of the Ācārya's love of brevity remarks:— दर्शयति चाचायेः 'इति सप्तप्रधानानीति' । सर्वत्रेवमेव सूत्रपदानां कृत्यमुपक्षिपति-ननु निर्वर्तित । सूक्ष्मदृष्टिभिरधिकारिभिर्विभाव्यमिति ज्ञापयन् ॥ The doctrine of "Sarvaśabda-samanvaya" in Brahman admitted by the Sūtrakāra has been worked out to staggering perfection in the philosophy of Madhva. No other school of Vedānta has worked out this cardinal doctrine of the Sūtrakāra with such a thoroughness as the Dvaita-vedānta. It is more or less the corner stone of Madhva's Theism. Taking his stand on this doctrine, Madhva has interpreted the entire range of Vedic literature in terms of the Supreme Being,

26. यथेश्वरस्य जीवस्येपाद्येति यथेश्वरश्चजीवश्चेति स्कान्दे ॥ *Tattvapradīpa*.

not excluding even the so-called Karma-kāṇḍa portions. From the point of view of the highest truth, Madhva has maintained that even texts such as वसन्ते वसन्ते ज्योतिषा यजेत which are put down by all other Vedāntins as merely enjoining certain sacrificial acts, do also really proclaim the Majesty of God (*Parama-mukhyayā-vṛttyā*). Commenting on the text of the *Aitareya upanishad*: तावा एतास्सर्वा ऋचः सर्वेवेदाः सर्वे घोषाः एकैव व्याहृतिः प्राण एव प्राणऋचइत्येवविद्यात्—Madhva writes:— किमुच वेदाः, समुद्रमेघवृक्षपतनभेरीताडनादि सर्वे घोषा अपि तस्यैव नामानि यथायोगं योजनीयानि ।

The doctrine of Sarvaśabda-samanvaya is not admitted in this extreme form by other Vedāntins and Madhva had to accomplish a Herculean feat in gaining acceptance to this doctrine of his and what is more, in demonstrating it in the toughest of cases whenever challenged to do so. The enormity of the claims which a successful demonstration of such a doctrine would make on the literary, exegetical, grammatical, etymological and philosophical resources of any one who agrees to do so cannot be grasped with sufficient clearness by any one who is not acquainted with the works of Madhva. Commenting therefore on the capacity of Madhva to expound this aspect of Vedāntic truth Trivikrama writes in terms of inexpressible wonder and admiration:—

'को नाम गतिसामान्यमनन्तागमसंपदः । ज्ञानसूर्यमृते ब्रूयात्तमेकं बादरायण' मिति तस्यैव सर्वश्रुतीतिहासपुराणतन्त्रयुक्तिमूलं परमात्मतत्त्वविषयं निर्णयात्मक-सूत्रजातं जगति सुरवरपुरःसरकविजनमनःसरसिजसमूहसहस्रकिरणेभ्यो गुरुतम-भाष्यकारभट्टारकेभ्य एभ्योऽपरः कोव्याचक्षीत—किन्तु, प्राज्ञतमानामेषामाज्ञाबल मवलंब्य रूढप्रौढदुरधिगममार्गाः कतिचनभाष्यपदानि व्याचिख्यासवः सूत्रमिह गुरुभिरुदाहृतमुदाहराम एव केवलं । कापिच मुखतो विवृतमपि किमपि पदमभि मुखविकसितकरतलविलसितामलकवदविरतमनुवीक्ष्यमाणसूत्रार्थजातानां दुर्विगाह मतिमहासमुद्राणां मितपदं चेदं भाष्यं बह्वर्थमिह कुर्वतां कृपालूनामनुग्रहादर्थक्षिप्त मर्थं दर्शयाम इति ॥ (iv, 2).

The other works of Trivikrama can be dealt with in a few words. The two or three other works attributed to him are all Stotras of small compass. His *Nṛsimha-stuti* comprising twenty-two verses in Mālinī metre has been published in the Stotra-mahodadhi, at Belgaum. His *Viṣṇu-stuti* of 33 verses in *Sragdharā* metre has been printed in Telugu characters by Rayapalayam Raghavendrācārya at Punganur (1890). The attribution to him of the *Maṇimanjarī* in the Catalogus Catalogorum (Part iii p. 52,) and of the *Nayacandrikā* in the Catalogue of the Mysore Oriental Mss. Library (C2066,) are

entirely unfounded. Both the *Manimanjarī* and the *Nayacandrikā* are the works of Nārāyaṇa Paṇḍitācārya and both have been printed. A copy of *Madhvāmṛtamahārṇava*, alleged to be a work of Trivikrama, is claimed to be in his possession by Śyā Khāpe Hayagrīvācārya of Kumbakonam. I have not seen the work personally and can not therefore say anything regarding its contents or authorship.

Among the Stotras of Trivikrama, the *Vāyu-stuti* is the most important and widely popular one. Indeed, it would be difficult to find a Mādhva boy who does not know a few verses at least of this poem, by heart. It is recited by all Mādhvas at the time of their daily worship at home. It is a lengthy stotra of forty-one verses²⁷ in the Sragdharā metre sung in praise of the three incarnations of Vāyu: Hanumān, Bhīma and Madhva, recounting the exploits of each in order. The poem is full of feeling and reveals the author's capacity to versify in long metres with ease and felicity. The Sragdharā seems almost to have been the favourite metre of Trivikrama in the realm of Stotras. Some verses in this metre also occur in the beginning of his *Tattvapradīpa*. The *Narasimha-nakha-stuti*, of only two verses in the same metre, composed by Madhva, is usually prefixed to the *Vāyu-stuti* which latter is not recited without this prefix. Tradition has it that when Trivikrama submitted his *Vāyu-stuti* for the acceptance of his Guru, Madhva, the latter did not quite like the idea of the stotra being all in praise of himself. So, he composed two verses in praise of the nails of Lord Narasimha and prefixed them to his disciple's work. At the close of the *Vāyu-stuti*, the author bows to God and his Guru Ānandatīrtha alias Madhva. The entry of the *Vāyu-stuti* in the name of Trivikrama disciple of Keśavānandatīrtha in the *Catalogus Catalogorum* is inaccurate. "Keśavānandatīrtha" is not the proper name of a single individual but is really a compound meaning Keśava i.e. the Lord Viṣṇu and Ānandatīrtha i.e. Madhva.

27. Including the two in the beginning which were composed by Madhva himself and prefixed to his disciple's poem.

Preliminary Synthetic Experiments in the Cytisine Group

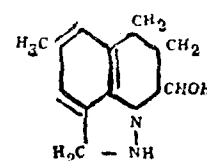
Part I. Attempted Synthesis of Ewins' Structure for Cytisine

By

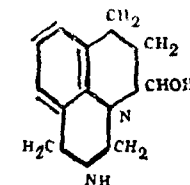
SATYENDRANATH CHAKRAVARTI AND A. VENKATASUBBAN

(Annamalai University)

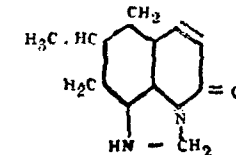
At the time when these researches were started, the constitution of Cytisine was still uncertain. The following three formulæ had been suggested for cytisine:—



Cytisine
(Ewins)



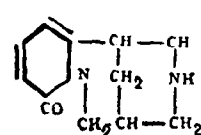
Cytisine
(Freund and Gauff)



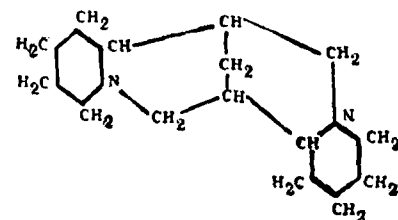
Cytisine
(Spath)

None of these structures is really satisfactory, but the fact that 6:8 dimethyl-quinoline, and 6:8 dimethyl 1:2:3:4 tetra-hydro-quinoline are formed on the reduction of Cytisine inclined us to the view that Ewins' Formula represented the properties of Cytisine as well as that of Freund's or Spath's formula (Compare Ewins', J. C. S., 1913, 103, 97; Freund and Gauff Arch. Pharm., 1918, 256, 33; Spath, Monats., 1921, 40, 15, 93). Experiments to synthesise a structure similar to that of Ewins' were, therefore, started so as to definitely prove or disprove this structure. Not a single compound of this type, formed by the fusion of three rings, benzene, pyridine and pyrazole in that particular manner, had been synthesised before and it was, therefore, thought that it would be a matter of considerable interest to synthesise a substance of this type.

Researches published during the last two years, (Ing. J.C.S., 1931, 2195; 1932, 2778; Spath and Galinovsky, Ber., 1932, 65, 1526) have shown that none of the formulæ mentioned above is tenable. It has been shown that cytisine and sparteine are closely related (Ing. J.C.S., 1933, 504; Clemo and Raper, J.C.S., 1933, 644), and the following new formulæ have been proposed for these alkaloids:—



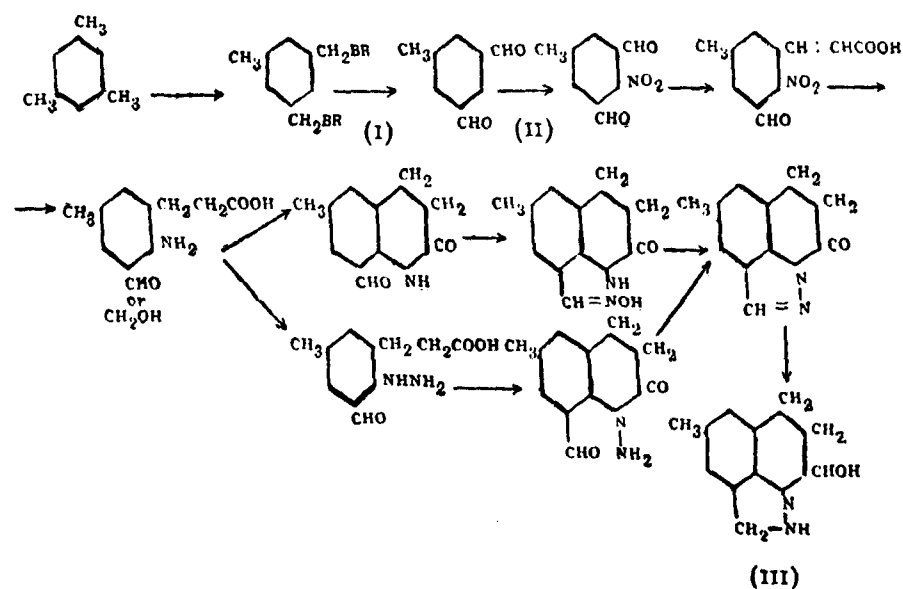
Cytisine
(Ing.)



Sparteine
(Clemon and Raper)

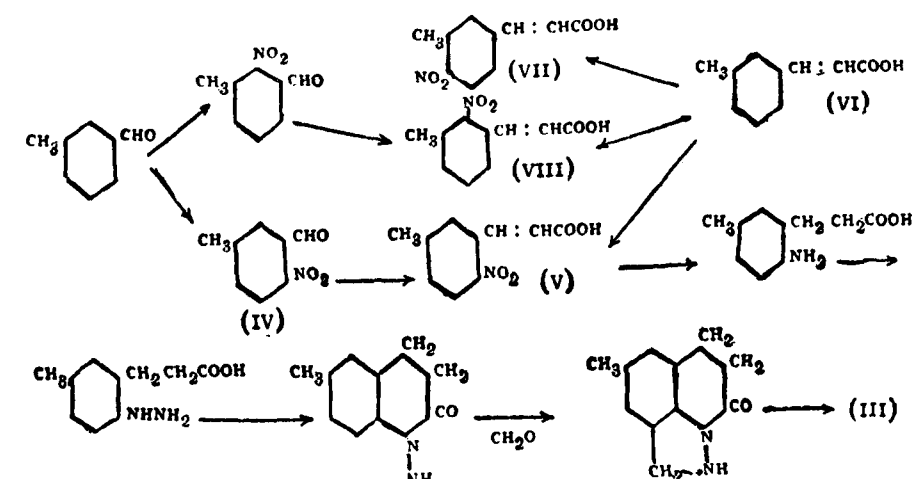
We reserve for a future paper an account of a synthesis of compounds having these structures.

The first scheme that was tried for synthesising the structure assigned to Cytisine by Ewins is indicated below:—



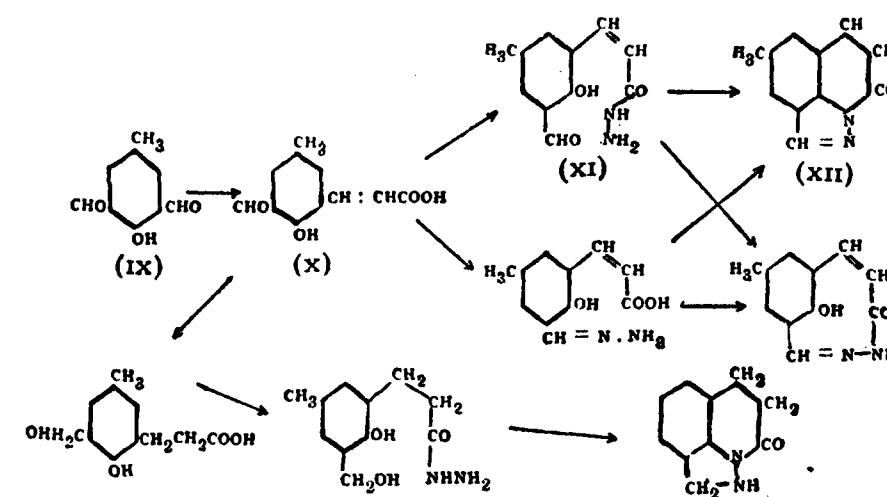
This scheme had to be provisionally given up, as all our attempts to convert the dibromo-compound (I) into the dialdehyde (II), directly or through the alcohol, have, so far, been unsuccessful (See page 232).

The next scheme that was attempted would be clear from the following formulæ-sketch:—



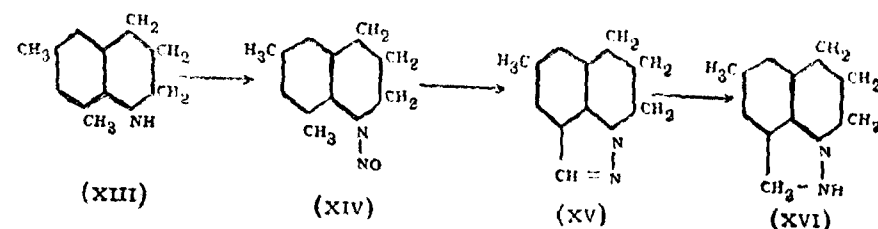
Contrary to expectations, nitration of *m*-tolualdehyde gives only a poor yield of pure 6-nitro-3-methyl benzaldehyde. (IV) (Compare F. Mayer Ber., 1914, 47, 406). An alternative way to obtain 6-nitro-3-methyl-cinnamic acid (V) would have been to nitrate *m*-methyl cinnamic acid (VI). A study of the nitration of this compound showed that 4-nitro-3-methyl-cinnamic acid (VII) was the main product of nitration. 2-Nitro-3-methyl cinnamic acid (VIII) and 6-Nitro-3-methyl-cinnamic acid (V) were formed only in small quantities.

In view of the poor yields of (V), we deferred further work on this scheme, and tried to synthesise (III) in the following manner:—

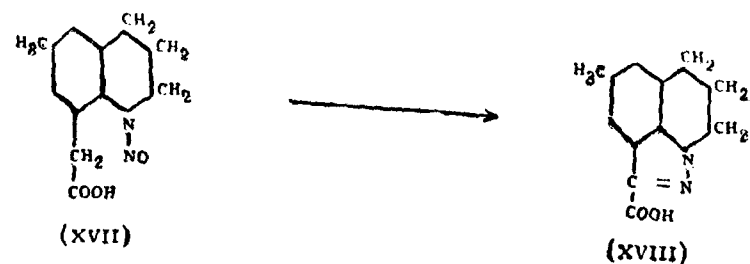


Oxy-uvitic aldehyde (IX) was prepared by the excellent method devised by Ullmann and Brittner (Ber., 1909, 42, 2545) and converted, by the malonic acid method, into (X) through its Monoschiff's base. The Cinnamic acid (X) was converted into the hydrazide (XI) through the ester, and experiments are now in progress to convert the hydrazide into (XII).

Next we directed our attention to the synthesis of (XVI) which was later to be converted into (III). 6:8 dimethyl-1:2:3:4-tetrahydro-quinoline was prepared essentially under the conditions described by Ewins (J.C.S., 1913, 103, 103). The tetra-hydro-quinoline was converted into the Nitroso-compound (XIV). All attempts to con-



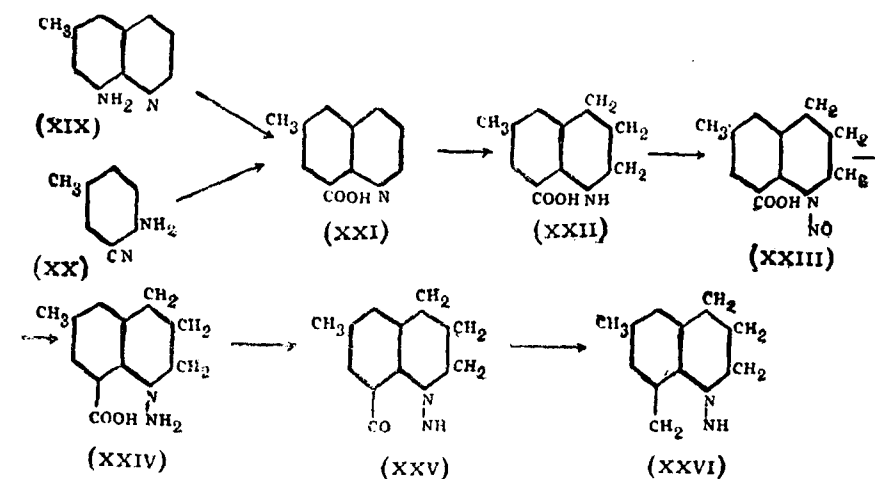
vert (XIV) into (XV) by the removal of a molecule of water through the aid of condensing agents like dry benzene, absolute alcohol, absolute alcohol containing a few drops of 33% NaOH, benzene and phosphorus pentoxide, Sodium ethoxide in alcoholic solution, have so far been unsuccessful. In view of these results, attempts are now being made to convert (XVII) into (XVIII) where the hydrogen atoms of the CH_2 group in position 8, are far more reactive than 8-methyl group in (XIV).



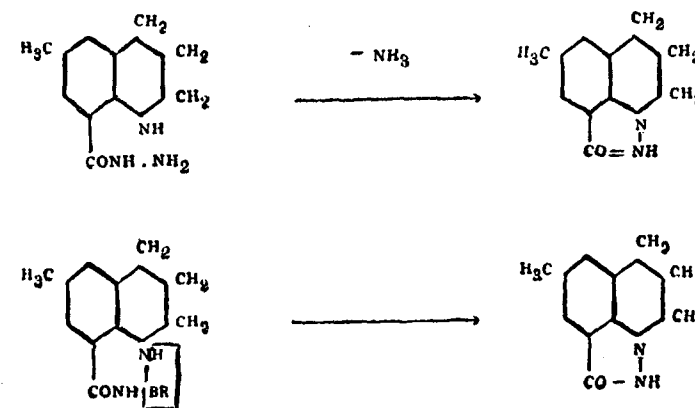
Finally, we attempted to synthesise (XV) by the following series of reactions:—

6-methyl 1:2:3:4-tetra-hydro-quinoline-8-carboxylic (XXII) was prepared by the reduction of 6-methyl-quinoline 8-carboxylic acid (XXI) obtained from 4-amino-3-cyano-touene (XX) by Skraup's reaction as a preliminary experiment showed that 6-methyl-8-amino-quinoline (XIX) could not be converted into the 6-methyl-8-cyano-

quinoline by Sandmeyer's reaction in a good yield. The tetra-hydro-quinoline-carboxylic acid (XXII) was then converted into the nitroso compound (XXIII) and it was thought that the reduction of the



nitroso compound with Zinc dust and acetic acid under conditions described for nitroso amines and nitroso-piperidine by Emil Fischer (Annalen., 1878, 190, 154; 1886, 236, 198) would give either (XXIV) or (XXV), which could be readily converted into (XVI). Unfortunately, under these conditions as also under the conditions mentioned by Perkin and Riley (J. C. S., 1923, 123, 2404) the nitroso-tetrahydro-quinoline carboxylic acid invariably regenerated only the tetrahydro-quinoline carboxylic acid (XXII). We were unable to separate any cyclised product. Experiments are now in progress to reduce the ester of the nitroso compound, and attempts are being made to synthesise the compound through the following alternative routes:—



We have decided to publish this work in this incomplete state as one of us (A. V.) is unable to continue this work.

EXPERIMENTAL

w-w'-Dibrom-mesitylene was prepared from mesitylene according to the directions of Robinet (C. r., 1883, 96, 501).

The following experiments were performed with the object of converting the dibromo compound into the dialdehyde (II):—

(1) Oxidation with lead nitrate under conditions described for the oxidation of p-Xylylen chloride into Terephthaldialdehyde (Compare Grimaux and Lauth, Bl., 1867, (2) 7, 106; Grimaux J. C. S., 1876 490).

(2) Treatment with hexamethylene tetramine under conditions similar to those used for oxidising Xylyl-bromide into Toulaldehyde (D.R.P., 268786).

(3) Oxidation with Manganese dioxide and dilute sulphuric acid under conditions similar to those used for oxidising meconine into opianic acid. Other conditions also tried.

(4) The Bromo compound was first converted into the aniline compound and the resultant benzyl-aniline compound was treated with permanganate, under conditions similar to those used for oxidising O-Nitro-benzylaniline into O-Nitro-benzaldehyde (Hochst Farbwerke, D.R.P., 91503, 92684, 93539).

(5) Oxidation with dichromate and sulphuric acid under usual conditions.

(6) Oxidation of the dibromo compound (and also mesitylene), dissolved in a mixture of acetic anhydride, sulphuric acid and acetic acid with chromic acid under conditions used for the preparation of O- and m-phthalaldehyde. (Thiele and Winter, Annalen., 1900, 311, 353).

(7) Oxidation with lead tetra-acetate of both the bromo compound as well as the alcohol (Compare Criegee, Ber., 1931, 64, 260; Blount, J. Chem. Soc., 1933, 553).

All our attempts have so far been unsuccessful, but these results are so unusual that one of us (S. N. C.) is reinvestigating the problem.

2-nitro-3-methyl-cinnamic acid (V) and 6-Nitro-3-methyl-cinnamic acid (VIII).—m-tolualdehyde was first prepared from m-Xylene by the application of Etard's reaction (Bornemann, Ber., 1884, 17, 1464), and then nitrated under conditions given by Gilliard P. Monnet and Cartier (D. R. P., 113604). The nitrated product was then distilled under conditions described in the patent and the distillate collected in two fractions. The first fraction consisting of the two thirds of the distillate was at first supposed to be 6-Nitro-3-methyl-benzaldehyde, but later on F. Mayer showed that this fraction really consisted of 2-Nitro-3-methyl-benzaldehyde (Ber., 1914, 47, 407). The last fraction was proved by F. Mayer to contain 6-Nitro-3-methyl-benzaldehyde. Our experiments showed that both the fractions were really mixtures of the two.

Cinnamic acids from the first fraction. The nitro-aldehyde (19gr.) was heated for 1½ hours under reflux on the steam-bath with malonic acid (25 gr.), pyridine (47 c.c.) and piperidine (1 c.c.). The reaction was completed by boiling on the sand-bath for 10 minutes. When the reaction product was poured into dilute hydrochloric acid a solid separated. After allowing it to stand overnight it was filtered. The crude precipitate m.p. 170—210° was repeatedly boiled with benzene when an almost insoluble residue, m.p. 240° was left undissolved. This substance on being crystallised from methyl alcohol separated in prisms, m.p. 244°. On the basis of F. Mayer's work, this substance should be 2-Nitro-3-methyl-cinnamic acid. The methyl ester, m.p. 83° was prepared in the usual manner.

The fraction that dissolved in benzene was found to be a mixture, and it formed the bulk of the crude cinnamic acid precipitate.

Cinnamic acids from the second fraction. The nitro-aldehyde from the second fraction (12 gr.), malonic acid (16 gr.) and piperidine (1 c.c.) were heated in pyridine solution (30 c.c.) for 1½ hours on the steam-bath, and the reaction was then completed by boiling for 10 minutes on the sand-bath. The product was poured into dilute hydrochloric acid when a mixture of cinnamic acids, m.p. 175—180° was precipitated. It was not found possible to separate the constituents of the mixture in an easy and rapid manner.

From this fraction of the aldehyde acids a p-toluidide was separated which on repeated crystallisations from alcohol was obtained as prismatic needles, m.p. 89°. (Found: C = 70.8; H = 5.7; C₁₅H₁₄O₂N₂ requires C = 70.9; H = 5.5%). By hydrolysing this Schiff's base, a yellow crystalline substance, m.p. 44°, obviously the 6-Nitro-3-methyl benzaldehyde was obtained. This aldehyde was converted into 6-Nitro-3-methyl-cinnamic acid in the usual manner. This acid crystallised from

benzene in slender needles, m.p. 224°. A mixed melting point of this acid with the one obtained previously showed considerable depression (205—210°).

Nitration of m-tolu-cinnamic acid. Nitration of m-tolu-cinnamic acid is best accomplished under the following conditions:—

Dry finely powdered cinnamic acid (50 gr.) was added in small quantities with stirring to fuming nitric acid ($D = 1.48$; 200 gr.) cooled in a freezing mixture, the temperature being kept below 0° throughout the reaction. The reaction mixture was poured over ice and water, rubbed and filtered after a time. The precipitate after washing and drying weighed 57 gms. and melted between 150–210°.

Separation. The powdered precipitate was suspended in 400 c.c. absolute methyl alcohol, the mixture saturated with dry hydrochloric acid gas and boiled for 4½ hours and left over night. 32 gms. of a crystalline substance was deposited. This substance, m.p. 122°, was found to be *methyl ester of 4-nitro-3-methyl-cinnamic acid*. On repeated recrystallisations, it separated as light yellow needles, m.p. 124°. (Found: $C = 59.4$; $H = 5.4$; $C_{11}H_{11}O_4N$ requires $C = 59.7$; $H = 5.7\%$).

The ester (2 gr.) was suspended in water (10 c.c.) and to the mixture was added all at once concentrated sulphuric acid (10 c.c.) and the whole shaken vigorously. The ester went into solution and the hydrolysis was complete in a minute, but still to ensure completion, glacial acetic acid (10 c.c.) was added and the mixture boiled for 5 minutes during which the nitro acid began to separate. The reaction product was poured over ice, allowed to remain for sometime, filtered, washed, dried and crystallised from alcohol. It crystallised in colourless needles, m.p. 251°. (Found: $C = 57.7$; $H = 4.5$; $C_{10}H_9O_4N$ requires $C : 58.0$; $H : 4.3\%$). On oxidation it gave 4-nitro-3-methyl benzoic acid and hence it must be 4-nitro-3-methyl cinnamic acid.

The mother liquor from the esterification experiment was concentrated to a small bulk, diluted with water, neutralised with Sodium Carbonate and then extracted with benzene. The benzene extract was washed with water, dried over anhydrous sodium sulphate and the benzene was completely removed. By this means a semi-solid residue (23 gr.) was obtained. On crystallising from dilute methyl alcohol, a part of the substance (5 gr.) crystallised out. On recrystallising from the methyl alcohol, the substance was obtained as colourless prisms, m.p. 91°. (Found: $C = 59.4$; $H = 5.2$; $C_{11}H_{11}O_4N$ requires $C = 59.7$; $H = 5.0\%$). Hydrolysis of the ester gave an acid, m.p. 224°. This acid was found to be identical with 6-Nitro-3-methyl-cinnamic acid

obtained before, and a melting point of the two acids caused no depression. (Found: $C = 57.7$; $H = 4.5$; $C_{10}H_9O_4N$ requires $C = 58.0$; $H = 4.3\%$).

From the mother-liquors from which the above acid ester had separated, only oily products were obtained. These oily products were hydrolysed, when a mixture of acids, m.p. 200–205° was obtained. This acid mixture was repeatedly boiled up with benzene when an insoluble residue was left. This residue separated from methyl alcohol in colourless prisms, m.p. 244° C. This acid was found to be identical with 2-Nitro-3-methyl-cinnamic acid, a mixed melting point causing no depression. (Found: $C = 58.0$; $H = 4.4$; $C_{10}H_9O_4N$ requires $C = 58.0$; $H = 4.3\%$).

The methyl ester, m.p. 83° was prepared in the usual manner. (Found: $C = 59.6$; $H = 5.1$; $C_{11}H_{11}O_4N$ requires $C = 59.7$; $H = 5.0\%$).

Oxy-uvitic-aldehyde was prepared from p-cresol under the conditions described by Ullmann and Brittner (Ber., 1909, 42, 2545). A number of comparative experiments was made so as to arrive at conditions that will give the best yield of the aldehydo-cinnamic acids (X). When free oxy-uvitic-aldehyde and varying quantities of malonic acid were used for the cinnamic acid synthesis generally mixtures of a coumarin derivative, etc., were formed. Ultimately the following conditions were chosen as being most suitable.

The oxy-uvitic-aldehyde was converted into the mono-Schiff's base by heating on the steam-bath a mixture of the aldehyde (2 g.) and p-toluidine (1.4 g.) for 15 minutes and then dissolving the product in absolute alcohol. The Schiff's base crystallises from alcohol in red prisms, m.p. 161°. (Found $C : 75.8$; $H : 6.0$; $C_{16}H_{15}O_2N$ requires $C : 75.9$; and $H : 5.9$).

The Schiff's base (2.7 gm.) was treated with malonic acid (1.2 gm. 1 mol.) in pyridine solution under the usual conditions. The product was poured into excess of dilute hydrochloric acid. The red semi solid precipitate was stirred up with sodium carbonate solution, and filtered. The precipitate m.p. 120° was a mixture of the unchanged Schiff's base and the coumarin derivative. The filtrate was first extracted with ether and then acidified when a precipitate was obtained. The latter, on crystallisation from methyl alcohol was obtained as red clusters of needles m.p. 222°. This was hydrolysed on the steam-bath, by heating with concentrated hydrochloric acid for two hours. The product on repeated crystallisations from benzene was obtained as silky yellow needles, m.p. 212°. (Found: $C = 64.0$; $H = 4.8$; $C_{11}H_{10}O_4$ requires $C = 64.1$; $H = 4.9$).

The Cinnamic acid was then converted into the methyl ester, m.p. 129°, and then into the hydrazide and experiments are in progress to convert it into (III).

Action of condensing agents on 6:8 dimethyl-1:2:3:4 tetra-hydro-N-Nitroso-quinoline. 6:8 dimethyl-1:2:3:4 tetra-hydro-quinoline was prepared from 1:3:4 Xylidine in the manner described by Ewins (Loc. cit.). It was then converted into the nitroso compound in the usual manner. Attempts to bring about an internal condensation between the peri-methyl group and the nitroso group under the following conditions:—(i) Boiling for 6 hours with dry benzene, (ii) Boiling for 4 hours with absolute alcohol, (iii) Boiling for 4 hours with alcohol containing a few drops of 33% NaOH, (iv) Boiling for 4 hours with 20% sodium ethoxide solution, (v) Boiling with benzene and phosphorus pentoxide,—were unsuccessful.

8-cyano-6-methyl-quinoline. 8-Nitro-6-methyl-quinoline was prepared from *m*-nitro-*p*-toluidine by Skraup's reaction (Noelting and Trautmann, Ber., 1890, 23, 3669; Baldwin, J.C.S., 1929, 2964) and by reduction of this, 8-amino-6-methyl-quinoline was obtained. Diazotization of the amino-quinoline was carried out as follows:—Amino-hydrochloride (18 gr.) was mixed with concentrated hydrochloric acid (12 c.c.) and water (75 c.c.). This was cooled in a freezing mixture and sodium nitrite solution (8 gms. in 20 c.c. water) was added gradually from a separating funnel. The mixture was kept stirred and after the addition of all the sodium nitrite allowed to stand for 15 minutes in ice. The clear diazotized solution was then added to a hot cuprous Cyanide solution obtained by mixing copper sulphate (25 gms. in 10 c.c. water) and Potassium cyanide (23 gms. in 50 c.c. water solutions). After the addition, the mixture was heated for a further half-an-hour and allowed to cool. On cooling, a tarry mass separated from which only .2 gm. of a crystalline alcohol soluble substance, m.p. 90° could be obtained. On extracting the mother liquor from tarry substance with benzene, .2 gm. more of the same substance, m.p. 90° was obtained.

6-methyl-quinoline-8-carboxylic acid. *m*-Tolu-nitrile was nitrated under the conditions stated by Findelkee (Ber., 1905, 38, 3544) and the 3-cyano-4-nitro-toluene so obtained was reduced to the corresponding amino-compound. The amino-compound was then converted into 6-methyl-quinoline-8-carboxylic acid under the following conditions:—

Arsenic oxide (5 g.) was dissolved in a mixture of glycerine (20 g.) and concentrated sulphuric acid (30 g.), and the solution heated to boiling, and then 4 amino-3-cyano-toluene (10 g.) was gradually added to the boiling solution. The flask with contents was then heated under the reflux in a paraffin bath, the temperature of which was

kept between 150° and 155°. The heating was continued for 7 hours, and then the contents were diluted with boiling water, and the aqueous solution filtered from the charred portion. The filtrate was made alkaline with ammonia and steam distilled to remove any decarboxylated quinoline, etc. The mother liquor in the distillation flask was concentrated to a small volume on the steam-bath when the 6-methyl-quinoline-8-carboxylic acid separated in a yield of about 70%. On recrystallisation from alcohol with the aid of animal charcoal, it was obtained as colourless needles, m.p. 169° C. (Found: C = 70.4; H = 5.0; $C_{11}H_9O_4N$ requires C = 70.6; H = 4.8%).

6-methyl 1: 2: 3: 4-tetra-hydroquinoline-8-carboxylic acid. 6-methyl-quinoline-8-carboxylic acid (8 gm.) was mixed with 25% hydrochloric acid (132 c.c.) and granulated tin (18 g.) and heated on the steam-bath, with frequent shakings, for 3 hours. The clear solution was cooled and saturated with hydrogen chloride gas when the double salt of the base with tin chloride was deposited in shining prisms. The double salt was filtered off, suspended in warm water and decomposed with hydrogen sulphide. After filtering away the precipitated tin sulphide, the filtrate and washings were concentrated on the water-bath to half the original volume. It was then made ammoniacal and again concentrated. A yellow solid separated. On being recrystallised from dilute alcohol, 6-methyltetra-hydroquinoline carboxylic acid was obtained in a 60% yield, as yellow prisms, m.p. 190-191°. (Found C = 68.8; H = 7.0; $C_{11}H_{13}O_2N$ requires C = 69.1; H = 6.8%).

6-methyl-N-Nitroso-tetrahydroquinoline-8-carboxylic acid. The tetra-hydro-quinoline (1 g.) was dissolved in cold dilute sulphuric acid and to the solution was added under cooling and with vigorous stirring sodium nitrite (.4 g.) in small quantities. The nitroso compound separated as a light brown solid. It crystallises from benzene in brown prisms, m.p. 138° (decomp.) and is rather unstable. (Found C = 60.3; H : 5.7; $C_{11}H_{12}O_3N_2$ requires C : 60.0 and H : 5.5%).

Reduction of the Nitroso-compound. The reduction was tried under the following conditions:—(i) with dilute acetic acid and zinc dust at 30°C (ii) with dilute acetic acid and zinc dust at 0° (iii) with glacial acetic acid and zinc dust at 0°, and at 30°. (iv) with glacial acetic acid and zinc dust in alcoholic solution, (v) with sodium amalgam in a very weakly alkaline medium (vi) with ammonium sulphide. Under none of these conditions have we, so far, succeeded in obtaining the corresponding amino compound.

Chemical Laboratory,
Annamalai University,

Dated 26—9—'33.

Chemical Investigation of Indian Medicinal Plants

PART III.

Preliminary Chemical Examination of the Leaves of *Erythrina Indica*

By

S. N. CHAKRAVARTI, M. L. SITARAMAN, AND A. VENKATASUBBAN

(Annamalai University)

Erythrina Indica is a deciduous, quick-growing tree, which is found all over India. It is to be very commonly met with in the Concan, North Kanara, and round about Chidambaram. The bark of this plant is used as a febrifuge and antibilious (Watt). In the Concan, the juice of the young leaves is used to kill worms in sores, and the young roots of the white flowered variety are pounded and given with cold milk as an aphrodisiac (Dymock). The leaves are also applied externally to disperse venereal buboes and to relieve pain of the joints (Kanai Lal Dey). The fresh juice of the leaves is also used as an injection into the ear for the relief of ear-ache and as an anodyne in tooth-ache (Dr. Thornton, in Watt's Dictionary).

A reference to the literature showed that very little work had been done on the chemical constituents of the leaves, although M. Greshoff had shown that *Erythrina Indica* seeds contain a poisonous alkaloid of unknown nature (Ber., 1890, 23, 3537; Ber. Pharm. Ges., 1899, 9, 214). In view of the medicinal uses of the leaves, it is surprising that no work has been done on the leaves, which have been used to a far greater extent medicinally than the seeds. The present investigation was undertaken to fill up this gap and to isolate and investigate the active principles present in the leaves.

The chemical study of the leaves has revealed the fact, that besides the usual constituents, the leaves contain an interesting substance of a complex nature, m.p. 83°. This substance can be readily extracted from the plant by either boiling up with petroleum ether, ether or alcohol. It is more or less an inert substance, which neither contains nitrogen nor answers tests for phytosterols or glucosides.

The leaves also contain a mixture of alkaloids, and we have isolated one of these alkaloids, m.p. 117°, in a pure state. The characterisation and constitution of these substances are reserved for a future paper.

EXPERIMENTAL

Preliminary tests carried out in the usual manner indicated the presence of an alkaloid and absence of glucosides and tannins.

In order to ascertain the general character of the constituents, 65 gr. of the air-dried, finely-powdered, leaves were extracted with the following solvents successively in a Soxhlet apparatus and the extracts were dried at 100°:—

Petroleum Ether (B.P. 35-40°) extracted	..	1.46%
Ethyl ether	..	9.06%
Chloroform.	..	1.69%
Absolute alcohol	..	.95%
70% alcohol	..	4.77%
Total.		17.93%

Petroleum ether extract. The greenish extract was concentrated to a small volume and then extracted with acidified water. The acid extract did not give any precipitate with any of the usual alkaloidal reagents, and it did not give any of the tests of water soluble glucosides. The concentrated petroleum ether extract, after being washed with water, was evaporated to dryness when a dark-green pasty mass with a characteristic smell was left. This residue was boiled with 90% alcohol, which dissolved almost the whole of it, and filtered hot. The hot alcoholic filtrate deposited on cooling a substance (A) (.5 gr.) which gave some of the tests of phytosterols. It was mostly unsaponified by boiling with alcoholic potash for 4 hours. The mother liquor from (A) on being evaporated to dryness gave a brown resinous residue.

The solid (A) was boiled with 90% alcohol and animal charcoal. The hot alcoholic filtrate on cooling deposited a white substance, m.p. 83°C. It did not dissolve in water, dilute hydrochloric acid, sodium carbonate or sodium hydroxide. It was not a phytosterol.

Ethyl Ether extract. The ethereal solution was extracted, after concentration, with dilute hydrochloric acid and the acid solution tested for alkaloids. It gave precipitates with the usual alkaloidal reagents but did not give any tests for glucosides.

The concentrated ethereal extract was washed with water and evaporated to dryness. The pasty residue was not saponifiable and dissolved in an excess of 90% alcohol from which it separated on cooling. When it was crystallised from alcohol with the aid of animal charcoal,

it came out as a white solid, m.p. 83°C. This was sparingly soluble in chloroform and ether also.

The alcoholic mother liquors on evaporation to dryness yielded a yellowish brown resinous mass which gave tests for phytosterols. It did not contain any acid or tannin.

Chloroform extract. A light green waxy residue which did not contain any glucoside, reducing sugar, alkaloid, or tannin. On boiling it with benzene and animal charcoal, a white solid m.p. 83°C, was obtained which was not saponified by boiling with alcoholic potash.

Absolute Alcohol extract. Since nothing separated on concentrating the extract, it was evaporated to dryness. The light brown deliquescent residue dissolved in water completely and in acid medium gave good precipitates with the usual alkaloidal reagents. Salts, saponins, glucosides, etc., were found to be absent.

70% alcohol extract. On evaporating the extract to dryness, a dark brown residue was obtained. An aqueous extract of the residue indicated the presence of proteins, carbohydrate and saponins. The aqueous solution gave a precipitate with lead acetate. It did not contain any alkaloid.

Cold distilled water extract. The extract contained some protein and gave copious precipitate with lead acetate. The filtrate from this yielded a precipitate with basic lead acetate. No alkaloid was found to be present in this extract.

Boiling water extract. The extract was similar to the previous extract. It contained in addition inorganic salts like calcium, magnesium, potassium and sodium. It did not contain any alkaloid, glucoside or tannins.

Cold 1% hydrochloric acid extract. The light brown extract gave only slight tests for alkaloids. (Probably all the alkaloids had already been extracted by ether and absolute alcohol). This was also found to contain salts of calcium, magnesium, sodium and potassium.

Boiling water extract of the fresh leaves. 125 gr. of the powdered leaves were boiled with 2 litres of distilled water for 1 hour. The filtrate from the leaves was treated with slight excess of lead acetate, when a voluminous precipitate (A) was thrown down, which was washed with lead acetate and then with water till the washings were no longer acidic to litmus. On decomposing the precipitate (10 gr.) with hydrogen sul-

phide, a mucilagenous substance was obtained. The filtrate from (A) gave an yellowish flocculent precipitate (B) (11 g.) with basic lead acetate solution. No crystalline product could be got from the decomposition product of (B). The filtrate from (B) was freed from lead, concentrated to a small bulk and treated with methyl alcohol to precipitate the inorganic matter. The precipitate contained calcium and magnesium salts. From the mother liquors methyl alcohol was removed and the resulting acidic aqueous solution was extracted with chloroform to remove resinous matter. It was then made alkaline with ammonia and thoroughly extracted with chloroform. The chloroform extract was washed with water, dried over anhydrous sodium sulphate and the solvent removed. About .01 gr. of a crystalline residue giving tests for alkaloids was got.

Isolation of the alkaloid. A number of comparative experiments was first tried with a view to arrive at conditions under which the optimum yield of the alkaloid could be obtained. The following methods were tried:—(1) Extraction with neutral liquids, viz. alcohol, chloroform and water; (2) extraction with acidic solutions, viz. extraction with 1-2% hydrochloric acid, acetic or tartaric acid solutions in alcohol; (3) the powdered leaves mixed with quicklime, dried on the water-bath and then extracted with benzene.

Poor yields were obtained by the methods (1) and (3). A maximum yield of 2 g. of the Bismuth-iodide precipitate for 100 g. of the leaves was obtained when the leaves were extracted with 1% hydrochloric acid in the cold for 24 hours.

Eventually the following method was adopted:—1 K.G. of the powdered leaves was extracted with 1% hydrochloric acid solution in the cold in a percolator for 48 hours. The extract was treated with a solution of potassium bismuth-iodide (avoiding a large excess) till precipitation was complete. The precipitate was allowed to settle and then filtered. On drying, the bismuth-iodide precipitate which was obtained as a brown powder, weighed 20 gr. The bismuth-iodide was decomposed by mixing it with 50 gr. of barium carbonate and 300 c.c. of distilled water and boiling it for an hour. It was then filtered and the brownish filtrate made alkaline with barium hydroxide and extracted thoroughly with chloroform. The chloroform extract was washed with water, dried over anhydrous sodium sulphate and the solvent was distilled off. The brownish red residue (0.1 gr.) gave very good tests for alkaloids, and was readily soluble in alcohol. On extracting the residue with acetone only a part dissolves. The acetone-soluble-part crystallises in beautiful prisms, m.p. 117°, from alcohol.

Extraction of the fresh leaves with boiling alcohol. 100 gr. of the powdered leaves were boiled with 1 litre of 90% alcohol under reflux for 2 hours and filtered boiling hot. From the filtrate a waxy matter separated (2 gr.). This was collected and once again boiled with alcohol and animal charcoal. The solid which came out of the filtrate on cooling was crystallised from benzene, m.p. 83°C . It is very sparingly soluble in chloroform, ether, petroleum ether, etc. The sodium fusion test indicated the absence of nitrogen, halogens and sulphur in the substance. It is not saponified by boiling with alcoholic potash for 4 hours. It is insoluble in dilute hydrochloric acid, sodium carbonate and sodium hydroxide solutions.

The chemical nature of this substance is being further investigated.

Chemical Laboratory,
Annamalai University,
Dated 26—9—'33.

On an Arithmetic Function

By

S. SIVASANKARANARAYANA PILLAI

(Annamalai University)

1. Let $\beta(n) = \sum_{r=1}^n (r, n)$, where (r, n) is the highest common factor of r and n . In this note it is proposed to consider some of the properties of this function.

2. Theorem I

If $n = p_1^{\lambda_1} \cdot p_2^{\lambda_2} \cdot \dots \cdot p_r^{\lambda_r}$,

then

$$\beta(n) = n(\lambda_1 + 1 - \lambda_1/p_1)(\lambda_2 + 1 - \lambda_2/p_2) \dots (\lambda_r + 1 - \lambda_r/p_r) \quad \dots (1)$$

Let us assume that this is true for n with r different prime factors and consider $m = p^{\lambda} \cdot n$, where p is prime to n . Let S_t denote the contribution to $\beta(m)$ due to $a_1, a_2, \dots, a_t$ till m , which are divisible by $p^{\lambda-t}$, but not by $p^{\lambda-t+1}$, where $1 \leq t \leq \lambda$; and let S_0 denote the contribution due to the multiples of p^{λ} .

The multiples of p^{λ} till m are $p^{\lambda}, 2p^{\lambda}, \dots, np^{\lambda}$.

$$\therefore S_0 = \sum_{s=1}^n \{(sp^{\lambda}, m)\} = p^{\lambda} \sum_{s=1}^n (s, n) = p^{\lambda} \cdot \beta(n). \quad \dots (2)$$

Now, if c is prime to p , then

$$(cp^{\lambda-t}, np^{\lambda}) = (c \cdot p^{\lambda-t}, np^{\lambda-t}) \quad \dots (3)$$

and when n is prime to p ,

$$(p^s \cdot c \cdot p^{\lambda-t}, np^{\lambda-t}) = (c \cdot p^{\lambda-t}, np^{\lambda-t}) \quad \dots (4)$$

Also $(a, n) = (a + un, n)$.

Therefore,

$$\begin{aligned} S_t &= \sum_{s=1}^t (a_s, m) = \sum_{s=1}^t (a_s, n \cdot p^{\lambda-t}) \\ &= \sum_{s=1}^t \sum_{p \cdot n} (s \cdot p^{\lambda-t}, np^{\lambda-t}) - \sum_{s=1}^{t-1} \sum_{p \cdot n} (b_s, np^{\lambda-t}) \end{aligned}$$

(where the b 's are multiples of $p^{\lambda-t+1}$ till n .)

$$= \sum_{s=1}^t \sum_{p \cdot n} (sp^{\lambda-t}, np^{\lambda-t}) - \sum_{s=1}^{t-1} \sum_{p \cdot n} (sp^{\lambda-t}, np^{\lambda-t}) \quad (\text{from 4})$$

$$= p^{\lambda-t} \left\{ \sum_{s=1}^t \sum_{p \cdot n} (s, n) - \sum_{s=1}^{t-1} \sum_{p \cdot n} (s, n) \right\}$$

$$= p^{\lambda-t} \left\{ \sum_{n=t}^t \sum_{p \cdot n} 1 \sum_{s=1}^n (s, n) - \sum_{n=1}^{t-1} \sum_{p \cdot n} 1 \sum_{s=1}^n (s, n) \right\} \quad \text{applying (3)}$$

$$= p^{\lambda-t} \left\{ \sum_{s=1}^t \beta(n) - \sum_{s=1}^{t-1} \beta(n) \right\} \quad \dots (6)$$

$$= p^{\lambda} \beta(n) - p^{\lambda-1} \beta(n)$$

Therefore,

$$\begin{aligned} \beta(m) &= \sum_{t=0}^{\lambda} S_t = S_0 + \sum_{t=1}^{\lambda} S_t \\ &= \beta(n) \cdot p^{\lambda} + \sum_{t=1}^{\lambda} \{ \beta(n) (p^{\lambda} - p^{\lambda-1}) \} \\ &= \beta(n) \cdot p^{\lambda} + \lambda \beta(n) (p^{\lambda} - p^{\lambda-1}) \\ &= p^{\lambda} \beta(n) (\lambda + 1 - \lambda/p). \\ &= m (\lambda_1 + 1 - \lambda_1/p_1) \dots (\lambda_r + 1 - \lambda_r/p_r) \\ &\quad (\lambda + 1 - \lambda/p) \dots (7) \end{aligned}$$

Now (7) is of the same form as (1). Hence, if it is true for a number with r prime factors, then it is true for a number with $(r+1)$ prime factors. But it is true for the power of a prime as shown below.

Let $n = p^{\lambda}$ and R_t denote the contribution due to $a_1, a_2, \dots, a_t$ the multiples of $p^{\lambda-t}$ but not of $p^{\lambda-t+1}$ till n and $R_0 = \sum (p^{\lambda}, n) = (p^{\lambda}, p^{\lambda}) = p^{\lambda}$

$$R_t = \sum_{s=1}^t (a_s, n) = \sum (a_s, p^{\lambda-t}) \quad \text{from (3)}$$

$$\begin{aligned} &= \sum_{s=1}^t (sp^{\lambda-t}, p^{\lambda-t}) - \sum_{s=1}^{t-1} (sp^{\lambda-t}, p^{\lambda-t}) \quad \text{from (4)} \\ &= p^{\lambda} - p^{\lambda-1} \end{aligned}$$

Therefore,

$$\begin{aligned} \beta(n) &= R_0 + \sum_{t=1}^{\lambda} R_t \\ &= p^{\lambda} + \sum_{t=1}^{\lambda} (p^{\lambda} - p^{\lambda-1}) \\ &= p^{\lambda} + \lambda (p^{\lambda} - p^{\lambda-1}) \\ &= n (\lambda + 1 - \lambda/p). \end{aligned}$$

Hence it is true when $r=1$. So by induction, the theorem follows.

Corollary. If n and m are prime to each other.

$$\beta(m) \times \beta(n) = \beta(mn).$$

3. *Theorem II.* $\sum \beta(d) = nd(n)$, where d runs through the divisors of n , and $d(n)$ is the number of divisors of n .

$$\begin{aligned} \sum_{d|n} \beta(d) &= \sum \beta(p_1^{b_1} \dots p_r^{b_r}), \quad (\text{where } 0 \leq b_s \leq a_s) \\ &= \sum \beta(p_1^{b_1}) \times \beta(p_2^{b_2}) \times \dots \times \beta(p_r^{b_r}) \quad (\text{from the corollary}) \end{aligned}$$

$$\begin{aligned}
&= \prod_{s=1}^r \left(1 + \beta(p_s) + \beta(p_s^2) + \dots + \beta(p_s^{\lambda_s}) \right) \\
&= \prod_{s=1}^r \left(1 + (2p_s - 1) + (3p_s - 2p_s) + \dots + (\lambda_s + 1)p_s^{\lambda_s} - \lambda_s p_s^{\lambda_s - 1} \right) \\
&\quad \text{from I} \\
&= \prod_{s=1}^r \left((\lambda_s + 1)p_s^{\lambda_s} \right) \\
&= n(\lambda_1 + 1) \dots (\lambda_r + 1) = nd(n).
\end{aligned}$$

Corollary:—If $\beta_t(n) = n^t(\lambda_1 + 1 - \frac{\lambda_1}{t}) \dots (d_r + 1 - \frac{\lambda_r}{t})$

then $\sum \beta_t(n) = n^t d(n)$

4. Theorem III. $\beta(n) = n \sum_{d/n} \frac{\Phi(d)}{d}$

Let d be any divisor of n . The multiples of d till n are $d, 2d, 3d, \dots, n/d \cdot d$.

$(ad, n) = (d, n)$ only when a is prime to n , hence a is prime to n/d . So, in order that $(ad, n) = d$, where ad is any one of the above multiples, a should be prime to n/d and $a \leq n/d$; conversely for any such a , $(ad, n) = (d, n) = d$. Hence the number of numbers not exceeding n , which possess d as the greatest common divisor with n is equal to $\Phi(n/d)$. Consequently.

$$\begin{aligned}
\beta(n) &= \sum_{d/n}^n (r, n) = \sum_{d/n} d \Phi(n/d) \\
&= \sum_{d/n} (n/d) \Phi(d) \\
&= n \sum_{d/n} \frac{\Phi(d)}{d}.
\end{aligned}$$

Corollary:— $\Phi(n) = \sum_{d/n} d \mu(d) \beta(n/d)$

Using this theorem and assuming the formula for $\Phi(n)$, we get an alternative proof for theorem I. For,

$$\begin{aligned}
\frac{\beta(n)}{n} &= \sum_{d/n} \frac{\Phi(d)}{d} \\
&= \sum \frac{\Phi(p_1^{b_1} \dots p_r^{b_r})}{p_1^{b_1} \dots p_r^{b_r}} \text{ where } 0 \leq b_s \leq \lambda_s \\
&= \sum \frac{\Phi(p_1^{b_1})}{p_1^{b_1}} \times \dots \times \frac{\Phi(p_r^{b_r})}{p_r^{b_r}} \\
&= \prod_{s=1}^r \left(1 + \frac{\Phi(p_s)}{p_s} + \frac{\Phi(p_s^2)}{p_s^2} + \dots + \frac{\Phi(p_s^{\lambda_s})}{p_s^{\lambda_s}} \right) \\
&= \prod_{s=1}^r \left(1 + (1 - 1/p_s) + (1 - 1/p_s) + \dots + (1 - 1/p_s) \right) \\
&= \prod_{s=1}^r \left(\lambda_s + 1 - \lambda_s/p_s \right)
\end{aligned}$$

5. Theorem IV. $\sum_{d/n} \beta(d) = \sum_{d/n} \sigma(d) \times \Phi(n/d)$, where $\sigma(n)$ is the sum of the divisions of n .

Let $d_1, d_2, \dots, d_t$ be the divisions of n in ascending order and $d_i = b_1 b'_1 = b_2 b'_2 = \dots = b_t b'_t$. Let us pick out the co-efficient of (n/d_i) in $\sum_{d/n} \beta(d)$.

Now $\beta(m) = \sum_{d/m} d \times \Phi(m/d)$ from III.

Further, $\sum_{d/n} \beta(d) = \sum_{i=1}^t \beta(n/d_i)$

In the above series, $\Phi(m/d_i)$ will occur only in those $\beta(r)$, where r is a multiple of m/d_i . But multiples of m/d_i in the above are

$$m/b_1, m/b_2, \dots, m/b_r.$$

The co-efficient of $\Phi(m/d_i)$ in the above development of $\beta(m/b_s) = b'_s$. Hence the co-efficient of $\Phi(m/d_i)$ in $\sum \beta(m/b_s)$

$$= b'_1 + b'_2 + \dots + b'_r = \sigma(d_i)$$

Consequently, we get

$$\sum_{d/n} \beta(d) = \sum_{d/n} \sigma(d) \times \Phi(n/d).$$

6. Since $\sum_{d/n} \beta(d) = nd(n)$, we get that, when the real part of $s > 1$,

$$\zeta(s) \times \sum \frac{\beta(n)}{n^s} = \sum \frac{nd(n)}{n^s} = [\zeta(s-1)]^2.$$

So,

$$\sum_{n=1}^{\infty} \frac{\beta(n)}{n^s} = \frac{[\zeta(s-1)]^2}{\zeta(s)}.$$

From this we easily derive that

$$\sum_{d/n} \sigma(d) \times \beta(n/d) = n \sum_{d/n} d(d)$$

and

$$\sum_{d/n} \beta(d) \times d(n/d) = n \sum_{d/n} \sigma(d)/d.$$

Total Secondary Electron Emission from Metal Faces

By

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1. INTRODUCTION.

In a recent paper,¹ an attempt was made by the writer to explain the unusual soft X-ray efficiency curves of Nakaya² and Richardson and Robertson³ at applied potentials greater than about 1500 volts. The saturation tendency of these curves at about 4000 volts was shown to be due to the absorption of the photoelectrons in the medium of the photoelectric plate. As the applied potential in the soft X-ray tube is gradually increased the average energy of the soft X-ray quantum also increases; hence the depth of penetration in the photoelectric plate becomes greater and the low velocity photoelectrons produced have to travel a greater distance before reaching the surface and hence suffer greater absorption. A calculation on these assumptions was advanced to account quantitatively for the observed changes in the total efficiency at different potentials. It is proposed to discuss in this paper the total secondary electron emission curves from an identical point of view.

2. ON THE VARIATION OF i_s/i_p WITH V .

There have been two directions in which work in secondary electron emission has progressed. One has been the investigation of the ratio of the secondary current (i_s) to the primary current (i_p) at different potentials. We shall hereafter call this ratio i_s/i_p as R . Mention may here be made of the work of Petry,⁴ Farnsworth,⁵ Krefft,⁶

1. S. R. Rao, Annamalai University Journal, 2, 78 (1933).
2. U. Nakaya, Proc. Roy. Soc., A 124, 616 (1929).
3. O. W. Richardson and F. S. Robertson, Proc. Roy. Soc., A 124, 188 (1929).
4. R. L. Petry, Phys. Rev., 26, 346 (1925) and 28, 362 (1926).
5. H. E. Farnsworth, Phys. Rev., 31, 414 and 419 (1928) and 34, 679 (1929).
6. H. Krefft, Phys. Rev., 31, 199 (1928).

Ahearn,⁷ Hyatt and Smith⁸ and the writer.⁹ Generally speaking, it is found that as the applied potential is increased from about 30 volts, the value of R rises gradually and steadily, attains a maximum value at a potential of a few hundred volts and then decreases slowly. The potential at which this maximum occurs varies from metal to metal. Also R becomes greater than 1 at potentials higher than about 200 volts, showing that there are more electrons in the secondary beam than in

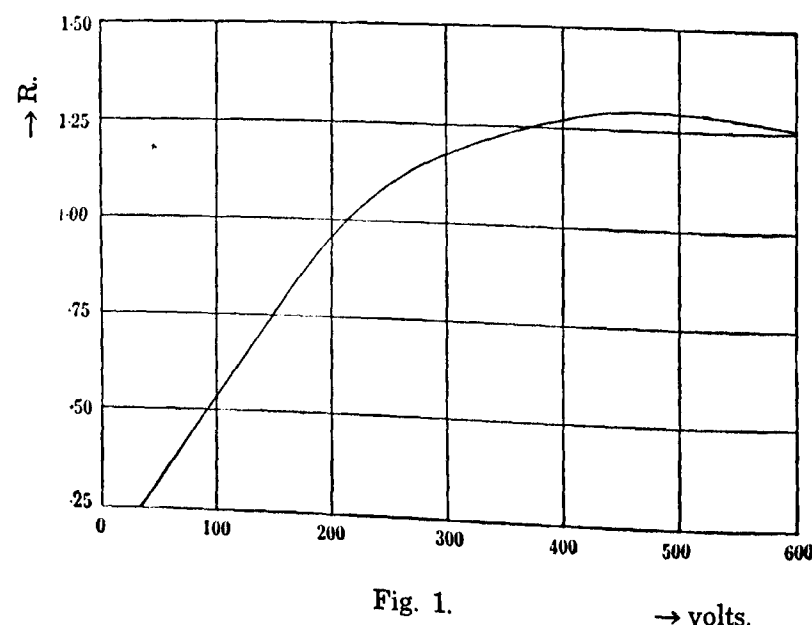


Fig. 1.

the primary. A typical curve obtained by the writer for polycrystalline nickel (*loc. cit.*) is shown in Fig. 1. The discontinuities which arise when the steps of potentials are made small do not occur in these curves wherein the steps are made large. The reason as to why the curve bends round and at higher potentials even goes down has so far remained obscure.

7. Ahearn, *Phys. Rev.*, 38, 1858 (1931).
8. Hyatt and Smith, *Phys. Rev.*, 32, 929 (1928).
9. S. R. Rao, *Proc. Roy. Soc., A* 128, 41 and 57 (1930).

3. ON THE EXISTENCE OF THREE GROUPS IN THE SECONDARY EMISSION.

The second direction along which work relating to secondary electron emission has progressed has been the investigation of the velocity distribution of the secondary electrons. This aspect of the emission has been considered at some length in a recent paper by the writer¹⁰ based on the experiments of Rudberg,¹¹ Farnsworth¹² and himself (*loc. cit.*, ref. 9) and on the theoretical considerations advanced by Prof. O. W. Richardson.¹³ Rudberg's analysis of the velocity distribution of the secondary electrons by a magnetic method of high sensitiveness shows the existence of three groups in the secondary emission. The first group contains electrons which return with the same velocity as the primary. These may be due to reflection or Germer and Davisson scattering. The second group contains those primary electrons which are returned with a loss in velocity due to their collisions with the orbital or structure electrons. When the atoms which suffer collisions return to their normal state or when the structure electrons go back to their equilibrium position, soft X-rays are generated. A large amount of this radiation acts photoelectrically on the medium of the target giving rise to photoelectrons which constitute the third group in the secondary emission. Rudberg's analysis shows that the third group contains the largest number of secondary electrons. The second and the third groups seem to be closely related since they both become predominant at high and negligible at low primary potentials. In deciding the average velocity of the secondary emission, the third group is the strongest factor. In further elucidation of this point, attention may be drawn to the analysis of energy worked by the writer (*ref. 10, table II*). It is found that at low potentials the first group is strong but at higher potentials, this becomes proportionately smaller though never absent. For example at 133.5 volts, the percentage efficiency of the II and III groups together is 11/14 of the total efficiency. At higher potentials this becomes still larger.

There is abundant evidence to show that in the range below a few hundred volts, the average energy of the secondary electrons is low. In the following table is given the average energies of the total emission and the II and III group electrons at different potentials in the case

10. S. R. Rao, *Proc. Roy. Soc., A* 139, 436 (1933).
11. E. Rudberg, *K. Svensks Vet. Akad. Handl.*, 7, 1 (1929); and also *Proc. Roy. Soc., A* 127, 111 (1930).
12. H. E. Farnsworth, *Phys. Rev.*, 31, 405, 1928.
13. O. W. Richardson, *Proc. Roy. Soc., A* 128, 63 (1930).

of polycrystalline nickel and single crystal 100 face. These values have been calculated from the results given by the writer recently in the Proc. Roy. Society (ref. 10).

	Applied potential. Volts.	R	Average energy of the total emission. Volts.	Average energy of the II & III group electrons. Volts.
Nickel polycrystalline face.	11.2	0.160	9.0	2.0
	28.0	0.200	17.6	10.1
	55.2	0.350	20.5	13.9
	87.8	0.470	24.6	17.9
	133.5	0.640	29.2	22.9
Nickel single crystal face, 100	13.3	0.156	11.3	3.8
	26.8	0.210	16.6	11.5
	58.0	0.330	23.6	17.6
	95.0	0.450	29.1	24.5
	126.7	0.540	33.1	28.4

In the case of copper, Rudberg gives an average energy of 35 volts for the total emission at 255 volts primary potential. The energies given in the above table are all uncorrected for the work function, about 4 to 5 volts.

It will be noticed that the average energy of the II and III group electrons rises rapidly when the applied potential is less than 30 volts and thereafter rises slowly.

Of the total energy of a primary beam accelerated by 100 volts, only about 14% of the energy appears in the secondary emission. A small part appears as soft X-radiation while the largest part of the energy appears as the Joule heat. We do not know whether this heat energy is taken directly from the primary beam or from the secondary electrons after these have been ejected. The probability seems to be that the latter is true.

4. ON AN EQUATION FOR R IN TERMS OF V.

The mechanism of secondary electron emission has just now been briefly outlined although the actual process must be more complicated.

We shall for the sake of convenience make some simplifying assumptions which in no way violate the principles of the mechanism just now explained. We assume that the primary electrons travel straight inside and suffer absorption due to their collisions with the orbital or structure electrons. If N be the number of electrons per unit volume in the primary and a the coefficient of absorption per unit volume of these electrons, the number per unit volume at a depth x within the target can be written as Ne^{-ax} . The X-radiation generated per unit volume and the second and third groups of electrons produced per unit volume will be proportional to Ne^{-ax} . We now make two more simplifying assumptions. We assume that all these electrons have a mean velocity subject however to the facts described in section 3 and that all the secondary electrons are produced at a given mean depth below the surface of the target. This mean depth will obviously vary directly as the applied potential of the primary electrons. If d be the mean depth, we can write for the number of secondary electrons kNe^{-ad} , where k is the constant of proportionality. If now only a proportion k' of these travels outward, suffering an absorption whose coefficient can be taken as b , then the number finally emerging from the target surface will work to $kk'Ne^{-(a+b)d}$. Hence the ratio of the secondary to the primary current will become, $R = kk'e^{-(a+b)d}$. Both the constant k and the mean depth d vary directly as the applied potential (See ref. 1). We can therefore write for the ratio, R ,

$$R = pVk'e^{-(a+b)qV},$$

p and q being the new constants involved.

Since the depth of penetration itself varies inversely as the absorption coefficient, $q = \frac{q'}{a}$.

$$R = pVk'e^{-(1 + \frac{b}{a})q'V}$$

$$\text{Hence } \log_e \frac{R}{V} = \log_e pk' - (1 + \frac{b}{a})q'V$$

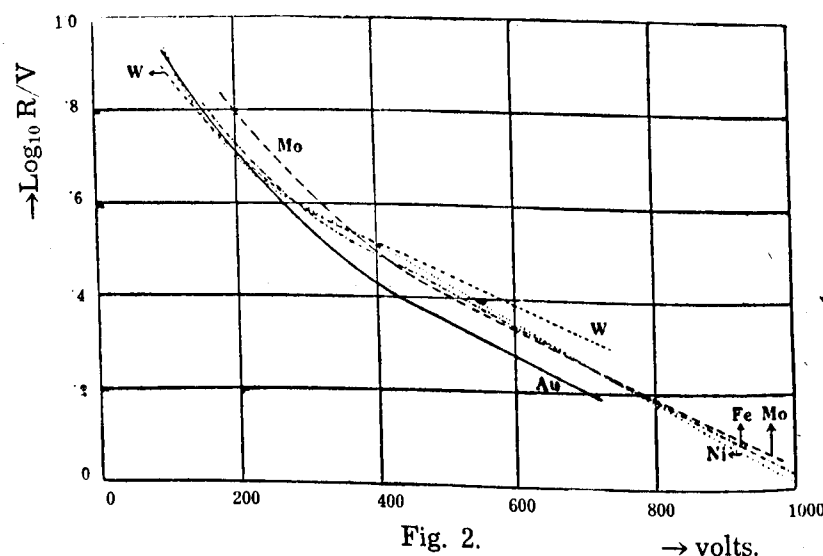
$$\text{or } \log_{10} \frac{R}{V} = K - \frac{1 + \frac{b}{a}}{2.3026} q'V$$

$$\text{where } K = \log_{10} pk'$$

If therefore we plot points between $\log_{10} \frac{R}{V}$ and V we should get a straight line, if $\frac{b}{a}$ is constant.

5. A COMPARISON WITH EXPERIMENT FOR VARIOUS METALS

Petry has measured the values of R for tungsten, molybdenum, gold, nickel and iron at various potentials. In fig. 2 are drawn curves for these metals the values of Petry having been employed. It will be seen that the curves are very nearly straight showing however a slight



convexity towards the X axis, prominently at low potentials. A careful consideration will show that such a result is what one should expect.

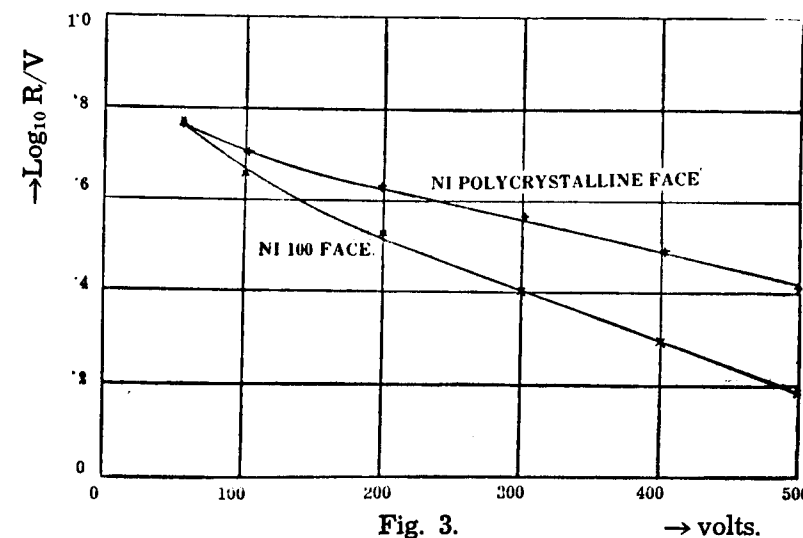
The slope of the curve at any point is $-\frac{1 + \frac{b}{a}}{2.3026} q'$. Taking q' to be practically constant for any metal (see however section 6) we can show that $1 + \frac{b}{a}$ decreases as the potential increases. It was mentioned earlier that the mean energy of the secondary electrons increases rapidly as the potential is increased from small values, rapidly at first and then more slowly. This means that the absorption coefficient of

the secondary electrons will decrease at higher potentials. Of course a in the slope will also vary slightly but the variation of b should be more effective. Hence the slope decreases at higher potentials. It must be noticed however that above 400 volts, the curves are almost straight.

In this region, our equation is verified, the variations of $\frac{b}{a}$ being negligible.

6. CURVES FOR SINGLE CRYSTAL FACES

In fig. 3 are shown the $\log_{10} \frac{R}{V}$ curves for a polycrystalline nickel surface and a single crystal nickel surface 100. It is seen that at about 50 volts, $\log_{10} \frac{R}{V}$ is the same in both cases indicating that when the first few layers are concerned, R is independent of the structure of the



crystal face. The author has drawn similar curves for the 110 face of a single crystal of nickel from some preliminary measurements made by him (unpublished) while in London, and finds that its slope is still greater.

It was shown recently by the writer (loc. cit., ref. 10) that though R is different for the polycrystalline and 100 crystal face, the efficiency is very nearly the same in both cases. This would mean that at relatively higher potentials, the mean energy of the true secondary

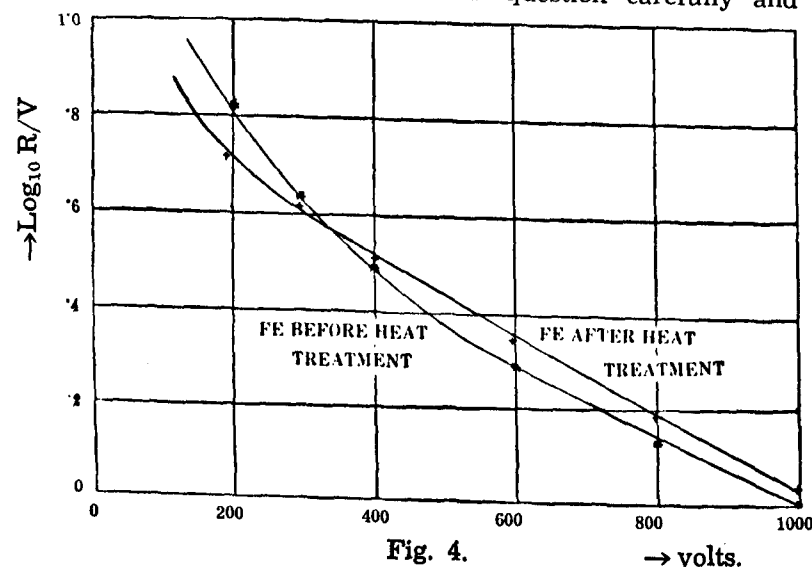
electrons is greater for the 100 face. This point becomes clearer by a reference to the table under section 3 above. However the differences are not so striking as to account for the large deviation observed in the R values.

After a careful enquiry into the details, it appears most probable

that q' in the slope $-\frac{1+\frac{b}{a}}{2.3026}q'$ is different for the different faces. It may be remembered that the mean depth (d) of penetration of the primary electrons, was expressed as $\frac{q'V}{a}$. Assuming that $\frac{b}{a}$ is the same for the metal faces, which seems to be very nearly true, we see that the slope of any curve varies as q' in fig. 3. It seems reasonable to attribute different values for q' for the different crystal faces. Thus the differences observed between the two surfaces of the same metal can be accounted for.

7. ON THE EFFECT OF GAS

We shall now consider the effect of gas in the total secondary electron emission. Petry has studied this question carefully and finds



generally that the total emission from a gas covered surface is greater than from the same surface when perfectly degassed. This is true at low potentials but after the broad maximum is attained the slope of the R curve is greater for the gas covered surface. These results have also

been observed by the writer in investigations on secondary electron emission. It appears therefore clear that the number of secondary electrons generated and the absorption should be greater for the gas covered surface. In fig 4 are drawn $\log_{10} \frac{R}{V}$ curves for iron before and after final heat treatment, the calculations being based on the results of Petry. At potentials less than 400 volts, the ordinates for the gas covered surface are greater. The slope at potentials below 600 volts is also greater for this surface. It is well known that the gas covered surface gives rise to a larger number of low velocity electrons which have consequently a much greater absorption. Thus the value of b is greater for the gas covered surface and $\frac{b}{a}$ should also be greater though a is also greater for the same surface. However above 600 volts, the slopes are very nearly equal.¹⁴ It will also be observed that above 300 volts the curve follows the equation much better in the case of the well degassed surface.

8. SUMMARY

Two outstanding problems in the study of total secondary electron emission from metal faces have been the peculiar shape of the total emission curves and the differences observed between polycrystalline and single crystal faces. No explanations have so far been offered to account for these observations. An attempt is made in this paper to explain these results as being due to the absorption of the secondary electrons in the medium of the photoelectric target. An expression has been derived for the ratio (R) of the secondary to the primary current and it is found that the experimental results agree very satisfactorily with it. Additional confirmation has been obtained to show that the mean velocity of the secondary electrons increases at higher potentials—rapidly at first and then more slowly. The equation is found to be true for single crystal faces and offers a natural explanation for the observed difference in the R value for the polycrystalline and single crystal surfaces. The influence of absorbed gases on the R values is also discussed.

14. Note added in proof.—It is interesting to explain this observation in the following manner: Petry's undegassed surface was really in the last state just before final degassing. This would contain gas molecules in the first few layers only. If the depth of penetration becomes large as it should at higher potentials, the effect of gas molecules on the slope of the curve becomes feeble and hence the surfaces before and after the final heat treatment have the same slope.

Somatic Mitosis in *Allium sativum* (Linn)

By

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(Annamalai University)

It has been the intention of the writer to follow the details of mitosis in a few common South Indian genera with a view to having an idea of the somatic chromosomes whose morphology has been differently described by different investigators. The Liliaceae afford a suitable material for the study of the chromosomes in some of their structural details, and hence a species of *Allium*, of which very little mention has been made in previous papers, is taken as the first type. The mechanism of somatic cell division in the Liliaceae, and of the genus *Allium* in particular, has been quite extensively worked upon, the earliest of the investigators being Strasburgher (15), Schaffner (13), and Merri- man (11). The so-called bulb of Garlic is really composed of several small bulbs, all enclosed in a common membranous covering and "it is propagated by planting the cloves singly and the crop is taken in the hot weather" (18).

MATERIAL AND METHOD

Bulbs were made to root in moist saw dust, fine sand and soil. After about three days' growth the root apices were cut off 3 to 4 mm. in length, and fixed immediately, care being taken to brush off any adhering particles of sand or soil. To ensure proper penetration by the fixative an exhaust pump was used. The time of collection was varied from 10 A.M. to 3 P.M. A very large number of mitoses was seen in materials fixed between 1 and 2 P. M. The following fixatives were used with different degrees of success:—

1. Bouin's fluid (1);
2. Corrosive sublimate formol acetic alcohol (1);
3. Fleming's weaker solution (1);
4. Chrom acetic Formalin of Karpechenko and Langlet (6);
5. Allen's modification of Bouin's Fluid (9).

Of these the best results were obtained with 3 and 4. Xylol did not prove to be a suitable intermedium with Allen's fluid as the

fixative. A few hours immersion in Clove oil before being brought to xylol improved it. Sections were cut at a thickness ranging between 6 μ and 16 μ and stained with Haidenhain's Haematoxylin with and without counterstain. The final differentiation by the 2 % Ferric alum solution was done in some cases for a longer time than usual in order to make clear the structure of the chromosomes. Newton's Gentian violet and Iodine combination as detailed by La Cour (8) was also employed with considerable success especially for bringing out the structure of the chromosomes. But the stain fades away in less than a year's time.

PROPHASE

During the prophase the nuclear material is in the form of a faintly stained network with small chromatin granules. The interwoven thread is not of uniform thickness. The fact of its duality is not clear in the beginning but ultimately it can be traced throughout the nucleus. It is rather thin at the beginning but it gradually condenses to form a spireme. The nucleolus is prominently visible, it taking up, a deep stain; in a few well different-sections the crystalline bodies referred to by Digby (4) Cleland (2) were distinctly seen (Fig. 11). The chromatin granules observed in the resting condition become more numerous and the resulting threads have a coarse granular appearance. The portion of the thread between the granules stain less deeply than the granules themselves, and this gives the familiar chromomere stage. Since the duality of the thread becomes very clear by this time, the chromomeres are seen to occur in definite double rows. The chromomeres are not of the same size, nor do they remain exactly parallel, often showing a twisting about one another. (Fig. 12). The chromomeres gradually come closer together and ultimately they coalesce giving a uniformly stained appearance. This represents the spireme stage (Figs. 4 and 14). As these changes from regular reticulum to paired threads are going on, the nucleolus undergoes some changes. In the early stages of the prophase it is deeply stained and the refractive bodies become soon obscured. The spherical shape is now lost and it becomes irregular in outline (Figs. 5 and 12), and the folds of the outline are seen to be in intimate contact with the double spireme threads. From this time onwards the nucleolus becomes more and more faintly stained accompanied by a diminution in its size. The threads that are thus formed are more or less twisted round one another (Fig. 14). They are not uniform in thickness since they are formed by a coalescence of the chromomeres, but gradually the differences disappear as the threads contract still further. The chromatic

threads constituting the spireme then become separate (Fig. 13) and 16 pieces could be clearly counted. Each of these sixteen chromosomes consists therefore of two chromatic threads the chromonemata, more or less twisted round one another which in well differentiated Gentian violet stained preparations, appeared to be embedded in a lighter material called by many authors as the less chromatic or the achromatic matrix. In a few preparations certain dark ovoid bodies (Fig. 23) were to be seen cast in the cytoplasm during the spireme stage. Schaffner (13) has suggested that these were centrosomes. Merriman (11) has also made mention of such 'dumb bell shaped bodies a little to the right of the lower pole.' On further experimentation, however, these were found to be fixation results.

METAPHASE

The nuclear membrane disappears and the double spireme which are twisted about one another become gradually thicker. They stain very deeply and arrange themselves in the equatorial plane (Figs. 2 and 6) and soon the spindle fibres appear around them. All the 16 chromosomes are more or less of equal size and form. Details of their morphology are under investigation. Each of them slowly uncoil and the sister chromosomes or the two halves of each are pulled apart (Fig. 3). Metaphasic stages were seen comparatively rarely and hence is probably the stage which occupies the least space of time. Laughlin (10) has found out that in *A. Cepa* at about 30 degrees C., out of a total of nearly 170 minutes for the whole of the karyokinetic process, metaphase occupies but .3 minute.

ANAPHASE

The two halves of each chromosome are gradually pulled apart towards the poles. The anaphase chromosomes seem to have a great affinity for all chromatic stains. By a longer destaining than usual, it was found that each of these halves is really composed of two chromonemata with the lighter matrix between them (Fig. 3). It is therefore necessary that each chromonema that separated during the metaphase should have split longitudinally into two, either during the formation of the equatorial plate or in early anaphase itself. In the former case the metaphase plate should at some time possess a quadripartite structure. Such a condition could not however be seen. Though the exact time of the splitting of the chromonemata could not be determined, from the paucity of its occurrence it seems that it is of a very short duration. The duality of the anaphasic chromosomes was made mention of by such an early investigator as Merriman (11) and developed by many workers including Sharp (14) and Kaufmann (7). The

chromonemata of anaphase are more or less parallel, though very occasionally they appear to be coiled about one another and between them is seen the less chromatic matrix. Whether it is an artefact is being experimented upon. On reaching the poles they clump together so that their individuality is lost.

TELOPHASE

After the formation of the 'tassement polaire', which completes the anaphase, the chromonemata move apart, from one another and while so doing anastomoses connect them at several points (Fig. 8). This extensive anastomosing results in the nuclear material assuming a netted appearance in which the doubleness of the threads is only vaguely visible. Towards the end of the telophase the chromonemata of each chromosome which remained intertwined with one another, begin to untwine and consequently become parallel (Fig. 15). Very soon the chromatin granules make their appearance along the length of the chromonemata giving the familiar beaded appearance (Fig. 7). In the meantime the nuclear membrane becomes reconstituted and with it the nucleolus which lies embedded in the chromatic net-work. On its re-appearance it is small and faintly stained, but it rapidly assumes its normal proportions.

RESTING NUCLEUS

The end of the telophase is marked by the further unravelling of the chromonemata with increase of anastomosing (Fig. 16). The granules become thinner as the threads become more and more intertwined. The anastomoses become greater and the duality becomes obscured. The nuclear membrane is now very definitely formed and inside it is a net-work of deeply staining threads formed from the telophase anastomoses, in which are seen a number of granules which stain even more deeply (Fig. 17). The number of nucleoli may be one or more. When more than one, one is very large and the remaining small (Fig. 11). Some resting nuclei with a single nucleolus show it rather drawn out with a constriction about the centre (Fig. 1). It is believed that the single nucleolus formed at the telophase gives rise to others by a process of budding. The refractive bodies made mention of by Digby (4), Cleland (2) and Sutaria (16) were clearly seen in the nucleoli at this stage.

Thus, there seems to be two series of changes undergone by the chromatin, the one leading by a process of fusion to the formation of the chromosomes, and the other by a resolution of these into a reticulum. The changes in the two series seem to be identical but take place in

the reverse order. Thus the nucleus in (Fig. 10) which is a meristem cell preparing to divide is more or less identical with (Fig. 17) where the daughter nuclei have just been completely formed. The early spireme stage showing the beaded appearance as in (Fig. 5) is comparable to (Fig. 7) where the spireme coil is being just formed in the daughter nuclei. The stage of smooth spireme derived after a coalescence of the chromomeres as in (Fig. 14) is the same as (Fig. 15).

DISCUSSION

The behaviour of the nucleolus during mitosis seems to suggest a few facts regarding its nature and its role. In the early stages of the prophase the nucleolus is spherical and takes on a deep stain. But gradually it becomes irregular in its outline with the folds in intimate contact with the developing spireme. This is accompanied by its assuming a more and more faintly stained appearance. Though no actual connection between the two could be differentiated, it looks as though there might be a transfer of nucleolar material into the spireme threads which are in the process of chromosome formation. This view has been held by many investigators. As early as 1904 Wager (17) found a regular connection between nucleolus and spireme. He suggested that nucleolus contributed material to the formation of the chromosomes. Similarly, a definite connection between the spireme and a body in the nucleolus has been found in the pollen mother cells of *Lathyrus* by Latter (9), and in *Lathrea* by Gates and Latter (5). Cleland (3) records that in *Oenothera Franciscana* the nucleolus remains as a pale body after the chromatic body has left it. On its reappearance in late telophase the nucleolus is small, but it rapidly assumes its normal proportions, and this seems to be correlated with the gradual thinning of the chromatic threads which by the time the nucleolus assumes its normal size, forms a regular net-work, faintly stained, and with the granules studded all over. It is therefore likely that the nucleolus is in the nature of a reservoir for some part of the substance of the chromosomes either of the chromatic threads or the less chromatic matrix. That the substance of the nucleolus is mainly chromatic could be inferred from the following observations on the behaviour of the nucleolus during cell-differentiation. The transition from meristem cells to permanent cells brings with it an increase in the size and number of the nucleoli, accompanied by a distinct diminution in the chromatic substance. A comparison of (Figs. 18, 19 and 20) shows that in (Fig. 18) the chromatin is more or less compact, in (Fig. 20) which is a fully differentiated plerome cell and in (Fig. 19) which is a mature periblem cell, there is comparatively little chromatin, it being very loosely arrang-

ed and the nucleoli have increased in size enormously. It seems therefore that an increase in the nucleoli is due to the quantitative reduction of the chromatin. By repeated divisions the cells of the plerome attain their maximum elongation after which the chromatin becomes irregularly massed, while the nucleoli which upto this time have been undergoing considerable increase in size, disintegrate, and the broken bits which are in the form of loosely coiled reticula are seen cast into the cytoplasm (Figs. 20 and 21). This is suggestive of the idea that the nucleolar substance while never being thrown into the cytoplasm of a dividing cell, is now thrown out as useless in a cell which has lost its power of division. The substance of the nucleolus is therefore likely to be very similar in constitution to the chromatin net-work of the nucleus and hence it is transferred to the developing spireme in late prophase, and in late telophase there is likely to be a flowing back of the material from the resolving chromosomes, for the formation of the nucleolus. The behaviour of the matrix during mitosis—its non-existence in the resting condition and early prophase, its prominent chromaticity in the meta and telophases—has been taken by some like Perry (12) and Cleland (3) to indicate a correlation between the appearance of chromaticity in the matrix and the disappearance of the nucleolus and vice versa. From the details of observation now set forth, it seems reasonable to infer that the nucleolus far from being a useless product as some make it out, is a body which actively takes part in mitosis and that its substance contributes to the developing spireme either directly to the chromonemata or to the chromaticity of the matrix and is again reformed by a flowing back of material from the telophasic chromosomes during their resolution. It is therefore to be considered as a storehouse of a portion of the substance of the chromosomes either of the chromonemata or of the less chromatic matrix in which they lie embedded.

The absence of the quadriparsite stage, sets one thinking, whether the anaphase chromosomes are really double. The two chromonemata occurring parallel almost tempts one to suggest that they may merely be the edges of a cylindrical chromosome. This point will be discussed in a future paper after the morphology of the somatic chromosomes has been investigated.

SUMMARY

1. The diploid number of Chromosomes in *Allium sativum* (Linn) is established as sixteen.
2. The spireme is double composed of the intertwining chromonemata.

3. Metaphase chromosomes show the dual nature very clearly as also the less chromatic matrix in which the chromonemata lie embedded.

4. Anaphase chromosomes also possess the dual structure. The exact time of the longitudinal split of the chromonemata could not be determined.

5. The behaviour of the nucleolus especially, its manner of disappearance at late prophase and its reappearance at telophase is taken to indicate that the substance of the nucleolus is identical with that of the chromosomes and that there is likely to be a flowing in of it into the developing spireme and transfer back from the resolving chromosomes during telophase for the formation of the nucleolus of the daughter nucleus. Support for the view that the substance of the nucleolus is essentially chromatic is also to be found in the behaviour of the nucleolus during cell differentiation. Its increase in size and number as the chromatin becomes less conspicuous as in a fully differentiated periblem cell, and its disintegration by fragmentation into small loosely coiled threads and cast into the cytoplasm, as in the case of a mature plerome cell seem to indicate that the nucleolus is in the nature of a reservoir of some part of the substance of the chromosomes either the chromatin of the chromonemata or that of the less chromatic matrix.

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EXPLANATION OF PLATES 1 & 2

All figures were drawn with the aid of an Abbe camera lucida. Zeiss objective 1/12" N.A. 1.25, Leitz 1/12" N.A. 1.3; Oculars 10X and 15X. The drawings show the following magnifications:

Figures 1 to 17	3000X
18 to 23	1800X

Plate 1.

Fig. 1. A single nucleolus in the process of 'budding'.

Fig. 2. Metaphase plate showing the 16 chromosomes each having prominently the chromonemata which show some twisting about. The chromosomes are cut and so their individual shape has not been brought about.

Fig. 3. Anaphase, chromonemata spirally twisted about one another.

Fig. 4. Stage of smooth spireme, Late prophase.

Fig. 5. Chromomere stage, middle prophase, the nucleolus has become irregular in shape and less deeply stained.

Fig. 6. A few chromosomes of the metaphase to show the chromonemata and the matrix in which they lie.

Fig. 7. Chromomere stage in the late telophase.

Fig. 8. Early telophase; chromonemata twisted and pulled apart, and the formation of the anastomoses.

Fig. 9. Polar clumping of the anaphase chromosomes.

Fig. 10. Resting nucleus; thin intertwining threads with chromatin granules. The crystalline bodies in the nucleolus are also visible.

Fig. 11. Early prophase when the duality of the chromosomes is becoming evident, the refractive bodies in the nucleolus are still discernible. Nucleoli two, one large and the other small.

Fig. 12. Chromomere stage in the middle prophase, the double threads showing a twisting about one another.

Fig. 13. Transverse septation of the spireme. 16 chromosomes each having two chromonemata intertwined with one another.

Plate 2.

Fig. 14. Late prophase; smooth spireme stage after coalescence of the chromomeres. Nucleolus disappeared as also the nuclear membrane.

Fig. 15. An identical stage during middle telophase.

Fig. 16. A still later stage in telophase when the double threads are becoming thinner, chromatin granules are making their appearance as also the nuclear membrane. The membrane is just being formed and it is small and faintly stained.

Fig. 17. The daughter nuclei completely formed, the net-work with the granules; the nucleolus with its crystalline bodies.

Figures 18—23 drawn under the same magnification 1800 in order to bring out the comparative size of the various cells.

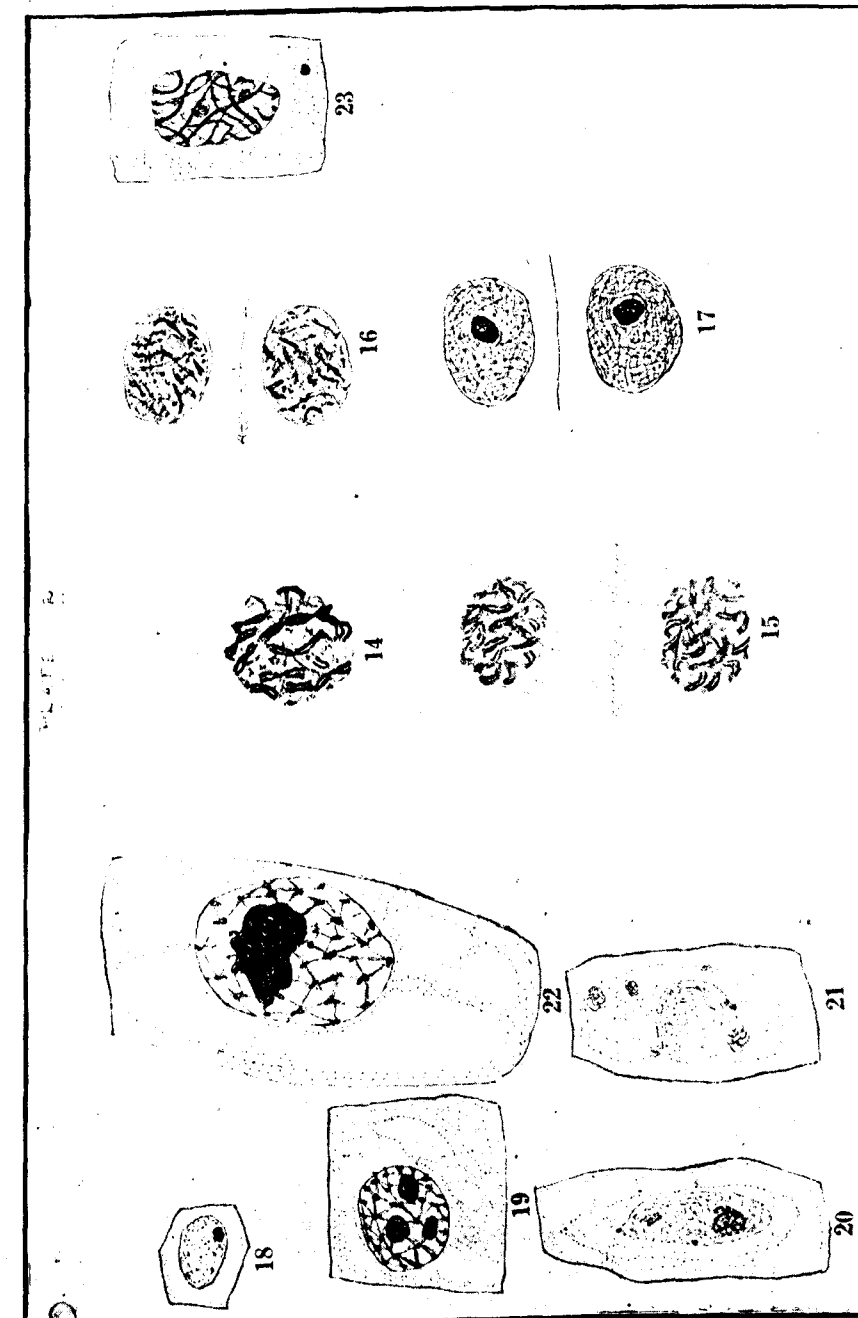
Fig. 18. Ordinary meristematic cell with the resting nucleus.

Fig. 19. Periblem cell with little chromatin and large nucleoli.

Figs. 20 and 21. Mature plerome cells. Nucleoli suffering fragmentation and the fragmented bits cast into the cytoplasm.

Fig. 22. A fully differentiated large central cell showing very large nucleolus and the chromatin very sparsely distributed.

Fig. 23. 'The dark ovoid body' being seen at the spireme stage just to the right of the lower pole.



The Library Movement

By

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The Library Movement has been for the past several decades one of the strongest movements in Western countries. Those of us who have seen or have known something about its benefits to the people of the West cannot help longing for the birth of an Indian Library Movement which would give similar advantages to our people. It is that desire which has prompted me to take 'The Library Movement' as my subject.

What does that movement imply? It implies a new programme of education for our country which has not yet won recognition or support either of our Government or of our public. It implies a new system of education for all our people whether they be men or women, adults or children, rich or poor, through the establishment of suitable libraries in our cities, towns, villages and rural areas. It implies a better system of administration of our libraries by a well-educated and technically trained staff, securing for the library profession a better status by insisting on admitting to the profession only well-qualified men, making proper provision for their adequate training, bringing about greater co-operation and co-ordination between libraries in various parts of the country, undertaking a regular programme of bibliographical research and compiling bibliographies of Indian literature. It implies a recognition of Library Movement as a real educational factor and force not only among the masses but also among the highly cultured and well-educated people. Above all, it implies the making of libraries in this country a truly national concern.

A movement of this kind would undoubtedly require all the inspiration it can possibly receive whether it be from outside or from our own country. But unfortunately we cannot expect any inspiration to come from the latter source. There is very little for us to glory in 'The Splendour that was Ind' so far as our libraries are concerned. That is not, however, denying the fact that we had libraries in ancient India; at various stages of our history, we find our scholars and patrons

of learning giving as much support and encouragement for the establishment and maintenance of libraries as they gave for schools, colleges and universities. In that respect, we were by no means behind other ancient civilized countries although we cannot boast of libraries like that of king Assur-bani-pal of Assyria or those of the Ptolemies of Alexandria which were a real wonder of the ancient world. But even the best of ancient libraries or library systems has nothing in it to supply us with the inspiration we need for our Movement. They were not libraries in the sense we know libraries to-day. They were merely treasure-houses of literature sacredly guarded, vigilantly kept from the eye of the vulgar and meant only for the chosen few. Even for the educated, the wealthy and the leisured classes they were a luxury. While we may take pride in them as the achievements of our ancients, we may not look to them for our inspiration and example. Neither are the present conditions of our libraries a great improvement on those of the past.

We have, therefore, to turn elsewhere, to those countries of the West which started Library Movements as much as a hundred years ago. The Library Movement is essentially a Western movement and it has succeeded well particularly in those countries where democratic ideals have had full scope for development. The United States of America is its natural original home. From there it began to spread rapidly to the countries on the continent of Europe. In the second quarter of the 19th century, France, Germany, Norway, Sweden and Denmark caught the spirit and established many popular libraries for the use of the public. Great Britain was the last among the important European countries to be affected by the new movement. A Select Committee appointed by the British Parliament in 1849 to inquire into the condition of libraries in the Island reported that in matters pertaining to libraries, Great Britain was far behind the United States of America and many of the countries on the Continent. But what Great Britain lost in time, she gained in speed and thoroughness and within the last half a century she has done more than any other country in the world in the matter of providing library facilities for practically the whole of her people.

The wonderful achievement of Great Britain in this direction and our political connections with her are perhaps good enough reasons for us to look to her for our inspiration and example rather than any other country. We shall take her as our model and shall expect from our Government what the British Government has done for the British people. Yet we should not be under the impression that the boon will be granted without hard work and importunity on our part. It has not

been the experience of any country which has a flourishing library movement to-day, and much less was it in the case of Great Britain.

The history of the British Public Library Movement which has had its beginnings in the middle of the 19th century has been up to the year 1919 one of hard struggle and uphill work on the part of the promoters of the Movement. The first British Library Bill of 1850 was for the introduction of a modest and meagre optional half-penny rate in the pound for the establishment of public libraries in big cities and towns. The vehement opposition to the Bill and the arguments levelled against it clearly show that even in the middle of the 19th century Great Britain was far from being fully democratic in its ideals. One after another several Honourable Members of Parliament argued that the new Bill was dangerous in every respect, for, it would involve not only a fresh burden of taxation but would also mean unhealthy agitation among the masses through the opportunities given to them to read newspapers, magazines and books. Acquisition of knowledge by the masses was not by any means considered desirable. The Honourable Members, therefore, were more inclined to provide them with food for the body than with food for the mind. In spite of vehement opposition, however, the Bill was passed though only by a narrow majority. The struggle did not end there. The half penny rate was altogether insufficient for the establishment and maintenance of decent libraries. The promoters of the movement, therefore, made several subsequent attempts to get the rates increased and to secure the benefits of the Public Library Act extended to smaller towns as well as to rural districts. At every stage they found the usual opposition, but they were able to achieve their objects. As the Library Movement gathered strength, the opposition began to grow weaker. The final triumph of the Movement came in 1919 when by an act of Parliament which had practically the unanimous consent of the whole house, rate limitations were altogether removed leaving it to the option of each library authority to fix its own rate and further giving freedom to each governing unit of the country, be it a borough, town, county or parish council to decide for itself whether or not it should have a rate-supported library within its area. The result is that no part of the country to-day is without proper library facilities for the people. Over 96% of the population lives within library areas and practically every citizen is within easy reach of a library or a book distributing centre.

Now, a library movement in any country depends upon five main factors for its success. 1. The activities of the promoters of the movement. 2. The attitude of the Government. 3. The financial help which

philanthropically-minded rich can render. 4. The co-operation and support of legislators and other influential people holding high offices in the country. 5. The attitude of the educated people.

1. It is perhaps unnecessary to stress the importance of the part that library promoters have to play in a library movement. Almost everything depends upon their activities. The vital force behind the library movement of any country is a strong Library Association and the progress of the movement may be measured in proportion to the association's activities. We find that true of Great Britain, U. S. A., Germany, Sweden, Norway, Denmark and in fact every country in which there is a progressive library movement. We shall take Great Britain again for a little detailed consideration.

The Library Movement in that country, as has already been pointed out, may be said to have been actually started with the appointment of the Select Committee in 1849. The Library Act of 1850 was the first definite step towards improved library facilities. But for twenty-seven years i.e., upto 1877, the year in which the British Library Association was formed, the library progress in Great Britain was exceedingly slow. True, during this period 83 library authorities were constituted, but with a few exceptions, most libraries were badly equipped and poorly supplied with books. The provisions of the Act allowed the authorities to use the amount realized from rates only for the erection of buildings and for the supply of furniture. The income, however, was insufficient even for that purpose. Books were supposed to come from the generosity of individual donors. We can imagine the condition of those libraries from the sources of their book supply. Nor was much attention paid to organization and administration of libraries.

With the founding of the Library Association in 1877 matters began to improve rapidly. Thereafter, "the Association became the centre of the movement focussing the efforts of its promoters and giving their efforts a driving power that was lacking before." It united not only persons actually engaged in library work but also everybody else interested in libraries. Its membership had been constituted by librarians, library assistants, scholars of repute, literary men, book lovers as well as administrators who were interested in libraries. The council of the Association had always been thoroughly representative in character mainly composed of 'the élite of British librarianship'.

The ideals of the Association were the promotion of the best possible administration of existing libraries and the formation of new ones where desirable, the encouragement of bibliographical research, and the

furtherance of whatever tended to the improvement of the position and qualifications of librarians.

With these definite ideals set before them, the Association began its active career immediately. Committees were constituted to inquire into various projects and their reports were submitted to the general meeting of the Association which henceforward became an annual function. Steps were taken to amend and to improve the existing library acts in order to raise the rates and to give improved library facilities to a larger number of people. By rousing public conscience in favour of the Library Movement and through the aid of influential members of Parliament, the rates were gradually raised by subsequent amended acts till at last in 1919 all rate limitations and other legislative restrictions for the adoption of the Act were entirely removed. Whereas the number of library authorities constituted up to the date of the founding of the Association was only 83, the number since that date is over 500. In fact every governing unit of the country from a metropolitan borough to a rural parish is to-day a library authority and provides its own library facilities according to its ability and need. One of the greatest achievements of the Association is the establishment of an excellent County Library System which has perhaps no parallel in any other country. With the completion of its organization, every citizen of the United Kingdom may be said to be living within a library area.

In 1898 the Association enhanced its prestige by obtaining for itself the Royal Charter of Incorporation which has made it a responsible representative body of the library profession in Great Britain having the right to hold property and to take legal proceedings in its own name.

The Association was also responsible for raising the status of the library profession by its insistence on a highly qualified staff both academically and technically for every library and the payment of a salary commensurate with their qualifications. It also provided excellent facilities for training in librarianship by holding special classes in Library Science, giving correspondence courses and conducting summer schools at various centres. A higher type of training, both academic and technical, was provided for with the founding of the University of London School of Librarianship in 1919 which after a successful course of two years leads to a University Diploma in Librarianship. The real reason for the recognition of the library profession in Great Britain to-day is not only because of the great work it has been doing for the promotion of education and culture in the country, but also because those who are admitted to the profession are usually highly qualified men and women.

The Association has been very active in its publication as well as its publicity work. It has already several academic and technical publications to its credit and several more are in hand. Its publicity campaign by way of issue of pamphlets, bulletins, etc., and by holding exhibitions at important centres has had a great effect indeed on the furtherance of the Library Movement in the country. It has been instrumental in the establishment of several special libraries such as commercial libraries, technical libraries, hospital libraries, libraries for the blind, etc. On the financial side, it has been able to strike a splendid bargain with the Publishers' Association and the Book-Sellers' Association of a cash discount of 10% on all book purchases by British libraries. The latest achievements of the Association are the establishment of several regional libraries, the founding of a National Central Library, and the housing of the offices of the Association in its own building.

The present condition of our libraries is almost similar to that of British libraries in the middle of the 19th century. In some respects it is even worse. Compare for example the present position of our National Library with that of the National Library of Great Britain. In spite of Gibbon's harangue against the condition of British libraries in general, and Carlyle's growling attack on the libraries of London as "a shameful anomaly even in England" and his milder allusion to the mismanagement of the British Museum Library, there is every evidence of the fact that the latter had been in a flourishing state long before any library movement came into existence. It has been a literary treasure house of the nation for several centuries. It has had its copy-right privileges in one form or another from the beginning of the 18th century. It has been liberally subsidized by the Government and has grown enormously.

Now, what have we got by way of a national library to compare with the British Museum or the national libraries of other nations like the Bibliothèque Nationale or the Library of Congress? I am in no way belittling the importance of our Imperial Library. But is it the best we can expect in the matter of a national library of a great nation with an ancient civilization and culture? Can we find our literary treasures in it or are they to be looked for in libraries of other nations? Where is our copy-right privilege which hardly costs anything to anybody? What is the kind of edifice we have for the housing of our National Library? While the number of volumes of other national libraries runs into millions, what is the strength of the collection of our books and periodicals? What is the amount spent annually for their purchase? These are rather unpleasant questions; but we hope that with-

in a few years our Imperial Librarian will be able to return satisfactory answers.

When we turn from our National Library to our Provincial and State libraries, we find matters worse. Many of our Provincial libraries have, no doubt, a fairly good collection of books; but the condition of some of them is deplorable. To be convinced of the truth of my statement, you need only step into one of the biggest of them viz., the Punjab Public Library. After your visit you will hardly come out without a feeling of sympathy for its librarian and his staff who have to work under such conditions as prevail in that library. No library of its size and importance in Great Britain would have been so badly neglected by the authorities even in the early part of the last century.

Much need not be said about other library facilities in the country. Except for our University and College libraries which are intended only for the use of teachers and students, some special academic libraries which are also exclusive in their use and a few private and public libraries in big cities, the library provision in this country is almost negligible. The large majority of our ordinary educated masses is without any library facilities whatever. In fact there are thousands and thousands of fairly literate people in this country who have not had the opportunity of seeing the inside of a library. The statement may sound rather exaggerated; nevertheless it is true. And there is no regular nation-wide programme for extending library facilities for these masses who have had only the opportunity of acquiring an education in primary schools. Our educationists who advocate the cause of compulsory primary education do not seem to be concerned about them or the possibility of a large number of them lapsing into illiteracy due to lack of provision for educating themselves further. Making such provisions for them and maintaining them in a state of literacy seem to be our task. We should gladly undertake it. But what recognition, support or encouragement do we have or can we expect for such a task either from our Government or from our people? We have no library acts and very little financial aid. There is not even a half-penny rate for the purpose of libraries.

Now, turning from library provision to organization and administration of existing libraries, our conditions are equally unsatisfactory. There are, no doubt, a few well-organized libraries in the country, but the majority of them are far from being what libraries ought to be. Most library authorities in this country are yet to be convinced that libraries need any organization.

That briefly is where we stand in regard to our libraries and library profession. We are several decades behind most Western countries. Can we do anything to improve existing conditions? Undoubtedly we can if we follow the Western example and begin our work where they began in the last quarter of the 19th century. We should get ourselves united and do something more than individual preaching of the gospel of libraries. As individual preachers, we are sure to be voices crying in the wilderness. We must also go beyond the range of our provincial efforts and do something on a national scale.

If Indian librarianship is really keen on improving its position and making libraries an educational force in the country, every librarian and library worker will welcome the idea of an Indian Library Association and will enlist himself as an active member. That alone should make our membership representative in character and give us men to work for the promotion of our cause in every part of the country. We have also quite a number of sympathizers in the country, some of them quite influential in legislatures and with the Government, who are willing to cast in their lot with us. Besides these, if we can count upon the institutional membership of all our libraries, library associations and other allied institutions, we shall have a membership which will be adequate for carrying on our work successfully.

Our membership, however, is not so important as our executive. If we have an active executive, the membership will take care of itself. The Council of our Association will constitute its real strength; it will be its life and blood, and the work of our Association will depend upon the energy and enthusiasm of the members of our Council. Its progress will be in proportion to the work they do, the service they render. Ours will be a fortunate Association if we can succeed in getting the right persons on our Council whether they be from the ranks of our own profession or from outside it. May we hope that our Council will be composed of the élite of Indian librarianship and other unselfish and public spirited men who will put their heart and soul into the work for the promotion of the ideals of the Association and the achievements of its objects.

The programme of our work will, no doubt, be determined by existing conditions as well as by the ideals of our Association. It should include in any case regular publicity and propaganda with a view to enlisting the sympathy and support of our legislators and rulers on the one hand and the public on the other. We must convince them that there are not enough libraries for our educated public, that more libra-

ries are urgently needed for the improvement of the culture and education of our people, that reorganization and better administration of existing libraries are necessary for their greater efficiency and usefulness, that the employment of well-qualified men both academically and technically is essential for the efficient administration of libraries, that they should be paid salaries which their qualifications deserve and that since librarianship has developed into a science, adequate provision should be made for the training of librarians and library assistants. Further, we want to launch out on a programme of bibliographical research, compilation of bibliographies for Indian Manuscripts, books and periodicals, inter-library loans, union catalogues and bringing about better co-operation and co-ordination between libraries as far as is practicable. We should also consider schemes for the creation of regional libraries and a national central library and the founding of more provincial associations. We should take up the question of book discount with home and foreign publishers and booksellers. More urgent than any of these is perhaps the task of getting legislation in favour of libraries in this country similar to the British Library Act. If we manage to secure such legislation half our task may be said to be done.

2. That brings us to a consideration of the second main factor for the success of the library movement, namely, the attitude of the Government. We have every reason to believe that our Government would be quite sympathetic towards a movement like ours, but we cannot expect it to take the initiative which should come from the people. The attitude of our Government would, we presume, be the same as that of the British Government towards the British Library Movement. It will not be taken up till it is found going. Government is naturally cautious especially where there is likely to be a financial outlay or the need of a fresh taxation. Fear of a fresh burden of taxation was the stumbling-block to the original British Library Act. The British Government did not want to undertake the responsibility for a movement which it had to finance either from existing funds or by means of fresh taxation. The problem was easily solved by an optional local rate.

We shall not ask our Government to spend any money on our movement except perhaps for directing and controlling it either from the Federal Centre or from the Provincial Centres. What we shall ask for is the authority of the Government behind us, a Library Act which would empower the local governments to levy a rate if they decide to establish a local library. The adoption of the Act and the amount of the rate may entirely be left to the option of the local governments. That will solve the problem of finance and will give us the opportunity

to show to our Government how anxious our people are for the establishment of libraries.

There are already several hopeful signs of sympathy on the part of the Government. The Central Government, we understand is seriously considering the matter of our copy-right library. His Excellency the Viceroy and His Excellency the Governor of Madras have given their consent for the introduction of a Library Bill in the Madras Legislature. The Punjab Government is evincing a good deal of interest in Library Movement, and what Baroda has done and is doing is well-known to all of us. We can certainly expect greater sympathy and help from the Government as our movement grows and gathers strength.

3. Next in importance to the attitude of the Government comes the attitude of the wealthy. The help which the liberal-minded wealthy men of this country can render to our movement will indeed be invaluable. So far the philanthropic benefactions in India have been mainly confined to religious institutions and indiscriminate charities. Some have been given to educational institutions, but only a few have gone to libraries. Among them the Dyal Singh gift needs special mention. Dyal Singh Public Library in Lahore is the most outstanding monument of gifts to public libraries in this country. We pay our homage to the memory of such generous donors and congratulate the Trustees on the wise administration of their funds.

For a unique example of a generous gift to libraries, however, we shall have to go outside our own country. There is no parallel in the world to the gift which Andrew Carnegie made to libraries. This wise and most generous giver gave away a good portion of his wealth for the establishment and improvement of libraries with no thought of a reward except the satisfaction of having given to the public the benefits of that institution which he himself enjoyed during the early years of his life. The whole country of Great Britain and to a great extent the United States, Canada and some of the British Colonies owe their library systems to the munificent gift of Andrew Carnegie.

The wisdom of distribution of his gift lies in the fact that in almost every case it was conditional. He undertook the erection of buildings and the management of libraries for a short period, usually five years, provided the communities concerned would meet all the running expenses after that period. His principle was to help those who were willing to help themselves. The gift was therefore offered with a challenge. Both were accepted by the nations concerned. The Govern-

ments as well as the people undertook the responsibility for the maintenance after the five-year period, and not a library became defunct through lack of funds. Carnegie through his generous gifts made the nations realize the benefits of public libraries and once they realized them they were glad to bear the burden themselves.

We need a number of Carnegies in India to-day not only to give us their gifts, but also to create an enlightened public conscience. We have perhaps many potential ones in this country. But they need to be convinced that public library is one of the most essential factors in the education of our nation, that ours is a cause worthy of their consideration and deserving of their support, a cause which gives opportunity for a new and excellent outlet for their charity. They should be persuaded to think that the erection and maintenance of libraries is as good an object of philanthropy as the establishment of other educational institutions. Libraries erected by them will ever be standing monuments of their good work and they will always live in the memory of posterity. An Andrew Carnegie, or a Passmore Edwards or a Dyal Singh will never be forgotten.

4. Now I have to be very brief in dealing with the other two factors for our success. Fortunately or unfortunately the destiny of our land lies neither in the hands of librarians nor of the rich people although they both have a part in shaping it. Next to the Government, it lies directly in the hands of our educationists, legislators and others who hold high and responsible offices in the country. Much of the progress of our work will depend upon their co-operation and support. If they take an unsympathetic attitude, our task becomes exceedingly difficult, if not impossible. On the other hand, their sympathy and support would not only give us encouragement, but also would secure for us the means for the achievement of our objects and ideals. What we can do is to represent our cause to them, but we cannot go beyond the lobby. It is for them to secure for the country the much-needed library legislation. If they refuse, in all probability their successors will do it and theirs will be the honour for having done the country a great service. A right cause cannot be held back for ever. The British library legislation which would have been absolutely impossible in 1850 had the unanimous consent of Parliament in 1919. We hope however that we will not have to wait for seventy years to see the passage of an Indian Library Bill and we firmly believe that the honour for such a bill will go to the legislators of this decade.

5. Lastly, we come to consider the attitude of the masses. It goes without saying that the illiterate masses will have no interest what-

ever in our movement except perhaps as a possible beneficial institution for their children who may be educated. But unfortunately even our educated masses seem to be rather indifferent towards libraries. Whether such an attitude is due to lack of opportunities for knowing the advantages of libraries or due to their disinclination for reading, we cannot be quite sure. But we are inclined to think that when once they begin to enjoy the benefits of library facilities, they will be anxious to maintain them even at their own cost. That has been the experience of other countries. Even such advanced people as those of Great Britain and America were rather indifferent to library movement till their public conscience was roused by the Carnegie gifts and Government grants, and once they began to know what public libraries meant for the country, they never cared to seek for external financial aid. They were quite willing to bear the burden themselves. We have every reason to believe that in matters concerning the development of intellect our people are not different from the people of the West. They will be willing to shoulder the responsibility of public libraries if we can succeed in convincing them that they are essential for the growth and development of the intellectual and cultural life of every citizen.

ஐரோப்பிய அறிஞரும் தமிழ்மொழியும்

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இவ்வுலகில் வழங்கும் செம்மைசான்ற தொன்மொழிகளுள் தமிழ்மொழியும் ஒன்றென்று மொழித்திறமறிந்தோர் கூறுவர். இற்றைக்கு இரண்டாயிரம் ஆண்டு களுக்கு முன்னரே, நெடியோன் மலையை வட எல்லையாகவும், குமரித்துறையைத் தென்னெல்லையாகவும் கொண்டு திகழ்ந்த திருநாட்டில் தமிழ் மொழி தோன்றி வளர்ந்த வரலாறு அன்று தொட்டு இன்று காறும் புதைபொருளாகவே அமைந்துள்ளது. ஆயினும் இக்காலத்தில் வெளிவந்துவரும் பழந்தொகை நூல்களைத் துணைக் கொண்டு ஆராயும் பொழுது அக்காலத்திய அந்தணரும், அரசரும், வணிகரும் வேளிரும் வளமார்த்த தமிழ் மொழியை ஆதரித்து வளர்த்த ஆர்வம், பளிங்கு போல் விளங்குவதாகும். இவ்வாறு புலனழுக்கற்ற அந்தணரும், புவிச் செவ்வம் படைத்த பெருவேந்தரும், பண்டமாற்றிப் பணிசெய்த வணிகரும், பழுதற்றவே ளாண்மையிற் பண்புற்ற வேளிரும் மனமிசைந்து வளர்த்தமையாலேயே தமிழ் மொழி முற்காலத்தில் தழைத்தோங்குவதாயிற்று. இன்னும் பிறவாயாக்கைப் பெரியோனை வழிபட்ட சைவரும், நீலமேனி நெடியோனை வழிபட்ட வைணவரும், பூமலியசோகின் புனைநிழலமர்ந்த அருகனை வழிபட்டசமணரும் போதிமரத்தடியிலமர்ந்த புனிதனை வழிபட்ட புத்தரும் பைந்தமிழ் மொழியைப்போற்றி வளர்த்தார்கள். இங்ஙனம், சாதிமதச் சுழிகடந்து, காலமென்னும் கடும்புனலாற்றில், தமிழ்க்கலம் களித்துலாவியது.

இத்தகைய தொன்மை வாய்ந்த தமிழ்மொழியைச் சென்ற இருதூறாண்டுகளாகப் பிறநாட்டு நல்லறிஞர்போற்றி வளர்க்கத் தலைப்பட்டார்கள். ஐரோப்பிய நாடுகளிற் சீரும் சிறப்புமுற்று விளங்கும் கிருஸ்தவமதக் கொள்கைகளைத் தமிழ்நாட்டிற் பரப்பக் கருதி இந்நாட்டிற் போந்த பாதிரிமார்கள், அருந்தமிழ்மொழியை ஆர்வத்தொடு பயிலத்தொடங்கினார்கள். இயேசுமதக்கொள்கைகளைத் தமிழ்மக்கள் மனத்தில் பசுமரத்தாணிபோற் பதிக்கக்கருதிய இப்பெரியார், பிழையறப்பேசவும் எழுதவும் விரும்பித் தமிழ் மொழியிலமைந்த சிறந்த நூல்களை ஆதரித்து ஆராயத்தலைப்பட்டார்கள். அறநூல்களிற் சிறந்த திருக்குறளையும், அருஞ்சுவை நிரம்பிய பெருந்தமிழ்க்காவியங்களையும், ஆர்வமுறப் பயின்ற பொழுது, அந்நூல்களின் தெள்ளியசுவை அன்றோ உள்ளத்தை அள்ளுவதாயிற்று. தமிழ் மொழியைப் போதிய வளவு கற்றுப் போதனைசெய்யக் கருதிய மேலைநாட்டறிஞர், மதுவுண்டு தேக்கிடும் வண்டுபோல், செழுந்தமிழ்த்தேனை மாந்தித்திளைத்தார்கள். இத்தகைய மேலைநாட்டறிஞருள், இத்தாலியா நாட்டினின்றும் தமிழகம்போந்து தமிழ் மக்களோடு கலந்துறைந்து, விழு

மிய புகழ்பெற்ற வீரமாமுனிவரே, தலைசிறந்தவராவார். ஐரோப்பிய நாடுகளில் உயர் தனிச் செம்மொழிகளாகக் கருதப்படும் லத்தீன் கிரீக்கு முதலிய மொழிகளில் அமைந்த செழுங்கலைகளைச் செவ்வையாய் ஒதியுணர்ந்து, செல்வத்துட்செல்வமாய் செவிச் செல்வம் பெற்ற இம்முனிவர், அருந்தமிழ் மொழியின் அகலங்காணவிரும்பிப் பல்லாண்டு முயன்று பயின்றார். அறம்மணக்கும் திருக்குறளின் அருஞ்சுவையையும், தமிழ் மணக்கும் சிந்தாமணியின் செழுஞ்சுவையையும், கலைமணக்கும் கம்பன் உவ்ச்சுவையையும் கலந்து நுகர்ந்த முனிவர் உள்ளம், பள்ளத்துட்பாயும் வெள்ளம்போல் மற்றைய தமிழ்ப்பனுவல்களிலும் பரந்து படர்வதாயிற்று. தாளுண்ட நீரைத் தலையாலே தரும் தென்கின் தகைமைவாய்ந்த இம்முனிவர், தமிழ் மொழிக்கு ஆற்றிய தொண்டு அருமைவாய்ந்ததாகும்.

தேவியநாதர் என்றும் வீரமாமுனிவர் என்றும் தமிழகத்திற் புகழ்பெற்ற இவ்வறிஞரே, தமிழ் அகராதியின் தந்தையாவார் என்று கூறுதல் மிகையாகாது. தமிழ் மொழியில் அமைந்த சொல்லின் பொருளை அறிந்து கொள்வதற்கு முற்காலத்தில் நிகண்டுகளே சிறந்த சாதனமாயமைந்தன. பிங்கலம் திவாகரம், ஆசிரியம் கயா கரம் குடாமணி முதலிய பல நிகண்டுகள், தமிழ்மொழியில் விளங்கக்காணலாம். நூற்பாவால் அமைந்த இந்நிகண்டுகள் யாவும் கற்றோர்க்கேயன்றி மற்றோர்க்குப் பயன்படாதனவாயின என்பது சொல்லாமலே விளங்கும். கவிபாடும் புலவர்க்கும் பொருள் தேரும் அறிஞர்க்குமே அவை பெருந்துணையாயிருந்தன. கற்றோரேயன்றி மற்றோரும் தமிழின் நீர்மையறிந்து கழைத்தோங்க வேண்டுமென்று கருதிய வீரமாமுனிவர் 'சதுர் அகராதி' என்னும் பெயரால் ஒரு சிறந்த அகராதி செய்து உதவினார். அவ்வகராதி நூற்பாவால் அமைந்த நிகண்டுகள் போலாது, தமிழ்ச் சொற்களை அகரமுதலாக எடுத்தெடுக்கிப் பொருள்விளக்கிய பான்மையால் தமிழ்ப்பெருங்கடற்கு அஃது ஓர் மரக்கலமாகத் திகழ்ந்ததென்று அந்நூற்பாயிரம் எடுத்துரைக்கின்றது. அவ்வகராதி அளவிற்குரியதாயினும், அருமைவாய்ந்த தென்பதில் ஐயமில்லை. பிற்காலத்தில் தமிழில் எழுந்தபேர் அகராதிகட்கெல்லாம், 'சதுர் அகராதி' கலங்கரை விளக்கம்போல் நின்று நெறிகாட்டும் தகைமையொன்றே அதன் பெருமைக்குப் போதிய சான்றாகும். பெயர், பொருள், தொகை தொடை யென்னும் நான்கு பகுப்புடையதாய் நலமுறத்திகழும் சதுரகராதி பத்தொன்பதாம் நூற்றாண்டில் எழுந்ததாகும். சதுர் அகராதியை அடிப்படையாகக் கொண்டு, தனித் தமிழ் அகராதிகளும், தமிழ் ஆங்கில அகராதிகளும் எழுந்தன. இவ்வாறு தமிழ் மொழியில் எழுந்த அகராதிகளுள், கற்றுவல்ல புலவர்க்கும், கலை பயிலும் மாணவர்க்கும் உற்ற துணையாய் நின்றுதலுடைய மதுரைத் தமிழ்ச்சங்கத்தார் வெளியிட்டுள்ள 'சொல்லகராதியே' யாகும். சொற்பொருள் விளக்குதலோடு, அச்சொல் மேலோர் வாக்கில் மிளிரும் பான்மையை எடுத்துக்காட்டும் சொல்லகராதியின் முறை அருந்தமிழ் அறிய விரும்புவோர்க்குப் பெரும்பயன் விளைப்பதாகும்.

இனி, சதுர் அகராதியைத் துணைக்கொண்டு இந்நாட்டில் எழுந்த தமிழ் ஆங்கில அகராதிகளின் வரலாற்றைச் சுருக்கமாக ஆராய்வோம். இற்றைக்கு நூற்றாண்டுகளுக்கு முன்னரே, இத்துறையில் உலையா ஊக்கம் கொண்டு உழைத்த யேலை

நாட்டறிஞராய் ராடலர் என்பார்க்கு ஆங்கிலத் தமிழுலகம் மிகுந்த கடப்பாடுடையதாகும். விவிலியநூல் பரப்பும் விழுமிய நோக்கத்துடன் இந்நாட்டில் நிறுவப் பெற்ற வேதமடத்தைச்சார்ந்த ராடலர் என்னும் நல்லறிஞர், பல்லாண்டுகளாகத் தமிழறிந்தோரைத் துணைக்கொண்டு உழைத்து ஒரு தமிழ் ஆங்கில அகராதி தொகுத்தார். ஆயினும் அவ்வகராதியை அச்சிட்டு வெளிப்படுத்தும் முன்னமே அவர் இம் மண்ணுலக வாழ்வை நீத்தார். பல்லாயிரக் கணக்கான தமிழ்ச் சொற்களைப் பிழையற ஆராய்ந்து, அவற்றின் பொருள்களைத் தமிழிலும் ஆங்கிலத்திலும் விளக்கிப் போந்த இவ்வறிஞரது ஆர்வம் அளவிடற்பால தன்றும், இவ்வகராதி நான்கு பகுதிகளாக வேத மடத்தினரால் 1836 ம் ஆண்டு முதல் வெளியிடப் பெற்றது.

இவ்வகராதியைத் தழுவி விரிவாக எழுந்த வின்சுலோ அகராதியே, இன்று காறும் சிறந்த தமிழ் ஆங்கில அகராதியாக நின்று நிலவுகின்றது. அமெரிக்கர் மடத்தின் ஆதரவில் எழுதப்பெற்ற இப்பேர் அகராதியைப் பதிக்கும் பொறுப்பும் பெருமையும் வின்சுலோ என்னும் மேலைநாட்டறிஞர்க்கு வாய்த்தது. எடுத்த கருமத்தைத் தொடுத்து முடிக்கும் மனத்திண்மை வாய்ந்த இவ்வறிஞர், பல்லாண்டு பணிசெய்து, கைப்பொருளின்றிக் கவன்று, ஒன்பதாண்டளவில் அகராதியை அச்சியற்றி முடித்த வரலாறு அதன்பாயிரத்தில் விரிவாக விளக்கப்பட்டுள்ளது. 1853 ம் ஆண்டில் அச்சேறத்தொடங்கிய அகராதியின் செலவு அளவுகடந்து சென்றமையால், அமெரிக்க மடத்தார் அதன் பொறுப்பை யேற்று நடத்த இயலாது தன்வந்தார். முந்நூற்று அறுபது பக்கம் அச்சேறி முடிந்த அளவில் அகராதியேலை முறித்துவிடுமோ என்னும் அச்சம்பிறந்தது. சென்னை அரசாங்கத்தார் உதவியை ஆசிரியர் வின்சுலோ நாடிய பொழுது, அவர்கள் முன்னரே வாக்களித்திருந்த முறைமையில், அகராதி முற்றுப்பெற்ற பின்னர் நூறுபிரதிகள் விலைகொடுத்து வாங்க இசைந்தனரே யன்றி முன்பணம் கொடுத்துதவ முற்பட்டாரல்லர். எஞ்சி நின்ற பகுதிகளை அச்சிட்டு முடித்தற்குப் பின்னும் பல்லாயிரம் ரூபா இன்றியமையாதிருந்தமையால், பங்கொன்றுக்கு இருநூறு ரூபாவாக, எழுபது பங்குகள் சேர்த்து, அத்தொகையைக்கொண்டு அகராதியை முற்றுவிக்க ஆசிரியர் வின்சுலோ முயன்றார். ஆயினும் அவர் கருதிய வாறு பங்குகள் விலைப்படாமையால், கடன்கொண்டும் செய்வன செய்தலே நன்றென்று துணிந்து ஐயாயிரம் ரூபா கடன்பட்டு ஆசிரியர் அகராதியை அச்சிட்டு வெளிப்படுத்தினார். இவ்வாறு ஊதியமின்றி உழைப்பினை நல்கியமேலைநாட்டறிஞரின் ஊக்கமும் தியாகமும், நம்மனத்தைக் கவர்த்து நன்றியை எழுப்புவனவாகும்.

இனி இப்பேரகராதியைப் பின்பற்றிச் சென்னைச் சர்வகலாசங்கத்தின் ஆதரவில் புதியதோர் தமிழ் ஆங்கில அகராதி வெளியிடப்பட்டு வருகின்றது. இப்புதிய அகராதியின் வரலாற்றையும் சுருக்கிக்கூறுதல் பொருத்தமுடையதாகும். இற்றைக்கு ஏறக்குறைய எழுபதாண்டுகளுக்கு முன்னர் எழுந்த வின்சுலோ அகராதியின் அருமையறிந்த சென்னை அரசியலாளரும், ஏனைய அறிஞரும், அதனைப்புதுக்கி அச்சிட்டாற் பெரும்பயன் விளையும் என்று கருதினார்கள். அவ்வகராதியின் முதற்பதிப்பு

முழுமையும் சில ஆண்டுகளில் செலவாகி விட்டமையால், அதன் பிரதி கிடைத்தல் அரிதாயிற்று. அகராதியின் பதிப்புரிமை அமெரிக்கமடத்தார் உடைமையாக அமைந்திருந்தது. இரண்டாம் பதிப்பை ஏற்று முடித்தற்குப் போதிய பொருள் அம்மடத்தாரிடம் இல்லை. அன்றியும் அறுபத்தேழாயிரம் சொற்களுக்குமேல் அடங்கிய அகராதியைப் புதுக்கி யமைத்தற்குரிய புலமைசான்ற பதிப்பாளரும் கிடைப்ப தரிதாயிருந்தது. இவ்வாறு போதிய ஆர்வமிருந்தும் பொருளாக்கமின்றி ஏக்கற்று நின்ற நிலையினைச் சீமையில் வாழ்ந்த போப்பையர் அறிந்தார். பல்லாண்டு தமிழ் நாட்டில் உழைத்துப் பழுத்த முதுமையுற்றுச் சீமைக்குச் சென்று, விழுமிய திருவாசகத்தை ஆங்கிலத்தில் மொழிபெயர்த்து, ஆறுதலுற்றிருந்த அருந்தமிழ்த் தொண்டராய் போப்பையர் இக்குறையையறிந்து மனங்குழைந்தார். நெடுந்திரைக் கடல் கடந்து மீண்டும் தமிழ்நாட்டிலுறைந்து பணிசெய்தற்குரிய உடல் நலமற்றிருந்த ஐயர், தமிழறிந்த தக்கார் ஒருவரைத் தம்பால் அனுப்பக்கூடுமாயின், வின்சலோ அகராதியைத் தாமே புதுக்கியும் விளக்கியும் முடித்துத் தருவதாகச் சென்னை அரசாங்கத்தார்க்கு அறிவித்தார். அவர் எழுதிய நிருபத்தைச் சென்னை அரசாங்கத்தாரும், சர்வ கலா சங்கத்தாரும் ஆராய்ந்து முடிவு செய்வதன் முன்னமே, 1907ம் ஆண்டில் போப்பையர் ஆவி துறந்தார். ஆயினும் தமிழ் மொழியின்பால் வைத்த தலையாய அன்பினால் ஐயர் ஆதரித்துத் தொகுத்திருந்த அருந்தமிழ்ப் பெரும் பொதிகள் அனைத்தையும், அவர் புதல்வர், சென்னையிலமைந்துள்ள கீழ்நாட்டுக் கையெழுத்து தூல் நிலயத்திற்கு (Madras Oriental Manuscript Library) அன்பு கூர்ந்து அனுப்பிவைத்தார். அப்பொதிகளில் அமைந்த குறிப்புக் கலை ஆராய்ந்த தமிழ்ப் புலவர்கள் புதியதோர் அகராதி வெளியிடுதல் அவசியமே யென்று சென்னை அரசாங்கத்தார்க்கு அறிவித்தார்கள். அப்பொழுது தென்னாட்டில் வதிந்த சாண்ட்லர் என்னும் ஆங்கிலப் பாதிரியார் ஒரு செவ்விய முறை வகுத்துச் சென்னை அரசியலாளர்க்கு அனுப்பினார். அரசாங்கத்தார் அம்முறையை ஆதரித்துப் புதிய அகராதி அச்சிடும் வகைக்கு தூறுயிரம் ரூபா உதவு இசைந்தார்கள். ஐந்தாண்டளவில் முற்றுப்பெறுமென்று அரசாங்கத்தார் கருதிய பேரகராதி 1913ம் ஆண்டு தொடங்கி இன்றளவும் இடையீடின்றி நடந்து வருகின்றது. ஒன்பதாண்டுகள் இதன் பதிப்பாளராய் அமர்ந்து பணி செய்த சாண்ட்லர் என்பார், எழுபதாம் வயதில் இளைப்பாறக் கருதி வேலையின்று விலகிக் கொண்டார். இப்பேர் அகராதியின் உரிமையை அரசாங்கத்தார் சென்னைச் சர்வ கலாசாலைக்கு அளித்துள்ளார்கள். பதினெண்மர் அடங்கிய ஒரு கழகத்தினரால் இப்பொழுது அகராதி வேலை கண்காணிக்கப்பெற்று வருகின்றது. பல்லாயிரம் ரூபா செலவு செய்து பல்கிலக் கழகத்தின் ஆதரவில் வெளியிடப்படும் இவ்வகராதி பயன் விளைக்குமென்பதில் ஐயமில்லை.

தமிழ் அகராதியின் தாதையாய் வீரமாமுனிவர் தமிழ் லத்தீன் அகராதி யொன்றும், போர்ச்சுகீசியத் தமிழ் அகராதி யொன்றும் இயற்றிப்போந்தார். முனிவர் இயற்றிய ஒன்பதினாயிரம் சொற்களடங்கிய தமிழ் லத்தீன் அகராதியின் முகவுரையில், அதற்கு முன்னிருந்த 'ஹயி நோவல்' என்பார் இயற்றிய ஒரு தமிழ்

லத்தீன் அகராதி புகழ்ந்துரைக்கப் படுகின்றது. அவ்வகராதியைப்பற்றி வேறொரு குறிப்பும் அகப்படவில்லை.

இவ்வாறு அகராதிகள் இயற்றிச் சிறப்புற்ற முனிவர், தேம்பாவணி யென்னும் நறுந்தமிழ் மாலைபுனைந்து தமிழணங்கைப் போற்றுவாராயினர். குதேய நாட்டிற் பிறந்து புகழ்பெற்ற குசையப்பர் என்னும் வளன்பெருமை கூறும் தேம்பாவணியில் தெய்வத் திருக்குறளின் தெள்ளியமணமும், சிந்தாமணியின் செவ்விய கற்பனை நலமும், கலைமலிந்த சம்பன் கவியமும் ஆங்காங்கு அமைந்து அழகு செய்யச் காணலாம். இதனை விரித்துரைத்தல் ஈண்டியலாதாயினும் இரண்டொரு சான்று தருதல் மிகையாகாது.

அன்பின் பெருமை கூறப்போந்த ஆசிரியர் வள்ளுவரை "அன்பின் வழிய துயிர்நிலை, அஃதிலார்க்கு என்புதோல் போர்த்த உடம்பு" என்று இனிதெடுத்துரைத்தார். இக்குறளின் அருமையறிந்த வீரமாமுனிவர்

“அன்பு வாய்ந்த உயிர் நிலை அஃதிலார்க்கு
என்பு தோலுடல் போர்த்த தென் றன்றுறை
இன்பு தோன்ற நிலை யெனத் தானிவன்
துன்பு காய்ந்த உயிர் துணை யாயினான்”

என்று பொது மறையின் சொல்லையும் பொருளையும் போற்றி யமைத்தார். இன்னும் வேளாண்மை யென்னும் விழுமிய பணியின் நலமுணர்த்தப்போந்த முதற்பாவலர், “உழுதுண்டு வாழ்வாரே வாழ்வார், மற்றெல்லாம் தொழுதுண்டு பின் செல்பவர்” என்று சுருங்கச்சொல்லி விளங்கவைத்தார். இத்திருக்குறளின் தெள்ளிய நயமறிந்த முனிவர்

“உழுதுண்பார் உயிர் வாழ்வார் மற்றெல்லாம்
தொழுதுண்பார் எனில் தாம் தொழில் செய்தபின்
அழுதுண்பார் கொடை கோடலில் லாயின்
பொழுதுண்பாரில் யாரெனப் பூசவே”

என்று தேம்பாவணியிற் பொதித்துரைத்துப் போந்தார்.

இனி, கல்வியிற் பெரியர் என்று தமிழ்நாடு போற்றிப் புகழும் கம்பர் கவிகள் வீரமாமுனிவரது உளத்தைக் கவர்ந்து, அவர் காவியத்தில் மிளிரும் தன்மையை ஆராய்வோம். தமிழ் தூல் முறைக்கிணங்கத் தேம்பாவணியில் வழிபடுதெய்வ வணக்கம் கூறப்போந்த வீரமாமுனிவர்

“சீரிய உலகம் மூன்றும் செய்தளித்து அழிப்பவல்லாய்
நேரிய எதிர் ஒப்பின்றி நீத்த வோர் கடவுள் தூய
வேரிய கமல பாதம் வினையறப் பணிந்து போற்றி
ஆரிய வளன் தன் காளை அறமுதல் விளங்கச் சொல்லாம்”

என்றருளினார். முழுமுதற் பொருளாய் இறைவனைப் பெயராற்றியாது முத்தொழில் புரியும் முறைமையாளன் என்றறிவிக்கும் முனிவர் மொழிகள் அறிந்து மகிழ்த்தக்கனவாம். மும்மைசால் உலகமெல்லாம் படைத்தும் காத்தும் கார்த்தம்

விளையாடும் கடவுளை, “சீரிய உலகம் மூன்றும் செய்தளித்து, அழிப்பவல்லாய்.” என்று செம்மைசான்ற மொழிகளாற் சிறப்பித்தார். தனக்குவமையில்லாத் தனிப் பெருந்தலைவனை “சீரிய எதிர் ஒப்பில்லான்” என்று புகழ்ந்துரைத்தார். இருள் சேர் இருவினையும் கடந்து அப்பாலுக் கப்பாலாயமைந்த ஐயனை, ‘நீத்த ஓர் கடவுள்’ என்று நிகழ்த்தினார் உன்னுவார் உள்ளத்தில் ஆனந்தக் தேன்சொரியும் வள்ளலின் திருவடியை ‘வேரிய கமலபாதம்’ என்று வியந்துரைத்தார். அவனருளால் அவன் தாள் வணங்குதலே இருவினையை வேரறுக்கும் வழியென்றுணர்ந்த முனிவர், விமலன் பாதம்பணிந்து வளன் கதையை விளக்கலுற்றார். இவ்வாறு தேம்பாவணியில் அமைந்த தெய்வ வணக்கம்,

“உலகம் யாவையும் தாழுள வாக்கலும்
நிலை பெறுத்தலும் நீக்கலும் நீங்கலா
அலகிலா விளையாட்டுடையார் அவர்
தலைவர் அன்னவர்க்கே சரண் நாங்களே”

என்னும் கம்பர் கவியோடு ஒப்பிட்டு நோக்கத்தக்கதாகும். இன்னும் தேம்பாவணியில் அவையடக்கம் கூறப்போந்த முனிவர்

“சூசை யுற்றன வரங்கள் தூய்கடல் கடக்கல் இல்லா
ஓசை யுற்றொழு கமிர்தம் உடைகடல் என்ன நண்ணி
பூசையுற்றதனை நக்கப் புக்கென உளத்தைத்தூண்டும்
ஆசையுற்று ஊமனேனும் அருங்கதை அறையலுற்றேன்”

என்று அருளிய உவமை கம்பர் அவையடக்கக் கவியின் உவமையை நினை ஆட்டிவதா கும். சூசையென்னும் வளன்கதையை வளமார்ந்த பாலாழி யென்றும், அக்கதையை ஆர்வத்தையப் பருகியதன்னை, ஆசையுற்ற பூசையென்றும், முனிவர் கூறும் உவமை கம்பர் உவமையை ஒத்திருக்கக் காணலாம். எண்ணரிய நலம்வாய்ந்த இராம கதையை எழுதப்போந்த கம்பர்,

“ஓசை பெற்றுயர் பாற்கடலுற்றொரு
பூசை முற்றவும் நக்குபு புக்கென
ஆசைபற்றி அறையலுற்றேன் பற்றிக்
காசில் கொற்றத் திராமன் கதையரோ”

என்றிசைத்த உவமையின் சொல்லும் பொருளும், வீரமாமுனிவர் கவியில் விளங்கித் திகழக் காணலாம். தேம்பாவணிக்கவியின் ஈற்றடியில் அமைந்த “ஆசையுற்று ஊமனேனும் அருங்கதை அறையலுற்றேன்” என்னும் முனிவர் மொழிகள் “அன்பெனும் நறவம்மாந்தி மூங்கையான் பேசலுற்றான், என்ன யான் மொழியலுற்றேன்” என்னும் கம்பர் வாக்கைத்தழுவி எழுந்தனவென்று கருதுதல் மிகையாகாது. முன்னரே கூறியவாறு, கம்பர் காவியத்தின் மணம் தேம்பாவணியில் ஆதிமுதல் அந்தம் வரை கமழ்ந்து இன்பம் விளைத்தலால். அதனை முற்றிலும் ஈண்டு ஆராய்தல் இயலாது.

இனிச் சிந்தாமணியின் நந்தாச்சுவையினை நுகர்ந்து இன்புற்ற வீரமாமுனிவர், நாட்டுவளம் கூறும் கவிகளிலும், நகர நலம் கூறும் கவிகளிலும், சிந்தாமணியின்

சிறந்த வாடை வீசுகின்றது. தேமாவும் தீம்பலாவும், தெங்கும் வாழையும் எங்கும் நிறைந்து இலங்கிய ஏமாங்கத நாட்டைப் புகழப்போந்த சிந்தாமணியாசிரியர்,

“காய் மாண்டதெங்கின் பழம் வீழக் கமுகின் எற்றி
பூமாண்ட தீந்தேன் தொடைகீறி வருக்கை பேரழந்து
தேமாங்கனியோடு வரழைப்பழங்கள் சிந்தும்
ஏமாங்கதமென்னும் இசையால் திசை போயதுண்டே”

என்று செழுந்தமிழ் மொழிகளால் எழுதியமைத்தார். இக்கவியின் இன்பம் நுகர்ந்த முனிவர், சூதேய நாட்டுவளம் கூற நேர்ந்தபொழுது,

“பாய்ந்த தெங்கதின் பழங்கள் வீழ்தலால்
வாய்ந்த வாழை மா வருக்கை ஆசினி
சாய்ந்த தீங்கனி சரிந்த தேம் புனல்
தோய்ந்த வா யெலாம் இனிமை தோய்ந்தன”

என்று திருத்தியமைத்துத் திளைப்பாராயினர். ஒங்கிவளர்ந்த தெங்கின் பழங்கள் வீழ்தலால், வாழைக்கனியும் மாங்கனியும், வருக்கைக்கனியும் ஆசினிக்கனியும் சிதைந்து சொரிந்த செந்தேன், சூதேய நாட்டுச் சோலை யெங்கும் பாய்ந்து நிரம்பிய தென்று தேம்பாவணி கூறும் மொழிகளில், சிந்தாமணியின் செழுஞ்சுவை விளங்கக் காணலாம். இன்னும் வளமார்ந்த வயல்களில் மள்ளர் நட்பு பசும்பயிர், கருவுற்றுக் காய்த்துக் கனிந்தபொழுது தலைகவிழ்ந்து தாழ்ந்து நின்ற நிலையினைத் திருத்தக்க தேவர்,

“சொல்லரும் சூற்பசும் பாம்பின் தோற்றம் போல்
மெல்லவே கருவிருந்தின்று டேலலார்
செல்வமே போல் தலைநிறுவித் தேர்ந்தநூல்
கல்வி சேர் மாந்தரின் இறைஞ்சிக் காய்த்தவே”

என்று கனிந்த மொழிகளால் அருளிப்போந்தார். சிறியரே மதிக்கும் செல்வத்தாற் பிறக்கும் செருக்கினை அறுத்து, பெருமிதமின்மையே பெருமை யென்னும் உண்மையைத் தெளிவிக்கக் கருதிய தேம்பாவணி ஆசிரியர்,

“பூரியர்திருப் போல் தலை பசிய கூழ் நிறுவி
நீரினார் தலைநேர நேர்வளை வொடு பழுத்த
ஆரமானும் நெல்லறுத்து அரிகொண்டு போயங்கண்
போரிதாமெனக் களித்தனர் போர்பல புனைவோர்”

என்று பைங்கூழ்பழுத்த பான்மையைப் புகழ்ந்துரைத்தார். வளமார்ந்த வயல்களில் பூரியர் செல்வம்போல் நேராக நிமிர்ந்து நின்ற பசும் பயிர், கருவுற்று முதிர்ந்தபொழுது புலமை சான்றவர் தலைபோல் தாழ்ந்து, முத்தனைய நெல்லைச் சொரிந்ததென்று முனிவர் அருளிய சொல்லும் பொருளும், சிந்தாமணியின் செவ்விய மணம்பெற்று விளங்கக் காணலாம். இவ்வாறு சிந்தாமணிமுதலிய சிறந்த தமிழ் நூல்களின் சுவையை வடித்தெடுத்துத் தேம்பாவணியிலமைத்த வீரமாமுனிவரது கவிச்சுவை அறிந்து போற்றத் தக்கதாகும்.

அரியதோர் அகராதி தொகுத்தும், அருங்காவியம் இயற்றியும் தண்டமிழ் மொழிக்குத் தொண்டெய்த வீரமாமுனிவர், நன்னூல் முதலிய பன்னூல்களையும் ஐயந்திரிபற ஒதியுணர்ந்து, தொன்னூல் விளக்கம் என்னும் பெயரால் ஒரு செந்தமிழ் இலக்கணம் செய்தருளினார். இந்நூல் எழுத்து முதல் அணியீடுகவுள்ள ஐந்திலக்கணங்களையும் அழகுறத்தொகுத்துரைக்கின்றது. நன்னூல் போலவே இந்நூலும் நூற்பாவால் அமைந்துள்ளது. நூல்வழக்கில் அமைந்த செந்தமிழ் மொழியின் திட்டநுட்ப முணர்ந்து ஐந்திலக்கண நூலும் உரையும் எழுதிய அருந்தமிழ் முனிவர், உலகவழக்கிலமைந்த தமிழையும் இனிதறிந்து, 'கொடுந்தமிழ்' என்னும் பெயரால் லத்தீன் மொழியில் ஓர் இலக்கணநூல் வரைந்துதலினார். தமிழ் மொழியைப் பிழையறப்பேசவும் எழுதவும் கருதி முயலும் பிறநாட்டறிஞர்க்கு இந்நூல் பேருதவியாக நிற்பதாகும். பழம் பெருமைவாய்ந்த தமிழ் மக்கள் பண்பினை, இத்தாலிய நாட்டினரும் இனி துணருமாறு, தெய்வப்புலமைத் திருவள்ளுவனார் இயற்றிய திருக்குறளின் அறத்துப்பாலையும் பொருட்பாலையும், வீரமாமுனிவர் லத்தீன் மொழியிற் பெயர்த்தமைத்தார். இன்னும் இவர் இயற்றிய காவலூர்க்கலம்பகம், கலிவெண்பா, கித்தேரியம் மாணை; அன்னையமுங்கல் அந்தாதி முதலிய சிறுகாப்பியங்களையும்; வேதியர் ஒழுக்கம், வேதவிளக்கம், வாமன்கதை, குரு பரமார்த்தன் கதை முதலிய வசனநூல்களையும் குறித்து மத்தேரியிடத்தில் விரித்துரைப்பாம்.

வீரமாமுனிவர் காலத்திற்குப் பின்னர் ஐரோப்பிய அறிஞர் சிலர் தமிழ்மொழியின் பல துறைகளையும் ஆராய்ந்தறியத் தலைப்பட்டார்கள். மொழிநூல் முறையில் (philology) தமிழ் மொழியை ஆராய்ந்து அதன் தனிப்பெருமையை உணர்த்தினார் சிலர். தமிழகத்தில் முற்காலத்தில் வழங்கிய வட்டெழுத்தின் வரலாற்றையும், பிற்காலத் தமிழ் எழுத்தின் வரலாற்றையும்; ஆராய்ந்து தமிழின் தொன்மையை விளக்கினார் சிலர். ஆழநெடுமபுனலமைந்த ஆழிவாய்ப்பட்ட பழந்தமிழ் நாட்டின் பரப்பையும் சிறப்பையும் ஆராய்ந்து அறிவித்தார் சிலர். கல்விலும் செம்பிலும் அமைந்த சாசனங்களைக் கற்றும்; மண்ணுள் மூழ்கி மறைந்து கிடந்த பழம் பொருள்களை அகழ்ந்தெடுத்தும் தமிழகத்தின் பழைய வரலாற்றை அறிய முயன்றார் சிலர். தமிழ் மொழியில் அமைந்த விழுமிய அறநூல்களை மேலைநாட்டு மொழிகளில் மொழிபெயர்த்தமைத்தார் சிலர். இவ்வாறு பலதுறைகளிலும் முயன்று அருந்தமிழ் மொழியின் ஆழத்தை அகலத்தையும் அறிவுறுத்திய ஐரோப்பிய அறிஞரது அரும்பணியை இனி வருத்தும் தொகுத்தும் ஆராய்வேம்.

பெரும்பாலும் பத்தொன்பதாம் நூற்றாண்டிற் பணிசெய்யப்போந்த இவ்வறிஞர் வரலாற்றை அறிவதன் முன்னமே, அக்காலத்தில் தமிழ் மொழி இருந்த நிலையினை அறிந்து கொள்ளுதல் அவசியமாகும். தொன்று தொட்டு இந்நாட்டில் வழங்கி வரும் தமிழ் மொழியை ஆகிசுவன் தோற்றுவித்தான் என்று ஆன்றோர் கூறி மகிழ்ந்தார்கள். முத்தமிழ் முனிவராய் அகத்தியர் இறைவன் அருள் பெற்று மூன்று கலடாய்முனைத்தெழுந்த முதுமொழிக்கோர் விரிந்த இலக்கணம் அருளிப்போந்தார். அம் முனிவரது நன் மாணவராகக் கருதப்படும் தொல்காப்பியனார், தொல்காப்பியம் என்

னும் பெயரால் ஒரு சிறந்த இலக்கணம் செய்தருளினார். அகத்தியரும் தொல்காப்பியரும் தமிழ் மொழியில் எழுந்த காலத்தில், ஆரியமொழி பெரும்பாலும் பாரத நாட்டின் வடபால் அமைந்த நிலங்களிற் பரவி நின்றது. வடநாட்டில் வழங்கிய மொழியை வடமொழியென்றும் தென் நாட்டில் வழங்கிய மொழியைத் தென்மொழியென்றும் பெரும்பான்மைபற்றி அழைத்தார்கள். வடமொழியையும் தென்மொழியையும் அக்காலத்திய அறிஞர் இருவேறு தனிமொழிகளாகக் கருதினார் என்பதில் ஐயமில்லை. தென்மொழிபோலவே வடமொழியும் தொன்மைசான்ற மொழியென்றும், செம்மைசான்ற மொழியென்றும் கருதுவராயினர். வடமொழியைப் பாணினி முனிவற்கு வருத்தருளிய இறைவனே, தென்மொழியைக் குறுமுனிக்கு அறிவுறுத்தார் என்று கூறியமைந்தார்கள். தமிழ் மொழியில் ஒப்புயர் வற்றதூலாய் விளங்கும் திருக்குறளைத் தமிழ் மறையென்றும் பொதுமறையென்றும் போற்றினார்கள்.

“ஆரியமும் செந்தமிழும் ஆராய்ந்து இதனின் இது
சீரிய தென வொன்றைச் செப்பரிதால்—ஆரியம்
வேத முடைத்து தமிழ் திருவள்ளுவனார்
ஒது குறட்பா உடைத்து”

என்று புலவரொருவர் புகழ்ந்துரைத்துப் போந்தார். செய்யாமொழிக்கும் திருவள்ளுவர் மொழிந்த பொய்யாமொழிக்கும் பொருள் ஒன்றே என்று மற்றொருபுலவர் புகழ்ந்துரைத்தார். ஆகவே, இருமொழியும் நிகர் என்னும் கொள்கையே சங்கத்துச் சான்றோர் கொள்கையென்பது இன்றோன்னமொழிகளால் இனிது விளங்கும். தமிழ் நாட்டிற் பரவிய சாக்கிய மதத்தையும் சமணமதத்தையும் வேரறுத்து, மீண்டும் சிவனொளி பரப்பத்தோன்றிய சைவச்சான்றோரும், வைணவ நெறியை நிலை சிறுத்திய ஆழ்வார்களும், ஆரியத்தையும் அருந்தமிழையும் வேற்றுமையின்றிப் போற்றுவாராயினர். பண்ணார்த் தைபந்தமிழிற் பாமாலை பாடிய இப்பெரியார், ‘ஆரியன் கண்டாய் தமிழன்கண்டாய்’ என்று இறைவனைப்போற்றும் முறையே அவர் மனப்பான்மையை அறிதற்குப் போதியசான்றாகும்.

இருமொழியும் நிகர் என்று கருதிய இப்பெரியார் காலத்திற்குப்பின், வடமொழி தெய்வமொழியென்னும் கருத்து மெல்ல மெல்லத் தமிழ் நாட்டில் துழைவதாயிற்று. வடமொழியில் அமைந்த இதிகாசங்கள் தமிழில் மொழிபெயர்க்கப்பட்டன. வான்மிகமுனிவர் வடமொழியில் எழுதிய ஆதிகாவியத்தைத் தமிழ் மொழியில் அமைக்கப்போந்த கல்வியிற் பெரியகம்பர், “தேவ பாடையின் இக்கதைசெய்தவர்” என்று முதலுச்செய்த முனிவரைப் புகழ்ந்துரைத்தார். “வாங்கரும்பாதம் நான்கும் வருத்தவான்மிகியென்பான் தீங்கவி செவிகளாரத் தேவரும் பருகச்செய்தான்” என்று வடமொழிக்கவிஞரை வாயார வழுத்தினார். வடமொழி வானவர் மொழியாதலால் விழுமிய மொழியென்றும், தமிழ்மொழி மக்கன்மொழியாதலால் தாழ்ந்த மொழியென்றும் கருதும் வழக்கம் மெல்ல எழுந்தது. வடமொழியிலமைந்த புராண நூல்களைத் தமிழில் மொழிபெயர்க்கப் புகுந்தார் சிலர். முதலுல்களாகத் தமிழில் எழுந்த நூல்களுக்கும் வடமொழியில் முதலுல உண்டென்று கூற முற்பட்டார் சிலர். வடநூல் முடிபுகளுக்கிணங்க வலிந்தும் நலிந்தும் தமிழ் நூல்களுக்கு உரை

செய்யத்தலைப்பட்டார் சிலர். நன்னூல் செய்த பவணந்தியாரும்; சின்னூல்செய்த குணவீரனாரும்; வீரசோழியமியற்றிய புத்தமிழ்திரானாரும் வடமொழி இலக்கணப் போக்கைத் தழுவி எழுதுவாராயினர். தமிழ் நாட்டிலமைந்த ஊர்ப்பெயர் மலைப் பெயர்களையும் வடமொழியிற் பெயர்த்து வழங்கத்தலைப்பட்டார் பலர். இதைக்குறித்து தமிழ் நாட்டுச் சாசனங்களை ஆராய்ந்த டாக்டர் பர்னல் என்பார் கூறும் மொழி கள் ஈண்டு கருத்தக்கனவாம். சாசனங்களில் வடமொழி வடிவம்புனைந்து வழங்கும் தமிழ்ப்பெயர்களை நான்கு கூறுகளாக அவர் வகுத்துரைத்துள்ளார். சில தமிழ்ப் பெயர்கள் முற்றும் வடமொழியில் மொழி பெயர்க்கப்பட்டுள்ளனவென்றும்; சில தமிழ்ப் பெயர்கள் தவறாக வடமொழியில் பெயர்க்கப்பட்டுள்ளனவென்றும்; மற்றும் சில தமிழ்ப்பெயர்கள் அறைகுறையாக வடமொழியில் பெயர்க்கப்பட்டுள்ளனவென்றும், இன்னும் சில தமிழ்ப்பெயர்கள் இயற்பொருள் இழந்து வடநூற்கதைகளை யேற்றுத்திரிந்து வழங்குகின்றனவென்றும் டாக்டர் பர்னல் கூறுகின்றார்.

இவ்வாறு டாக்டர் பர்னல் வகுத்துரைக்கும் கூறுகளை விளக்கப்புகின் விரியு மாதலால் மாற்றமடைந்தசில சொற்களை ஈண்டு குறிப்பிடுவோம். பழந்தமிழ் நாட்டில் குடமூக்கு என்று வழங்கிய ஊர் கும்பகோணமாயிற்று. மறைக்காடு, வேதாரண்யமா யிற்று. வெண்காடு சுவேதாரண்யமாயிற்று. ஐயாறு பஞ்சந்தமாகமும். அண்ணாமலை அருணாசலமாகவும் அமைந்தன. இங்ஙனம் பழப்பதிகள் பெயர் மாறி வழங்கும் பான் மையை ஆராய்ந்தறிதல் மொழி நூல் வல்லார்க்கு முற்றிய இன்பம் பயப்பதாகும். இனி. பழந்தமிழ் நூல்களில் அயிரை என்று குறிக்கப்படும் மலை. ஐவர் மலையென்று சிதைந்து பாண்டவர் மலையாயிற்று. அயிரை மலையிலமைந்த கொற்றவை, ஐவர்க் கும் தேவியாய அழியாத பத்தினியாயினன். இவ்வாறே மாமல்லபுரம் மகாபலிபுர மாயிற்று. சிராப்பள்ளி, தேவாரப்பாடல் பெற்ற பின்னர் திருச்சிராப்பள்ளியாகிப் பின் திரிசிரபுரமாகமாறி, முத்தலை வீரனாய் திரிசிரன் வழிப்பட்ட இடமாயிற்று. இப் பொழுதும் சில ஊர்ப்பெயர்கள் இவ்வாறு மாறிக்கொண்டிருத்தலை நாம் கண் கூடா கக் காண்கின்றோம். தில்லையம்பதியின் எல்லையில் அமைந்த ஆரே என்னும் சிற் றூர் புராணமியற்றும் புலவர் கைப்பட்டு, நிர்த்தனபுரியாக நிமிரப்பார்க்கின்றது. ஆடுகள் மலிந்திருந்த காரணத்தால் ஆதியில் அவ்வூர் ஆரே என்று பெயர் பெற்றி ருத்தல் கூடும். மன்னார் குடிக்கு அருகேயுள்ள பூந்தல்லூர் என்னும் சிற்றூர், பூவி முந்த நல்லூராகத் திருந்தி, இலங்கையர் கோன் கவர்ந்து சென்ற சீதையின் பூங்கு ழலினின்று நழுவிய நறுமலர் விழுந்த இடத்தைக் குறிப்பதாயிற்று. இவ்வாறன்றி, பழம்பெயர்களை அறவே துறந்து வடமொழிப்பெயர்புனைந்து விளக்கும் ஊர்களும் உண்டு. புள்ளிருக்கு வேளூர் வைத்தீஸ்வரன் கோவிலாய் விளங்குகின்றது. வீரமா முனிவர் காலத்தில் இக்கோயில் 'வினேதீர்த்தான் கோயில்' என்று வழங்கியதாகத் தெரிகின்றது.

இவ்வாறாக வடமொழி உயர்ந்ததென்றும் தமிழ்மொழி தாழ்ந்ததென்றும் கற்றாரும் கல்லாரும் கருதினமையால், தமிழ் என்னும் சொல்லே வடமொழிச் சிதை வென்னும் கொள்கை தமிழ் நாட்டிற் பரவலாயிற்று. திராவிடம் என்னும் வடசொல்

லேதிராமிடம், திராமினம் திரமினம், தமிழ், தமிழ் என்று ஆயிற்றென்று இலக்கண நூலார் எடுத்துரைப்பாராயினர். இன்னும் தமிழ் இலக்கணம் வடமொழி இலக்க ணத்தைத் தழுவி எழுந்ததே யென்று பிரயோக விவேகம் கூறுவதாயிற்று. தமிழ் தனிமொழி யன்றென்றும், வடமொழியே தமிழுக்குத் தாய்மொழி யென்றும் இலக் கணக் கொத்துரைத்த தேசிகர் எழுதுவாராயினர்.

“ஐந்தெழுத்தால் ஒரு பாடையும் உண்டென
அறையவும் நானூவர் அறிவுடையோரே,
வடமொழி தமிழ் மொழி யெனமிரு மொழியினும்
இலக்கணம் ஒன்றே என்றே எண்ணுக”

என்று தமிழ் மொழியைத் தனிமொழி யென்று கருதும் கொள்கையைத் தேசிகர் இழித்துரைத்தார். பிரயோக விவேகமும் இலக்கணக் கொத்தும் பதினேழாம் நூற்றாண்டில் எழுந்தனவாம்.

இத்தகைய கொள்கைகள் வேரூன்றி நின்ற தமிழ் நாட்டில், பத்தொன்ப தாம் நூற்றாண்டில் மேலை நாட்டின் ஞானி வீசுவதாயிற்று. காலையில் எழும் கதிர வன்போல், காட்டுவெல் என்னும் மொழிநூற் புலவர் இந்நாட்டில் தோன்றினார் தென்தமிழ் நாடாய் திருநெல்வேலியிலமைந்த இடையன்குடியென்னும் சிற்றூரைத் தம் இருப்பிடமாகக் கொண்ட இவ்வறிஞர், உலக வழக்கினும் நூல் வழக்கினும் அமைந்த அருந்தமிழ் மொழியை ஆர்வமுறப்பயின்றார். இவ்வாறு காட்டுவெல் தமிழ் மொழியைக் கற்றுவரும் காலத்து, மலையாளமொழியை ருந்தார்த்தர் என்னும் மேலை நாட்டறிஞர் மொழிநூல் முறையில் ஆராயத் தலைப்பட்டார். கர்னாடக நாட் டில் வழங்கிய கன்னட மொழியைக் கிட்டல் என்னும் கலைவாணர் கற்கத் தொடங் கினார். ஆந்திர மொழியை ஆர்டன் முதலிய மேலை நாட்டறிஞர் ஆராய முற்பட்டார். தமிழ் மொழியின் ஆழத்தையும் அகலத்தையும் ஆராய்ந்தறிந்த காட்டுவெல்லாசிரியர், நூற்றிசையினின்றும் நல்லொளி வீசக்கண்டு மகிழ்ந்தார். தமிழோடு மிக்க தொடர் புடைய மலையாள மொழியை முட்டறக் கற்ற ருந்தார்த்தர் என்னும் மொழிநூற் புல வர் மலையாள இலக்கணமும், மலையாள அகராதியும் எழுதிப் போந்தார். கன்னட மொழியை நிலைகண்ணெய்ந்த கிட்டல் என்னும் கலைவாணர் தாம் ஆராய்ந்தறிந்த உண்மைகளை அரிய கட்டுரைகளின் வாயிலாக வெளிப்படுத்தினார். ஆந்திரமொழியை ஐயமறக் கற்றுணர்ந்த ஆர்டன் என்னும் ஆசிரியர், தெலுங்குமொழியின் இலக் கணம் தெரிவிப்பாராயினர். இவ்வாராய்ச்சிகளின் பயனாக, கன்னடமும் களி தெலுங்கும் கவின் மலையாளமும் தமிழ் மொழியோடு நெருங்கிய தொடர்புடைய மொழிகள் என்பது வெள்ளிடை மலைபோல் விளங்குவதாயிற்று. இந்நான்கு சிறந்த மொழிகளும் ஒரு குடும்பத்தைச் சேர்ந்த மொழிகளே யாயினும், அவற்றுள் மிகத் தொன்மையும் செம்மையும் வாய்ந்த மொழி தமிழே என்பது ஆசிரியர் காட்டுவெல் லுள்ளத்தில் தெள்ளிதின் விளங்கிற்று.

இவ்வாறு திராவிட மொழிகளின் ஒற்றுமை யறிந்த ஆசிரியர், உலகில் வழங் கும் மற்றைய செம்மொழிகளையும் பொதுவுற நோக்கிப் போந்தார். இவ்வுலகில்

வழங்கும் மொழிகளை, மூன்று குடும்பங்களாக மாக்ஸ் முல்லர் என்னும் பேராசிரியர் முன்னரே வகுத்திருந்தார். ஆரியம், திரானியம், சிமிட்டியம் என்னும் பெயர்கள் மூன்று குடும்பங்களுக்கும் முல்லரால் கொடுக்கப்பட்டன. இவ்வகையில், லத்தீன் கிரீக், சமஸ்கிருதம் ஆகிய மொழிகள் ஆரிய வகுப்பின் பாற்பாடும் துங்கேசியம், மங்கோலியம், துருக்கியம், பின்னியம் முதலிய மொழிகள் திரானிய வகையின் பாற்படும். அரேபியம், அரமேயம், ஈபிரேயம் முதலிய மொழிகள் சிமிட்டிய வகையின் பாற்படும். இவ்வாறு மூன்று கிளைகளினாலே முளைத்தெழுந்த மூலமொழிகளின் இயல்புகளை, ஆசிரியர் கால்டுவெல் ஆராய்ந்த பொழுது, திராவிட மொழிகள் திரானிய மொழிகளோடு நெருங்கிய தொடர்புடையனவாக இருக்கக் கண்டார். ஆரிய குடும்பத்தைச் சேர்ந்த மொழிகளும் திராவிட குடும்பத்தைச் சேர்ந்த மொழிகளும் பல கூறுகளில் ஒத்திருப்பினும், அவற்றுள் அடிப்படையான வேற்றுமை அமைந்திருக்கக் கண்டார். பாரத நாட்டில் வடமொழியும் தென் மொழியும் நெடுங்காலமாக நெருங்கிப் பழகிவந்த பான்மையால் வடமொழியினின்றும் பலசொற்கள் தென்மொழியில் இடம் பெற்றமை இயல்பேயாகும் என்று எடுத்துரைத்தார். அவ்வாறே தென்மொழியினின்றும் பல சொற்கள் வடமொழியில் வழங்கும் தன்மையை விளங்கிக் காட்டினார். திராவிடமொழிகளின் ஒப்பிலக்கணம் என்னும் விநியய நூலின் வாயிலாக ஆசிரியர் கால்டுவெல் இவ்வரிய உண்மைகளை வெளியிட்டகாலத்து, மேற்கூறிய டாக்டர் குந்தார்த்தரென்பவர், வடமொழியிற் காணப்படும் திராவிட அம்சங்கள், என்று ஒரு சிறந்த கட்டுரை வரைந்து வெளிப்படுத்தினார். டாக்டர் கிட்டல் என்னும் அறிஞரும், 'வடமொழி நிகண்டு' களிற் காணப்படும் திராவிட அம்சம்" என்று ஒரு சிறந்த கட்டுரை எழுதிப் போர்தார். இவ்வாறு மூன்று அறிஞர் மூன்று திராவிட மொழிகளை முட்டறுத்துக் கற்று, ஒரு முடிவிற்கு வந்த முறைமை அறிஞர் கருத்தைக் கவரவதாயிற்று. வடமொழி அகராதியிற் காணப்படும் சொற்கள் அனைத்தும் ஆரியச் சொற்களேயாம் என்னும் கொள்கை மொழிநூல் முறைக்கு மாறுபட்டதாகும் என்று இம்மூவரும் திண்ணமாய் எடுத்து மொழிந்தார்கள். ஆரிய குடும்பத்தைச் சேர்ந்த ஐரோப்பிய மொழிகளிற் காணப்படாத சொற்களும் கூறுகளும், வடமொழியிற் காணப்படுமேயாயின், அச்சொற்களும் கூறுகளும் இந்நாட்டு மொழிகளினின்றும் வடமொழியிற் சென்று சேர்ந்திருக்கவேண்டும் என்று கால்டுவெல்லாசிரியர் எடுத்தாரைத்த காரணம் சுற்றறிந்த மாந்தர் மனத்திற் பதிந்தது. ஒப்பிலக்கணமென்னும் நூலின் அநுபந்தத்தில் தென் மொழியினின்றும் வடமொழியிற் சென்று சேர்ந்தனவாகக் கருதக் கூடிய முப்பத்திரண்டு சொற்களை, ஆசிரியர் கால்டுவெல் மொழிநூல் முறையில் ஆராய்ந்து எழுதியுள்ளார். இவ்வாராய்ச்சி மொழித்திற முணரும் மாணவர்க்குப் பெரும் பயன் விளைப்பதாகும்.

அடவி என்னும் சொல் வடமொழியிலும் தென்மொழியிலும் வழங்குகின்றது. வடநாலோர், அடவி என்னும் சொல், அட் என்னும் தாதுவின் அடியாகப் பிறந்ததென்பர். அட் என்னும் தாது அலை, திரி என்னும் பொருள் தருவதாகும். மாவும் மாக்களும் அலைந்து திரியும் இடமே அடவி யென்று வடநாலோர்

கருதுவர் போலும். இனித் தென்மொழியை ஆராய்வோமாயின், அடவி என்னும் சொற்போன்ற பல சொற்கள், அம்மொழியில் வழங்கக் காணலாம். அடு என்னும் தமிழ்ச்சொல் நெருங்கு என்னும் பொருள் தருகின்றது. அடு, அடை, அடர், இவை ஒருதாதுவின் அடியாகப் பிறந்த சொற்களேயாம். இனி அண்டு அண்டை முதலிய சொற்களும் மேற் குறித்த அடு என்னும் சொல்லினடியாகப் பிறந்தனவே என்பது ஒலியிலக்கணம் அறிந்தோர்க்கு இனிது விளங்கும். ஆகவே அட்டென்னும் தாது தமிழ் மொழியில் நெருங்கு அல்லது சேர் என்னும் பொருள்தரக் காணலாம். ஐயறிவுவிராய ஆட்டின் பெயரும் அடு என்னும் தாதுவினடியாகப் பிறந்ததென்று கருதுதல் தவறாகாது. மக்களை அடுத்துப் பிழைக்கின்ற ஆட்டை ஆதரிக்கவேண்டுமென்று ஓடி விளையாடும் சிறுமிக்கு உணர்த்தப்போந்த பாரதியார் "அண்டிப் பிழைக்கும் நம்மை ஆடு." என்று கூறும் அடியில் ஆடு என்னும் சொல்லின் பொருளையும் விளக்கினார் போலும். மரங்களும், செடி கொடிகளும், செறிந்து வளரு மிடமே அடவியாதலின், அச்சொல் திராவிடச் சொல்லேயென்று ஆசிரியர் கால்டுவெல் கருதுகின்றார்.

இனி, நீர் என்று தமிழில் வழங்கும் சொல் வடமொழியில் நீர என்று வழங்குகின்றது. அம்மொழியில் நீர என்னும் சொல் நீ என்னும் தாதுவின் அடியாகப் பிறந்ததென்று கூறுவர். நீ என்னும் தாது வழிகாட்டு என்று பொருள் படுவதாகும். திராவிட மொழிகளில் இச்சொல் இயற் சொல்லாக இருவகை வழக்கினும் பயின்று வருகின்றது. தமிழ் மொழியில் நீர், பெரும்பாலும் தண்ணீர் என்றே வழங்குவதாகும். நீவு, நீந்து, நீக்கு, நீத்தல், என்னும் சொற்கள் நீ என்னும் தமிழ்த்தாதுவின் அடியாகப் பிறந்தன என்பதில் ஐயமில்லை. ஆகவே நீர் என்னும் சொல் வலிந்து பொருள்படும் வடமொழித் தாதுவினடியாகப் பிறந்ததென்று கொள்வதிலும் தமிழ்த் தாதுவினடியாகப் பிறந்ததென்று கருதுதலே பொருத்த முடைத்தென்று ஆசிரியர் கால்டுவெல் கூறுகின்றார்.

இனி டாக்டர் குந்தார்த்தரென்னும் ஆசிரியரும் பல திராவிடச் சொற்கள் வடமொழியில் இடம் பெற்றிருத்தலை மொழிநூல் முறையில் ஆராய்ந்தெழுதியுள்ளார். கால்டுவெல் காலத்திற்குப் பின்னர் கண்டையங்கில அகராதி எழுதி வெளிப்படுத்திய கிட்டல் என்னும் ஆசிரியர் அதன் முகவுரையில், வடமொழியிற் கலந்திருப்பனவாகக் கருதக்கூடிய நானூற்றிருபது திராவிடச் சொற்களைக் குறித்துள்ளார். இவ்வாசிரியர்கள் தொகுத்துப்போந்த சொற்களையும் பிறசொற்களையும் காய்தல் உவத்தல் அகற்றி மொழிநூல் முறையில் ஆராய்ந்தறிதல் தமிழ் மாணவர் கடனாகும். சில ஆண்டுகளுக்கு முன்னர் டாக்டர் சிலேட்டர் என்னும் மேலை நாட்டறிஞர் எழுதிப்போந்த, "இந்தியக் கலை ஞானத்திலுள்ள திராவிட அம்சம்" (Dravidian element in Indian culture) என்னும் நூல் திராவிட மொழிகளை ஆராய்வதற்குப் புதியதோர் நெறி காட்டுகின்றது.

தென்னாட்டில் வழங்கி வரும் திருந்தியமொழிகளும் திருந்தா மொழிகளும் ஒரு குடும்பத்தைச் சேர்ந்தமொழிகளே யென்று முதன் முதற் கண்டுணர்த்திய

பெருமை கால்டுவெல் ஆசிரியருக்கே உரியதாகும். தமிழ் மொழியின் தொன்மையையும் செம்மையையும் ஐயந்திரிபற உணரக்கருதும் அறிஞர், ஏனைய திராவிட மொழிகளின் இலக்கண அமைதிகளை ஆராய்ந்தறிதல் இன்றியமையாததென்று இவ்வாசிரியர் வலியுறுத்திப்போந்தார். தமிழ் இலக்கணத்தைத் திட்டமாகவும் நுட்பமாகவும் பயின்ற தமிழறிஞர் திராவிடமொழிகளின் ஒப்பி லக்கணமுணர்வாராயின் பல நுண்ணிய பொருள்களைத்தெள்ளிதின் உணர்வர் என்று உயரிய ஆர்வத்தால் எடுத்துரைத்தார். மேலேநாட்டு மொழிதூல் முறையில் இவ்வாசிரியர் எழுதியமைத்த ‘ஒப்பிலக்கணம்’ என்னும் விழுமியதூலின் அடிப்படை இன்றும் அசைவுறா திருக்கின்றது. ஆயினும் திராவிட மொழிகள் துரானிய மொழிகளோடு தொடர்புடையன என்று கால்டுவெல் ஆசிரியர் நாட்டமுயன்ற கொள்கை இன்னும் நிலைபெற வில்லையென்று கூறுதல் மிகையாகாது. திராவிட மொழிகளின் கூறுகளை நன்கு உணர்ந்த கிரேயர்சன் என்னும் மேலேநாட்டு அறிஞர், அம்மொழிகளை முன்னையோர் வகுத்த மூன்று குடும்பங்களிற் சேர்த்தல் முறையன்றென்று கருதுகின்றார். இன்னும் தென்னாட்டில் வழங்கும் திராவிடமொழிகளும் கி.மு. 15ம் நூற்றாண்டில் சிரியா அசீரியா முதலிய தொன்னாடுகளில் வழங்கிவந்த மித்தானி என்னும் மொழியும் பல கூறுகளில் ஒற்றுமையுடையனவாம் என்று பிரெளன் என்னும் மொழிதூற்புலவர் கூறுகின்றார். திராவிட மொழிகளின் சிறப்பியல்புகள் பல மித்தானிய மொழியிற் காணப்படுகின்றமையால் திராவிட மக்கள் முற்காலத்து மேலையாசியாவின்னும் ஈண்டு போந்திருத்தல் கூடும் என்பது இவர் கருத்தாகும்.

தமிழ் மொழியின் தொன்மையை மொழிதூல் வகையானும் சரித்திரவகையானும் ஆசிரியர் கால்டுவெல் நிறுவிப்போந்தார். கி. பி. முதல் நூற்றாண்டிலும் இரண்டாம் நூற்றாண்டிலும் யவனநாட்டில் வாழ்ந்த பிளீனி தாலமி முதலிய சரித்திர ஆசிரியர் எழுதிவைத்த குறிப்புக்களையும், ஆக்கியோர் பெயர் விளங்காத பெரிபிளஸ் என்னும் தூலையும் பியூடிங்கர் படங்களையும் நன்றாகத்துருவி ஆராய்ந்தார். கி. பி. பதினாலாம் நூற்றாண்டில் வாழ்ந்த மார்க்கோபோலோ என்னும் யவன ஆசிரியர் எழுதிப் போந்த அரிய தூலையும் இனிது அறிந்தார். இவ்வாராய்ச்சியின் பயனாகப் பழந்தமிழகத்தின் வணிகத்துறைகளை விளக்கமாக உணர்த்தினார். பழம்பதியெனப்படும் பாண்டிநாட்டில் கொற்கை என்னும் துறைமுகம் அக்காலத்திற் கலந்தரு திருவில் களித்திலங்கிற்று. காவிரியாறு கடலொடு கலக்குந்துறையில் பூம்புகார் என்னும் காவிரிப்பூம் பட்டினம் கவினுறத்திகழ்ந்தது. கேரளநாட்டைச் சேர்ந்த மேல்கரையில் முசிரி என்னும் துறைமுகம் சிறந்து விளங்கிற்று.

இம்மூன்று துறைகளும் புலவர் பாடும் புகழ்மைந்தனவாய், செல்வம் மலிந்த செழுந்துறைகளாய் முற்காலத்தில் இலங்கின என்பது பழந் தொகைதூல்களால் இனிது விளங்குவதாகும். தென்கடலில் விளைந்தமுத்து ஆழநெடுமபுனல் ஆழிகடந்து யவனமாதர் கழுத்திலும் காதிலும் அழகுற இலங்குவதாயிற்று. குமரிக்கும் கோடிக்கும் இடையேயமைந்த கொற்கைத் துறையிற் குளித்தமுத்து கலத்தினும் காலினும் சென்று காவலர் முடிமேல் களித்தமர்வதாயிற்று. கொற்கைப்பெருந்

துறையில் விளைந்தமுத்தின் பெருமையைப் பழந்தமிழ் தூல்களிற் பரக்கக்காணலாம். தலையாலங்கானத்துச் செருவென்ற நெடுஞ்செழியனது பெருமை பேசப் போந்த புலவர்,

“விளைந்து முதிர்ந்த விழுமுத்தின்
இலங்கு விளையிருஞ் சேரி
நற் கொற்கையோர் நசைப் பொருந்”

என்று புகழ்ந்துரைத்தார். இங்ஙனம் புலவர் நாவிற்பொருந்தியகொற்கைத் துறையின் பெருமையறிந்த சோனகரும் யவனரும் தென்குமரிக்குத் தென்பாலமைந்த திரைக்கடலைக் கொற்கைக்குடாக்கடல் என்று குறித்து வைத்தார். அதிராச் சிறப்பின் மதுரைமூதூர் மீனவன் தலைநகராய் மிளிர்வதன் முன்னமே கொற்கைத்துறை பாண்டிநாட்டில் இணையற்ற துறைமுகமாய்த் திகழ்ந்தது. இதனாலேயே தென்புலம் காக்கும் தென்னவனைக் கொற்கைக் கோமான் என்று சிறுபாணாற்றுப்படை குறிக்கின்றது. இன்னும் கொற்கைப் பெருந்துறையின் செழுமையையும் அப்பட்டினத்தில் அரசுபுரிந்த கொற்றவன் பெருமையையும் கூறப்போந்த அம்மாவனார் என்னும் அருந்தமிழ்ப்புலவர்,

“இருங்கழிச் சேயிறு இனப்புள்ளாரும்
கொற்கைக் கோமான் கொற்கையம் பெருந்துறை
வைகறை மலரும் நெய்தல் போலத்
தகை பெரிதுடைய காதலி கண்ணே.”

என்று புகழ்ந்துரைக்கும் மொழிகளை ஐங்குறு நூற்றிற் காணலாம்.

இங்ஙனம் நற்றமிழ் வல்ல கவிஞர் நாவிற்பயின்ற கொற்கைப் பெருந்துறை இப்பொழுது சீரிழந்த சிற்றாராகப் பொருளை நாட்டில் அமைந்திருக்கின்றது. நித்திலம் நல்கிய நீலத்திரைக்கடல் இப்பொழுது நான்கு மைலுக்கு அப்பால் விலகி நிற்கின்றது. முற்காலத்தில் அலையொலிமிலந்த மூதூர் இப்பொழுது அமைதியுற்று த்துளுக்கின்றது. முத்தம்நரும் தென்கடல் கொற்கைக்கு முத்தம்அளியாது விலகிய பொழுது காயல் என்னும் பெயரமைந்த கடற்கரையூர் வாணிகத்தால் வளம்பெற்று யர்ந்தது. பதினான்காம் நூற்றாண்டில் தமிழ்நாடுபோந்த மார்க்கோபோலோ என்னும் யவன ஆசிரியர் காயல் துறையில் முத்தெடுக்கும் முறைமையையும், நீரின் வந்தநிமிர் பரிப்புரவிகள் இறங்கும் நீர்மையையும் விரித்துக் கூறியுள்ளார். காயலும் காலம் செல்லச்செல்லக் கருங்கடலாற் கைவிடப்பட்டது. துறைமுகங்களைத் தூர்த்து, கொடுங்கடல் விழுங்கிய குமரி நாட்டை மீண்டும் கவரக்கருதும் பொருளை யாற்றின் பெருமையறிந்த போர்ச்சுகீசியர் அவ்வாற்றின் சங்கமத்துறையில் அமைந்த காயலைக் கைவிட்டுத் தூத்துக்குடியில் துறைமுகம் அமைத்தார்கள். பொருளை யாறும் பெருங்கடலும் போர்புரியும் துறையில் அகப்படாத இவ்வூர் முந்தாறு ஆண்டுகளாகத் தென்னாட்டிற் சிறந்ததுறைமுகமாகவும் முத்துக்குளிக்கும் துறையாகவும் நின்று நிலவுகின்றது.

யவனநாட்டு ஆசிரியர்கள் கொற்கைத்துறையென்று குறித்துவைத்த குறிப்பினையும், மார்க்கோபோலோ எழுதிவைத்த காயலைப்பற்றிய குறிப்பினையும் துணைக்

கொண்டு பழமைவாய்ந்த கொற்கையின் பெருமையையும் காயலின் செழுமையையும் ஆராய்ந்து விளக்கியபெருமை ஆசிரியர் கால்டுவெல்லுக்கே உரியதாகும். இன்னும் சேரநாட்டுக் கரையில் அமைந்தமுகிரித் துறையைக்குறித்துச் சில சொற்கள் கூறுதல் இன்றியமையாததாகும். இவ்வூர் பழந்தமிழ் நூல்களில் முயிரிக்கோடு என்றும் முகிரி என்றும் வழங்கக்காணலாம். இக்காலத்தில் முகிரியென்னும் பெயர் அறவேமறைந்து போயிற்று. ஆயினும் பழையநூல்களைத் துணைக்கொண்டு ஆராயும் பொழுது முகிரித்துறைவாணிகத்திற் கிறந்திருந்த வரலாறு விளங்கித்தோன்றும். இத்துறையின் பெருமை பேசப்போந்த புலவர் ஒருவர்

“சுள்ளியம் பேரியாற்று வெண்ணுரை கலங்க
யவனர் தந்த வினைமாண் நன்கலம்
பொன்னெடு வந்து கறியொடு பெயரும்
வளங் கெழுமுகிரி”

என்று அழகுறப்புகுந்துரைத்தார். சுள்ளியென்னும் கிறந்த ஆற்றின் வெள்ளிய நுரைகலங்க விரைந்து போந்த யவனர் கலங்கள், மிளிரும் பொன்னெடுவந்து மிள கொடு மீண்டன என்று முகிரியின் பெருமையைக் கவிஞர் வியந்து புகழும் முறை போற்றுதற்குரியதாகும். இம்முகிரித்துறை இக்காலத்திற் கொடுங்கோளார் என்று வழங்குகின்றது.

இவ்வாறு தமிழின் தொன்மையைப் பிறநாட்டு ஆசிரியர்கள் எழுதிவைத்த புறச்சான்றுகளால் நிறுவிய ஆசிரியர் கால்டுவெல் தமிழ்மொழியின் தனிப்பெருமையை அகச்சான்றுகளாலும் விரித்துரைத்து விளங்கவைத்தார். திருந்திய திராவிட மொழிகளாய் செலுங்கும், கன்னடமும், மலையாளமும், துளுவமும் வடசொற்களை மிகுதியாகக்கலந்து வழங்கிவருதலால் அவை வடமொழியின் உதவியின்றித் தனித்தியங்கும் ஆற்றல் இழந்து விட்டன என்றும், தமிழ் மொழி வடசொற்களை வரம்பி னுட்படுத்தி வழங்குகின்றமையால் அம்மொழியின் உதவியின்றியே தனித்தியங்க வும் செழித்தோங்கவும் வல்லதென்றும் செவ்வையாய் உணர்த்திப்போந்தார்.

அன்றியும் தமிழ் இலக்கணத்தில் உயர்திணையென்றும் அஃறிணை என்றும் பெயர்களை வகுத்துரைக்கும் பான்மை தமிழ் மொழிக்கே உரிய தனிச்சிறப்பென்று கால்டுவெல் தக்கவாறெடுத்துரைத்தார்.

“மக்கள் தேவர் நரகர் உயர்திணை
மற்றையிர் உள்ளவும் இல்லவும் அஃறிணை.”

என்று தமிழ் இலக்கணநூலோர் வகுத்த முறையினை ஆராயும் பொழுது, அறிவினை அடிப்படையாகக்கொண்டு இத்திணைப்பாகுபாடு எழுந்ததென்னும் உண்மை இனிது விளங்குவதாகும். ஆரியவகுப்பைச்சேர்ந்த வடமொழியில் பால் வகுப்பு முறைசொல் நோக்கத்தால் எழுந்ததெயன்றிப் பொருள் நோக்கத்தால் எழுந்ததாகத்தோன்ற வில்லை. சிமிட்டிய குடும்பத்தைச் சேர்ந்த மொழிகளிலும் பால் வகுப்புமுறை ஆரிய முறையை ஒத்ததாகவே அமைந்திருக்கின்றது. துரானிய குடும்பமொழிகளிற் பெயர்ச்சொற்கள் யாவும் அஃறிணையிலேயே அமைந்துள்ளன. சேதனப்பொருள்

களையும் அசேதனப் பொருள்களையும் வேற்றுமையின்றி அஃறிணைப்பெயர்களாக் குறிக்கும் துரானிய முறை மேற்கூறிய இருமுறைக்கும் மாறுபட்டதாகும் என்பது சொல்லாமலே அமையும். ஆகவே சொல்நோக்காற் பால் முறைவகுத்த ஆரியமொழியையும், பெயர்களினைத்தையும் அஃறிணையாக்கியதுரானிய மொழியையும் பொருள் நோக்காற் பால் முறைவகுத்த தமிழ் மொழியையும் ஆராய்ந்து தமிழ்த்திணைப்பாகுபாட்டின் செம்மையைக் கால்டுவெல் நன்கு விளக்கிப்போந்தார்.

வடமொழி தென்மொழி யென்னும் இருமொழிகளையும் இனிதுணர்ந்த சில ஞானமுனிவரும் தொல்காப்பியப்பாயிர விருத்தியில் உயர்திணை அஃறிணை என்னும் சொற்பாகுபாடுகளும், அகம் புறம் என்னும் பொருட்பாகுபாடுகளும் இன்னோரன்ன பிறவும் வடமொழியிற் பெறப்படா என்று கூறுவாராயினர். இவ்வாறு ஆரியமொழிகளிலும் துரானிய மொழிகளிலும் சிமிட்டியமொழிகளிலும் காணப்படாத உயர்திணை அஃறிணை என்னும் வகுப்புமுறை மேற்கூறிய மித்தானிய மொழியிற் காணப்படுகிறதென்று ஆசிரியர் பிரெளன் கூறும் குறிப்பு ஆராய்தற் குரியதாகும்.

இன்னும் வல்லினம், மெல்லினம், இடையினம் என்று இலக்கண நூலோர் மெய்யெழுத்துக்களை வகுத்த முறையில் டகரவர்க்கம் தென்மொழியினும் வடமொழியினும் காணப்படினும், இவ்வொலிகள் ஆதியில் தென்மொழியிற் றேன்றி வடமொழியிற் சென்று சேர்ந்தன என்று ஆசிரியர் கால்டுவெல் அறிவிக்கின்றார். வடமொழியோடு தொடர்புடைய ஏனைய ஆரியமொழிகளில் இவ்வொலிகள் காணப்படாமையால் அவ்வொலிகள் திராவிட மொழியினின்றும் வடமொழிக்குச் சென்றிருத்தல் கூடுமென்று அவர் கருதுகின்றார். ஆயினும் ஆசிரியர் ஆராய்ந்துணர்த்திய குறிப்புக்களை உண்மைகாணும் உயரிய நோக்கத்தோடு ஆராய்தல் அறிவுடையார் கடனாகும்.

இனி, தமிழ் மொழியினின்றும் பிறநாட்டு மொழிகளிற் சென்று வழங்கும் சில சொற்களை ஆசிரியர் கால்டுவெல் மொழிநூல் முறையில் ஆராய்ந்து நிறுவியுள்ளார். பழைய ஈபுருக்குறிப்புக்களில் காணப்படும் துகி என்னும் சொல் தோகை என்னும் தமிழ்ச்சொல்லின் சிதைவே என்னும், அகிலம் என்னும் சொல் அகில் என்னும் சொல்லின் திரிபே என்றும் நன்குவிளக்கிப்போந்தார். இன்னும் பழையகிரீக் மொழியிற் காணப்படும் அருசா என்னும் சொல் தமிழ் அரிசியே என்றும், கார்ப்பியன் என்னும் சொல் கருப்பு என்னும் தமிழ்ச்சொல்லின் சிதைவே என்றும் ஆராய்ந்து உணர்த்திப்போந்தார். இன்னும் கோழி என்னும் தமிழ்ச்சொல்லுக்குறித்து இவ்வாசிரியர் நிகழ்த்தியுள்ள ஆராய்ச்சி அறியத்தக்கதாகும். கோழி தமிழ்நாட்டுப் பழம் பொருள்களுள் ஒன்றாகும். வட இமயம் முதல் தென்குமரிவரை திராவிடமக் கள் பரவியிருந்தகாலத்தில் கோழிகள் மேலைக்கணவாய்களின் வழியாக மத்திய ஆசியாவிற்குச்சென்று சேர்வனவாயின. துரானியமொழிகளில் கோரின்றும் கூர் என்றும் வழங்குஞ்சொற்கள் கோழி என்னும் தமிழ்ச்சொற்களின் சிதைவேயாகும். தமிழ் மொழிக்கே சிறப்பாக உரிய முகர வொலிபிற நாட்டார் நாவில் ரகரமாகும் என்பது

மொழிநூல் உண்மை. ஆகவே தூரணிய மொழிகள் வழங்கும் ஆசிரியநாடுகளுக்குக் கோழிசென்றபோது அதன்பெயரும் அதனோடு சென்றது என்று தெரிகின்றது. நாட்டுக்கோழியின் வரலாறு இவ்வாறாக ஐரோப்பிய நாடுகளில் வாழ்ந்துவந்த ஒருவரைக்கோழி பதினாறாம் நூற்றாண்டில் தமிழ் நாட்டிற்குக் கொண்டுவரப்பட்டது. டர்க்கி என்னும் ஆங்கிலப்பெயர் வாய்ந்த இக்கோழியைத் தமிழ் நாட்டார் வான் கோழியென்று அழைத்தார்கள்.

“கான மயிலாடக் கண்டிருந்த வான்கோழி
தானு மதுவாகப் பாவித்துத்—தானுந்தன்
பொல்லாச் சிறகை விரித்தாடினாற் போலுமே
கல்லாதான் கற்ற கவி.”

என்று மூதுரையிற் காணப்படும் செய்யுளில் வண்ணமயிற் றேகையின் பெருமையும் வனப்பற்ற வான்கோழிச் சிறகின் சிறுமையும் இனிது விளங்கக்காணலாம். வான்கோழியைப்பற்றிய குறிப்பு மூதுரையிற் காணப்படுதலால் அந்நூல் பதினாறாம் நூற்றாண்டுக்கு முன்னர் எழுதப்பட்டிருத்தல் இயலாதென்று ஆசிரியர் கால்டுவெல் அறிவிக்கின்றார்.

இற்றைக்கு ஐம்பத்தைந்து ஆண்டுகளுக்கு முன்னர் திராவிட மொழிகளின் ஒப்பிலக்கணமென்னும் உயரிய நூலியற்றித் தமிழ் மொழிக்கு ஒப்பற்ற உதவிசெய்த கால்டுவெல் ஆசிரியர் கருத்துக்களை செவ்வையாக ஆராய்ந்து பழையன கழித்துப் புதியன புகுத்திப் பழந்தமிழ் மொழிக்குப் பணிசெய்தல் கற்றறிந்தோர் கடமையாகும். தமிழ்ப் பணுவங்கள் பெரும்பாலும் எட்டுச்சுவடிகளில் அடங்கியிருந்த காலத்தில் அந்நூல்களை மெய்வருத்தம் பாராது பயின்று தமிழின் செம்மையை நிலை நிறுத்திய ஆசிரியரது ஆர்வம்போற்றத் தக்கதேயாகும்.

பௌத்த மதமும் அதன் பிரிவுகளும்.

By

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நமது பாரத பூமியில் பல மதங்கள் தோன்றியிருக்கின்றன. அவைகளில் பௌத்த மதமும் ஒன்று. பல வாண்டுகளுக்கு முன் தோன்றியுள்ள ஒரு மதத்தின் உண்மையான கொள்கைகளை அறிய விரும்பும் ஒருவன் முதலில் அம்மத நூல்களைக் கசடறக் கற்கவேண்டும். ஆகவே பௌத்த மதத்தையும் நாம் நன்கறிய அம்மதநூல்களைத் தேடிப் படிக்கவேண்டும். ஆனால் பௌத்த நூல்கள் பல நாளடைவில் அழிந்து விட்டதால் அந்நூல்களின் மூலம் அம்மதக் கொள்கைகளை யறிவது சுலபமாயில்லை. ஆயினும் மற்றைய சாஸ்திரகாரர்கள் இம்மதத்தை அங்கங்கே எடுத்துக் கழிப்பதிலிருந்தும் சமீபத்தில் அச்சிட்டுள்ள சில பௌத்த நூல்களிலிருந்தும் ஒருவாறு அம்மதத்தின் உண்மைகளை யறியலாம்.

பொதுவாகச் சிலர் இம்மதம் ‘அஹிம்ஸா’ ‘ஸத்யம்’ ‘தயை’ முதலியவற்றை வற்புறுத்தியிருக்கிறதென்று இதனைக் கொண்டாடுகிறார்களேயொழிய, தத்துவங்களை யெப்படி நிர்ணயித்திருக்கிறதென்பதைக் கவனிப்பதில்லை. பௌத்தர்கள் பதார்த்தங்களின் உண்மைகளைக் கண்டுபிடிப்பதில் ஈரையாகிகர்களைக் காட்டிலும் பதின்மடங்கு ஆற்றலும் தேர்ச்சியு முடையவர்களென்பதை மறுக்கமுடியாது. தத்துவங்களை ஆராய்வதற்குப் பௌத்தர்களே ஈரையாகிகர்களுக்கு வழிகாட்டியவர்கள். பௌத்தர்கள் தங்கள் சித்தாந்தத்தைப் பல யுக்திகளால் நிலைநிறுத்துகின்றனர்.

ஒரு பௌத்தக் கிரந்தத்தில் “சுவர்ணத்தைக் காய்ச்சியும் வெட்டியும் உரைத்தும் பலபடியாகப் பரிகரிப்பதுபோல் நீங்கள் என் வார்த்தையைப் பலவிதமாய் ஆராய்ந்துபாருங்கள், ஓ பிஷுக்களே! அப்படி ஆராய்ந்து சரியெனத் தோன்றினால் என் வார்த்தையை ஒப்புங்கள். கௌரவத்தை முன்னிட்டோ, தாக்ஷிணயத்தாலோ என் வார்த்தையை மதிக்கவேண்

டாம்.¹ என்று பறைசாற்றப்பட்டிருப்பது கவனிக்கத்தக்கது. புத்தரால் இம்மதம் நிலைநிறுத்தப்பட்டதுபற்றி பௌத்த மதமென வழங்கப்படுகிறது. புத்தருக்கு முன்னேயே இம்மதம் காச்யபர், கணகமுனி முதலியவர்களால் கண்டு பிடிக்கப்பட்டிருந்தும் புத்தமுனியாலேயே ஆங்காங்குப் பிரசாரம் அடைந்திருப்பதைக் கொண்டு 'சாங்கர மதம்,' 'ராமாநுஜ மதம்' என்றாற்போல் பௌத்த மதமென வழங்கப்படலாயிற்று. ஆனால் புத்தரே மதத்தைக் கண்டுபிடித்தவர் என்று சிலர் கருதுகின்றனர். வேதாந்த சூத்திரத்தில் இம்மதம் கண்டிக்கப்பட்டிருப்பதால் வியாசருக்கு முந்தியே புத்தமதம் ஏற்பட்டிருக்க வேண்டுமென்பதில் ஐயமில்லை.

புத்தமுனிக்குப் பிரதான சீடர்கள் நால்வர். இவர் எல்லோரையும் குறித்துப் பொதுவாக "ஸர்வம் சூன்யம்" என்று சூன்யத்தையே தத்துவமாக உபதேசித்தார். இங்குச் சூன்யமென்று தனித்த ஒரு பொருள் உண்டென்று கருவின் கருத்தன்று. மற்றென்னவென்றால் இப்பிரபஞ்சம் இருக்கிறதென்றே இல்லை யென்றே (सत् என்றே) (असत्, என்றே) அல்லது இருவகைப்பட்டதென்றே (सदसत् என்றே) அல்லது இவ்விரு வகையிலும் சேராததென்றே (सदसद्विलक्षणम् மென்றே) சொல்லமுடியாது. எனினில் இப்பிரபஞ்சம் இறுதியில் பாதிக்கப்பட்டுப் போவதால் சத் என்று கூறமுடியாது. தோற்று வதால் முயற்கொம்புபோல் 'அசத்' ஆகாது. விருத்ததர்மங்களான ஸத்வமும் அஸத்வமும் ஓரிடத்தில் சேராததலின் ஒரு பொருளும் 'ஸதஸத்' ஆக இருக்க முடியாது. ஸத் அன்றென்றால் அஸத்தாய்விடுகின்றமையாலும், 'அஸத்' தன்றென்றால் 'ஸத்' தாய் விடுகின்றமையாலும் இரண்டு வகையிலும் சேராததென ஒன்றையும் சொல்லமுடியாது. ஆகவே எஞ்சி நிற்பது கீழ்ச் சொல்லிய நாலுவகைகளிலும் சேராத சூன்யமேதான் எனச் சொல்லவேண்டும்.² இதுதான் சூன்யோபதேசத்தின் கருத்தென்பது "நாணாதனைத்து மிலதென்று நால்வகையிதன்று என்றும் வானாளுந்கின்ற மத்திமத்தான்" என்ற பரமதபங்கத்தின் பாட்டினால் நன்கு விளங்குகிறது. மேலும் பதார்த்தங்களுக்கு 'ஸத்வம்' (இருத்தல்) ஸ்வபாவமாகில் ஆகாசம்போல் அவைகள் எப்போதும் ஸத்தாகவோயிருந்துகொண்டிருப்பதால் அவைகளை உண்டுபண்ணக் காரணங்களைத் தேட வேண்டியதில்லை. 'அஸத்வம்' ஸ்வபாவமாகில் ஆகாசத் தாமரையைப்போல் அஸத்தான பதார்த்தங்களை எக்காரணத்தாலும் உண்டுபண்ணமுடியாது. ஆதலால், பதார்த்தங்களை இவ்விதமென்று சொல்வது இயலாதாகையால் சூன்யமேதான்

- 1 तापाच्छेदाच्च निकषात् सुवर्णमिव पण्डितैः ।
परीक्ष्य भिक्षवो ग्राह्यं मद्रचो ननुगौरवात् ॥
- 2 नसञ्ज्ञासञ्ज्ञसदसञ्ज्ञाप्यनुभयात्मकम् ।
चतुष्कोटिविनिर्मुक्तं तत्त्वं माध्यमिका विदुः ॥

தத்துவமெனச் சொல்லவேண்டும்.³ இவ்வுபதேசம் இப்பிரபஞ்சத்தில் வைராக்கியத்தை யுண்டுபண்ணி அதன் வாயிலாக யாவரும் சார்த நிலையை அடைந்து உய்ய வேண்டும் என்பதே அம்முனிவரின் கருத்தாயிருக்கவேண்டும். இதையே குமரிலர் ஸ்மிருத்யதிகரணத்தில் வெளியிட்டிருக்கிறார்.⁴

சீடர் நால்வரில் ஒருவர் குருபதேசத்தை அப்படியே ஏற்றுக்கொண்டு ஸர்வ சூன்யவாதியானார். இவரை மாத்தியமிகர் என்றழைக்கிறோம். குருவின் உபதேசத்தை மறுபேச்சில்லாமல் அப்படியே ஏற்றுக்கொள்ளுமாறு குருபக்தி விஞ்சியிருப்பதால் இவரை உத்தமரெனச் சொல்லவேண்டும். ஆனால் உபதேசம் சரிதானா வென்று ஆராய்ந்து பார்த்து ஆகேபங்கள் ஒன்றும் செய்யாததால் அதமரென்றும் சொல்லவேண்டியிருக்கிறது. ஆகவே இரண்டு படியிலுமில்லாமல் இவரை நடுவே நிறுத்துவதுதான் உசிதமென நினைத்து மாத்தியமிகரெனப் பெயரிட்டார்கள். இரண்டாவது சீடர் புறப்பொருள்கள் இல்லையென்பதை ஒப்புக்கொண்டு அகப்பொருளான ஞானத்தையும் இல்லை யென்றால் உலக வ்யவஹாரம் எப்படி நடக்குமென்று ஆகேபிக்கத்தொடங்கினார். இவர் உபதேசத்தில் சிலவற்றை இசைந்து சிலவற்றை ஆகேபித்ததால் யோகாசாரரெனப் பெயர் பூண்டார். பௌத்த மதத்திற்கேள்வி கேட்பதற்கு யோகமென்றும் சொல்வதை அங்கீகரிப்பதற்கு ஆசாரமென்றும் ஒரு ஸங்கேதமுண்டு. அதன்மேல் புத்தர் அகப்பொருளான ஞானம் உண்மையிலிருக்கின்றது. ஆனால் வெளியில் தோன்றுகின்ற பொருள்கள் ஞானத்தின் உருவங்களே யொழிய உண்மையில் அவைகள் வேறல்ல வென்று உபதேசித்தார்: பிறகு மூன்றாவது சீடர் வெளியில் தெளிவாக ப்ரத்யக்ஷமாய் தோன்றுகின்ற பொருள்களை முயற் கொம்புபோல் இல்லையென்று சொல்வதெப்படியெனக் கேட்டார். இப்படிக்கேட்கவே புத்தர் வெளிப் பொருள்களும் உண்மையிலிருக்கின்றன: ஆனால் அவைகள் உண்டாகும் பொழுது அழிவு உடன் உண்டாகின்றமையால்

3 न सतः कारणापेक्षा व्योमादेरिव युज्यते ।

कार्यस्यासम्भवी हेतुः खपुष्पादेरिवासतः ॥

बुद्ध्या विविच्यमानानां स्वभावो नावधार्यते ।

अतो निरभिलप्यास्ते निःस्वभावाश्च दर्शिताः ॥

इदं वस्तुबलायातं यद्वदन्ति विपश्चितः ।

यथा यथार्थाश्चिन्त्यन्ते विशीर्यन्ते तथा तथा ॥

4 विज्ञानवाद्दक्षणाभंगनैरात्म्यादिवादानामप्युपनिषत्प्रभवत्वं विषयेष्वात्यन्तिकं रागं निवर्तयितुमित्युपपन्नं सर्वेषां प्रामाण्यम् । 1. 1. 3 तन्त्रवार्तिके,

P. 138. Ananda Press.

அவைகளைப் ப்ரத்யக்ஷத்தால் அறிய முடியாது. அழியும் பொழுது தம்மைப்பற்றிய ஞானத்தில் தமது உருவத்தைக் கொடுக்கின்றன. பிறகு ஞானத்தின் உட்சென்ற உருவத்தால் வெளிப்பொருள்களை அதுமிக்கின்றே மென உபதேசித்தார். உடனே சீடர் இப்படி நீங்கள் கேட்கக் கேட்க உபதேச ஸுத்திரத்தை வளர்த்திக்கொண்டு போகிறீர்களே. இதற்கோர் முடிவுதானில்லையோவெனக் கேட்டார். இவர் ஸுத்திரத்தின் முடிவைக் கேட்டதால் ஸௌத்ராந்திகரெனப் பெயர்பெற்றார். பிறகு நான் காவது சீடர் வெளிப்பொருள்கள் ஞானத்தால் அதுமிக்கப்படுகின்றனவாய் அனுபவத்தில் தெரியவில்லையே. ப்ரத்யக்ஷமான பொருள் ஒன்றுமேயில்லை யென்றால் அதுமானந்தான் எப்படி ஏற்படக்கூடுமென வார்த்தையிலுள்ள விரோதத்தைக் காட்டி ஆகேபித்தாராதலால் வைபாஷிகரெனப் பெயரிடப் பெற்றார். இவருக்கு வெளிப்பொருள்களும் ப்ரத்யக்ஷந்தான் என்று உபதேசித்தார்.

வீத்யாரண்யர் முதலியவர்கள் இவ்வண்ணமே மாத்தியமிகர் முதலிய பெயர்கள் ஏற்பட்டிருப்பதாய்ச் சொல்கிறார்கள். ஆனால் பரோடாவில் வெளியாயிருக்கும் தத்வஸங்கிரஹம் என்ற பெளத்த நூலின் முகவுரையிலிருந்து வேறு காரணமும் இருக்கலாமெனத் தோன்றுகின்றது. அதாவது, புத்தர் நிர்வாணம் அடைந்த சிறிது காலத்தில் அக்காலத்திய பெரியோர்கள் அங்கங்கே அவ்வப்போது புத்த முனி ராஜக்ருஹங்களில் செய்த ப்ரஸங்கங்களை ஒருமிக்கச் சேர்த்துத் திரட்ட ஒரு ஸமிதியை ஏற்படுத்தினார்கள். அந்த ஸமிதி அவ்வுபதேசங்களை திரிபிடக மென்பதாய் அதாவது ஸுத்தபிடகம், விநயபிடகம், அபிதம்ம பிடகம், என்ற மூன்று பாகமாய் திரட்டிற்று. பிறகு இப்படித் திரட்டிய உபதேசங்களில் பல விவாதங்களும் அபிப்ராயங்களுமேற்பட்டு அம்மதமே பதினெட்டுப் பிரிவுள்ளதாயிற்று. மாகதி பாவையிலிருந்த திரிபிடகத்தை அசோகன் குமாரனாகிய மகீந்தன் விலோனில் பரவச் செய்தான். இப்படிப் பலவாண்டுகள் கழிந்த பின் காஷ்மீர தேசத்தில் கனிஷ்கன் என்ற அரசன் பெளத்தமதத்தை ஆதரித்து வந்தான். அவ்வரசனின் ஆதரவில் ஜலந்தார் என்ற விடத்தில் வஸுமித்திரன் என்பவனைத் தலைவனாகக் கொண்ட ஸமிதி ஒன்று இருந்தது. அந்த ஸமிதியின் மூலம் அவ்வரசன் த்ரிபிடகத்தின் அர்த்தங்களைப் பரிசீலனை செய்து அதை ஸம்ஸ்கிருத பாவையில் மொழிபெயர்க்கச் செய்தான். அந்த மூன்று பிடகங்களும் முறையே ஸம்ஸ்கிருதத்தில் ஸுத்திரோபதேசம், விநயவிபாஷா, அபிதர்ம விபாஷா, என்ற மூன்று க்ரந்தங்களாய் மொழிபெயர்க்கப்பட்டன. கனிஷ்கனுக்கு முந்தியே காத்யாயனீபுத்ரரென்பவர் அபிதர்மஞானப்ரஸ்தான மென்ற க்ரந்தத்தை ஸம்ஸ்கிருதபாவையில் இயற்றியிருந்தார். கீழே குறிப்பிட்ட அபிதர்ம விபாஷா க்ரந்தம் அபிதர்மஞானப்ரஸ்தானத்தின் விரிவுரையாயிருப்பதாய்ச் சொல்லப்படுகிறது. அதில் அபிதர்மவிபாஷா க்ரந்தத்தை ஆதரிப்பவர்களுக்கு வைபாஷிகரெனவும் ஸுத்திரோபதேச க்ரந்தத்தை ஆதரிப்பவர்களுக்கு ஸௌத்ராந்திகரெனவும் பெயர் ஏற்பட்டிருக்கவேண்டும். அப்படியே ப்ரமுதிதா, விமலா முதலிய பத்து ஸ்தானங்களும் யோகத்தால் ஏற்படவேண்டுமென்று யோகத்தை வற்புறுத்துகிறவர்கள்

யோகாசாரர்கள் ஆவர். சிலர் மேலே சொல்லப்போகும் ஆலய விஜ்ஞானம் யோகத்தால் ஏற்படவேண்டுமே யொழிய வாதத்தால் ஏற்படாதென வாதிப்பதால் யோகாசாரரெனப்பெயர் ஏற்பட்டிருக்கவேண்டுமெனக் கருதுகிறார்கள். பாஸ்கர பாக்ஷ்யத்தில் நுகத்தடியில் கட்டப்பட்ட எருதுகளைப்போல் ஸமாதி, ஸம்யத்தர்சனம், என்ற இரண்டையும் நடத்தும்⁵ மார்க்கத்திலிருப்பவர்களைப் பொருள் கூறப்பட்டிருக்கிறது. கீழ்ச் சொல்லியபடி பொருள்கள் உள்வென்றே இவ்வென்றே கூற முடியாமலிருப்பதால் சூன்யமென்று சொல்வதுதான் நடுவழியென்று அதைக் கைப்பற்றியவர்கள் மாத்தியமிகர்கள்.⁶

இப்படியாக இதுவரையில் புத்தர் முதலில் சூன்யம் தத்வம் என்று உபதேசிக்கத் தொடங்கிப் படிப்படியாக வெளிப் பொருள்களும், ப்ரத்யக்ஷங்களே என்கிற வரையில் ஒப்புக்கொண்டிருக்கிறாரென்று சொன்னோம். சிலர் முதலில் பாக்ஷ்ய பதார்த்தங்கள் கூணிகங்களென்பதை ஆரம்பித்துப் புத்தர் படிப்படியாகக் கடைசியில் சூன்யமே தத்வமென்று உபதேசித்திருக்கிறாரென்று, அபிப்ராயப்படுகிறார்கள். அவர்களின் அபிப்ராயமாவது; புத்தர் ப்ராகிருத விஷயங்களில் மதியிழந்து மண்டி அழிந்து போகும் மாறுபாட்டும் கருணைகொண்டு இவர்கள் இவைகளில் வெறுப்புக்கொண்டு நல்தொரு உந்நதமான நிலையை அடையவேண்டுமென்று எண்ணி அநுபவிப்பவன், அநுபவிக்கப்படும் வஸ்து, அநுபவத்துக்கு ஸாதனமான கருவிகள் யாவும் கூணிகமென உபதேசித்தார். தீபஜ் வாலையையும் திருஷ்டாந்தமாகக் காண்பித்தார். சீடர்கள் ஐயா, ஜ்வாலையொன்று ஸ்திரமாயில்லாவிடினும் ப்ரவாஹம் போல் வந்துகொண்டிருக்கும் அதன் தொடர்ச்சியால் நாம் வெளிச்சத்தைப்பெறவில்லையா? தொடர்ச்சியாய் வந்துகொண்டிருக்கும் நதீப்ரவாஹத்தில் ஸ்நானம், பானம் முதலியவற்றைச் செய்து ஆநந்திக்க வில்லையா? அதுபோல் பதார்த்தங்கள் கூணிகங்களே யானாலும் அவைகளின்

5 शमथविषयना युगनद्धाही मार्गो योग इति योगलक्षणम् । शमयेति समाधिश्च्यते, विषयना सम्यग्दर्शनलक्षणा । यथा युगनद्धौ बलीवदौ वहतः तथा योमार्गः समाधिसम्यग्दर्शनवाही स योगः तेनाचरतीति योगाचार उच्यते॥ [भास्करभाष्यम्: 2. 2. 28.]

6 अतो भावाभावान्तद्वयरहितत्वात् सर्वस्वभावानुत्पत्तिलक्षणा शून्यतामध्यमा प्रतिपत् स मध्यमो मार्ग इति ॥ माध्यमिकवृत्ति.

Chap. XXIV. P. 185. Calcutta Buddhist Texts Society's edition.

ஸந்திகளால் அதாவது தொடர்ச்சியால் நாம் ஸுகிக்கத்தடையென்ன, நமக்கு வேண்டியது ஸுகம்தானே. அது அப்பதார்த்தங்களால் ஏற்பட்டாலென்ன, அவற்றின் தொடர்ச்சியால் ஏற்பட்டாலென்ன என்று வாதித்து முன்போல் விஷய போகங்களுக்குப் பாடுபடுவதைச் சந்தேகமும் விடவில்லை. உடனே புத்தர் அவர்களைப் பார்த்து நீங்கள் உண்மையில் விஷயங்களை அநுபவிப்பதாகவா நினைத்துக் கொண்டிருக்கிறீர்கள். இல்லை, அவைகள் ப்ரத்யக்ஷமாய் அநுபவிக்கக் கூடியவைகளே அல்ல, அவற்றின் உணர்வு ஊஹமாத்திரமான அநுமானமேயன்றி ப்ரத்யக்ஷமான அநுபவமல்ல. பதார்த்தங்கள் அழியும்போது தமது உருவத்தை ஞானத்தில் கொடுக்கின்றன. பிறகு ஞானத்திலுள்ள உருவத்தால் பதார்த்தங்கள் அநுமிக்கப்படும்பொழுது அவைகளை அநுபவித்து ஆநந்திப்பதாக நினைப்பது இறந்து போன ஒரு பெண்மணியை ஒருவன் படத்தில் பார்த்து அவளை அநுபவிப்பதாக நினைப்பதோடொருக்குமெனக் கூறினார். அதற்குமேலும் சீடர்கள், ஐயா, விஷயங்களின் அநுபவம் நமக்கு ஸுகமாயிருக்கிறதென்கிறவரையில் நிச்சயம். அவ்வநுபவம் ப்ரத்யக்ஷமாயிருந்தாலென்ன, அநுமானமாயிருந்தாலென்ன. அது அந்தந்த வஸ்துவின் ஸ்வபாவத்தைப் பொறுத்து இருக்கிறது. ரூபத்தைக் கண்ணால் பார்க்கிறோம், ரஸத்தை நாவினால் சுவைக்கின்றோம். ரஸம் கண்ணுக்குத் தோற்றத்தால் சற்று ருசிக் குறைவாயிருக்கிறதா? ஒவ்வொரு வஸ்துக்களின் ஸ்வரூபத்துக்கேற்ப அவைகளின் ஸ்வபாவங்களும் வேறுபட்டிருக்கின்றன. ஆகவே பாஹ்ய பதார்த்தங்கள் அநுமேயங்களே யென்று தீர்த்துவிட்டால் அவ்வநுமான ரூபமான அநுபவம்தான் நமக்கு ஆநந்தமென்று சொல்லி ப்ராகிருதபோகங்களிலேயே மண்டியிருந்தார்கள். அதன்மேல் புத்தருக்கு உண்மையில் பாஹ்ய பதார்த்தங்கள் இருந்து தமது உருவத்தை ஞானத்தில் கொடுத்து நசித்துவிடுகின்றன வென்பதுமில்லை. அவ்வுருவங்களும் ஞானத்துக்குத் தன்னுள் தானாக தோன்றுகின்ற கற்பனை தான். ஆகவே உண்மையில் பாஹ்ய பதார்த்தங்கள் இல்லாமலிருக்க அவைகளை அநுமானத்தாலாவது அநுபவிப்போமே என்று சொல்வது ஆகாயத்தாமரையை மாலையாகக் கட்டி அணிந்து கொள்ளமுடியாவிட்டாலும் சற்றுமுகர்ந்தாவது பார்ப்போமே யென்று சொல்வதோடொருக்குமென நிரூபித்தார். அதைக்கேட்டுச் சீடர்கள் ஐயா பாஹ்ய பதார்த்தங்கள் உண்மையில் ஞானத்தாலேயே கற்பிக்கப்படுகின்றவானால் பொற்றாமரை மணம் பெற்றாற்போல் நமக்கு இருமடங்கு நலமாயிற்று. கஸ்தூரி மாணுக்கு தன் நாபியிலேயே கந்தமென்கிறாற்போல் அநுபவிக்கவேண்டிய பதார்த்தங்களை கற்பிக்கும் திரமை நம்மிடமே யிருந்தால் ஒய்வின்றி விஷயங்களை நாமே கற்பித்து அநுபவித்துக் கொண்டிருக்கலாமே என வாதாடினார்கள். இனிக் குரு உபதேசிக்க வேண்டியதாய்ப் பாக்கி நின்றது ஒன்றேதான். அதனையும் அம்மகான் குன்யமே தத்வமென உபதேசித்துச் சீடர்களைச்சாந்த நிலையில் நிறுத்தினார். இதைக் கேட்ட சீடரும் அப்படியா, ப்ரபஞ்சத்தில் வேறு ஒன்று மில்லாவிட்டாலும் இதுவரை ஞான ஸ்வரூபமாய் ஒளிபோல் விளங்கிக்கொண்டிருப்பதாக நாம் ப்ரமித்திருந்த ஆத்மதத்வத்தின் ஸமாசாரமும் இவ்வளவுதான், சீ ப்ரபஞ்சத்தில் உண்மையில் ஒன்றுமேயில்லை என்று வெறுப்படைந்து விஷயப்பற்றை அடியோடுவிட்ட

னர். ஆகவே குன்யமே தத்வமாயிருந்தாலும் குரு பற்பல அதிகாரிகளைக்குறித்து பற்பல விதமாய்த் தத்வங்களை உபதேசிக்கலானார்.⁷

பௌத்தமதம் கனிஷ்கனுடைய காலத்தில் மஹாயானம், ஹீனயானம், என இருபிரிவுடையதாயிற்று. ஸர்வம் குன்யம் என்ற இடைவிடாத எண்ணம் ப்ரஜ்ஞா என்றும் அதன் முதிர்ந்தநிலை ப்ரஜ்ஞாபாரமிதம் என்றும் ‘மகாயானம்’ என்றும் கூறப்படுகிறது. இந்நிலையை அடைந்தவன் மாஹாயானிகன். இவனுக்குத் தான் பிறரென வேற்றுமையிராது. பிறர் அடையும் துன்பங்களைக் கண்டுவருந்துவான். தன் கஷ்டத்தால் பிறர்துன்பம் நீங்குமானால் தான் அதை ஸந்தோஷத்துடன் ஏற்றுக்கொள்வான்.⁸ அவர்கள் கஷ்டம் நீங்கினால் தான் பரமானந்த மடைவான்.⁹ தான் போதிதவ்வுகி ஸுலபமாய் நிர்வாணம் அடையக்கூடியவனாயிருந்தும் பிறர்படும் துயரம் கண்டு மனம் சகியாதவனாய் அவர்களோடு கூட நிர்வாண மடைய விரும்பி அவர்களிடையே இருந்துகொண்டு தன்னாலியன்ற உபகாரத்தைச் செய்துகொண்டிருப்பான். இங்கு ஒரு மாஹாயானிகன் “தலியின் கொடுமையால் செய்யப்பட்ட ஏனையோரின் பாபங்களனைத்தையும் நான் வாங்கிக்கொள்கிறேன், அவர்களை வதைக்காதே விட்டுவிடு” என்று சொல்லியிருப்பது நோக்கத்தக்கது.¹⁰ இந்த மஹாயான வித்தார்த்தத்தை அடியொற்றி ஒன்பது க்ரந்தங்கள் ஏற்பட்டிருக்கின்றன.¹¹ இவைகளிலிருந்து சில வாக்கியங்கள் ஸர்வதர்சனஸங்கிரஹம் முதலிய

7 देशानां लोकनाथानां सत्वाशयवशानुगाः ।

मिचन्ते बहुधालोके उपायैर्बहुभिः पुनः ॥

गम्भीरो-त्तानमेदेन कचिच्चोभयलक्षणा ।

भिन्नाहि देशानां भिन्ना शून्यताद्वयलक्षणा ॥ (बोधिविचित्रविवरणे)

8 बह्वनामेकदुःखेन यदि दुःखं विगच्छति ।

उत्पाद्यमेव तद्दुःखसदयेन परात्मनोः ॥ (बोधिचर्यायाम्, P. 338)

9 मुच्यमाने पुस्तवेषु येते प्रामोद्य सागराः ।

तैरेव ननु पर्याप्तम् मोक्षेणारसिकेन किम् ॥ (बोधिच. 341)

10 कलिकलुषकृतानि यानि लोके मयि निपतन्तु विमुच्यतान्तु लोकः ।

(तन्त्रवार्तिके, 1. 3. 2; 195

P. 195. Ananda Press.

11 अष्टसाहस्रीसत्तापारमिता, गण्डव्यूहः दशभूमीश्वरः समाधिराजः लङ्काव-
तारसूत्रम्, सङ्घर्मपुण्डरीकः तथागतगुह्यकम्, ललितविस्तरः सुवर्णप्रभासः ।
(इति नव ग्रन्थाः)

க்ரந்தங்களில் மேற்கோளாக எடுக்கப்படுகின்றனவே யொழிய அந்த க்ரந்தங்கள் ஒன்றாவது நமக்கு இதுவரை கிடைக்கவில்லை. தனது துக்கங்களை மாத்திரம் தடுத்துக்கொண்டு போதிஸ்த்வனாகி நிர்வாணமடைய யத்தனிப்பது ஹீநயான மெனப்படும். அதைக் கைப்பற்றினவன் ஹீநயானிகன். இவன் தன்னைத்தவிரப் பிறரைப் பற்றி சிறிதும் கவலைப்படமாட்டான். இவன் மஹாயானிகனைக் காட்டிலும் ஒருபடி தாழ்ந்தவனெனச் சொல்கிறார்கள்.

இதுவரை நாம் புத்தகுருவின் நான்கு சீடர்களின் வித்தார்த்தத்தை எடுத்துக் கூறினோம். இனி அந்நால்வரின் பொதுவான கொள்கைகளையும் தனித்தனியே ஒவ்வொருவரின் மதத்தையும் சற்று விரிவாக விசாரிப்போம். சீடர்கள் நால்வரும் பதார்த்தங்கள் அனைத்தும் கூணிகங்களெனச் சாதிக்கின்றனர். ஆனால் மாத்திய மிகர் பரமார்த்த சத்தியமான சூன்யத்தை உபதேசிக்க உபாயமாக சம்விருதி சத்திய மென்கிற (संवृतिसत्यं) அதாவது அவித்யையினால் தோன்றுகின்ற பதார்த்தங்களை ஏற்படுத்திக்கொண்டு அவைகளை கூணிகங்களெனச் சொல்லுகின்றனர்.¹² மற்றவர்கள் தாங்களிசைந்த பதார்த்தங்களை உண்மையிலுள்ளதென்றும் ஆனால் கூணிகங்களெனவுங் கூறுகின்றனர். இதைக்கேட்கும்போது இப்படியு மொருவர் சொல்லுவாராவென்று நீங்கள் ஆச்சரியப்படலாம். ஆனால் நையாயிகர்கள் சொல்லுவதைக் கேட்பீர்களானால் இந்த வித்தார்த்தத்திலும் நீங்கள் திகைப்படைய மாட்டீர்கள். நையாயிகர்கள் ஒவ்வொருகூணத்திலும் நமக்குப் புதிது புதிதாகச் சரீர முண்டாய்க் கொண்டிருப்பதாகச் சொல்லுகிறார்கள். நாம் உண்ணும் ஆகாரம் ஜாட ராக்ரியினால் பக்குவமாகி சரீரத்தின் அவயவங்களிற் சேர்ந்து ஒவ்வொருகூணமும் சரீரத்தில் ஒரு விருத்தியையோ குறைவையோ செய்துகொண்டிருப்பதால் சரீரமே ஒவ்வொரு கூணமும் மாறிக்கொண்டிருக்கின்றது. அப்படி ஒவ்வொரு கூணமும் வளருவதும் குறைவதும் கண்ணுக்குப் புலப்படாவிட்டாலும் யுக்தியால் பிரதிகூணமும் வளர்ந்துகொண்டும் குறைந்துகொண்டு மிருப்பதாகத்தான் சொல்ல வேண்டி யிருக்கிறது. உதாஹரணமாக ஒரு தடாகத்தில் ஒவ்வொரு மழைத்துளியாலும் ஜலம் பெருகிக்கொண்டிருக்கிறது. கிணற்றிலிருந்து இறைக்கப்படும் ஒவ்வொரு தோண்டியாலும் நீர் குறைந்துகொண்டிருக்கிறது. ஆனால் ஒவ்வொரு மழைத்துளியிலும் பிழம்பொழுது ஜலம் அதிகமாகிக் கொண்டிருப்பதும் ஒவ்வொரு தோண்டி இறைக்கும் பொழுது ஜலம் குறைந்துகொண்டு வருவதும் தெரிவதில்லை. கடைசியில் ஜலம் குறைந்திருப்பதையும் பெருகியிருப்பதையும் காண்கிறோம். திடீரெனப் பெருகவோ குறையவோ முடியாதாகையால் ஒவ்வொரு மழைத்துளியாலும் கொஞ்சங் கொஞ்சமாய்ப் பெருகியிருக்கவேண்டுமென்றும் ஒவ்வொரு தோண்டி

- 12 व्यवहारमनाधित्य परमार्थो न दृश्यते ।
परमार्थमनागम्य निर्वाणं नाधिगम्यते ॥ बोधि०प० ३६५
उपायभूतं व्यवहारसत्यं उपेयभूतं परार्थसत्यं । (बोधि० ३७२)

யாலும் கிணற்றுஜலம் குறைந்திருக்க வேண்டுமென்றும் அநுமிக்கின்றோம். ஆகாயத்தில் நகூத்திரங்களை இப்பொழுது ஓரிடத்தில் பார்க்கிறோம். சற்று நேரத்திற்கெல்லாம் அவைகளை முன்பார்த்த இடத்திற்கு வெகுதூரத்திலிருக்கக்காண்கிறோம். இதிலிருந்து அவைகள் தங்கள் இடத்திலிருந்து கொஞ்சங் கொஞ்சமாக நகர்ந்து சென்று கொண்டிருக்கின்றன வென்பதை அநுமிக்கின்றோம். ஆனால் அவைகள் ஒவ்வொருகூணமும் நகர்ந்து சென்று கொண்டிருப்பது நமக்குத் தெரிவதில்லை. அப்படியே சரீரமும் திடீரென முன்னேவிடப் பருமனாகவோ இளைப்பாகவோ ஆவதற்கு நியாயமில்லை யானபடியால் பிரதிகூணமும் அவை வளர்ந்து கொண்டோ குறைந்துகொண்டோ இருக்கின்றன. ஆதலின் அவைகள் கூணிகங்களேயாகவேண்டும். இப்படி நையாயிகர்கள் சிலவற்றை மாத்திரம் கூணிகங்களெனச் சொல்லுவதால் பாதிவைநாசிகர் (अर्धवैनाशिकः) என்றும் எல்லாவற்றையும் கூணிகங்களெனச் சொல்லுவதால் பெளத்தர்கள் முழுவைநாசிகர் (सर्ववैनाशिकः) என்றும் அழைக்கப்படுகிறார்கள். இங்கு உண்டானவுடனே அழிந்துவிடும் சபாவமே கூணம் எனப்படுகிறதே ஒழிய கூணம் என்ற தனித்தபொருள் ஒன்றில்லை. அந்தச் சபாவத்துடன் கூடிய பதார்த்தங்களே கூணிகங்கள்.¹³ வஸ்துக்கள் பிறக்கும் பொழுது அவற்றினழிவும் உடனுண்டாவதால் அவையனைத்தும் கூணிகங்களாகின்றன. மேலும் சகல பதார்த்தங்களும் பிரயோஜனமுள்ள ஒருகாரியத்தைச் செய்கின்றன வாதலால் கூணிகங்களாகியிருக்கவேண்டுமென்று (यत्सत् तत् क्षणिकम्) அநுமிக்கின்றோம். ஸ்திரமான பதார்த்தங்களுக்குப் பிரயோஜனமுள்ள காரியங்களை ஏககாலத்திலோ வரிசையாகவோ உண்டுபண்ணத் திறமையில்லை. ஏனென்றால் ஒருசுவன் ஒரு குடத்தைச் செய்யும்பொழுதே மூன்று காலத்திலுள்ள குடங்களைச் செய்யும் திறமையும் அவனுக்கிருக்குமானால் அப்பொழுதே எல்லாக் காலங்களிலுமுள்ள குடங்களைச் செய்யவேண்டும்.¹⁴ அத்திறமை அப்பொழுதில்லையென்றால் பின்னையும் அத்திறமை ஏற்படமுடியாது. இப்பொழுது முனைய உண்டுபண்ணத் திறமையிலலாத கல்லுக்கு பிந்திப் அத்திறமை ஏற்படுமென்றால் யார் நம்புவார்கள். உதவிக்காரணங்களின் (सहकारिकारण) உதவியால் அந்தந்

- 13 उत्पादानन्तरस्थायि स्वरूपं यच्च वस्तुनः ।

तदुच्यते क्षणः सोस्ति यस्य तत् क्षणिकं मतम् ॥ (तत्त्वसंग्रहे.)

P. 142. Gaikwad Oriental Series.

- 14 कार्याणि हि विलंबन्ते कारणासन्निधानतः ।

समर्थहेतुसम्भावे क्षेपस्तेषां हि किं कृतः ॥ (तत्त्वसंग्रहे.)

P. 145. Gaikwad Oriental Series.

தக்காலத்தில் ஒவ்வொரு காரியத்தை மாத்திரம் உண்டுபண்ணும் திறமை ஏற்படுகிற தென்றும் சொல்ல முடியாது. ஏனெனில் காரணங்களி லொரு திறமையையுண்டு பண்ணும் உதவிக்காரணங்களுக்கும் அத்திறமையை யுண்டுபண்ண வேறொரு உதவிக்காரணம் தேவையாயிருக்குமன்றோ? ஆகவே உதவிக்காரணங்களுக்கு ஓர் இடத்திலும் முடிவு ஏற்படாது. மேலும் ஸ்திரமான வஸ்துவில் எக்காரணங்களாலும் யாதொரு விசேஷமு மேற்படுவதில்லை யென்பதைப் பார்க்கிறோம். மழையாலும் வெய்யிலாலும் ஸ்திரமான ஆகாசத்தில் ஏதாவது விசேஷ மேற்படுகிறதா?¹⁵ ஆகவே உதவிக்காரணங்களின் உதவியை நாடும் பொருள்கள் எக்காரணத்தாலும் ஸ்திரமாயிருக்கமுடியாது.

(To be continued.)

SABAPATHI VILASA NATAKA

15 वर्षातपाभ्यां किं व्योम्नाश्चर्मण्यसि तयोः फलम् ।

चर्मोपमश्नेत्सोऽनित्यः सतुल्यश्चदसत्फलः ॥

—Mm. Dandapaniswami Dikshitar.

SABAPATHI VILASA NATAKA

The Sabhāpati Vilāsa Nāṭaka is the second work to be published in "The Annamalai University Samskrit Series". Mahamahopadhyaya Dandapaniswami Dikshitar is editing this drama which is in five Acts. The M.S., which is in a decaying condition, and the paper transcript of this work are in the Tanjore Mahārāja Serfoji's Saraswathy Mahal Library and are enumerated in the catalogue edited by Mr. P. P. S. Sastry, B.A. (Oxon). The drama recounts the glory and greatness of Lord Nataraja, the presiding deity of the famous temple at Chidambaram.

The author is Venkateśvara Dikṣita, the son of Dharmarāja of Naidhruvakāsyapagotra ; he lived in the Court of Mahārāja Serfoji who ruled over Tanjore in the first quarter of the 18th century (1711-1728 A.D.).

As a literary production it is held to rank high and a lucid style of no mean excellence is claimed for it. The author has written other minor works such as the Campūkāvya called Bhosalavamśāvali. Since the work has not so far been printed we have undertaken to do the same.

B. V. N.

॥ श्रीचित्समेशाय नमः ॥

॥ श्रीसभापतिविलासनाटकम् ॥

वामाङ्गस्तनकुम्भपत्रमकरीविन्यासशिल्पक्रम-

स्विद्यदक्षिणपाणि रौद्रकरुणासंवादिसीमालि^२कम् ।

अस्त्रीपुंसनपुंसकाकृति किमप्यानन्दगन्धोन्मिल-

द्विष्यं तन्मिथुनं तनोतु भवतामानन्दमव्याहृतम् ॥ १ ॥

अपिच—

लज्जासाध्वसमन्धरं भगवतो दृष्टिं सरागोदयां

पश्यन्त्या मदनाय चाथ परुषां गाढागसे द्रुह्यतः ।

प्रायेण क्रमजातलीनपुलकं सङ्कोचयन्त्या वपुः

पार्वत्याः किलिकिञ्चितं प्रदिशतु श्रोयांसि भूयांसि वः ॥ २ ॥

(नान्द्यन्ते ततः प्रविशति सूत्रधारः)

सूत्रधारः—(पुरोऽवलोक्य सानन्दम्) अमी खलु तभीरमणखण्डशिखण्डकस्य पटुनटनारम-
टीपरिलुठितजटाटवी^३कुटङ्करिखदमरतरङ्गिणीसमुत्तुङ्गतरङ्गभङ्गनटनपौनः पुनीपुनरुक्त-
नन्दिकरतलाहतसुरजरवस्य करुणावलोकनपरिपालितशरणागतजनततेः कनकसमा-
पतेर्यात्राप्रसङ्गेन सन्निहिताः सः ललकलाकलापसुधां बुध्दिकृतमैजनाः सज्जनाः ।
अहो ! परमानन्दनिदानममीषां दर्शनम् । तथाहि—

(१) प्रियतमेन दयितायाः पत्ररचनाविन्यासोऽनर्घराधवे प्रसिद्धः. (२) अलिकम् = ललाटः.

(३) “रोषाश्चर्षभीत्यादेः सङ्करः किलिकिञ्चितम्”. (४) तभीरमणः = चरः.

(५) कुटङ्कः = गुहाच्छादकः.

सुखं किमपि पुण्यति स्फुटयति प्रतीतिं यश-
स्तनोति सकलेप्सितं दिशति दोग्धि शुद्धिं हृदि ।
तमोभवभयं क्षणादिव समूलकावकष-
त्यदः कथय किन्न यद्वितनुते सतां दर्शनम् ॥ ३ ॥

तदेषां पुरः किमपि रूपकं निरूप्य कुलक्रमागतामभिनयविद्यां^१ फलेग्रहीकरिष्यं ।
^२निरूपयिषोश्च मम सहायसम्पत्त्या खलु भवितव्यम् । कुतः

समर्थोऽपि विधेयेषु^३ सहकृत्वानमीहते ।
^४नुनुत्सुरन्धतमसमनूरुं कांक्षते रविः ॥ ४ ॥

(नेपथ्याभिमुखमवलोक्य) आर्ये! इतस्तावत् ॥

(प्रविश्य नटी)

नटी—अय्य ! एसं हि ॥ (आर्य ! एषाऽस्मि)

सूत्र—आर्ये रङ्गचन्द्रिके ! साधीयः खलु परिषदः^४ सभाजनम् ।

नटी—(साश्चर्यम्) अय्य ! तेषु तेषु ठाणेषु चहुविहाहिणयधुरन्धरेहिं अहोहिं ण दिट्ठो
ईरिसो महन्तो सज्जनसमाजो । (आर्य ! तेषु तेषु स्थानेषु^५ चतुर्विधाभिनय-
धुरन्धरैरस्माभिर्न दृष्ट ईदृशो महान् सज्जनसमाजः ॥)

सूत्र—सत्यमाह भवती । विनापिमहोत्सवमुत्सवसमयमिव सन्ततमिदं पुरं चिदम्बरमन-
वधिजनसङ्घतरङ्गितमुत्तरङ्गयति पुष्पानुपुष्पमन्तरानन्दम् ; किमुत प्रवर्तमानेऽस्मि-
न्महोत्सवे । प य—

कर्णाटलाटकरहाटकलिङ्गकोङ्क-

काङ्गमीरकेरलकशूरशकाङ्गवङ्गैः ।

तुण्डीर पाण्ड्य तुलुवैरपि मद्रचोल-

नेपालमालवमुखैर्निखिलैरमेलि ॥ ५ ॥

(१) सफलीकरिष्यामि. (२) निरूपयितुमिच्छोः ॥ (३) सहायम्. (४) नोदितुमिच्छुः.
(५) आनन्दम्. (६) सात्त्विकाङ्गिकाचिकाहार्यमेवेन.

किञ्च,

साहित्यामृतपारणाय कतिचित्कुर्वन्ति गोष्ठीं जनाः
वादायापि ससंभ्रमाः कतिपये कण्डूलजिह्वाञ्चलाः ।
पुण्याः केऽपि मिथोविवेक्तुमनसः पौराणकीस्ताः कथाः
सङ्गीतागमभङ्गिपुङ्खितधियः सभ्याः परेऽभ्यागताः ॥ ६ ॥

नटी—ता मण्णे नवाणं पि रसाणं अहिअरणं एदं ठाणं ति (तस्मान्मन्ये नवाना मपि रसा-
नामधिकरणमेतत्स्थानमिति ।)

सूत्र—कः सन्देहः ! तथाह्यल—

उद्दीप्रोदारभूषैर्युवभिरललितोद्दण्डनाट्यैश्च शैवैः
योगिव्यूहैः कृशाङ्गैः करनमितधनुःप्रक्रमैर्वीरवर्गैः ।
सेवायातैश्च भूतादिभिरपि विबुधैर्मस्करीन्द्रैश्च शान्तैः
मूर्ताः शृङ्गारमुख्या अपि च नवरसास्तन्वते नित्यवासम् ॥ ७ ॥

नटी—ता एदाणं अणेअरसप्पओअसम्भावणिज्जाणं दुक्खरंखु आराहणम् (तस्मादेतेषा-
मनेकरसप्रयोगसम्भावनीयानां दुष्करंखल्वाराधनम्)

सूत्र—किन्नाम दुष्करं मतिमताम् !

नटी—णं णिरुवेदु अज्जमिस्सो । (ननु निरूपयत्वार्थमिश्रः)

सूत्र—(विचिन्त्य) पश्चात्कथयामि मन्थरमन्थानमथितकलशसलिलनिधिसमुद्यत्तुमुल-
लहरीकुलकलकलनिनदमदहरणचणकोलाहलसजलजलधरनिनदनिप्यन्दबन्धुरेण मह-
लध्वनिना समवस्थापयामस्तावदिमान् ॥ (नेपथ्याभिमुखमवलोक्य)
मारिष ! प्रवर्त्यतां रङ्गप्रसाधनविधिः ।

(नेपथ्ये मृदङ्गध्वनिः सङ्गीतञ्च)

नटी—(समन्तादवलोक्य) महलरवाणुबन्धिणासङ्गीदेण पुञ्जीभूदो चित्तगदोविभ सञ्चो-
वि जणो दीसइ । णिरुवेदु सामाहओइदं रूवअं अट्टमिस्सो । (महलरवानुबन्धिना
सङ्गीतेन पुञ्जीभूतश्चित्रगत इव सर्वोऽपि जनो दृश्यते । निरूपयतु सामाजिकोचितं
रूपकमर्थमिश्रः ॥)

सूत्र—(पुरोऽवलोक्य) अस्मान्नुद्योजयिषोः परिषदस्सकाशात्पत्रहस्तो मारिष इत एवो-
पसर्पति । उपलब्धसामाजिकनिदेशा विचारयामः । (प्रविश्य पारिपाश्वर्यकः
पत्रमर्पयति । सूत्रधारो गृहित्वावाचयति)

“ सद्यस्संफुल्लमलीनवमधुलहरीमाधुरीरीतिभाजो

वाचो यस्मिन्मनोज्ञा विविधबुधजनाह्लादमुद्वेलयन्ति ।

पुण्यश्लोकस्य कीर्तिस्त्रिभुवनभवनाभोगसौधावकाश-

स्फूर्जच्चन्द्रातपोद्यद्भवलिमभरिता यत्र शोभां विभर्ति ॥ ८ ॥

चन्द्रोत्तंसकथामाध्वीरसोद्धारैकशालिने ।

सन्दर्भायातिहृदयाय तस्मै तिष्ठामहे वयम् ॥ ९ ॥ इति ”

(परिवृत्य) आर्ये ! अपि श्रुतः परिषदादेशः ?

नटी—कोणाम तारिसो पबन्धो ? (को नाम तादृशः प्रबन्धः)

सूत्र—(विचिन्त्य) कण्ठगतमेव विमृश्यते चामीकरम् । ननु निर्दिष्टगुणोत्तरं सभापति-
विलासनामास्मद्वशमेव सकलरसमणिगणहाटकपेटकं नाटकम् ॥ तदेतत्पयुञ्जा-
नैरस्माभिरवश्यं रसपारवश्यमानेतज्यानि सामाजिकमनांसि ।

नटी—(सकौतुकम्) को णाम कविन्दो तारिसस्स पबन्धस्स (को नाम कीवन्दः तादृशस्य
प्रबन्धस्य)

सूत्र—आर्ये ! जानासि सकलकलाकलापपारहृथा मणल्लरामहारवासी धर्मेराजाभिधो
मनीषी ।

1. उद्योजयितुमिच्छन्त्याः । 2. मणल्लरामहारः, मध्याह्नेनक्षेत्रपरिसरवती ।

नटी—केणमुणीअदिपडिदिणपवन्धणिम्माणजम्मजसोघणसाररिच्छोलिआसुरभिअदस-
दिसामुहो ; सअलभूमण्डलपण्डिअमण्डिअणिच्चहिअविज्जानडीरङ्गत्थलाअमाणणा-
णेन्दुमुणिन्दसहासंपत्तसब्भासासव्वहोमापरणामहेओसोविहुवेन्दो । जस्स दब्बो
अरसिहामणिभाण्य जीहाकिदसणिहाणकंपि उक्खरिसं पुस्सइ । अप्पआस-
विजिम्भमाणसुमहुरचित्तवित्थअचहूवेहकइदासन्दस्सिअचमक्खारस्स णा डअप्प-
मुहरूपअचित्तिलेतिवित्तअपज्जापहिअमणीसाविसेसस्सतस्सकोणामणसिलाअइ ॥

(केन न ज्ञायते प्रतिदिनप्रबन्धनिर्माणजन्मयशोधनसाररिच्छोलिकासुरभितदशदि-
शामुखः, सकलभूमण्डलपण्डितमण्डितनित्यहृद्यविद्यानटीरङ्गस्थलायमानज्ञानेन्द्रमुनीन्द्र-
सभासंप्राप्तषड्भाषासर्वभौमापरनामधेयः सविबुधेन्द्रः । यस्य दर्वाकरशिखामणिभाष्यं जिह्वा-
प्रकृतसन्निधानं कमप्युत्कर्षं पुष्यति । अप्रयासविजृम्भमाणसुमधुरचित्रविस्तारचतुर्विधकविता-
सन्दर्शितचमत्काराय, नाटकप्रमुखरूपकचित्रेतिवृत्तपद्यापथिकमनीषाविशेषाय तस्मै को
नाम न श्लाघते ।)

सूत्र—तत्त्वमबोधि भवती । अथवा

नैतच्चित्रं ललितमधुरं धर्मेराजस्य सूरः

वाचां विस्फूर्जितमिति जगत्ख्यातविद्यावतारः ।

यस्य ज्यायानुपसुरगुरू रामनामा मनीषी

भाष्यं पातञ्जलमुपदिशन्भाति विद्वज्जनेभ्यः ॥ १० ॥

किञ्च ;

श्रीमन्निधुवकश्यपान्वयः॥णिर्निर्णीतसर्वागमो

निर्वेलप्रथिताज्ञदानजनुषा कीर्त्या जगद्भासयन् ।

यत्तातो भुवि ¹वैद्यनाथसुमतिर्वै²कुण्ठयोगीश्वरः

सद्यःसंन्यसनेन चिद्धनसुधाम्भोधेरगादेकताम् ॥ ११ ॥

(1) पूर्वाभते. (2) सन्यासाश्रमस्वीकारानन्तरम् .

तस्य खलु सकलदिगन्तरसन्ततचन्द्रायमानयशसो धर्मराजमनीषिणो हृदयानन्दनो
नन्दनो वेङ्कटेश्वरो नाम कवीन्द्रः, तेनहि निर्माय नाटकमिदं भगवतः पादाम्बुजयोः
समर्पितमासीत् ॥

नटी—पसंसणिज्जो खु सो कईन्दो । अह पसिद्धेसु भगवन्तस्य चरिदेसु ठिदेसु कीस
थलमाहम्मैकवरं नाडं ॥ (प्रशंसनीयः खलु स कवीन्द्रः । अथ प्रसिद्धेषु भगवतश्च-
रितेषु कस्मात्स्थलमाहात्म्यैकपरं नाटकं निर्मितवान् ॥)

सूत्र—(सस्मितम्) मुग्धे ! अत्रैव खलु सभान्तरे तादृशयोगीन्द्रध्यानमयलोचनविषयोपि
सन्त्यक्तकैलासविलासश्चार्मणलोचनगोचरतामुपैति भगवानकुण्ठपरमानन्दताण्डवः
खण्डपरशुः ॥

नटी—जुज्जइ एदम् ॥ (युज्यत एतत्) ॥

सूत्र—किञ्च ॥

नटी—किमण्णम् ? (किमन्यत्) ?

सूत्र—कदाचिदाद्रौत्सवाङ्गलोकयिषया स्थलमिदमाटीकमानः स कवीन्द्रः श्रावयन्स्वकृती,
प्रतिज्ञाराघवानन्दनाम्नि नाटके प्रसङ्गादुपवर्णितं चिदम्बरमाहात्म्यमुपश्रुत्य जातकौ-
तूहलैः सर्वैरपि स्थलनिवासिभिरादिष्टः ॥

नटी—(सविस्मयम्) किमाणत्तममीहिं सिवभत्तसिरोमणीहिम् ? (किमाज्ञप्तममीभिः शिव-
भक्तशिरोमणिभिः ?)

सूत्र—विद्वत्पुङ्गव वेङ्कटेश्वरकवे वाणी तवेयं दल-
न्मन्दारान्तरमाकरन्दलहरीमाधुर्यधुर्योदया ।
तन्निर्माय चिदम्बरेशविषयं किञ्चिन्नवं नाटकं
चेतः प्रीणय नश्चिदम्बरकविर्भूयास्त्वमेतावता ॥ १२ ॥

नटी—अचरिअं एदाणं कवीन्द्रसहाअणसम्मुहीणत्तणम् ॥ अहतारिसविवेअपेसलमणा को
णामः ? (आश्चर्यमेतेषां कवीन्द्रसभाजनसम्मुखीनत्वम् ॥ अथ तादृशविवेकपेशलमनाः
को नाम ?)

सूत्र—निगमागमशास्त्रसम्प्रदाये गुरवः शम्भुपदांबुजातभृङ्गाः ।

विविधाध्वरतोषितामरेन्द्राः त्रिसहस्रद्विजपुङ्गवा वसन्ति ॥ १३ ॥

उक्तं च भगवतैव—

“ त्रिसहस्रद्विजास्तत्र निवसन्ति निरन्तरम् ।

वागेव मधुरा येषां शारदेति निगद्यते ॥ १४ ॥

द्विजन्मानः सुजन्मानस्तपोभिः शुद्धचेतसः ।

वेदेषु ते गणाधीश सर्वे पर्यायवेधसः ॥ १५ ॥

सुदक्षिणैर्महायज्ञैस्तर्पयन्तस्सदा सुरान् ।

अकृत्रिमेन चित्तेन मम पूजां प्रकुर्वते ” ॥ १६ ॥ इति ॥

नटी—(साश्चर्यम्) एआरिसमहापुरिसपडिगिहीदन्ति जं सच्चं अणिदरसामण्णमेहाविला-
सेण तेण कवीन्देण होदव्वम् (एतादृशमहापुरुषपरिगृहीत इति यत्सत्यमनितर
सामान्यमेधाविलासेन तेन कवीन्द्रेण भवितव्यम्)

सूत्र—कस्सन्देहः ? सर्वं सुषट्ठितम् ॥

प्रसन्नहृदया सभा पुरहरस्य पुण्या कथा

वयं सरसरूपकाकलनवैदुषीभूषिताः ।

कवेरपि सरस्वती कचपरिस्फुरन्मालिका-

प्रसूनरसमाधुरीसहचरी गिरां वैखरी ॥ १७ ॥

(इति परिक्रम्य समन्तादवलोक्य)

हन्तप्रवृत्तैव मदकलकलकण्ठकाहलीमुखरिता वसन्तलक्ष्मीः ॥

नट—भाव !

श्रीसभापतिविलासनाटकम्

दलि^१तवियुगहन्तः कन्दलच्चूतवृन्द —

प्रसृमरमकरन्दस्यन्दनन्दन्मिलिन्दः ।

नवनवसुमगन्धप्रोद्धतानन्दगन्धः

कलयति बहुमन्तर्विस्मयं मे वसन्तः ॥ १८ ॥

सूत्र.

विकासपदचम्पका विरहिमानसाकंपका

ललन्मृदुलमारुतागलितकोकिलालीरुताः ।

मदाकुलमधुव्रता मदनमोदनैकव्रता

दिशान्ति मधुवासरा मुदममी कन्तकेसराः ॥ १९ ॥

आर्ये ! तदमुमेव समयमधिकृत्य प्रवर्त्यतां सङ्गीतकम् ॥

नटी. तहा (तथा) (इति गायति)

चन्दणगिरिन्दमारुदचञ्चल साहस्य चूदतरुणस्य ।

नट्टं विलोअअन्तो णन्दइ सअलो वणप्पिओ रण्णे ॥ २० ॥

(चन्दनगिरीन्द्रमारुतचञ्चलशाखस्य चूततरुणस्य ।

नाट्यं विलोकयन् नन्दति सकलो वनप्रियोऽरण्ये ॥)

सूत्र. साधुगीतम् ।

अपहसितकोकिलाखमधुरिततन्त्रीविरावममृतनिभम् ।

कलकण्ठ ! गीतमेतत्कस्य न मनसः करोति संवननम् ॥ २१ ॥

(सहर्षम्)

यदेकान्ते कान्ते सरसतरसङ्गीतकलया

जनांश्चित्रन्यस्तानिव सदसि कुर्यामिति पुरा ।

अवादीस्तत्तादृग्धुरमधुरालापकलया

त्वया तन्निर्व्यूढं प्रतिपदसुधास्यन्दिवचसा ॥ २२ ॥

१. दलिता वियुजां वियीगिनीनामहन्ताहङ्कारः येनसः ।

नटः—(साश्चर्यम्)

सङ्गीतेनामुना सर्वे ज्ञातसर्वकला अपि ।

सञ्जातामन्दसन्तोषा मन्ये सामाजिका इह ॥ २३ ॥

सूत्र.—मारिष ! मैवं वादीः । अस्मदीया भक्तिरेवानन्दकारणममीषाम् । न पुनः कला-
वैदग्धी । तथाहि

अन्यैरनेकयत्नैरितिचिरदुःसाधचित्तसन्तोषाः ।

अनितरसाधारण्या भक्त्या सन्तः प्रसीदन्ति ॥ २४ ॥

(नेपथ्ये)

भद्र ! भरतपुत्र ! सम्यगभिहितमन्यैरनेकयत्नैरिति ।

सूत्र.—(पुरोऽवलोक्य) आः कथमवसरजः कनीयानवलम्बितनन्दिकेश्वरभूमिक इत एवा-
भिवर्तते । तद्वयमप्येनमुपतिष्ठामहे ।

॥ इति निष्क्रान्ताः ॥

॥ इति प्रस्तावना ॥

(ततः प्रविशति नन्दिकेश्वरः)

नन्दिकेश्वरः—(अन्यैरिति पठित्वा सञ्ज्ञाघम्) सम्यगुक्तमनेन कुशीलवकुटुम्बोद्भवेन ।
तथाहि—निखिलनिगमगिरामगोचरोऽपि भगवानम्बिकापतिरमुष्मै मध्यन्दिननन्द-
नाथ बालर्षये तादृशभक्तिपराधीनो महान्तं खलु करोति प्रसादम् । (विचिन्त्य)
अहो भक्तजनपारतन्त्र्यं देवस्य । यदादिष्टोस्मि देवेन । यथा वत्स ! सकलभुवन-
संराजोविराजोहृदयपुण्डरीकानुकारिणि पुण्डरीकपुरे विरचितसन्निधानं श्रीमूल-
नायकाभिधानं मामेव महता खलु तपसा समाराधयति मध्यन्दिनस्य महर्षेस्तपः-
फलं बालमुनिः । तदयमर्हत्यालोकयितुमस्मदानन्दनटनम् । ततः तिल्वाट-
वीमधिगत्य भवता मदाविर्भावसमुचितस्थानमुपलभ्य प्रतिनिवर्तितव्यमिति ।
(सस्मितम्)

द्रष्टुं यत्पदपङ्कजं हरिरपि तैलोक्यकुक्षिभरिः
वागीशोप्यनलं यदीयमुकुटं साष्टापि लोकानिमान् ।
अन्तर्यामितया चराचरमिदं व्याप्नोति योऽयं जग-
त्तस्य ज्ञापयतीतरोऽविदितमित्यस्मन्महत्त्वान्तरम् ॥ २५ ॥

(विचिन्त्य) के वयम्? एतदप्यनिर्वचनीयकुहनामय्या कयापि कारुण्यकलया
परिक्रीडमानस्य भगवतो विलसितं विवरीतुम् । तद्यथादिष्टमनुतिष्ठामि । (गमनवेगम-
भिनयन् पुरोऽवलोक्य ।)

चण्डकररश्मिवारणचतुरिमदुर्दान्तभूरिशाल्वौघा ।
मण्डयति भूविभागान्महतीयं तिलवनवाटी ॥ २६ ॥

किञ्च

पुलकितवकुलरसालं पुंघितकलकण्ठतरुणसल्लापम् ।
चुलकितनमोऽवकाशं चोरयते तिल्वकाननं चेतः ॥ २७ ॥

यावत्प्रविशामि (प्रवेशमभिनयन्-साश्चर्यम्) अत्र खलु—

उड्डुपटलसदृक्षानुद्वहन्त्यो गुलुच्छानविरलदलजालैरन्धकारानवन्त्यः ।
मरिचिकिसलभङ्गभासमाद्यच्चकोरा विदधति मुदमक्ष्णोर्वीथयः पादपानाम् ॥ २८ ॥

अपिच

शास्त्राग्नैररुणस्य विश्रमसुखं संपादयन्तोऽन्वहं
प्रत्यग्रप्रसवस्तुतैर्मधुरसैरासे^१चकानामपि ॥
पुष्पैराश्रमवासिनो मुनिजनान्सन्तर्पयन्तःफलै-
रप्येते वनपादपा विदधते पुण्यं सदा पुष्कलम् ॥ २९ ॥

(१) अस्य विश्रमसुखं संपादयन्त इति पूर्वोक्तान्वयः

(अन्यतःचक्षुः प्रसार्य साश्चर्यम्)

माकन्दगुच्छमकरन्दकृताभिषेका
लोभप्रसूनरजसा धवलीकृताङ्गाः ।
एतेऽम्बुजासनपरिग्रहनिष्प्रकंपाः
पञ्चाक्षरीजपपरा इव भृङ्गराजाः ॥ ३० ॥

(पदान्तरं गत्वा)

विहगविरुददम्भद्वेदमुद्धोषयन्तः
परिणतनववल्लीपुञ्जचञ्चजटौघाः ।
वनभुवि सहमाना द्वन्द्वतापातिरेकं
मुनय इव तपस्यां तन्वते शाखिनोपि ॥ ३१ ॥

अतश्च

मुनिपरिचयादेते दूरीकृताखिलकल्मषाः
पुरविजयिनः पुण्यास्तास्ताः पठन्ति कथाः शुकाः ।
करिपरिवृदाः सिञ्चन्त्येते च पुष्करणीजलैः
कठिनतपना^१मोदं मौनीन्द्रपर्णगृहाङ्गणम् ॥ ३२ ॥

(पदान्तरे स्थित्वा सहर्षम्)

कर्पूरःकदलीदलान्तगलितैरन्योन्यसंघट्टना-
दुच्चूर्णैरपि चन्दनैर्मृगमदव्यासङ्गमेदस्विभिः ।
कोणे शीलयतो गुहासु सुरतं वातार्भकाःकिन्नर-
द्वन्द्वस्य प्रदिशन्त्यशङ्कितममी तुष्टा हि पि^२ष्टातकम् ॥ ३३ ॥

(अन्यतो गत्वा)

१. तपनामोदं = सूर्यातापम् २. पिष्टातकम् = पटवासकः.

चर्वचर्वमितो रसालकिसलानीषत्पुरोजाग्रतः
स्वादुङ्कारममी समं युवतिभिर्मोदेन पुंस्कोकिलाः ॥
कुप्यद्दर्प^१कदर्पनिर्भरभुजाकृष्टेषुबाणासन-
क्रेङ्कारोदयतारतारमधुना ^२कूजामुपस्कुर्वते ॥ ३४ ॥

इतश्च

सदयमिह हि शृङ्गाग्रेण कण्डूविनोदं
कलयति बत मूले कर्णयोः कृष्णसारे ।
अनुभवति सुखानामद्वयं सामरस्यं
मदपरवशतारा स्तम्भिताङ्गी कुरङ्गी ॥ ३५ ॥

(कतिचित्पदानि गत्वा)

नवनवकलिकालीनम्रपुन्नागमध्यात्
कथमपिच विनिर्यन्काननाभ्यन्तरेषु ।
पुलकयति शरीरं फुल्लमल्लीमतल्ली-
परिमलभरतान्तः पावमानः प्रवाहः ॥ ३६ ॥

(सर्वतोऽवलोक्य)

अत्र खलु मत्तद्विरदकपोलभित्तिप्रस्रमरदानलुभ्यद्भ्रमरसमूहमुग्धध्वनिमुखेषु, चूत-
प्रवालभङ्गास्वादनसयानुषङ्गखेलत्पिकालीपुंसितारक्तकाकुभङ्गिवाचालितेषु, मन्दवातामन्दली-
लावनचन्दनाशोकनीपकुन्दमन्दारमरुवककिन्दुकधवपिचुलिन्दमुखविटपिदन्तुरसरणिषु पिहि-
ततरणिकिरणततिषु वनोद्देशेषु सञ्चरन्विनोदयानि क्रूरसमुच्छसितमध्वश्रमम् ॥ (इति
परिक्रम्य पुरोवलोक्य साश्चर्यम्)

१. दर्पकः = मन्मथः. २. कूजः = अवयवशब्दः.

अस्य खलु मध्ये तित्स्वनस्य—

उत्तुङ्गसौधशिखरान्तरहेमकुम्भ-
रोचिःप्ररोहकपिशीकृतदिव्यलोका ।
मध्यस्फुरन्मदनशासनमौलिचन्द्र-
ज्योत्स्नाविधूततिमिरा नगरी चकास्ति ॥ ३७ ॥

हन्त ! हन्त ! अतिकैलासमिदं स्थानम् स्थाने खलु अत्रस्थाने देवस्थानन्दताण्डवम् ।

(समन्तादवलोक्य)

वातोन्नतितकेतुचीनपटिकाकिम्भोरिताशामुखा-
न्युन्मीलन्मणितोरणान्तररणद्वण्टापकाण्डान्यपि ।
द्वारोत्तम्भितकाय^१मानविलसन्नानाप्रसूनावली-
भाञ्जि प्राञ्जि गृहाणि काञ्चनमयान्यादीपयन्ते दिशः ॥ ३८ ॥

(सनिर्वेदम्) सर्वतःसञ्चरतोऽपि न मम नयनसरणिमाढौकते मध्यन्दिननन्दनः ।
तदिदानीमत्युन्नतनानाविधप्राकारगोपुरमण्डपमण्डलमण्डितं देवालयमिमं गत्वान्वेषयामि ।
(प्रवेशमभिनयन्) हन्त ! कुम्भसंभवभीतो निवसति परमम्भोनिधिः । (विमृश्य) केनचित्पु-
ण्यतीर्थेन भवितव्यम् कस्य मुखाद्याथातथ्यमुपलप्स्ये (विलोक्य) अस्यैव तीर्थस्याधितीर्थम् ॥

भसितधवले गात्रे रुद्राक्षदामपरंपरां

स्फटिकगुटिकां पाणौ बिभ्रत्कण्ठशिशुर्मुनिः ॥

शिवमयमिदं विश्वं पश्यत्यसाविति मन्महे

पुलकमुकुलैः सर्वाङ्गीणैर्यदङ्गमलङ्कृतम् ॥ ३९ ॥

(साशंसम्) अयमेव मध्यन्दिननन्दनः स्यात् । (सहर्षम्) हन्त ! कियद्गामुष्य भाग-
धेयम् ।

१. कायमानः = वातासेवार्थं गृहद्वारि कल्प्यमानः पर्णमयः प्राङ्गणभावाः भाषायां प्राङ्गणं
इति क्पातः

यतः

अस्य किल दर्शनाय स्पृहयति हा हन्त भक्तिपरतन्त्रम् ।
विधिहरिविभृग्यमाणं तदपि च तेजः शशाङ्कचूडालम् ॥ ४० ॥

यावन्मण्डपान्तरित एवास्य विस्मयभाषितानि कर्णातिथीकरोमि । (तथातिष्ठति)
(ततः प्रविशति मध्यन्दिननन्दनः, शिष्यश्च)

माध्यन्दिनिः—

सकृद्दृष्टे यस्मिन्नुदयति परानन्दलहरी
सदानन्दालोकाभूतमपि न तृप्त्यै जनिमताम् ॥
पदाम्भोजे तस्मिन्निव पतित्वा पुररिपोः
त्यजेयं तापानामहमहमिकामेष किमहम् ॥ ४१ ॥

शिष्य.—आवरिअ ! किं पुणो पुणो सन्दिहिज्जह, कहिअं खु तत्तभवन्तेहि तातचरणेहि
अहिलदेवदंसणपहविदूरोवि भत्तिमेत्तसुलहो भवन्तो भवानीबलहो-त्ति (छा-
आचार्य ! किं पुनः पुनः सन्दिह्यते ? । कथितं खलु तत्रभवद्भिः तातचरणैः अ-
खिलदेवदर्शनपथविदूरोपि भगवान् भवानीबलभः भक्तिमात्रसुलभ इति) ।

माध्य.—वत्स ! कौण्डिन्य ! ततः खल्वचरमयोनिदुस्साधमपि चरणकमलदर्शनसुखमभिल-
षामि देवस्य ।

(विचिन्त्य, सरोमाञ्चम्)

गुरुचरणकटाक्षवीक्षणारूपा
प्रभवति कामगवी हितेषु नो चेत् ।
विषयमरुमरौचिवीचिकायां
मम लुठतः कथमस्तु शम्भुसेवा ॥ ४२ ॥

कौण्डि.—णवरं शम्भुसेवव्व ।

पहाणण्णोसिवगंगापअंमि णिवसो चिअंबरे एत्थ ।
सिवसेवाअप्पहवदि गुरुक्कलुणासारपरिपाओ ॥ ४३ ॥

(छा—केवलं न शम्भुसेवैव ।

रू—स्नानं नः शिवगंगापयसि निवासश्चिदम्बरे चात्र ।
शिवसेवा च प्रभवति गुरुक्कलुणासारपरिपाकः ॥)

नन्दि.—किमिदं शिवगंगाभिधानं तीर्थम् ? ।

कचित्कमलकाननं कचन शैबलानां कुलं
कचित्कुमुदमण्डलं कुहचनोत्पलानां चयः ।
कचिद्भ्रमरसन्ततिः कचन सारसानां ततिः
कचित्कुररपालिका कचन हंसरीञ्चोलिका ॥ ४४ ॥

किञ्च,

तटवनतरुभृङ्गीगानभङ्गीभिरङ्गी-
कृतजललहरीभिः स्यूतभागा शिलाभिः ।
विवृतकमलगन्धैर्वीचिवातप्ररोहैः
वितरति शिवगंगा विस्मयं मानसे नः ॥ ४५ ॥

माध्य.—अवितथमाह भवान्, विरमतु क्षणम् । (ध्यानमुकुलितलोचनस्तिष्ठति)

नन्दि.—अहो ! अनन्यपरत्वममुष्य ।

(स्पर्शसुखमभिनीय, सरोमाञ्चम्)

फुल्लत्पङ्कजमाकरन्दकणिकाविक्षेपपौनःपुनी-
निष्ठाकल्पितदुर्दिना मुखरिता मुग्धैः पिकानां रवैः ।

आवृन्तं हसितस्पृशां सुमनसामामोदमेदस्विनो
मन्दं मन्दममी समीरशिशवो'वान्तो हरन्ति श्रमम् ॥ ४६ ॥

(आनन्दपरवशस्तिष्ठति)

माध्य.—वत्स ! चिरात् प्रसन्नो भगवानम्बिकापतिः । तदुत्तिष्ठ । पुष्पभाजनमादाय
भगवतः श्रीमूलनायकस्य सेवया जन्मेदं पुनीमहे ।

कौण्डि.—जं आअरिअस्स रोचइ ।

(छा.—यदाचार्याय रोचते)

(उभौ उत्तिष्ठतः)

कौण्डि.—इदो इदो आआरिओ । (छा.—इत इत आचार्यः)

नन्दि.—(अनालक्षित एव परिक्रामति) ।

माध्य.—(शिवगंगाप्रादक्षिण्येन गमनमभिनयन् पुरोऽवलोक्य) एतद्भगवतः सन्निधानं,
यावदभ्यन्तरीभवामि । (इति प्रवेशमभिनयन्, देवं दृष्ट्वा, साष्टाङ्गं प्रणम्य,
उत्थाय, शिरस्यज्जलिं घटयन्)

नमस्तुभ्यं गङ्गासलिललहरीसेचनकन-

जटावल्लीगुच्छभ्रमकरसुधासूतिशिशवे ।

शिव श्रीमूलेश त्रिपुरललनालोचनपयः-

स्रवन्तीसन्दोहप्रभवगिरिभूतालिकदृशे ॥ ४७ ॥

(सगद्गदम्)

क चाहं जात्यन्धो विविधजननैकान्तवसतिः

क च त्वं ब्रह्मेन्द्रप्रसुखसुरदुर्बोधमहिमा ।

तथाप्याकाङ्क्षेऽहं तव चरणसन्दर्शनसुखं

कुतस्तन्मे सिध्येत् कुटिलविषयव्यापृतधियः ॥ ४८ ॥

1. वान्तः बाधातोः शतरि प्रथमाबहुवचनम्.

नन्दि—(प्रणम्योत्थाय च) हन्त ! भगवन् । वञ्चयसि भृत्यान् कैलासनिवासा-
पदेशेन । इह हि ॥

त इमे पुण्या भक्ताः स्थानं दिव्यञ्च पुण्यमपि तीर्थम् ।
त्वञ्च दयैकमयो हर किं तिष्ठसि देव देव कैलासे ॥ ४९ ॥

तिष्ठतु तावदस्य शृणोमि कर्णरसायनमुत्तयमृतम् ।

माध्य—(मुकुलितनयन एव) स्वामिन् । यद्यहं तादृशभाग्येयस्याभूमिः, इदं पुनरनिवार-
णीयं अनवधिदयासागरेण देवेन ।

येषां दैवतमिन्दुशेखरमिदं तत्त्वं हि पञ्चाक्षरी-
मन्त्रावृत्तिविशोधितान्तरमला ये यैस्त्वमध्यक्षितः ।

ये रुद्राक्षविभूषिता भसितमेवालेपनं यैः कृतं
तेषां पादसरोजधूलिसविधे वासोऽस्तु मे जन्मसु ॥ ५० ॥

नन्दि—अहो स्पृहणीयस्मरणोऽयं बालमुनिः । अथवा मध्यन्दिनमहर्षिरेव । तथाहि—

कलशपयोधेः कौस्तुभ इव यस्मादेष गुणनिधिर्जज्ञे ।
स्पृहयति को वा लोके तस्य न मध्यन्दिनस्य भाग्याय ॥ ५२ ॥

कौण्डि—आअरिअ सब्वस्स वि वञ्छिदस्स सम्पादअं खु, भअवन्तस्स अच्चणं, ता भाअ-
णगताई कुसुमाइं गण्हिअ अच्छेहि देव्वं । [छा—आचार्य सर्वस्यापि वाञ्छित-
स्य सम्पादकं खलु भगवतोऽर्चनं तस्मात् भाजनगतानि कुसुमानि गृहीत्वा
अर्चय देवम्] (पुष्पभाजनमर्पयति)

माध्य—(गृहीत्वा, पुष्पाण्यादायावलोक्य) अहह, द्विरेफदृषितानि पुष्पाणि । (सकम्पम्)
किं करोमि मन्दभाग्यः ।

(दण्डवद्भूमौ पतति)

नन्दी—कथमद्यापि दयाविमुखो देवः

ईदृशि भक्तेऽपि विभो ! वैमुख्यं चेत्परं पुराराते ।
भक्तपराधीन इति त्वां केऽन्ये तावदर्चयिष्यन्ति ॥ ५२ ॥

(नेपथ्ये महान् कलकलः)

नन्दी—(विलोक्य सानन्दम्) हन्त ! सफलमद्य जन्म सञ्जातम् । यदिदानीम्—

घणघणनिकणत्कनककिङ्किणिकामुखरं
वृषभधिरुह्य साकमचलेन्द्रकुमारिकया ।
करतलपल्लवोल्लसितमौलितलैरखिलै-
स्तुतमहिमाऽऽविरस्ति भगवानिह लोकगुरुः ॥ ५३ ॥

(साञ्जलिबन्धम्)

नयनोत्सवगात्राय नतसौभाग्यदायिने ।
नमः पश्यदलीकाय नाथाय दुहितुर्गिरेः ॥ ५४ ॥

[इति प्रणमति]

कौण्डि—(साश्चर्यम्) आअरिअ ! इति उद्देहि, एसो बुसहाहिरुढो देवो पुरसाहणो

(छा—आचार्य, इति उच्यते । एष वृषभाधिरुढो देवः पुरशासनः ।)

माध्य—(इदित्युत्थाय, देवदर्शनमभिनीय; सकौतुकानुरागकम्पगद्गदम्) देव ! भक्तजन-
पारिजात ! । (इत्यर्थोक्ते, आनन्दाश्रुपिहितनयनो मृच्छामभिनयन्, किञ्चिदि-
संज्ञामधिगम्य)

नम इदमव्याजदयानर्तितचित्ताय देवदेवाय ।
सकलजनतामुमुक्षाप्रत्युपहारैकहेतवे तुभ्यम् ॥ ५५ ॥

(नेपथ्ये)

वत्स ! मध्यन्दिननन्दन ! सन्तुष्टोऽहं अनया सकलजनविस्मयनीयया भक्त्या ।
वरं वृणीष्व । वरदोऽहमागतः ।

माध्य—(सानन्दम्) देव ! किं मम वरान्तरेण । तथाहि—

शीलितनिगमपुराणाः शिवापवर्गाय पूजयन्ति त्वाम् ।
सुखलवमपि न विदन्तः सृष्टिविशेषेषु भौतिकेष्वेषु ॥ ५६ ॥

(विचिन्त्य)

हरिमज्जनलं वा लोककर्तारमाहुः
कतिचिदिति न चित्रं कर्तृता यज्जडस्य ।
शिव शिव शिव शान्तं पापमाद्यन्तशून्यं
निगमशिरसि मृग्यं तत्त्वमेवासि तत्त्वम् ॥ ५७ ॥

कतिचन विवदन्तां मायया मोहितास्ते
तव चरणसरोजध्यानशुद्धान्तरङ्गाः ।
घनपरिणतिभेदः कश्चनानन्दसिन्धो-
रिति शिव कृतपुण्याः केपि संविद्वते त्वाम् ॥ ५८ ॥

आस्तां तदेतत् ।

पुष्पार्थं गच्छतः कल्ये तव पूजाविधायिनः ।
नियतं हस्तपादे तु व्याघ्ररूपं शिवास्तु मे ॥ ५९ ॥

अद्यारभ्य दयाधार मम नाम्ना पुरन्तिवदम् ।
ख्यातमस्तु समस्तेषु भुवनेष्वम्बिकापते ॥ ६० ॥

(नेपथ्ये)

अस्तु तव हस्तचरणे रूपं वैयाघ्रमेव बालमुने ।
व्याघ्रपुत्रीति पुरोऽस्याः तवापि च व्याघ्रपाद इति नाम ॥ ६१ ॥

व्याघ्रपादः—अहो ! देवस्याज्ञानन्तरमेव करचरणे व्याघ्रत्वम् [प्रमोदमानस्तिष्ठति] ।

नन्दि—हन्त ! परिपूरितभक्तमनोरथः भगवानन्तर्धत्ते । अहमपि देवस्य नटनोचितं स्थानमन्वेषयामि । (परिक्रामति)

कौण्डि—आअरिअ फलिअमणोरहेण । ता मठिआमेव्वगच्छन्तां (छा आचार्य ! फलितं मनोरथेन, तस्मात् मठिकामेव गच्छावः ।)

व्याघ्र—(पुनरपि भगवन्तं प्रणम्य)

न किमपि जाने भगवन् नतजनचिन्तामणे न यद्वेद्यम् ।
शिव शिव शिवेति नित्यं जल्पाम्येतावता पाहि । ६२ ॥

(सशिष्यो निष्क्रान्तः)

नन्दि—(देवस्य दक्षिणतोऽवलोक्य) अतिरमणीयोयमुद्देशः । अत्रैव भगवता रङ्गभूमिः यावत् कैलासमधिगम्य विज्ञापयामि ।

(इति त्वरामभिनयन् पुरोऽवलोक्य)

आः कथमयं भानुकम्पः? स्वामिनैव प्रेषितो भवेत् । (विस्मयाक्षितस्तिष्ठति प्रविश्य)

भानुकम्पः—(परिक्रम्य, उपसृत्य, प्रणम्य च साञ्जालिबन्धम्) देव द्वितीयपरमेश्वर ! नन्दि-केश्वर ! दारुकावनवासिनां मुनीन्द्राणां गर्वनिर्वापणं आरचयिष्यन्मोहिनीरूपेण महाविष्णुना सनाथोक्तपार्श्वः स्वयमपि अङ्गीकृतभिङ्गरूपः प्रत्यनन्तरं भवन्तमपेक्षते स्वामी ।

नन्दि—अनुलङ्घनीयो देवादेशः, किन्तु व्याघ्रपादस्नेहो मां व्यामोहयति । (विचिन्त्य) भवत्येवं । (भानुकम्पस्य कर्णे) एवमिव ।

(इति निष्क्रान्तास्सर्वे)

॥ इति प्रथमोऽङ्कः ॥

श्रीः

॥ अथ द्वितीयोऽङ्कः ॥

(ततः प्रविशति तापसी)

तापसी—आणत्तं हि देवीए अरुन्धईए-जह “ माहविए ! एत्थ सुइरं सुरहिगव्वसंवद्धिआ-णणान्दाए, णन्दणो वच्छओ उवमण्णु विहुसण्णिहाणे फलमूलवाअं अब्भ-वहारं, अहिणन्दइ, णवेत्ति विआरिअण्णत्ति णिवत्तेहि त्ति (आज्ञप्तास्मि देव्या अरुन्धत्या यथा “ माधविके ! अत्र सुचिरं सुरभिगव्यसंवर्द्धितः ननान्दुर्नन्दनः वत्स उपमन्युः पितृसन्निधाने फलमूलप्रायमभ्यवहारमभिनन्दति न वेति विचार्य झटिति निवर्तस्वेति ॥)

(श्रमं नाटयन्ती पुरोऽवलोक्य)

इदं पुरो तिल्लवणम् । जाव प्रविशामि । (इदं पुरस्तिस्त्ववनं यावत्प्रविशामि)

(प्रवेशमभिनीय, अवलोक्य च)

एसाखु महेसिणा वसिट्ठेण णिअमइणीए सुस्सूसत्थं, पेसिदा कामहेणुसमुप्पण्णा वासन्तिआ ; सअंपडिदाइं पलाइं गण्णाई, ता एताए वअणेण जानिस्सम् । (एषा खलु महर्षिणा वसिष्ठेन निजभगिन्याः शुश्रूषार्थं प्रेषिता कामधेनुसमुत्पन्ना वासन्तिका स्वयंपतितानि फलानि गृह्णाति । तस्मादेतस्या वचनेन ज्ञास्यामि ॥)

(ततः प्रविशति फलग्रहणव्याग्रा वासन्तिका) वासन्तिका (साश्चर्यम्) अच्छो ! देवदेवस्स पसादातिसओ ; जं खीरत्तिणो बालस्स खीरोदहिं एव्व दत्तवन्तो । हन्त ! देवदेवस्य प्रसादातिशयः ॥ यत्क्षीरार्थिनो बालस्य क्षीरोदधिमेव दत्तवान् ।

माधविका—(उपसृत्य) हला ! वासन्ति ए सअमेव विन्मअखित्तहिअआ किंपि किंपि मंतेसि । (सखी वासन्तिके ! स्वयमेव विस्मयाक्षिसहृदया किमपि किमपि मन्त्रयसि ।)

वासन्तिका—(परिवृत्य अवलोक्य) कहं माहविआ ? अवि कुशलं देवीए अरुन्दईए सहपिअदमेण महेसिणा ? (कथं माधविका । अपि कुशलं देव्याः अरुन्धत्याः सह प्रियतमेन महर्षिणा ?)

माधविका—कुसलमेव सव्वं एकमुपमणुणो वच्छस्स आहारविआरमन्तरेण (कुशलमेव सर्वं, एकमुपमन्योर्वत्सस्याहारविचारमन्तरेण)

वासन्तिका—(सस्मितम्) किं अज्जवि आहारविआरो वच्छस्स ? (किमद्यापि आहारविचारो वत्सस्य ॥

माधविका—किं अज्जवित्ति । कहेहि किं जादम् । (किमद्यापीति ! कथय किंजातम् ॥)

वासन्तिका—हला ! जाणासिखु लद्धसिवप्पसादेण वग्घपादेण पितुवअणगौरवादो अम्ह सामिणो भइणी परिणीदा, कालक्कमेण लद्धवतीअ उवमणुणामहेअं तणअम् सोवि जादमेत्तो पल्लविदकोदूहलाए देवीए अरुन्धईए सयमेव इदो निजास्समं पाविदो संवद्धिओअ सोरहेण खीरेण । पुणोवि, तणअमुहालोअणसमुस्सुएण मुणिणा, वग्घपाएण इदं ठाणमाणीदोत्ति । (सखि ! जानासि खलु लब्धशिवप्रसादेन व्याघ्रपादेन पितृवचनगौरवादस्मत्त्वामिनो भगिनी परिणीता, कालक्रमेण लब्धवती च उपमन्युनामधेयं तनयम् । सोऽपि जातमात्रः पल्लवितकौतूहलया देव्या अरुन्धत्या स्वयमेव इतो निजाश्रमं प्रापितः संवर्द्धितश्च सौरभेण क्षीरेण । पुनरपि तनयमुखावालोकनसमुत्सुकेन मुनिना व्याघ्रपादेनेदं स्थानमानीत इति ।)

माधविका—सव्वं एदं विण्णादम् । तदोतदो ।

(सर्वमेतद्विज्ञातम् । ततः ततः)

वासन्तिका—तदो अ जत्थ दिणम्मि सो आअदो, तस्सि एव्व एत्त सुलहेण पलमूलाइणा वग्घपादो तणअं भोअइमुवक्किदवन्तो । (ततश्च यस्मिन्दिने स आगतः, तस्मिन्नेवात्र सुलभेन फलमूलादिना व्याघ्रपादः तनय भोजयितुमुपकान्तवान् ।)

माधविका—(विहस्य) तं इदं अमिअपाणमुदिअस्स ^१सोव्वीरेण सन्तप्पणम् ॥ तदो तदो (तदिदममृतपानमुदितस्य सौवीरकेण सन्तर्पणम् ॥ ततः ततः ॥

वासन्तिका—तदोअ स उवमणू सुमरिदसुरहिदुग्धो अणवरदं रोदिअं पवुत्तो । (ततश्च स उपमन्युः स्मृतसुरभिदुग्धः अनवरतं रोदितुं प्रवृत्तः)

माधविका—तदो (ततः) ।

वासन्तिका—तदोअ रुण्णमुण्णव्हं तणअस्स मुहं आलोअइदुमपालअन्तो सो मगेसी गहिऊण तं बालं सिरिमूलणाहस्स सणिहाणमेव्व अइगदवन्तो ।

ततश्च रुदितशून्यपथं तनयस्य मुखं अवलोकयितुमपारयन्स महर्षिर्गृहीत्वा तं बालं श्रीमूलनाथस्य सन्निधानमेवाधिगतवान् ॥)

माधविका—(साश्चर्यम्) तदो (ततः) ।

वासन्तिका—तदोअ वच्छ अकिञ्जणोहं इमं परमेसरमन्तरेण णत्ति मह अण्णा गइत्ति गइदवत्तम्मि पिअरम्मि कूलंकसकुहाकुहिअओ सो खीरकण्ठो देवस्स एव्व सणिहाणं रोदिअं पवुत्तो (ततश्च वत्स ! अकिञ्चनोहमिमं परमेश्वरमन्तरेण नास्ति ममान्या गतिरिति गदितवति पितरि कूलङ्कषक्षुत्क्षुभितहृदयः स क्षीरकण्ठः देवस्यैव सन्निधाने रोदितुं प्रवृत्तः ॥)

माधविका—(सत्वरम्) तदो (ततः) ।

वासन्तिका—तदोअ तवणकिरणमिलअन्तपच्चमाचंपअकुसुमदामदअणिज्जं तं बालं दट्ठूण भअवन्तोवि दीणजणरक्खणदिक्खिदो दुग्घजलहिमेव्व दत्तवन्तो ।

१. सौवीरकम् = क्षालिततण्डुलोदकं भाषायां कण्ठोदकं इति प्रसिद्धम् ।

(ततश्चतपनकिरणम्लायमानप्रन्यग्रचंपककुसुमदामदयनीयंतंभालं दृष्ट्वा भगवानपि दीनजनरक्षणदीक्षितो दुग्धजलधिमेव दत्तवान् ॥)

माधविका—अच्छरिअम्. अहं वग्धपादो किं पडिवज्जहं ? (आश्चर्यम्; अथ व्याघ्रपादः किं प्रतिपद्यते ?)

वासन्तिका—अज्जखु बंहलोअणिवासं भरहकुडुम्भं आणअन्तेण णन्दिएसरेसिदेण भाणुकंपणामहेएण देवकिंकरेण किंवि किंवि साणन्दं वाहरन्तो, तस्स एव पूजाए फलमूलाइं आणेदुं मंपि तुवरिदवन्तो (अथ खलु ब्रह्मलोक-निवासं भरतकुडुम्भमानयता नन्दिकेश्वरप्रेषितेन भानुकंपनामधेयेन देव-किंकरेण किमपि किमपि सानन्दं व्याहरन्तस्यैव पूजार्थं फलमूलान्यानेतुं मामपि त्वरयितवान् ॥)

माधविका—हला ! अच्छभ्युअंखु कहेसि । ता, गदुअ भाणुकंपवग्धपादाणं णट्टआ-णंअ ववसिदं विआरम्ह ॥ (सखि ! अत्यद्भुतं खलु कथयसि । तस्माद्गत्वा भानुकंपव्याघ्रपादयोः नर्तकानाञ्चव्यवसितं विचारयावः ॥) इति निष्क्रान्ते ।

इति प्रवेशकः ।

(ततः प्रविशतो व्याघ्रपादभानुकंपौ, कौण्डिन्यश्च ॥)

व्याघ्रपादः—साञ्जलिबन्धम् भगवन् ! प्रमथनाथपादारविन्दसेवारसैकमय-दिव्यरूप दीनानुकंप ! भानुकंप ! तत्क्षणसमेधमाननिखधिकानन्द-दुर्ललितहृदयावगणितकरणतया स्वप्नानुकल्पं पुनरपि सङ्कल्पसीद वक्तुम् । यदादिष्टं भगवता द्वितीयपरमेश्वरेण नन्दिकेश्वरेण ।

भानुकंपः—(सस्मितम्) सखे ! व्याघ्रपाद ! भगवदनुकंपामाजनस्य स्थाने खलु भवतः प्रपञ्चविस्मरणम् ।

॥ सूक्तिकदम्बम् ॥

वि. ए. रामस्वामिशास्त्री.

(अण्णामलैविश्वविद्यालयः)

भृण्वन्तु ! सर्वे सुधियः सभाचितोपरजकम् ।

इदं सूक्तिकदम्बं मे साधुकाव्यविमर्शनम् ॥ १ ॥

महदाश्रयगात्रेण बालिशोऽपि महान्भवेत् ।

इत्येतद्दर्शितं दृष्टं दोषज्ञैः तत्त्ववेदिभिः ॥ २ ॥

साधु काव्यं निषेवेत पामरः पण्डितोऽपि वा ।

एको जानाति शब्दार्थावन्यो वेदाशयं कवेः ॥ ३ ॥

काव्यं प्रगीतं बहुधा पूर्वाचार्यैर्विचक्षणैः ।

धर्मशास्त्रमिदं नित्यं पाराशर्यमुनिर्जगौ ॥ ४ ॥

कृष्णयैव गृहस्थानां पाण्डवानां निरत्यया ।

धर्माप्रच्यवकीर्तिश्च स्थिरा स्यात्कथमन्यथा ॥ ५ ॥

एकपत्नीव्रतं धर्मं स्त्रिया हि मनुरब्रवीत् ।

इत्येषाऽपेशला युक्तिर्व्यासोक्तेर्दूषणाय नः ॥ ६ ॥

यथा मुनिर्मनुमानं तथा व्यासो न संशयः ।

अनन्ता नैगमीशाखा व्यभजयः शिवाय नः ॥ ७ ॥

काव्यं च यक्षसे गीतं सच्चरितनिबन्धनम् ।

अस्मिन्कवियशःप्रार्थी कालिदासो निदर्शनम् ॥ ८ ॥

अस्तौद्दिनकरं नित्यं चर्मरुक्पीडितः कविः ।

मयूरस्तेन तत्प्रीत्या चिराय सुखमावसत् ॥ ९ ॥

एवं निवृत्त्यै पापेभ्यः श्रेयसश्चोपलब्धये ।

लौकिकव्यवहारार्थं काव्यं सेवेत यन्नतः ॥ १० ॥

किमध्वरशतैस्सांगैः चिदानन्दरसात्मिका ।

काव्ययज्ञेन सम्पन्ना रतिः प्राप्येत केनचित् ॥ ११ ॥

वेदान्ता नीरसा जाता ब्रह्मज्ञानफला अपि ।
 यावज्जागर्ति सरसा काव्यश्रीश्चारुबन्धना ॥ १२ ॥
 अथवा, बहुनैतेन किं; विना काव्यसम्पदा ।
 वेदाः शास्त्राणि विद्याश्च सर्वा विफलतामियुः ॥ १३ ॥
 शास्त्रे सुदुर्ग्रहोऽप्यर्थः स्वदत्ते कविसूक्तिषु ।
 आधारस्योत्तरार्थमाधेयं प्रतिपद्यते ॥ १४ ॥
 एकमेव हि माणिक्यं भीषणं फणिमूर्धनि ।
 बधूत्तमाङ्गे निहितं चारु सम्पद्यते यथा ॥ १५ ॥
 अजुष्टकाव्यमार्गस्य शास्त्राधीतिर्निरर्थिका ।
 अभ्याधानमकृत्वा कः कुर्याद्यज्ञभरं द्विजः ॥ १६ ॥
 आज्ञस्यं लोकतत्त्वानामिष्टानिष्टोपपत्तिषु ।
 तन्त्रेष्वकुण्ठितां बुद्धिं सूते काव्यपरिश्रमः ॥ १७ ॥
 वाल्मीके रामचरितं पाराशर्यस्य भारतम् ।
 कं धर्मं नोपदिशति? किं तत्त्वं तत्र नास्ति च? ॥ १८ ॥
 लोकापवादो बलवानित्यमन्यत राघवः ।
 राज्यस्यानुग्रहायातः प्रियां सीतां वने जहौ ॥ १९ ॥
 यथा प्रजानां वचनं तथा कुर्वीत पार्थिवः ।
 यदात्मसुखलोभेन राज्यं कुर्वस्तु दुष्यति ॥ २० ॥
 सीता दुष्टेति वितथं जानन्सत्यव्रतो हरिः ।
 कथं तत्याज? विपिने दयितां पूर्णगर्भिणीम् ॥ २१ ॥
 अधर्ममेतं मन्यन्ते दोषज्ञाः केऽपि वादिनः ।
 सत्यं सन्त्यज्य यद्रामः प्रजानां हितमाचरत् ॥ २२ ॥
 अन्ये विमर्शनिष्णाताः कलयन्तीममच्युतम् ।
 धर्मं; यदप्रियं सत्यं नान्वतिष्ठदहो! मुनिः ॥ २३ ॥
 'प्रियञ्च नानृतं ब्रूया' दिति जागर्ति चेत्स्मृतिः ।
 अहो! बत महत्पापं रामेणाचरितं वृथा ॥ २४ ॥

अथापि, राज्ञा रामेण राजधर्मोऽयमावृतः ।
 यत्सत्यमप्रियं राज्ये कुर्वन्दुष्यति पार्थिवः ॥ २५ ॥
 प्रजानां कुशलाधानं राजधर्म इति स्थितिः ।
 सत्यादप्यस्य माहात्म्यं पूर्वाचार्याश्च सञ्जगुः ॥ २६ ॥
 एवं विमृश्यमानं हि काव्यं सूते सनातनम् ।
 धर्मं; हन्येताददनो ह्यविमृष्टात्तु कश्चन ॥ २७ ॥
 एवं काव्यस्य मीमांसा कर्तव्या कृतकौतुकैः ।
 विद्वद्भिरन्वहं प्राप्यायिष्ठस्यानिष्टहानये ॥ २८ ॥
 आत्मानन्दमयो मोक्षो वेदान्तैः प्राप्यते यदि ।
 काव्येन नूनं प्राप्येत स रसात्मा न संशयः ॥ २९ ॥
 पुण्यं प्रगीतं सत्काव्यं पुण्या चैवोपदिश्यते ।
 तस्याधीतिर्विमर्शश्च पुण्यो धर्मफलावहः ॥ ३० ॥
 शतके विंशतितमे दारिद्र्यं नास्ति वादिनाम् ।
 विमर्शकानाञ्चान्येषां कलापण्योपजीविनाम् ॥ ३१ ॥
 न केवलं भारतीया भारतीयकवेर्गिरः ।
 विचारयन्ति; तुष्यन्ति रसचर्वणया न च ॥ ३२ ॥
 आङ्ग्लेयानां तथान्येषां कवीनां काव्यमाधुरी ।
 आस्वाद्यते यथाऽस्माभिस्तद्विमर्शरसज्ञया ॥ ३३ ॥
 विदेशीयास्सहृदयास्तथास्मत्काव्यसंपदः ।
 प्राच्यसाहित्यवीथ्याऽधिगन्तुं यत्रांश्च कुर्वते ॥ ३४ ॥
 इदानीमाङ्ग्लभाषायाः प्राबल्यादथवाऽन्यतः ।
 प्राचीनविद्यासरणिः नष्टा बत चिराय नः ॥ ३५ ॥
 काव्यं प्रसन्नगम्भीरं महद्वस्तुनिदर्शनम् ।
 यथाबन्धेदधिगतं मोदाय विदुषां भवेत् ॥ ३६ ॥
 अलङ्कारान्गुणान्नीतीध्वनिं वा रसमुन्नयम् ।
 बक्रोक्तिमौचितीं वापि काव्यात्मानं विदुर्बुधाः ॥ ३७ ॥

अज्ञात्वैवोपनिषदमिमां काव्यस्य शाश्वतीम् ।
 बाह्यमापातमधुरं ज्ञात्वा तुष्यति दुर्मतिः ॥ ३८ ॥
 स्मृतमन्धौ गभीरत्वं महत्वं च महीभृति ।
 प्रसादः पुष्करिण्यां च न काव्य इति मन्यते ॥ ३९ ॥
 नासौ जानाति सरसामभेदधिषणां कवेः ।
 दातृपूर्णेन्दुसौम्यत्वकलङ्काभावयोर्मिथः ॥ ४० ॥
 गुणेषु लीयमाना ये गुणत्वं वा भजन्ति ये ।
 तान्नित्यदोषान्जानाति काव्यद्वेषी खलो नरः ॥ ४१ ॥
 कवीनां भारतीयानां काव्यदृष्टिं विलक्षणाम् ।
 प्रकृतावाश्रितां तद्वल्लीयमानां न पश्यति ॥ ४२ ॥
 काव्यमीमांसकम्मन्याः प्रतीच्याः केऽपि सम्प्रति ।
 अपजल्पन्त्यनाघ्राय कालिदासवचस्सुमम् ॥ ४३ ॥
 पाश्चात्यानां मतं वेदमल्पज्ञोऽस्मासु मन्यते ।
 आङ्ग्लभाषाविदग्धोऽपि परप्रत्ययनेयधीः ॥ ४४ ॥
 काव्यश्रियं न जानाति कवेस्सहृदयात्परः ।
 दुग्धाब्धेर्मेयने शक्तः कोऽस्त्यन्यो मन्दरं विना ॥ ४५ ॥
 पौरस्त्यो वा प्रतीच्यो वा काव्यस्याधिकृतो मतः ।
 यद्ययं वेद सरसं व्यङ्ग्यं काव्यार्थमञ्जसा ॥ ४६ ॥
 भवेद्विपर्शकः काव्ये कविः सहृदयश्च सः ।
 कलाधीतिर्विदग्धत्वं यस्य स्यात्कुलभूषणम् ॥ ४७ ॥
 केचित्सहृदयत्वस्य विदुः कारणतां पराम् ।
 अथापि प्रतिभाशून्यः कुर्यात्सहृदयोऽपि किम् ॥ ४८ ॥
 यदि कश्चित्सहृदयः न कविर्विद्यते, ततः ।
 कामं तस्याधिकारोऽस्तु काव्यार्थस्य विपर्शने ॥ ४९ ॥
 एतैस्तु शक्यते नैव प्रतिषेद्धुमिहावनौ ।
 कवीन्सहृदयांश्चैव काव्यवर्तमानुगान्शतम् ॥ ५० ॥

इति प्रथमो गुच्छः ॥

विमर्शो द्विविधः प्रोक्तश्चरित्रादेक इष्यते ।
 अन्यः काव्यादयैतौ च मिथस्सख्यमवामुतः ॥ १ ॥
 'उपमा कालिदासस्य' वचसां रामणीयकम् ।
 शृङ्गार आत्मा काव्यस्य करुणाद्युपबृंहितः ॥ २ ॥
 एतत्परीक्ष्य तुष्यन्ति पूर्वं केऽपि विपर्शकाः ।
 कवेश्चरितमज्ञात्वा स्वभावश्च विशेषतः ॥ ३ ॥
 दुर्दैवतो भारतेऽस्मिन्पूर्वसूरिकथाश्चिरम् ।
 श्रुता न रक्षितास्सम्यगहो ! कालेन विस्मृताः ॥ ४ ॥
 कालिदासस्य चरितं स्वभावं जन्मनामनी ।
 पितरौ गृहिणीं कालं को विजानाति पण्डितः ॥ ५ ॥
 पूर्वाख्यानं गृहीतश्चेदजपाल इति श्रुतिः ।
 काली(लि)प्रसादसम्पन्नवाग्व्यक्तिरिति च प्रथा ॥ ६ ॥
 काव्येष्वन्विष्यमानेषु स द्विजन्मा बहुश्रुतः ।
 प्रकृतेः कविराजश्च नैकशास्त्रविशारदः ॥ ७ ॥
 उज्जयिन्यां कवेर्जन्म साधयन्ति विपश्चितः ।
 'मेघ'गम्यप्रदेशानां वर्णनाचातुरीविदः ॥ ८ ॥
 कालेऽस्य कविराजस्य विवदन्ते विपर्शकाः ।
 अग्निवर्णस्य कालं केऽप्यग्निमित्रस्य वापरे ॥ ९ ॥
 विक्रमार्केशकाब्दार्दि कालमाहुः परे बुधाः ।
 द्वितीयचन्द्रगुप्तस्य गुप्तवंश्यस्य वेतरे ॥ १० ॥
 समुद्रगुप्तसाम्राज्यसंग्रामान्विशिनष्टि सः ।
 एषां वैतथ्यसत्यत्वे कथं निश्चिनुमो वयम् ॥ ११ ॥
 एवं संशयगर्भाणि कवीनां चरितानि च ।
 विज्ञातुं वस्तुतः केऽपि यतन्ते पण्डिताग्रजाः ॥ १२ ॥
 नाणकैर्विविधैस्ताम्रशिलालिखितकैरपि ।
 कालं प्राचां भूपतीनां निश्चिन्वन्ति विपर्शकाः ॥ १३ ॥

राज्ञां कालेन कालस्तु निर्णेतव्यः कवेरपि ।
 यत्पूर्वं सूरयो राज्ञः कस्यापि समितिं गताः ॥ १४ ॥
 पद्ममित्रस्य समितिं कर्तुं वर्णितवान् मुनिः ।
 पतञ्जलिस्ततो राज्ञस्सकालिक इति स्मृतः ॥ १५ ॥
 सभ्य आसीत्कनिष्कस्य वृद्धो बौद्धो महाकविः ।
 अश्वघोषो व्यरचयद्यो बुद्धस्य कथां शुभाम् ॥ १६ ॥
 भट्टिः श्रीधरसेनस्य बलभीवल्लभस्य च ।
 हितार्थी शब्दशास्त्राङ्गं पौलस्त्यस्य वधं जगौ ॥ १७ ॥
 बाणस्सभामलङ्कृत्य हर्षवर्धनभूपतेः ।
 रूपकत्रयकर्तुर्हि चरितं पावनं जगौ ॥ १८ ॥
 रामाभ्युदयकर्तुर्हि यशोवर्ममहीपतेः ।
 भवभूतिरभूत्सभ्यः श्रीकण्ठपदलाञ्छनः ॥ १९ ॥
 अभेदं कविनानेन मीमांसापारदृश्वनः ।
 भट्टोव्वेकस्य जानन्ति नव्याः शास्त्रविमर्शकाः ॥ २० ॥
 कविर्वाक्पतिराजोऽपि सभ्योऽभूदस्य भूपतेः ।
 काव्यं गौडवहो नाम प्राकृतं प्रणिनाय सः ॥ २१ ॥
 काश्मीराख्ये जनपदे न्यवसन्कवितल्लुजाः ।
 राज्ञां बहुमता नैके शतकान्नवमात्परम् ॥ २२ ॥
 अवन्तिवर्मणो राज्ञः काले सहृदयः कविः ।
 आनन्दवर्धनोऽभूद्धि काव्यालोकप्रकाशकः ॥ २३ ॥
 गुप्तोऽभिनवपूर्वश्च विदधे लोचनं महत् ।
 भारतीयं नाट्यशास्त्रं व्याचख्यौ च सविस्तरम् ॥ २४ ॥
 राजशेखरमुख्याश्च बहवः पण्डिताग्रजाः ।
 काव्ये विमर्शे च बहून्ग्रन्थान्विदधिरे स्वयम् ॥ २५ ॥
 मुहम्मदानामन्येषां राज्ञां पण्डितकोविदाः ।
 सभारत्नान्यशोभन्त शतकाद्द्वादशात्परम् ॥ २६ ॥

आसीद्विजयराष्ट्रेशो बुकनामा महीपतिः ।
 माधवस्सायणश्चास्य सभ्यावास्तां सहोदरौ ॥ २७ ॥
 पराशरस्मृतेर्व्याख्यां रचयामास माधवः ।
 जैमिनीयन्यायमालाविस्तरं चाकरोत्स्वयम् ॥ २८ ॥
 वैयासिकन्यायमालां विद्यारण्यपदाधिगः ।
 पञ्चदश्यादिकं ग्रन्थजातं लोकहितैषया ॥ २९ ॥
 सायणश्चतुरो वेदान्व्याचख्यौ च सविस्तरम् ।
 दर्शितेनाध्वना यास्कशौनकादिमहर्षिभिः ॥ ३० ॥
 प्रसादतो नायकस्य वेङ्कटाख्यस्य भूपतेः ।
 चक्रे कुबलयानन्दं श्रीमानप्पय्यदीक्षितः ॥ ३१ ॥
 डेल्हीभर्तुश्च 'दारस्य' 'बाजिहान' महीपतेः ।
 दयापात्रं जगन्नाथो जगदाभरणं जगौ ॥ ३२ ॥
 कवेः कालस्य विज्ञानात्स्वभावो ज्ञेय इष्यते ।
 तज्ज्ञानान्महती व्यक्तिः सतः काव्यचितो भवेत् ॥ ३३ ॥
 कवीनामितिहासस्य विमर्शो नाञ्जसा मतः ।
 तेन मैमांसिकी रीतिः कथं सख्यमवाप्नुयात् ? ॥ ३४ ॥
 एवं कालविमर्शस्य तत्त्वं सन्दिहते परम् ।
 केचिद्विमर्शकम्मन्या अवजानन्ति चापरे ॥ ३५ ॥
 ऐतिहासिकरीतिश्च प्राधान्यं जानते बुधाः ।
 प्रतीच्या युञ्जते नित्यममुं काव्यविमर्शने ॥ ३६ ॥
 चरितं पूर्वसूरीणां प्रतीच्याः पालयन्ति च ।
 ततस्तेषां सुसिद्धा स्यादैतिहासिकपद्धतिः ॥ ३७ ॥
 'वेक्सपियर्' कविराजस्याप्येवं कृतिषु संशयः ।
 किं नटेन प्रणीतास्ताः ? कविराजाऽथवा यथा ? ॥ ३८ ॥
 कस्मिन्काले रूपकेषु कीदृशानि प्रणिन्यरे ।
 आसां विपतिपत्तीनामितिहासान्न निर्णयः ॥ ३९ ॥

रूपकेषु हि यत्रासौ नेतृणां चरमां दशाम् ।
 वर्णयामास करुणं प्रेक्षावद्दुःखकारणम् ॥ ४० ॥
 तानि प्रणेतुं कीदृश्या प्रयत्नः कविना कृतः ।
 एतद्रहस्यं विज्ञातुं क्लेशयन्त्यात्मनो बुधाः ॥ ४१ ॥
 पुत्रे विपक्षे कविराट् तितीर्षुशोकसागरम् ।
 मृत्युप्रधानाश्च कथा रूपकाण्यकरोत्स्वयम् ॥ ४२ ॥
 यत्काले यादृशी प्रज्ञा नवोन्मेषविधायिनी ।
 तत्काले तादृशं काव्यं जायते रसमञ्जुलम् ॥ ४३ ॥
 एवं विमर्शकाः केऽपि रूपकाणां क्रमं विदुः ।
 तथैवास्य कवेश्चित्तविकारान्वर्णयन्ति च ॥ ४४ ॥
 अन्ये मनश्शास्त्रविदो सुखे दुःखे च मज्जताम् ।
 नराणां मानसान्भावान्कलयन्त्यन्यथैव हि ॥ ४५ ॥
 अपेक्षन्ते सान्त्वनानि मनश्शल्योद्दिधीर्षवः ।
 जना नैकविधान्येवं चित्तसञ्जीवनान्यपि ॥ ४६ ॥
 वीतशोकस्तु हृष्टात्मा कविराट् विदधे स्वयम् ।
 हृद्यानि नाटकान्येव नेत्रन्तप्रवणाः कथाः ॥ ४७ ॥
 नायकस्य प्रणाशेन बन्धूनां च्युतिरत्र च ।
 नेतृदोषः परं बीजमिति चाहुर्विमर्शकाः ॥ ४८ ॥
 तस्मात्सदोषो हेयश्च लोके सर्वैर्हितैषिभिः ।
 शोभतेऽस्मिन् दोषाणां भूयस्त्वाद्विरलो गुणः ॥ ४९ ॥
 यथा धर्मस्य विज्ञानमधर्मस्योपवर्णनात् ।
 शास्त्रेषु दृश्यते, तद्वद्रूपकेषु निरूप्यताम् ॥ ५० ॥

इति द्वितीयो गुच्छः

(अनुवर्ति)

University Notes

Convocation, Conferences, and Congresses :—

His Highness the Maharaja of Mysore, Chancellor of the Mysore University, has been pleased to invite our Vice-Chancellor, Rao Bahadur S. E. Runganadhan Avl., M.A., I.E.S., to deliver the Convocation Address of that University.

His Excellency the Governor of Madras has graciously consented to open the next session of the All India Economics Conference, which is being held under the auspices of the University, at Annamalaiagar on the 2nd January, 1934.

The Syndicate has nominated the Vice-Chancellor, Mr. S. Satyamurti and Dr. B. V. Narayanaswami Naidu as delegates representing the University to the quinquennial Universities Conference under the auspices of the Inter-University Board to be held at Delhi on the 6th, 7th and 8th March, 1934.

Dr. M. O. Thomas, M.A., Th.D., F.I.L. (Lond.), the Librarian of the University, was elected President of the All India Library Conference held in September, 1933, at Calcutta.

M.R.Ry. Dewan Bahadur A. Ramaswami Mudaliyar Avl., B.A., B.L., M.L.A., represented the University on the occasion of the laying of the foundation stone of the new University Buildings for the London University.

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Courses of Study and Examinations :—

A meeting of the Academic Council was held on the 2nd September, 1933, where among other items of business the text-books for the several University Examinations were prescribed.

The question of giving instruction in Economics as one of the optionals under Part III of the Intermediate course is under consideration.

Archaeology has been included in the list of Special Subjects offered for the B.A. (Honours) degree examination in Samskrit Language and Literature and instruction in the same is being given.

Research Studentships :—

The following research-studentships were awarded during the year:—

- Mr. B. V. Ramanujam, B.A., (Hons.), (History).
 „ S. Natarajan,, B.A., (Hons.), (History).
 „ V. Sivaraman, B.A., (Hons.), (Economics).
 „ S. Venkatachari, B.A., (Hons.) (Mathematics).
 „ K. Rangaswami, B.A., (Hons.) (Mathematics).
 „ V. Seshadri, B.Sc., (Hons.), (Physics).
 „ P. S. Varadachari, B.Sc. (Hons.), (Physics).
 „ K. Ganapathi, B.A., (Chemistry).
 „ M. Swaminathan, B.A., (Chemistry).
 „ N. K. Srinivasan, B.A., (Tamil).
 „ R. Ramakrishnan, B.A., (Hons.) (Sanskrit).

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Buildings :—

The New Sports Pavilion, the largest of its kind in any of the educational institutions in South India, was formally opened by the Vice-Chancellor in August last.

The construction of the Library and Administrative Buildings at a cost of 3.5 lakhs has just now been commenced and is expected to be finished in two years.

Reviews

Banks and the Monetary Market—By B. Ramachandra Rao, M.A., Ph.D. Published by Lal Chand and Sons, Calcutta, pp. 257. Price Rs. 2.

The author has here collected into book form the four lectures which he delivered to the members of the Institute of Bankers, Calcutta. The book consists of four chapters dealing with such topics as: The Indian Monetary Market and its organization; Expansion and Contraction in the present day Currency System; Other Monetary Markets, and the Ideal Monetary and Banking Standard.

The author in these lectures has brought out the salient aspects of the subject and makes certain suggestions for the development of a perfect Monetary market. In the first chapter the constituent elements of a country's monetary organization are explained and the importance of the money market in the financial structure of a country is emphasised. The author proceeds to point out the various defects of the Indian Money markets, especially the weak correlation between the various credit agencies, the lack of proper and intelligent regulation, and the non-existence of an organized Discount market. In order to improve the Indian Money market and make it more compact the author suggests the reorganization of the loosely knit Money market by instituting such missing links as the Bill-Broker, the Acceptance House, the Bill market and a Central Reserve Bank.

In the second chapter, after an explanation of the meaning of money, we are treated to a detailed description of the present day currency system of India, with its defects and suggestions of suitable reforms.

The third chapter deals with the Bill market, the Exchange market, the Investment market and Investment Trusts, pointing out the advantages "of co-ordinated borrowing by the Central Government for all purposes." It is further suggested that this work should be undertaken by an efficient National Board of Investment.

The concluding chapter touches on the larger problem of Banking reconstruction in India. The author recommends improvements in the technique of administration in smaller Banking Institutions by rationalising not only such Institutions but also the methods of Indigenous Bankers, and points out that even if the above suggested remedies do not prepare the way for the Banking Millenium, they would tend to minimise the disparity between the bank rate and market rate in at

least some of the money markets. There are eight appendices in which notes with detailed references to some of the points touched upon or relevant to the main lectures are added.

This book should prove of value more to the lay reader than to the advanced student, though some of the practical suggestions might profitably be considered by Bankers in this country. At a time when the Banking question in India is engaging the attention of all who are concerned in the regeneration of the country, when Industrial, Co-operative, Indigenous Banks and the Central Reserve Bank are matters of continual discussion, this little book, by offering a clear and succinct exposition of some aspects of the problem is particularly welcome.

The get-up and printing could be considerably improved.

B. V. N.

Tarikh-i-Ilāhi by V. S. Bendrey,—published by G. B. Nare, Poona, 1933, pp. 46.

The illustrious Shaikh Abul Fazl 'Allami devotes an entire section in the third book of his *Ain-i-Akbari* to the description of the Divine Era (*Tarikh-i-Ilāhi*) which was started by Amir Fathu'llah Shirazi who took as his base the Gurgani Canon and began the calculation of the era with the accession of Akbar. The years and the months are natural solar without intercalation; and the Persian names of the months and days were left unaltered; the days of the month were reckoned from 29 to 32 and the two last days were called *Roz-o-shab* (day and night).

Efforts have been made by scholars towards the synchronisation of the Ilāhi dates and months which were in use in the reigns of Akbar and his successors; but these have not been completely successful, in the absence of a definite knowledge of some starting point and of the exact astronomical constant adopted for the true solar Ilāhi year. It is the astronomical constant that could not be easily ascertained. Mr. Bendrey, an enthusiastic research scholar, particularly in the period of Maratha history, has utilised Vedangaraya's *Pārsi-Prakāsha*—a book written in 1649 A.D., in the reign of Shah Jahan—to explain the terms, technical words, etc., which may present a difficulty to the astrologer for want of sufficient knowledge of Persian. He has not only given the exact astronomical constant for calculating the Ilāhi years, but has also explained in detail the method of ascertaining the first days of the months, the I'ds, etc. The constant is slightly in excess of that of the Gregorian Calendar and also of the constant adopted by the famous Ulūgh Beg. We are able to know that the Ilāhi year begins from the moment of

the Sun's entry into Aries, as Vedangaraya has given the moment of the Sun's entry into each of the signs of the zodiac for two years, viz., the 79th and 88th Ilāhi years. Mr. Bendrey gives a table showing the first days of the Divine months along with their corresponding dates in the Christian era (Old Style) for the first ten duodenary cycles of the Ilāhi years. He also furnishes another table showing the moment of the Sun's entry into the sign of Aries (i.e. the commencement of the Ilāhi year) and its corresponding dates in the Christian, Hijri and Saka eras. He has thus furnished a very useful guide for students of Mughal chronology and numismatics.

C. S. S.

International Economics—By R. F. Harrod, M.A. Published by Nisbet and Cambridge University Press. pp. 211. Price 5s.

A series of Economic Handbooks is being issued under the general editorship of Prof. J. M. Keynes with the object of providing the general reader with a number of readable volumes wherein he may find a clarified exposition of modern economic thought. The degree to which the older economic principles and formulations are valid in the light of Post-War experience are here considered with an unprejudiced mind by the author.

There is a general tendency among many academicians to regard such principles as settled and complete. The writer rejects such conclusions and tries to re-examine and restate the fundamental theories of economics by integrating them with the knowledge derived from the analysis of modern problems. His treatment does not preclude further modifications when new facts manifest themselves.

By international economics, the author means the study of the way in which economic transactions are affected by the existence of national frontiers. Though the title of the book is "International Economics" the author mainly deals with the complicated mechanism of Foreign Trade which he rightly considers to be the basic factor in all International relationships. He breaks no new ground on the fundamentals of foreign trade, but in the main follows the classical writers.

The book is divided into nine chapters dealing with such vital topics as:—The Gain from the Foreign Trade, Foreign Exchange, The Balance of Trade, World Monetary Reform, and Tariffs. In his discussion of Monetary Theory, he seems to favour stabilisation of prices or at least preventing prices falling faster than is warranted by the increasing production of goods. In considering means to this end, he deals with the theoretical rather than the practical difficulties. The book is lacking in illustrative facts and the whole of the analysis is

academic which is undoubtedly interesting to the expert but a little baffling to the general reader.

This well written and stimulating book is one which no serious student of economics can afford to ignore. The general get-up is admirable, the printing is clean, and the moderate price brings it within the reach of all.

B. V. N.

Imperial Preference for India—By Dr. Gadgil, M.A. (1932).

This brochure by Dr. Gadgil (the second in the series of studies issued by the Gokhale Institute of Politics and Economics, Poona) is, as its sub-title indicates, an examination of the Ottawa Agreement from the Indian point of view. The author first examines the case for Imperial Preference and endorses the view of the Indian Fiscal Commission that the application of a policy of preference would be a distinct economic loss to India. He next studies in detail the articles of Indian imports and exports. As regards the effect of the preferences granted to Britain in the Indian market, he concludes that the most notable result is likely to be an increase in the cost of the cheap Continental and Japanese imports and a consequent burden on the poorest classes of consumers of foreign goods. As regards the cotton piece-goods, the author rightly points out that it is wrong to pretend that the preferential treatment of cotton piecegoods imports is a customs device to benefit the Indian consumer. It is really a bounty given to the British producer at the expense of the Indian consumer to help him in the competition with Japan. The author next examines the Indian articles of export so as to indicate the effect of the preferences granted to India in the British market. A consideration of the most important articles of export, viz., raw jute, raw cotton and manufactures thereof, rice, etc., shows that they form in value more than half the total exports of India, and no Imperial Preference can help them. If we balance the economic loss to India against the gain under the Agreement, the loss would be greater. We have not yet acquired sufficient data regarding the actual working of the tariff preferences since its ratification by the Indian Legislature, and a periodic examination of this trade agreement seems to be imperative if the larger economic interests of the country are to be safeguarded. The author is to be thanked for having given us a very readable and closely reasoned presentation of the economic consequences of the Ottawa Agreement to India.

V. G. R.

ACKNOWLEDGMENTS

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