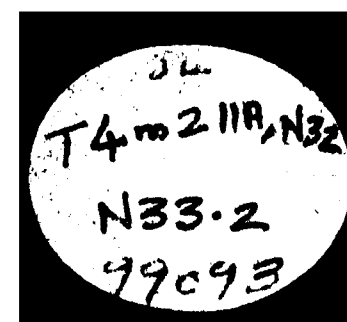




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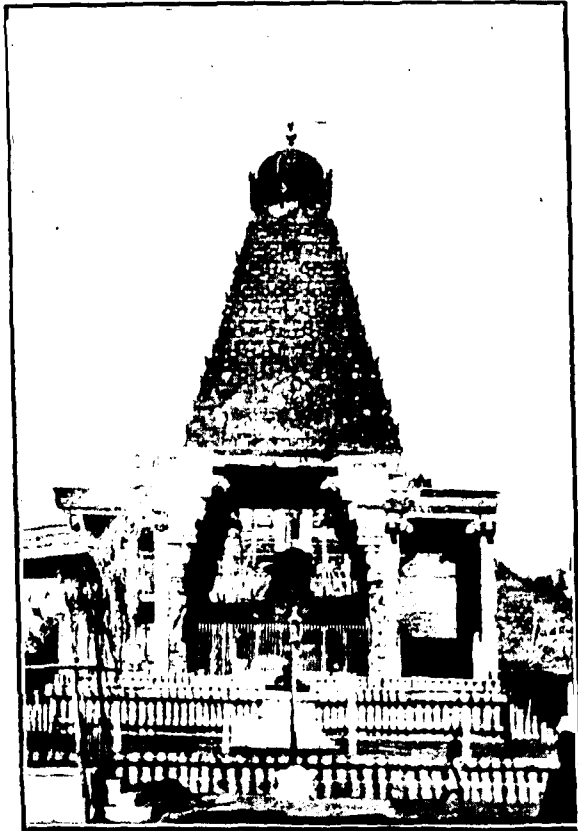
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THE GREAT TEMPLE

JOURNAL  
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VOL. II.

APRIL, 1933

NO. 1.

The Frescos of the Brhadewara Temple at  
Tanjore.

By

S. K. GOVINDASWAMY

(Annamalai University)

1. RECENT PROGRESS IN THE KNOWLEDGE OF SOUTH  
INDIAN PAINTING.

"From the time that the last painter at Ajanta threw down his brush in A.D. 650" observes Mr. Percy Brown, in his excellent little book on Indian Painting, "until we come into contact with the art again as it was revived in the reign of the Moghal emperor Akbar, in the later half of the 16th century, the story of painting in India remains, to all intents and purposes, a blank."<sup>1</sup> This seemed until yesterday to be the disconsolate truth. But, luckily, Prof. Jouveau—Dubreuil's discovery of the precious fragments of pictorial art in the Kailasanatha Temple at Conjeeveram has thrown a span over a part of this gulf and thus carried forward the history of Indian painting by more than a century. Here alone we have the earliest example of the Hindu art of mural painting, for, as everybody knows, the art of Ajanta, Bagh and Sigiriya is Bud-

1. "Indian Painting". p. 38.

dhistic and that of Sittanavasal is Jain. And, to-day, I flatter myself with the fond hope that my discovery of the frescos of the Brhadeswara temple will further extend the frontiers of the history of Indian Painting in general and of Hindu Painting in particular.

## 2. A DESCRIPTION OF THE FRESCOS

It is a matter of common knowledge to the students of Indian History and Architecture that the stately fane in Tanjore, popularly known as the "Great Temple", was constructed by Rajaraja I, who lavishly embellished it with the spoils of his numerous wars. Round the central shrine of this temple runs a narrow *prakara*, immediately under the *Vimana*. Curiously enough it is in this part of the temple that the paintings under consideration are found. Dr. Ananda. K. Coomaraswamy, writing about the Ajanta frescos, remarks, "It is difficult to understand how the work can have been done in such dimly lighted halls."<sup>2</sup> One feels the same difficulty here also, for the passage is absolutely dark except for the dim religious light, which struggles through three latticed windows in the walls and only serves to make "darkness visible".

The walls on either side of this passage are painted over from the floor to the ceiling. But it is not with these paintings we are concerned here. But, on the other hand, strangely enough, there is another layer of painting, partly damaged and partly preserved, underneath the outer layer, which was, obviously, superimposed on the older surface at some later period in the history of the temple, perhaps, in the course of a renovation. As the outer surface is cracked up in some places, a gentle touch is sufficient to bring it down in a shower of fragments, automatically revealing the paintings within. So far, the west and north walls of the *prakara* have yielded many interesting panels, busts and torsos, while the south and east walls continue to be a sealed book. I believe that a further exploration of those walls will certainly bring many more paintings to light.

To take the paintings of the west wall first. This wall is laterally divided into three parts. The central section is occupied by a huge image of Nataraja sculptured in stone, and loudly painted all over. Of the other two sections, one is horizontally marked off into four panels of unequal size. The topmost panel is filled in with a picture of Siva, seated on a deer skin in a yogic pose, and surrounded by a group of devotees and the fantastic crew of his personal attendants. In the light

of the pictures in the lower panels, we can take it for a representation of *Kailasa*, the abode of Siva. The next panel contains in the centre a magnificent white elephant with four-tusks and rich trappings. A bearded young man with brown complexion is riding on it, with a pair of small cymbals (*tālam*) in his hands. Evidently, he is singing, keeping time with the *tālas* in his hands. To the right of this picture, is drawn a galloping horse, mounted by a squarely built man, with a handsome countenance. Both the horse and the elephant are wading through water. The right and left top-corners of this group are occupied by a band of *Gandharvas*. Some of them are showering lotus petals on the riders while others are playing on a variety of musical instruments. A lively scene is painted in the next panel. A group of men, obviously Brahmins, young and old, are assembled in a pillared hall. In their midst two men are standing *vis-a-vis*. One of them is an old man, bent double with age, holding a leaf-umbrella in one hand and evidently showing what looks like a palm-leaf document with the other. The other is a youth. He stands in an attitude of respect. A whole gamut of feelings, ranging from indignation to scepticism, are portrayed in the faces of the assembled men. To the right of this group the *vimana* of a temple is painted into which the Brahmins assembled in the hall are hurriedly entering.

The clue to the pictures described above can be found in the tamil work, *Periyapurānam*, written by Sekkilar in the 12th century A.D. All these panels are but representations of some incidents in the life of Saint Sundara, one of the three *Thevaram* hymnists. Sundara was the son of an *Ādi-Saiva* Brahmin of Tirunavalur in Tirumunaippāḍi-nāḍu. When he attained manhood, a suitable match was arranged for him in a village nearby. On the appointed day of marriage, Sundara arrived, gaily adorned, at the brides-house. Just at the time of the tying of the sacred 'tāli', an old Brahmin stood up from among the crowd and created a sensation by forbidding the marriage on the ground that the bride-groom was his bondslave. There was a general excitement and Sundara thought that it was a hoax. But the old man produced a palm-leaf document professedly executed by Sundara's grandfather to the effect that he and his progeny were the bondslaves of that strange Brahmin. Sundara snatched this document and, in a fit of indignation, tore it to pieces. But this did not dishearten the old man, who hurried to the *mahasabah* of Tiruvennainallur and preferred a complaint against Sundara. Sundara was hauled before the village assembly, the whole case was thoroughly examined and finally the judgment was given by the elders that Sundara was the bondman of the plaintiff.

2. "Indian and Indonesian Art." p. 90.

It is this tense moment that the artist has chosen to depict here. After this, the elders became interested in the ancient suitor and so they enquired him of his whereabouts, in response to which he took all of them into the Siya temple and suddenly vanished. Then Sundara realised that he was the slave of Lord Siva himself and it was no mean vocation to serve him.<sup>3</sup>

After some years of wandering in the Tamil country, visiting temples and working miracles, Sundara received a summons from Siva to come back to Kailasa. A white elephant descended from heaven and carried away Sundara from the bounds of this mortal world. The news reached Cheraman Perumal, the Saint King of Kodungolur, who was an intimate friend of Sundara. Unable to bear the separation, he jumped on a horse, whispered the "panchakshara" in his ears and reached Kailasa sooner than Sundara.<sup>4</sup> It is this episode which is painted in the first and the second panels described above.

The last panel in this part of the west wall is the representation of an interesting domestic scene. A bevy of lovely women are engaged at the kitchen, cooking food. One woman is stirring the boiling rice in the pot, another is feeding the fire with wood, a third is pouring out water from a mud pot and a fourth is offering food to a man.

On the third section of the west wall is painted a picture on a grand scale. A large portion of this picture is still under the superposed plaster. At the top a part of the tiled roof of a hall is visible, which resembles the *Kanakasabaha* or the Golden Hall of the Nataraja temple at Chidambaram. An outstretched left hand holding the fire on its palm, and a side of the sinuous body are the only visible indications of a figure of Nataraja, painted below the pavilion. To the right of this torso is standing a stately personage, adoring Nataraja. Three women are standing in a line with him, all in *anjali-hasta* attitude. They are all decked richly with pearls and jewels and clad in "a wondrous work of thin transparent lawn," indicated sometimes by exquisite floral designs of the border and sometimes by the stripes and dots and stars on the body of the figures. Two men with silver rods in their hands are standing outside the hall and they are obviously attendants. Most likely a king and his queens are represented in this group. Below this there is another group of four charming women, in

3. "Periyapuranam". Canto *Thaduttakonda-purana*.

4. Ibid. *Vellanaichcharukkam*.

the same worshipping attitude. At the bottom of the picture a group of six men is painted in different poses of adoration.

In the wall opposite to this Nataraja panel, we have got some marvellous drawings of the fair sex, though in a sadly fragmentary state of preservation. Two exquisitely shaped women with high-caste fingers, and clothed in some finely designed costumes and decked in chastest ornaments, are seated in a very graceful pose. Just beneath them, three feminine heads, with refined and charming features, are peeping through the opening in the upper layer of plaster. The whole group and particularly the three heads can proudly stand comparison with the far-renowned women of Ajanta and Sigiriya.

By the side of the above group, a string of about twenty seated women is painted in a curious perspective. The whole group is drawn on a small scale, very small from the view-point of mural painting, and the details are put in with a delicate touch which will beat the ivory worker in his own line. This is a marvellous cameo on wall. The first three figures of this group are a triumph of the art of line.

Turning to the north wall, luckily a large portion of the painting here is saved from the corrosive effect of the plaster above. The artist has designed the picture on this wall on a grand scale. The subject also lends itself easily to such a treatment. It is a battle piece founded upon a puranic story, the destruction of the *asuras* of Tripuri by Lord Siva. On one side the *devas* are painted and the *asura* warriors on the other side. The central and dominating figure of this picture is that of Siva as Tripurantaka. This is a vigorous and powerful composition. He has a well-modelled and massively-built body and eight arms wielding different weapons. His pose is characteristic.<sup>5</sup> He is kneeling on the left leg, while the whole weight of the body is thrown forward on the right leg, which is bent and firmly planted on the seat of the *ratha* he is riding on. The face is a masterpiece of portraiture. Every lineament is drawn taut. The eyebrows are lifted up in sharp curves, the third eye is bulging out, the nostrils are dilated, the whole head is thrown back in a challenge. But there is no fury in the face. There is a trace of contemptuous smile in the lips and eyes. The difficult composite expression of contempt, laughter and force is realised in this picture. It produces an impression of awe and majesty. It is, indeed, a masterpiece. One may

5. This figure resembles the pen-and-ink drawing of the Tripurantaka sculpture in the Dasavatara cave at Ellore, given by T. A. Gopinatha Rao in p. 170 of his "Hindu Iconography". Vol. II. pt. I.

safely conclude that this marks the high water-mark of the Brahmanical school of painting in the mediaeval period of Indian History. A whole army of *asuras* is painted facing Siva. One peculiarity in the picture of the *asuras* is that their faces do not distort into an exaggerated caricature as they usually do in later paintings. They are muscular men with fierce eyes and moustaches, fighting with a courage inspired by fear. Here and there in this group are found weeping and terror-struck women clinging to the neck of the *asura* warriors. This is a original conception of the artist. Here again the women are not ugly or gross but they are as delicate and handsome as other women in the paintings of the Tanjore temple. The artist has done well in not sacrificing his sense of beauty for the sake of the vulgar conception of a grotesque *asura* woman. Woman, to him, is always beautiful, be she a *deva*, a mortal or an *asura*.

In my latest visit to the Brahadeswara Temple I brought to light, from under the plaster in the wall opposite to the north wall, four life-size heads, apparently of gods. They are painted in different colours, two faces in white, one in light Indian red and the fourth in yellow ochre. They have all jewelled *kiriṭās*, and elaborate ornaments in their ears and round their necks. Their faces have a dreamy air. I am not able to identify these heads.

Some of the special features of these paintings as a whole may be considered here. It is said that the painting of the East is an art not of mass but of pure line and the Tanjore temple frescos are a triumph of linear workmanship. The forms are drawn with a fine brush either in black or brown, but mostly in the latter colour. The flesh tints are not limited to the shades of natural complexion but they are either pure white, or yellow, or brown or sage green. In one case at least a figure is painted in vivid blue. Every figure here is gently modelled which produces an impression of roundness though the play of light and shade is not very pronounced. The drapery is indicated by a colour different from that of the flesh and also by lines. There is no occasion for painting the folds of drapery as the Indian painter of the past indulged in the "strange conceit" of clothing their human subjects in ultra-diaphanous garments. The outlines of figures are finished in forcible black or reddish brown lines of uniform thickness. Greatest delicacy of touch and mastery of details are exhibited in the drawing of a bewildering variety of ornaments, border designs of the garments, the noses, the fingers and the toes, in which respect these paintings may stand comparison with the best examples of Ajanta frescos. Women are drawn with a slender grace, though they lack the

untutored ease of carriage which distinguishes the Ajanta "beauties." Their eyes are shaped always like almonds, their noses are always well-formed and delicate, and their lips are always curling into a smile. That the artists of the Tanjore frescos were not deficient in the art of animal painting is shown by the figures of an elephant and a horse. Our painters and sculptors have always had a flair for the form of the elephant. But a remarkable feature of this elephant is its natural and graceful gait. The horse is a spirited drawing though verging on conventionality. Other animals found in these frescos are a couchant bull and a peacock. Water is represented here by means of a scroll design while clouds are pictured as wavy curls.

#### THE DATE OF THE TANJORE FRESCOS.

The Tanjore frescos are most probably painted synchronous with the completion of the Brhadeswara temple in the 29th year of Rajaraja the Great, that is A.D. 1014. In this connexion it may be remembered that all structures and sculptures, whether in stone or brick, have been usually finished in fine plaster of couch-shell chunam and then painted over in bright colours. The great temple is not an exception to this rule as its *vimana* will show. The plaster surface on which the frescos under consideration have been painted is so thin that it sticks very closely to the stone wall, and even where it peels off it reveals the corrosion of the wall due to the action of the chunam. Considering the hard horn-blending gneiss that is used in this structure, ordinarily it requires the lapse of a considerable period for even the slightest corrosion to set in as a result of the plaster sticking to it. Therefore, it is extremely probable that the paintings were executed at the time when the temple was completed.

Moreover, at some time in the history of the temple, it was found necessary, by some Tanjore rulers, to re-plaster the wall and paint it anew. So at the time this second layer of painting was done, it was likely that either the king who was responsible for it did not like the older paintings or that he felt it necessary to fill the walls with a new set of frescos on account of the deterioration of the older paintings. The date of this later-day work will enable us, to a certain extent, to arrive at an approximate date of the paintings here dealt with. A Mahratta inscription of the Brhadeswara temple mentions the fact that the Raja Sarabhoji made certain repairs in the temple, paved the floor of the outer *prakara*, built a small structure to Dakshinamoorti, and renovated the Vigneswara temple in the *prakara*. But in this inscription there is no mention of the renovation of the central shrine at all, though

it is so specific in other respects. Therefore, it is not likely, that any of the Mahratta rulers of Tanjore are responsible for the upper layer of frescos.

If it is not the Mahrattas, then it must be the Nayaks of Tanjore. Of course, there is no recorded evidence to show that the Nayaks of Tanjore effected repairs in the central structure of the Brhadeswara temple itself. The greatest *mantapa* which shelters the famous bull was built by the Nayaks. There is a bronze statue of a Nayak ruler, possibly of Sevappa, in the Tanjore temple. Sevappa Nayak was a great Saivite devotee, who built one of the high *gopuras* and dug a big tank at Tiruvannamalai. Govinda Dikshita, the great scholar and Saivite devotee, was the minister of Achuta, Sevappa's son and successor. There is a popular belief that the stucco-head of a European found on the northern side of the steeple is that of a Dane who helped to build the temple. "It is probably the case," says the *Tanjore District Gazetteer*, "that both the European figure and the Vaishnavite figures (on the *gopura*) were erected by the Nayaks (who built most of the Vaishnavite temples in the district), and that they were assisted by a Dane or Danes shortly before or shortly after the acquisition of Tranquebar by that nation."<sup>6</sup> These considerations led us to the conclusion that the outer layer of paintings might have been the work of the Nayak rulers of Tanjore. The frequent occurrence of Hanuman in these paintings may also point to the same conclusion.

If we take the date of the outer layer of paintings as roughly A.D. 1600, then the inner layer of paintings must have been executed far earlier. It may not be far wrong if we date these frescos in the Chola period. Here, the subject-matter and the general spirit of the frescos must be noted. The Saiva purana and Saiva hagiology have furnished the theme for the authors of the frescos. The general spirit of the paintings is *bhakti* or devotion. Such a spirited rendering of Saivite subjects that we find in the Tanjore frescos is possible only in a period of Saivite upheaval. We know that the Chola times were one of intense revival of Saivism. Gandaraditya Chola was a great devotee and a composer of the devotional songs called *Tiruvisaippa*. Rajaraja I. was given the title of Sivapadasekhara. The Saivite temple-building activities of the dowager queen Sembian Madevi and Rajaraja I. stand unparalleled by the history of another dynasty. The literature of the period was predominantly Saivite. Nambiyandar Nambi, the author of *Tiruthondar*

*Tiruvandadi*, was the great Saiva who discovered the lost *Thevaram* hymns. Karur Devar, Tirumaligai Devar, Sendanar and other contributors to *Tiruvisaippa* were flourishing during this period. Sekkilar, the minister of Kulottunga II, composed his famous *Tiruthondar-puranam* or the History of the Saivite Saints. The honour and devotion with which the temple of Nataraja was held by the Cholas may be noted here. Nataraja was the "Kulanayagam" of the Chola monarchs.<sup>7</sup> Parantaka and other Chola kings considered it a meritorious deed to cover the *sababs* with gold. Rajaraja named his Great Temple Dakshinameru after the Golden Hall at Chidambaram. He called the chief deity there, Adavallan or "skilled in dancing". He and his wives set up the bronzes of no less than 43 out of 64 Saivite Nayanmars in the Great Temple.

Now, turn to the paintings. There you find the Golden Hall painted in an unmistakable fashion. There is Nataraja, dancing his cosmic dance and perhaps Rajaraja I. and his queens are worshipping him. There is Lord Siva disputing with Saint Sundara. The recovery of *Thevaram* is celebrated by painting the chief incidents in the life of Saint Sundara.

Some other points which confirm the Chola origin of the Tanjore frescos may also be referred to, in conclusion. The close correspondence in the motif of a sculptured panel illustrating the incident of the dispute between Siva and Sundara, among "*Periyapuranam* sculptures" in the Iravateswara temple at Darasuram, and the illustration of the same incident in the Tanjore frescos is not an accident.<sup>8</sup> The grouping of the figures, the pose of Siva as an old man, the pose of Sundara, and other details are exactly the same both in the sculptured and painted panels. The sculptor might have copied the painting in the Tanjore temple or the motif might have been well known among painters and sculptors. Secondly the huge rounded coiffure bulging from out of the heads of men and women and elaborately ornamented represents a very ancient mode of doing the hair in the Tamil country. It was introduced in the sculptures and most probably in painting also in Chola days. Further, the forehead of men and women in these frescos is adorned with pendants of curling hair, which feature is usually found in Chola bronzes and stone sculptures of men and women. Another peculiar feature of these paintings is that all men without exception, be he a king or a Brahman, have beards. Sundara, here, is painted with a beard. In the

6. "Gazetteer of the Tanjore District". Vol. I. p. 270.

7. See the larger *maikirtis* of Vikrama Chola's inscriptions.  
8. Madras Epigraphist's Annual Report for 1918.

"*Periyapuranam* sculptures" mentioned above, we find Sundara as well as his father has a beard. This feature was most common only in Chola days. It is only Chola sculptures which very often betray this feature. Then with regard to the wonderful variety of ornaments painted with exhaustive minuteness in these frescos, they are but a mere copy of the plethora of ornaments which women and men wore in the Chola days. The Tanjore inscriptions mention a long catalogue of jewels which were given in gift to the Great temple by Rajaraja and his sister Kundavai. Therefore it is quite possible that the artists saw them and then painted them.

I have put forward these considerations without entering into a study of the technique of the paintings themselves in support of my view that the Tanjore frescos are synchronous with the temple. From a look into the copies of some of these paintings published by me in the *Hindu Illustrated Weekly* Mr. Mehta, the author of *Studies in Indian Painting*, wrote to me to say that "the discovery of these frescos is an event of the greatest importance to the history of Indian painting." Mr. K. A. Nilakanta Sastri, Professor of Indian History, Madras University, said, after a personal examination of the frescos, that he was struck with their "antiquity and excellence". My only hope is that further examination of these paintings by experts in this line would confirm my conclusions, thus exploding the myth that in India pictorial art has no continuous history, that with the disappearance of Buddhism it also perished and that the revival of Hinduism fostered more sculpture than painting. And my prayer to the authorities of the Archaeological Survey of India is that prompt and efficient measures may be taken to clean, fix and preserve this heritage of the glorious days of the Cholas.



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SAINT CHERAMAN PERUMALL GOING TO KAILASA—Copyright.

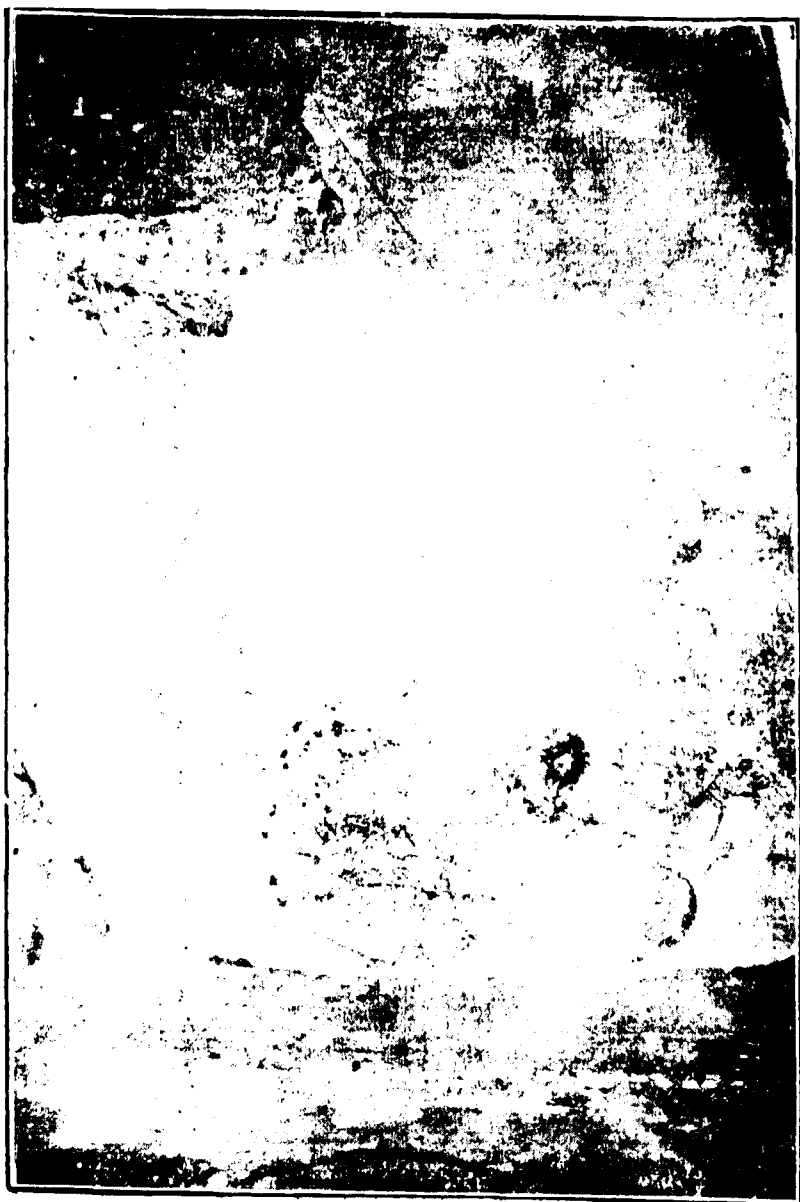


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LARGE MONOLITH NATARAJA IN THE INNER PRAKARA —Copyright.



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# Nature Poetry in Kalidasa's Raghuvamsa

By

A. C. SUBRAHMANYAM

(Annamalai University)

Nature description has always played a large part in English literature, shifting and fluctuating from the winter-wind and rime-cold sea of the Anglo-Saxon poets, to the conventionalised May morning and the warbling of birds of Chaucer and his contemporaries, on to the trim hedges, prattling brooks and artificial gardens of the 18th century. The Romantic poets steeped themselves in almost every aspect of nature appreciation going on from details of the meanest flower that blows to the widest Turner-esque sweeps of sky and cloud, from the tiger-moth's deep damasked wings to the sublimities of the ocean and the austerities of mountains, from the face of Mab to the spirit of Pan and the pagan deities. They made nature poetry almost synonymous with poetry itself passing from the external details of nature on to the interpretation of the spirit animating it. The approach to it was mainly aesthetic and the idea of a synthesis of nature with religion occurred only to single individuals in the nineteenth century.

In India, on the contrary, as the mythological elements of the Vedas conclusively show, there was, in addition to the manifest aesthetic appreciation, an interest in nature experienced by a whole race, an interest from which the whole religion spontaneously arose. The aesthetic appreciation of nature was maintained and continued in the numerous descriptions and similes scattered through the pages of the Mahabharata and the Ramayana. It is but reasonable, therefore, to expect nature poetry of a high order in the great poet-dramatist of India, Kalidasa.

Yet, nature poetry in Sanskrit has often been regarded as artificial and conventional, filled with a superabundance of unmeaning conceits. The growth of a marked poetic tradition and the wealth of works on Sanskrit poetics no doubt made it possible for inferior writers to borrow the imagery of earlier masters; but the work of the greatest poets has the unmistakable stamp of true insight and genuine poetic feeling.

Though difficulties of interpretation both linguistic and psychological<sup>1</sup> might stand in the way of proper appreciation, yet, closer study can reveal the true measure of such poetry. The following verse from the Second Canto of Raghuvamsa may be taken as a typical instance.

संचारपूतानिदिगन्तराणि कृत्वादिनान्ते निलयाय गन्तुम् ।  
प्रचक्रमे पल्लवरागताम्ना प्रभापतङ्गस्य मुनेश्व धेनुः ॥

"Having purified the ends of the earth by their passage the rays of the sun and the sage's cow, both red as a new leaf, commenced their homeward course at the end of the day."

<sup>2</sup>Mahimabhatta in his Vyakti-Viveka quotes this verse and remarks that the figure *deepaka* is here employed in order to heighten the effect of the simile since suggestion pleases more than a direct statement. But is the setting sun introduced here merely to add grace to the vision of the returning Dhēnu? This purpose is certainly accomplished; but to my mind the poet means more. He is sketching the actions<sup>3</sup> of the king throughout the day when he followed the sacred cow in order to be trained in the school of love.<sup>4</sup> Hence he wants to indicate the approaching close of the day and to describe the return to the hermitage. Besides, we get a singularly vivid and beautiful picture of the red rays of the setting sun in the glades of the forest and the consecrated movements of that dispenser of human wishes.<sup>5</sup> Therefore, the figure *deepaka* enables the poet to give equal prominence to the time as well as to the movements of the divine cow and to present a romantic and beautiful background for the progress of the monarch and his holy charge.

Over and above this Kalidāsa places before our mind's eye a world of images and symbols which are implicit but not explicit, images heightened by associative suggestions acting as undertones and overtones of the main note, which deepen the meaning of the words employed and often point to a meaning which goes beyond any of the actual words

1. Vide I. A. Richards—Practical criticism.

2. Vyakti-vivēka. Trivandrum Sanskrit Series p. 73. Vāṇyō hyartho no tatha svadate yatha sa ēva pratiyamānah ata ēva Saṅcārapūtāni . . . ityatra prabhā dhēnvōh 'prabhēva bhānōh' surabhirmaharshēriti Sabdavāṇyām upamam anādrtya kavina pūrvavat deepaka mukhēna upamēyabhāvo bhanītaḥ |

3. Canto II Sls. 1 to 6.

4. The Dhēnu episode tests Dilipa's self-sacrificing love and devotion to duty, Vide 11, 28, 62 and 63.

5. Kāmadudhā II 63.

used. The suggestion of the comparison between the Dhēnu and the red rays of the setting sun releases a whole world of images: the Dhēnu is as pleasing to the eye as are the rays of the setting sun; they are both purifying and holy, the ends of the earth being hallowed by their passage; they are both of equal benefit to the world, cleansing, purifying and healing; they are both equally sacred and have both been of great service to men. The atmosphere of the Dhēnu's return is delicately suggested and the symbolic similarity between apparently dissimilar incidents is brought out. We also feel that all life was looking forward to the daily return of the Dhēnu as they look forward to that of the sun's rays. If such be the spiritual power of the Dhēnu who can doubt that Dilipa's quest will be crowned with success?

Yet, hitherto, the studied ambiguity of phrases employed by Kalidasa has been left out of account. *Sançārapūtāni* refers to the purifying passage of the rays through the woodland as well as to the movements of the sacred cow. *Nilayāya* similarly indicates the western sea, 'the bath of all the Western stars' and the sage's hermitage to which Surabhi returned. The cow equally with the rays of the sun was red. By this last Kalidāsa reminds us of his earlier description<sup>6</sup> of the cow whose arrival before Dilipa was of happy augury to the success of his mission and points out to us that we are nearing another important incident in the progress of the story.

The nature of this analytic interpretation of the verse will become clearer with another instance.

संचारिणी दीपशिखेव रात्रौ यं यं व्यतीयाय पतिवरा सा ।  
नरेन्द्रमार्गाद् इव प्रपेदे विवर्णभावं स स भूमिपालः ॥

Here, Indumati, passing through the presence-chamber where her suitors are gathered, is described. The moving princess was like the flame of a lamp at night. As she progressed in her choice of a husband, whomsoever she left behind lost colour as does a grand house on the king's highway when the lamp passes away from it. Kalidāsa shows here his mastery of pictorial power in depicting a beam of glory clear-

6. Canto I 83. lalātōdayamābhugnam pallavanigdhapātālā | bibhratī Svētā-rōmānkam Ṣandhyēva Ṣasinam navam. ||

While Vasishṭa had finished his meditation regarding the impediments to the birth of a son to Dilipa and was explaining the cause the Sage's cow appeared on the scene.

ing its way through a chasm of darkness which resolves itself gradually by the borrowed light into a street lined with graceful mansions. When the light draws nearer and nearer each mansion becomes brighter and brighter but when the light passes onwards it gets darkened more and more till it is lost in the surrounding darkness. This is symbolic of the fate of the royal suitors whom Indumati passed by. Now let us consider the suggestions imbedded in the simile. Indumati was bright and beautiful as a tongue of fire; the lineaments of the princes are interesting and clear to us only in so far as they are lit by their love for her; theirs is a reflected glory. As she advanced each countenance began to beam with hope, each prince became the cynosure of all eyes as she came near him; even when she was some distance from him each one hoped that she would pass by the others and come to him and choose him; even when she had passed him by he still hoped that she would change her mind and come back to him. The light of the flame falls on the house when it is some distance away and it continues to be illuminated even when it has passed some distance beyond it. The contrast of gloom and hope, the added beauty of the princes before Indumati as of the lamplit houses in the dark night, the effacement of the princes when Indumati had passed forward, all these, are suggested. If ever poetic imagery can recapture the vision of a fleeting moment this does; and in how few words and with what truth!

These two instances reveal the method of this study. An attempt will be made to 'unearth the machinations of ambiguity which are among the very roots of poetry'<sup>7</sup> and to discover the many half-suggested ideas of the great poet which are beyond the purely explicit statements. It might be objected that no critic is entitled to put into a passage more than what the words themselves definitely state. Kalidāsa was, possibly, not consciously aware of all the labyrinthine involutions of his images; but poetry, more than almost everything else, is the expression of the sub-conscious as much as the conscious mind; and the very fact that the poet is satisfied with one and only one synonym or image shows that only that and none else expressed adequately the sub-conscious poetic conception. Such analyses are, however, always limited by the context, person, and purpose.

In the following study of nature in the *Raghuvamśa* this method is taken for granted and I can no more than select the most outstanding images for treatment.

7. Seven Types of Ambiguity—William Empson, Chatto and Windus 1930.

In the very first canto of the great epic the sage Vasishtha<sup>8</sup> in meditation is compared to a pond with the fishes at rest. The perfect calm of a sage's mind in *samādhi* and its many-sided activity when uncontrolled we realise vividly when we reflect on the countless movements of the fishes in clear water. The Dhēnu<sup>9</sup> on which the lion has alighted is compared to a red peak of the Himālayas on which the *lodhra* has flowered. This simile reveals not only the poet's arresting sense of colour but also his perception of the strength and ruggedness of the lion's outline with his grizzly manes. Hearing<sup>10</sup> the nectar-sweet words that his beloved queen had given birth to a son and heir, Dilipa goes and looks at the babe with eyes tranquil like a lotus in a breezeless spot; and like the rising tide at the sight of the moon, his great joy could not be restrained within.

Let us pause for an instant and consider the last two similes. The lotus is the eye of day; its rare beauty has made Indian poets compare it with the human eye. Kalidāsa uses this poetic tradition as a background of suggestion for his simile; he does not merely compare the eye to the lotus; he compares the extraordinary stillness of the eye to the stillness of the lotus when the winds are at rest. Thereby he provides an effective contrast to the motionlessness of the lotus at the time, in the suggested movements of the same flower during a breeze. By using the epithet *nivātapadmasthimitēna* the great poet releases a world of suggestion: the quick play of the eye of the active and warlike king of the house of Ikṣvāku, the extraordinary stress of feeling in which he was at the moment, the beauty of the picture where the proud king sees for the first time his baby heir. To accentuate our sense of the magnitude of the king's joy at the birth of a son and heir, Kalidāsa introduces the image of the great ocean swelling up at the sight of the moon. This image suggests the ebullience of a long pent up feeling, the wave upon wave of emotion surging forth at the sight of the child, the beauty of the babe, which attracted the high tide of emotion toward itself as the moon attracts the waters, the added splendour of the royal countenance and above all the greatness, vastness and majesty of Dilipa's feelings.

8. Iti vignapitō rāga dhyānasthimita lōcanah |  
kṣhaṇamātramrshistastau suptamīna iva hradah || 1|73.

9. Sa pātālāyām gavi tasthivāmsam dhanurdharah kēsariṇam dadarsa |  
adhityākāyām iva dhātumayyam lōhhradrumam sanumatah praphullam || 2|29.

10. Nivātapadmasthimitēna cakshushā nṛpasya kāntam pibatah sūtānam |  
mahōdadhēh pūra invēdu darsanāt gurupraharshah prababhūvanātmani ||

Dilipa<sup>11</sup> assisted by Raghu was unbearable as fire assisted by wind, as the sun in the cloudless sky, or the elephant in rut. At first sight the comparison of a king to fire or sun or elephant appears traditional, commonplace and unpoetical. War has always been associated in the popular mind with famine, sword and fire. What better image of the martial fierceness of Dilipa assisted by young Raghu can be suggested than by that of uncontrollable fire which is driven where it lists by fierce wind? The sun in the cloudless sky is symbolic of a monarch's meridian power. He has overthrown winter; he has obliterated the clouds and now the thousand-rayed one stands supreme and all powerful; there is nothing to dim his brightness or abate the heat of his rays. The imperial splendour and power of Dilipa, the illustrious scion of the solar race of kings, are suggested here in an unmistakable manner. The elephant is the king of beasts; it is mountainous in its proportions; its movements are dignified and stately. So Sanskrit poets have compared the king to the elephant. The added might of the king and the unforeseeable nature of his activities which none dare to check and the royalty of his mien and nature and the volume of his feeling as well as the prodigious force are all symbolised by the third image. All the images emphasize the idea of magnitude of power.

Kalidāsa compares Raghu's army on the march to the flowing Ganges,<sup>12</sup> and his conquering legions to a mighty sea.<sup>13</sup> In both cases the similes are beautified and reinforced by reference to the Purānas. Leading the huge host marching towards the eastern ocean the king shone as did Bhagīratha leading the Ganges eastwards after she was released from the matted locks of Hara. The comparison to the Ganges indicates the magnitude, orderliness, strength and beauty of the vast army. The reference to Bhagīratha's story, however, transforms this idea into the sublime. The Ganges being caught up in Siva's locks, Bhagīratha prayed for its release and after much labour led it to the mouth of the netherworld so that his ancestors might be saved from eternal torment. The Ganges, therefore, was taken by a saintly king on a holy mission of purification. Similarly Dilipa was saintly and his armies only purified and improved the lands they conquered. The Ganges as well as Raghu's army moved eastwards. Though very strong and powerful Raghu's army was kept in perfect control in peace time

11. vibhāvasuh sārathinēva vāyunā ghanavyapayena ghabhastiman iva | be  
bhūva tēnātitarām Suduhsah kataprabhēdēna kariva pārhivah || 3, 37.

12. Sa sēnām mahatīm karshan pūrva Sāgaragāminīm |  
babhau harajātabhṛastām gangām iva Bhagīrathah || IV, 32.

13. tasyānikairvisarpadbhiraparānthājayōdyataih |  
rāmāstrōtsārītōpyāsīd Sahyalagnaivārnavah || IV, 53.

and its very existence was unnoticed like the Ganges in the tangles of Siva's locks. When his vast armies marched to conquer the west the ocean though pushed back by the arrow of Parasurāma seemed to be touching the Sahya mountain.<sup>13</sup> Here the comparison of the army to the ocean is reinforced by the suggested comparison between the king and the legendary Parasurāma, the destroyer of princes. Raghu's might was greater even than that of Parasurāma; if the latter pushed back the sea the former made it touch the mountains once again. The activity of his men engaged in conquest is vividly brought out by the picture of the innumerable and turbulent waves of the western ocean which beat fiercely even against the mountain range. The nature similes of Kalidāsa, therefore, cannot be relegated among the traditional commonplaces of poetic conventionality; but, they are inspired by deep poetic feeling, each image being suffused with a remarkable wealth of poetic suggestion which lies not so much on the surface as in the depths which control the upper, conscious levels.

## The Philosophy of Saint Satagopa

By

R. RAMANUJACHARI

(Annamalai University)

In all the annals of our religious history there is no figure of the importance of Saint Satagopa. He is the most important of the twelve Tamil Vaiṣṇavite saints, called Ālvārs, persons immersed in the depths of God-love. Tradition regards him as the head of the Vaiṣṇava saints, *Prapanna jana kūtastha*. In the ālvārs we probably see Indian bhakti at its best. Their bhakti is singularly free from those sensual extravagances which have degraded some forms of bhakti. When he flourished is a question yet unsettled. In spite of the diverse attempts of eager explorers during the last thirty years, it has not been possible to ascertain his date with any degree of certainty. Hagiographers assign an impossible date. The guruparampara mentions B.C. 3102 as the date of his birth. The difficulties in the way of fixing his date are almost insuperable. Of internal evidence in his works there is very little. The frequent references in his poems to the Kṛṣṇa stories and stories of other avatārs of Viṣṇu as narrated in the Viṣṇupurāṇa indicate that he must belong to a period long anterior to Ramanuja and after the age of the purāṇās.<sup>1</sup>

Materials for his biography are miserably scanty and some of them are not scientific history as we understand it. He was born in Tirunagari in the Tinneveli District, the child of Kāriyar and Nāthanāyikā, both ardent devotees of Viṣṇu. His life had so little in common with the rest of the world that he was named Māran. He did not see anything in dream or waking state excepting God, and excepting Him does not meet anybody or look at anything.<sup>2</sup> Though his poems are all in

Tamil, we may take it, that he was well-versed in the Sanskrit literature of the day. The Vedas and their inner meaning were no secret to him. In his sixteenth year the Lord revealed to him at one view what no tongue can describe, the Divine Vision. His works breathe the ecstatic delight that he feels at the sight of the blessed vision. Unlike the selfish person who delights to watch the struggle of a storm-tossed ship from the safe vantage-ground of the shore, he proposed to communicate the discovery of spiritual truths thus vouchsafed to him in a moment of illumination. His heart went out to men; instead of taking a lonely road to salvation, he wanted to make the knowledge thus acquired the common heritage of mankind and threw open the doors of wisdom to all without any distinction of caste, creed or sex by the novel experiment of expounding divine mysteries in Tamil, the speech of the common folk, the language which they knew best and that spoke to their hearts.

Of his four works, *Tiruviruttam*, *Tiruvāsiriyam*, *Peria Tiruvandādi* and *Tiruvōi moli*, the last is the most important and is considered the most succinct exposition of the Vedas<sup>3</sup> and as equal in authority to the Upaniṣads and is called the *Dramidōpaniṣad*. The Upaniṣads and *Tiruvōimoli* are said to constitute the two-fold *Vedānta*, *Ubhaya Vedānta*. In interpreting the abstruse *Vedānta Sūtras* and reconciling different portions of the *Vedānta*, Ramanuja was guided by the sublime truths expounded by Satagopa in this poem. No one who can recognise genuine poetry and deep overpowering love for God can ever forget his songs once they are known. His songs were a power in the land. They represent the substance of characteristic religious experiences better than doctrines and provide ample material for a psychological study of mystic experience. The character of his religion is reflected in the songs. They breathe only ecstatic joy and love. *Tiruvōimoli* consists of 1102 stanzas, divided into ten chapters. In the twelfth century, towards the close of Ramanuja's life, his own nephew and pupil, Pillān, wrote the first and the most brilliant commentary on this work, based on Ramanuja's discourses on the subject. Though a highly condensed work, its outstanding characteristics are its faithfulness to the original and its musical quality. An elaborate commentary extending over twenty-four thousand lines has been written on this commentary. The most exhaustive commentary on *Tiruvōimoli* is the work called *Ēdu*, which contains the gist of lectures delivered on this subject by Nampillai, the fourth in apostolic succession from Ramanuja. It is written in excellent Tamil

1. There is also reference to Lingapurāṇa in *Tiruvōi* IV. 10 5. இலங்கத் திட்ட புராணத்திலும் சமணரும். . . .

2. *Tiruvōi*, VI. 7. 1. 'உண்ணும் சோறு பருகுநீர் தின்னும் வெற்றிலையு மெல்லாம் கண்ணன் . . . . ' *Tiruvōi*, IX. 9. 7. 'ஆருக் கென் சொல்லுகேன்? . . . . ' Except thee I shall see no one. Except of God what there I can tell others?

3. *Tiruvōi*, IV. 5. 11.

prose. Highly abstract philosophical ideas are explained in homely similies. The simple words take one straight to the heart of the matter. Another striking feature of the work is various passages from the Ramayana, the Mahabharata and the Gita are interpreted in an illimitable way. Vedanta Desika has given an epitome of the teachings of Tiruvōimoli in his two Sanskrit works, Dramidōpaniṣad sāram and Dramidōpaniṣad Tātparya Ratnāvali. The Dramidōpaniṣad and its commentaries constitute what is called *Bagavat Viṣaya*.

The philosophical background of Satagopa's poems may briefly be stated here. He presents the truest and noblest conception of a deity possible. The God in whom he believes is the supreme reality for thought and life. God is not described as a blank entity, undifferentiated spirit, pure consciousness—definable only by means of Being. Such a conception fills the heart with a cold chill, and one wonders at the generous enthusiasm with which some philosophers contemplate it. Satagopa finds in God the supreme personality, one without a peer.<sup>4</sup> He is the embodiment of every perfection,<sup>5</sup> the object of that utter devotion which compels adoration. He is the sea of inexhaustible goodness,<sup>6</sup> is undefiled and without the slightest imaginable taint or imperfection.<sup>7</sup> He is the eternal of the eternal.<sup>8</sup> He is the person revered by the Vedas.<sup>9</sup> He is possessed of such unlimited bliss that even the Vedas which set out to fathom his bliss pressed on to a point where speech failed, and dropped into silence, where thought was baffled and turned back upon its own footsteps.<sup>10</sup> He is the supreme intelligence,<sup>11</sup> the Lord of all the worlds and has the whole animate and inanimate existence for his body.<sup>12</sup> The relation of God to the world is that of soul to body. This view is the very heart of Viśiṣṭādvaita system. He is at once the material and efficient cause of the world.<sup>13</sup> The manifold

4. Tiruvāṣiriyam, 5. 'நெடி யோய்க் கல்லது மடியதோ வுலகே'; Tiruvāṣiriyam, 7. ' . . . . . ஓராலிலே சேர்ந்தவெம் பெருமாமாயனை யல்லது, ஒருமா தெய்வம் மற்றுடைய மோயாமே' Tiruvōi, III. i. 3; I. iii. 5.

5. Peria Tiruvandādi, 30. 'என்னுடைய செங்கண்மால் சீர்க்கும் சிறிதுன்னம்' Tiruvōi, I. i. 1. 'உயர் வறவுயர் நலம் உடையவன்'

6. c. f. MacTaggart's description of God as one 'on the whole good rather than bad.'

7. Tiruvōi, III. iv. 10.

8. Tiruvōi, I. v. 9.

9. Tiruvōi, I. i. 7. 'சுடர் யிரு சுருதியுள் இவையுண்ட சுரனே'

10. Tiruvōi, I. i. 1; VIII. iv. 6; Peria Tiru. 18, 24, 29.

11. III. iv. 10, ' . . . . உணர் வின்மூர்த்தி . . . . '

12. I. i. 7,

13. Tiruvōi, I. x. 2; II. i. 11. 'சோ ராத எப்பொருட்கும் ஆதியாம்' Tiruvāṣ 4; Peria Tiruvandādi. 'ஆழாத பாரு நீ வானு நீ காலு நீ தீயு நீ நீரும் நீயாய் நின்ற நீ'

objects and persons in the world are not thought of as simply existing along with Him, but as deriving their existence from Him, and as being sustained in existence through Him.<sup>\*</sup> He has all power for Himself and all others derive their power from Him.

All this would make God a transcendent being existing above and beyond the whole series of finite individuals. But the emphasis on 'the otherness of God' is everywhere accompanied by an equal insistence on the immanent God. He is more than the Ground of the universe, more even than creative will. Like Shelly's Demogorgen God is not 'a mighty Darkness filling the seat of power,' but is infinite love.<sup>14</sup> God's love is manifested in His purpose in creating the world, in His attitude and actions towards men. It is what He does that reveals what He is. Out of infinite compassion, He becomes incarnate time out of number to save mankind from the ever-recurring attacks of the forces of evil.<sup>15</sup> The infinite enchanter is easily approached by the bhakta; he becomes inaccessible to others.<sup>16</sup> The one thought uppermost in His mind is 'what can I do to my bhakta?'<sup>17</sup> He is the father, mother, self and friend to all.<sup>18</sup> His joy knows no bounds when the lost soul returns to the author of its being. This reminds one of the gospel saying that joy reigns in heaven over the return of a lost sheep. He takes such forms as are suitable to the conception of the devotees.<sup>19</sup> He is no other than Lord Narayana. Most of the descriptions of God are reminiscent of the Upaniṣadic passages and suggest that his songs are the Upaniṣads rendered in Tamil, that they are a double of the Upaniṣads.

The finite soul is an eternal conscious substance having knowledge and bliss for its attributes. It is neither a reflection, nor a particle, nor a spark of Brahman; nor is it one with Him. God is other than the soul, and is at the same time its Indweller.<sup>20</sup> God is Supreme personality; but the souls are personal in an imperfect way. Unlike matter, its essen-

14. Peria Tiruvan, 8. 'அன்பே பெருகுமிக . . . நுமக்கு'; 35, 'அன்பு டைய னன்றே யவன்'.

15. Tiruvōi, I. iii. 2, ' . . . . . நிலை வரம்பில பல பிறப்பாய் . . . '

16. Tiruvōi, I. iii-1. 'பத்துடை யடியவர்க் கெளியவன்பிறர்களுக்கரிய வித்த கன் . . . . . '

17. Peria Tiru, 53. 'ஒன்றுண்டு செங்கண்மால் யானுரைப்பது, உன்னடியார்க் கென் செய்வனென்றேயிருத்தி நீ . . . . . '

18. Peria Tiru, 5, 23, 26. 'பெற்றதாய் நீயே பிறப் பித்த தந்தை நீ. மற்றையா ராவாரு நீ . . . . .'; 'தந்தை தாய் யெவ்வயிர்க்கும் தான்'; 'அவனே யெவனே லுமாம்.'

19. Tiruvōi, III. vii. 9; IV. x. 1.

20. Tiruvōi, VI. ix. 5.

tial nature does not change; its attributes, however, suffer diminution or expansion. God is the soul of the finite soul, He is the owner<sup>21</sup> and the soul is His property. All his activity is dependent on the Lord;<sup>22</sup> still He has enough freedom. 'Unless creators are created nothing is really created.' The Lord is the one cause the soul exists to serve; the one allegiance he owes is to Nārāyaṇa (*ananyārha seṣatva*). To be dependent on the Lord and to be controlled by the Supreme Person is the eternal and essential nature of the jiva. Man's chief end is to glorify God and to enjoy Him for ever, from whom he has drifted, drawn aside by the influence of sin. While on earth all souls are entangled in matter which we call bodies; and while enclosed in bodies they could but feebly flutter and fall. Their knowledge suffers diminution; as a consequence there is narrowing of perspective and wrong valuation of things.

The world of matter is not an unsubstantial figment of deluded fancy, but is real and eternal. The huge universe built of matter is subject to change and is in a flux. Its movements are caused and controlled by God, who is the soul of all matter.<sup>23</sup> Before creation it exists in a subtle form without distinction of name and form in God. At creation it starts on a career of evolution and becomes at once the instrument and objects of enjoyment to the jivas. When this evolution has reached its farthest point of expansion, it undergoes involution and is re-absorbed in God; the process of evolution and involution are endlessly repeated. The world is our beautiful enemy to be hated before it may be loved. Matter binds the soul only when the jiva identifies himself with the body. The wise man sees in the world of matter the hand of God.

The supreme goal of all human endeavour (*hitam atyantam*) is to serve God with the whole heart and the whole soul. Perpetual, conscious existence at the feet of the Adorable doing his bidding is the goal of all goals. The good life is not a life of ratiocination but a life of service to God and god-lovers (*bhāgavata bhakti*).<sup>24</sup> With the senses controlled, the seeker after mokṣa lets the Divine life have its way through him, sings His praise<sup>25</sup> and finds greatest happiness in keeping

21. Tiruvōi, I. ii. 1. 'உம்முயிர் வீடுகையானிடை வீடு செய்யுமினே'.

22. Peria Tiru, 3. 'இவையெல்லாம் என்னுடைப்பு நீக்கொண்ணு திறையகனே என்னால் செய்யப்பால தென்'.

23. Peria Tiru, 23; Tiruvōi, VI. ix. 5.

24. Peria Tiru, 43; Tiruvōi, II. iii. 10.

25. Peria Tiru, 12, 40.

lose to the Lord and the greatest misery in forgetting Him. The blessed state does not necessarily belong to another world. The frequent prayer of the saint is for uninterrupted service to God and not for paramapada.<sup>26</sup>

Preoccupation with worldly and heavenly joys, atmānubava (*kai-valya*), ahamkāra and mamakāra are the chief impediments in the way of liberation. Worldly possessions are secured by much effort and long toil and are trivial and impermanent.<sup>27</sup> Heavenly joys are not endless. Kaivalya stands in the way of highest realisation. Renunciation is not negation of self, but dedication of self to God. The folly of otherworldliness has been frequently recognised by many writers; but there must be renunciation so that we may centre ourselves upon God.<sup>28</sup> Renunciation does not consist in a flight from the world, but in a correct sense of values. By true renunciation, with senses controlled, work and knowledge the soul has to make itself ready for the advent of grace. God is said to work for the release of man, if only the mind of man will allow Him.

Of the many ways of attaining transcendental felicity, the path of self-surrender, *prapatti*, is the easiest. The paths of jnana and karma and bhakti are to be followed only by persons of high mental development and spiritual knowledge; but salvation along the path of self-surrender and devotion to God is open to those whose feet are weak and whose hearts are faint, without distinction of caste, creed or sex. Regeneration is to be founded on conviction of sin. The soul bowed down by the conviction of sin and his responsibility for it, conscious of his nothingness cries from the depth of his heart, 'Lord of mercy, I am weak, and I have sinned; I am ignorant and am unable to save myself; Thou art my redeemer, my only stay and support (*akincanoananya gatiḥ*). I take refuge in thy mercy illimitable.' To the end of his existence he remains in uninterrupted meditation on the perfections of the Lord. Out of his infinite grace, the Lord lifts him to Himself. Not by merit or power is salvation procured but by grace.<sup>29</sup> Thus the goal and

26. Peria Tiru, 48, 53, 58; 'நின் புகழில் வைரும் தம் சிந்தையிலும் மந்திரினிதோ. நீயவர்க்கு' வைகுந்தமன்றருளும்வான்'; 'பிறப் பின்மை பெற்றடிச் சீழ் குந்தேவலன்று மறப்பின்மையான் வேண்டும் மாடு'.

27. Tiruvōi IV. i. 1.

28. Tiruvōi, I. ii. 1.

29. Tiruvōi VI. x. 10; X. x. 3; Peria Tiru, 26, 'யெம் மிறையார் தந்த அருளென்னும் தண்டாலடித்து'.

the means are solely Viṣṇu. But grace is not a substitute for will; God descends from on high upon those who allure it, invite it by special effort, prepare themselves to welcome it and sustain it when it has come. God turns men to good as far as they will yield to His influence and co-operate with Him. Only upon those whose hearts have been opened, will the Spiritual Director enter. By opening the innermost self to the inrush of an infinite, eternal, spiritual force, we co-operate with Him. The prapanna, the person who has entered on the path of self-surrender and submitted his will to that of the Lord, enjoys true freedom. Freedom in the sense of mere independence has no spiritual content, and has therefore no significance.

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## The Traditions of Chidambaram

By

V. G. RAMAKRISHNA IYER

(Annamalai University)

(Continued from Page 144 Vol. I No. II.)

### I

South India is a country where for some 2,000 years, as far back as historical knowledge can reach, one national force has overshadowed all others. It has been the power of a great literary tradition. Political power underwent great changes from time to time under the local rulers but in the traditions of the people there has been a certain continuity and order. The subject of South Indian tradition and culture is still so unexplored that the best scholar feels least inclined to dogmatise. There is in South India a fine and fascinating literature which because it has never been studied as early European literatures have been studied, has been ignorantly assumed to be of barbaric interest. In the study of South Indian culture there is perhaps no study alluring to the really original mind as this region where scarcely a path is trodden by more than a solitary worker, and where the intelligent worker is sure to find some intellectual reward. The latest researches point to lines of thought which have been too long obscured. No doubt much will be corrected and enlarged in detail, but there are general considerations which cannot be dismissed as having no validity.

In some of these traditions, we find a commingling of the traditions of the Aryan and the Dravidian which together form a body of epic material valid for all the peoples old and new. Till comparatively recent times, there have lingered on remnants of oral tradition partly based on historical events, partly the universal folk-lore and partly mythological. The *literati* of later times have collected these legends and added to them their own memories. Some of these early traditions seem to work into one framework the histories, real or imagined, of the racial elements that make up the present Tamil people. It is in these traditions that we must seek for the soul of the people. Religious literature, for instance, has exercised great influence. The number of these

that has come down to us shows the intensity of the personal religion of the people which could find its appropriate expression only in their native language.

Students of Tamil literature know that in the early history of South India an attempt was made to bring together the great body of religious poems of the Saiva saints which were till then only preserved in parts at different places. These religious songs had soon acquired the sanctity of the Vedas among the Tamils. The princes and the people took a keen interest in collecting these hymns. The tradition regarding the rescue of the extant *Dēvāram* hymns is told by the Tamil hagiologist Śekkilār. According to Śekkilār, there lived a great devotee Nambi Aṇḍār-Nambi during the reign of the Chola king Rājarāja Abhaya-kulaśēkhara who has been identified with Kulottuṅga I. Nambi was such a great devotee that according to the story, a dish of rice offered by him was consumed by God. Nambi was credited with miraculous powers and he came to know that the religious hymns sung by the three great saints,—Jñānaśambhandar, Appar and Sundaramurti—were preserved on palm leaves in one of the rooms of the Śiva temple at Chidambaram. Finally on opening the room there were found a large number of palm leaf manuscripts much of which had been eaten by moths. The story goes that a voice was heard from above to the effect that the leaves eaten by moths were superfluities. Of the three *Dēvāram* hymnists, Jñānaśambhandar is believed to have sung 16,000 hymns but only about 384 of his hymns are now preserved. Similarly some of the hymns of Appar and Sundaramurti have disappeared. It is generally believed that there were at first many more hymns of these saints than are now available in view of the fact there were more Śiva temples at that time than is actually found in the hymns.<sup>1</sup>

The Muse of History is nowadays too disdainful of any information that does not reach her signed and counter-signed. In the handling of historical material, it would be a mistake to accept none but documentary evidence, since tradition, if it does not give us truth of fact, at least gives us truth of impression. Ancient Indian tradition is not without its value in the study of local history. The traditionary accounts connected with the origin of dynasties and temples in South India cannot be lightly dismissed as absolutely valueless for historical purposes. There are several instances where traditionary accounts contain some dim historic truth and it therefore becomes the duty of the scientific student

1. 8 of 1918.

who employs higher criticism to disentangle the strands of historic matter from the tangled skein of traditional history. To the students of South Indian temples, in particular, such a sympathetic and critical study of the traditions becomes all the more necessary.

Most of the historic temples of South India are rich in traditions which have deeply coloured the religious and social activities of the people. Some of these traditions are so deeply rooted in the minds of the people that they have been given a prominent social setting. Though most of the South Indian temples are of great antiquity, few of them can claim such rich and hoary traditions as the temple at Chidambaram. The history of the temple, so far as can be gathered from historical and archaeological data, may be traced from the early centuries of the Christian era. Tradition carries its history still further back and the traditionary account of the origin of the temple is that the sages Vyāghrapāda and Patañjali were engaged in penance at this place in order to get the beatific sight of Śiva's mystic dance, and pleased with their austerities, Śiva in the form of Nataraja with 3,000 Dikshitaras known as 'Tillaimoovairavar' vouchsafed unto them his Divine Presence. The religious background of the temple is so closely intertwined with some of these traditions that any descriptive account of the temple without these traditions would necessarily be incomplete.

## II

Of the various seekers after God whose names are intimately connected with the temple, the stories of Vyāghrapāda and Patañjali undoubtedly stand foremost. According to tradition, Vyāghrapāda was the son of an ancient Brāhman hermit of North India who dwelt somewhere near the banks of the sacred river, Ganges. From his early days Vyāghrapāda became well-versed in the Vedas by sitting at the feet of his father, and he therefore naturally became fired with a desire to learn 'the highest form of ascetic virtue'. His father told him that the worship of Śiva was the highest form of virtue he could think of, and so told his son that though Śiva, the Supreme Lord exists everywhere, He manifests himself in certain places in this world of which the most famous is the central shrine of Tillai which contains the sacred 'Akasa-lingam.' Vyāghrapāda therefore became anxious to go to that holy place, and after a long journey southwards, reached the forest of Tillai, and took his abode at a place where he saw a tank covered with lotus flowers (Śiva-ganga-tirtham) and a 'lingam' under the shade of a banyan tree. From that day, he dedicated himself to the service of the sacred

shrine.<sup>2</sup> At the same time, he also chose for himself a permanent abode just a little to the west on the borders of a beautiful tank where he set up a second 'lingam' as his own special shrine and thenceforward divided his services between the sacred spots. Vyāghrapāda soon found that he could not gather flowers from the lofty trees with his frail human body, and he therefore prayed to God that he should be endowed with the feet and hands of a tiger armed with strong claws and eyes so that he could climb even lofty trees and see rightly the flowers even in the small hours of the morning. His prayer was granted, and so from that time, this fervent devotee of Siva came to be known as Vyāghrapāda ('Tiger-foot') and the place has been called after him as 'Puliyur' ('Tiger-town').

The story of Patañjali is closely connected with the dance of Siva. This great devotee was a form of Āthi-Ceshan or thousand-headed serpent, on which Vishnu slept for ages. One day Vishnu went to 'Kailas' to worship Siva who told him that in a neighbouring forest of Taragam there were a large number of Rishis who were living independent of Siva's authority. Siva expressed his intention to visit that forest in order to teach a lesson to those Rishis and bade Vishnu accompany him. Both Siva and Vishnu entered the forest, Siva disguised as a mendicant, and Vishnu as his wife. At first the Rishis and their wives could not but look at these charming newcomers with a touch of sexual feeling, but they soon recovered from their emotional excitement and found that the mendicant and his wife were not what they seemed. They soon raised a sacrificial fire in order to do away with these strangers. A fierce tiger first emerged from the sacrificial fire and rushed upon Siva who calmly seized it with his hands and tearing off its skin, put it on himself as a mantle. The Rishis still continued their Vedic sacrifices, and then there emerged a serpent which Siva seized and wreathed round His neck where it ever hangs; and then began His mystic Dance. Undismayed by these extraordinary acts, the Rishis still continued their prayers, and at last, there appeared a monster in the shape of a black dwarf, Muyalagan, by name. Siva now crushed this dwarf by the tip of His sacred foot, thus keeping him writhing

2. The following stanza in Koilpuranam refers to the 'mulasthanas' in Tillai as the place of worship of Vyāghrapāda.

“சூலத்தா யிரகோடி சுற்றான முனவவற்றி  
சூலத்தா னவமார விடக்கொண்ட வெழிற்றில்லை  
சூலத்தானத் தொனியாய் முனைத்தெழுந்த செவில்கை  
சூலத்தா னின் பூசை கொள்வான்”

(Koilpuranam—Vyāghrapāda sargam).

underneath his foot and resumed His mystic Dance which was witnessed by all the gods. It may be noted that in every Saiva shrine, the image of Nataraja is made to stand on this dwarf. The Rishis were now awakened to the splendour of Siva and became thenceforward his fervent devotees.

After performing the mystic dance, and having taught a lesson to the Rishis, Siva now went back in triumph to 'Kailas'. Vishnu and Āthi-Ceshan were overwhelmed by the mystic dance of Siva, and Āthi-Ceshan was seized with a desire to behold the dance once again. Vishnu accordingly released Āthi-Ceshan from further service, and exhorted him to go to 'Kailas' to obtain the beatific vision by a life of asceticism. So Āthi-Ceshan went to 'Kailas' and devoted himself to penance and meditation. At last, Siva appeared in the form of Brahmā, riding upon a swan, and pleased with the austerities of Āthi-Ceshan, offered him any boon he desired. Āthi-Ceshan replied that he desired to see the mystic dance of the God of gods. At last Siva revealed himself to the great Yogi who became thenceforth his true disciple, and promised to show him the mystic dance in sacred Tillai which is the exact centre of the universe. Āthi-Ceshan was therefore bidden to go to that sacred place, but as the inhabitants of the earth would take fright on account of his form, he transformed himself into a man retaining in part his serpent form. Accordingly Āthi-Ceshan who had now become part man, and part serpent under the name of Patañjali went to the forest of Tillai where he met Vyāghrapāda and made for himself a hermitage and a 'lingam' to perform his daily worship.

The earliest account of these traditions is to be found in *Chidambara Māhātmya*, originally found in palm leaves and written in 'grantha' characters. The purport of this manuscript is noticed in the Mackenzie collection as follows:—

“Legend of the celebrated temple of Chidambareswara, reputed site of the hermitage of Vyāghrapāda, an inspired grammarian, and of Patañjali, an incarnation of the serpent, Sesha, and first teacher of the Yoga; in latter times, it is celebrated as the final residence of Mānikya Vāsagar and other characters of note in the traditions of the south; the legend is said to belong to the Skanda-Puranas.”<sup>3</sup>

A full account of these two great devotees of Siva is given in the 'Koyil Puranam' written by Umapathi, a great Saiva schoolman who

3. Mackenzie Collection Vol. I, p. 71.

lived in the 13th century. The stories of Vyāghrapāda and Patañjali belong to the earliest period of South Indian tradition and they may be taken to refer to the earliest period of the establishment of the Brāhmanical system in South India. The name Vyāghrapāda is mentioned in the Rig-Vēda and the story of Vyāghrapāda is anterior to that of Patañjali. The story of the struggle between Siva and the Rishis is taken to refer to some early conflict between the Vedantists and the Saivites. The Rishis may be the adherents of the Pūrva Mimāmsa school founded by Jaimini. It was to convince them of the limited power of their orthodox sacrifices that Siva appeared as the 'Bhikshātana-Mūrti' (mendicant deity). The symbolism of the other parts of the story is sought to be explained in this way. Siva subdues and wraps round him the tiger-like fury of human passion. The malice of mankind in the form of a serpent is worn by Siva as His necklace and the black dwarf writhing under the tip of his toe is the monster of human depravity. Siva is represented in these stories, sometimes as gracious, and sometimes as malignant, and the composite character of the Saiva religion in South India may be due to the influence of the cult of the pre-Aryan races in South India. The story of the dance at Tillai 'enshrines the record of an ancient rivalry between the priests of the Aryan deities and the devotees of Dravidian gods. The coming down of Siva to his famous shrine at Tillai in order to perform the mystic Dance for the beatification of his two great devotees—Vyāghrapāda and Patañjali—is associated with a most interesting legend. According to the story, in Chidambaram, then known as Tillai, there were at first two shrines—one to Siva, and another to goddess Kālī just where the Nritta Sabha now stands. When Siva came down to Tillai to perform the Dance, Kālī, the local presiding deity of the place would not allow him to enter her domain. Finally they agreed to settle their superiority by the Dance, and whichever of them danced better should become master of the place and the vanquished should go out of the place.

Then began the great Dance in the midst of devotees at the place, where the Nritta Sabha now stands. After a fairly equal contest for a long time, Siva resorted to his famous Dance by raising one of his legs above his head—a dance which was impossible for Kālī. The goddess Kālī had therefore to own her discomfiture and leave the place choosing for himself an abode outside the precincts of Tillai. The temple of Kālī or Tillai Amman Koil, as it is popularly called, is now on the outskirts of Chidambaram as evidence of the old saying 'Tillai Kālī ellai-kappalē' (தில்லைக் காளி எல்லைக் கப்பால்). This famous dance of Siva is commemorated in the Nritta Sabha by one of the finest dancing icons of Nataraja.

According to tradition the temple which was of divine origin was repaired and enlarged by Simhavarman in the 6th century A.D. as a mark of his piety and gratitude for the cure of his leprosy by a bath in the Sivaganga tank, and this king came to be known after this miracle as Hiranyavarman (the golden-bodied).

The Hiranyavarman tradition is one of great importance to the student of the Chidambaram temple. Was he a Chola or a Pallava chief? The history of the Tamil country as gathered from early inscription goes to show that the Pallavas were supreme in S. India. We have Simhavarman II mentioned in the Uruvappalli plates. The initial date of Simhavarman II is said to be the middle of the 5th century and he is said to have ruled about 20 years. Little is known from copper-plates and inscriptions about Simhavarman III who occupied the Pallava throne before Simhavarman began to rule at Kanchi about the last quarter of the 6th century A.D.

The traditionary account of Simhavarman is found in Koilpuranam written by Umapathi (who lived early in the 13th century) and also in Chidambara Māhātmyam. According to tradition, Simhavarman and his two brothers Vedavarman and Sumati were descended from Manu—Simhavarman by the first wife, and the other two by the second wife. Simhavarman was of a highly religious turn of mind from his early days and wanted to get away from the burdens of royalty as he was stricken with leprosy, and started to go on a pilgrimage to all Saiva shrines. He visited the Vanga country and the country of Bhimesvara who had the 'Rishaba' standard and then came to the Andhra country where he visited Kalahasti. In his travels in the south, he came upon a hunter and asked him to narrate something about his adventures in the southern forests. Fired with a desire to see the places described by the hunter, he began roaming through the forests and finally reached the forest of Tillai where he saw Vyāghrapāda doing penance. He bathed in the Sivaganga tank and was immediately cured of his leprosy so that he came to be known thereafter as Hiranyavarman. Out of gratitude for the cure of this life-long disease, he built several structures of the temple. Thereupon Vyāghrapāda blessed Hiranyavarman with the duty of guarding Vyāghrapura, i.e. Tillai, by giving him the flag with the tiger-crest.<sup>4</sup> Koilpuranam (stanza 11, Tiruvizha sargam) describes Hiranyavarman as the prince who wore the Atti (அத்திப் பூ) garland. In

4. "புத்தி யிலந்து புவிப்பதி காவல் புரப்பாயென்  
நந்தமின் மூந்து புலிக்கொடியங் கை யகத்துய்த்து"

(Koilpuranam).

stanza 12 of Koilpuranam, Hiranyavarman is referred to as the Chola prince.

From these scattered references it is difficult to say whether Hiranyavarman was a Chola or Pallava prince; or was he a Pallava feudatory chieftain of a Chola ruler? The Hiranyavarman tradition is one which has not yet been critically studied by students of South Indian History.

### III

Among the numerous South Indian Saints, there are few that have been invested with the halo of such a rich and beautiful legend as Nanda, the Pariah saint. Nanda was born in the village of Adhanur. He was a Pariah by caste,—a caste which has been regarded as outside the pale of the important Hindu castes. From his early days, Nanda was remarkably devout. The small circular gopura or tower of the Siva temple in the Brāhman surroundings of Adhanur had a strange fascination for his boyish imagination. It is said that, as the village God passed in procession during festivals, Nanda would run up to obtain a view however distant of the God and return deeply impressed with the procession and its poetic association.

As he grew to manhood his imaginative fervour and piety also deepened and he became anxious to do what he could for the service of the Lord. The course of true love never runs smooth, and Nanda had been yearning to see what specific services could be rendered by a poor man like him to please the Lord. The fact that his low birth stood in the way of rendering divine service began to torment him. At last, one day while thinking seriously over the matter, the idea dawned on him that he might supply temples with leather for drums. He was so much taken up by this sudden thought that he henceforth began to devote himself ardently to procuring and tanning leather as a sacred pastime and singing in praise of God day in and day out.

One day while there was no work to be done in the fields he stole a march with a few friends to the neighbouring famous temple of Tirupungur (now known as Old Vaitheswaran Koil). Nanda was beside himself with joy when he saw for the first time from a distance the *sanctum sanctorum* of the great temple. Tradition asserts that as Nanda was standing behind the flagstaff and struggling to get a view of the 'Lingam' inside, Siva took pity on him and ordered Nandi (the image of a bull placed opposite to the Lingam in all Saivite temples) to move a little to one side so that his low-caste devotee might get

a glimpse of Him; and to this day, the huge figure of Nandi at Tirupungur is placed not exactly opposite to the image of Siva, but leaning to one side.

The story goes that after his first devotional trance, Nanda soon came to know the glories of Chidambaram as the holiest place and that he who once visits that temple crosses once and for ever the ocean of birth and death. From that day onward, Chidambaram exercised a strange mystery over him. Nanda became fired with a desire to visit the great temple; whether he worked in the fields or stayed at home, or went to sleep, he had always in his mind the great God dancing as it were the unceasing dance of creation, destruction and maintenance. Nanda's repeated passionate mutterings to his friends that he would visit Chidambaram the next day earned for him the nickname 'Tirunalai-pōvar' (one that goes to-morrow).

The popular version of the story that Nandan had been serving a Brāhman master who refused him permission to go to Chidambaram but finally consented after Nandan's miraculous power in reaping the harvest seems to be a later invention of the fertile brain of Gopalakrishna Bharathi, the author of the famous 'Nandanar Kirtana'. According to the 'Periyapuranam' story, Nandan at last reached Chidambaram. The further traditionary account of the story is that all the Dikshitar dreamt on one and the same night that Nataraja appeared to them in their vision and directed them to take into their Brāhman fold the purest of his Bhaktas, Nanda. The Dikshitar appeared in a body before Nanda and after relating to him their wonderful dream took him over to the corner of the South Mada street where the sacred fire had been prepared for his purification. The pious devotee sprang into the fire and emerged from this ordeal not only unhurt but purer, and the admiring Dikshitar took him through the eastern tower-gate into the temple where he stood on the common platform midway between Sri Govindaraja and the dancing Nataraja in a state of ecstatic devotion, and in a few minutes disappeared into the sphere of eternity.

There are few stories in South Indian folk-lore so popular as the story of Nanda. Traditions, even when they are taken literally, seem to have a meaning. As Renan, the French critic observes, 'Faith demands the impossible, nothing less will satisfy it.' To this very day the Hindus every year walk over glowing coals in order to attest the virginity of Draupadi, the common wife of the five sons of Kunti . . . a narrative, anecdotal and fabulous in form may be more true than the truth itself; the glory of a legend belongs in a sense to the great man whose life that

legend traces, and who has been able to inspire in his humble admirers qualities which, apart from him, they could never have invented. Often the hero creates his own legend.'

Some modern pandits have endeavoured to explain what they consider as the philosophic truth underlying the Nandan legend. Nanda is none but 'Ātman' i.e. Ānanda or bliss which is God. In the words of Taittereya Upanishad, 'He recognised that Happiness is Brahman; from Happiness, indeed, all these creatures are born; when born, they live through Happiness; when they depart, they enter into Happiness.'<sup>5</sup> Nanda's nativity in a 'Paracheri' is taken to signify that we are dealing in flesh and blood. The very thought we bestow on our body is a 'pariahhood', so to say and requires a 'Pryaschitam' (purification). The Paracheri which is generally remote from the temples represents *Avidhya* or ignorance. The temple which is always visible at a distance signifies the hope that animates man. Nandi (Civa's bull) which obstructs the view signifies the four good tendencies of the mind, cheerfulness, calmness, patience and resignation, and it is through these qualities that God is to be approached. Nanda goes to Chidambaram to the presence of the 'Ātman' and he may be said to have reached the stage when he could find 'tongues in trees, books in the running brooks, sermons in stones and good in everything.' The Dikshitars are the 'Sastraic' support and love required for entering Divine Presence. Nanda passes through the ordeal of fire—the pitfalls through which one has to pass in life; when he emerges from the fire and is led into the temple, he enters into the Divine Presence which the ordinary little minds cannot see. In fact Nanda's story is an illustration of the great teaching: 'Whosoever will save his life, shall lose it; and whosoever will lose his life for my sake shall find it.'

Apart from the traditions, the most interesting and important question for us is the question of the historicity of Nandan or Nandanar, as he is commonly called. Nandan's name is first mentioned as 'Tirunalaipōvar' in one of the poems of Sundaramurti. Nandanar is one of the 63 Saivite saints whose praises are being sung in *Periyapurānam* by Chekkilar who flourished in the first half of the 12th century. But the story of Nandanar became popular only by the musical compositions (*Kirtanas*) of Gopalakrishna Bharati of Anathandavapuram. This work is commonly known as *Nandanar Saritira Kirtana*. It seems that Bharati has deviated from the original of *Periyapurānam* by introduc-

5. Taittereya Upanishad, III—6.



VYAGHRAPADA —Copyright.  
(Chidambaram)



PATANJALI Copyright.  
(Chidambaram)

ing into the story a Brāhman master with 40 *veli* land who stood in the way of Nandanar going to Chidambaram. We are at a loss to know whether there is any source for this deviation. But there is no doubt that the story of Nandan is not a fiction. It is very much earlier than Gopalakrishna Bharati's deservedly popular 'Kirtanas' on Nandan, though there is considerable difference between the *Puranam* and the *Kirtanai*. Yet the identity of Nandan, the Pariah saint of Adhanur is too clear to be confused. But Chekkilar when he wrote *Periyapurānam* had before him Nambi Āndar Nambi's 'Tirutondar Tiruvandadhi' (திருத்தொண்டார் திருவந்தாதி)\*. Nambi flourished in the first half of the 11th century. But the story of Nandanar is much earlier than the date of Nambi. Nambi found the names of the saints in Sundaramurti's Dēvāram. The sixty-three devotees including Sundarar and his parents are found in 'Tirutondathokai' (திருத்தொண்டத் தொகை) a decad of Sundaramurti's Dēvāram. Sundaramurti mentions 'Nalaipōvar' (நாளைப் போவார்) also in the decad on 'Tirupunkur' (திருப்புண் கூர்). The fourth stanza begins thus:—

“நற்றமிழ் வல்ல ஞான சம்பந்தன்  
நாவிறுத் தரையன், நாளைப் போவானும்”

Sundaramurti's date is in the first quarter of the 9th century A.D. He could not have lived after 825 A.D. There is no shadow of doubt that to Sundaramurti, 'Nalaipōvar' (நாளைப் போவார்) was a historical figure. How long before Sundaramurti did he live? Who were his contemporaries? These are questions to which no answer can be given in the present state of our knowledge. But the name Nandan does not occur in Sundaramurti's Dēvāram. He is simply called 'Nalaipōvar' (நாளைப் போவார்). That the *Periyapurānam* is not strictly historical in all its details one need not say. Certainly there are a few myths around the person of Nandan. The *Periyapurānam* story of Nandan contains much that is legendary. But we are safe in saying that it is a legend or group of legends round a historical being, Nandan who became one of the most revered Saivite saints as early as the 9th century A.D.

6. “நாவார் புகழ்த்தில்லை யம்பலத் தானருள் பெற்று நாளைப் போவான வறும் புறத்திருத் தொண்டன்நன் புன்புலை போய் மூவாயிரவர் கைகூப்ப முனியாய வன்பதிதான் மாவார் பொழிற் கழாத ஹரென்பரிம் மண்டலத்தே”  
(திருத்தொண்டர் திருவந்தாதி)

## Planned Economy

By

C. W. B. ZACHARIAS

(*Annamalai University*)

The proposal for a planned economy is still in its chrysalis stage, and how it may ultimately shape, time alone will reveal. But from what has been said and written about it, one is able to get an idea, though vague, of its objectives. In the economic field it is intended to replace *Laissez Faire*. The present depression through which we are passing, marks, according to some people, a breakdown of *Laissez Faire*. Whether the system has collapsed, or is in its death pangs, or is only passing through a severe illness from which it might possibly recover, is a matter of controversy. Possibly the existing economic structure has still a degree of resilience to make a rebound. The very fact that the majority of people follow their avocations almost normally lends support to that view. However that may be, the suggestion for a change even in the absence of a complete breakdown would find many supporters. It is true that *Laissez Faire* has wrought wonders in the past. The material progress made under that system has been phenomenal. Into that century and a half of uncontrolled individualism was compressed a progress which the whole of the Christian Era prior to it had not witnessed. Individual initiative has been quick to take advantage of the possibilities of controlling natural force which science placed at its disposal. It has, thereby, been able to build up an equipment and develop a skill which operated beneficially, are capable of ensuring a higher standard of life to all mankind. It was not merely a fortuitous combination of circumstances that individualism and a great capacity to produce wealth should have co-existed. The one directly came out of the other. Only in an atmosphere of freedom could man raise himself to an eminence from which he could control and direct those natural forces. That atmosphere was an essential condition, not only for the application of the discoveries of science to commerce and industry, but also for those very discoveries. From the point of view of wealth-producing capacity, nothing has beaten and will ever beat *Laissez Faire*.

The contemplation of the past in this manner does not bring with it any spirit of discontent, or any desire for change. A view of society,

through the ages, presents only the pleasing spectacle of continuous progress interspersed, no doubt, with gloomy, but transient periods of retrogression. But that is due to the fact that the past is perceived "as in a glass darkly", not "face to face". We look at the whole and not at the parts. Our view of individualism is too socialistic. If we would only look at the individuals that comprise society, we would see the intolerable miseries that they have to endure. We will see the inequality and the injustice that have characterized that system; the violence and brutality of the economic adjustments; the anguish of unemployment and the stress of bankruptcy. These will arrest attention and compel thought; and we would, then, tend to be reformers; for it is not the contemplation of the past and the whole that turns men into reformers, but the contemplation of the present and of the parts.

But the planned economy that is proposed is modest in its pretensions. Its objective is not to eradicate all the evils of the existing system. It seeks only to regulate production and distribution in relation to demand, with a view to mitigate the brutality of the economic adjustments. It will leave the problem of inequality untouched. It will bring no revolution in the ownership of property or of the income from property. Its control over consumer activity will be nebulous. It is, thus, not a rebuilding of the economic structure from the foundation upward, but only a changing of the middle portion. Its shape is predetermined by the foundation, on the one hand, and by the roof, on the other. All that it attempts to do is to rebuild the walls, with stronger masonry in some parts, and with more plastic substances in others. It will not, therefore, enhance the beauty of the old structure or increase its size. Still it is expected to give greater security to the inmates, from the wind and the weather that beat upon it from outside, and from internecine feuds within. This it would do by eliminating that arch enemy of stability—competition—and replacing it by a new spirit of co-operation; while the surging mass of new inventions and innovations that tend to make existing plant and installation obsolete, will first be resisted, and then controlled, but admitted withal.

Though not so thorough-going as socialism, an economy working to a plan, if it could be realized, is worth striving for. But the difficulties it will have to encounter in the various fields of economic activity, on a first glance, appear insurmountable. Part of the difficulties are due to the fact that it is a half measure. The other part is the result of human nature being what it is. To regulate production, leaving the ownership of industrial units in individual hands is a task of the first magnitude. It is difficult enough for a nation to attempt it, and as for the world as

a whole, it is almost unthinkable. Mutual animosity born of the acquisitive instinct in man will have to be suppressed. National jealousies and prejudices will, first, have to disappear. Questions of state sovereignty and political independence will have to be settled. The political framework will have to undergo a radical change. Nationalism must give place to cosmopolitanism. A new spirit of association and a new sense of discipline will have to be engendered, and made to operate on a vast scale, unbounded by time. This will be no mean achievement, and the generation that can pride itself on it, would doubtless deserve the gratitude of countless generations yet unborn. The task before the world is stupendous, and to contemplate it in the present mood of the world is to lose faith in its regeneration. Nothing short of a world dictator personated by Sir William Beveridge in his Halley Stewart Lecture, would seem to be necessary. But unlike Sir William, our dictator will have to be a life long dictator, and on his death bed will have to nominate a successor. But given the necessary goodwill among individuals and among nations, given that vision and that insight to do great things in the statesmen, the task can be accomplished in councils and committees, without the aid of a dictator. For the problem of regulation is only a problem in management, like unto the ones that we have successfully solved. Its dimensions are no doubt gigantic, calculated to frighten all but the boldest and the most adventurous. But what need to think that such men will not be forthcoming!

Granting that production to plan is possible, the next task is the perfection of the monetary system. Controlled production is expected to function within the price structure, and for that, a monetary system adapted to perfect management is an indispensable condition. The objective of the management, as the progenitors say, is the maintenance of a constant price level, while giving particular prices scope for rise and fall. A stable price level will, no doubt, eliminate from the economic system one of the major causes of industrial fluctuations. But stable money has ever been a mirage, a will o'the wisp, to the economist. Whilst nearest his reach it has been most elusive. It may have been because he pinned his faith on a metal, yellow in colour, and if he should hereafter pin his faith on paper he could expect better results. His pin would not slip off paper as it would off gold. Given the same good-will as in production, the same degree of international co-operation, it will not be difficult to introduce and manage a world paper currency that would maintain the price level on an even keel. In practice, the difficulties might possibly prove insurmountable, but there is no reason to think that the difficulties here are more formidable than in controlled production. The constitution of the controlling institutions, the formulation

of the index number that should guide the banker, the preparation of the statistical data—these would need, and doubtless receive, serious consideration. But in all these cases, the problem before the world, as in the regulation of production, is only a perfecting of the tools that have already been forged and an extension of their use. We do not need to forge new ones. The economist's equations and statistical tables, the businessman's methods of organization and the scientists' apparatus are all ready to hand. We require only the right attitude in humanity—the indispensable good-will. Whether that essential ingredient will be forth coming is a question into which the writer does not wish to enter.

A more formidable difficulty arises from the fact that consumer activity is left uncontrolled. It is more formidable because, with our present state of knowledge and intellectual equipment, an accurate measurement of demand under changing conditions is impossible. Though we might have a perfectly controlled productive plant, and stable money to round it off, adjustments to changing conditions would be possible only if we can measure the changes in demand more or less accurately. Problems of consumption, thus, would occupy a more important place in a planned economy than problems of production. Not that the latter cease to have a significance. Management of industry on a world wide scale would call for powers of judgment of a very high order, and quick action. Occupational adjustments, problems of labour, movements of capital, apportionment of markets, reduction of costs, regulation of wages, internal organization, external contact—these are bound to cause friction and demand the serious consideration of the managers. But their solution is conditioned by a scientific study of demand, and in this sense consumption occupies a strategic position. It is true that consumption has always occupied this position. But under individualism through increase of competitive strength, each individual concern could ward off the consequences, or at least moderate the shocks of erroneous estimates. The estimates, then, were haphazard because they could not be anything else. A planned economy, on the other hand, the *raison d'être* of which is the possibility of making conscious, timely and proper adjustments, cannot be content with haphazard estimates. They have to be scientific. But have we the necessary data, or the intellectual equipment to gather them? We are sorely lacking in tools for the solution of consumption problems. The Science of Economics has a large and significant gap in this sphere. Statistics of consumption are the least developed of all statistics. Even if they are elaborated, they would but tell us of the past, while the urgent need of the hour is to know what is likely to happen in the future. All our labours in this direction may be made futile by quick changes of demand,

and demand is notoriously capricious and fickle. When consumption is at the subsistence level, we might expect standards of expenditure to continue steady for long periods. But once a margin for luxurious expenditure is allowed, there will be nothing so very difficult of anticipation as demand. And while the advocates of planning expect to raise the standard of life for all men, through increased production and elimination of waste, they are giving an opportunity to demand to be more whimsical than ever before. Of course, this is no plea for a standardization of consumption at the subsistence level. It only proves the difficulties inherent in a system of partial control.

Consumer activity affects production in two ways—through changes in consumer demand and through changes in the rate of saving. Changes in consumer demand are, again, caused in two ways, changes brought about by causes operating from outside the economic system, such as, increase of population, improved technique, new products etc., and changes which originate from within, through fluctuations of individual prices. Of the former, those changes caused by improved technique and new products are possible of control from the side of production. New products in a planned economy may not be a disturbing element, for they could be effectively smothered, and if at all they should be introduced, it could be done in ways which will cause the least amount of friction. Such suppression may in some cases mean the loss of material happiness to society. But in most cases it would be not only justifiable, but almost imperative. Society is likely to gain rather than lose by their exclusion. The innumerable brands of soap that flood the markets are an unmixed evil. A holiday in new soaps will not materially affect society. To the man in the street one soap is as good as another, whatever beauty specialists may have to say about it. Examples of this sort can be multiplied, but this one is enough to make the point that the suppression of new products will, in many cases, be an unmixed good. They have been the products of competition, and will cease to have a significance when competition is removed. But consumer demand is not going to be any the steadier for such suppression. That act of suppression is likely to affect demand in quite unfamiliar ways. In many cases, most notably seen in the case of apparel and headwear, the introduction of new products has been the cause of a large and swollen demand. Thus, when a new model dress or hat is introduced into the market, there is a demand for new dresses and hats which could not have arisen at all but for the introduction of the new product. The new demand is not due to the fact that the old dresses and hats have been physically worn out, but because they have gone out of fashion. A large part of the annual demand for goods, on the part of the rich especially, is of this sort. The

elimination of new products may, thus, be expected to reduce the demand for durable commodities intended to replace those already in the possession of the consumers. The existing ones may conceivably be submitted to greater physical wear and tear. And while that process is in being, a reduced demand may be registered. But this change in human habits is not likely to decrease aggregate demand. That part of the income that is saved will most probably be expended on other commodities, and possibly there might be an active demand on the part of the consumers for quite new products. The position will then be reversed. While under individualism new products invoke what might be called a passive demand, under a planned economy we may have an active demand for new products. Will we, then, be ever able to escape new products altogether and all the consequences of their introduction? Once we let in new products into the economy, how far the new ones will dethrone the old, and with what lightning rapidity, will ever remain a matter of conjecture.

The suppression of improvements in technique, on the other hand, will have to be at the cost of progress. Under individualism, such improvements are sought after for the purpose of increasing competitive strength, and their introduction by one man or concern is but the prelude to their becoming generalized. Society thus reaps the full fruits of all advances in knowledge. The Smithian doctrine of the "Invisible Hand" is corroborated. All that progress, we must necessarily eschew for the sake of stability. On that ground a case can be made out for a procedure wholly disadvantageous on other counts. For the attainment of a worthy object some sacrifices are imperative. Still it is well to be alive to the implications. We would move forward but slowly, and the happy millennium for which the reformers look forward will, therefore, for ever recede.

Changes in consumer demand caused by an increase of population, (a decrease we need not consider) fall into a different category. They are incapable of control from the side of production, and their accurate anticipation will always be a matter of chance. If the same rate of growth of population from year to year could be expected, provision of an increased supply of products to meet an increased demand will be reduced to a matter of routine. But all the trouble arises from the fact that rate of growth is never steady. The differences might be infinitesimal, expressed as a percentage, but in absolute numbers they will be considerable. A half or a quarter per cent deviation from the expected rate will mean the addition of millions of people demanding food and clothing and the other necessities of life. With the world

population at nineteen hundred millions, a quarter per cent deviation would mean an addition to population of five millions, and their demand for a staple commodity, like wheat, will upset all calculations, and send the price of wheat soaring up. Here, there is a fruitful source of mal-adjustment to deal with which a planned economy has no other instrument than the time-honoured method of individualism—trial and error.

Changes in demand due to the rise and fall of particular prices will be another source of instability. A planned economy which seeks only to maintain the general price level constant, cannot hope to control the vagaries of particular prices. Intelligent anticipation also is out of the question. The rise in the price of a single commodity, say wheat, due to a crop failure, will by raising the purchasing power of those who have wheat to sell, affect the demand for various other commodities. All goods are in this way inter-related. An impelling force acting on the economic system from outside, will, by first affecting some prices, and consequently the demand for those commodities, pave the way for a long series of interactions on the whole range of prices and demands. And while it is difficult to follow out the consequences of the rise or fall of the price of one commodity, we have, in a planned economy, if we are to make timely adjustments, to study the effects of a whole series of price changes upward and downward. We are face to face here with an insuperable obstacle. The difficulty is not merely theoretical, but one which, of a certainty, could be expected to happen every day. The economic science cannot be of much help in this difficulty. Economists have no tools for the measurement of elasticities of demand. The lead given in this direction by Prof. Pigon has to be followed up, and some attempt made to measure elasticities of demand. Even though absolute measures are unthinkable, comparative estimates are possible, and may be made useful. Whatever is possible here will doubtless be done, yet the nature of the problems transcends human ingenuity.

The other way in which uncontrolled consumer activity affects production is through introducing changes in the rate of saving. Consumer activity comprises spending and saving. Changes in the manner of spending is reflected in consumer demand, while changes in the desire to spend affect the rate of saving. In a sense, saving is also spending, for it is a provision for future expenditure. But, from the point of view of production, they are different, because they affect production differently. The one determines the rate at which the existing means of production would be worked up, and the other determines the rate of expansion. Changes in the rate of saving, by affecting the rate of expansion, intro-

duce an unruly element into a planned economy. The optimum rate of expansion is set by the growth of population, on the one hand, and the rise in the standard of life, on the other. But that expansion is conditioned by the willingness of the consumers to save enough, out of the national dividend. If the standard of life should remain constant, an increased population would require an accumulation of wealth consistent with the efficiency reached in the arts of production. In a capitalistic society (in its literal sense) the employment of a person is dependent on the existence of that amount of capital which the roundaboutness of production determines. That is to say, when the standard of production is such that a labourer is aided by one hundred rupees worth of capital, the employment of an additional labourer is conditioned by the existence of one hundred rupees. If the capital saved is sufficient to employ all the additions to the population, the standard of efficiency in production would remain constant. Insufficiency of capital would mean one of two things—a retrogression in the efficiency of production or unemployment for the increased population. Thus, with an increasing population, the maintenance of the optimum rate of saving is imperative. With a rising standard of life that optimum also will rise, for increased production which will ensure the higher standard must needs be the result of a greater roundaboutness in production. With a limited supply of land and other natural agents, increased production can only be the result of a more intensified use of those agents. The significance of the rate of saving on expansion and the standard of life is thus explained. Now, there is nothing in a planned economy, as suggested, to co-ordinate the rate of saving with the relevant factors. If the rate of saving should be in excess of population, it is an evidence of the community stinting itself of the good things of life so that the future generation might have them in greater abundance. It is an unnecessary lowering of the standard of life in the present. Apart from this self-imposed parsimony, there is nothing harmful in this proceeding, unless, of course, the banks by following a policy of restricted credit, do not make the new saving available to industry, but dissipate it in a lowered price level to the general community. This last eventuality need not be visualized, for a planned economy, whose aim is to keep the price-level constant, cannot and will not countenance such a policy. Much more harm comes, on the other hand, if the savings should be deficient. In that case, all men will not find employment at the existing standard of production. The alternatives are a retrograde step in the roundaboutness of production and unemployment pure and simple. The first would damage the standard of life, and the second inflict hardships on the minority. Neither can be contemplated with equanimity. Individualism has solved the problem by imposing saving on the con-

sumers. Through credit creation and the consequent rise of prices, the banks could impose savings on the people, by making only a smaller share of the national dividend reach the ultimate consumers. The residue is diverted for the expansion of industry. This procedure presupposes a certain amount of freedom to the banks, to raise and lower the general price-level. Since such a policy is taboo in a planned economy, we have a very real difficulty. The optimum rate of expansion will have to wait upon chance circumstances.

The drift of the above argument makes clear the possibility that the absence of any control over consumer activity would tend to defeat the objects of a planned economy. Overproduction and underproduction would still continue to be features of the economy. Unemployment would persist. All the individual miseries and hardships would still have to be borne. The brutality of the economic adjustment will continue to manifest itself. But we have consolation in the thought that these would not be on the same vast scale as before. The large majority of the people would be secure, but they that happen to be the victims will not find the world any the better. The remedy for this is a regulation of consumption as well. The one country, where a serious attempt is being made to work to a plan, has solved the difficulty that way. Consumption, there, has been standardized through a policy of rationing. Changes in consumer demand are thus eliminated, and the rate of saving is arbitrarily determined by the planning authorities. Such a control is not to be thought of, as far as the other parts of the world are concerned. It will not be practical politics. Its desirability also is open to question. If planning is to be attempted at all, it will have to be as a half-measure, with all the attendant drawbacks. Still the experiment is worth making, if not for the actual results that will come out of it, at least for the atmosphere it will tend to create. If not as an end in itself, at least as a preparation for the next forward step in discipline.

## Post-War Developments in Monetary Theory

By

T. K. NARAYAN

(Annamalai University)

### I

Prof. Cannan reviewing Knapp's 'The State Theory of Money,' in 1925, said that the "drastic experiments in currencies tried since 1914, and all the discussion to which they have given rise, has caused such great improvements in monetary theory that nearly all books on the subject published before the War have an antediluvian ring about them." Hawtrey in his 'Introduction to Monetary Reconstruction,' referring to the period of seven years after the declaration of the War, said that "it was one into which have been compressed greater monetary events than might have been expected from seven generations." What, then, are those monetary events and those great improvements in monetary theory which have either preceded or followed them? For it must be emphasised at the outset that it is not possible to keep these two apart. While monetary theory on the one hand has influenced the course of monetary events in the world, it is also true that these latter have been in many cases responsible for lasting improvements in the former. It is but fitting, therefore, in a discussion of the developments in monetary theory in the post-war period to begin with a brief narration of the events in that sphere.

The first step taken in the financial sphere upon the outbreak of the World War was that the prevailing gold standard was abandoned, not only in the warring states but in many of the neutral states as well. Governments engaged in war cannot raise all the money they want by taxation, and hence, they resort to borrowing, and improper and excessive use of the printing press. But side by side with this is the desire, on their part, as far as possible to maintain intact the gold reserves of

1. *Economica*, June, 1925, Page 212. The Review also appears in Cannan's 'An Economist's Protest'—Page 396.

the central banks. Hence the suspension of the gold standard in many European countries immediately after the declaration of war.

Now, though the gold standard was actually abandoned, the form of it was as far as possible preserved, and statesmen and politicians refused to admit that it had been abolished. Thus, in England, the gold standard was never formally abandoned. Indeed the Currency and Bank Notes Act of 1914 promised that all Bank of England notes and currency notes should be convertible into gold coin at the Bank of England. Still they stood at a discount as compared with gold. That was because there were legal obstacles to the export of gold and the melting of gold coin. So these notes, while nominally convertible, were practically inconvertible. For, as Prof. Cannan says, "there is no point in the conversion of a paper pound into a gold pound unless you may treat gold as gold and not merely as a heavy and inconvenient representative of the paper pound."<sup>2</sup> This point, though it now appears simple enough, was not grasped in the early years of the War. The impression prevailed that as long as all forms of currency other than gold, circulating within a country, are clearly redeemable in gold, the maintenance of an effective gold standard would be guaranteed. But British experience shows that it is not so. It clearly proves that convertibility of the note into coin is deprived of all its significance when laws against melting and exportation of the coin are effectively enforced. This point was not grasped even by experts for a long period of time, and it was only towards the later part of the War period that it was emphasised by Nicholson and Cannan.

As the War ended in 1918, most of the countries found their currencies in a state of confusion and collapse. The process of inflation started in 1914 was throughout the period growing apace. Even after the close of the War, it was found difficult to stem its vicious course. Every country was thus faced with the task of reconstructing its monetary system. But, then, pre-War experience was here no safe guide, for many of the problems to be dealt with were entirely new. A new body of principles, taking into account the new circumstances was, therefore, needed to guide the various countries in the reorganization of their monetary systems. Such a development has, however, been taking place, and it is not surprising that it is confined mostly to our ideas about the gold standard, about banking reserves, about the working of the bank

rate, about the correct relation between the quantity of money and the price level and a better understanding of the part played by monetary factors in an ordinary business cycle, etc., for it is mainly in these respects that the post-War world differs from the pre-War.

First of all, then, the changes in the theory of the gold standard. Before the War, gold currency was considered to be an essential part of an effective gold standard. Consequently, in all cases where a gold standard existed, all forms of currency other than gold were legally convertible into gold coins, and these latter circulated within the country. After the War, however, it was discovered that gold currency is in no sense an essential feature of a complete gold standard. The 'Gold Bullion' Standard has been the result. This is a true gold standard. For, after all, the essential elements of that standard are only complete convertibility of currency into gold (not necessarily of gold coin) and an absolutely free gold-market. The gold standard, therefore, emerged from War and reconstruction without the gold currency being regarded as essential to it. Thus, under the new Gold Standard Act in England, in 1925, Bank of England notes became convertible not into gold coins but into gold bullion. This Act for the first time did away with the free inter-changeability between gold bullion and gold coin. This dropping out of the gold currency at the very moment of victory of gold marks an important landmark in the evolution in monetary theory and practice since the War. Mr. Keynes could boldly write, in 1921, what perhaps he or any other economist could not have thought of writing in 1914 or before, namely that "much nonsense is talked about a gold standard must necessarily be followed by a gold currency. If we mean by gold currency a state of affairs in which gold is the principal medium of exchange, no country in the world has such a thing. Gold is an international and not a local currency. So long as it is available for payments of international indebtedness it is a matter of comparative indifference whether it actually forms the national currency."<sup>3</sup> Indeed, economists have gone further and have claimed to prove that gold currency would be wasteful and even detrimental to the interests of the country adopting it, in that it would diminish and not increase the stability of its currency system. All these developments in thought have been the result of the necessity of strictly economising in the use of gold after the War.

Again, the chief merit claimed on behalf of the old gold standard was that its working was automatic and that it did not permit artificial

<sup>2</sup> Cannan in a 'Letter to a High authority' in his, "An Economist's Protest"—Page 115.

3. Keynes, Tract on Monetary Reform.

interference from any outside agency. The problem before each country in those days was to maintain the value of its currency at a definite level with gold. There was no talk of regulating the value of gold itself. That was a matter which was allowed to take care of itself and this attitude was justifiable then, because gold itself maintained a substantial steadiness of value. The War changed the whole situation. Both during and after the War, enormous quantities of the yellow metal flowed to United States and France and were buried in the vaults of their respective central banks. Such distribution of the available gold supplies of the world has given rise to problems that could not be solved upon the principles of the old automatic gold standard. The monetary policy of United States and France is now an important factor in the determination of the value of gold. Appreciable fluctuations in this value have, therefore, been taking place. Hence economists and financiers have come to recognize the necessity of stabilizing the value of gold itself. This was clear to the Genoa Conference which recommended the creation of 'gold centres' and the reduction of gold reserves of the other central banks. So, those who are now supporting the gold standard do not do so on the strength of its automatic working. They recognize that under the present conditions, currency has to be managed in some form or other, but that it is easier, more practicable and more in agreement with tradition and sentiment that the gold standard itself should be managed rather than any form of independent standard. This deliberate control of the value of gold itself was no part of the old gold standard philosophy. Cassel says, "The gold standard of the future will always be what is termed a 'controlled', or 'managed' standard, a standard subject to deliberate influence."<sup>4</sup>

## II

Let us now pass on to consider the changed view about the place and function of reserves in a modern banking system. All the central banks of to-day are subject to precise regulations in the matter of maintaining a definite relationship between their note-issue on the one hand and their gold reserves on the other. Such regulations are traceable to two influences, one of which is historical and the other, political. In former days, bank money consisted mainly of notes and not of deposits. Now, however, deposits, subject to cheques, form the major part of the currency system of advanced countries like Britain and United States. So the original reason for making gold reserves a definite percentage of the central bank's notes outstanding no longer exists

<sup>4</sup> Cassel in 'The crisis in the World's monetary system.'

As Mr. Keynes says, "To regulate the volume of bank-notes is a very clumsy, slow, indirect and inefficient method of regulating the volume of bank money."<sup>5</sup>

The second influence, as we have seen, was political. It has been said that if the discretionary power of the central bank in the matter of note-issue is not limited, it would submit to the imprudent demands of government and make advances to the Treasury that would bring about an inflation of the note-issue. But, then, Mr. Keynes himself remarks, an Act of Parliament is a very ineffective method of curtailing the powers of a government here.<sup>6</sup> So, we find that the regulation of the central bank's note-issue and its reserves on this ground also cannot bear examination.

Quite apart from all these considerations, the conditions of the post-War period have deprived the methods of regulation, in vogue, of the volume of bank notes of any meaning whatsoever. We have already seen that gold coins have not been put into circulation since the War. So the gold reserve is no longer required, as it used to be in the past, to meet an internal drain of gold, and the net effect of the existing regulations has been merely to bury a large part of the gold reserves in the vaults of the central banks, without their serving any use. Prof. Cannan's views on this point are strong and emphatic. He says, "eventually the object of keeping a reserve has been so far lost sight of that it has been quite common for legislatures to prescribe that a minimum of 25, 30 or even 40% of notes should be covered by a reserve gold held against them. The absurd consequence of such legislation is that a bank subject to it must keep more than the minimum."<sup>7</sup>

Prof. Edie has the same opinion to offer. He says, "Perhaps the greatest enemy of economy is the fetish of fixed reserve ratios, for, in

<sup>5</sup> Keynes 'A Treatise on Money' Vol. II. Page 264.

<sup>6</sup> 'A Treatise on Money' Vol. II Page 264. Keynes says, "in almost every known case of stress and strain, in which note Regulations interfere with the wishes of the Government of the day, it is the former which have given way."

<sup>7</sup> Cannan, 'Modern Currency and the Regulation of its value' (1931) Page 36. He gives an example—"Say that the minimum is 40% and that, at a moment when the total issue outstanding is 100 millions, 5 millions are presented for conversion into gold. If the bank holds only the minimum of 40%, paying out 5 millions of gold in redemption of 5 millions of notes will reduce the reserve to 35 gold against 95 notes, that is the reserve will be not quite 37 per cent, instead of the legal 40

practice, this tends to mean fixed high reserve ratios."<sup>8</sup> The effective strength of the central bank, under these circumstances, depends on the amount of its excess reserve. So Mr. Keynes says, "We have the paradox that the more strictly and conservatively the gold reserves of a central bank are prescribed by law, the weaker it is, and the more utterly exposed to disastrous disturbances from every wind which blows."<sup>9</sup> "All legislation," according to Prof. Cannan again, "limiting the bank's freedom to keep whatever reserve seems reasonable to them encourages the public to imagine that the purpose and end of a reserve is not to meet all demands on it, but to be big and to be for ever reserved."<sup>10</sup> And amongst the obstacles to the adoption by the nations of sound policy in the regulation of their currency, Prof. Cannan includes "superstition and muddle-headedness" about reserves. "Pure superstition causes the multitude to believe that the mere presence of 'cover,' as they call it, for the notes in the shape of a hoard of gold, maintains or ought to maintain the value of the notes even when there is not the slightest indication that any of the hoard will ever, under any circumstances whatever, be paid out in exchange for notes."<sup>11</sup>

Again, according to Mr. Keynes, in the event of an inflation developing, the note-issue is in modern conditions the latest in point of time to show symptoms of the disorder that is at work in the economic system. This is why he says that "to attempt to maintain monetary health by regulating the volume of the note-issue is like attempting to maintain physical health by ordering a drastic operation or amputation after the affection has run its full course and mortification is setting in."<sup>12</sup>

The result of our analysis of this question so far, has thus been to show that the existing regulations concerning bank-reserves are unsound in theory and harmful in practice. Mr. D. H. Robertson, from other points of view, also brings into relief the ex-

per cent. Consequently, if the bank fears a demand for 5 millions when the total issue is 100, it must have a reserve of 43 millions or three over the minimum. If it thinks a demand for 25 millions is possible, it must keep 15 millions more than the legal minimum, for when the notes outstanding are reduced to 75 millions it will still have to keep 30 millions of gold to satisfy the law."

8. L. D. Edie, 'The Banks and Prosperity,' Page 25.

9. J. M. Keynes, "A Treatise on Money", Vol. II, Page 272. He adds "A Central Bank which was compelled to keep 100 per cent of its assets in gold would not be much better off than one which had no reserves at all."

10. Cannan, "Modern Currency," Page 37.

11. Ibid, Page 70.

12. Keynes, 'A Treatise on Money' II, Page 273.

trema unwisdom of tying the banking system by fixed rules about its reserves.<sup>13</sup> He says that the true function of a bank is to act as an intermediary for putting the genuine savings of the public at the disposal of industry and commerce, and that if it is to satisfactorily discharge this function, it is to be given a large amount of discretion in the matter of keeping its reserves. Under certain circumstances the banking system would be acting to the public advantage, only if it makes new loans as old ones are repaid, but in others, it would have to depart from this rule, if it is not to fail in its duty. Thus Mr. Robertson shows that in a country, stationary in respect of population and technical efficiency, if the people are affected by a sudden wave of thrift and desire to increase the amount of saving they do through the medium of the bank, then, it is necessary for banks to make a net addition to the amount of its loans, "in such wise that the increased demand of those to whom the new loans are made just balances the reduced demand of the thrift-smitten depositors."<sup>14</sup> Only if the banks act in this way will the thrifty intentions of the public bear fruit, and trade and industry derive benefit. Now, our actual banking system can be expected to behave in this way only when enough latitude is given to it in the matter of maintaining the proportion between reserves and liabilities. Says Mr. Robertson, "Thus we see a new reason for suspecting that a banking system which is tied by fixed rules about its reserves may not be well adapted to act under all conditions to the public advantage."<sup>15</sup> In the case opposite to that described above, where people decide to spend faster than they have been doing, it is incumbent upon the banking system to reduce the volume of its loans. In other words, all will not be well, if under these circumstances, the banks make new loans only as old ones are paid back. Says Mr. Robertson again, "And once more we may well be doubtful whether what we have called the appropriate action in these circumstances can be expected from a bank which is tied by fixed rules about its reserves."<sup>16</sup> Mr. Robertson, then, applies this discussion to communities where both population and aggregate wealth increase. He says that when the increase in aggregate wealth is solely due to an increase in population, the banks should increase their loans year by year in proportion to this increase in aggregate wealth. Whether the banking system can do it depends again, on the rules and regulations in force concerning its reserves. If, however, the increase in aggregate wealth

13. Robertson 'Money' Chap. v. Pages 85—107.

14. Ibid—Page, 95.

15. Robertson 'Money' Page 96.

16. Ibid—97.

is not due to the growth of population, but due to the increase in productivity per head, then the banks ought to make no new additions to its loans if they are to benefit trade and industry. And Mr. Robertson says that once more we may well feel doubtful whether a banking system that is tied by fixed rules about its reserves will in fact be able effectively to discharge its true function.<sup>17</sup>

All this discussion, therefore, brings home forcibly to our minds, that there is no point in retaining the existing regulations concerning banking reserves. Mr. Keynes holds the view that while the normal amount of the central bank's reserves should be determined by the necessity partly for providing liquid resources for use in emergencies and partly for inspiring confidence, the main consideration should be the possibility of meeting drains abroad.<sup>18</sup> In any case, the amount of this reserve need not bear any close relationship to the volume of bank-notes or even the volume of bank-money.

Such a view has been put forward not only by theoretical economists, here and there, but has been endorsed by a whole body, consisting of practical financiers as well as economists, with intention of being put into practice. The Macmillan Committee thus express themselves on this question, "The sole use of a gold reserve to-day is to enable a country to meet deficits in its international balance of payments, until the appropriate measures can be taken to bring it again to equilibrium. This being the case, it is paradoxical that legislation in many gold standard countries has almost always expressed the total reserves of gold or foreign gold exchange as a definite percentage of the central bank's notes outstanding. So, greater freedom for the central bank in the use of their reserves is very desirable."<sup>19</sup>

### III

It is now our task to examine briefly the improvements that have taken place in what is generally known as the Quantity Theory of Money. Prof. Cannan opening the discussion on Monetary Reform at the Annual Meeting of the Royal Economic Society, in 1924, referring to the post-war improvements in monetary theory, said, "The improvement which has taken place may be shortly summarized in the statement that the relation between the quantity of currency and its pur-

chasing power has been cleared up."<sup>20</sup> The quantity theory, as presented by early writers, gave a confused and unsatisfactory account of this relationship. It was said that the purchasing power of money would depend on the total quantity of it in existence in relation to the total quantity of goods to be exchanged for money. The demand for money was taken to consist in the total number of goods that are to be exchanged for money. Modifications of the central doctrine were then gradually introduced and it was said that the rapidity of circulation of money and the rapidity of turnover of goods have also to be taken into account. It was very difficult for ordinary minds to comprehend conceptions, such as these. So Prof. Cannan tried a simpler method of stating the theory. By the demand for currency, he said, is to be meant the demand by people to hold it and not to pay away again immediately. Just as the effective demand for houses obviously comes from those who want to hold houses and not from people who buy and sell houses forthwith, so the effective demand for currency comes from people who want to hold it and not to get and spend it immediately.<sup>21</sup> According to Prof. Cannan, this conception of demand dispenses with the use of the cumbrous phrases, "rapidity of circulation", and throws clearer light upon the causes of changes in the value of money.<sup>22</sup>

It will not be out of place, here, if we refer briefly to the nature of the elasticity of demand for money. It has been generally assumed that the elasticity of demand for currency is always equal to unity, so that a change in its quantity would be followed by an exactly proportionate change of its value in the opposite direction. A discussion of this question by Mr. Keynes and Prof. Cannan has resulted in the view that it is not always true. For, if it were universally true, issuers of legal tender could go on buying goods and services with new issues indefinitely. Yet actual experience shows that there is a limit to this. When it is obvious to everyone that money is steadily depreciating in value, each man will find it more profitable to hold goods than money itself. The demand for currency, thus, does not keep step with the increase of supply and its value falls more rapidly. In other words, the elasticity of demand for money (after a certain point at any rate) is less

20. Cannan in *Economic Journal* for June, Page 155.

21. Cannan in 'Money'—its connection with rising and falling prices.

22. It must, however, be remarked, here, that in 'Modern Currency and the Regulation of its value', published in 1931, Cannan seems to have after all adopted the old definition and the old method of approach. Here demand for currency is taken to mean by him 'the amount of goods offered in exchange for any government of currency' Page 45 of 'Modern Currency.'

<sup>c</sup> 17. Ibid—98.

18. Keynes, 'A Treatise on Money'—Page 275, Vol. II.

19. Macmillan Committee Report, pp.

than unity. So also in the reverse case of deflation. People are in a hurry to part with goods and services, and more and more reluctant to part with currency so that the fall of general prices outruns the diminution of currency.

Now, it would be a serious omission if, at this point, we do not refer to the views of Mr. Keynes regarding the Quantity Theory. Sir J. C. Stamp in his Ludwig Mond Lecture on "The Present Position of Monetary Science" says, "The main contribution to the practical theory in Mr. Keynes' treatise is the study of the total quantity of money in the light of its respective uses, with a necessity for a new technique to measure them."<sup>23</sup> Mr. Keynes himself admits that he has to break away from the traditional method of treating the problem.<sup>24</sup> The old quantity equations, according to him, are either mere truisms or lead to a wrong result. He starts by making a two-fold division of the community's money-incomes—"Taking the flow inwards, it must be divided into the parts which have been earned by the production of consumption goods and of investment goods respectively, and the flow outwards, into the parts which are spent on consumption goods and savings respectively. If the flow inwards from production of consumption goods differs from the flow outwards in buying them, then the price-level of such goods must be disturbed. Such a lack of equivalence occurs whenever savings out of income are not equal to the sums spent in investment goods."<sup>25</sup> It is thus seen that his method of approach is entirely different. His terminology also is new, and in many respects even confusing. Sir J. C. Stamp says, "At one time the theory of money was hardly concerned at all with this distinction (between the inflow inwards and outwards, between savings and investment), but it is now seen to be vital to a proper understanding of the quantity theory, and the theory of excessive or rather disproportionate saving becomes not merely an aspect of economic disequilibrium and maldistribution of wealth but an integral part of monetary science."<sup>26</sup> Mr. Keynes says, "The performance of the act of saving is in itself no guarantee that the stock of capital goods will be correspondingly increased."<sup>27</sup> For investment is done by other hands and is governed by considerations that have no immediate

23. Page 24.

24. Keynes, 'A Treatise on Money' Vol. I, Page 134.

25. Sir J. C. Stamp's summary of Keynes's position in "The Present Position of Monetary Science" (1932) Page 24.

26. Ibid—Page 24.

27. Keynes, 'A Treatise on Money' I, Page 175 and quoted by, Sir J. C. Stamp in 'The present position of monetary Science'.

reference to the price of consumption goods. And savings that are not invested are wasted in the banking machine and bring about a special type of deflation.

Many important consequences follow from this distinction made by Mr. Keynes. "The price-levels must be carefully divided into different kinds. Bank deposits must be classified according to the intent of the depositor, if we would get a true picture of velocity; investment requires division into domestic and foreign. Thus he (Keynes) paves the way for a detailed scrutiny of every unitary conception, every average or aggregate, to determine the different directions of investment, the different quality, changeability or amenability of the parts."<sup>28</sup>

Such, in brief, has been the effect of Mr. Keynes' analysis of the quantity principle. We cannot at this stage, point out whether there has been any justification for the scrapping of the old method and terminology. Mr. Keynes is attacked on all sides for his division of conceptions hitherto held in one. Mr. Robertson, for example, dissents from many of the views expressed by Mr. Keynes on this particular question.<sup>29</sup> And yet no one has ventured to say that the latter's treatment of the problem has been entirely devoid of any value.

#### IV

Let us, now, turn our attention to the changed view about the operation of the bank-rate. The bank-rate was once regarded merely as a means of regulating the quantity of bank-money. It was conceived as acting directly on the quantity of bank credit and therefore on the price-level, in accordance with the Quantity Theory. This was generally the view expressed by Marshall,<sup>30</sup> Prof. Pigou,<sup>31</sup> Mr. Hawtrey,<sup>32</sup> Prof. Cassell,<sup>33</sup> etc. Mr. Keynes, however, while recognizing the fact that the changes in bank-rate and changes in the supply of bank-money

28. J. C. Stamp, 'The Present Position of Monetary Science' (1931), Page 25.

29. Vide Economic Journal, 1931, Pages 395 to 411.

30. Vide Marshall's Evidence before the Gold and Silver Commission, included in 'Official Papers.'

31. Pigou, 'Industrial Fluctuations', Page 241, where, according to Keynes, he conceives of Bank-rate as acting directly in the quantity of bank credit and so on prices in accordance with the quantity equation.

32. See 'Currency and Credit.'

33. Cassell, 'Theory of Social Economy' and see also 'Fundamental thoughts in Economics', Page 128.

often go together, takes care to point out that the association is not invariable and that the effect on prices is not always proportionate to the change in the supply of money.

There is another school composed mostly of bankers, who regard bank-rate policy not so much a means of regulating the price-level as one of safeguarding a country's gold reserves by influencing the rate of foreign lending. According to them, an increase of bank-rate in a particular country is to make it attractive to foreigners so that funds from other countries may flow in and turn the balance of international indebtedness in favour of that country. Now, this, again, is an important aspect of the question. But as Mr. Keynes points out, outwardly at least, it contradicts the first doctrine.<sup>34</sup> For, the object of raising bank-rate is to attract gold or at least to prevent its drain abroad, so that its effect is to increase the basis of credit above what it would have been otherwise.

So, according to Mr. Keynes, truth is to be found in saying that the bank-rate influences the rate of investment and thus influences the price-level and *even the cost of production*.<sup>35</sup> We have already referred to the distinction between saving and investment. This has an important bearing on the operation of the bank-rate. Says Sir J. C. Stamp, "A factor of new importance emerges in the operation of the bank-rate from this distinction, for a discouragement of investment relatively to saving has causal relation to the price-level."<sup>36</sup> A rise in the bank-rate upsets the balance between the value of investment and saving. It may do this either by encouraging saving or retarding investment. Anyway, the effect is a lowering of prices. First of all, the prices of capital goods fall. A change in bank-rate tends sooner or later to influence the bond rate (i.e. the rate of interest in the long-term market) and the price of a capital good is arrived at in the market by capitalising the net prospective money income from it at the prevailing bond rate. Suppose a rise of 1% in bank-rate has the effect of raising bond rate from 5 to 5½%, this means an average decrease of 2½% in the price of new fixed capital. So, the initial effect of a higher bank-rate will be a fall in the price of capital goods and therefore in the price-level of new investment goods. And the price-level of consumption goods also generally follows in the same direction. This fall in prices causes the receipts of entre-

34. Keynes, 'Treatise on Money,' Page 190.

35. This is almost the view of a school of thought in Germany and Austria, called by Keynes as the 'neo-Wicksell school', Page 25.

36. Sir J. C. Stamp "The Present Position of Monetary Science", Page 25.

preneurs to fall below the normal and induce them to offer less employment all round. So, earnings of the various factors of production (i.e. costs of production seen from the other side) are sooner or later brought down in the proportion in which prices have fallen. Now, no writer before Mr. Keynes, in 1929, has clearly distinguished these two stages, the effect of an increase in bank-rate having been treated as stopping with the initial fall of prices.

A change in bank-rate, then, brings about a change in the opposite direction in price and cost of production level, by influencing the rate of investment. As regards the relation of bank-rate to the quantity of bank money, Mr. Keynes says that in a free-loan market, every effective alteration of bank-rate, other things being equal, produces *some* alteration in the quantity of bank money.<sup>37</sup> But he adds that there is no simple or invariable relation between the effect of an alteration of bank-rate on the price-level and the associated alteration in the quantity of bank money. So it is not safe to say that a change in bank-rate changes price-levels because it brings about changes in the quantity of bank-money, especially when it is added that the change in price-level is more or less proportionate to the change in the quantity of bank-money. All this calls for a radical alteration of many of the ideas which we might have formerly held regarding the *modus operandi* of the bank-rate.

## V.

F. W. Crick, writing in the *Economica* in June, 1927, on the 'Genesis of Bank Deposits,' observed, "From time to time there crops up with renewed fury a confused and confusing controversy as to the powers of the bank to create credit."<sup>38</sup> The publication of Mr. Keynes' 'Treatise on Money', let us hope, has terminated this unfortunate controversy, which was after all, a battle of words. Mr. Keynes says that in the most convenient use of language all deposits are 'created' by the bank holding them.<sup>39</sup> But, according to him, it is necessary to distinguish between two kinds of deposits—those that the banks actively create by lending and investing, and those which it is passively creating against the receipt of liquid resources from its depositors. He then adds that 'active' deposits should bear a definite relation to 'passive' deposits. This, how-

37. Keynes, 'A Treatise on Money,' Page 216.

38. *Economica*, June, 1927, Page 191.

39. Keynes, 'Treatise on Money Vol. I, Pages 24—25.

ever, does not mean that the banks can lend no more than what their depositors have entrusted with them. Some like Dr. Leaf and Prof. Cannan maintain that actively created deposits or bank loans are always the offspring of those deposits left with the banks by individuals. Others like Mr. Keynes, Mr. Robertson and Withers, however, hold that in many cases, deposits (passively created) may themselves be the result of loans granted by the banks (i.e. of actively created deposits). Thus Mr. Keynes says that it is possible that those who borrow from a bank may transfer the resources so gained to others, who, being the customers of other banks, may leave them at these other banks. In so far as this happens, actively created deposits are themselves the cause of the latter. And Mr. Keynes shows that in a closed banking system, where no bank is obliged to maintain any cash reserve, and where all transactions are effected through cheques, there would be no limit to the creation of credit by the banks, *if only each bank keeps in step with the other.*<sup>40</sup> For, he says, "Every movement forward by an individual bank weakens it, but every such movement by one of its neighbour banks strengthens it, so that if all move forward together, no one is weakened on balance."<sup>41</sup> In the actual world, however, some payments, at least, are liquidated by cash. Again, necessity, custom or law require the maintenance of a certain reserves by the banks. Under these conditions, there is a check not only on the individual banks but on the banking system as a whole, in the matter of credit creation. Here, it is the total of reserve-resources that sets the 'pace' common to the system as a whole.

Thus it is clear that the banks are not limited to that kind of deposit for the creation of which the initiative must come from those people who bring cash or cheques to the banks. On the other hand, it is equally clear that in the actual world, there are clear limitations to the power of an individual bank as well as the banking system as a whole to create credit of *their own accord*. Much of this limitation arises from the fact that a definite proportion between reserves and liability has to be maintained by all.

40. For example, let a person borrow money from bank A and pay away the proceeds of this loan to others who, suppose are the customers of bank B and who therefore, leave the money at the latter bank. As a result of this operation, bank B finds itself strengthened by the growth of its passively created deposits to the same extent that bank A has been weakened by the growth of its actively created deposits. But in the same manner and for the same reason, bank A may be strengthened whenever bank B or any other bank in the system is actively creating deposits.

41. Keynes 'Treatise on Money' Vol. I. Page 26.

## VI

We must also refer here to the improvement in the theory of Exchange that has taken place after the War. When the currencies of the world are all on a gold basis, exchange between them would depend on the gold contents of their respective coins. And what fluctuations in exchange there are, would be confined to specie points. During the War and for a long time afterwards, however, the gold standard was replaced by paper standards. So the question came into prominence again as to what determines the rate of exchange between countries having independent systems of inconvertible paper currency. Prof. Cassel came with the answer that the rates of exchange, under such conditions, are determined by the relative price-levels in different countries. He says, "Our willingness to pay a particular price for foreign money must ultimately and essentially depend on the fact that this foreign money has a purchasing power as against commodities and services in the foreign country. On the other hand when we offer so much of our own money in order to obtain a claim on foreign money, we offer a purchasing power in our own country. Our valuation of foreign money would therefore depend on the relative purchasing power of the currencies of both countries."<sup>42</sup>

Now, this theory of Purchasing Power Parity has been subject to a good deal of criticism, especially of late. It is pointed out, for example, that the theory, to be true, must take into account only the prices of those commodities which are the subjects of International Trade, but when it is so confined, it is little better than a truism. Mr. Keynes says that there are in the present day a number of articles that seek an international market, in spite of tariffs and freight charges.<sup>43</sup> For each country, therefore, he continues, there is an index which may be called its International Index made up of the principal commodities having an international market. And "the rates of foreign exchange between two currencies move in the same way as the ratio of an International Index expressed in the prices of one country to the same Index expressed in the prices of the other country."<sup>44</sup> There is no harm in putting the theory like this, but it has been by its supporters extended to the purchasing power of money itself. This leads to trouble, because, according to Mr. Keynes, there are likely to be marked differences between the movements of the purchasing power of money within a coun-

42. Cassel, 'Money and Foreign Exchange, after 1914' Page 138—39.

43. Keynes's Treatise on Money I, Page 69.

44. Ibid—Page 72.

try and those of its International price level. So, no close correspondence between the internal price levels in different countries and the rates of exchange between them is to be expected—Mr. Robertson also seems to hold the same view. Yet it cannot be said that the purchasing power parity theory of foreign exchange is on that account absolutely devoid of any value. We have to remember that in the long run at any rate prices of home commodities (i.e., commodities produced and consumed within each country) move more or less in sympathy with the prices of international commodities (i.e., those that have an international market). So, after all, the theory must be said to contain a good deal of truth.<sup>45</sup>

Such, then, are some of the important developments that have taken place in monetary theory since the war. The events that have occurred during this period made the old monetary analysis completely inadequate both as a means of explanation and as a practical guide. Mr. Keynes, whom we have had occasion to quote again and again, was the first to recognize this fact, and his Tract on Monetary Reform and more important still, his 'Treatise on Money' are epoch-making works in this connection. Sir J. C. Stamp reviewing 'Treatise on Money', observed, "Hardly anything in the theory of money can ever be quite the same again, and I doubt if anyone can now go over any of his past work in this field without wishing to modify some of his expressions and without wanting to touch up even the most finished of his products with the new tools he has obtained." With developments such as these to its credit, monetary theory has progressed far in the direction of giving a lead to bankers and practical financiers in their attempts at solving many of the economic problems of the world. A measure of this progress is perhaps to be seen in the number of proposals that are being brought forward, urging central banks everywhere to exercise greater control over the economic life of the country. Prof. Edie says, "There was an old form of central bank control before the war, a form fairly well standardized and accepted, which confined itself to maintaining the gold standard, to keeping currency redeemable, to regulating within bounds gold imports and exports and to tiding countries over financial crises. The new pro-

45. Robertson in 'Money' (p. 73) says, "The proposition under debate, therefore—that the rate of exchange between two countries with arbitrary standards depends on the relative purchasing power of the moneys of the two countries over those goods which are the subjects of trade between them—while it is sometimes argued in an unconvincing fashion, and while in any case it does not tell us the whole truth about the determination of the rates of exchange, seems to the present writer to be sensible and helpful as far as it goes."

posals of control go far beyond these strictly monetary duties. They contemplate the stabilisation of price levels, the smoothing out of the business cycle, the relief of agriculture, the remedying of unemployment, the maintenance of business confidence and the timely restriction of speculation."<sup>47</sup> It cannot be said at present whether with the new machinery at their disposal, the banks will be able to meet all these demands that press upon their attention. It may be as Sir J. C. Stamp says, "the theoretical stabilisationists very much over-state both the possibilities and sensitiveness of control." But there can be no doubt that the tendency of the post-war period has been towards greater control. "Undoubtedly central banks are going further with it than they ever conceived of doing before the war," has been said by a German banker.<sup>48</sup> "In recent years most people have become dissatisfied with the way in which the world manages its monetary affairs. . . . I do not think that practical bankers are primarily blame-worthy for this. There is a famous passage by Bagehot where, after complaining that the directors of the Bank of England were not acquainted with right principles, he continues; "They could not be expected themselves to discover such principles. The abstract thinking of the world is never to be expected from persons in high places; the administration of first-rate current transactions is a most engrossing business, and those charged with them are usually but little inclined to think on points of theory, even when such thinking most nearly concerns those transactions." Yet when we turn to the work of economists, whose proper business is "the abstract thinking of the world", it is noticeable how little serious writing on monetary theory there is to be found anywhere, prior to the stirrings of the last few years. The events of recent years have—it is true—stirred up much thinking on these matters, which will yield its fruit in due time."<sup>49</sup> Monetary theory therefore is not yet perfect, but the work done after the war by economists all over the world has been such that it is now almost ready to "take the critical leap forward which will bring it into effective contact with the real world."

47. L. D. Edie, 'The Banks and Prosperity', (1931) Page 11—12, and quoted by Sir J. C. Stamp in his Ludurg Mond Lecture for 1932.

48. Quoted by Edie in Page 20 of 'The Banks and Prosperity.'

49. Keynes, 'A Treatise on Money,' Vol. ii. Page 406.

## Industries in India

By

B. V. NARAYANASWAMY NAIDU

(Annamalai University)

(Continued from page 158, Vol. I, No. 2.)

### INDUSTRIAL POLICY SINCE 1900

In the beginning of the present century, there began a demand for the expansion of industry, which steadily increased until in 1907 the popular mind expressed this new belief by starting the Swadeshi Movement. Pressure was brought on the Government to abandon its "laissez faire" policy and take an active part in securing the expansion of industries, but the Government did not accept this role until after the outbreak of the War.

Here and there attempts were made by individual administrators to give assistance to industries. Between 1898 and 1908 Mr. Alfred Chatterton developed in Madras an aluminium hollow-ware industry and a chrome tanning industry and also pleaded for the establishment of a Department of Industries. After considerable hesitation Lord Morley, Secretary of State for India, sanctioned the creation of the department as an experimental measure and in 1906 the first Provincial Department of Industries came into being but was abolished as a separate department when Lord Morley refused permission in 1910 for the continuance of a separate Department of Industries.

Lord Morley's despatch dated the 29th July, 1910 gave a check to official activities, but Lord Crew, the successor of Lord Morley, was prepared to follow a somewhat bolder policy, for in his despatch No. 24—Revenue, dated March 12th, 1912, he stated that "the Government of Madras seemed to have placed too limited a construction upon the orders given in my predecessor's despatch of 29th July 1910. The policy which he then sanctioned was that the State funds might be expended upon familiarising the people with such methods of production as modern science and the practice of European countries could suggest. This need not be interpreted as confining instruction solely to Industrial

Schools. I am prepared to recognise that in certain cases instruction in Industrial Schools may be insufficient and may require to be supplemented by practical training in workshops, and there is no objection to the purchase and maintenance of experimental plant for the purpose of demonstrating the advantage of improved machinery or new processes and for ascertaining the data of production." No attempt however was made to extend the industrial and technical instruction and the Government "had neither the organisation nor the equipment to give effect even to the comparatively limited policy sanctioned by Lord Morley."

In order to create an industrial organisation and to work it properly attempts should be made for giving industrial and technical education. Throughout the 19th century the Government did not pay much attention to this but was content with the mere imparting of such education as would suffice for the administrative needs of the country. However, in 1904 an important step was taken by instituting State Scholarships to enable Indian scholars to get training abroad in technical and other industrial branches of knowledge. In 1882, a Commission was appointed by the Government of India to review the existing state of education and suggest methods to improve it in future. In 1888, the Government of India accepted the importance of industrial training and instructed the Local Governments to take action in the matter. The immediate result was small but the colleges began to provide science courses and in 1887 the Victoria Jubilee Technical Institute was started in Bombay. With the 20th century technical and industrial schools multiplied and the annual expenditure of Public Funds rose from 2½ lakhs in 1904 to 5¼ in 1912 and after that date it began to increase even more rapidly.

Associations were established for the advancement of the scientific and industrial education of Indians, and with the assistance of these associations, qualified persons were sent to visit America, Japan and other foreign countries to study arts and industries. In 1911 the Indian Institute of Science was founded at Bangalore by the Tata family with Government assistance and the Sydenham College of Commerce was established in Bombay in 1913.

Thus, a change was gradually coming over the Government policy and the War acted as a further stimulus. In order to meet the Government needs and in order that India might be able to meet the demands arising out of the War, it was essential that the old "laissez faire" policy should be abandoned by the Government, since it was be-

coming apparent to all that unless the State took an active part in the development of industries, it would not be possible to assure their growth.

Every country in the world at some stage or other had given valuable help to its industries. For example, even in England, according to the Liberal Industrial Enquiry Committee, a loan of £74,251,780 was raised between 1921-1927, under the Trade Facilities Act, for the promotion of industrial concerns.<sup>1</sup>

Large amounts of money were being spent by the Government in England for scientific and industrial research. In 1915, the Committee of the Privy Council for Scientific and Industrial Research was established to develop and organise the resources of the country. Between 1919 and 1926 about £150,000 was incurred on the maintenance allowance of 700 students, to enable them to spend two years in scientific research. By now it was clear that in order to improve industrial methods and products, the State should give facilities for carrying out applied scientific research and if necessary the Government should establish research departments in order to help the industries. It would not be possible to carry on certain types of research by private initiative and "there are certain industries of wide national importance which present scientific problems peculiarly adapted for attack on a comprehensive scale by national research organisation."<sup>2</sup> So it was the business of the State to take the lead in such matters by establishing service departments to undertake scientific research.

In Japan also, the Government actively associated itself with the process of industrialisation and thus during the course of little over half a century, "she has become one of the most fascinating countries in the world, in so far as industrial and commercial phenomena are concerned." In 1868 the economic condition of Japan was much worse than that of India in 1757, yet she was able to progress on account of active help given by the State. The Government embarked on an active national policy and did everything to assist the industries. Students were sent abroad to study the industrial and commercial technique of the West and foreign experts were brought to Japan to train the Japanese. The Government supplied the capital and gave protection and

subsidies whenever possible. It also encouraged the establishing of Commercial Museums, Exhibitions and Industrial Banks. The impetus given by the State brought about a rapid and amazing progress which can be realised from the fact that "the contribution of manufactured goods to her total export trade rose from 1.14 per cent. in 1868 to 45.2 per cent. in 1928, the figures for import trade being reduced from 60.57 in 1868 to 15.16 per cent. in 1928." The effect of the growth of industrial activity can also be seen in her exports and imports of raw materials. She exported 26.7 per cent. and imported 4.98 per cent. of raw materials at the beginning of her industrial career while in 1928 she exported 4.17 per cent. and imported as much as 53.12 per cent.

The American industries also were given a great stimulus by a national industrial policy which was deliberately adopted to encourage and give an impetus to industries.

It could never be possible to develop industries by sporadic efforts but only by adopting a deliberate national industrial policy. As Mr. Manu Subedar states: "The attitude of Government to nascent enterprise has a very distinct influence in the growth of industry. The State represents the final and superlative power in a community. It can use this power to destroy industry, as was done in the days of the East India Company in India. It can refuse to use this power and local efforts are destroyed by unfair competition from outside. It is a great thing if there is even hope that, in case of need, industry could look up to the State for protection against unfair competition of foreigners, or against any other temporary phenomenon, destroying the earning capacity in the country, not only of the weakest section of the industry, but of those, who can by all tests claim to be well-organised. Where there is thus an organic relation between industry and State, where there is a living response from the State to the needs of industry, where the machinery for securing a detailed examination of such needs is promptly available, where public opinion is enlightened to support a definite industrial policy and where the administrative machine acts quickly, without dilatoriness associated with red tape, the growth of industry may be assured, if other conditions are favourable."<sup>3</sup>

As has been pointed out, the Indian State policy was undoubtedly dominated by ideas of free trade before the War but this crisis demonstrated the urgent need for a more progressive policy. An

<sup>1</sup> 1. See Report of the Liberal Industrial Inquiry, page 103.

2. Report of the Committee of the Privy Council for Scientific Research, 2782, page 25.

3. The Indian Central Banking Enquiry Committee, 1931, Vol. I, Part II, Minority Report, page 318.

inquiry as initiated in December, 1916 to find out the ways and means to develop Indian resources for war purposes and the Indian Munitions Board was established in 1917 in order to supply Indian goods to forces in India, Mesopotamia and Egypt. The functions of the Indian Munitions Board were laid down in the Gazette of India in February, 1917:—"To control and develop Indian resources, with special reference to the needs created by the War . . . , and to apply the manufacturing resources of India to war purposes with the special object of reducing demands on shipping."

The Board attempted to foster the growth of indigenous industries by purchasing raw materials of everything needed for the Army in India, by giving expert advice, by giving assistance to old or new industries which desired to import new plant and by supplying chemical and technical experts. The Board maintained an Intelligence Branch, "the function of which was to collect industrial information and disseminate it to other branches and to Provincial Controllers and Directors of Industries and so to act as a general clearing house of industrial information".<sup>4</sup> The Board in conjunction with other branches worked for the development of industries, and all required information was placed freely at the disposal of manufacturing concerns and in the hands of persons who were prepared to start new industries. An experienced Engineer, whose duty it was to encourage and develop India's manufacture, was appointed as Controller of Munitions Manufactures. A Chemical Adviser was appointed to encourage the chemical industries of India and attempts were made to produce on a commercial scale for the first time in India the following important chemicals:—Caustic Soda, Magnesium Chloride, Red Lead, Thymol, Sandal-wood oil and Zinc Chloride.

India's manufactured goods were in great demand but she was unable to take full advantage of this opportunity for she did not have the necessary plant and equipment required for a large increase in production. She was unable to get the necessary machinery and the internal and external transport was expensive and inadequate to meet the growing demand. So the Government of India, realising "India's dangerous dependence" on imports, thought that a new constructive economic policy should be adopted to improve the situation. They felt that "the development and the inception of industries with State assistance or under State management became essential if India was to meet the demands arising out of War."<sup>5</sup>

4. Indian Munitions Board Industrial Hand-book, 1919, page 13.

5. The State and Industry, G of I, C. P. B. 1928, by A. G. Clow, page 8.

The Government of India pointed out to the India Office the importance of this problem, and so in May, 1916, the Indian Industrial Commission was appointed, with the following instructions:—To see

- (a) Whether new openings for the profitable employment of Indian Capital in Commerce and Industry can be indicated.
- (b) Whether, and if so, in what manner, Government can usefully give direct encouragement to industrial development:
  - (1) by rendering technical advice more freely available.
  - (2) by the demonstration of the practical possibility on the commercial scale of particular industries.
  - (3) by affording directly or indirectly financial assistance to industrial enterprises; or
  - (4) by other means which are not incompatible with the existing fiscal policy of the Government of India.<sup>6</sup>

The Commission, after undertaking a comprehensive survey reported in 1918, pointing out that the Government activities in respect of industries should include research, industrial and technical education, commercial and industrial technique, financial aid and purchase of stores. The authors of the Industrial Commission also proposed the establishment of Central and Provincial Departments of Industries. They also advocated the provision of an expert staff and pointed out that it should belong to the All-India Services. The Government in consequence appointed a Committee with Professor Jocelyn Thorpe, C.B.E., F.R.S., of the Imperial College of Science and Technology as President along with six others as members, for working out the details of organisation for a Chemical Service.

The Committee presented its report in February, 1920, in which it recommended the establishment of an efficient Government Service in order to exploit the natural resources of the country which had been neglected hitherto or utilized only by crude and wasteful methods. The President of the Committee observed when recommending the proposal that "it was evident that if the resources of the country were developed to their fullest extent, India would take her place in the front rank of Industrial Communities and would benefit by all the advantages that this implies."

In March, 1921, the Central Cotton Committee was constituted by resolution No. 404—22 of the Government of India in the Department

6. Government of India resolution No. 3403, 19th May 1916, page 31, (cmd) 51.

of Revenue and Agriculture. In the beginning it was purely an advisory body but with the passing of the Cotton Cess Act in 1923, it was able to get funds for the improvement and development of the growing, marketing and manufacture of cotton in India.

The chief functions of the Committee fall under three heads:—

- (1) To advise the Central and Local Governments on all questions on cotton referred to it and to suggest suitable measures for the improvement and development of the industry.
- (2) To finance and to direct research work on the problems connected with the improvement of Indian cotton.
- (3) To finance schemes intended to bring into general agricultural practice the results of economic importance obtained from research.<sup>7</sup>

The Committee has done valuable work by establishing a Technological Laboratory at Matinga and an Institute of Plant Industry at Indore. It also gives Research Scholarships for two years and has a "good record of its work to prove that it is successfully carrying out the objects for which it was founded."

The Government of India accepted the recommendations in principle but was unable to do much for industrial progress, owing to War, political and economic conditions. The Imperial Department of Industries was established in 1921 and was re-named 'The Department of Industries and Labour', after the report of the Inchcape Retrenchment Committee in 1922-23. This department has not done much constructive work but the Provincial Departments which were set up helped the industries in the Provinces to a certain extent by giving direct money grants, loans and other special facilities.<sup>8</sup>

However, it may be said that the Industrial Commission proposed the frame-work of the scheme for Industrial Policy in India and the Montagu-Chelmsford Report affirmed this principle, and the development of industries including industrial research and technical education became a transferred subject in all Provinces; with the introduc-

7. The Indian Central Cotton Committee—Its Objects and Achievements, Bombay.

8. For example, in Madras, the State Aid to Industries Act of 1923 regulated the giving of grants. Similar acts were passed in Bombay, Bengal, United Provinces, Central Provinces and Behar and the Punjab.

tion of reforms at the end of 1920 the main responsibility for the development of Industries by official agency passed to the newly appointed Minister.

It has been pointed out already that little was done to promote industrial development for various reasons, mainly on account of war, but after the War, the industries in India had to face new difficulties. Indian Industries prospered up to the autumn of 1920 on account of the post-War boom but after that there was a violent depression and the large scale industries like Cotton, Iron and Steel were hard hit. Moreover since 1922-23, the Government was forced on account of the financial position to adopt a policy of retrenchment and hence was unable to give effect to various recommendations of the Indian Industrial Commission. The industries which were hard hit applied to the Government for protection. The Government did not have any definite fiscal policy and the Indian Industrial Commission did not go into the matter as it was excluded from its enquiry by the resolution No. 3403 of the Government of India, but the matter was taken up by the authors of the Report on Indian Constitutional Reforms and in the deliberations of the Joint Select Committee of the Government of India Bill. The Committee made the following recommendations dealing with clause 33 of the Bill:—

"Nothing is more likely to endanger the good relations between India and Great Britain than a belief that India's Fiscal Policy is dictated from Whitehall in the interests of the trade of Great Britain. India's position in the Imperial Conference opened the door to negotiations between India and the rest of the Empire, but negotiations without power to legislate are likely to remain ineffective. A satisfactory solution of the question can only be guaranteed by the grant of liberty to the Government of India to devise these tariff arrangements which seem best fitted to India's needs as an integral partner of the British Empire. It cannot be guaranteed by statute . . . . It can only therefore be assured by an acknowledgement of a convention. Whatever be the right fiscal policy for India, for the needs of the consumers as well as for her manufacturers, it is quite clear that she should have the same liberty to consider her interests as Great Britain, Australia, New Zealand, Canada and South Africa."<sup>9</sup>

In clause 33 of the Government of India Bill Fiscal Autonomy for India was therefore accepted and on the 7th October, 1921, a resolution was issued stating that a Commission would be set up to "exa-

9. Report of the Indian Fiscal Commission, 1921-22, page 3.

mine, with reference to all the interests concerned, the Tariff Policy of the Government of India including the question of the desirability of adopting the principle of Imperial Preference, and to make recommendations."

They came to the conclusion "that the industrial development of India has not been commensurate with the size of the country, its population, and its natural resources, and that a considerable development of Indian industries would be very much to the advantage of the country as a whole," and so they recommended to the Government of India a policy of discriminating protection, and the establishment of a Tariff Board for watching the operation of tariffs and for advising the Government and Legislature. In order to encourage industries they suggested that "raw materials and machinery be ordinarily admitted free of duty, and that semi-manufactured goods used in Indian Industries be taxed as lightly as possible."

Thus we see that since 1924, the most direct expression of State Policy in regard to industry was given by the acceptance of the policy of discriminating protection. In India especially the Government should play a very important part, for industrial leadership is deficient, there is lack of enterprise, a dearth of capital and no concerted action. The existing facilities are inadequate and therefore "what is needed is a really comprehensive policy, co-ordinated with policy adopted in other economic spheres." The Government should undertake far-reaching schemes to provide technical labour and motive power to utilise the by-products, and to provide co-ordination between isolated or unregulated industries. "Such work should be centrally controlled. but much decentralized work is also needed in order to enlist the co-operation of the mass of the workers and to enable existing social and religious barriers to material progress to be removed. A great increase in expenditure upon industrial stimulation would, like expenditure on agriculture and on public health, in the end prove extremely productive. In particular, financial aid is necessary for investigation on a scale which no private individual could undertake; for general, technical and industrial training; and in order to assist intensive propaganda for the promotion of improved methods of industrial production among industrial workers of all grades." <sup>10</sup>

(To be continued.)

10. The Economic Development of India by Vera Anstey, pages 222 and 223.

## Quadrics of Revolution through a pair of Skew Lines<sup>1</sup>

By

A. NARASINGA RAO AND M. S. SRNIVASACHARI

(Annamalai University)

### 1. Introduction.

From the standpoint of Projective Geometry, the quadrics considered in this paper are those which pass through two skew lines  $L_1, L_2$  and have double contact with a conic  $C$ . They belong to a mixed system with one degree of freedom, which breaks up pointwise into two quadratic sub-systems. Among the singular members there are no cones, but there are five quadrics which are doubly degenerate (pairs of planes), of which three belong to each sub-system. An isomorphic plane system is furnished by the double contact circles of a conic  $C$ , these being, in fact, the sections of the quadrics by the plane of  $C$ , the intersections with  $L_1$  and  $L_2$  playing the role of the Absolute Points in the plane. The degenerate members correspond to the point-circles at the extremities of either principal axis, and the line at infinity repeated twice which is a common member of both the sub-systems.<sup>2</sup>

If  $C$  be taken as the Absolute of a Euclidean Metric, the quadrics are now surfaces of revolution through the two lines  $L_1$  and  $L_2$ . In discussing the structure and the metrically noteworthy members of the system, the concept that every straight line a rotation about which will carry one of the given lines into the other determines such a quadric, receives special emphasis. We thus obtain an image of the quadric system in line-space, the two sub-systems being represented by the two reguli on a certain hyperbolic paraboloid.

The case when the two lines  $L_1$  and  $L_2$  are conjugate imaginary lines received attention towards the end of the paper.

1. A study of the Quadrics of Revolution through a given conic, along the same lines as in this paper, was undertaken by the first of the two joint authors, and the results embodied in a paper published in the *Journal of the Indian Math. Society*, Vol. XVII (1928). The case when  $L_1$  and  $L_2$  meet is discussed in the above paper.

2. Cf. Matter relating to Footnote (4) page 73.

## 2. On the axes of revolution of quadrics through $L_1$ and $L_2$ .

Let  $l$  be the axis of rotation of some quadric of revolution through  $L_1$  and  $L_2$ ; then a rotation about  $l$  through some angle should carry  $L_1$  into  $L_2$ . This will be the case only if:

(2.1)  $l$  is equally inclined to  $L_1$  and  $L_2$ ,

(2.2) the shortest distances of  $l$  from  $L_1$  and from  $L_2$  are equal, and (2.3) these shortest distances meet  $l$  in the same point.

Let the axes of co-ordinates be so chosen that the equations of  $L_1$  and  $L_2$  are respectively

$$\begin{aligned} y = m x \quad \text{and} \quad y = -m x \\ z = c, \quad \quad \quad z = -c, \end{aligned} \quad (2.4)$$

so that  $2c$  is the shortest distance between them and  $m = \tan \theta$ , where  $\theta$  the acute angle between the lines. We shall assume that  $m$  and  $c$  are real numbers.

From condition (2.1), it follows that  $l$  is parallel to either of the planes  $x = 0$  or  $y = 0$ , which shows that the system is composite.<sup>3</sup> Again, any point on an axis  $l$  must be equidistant from  $L_1$  and  $L_2$  so that the lines  $l$  meet the plane of  $x y$  in points lying either on the axis of  $x$  or of  $y$ . Let  $P$  be a point on the  $x$ -axis, and let  $PP_1$  and  $PP_2$  be the perpendiculars from  $P$  on  $L_1$  and  $L_2$ . Then it is easily seen that  $PP_1 = PP_2$  so that the normal at  $P$  to the plane  $PP_1 P_2$  fulfills the conditions (2.2) and (2.3). Lastly, the mid-point of  $P_1 P_2$  lies on the  $x$ -axis, so that the plane  $PP_1 P_2$  contains two points on the  $x$ -axis and hence contains it. The normal to plane at  $P$  is, therefore parallel to the  $x z$  plane, and hence condition (2.1) is also fulfilled.

Since the range of points  $P$  is in (1-1) correspondence with the sheaf of planes  $PP_1 P_2$ , the normals  $l$  at  $P$  to the corresponding planes constitute a regulus (i.e., one system generators of a quadric surface). When  $P$  moves to infinity in either direction along the  $x$ -axis, the plane  $PP_1 P_2$  tends to parallelism with the  $x y$  plane, and the normal at  $P$  is ultimately parallel to the  $x$ -axis. One line of the regulus is thus entirely at infinity so that the quadric to which it belongs is a hyperbolic paraboloid.

The complementary regulus is obtained in a similar manner by taking  $P$  on the  $y$ -axis. Since  $P$  lies on the  $x$  or  $y$ -axes these reguli exhaust the totality of axes of rotation of quadrics through  $L_1$  and  $L_2$ .

We shall refer to the lines of these two reguli as the "axes of rotation" of the  $\lambda$ - and the  $\mu$ -systems, and denote them by the symbols  $l_\lambda$  and  $l_\mu$ . The  $x$ -axis itself is a member of the  $\mu$ -system and corresponds to  $P$  at the origin. Similarly the  $y$ -axis belongs to the  $\lambda$ -system.

3. This may also be inferred from the fact that there are two ways in which the infinitely distant parts in opposite directions of one straight line may be made to coincide with those of another.

The equations to these systems is readily obtained, and are found to be

$$l_\lambda : \begin{cases} x \sin \theta = \lambda \\ y \cos \theta + \frac{cz}{\lambda} = 0 \end{cases} \quad \text{and} \quad l_\mu : \begin{cases} x \sin \theta + \frac{cz}{\mu} = 0 \\ y \cos \theta = \mu \end{cases} \quad (2.5)$$

respectively. The paraboloid containing the two reguli is given by

$$x y \sin \theta \cos \theta + c z = 0 \quad (2.6)$$

The lines  $L_1, L_2$  are polar lines with respect to this quadric, and in fact the points at infinity on the  $x$ - and  $y$ -axis form with  $(0, 0, \pm c)$  a self polar tetrad.

The equation to the quadrics  $Q_\lambda, Q_\mu$  obtained by the rotation of  $L_1, L_2$  about lines  $l_\lambda$  and  $l_\mu$  are respectively.

$$x^2 - y^2 \cot^2 \theta + z^2 \left( 1 - \frac{\lambda^2}{c^2} \cot^2 \theta \right) + \frac{2\lambda \cos \theta}{c \sin^2 \theta} y z - \frac{2\lambda x}{\sin \theta} + (\lambda^2 \cot^2 \theta - c^2) = 0 \quad \dots (2.7)$$

$$y^2 - x^2 \tan^2 \theta + z^2 \left( 1 - \frac{\mu^2}{c^2} \tan^2 \theta \right) + \frac{2\mu \sin \theta}{c \cos^2 \theta} x z - \frac{2\mu y}{\cos \theta} + (\mu^2 \tan^2 \theta - c^2) = 0 \quad \dots (2.8)$$

## 3. Special members of the quadric system.

### Degenerate quadrics.

Among the quadrics of revolution through  $L_1$  and  $L_2$  there is one which reduces to a pair of planes; for when the rotation axis  $l$  is at infinity it is ultimately parallel to the  $z$ -axis. A rotation about  $l$  is equivalent to a translation parallel to the  $y$ -axis, or to the  $x$ -axis, according as  $l$  is conceived as belonging to the  $\lambda$ -system or to the  $\mu$ -system. In either case, the quadric consists of a pair of parallel planes, and this is a common quadric of revolution belonging to both the systems.<sup>4</sup>

There are no other real quadrics breaking up into a pair of planes.

### Similar quadrics and congruent quadrics

The quadric (2.7) of the  $\lambda$ -system, when referred to its principal axes takes the form

$$X^2 + Y^2 - Z^2 \cot^2 \theta \left( 1 + \frac{\lambda^2}{c^2} \right) = \lambda^2 + c^2, \quad (3.1)$$

4. Cf. Footnote (1).

and hence its asymptotic angle is  $2\alpha$  where

$$\tan \alpha = \frac{\cot \theta \sqrt{\lambda^2 + c^2}}{c} \quad (3.2)$$

The angle  $\alpha$  is the angle between the axis of rotation  $l_\lambda$  given by (2.5), and either of the lines  $L_1$  or  $L_2$ .

Similarly the quadric (2.8) of the  $\mu$ -system, may be written

$$X^2 + Y^2 - Z^2 \tan^2 \theta \left( 1 + \frac{\mu^2}{c^2} \right) = \mu^2 + c^2 \quad (3.3)$$

and the asymptotic angle is  $2\beta$  where

$$\tan \beta = \frac{\tan \theta}{c} \sqrt{\mu^2 + c^2} \quad (3.4)$$

It is obvious from these relations, and from  $\tan \theta < 1$  (since  $2\theta$  is the acute angle between  $L_1$  and  $L_2$ ), that

*Every quadric of the  $\lambda$ -system has its asymptotic angle obtuse and lying between  $\pi - 2\theta$  and  $\pi$ ; quadrics of the  $\mu$ -system have asymptotic angles varying from  $2\theta$ , which is acute, up to  $\pi$ . Hence for every quadric of the  $\lambda$ -system, there exist similar quadrics in the  $\mu$ -system, but the reverse statement is not true.* (3.5)

In fact,  $Q_\lambda$  and  $Q_\mu$  will be similar if

$$\lambda^2 + c^2 = (\mu^2 + c^2) \tan^4 \theta \quad (3.6)$$

which gives real values for  $\lambda$  only if  $|\mu| < \frac{c \sqrt{\cos 2\theta}}{\sin^2 \theta}$ .

Again within the same system, the quadrics  $Q_\lambda$  and  $Q_{-\lambda}$  as also  $Q_\mu$  and  $Q_{-\mu}$  have not only the same asymptotic angle, but are seen to be congruent from (3.1) or (3.3). In fact, every congruent transformation (a combination of rigid movements and reflexions) which carries the pair of lines  $L_1, L_2$  into themselves must leave invariant the quadric system as a whole, and hence must carry each member into another congruent with it. The group of transformations with this property consists of the identical transformation and rotations through  $180^\circ$  about the  $x, y$ , or  $z$ -axes. Each of these carries the generator whose parameter is  $+\lambda$  (or  $+\mu$ ) into itself, or into one with parameter  $-\lambda$  (or  $-\mu$ ). In general there are no sets of congruent quadrics in the system, other than these.

If, however,  $L_1$  and  $L_2$  are at right angles, they are unaltered by a reflexion in the plane  $x = y$ , and we thus have a more extended group of order 8, which contains orthogonal transformations both inverse and direct. The operations of this group carry the generator for which  $\lambda = \alpha$  into the generators  $\lambda = -\alpha, \mu = \alpha$  and  $\mu = -\alpha$ . Hence in this case the quadrics corresponding to  $\lambda = \alpha$  and  $\mu = \alpha$  are also congruent, and are reflexions each of the other in the plane  $x = y$ . Hence:

*In each sub-system of quadrics, there are pairs which are congruent, and are interchanged by a rotation about the  $y$ -or the  $x$ -axis through two right angles. In general two quadrics of different systems are never congruent, but if  $L_1$  and  $L_2$  are perpendicular, there are sets of four congruent quadrics two belonging to each system. The centres of these form a square whose diagonals are the  $x$  and  $y$  axes.* (3.7)

#### 4. Quadrics through a given point.

From equations (2.7) and (2.8), it is clear that through any point  $P$  not on  $L_1$  or  $L_2$ , there are two quadrics of the  $\lambda$ -system and two of the  $\mu$ -system. If  $P$  is on  $z = \pm c$ , one of the quadrics of each system is the degenerate pair of planes, otherwise both are proper quadrics. If any relation is postulated between these, we shall have a locus for  $P$  in the form of a ruled surface.

Thus if the two quadrics through  $P$  are congruent, equation (2.7) shows that  $P$  lies on  $yz = cx \tan \theta$  which is a paraboloid through  $L_1, L_2$ . In fact, the two congruent quadrics  $Q_\lambda$  and  $Q_{-\lambda}$  have for their intersection  $L_1$  and  $L_2$  and two other lines meeting these. The surface traced by these residual intersections as  $\lambda$  varies is the quadric obtained above. Similarly the two  $\mu$ -quadrics through  $P$  are congruent if  $P$  lies on  $zx = cy \cot \theta$ . These two quadrics meet in 4 lines of which two are  $L_1, L_2$ , a third is at infinity, and the fourth is the  $z$ -axis. Hence for any point  $P$  on the  $z$ -axis, the two  $\lambda$  quadrics and the two  $\mu$ -quadrics through  $P$  are congruent.

If the two values of  $\lambda$  are to be equal, the locus of  $P$  is the rational ruled quartic:

$$(yz \cot \theta - cx)^2 = \cos^2 \theta (c^2 - z^2) (x^2 - y^2 \cot^2 \theta + z^2 - c^2) \quad (4.1)$$

generated by the ultimate residual intersections of the quadrics  $\lambda$  and  $\lambda + \delta \lambda$ . This is a quartic of the type IV B in the classification given by Edge.<sup>5</sup>  $L_1$  and  $L_2$  are directrices of the quartic, and the line at infinity in the  $xy$ -plane is a double generator intersecting these two.

The equation of the quartic may be written

$$z^4 + z^2 (x^2 + y^2 - 2c^2) - 2cxyz \sec \theta \operatorname{cosec} \theta + c^2 (x^2 \tan^2 \theta + y^2 \cot^2 \theta + c^2) = 0 \quad (4.2)$$

which remains unaltered when  $x$  and  $y$  are interchanged and  $\theta$  is changed into  $90^\circ - \theta$ . Hence,

*the locus of points such that the two  $\lambda$ -quadrics through it coalesce, is identical with the locus of points for which the two  $\mu$ -quadrics coalesce and is the ruled quartic (4.2).*

The quartic surface may be generated by a variable line which meets  $L_1, L_2$ , and the conic

$$z = 0, x^2 \tan^2 \theta + y^2 \cot^2 \theta + c^2 = 0,$$

whose points are all imaginary.

#### 5. Quadrics of revolution through a pair of imaginary lines.

If a real quadric (a quadric whose equation is real) passes through an imaginary line  $L_1$ , it passes also through the conjugate imaginary line obtained by replacing every complex number in its equations by its conjugate. Hence it is only when  $L_1$  and  $L_2$  are conjugate imaginary lines, that we shall have a system of real quadrics through them, and this is the only case we propose to consider here.

If  $L_1, L_2$  are conjugate imaginaries, we may take their equations to be

$$\left. \begin{array}{l} y = imx \\ z = ic \end{array} \right\} \quad \left. \begin{array}{l} y = -imx \\ z = -ic \end{array} \right\} \quad m \neq i,$$

where  $m$  and  $c$  are real numbers.

By the principle of continuity, the results obtained when  $L_1, L_2$  are real may be expected to hold equally here. Thus, it will be found that the axes of quadrics of revolution lie on the paraboloid

$$mxy + c(1 - m^2)z = 0. \quad (5.1)$$

The generators of this paraboloid are

$$\left. \begin{array}{l} \frac{mx}{\sqrt{1-m^2}} = \lambda \\ \frac{y}{\sqrt{1-m^2}} = -\frac{cx}{\lambda} \end{array} \right\} \quad \left. \begin{array}{l} \frac{mx}{\sqrt{1-m^2}} = -\frac{cx}{\mu} \\ \frac{y}{\sqrt{1-m^2}} = \mu \end{array} \right\} \quad (5.2)$$

and these correspond to two systems of quadrics as before. It will be found, that the equations of the  $\lambda$ - and  $\mu$ -quadrics referred to their principal axes are respectively

$$\left. \begin{array}{l} X^2 + Y^2 + \frac{1}{m^2} \left(1 + \frac{\lambda^2}{c^2}\right) Z^2 = -\lambda^2 - c^2 \\ \text{and} \quad X^2 + Y^2 + m^2 \left(1 - \frac{\mu^2}{c^2}\right) Z^2 = \mu^2 - c^2 \end{array} \right\} \quad (5.3)$$

Hence

*Every  $\lambda$ -quadric and every  $\mu$ -quadric for which  $\mu^2 < c^2$  consists entirely of imaginary points (that is, is represented by a quadratic form which is positive definite). If  $\mu^2 > c^2$ , the  $\mu$ -quadrics are hyperboloids of one sheet, while if  $\mu = \pm c$ , the quadrics are degenerate.* (5.4)

The equation of the quartic which is the locus of points the two  $\lambda$ - (or  $\mu$ -) quadrics through which are coincident is:

$$z^4 + z^2 (x^2 + y^2 + 2c^2) - \frac{2cxyz(1-m^2)}{m} + c^2 \left( m^2 x^2 + \frac{y^2}{m^2} + c^2 \right) = 0 \quad (5.5)$$

The case when  $m = 1$ , so that,

*$L_1$  and  $L_2$  are conjugate isotropic lines in parallel planes.*

$$\left. \begin{array}{l} y = ix \\ z = ic \end{array} \right\} \quad \left. \begin{array}{l} y = -ix \\ z = -ic \end{array} \right\}$$

is one in which something interesting may be expected to happen. This corresponds projectively to quadrics having double contact with a conic  $C$  and passing through two lines  $L_1, L_2$  which meet  $C$ . The sections of these quadrics by the plane of  $C$  have double contact with  $C$  at the same two points, and there is one quadric which passes through  $C$ . Accordingly we have one sphere through  $L_1, L_2$ , whose "axis of revolution" is indeterminate, while all other quadrics of revolution through  $L_1, L_2$  have the same rotation-axis, namely the  $z$ -axis.

The equation (5.1) which gives the surface traced by the axes of rotation now becomes  $xy = 0$ . Every line through the origin and in one or other of these planes is an axis of revolution of the sphere

$$x^2 + y^2 + z^2 + c^2 = 0, \quad (5.6)$$

so that, in this case, we have a singular correspondence between the "axes of rotation" and the "quadrics" in which all but one of the "axes" correspond to the single quadric (5.6), while the single line  $x = 0 = y$ , corresponds to the family of quadrics of revolution given by

$$x^2 + y^2 + k(z^2 + c^2) = 0. \quad (5.7)$$

If  $k$  is negative this gives real hyperboloids of revolution.

6. One usually associates ellipsoids with imaginary generators, and it is surprising that there are no ellipsoids through  $L_1, L_2$ . It is found, however that pairs of conjugate imaginary generators on an ellipsoid of revolution are coplanar, so that there is no ellipsoid of revolution passes through  $L_1, L_2$  which are skew, unless  $L_1, L_2$  are conjugate isotropic lines, which is the case considered next.

# Total Intensity of Soft X-radiation from Metal Faces

By

S. RAMACHANDRA RAO

(Annamalai University)

When a beam of electrons accelerated by an applied potential is incident on a metal plate, there are two distinct phenomena happening besides many others. One is the emission of secondary electrons and the other, the excitation of soft-X-radiation. This paper deals with the special case where the applied potential is within a few thousand volts. It is well known now that there is a close relation between the two phenomena although the actual nature of this relation has not been established beyond doubt.<sup>1,2</sup> Due to the difficulties of measurement and the large number of disturbing causes, measurements of the intensities and the critical potentials in both phenomena vary with different workers. However due to a large amount of work done recently in Professor O. W. Richardson's laboratories in King's College, London, we are getting more definite pictures of these complicated processes. What I am now concerned is with the total intensity of soft X-radiation.

Richardson and Robertson<sup>3</sup> undertook a careful examination of this question for various elements at potentials ranging up to about 4000 volts. Nakaya<sup>4</sup> extended their work, studied the influence of absorbed gases and recorded results of considerable interest concerning the variation of the intensity of soft X-radiation with applied potential. These workers used the photoelectric method of measuring the intensity. The soft X-radiation after passing through two condenser plates to filter off ions and electrons, was incident on a well degassed metal plate; the photoelectrons liberated were collected by a shield around the plate, the shield being a few positive volts above the plate. A typical curve obtained by Nakaya is shown in Fig. 1. It is

found that as the photoelectric current per unit thermionic current is marked against the applied potential, the curve at first increases steadily with the potential, then more rapidly and finally tends to become horizontal. Nakaya has mentioned that the nature of this curve could not be explained by any known ideas concerning the Bohr theory of atomic structure. It is the aim of this paper to indicate the most probable causes which operate in the measurements and give us the observed intensity curves.

It is necessary to draw attention here to the work of Richardson and Robertson who concluded that at potentials less than about 600 volts, the intensity of the soft X-radiation varied directly with the applied potential. This means that at these potentials the curve connecting the two is a straight line. It is also known from the work of Beattie,<sup>5</sup> Kramers,<sup>6</sup> and others<sup>7</sup> that at high potentials the intensity of the X-radiation varies as the square of the applied potential. It is thus clear that the efficiency should increase with applied potential and in no case, could it be possible for it to be nearly constant over a large range of potential. This makes it probable that the cause of the saturation effect lies in the photoelectric plate and not in the anticathode.

While this question will be dealt with presently in detail, the initial changes may be accounted for. Richardson and Rao<sup>8</sup> have pointed out that when the soft X-ray excitation curves are drawn by plotting large voltage intervals, there are changes in slope at those potentials corresponding to the Bohr levels. Taking for example nickel, the energies of the  $L_I$ ,  $L_{II}$  and  $L_{III}$  levels are given by 999, 871 and 935 volts and those of the  $M_I$ ,  $M_{II}$  and  $M_{III}$  orbits by 107 and 69 volts.<sup>9</sup> Hence at these potentials and those corresponding to transitions between the levels (restricted by the usual principles of selection) there should be sudden changes of slope. The same investigators have also drawn attention to the increased radiation caused by multiple impacts, the bombarding electron having sufficient energy after resonance encounter to produce ionisation or resonance in the same or other atoms. The maximum possible value for such double encounters is nearly 2000 volts. It is found in Nakaya's curves that there are no alterations of slope after

1. O. W. Richardson, Proc. Roy. Soc., A 128, 63 (1930).
2. S. R. Rao, Proc. Roy. Soc., A 128, 41 and 57 (1930).
3. O. W. Richardson and F. S. Robertson, Proc. Roy. Soc., A 113, 280 (1927) and A 124, 188 (1929).
4. U. Nakaya, Proc. Roy. Soc., A 124, 616 (1929).

5. Beattie, Proc. Roy. Soc., A 89, 314 (1913).
6. Kramers, Phil. Mag., 46, 836 (1923).
7. See in this connection M. De Broglie's X-rays, Eng. translation, p. 91.
8. O. W. Richardson and S. R. Rao, Proc. Roy. Soc., A 128, 16 (1930).
9. E. Stoner, Phil. Mag., 2, 97 (1926).

about 2000 volts, corresponding to the  $2L_1$  energy. After this potential there are no more changes in slope, corresponding to increased emission.

The intensity curves of Richardson and Rao, show that in the soft X-ray beam obtained at these potentials the intensity of the characteristic radiation is very little when compared with that of the continuous radiation. For example on page 35 of their paper there are striking discontinuities at 825 and 920 volts in the curve for copper. These values nearly correspond to transition values between  $L_{II III}$  and  $M_I$  levels and between  $L_{II III}$  and  $M_{IV V}$  levels, the values of Thoriaeus<sup>10</sup> for these transitions being 823.7 and 938.6 volts. The increase in intensity at these critical potentials works to about 4%. What should concern us therefore in the measurements of the total intensity should be more the continuous radiation.

There is first the question of absorption at the anticathode itself. But considering the probable existence of very large absorption<sup>11</sup> of the X-rays in the anticathode itself, this co-efficient not varying much in the region contemplated, this point is unlikely to have much significance. At the photoelectric target, the case is different. We have here first the absorption of the soft X-rays giving rise to photoelectrons and the subsequent absorption of these electrons in the medium of the plate. We may neglect here the effects of the reflection and scattering of the rays on the front surface of the plate. At any rate these alone could not account for the saturation effects observed in the intensity curves.

Bandopadhyaya<sup>12</sup> has found that at 350 volts, soft X-rays are almost totally absorbed by  $1.36 \times 10^{-5}$  cm. of gold or  $7.9 \times 10^{-5}$  cm. of aluminium. This value gives us an idea of the depth of penetration of the soft X-rays in the photoelectric target, this depth depending obviously on the atomic number of the target element and the mean energy of the soft X-ray quantum. We may assume with Richardson and Chalklin,<sup>13</sup> as a tentative hypothesis, that this average value is approximately  $\frac{1}{2}h\nu_{max}$  or  $\frac{1}{2}eV$ . The depth of penetration of the soft X-radiation

may therefore be taken as proportional to the applied potential in the soft X-ray tube.

Rudberg<sup>14</sup> has carried out careful experiments on the velocity distribution of the photoelectrons produced from metal targets by soft X-rays. This photoelectric emission is found to consist of a large group of low-velocity electrons and a small number of fast electrons. By absorption experiments with a fluorite window he showed that the low-velocity electrons were produced by soft X-rays and not by ultra-violet radiation having the same quantum energy as that of the electrons. His investigations showed that 80% of the photoelectrons belonged to the slow group and that the mean energy of the group was about 6.8 volts. Regarding the second group Rudberg's accuracy for higher voltages was not sufficient to give him much detail in the region and therefore no quantitative interpretation could be attached to his curves above 70 volts.

We are not here concerned with the mechanism of the generation of the large percentage of low-velocity photoelectrons. We take it as an experimentally established fact and proceed to account for the saturation effects in the soft X-ray photoelectric efficiency curves. Let us limit ourselves for the present to the region above 2000 volts after which Nakaya does not obtain any further increase in intensity. As was mentioned above, a large number of observers have investigated the variation of the X-ray emission with the applied potential and concluded that the intensity of emission of the continuous spectrum increases as the square of the potential under similar conditions. The intensity of the soft X-radiation may similarly be written as  $I = aV^2$ .

This point has been verified by Laird<sup>15</sup> who studied the total energy of soft X-rays from a tungsten coated nickel target as a function of potential from 40 to 610 volts by observing the duration of thermoluminescence on sensitive solutions. On this basis, we can assume with every probability that in a beam of soft X-rays, the distribution of energy among the various frequencies is quite similar to that in ordinary X-rays. If  $I_\nu d\nu$  be the intensity of radiation having frequencies between  $\nu$  and  $\nu + d\nu$  then  $I_\nu d\nu = C(\nu_0 - \nu) d\nu$  (1) where  $C$  is a constant depending on the nature of the anticathode and  $\nu_0$  is the high frequency limit given by  $eV = h\nu_0$ . If we further apply

10. R. Thoriaeus, Phil. Mag., 1, 312 (1926).

11. O. W. Richardson, Proc. Roy. Soc., A 119, 531 (1928).

12. G. B. Bandopadhyaya, Proc. Roy. Soc., A 120, 46 (1928).

13. O. W. Richardson and F. C. Chalklin, Proc. Roy. Soc., A 110, 275 (1926).

14. E. Rudberg, K. Svensk. Vet. Handl., 7, 1 (1929).

15. E. R. Laird, Phys. Rev., 29, 41 (1927).

Richardson's equation<sup>16</sup> for the number of photoelectrons ( $N_0$ ) emitted by ultraviolet light of unit intensity,

$$N_0 = C'(\nu - \nu') / \nu^5 \quad (2)$$

$\nu'$  being the threshold frequency, we can easily show that in the region of soft X-rays, the number of photoelectrons emitted is directly proportional to the applied potential for any given anticathode.<sup>17</sup> Hence we

write  $N_0 = \alpha' V$  where  $\alpha'$  is a constant equal to  $\frac{1}{2}CC' \frac{e}{h\nu}$ , approximately.

These photoelectrons are produced within the photoelectric plate and if we assume that these are all formed at a given depth beneath the surface, there will be absorption of the photoelectrons as this depth increases progressively as  $V$  is increased. This suggests therefore for  $N$ , the number of photoelectrons emitted from the front surface of the plate, the expression

$$N = N_0 e^{-\beta V} \text{ or } \alpha' V e^{-\beta V} \quad (3)$$

The photoelectric current per unit thermionic current,  $\frac{i_p}{i_t}$ , say  $R$ , becomes  $Ne$ . This leads us to the equation

$$R = R_0 e^{-\beta V} = \alpha' V e^{-\beta V} \quad (4)$$

In the low voltage region, the photoelectrons are obviously produced from the first few layers. Hence the exponential factor becomes negligible thus leading to the experimentally established fact that  $R$  varies directly as  $V$ .

At higher potentials, the exponential function attains much greater importance and explains the bending round of the photoelectric intensity curves. From (4) it follows that

$$\log_{10} \frac{R}{V} = \log_{10} \alpha - \frac{\beta}{2.3026} V \quad (5)$$

If therefore, we plot points between  $\log_{10} R/V$  and  $V$ , we should get a straight line, if our arguments are true. On Fig. 2, are drawn graphs between these quantities for manganese and nickel, using Nakaya's data in the region above 2000 volts, cobalt being the photoelectric detector. It is found that the curves are in both cases straight lines. Since  $\beta$

depends only on the material of the detector, we find that the slopes of the two straight lines are equal. The slope is also negative, just what is suggested by the above equation. It follows from this discussion that if the applied potential is increased to values higher than 4500 volts, the intensity curves will bend round and show a decrease in the  $R$  values. It would be interesting to test this conclusion by experiment.

The close analogy between the soft X-ray intensity curves and secondary electron emission intensity curves has been pointed out by the author<sup>18</sup> in a recent paper. In the latter case, we should consider the absorption of the primary electrons and the secondary electrons. Thus much larger absorption coefficients are involved here. It seems reasonable therefore to expect the maximum effects at lower potentials than in the case of soft X-ray excitation. This is just what is observed, most of the secondary electron curves showing a maximum in the neighbourhood of 500 volts.

Finally there is the question of the absorption coefficients for slow electrons calculated from the curves in Fig. 2. Unfortunately our knowledge of the depth of penetration and absorption coefficients for soft X-rays is not precise enough to permit a rigorous calculation of these quantities. But rough calculations indicate that we are dealing with the right order of magnitudes.

It is proposed to discuss the total secondary electron curves from an identical point of view in a future paper.

16. O. W. Richardson, Phil. Mag., 24, 570 (1912).

17. See for example G. B. Bandopadhyaya, loc. cit., p. 57.

18. In the course of publication in the Proc. Roy. Soc. See however S. R. Rao, Phys. Rev., 41, 374 (1932).

# Observations on the Stomatal distribution and the rate of transpiration in Wilting Leaves

By

T. S. RAGHAVAN

(*Annamalai University*)

## INTRODUCTION

Rates of transpiration in leaves present many interesting features and various are the investigations that have been made to find out if any direct relationship exists between these and the distribution and behaviour of stomata. Thanks to the researches of Francis Darwin, (1) Knight, (6) Maximov, (7) and others we are now in full possession of a large amount of information pertaining to this question. Muenscher, (9) was one of the early investigators into the problem. He made observations on a large number of plants, but was unable to establish any definite and direct relationship between the rate of transpiration and the number of stomata per unit area of leaf surface, or the size of the stomatal pores. Similar conclusions have been arrived at by Maximov and his co-workers.

Little has however been done by way of investigation into the probable relation between the rate of water loss per unit area of leaf surface, and the number of stomata in leaves, where the water lost by transpiration is not replenished, i.e., in leaves subjected to wilting. It is assumed that in such leaves the rate of transpiration is uniformly high in the initial stage, after which there is a sudden drop. This is generally correlated to the opening of the stomatal pores, during which time the rate of water loss is very high, and their closure, after which the transpiration being purely cuticular, there is a sudden drop in the rate. In other words it is a purely physical phenomenon, depending entirely on the number and size of the stomatal pores, and if a graph should be drawn showing the relation between the time intervals and the respective rates of transpiration, it should be possible to read off from the curves the exact place, and therefore the time, at which the closure of the stomata takes place in the different leaves of a plant, and in the leaves of different plants. It was with the object of finding out if the case was so, that the present investigation was taken up. As the problem is closely

associated with the distribution of stomata over the leaf surface, a more or less detailed study of stomatal distribution was made in the various plants examined, and therefore some space is devoted to this aspect of the question.

In the course of the investigation different types of plants were taken up so as to find out if any relationship could be established between the stomatal distribution in the various groups on the one hand, and their respective rates of water loss on the other and if any light could be thrown on the problem of xeromorphy.

### STOMATAL DISTRIBUTION.

Observations on the following plants have been made.

1. *Hibiscus rosa sinensis*.
2. *Thespesia populnea*.
3. *Mangifera indica*.
4. *Ficus bengalensis*.
5. *Amarantus* species.
6. *Cissus quadrangularis*.
7. *Rhizophora mucronata*.
8. *Bruguiera caryophylloides*.
9. *Suaeda maritima*.
10. *Avicennia officinalis*.
11. *Sesuvium Portulacastrum*.

The method of observation and counting of stomata do not present any features of special interest. The method of Lloyd, (5) of rapidly fixing a strip of epidermis in absolute alcohol was adopted and the usual method of counting with the cross line eye piece micrometer and the stage micrometer was followed. In each of the plants the leaf at the extreme apex of the stem and the tenth leaf from the top were examined. And in each of these leaves the number of stomata per square millimeter at the tip, middle and the base of both the surfaces of the lamina was calculated.

In plants 1 to 4 i.e., ordinary mesophytes, the stomata are confined to the lower surface. In *Cissus quadrangularis* a xerophyte of the succulent type stomata occur on both the surfaces of the blade as also in *Amarantus*. Among the halophytes, except in *Suaeda* and *S. portulacastrum*, stomata are present only on the lower surface. In all the cases where stomata occur on both the sides, the number on the lower is greater than on the upper, the only exception being *S. portulacastrum*. In all the plants that were examined the average number of stomata

per unit area in the first leaf is greater than the tenth leaf from the top, the only exceptions being *Thespesia populnea* and *S. portulacastrum* in both of which, the number on the tenth leaf slightly exceeds that in the first leaf. This point is in general accordance with the observations of Yapp (14). In each leaf or on each surface of the leaf blade the number of stomata per unit area is greatest in the middle of the lamina.

### OBSERVATIONS ON THE RATES OF WATER LOSS.

The method adopted for making a comparative study of the rates of transpiration was as follows:—In most cases weighings were made of the first as well as the tenth leaf from the top at definite intervals of time. Before commencement of the weighings the outlines of the leaves were carefully traced on a graph sheet and the surface exposed for transpiration by the respective leaves was computed by counting the number of squares and reducing the number to a standard unit, i.e., sq. cms. This was doubled in order to represent the area exposed by both the surfaces of the leaf. From these the respective rates of water loss in milligrams per hour per hundred square centimetres of leaf surface were calculated for the corresponding time intervals. For the first three or four hours weighings were made at short intervals of thirty minutes or less, and the rate of transpiration at the end of each time interval was calculated. In addition to this the rate of water loss at the end of 24 and in some cases 48 hours was also found out.

An examination of the average rates of transpiration of the different plants for the first three hours, reveals that in mature leaves the rates vary within a range of 20 and 100. It is remarkable that in the group of halophytes the rate of water loss is greater as a whole than in even the mesophytes. This is opposed to the traditional belief that plants of the saline marsh are xerophilous, i.e., possess structural adaptations to minimise transpiration. Schimper, (13) observes that the presence of Sodium chloride in the soil produces xerophytic structures resulting in a reduced transpiration. Maximov, (7) has shown that in xerophytes of a non cactus like type the intensity of transpiration is much greater than in plants growing under normal soil and atmospheric conditions. Delf, (2) working on halophytes came to a similar conclusion, that the old definition of xerophytes as plants of dry habitas exhibiting adaptations for a decrease of transpiration was not true and that as far as halophytes were concerned, they are xerophilous in that 'with the help of certain structural modifications they can continue to perform their vital functions when exposed to climatic conditions involving atmospheric or edaphic drought, or both.' Neither by the stomatal frequency nor by the rate of transpiration can we class these halophytes as true

xerophytes, if the term is to convey the meaning that such plants are characterised by a low stomatal frequency and reduced transpiration. According to the table, No. II the number of stomata per unit area in these halophytes is not very much less than in the former. In *Avicennia officinalis*, it is as many as between 300 and 400 per millimetre. It is 200 per sq. mm. in *Bruguiera*, 200 in *Thespesia*, 185 in *Hibiscus*, 100 in *Rhizophora*. In spite of their succulence etc., these cannot be called xerophytic in the sense in which a succulent *Cactus* can be. In this type the intensity of transpiration is much lower as also the stomatal frequency. Amongst the plants examined *Cissus quadrangularis* comes near this type. In this the average number of stomata per sq. mm. is less than the others as also the rate of water loss. It is about 30 per sq. mm. in the stem region. The high water content of the cells of the halophytes and the presence of the water storage tissue which sometimes occupies more than half the thickness of the lamina, as in the case of *S. portulacastrum*, though so very much like the case in *cactus*, is not obviously a means to minimise transpiration but serves to resist drought. *Haberlandt*, (3) points out that during wilting, photosynthesis is carried on in these plants at the expense of the water in the storage tissue and thus they are able to withstand drought conditions for a considerable time.

Of these four halophytes *B. caryophylloides* shows the least average rate of water loss, though the number of stomata per unit area in that plant is the greatest, i.e., about 220 per sq. mm. next only to *Avicennia officinalis*. In *Rhizophora mucronata* it is only about 100 per sq. mm. In addition to this, it has been observed by *Mullan*, (11) that the stomata in *B. caryophylloides* are less markedly xerophytic than in *R. mucronata*. If the escape of water through the stomata of a leaf subjected to wilting is a purely physical process, the rate of loss of water in *B. caryophylloides* should be higher. That it is not so is revealed on reference to the table I. This indicates that the rate of water loss cannot be solely attributed to the stomatal frequency.

This difference in the respective rates of transpiration could only be explained by the difference in the water content in the leaves of the two plants in question. *Knight*, (6) who investigated into the relation between the rate of transpiration and the water content of the leaf, has found out that a high water content tended to increase transpiration and a lower one, to decrease it. According to the observations of *Mullan* (10) the aqueous tissue in *B. caryophylloides* is restricted to a single hypodermal tissue, less than 1/9th of the thickness of the lamina, while in *R. mucronata* it occupies more than 1/3 of the total thickness. Hence perhaps the higher intensity of transpiration in the latter. It is also to

be observed that in these halophytes there is no sudden and great fall in the rate of loss of water even after 24 hours. E.g. In *Avicennia officinalis* the average rate for the first three hours is about 80 mgms. per hour per 100 sq. cms. of leaf surface, and at the end of the first day the rate is about 60. In *S. portulacastrum* the corresponding figures are about 70 and 60. *R. mucronata*, 60 and 40. Amongst the mesophytes on the other hand the drop is marked. In *T. populnea* from about 50 at the end of the first three hours, there is a drop to 16 at the close of a day. This shows beyond doubt, the drought resistant nature of these plants, and the lack of any sudden and marked drop in the rate, must naturally be due to the lack of any appreciable fall in the water content of the cells of the leaf. While it is likely that there is some relation between the water content of the leaf and the closure of the stomata and therefore the rate of transpiration (*Haberlandt*), from the facts on hand it is reasonable to infer that the drop in the rate is primarily due to the fall in the water content, which later on brings about a closure of the stomata which fact further tends to decrease the rate of loss of water. That the stomata are not entirely and directly responsible for the rate of transpiration is clear not only from the fact that in a plant with a low stomatal frequency, the rate of water loss is higher than in a closely allied genus where it is higher. The same phenomenon is noticed as will be pointed out subsequently, even in the different leaves of the same plant. It is therefore more probable, that during wilting the water content of the leaf begins to decrease ahead of the closure of the stomata, and it is this decrease in water content that brings about a fall in the rate of the water loss. The closure of the stomata takes place only later on and very gradually leads to a further reduction of transpiration. According to *Maximov* all these chain of phenomena are not to be regarded as cause and effect "but themselves the result of some external factor probably the diminished water supply".

#### RATE OF LOSS OF WATER IN THE FIRST AND THE TENTH LEAF

In most of the species examined the average rate of water loss sustained by the tenth leaf in the initial three hours exceeds that lost by the first leaf from the top. Three out of the four halophytes exhibit this peculiarity. In the others all except *Thespesia populnea* and *Amarantus* show this. If it is tried to establish any relation between the rate of water loss and the respective leaves, it is found that in spite of the general higher stomatal frequency of the upper leaf, the rate of transpiration in them is less than in the respective tenth leaves. Even in leaves like *T. populnea* and *S. portulacastrum* which depart from the rest, in their tenth leaf showing a lesser intensity of transpiration, there

is a corresponding departure from the others in point of stomatal distribution i.e., in these two plants alone the stomatal frequency in the lower leaves is more than in the upper leaves. While comparing the two halophytes, *Rhizophora* and *Bruguiera* it was pointed out that in the one with a lower number of stomata per sq. mm., the rate of loss of water was greater; here also the same thing is noticeable. This is opposed to the conception that in leaves subjected to wilting, the escape of water through the stomata which in the initial stages remain open, is a purely physical process and as such the rate of loss of water sustained by the leaves should be directly proportional to the number of stomata per unit area. Knight (6) was unable to find out any such relationship. So also Muenscher (9) who after working on more than 8 species with a wide range of stomatal distribution, was unable to establish any constant relation between the amount of water loss in mgms. per sq. decimetre of leaf surface, and the number of stomata per unit area or their size. The difference in behaviour of the first and the tenth leaves could only be explained by the water content theory of Knight (6). It is likely that in most plants the water content of the first leaf is less than in the leaves below and hence perhaps the increased rate of transpiration exhibited by the lower leaves. That such a difference in the water content exists among the leaves at various levels of the stem, has been recorded by Maximov and Krasnoselsky—Maximov (8). According to them the water content goes on increasing from the upper leaves to the lower leaves.

The reason why in the two cases *T. populnea* and *S. portulacastrum* the rates of transpiration in the lower leaves is, unlike the rest of the plants, less than in the upper leaves is not clear. But it is interesting that this departure from the rest in regard to the rate of water loss is associated with a corresponding departure in point of stomatal distribution. For it is in these two plants that the stomatal frequency of the lower leaves is slightly greater than the top leaves. This is of course opposed to the general observations of Salisbury (12) and Yapp (14) with reference to stomatal distribution in leaves at different levels of the stem. It may be that these two facts have something to do with one another or in these two the water content of the upper leaves is more, and hence perhaps their higher rate of water loss. Whatever it is due to, it is evident that even in wilting leaves it is not the stomata that seem to control entirely the loss of water sustained by them and therefore cannot be explained away as a mere physical process. That it is something arising out of the internal adjustments of the cells of the leaf is rendered possible of inference, by the rates of transpiration being re-

lated in some way to the respective stomatal indices. According to Salisbury (12)  $I = \left( \frac{S}{S + E} \right) \times 100$ , where S is the number of stomata per unit area, E is the number of epidermal cells in the same area and I the Stomatal Index. A scrutiny of the Table will reveal, that the lower the intensity of transpiration the higher the stomatal index. In *R. mucronata* for example, the rate of water loss in the first leaf is about 60 mgms. per hour per 100 sq. cms. of leaf surface. The corresponding stomatal index is about 6.3. The respective figures for the tenth leaf are 93.8 and 5. In *Thespesia* also where there is a departure from the rest, both in respect of stomatal frequency and the rates of transpiration in the first and the tenth leaves, it is found that this rule is adhered to. In this the rate of water loss in the first and the tenth leaves are respectively about 59 and 49 and the stomatal indices 18 and 22. And this is found to be the case with all the other plants investigated. There seems to be therefore some sort of inverse relationship between the rate of transpiration (R), and the stomatal Index (I); the greater the rate of transpiration, the less the stomatal Index. That some such relation exists between R and S, has already been indicated. Leaves having a smaller stomatal frequency (S), show a higher rate of water loss (R). In *Rhizophora*, in the 1st leaf  $S = 133$  (per sq. mm.) R for that leaf is 60 (mgms. per 100 sq. cms. leaf surface). In the 10th leaf from the top  $S = 103$ ,  $R = 94$ . In *Bruguiera* 1st leaf  $S = 220$   $R = 33$ , 10th leaf  $S = 198$   $R = 63$ . In *Avicennia*, 1st leaf  $S = 400$   $R = 57$ , 10th leaf  $S = 300$   $R = 85$ . Similarly for the other plants, as would be seen from Table I. Therefore a kind of inverse relation exists between R on the one hand, and S and I on the other, though it is not in the least suggested that R is inversely proportional to either S or I, in which case R must vary as  $I/S$  or  $1/I$  which is not so. All that can be said from the figures on hand, is that the greater the stomatal frequency, the less the rate of water loss, and the greater the stomatal Index. If therefore R holds something of an inverse relationship with I as well as S, then it is obvious that S and I must be more or less directly related. The greater the stomatal frequency (S), the greater also the stomatal Index (I), though once again it must be said that it is a purely empirical relationship and that the relationship is not one of direct proportion in which case  $S/I$  must be constant. This very nature of the expression for I which is dependent upon the number, not only of the stomata (S) but also of the epidermal cells (E) per unit area of leaf surface, indicates that if I is directly related to S then E must not be a variable. It must more or less be a constant number. Table II shows that there is not much variation in the number of epidermal cells per unit area of a particular leaf surface, though the number of stomata is subject to a cer-

tain amount of variation in the different parts of the lamina. This relationship which the rate of transpiration holds with the stomatal index, indicates that far from being a simple process of evaporation depending on the number and size of the stomatal pores, the phenomenon of escape of water even from wilting leaves should be regarded as an outcome of the 'internal adjustment of the living cells' (4). That the rate holds a definite relation to the epidermal cells is a point in favour of this contention. Further support is lent to this view, by the fact that the rates of loss of water in the different leaves instead of being uniformly high in the initial stage of wilting, and then dropping after a certain time, without any more rise in the rate, show actual fluctuations at different time intervals. The graphs exhibit these fluctuations in the rates of transpiration for the first 3 hours. According to the usual conception there ought to be no such rise and fall in the rates of transpiration in wilting leaves, the water loss being supposed to be due to the open stomata in the beginning and cuticular transpiration after the stomata have closed. That there are such rises and falls in the rates of transpiration of leaves of an intact plant, various authors have pointed out, the latest of whom are Inamdar and Dabral (4). They have found that the depression in the rate of transpiration in the middle of the day when the rate of evaporation was at its maximum had no reference to the behaviour of the stomata a fact already established by Muenscher (9) Knight (6) and Maximov (7). These fluctuations in the rate of transpiration cannot be correlated to any external factor or internal anatomical peculiarity and therefore Inamdar and Dabral come to the conclusion that these are 'the result of an adjustment of internal conditions, in the evaporating leaf.' In the leaves subjected to wilting conditions it is found as is shown in the graphs that these fluctuations do exist till a certain period after severance from the plant. As far as the writer could investigate, these fluctuations have not been noted and therefore not explained. These rises and falls in the rates of water loss till a particular time do not certainly fit in with the conception that in wilting leaves the rate of fall is uniformly high in the beginning, and afterwards there is a sudden and a sharp fall correlated with the closure of the stomata. Lack of direct relationship between the stomatal frequency and the rate of water loss in wilting leaves much in the same way as in leaves of an intact plant, has already been pointed out. These fluctuations are seen only till a certain time and this time varies with the particular plant. After this period there is a gradual lowering of the rate, and there is no more rise in it afterwards. That this decided reduction in the rate of transpiration after reaching which there is no more rise, is due to the permanent and marked decrease in the water content of the leaf, there can be little doubt. In the

opinion of the writer therefore, as long as this optimum lowness of water content is not reached the leaf behaves like an ordinary intact leaf. The slight lowering of water content in the initial stages of desiccation does not seem to affect the leaf very much and hence in spite of this slight water deficit in the cells, the leaf carries on and shows all the characteristics of a leaf in which water is replenished as it is lost by transpiration. It has already been suggested that it is this water deficit that is primarily responsible for the lowering of the rate of water loss, though the closure of the stomata which takes place only later, decreases the rate further. It does not therefore seem reasonable to attribute the loss of water in wilting leaves at least till a certain period, say 3 hours, to purely physical causes. They behave very much like ordinary leaves and exhibit all their characteristics in regard to rate of loss of water etc. And these fluctuations in the rates at the initial stages cannot be explained by anything other than that of a result of the internal adjustment of the cells the slight diminution in whose water content, does not in the beginning affect the intensity of transpiration. The slowing down of transpiration, the decrease of water content, and the closing of stomata constitute a 'complex chain of phenomena' which are not directly related as cause and effect. In wilting leaves after a certain stage the resistance 'to the yielding up of water vapour to the intercellular spaces increases' and at the same time the water content of the cells of the leaf and transpiration begin to decrease 'the former however some what earlier.' 'This decrease of water content involves the gradual closing of the stomata which in turn leads to a further reduction of transpiration and may finally result in a decrease of the water deficit which started this complex chain of phenomena' (7). Till therefore the stomata are completely closed the wilting leaves behave much in the same way as ordinary leaves of an intact plant. The water loss is not directly proportional to the number of stomata per unit area though they may remain open during the initial stages of wilting. The water content of the leaf seems to control the rate of water loss, and it is this which subsequently brings about the closure of the stomata, which fact only tends to reduce the transpiration rate further, and therefore it is only a secondary factor. A slight decrease of the water content, as in the initial stages of wilting, does not seem to affect the rate of water loss, and probably the stomatal pores also, and hence the wilting leaf for a certain time—and this varies with different plants—shows all the characteristics—the vagaries—of an ordinary transpiring leaf of an intact plant. On the water deficit reaching its maximum, the time taken for which is variable for different plants, no fluctuations are observable in the rate of loss of water, and beyond this, there is only a uniform decline in the rate and no more rise.

## SUMMARY

1. Observations on stomatal distribution of different kinds of plants are made. The stomatal frequency in the halophytes is not in any way less than in the other mesophytic plants and in some cases it is more. In general the number of stomata per unit area in the middle region of the lamina is more than in the tip or base of it.

2. The average rate of water loss for the first three hours after severance from the plant exhibited by the halophytes is slightly more than that of the ordinary plants. How far the halophytes can be regarded as Xerophilous is discussed.

3. Amongst the halophytes that which has a low stomatal frequency exhibits a higher average rate of water loss. The possible relation of the rate of transpiration with the water content of the cells of the leaf is indicated.

4. The same is proved in connection with the rate of transpiration in the first and the tenth leaves of a plant. In both these the rate (R) has more or less an inverse relation with S and I. (No. of stomata per sq. mm. and the Stomatal index).

5. The rate of loss of water in individual leaves instead of being uniformly high in the beginning and then dropping suddenly, shows rise and fall till a certain time. This along with the lack of any direct relationship between the rate of water loss in wilting leaves and the number and distribution of stomata is taken to indicate that the loss of water from a wilting leaf is not a simple process of evaporation but that till the maximum water deficit, which varies with different plants is reached, it behaves like a transpiring leaf of an intact plant. The subsequent closure of the stomata only tends to decrease the rate of water loss further, and therefore is of secondary importance.

The writer in conclusion, has great pleasure in tendering his grateful thanks to Dr. T. Ekambaram, M.A., Ph.D. (Cantab), for many useful suggestions while this investigation was being made.

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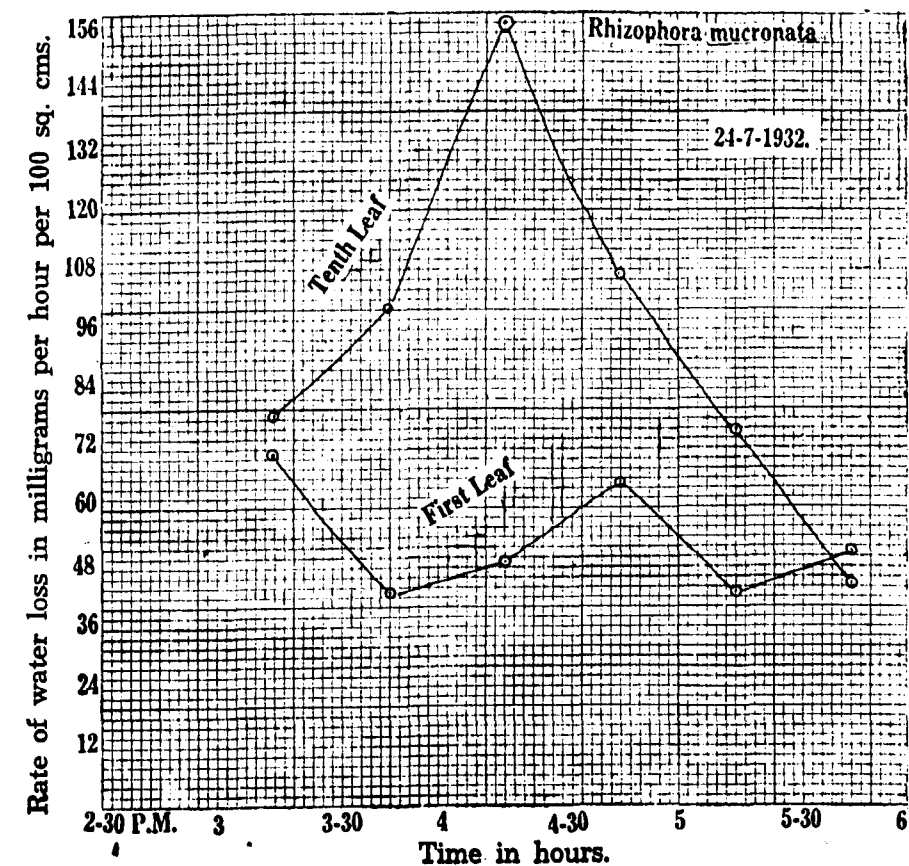
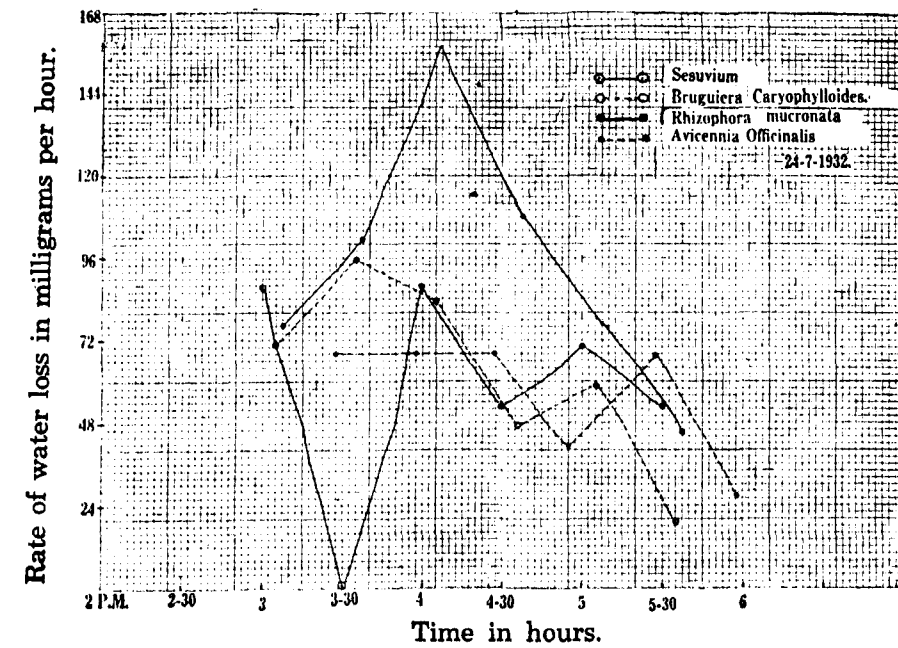
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TABLE No. I.

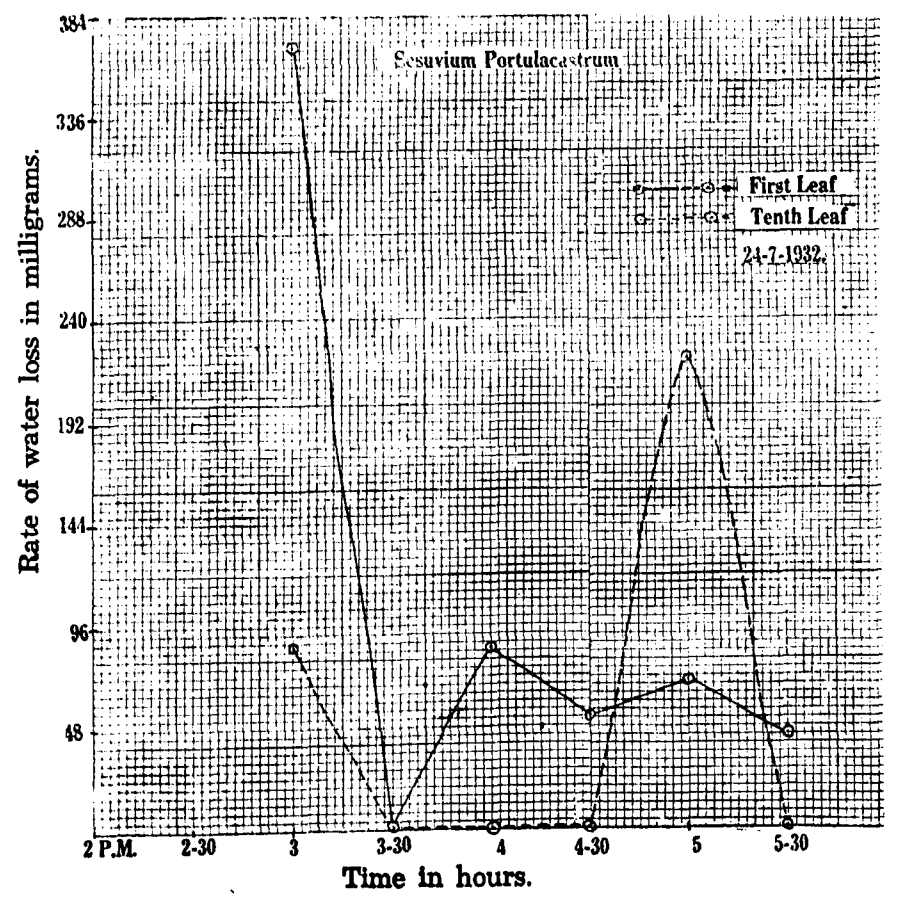
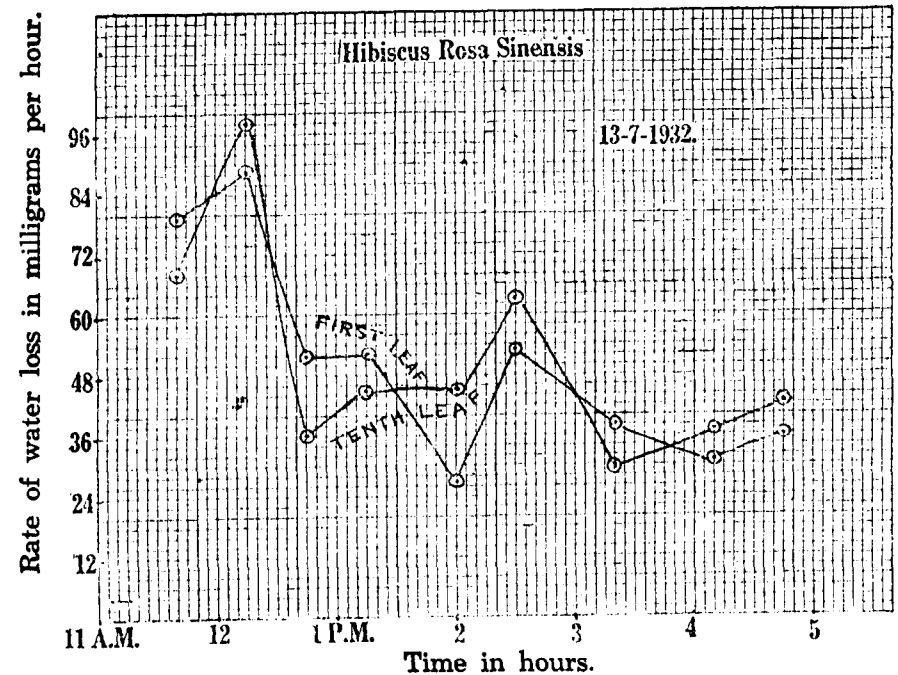
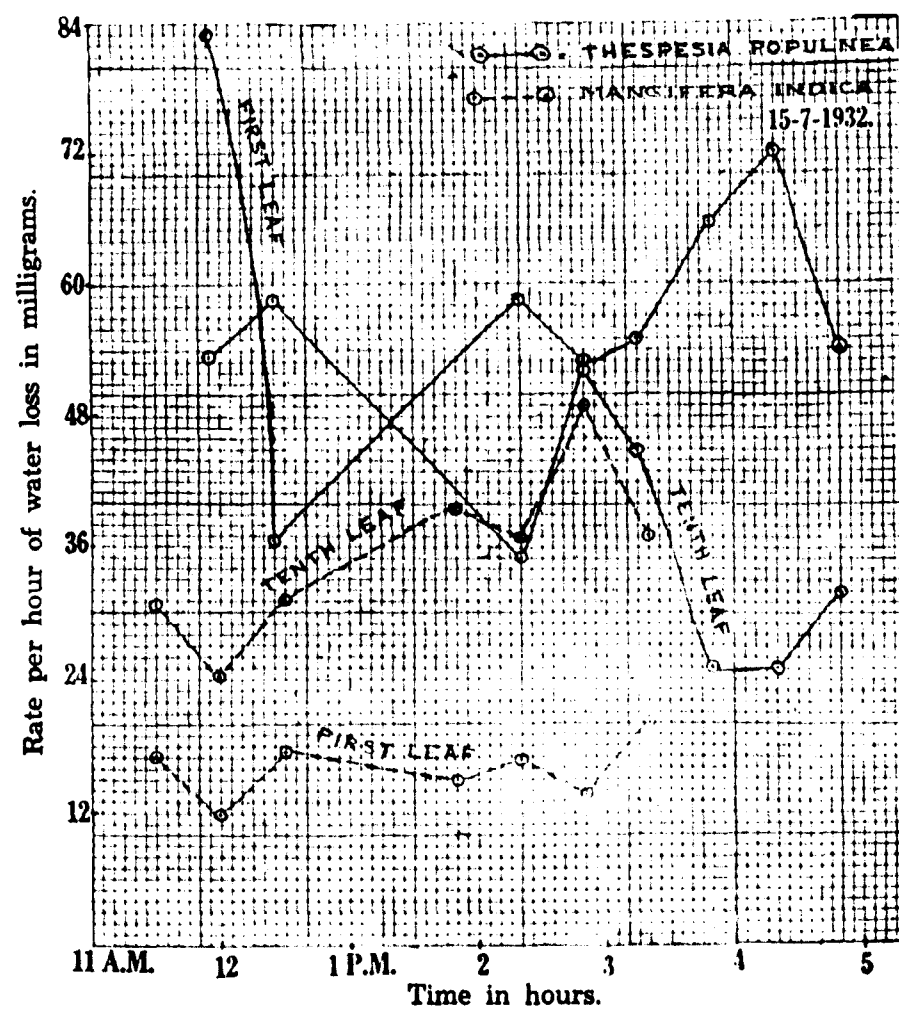
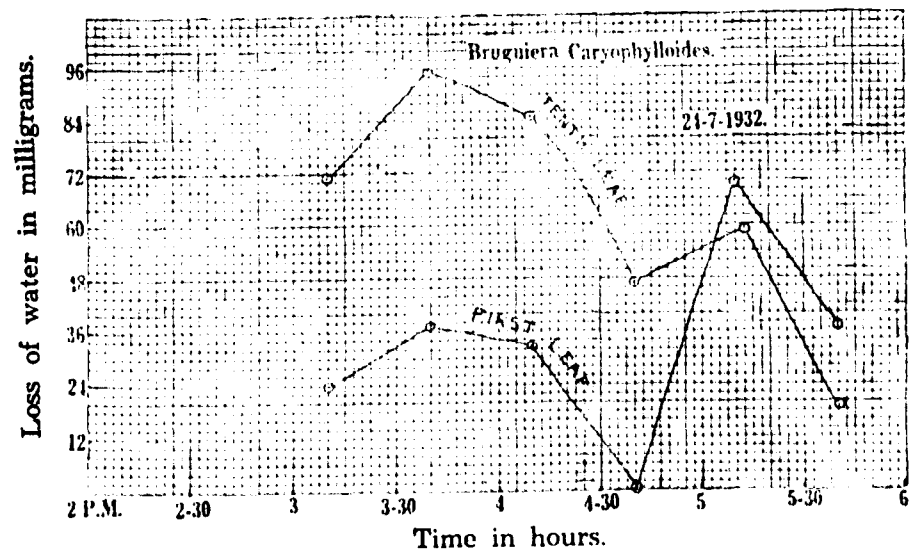
| NAME OF PLANT                  | AVERAGE                    |              |             |              | AV. RATE OF WATER LOST<br>PER HOUR 100 SQ. CMS. OF<br>LEAF SURFACE FOR THE<br>1ST THREE HRS. |     | STOMATAL INDEX I |    |
|--------------------------------|----------------------------|--------------|-------------|--------------|----------------------------------------------------------------------------------------------|-----|------------------|----|
|                                | No. OF STOMATA PER SQ. MM. |              |             |              |                                                                                              |     |                  |    |
|                                | FIRST                      | LEAF         | TENTH       | LEAF         |                                                                                              |     |                  |    |
|                                | U S                        | L S          | L S         | U S          |                                                                                              |     |                  |    |
|                                | 1ST<br>LEAF                | 10TH<br>LEAF | 1ST<br>LEAF | 10TH<br>LEAF |                                                                                              |     |                  |    |
| RHIZOPHORA MUCRONATA           | Nil                        | 133          | Nil         | 103          | 60                                                                                           | 94  | 6                | 5  |
| BRUGUIERA CARYOPHYL-<br>LOIDES | Nil                        | 220          | Nil         | 198          | 33                                                                                           | 63  | 9                | 8  |
| AVICENNIA OFFICINALIS          | Nil                        | 400          | Nil         | 300          | 57                                                                                           | 85  | 34               | 31 |
| SESUVIUM PORTULA-<br>CASTRUM   | 83                         | 48           | 84          | 58           | 99                                                                                           | 58  | 15               | 21 |
| THESPIA POPULNEA               | Nil                        | 158          | Nil         | 200          | 59                                                                                           | 49  | 18               | 22 |
| HIBISCUS ROSA SINENSIS         | Nil                        | 283          | Nil         | 180          | 59                                                                                           | 64  | 32               | 23 |
| MANGIFERA INDICA               | Nil                        | 793          | Nil         | 517          | 16                                                                                           | 32  | 18               | 15 |
| FICUS BENGALENSIS              | Nil                        | 370          | Nil         | 325          | 22                                                                                           | 30  | 17               | 15 |
| CISSUS QUADRANGULARIS          | 80                         | 150          | 76          | 92           | 38                                                                                           | 124 | 8                | 6  |
| AMARANTHUS                     | 186                        | 198          | 168         | 186          | 102                                                                                          | 78  | 22               | 33 |

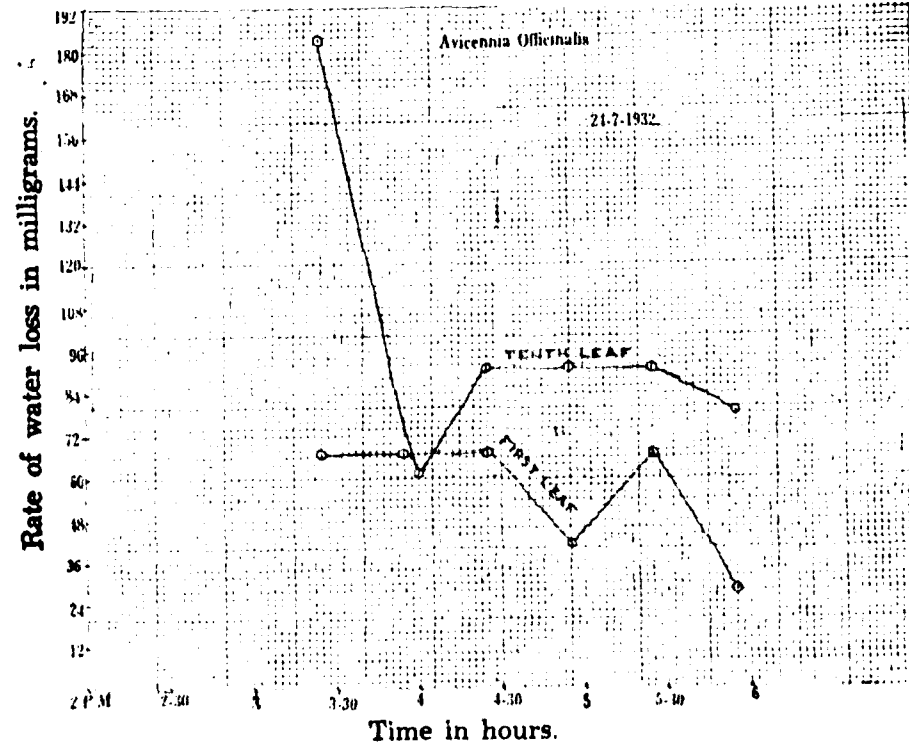
CISSUS QUADRANGULARIS STEM AV. STOMATA = 30 RATE = 40 MGMS. I = 2

Rates of water loss in the tenth leaves of the Halophytes during the first three hours of wilting in mgs. per hour. per 100 sq. cms. of leaf surface.



Rate of water loss during the first three hours of wilting.





ஒட்டக்கூத்தர்

By

N. K. SRINIVASAN

(Annamalai University)



‘கோவையுலாவந்தாதிக்கொட்டக்கூத்தன்’ என்று புலவர்களாற் போற்றப் பட்ட இவர்தியற்பெயர் கூத்தர் என்பது. இவர் செங்குந்தர்களது அறுபட்ட தலையைக் கவிபாடி யொட்டவைத்தமையானும், கவினை யொட்டிப் பாடுவதிலாற்றன் மிக்கவ ராதலானும் ஒட்டக் கூத்தரென்னுஞ் சிறப்புப் பெயர் பெற்றார்.

கூத்தர் பிறந்த ஐர் சோழநாட்டினுள்ள மலரி என்பர். ‘கம்பனென்றுங் கும்பனென்றுங் காழியொட்டக்கூத்தனென்றும்’ என்னும் பாடலையும், இவர் தக்கயாகப் பரணியில் ஞானசம்பந்தருக்கு வாழ்த்துக் கூறியிருத்தலையும் ஆதாரமாகக்கொண்டு இவர் சீகாழி யென்னுமூற்றிப் பிறந்தவரென்று கூறுவாருமுள்ளர். ஆனால் ‘காளியொட்டக்கூத்தன்’ என்ற மற்றொரு பாடமுண்டென்றும், காளியென்பது அக்காலத்திருந்த நம்பிகாவியாரைக் குறிப்பன போலுமென்றும் மகாமகோபாத்தியாய Dr. உ. வே. சாமிநாதையரவர்கள் ‘தக்கயாகப் பரணி’ 320ம் பக்கத்திற் கூறியுள்ள விசேடக் குறிப்பினின்றியலாம். இனியிவரது ஊர் மலரியென்பதும், அது சோனாட்டின்கண்ணுள்ளதென்பதும் எவ்வாற்றானறியக் கிடக்கின்றதோ வென்றிற் கூறுதும். தண்டியலங்கார வுதாரணச் செய்யுளாகிய ‘சென்று செவியளக்கும்’ என்னு முதற்குறிப்பையுடைய வெண்பாவின் ஈற்றடியாகிய ‘மலரிவருங் கூத்தன் றன்வாக்கு’ என்பதினாலும், செந்தமிழ் 28ம் தொகுதி 470ம் பக்கத்தில் ‘கூத்தருக்கு அரிசிற்கரையிலுள்ள ஆரொன்றினை முற்றாட்டாக வரசன் கொடுத்தனன். அதற்குரிய பழம்பெயரை நீக்கி இவர் பெயராற் கூத்தனாரென்று பெயரிடப்பட்டது. அதில் கலைமகள் கோயிலில் அக்கலைமனை யெழுந்தருளுவித்திருந்த பழைய ஆதாரச்சிலையில் ‘ஸ்வஸ்திஸ்ரீ சரஸ்வதி தேவியை எழுந்தருளுவித்தார் இவ் ஐர் நிலம் . . . காணியுடைய மலரியுடையார் இந்தக் கவிச்சக்கரவர்த்திகள் பேர னார். கவிப்பெருமான் ஆனந்தவரதக்கூத்தர்.’ என்று காணப்படுகிறது, எனத் திரு சோமசுந்தர தேசிகர் எழுதியிருப்பதனாலும் இது வலியுறுத்தப்படும். (செந்தமிழ் Vol. 25. P. 345 பார்க்க.)

இவரது பிறப்பைப் பற்றி ‘நளவெண்பா’ விருத்தியுரைப் பதிப்பின் முகவுரை 7-ம் பக்கத்தில், ‘கூத்தர், சோழதேசத்தைச் சார்ந்த மணையர்ச் செங்குந்த மன்னன் சிவகங்க பூபதிக்கு வண்டார்குழலி யென்பவளிடம் அம்பலக்கூத்தனின் னருளா லவதரித்தலின், அம்பலக் கூத்தனெனப் பெயர் பெற்றனன் என்று ஆராய்ச்சியில் வல்லவர் கூறுவார்’ என்றெழுதப்பட்டிருத்தற்கு ஆதாரம் ஒரு சிறிதுங் கண்டிலேம்.

இனி ‘மலரிவருங் கூத்தன்’ என்பதை ‘மணவைவருங் கூத்தன்’ என்று பாடமோதி ஒட்டக் கூத்தர் பிறந்த ஊர் மணவையென்று கூறுவாருமுள்ளர்.

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T4.211A, N32  
N33.2

இவர் மலரியூரிற் செங்குந்த மரபில் மிக ஏழைத் குடும்பத்திற் பிறந்தவராதலின், இளமையிற் கல்வி கற்கப் போதிய வழியின்றிப் புதுவை நகரின் கண்ணிருந்த சங்கரனென்பவனிடம் உதவித் தொழில் புரிந்து வந்தார். பின்பு அந்நகரிலேயே காங்கேயனென்பவனை யண்மிக்கல்விக்கற்று வாணியினின்னருளார் கவியியற்று மாற்றலும் பெற்றார். அந்நன்றியைப் புலப்படுத்தற் பொருட்டுக் காங்கேயன் மேலொரு கோவை பாடினார். இதனை,

“புதுவைச் சடையன் பொருந்து சங்கரனுக்  
குதவித் தொழில்புரி யொட்டக் கூத்தனைக்  
கவிக்களி றுகைக்குப் களிரா னுசலெனப்  
புவிக்குயர் கெளடப் புலவனு பாக்கி  
வெறுங் கலநான் வியந்துகாங் கேயனே  
கூறுநா ளாயிரக் கோவைகொண் டுயர்க்கோன்.”

என்னுஞ் சோழமண்டல சத்தமேற்கோட் செய்யுளாலறியலாம்.

இவரது கல்வித்திறனைக் கேட்ட விக்ரமசோழன் இவரையழைத்துத் தனது அவைக்களப் புலவர் தலைவராயாக்கியதோடமையாது. தனது மகன் குலோத்துங்கனுக்குப் போதகாசிரியராகவும் நியமித்தனன். சோழனவையிற் கூத்தர் நாடோறும் நாட்கவி பாடுஞ் சிறப்புமெய்தினார் என்பது. சித்தம் நலம்பாடுங் கவிப்பெருமானோட்டக் கூத்தன்’ என்னும் ‘தமிழ் நாவலர் சரிதை’ச் செய்யுளாலறியப்படும். இக் கூற்றை யிவர் பாடிய ‘நாட்கவி கொண்ட மன்னன் வளவனு டிழை நாமே. நாட்கவி பாடு நாட்போல்’ என்னும் சுட்டியெழுபதுச் செய்யுள் வலியுறுத்தும்.

இங்ஙனம் கல்வியறிவால் மேம்பட்ட ஓட்டக் கூத்தர் சோழவரசர்களாகிய விக்ரமன், இராண்டாங் குலோத்துங்கன், இராண்டாம் ராசராசன் முதலிய மூவர் காலத்தும் அவர்கள் பெற்றியை விளக்கப் பல நூல்களைப் பாடினார். மேலும் அவர்கள் வேண்டுகோட் கிணங்கி மற்றும் பற்பல நூல்களியற்றி, எண்ணிறந்த பட்டங்களும் வரிசைகளும் பெற்றுச் சிறுஞ் சிறப்புமெய்திப் புலவர் தலைவராய் விளங்கினர்.

அதனால் மிக இறுமாப்பெய்திய இவர் தன்னிஷங்க ழீழ்ப்பட்ட புலவர்களை அவமதிக்கவுந் துன்புறுத்தவுந் தலைப்பட்டனர். இவரைக்குறித்துத் ‘தமிழ் நாவலர் சரிதை’யிற் கூறியுள்ளவற்றை நாம் எற்றுக் கொள்ளின் இவர் போலிக்கவிஞர்களின் தலையை யறுத்து வந்தாரென்பதனை உண்மையென்றே கொள்ளவேண்டும். அந்நூலில் ‘கவிஞரை வெட்டவேண்டாமென்று நெற்குன்றை காண முதலியார் பாடியது’, ‘கவிஞையறுத்தபோது புலவரெல்லாரும் வெருளப் பாடியது’ என்ற தலைப்பின் கீழ்க் காணப்படும் பாடல்கள் இதற்குச் சான்று பகருகின்றன. இதைப்பின் பற்றியே பின்னுள்ளோரும். ‘இரண்டொன்று முடிந்துதலை யிறங்கப் போட்டு வெட்டுதற்கோ கவியொட்டக் கூத்தனில்லை’ என்று பாடியுள்ளனர்.

இவற்றாலறியக் கிடப்பது யாதெனின். இவர் அந்நூலத்தான் போலிக் கவிஞர்களைத் தலையெடுத்தவொட்டாமல் முகையிலேயே கிள்ளி யெறிந்தனர் என்பதே. இச்சிறு செய்தியை யாதாரமாகக் கொண்டு பலர் இவரையும் புகழேற்கியையு மிணைத்துப் பல போலிக் கதைகளைப் புனைந்துரைக்கப் புகுந்தனர். இங்ஙன மிணைக்கற்குக் ‘தமிழ் நாவலர் சரிதை’ முதலிய பழைய நூல்களிற் போதிய சான்று களில். இவர் உண்மைக் கவிஞரைப் போற்றிவந்தனர் என்பது சயங்கொண்டாரை யுமவரது பாணியையுஞ் சிறப்பித்துக் ‘குலோத்துங்கன் பிள்ளைத்தமிழிற்’ பாடற் பெரும்பாணி தேடற் கருங்கவி கவிச்சகரவர்த்தி பரவச், செஞ்சேவகஞ் செய்த சோழன் திருப்பெயர்,’ என்று கூறியதனாற் புலனாகும்.

இவரிடத்திற் சோழமன்னர்கள் இணையற்ற மதிப்பு வைத்திருந்தனர் என்று தோன்றுகிறது. குலோத்துங்கன் இப்புலவர் பெருமானது பதாம்புயத்தைச் சூழிக் கொள்வதில் பெருமையை யுடையவன் என்று இவன் பாடிய ‘பாடுங் கவிப்பெரு மா னோட்டக் கூத்தன் பதாம்புயத்தைச், குடுங் குலோத்துங்க சோழனென்றே யென் னைச் சொல்லுவரே,’ என்னும் பாடலால் விளங்கும். இவர் சோழனால் கைகொடுத்து மரியாதை செய்யப்பட்டவரென்பதும், சோழனது தேவியின் ஊடலைத் தீர்த்து வைக்கும் அந்தரங்க நட்பினர் என்றும் ‘தமிழ் நாவலர் சரிதை’ யிலுள்ள ‘கரத்துஞ் சிரத்தும்’ ‘கொலையைத் தடவிய’ என்னுஞ் செய்யுட்களாலறியலாம்.

இவர் சைவ சமயத்தினரென்பது, சிவபெருமானைக் குறித்துத் ‘தக்க யாகப் பாணி’ பாடியுள்ளமையாலும், அந்நூலில் ஞானசம்பந்தருக்கு வாழ்த்துக் கூறி அவர் சமணரைக்கழுவேற்றிய வரலாற்றை யுட்புகுத்தியிருப்பதாலும், குலோத்துங்க சோழனுலாவில் விஷ்ணுவைப்பற்றிச் ‘சிறுதெய்வத் தொல்லைக் குறும்பு தொகுத் தெடுத்து,’ என்று கூறுவதாலும் தெற்றென விளங்கும்.

பழந்தமிழ்ப் புலவர்களது காலத்தை வரையறை செய்வது ஓர் அரிய செயலாம். சிலர் இப்பொதுவிதிக்கு விலக்காயுள்ளார்; அவருளிரருமொருவர். இவர், விக்ரமன், அவன் மகன், பேரன் முதலிய மூவர் காலத்தும் கவிச் சக்கரவர்த்தியாய் விளங்கி, அம்மூவர் மேலும் தனித்தனி யவரவர்கள் பெயரால் ஒவ்வொருவர்ப் பாடியுள்ளமையால் இவரது காலமும் அம்மூவர் காலமேயாகுமென்று துணிந்து கூறலாம். அம்மூவரும் கி. பி. 1118-1162 வரை சோழ நாட்டை யாண்டவர்களாதலின் கூத்தர் காலம் 12ம் நூற்றாண்டாகும்.

இவரியற்றிய நூல்களாக இதுபொழுது கூறப்படுவன மூவருலா, நாலாயிரக் கோவை, அரும்பைத் தொள்ளாயிரம். குலோத்துங்கன் பிள்ளைத்தமிழ், தக்கயாகப் பாணி, சுட்டியெழுபது முதலியன. இவையெயன்றி, இராமாயணம் உத்தர காண்டம், கலிங்கத்துப் பாணி, அண்டத்துப் பாணி, குலோத்துங்கன் கோவை முதலிய பல நூல்களிரவாற் பாடப்பட்டன வென்று கூறுவாருமுளர். இவர் அவ்வப்பொழுது பாடினதாகச் சில தனிப்பாக்கள் ‘தமிழ் நாவலர் சரிதை’ முதலிய நூல்களிற் காணக்கிடக்கின்றன.

இவற்றில் ‘மூவருலா’ வென்பது, விக்ரமன், குலோத்துங்கன், ராஜ ராஜன் என்ற மூன்று சோழமன்னர்கள் மீது இவர் பாடிய மூன்றுலாக்களின் தொகுதியாம். இவ்வுலாக்கள் முறையே 624, 770 784 அடிகளையுடையன.

உலா வென்பது தமிழிலுள்ள 96 வகைப் பிரபந்தங்களிலொன்று. ஒரு தலைவன் வீதியிற் பவனிபோந்தானென்றும், அவனைக்கண்டு பேதைமுதற் பேரிளம் பெண்ணினுரிய வேழு பருவமகளிர்களுங் காதல் கூர்ந்தனரென்றுங் கவிவெண்பாட் டாற் கூறவேண்டுமென்பது. அந்நூலுக்குரிய விலக்கணம். இப் பிரபந்த விலக்கணங் களைப் பன்னிரு பாட்டியல், இலக்கண விளக்கம் முதலிய நூல்களிற் பரக்கக் காணலாம்.

“இவ்வுலாக்கள், சேரமான் பெருமாள் நாயனார் பாடிய ‘ஆதியுலா’ வைத் தவிர ஏனைய உலாக்களுக்குக் காலத்தாலும், சொற்களவ பொருட்சுவையாலும் முற்பட்டன”. இந்நூலில் சோழமன்னர்களின் அருஞ்செயல்கள், வெற்றி, சூழிப் பெருமை முதலியன மிக வழகாகச் சிறந்த எளிய நடையில் கூறப்படுகின்றன. இவ்வுலாக்கள் மூன்றையும் ஒப்பிட்டுப் பார்ப்போர்க்கு இவரது கவி பாடும் வன்மை நானுக்குநா எதிகப்பட்டு வந்ததென்பது நன்கு புலப்படும். “இராசராச சோழனுலா” எனைய விரண்டினும் சுவையாலும், அளவாலும் மேம்பட்டது. இவ்வுலாவையரங்கேற்றும் பொழுது அவ்வரசன், ‘மூதுலாக்கண்ணிதொறும் பொன்னு

யிரஞ் சொரிந்தான்' என்று 'சங்கரசோழனுலா' கூறும். இவ்வுலாக்கள் பாடுவதற்குப் பேராசிரியர் தேவிகாதர் பட்டோலை யிடித்தார். என்ற வாலாறு தமிழ் நாவலர் சரிதையிற் காணப்படுகிறது.

கோவை பாடுதலி லிவர் வல்லவென்பது புலவர்கள் லொப்புத்தொள்ளப் பட்டதொன்றும். கோவை யென்பது இன்பத்தைப் பற்றிக் கூறும் தூலாதலின் அகப்பொருட் கோவையெனவும் வழங்கும். இந்நூலுட் காட்சி முகலிய பல துறைகள் கோக்கப்படுதலின் கோவையெனப் பட்டது. இது கட்டளைக் கலித்துறையால் 12 அகப்பாட்டுறுப்புக்களுட் கோன்றப் பல துறைகளையுடைய பாடுவது. கோவை பாடுவது மிகவுந்தகையென்பது. 'வாதுபாடி வண்ணம்பாடு. யாவையும் பாடி கோவைபாடு.' என்ற பழமொழியால் விளங்கும்.

இவர் பாடிய 'நாலாயிரக்கோவை' இவருக்கு இளமையிற் கல்வி பயில்வித்த புதுவைக் காங்கேயன் மேற் பாடப்பட்டது. நாலாயிரஞ் செய்யுட்கள் கொண்டது என்று எண்ண இடமுண்டு. இக்கோவை பாடியதற்கு லிவருக்குக் கெளடப் புலவன் என்ற பட்டம் கிடைத்தது. இஃது இக்கோவையின் கெளடநெறிநோக்கிப்போலும். இந்நூல் முழுது மிப்பொழுது காணப்படவில்லை. 'சோழமண்டல சகச'த்தில் ஒரு செய்யுள் காண்கிடக்கின்றது. இதற்கு இவர் மிகச் செய்துநின்றியறித லுள்ளவரென்பது மாத்திரம் அறியக் கிடக்கின்றது. இந்நூலைப் பற்றி வேறு யாதுங் கூற முடியாது.

'முத்தொள்ளாயிரம்', 'வச்சத்தொள்ளாயிரம்' முதலியவைகளைப் போலக் கூத்தர் 'அரும்பைத்தொள்ளாயிரம்' என்னும் ஒரு நூலியற்றினார் என்று கூறுவர். 'தொள்ளாயிரமென்பது அத்துணை யென்தொண்ட பாடல்களால் ஒரு தலைவனது ஊரையும் பெயரையும் சிறப்பித்துக் கூறுவது. 'அரும்பை' என்பது ஒருரின் பெயராகத் தோன்றுகின்றது. இனி இக்கோவை 'அரும்பை' என்று கொண்டு சோழன் தனது படைகளையென்றதைக் கூறும் நூலென்றுரைப்பாருமுனர். இலக்கண விளக்கப் பட்டியல் 88ம் குத்தி வுரையுள் காணப்படும். 'அரும்பைத் தொள்ளாயிரம்' என்னும் நூலியறியற்றியதாக விருத்தலாமென்று மகா வித்வான் ரா. ராகவையங்கராவர்கள் கருதுகின்றனர். (செந்தமிழ் 2ம் தொகுதி 3118ம் பக்கம் பார்க்க). தமிழ் நாவலர் சரிதையிற் காணப்படும். 'நடித்தது நச்சரவுச்சி' என்னும் பாடலால் இந்நூல் விக்கிரம சோழன் காலத்திற் பாடப்பட்டதென்பர்.

குலோத்துங்கசோழன் தனது ஆசிரியராகிய கூத்தரிடம் 'உலா' வன்றி யொரு பிள்ளை ததமிழும் பெற்றானென்பது வெள்ளைக்கலியுலாமாலையொடு மீண்டு மவன் பிள்ளைத் தமிழ்மலை பெற்றோனும்' என்னுஞ் 'சங்கரசோழனுலா' வாற் பெறப்படும். 'விக்கிரமசோழன் குலமதலைக் குலோத்துங்க சோழனைக் காத் தளிக்க' என்று காப்புப் பருவத்திலும், 'சயங்கொண்ட சோழன் திருப்பெயர்' என்று செங்கிடைப் பருவத்திலும் கூறியிருப்பவற்றுல் இப் பிள்ளைத்தமிழ் இரண்டாம் குலோத்துங்கன் மீதே பாடப்பட்டது என்பது ஒருதலை. இந்நூலில் சயங்கொண்டாரையும் அவரது பாணியையும் சிறப்பித்த கூறப்பட்டுள்ளதென்று முன் கூறியிருக்கின்றேன். இப் பிள்ளைத்தமிழ் மிக உயரிய கட்டையில் அமைந்தது. கேட்போர் செவிக்கு ஒருவித னுகையின்பத்தைக் கொடுக்கும் சிறப்பு வாய்ந்தது. முதன் முதலாகத் தமிழில் 'பிள்ளைத்தமிழ்' என்னும் பெயராக் காணப்படும் நூல் இதுவே யாகும். இஃது இத்துணைச் சிறப்பு வாய்ந்திருத்தல் இவரது கவி மேம்பாட்டை விளக்குகின்றது.

'தக்கயாகப்பரணி' இராசராசனது வேண்டுகோளின்மேற் பாடப்பட்ட தென்பது, அவ்வரசனுக்கு அந்நூலில் வாழ்த்துக் கூறப்படுவதாலும், அவனது

வீரச் செயல்கள் ஆங்காங்கு கூறப்படுவதாலும் நன்கு புலனாகும். இது பரணியென்னும் பிரபந்த வகையுடனாகும். பரணியாவது, அந்நாண்மீனுக்குரியளாகிய காடுகெழு செல்விக்கு யுத்தசய காலத்திற் கொடுக்கும் பரணிக்கூழ். துணங்கை முதலியவைகளைக் கூறுமுதல்தான் பாட்டுடைத் தலைவனது வெற்றி வரலாற்றினைக் கூறும்நூல். இஃது அளவடி முதலா வடி யிரண்டான தாழிசைகளில், தோற்றவனது பெயருடனேயே கூறப்படவேண்டுமென்பது விதி.

இப்பரணி பாடப்பட்ட வரலாறு 'வீரசிங்காதன புராணம்' அகளங்கச் சருக்கத்தல் கூறப்பட்டுள்ளது அவ்வரலாறு ஈட்டியெழுபது பாடிய வரலாற்றினின்றும் ஒரு சிறிது மாற்றிக் கூறப்பட்டுள்ள தாதலின் உண்மையென்று கொள்வதற்கிடமில்லை.

இந்நூல் சிவபெருமானது பெருமைகளையும், அவர் தக்கன் வேள்வியைத் தகர்த்த வரலாற்றினையும் விரிவாகக் கூறும். ஞானசம்பந்தர் அமணரை வென்று கழுவேற்றிய கதையைக் 'கோயிலைப் பாடியது' என்னும் பகுதியுட் கூறியுள்ளார். இந்நூலினது அருமை பெருமைகளையும், இதற்கும் மற்றைப் பரணிகளுக்குமுள்ள வேறுபாடுகளையும் மகாமகோபாத்தியாய Dr. உ. வே. சாமிநாதையரவர்கள் தாம் பதிப்பித்துள்ள 'தக்கயாகப்பரணி' முகவுரையில் மிகத் தெளிவாக எடுத்துக் காட்டியுள்ளார்கள். இது சரித்திர சம்பந்தமாகவும், இலக்கிய சம்பந்தமாகவும் இவரது ஏனைய நூல்களிலும் மிகச்சிறந்தது. சோழமண்டல சதகச் செய்யுளால் இதற்குத் 'தக்கமகப்பரணி' யென்று மற்றொரு பெயருண்டென்று மறியலாம்.

ஒருநாள் கூத்த நினத்தவர்களாகிய செங்குந்தர்கள் இவரிடம் தங்கள் குலத்தைச் சிறப்பித்து ஒரு நூலியற்ற வேண்டுமென்று முறையிட இவரும் முதலில் அறுத்துப் பின்பு இசைந்து, நூல் பாடுவதற்கு ஆயிரத்தெட்டுச் செங்குந்த மக்களின் தலைகளை யறுத்து ஒரு 'சிரச் சிங்காதன' மிடவேண்டுமென்று கூற, அவர்களு மல்விதமே செய்தனர். அச் சிங்காதனத்தின்மேலிருந்துகொண்டு கூத்தர் செங்குந்தர்களது சிறந்த படையாகிய ஈட்டியின் பெயராலெழுபது விருத்தப்பாக்கள் கொண்ட ஒரு நூலையியற்றினர். நூல் பாடிமுடிந்ததும் அறுபட்ட தலைகள் உயிர்பெற்றெழுந்தன. இவ்வரலாற்றினை நலமுடனே, யாவாணர் செங்குந்தராயிரத் தெண்டலை கொய்திரத்தப் பாவாடையிட்டது' என்னும் பாயிரச் செய்யுளும் கலிக்கிடம்... சிரச்சிங்காதனச் சீர்ச்செங்குந்தமே' என்ற ஈட்டியெழுபது 64ம் செய்யுளும் நன்கு விளக்கும். இந்நூல் பரணி பாடியதின் பின்பே பாடப்பட்டது என்பது;

“எந்தையா மப்மை பாகத் திறைவனை வணங்கி யாமே  
பைந்தமிழ்ப் பரணி செய்த பாடலோ டந்தமாக”

என்னும் ஈட்டியெழுபது 63ம் செய்யுளிற் குறிக்கப்பட்டுள்ளது. இந்நூலிற் செங்குந்தர்களது படைத்திறன், சிவபக்தி, கல்வியறிவு, முதலியவைகள் பாராட்டப் பட்டுள்ளன. இந்நூலினின்றும் இவர் சோழ வேந்தர்களை யுயர்த்தியும், ஏனைய இரு வேந்தர்களைத் தாழ்த்தியும் பாடுங் கொள்கையை யுடையவர் என்பது அறியக் கிடக்கின்றது.

இனிச் 'செங்குந்தர் பிரபந்தத்திரட்டு' என்னும் நூலிற் கூத்தர் அறுபட்ட செங்குந்தர்களது தலையை யொட்டவைக்க 'எழுப்பெழுபது' என்னும் நூலையியற்றினர் என்பதும், அவ்விதம் வெட்டுண்ட தலைகள் உயிர் பெற்றெழுந்தவுடன் இவரது தெய்வீக சக்தியை வியந்து அங்கிருந்த கம்பர், புகழேந்தி முதலிய வொன்பதின்மரும், அசரீரியும் ஒவ்வொரு பாடல் பாடினர் என்பதும், அஃது இப்பொழுது 'களிப்பொருபுஃது' என்று வழங்கப்பட்டுள்ளது என்பதும் கூறப்பட்டுள்ளன. இவைகளுக்குக் கண்பரம்பரைச் செய்திகளன்றி வேறு ஆதாரங்களில்.

மற்றும் பல தூல்கள் இவர் செய்தன வென்று சிலராலும், அல்லவென்று சிலராலும் கருதப்படுகின்றன. விக்ரமசோழனது கலிங்க வெற்றியைக் குறித்து ஐயங்கொண்டாரியற்றிய கலிங்கத்துப் பரணியின் வேறாக வொரு கலிங்கத்துப் பரணியை இவர் இயற்றியுள்ளாரென்ப, தக்கயாகப் பரணி 776ம் தாழிசைச் செருத் தந்திரித்து கலிங்கரோடத் தென்றமிழ் தெய்வப்பரணி கொண்டு' என்பதாலும், அதன் உரையாசிரியர் 'இப்பரணி பாடிஞர் ஒட்டக்கூத்தரான கவிச் சக்ரவர்த்தி கன். பாட்டுண்டார் விக்ரம சோழன்,' என்றெழுதியுள்ள குறிப்புக்களாலும் இதன் உண்மை புலப்படும். இவர் பாடிய குலாத்துங்கனுலா (55-56) 'விரும்பரணில் வெங்கனத்தீ வேட்டுக் கலிங்கப், பெரும் பரணி கொண்ட பெருமான்' என்ற வடிகளும், இராசராசனுலாவில்,

“தரணி யொருகவிகை தங்கக் கலிங்கப்  
பரணி புனைந்த பரிதி”

என்ற வடிகளும் மேற்கூறிய கொள்கையினை வலியுறுத்தும் மகாமகோபாத்தியாய Dr. சாமிகாணதையரவர்கள், 'தக்கயாகப் பரணி' முடிவுரை 25ம் பக்கத்தில் 'முத்துக் கண்குழையை' என்று இவ்வுரை யாசிரியர் இந்நூல் 13ம் தாழிசையினுரையிற் காட்டிய தாழிசையும், சிலப்பதிகார வுரையில் அடியார்க்கு நல்லார் காட்டிய மேற் சோளான் பரணித்தாழிசைகளாகக் காணப்படும் 'மோடி முன்றலையை' 'மண்ணி னாள்' என்னும் முதற் குறிப்பையுடைய தாழிசைகளும் அப் பரணியிலுள்ளன போலும்' என்று கூறியிருப்பதும் நன்கு கவனிக்கத்தக்கது.

ஒரு சிலர் விக்ரமன் கலிங்க வெற்றியைக் குறித்துத் தனியாக வொரு பரணி கூத்தரார் பாடப்படவில்லையென்றும், அவன் தந்தை பரணி பெற்றதையே யிவன் மேலேற்றிக் கூறப்பட்டதென்று முறைப்பர், அது பொருந்தாது. முற் கூறிய காரணங்களாற் கூத்தர் ஒரு கலிங்கத்துப் பரணி பாடினரென்று கொள்ளு தலே ஏற்புடைத்து.

இதுவன்றிக் கூத்தர் 'குலோத்துங்கன் கோவை' யென்ற நூலொன்றியற் றியதாகச் சென்னைக் கையெழுத்துப் பிரதிக் குறிப்பு (Catalogue), திரு. நாராயண சாமி முதலியார் 'புகழேந்திப் புலவர் வரலாறு' முதலியவற்றில் எழுதப்பட்டுள் ளது. இக் கொள்கை ஒரு காலத்தில் பலராலும் கொள்ளப்பட்டிருந்தது. ஆனால் மகாவிதவான் ராகவயங்காரவர்கள் செந்தமிழ்த் தொகுதி 3ல் 'கூத்தருங் குலோத் துங்கன் கோவையும்' என்னுந் தலைப்பின்கீழ் அந்நூல் கூத்தரியற்றிய தன்மென்று தக்க ஆதாரங்களுடன் கூறியுள்ளார். அதனால் 'குலோத்துங்கன் கோவை' கூத்த ராலியற்றப்படவில்லை யென்பது பெறப்பட்டது.

பின்னுமொரு சாரார் கூத்தர் 'அண்டத்துப் பரணி' என்றொரு நூலியற்றி யுள்ளார் என்பர். அவ்வரலாறு யாதெனின் 'புகழேந்திப் புலவர் எளவெண்பாப் பாடி யரங்கேற்றும் பொழுது கூத்தர் ஆங்காங்கு நூலிற் பிழை கூறப் புகழேந்தி, கூத்தர் பாடிய 'அண்டத்துப் பரணி' யினின்றும் மேற்கோள் காட்டி எளவெண் பாவை யரங்கேற்றினர்' என்பதே. இதற்குத் தக்க வாதாரங்களின்மையின் இது நம்பத்தக்கதொன்றன்று.

“சூணி லாவுங் கர்பனலம் பொலியுந் தமிழாற் பொலிவெய்தி  
காணு மாறு காண்டமுறுங் கதையிற் பெரிய கதையொன்று  
தாணி லாவுங் கழலபயன் சபையிற் பயிலுந் தரகாண்டம்  
வாணி தாசு நாங்கேற்ற வைத்தார் 'சோழ மண்டலமே'”

என்பது சோழமண்டல சதகம். இச் செய்யுளால் வாணியினதருள் பெற்று வாணி தாசனென்ற மற்றொரு பெயரையுடைய கூத்தர் உத்தரகாண்டத்தைப் பாடி அபய னென்ற இரண்டாங் குலோத்துங்கன் அவையிலரங்கேற்றினார் என்று கூறுவர் சிலர். இரண்டாங் குலோத்துங்கனுக்கு அபயன் என்ற மற்றொரு பெயருண்டென்பது, குலோத். உலா 317. 499. அடிகளில் எழங்கப்பட்டுள்ளது. இஃதிவ்விதமிருக்கப் பிற்காலத்தார் கூத்தர் தாம் பாடிய இராமாயண நூலைக் கிழித்தெறியும் பொழுது கம்பர் கண்டு தடுத்து அழியாது எஞ்சியுள்ள உத்தர காண்டத்தைத் தன் இராமாய ணத்தோடு சேர்த்துச் சோழன் சபையிலரங்கேற்றினர் என்று கூறுவது முற்கூறியத னோடு மாறுபடும்.

'கம்ப நாடர்' பத்திராதிபர், கம்பரின் காலத்தை ஆராயுமிடத்துக் கூத்தர் கம்பரது இராமாயணத்தைக் கற்று அவரது கொள்கைகளைப் பின்பற்றி உத்தர காண்டமியற்றினாரென்று இருவர் நூலையும் ஒப்பிட்டுத் தக்க ஆதாரங்களுடன் கூறி யுள்ளார். கம்பர் காலம் கூத்தர் காலத்துக்குப் பின்பாயின் கூத்தர் அவ்விதம் பாடி யிருக்க முடியாதாகிவிடும்.

இனியொரு சாரார் 'வாணிதாசன்' என்பதனை வாணிதாதன் என்று கொண்டு கம்பருடன் வாது நிகழ்த்திய வாணியன் தாதன் என்ற புலவரால் உத்தர காண்டம் இயற்றப்பட்டதென்பர். (செங்குந்தர் பிரபந்தத் திரட்டு, முடிவுரை p. 22-25. மு. ராகவயங்காரவர்கள்.)

மற்றும் சிலர், உத்தரகாண்டம் கம்பராலேயே பாடப்பட்டதென்று கொண்டு அவ்விதமே யந்நூலைப் பதிப்பித்துள்ளார்கள். அதற்குச் சான்றாக.

“கதைசெறி காண்ட மேழு கதைகளா பிரதத் தெண்ணுறு  
பரவுறு சமரம் பத்துப் படலநூற் றிருபத் தெட்டே  
யுரைசெயுந் விருத்தம் பன்னீ ராயிரத் தொருபத் தாறே  
வரமிரு கம்பன் சொன்ன வண்ணமுந் தொண்ணூற் றுறே”

என்ற ஒரு பழைய கம்பராமாயணச் சிறப்புப் பாயிரப் பாடலைக் காட்டுவர். சென்னைக் கையெழுத்துப் பிரதிக் குறிப்பில் (Catalogue) 'உத்தரகாண்ட எட்டினுற்றிற் காண ப்படும் செய்யுட்கள்' என்ற பாடல்களாற் கம்பரே உத்தரகாண்டத்தை யியற்றினார் என்று கொள்ள இடமுண்டு. ஆனால் இவ்விதப் பாடல்கள் பிற்காலத்தாராற் பாடி யிணைக்கப்பட்டன வென்பது மகா விதவான் ராகவயங்காரவர்களால் செந்தமிழ்த் தொகுதி 3ல் மிகத் தெளிவாகக் காட்டப் பட்டுள்ளது.

மேற்கூறியவைகளால் உத்தர காண்டம் யாராலெழுதப்பட்டதென்று துணி ந்து கூறமுடியவில்லை. சோழமண்டல சதகச் செய்யுளையும், கன்ன பரம்பரைச் செய்தியையும், உலகப் பெருவழக்கையும் கொண்டு கூத்தராலேயே உத்தரகாண்ட மியற்றப்பட்டதென்று நாம் கொள்ளுவோம்.

இலக்கிய நூல்களியற்றுவதன்றி இலக்கண நூலியற்றுவதிலுங் கூத்தர் வல்லுனர் என்ப. இதற்குச் சான்று

“ஆர வார விலக்கணநூ லெந்து முழங்க வதற்கெதிர்தூல்  
பாரின் மீதே தமிழ்க்குத்தன் பாடி யமைத்தான்”

என்ற சோழமண்டல சதகச் செய்யுள் (95). இதனால் கூத்தர் ஐந்திலக்கணங்கட்கும் ஓர் 'எதிர் நூல்' செய்தமைத்தனரென்பது தோன்றுகின்றது. பேராசிரியர் தொல்.

மரபியல் 94ம் குத்திர வுரையில்: “அவர் உடம்படாதன சொல் உணவென்று ‘எதிர் தூல்’ என ஒருவன் பிற்தாலத்துதல் செய்யுமாயின்.” என்று எழுதியது இத் தூலைக் குறித்தே போலும் இவ்விதக் கொள்கை யுடையார் ஸ்ரீ உ. வே. மு. ராகவையங் காவர்கள் இந் தூல் ‘தமிழ்க் கூத்தன்’ என்ற வேறொரு ஆசிரியராலியற்றப் பட்டதென்று கூறுவாருளார். அப்பாட்டில் இந் தூலை வீரசோழியத்துட னிணைத் துக் கூறப்படுவதால் இது கூத்தராலியற்றப் பட்டதென்பதற் சிறிது ஐயம் நிகழ் கிறது.

மேற் கூறப்பட்ட தூல்களாற் கூத்தர் தமிழிலக்கண விலக்கியங்களில் வல்ல வரென்பது சொல்லாமலே யமையும். தமிழில் இவர் காலத்துக்குமுன் பெரும் பாலங் காணப்படாத உலா. பின்னைத் தமிழ் முதலிய தூல்களை யவரையற்றியுள்ள னார். இவர் வடமொழியிலும் மிக்க பயிற்சி வாய்ந்தவென்பது வடமொழி யாமள சாத்திரத்தின் கருத்தைத் தழுவித் தக்கயாகப் பரணியிற்பல பாடல்கள் பாடியுள்ள மையால் விளங்கும். வடமொழிக் சொற்களையுந் தொடர்களையுந் சேர்த்துக் கவி யியற்றுவதில் இவர் வல்லவர். இவரது மாணாக்கராகிய குலோத்துங்கன் பாடியுள்ள பாட்டாலும். தமிழ் நாவலர் சரிதையில் கூட்கரது மாணாக்கர் பாடிய அந்தா திச்சமுத்தி’ என்ற தலைப்பின்கீழ்க் காணப்படும் பாட்டாலும். இவர் ஒரு சிறந்த போதகாசிரியரென்பதும் இவரது மாணாக்கர்களும் கவிபாமொற்றல் பெற்றவர்க ளென்பதும் பெறப்படும். ‘இவர் உலக வியல்பைக் கடந்து கவிபாட வல்லவராவலின் தொடப் புலவன் என்ற பட்டம் பெற்றார்’. இதுவென்றியிருக்குக் கவிச்சுக் க வர்த்திகள். கவிராகசன். சுவஞ்சு கவி முதலிய பட்டங்களுமுண்டு இவர் சோழ மன்னர்களாலன்றி மற்றும் பல வள்ளல்களாலும் ஆதரிக்கப் பெற்றனர் என்பது அவர்கள்மேல் இவர் அவ்வப்போது பாடியுள்ள பாடல்களால் அறியக் கிடக்கின்றது. இவரது தூல்கள் சொன்னயமும். பொருளையமும். நாயைப்பமும் உடையனவாய்ச் செவிக் கிளிய செஞ்சொல்வாய்திருந்தன வாதலின் இவரது புலமை அக்காலத்தி லேயே பலராலும் போற்றப்பட்டு வந்தது. தண்டியலங்காரமென்னும் தூலில்,

“சென்று செவியானக்குஞ் செவ்வாயவாய்ச் சிந்தையுள் னீள  
நின்றனளி ளின்ப நிறைப்பவற்றுள்—ஒன்று  
மலரிவருங் கூத்தலார் மாநர்நோக் கொன்று  
மலரிவருங் கூத்தன் தன் வாக்ஞ்

என்று இவரது வாக்குநயம் பாராட்டப்பட்டுள்ளது. இவர் தம் காலத்திருந்த உண்மைக் கவினைப் போற்றியும் புண்கவினை அடித்தும் வந்தனர். இவர் மிக்க செயற்கன்றி யறித லுள்ளவரென்பது முன்பு கூறப்பட்டது.” கோவையலா வந்தாதி கொட்டக் கூத்தன்” என்று பின்னாளுள்ளாரும் இவரைக் கெம்பித்துக் கூறியுள்ளனர். இங்ஙனம் கூத்தர் 12ம் தூற்றாண்டில் சுமார் 50 வருடகாலம் தம் தமிழுலகில் தன்னையொப்பாரும் மிக்காருயினரிக் கவியாசராய்க் திகழ்ந்து விளங்கினார்.

## The Doctrine of Sphoṭa

(Continued from page 240, Vol. I. No. 2.)

By

V. A. RAMASWAMI SASTRI

(Annamalai University)

*Dhvani as a vivarta of Sphoṭa.*

Not merely is artha treated as the vivarta of sphoṭa but also dhvani. According to Bhartṛhari, the experiences of differences are mere superimpositions—adhyāśas—based on the different cognitions of śabda both as manifestor and manifested.<sup>30</sup> We ordinarily experience the properties of *hrasvatva* and *dīrghatva*, etc., as associated with śabda; but these are not the characteristics of the real śabda—sphoṭa—but only the properties of the manifesting agents—dhvanis—produced by the different adjustments of the speech-organs. And such a differentiation is to be recognised during the process of manifestation, though to a śabda-monist there is no real *sattā* for the dhvanis apart from that of the sonant substratum. Accepting this differentiation, Bhartṛhari explains the different characteristics of these two:—dhvani or nāda when produced, possesses all properties of krama and the like and the sphoṭa, though devoid of such properties, is yet wrongly experienced as possessing the properties of dhvani. Here he cites a beautiful example<sup>31</sup>:—Just as a reflection presented in a sheet of water assumes the movements of the medium of reflection, viz. water, so also the sphoṭa, originally free from time-sequences and other properties, when manifested by dhvanis, is realised as possessing all the properties of dhvani.<sup>32</sup>

30. Compare the Vākyapadīya. Kāṇḍa I. Verse. 46.

“Araṇistham yathā jyotiḥ prakāśāntarakāraṇam  
tadvat śabdepi buddhisthaḥ śrutinām kāraṇam prthak.”

31. ‘Pratibimbam yathānyatra sthitam toyakriyāvasāt  
tatpravṛttimivānveti sa dharmah sphoṭanādayoh.’  
Vākyapadīya. Kāṇḍa I. Verse 49.

32. That śabda is experienced with some Krama—time-sequence and other properties is further elaborated by Hari in two important illustrations; (1) the fluid in the egg of a peacock and (2) a picture on a wall or a canvass. Vide verses—51 and 52 of the First Kāṇḍa of the Vākyapadīya.

*Śabda both as samjñā and samjñin.*

The position that śabda occupies in vyavahāra both in loka and in the Vyākaraṇa Śāstra is discussed in detail by Hari. In loka, śabda is subordinate to artha; for it is only an instrument to communicate artha and to transact business in the world; but in the Vyākaraṇa Śāstra it occupies the chief place and artha is always subordinate to śabda. This is, as Bhartṛhari says, explained by Pāṇini in his famous sūtra—'*svam rūpam śabdasyāśabdasaṃjñā*', which enjoins that in the Vyākaraṇa Śāstra, śabda is both *saṃjñā* and *saṃjñin*.<sup>33</sup> It is also argued that śabda occupies a place in śabdabodha like artha, not as a *kriyānvayipadārtha* but as an *upalakṣaṇa* which is characterised by its special property of differentiation—*vyāvartakatva*.<sup>34</sup> The Grammarians accept the fact that even in loka śabda means only śabda in case no idea is conveyed or till the idea becomes intelligible.<sup>35</sup>

*Sphoṭa and the two kinds of Dhvani.*

The relation between dhvani and sphoṭa is *abhivyaṅgyābhivyañjaka-bhāva*—the relation that subsists between the manifested and the manifestor. It is not the relation of *utpādyotpādakabhāva*—of cause and effect, since the śabda-monist has to accept the eternity of *sphoṭa* of which dhvani is only a *vivarta*.

How the dhvani manifests the sphoṭa is a very important question dealt with by Patañjali in his bhāṣya on the taparasūtra and by Bhartṛhari in the Brahma kāṇḍa of his Vākyapadīya. They say that there are two kinds of dhvani—the *prākṛta* dhvani and the *vaikṛta* dhvani—the

33. Hari explains the same idea comparing śabda and artha to jñāna and jñeya—

'ātmarūpam yathā jñāne jñeyarūpaṇca dṛśyate  
artharūpam tathā śabde svarūpaṇca prakāśate.'

Vākyapadīya. Kāṇḍa I. Verse 50.

Compare also Kāṇḍa I. Verses 52 & 53:—

"Vṛddhyādayo yathā śabdāḥ svarūpopanibandhanāḥ  
ādaicpratyāyitaiḥ śabdaiḥ sambandham yānti saṃjñibhiḥ.  
agnisabdasthathaiḥ agnisabdanibandhanāḥ  
agnisrutiyaiti sambandhmagnisabdābhidheyayā".

34. arthopasarjanibhūtānabhidheyeṣu keṣucit  
caritārthān parārthatvāt na lokāḥ pratipadyate  
grāhyatvam grāhakatvaṇca dve śakti tejaso yathā.  
tathaiva sarvasabdānām ete prthagavasthite.

Vākyapadīya. Kāṇḍa I. Verses 54 & 55.

35. Prāk saṃjñinābhisambandhāt saṃjñā rūpapadārthikā.

ibid. Kāṇḍa I. Verse 66.

former possessing the properties of *hrasvatva*, *dīrghatva*, etc., and the latter with *drutatva*, *vilambitvatva*, etc. The *prākṛta dhvani* is the true manifestor of *sphoṭa*. The cause of various *vṛttis* like prolongation of sound-waves is known as the *vaikṛta dhvani*; for it contains many new properties like *drutatva* (rapidity), *vilambitvatva* (slowness).<sup>36</sup> And since the *vaikṛta dhvanis* become the cause of these various properties on the basis of their different *vṛttis*, the question does not arise whether these properties belong to *sphoṭa* and whether they create some difference in the *sphoṭa śabda* itself.<sup>37</sup>

*The manifestation of the same sphoṭa by each dhvani.*

These *prākṛta dhvanis* in a word or in a sentence manifest the *sphoṭa each separately* so that an enhanced manifestation of the same *sphoṭa* takes place. This is explained by Hari by an illustration<sup>38</sup>:—The repeated readings in different modes of a chapter of the Vedas or of a verse by a student would not in any way create any alteration in the text; these readings or the last reading coupled with the *saṃskāras* of the previous readings would help him to learn it completely by heart. Or, a teacher explains to a student a complicated idea in six or more different ways; these different modes of explanation or the last explanation, together with the impressions left of the previous explanations would make the student understand the same idea better. Similarly the experience of the last dhvani together with the *saṃskāras* left of the previous dhvanis manifest the one and the same *sphoṭa clearly and completely*. Thus to the Grammarians there is no superfluity of dhvanis in manifesting the *sphoṭa śabda*, since the process of manifestation by dhvani is effected only by the experience of the last dhvani of a word together with the impressions left by the experiences of the previous dhvanis in the same word.<sup>39</sup>

36. śabdasya grahaṇe hetuḥ prākṛto dhvaniḥ iṣyate.  
vṛttibhede nimittatvam vaikṛtaḥ pratipadyate.

Vākyapadīya. Kāṇḍa I. Verse 77.

37. śabdasyordhvamabhivyakteḥ vṛttibhede tu vaikṛtāḥ.

dhvanayaḥ samupohante sphoṭātmā tairna bhidyate. ibid. Verse 78.

38. yathā anuvākaḥ śloko vā soḍhatvamupagacchati.

āvṛttiparipākāyām buddhau śabdovādhāryate.

āvṛtyā na tu sa grandhaḥ pratyāvṛtyā nirūpyate.

Vākyapadīya. Kāṇḍa I. Verse 83.

39. 'pūrvapūrvavarṇānubhavāhitasāṃskārasacivena antyavarṇānubhavana  
abhivvyaktiḥ sphoṭasya.' Compare Vākyapadīya. Kāṇḍa I. Verses 84 and 85.

'pratyayairanupākhyeyaiḥ grahaṇānugūṇaistathā.

dhvaniprakāśite śabde svarūpamavādhāryate'.

nādairāhitabijāyām antyena dhvanīna saha.

āvṛttiparipākāyām buddhau śabdovādhāryate.

The śāstra explains the sphoṭa-manifestation not merely to the yogin who realises the Absolute and to whom the experience of the first dhvani is enough to reveal the sphoṭa, but also to the average student of Grammar; and it is for him that the śāstra explains that the successful manifestation of the *gopada-sphoṭa*, for example, would be effected by the experience of the *visarga dhvani* of that word coupled with the impressions left by the experience of the previous dhvanis in the word '*gauḥ*'. So all the dhvanis in a word or in a sentence (as explained above) are the essential means of realising the real śabda which alone possesses the significative capacity to convey the meaning. Bhartṛhari says<sup>40</sup> that if anybody views the intermediate or intervening dhvanis to be superfluous, it is only because of his inability to understand them, for they are the essential means of the manifestation of sphoṭa.

*Only the manifested sphoṭa, the vācaka.*

It deserves also to be remembered here that the sphoṭa becomes vācaka only when it is manifested by different dhvanis possessing a fixed krama.<sup>41</sup> From this aspect, this sphoṭa is compared to the ordinary cognition which cannot exist without any viśaya. If this is not accepted, we cannot establish the difference in ideas conveyed by the words of the same dhvanis but with different kramas e.g. *saraj* and *rasaj*; *nadī* and *dīna*, etc.

*Hari's view on the capacity of dhvani.*

The relation between dhvani and sphoṭa viz. the *abhivyaṅgyābhivyañjakabhāva* being thus established, Hari speaks of a special capacity of dhvani as the manifestor of sphoṭa to generate a new power or impression (saṃskāra) both in the sense-organ—ear and in the manifested sphoṭa,<sup>42</sup> and thus making the latter easily cognisable. The dhvani is produced in the air, but for its experience by the ear, it is to be located very near the sensory organ. So when the waves of dhvani expand far and wide and reach the ear, the experience of that dhvani or group of dhvanis in the plane of the ear effects the successful manifestation of

40. asataścāntarāle yān śabdānastīti manyate.  
pratipatturaśaktiśā grahaṇopāya eva saḥ.

Vākyapadiya. Kāṇḍa I. Verse 86.

41. 'Jñeyena na vinā Jñānam vyavahārevatiṣṭhate.  
nālabdhakramayā vācā kaścīdarthobhīdhiyate'.

ibid. commentary on the Verse 87.

42. 'cakṣuṣaḥ prāpyakāritve tejasā tu dvayorapi.  
viśayendriyayoriṣṭaḥ saṃskāraḥ sa kramo dhvanēḥ.

Vākyapadiya. Kāṇḍa I. Verse 81.

sphoṭa. In this connection, he speaks of two other views prevalent among the abhivyaṅgyavādins, one speaking of the saṃskāra produced only on the sensory organ and the other, only on the viśaya.<sup>43</sup>

*The conception of śabda by other systems of Philosophy.*

Before we explain what has exactly induced the Grammarians to accept the existence of the sonant substratum (sphoṭa) apart from the audible dhvanis, it is better here to examine the Naiyāyika and Mīmāṃsaka views on śabda as *vācakatāśraya* (seat of the significative capacity) and as *arthapratyāyaka* (source of the cognition of ideas).

*The Naiyāyika view.*

The Nyāya school accepts śabda as an anitya guṇa of ākāśa and explains that the experience of the last sound together with the impressions left of the experiences of the previous sounds in a word, is the cause of *arthapratipatti*. According to this, one cannot find out the answer for the important question—*which is the seat of vācakatā?* The Naiyāyika cannot establish the fact that the group of sounds in a word like *devadatta* consisting of more than two sounds is the seat of *vācakatā*; for, to them the sounds in this word, each sound existing for two kṣaṇas only<sup>44</sup> cannot exist together in a particular kṣaṇa or moment. So they say that only the last sound together with the impressions left of the experiences of the previous sounds in a word is the seat of *Vācakatā* and its experience is the *arthapratyāyaka*. This is not consistent with our experience in the world. We generally say that the word '*gauḥ*' (and not the last sound—visarga—with the impressions of the previous sounds) possesses *vācakatā*, which is otherwise known as the *abhidāvṛtti* in śāstraic works; and the experience of the whole word '*gauḥ*' alone would convey to us the idea of the cow—the animal possessing the fleshy fold or dewlap, tail, hump, hoof and horn<sup>45</sup>—“gopadam sāsna-lāṅgūla-kakuda-khura-viśāṇinām vācakam; gopādajñānena tādrśām bodhaḥ.” These experiences involve or present the unity of the vācakapada which is the seat of vācakatā—the significative capacity of a word; and this unity cannot be explained with reference to the last sound of a word coupled with the saṃskāras of the experiences of the previous sounds, since it possesses two things of entirely different cha-

43. 'indriyasyaiva saṃskāraḥ samādhānāñjanādibhiḥ.

Viśayasya tu saṃskāraḥ tadgandhapratipattaye.

Vākyapadiya. Kāṇḍa I. Verse 80.

44. 'yogya-vibhu-viśeṣaguṇānām svottarotpannaviśeṣaguṇanāśyatvam'.

45. 'Yena sasnālāṅgūlakakudakhuraviśāṇinām sampratyayo bhavati sa śabdaḥ'.  
[Paspasāhnikā of the Mahābhāṣya.]

racter (1) the last sound and (2) the group of impressions of the experiences of the previous sounds.

*The Mimāṃsaka view.*

The Mimāṃsā school has a different view on śabda. It accepts śabda as an eternal substance; and in this respect its position is better than that of the Nyāya school. The śabdas are nothing but the audible varṇas which are manifested by dhvanis or nādas produced in the air. In this point, the Mimāṃsaka would say that he does not accept anything like the sphoṭa other than what the world experiences as śabda, viz. the audible varṇas. This is well expressed by Śabarasvāmin<sup>46</sup> and by Śaṅkarācārya<sup>47</sup> in their bhāṣyas as the opinion of the great revered Vṛttikāra Upavarṣa. The fact that the varṇas are eternal has solved the great problem of the unity in the word as the seat of *vācakatā*—a problem which would never be satisfactorily explained by the Nyāya school. But in the question of *arthapratyaya* by a word or a sentence, the Mimāṃsā school also, just like the Nyāya school, labours hard and it has to say<sup>48</sup> that the experience of the last varṇa together with the impressions left of the experiences of the previous varṇas is the cause of the arthapratipatti, since the experiences of the different varṇas in a word are produced by these different dhvanis produced in air by the utterance of the word. The manifestation of the word 'gauḥ', for example, is effected by the three different dhvanis of *gakāra*, *aukāra* and *visarjaniya* and through these three dhvanis are experienced these three varṇas in the particular order of these manifestating agents, so much so, that the experiences of those varṇas possessing some *krama* are responsible for the experiences of different ideas in the instances of words possessing same varṇas but different *krama*, e.g. *nadī* and *dīna*, etc. According to this view also, the Grammarians would say that the concepts or experiences of different varṇas manifested by different dhvanis are transitory in character or exist for two kṣaṇas only and again as in the Nyāya school the cause of arthapratipatti does not become unitary in character (the cause being the experience of the last varṇa together with the impressions of the previous varṇas in the word).

46. 'atha gaurityatra kaḥ śabdaḥ? *gakāraukāravisarjanīyā* iti Bhagavān Upavarṣaḥ. śrotragrahaṇe hyarthe loke śabdaśabdaḥ prasiddhaḥ. te ca śrotragrahaṇāḥ'. (Pūrvamimāṃsāsūtrabhāṣya. I. 1. 5.)

47. 'Varṇa eva tu śabdā iti Bhagavān Upavarṣaḥ. (Uttaramimāṃsāsūtrabhāṣya-Devatādhikaraṇa).

48. 'Pūrvapūrvavarṇajanitasamkārasahito antyo varṇaḥ pratyāyakaityadoṣaḥ'. (Śābarabhāṣya—I. 1. 5.)

*The Vaiyākaraṇa View.*

A close study of these views led the Grammarians to establish and elucidate the existence of a śabda distinct from the audible sounds—dhvanis. This śabda or the sonant substratum is manifested by dhvanis and as such, forms the true śabda, as the seat of *vācakatā* and as the source of *arthapratipatti*.<sup>49</sup> In both these points, the unitary characteristic of śabda—sphoṭa—is well in keeping with the experiences of the world on śabda.

The śabda-monists do not stop with this. They accept that one common element uniformly found in all cognitions is śabda.<sup>50</sup> "Yat anuvartate tat satyam; yat vyāvartate tadasāram." This is the basis of all schools of monistic philosophy. One real Absolute is śabda which is identical with Brahman, as explained by Bhartṛhari in the first verse of his Vākyapadīya—

"Anādinidhanam brahma śabdatatvam yadaḥkṣaram.

Vivartaterthabhāvena prakriyā jagato yataḥ."

The words and sentences that we utter are but the manifestations of one śabda—the śabda-brahman. It has been already said that though the dhvanis are different in a pada or in a vākya, the manifested sphoṭa is nitya and one and the same; and the successful manifestation of the same sphoṭa would be effected only by the different dhvanis in a word or in a sentence, just as a jeweller will be in a position to understand the real nature and worth of a gem, only when he incessantly examines it.

*Vākyasphoṭa as the only nityaśabda*

It is worthwhile to note here that the monist Grammarians do not accept the reality of the varṇa-and-pada-sphoṭas on the ground that they are not the true conveyors of ideas. They establish the reality and eternity of the vākyasphoṭa which alone is experienced both as *vācaka* and *arthapratyāyaka*. Bhartṛhari (following the Saṅgrahakāra) says that "there is no division in the body of a pada just like in a varṇa; so

49. It is noteworthy here that sphoṭa is devoid of any *krama* and the experiences presenting *krama* and other properties are only adhyāśas (i.e.) the properties of the manifesting agents viz., dhvanis are superimposed on the manifested sphoṭa, just as the properties of the medium of a reflection—mirror—are superimposed on the reflection.

50. 'na sosti pratyayo loke yaśśabdānugamādrte. anuviddhamiva jñānam sarvam śabdena bhāṣate'.

Vākyapadīya. Kāṇḍa I. Verse 124.

there is no great difference between vākya and padas.<sup>51</sup> And he adds that "what other schools of thought consider as the important and real element in speech, is subordinate according to these Grammarians."<sup>52</sup> This statement implies that the vākya or vākyasphoṭa is to be taken as the only real and important element in speech, though others have accepted the varṇas and padas as real as and more important than, the vākya.<sup>53</sup>

*The reality of Vākyasphoṭa as an akhaṇḍavastu.*

The vākyasphoṭa is thus considered to be the only reality in speech and it is an *akhaṇḍapadārtha*, devoid of parts or properties. The experiences presenting differences of varṇa, pada and vākya are illusory since they are based on the differences of the manifesting agents—dhvanis. No real difference between varṇa-sphoṭa, pada-sphoṭa and vākyasphoṭa can be therefore maintained since each dhvani is taken to be manifesting the one and the same sphoṭa. And everybody feels convinced that the same sphoṭa is manifested even when the word 'devadatta' is uttered by one person on different occasions or by different persons simultaneously. This proves well the fact that the different dhvanis of the word 'devadatta' (different on account of the different adjustments of the speech-organs) possessing the same power of manifestation (*abhiyāñjakatva*) manifest the unitary sphoṭa. In this connection Bhartṛhari cites many illustrations. One of them is as follows:—The experience that sphoṭa is of many divisions of mātṛā, varṇa, pada, etc., is an illusion, since it stands on a par with one's cognition of an object seen from a great distance or in pitch darkness. This cognition becomes invalid when the same object is again experienced in close proximity to light. Similarly, when the vākyasphoṭa is manifested by the vākya-dhvanis, there arises first a cognition presenting many parts

51. 'pade na varṇā vidyante varṇeṣvavayavā iva.  
vākyaṭ padānāmatyantam praviveko na kścana.'

Vākyapadiya. Kāṇḍa. I. Verse 73.

N. B.—This verse is attributed by some to the Saṅgrahakāra.

52. 'bhinnam darśanamāśrītya vyavahāronugamyate.  
tatra yānmukhyamekeṣāṃ tatratteṣāṃ viparyayah.'

ibid. Verse. 71.

53. It is interesting to note that the conception of the vākyasphoṭa of the grammarians (together with the anvitābhīdhanāvāda of the Prābhākara) quite corresponds to the 'sentence theory' of the Modern Philologists.

to the manifested sphoṭa, but a careful scrutiny would result in the experience of the one and the same sphoṭa devoid of any part.<sup>54</sup>

The same fact is again emphasized by another illustration. In the transformation of milk into curd or of the seed into a tree, we notice many essential intermediate stages, in the absence of which the transformation cannot take place. Similarly in the successful manifestation of the real vākyasphoṭa the intermediate stages, viz. the manifestations by dhvanis of varied type, are quite essential and they do not in any sense become the part of the sphoṭa.<sup>55</sup>

*Various theories on śabda—Hari's view.*

In the latter half of the Brahmakāṇḍa of his Vākyapadiya, Hari gives various theories<sup>56</sup> prevalent on the substance of śabda. Some opine<sup>57</sup> that śabda is nothing but the transformation of the inner vāyu; others say<sup>58</sup> that it is a collection of atoms; others view<sup>59</sup> that it is the manifestation of the inner knowledge or consciousness when it undergoes many transformations; yet others<sup>60</sup> speak of the all-pervading, ever-existing and subtle śabda, which is manifested in our ears through some *nimitta*, viz. the movement of the speech-organs, just as the subtle wind is manifested by the movement of a fan. Bhartṛhari does not accept these. He elaborates his own view as follows<sup>61</sup>:—Śabda becomes arthapratyāyaka only when it is manifested in the form of articulate speech by its own śakti. It is described as coming into contact with *prāṇa* and *buddhi* and possessing of a unique power by which its manifestation is effected in the form of many anitya śabdas—the articulate sounds. This theory is known as the *vivartavāda* in śabda, which is accepted by all monist Grammarians. It consists in the fact that the

54. 'yathaiva darśanaṭ pūrvaiḥ dūrāt santamasepi vā.  
anyathākṛtya viśayam anyathāivāddhyavasyati.  
Vyajyamāne tathā vākye vākyābhivaktihetubhiḥ.  
bhāgāvagraharūpeṇa pūrvam buddhiḥ pravartate..

Vākyapadiya. Kāṇḍa I. Verses 90 & 91.

55. 'Yathānupūrvīnyamo vikāre kṣīrabhījayoḥ.  
tathāiva pratipattīṇām niyato buddhiṣu kramaḥ.'

ibid. Verse 92.

56. Vākyapadiya. Kāṇḍa I. Verse 108.

57. ibid. Verses 109 & 110.

58. ibid. Verses 111 & 112.

59. ibid. Verses 113—116.

60. ibid. Verse 117.

61. ibid. Verse 118.

'tasya prāṇe ca yā śaktiḥ yā ca buddhau vyavasthitā.  
vivartamānā sthāneṣu saīśā bhedaṃ prapadyate.'

anitya śabdas are nothing but the seeming manifestations of the nitya śabda, which is both *Prāṇādhiṣṭhāna* and *buddhyadhiṣṭhāna* and this manifestation is further explained in comparison with the unreality of this world which is described by the monist philosophers as the seeming manifestation of the Brahman. This also explains satisfactorily the fact that the experiences of the properties of śabda—*katva*, *khatva*, etc.—are unreal on the ground that they are explained as the superimpositions of others' properties on śabda.

*Sabda as the Cause of the Universe and its Glorification by the Vedas as the only Reality.*

Thus the sonant substratum is the only reality on which the whole universe rests. It is the very cause of all phenomena, which, through the eye of śabda, perceive and are perceived by effecting in themselves a manifestation of their own *adhiṣṭhāna*—śabda. They are thus experienced in different forms of *nāma* and *rūpa*:<sup>62</sup> cf. "anena jīvenātmanā anupraviśya nāmarūpe vyākaravāni". Bhartṛhari says<sup>63</sup> that in the opinion of the Vedic Seers, the whole world is nothing but a transformation of śabda, since the Vedas themselves glorify the same—"vāgeva viśvā bhuvanāni jajñe, vāca it sarvam amṛtam yacca nityam." Even in *loka*<sup>64</sup> mankind including the new-born child is depending on śabda for *vyavahāra*. Śabda-monists even believe that there is no cognition without its expression—śabda and so the whole cognisable world is ever linked to śabda.<sup>65</sup> They believe in the theory—"Yad vartate tad vyapadeśyam; yad na vyapadiśyate tannāsti—What exists can be expressed and what cannot be expressed, never exists." So without language there can be no cognition. It is also said that cognition has got some linguistic aspect also, without which it loses its natural property of *self-illumination*—*svayamprakāśatva*.<sup>66</sup> In all human beings, knowledge never transcends śabda. It

62. Compare also—

'asti bhāti priyam rūpam nāma cetyamaṣaṇcācācam.  
ādyam trayam brahmarūpam, jagadrūpam tato dvayam.'

63. 'śabdasya parināmoyam ityāmnāyavido viduḥ.

chandobhya eva prathamametadviśvamajāyata'.

Vākyapadīya. Kāṇḍa I. Verse 121.

Vide also *ibid.* Verse 119.

64. *ibid.* Verse 123.

65. *ibid.* Verse 124. Compare also the śruti—"tadetat sarvam vācā tanyā nāma-bhiḥ dāma-bhiḥ sarvam sitam."

66. 'vāgrūpatā cedutkrāmedavabodhaaya śāsvatī  
na prakāśaḥ prakāśeta sū hi pratyavamarṣini'.

Vākyapadīya. Kāṇḍa I. Verse 125.

is therefore spoken of as the elixir of mankind.<sup>67</sup> In this context Hari says that even non-existing things seem to exist for a while through śabda, as in the instance of the illusory *alātacakra* (fiery circle).<sup>68</sup>

This śabda, the sonant substratum, is described in the Vedas as the inner soul in the form of an *ṛṣabha*—a divine bull.

"Catvāri śṛṅgā trayo asya pādā  
dve śirṣe sapta hastāso asya.  
Tridhā baddho vṛṣabho roravīti  
maho devo martyānāviveśa." <sup>69</sup>

It is this inner soul, viz. *vāk* or *śabda* which is known in the Vedas<sup>70</sup> and Smṛtis as possessing four aspects or stages—*parā*, *paśyanti*, *madhyamā* and *vaikhari*. The *parā* is situated in the *mūlādhāra*, the *paśyanti* in the *nābhi* (navel), the *madhyamā* in the heart and the *vaikhari* in the throat. Only the last—*vaikhari*—becomes audible to man. The *madhyamā* is sometimes spoken of as being experienced by the speaker. It is to understand these various stages of speech—the sonant substratum or the *śabda-brahman*—that mankind is now and then reminded of a systematic study of the *Vyākaraṇasāstra* and through that, the vedas which alone, as explained at the outset, give mankind true guidance especially on transcendental matters like the eternal duty—*Dharma* and the final liberation—*Mokṣa*.

67. Vākyapadīya. Kāṇḍa I. Verse 127.

68. 'atyantamatathābhūte nimitte śrutyapāśrayāt.  
dṛṣyatelātacakrādaḥ vastvākāranirūpanā'.

Vākyapadīya. Kāṇḍa I. Verse 131.

Compare Udayanācārya's remark in his 'Kusumāñjali'—'atyantāsatyapi hyartho jñānam śabdaḥ karoti hi'.

69. "api prayokturātmānam śabdamantaravasthitam.  
prāhurmahāntamṛṣabham yena sāyujyamiṣyate."

Vākyapadīya. Kāṇḍa I. Verse 132.

70. 'Catvāri vāk parimitā padāni  
tām vidurbrāhmaṇā ye maṇiṣiṇaḥ  
guhā trīṇi nihitā neṅgayanti  
turīyam vāco manuṣyā vadanti'.

Compare also—

'Vaikhariyā madhyamāyāśca paśyantiyāśca itadadbhutam.  
anekatirthabhedāyāḥ trayā vācaḥ param padam.'

Vākyapadīya. Kāṇḍa I. Verse 144.

ॐ शिवाभ्यां नमः

## The Trend of the Kathopanishad

By

R. S. VENKATARAMAN

(Annamalai University)

शङ्करस्सच्चिदानन्दस्फूर्तये ध्यान्तशान्तये ।  
नानटीति चिदाकाशे गृह्णाताद्वैतदिग्दिग्मः ॥

The inquisitive Naciketas, acting up to his father's words reached Yama's abode; the god was absent somewhere. On the third day, the God of Death returned home and to his discomfiture beheld the Brahmin guest waiting at his doors without food for 'three nights'. It was a sin to keep a guest for such a long time at one's doors uncared for. So to atone for it, Yama promised him three boons. As the first boon, Naciketas desired that his father should have 'saumanasya'; and as the second, he enquired Yama of the nature of 'svarga' and the means to attain that. Yama granted the second boon too and richly rewarded the boy for his precocity. There remained the third boon. Down the stream of world's intellectual history one can see the metaphysical problems playing a very prominent part and engaging the mightiest of brains. All thinkers agree only to differ. The Dehātma-vādin thinks that there is no soul apart from the body; survival of the soul after death and its sojourn in other worlds are nothing short of gibberish. Yet there are others who believe in the existence of the soul apart from the body. Inside this group itself, there is much dispute and difference of opinion regarding the exact nature of the soul. Situate in such a medley of views poles asunder, Naciketas wanted a definite answer from the most proper authority on the subject. Therefore Naciketas asked Yama to teach him what becomes of the soul after death by springing the question:

येयं प्रेते विचिकित्सा मनुष्ये  
अस्तीत्येके नायमस्तीति चैके ।  
एतद्विद्यां अनुशिष्टस्वयाहं  
वराणामेष वरस्तृतीयः ॥

Kaṭha, 1, II, 20.

येयं विचिकित्सा संशयः प्रेते मृते मनुष्ये, 'अस्तीत्येके' अस्ति शरीरेन्द्रियमनांषुद्विव्यतिरिक्तः देहान्तरसंबन्धात्मा इत्येके मन्वन्ते, 'नायमस्तीति चैके' नायमेवंविधोस्तीति चैके । अत्रचास्माकं न प्रत्यक्षेण नाप्यनुमानेन निर्णयविज्ञानम् । एतद्विज्ञानाधीनो हि परः पुरुषार्थः इत्यतः एतद्विद्यां विजानीयां अहं अनुशिष्टः ज्ञापितः त्वया । वराणामेष वरः तृतीयः अवशिष्टः ॥

Śaṅkara on Kaṭha, 1, I, 20.

Naciketas asked Yama about the soul. Yama, in lieu of answering the question directly, expatiated upon the extreme gravity of the subject matter of the question and tried to evade the student. For, if jīva-svarūpa was expounded, it would be tantamount to the exposition of Brahmasvarūpa. Such a knowledge should not be bestowed at random on a student whose mettle was not sufficiently tested. Yama, therefore held out to the boy attractive things like long life, large wealth and lovely women. The student on the otherhand was unmoved. The more the teacher tried to evade him, the more the student's inquisitiveness was intensified. Yama, now, was fully convinced of the sincerity and strength of will in his student and applauded him:

विद्याभीष्टिनं नचिकेतसं मन्ये  
न त्वा कामा बहवो लोलुपन्त ।

i, II, 4.

The student then explained the scope of 'येयं प्रेते' by asking:

अन्यत्र धर्मात् अन्यत्राधर्मात्  
अन्यत्रास्मात् कृताकृतात् ।  
अन्यत्र भूताश्च भव्याश्च  
यत्तत्पश्यसि तद्वद ॥

i, II, 14.

Yama was well pleased with the boy and began to answer the question. The true position here is as Śaṅkara explains it:

येयं प्रेते इत्यस्यैव प्रश्नस्य अनुकर्षणमेतत्—  
अन्यत्र धर्मादिति । यत्तु प्रश्नच्छायावैलक्षण्यमुक्तं,  
तद्वदुषणम्, तदीयस्यैव विशेषस्य पुनः  
पृच्छ्यमानत्वात् ।

on Brahmasūtra, 1, 4, 6.

We have seen how the last so-called two questions 'येयं प्रेते' and 'अन्यत्र धर्मात्' are but parts of a single question and the answers to these constitute a single boon. These are the very kernel of the Kathopanishad

and here we have the most eloquent exposition of the Ātman-Brahman identity.

For this reason, prominent exponents of Dualism like Rāmānuja and Madhva and their enthusiastic followers are obliged to read some other meaning into these important *ṛks*. They opine that the second question could not deal with jīva—because the question was irrelevant and that it must therefore pertain to Brahman.

‘येयं प्रेते’ इति न शरीरवियोगमात्राभिप्रायम्,  
किन्तु सर्वबन्धविनिर्मुक्ताभिप्रायम् ।

Śrībhāṣya on 1, 2, 12.

प्रेते मुक्ते मनुष्ये नियामकत्वेन भगवानस्तीति  
ज्ञानिनो वदन्ति, नास्तीति अज्ञानिनः ॥

Madhva on Kāṭha 1, I, 20.

They take their stand on the following argument. Naciketas could not in the least have harboured any doubt regarding the existence of the soul after death; this is evident from his controverting his father who gave away useless cows as sacrificial dakṣiṇā and his enquiring Yama of the nature of svarga and the means to attain that. This argument, as we shall presently show, lacks cogency. However well-read a man may be, his knowledge of the soul is bound to be secondary, if not tertiary, unless he has risen above the perceptual level. The perfect knowledge of the soul after death is therefore not easy of acquisition by one who merely believes and is interested in the Vedas:

नैवा तर्केण मतिरापनेया

प्रोक्तान्येनैव सुखानाय प्रेष्ट ॥

1, 11, 9.

Ātman-knowledge could be got only from the teacher who has realized Brahman. The knowledge thus gained is not secondary, inasmuch as the Guru is Himself Brahman. An implicit believer in the Vedas, Naciketas must have learnt from their eschatological portions of the existence of the soul after death. This knowledge of his was, however, merely bookish and hence secondary. Now he wanted to avail himself of this opportunity to verify his knowledge from the God of Death Himself. Thus it will be seen that there is every relevancy for such a question from Naciketas. If the secret of Death is solved, the secret of soul also is solved.

That this question pertains only to death is proved by Yama's own explicit statement:

मरणं मानुषाक्षीः ; यथा च मरणं प्राप्य आत्मा भवति गौतम. The two terms, मरण and मरण are synonyms. This primary meaning of the word प्रेते is sacrificed unnecessarily by the Dvaitin interpreter. Rightly therefore does Advaitānanda say under the sūtra 1, 4, 6. as follows:—

‘येयं प्रेते’ इत्यस्य न यथाश्रुतार्थता परित्यक्तुं शक्यते । ‘नचिकेतो मरणं मानुषाक्षीः’ ‘साम्पराये महति ब्रूहि नस्तत्’ ‘यथा च मरणं प्राप्य आत्मा भवति गौतम’ इति उत्तरसन्दर्भे एकरूपेण कीर्तितस्य यथाश्रुतार्थस्य त्यागायोगात्, देहातिरिक्तात्मज्ञानवतोऽपि नचिकेतसः तद्वाक्यार्थं पुनः प्रश्नोपपत्तेः ।

\* \* \* \*

In passing it may be mentioned that, the Dualists, *inter alia*, have given expression to certain untenable views. For instance, Rāmānuja thinks that the first question forming the second boon, relates primarily to Mokṣa and not to mere ‘svarga’:

स्वर्गशब्देन अत्र परमपुरुषार्थलक्षणः मोक्षोऽभिप्रेयते ।

तत्रस्थस्य च जन्ममरणाभावभ्रवणात् ॥

Śrībhāṣya 1, 4, 5.

According to Rāmānuja the primary meaning of the word ‘svarga’ has to be abandoned; while the *ṛks* quoted in support of his interpretation could well be taken as *arthavādas*. To say, therefore, that Śaṅkaras’ interpretation that ‘अमृतत्वं’ here means ‘आपेक्षिकं अमृतत्वं’ is wrong, smacks more of prejudice than of scholarship. In all the *apara-vidyā*-contexts Śaṅkara explains अमृतत्वं in the sense of comparative eternity. Throughout his writings Śaṅkara has been consistent to this principle. This boon, being of lesser knowledge—it has only अमृतत्वं as its fruit—could not have been other than comparative eternity. One can multiply instances in which epithets like ‘amara’ are used in things that are comparatively eternal:

अमरा निर्जरा देवाः त्रिदशा विद्वांसुराः । (Amarakośa)

अपामसोमं अमृता अभूम् । (Taittī. Brāhmaṇa III-ii, 5).

If the second boon relates to Mokṣa the second and ‘third’ questions constituting the third boon, would become superfluous and hence un-

necessary. Moreover, worship of Nāciketa Fire alone is not capable of securing ultimate release. Even Jñānakarmasamuccaya is not capable of ushering in Brahman-hood directly. So say the śruti texts like 'नास्त्यकृतः कृतेन' Hence Śaṅkara's rendering of अमृतत्वं as देवत्व is the only possible and tenable interpretation.

The argument that Naciketas could not have asked for mere 'svarga' because he later on spurned all impermanent things, does not carry weight. For, had he not asked for the still more impermanent mental appeasement of his father?

Again, some hold that the Upaniṣads which occupy a 'logical' position in the Vedic Literature and mark a definite advance on the Karma-kāṇḍa portions, should not and could not deal with the mere post-mortem existence of the soul; for, this is a *res judicata* therein as is evident by such injunctions as ज्योतिष्टोमेनस्वर्गकामोयजेत. Therefore Kāthopaniṣad could not deal with the existence of the soul after death. The above argument is the fissure of one's imagination. Even the Mimāṃsakas who worship the Karma-kāṇḍa portions of the Vedas, hold that the survival and existence of the soul apart from the body is proved only by the Vedānta.

Another highly curious statement given expression to by the critics of Śaṅkara is that Śaṅkara himself has interpreted the term प्रेत्य primarily in the sense of ultimate release; for instance in the case of 'नप्रेत्य संज्ञा अस्ति' in the Bṛhadāraṇyaka iv, 5, 13. The passage at issue is in the mokṣaprakaraṇa. Hence Śaṅkara, consistently with the context, interprets प्रेत्य as कार्यकरणसङ्घातेभ्यो विमुक्तस्य. If Anandagiri explains the term तन्नेति कैवल्यांक्तिः he simply gives the contextual meaning. To say on this ground that Śaṅkara allows the usage of the term प्रेत्य primarily in the sense of मोक्ष is beside the mark.

In support of his interpretation of Yeyam prete Pūrṇaprajña interprets another verse:

अस्य विस्त्रंसमानस्य शरीरस्थस्य देहिनः ।  
देहाद्विमुख्यमानस्य किमत्र परिशिष्यते ॥

Kāṭha, ii, II, 4.

Here are two epithets विस्त्रंसमानस्य and देहाद्विमुख्यमानस्य; the former refers to mere death and the latter to liberation, for, it is वि+मुख्यमानस्य if the latter too is taken to mean mere death, the text would

suffer from tautology! True; there is an element of tautology, if explanation is tautology. The term विस्त्रंसन means 'unloosening' and as such does not directly give the idea of 'death'. Hence an explanation of the term is necessary. It deserves to be noted that Pūrṇaprajña's interpretation is weak, for there is no 'āvadhikaraṇa' for 'visramsana'.

The Dvaitin finds Śaṅkara's explanation weak for one more reason: he speaks of textual inconsistency. If 'येयं प्रेते' and 'अन्यत्र धर्मात्' are taken as separate questions pertaining to jīva and Brahman respectively, textual inconsistency must arise; for the last question concerning Brahman "makes four questions in all and not three. But the Kāṭha itself clearly states that Naciketas asked for three boons and three alone." True; one must accept textual inconsistency if one confuses 'vara' and 'praśna'. One must clearly realize that here all 'varas' are not 'praśnas' while all 'praśnas' are 'varas'. The mental appeasement of Vājaśravas demanded by Naciketas and granted by Yama is not a 'praśna'; it is a boon without the slightest tinge of an interrogation. अग्निविद्या, 'येयं प्रेते' and 'अन्यत्र धर्मात्' are both 'varas' and 'praśnas'.

Again three principles of interpretation are found introduced of late. An attempt has been made to prove that 'येयं प्रेते' should be subordinate to 'अन्यत्र धर्मात्' on the basis of the relative merits of उपक्रम and उपसंहार. This kind of vicāra is generally found made only where the 'viśayas' are characterised by 'bheda' and 'virodha'. 'अभ्यहितं पूर्वम्' is another n्याय introduced in this context, and a good case is made out on this basis. It has only one weakness. This principle operates only in Vyākaraṇa Śāstra. Again the principle of समाख्या, well-known in the Mimāṃsā Dialectics and used by the dialecticians in the sense of 'यौगिकः शब्दः' is for the first time understood in the sense of 'parallel text'. The application of the well-known न्याय in contexts for which they are not intended cannot carry any conviction even to the modern student, much less to the student of traditional culture.

Pūrṇaprajña in support of his theory that 'येयं प्रेते' could not refer to mere death, props up a new problem 'Did Naciketas die?'; and he answers it in the affirmative. There is no explicit answer to this question in the Kāṭha, but a careful scrutiny of the available data tends to the opposite view. The Upaniṣad and the Nāciketopākhyāna of the Taittiriya-Bṛāhmaṇa explicitly imply that Naciketas never died. 'मृत्यवे त्वा ददामीत' is only an invective of an angry father, and as such it could not have any tangible effect leading to the actual death of his son, a mere boy. If Naciketas really died, he should have dropped down dead im-

mediately after the 'curse', if curse it may be called. But he never did so; he retired to solitude, took his own time, reflected upon his conduct and behaviour, finally got leave from his reluctant father, reached Yama's abode and waited at the doors for 'three nights'. If Naciketas really died, would his soul be allowed to go directly to Yama's residence itself and wait at the doors? Is there any parallel for such an incident in the whole realm of Hindu Mythology? Grant full latitude to the highly supposititious view that the soul of the boy reached Yama's residence within a few hours. Would Yama receive him, a polluted soul, for whom no funeral obsequies were performed? If Naciketas really died, why should he care for the mental appeasement of his father, who was no more father to him? If Naciketas really died and was without human body, why should Yama feel for the hunger of the boy? If food and drink were given to him by Yama, could they be of any use to the *preta* for which offerings should be made only by the nearest blood-relatives according to the strict *śāstraic vidhis*?

The above questions have to be answered before we accept the view that Naciketas died. On the otherhand there are evidences to show that Naciketas reached Yama's abode corporally intact. This was possible for Naciketas because of his implicit obedience to his father and of his unflinching Brahmacarya, even as Sāvitrī visualized Yama, followed him, and finally succeeded in regaining the life of her husband Satyavān, solely on account of her unparalleled chastity in thought, word and deed. 'पितरमेव जीवन्नयानीति' (Taitt Brāhmaṇa) clearly shows that the boy was with his body. Generally, he who goes to Death never returns to the earth in the same condition. Therefore Naciketas asked Yama not to kill him but allow him to go back alive. This view is supported by the great, perhaps the greatest, Vedic scholar Sāyaṇa: हे यम, त्वया अहं अमारितः जीवन्नेव पितरं मदीयं प्राप्नुयानि, सोऽयं प्रथमो वरः। Sāyaṇa, Taitti Brāhm. III, 1, 8. Again Sāyaṇa when commenting upon

नमस्ते अस्तु भगव इति होवाच वरं वृणीष्वेति ।

एतावता शास्त्रार्थरहस्याभिज्ञोऽयं कुमारः, न तु मूर्खः ।

तस्मात् सत्कारार्हः, न मारणीयः, इत्येवं निश्चित्य यं सत्कारं चकार ते दर्शयति ।

Lastly an attempt has been made to find support for Pūrṇaprajña's opinion in the epithet 'पुनर्मृत्यु' occurring in the Taittirīya Brāhmaṇa. Sāyaṇa too is quoted, his sentence being shorn of its context. पुनर्मृत्यु means Re-Death, and this proves the fact that Naciketas was with the human body in the presence of Yama. So does Sāyaṇa opine:

वर्तमानस्य मनुष्यशरीरस्य सकृन्मृत्युः अवश्यमासीत् । तदूर्ध्वं पुनरपि अर्वाचीनजन्मस्वीकारे सति पुनर्मृत्युः भवति । जन्मस्वीकारं विना मुक्तौ सत्या

सोऽयं पुनर्मृत्युरपक्षीपते। Sāyaṇa on Taitti. Brāhm. III, II, 8. Here 'पुनर्मृत्यु' does not refer to the *proximate death* of Naciketas, impliedly accepted by the Dvaitin. It simply means frequent death. Hence Bhaṭṭa Bhāṣkara explains the term as पुनः पुनः मृतिः । These quotations clearly show that the phrase पुनर्मृत्यु does not support the Dvaitin.

It will be seen from what has been said the arguments advanced to invalidate Śaṅkara's view do not count for much.

We have now said enough to prove that the objections raised against Śaṅkara's rendering येयं प्रेते are not valid. This means that Ātman-Brahman equation is the fundamental teaching of the Kāṭha Upaniṣad. It may not be uninteresting to devote a few words to this subject.

Ātman-Brahman identity is writ large in the very face of certain *ṛks* in the Kāṭha; the *jīva* is Brahman:

यदेवेह तदमुत्र यदमुत्र तदन्विह ।

मृत्योस्स मृत्युमाप्नोति य इह नानेव पश्यति ॥

ii, X, 24.

य एष सुप्तेषु जागर्ति कामं कामं पुरुषो निर्मिमाणः ।

तदेव शुक्रं तद्वत् तदेवामृतमुच्यते ॥

ii, V, 8.

It is generally accepted that 'svapna' and the like states are experienced by the *jīva*. In the above *ṛk*, it is unequivocally stated that he who experiences dream is Brahman. य एषः तदेव ब्रह्म ।

The Kāṭha like the other upaniṣads support *jīvanmukti* which constitutes the most the unique feature of Śaṅkara's philosophy. Liberation is becoming one with Brahman; and for this, the individual soul need not take wing and soar to a better world. Destruction of *avidyā* root and branch is all that is needed. 'न तस्य प्राणा उत्क्रामन्ति । अत्रैव समवलीयन्ते' ब्रह्मैव सन्ब्रह्माप्येति ॥ ..... विमुक्तश्च विमुच्यते ॥

Attaining Brahman-hood in this very life is the highest form of liberation and the only method advocated by the Upaniṣads.

यदा सर्वे प्रमुच्यन्ते कामा येस्य हृदि श्रिताः ।

अथ मर्त्योऽमृतो भवति एतावदनुशासनम् ॥

ii, VI, 15.

In conclusion it may be stated, that throughout the Upaniṣads in general Dualism is referred to only to be controverted so that it might serve as a set-off Non-Dualism. Not even a single instance can be cited in which Non-Dualism is deprecated. And truly does Śaṅkara opine that the Advaitins are 'aupaniṣadāḥ' while the others are mere 'aupaniṣadammanyāḥ'.

## A Rejoinder

By

B. N. KRISHNAMURTI SARMA

(Annamalai University)

With reference to Mr. Sastri's reply to my critique on Śaṅkara's rendering of 'येयं प्रेते...' I have to offer the following comments.

### I

I strictly maintain that Madhva's interpretation of the irate words of Vājaśravas: *मृत्यवे स्वा ददामि* is alone correct. Naciketas' insulting insolence was too much for his aged and irascible sire and he forthwith made him realise the terrible consequence of his ire. He said, 'To death I give thee'. The import is plain enough in unperiphrased terminology. The great anxiety of Naciketas himself to be recognised by his father as his own son on his return from Yama and the use of the term *प्रतीतः* in the *Upaniṣad* are not explained on any other view.

Mr. Sastri hesitates to accept the natural drift and plain sense of Vājaśravas' words and pleads that "the angry invective of the father could not have any tangible effect leading to the death of his son—a mere boy." Death unfortunately, is neither a respecter of Mr. Sastri's wishes in the matter nor of persons, age or sex! It is asked, "If Naciketas really died, why should he care for the mental appeasement of his father who was no more a father to him?" For the very simple reason that Naciketas wants to return to his parental abode and had no desire to continue in death! There is no use attempting to flabbergast Rāmānuja by asking, "If Naciketas could not have asked for mere Svarga because he later on spurned all impermanent things, why should he have asked for the still more impermanent *पितृलौकिकस्य*?' A question indeed, if one should forget that the impermanent fruits deprecated later on are the purely selfish ones of "long life, large wealth and lovely women"—to use Mr. Sastri's own expression, which are detrimental to Mokṣa (*मोक्षप्रतिबन्धक*). I do not see how Sāyana's comment on *पुनर्मृत्यु* would fail to support Madhva's interpretation of the third boon. Sāyana equates *पुनर्मृत्योरपक्षय* with Mokṣa and according to the *Taittiriya Brāhmaṇa* this is precisely the subject-matter of the third boon! How

then does it *not* support Madhva's interpretation of the third boon also in terms of Mokṣa? As for the clever turn of *पितरमेव जीवन्मयानि* into *पितरं जीवन्मेवायानि*, I prefer the plain trend of the text to Sāyana's *tour de force*. Even this need not disturb Madhva's interpretation:—

पूर्वं मृतोहमिदानीं जीवन्मेव पितरमयानि ॥

As most of Mr. Sastri's reasonings against Madhva's hypothesis are wholly specious, I do not feel called upon to answer them in detail; and in view of the narrow limit of four pages within which I am to compress my reply, I propose to address myself, in the following pages, to a consideration of two other points raised by him.

### II.

If Naciketas had not the least doubt in the matter of the Soul's post-mortem existence, as Mr. Sastri readily grants, there is no need for an absurd and flamboyant query. The terms in which Śaṅkara introduces Naciketas' query clearly imply that in the opinion of the Ācārya, Naciketas had his own doubts: *अत्र चास्माकं न प्रायश्चेन नाप्यनुमानेन निर्णयधि-ज्ञानं* and had not any complete conviction: *एतद्विज्ञानाधीनो हि परः पुरुषार्थः* which implies that Naciketas, for his part, had not that *विज्ञान*. Added to this, there was the *वादिप्रतिपत्ति* reflected in the terms *अस्तीत्येके नायमस्तीत्येके*. On these grounds is an enquiry sought to be justified by Śaṅkara. But then such a query must have preceded the boon about *अग्निविद्या* in order to avoid the absurdity of putting the cart before the horse! If a confirmation or a verification of his previous knowledge was all that blessed Naciketas wanted, he has had it already in 1-1-18 from Yama's own lips and there is no point in making him plague Yama with an absurd query again, immediately after that God stopped his harangue, in 1-1-20!! No doubt the author of the *Brahma-vidyābharana* and Appayya Dikṣita too, whom Mr. Sastri omits to mention, have attempted to prop up the tottering foundations of Śaṅkara's interpretation of *येयंप्रेते* by catching at a straw—the plea of verification. But it will not escape shrewd eyes that this clever camouflage is an obvious after-thought of the sensitive followers of Śaṅkara to save the situation by some stop-gap arrangement—which does not in the least, improve matters. Appayya Dikṣita himself, has only rejected Śaṅkara's rendering of *येयंप्रेते* in his *Sivārkaṇḍīpikā* which shows that

even in the opinion of this staunch admirer of Śaṅkara, the game is not worth the candle.

In the light of Madhva's unassailable position that Naciketas died before going to Yama, even the most slender foundations for the plea of verification are sapped.

The alleged overlapping in subject-matter between the second and third boons in Rāmānuja's interpretation is the merest figment of one's imagination. The *Śrībhāṣya* keeps the scope of these two boons distinctly apart. Such attempts to create internal confusion in Rāmānuja with a view to maintaining the adequacy of Śaṅkara's rendering of the third boon are simply disingenuous.

There is absolutely no disparity of context in the use of the terms *प्रेत्य* and *प्रेते* in the *Bṛhadāraṇyaka* and the *Kaṭha Upaniṣads*. It does not require very great ingenuity to show that *प्रेते* in the *Kaṭha* is also used in a *मोक्षप्रकरण*. For according to Śaṅkara himself, the second boon relates to mere Svarga. It is but quite natural then for Naciketas to have asked about *अपवर्ग* or *मोक्ष* which is the stage next to and immediately above *स्वर्ग* ! The sapient comment that an exposition of *जीवस्वरूप* is tantamount to an exposition of *ब्रह्मस्वरूप* is *nihil ad rem* to the point precisely at issue in *येयंप्रेते* according to Śaṅkara.

### III.

Śaṅkara attempts to find berth enough in the third boon for two questions one about the jīva and the other about the Paramātman with the beaucocratic intention of finding support for his Ātman-Brahman equation in the *Kaṭha*. But the presence of *पितृसौमनस्य* and its propriety in the eyes of the Sūtrakāra to be treated as a *प्रश्न* in order to discredit the Sāṃkhya—pūrvapakṣin saying that even *पितृ सौमनस्य* enjoys the status of a *प्रश्न* in the *Kaṭha* amongst the three boons of Naciketas but not the blessed Pradhāna of the Sāṃkhya, are great stumbling blocks in the way of Śaṅkara's carrying out this object smoothly. Śaṅkara has therefore been obliged to reject *पितृसौमनस्य* as of no account in the refutation of the Sāṃkhya Pūrvapakṣin. But his attitude has really heightened the numerical contradiction with the wording of the Sūtra in another direction when he brackets *येयं प्रेते*

and *अन्यत्र धर्मात्* as constituting one *प्रश्न*; for, in this case, there is a shortage of one *प्रश्न* ultimately!

One can very well see that the admission of *पितृसौमनस्य* as a *प्रश्न* would land Śaṅkara in a numerical contradiction with the wording of the Sūtra; for, in his opinion, *अग्नि*, *जीव* and *परमात्मा* are the three topics noticed by the *Kaṭha* while with the addition of *पितृसौमनस्य* there will be four *प्रश्न*s and not three as understood by the Sūtrakāra. It is his desire to fit in his Ātman-Brahman equation with the *Kaṭha* that is responsible for his rejection of the status of a *प्रश्न* in the case of *पितृसौमनस्य*. But Śaṅkara's necessity is no reason for us. For, so far as the *Kaṭha Upaniṣad* and the *Sūtras* are concerned, there seems to be no distinction between a *वर* and a *प्रश्न*. The Upaniṣad speaks of three *वर*s and the Sūtrakāra refers to three *प्रश्न*s. Linguistic harmonisation and textual attunement of the Sūtras with the Upaniṣad require the equation of the two.

The tinge of interrogation by which Mr. Sastri swears is neither a very necessary and invariable concomitant of a *प्रश्न* in the eyes of the Sūtrakāra; nor yet, totally indiscernible in the text concerning *पितृसौमनस्य*. I challenge Mr. Sastri to show the slightest tinge of interrogation in *येयंप्रेते विधिकिंसा*... which is a plain and obsequious request undiluted by the slightest tinge of interrogation. And yet, he has no objection to dubbing it a *प्रश्न* ! Why then, does he withdraw the favor in the case of *शान्तसंकल्पः* etc? I am constrained to observe that Mr. Sastri is very much mistaken in his opinion that the text relating to *पितृसौमनस्य* is "devoid of the slightest tinge of interrogation." Let Mr. Sastri try to read *शान्तसंकल्पः* etc., with a tinge of interrogation and see the upshot! I wonder what earthly power can prevent our reading the text *शान्तसंकल्पः* with a tinge of interrogation:— 'हे मृत्यो, गौतमः मामभि यथा (पूर्वं) शान्तसंकल्पः सुमना धीतमन्युश्च स्यात्? त्वत्संप्रसृष्टं मामभिवदेत्?'

*पितृसौमनस्य* must, therefore, be wilfully recognised as a *प्रश्न*. If this is done, a numerical contradiction with the wording of the Sūtra in the light of Śaṅkara's own interpretation of it is inevitable. It is to avoid this contradiction that Śaṅkara brings forward his Ātman-Brahman equation. But the explanation is unsatisfactory because (1)

in the absence of any recognition of the status of a प्रश्न for पितृसौमनस्य the Atman-Brahman equation will not remove a contradiction in numbers which would not arise'; (2) the soundness of the Atman-Brahman equation is itself questionable and it is doubtful whether the Sūtrakāra has any support to give to it; and (3) because the use of the theory of unreal difference कल्पितभेद to escape certain difficulties cannot be permitted when better explanations of the contradiction are forthcoming. Śaṅkara himself proclaims elsewhere: भगवत्काहीयं गतिः यत्कार्त्तिकभेदाभ्ययणम् and in the light of this his own dictum, there would be no need to press into service the theory of unreal difference to set right the numerical contradiction (सूत्रं त्वविद्याकिरूपत जीवप्राज्ञभेदापेक्षया योजयितव्यं 1, 4, 6). It cannot, for a moment, be argued that no better explanation is possible. Such an explanation is furnished by (1) agreeing to treat पितृसौमनस्य as one प्रश्न for obvious reasons; (2) dismissing the जीव and the question of the soul's post-mortem existence from the conno-denotative sphere of येयं प्रेते and (3) interpreting that text in the same sense and scope as अन्यत्र धर्मात्.

The whole trouble arises only when येयं प्रेते is invested with a sense and scope not wholly identical with that of अन्यत्र धर्मात्. The only rational solution of the difficulty would lie in sacrificing the surface interpretation of येयं प्रेते and re-interpreting it the same sense and scope as अन्यत्र० in the light of the principle of उपसंहारविजय which, I reiterate, has a right to be employed in such cases, as well as of अन्यर्हितं पूर्वं which, I must enlighten Mr. Sastri, is not confined to Grammar.<sup>2</sup>

1. It is not clear why Śaṅkara should at all have pleaded guilty to a charge of numerical contradiction and taken the trouble of most unsatisfactorily exculpating himself when, on his view, there are 3 pucca prāśnas about अग्नि, जीव and परमात्मा and dismissing पितृसौमनस्य as a mere वर there would seem to be no contradiction at all. Why then does he create a ghost?

2. That the principle of अन्यर्हितं पूर्वं has a much wider application than Mr. Sastri is aware of could be easily demonstrated from the following extract from a very elementary book—Third Handful of Popular Maxims—by Col. A. Jacob, p. 15, N. Sagar 1911. ".....अन्यर्हितं पूर्वं....." Its use is not restricted to Grammar however, as the following extracts from the first paragraph of Śāyana's introduction to his comm. on the Rīg Veda show: अन्वेदस्य प्राधान्येन.....मुक्तं. Again, at the commencement of

Any other explanation would only worsen the contradiction. To say that Naciketas managed to put two questions under cover of the third boon is to make Naciketas a cheat and Yama the dupe. There seems to be some confusion of thought about the three boons. The three boons simply mean that Yama granted Naciketas three opportunities to ask for three things that he wanted. Now, at the time of asking येयं प्रेते, Naciketas exhausts his third and last chance and stands debarred from opening his lips a fourth time to ask for the Transcendental aspect of the Self in अन्यत्र धर्मात्. Not even the cleverest jugglery could enable Naciketas to eat his cake and yet have it! He may choose all the three boons in the form of mere boons or of प्रश्न or of both or in any other combination; but he certainly, cannot have one boon and three questions! Yama has not given him any *carte blanche* to smuggle additional questions under one boon. It matters very little whether the 'extra' question be one or many.

Mr. Sastri tries to save Śaṅkara by declaring that येयं प्रेते and अन्यत्र धर्मात् constitute but one question. Certainly they do form one question even according to Rāmānuja and Madhva. But the point is that one cannot stick to the surface interpretation of both येयं प्रेते and अन्यत्र धर्मात् and yet establish their identity as one question. The plea that they are parts of one question is futile because, as already pointed out, Naciketas has exhausted his third and last chance at the time of asking येयं प्रेते and he must, therefore, willynilly rest content with the first part of his momentous query! Neither does he give the impression of येयं प्रेते being the first and preliminary part of a bigger question. His words: वराणामेष वरस्तृतीयः show that that subject is, in his opinion, complete and self-contained—that he has asked all that he wants to know about the Ātman. Or, if Naciketas had been cleverer, he should have asked for instruction on both the aspects of the Self in the same breath. The fact that he did not, shows that no two questions are allowed under one boon by Yama.

XII Chapter of Jaininiyanyāyāmlā Vistara, we read as follows: अन्यर्हितं पूर्वमिति न्यायमाहितम्..... " And in Anandagiri on Śaṅkara Bhāṣya 1, 4, 28. नकेवलमस्यान्यर्हितत्वात् प्राधान्यं । स्मृतिमुक्त्वादर्शित्वात्—॥

The whole contradiction thus arises by Śaṅkara's sticking to the surface interpretation of *येयं प्रेत*. Admitting *पितृसौमनस्य* as one *प्रश्न*, Śaṅkara could easily get over the contradiction if only he would agree to abandon the surface interpretation of *येयं प्रेत* and then declare that *येयं प्रेत* and *अन्यत्र धर्मात्* constitute one question as Rāmānuja and Madhva have done. But he is not prepared for this.<sup>3</sup> In vain does he attempt to serve two masters—the language of the *Sūtrakāra* and his own dire passion to fit in the *Ātman-Brahman* equation with the body-politic of the *Kaṭha Upaniṣad*; and he hopes to carry out his purpose by interpreting *येयं प्रेत* in terms of the *Jiva* and his post-mortem existence. But such a feat cannot simply succeed.

Mr. Sastri's statement that "Naciketas explained the scope of *येयं प्रेत* by asking *अन्यत्र धर्मात्*" is a complete misconstruction of Śaṅkara. The latter is perfectly clear that the scope of the two texts is not identical. The one refers admittedly to the *व्यावहारिकदशा* and concerns the mere Survival or otherwise of the soul after death; while *अन्यत्र धर्मात्* refers to the transcendental nature of the *Ātman* in the *पारमार्थिकावस्था*. The two are as poles asunder in scope. Śaṅkara very clearly admits that the scope of the two questions is different—that the one does not and is not intended to explain the other; *पूर्वतु देहातिरिक्तस्यात्मनोऽस्तित्वं पृष्टं । उत्तरत्र तु तस्यैव असंसारित्वं पृच्छयत इति॥* Thus, the scope of the two topics is not identical even though the subject of treatment is the same (*ātman*). The two texts cannot be treated as constituting one question and the latter as explaining the former, unless they are presumed to be identical in scope, meaning and subject. There is no use of an *अर्धजरतीय*. As it is, Śaṅkara grants only identity of the subject of enquiry—the *Ātman* in both the cases—but is not prepared to grant identity of scope and meaning.

And unless this is done, it would be impossible to rid Śaṅkara of a flat numerical contradiction of his own making with the *Sūtrakāra*. It is up to any sensible Śāṅkarite to take this bold step or perish in the entire transaction.

3. For, as a shrew commentator on the *Sūtras*, Śaṅkara sees in *येयं प्रेत* a capital chance to fit in his pet theory of *जीवैरस्य* with the body-politic of the *Kaṭha*. Hence his anxiety to interpret that text in terms of an embodied aspect of the self despite serious obstacles, illogicalities and contradictions in his way.

Śri Mukundamālā  
with  
Tātparyadīpikā  
of  
Rāghavānanda

—K. R. Pisharoti.

ननु न द्विजैर्नामसंकोर्तनमेव कार्यम् ।

“ स्वे स्वे कर्मण्यभिरतः संसिद्धिं लभते नरः । ”

इति स्मरणात् । स्वाध्यायाध्ययनयज्ञादीनामवश्यानुष्ठेयत्वाद्विपर्यये दोषश्रवणाच्च ।

“ येषां तु कालयुक्तोऽसौ पापविन्दुर्महामुने ! ।

चेतस्सु वष्टुषु चक्रुस्ते न यज्ञेषु मानसम् ॥

वेदवादांस्तथा देवान् यज्ञकर्मादिकञ्च यत् ।

तत्सर्वं निन्दमानास्ते यज्ञव्यासेधकारिणः ॥

प्रवृत्तिधर्मव्युच्छित्तिकारिणो वेदनिन्दकाः ।

दुरात्मानो दुराचाराः बभूवुः कुटिलाशयाः ॥

तामिस्रमन्धतामिस्रं महारौरवरौरवौ ।

असिपत्रवनं घोरं कालसूत्रमवीचिमत् ॥

विनिन्दकानां वेदस्य यज्ञव्यासेधकारिणाम् ।

स्थानमेतत्समारूढातं स्वधर्मत्यागिनश्च ये ॥ ”

इति । तामिमामाशङ्कामपाकुर्वन्नाह—

आम्नायाभ्यसनान्यरण्यरुदितं वेदव्रतान्यन्वहं

मेदच्छेदफलानि पूर्तविधयस्सर्वे हुतं भस्मानि ।

तीर्थानामवगाहनानि च गजस्नानं विना यत्पद-

द्वन्ब्राम्भोरुहसंस्मृतिं विजयते देवस्स नारायणः ॥ १८ ॥

आम्नायेति । यत्पदद्वन्ब्राम्भोरुहसंस्मृतिं यस्य पादाम्भोजद्वन्द्वसंस्मृतिं विनाऽन्वहं क्रियमाणान्याम्नायाभ्यसनादीनि निष्फलानि स देवः स्वप्रकाशचिदात्मा विश्वसर्गादिक्रीडाकरो वा नारायणा विजयते सर्वस्योपरि वर्तते । अरण्यरुदितं मृगपक्ष्यादिस्तकल्पानि

भवन्ति । वेदव्रतानि वेदादितानि व्रतानि कृच्छ्रचान्द्रायणादीनि वेदच्छेदफलानि शरीरपरिशेषणमात्रहेतूनि पूर्तं कृपारामप्रपादिकरणं विधयो यागादिक्रियाः पूर्तानि च विधयश्च पूर्तविधयः, तीर्थानां गङ्गादीनां मीमांसादीनां वा अवगाहनानि ज्ञानानि श्रवणानि वा गजज्ञानं भवति । चकारोऽन्योन्यसमुच्चये । तदुक्तम्—

धर्मस्त्वनुष्ठितः पुंसां विष्वक्सेनकथासु यः ।  
नोत्पादयेद्यदि रतिं श्रम एव हि केवलम् ॥  
प्रायश्चित्तान्यनेकानि तपःकर्मात्मकानि वै ।  
यानि तेषामशेषाणां कृष्णानुस्मरणं परम् ॥  
दानव्रततपोहोमजपस्वाध्यायसंयमैः ।  
श्रेयोविधिभिरन्यैश्च कृष्णे भक्तिर्हि साध्यते ॥  
वासुदेवमना यस्तु जपहोमार्चनादिषु ।  
तस्यान्तरं यो मैत्रेय देवेन्द्रत्वादिकं फलम् ॥ ”

इति । जपहोमार्चनादिषु निमित्तेषु यो वासुदेवमना इति सम्बन्धः । श्रुतिश्च—

“ तमेतं वेदानुवचनेन ब्राह्मणा विविद्वन्ति यज्ञेन दानेन तपसाऽनाशकेन ”  
इति । तस्माद्यावत् भगवच्छरितश्रवणकोर्तनादिरुचिर्न जायते तावदेव स्वाध्याययज्ञतपांस्स-  
नुष्ठेयानि । तथाच पुराणोपनिषत्—

“ तावत् कर्माणि कुर्वीत न निर्विद्येत यत्नता ।  
मत्कथाश्रवणादौ वा श्रद्धा यावन्न जायते ॥ ”

इति । श्रुतिश्च—

“ यदहरेव विरजेतदहरेव प्रमजेत् ” इति ।

तद्व्याविर्भावे भगवच्छरितश्रवणादिकमेव कार्यमिति युक्तमुक्तं नामानि  
प्रावर्तयेति ॥ १८ ॥

परस्तात्परं तत्त्वं ब्रुवाणानीत्युक्तम् । तत्र नारायणात्पृथक् सेशस्य चेतनाचेतन-  
प्रपञ्चस्य कार्यकारणात्मनस्तत्त्वान्तररूपस्य सद्भाव उपेयः, स चानुपपन्नः, ‘ अमेयमेकम-  
मृत ’ मिति पुरोक्ते श्रुतिविरोधाच्च । अत आयुष्मतो मतमविश्वास्यं वर्तते इत्याह—

पृथ्वी रेणुरणुः, पयांसि कणिका फल्गुः, स्फुलिङ्गो लघु-  
स्तेजो, निश्चसनं मरुत्तनुतरं, रन्ध्रं सुद्वर्क्षं नभः ।  
क्षुद्रा रुद्रपितामहप्रभृतयः कीटास्समस्तास्सुरा  
दृष्टे यत्र स तावको विजयते भूमाऽवधूतावधिः ॥ १९ ॥

पृथ्वीति । नारायणस्य वक्ष्यमाणरूपस्तावत्तत्त्वं निजं रूपं भूमा अनवच्छिन्न  
आनन्दः, “ यो वै भूमा तत् सुख ” मिति श्रुतेः, विजयते द्वैतसर्वस्वं  
निरस्य प्रकाशते, कुतः सोपादानस्य द्वैतजातस्य तस्मिन् तत्त्वेन ततः  
पृथक् सत्त्वाभावादित्याह—यत्र यस्मिन् भूमि दृष्टे वेदान्तमहावाक्यप्रामाण्यादा  
तत्त्वेन साक्षात्कृते सति तदज्ञानलक्षणस्य मूलकारणस्यान्तरङ्गत्वात् पञ्चाशत्को-  
टियोजनप्रमाणब्रह्माण्डशरीरिणी पृथ्वी अणुरत्यन्तसूक्ष्मो रणुः परमाणुवददर्शनं गता  
प्रतिभासमात्राकारा वा भवति ; विदुषोपि प्रारब्धकर्मक्षयावधि देहदैहिकप्रपञ्चमतिभासात्,  
अन्यथा जीवन्मुक्तिश्रुतिविरोधात्, तत्त्वज्ञस्य गुरोर्भावेन ब्रह्मविद्यासंप्रदायानुदयप्रसङ्गाच्च ।  
न च शिष्याविद्यापरिकल्पितो गुरुः स्वापसिंहादिवत्तत्त्वं प्रकाशयतीति युक्तम् । ब्रह्मभूयं  
गतत्वे सति जीवित एव कल्पनीयत्वात् गुरुत्ववच्छिद्यत्वस्यास्यात्मनि कल्पितत्वाविशेषाच्च ।  
अतो व्यवहारे शिष्यस्येव गुरोरपि तत्त्वज्ञस्य सद्भाव एष्टव्य इति पृथ्वीरेणुरणुरित्युक्तम्,  
न पुनः पृथ्वी नष्टवपुरिति । एवं सर्वत्र । तथा ततो दशगुणोत्तरवृद्धानि तत्कारणानि  
पयांसि एकार्णवोदकाख्यानि फल्गुकणिकादीनि सूक्ष्मोऽम्बुकणो भवति । तथा तत

दशगुणोत्तरवृद्धन्तस्य महाजलस्यावरणतया स्थितं तत्कारणं तज्जो लघुस्फुलिङ्गो भवति । तथा ततो दशगुणोत्तरवृद्धस्तदावरणत्वेनावस्थितस्तत्कारणं मरुत्तनुतरं निश्चसनमतिमृक्ष-  
पुत्तिकादि निश्चसितकल्पं भवति । तथा ततो दशगुणोत्तरवृद्धं तदावरणत्वेन स्थितं तत्कारणं नमः सुसूक्ष्मं रन्ध्रं पिपीलिकादिश्रोत्रनेत्रसुषिरोपमं भवति । एवमचेतनप्रपञ्चस्य पृथक्सत्वं प्रतिषिध्य चेतनप्रपञ्चस्यापि तन्निषिध्यति— क्षुद्रा रुद्रपितामहप्रभृतयः कीटास्समस्ता-  
स्सुरा इति । रुद्रपितामहमहेन्द्रमिहिराद्यास्समस्तास्सुरा अपि क्षुद्राः कीटायूकमक्कुणादि-  
सदृशा भवन्ति, अमुरनरकिन्नरादयः किमुत ? । यद्वा—रुद्रपितामहेति पृथिव्याद्यधिदेवता-  
ग्रहणम् ; ब्रह्मविष्णुरुद्रेधरसदाशिवा इत्यर्थः । यथाहुः—

“ मुक्तामुक्तौ विद्वदज्ञौ त्वदन्यावाकाशादिक्षमावसानञ्च विश्वम् ।  
स्वाविद्योत्थस्वान्तनिष्पन्दनं तद्विज्ञातव्यं मा ग्रहीरन्यथेतत् ॥ ”

इति । यत्र दृष्टे पृथ्वीरेणुरणुरित्यादि वदता तदवज्ञानविलासत्वं जगज्जीव-  
श्चरत्मकस्य द्वैतस्य व्यञ्जितं, यतो ज्ञानमज्ञानस्यैव निवर्तकं भवति । तथाचोक्तं भगवता—

“ प्रकृतिं स्वामवष्टभ्य विसृजामि पुनः पुनः ।  
भूतप्राणमिमं कृत्स्नमवशं प्रकृतेर्वशात् ॥ ”

इति । ननु प्रमाणप्रतिपक्षस्य चैतन्यप्रतिषेधे ब्रह्मणो विप्रतिषेध इत्यत उक्तं—  
अवधूतावधिरिति । अवधूतो निरस्तोऽवधिर्विनाशव्याप्तः कालो यस्य सः, तथा सर्वनिषे-  
धसाक्षित्वेन चिदात्मनः परिशिष्टत्वाद्विपर्यये साक्षिकत्वेन सर्वनिषेधासिद्धेऽर्थः । यत्पुनः  
प्रमाणप्रतिपक्षत्वाविशेषात् ब्रह्मणोऽपि निषेध इति, तदसत् ; द्वैतस्यावस्तुत्ववादिनं प्रति  
तद्विषयाणां प्रत्यक्षादीनां प्रमाणत्वकथनानौचित्यात्, स्वप्रकाशस्य ब्रह्मणः प्रमाणमनपे-  
क्ष्यैव सिद्धत्वाच्च । यथाहुः—

देहात्मप्रत्ययो यद्वत् प्रमाणत्वेन कल्पितः ।

लौकिकं तद्वदेवेदं प्रमाणं त्वाऽऽत्मनिश्चयात् ॥

इति । विश्ववैचित्र्यविचित्रस्य समभित्तिलोपमे विरुद्धाभावसमस्पर्शे परमार्थ-  
सतीश्वरे प्रमातरि पुराणे तु सर्वदाभाततद्विग्रहे किं प्रमाणं नवाभाससर्वप्रमितिभागिनीति  
च । यद्वा परस्तात्परं तत्त्वं ‘ नारायण ’ इत्येतदुपपादयन्नाह—पृथ्वीति । स तावको  
भूमा स्वरूपभूत आनन्दो विजयते सर्वातिशायी भवति । तत्र हेतुः अवधूतावधिरिति ।  
परममहानित्यर्थः । कुत एतन्निश्चितमित्याकाङ्क्षायां मानुषानन्दादारभ्य ब्रह्मान्तानामु-  
त्तरोत्तरशतगुणप्रमाणानामानन्दानां ब्रह्मानन्दाब्धिशीकरमात्रशरीरत्वादित्याह—पृथ्वी  
अखण्डभूमण्डलाधिपत्यसुखं, अणुरेणुरत्यल्पप्रमाणं यत्र दृष्टे भवति तस्य परिच्छिन्नत्वा-  
दस्य सुखस्य परिच्छिन्नत्वाच्च । एवं सर्वत्र पयांसि जलेशवदसुखं तेजस्सूर्याग्नीन्दुवदसुखं  
मरुद्वायुवदसुखं नमस्खर्ल्लोकाधिपत्यसुखं रुद्रपितामहप्रभृतिसमस्तास्सुरा ब्रह्मविष्णु-  
रुद्रेधरसदाशिववदसुखानि क्षुद्राः कीटा अत्यल्पकृमिसुखतुल्यानि । तथा च श्रुतिः—

“ एषोऽस्य परम आनन्दः, एतस्यैवानन्दस्या-  
न्यानि भूतानि मात्रामुपजीवन्ति ” ।

इति । उत्तरोत्तरमहत्त्वोपेतस्य सार्वभौमादिसदाशिवान्तपदसुखस्य युदपेक्षय [?] कृमि-  
तुल्यप्रमाणततस्यास्य नारायणपदसुखस्य परममहत्त्वे किन्नाम विचारणीयमित्यर्थः । तथा च  
श्रुतिः—

“ नते विष्णो जायमानो न जातो देव महिम्नः परं तमापे ” ति ॥

यद्वा—स तावको भूमा सदानन्दचिद्धनं विजयते सर्वोपरिष्ठाद्वर्तते । तत्र हेतुः  
अवधूतावधिरिति । देशकालवस्तुपरिच्छेदरहित इत्यर्थः । तदपि कुत इत्यपेक्षायामुक्तं—

पृथ्वीत्यादि । दृष्टे साक्षादीक्षिते यत्र भूमि पृथ्वी ब्रह्माण्डरूपाऽणू रेणुरेव काचित्परि-  
दृश्येत । स्वयं तत्सर्वभूतत्वात्, कारणात् कार्यस्य न्यूनपरिमाणत्वाच्च । ननु कारणोदक-  
संभूतत्वं तस्या इत्यत उक्तं—पर्यासि कणिका फल्गुरिति । यत्रेत्यनुषङ्गः । पयसामपि  
नेजोजन्यत्वमित्यत उक्तं—स्फुलिङ्गो लघुस्तेज इति । तस्या महावातोत्थत्वमित्यत उक्तं—  
निश्चसनं मरुत्तनुतरमिति । सोऽयमाकाशोत्थ एवेत्यत उक्तं—सुखक्ष्मं रन्ध्रं नभ इति ।  
अस्त्वेवं भोम्यस्याचेतनप्रपञ्चस्य नारायणमहिमोपबृंहितत्वं, चेतनप्रपञ्चस्य तदुत्थत्वभा-  
स्तीति न सर्वव्यापकतेत्यत उक्तं—रुद्रपितामहप्रभृतयः ब्रह्मरद्रेन्द्रादयस्समस्तास्सुरा  
अपि भोजयितारो, यत्र क्षुद्राः कीटा उदुंबरफलादिगतमशकाभासा इव भान्तीति, किमुत  
सुखदुःखभोक्तारो नरादय इति शेषः । तथा चैतरेयोपनिषदि—“यमाञ्चेति वयमुपास्महे  
कतरस्स आत्मा, येन वा पश्यति, येन वा शृणोति, येन वा गन्धानाजिघ्रसि येन वाचं व्या-  
करोति, येन वा स्वादु चास्वादु च विजानाती” त्यारभ्योपदिष्टं—“एष ब्रह्मैष इन्द्र एष  
प्रजापतिरेते सर्वे देवा इमानि च पञ्चमहाभूतानि पृथिवी वायुराकाश आपो ज्योतीषी-  
त्येतानि इमानि च क्षुद्रमिश्राणीव बोजानीतराणि चैतराणि चाण्डजानि च जरायुजानि च  
स्वेदजानि चोद्भिज्जानि चे’ति । गीतायाञ्च—

न मे विदुस्सुरगणाः प्राभवन्न महर्षयः ।

अहमादिर्हि देवानां महर्षीणाञ्च सर्वशः ॥

इति । पुराणोपनिषदि च ब्रह्मस्तुतौः ?

काहन्तमोमहदहं स्वचराभिर्बाभूंसवेष्टिताण्डघटसप्तवितस्तिकायः

केदृग्भिधा विगणिताण्डपराणुचर्यावाताध्वरोमविवरस्य च ते महित्वम् ॥”

इति । तदेव किञ्चिदानन्दमहोदधेर्ब्रह्मणस्तरङ्गान्ति जगदीश्वरा ब्रह्मरूपपुरन्दरा-  
दयश्च शीकरनिकरन्ति ईशितव्यास्सुरनरतिर्यगादयः फेनन्ति महदादिमहीपर्यन्तानि  
तत्त्वानि बुद्बुदनिकुरुन्ति ब्रह्माण्डानीति सिद्धं तस्यानन्त्यम् ॥ १९ ॥

यतोऽपर्यन्तमहिमा भगवान्, अतः श्रेयोऽर्थिभिस्तद्भक्तिरेव कार्येति व्यतिरेक-  
मुखेनाह ।

मा द्राक्षं क्षीणपुण्यान्क्षणमपि भवतो भक्तिहीनान् पदाब्जे

मा श्रौषं श्राव्यबन्धं तव चरितमपास्यान्यदाख्यानजातम् ।

मा स्प्राभं माधव ! त्वामपि भुवनपते ! चेतसाऽप्यनुवानान्

मा भूर्ब त्वत्सपर्याव्यतिकररहितो जन्मजन्मान्तरेऽपि ॥ २० ॥

मा द्राक्षामिति । मा रमा ब्रह्मविद्या वा तस्या धवो भर्ता आलम्बनं वा माधवः ।  
हे माधव ! जन्मजन्मान्तरेपि अस्मिन्नन्मनि जन्मान्तरेष्वपि भवतः पदाब्जे भक्तिही-  
नान् क्षणमपि मा द्राक्षम् । माङ्गयोगादडागमाभावः । तत्र हेतुः—क्षीणपुण्यानिति ।  
सत्कर्मकदम्बकस्य कृष्णचरणासक्तिमात्रफलत्वात्तदभावे नित्यदुष्कृतित्वानुमानादित्यर्थः ।  
तदुक्तम्—

“मुखबाहूरुपादेभ्यः पुरुषस्याश्रमैस्सह ।

चत्वारो जज्ञिरे वर्णाः गुणैर्विप्रादयः पृथक् ॥

य एषां पुरुषं साक्षादात्मप्रभवमीश्वरम् ।

न भजन्त्यवजानन्तः स्थानप्रज्ञाः पतन्त्यधः ॥”

इति ॥ जन्मजन्मान्तरेऽपि क्षणमपीति चानुषज्यते । तव चरितं माहात्म्यमपा-  
स्यान्यदाख्यानजातं श्राव्यबन्धं शब्दार्थचित्रमपि मा श्रौषम् ।

“न यद्वचश्चित्रपदं हरैर्यशो जगन्पवित्रं प्रगृणीत कर्हिचित् ।

तद्वायसे तीर्थमुशन्ति मानसान् यत्र हंसाः निरमन्युशिक्षया ॥”

इति श्रवणात् । त्वामप्यनुवानान् न्यक्कुर्वाणान् शुभाशुभरूपं कर्मैव देहिनां सुख-

दुःखविधायकं, किमत्र कृत्यमीश्वरेणेत्यादि भाषमाणान् चेतसापि मा स्म्राक्षम्, पाण्यादिना किं पुनः पादसंवाहनादिषु । तथाच श्रुतिः—

“ असन्नेव स भवत्यसत् ब्रह्मेति वेद चे ” इति ।

“ अन्धं तमःप्रविशन्ति ; ये के चात्महनो जनाः ” ।

इति च । अनुगृहीतञ्चार्जुनगुरुणा—

“ प्रवृत्तिश्च निवृत्तिश्च जना न विदुरासुराः ।

न शौचमापि चाचारो न सत्यं तेषु विष्यते ॥

असत्यमप्रतिष्ठं ते जगदाहुरनीश्वरम् ।

अपरस्परसम्भूतं किमन्यत्कामहेतुकम् ॥

एतां दृष्टिमबुद्ध्या नष्टात्मानोऽल्पबुद्धयः ।

प्रमदन्त्युग्रकर्माणः क्षयाय जगतोऽहिताः ॥ ”

इत्युक्तत्वात् । त्वत्सपर्याव्यतिकररहितः तव सपर्यया व्यतिकरस्सम्बन्धस्तेन रहितो मा भूयम् ।

“ तव परि ये चरन्त्यखिलसत्त्वनिक्केतया ।

उत पदा स्पृशन्त्यविगण्य शिरो निर्झनेः ।

परि वयसे पशूनिव गिरा विबुधानपि तां- ।

स्त्वयि दृढसौहृदा खलु पुनन्ति न ये विमुखाः । ”

इति श्रुतिगीतादर्शनात् । भूषणपते इति सम्बोधनान्तरेण सद्भावनिश्चययुक्तिरुक्ता । नियन्तुः कस्यचिदचिन्त्यमहिम्नोऽभावे नेदं नियतरूपं विश्वं परिदृश्येतेति । श्रुतिश्च—  
“ एतस्य वा अक्षरस्य प्रशासने गार्गी ! सूर्याचन्द्रमसौ विधृतौ तिष्ठत ” इति । न च

माधवेत्यस्यानर्थक्यं, भजनीयत्वयुक्तिपरत्वात् परमेश्वरस्य विद्वदनुभवसिद्धत्वेनानपन्हव-  
नोयत्वसाधनाच्च ॥ २० ॥

एवं व्यतिरेकमुखेन कृष्णभक्तेः कार्यत्वमुक्त्वाऽन्वयमुखेनाप्याह—

प्रणाममीशस्य शिरःफलं विदुः

तदर्चनं पाणिफलं दिवौकसः ।

मनः फलं तद्गुणतत्त्वचिन्तनं

वाचस्तु गोविन्दगुणस्तवः फलम् ॥ २१ ॥

प्रणाममिति । तुरवधारणे । ईशस्य प्रणाममेव दिवौकसश्शिरःफलं विदुः, तदर्चनं तस्यार्चनमेव पाणिफलं, तद्गुणतत्त्वचिन्तनं तस्य गुणानामैश्वर्यादीनां तत्त्वस्य स्वरूपस्य च चिन्तनं स्मरणं विचारणं वा मनःफलं मनसः फलं, गोविन्दगुणस्तवो गोविन्दस्य गुणानां च स्तवः कीर्तनमेव (वाचः) फलं विदुः । तथाच नलकूबरमणिग्री-  
वयोर्मुक्तशापयोरुक्तिः—

“ वाणी गुणानुकथने श्रवणं कथायां ।

हस्तौ च कर्मसु मनस्तव पादयोनौ ।

स्मृत्यां शिरस्तव निवास जगत्प्रणामे ।

दृष्टिस्ततां (?) दर्शनेस्तु भवत्तनुनाम् ” ॥

इति ।

२१ ॥

एवमन्वयव्यतिरेकाभ्यां भक्तिर्भगवति श्रेयोऽर्थिभिरवश्यं कार्येति प्रसादय तस्मिन्नि-  
त्यनिरतिशयप्रीतिरूपिणीं मुख्यं भक्तिं प्रार्थयमानो भक्तलिङ्गान्याह—

बद्धेनाञ्जलिना नतेन शिरसा गात्रैस्सरोमोद्गमैः

कण्ठेन स्वरगद्गदेन नयनेनोद्गीर्णवाण्याम्बुना ।

नित्यं त्वच्चरणारविन्दयुगलध्यानामृतास्वादिना-

मस्माकं सरसीरुहाभ ! सततं संपद्यताञ्जीवितम् ॥ २२ ॥

बद्धेनेति । सरसीरुहे इवाक्षे यस्य तस्य संबोधनं सरसीरुहाक्षेति । सततं त्वच्चरणारविन्दयुगलध्यानामृतास्वादिनां तव चरणारविन्दयुगलस्य ध्यानमेवामृततन्तदास्वादितुं शीलं येषान्तेषां, अस्माकं जीवितं नित्यं बद्धेनाञ्जलिना उपलक्षितं संपद्यतामित्यन्वयः । एवं सर्वत्र । नतेनावनतेन शिरसा सरोमोद्गमैः रोमहर्षसहितैः गात्रैः स्वरगद्गदेन स्वरे गद्गदमर्धच्छेदो यस्य तेन कण्ठेन उद्गीर्णबाष्पाम्बुना नयनेन । तथाच लैङ्गे कानि कृष्णभक्तिलिङ्गानीति पृष्टेन मार्कण्डेयेनोक्तम्—

“ कीर्तिते तु हरौ नित्यं रोमाञ्चो यस्य वर्तते ।

कम्पस्वेदस्तथाक्षेषु विक्रियास्तु वैष्णवः ” ॥

इति । भागवते च—

“ एवंव्रतः स्वप्रियनामकीर्त्या जातानुरागो द्रुतचित्त उच्चैः ।

हसत्यधो हृष्यति रौति गायत्युन्मादवमृत्यति लोकबाह्यः ॥ ”

इति । रोमहर्षादिभिरुपलक्षिता परा भक्तिरविर्भूयादित्यर्थः । भक्तेरप्रत्यक्षत्वात् भक्ताभक्तपुरुषभेदो दुर्विज्ञेय इति कथमभक्तपरिहारेण भक्तसङ्गशक्यक्रियस्स्यादिति शङ्कापनयनाय भक्तलक्षणान्युपदिष्टानीति ज्ञेयम् । एनेन—“ अतस्तनूर्नेतदामो अश्नुते श्रितास इद्वहन्तस्तत्समासत ” “ चक्राङ्किताः प्रवेष्टव्या यावदागमनम्मम ” इत्यादिकं मोहादपरिज्ञातार्थं वाक्यं प्रमाणीकृत्य शङ्खचक्रादिमुद्रामुद्रितगावत्वं वैष्णवल्लिङ्गमिति यत् कैश्चिदुपदिश्यते तदपलपितं भवति । ‘ अतस्तनू ’ रिति श्रुतौ तावत् भगवच्चराचरलिङ्गपरिचरणतीर्थाटनादिना कृच्छ्रचान्द्रायणादिना वा योऽर्परिपक्वदेहः प्रत्युत मृष्टाक्षपानादिभिः पोषितदेहस्तस्य ब्रह्मावाप्तिर्न स्यादित्युच्यते ।

“ ब्राह्मणस्य तु देहोऽयन्नोपभोगाय कल्पते ।

इह क्लेशाय महते प्रेत्यानन्तसुखाय च ॥ ”

इति वचनात् । कुत्सितमतीनामपि तसचक्रादिमुद्रामुद्रितानां विना प्रयासं निश्चयसावासिदोषो विपर्यये वाच्यः । त्रिशूलादिमुद्रातापकल्पनाप्रसङ्गाश्च अतस्तनूरित्येव श्रुतत्वाच्चक्राद्यतस्तनूरित्यश्रुतत्वात्, “ चक्राङ्किताः प्रवेष्टव्याः यावदागमनम्मम ” ति यच्छ्रीहरिवंशे कैलासं गन्तुमुद्यतस्य कृष्णस्य द्वाःपालानुशासनं, तत्रापि भगवत्प्रस्थानानन्तरं प्रायेण भक्तानां पुरीप्रविविक्षासंभवात् भगवद्वेषिणान्तस्संभवाच्च ताम्रादिरचितचक्रमुद्रारूपेण स्वानुमतिपूर्वकपुरप्रवेशचिह्नेन युक्ता एव जना द्वारपालैः प्रवेष्टव्या नेतरथेत्यावेद्यते ; अन्यथा “ भक्ता एव प्रवेष्टव्या यावदागमनम्मम ” ति वक्तव्यत्वात् । अथ भक्तसाधारणधर्मप्रकटनार्थं तथा निर्देशः, तदसत् ; ये चक्राङ्कितास्ते प्रवेष्टव्या इति चक्राङ्कितानां प्रवेशनं किमनेन विधीयते किं वा ते एव प्रवेष्टव्या नान्ये इत्यतदङ्कितानां प्रवेशनं निषिद्धयत इति वक्तव्यत्वात् । नाद्यः, चक्राङ्कितत्वस्यानुद्य विशेषणत्वेनाविधेयत्वापत्तेः ‘ ग्रहं संमार्ष्टि ’ इत्यत्र ग्रहैकत्ववत् । अथ ‘ पशुना यजेते ’ त्यत्र पश्वेकत्ववदनुद्य विशेषणस्यापि विवक्षितत्वं ; तच्च । ‘ ये चक्राङ्कितास्ते भक्तास्ते च प्रवेष्टव्या ’ इति वाक्यार्थभेदकल्पनावतारात् । भक्ताः प्रवेष्टव्या इत्यस्य सिद्धत्वेनाविधेयत्वाश्च । अथ दम्ना जुहोतीतिवद्विशेषणनिष्ठमेवेदं वचनं प्रवेष्टव्या इति यत्तच्चक्राङ्किता इतीति ; तन्न । असदुक्तार्थस्य स्वीकार्यतापत्तेः । अन्यथा चक्राङ्किता भक्ता इति स्वामिना अनुगृह्येत ; तच्च न युक्तं, अपस्तुतभाषित्वप्रसङ्गात् । नगरीपरिरक्षणोपाय एव हि स्वामिना यियासुना प्रकाशनीयो न भक्तलिङ्गम् । “ अद्वेष्टा सर्वभूतानाम्भैत्रः करुण एव च ” त्यावावर्जुनाय भक्तलिङ्गेषु चक्राङ्कितस्याप्रकाशितत्वाश्च । किञ्च यावदाः चक्राङ्किता वा न वा । आद्ये चक्राङ्किता भक्ता इति नेदानीं बोधनीयम् । सिद्धत्वात् । द्वितीये भक्ताग्रगण्येष्वपि यादवेषु चक्राङ्कितत्वं नास्तीति न भक्तलिङ्गतास्य सिद्ध्येत् । ये चक्राङ्कितास्त एव प्रवेष्टव्या नान्ये इत्यप्यनुपपन्नम् ; रुरुदधीचागस्त्योपमन्युप्रभृतिषु चक्राङ्कशून्येषु शिवभक्तेषु जटामस्मालङ्कारेषु महात्मसु दैवात् भिक्षार्थमागतेष्वभक्तत्व-

आन्त्या पुरीप्रवेशप्रतिषेधदोषानुषङ्गात्, तच्च शिवभजनोद्यतस्य कृष्णस्यादोषतान्नोपेयात्,  
तथा तद्दासानाञ्च—

“ परात् परतरं यान्ति नारायणपरायणाः ।  
न ते तत्तागमिष्यन्ति ये द्विषन्ति महेश्वरम् ॥ ”

इति श्रवणात् । भगवत्प्रसङ्गसमसमयसमुपजायमानो रोमहर्षाश्रुपातमुखविकासदि-  
रेव तस्मात् भागवतलिङ्गं भवतीति सिद्धम् ॥ २२ ॥

एवं फलरूपिणीं भक्तिमर्थयित्वा साधनरूपिणीन्तामर्थयते ।

जिह्वे ! कीर्तय केशवं मुररिपुं चेतो ! भज श्रीधरं  
पाणिद्वन्द्व ! समर्चयाच्युतकथाश्रोत्रद्वय ! त्वं शृणु ।  
कृष्णं लोकय लोचनद्वय ! हरेर्गच्छांघ्रियुग्मालयं  
जिघ्र घ्राण ! मुकुन्दपादतुलसीं मूर्धन्यमाधोभजम् ॥ २३ ॥

जिह्वेति । हे जिह्वे ! केशवं कीर्तय । हे चेतः ! मुररिपुं भज स्मर । हे पाणिद्वन्द्व !  
श्रीधरं समर्चय । हे श्रोत्रद्वय ! अच्युतकथाः शृणु । हे लोचनद्वय ! कृष्णं लोकय  
पश्य । हे अङ्घ्रियुग्म ! हरेरालयं गच्छ । हे घ्राण ! मुकुन्दपादतुलसीं जिघ्र । हे मूर्धन्य !  
अधोक्षजभजम् । त्वमिति सर्वत्र योज्यम् । कश्च ब्रह्मा ईशो रुद्रश्च केशो ताववति निय-  
मयतीति केशवः श्रियमुरसा धारयतीति श्रीधरः ; अधो न क्षीयने जातु यस्मात्तस्मादधो-  
क्षजः । तदुक्तं भागवते—

“ बिले बतोरुक्रम विक्रमान्ये न शृण्वतः कर्णपुटे नरस्य ।  
जिह्वासती दार्दुरिकेव सूत न चोपगायत्युल्गायगाथाम् ॥  
भारः परं पट्टकिरोटजुष्टमप्युत्तमाङ्गल न मेन्मुकुन्दम् ।  
शाबौ करौ नो कुरुतस्सपर्यो हरेर्लसत्काञ्चनकङ्कणौ वा ॥

बर्हायिते ते नयने नराणां लिङ्गानि विष्णोर्न निरीक्षतो ये ।  
पादौ नृणान्तौ द्रुमजन्मभाजौ क्षेत्राणि नानुव्रजतो हरेर्यौ ॥  
जीवच्छवो भागवताङ्घ्रिरेणुज जातु मर्त्योऽभिलषेत यस्तु ।  
श्रीविष्णुपद्या मनुजस्तुलस्याश्वसच्छवो यस्तु न वेद गन्धम् ॥  
तदश्मसारं हृदयं बतेदं यत् गृह्यमाणैर्हरिनामधेयैः ।  
न विक्रियेताथ यदा विकारो नेत्रे जलं गात्ररुहेषु हर्षः ॥ ” इति ॥ २३ ॥

कानि पुनः कीर्तनोयानि नामानीति मुख्यतमानि कानिचित् पठति—

गोविन्द केशव जनार्दन वासुदेव विश्वेश विश्व मधुसूदन विश्वरूप ।  
श्रीपद्मनाभ पुरुषोत्तम पुष्कराक्ष नारायणाच्युत नृसिंह नमो नमस्ते ॥

गोविन्देति । हे गोविन्द ते तुभ्यन्नमो नमः । भूयो भूयः प्रवृहीभूतोऽसि । एवं  
सर्वत्र । जनार्दनयति संहरति युगान्तकालेष्विति जनार्दनः । सर्वत्रासौ वसतीति वा सर्व-  
जगदस्मिन् वसतीति वा वासुदेवः । विश्वस्पेशदशास्ता विश्वेशः । चेतनाचेतनप्रपञ्चस्वरूपो  
विश्वः । मधुनाम्नोऽसुरस्य सूदनो हन्ता मधुसूदनः । विश्वं रूपयति स्वविलीनं कल्पादौ  
प्रकाशयतीति विश्वरूपः, विश्वं रूपं शरीरमस्येति वा । पद्मं लोकत्रयमयं नाभावस्येति  
पद्मनाभः, श्रीशब्दः पूजार्थः । पुरुषाः अन्नमयप्राणमयमनोमयविज्ञानमयानन्दमयास्तेभ्य  
उत्तमश्चिदात्मा पुरुषोत्तमः, यद्वा—पुराणि शरीराणि तेषु शेरतेऽनुप्रविश्य तिष्ठन्ति इति  
पुरुषाश्चेतनस्तेष्वुत्तमस्सर्वज्ञस्सर्वकर्ता च पुरुषोत्तमः पुरुषयोर्जाविपरयोर्मध्ये उत्तमः परमात्मा  
वा पुरुषोत्तमः, पुष्करं पद्मं तत्सदृशावक्षिणी यस्य सः पुष्कराक्षः,

“ आपो नारा इति प्रोक्ता आपो वै नरसूनवः ।

अयनन्तस्य ताः पूर्वन्तेन नारायणः स्मृतः ॥ ”

इति । स्वरूपात् न च्यवत इत्यच्युतो निर्विकारः । ना चासौ सिंहश्च नृसिंहः ; नराणां  
बन्धनमविधामयं हन्तीति वा नृसिंहः ॥ २४ ॥

किं पुनश्श्रवणकीर्तनपूजनध्यानेषु प्राधान्येनानुष्ठेयं मुमुक्षुभिरिति, तदह—

ये मानवा विगतरागपरापरज्ञा नारायणं सुरगुरुं सततं स्मरन्ति ।  
ते धौतपाण्डररदा इव राजहंसास्संसारसागरजलस्य तरन्ति पारम् ॥२५॥

ये मानवा इति । विगतरागपरापरज्ञाः विगतो रागो विषयाभिषङ्गो येभ्यस्ते विगतरागाः, परं निर्गुणं ब्रह्म अपरं सगुणं ते जानन्तीति परापरज्ञाः विगतरागाश्च ते परा-  
परज्ञाश्चेति, तथा एवमूता ये मानवाः सुरगुरुं सुराणां ब्रह्मरुद्रेन्द्रादीनामपि गुरुं शास्तारं;  
नारायणं सततं स्मरन्ति, ते संसारसागरजलस्य मायामात्रपरमार्थस्य पारं तरन्ति  
प्राप्नुवन्ति धौतपाण्डररदा धौताः चालिताः पाण्डरा रदाः पक्षाः येषान्ते राजहंसा इव  
इत्येकेशतरणे दृष्टान्तः । तदेतेन श्रवणादिभ्यो ध्यानस्य प्राधान्यं दर्शितम् ।  
तदुक्तं भगवता—

“ अहं ब्रह्मेति मां ध्यायेदेकाग्रमनसाऽसकृत् ।  
सर्वन्तरन्ति वै पापं जन्मकोटिशतैरपि ॥  
ब्रह्महत्यासहस्राणि वीरहत्याशतानि च ।  
एकेन ध्यानयोगेन दहत्यग्निरिवेन्धनम् ॥  
ध्यानयोगपरो नित्यं वैराग्यं समुपाश्रितः ।  
अहङ्कारं बलं दर्पं कामं क्रोधं परिग्रहम् ॥  
विमुच्य निर्ममशान्तो ब्रह्मभूयाय कल्पते ॥ इति ॥ २५ ॥

कथमसौ सर्तव्य इत्यपेक्षां प्रतिक्षिपन् किरीटमन्त्रमुद्धरति—

लक्ष्म्या नित्यनिषेविताय दधते शङ्खं रथाङ्गं गदा-  
श्चापासी च समुल्लसन्मरतकस्तम्भोपमैर्बाहुभिः ।  
केयूरोदरबन्धहारमुकुटश्रीवत्सपीताम्बर-  
स्रक्काञ्चीकटकाभिरामवपुषे पुंसे परस्मै नमः ॥ २६ ॥

लक्ष्म्येति । परस्मै पुंसे नमः । अत्र सगुणपक्षे कायवाङ्मानसानां तदेकविषयता-  
करणं प्रवृत्ता, परमः पुरुषः शुद्धसत्त्वगुणमयमायाविनिर्मितमहदादिसंभृतविग्रहः सर्वान्त-  
र्यामित्वात् सर्वज्ञस्सर्वकर्ता चादिपुरुषः, निर्गुणपक्षे प्रवृत्ता नाम तदेकत्वेन्मुखीभावः,  
परमः पुरुषो रज्जुसर्पन्यायेन वा दर्पणनगरन्यायेन वा माया तत्कार्याध्यासाधिष्ठानं सदा-  
नन्दचिद्धनं ब्रह्म । चतुर्थी नमश्शब्दसम्बन्धार्था । तस्मादयमर्थः—मां मदीयञ्च सकल-  
मस्मत्स्वामिने श्रोपुरुषोत्तमाय समर्पयामीति स एवाहमस्मीति वा । कथंभूताय । लक्ष्म्या  
नित्यनिषेविताय । सगुणपक्षे लक्ष्मी दुग्धाब्धिनन्दना, अन्यत्र ब्रह्मविद्या तया नित्यं नियमेन  
सेविताय पादसंवाहनादिभिस्तोषिताय विदुषां सदानुभवपर्यन्ततात्नीतायेति वा । तदुक्तम्—

“ भागैर्यदा जगत्स्वामी देवदेवो जनार्दनः ।  
अवतारं करोत्येषा तदा श्रीस्तत्सहायिनी ॥  
पुनश्च पद्मा संभूता आदित्योऽभूद्यदा हरिः ।  
यदा तु भार्गवो रामस्तदासीद्वरणी त्वयम् ॥  
राघवत्वेऽभवत्सीता रुक्मिणी कृष्णजन्मनि ।  
अन्येषु चावतारेषु विष्णोरेषा सहायिनी ॥  
देवत्वे देवदेहेयं मनुष्यत्वे च मानुषी ।  
विष्णोर्देहानुरूपां वै करोत्येषात्मनस्तनुम् ॥ ” इति ।

“ आत्मविद्यां देवि ! त्वं विमुक्तिफलदायिनी ’ इति च ।

“ तद्विष्णोः परमं पदं सदा पश्यन्ति सूरयः ”

इति च श्रुतिः ॥ शङ्खं रथाङ्गं चापासी गदाश्च समुल्लसन्मरतकस्तम्भोपमैः  
समुल्लसन्तो ये मरतकस्तम्भास्तैरुपमा येषां तैः बाहुभिः दधते धारयते ; केयूरोदरबन्ध-  
हारमुकुटश्रीवत्सपीताम्बरस्रक्काञ्चीकटकाभिरामवपुषे केयूरे चोदरबन्धश्च हारौ मुकुटश्च  
श्रीवत्सश्च पीताम्बरञ्च सक् च कान्चीकटकानि च तैरभिरामं शोभितं वपुर्यस्य तस्मै ;

मरतकस्तम्भोपमैरिति मूर्तेः श्यामलवर्णत्वमुक्तम् । चापासी चेति चशब्दोऽनुक्तसमुद्ध्ये ।  
पद्मं बाणं चर्म च दधते शङ्खं बाणधर्मं च दधते,

“ शङ्खं बाणं कृपाणं फलकमरिगदे पद्मशङ्खौ सहस्रं  
विभ्राणाशस्त्रजालं मम दधतु हरेर्बाहवो मोहहानिम् ॥ ”

इत्याचार्यवचनात् मुकुटपदं मकरकुण्डलोपलक्षणम्, श्रीवत्सपदं श्रीकौस्तुभोपल-  
क्षणं, पीताम्बरपदं तुलाकोट्युपलक्षणं; सगुणपक्षे कनकमणिमुक्ताकुसुमनिचयमयानि तेजो-  
जलपृथिव्यादिमयानि च भूषणाम्बरायुधानि ; इतरत्र तु

“ भूषणास (?) स्वरूपस्थं यथैतदखिलं जगत् ।  
विभर्ति भगवान् विष्णुः तन्ममाख्यातुमर्हसि ॥ ”

इति मैत्रेयेण पृष्टः पराशरोऽनुजग्राह—

“ आत्मानमस्य जगतो निर्लेपमगुणालयम् ।  
विभर्ति कौस्तुभमणिस्वरूपं भगवान् हरिः ।  
श्रीवत्ससंस्थानधरमनन्ते च समाश्रितम् ।  
प्रधानं बुद्धिरध्यास्ते गदारूपेण माधवे ।  
भूतादिमिन्द्रियादिश्च द्विधाहङ्कारमीश्वरः ।  
विभर्ति शङ्करूपेण शङ्करूपेण च स्थितम् ।  
चलत्स्वरूपमत्यन्तजवेनान्तरितानिलम् ।  
चक्रस्वरूपञ्च मनो धत्ते विष्णुः कणे स्थितम् ।  
पञ्चरूपा तु या माला वैजयन्ती गदाभृतः ।  
सा भूतहेतुसंघातो भूतमाला च वै द्विज ! ।  
यानीन्द्रियाप्यशेषाणि बुद्धिकर्मत्मकानि च  
शररूपाप्यशेषाणि तानि धत्ते जनार्दनः ;

विभर्ति यन्त्रासिरत्नमच्युतोऽत्यन्तनिर्मलम् ।  
विद्यामयन्तु तज्ज्ञेयमविद्यान्वर्मसंस्थिताम् ।  
इत्थं पुमान् प्रधानञ्च बुद्धयहङ्कारमेव च ।  
भूतानि च हृषीकेशो मनस्सर्वेन्द्रियाणि च ।  
विद्याविद्ये च मैत्रेय सर्वमेतत्समाश्रितम् ।  
अस्सभूषणसंस्थानस्वरूपं रूपवर्जितः ।

विभर्ति मायारूपोऽसौ श्रेयसे प्राणिनां हरिः ॥ इति ॥ २६ ॥

किं पुनर्नारायणस्मरणान्मुक्तिर्भवतीत्यत्र प्रमाणमित्याशङ्कायां तत्प्रमाणत्वेन श्रीविष्णु-  
धर्मवाक्यानुदाहरति प्रातरिति त्रिभिः—

प्रातःस्मरामि भवपापमहार्तिशान्त्यै नारायणं गरुडवाहनमञ्जनाभम् ।  
ग्राहामिभूतवरवारणमुक्तिहेतुं चक्रायुधं तरलवारिजपत्तनेत्रम् ॥ २७ ॥

प्रातः उपसि नारायणं भवपापमहार्तिशान्त्यै भवे भवे कृतानि यानि पापा-  
नि तैः कृताया महत्या अपरिहार्याया अनन्तप्रकाराया वा आर्तेर्दुःखस्य शान्त्यै स्मरा-  
मि । तत्स्मरणात् तच्छान्तिं दृष्टान्तेन साधयितुमुक्तं—ग्राहामिभूतवरवारणमुक्तिहेतुं इति ।  
ग्राहामिभूतो ग्राहेणाभिभूतो वरः स्वस्मर्ता यो वारणः तस्य मुक्तेर्ग्राहान्मायाया वा मोक्षस्य  
हेतुं, तस्य तात्कालिकं विशेषणं गरुडवाहनं इति, तथा चक्रायुधमिति । किंवर्णं अञ्ज-  
नाभं अञ्जनस्येवामा प्रभा यस्य तं, तरलवारिजपत्तनेत्रं तरलं वारिजपत्तोपमञ्च नेत्रद्वयं  
यस्य तम् । ॥ २७ ॥

एवं दुःखशान्तिकरत्वेनानुस्मृत्य भयशान्तिकरत्वेनानुस्मरति—

प्रातःस्मरामि भजताममपङ्कजरन्तं प्राक्जन्मकोटिदुरितौघमथापहत्यै ।  
यो ग्राहकप्रपतितांभिर्गजेन्द्रघोरशोकप्रणाशकरणोद्यतचक्रपाणिः ॥ २८ ॥

प्रातरिति । भजतामभयंकरं प्रातः भजामि स्मरामि । कं—यो ग्राहवक्त्रपति-  
तांघ्रिगजेन्द्रघोरशोकप्रणाशकरणोद्यतचक्रपाणिः—ग्राहस्य वक्त्रे पतितांघ्रिर्यस्य गजे-  
न्द्रस्य तस्य घोर मरणपर्यन्तो यश्शोकः अपरिहार्यो वा तस्य प्रणाशकरणे निमित्ते उद्यतचक्र  
उद्धृतसुदर्शनः पाणिर्यस्य सः तथा स्वानुस्मरणलक्षणं हेतुं व्यञ्जयितुं इन्द्रपदं । एतदेव  
हीन्द्रत्वं यदात्मतत्त्वानुस्मरणम् ।

“[सत्यं हीन्द्रः] स होवाच मामेव विजानीहि, एतदेवाहम्भनुष्याय हिततमम्मन्ये ”  
इति श्रुतेः । किमर्थं भजसीत्यत उक्तं—प्राक्जन्मकोटिदुरितौघभयापहृत्यै—इति । प्राची-  
नासु जन्मकोटिषु कृतो यो दुरितौघस्तस्मात् यज्जयं तस्यापहृत्यै सह कारणेन सन्दहनार्थं,  
भयसंहारमसौ स्मर्तुणां करोतीत्यत्र लिङ्गं—यो ग्राहवक्त्रेति भगवद्विशेषणम् । अस्ति सरस्त्रि-  
कूटशिखरे कनकसरसिजम् । तत्र करीकरेणुफलभैर्विहर्तुमुद्यतः ग्राहवरेण घोरवपुषा । स च  
किल जगृहे । सोऽस्मरद्वयुतम् । स तमपादिति वदत कथाम् । प्रभातसमये, तिर्यक्जाती-  
नामपि देवात् स्वानुस्मरणलाभेऽनुगृह्णाति परमेश्वरः, किन्तु ब्राह्मणादिश्वपचान्तानां  
मनुष्याणां संकीर्तनसमाराधनानुस्मरणैरादरमासेविनोऽनिष्टसर्वस्वपरिहारेणाभीष्टसर्वस्वमा-  
त्मानमपि प्रयच्छतीति न विचिकित्सितव्यमित्याशयः ॥ २८ ॥

यत एवं भगवद्भजनेऽवश्यंभाविन्यदुःखाभयानन्दैकरसानुदितानस्तमितप्रकाशा-  
त्मकतत्त्वप्राप्तिः, अतश्च्रेयोऽर्थिभिस्तद्भजनं सर्वात्मना कार्यमित्याह—

प्रातर्नमामि मनसा वचसा च मूर्ध्ना पादारविन्दयुगलं परमस्य पुंसः ।  
नारायणस्य नरकार्णवतारणस्य पारायणप्रवणविप्रपरायणस्य ॥ २९ ॥

प्रातरिति । परमस्य पुंसः पादारविन्दयुगलं ब्रह्मात्मलक्षणमहावाक्यार्थमात्र  
परमार्थस्य परमपुरुषस्य प्रतिष्ठाहेतुत्वात् पादशब्दपरिगृहीतं प्रत्यक्तत्त्वमीशतत्त्वञ्च ।  
प्रातः सत्वगुणोदयकाल इति यावत् । मनसा वचसा मूर्ध्ना च नमामि स्मरामि कीर्त-  
याम्याराधयामि च मनोवाक्कायकर्मभिरन्योन्यैक्योपपादनेन प्रसादयामीत्यर्थः । कोऽय

परमः पुमानित्यत उक्तं—नारायणस्येति । सर्वदेहिनां स्वरूपभूतस्येत्यर्थः । “पुरुषो ह वै  
नारायणोऽकामयते” इति श्रुतेः, तन्मस्कारेण किमित्यत उक्तं—नरकार्णवतारणस्येति ।  
संसारसागरतारकस्येत्यर्थः । कुतस्तर्हि तत्सेवकास्सर्वे सद्यो न मुच्यन्त इत्यत उक्तं—पारायण-  
प्रवणविप्रपरायणस्येति । “साकल्यासङ्गवचने पारायणपरायणे” इति वचनात्,  
साकल्येन मनोवाक्कायैः प्रवणः प्रह्वीभूतो यो विप्रस्त पारायणप्रवणविप्रस्तस्मिन्  
परायणस्यासक्तस्य कृतानुग्रहस्येत्यर्थः ।

“शिखा ज्ञानमयी यस्य उपवीतञ्च तन्मयम् ।

ब्राह्मण्यं सकलं तस्य”

इति श्रुतेः विप्रशब्दात् तत्त्वज्ञो गृहीतः । विद्यया पूरयत्यात्मानं शिष्येभ्येति च,  
विप्रत्वात् पारायणप्रवणो भक्तः । तदयं भावः—भगवद्वाक्यं गतानामपि तत्त्वज्ञानाभावे न  
मोक्षः तत्त्वविचारकानामपि तद्वाक्याभावे न । अतश्च्रेयोऽर्थिभिश्चरणकीर्तनध्यानपूजन-  
रूपिणी भक्तिर्भगवत्तत्त्वविचाररूपा ज्ञाननिष्ठा च नियमेनानुष्ठेया । तथाच भक्तिज्ञानयो-  
गपौष्कल्येऽस्मिन्नेव लोके मुख्यभक्तियोगाविर्भावक्रमेणात्मेश्वरैक्यसाक्षाद्बोधं लब्ध्वा तदज्ञान  
परिकल्पिताद्वन्धात्सनिदानान्मुच्यन्ते इति । तथाच श्रुतिः—

“भिद्यते हृदयग्रन्थिः छिद्यन्ते सर्वसंशयाः ।

क्षीयन्ते चास्य कर्माणि तस्मिन्दृष्टे परावरे ॥”

इति । “श्रद्धाविद्धो भूत्वाऽत्मन्येवात्मानं पश्ये” इति च श्रुत्यन्तरम् । उक्तञ्च विश्व-  
साक्षिणा—

“भक्त्या त्वनन्यया शक्य अहमेवं विधोऽर्जुन ।

भक्त्या मामभिजानाति यावान्यश्चास्मि तत्त्वतः ।

ततो मां तत्त्वतो ज्ञात्वा विशते तदनन्तरम् ॥” इति २९

इयता प्रवन्धेन स्वस्य भगवद्विषया स्मृतिः प्रार्थिता । अयं भगवतस्त्वगतां स्मृतिं प्रार्थयमानः स्तुतिमुपसंहरति—

मज्जन्मनः फलमिदं मधुकैटभारे ! मत्प्रार्थनीयमदनुग्रह एष एव ।  
त्वद्भृत्यभृत्यपरिचारकभृत्यभृत्यभृत्यस्य भृत्य इति मां स्मर लोकनाथ ! ॥

मज्जन्मन इति । हे मधुकैटभारे ! मधुश्च कैटभश्च मधुकैटभौ तयोररिस्संहर्ता तस्य संबोधनम् । तथा मधुकैटभादिदुष्टसंहरणेन ब्रह्मादिशिष्टपरिरक्षणपरः । मत्प्रार्थनीयमदनुग्रहः मया प्रार्थयितुं योग्यो मद्विषयस्त्वया कार्योऽनुग्रह एष एव ।

“ नृजन्मनि न तुष्पेत किं कार्यमनुनश्चरैः ।  
सर्वाषमोत्तमश्लोके न चेद्भक्तिरधोक्षजे ॥ ”

इति । स्मरणात् मज्जन्मनो मम जन्मनः फलं चेदमेव ।  
एतावान् सांख्ययोगाभ्यां स्वधर्मपरिनिष्ठया ।  
जन्मलाभः परः पुंसामन्ते नारायणस्मृतिः ॥ ”

इति स्मरणात् । इदंशब्दार्थमाविष्करोति—त्वद्भृत्येति । हे लोकनाथ ! लोभयन्ते आगमप्रमाणेन परिदृश्यन्त इति मायाद्यवन्यन्तानि तत्त्वानि लोकशब्देन गृह्यन्ते, तेषां नाथः सत्तास्फूर्तिहेतुश्चिदात्मा ; यद्वा लोकाः ब्रह्मादिकीटान्ता जीवास्तैर्नाथ्यते त्वानुग्रहाय प्रार्थयत इति सर्वेश्वरो लोकनाथस्तस्य संबोधनं, तथा मां अशक्तमपि स्वस्तेषां याम्नोवाकायैस्तत्रैव यतमानं त्वद्भृत्यभृत्यपरिचारकभृत्यभृत्यभृत्यस्य भृत्य इति स्मर । भृत्यः कर्मकारः स्वपरिचरणैकपरत्वादवश्यं देवेन भर्तव्यो जनो नाहं प्रधानभृत्यवर्गगणने मदनुस्मरणं कामये, किन्तु तव भृत्यानां ये भृत्यास्तेषां परिचारकास्तेषां त्वद्भृत्यभृत्यपरिचारकाः तेषां भृत्यानां ये भृत्यास्तेषां भृत्यस्य भृत्यजनस्य भृत्य इति मां स्मर । त्वद्भृत्यगणेषु येऽर्वाचीन-तमा गणास्तेषां परिगणनावसानेपि मामनुस्मरेत्यर्थः । अखण्डानन्दानुभवरूपस्य भगवत-

स्वरूपं क्षणमपि मां प्रति प्रकाशयेति यावत् । यद्वा—यद्यपि न तव साक्षाद्भृत्योऽहं ब्रह्म-  
स्त्रेन्द्रादिवत्तथापि त्वद्भृत्यभृत्यपरिचारकभृत्यभृत्यभृत्यस्य भृत्यो भवामि, नान्यस्य कस्य-  
चित् भृत्योऽपि स्वतन्त्रोऽतो मां स्मराऽनुग्राह्यत्वेनानुचिन्तय । सदान्-इति चिद्धनं भगवतस्तत्त्वं  
मयि प्रकटयेति यावत् । तदुक्तं भगवता—

“ अहं सर्वस्य प्रभवो मत्तस्सर्वं प्रवर्तते ।  
इति मत्वा भजन्ते मां बुधाः भावसमन्विताः ॥  
मच्चिताः मद्गतप्राणाः बोधयन्तः परस्परम् ।  
कथयन्तश्च माभित्यं तुष्यन्ति च रमन्ति च ॥  
तेषां सततयुक्तानां भजतां प्रीतिपूर्वकम् ।  
वदामि बुद्धियोगन्तं येन मामुपयान्ति ते ॥  
तेषामेवानुकम्पार्थमहमज्ञानजन्तमः ।  
नाशयाम्यात्मभावस्थो ज्ञानदीपेन भास्वता ॥ ”

इति । भुक्तिश्च—

“ यमेवैष वृणुते तेन कथ्यस्तस्यैष आत्मा विवृणुते तनुं स्वाम् ” ३०  
इति ।

अथेदानीमस्याः कृते भगवतोत्तंसकर्तृकत्वाद्विद्वदग्रेसरद्विजपारशरवर्षभसहृदय-  
सहायेन तेनैव साधु परीक्षितलक्षणत्वाच्च सद्भिरुपादेयत्वमावेदयन् समापयते—

यस्य प्रियौ भुतिधरौ रविलोकवीरौ  
मित्रे द्विजन्मवरपारशवावभूताम् ।  
तेनाम्बुजाक्षरणाम्बुजपदपदेन  
राज्ञा कृता कृतिरियं कुलशेखरेण ॥ ३१ ॥

यस्येति । इयं कृतिः कुलशेखरेण राज्ञा कृतेति संबन्धः । राज्ञेति लाभार्थत्व-  
सङ्काऽपाकृता, अखण्डभूमण्डलेध्वरस्य तस्य किमन्येभ्यो लभ्यं संभवति, यदर्थं ग्रन्थ-  
प्रणयनं स्यात् । कुलशेखरेणेति स्यात्पर्यन्तविरचितम् । मातुतः पितृतश्च शुद्धक्षत्रवंशस-  
मुत्थत्वात् सदवनासदनुशासनादिगुणगणालंकृतत्वाच्च लोके प्रसिद्धिं परां प्राप्तस्यास्य  
नेदानीं स्यातिरुत्पादनीयेति । एवमप्यपरीक्षितत्वे नोपादेयतेत्यत उक्तं-भुतिधरौ सर्व-  
शास्त्रज्ञौ प्रियौ इष्टौ रविलोकवीरौ रविश्च लोकवीरश्च तौ तन्नामानौ द्विजन्मवरपारशरवौ  
यस्य मित्रे अभूतां तेनेति । एवमपि भगवत्प्रीत्यर्थत्वाभावे नोपादेयत्वमित्यन उक्तं—  
अम्बुजाक्षस्य चरणावेवाम्बुजे तयोः षड्पदव-  
श्रित्याभिषेविना सानन्दं क्रीडतेति वार्थः ३१॥

सच्चित्सुखैकरसमन्वहमात्मतत्त्वं  
साक्षात्समुन्मिषति यस्य हृदीह दैवात् ।  
आनन्दशेखरितराघवनामधेय-  
स्तोऽयं मुनिर्विमृशति स्म मुकुन्दमालाम् ॥  
कुष्माण्डगुरोरेषा पूर्णा कारुण्यसर्पिषा ।  
रचिता हरितोषाय जीयात्तात्पर्यदीपिका ॥  
कषायकुसुमच्छविः कलितकेकिपिच्छः कचे  
करे मुरलिकां बहन् पदसरोजयोर्नूपुरम् ।  
नितम्बमुवि चाम्बरं कनककान्तिकान्तोऽवता-  
भितान्तमुदधीशितुस्तनुमुबो मुबो नोऽनिशम् ॥

॥ शुभमस्तु ॥

## University Notes

*Convocation.*—The second Convocation of the University was held on Thursday the 27th October, 1932, when His Excellency the Rt. Hon'ble Lieutenant Colonel Sir George Frederick Stanley, P.C., G.C.I.E., C.M.G., Governor of Madras and Chancellor of the University, presided. Mr. R. Littlehales, C.I.E., Director of Public Instruction, Madras, delivered the address to the graduates.

*Lectures.*—The following lectures were delivered during the academic year.

*Franchise Problems*—Diwan Bahadur A. Ramaswami Mudaliar Avl., B.A., B.L., M.L.A.  
*International Economic Planning*—Mr. N. S. Subba Rao, M.A. (Cantab), Bar-at-Law, Director of Public Instruction, Mysore.  
*Indian Federalism*—Rt. Hon'ble V. S. Srinivasa Sastri, P.C.  
*Coming Reforms*—Sir K. V. Reddy, B.A., B.L.  
*History Repeats Itself*—Rev. Father Carty, S.J.

The following University Special Lectures were delivered during the year:—

*Atomic Nucleus and Hyperfine Structure of Spectral Lines*—Rao Bahadur B. Venkatesachar, M.A., Professor of Physics, University of Mysore.  
*The Economic Problem of India with special reference to the Trade Depression*—Dr. P. J. Thomas, M.A., B.Litt., Ph.D., Professor of Economics, University of Madras.  
*Epigraphy and Social Studies*—Mr. T. G. Aravamudhan, M.A., B.L.  
*Indian Federation*—Mr. S. Satyamurti, B.A., B.L.

A large number of Extension Lectures have been delivered by the members of the teaching staff and several papers were sent for publication in various technical and scientific journals such as the "Journal of the Indian Mathematical Society", "Nature", and the "Journal of the Indian Chemical Society".

*Founder's Day.*—The third "Founder's Day" was celebrated on the 10th January, 1933, when Prof. C. S. Srinivasachariar, M.A., delivered the address and the Hon'ble Diwan Bahadur S. Kumaraswami Reddiar, B.A., B.L., Minister for Education to the Government of Madras, presided.

*Congresses and Conferences.*—The Vice-Chancellor attended the annual meeting of the Inter-University Board held at Hyderabad in February, 1933.

During the year the following members of the teaching staff attended as representatives of this University and read papers at the Conferences and Congresses noted below:—

Dr. S. N. Chakravarty, M.Sc., D.Phil. (Oxon)—The Indian Science Congress at Patna, January, 1933.

Mr. S. Sivasankaranarayana Pillai, M.Sc.—The Silver Jubilee Celebration of the Indian Mathematical Society at Bombay, December, 1932.

Dr. B. V. Narayanaswami Naidu, M.A., Ph.D., B.Com., Bar-at-Law—The All-India Economic Conference at Delhi, January, 1933.

Messrs. R. Ramanujachariar, M.A. and C. T. Srinivasan, M.A.—The Indian Philosophical Conference at Mysore, December, 1932.

Prof. Swami Vipulanandaji, B.Sc. (Lond.)—The 31st Conference of the Tamil Sangam, Madura, January, 1933.

*The 17th All-India Economic Conference.*—The 17th All-India Economic Conference will be held in Annamalai University on the 30th December, 1933. The following office-bearers were elected:—

*President*—Prof. C. D. Thompson, M.A., Prof. of Economics, Allahabad University.

*Secretary*—Dr. B. V. Narayanaswami Naidu, M.A., B.Com., Ph.D., Bar-at-Law.

*Reconstitution of Authorities.*—The period of office of the several University authorities having expired through efflux of time with effect from the 5th December, 1932, arrangements were made for the elections to the several authorities which were duly reconstituted by the end of December, 1932. The Syndicate as newly constituted consists of the following members:—

#### *Class I—Ex-officio*

M.R.Ry. Rao Bahadur S. E. Runganadhan Avl., M.A., I.E.S., Vice-Chancellor.

W. E. Smith Esq., M.A., I.E.S., Director of Public Instruction, Madras.

Dr. B. V. Narayanaswami Naidu, M.A., Ph.D., B.Com., Bar-at-Law, Dean, Faculty of Arts.

Dr. S. N. Chakravarti, M.Sc., D.Phil. (Oxon), Dean, Faculty of Science.

Prof. Swami Vipulanandaji, B.Sc. (Lond.), Dean, Faculty of Oriental Studies.

#### *Class II—Other Members.*

(i) Three members elected by the Senate from among themselves.

T. Sivaramasetu Pillai Esq., M.A., B.L., Deputy Accountant-General, Bombay.

S. Satyamurti Esq., B.A., B.L., Advocate, 2/18, Car St., Triplicane.

T. V. Umamaheswaram Pillai Esq., B.A., B.L., Pleader, Servaikaran St., Karunthattankudi, Tanjore.

(ii) One member elected by the Academic Council from among its members.

Prof. C. S. Srinivasachariar, M.A., Professor of History, Annamalai-nagar.

(iii) Two members nominated by His Excellency the Chancellor.

H. C. Papworth Esq., M.A., I.E.S., Principal, Government Muhammadan College, Madras.

A. Chakravarti Esq., M.A., I.E.S., Principal, Government College, Kumbakonam.

(iv) Two members nominated by the Founder.

Janab Basheer Ahmed Sayeed Sahib Bahadur, M.A., B.L., Advocate, Madras.

M.R.Ry. Rao Bahadur R. V. Krishna Aiyar Avl., B.A., M.L., Secretary, Legislative Council, Fort St. George, Madras.

*Physical Training:*—The Syndicate has sanctioned Rs. 9,000 for the construction of an up-to-date Sports Pavilion.

The services of Mr. J. W. Hitch, Surrey and England, were engaged by the authorities to give coaching to the Cricket Eleven of the University. During this year, the University conducted three Inter-University or Inter-Club Tournaments. The Inter-Collegiate Tennis Singles Tournament for the Rajah of Chettinad Cup was conducted in October '32 and was won by the Madura College.

The Tamil Districts Tennis Doubles Tournament for the Jatavalabhar Cup was conducted at the same time and was won by the S. I. Ry. Club of Villupuram.

The Inter-Collegiate Athletic Tournament open to all Colleges in the Tamil Districts was conducted for the 4th year in February '33 and was won for the third time by the Madras Medical College. Apart from these, Intra-Mural Tournaments in the following games were conducted on the Interclass basis:—Badminton—Doubles and Fives, Basket-ball, Cricket, Foot-ball, Hockey, Ping Pong, Tenikoit, Tennis, Volley ball, Playground-ball.

*University Library:*—The Library grant for the year 1932 was Rs. 18,000 for books, Rs. 5,000 for Back Volumes of Periodicals, Rs. 5,000 for Current Periodicals and Rs. 2,000 for binding. 85 rare volumes have been purchased from Mr. Masud Ali of Hyderabad.

*Buildings and Lands:*—Proceedings in connection with the acquisition of lands were completed during the year, bringing the total area in the possession of the University to 544 acres.

The construction of the Library and Administrative Buildings costing about 3.5 lakhs of rupees was approved by the Syndicate and the work will be commenced as soon as possible.

The construction of a set of three blocks of Office Staff Quarters costing about Rs. 15,000 has been started and is expected to be completed by July, 1933.

*Water Supply:*—A scheme of water supply to Annamalainagar costing about a lakh of rupees is being scrutinised and will be put through as soon as possible.

*Endowment:*—The Syndicate accepted with thanks an endowment by Mr. A. Ramanatha Ayyar, B.A., B.L., Sub-Judge, Tinnevely. The value of the endowment is Rs. 1,200 the interest on which is to be utilised for the award of a scholarship to a deserving student of the B.A. class under certain conditions.

## A Note

### MARCO POLO—BROADWAY TRAVELLERS

In the Introduction to his Edition of the Travels of Marco Polo published in the Broadway Travellers, Sir Denison Ross, in commenting upon the term *choiach* and its significance (Vide page xiii), has made certain observations, the accuracy of which seems open to question.

In the first place he uses certain terms which evidently appear to me to be wrong. He speaks of *Malabari* and *Malayalim* and understands by them *Malayālis*. If so, it is certainly incorrect, for we are never referred to by these terms. Again he refers to *Ragu Kalam*: this stands for *Rāhu Kālam*. Judging from this term, it appears that the *Malābāri* who gave this information does not seem to be a *Malayāli*, but a *Tamilian* who has lived in *Malabār*. Again *Karippu* is said to mean acts of propitiation of the evil deities. This is wrong information: none of the Tamil Dictionaries give this information and my colleagues in the Tamil Department say that they have not heard of this term being used in the sense of acts of propitiation. Coming to *Karippu Kala*, I believe the correct expression is *Karuppu Kala*, and this latter expression is used in the sense of *Rāhu Kāla*, for the term *Karuppu* means dark or black and so the phrase means the evil hour. It may also be pointed out here that *r* here is neither a dental nor an alveolar sound but a pure cerebral formed at the crown of the roof of the mouth. Sir Denison says that '*Karippu Kal*' would be pronounced *Kachukka* by a low caste *Tamil* and *Malayalim*. In the absence of the source of this information, it becomes difficult to accept or reject this statement. I have never heard of this word being used by *Malayālis*, nor has my colleagues in the Tamil Department heard of it. Again, it is not found in any of the Tamil Dictionaries available here.

The Editor says that "the superstition is still preserved in Malabar even to-day under the name of *Ragu Kalam*" (*Rāhu Kālam*). This is strange news to me. We are indeed rich in superstitions in our everyday life, but this is not one of them. I heard of *Rāhu Kālam*, when I came over here to accept appointment in the Annamalai University. Of course we have something corresponding to this in our parts and that is the *Gulikan* or the *Gulika Kāla*, which is held to be very inauspicious for doing anything. This *Gulika Kāla* is always shifting from day to day and is never fixed like the *Rāhu Kāla*. Consequently the two cannot be identified. Thus it will be seen that the superstition of *Rāhu Kāla* is not preserved in practical life in Malabar to-day, and

this therefore does not constitute a fresh tribute to the accuracy of Marco Polo's notes.

The derivation of *Choiach* does not appear to me to be very difficult. The two *Grahās*, *Rāhu* and *Kētu* are also called *Cchāyā Grahās*; and the term *Cchāyā Kāla* is another popular expression used in place of *Rāhu Kāla*. The *Cchāyā* being black or dark, we have also side by side the expression *Karuppu Kāla*, the dark hour, that is the evil hour. Now I believe the term *Choiach* may well be equated with the term *Cchāyā Kāla*:

*Cchāyā Kāla*: *Chāya Kāl*: *Chāya K*: *Chayak*: *Chayach*: *Choiach*.  
This equation seems to be fairly correct when it is also remembered that a suggestion is thrown out of there being a probable loss or erasure of the last element in the expression.

K. R. P.

## Reviews

*Īśāvāsyaopaniṣat with the Bhāṣya of Śaṅkara*: Edited by Y. Subrahmanya Sarma and published by the 'Adhyātma-Prakāśa Kāryālaya, Bangalore. Price As. 6 or 9 d.

This is a handy edition of the text of the *Īśāvāsyaopaniṣat* by the well-known Subrahmanya Sarma of Bangalore. Its usefulness is enhanced by the publication of the *Mādhyandina* text also side by side with the *Kanva* recension and by the three indices giving in alphabetical order the Mantras, the word-index of the *Bhāṣya* and the sources of the quotations in the latter. The printing and get up leave nothing to be desired, though one must wish that there is no errata slip. The edition is priced cheap.

K. R. P.

*An Outline of Economic Theory*—By R. M. Joshi, M.A., B.Sc., I.E.S., Bombay, (pp. 112).

The author has collected into book form the seven lectures which he delivered to the members of the Indian Institute of Bankers, Bombay. As the author says, it is neither a cram book nor a synopsis but a useful book for beginners in Economics. The book consists of seven chapters dealing with such topics as, what is Economics?, the Problem of Population, Laws of Demand and Supply, Currency and Credit, and Inequality of Income.

Mr. Joshi has written the book in a vigorous style and it is an excellent work which should commend itself highly to beginners as an introduction to the detailed study of Economic theory. The exposition is simple, but at the same time arresting. The two lectures on "Population" and "Currency and Credit" are brilliant and up-to-date, though the same cannot be said of his treatment of Value and Rent. The book as a whole reveals the mastery that the author has over his subject matter, and no one who takes it up to read can lay it by without finishing it.

In modern days no person dare be ignorant of the matters which affect him, the society in which he lives, his nation and the world itself. Every individual has his value in society and a knowledge of Economics will increase that value. The man in the street is continually required to pass judgment on the important matters which this book in brief compass deals with. To all such this book will prove of the greatest value.

B. V. N.

*Land and Rural Economics* (A Source Book for Indian Students and Social Workers)—By A. J. Saunders, M.A., Ph.D. Published by Christian Literature Society for India. pp. 327. Price Rs. 1-12.

The author's aim in this book is to provide material "selected and organised, for both Honours and Pass students in Rural Economics." The study of Rural Economics has not received the proper emphasis that it deserves especially in India where more than 73% of the total population eke their livelihood by this means. The wretched general condition of the agriculture workers in India is almost beyond belief and the country will never achieve any degree of happiness for its agriculturists unless and until greater cognisance is taken of the prevailing conditions and possible remedies. The idea, therefore, of a source book which may be useful not only to students of Rural Economics but also to Social Workers, is very welcome at such a time.

The author's method of exposition is useful and informative, but he does not deduce from the materials he has collected any general principles. The book is divided into seven chapters and the author has culled facts from every conceivable source, though it is a pity that there is no definite plan followed in the arrangement of facts.

In Chapter I, the author discusses the various economic stages through which society has passed, together with such important problems as the Joint Family system, the problem of Economic Holdings and the Standard of Living.

In the Second Chapter, he considers the scope of Land Economics and Land Revenue and the succeeding chapters are taken up with the organisation and financing of Agricultural Co-operation. The concluding chapter touches on the larger problem of rural reconstruction. In dealing with such questions as Irrigation and Famine relief, the author would have done well to give relevant extracts from the well-known Report of the Irrigation Committee of 1902-1903 and the Famine Commission Reports, rather than from secondary authorities. In dealing with the improvement the author refers to improved implements and improvement in cultivation, etc. Those who write on Indian Agriculture should avoid the cardinal error of regarding the traditional system of agriculture in India as basically unsound. It is also equally necessary to emphasise the fact that the peasant is not unduly conservative in his attitude towards improvements. The peasant in South India is ready to adopt improvements demonstrated to him if it is worth his while. He is no doubt cautious for he has no margin of resources with which to finance unremunerative experiments.

The value of the book might be enhanced by giving illustrative extracts from original sources which would be useful for an intensive study of this important subject. It is very well printed and free from misprints excepting a minor misprint on page 323 of Aryabhushan.

The book is a welcome addition to the scanty literature on Rural Life in the Madras Presidency, and should prove particularly useful to the student of Rural Economics.

B. V. N.

## ACKNOWLEDGMENTS

*Staats-und Universitäts-Bibliothek: Hamburg.*

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2. Forster: *Zehn Jahre Hamb. Vorlesungswesen* 1906.
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4. Hamburg, *Her Political, Economic and Cultural Aspects* 1922.

*Kungl. Universitets Bibliotek: Uppsala.*

Four mathematical dissertations by

1. Matell 1924;
2. Matteson 1905;
3. Stenstrom 1925; and
4. Varmon 1925.

*Annual Report of the Indian Central Cotton Committee.*

*Administration Report of the Bombay Port Trust.*

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*The War Cry*

*Imperial Preference for India—By D. R. Gadgil.*

*Twelfth Annual Report of the Bombay Presidency.*

*Infant Welfare Society, 1932.*

## EXCHANGE LIST

*The Servant of India Society*

*Hindustan Review*

*Half Yearly Journal of the Mysore University*

*Economica*

*Philosophical Quarterly*

*Journal of the Indian Chemical Society*

*Reading University Gazette*

*Mysore Economic Journal*

*Chemical Abstracts*

*The Punjab University Gazette*

*Journal of the Bombay University*

*Quarterly Journal of the Mythic Society.*

*The Oriental Library, Baroda.*

*Kungl. Universitetets Bibliotek, Uppsala, Sweden*

*Tohoku Imperial University, Sendai, Japan.*

*Journal of the Madras University.*

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DR. S. RAMACHANDRA RAO, M.A.,  
PH.D., (LOND.), F. INST. P.  
(LOND.).

DR. S. N. CHAKRAVARTI, M.Sc.,  
D.PHIL. (OXON).

MR. K. RAMA PISHAROTI, M.A.



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### **To contributors and others**

Contributions, remittances, books for review, exchanges and correspondence regarding all matters may be addressed to:—

**Dr. B. V. Narayanaswami Naidu,**

*Economics Department,  
Annamalai University,  
Annamalainagar.*

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## 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'.<sup>1</sup> 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'<sup>2</sup> 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.<sup>3</sup> 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

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*'.<sup>4</sup> 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.

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. 406.

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'.<sup>5</sup> 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'.<sup>6</sup> 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',<sup>7</sup> while the 'proper-

hoc' novel corresponds to mental time, 'based on past-present-and-future, which arises from the relation of events to a perceiving mind'.<sup>8</sup>

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,<sup>9</sup> 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

5. Priestley: 'The English Novel'.

6. Forster: 'Aspects of the Novel', p. 116.

7. J. A. Gunn: 'The Problem of Time', p. 254.

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'.<sup>10</sup> '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'.<sup>11</sup>

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'.<sup>12</sup>

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',<sup>13</sup> 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'.<sup>14</sup>

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'.<sup>15</sup> 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 Jameson<sup>16</sup> 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'<sup>17</sup> 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 Toby<sup>18</sup>: '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

By

C. T. SRINIVASAN

(Annamalai University)

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, Vidyaranya 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 Sstras is more in accordance with the spirit of the Sstras 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 Sstras 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

By

V. G. RAMAKRISHNA IYER

(Annamalai University)

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 incontestable 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.<sup>1</sup> 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-tax<sup>2</sup> 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<br>according to<br>accounts 1928-29. | Estimated<br>Proceeds of<br>income-tax to be<br>transferred. | Present<br>Expenditure<br>per head of<br>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 4½ 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 2½ 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. 11½ crores, about 1/7th 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 6/7ths 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 1/7th of Rs. 11½ 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 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 British 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 5¼ crores out of the 17¼ 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 8¼ 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

B. V. NARAYANASWAMY NAIDU

(Annamalai University)

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:<sup>1</sup>

| Year.   | Companies<br>at work. | Paid up<br>Capital.<br>Rs. | Year.   | Companies<br>at work. | Paid up<br>Capital.<br>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.<sup>2</sup>

| Companies.                       | No. | Paid up capital.<br>£. | Debentures.<br>£. |
|----------------------------------|-----|------------------------|-------------------|
| Banking, Loan and Insurance      | 181 | 135,505,787            | 4,277,998         |
| Transit and Transport            | 49  | 74,278,274             | 52,432,688        |
| 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."<sup>3</sup> 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.<br>Rs. | Paid up.<br>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.<sup>4</sup> 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.<sup>5</sup> 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.<sup>6</sup>

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.”<sup>7</sup> 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.<sup>8</sup>

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.

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## The Tamil Drama

By

C. R. MYLERU

(Annamalai University)

### 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. "Sampūrṇa Rāmāyanams and Mahābārathams" we are not satisfied with, we must not leave "Bāghavatham" alone by any chance, we find it dramatised as the "Bhagavat-Gita" or as "Gītodayam", 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 Āzhwar—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 dancing<sup>1</sup> 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. Sūryanārāyaṇa Sāstri agrees with this view of the origin<sup>2</sup> 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

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.<sup>3</sup>

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 purāṇams," 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.'

2. "Nataka Iyal" by V. G. Suryanarayana Sastri.

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".<sup>4</sup>

(To be continued.)

## Kalidasa-the Dramatist

By

K. R. PISHAROTTI

(Annamalai University)

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 exquisite 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 *viś-rambha*, 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 *itis* 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 steepens his best and noblest creations in an atmosphere of distress. To mention a few examples, *Dīlīpa* 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 obseisance to *Durvāsa*. *Urvāśī* 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 Andhras 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

V. A. RAMASWAMI SASTRI

(Annamalai University)

### 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 *Citramimāṃsākhaṇḍana*; a unique production in Sanskrit grammar, the *Manoramākucamardana*; five famous *laharīs* (devotional poems), the *Suddhālaharī*, the *Amṛtalaharī*, the *Lakṣmilaharī*, the *Karuṇālaharī* and the *Gaṅgālaharī*; three biographical works, the *Prāṇābharaṇa* (with *Ṭikā*), the *Jagadābharaṇa* and the *Āsaphavilāsa*; and two more literary works, the *Bhāminivilāsa* 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 (Tailinga) 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.<sup>1</sup> Jagannātha received instruction in all branches of knowledge except in Sanskrit grammar under his own literary father whom he extols in glowing terms:

“ वाषाणादपि पीयूषं स्यन्दते यस्य लीलया ।  
तं वन्दे पेक्षमहाख्यं लक्ष्मीकान्तं महागुरुम् ॥ ”

In Sanskrit grammar he acquired proficiency under the able tutorship of Śeṣa-vīreśvara, the grammar-teacher of his own father.<sup>2</sup> 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:

“ श्रीमज्ज्ञानेन्द्रमिक्षोरधिगतसकलब्रह्मविद्याप्रपञ्चः  
काणादीराक्षपादीरपि गहनगिरो यो महेन्द्रादवेदीत् ।  
देवादेवाभ्यगीष्ट 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,<sup>4</sup> the commentator of the *Rasagaṅgādhara*, identified with Khaṇḍadeva, the reputed author of *Bhaṭṭadīpikā*, the *Bhaṭṭa-kaustubha* and the *Bhāṭṭarahasya*. Perubhaṭṭa studied grammar under

1. See the last verse in his *Prāṇābharāṇa Kāvya* and the colophon to his *Bhāminivilāsa*:

- (a) तैलङ्गान्वयमङ्गलालयमहालक्ष्मीद्यालालितः ।  
श्रीमत्पेरमभट्टसुनुरनिशं विप्रल्ललाटान्तपः ॥  
(b) इति श्रीमदखिलान्ध्रवेगिनाडिकुलावतंसः ।

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. “ सा च (प्रौढमनोरमा) प्रक्रियाप्रकाशकृता पौत्रैरखिलशास्त्रमदार्णवम-  
न्याचलायमानमानसानां अस्मद्गुरुपण्डितवीरिभिराणां तनयेर्दूषितापि  
स्वमतिपरीक्षार्थं पुनरस्माभिर्निरीक्ष्यते ॥ ”  
‘ देवादेव—एवः प्रसिद्धी । खण्डदेवादेवेत्यर्थः ।’

*Rasagaṅgādhara*—Commentary. p. 2.

Śeṣa whose full name was Śeṣavīreśvara.<sup>5</sup> This Śeṣavīreśvara and the famous Bhaṭṭojidīkṣita were pupils of Śeṣa-śrī-kṛṣṇa, the father of Śeṣavīreśvara 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.<sup>6</sup> 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.<sup>7</sup> 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,<sup>8</sup> 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 क्षेत्रसन्त्यासं गृहीत्वा काश्यं स्थितोऽस्मि । अतस्तां परित्यज्यान्यत्र गन्तुं न शक्नोमि ’<sup>9</sup> ।

Therefore, Nāgeśa is only removed by two generations from Jagannātha, as the following table shows:

5. ‘ शेषविरच्य उपनाम यस्य तस्माद्वीरेश्वरपण्डितात्प्राप्ता ’

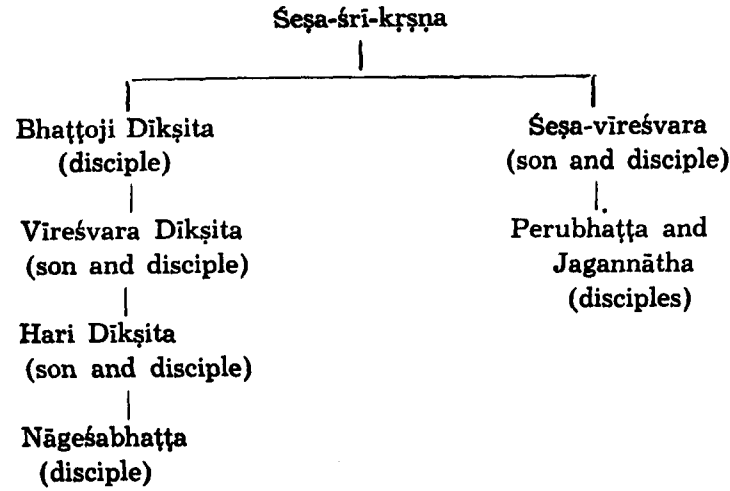
6. Vide A. V. Gopalachari's Introduction to the *Yādavābhyudaya*, Vol. II—the date of Appayya Dīkṣita, and Y. Mahāliṅga Śāstri's article on the age and life of Appayya Dīkṣita, in the *Journal of Oriental Research*, Madras, Vol. II, Parts III and IV.

7. Vide the concluding remarks on I. 1. 4 in the *Bhāṭṭadīpikā*.

8. “ याचकानां कल्पतरोररिकक्षुताशानात् ।  
नागेशः शृंगिवेशरामतो 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 Bhāminī-vilāsa, Jagannātha clearly says that he passed his youth under the benevolent patronage of the all-powerful emperor of Delhi—

“दिल्लीबल्लभपाणिपल्लवतले 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 *Rasa-gaṅgādhara*. One such which clearly refers to the Mogul emperor may be quoted<sup>10</sup>:

10. *Rasagaṅgādhara* p. 405.

“सृष्टिः सृष्टिकृता पुरा किल परित्यातुं जगन्मण्डलं  
स्वं चण्डातप! निर्दयं ब्रह्मसि यज्ज्वालाजटालैः करैः ।  
संरम्भाणलोलोचनो रणभुवि प्रस्थातुकामोऽधुना  
जानीमो भवता न हन्त ! विदितो दिल्लीधरावल्लभः ॥”

Jagannātha opens his *Asaphavilāsa*, 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*.<sup>11</sup> It is now clear, therefore, that Shah Jehan, his son Dara Shukho and Asaf Khan were Jagannātha's patrons during his middle age. The *Asaphavilāsa* 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.<sup>12</sup> 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 दिवमासफेन्यौ तदाभितानां यदभूद्विनाशः ।  
इदन्तु चित्रं भुवनावकाशे निराश्रया खेलति तस्य कीर्तिः ॥<sup>13</sup>

11. “अथ सकललोकविस्तारविस्तारितमहोपकारपरम्पराधीनमानसेन प्रति-  
दिनमुद्यदनवद्यगद्यपद्याद्यनेकविद्याविद्योतितान्तःकरणैः कविभिरुपास्यमानेन कृतयु-  
गीकृतकलिकालेन कुमतिवृणजालसमाच्छादितवेदवनमार्गविलोकनाय समुदीपित-  
सुतर्कदहनज्वालाजालेन मूर्तिमतेषु नवाबासफखानमनःप्रसादेन द्विजकुलसेवादे-  
वाकिवाङ्मनःकायेन मायुरकुलसमुद्रेन्दुनारायमुकुन्देनाविष्टेनसार्वभौमधीशाहजहा-  
प्रसादादधिगतपण्डितराजपदवीविराजितेन तैलकुलाघतसेन पण्डितजगन्नाथेना-  
सफविलासाख्येयमाख्यायिका निरमीयत । सेवमनुग्रहेण सहृदयानामनुविनमुल्ला-  
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 सुधाकरश्रीमदृशी च कीर्तिः ।  
पयोधिकल्पा मतिरासफेन्दोः महीतलेऽन्यस्य नहीति मन्ये ॥”<sup>14</sup>

'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 says'<sup>15</sup> 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:

‘अवहाय सकलबान्धवविन्तामुद्रास्य गुरुकुलप्रणयम् ।  
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.'<sup>16</sup> 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 यदङ्गता ॥  
इयं सुस्तनी मस्तकन्यस्तकुम्भा कुसुमारुणा 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 *Praḍhamanoramā*, 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 ॥<sup>17</sup>

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

By

B. N. KRISHNAMURTI SARMA

(Annamalai University)

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 Sobhanabhaṭṭa (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 *Madhuvijaya* or the metrical biography of Madhva by Nārāyaṇa

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 Kanara<sup>1</sup> 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-

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 Kāvugolī, 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'.

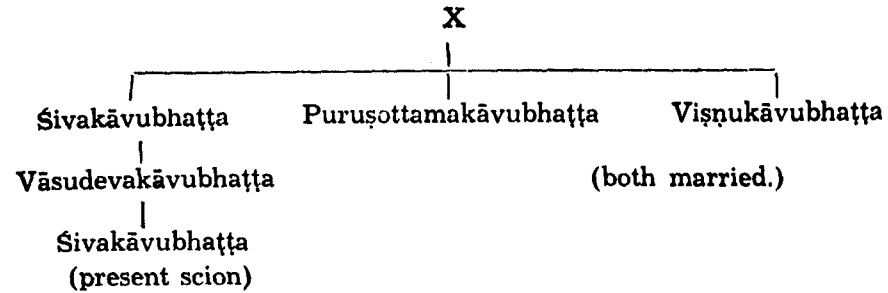
But tho' the ladies of the household of the present-day descendants of Trivikrama speak Malayālam, the male members do converse in Tulu. Even apart from migratory causes, one can understand the use of Malayālam by the ladies as Kāsargod itself lies on the edge of Malabar territory and is itself thickly 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

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).

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 *Madhvaviṇaya*, that his father had two brothers and both these were respectable householders. In canto XV. 136 of the *Madhvaviṇaya* 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"<sup>2</sup> which is further explained by the author in his own commentary on the *Madhvaviṇaya* as meaning Trivikramācārya himself, and his two brothers both named "Śamkarācārya".<sup>3</sup> Now, if Trivikrama and his brothers happened to be Nam-

2. बहवो गृहिणोप्यस्मात्समप्रानुग्रहं ययुः ।  
दीप्ता यत्राग्नय इव त्रयो लिङ्कुवशेखराः ॥ *Madhvaviṇaya*, XV, 136.
3. त्रयः, त्रिविक्रमाचार्यः, शंकरार्यौ द्वौ ॥  
*Madhvaviṇaya* bhāṣya prakāśikā, Śrī Krishna Press, Udipi, 1925.

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 *Madhvaviṇaya* 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, Pejjattāya, Toṭantillāya, Naḍuvantillāya, Maraḍittāya, etc. The author of the *Madhvaviṇaya* 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 *Madhvaviṇaya* in verse 136 of the XV canto of his work, but by Trivikrama himself at the outset of his *Uṣāharaṇa*<sup>4</sup>:—

विज्ञानपाथेयवतां विपश्चिदागन्तुकानामहमात्मशक्त्या ।  
आतिथ्यकार्याय फलं रसार्द्रं काव्याभिधानं लिङ्कुचः प्रसोष्ये ॥  
(उवाहरण)

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 Pejjattāya in Tulu. That is to say, Trivikrama Paṇḍitācārya was a member of the "Pejjattāya" clan of the Tulu Brahmins.<sup>5</sup> The Nambūdris of Malabar do not have any such class-names and the term Likucakulatilaka or Pejjattāya 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*, Udipi.
5. सुतयः कवितादिसङ्गणानां लिङ्कुचानां कुलजोगिरोऽन्वयानां ।  
*Madhvaviṇaya*, XIII, 43.

Paṇḍita of which the terms Guha<sup>6</sup>, and Skanda<sup>7</sup> 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,<sup>8</sup> belonged to the Āngirasa-gotra<sup>9</sup> and was himself a great scholar.<sup>10</sup> 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 Hara<sup>11</sup> and by the grace of the gods, a son was born, at last, who was named Trivikrama by his father.<sup>12</sup> 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 Saguṇopāsanā 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 विपश्चित्कविवर्योऽखिलधादिवन्दीयः ।

(Ibid).

7. स्कन्धाभिधानगदित गुरुमद्यमूर्ध्ना  
ज्ञानामृतोपनिधिभूमिमसुं नमामि ॥

(Uṣāharaṇa).

8. सुब्रह्मण्याख्यसूरेः सुत इति सुभृशं केशवानन्दतीर्थ  
श्रीमत्पादाब्जभक्तः स्तुतिमकृत हरेर्वायुदेवस्य वास्य । *Vāyustuti*, 41.

9. सुतपः कवितादि सद्गुणानां लिकुचानां कुलजोगिरोऽन्वयानाम् ।

*Madhvaviṇaya*, XIII, 43.

10. अभवद्गुहनामको विपश्चित्कविवर्योऽखिलधादिवन्दीयः ॥

(Ibid).

11. Presumably at the same temples which stand at present near the home of the family.

12. कृतकृत्यतया क्रियाः प्रकुर्वन्कविराख्यादुचितां त्रिविक्रमाख्याम्

*Madhvaviṇaya*, XIII, 46.

him to try conclusions with the Messiah of the new creed and nip heresy in the bud. Flattered by these entreaties, his courage seemed to return 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 *Madhvaviṇaya* 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.<sup>13</sup> 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.<sup>14</sup> 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 Trivikrama felt dazed and was completely routed.<sup>15</sup> He owned himself vanquished and begged to be admitted as a disciple of the Ācārya.<sup>15a</sup> 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 प्राज्ञमनोज्ञशास्त्रसारं  
अपराविदितः प्रसादगर्भं विदधे विसयमान्तरं महान्तम् ॥

*Madhvaviṇaya*, XIII, 67.

14. तं विष्णुमङ्गलगते बहुलप्रबोधं प्राप्याभ्यवन्दत तदायुगविक्रमार्थः ॥

*Madhvaviṇaya*, XIII, 69.

15. सप्ताष्टानि दिनान्येवं वाक् कृत्वा सहामुना ।

निरुत्तरं तं निश्चोद्यं चक्रे चक्रायुधप्रियः ॥

*Madhvaviṇaya*, XV, 69.

- 15a. Vide snapshot of the *Jayastambha* or pillar of victory set up in commemoration of the event.

*Brahma-sūtra-bhāṣya* of Madhva.<sup>16</sup> 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 commentary<sup>17</sup> 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 Kāsargod. 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 sons<sup>18</sup> 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.<sup>19a</sup> 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*<sup>19</sup>:

16. गुवांज्ञागौरवाद्दीकां कुर्वन्भाष्यस्य दुष्करां ।

Op. cit XV, 72.

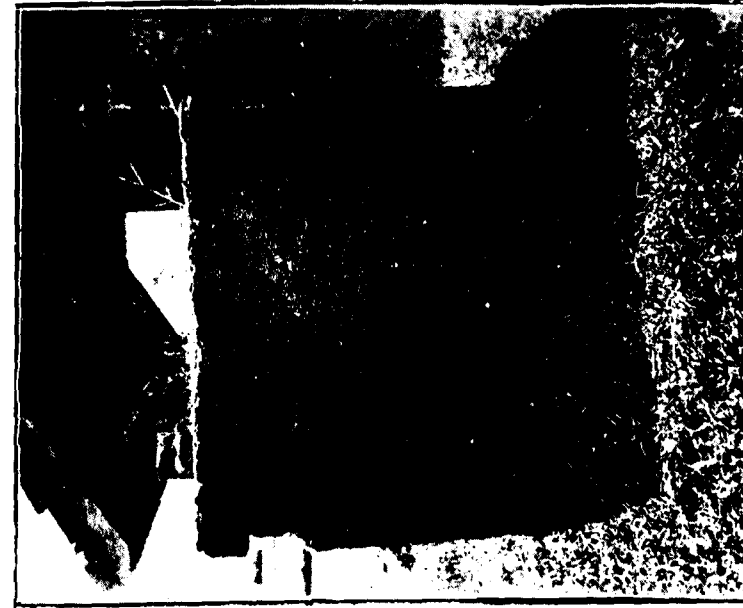
16a. Vide snapshot of Trivikrama's Tomb.

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-bhāvaṇaprakāśikā* of Nārāyaṇa, concluding verse. (Śrī Krishna Press, Udipi).

19. *Madhvaviṇaya*, XIII, 48.



Tomb (Brndāvana) 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. Gopinatharao, Taluq Board Office, Kasargod.

सकलांगयुतावभातशास्त्रः समये प्राप्त उदार पक्षिसेव्यः ।  
स ससर्ज सध्वगोपकृत्यै लिङ्गुचः काव्यफलं रसाभिरामम् ॥

wherein he simply echoes the wording of the *Uṣāharaṇa* itself<sup>20</sup>:

विज्ञानपाथेयघतां 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 *Uṣāharaṇa* 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. *Uṣāharaṇa*, 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 Kaiṁsa, 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 Campakamālikā, Mālinī, Rathoddhatā, Vamśastha, Praharṣiṇī, Śārdūlavikriḍita, 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 Udyānakriḍā, 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, esp. 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 *granthas* (units of 32 syllables). Barring the *Sattarkadīpāvali* 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 Śaṁkara 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 Śaṁkara 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.<sup>21</sup> 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, Vyāsatīrtha, 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.<sup>22a</sup> 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 *Tattvapradīpa* 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 *adhi-karaṇa* the *अधिकरण सङ्गतिः, शास्त्रसङ्गतिः, सम्बन्धबीजः* 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 *Bhāmātī* 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.<sup>22</sup> 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;<sup>23</sup> 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 *Bhāmātī* of Vācaspati. Both the *Tattvapradīpa* and the *Pancapādikā* were written by the immediate disciples of Madhva and Śaṅkara whereas the *Bhāmātī* 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 *Bhāmātī-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, Ānandabodha, 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. *ग्रन्थोपमपि बह्वर्थः भाष्यं चात्यर्थविस्तरं ।*

*बहुधा एव जानन्ति विशेषणार्थमेतयोः ॥*

*Anuvyākhyāna.*

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 द्वादशवार्षिक्यामनावृष्ट्यामृष्योऽ-  
ध्युषुः । तत्राहरहस्तेन समीहितद्वयकव्याभ्यवहारातिसर्जनेन सुकृतसमाधिस्वा-  
ध्यायवचनास्समवर्तन्त । सत्यां वृष्टौ निर्गन्तुमीहमानास्तं महामुनिमनुष्ठापयाचकुः ।  
तेन विनिवारिताः सुहृत्तमं तममी स्नेहभङ्गभयान्नात्यवर्तन्त । तस्मिन्काले पतिशि-  
रसः सपत्नी निष्कासयन्त्या पार्वत्याप्रेरितो विनायको ब्रह्मचारिवेपप्रच्छन्न-  
स्तानुषीनुपससार । “भगवन्तः, किमत्रभवतां तपोधनानां तपःक्षयकारेणाति-  
चिरमेकत्र पराक्षाशनेन ? स्वस्वमाश्रमं व्रजत । तत्रचोपायमाकर्णयत । तपोबला-  
न्मायामयीं गां निर्मिमीध्वं । तांतु गौतमः स्वकीयतपःशक्त्यानुसवनें वधुकी-  
कृतबलाहकावलीविगलितसलिलसर्वाधितसस्यप्रासिनीमपक्रामयितुं प्रयातिष्यते ।  
सा ततः सहसा निपतिष्यति । तदा ब्राह्मणास्तं विव्रत । यावदिमामशेषमातरं  
सौरभेयीं नोत्थापयिष्यति तावन्न भवान्भोज्यान्नः अतो हरशिरसः सुरसरितम-  
वतार्य, तद्वारणासिच्य तामुज्जीष्यतु भवानित्येवमनुतापिनं तमभितप्यापसरते”  
त्युक्त्वा स व्रती स्वर्गतिं जगाम ॥ ते चामुना सुनिपुणेन प्रणिगदितं प्रायेणोपाय  
मुपश्रुत्यान्वतिष्ठन् । तेनैव च पातिष्ठन्त-ततस्तावत्सौ मुनेवृषभश्चिरकाले चीर्णया  
तपस्यया परितोषितात्पशुपतेर्मौलिमालायितां मन्दकिनीमंसेन समानीय तद्वारिणा  
सुरभिभिषिषेच । ततः सांत्तस्थौ तद्गतमेन गोक्षंवारि गोदावरीति जगति  
प्रसिद्धिं लेभे । अथ तस्य चिन्ता समजनिष्ट । किमिह किल कारणं यदनया भग्न्या  
केवलान्मे कमण्डलूद्वक्खिन्दुसंस्पर्शादपति, सहसा व्यमोहि । अथ च गिरिशंत्तमा-  
ङ्गागतसुरतरङ्गिणीतनुतरङ्गसंगमादेव चोदबोधि, झटितिचांक्ष्यायि, आश्चर्यमेत-  
दिति स वितधाधिः समाधिं समाधत्त बुबुधेच तद्वत् । विबुधवरयोरंबिकाहेरम्बयोरधि  
नाविचेष्टितेन बुक्रोधच ताभ्यां अहो अस्मत्सपोबलादतिमहतीं विपद्मतितीर्णानामन्न-  
पानादिभोगमत्तानां मुनीनां दुष्टेष्टितमेतत् । अस्तुनाम । तेषां धर्ममूढानां अस्स-  
ान्नमिस्ताद्वासं ज्ञानं विनश्यतु इति गौतमशापः ॥ (तत्त्वप्रदीप)<sup>24</sup>

Throughout his *Tattvapradīpa* Trivikrama quotes calmly, unsus-  
pectingly 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 rais-  
ed 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 ऋषेः शापाज्ज्ञानेत्यज्ञानतां गते.

the “Kāṭhara and Māṭhara” śrutis, the Bṛhat-saṃhitā, Bhāgavata-tantra, Tantra-bhāgavata and Vyomasamhitā of Madhva nor by his Mahāvya-  
karaṇ sūtras, his Śabdanirṇayas and Vyāsaniruktas! Madhva could  
scarcely have hoped to make a stand for his own part, against his oppo-  
nent, 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 bigot-  
ed 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 Ad-  
vaitism to its foundations merely by parading a mass of forged śrutis  
and Smṛtis. The works of Trivikrama Paṇḍita, Padmanābha tīrtha 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 Madh-  
va which are cited by Trivikrama in appropriate contexts of this com-  
mentary have thus, a great value in a critical consideration of the pro-  
blem 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 origi-  
nals 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*.<sup>25</sup> 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 सत्यमेकौ परस्परं ।

तेन सत्येन मां देवालयन्तु 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;<sup>26</sup> 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 Avatāra 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 चाचायः 'इति सप्तप्रधानानीति' । सर्वत्रैतमेव सूत्रपदानां कृत्यमुपक्षिपति-ननु निर्वक्षित । 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 जीवस्येपाप्नेति यथेश्वरस्यजीवस्येति इत्याम्ने ॥ *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 प्राणकचदत्येवविद्यात्—Madhva writes:— किमुच वेदाः, समुद्रमेघवृक्षपतनमेरीताडनादि 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 ब्रूयात्समेकं बादरायण' मिति तस्यैव सर्वश्रुतीतिहासपुराणतन्त्रयुक्तिमूलं परमात्मतत्त्वविषयं निर्णयात्मक-सूत्रजातं जगति सुरवरपुरःसरकविजनमनःसरसिजसमूहसहस्रकिरणेभ्यो गुरुतम-भाष्यकारभट्टारकेभ्य एभ्योऽपरः कोऽप्यचक्षीत—किन्तु, प्राज्ञतमानामेषामाज्ञाबल मवलम्ब्य रुढप्रौढदुरधिगममार्गाः कतिचनभाष्यपदानि व्याचिख्यासवः सूत्रमिह गुरुभिरुदाहृतमुदाहराम एव केवलं । कापिच मुञ्चतो विवृतमपि किमपि पदमपि मुञ्चविकसितकरतलविलसितामलकवद्विरतमनुवीक्ष्यमाणसूत्रार्थजातानां दुर्विगाह मतिमहासमुद्राणां मितपदं चेदं भाष्यं बह्वर्थमिह कुर्वता कृपालुनामनुग्रहादर्थाक्षित 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 Mālini metre has been published in the *Stotra-mahodadhī*, 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 *Maṇimanjari* 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 *Maṇimanjarī* 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 Śyṭ 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 verses<sup>27</sup> 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.

## Preliminary Synthetic Experiments in the Cytisine Group

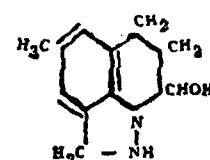
### Part I. Attempted Synthesis of Ewins' Structure for Cytisine

By

SATYENDRANATH CHAKRAVARTI AND A. VENKATASUBBAN

(Annamalai University)

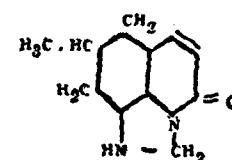
At the time when these researches were started, the constitution of Cytisine was still uncertain. The following three formulæ had been suggested for cytisine:—



Cytisine  
(Ewins)



Cytisine  
(Freund and Gauff)



Cytisine  
(Spath)

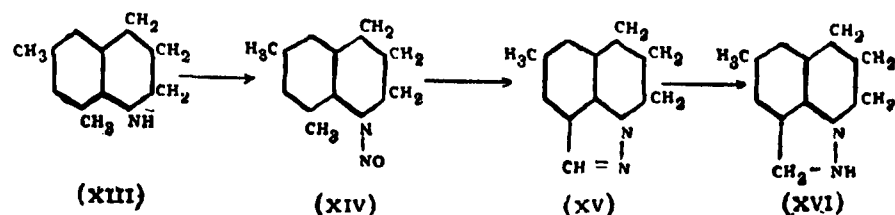
None of these structures is really satisfactory, but the fact that 6:8 dimethyl-quinoline, and 6:8 dimethyl 1:2:3:4 tetra-hydro-quinoline are formed on the reduction of Cytisine inclined us to the view that Ewins' Formula represented the properties of Cytisine as well as that of Freund's or Spath's formula (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.

27. Including the two in the beginning which were composed by Madhva himself and prefixed to his disciple's poem.

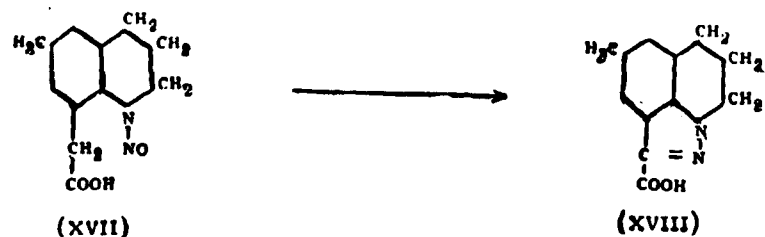


Oxy-uvitic aldehyde (IX) was prepared by the excellent method devised by Ullmann and Brittner (Ber., 1909, 42, 2545) and converted, by the malonic acid method, into (X) through its Monoschiff's base. The Cinnamic acid (X) was converted into the hydrazide (XI) through the ester, and experiments are now 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-



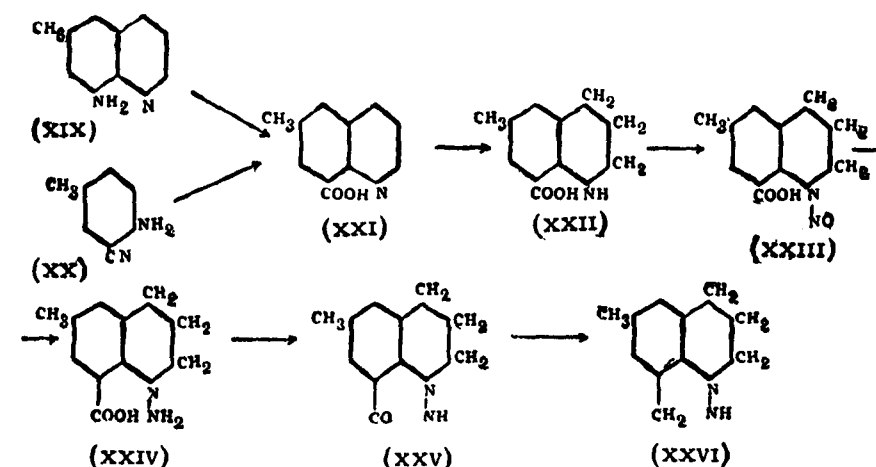
vert (XIV) into (XV) by the removal of a molecule of water through the aid of condensing agents like dry benzene, absolute alcohol, absolute alcohol containing a few drops of 33% NaOH, benzene and phosphorus pentoxide, Sodium ethoxide in alcoholic solution, have so far been unsuccessful. In view of these results, attempts are now being made to convert (XVII) into (XVIII) where the hydrogen atoms of the  $\text{CH}_2$  group in position 8, are far more reactive than 8-methyl group in (XIV).



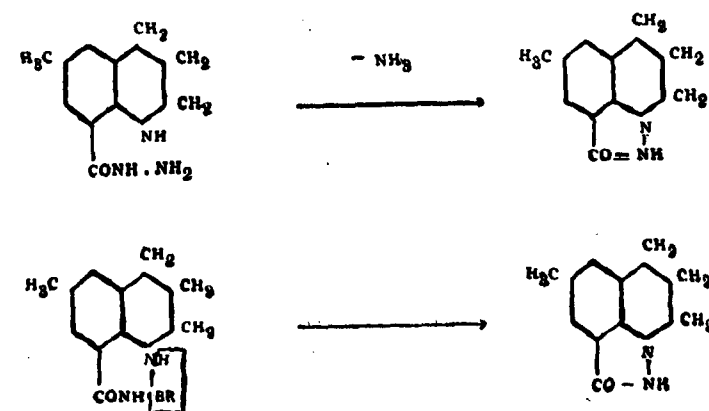
Finally, we attempted to synthesise (XV) by the following series of reactions:—

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 aldehydo 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; C<sub>15</sub>H<sub>14</sub>O<sub>2</sub>N<sub>2</sub> 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 Findelke (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;  $C_{11}H_{18}O_2N$  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%  |
|                                         |    | <hr/>  |
| Total.                                  | .. | 17.93% |
|                                         |    | <hr/>  |

**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  $p^\lambda$ .

The multiples of  $p^\lambda$  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  $p$ ,

$$(p^t \cdot c \cdot p^{\lambda-t}, np^{\lambda-t}) = (c \cdot p^{\lambda-t}, np^{\lambda-t}) \quad \dots (4)$$

Also  $(a, n) = (a + un, n)$ .

Therefore,

$$\begin{aligned} S_t &= \sum_{s=1}^t (a_s, m) = \sum_{s=1}^t (a_s, n \cdot p^{\lambda-t}) \\ &= \sum_{s=1}^t \sum_{n=1}^p (s \cdot p^{\lambda-t}, np^{\lambda-t}) - \sum_{s=1}^{t-1} \sum_{n=1}^p (b_s, np^{\lambda-t}) \end{aligned}$$

(where the  $b$ 's are multiples of  $p^{\lambda-t+1}$  till  $n$ .)

$$\begin{aligned} &= \sum_{s=1}^t \sum_{n=1}^p (sp^{\lambda-t}, np^{\lambda-t}) - \sum_{s=1}^{t-1} \sum_{n=1}^p (sp^{\lambda-t}, np^{\lambda-t}) \quad (\text{from 4}) \\ &= p^{\lambda-t} \left\{ \sum_{s=1}^t \sum_{n=1}^p (s, n) - \sum_{s=1}^{t-1} \sum_{n=1}^p (s, n) \right\} \\ &= p^{\lambda-t} \left\{ \sum_{n=t}^t \sum_{s=1}^p 1 \sum_{n=1}^p (s, n) - \sum_{n=1}^{t-1} \sum_{s=1}^p 1 \sum_{n=1}^p (s, n) \right\} \quad \text{applying (3)} \\ &= p^{\lambda-t} \left\{ \sum_{s=1}^p \beta(n) - \sum_{s=1}^{t-1} \sum_{n=1}^p \beta(n) \right\} \quad \dots (6) \\ &= p^\lambda \beta(n) - p^{\lambda-1} \beta(n) \end{aligned}$$

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  $n$ .

$$\sum_{d|n} \beta(d) = \sum_{d|n} \beta(p_1^{b_1} \dots p_r^{b_r}), \quad (\text{where } 0 \leq b_s \leq a_s)$$

$$= \sum \beta(p_1^{b_1}) \times \beta(p_2^{b_2}) \times \dots \times \beta(p_r^{b_r}) \quad (\text{from the corollary})$$

$$\begin{aligned}
&= \prod_{s=1}^r \left( 1 + \beta(p_s) + \beta(p_s^2) + \dots + \beta(p_s^{\lambda_s}) \right) \\
&= \prod_{s=1}^r \left( 1 + (2p_s - 1) + (3p_s^2 - 2p_s) + \dots + (\lambda_s + 1)p_s^{\lambda_s} - \lambda_s p_s^{\lambda_s - 1} \right) \\
&\quad \text{from I} \\
&= \prod_{s=1}^r \left( (\lambda_s + 1) p_s^{\lambda_s} \right) \\
&= n(\lambda_1 + 1) \dots (\lambda_r + 1) = nd(n).
\end{aligned}$$

Corollary:—If  $\beta_t(n) = n^t \left( \lambda_1 + 1 - \frac{\lambda_1}{p_1} \right) \dots \left( \lambda_r + 1 - \frac{\lambda_r}{p_r} \right)$

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,

$$\begin{aligned}
\beta(n) &= \sum_{d/n} \sum_{r=1}^n (r, n) = \sum_{d/n} d \Phi(n/d) \\
&= \sum_{d/n} (n/d) \Phi(d) \\
&= n \sum_{d/n} \frac{\Phi(d)}{d}.
\end{aligned}$$

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,

$$\begin{aligned}
\frac{\beta(n)}{n} &= \sum_{d/n} \frac{\Phi(d)}{d} \\
&= \sum_{\substack{b_1 \dots b_r \\ p_1 \dots p_r}} \frac{\Phi(p_1 \dots p_r)}{p_1 \dots p_r}, \text{ where } 0 \leq b_s \leq \lambda_s \\
&= \sum_{p_1} \frac{\Phi(p_1)}{p_1^{b_1}} \times \dots \times \frac{\Phi(p_r)}{p_r^{b_r}} \\
&= \prod_{s=1}^r \left( 1 + \frac{\Phi(p_s)}{p_s} + \frac{\Phi(p_s^2)}{p_s^2} + \dots + \frac{\Phi(p_s^{\lambda_s})}{p_s^{\lambda_s}} \right) \\
&= \prod_{s=1}^r \left( 1 + (1 - 1/p_s) + (1 - 1/p_s) + \dots + (1 - 1/p_s) \right) \\
&= \prod_{s=1}^r \left( \lambda_s + 1 - \lambda_s/p_s \right)
\end{aligned}$$

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  $d_i = b_1 b'_1 = b_2 b'_2 = \dots = b_i b'_i$ . Let us pick out the co-efficient of  $(n/d_i)$  in  $\sum \beta(d)$ .

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

S. RAMACHANDRA RAO

(Annamalai University)

### 1. INTRODUCTION.

In a recent paper,<sup>1</sup> an attempt was made by the writer to explain the unusual soft X-ray efficiency curves of Nakaya<sup>2</sup> and Richardson and Robertson<sup>3</sup> 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,<sup>4</sup> Farnsworth,<sup>5</sup> Krefft,<sup>6</sup>

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5. H. E. Farnsworth, Phys. Rev., 31, 414 and 419 (1928) and 34, 679 (1929).
6. H. Krefft, Phys. Rev., 31, 199 (1928).

Ahearn,<sup>7</sup> Hyatt and Smith<sup>8</sup> and the writer.<sup>9</sup> 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

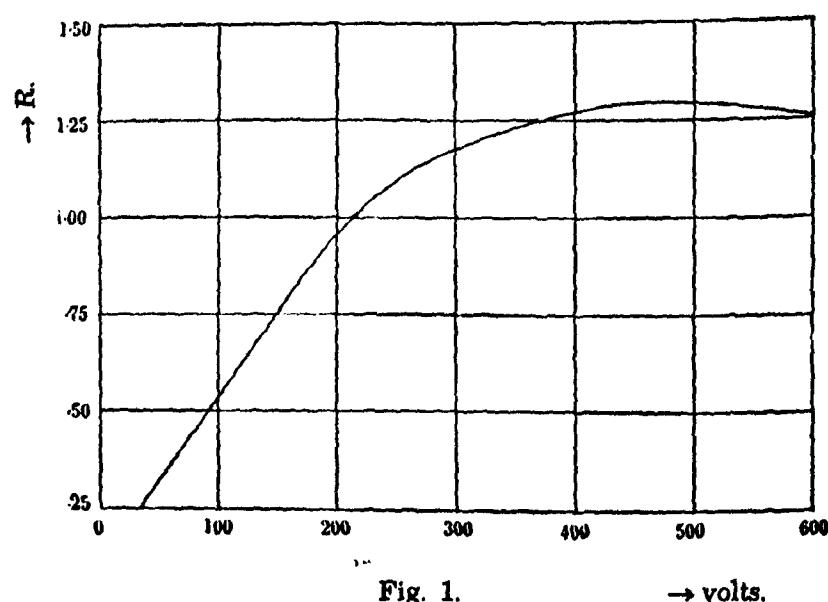


Fig. 1.

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 writer<sup>10</sup> based on the experiments of Rudberg,<sup>11</sup> Farnsworth<sup>12</sup> and himself (*loc. cit.*, ref. 9) and on the theoretical considerations advanced by Prof. O. W. Richardson.<sup>13</sup> 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.<br>Volts. | $R$   | Average energy of the total emission.<br>Volts. | Average energy of the II & III group electrons.<br>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

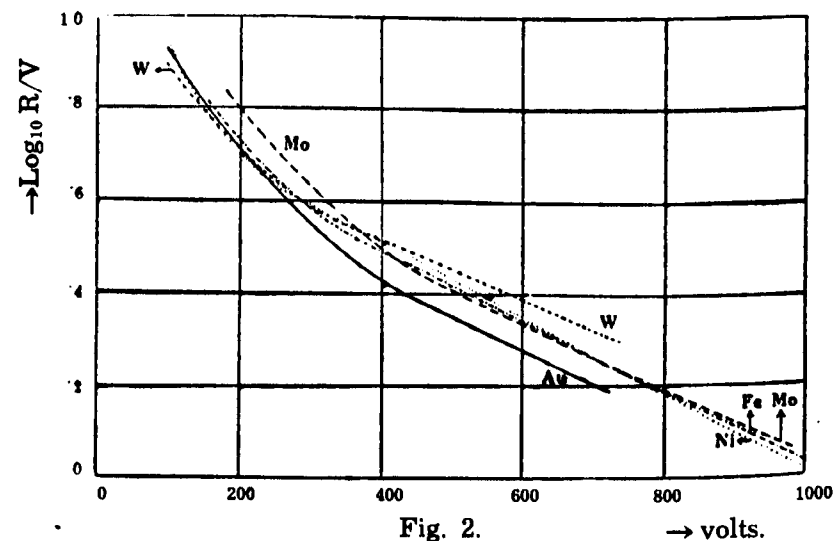


Fig. 2.

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

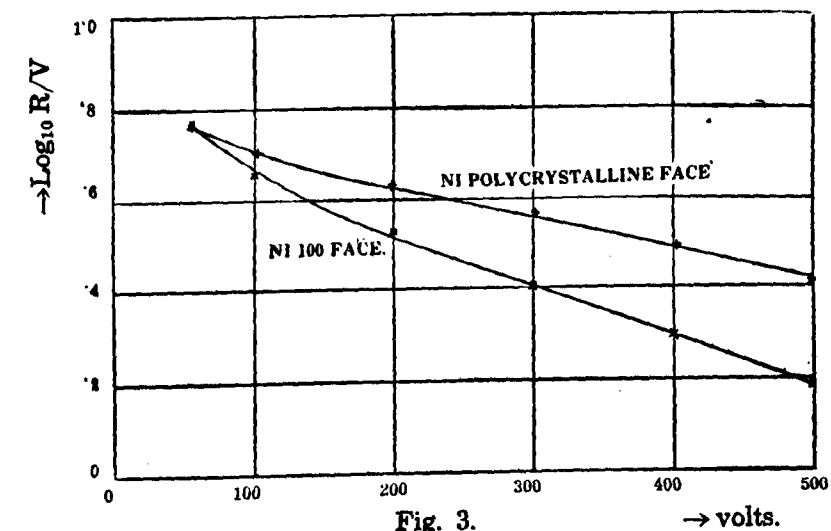


Fig. 3.

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

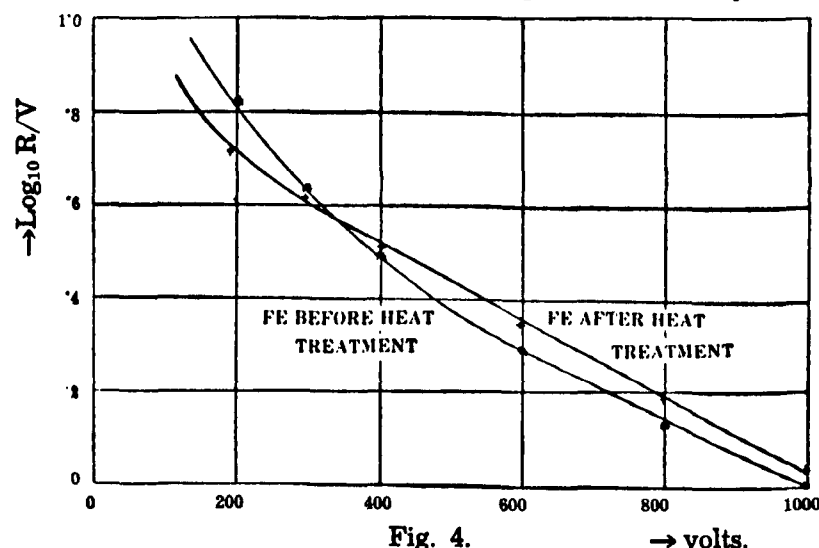


Fig. 4. → volts.

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.<sup>14</sup> 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.<sup>9</sup>

## Somatic Mitosis in *Allium sativum* (Linn)

By

T. S. RAGHAVAN

(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 Strasburger (15), Schaffner (13), and Merriam (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  $6\ \mu$  and  $16\ \mu$  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 quadripartite 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.

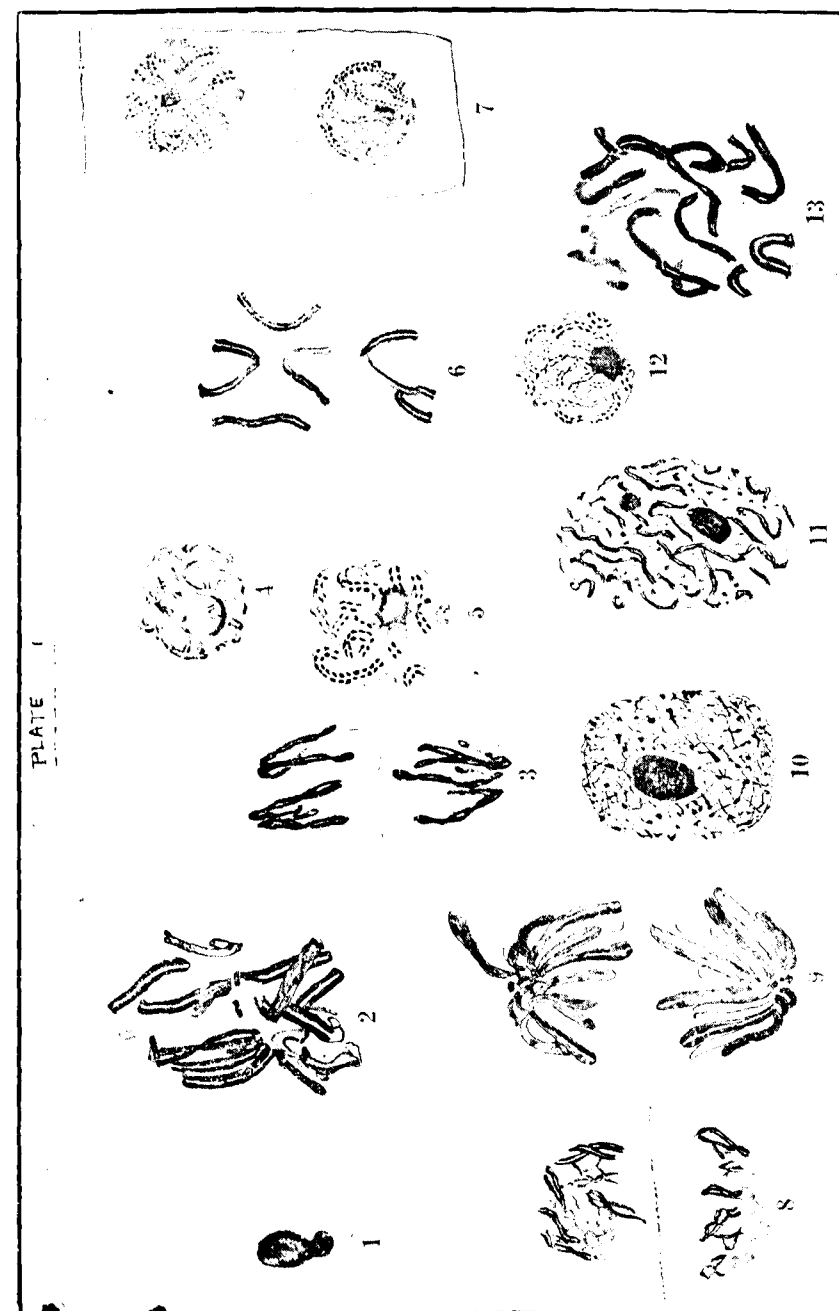
3. Metaphase chromosomes show the dual nature very clearly as also the less chromatic matrix in which the chromonemata lie embedded.

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 &amp; 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 discernable. 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.

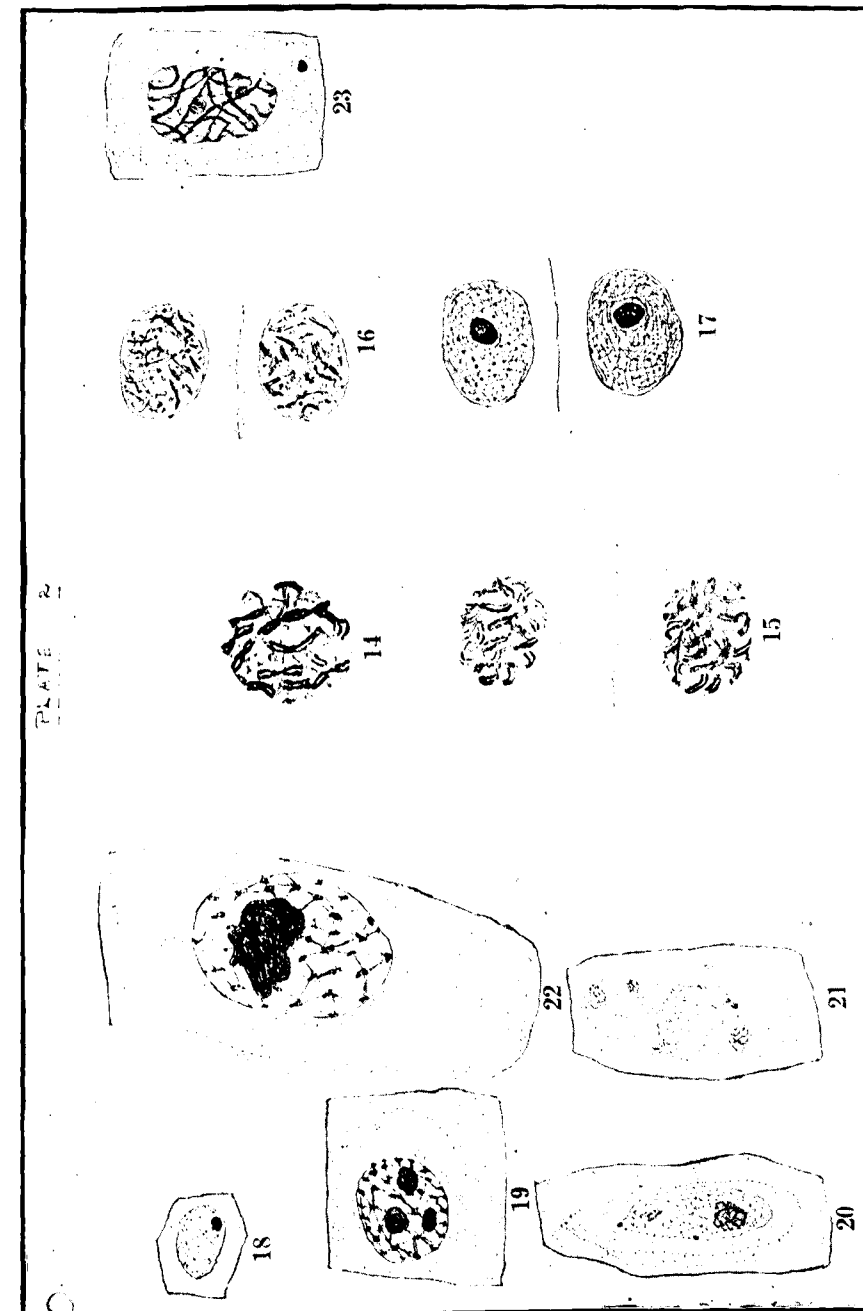
Fig. 18. Ordinary meristematic cell with the resting nucleus.

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

M. O. THOMAS

*(Annamalai University)*

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

By

R. P. SETHU PILLAI

(Annamalai University)

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 புடைபொருளாகவே அமைந்துள்ளது. ஆயினும் இக்காலத்தில் வெளிவந்துவரும் பழந்தொகை நூல்களைத் துணைக் கொண்டு ஆராயும் பொழுது அக்காலத்திய அந்தணரும், அரசரும், வணிகரும் வேளிரும் வளமார்ந்த தமிழ் மொழியை ஆதரித்து வளர்த்த ஆர்வம், பளிக்கு போல் விளங்குவதாகும். இவ்வாறு புலனழக்கற்ற அந்தணரும், புவிச் செல்வம் படைத்த பெருவேந்தரும், பண்டமாற்றிப் பணிசெய்த வணிகரும், பழுதற்றவே ளாண்மையிற் பண்புற்ற வேளிரும் மனமிசைந்து வளர்த்தமையாலேயே தமிழ் மொழி முற்காலத்தில் தழைத்தோங்குவதாயிற்று. இன்னும் பிறவாயாக்கைப் பெரியோனை வழிபட்ட சைவரும், நீலமேனி நெடியோனை வழிபட்ட வைணவரும், பூம வியசோகின் புனைநிழலமர்ந்த அருகனை வழிபட்ட சமணரும் போதிமரத்தடியிலமர்ந்த புனிதனை வழிபட்ட புத்தரும், பைந்தமிழ் மொழியைப்போற்றி வளர்த்தார்கள். இங்ஙனம், சாதிமதச் சுழிகடத்து, காலமென்னும் கடம்புனலாற்றில், தமிழ்க்கலம் களித்துலாவியது.

இத்தகைய தொன்மை வாய்ந்த தமிழ்மொழியைச் சென்ற இருநூறுண்டுகளாகப் 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, ஆர்வமுடப் பயின்ற பொழுது, அந்நூல்களின் தெள்ளியசுவை அன்றோ உள்ளத்தை அள்ளுவதாயிற்று. தமிழ் மொழியைப் போதிய வளவு கற்றுப் போதனைசெய்யக் கருகிய மேலைநாட்டறிஞர், மதுவுண்டு தேக்கிடும் வண்டுபோல், செழுந்தமிழ்த்தேனை மாந்தித்திளைத்தார்கள். இத்தகைய மேலைநாட்டறிஞருள், இத்தாலியா நாட்டினின்றும் தமிழகம்போந்து தமிழ்மக்களோடு கலந்துறைந்து, விழு

மிய புகழ்பெற்ற வீரமாமுனிவரே, தலைசிறந்தவராவார். ஐரோப்பிய நாடுகளில் உயர் தனிச் செம்மொழிகளாகக் கருதப்படும் வத்தின் 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 கவிச் சுவையையும் கலந்து நுகர்ந்த முனிவர் உள்ளம், பள்ளத்துட்பாயும் வெள்ளம்போல் மற்றைய தமிழ்ப்பணுவங்களிலும் பரந்து படர்வதாயிற்று. தானாண்ட நீரைத் தலை யாலே தரும் தெங்கின் தகைமைவாய்ந்த இம்முனிவர், தமிழ் மொழிக்கு ஆற்றிய தொண்டு அருமைவாய்ந்ததாகும்.

தேரியநாதர் 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 கயாகரம் சூடாமணி 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 தழைத்தோங்க வேண்டிமென்று கருதிய வீரமாமுனிவர் 'சுதர் 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 அளவிற்கிறதாயினும், அருமைவாய்ந்த தென்பதில் ஐயமில்லை. பிற்காலத்தில் தமிழில் எழுந்தபேர் அகராதிகட்கெல்லாம், 'சுதர் அகராதி' கலங்கரை விளக்கம்போல் நின்று நெறிகாட்டும் தகைமையொன்றே அதன் பெருமைக்குப் போதிய சான்றாகும். பெயர், பொருள், தொகை தொடை யென்னும் நான்கு பகுப்புடையதாய் நலமுறத்திகழும் சுதரகராதி பத்தொன்பதாம் நூற்றாண்டில் எழுந்ததாகும். சுதர் அகராதியை அடிப்படையாகக் கொண்டு, தனித் தமிழ் அகராதிகளும், தமிழ் ஆங்கில அகராதிகளும் எழுந்தன. இவ்வாறு தமிழ் மொழியில் எழுந்த அகராதிகளுள், கற்றவல்ல புலவர்க்கும், கலை பயிலும் மாணவர்க்கும் உற்ற துணையாய் நின்றுதலுறு மதுரைத் தமிழ்ச்சங்கத்தார் வெளியிட்டெள்ள 'சொல்லகராதியே' யாகும். சொற்பொருள் விளக்குதலோடு, அச்சொல் மேலோர் வாக்கில் மிளிரும் பான்மையை எடுத்துக்காட்டும் சொல்லகராதியின் முறை அருத் தமிழ் அறிய விரும்புவோர்க்குப் பெரும்பயன் விளைப்பதாகும்.

இனி, சுதர் அகராதியைத் துணைக்கொண்டு இந்நாட்டில் எழுந்த தமிழ் ஆங்கில அகராதிகளின் வரலாற்றைச் சுருக்கமாக ஆராய்லாம். இற்றைக்கு நூற்றாண்டுகளுக்கு முன்னரே, இத்துறையில் உலையா ஊக்கம் கொண்டு உழைத்த மேலை

நாட்டறிஞராய் ராடல்ர் என்பார்க்கு ஆங்கிலத் தமிழலகம் மிகுந்த கடப்பாடு டையதாகும். விவிலியநூல் பரப்பும் விழுமிய நோக்கத்துடன் இந்நாட்டில் நிறுவப் பெற்ற வேதமடத்தைச்சார்ந்த ராடல்ர் என்னும் நல்லறிஞர், பல்லாண்டுகளாகத் தமிழறிந்தோரைத் துணைக்கொண்டு உழைத்து ஒரு தமிழ் ஆங்கில அகராதி தொகுத்தார். ஆயினும் அவ்வகராதியை அச்சிட்டு வெளிப்படுத்தும் முன்னமே அவர் இம் மண்ணிலக 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 வின்சலோ அகராதியே, இன்று காறும் சிறந்த தமிழ் ஆங்கில அகராதியாக நின்று நிலவுகின்றது. அமெரிக்கர் மடத்தின் ஆதரவில் எழுதப்பெற்ற இப்பேர் அகராதியைப் பதிக்கும் பொறுப்பும் பெருமையும் வின்சலோ என்னும் மேலைநாட்டறிஞர்க்கு வாய்த்தது. எடுத்த கருமத்தைத் தொடுத்து முடிக்கும் மனத்திண்மை வாய்ந்த இவ்வறிஞர், பல்லாண்டு பணிசெய்து, கைப்பொருளினிற் கவன்று, ஒன்பதாண்டளவில் அகராதியை அச்சியற்றி முடித்த வரலாறு அதன்பாயிரத்தில் விரிவாக விளக்கப்பட்டுள்ளது. 1853 ம் ஆண்டில் அச்சேறத்தொடங்கிய அகராதியின் செலவு அளவுகடந்து சென்றமையால், அமெரிக்க மடத்தார் அதன் பொறுப்பையேற்று நடத்த இயலாது தளர்வுற்றார். முந்தற்ற மடத்தார் அச்சேறி முடிந்த அளவில் அகராதியேலை முறித்துவிடுமோ என்னும் அச்சம்பிறந்தது. சென்னை அரசாங்கத்தார் உதவியை ஆசிரியர் வின்சலோ நாடிய பொழுது, அவர்கள் முன்னரே வாக்களித்திருந்த முறைமையில், அகராதி முற்றுப்பெற்ற பின்னர் நூறுபிரதிகள் விலைகொடுத்து வாங்க இசைந்தனரேயன்றி முன்பு பணம் கொடுத்ததவ முற்பட்டாரல்லர். எஞ்சி நின்ற பகுதிகளை அச்சிட்டு முன்பு பணம் கொடுத்ததவ முற்பட்டாரல்லர். எஞ்சி நின்ற பகுதிகளை அச்சிட்டு முடித்தற்குப் பின்னும் பல்லாயிரம் ரூபா இன்றியமையாதிருந்தமையால், பங்கொன்றுக்கு இருநூறு ரூபாவாக, எழுபது பங்குகள் சேர்த்து, அத்தொகையைக்கொண்டு அகராதியை முற்றுவிக்க ஆசிரியர் வின்சலோ 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 வின்சலோ அகராதியின் அருமையறிந்த சென்னை அரசியலாளரும், ஏனைய அறிஞரும், அதனைப்புகழ் 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 அடக்கிய 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, வின் சலோ 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, சென்னையிலமைத் துள்ள சீழ்நாட்டுக் கையெழுத்து தூல் நிலயத்திற்கு (Madras Oriental Manuscript Library) அன்பு கூர்ந்து அனுப்பிவைத்தார். அப்பொதிகளில் அமைந்த குறிப்புக் களை ஆராய்ந்த தமிழ்ப் புலவர்கள் புதியதோர் அகராதி வெளியிடுதல் அவசியமே யென்று சென்னை அரசாங்கத்தார்க்கு அறிவித்தார்கள். அப்பொழுது தென்னாட் டில் வதிந்த சாண்ட்லர் என்னும் ஆங்கிலப் பாதிரியார் ஒரு செவ்விய முறை வகுத்துச் சென்னை அரசியலாளர்க்கு அனுப்பினார். அரசாங்கத்தார் அம்முறையை ஆதரித்துப் புதிய அகராதி அச்சிடும் வகைக்கு துறையிரம் ரூபா உதவ இசைந்தார்கள். ஐந்தாண்டளவில் முற்றுப்பெறுமென்று அரசாங்கத்தார் கருதிய பேரகராதி 1913ம் ஆண்டு தொடக்கி இன்றளவும் இடையீடின்றி நடந்து வருகின்றது. ஒன்ப தாண்டுகள் இதன் பதிப்பாளராய் அமர்ந்து பணி செய்த சாண்ட்லர் என்பார், எழுபதாம் வயதில் இளைப்பாறக் கருதி வேலையினின்று விலகிக் கொண்டார். இப்பேர் அகராதியின் உரிமையை அரசாங்கத்தார் சென்னைச் சர்வ கலாசாலைக்கு அளித்துள்ளார்கள். பதினெண்மர் அடக்கிய ஒரு கழகத்தினரால் இப்பொழுது அகராதி வேலை கண்காணிக்கப்பெற்று வருகின்றது. பல்லாயிரம் ரூபா செலவு செய்து பல்கலைக் கழகத்தின் ஆதரவில் வெளியிடப்படும் இவ்வகராதி பயன் விளைக் குமென்பதில் ஐயமில்லை.

தமிழ் அகராதியின் தாதையாய் வீரமாமுனிவர் தமிழ் லத்தின் அகராதி யொன்றும், போர்ச்சுகேயத் தமிழ் அகராதி யொன்றும் இயற்றிப்போந்தார். முனிவர் இயற்றிய ஒன்பதினாயிரம் சொற்களடக்கிய தமிழ் லத்தின் அகராதியின் முகவுரையில், அதற்கு முன்னிருந்த 'லூயி கோவல்' என்பார் இயற்றிய ஒரு தமிழ்

லத்தின் அகராதி புகழ்ந்துரைக்கப் படுகின்றது. அவ்வகராதியைப்பற்றி வேறொரு குறிப்பும் அகப்படவில்லை.

இவ்வாறு அகராதிகள் இயற்றிச் சிறப்புற்ற முனிவர், தேம்பாவணி யென் னும் நறுந்தமிழ் மாலைபுனைந்து தமிழணங்கைப் போற்றுவாராயினர். குதேய நாட்டிற் பிறந்து புகழ்பெற்ற குசையப்பர் என்னும் வளன்பெருமை கூறும் தேம் பாவணியில் தெய்வத் திருக்குறளின் தெள்ளியமணமும், சிந்தாமணியின் செவ் விய கற்பனை நலமும், நலமலிந்த சம்பன் கவியமும் ஆங்காங்கு அமைந்து அழகு செய்யக் காணலாம். இதனை விரித்துரைத்தல் ஈண்டியலாதாயினும் இரண்டொரு சான்று தருதல் மிகையாகாது.

அன்பின் பெருமை கூறப்போந்த ஆசிரியர் வள்ளுவனார் "அன்பின் வழிய துயிர்நிலை, அஃதிவார்க்கு என்புதோல் போர்த்த உடம்பு" என்று இனிதெடுத்து ரைத்தார். இக்குறளின் அருமையறிந்த வீரமாமுனிவர்

"அன்பு வாய்ந்த உயிர் நிலை அஃதிவார்க்கு  
என்பு தோலுடல் போர்த்த தென் நன்றுறை  
இன்பு தோன்ற நிலை யெனத் தானிவன்  
துன்பு காய்ந்த உயிர்த்துணை யாயினான்"

என்று பொது மறையின் சொல்லையும் பொருளையும் போற்றி யமைத்தார். இன்னும் வேளாண்மை யென்னும் விழுமிய பணியின் நலமுணர்ந்தப்போந்த முதற் பாவலர், "உழுதுண்டு வாழ்வாரே வாழ்வார், மற்றெல்லாம் தொழுதுண்டு பின் செல் பவர்" என்று சுருங்கச்சொல்லி விளக்கவைத்தார். இத்திருக்குறளின் தெள்ளிய நயமறிந்த முனிவர்

"உழுதுண்பார் உயிர் வாழ்வார் மற்றெல்லாம்  
தொழுதுண்பார் எனில் தாம் தொழில் செய்தபின்  
அழுதுண்பார் கொடை கோடலில் லாயின  
பொழுதுண்பாரில் யாரெனப் பூசவே"

என்று தேம்பாவணியிற் பொதித்துரைத்துப் போந்தார்.

இனி, கல்வியிற் பெரியர் என்று தமிழ்நாடு போற்றிப் புகழும் கம்பர் கவிசன் வீரமாமுனிவரது உளத்தைக் கவர்ந்து, அவர் காவியத்தில் யிளிரும் தன்மையை ஆராய்வோம். தமிழ் தூல் முறைக்கிணங்கத் தேம்பாவணியில் வழிபடுதெய்வ வணக் கம் கூறப்போந்த வீரமாமுனிவர்

"சீரிய உலகம் மூன்றும் செய்தனித்து அழிப்பவல்லாய்  
நேரிய எதிர் ஒப்பின்றி நீத்த வேர் கடவுள் தூய  
வேரிய கமல பாதம் வினையறப் பணிந்து போற்றி  
ஆரிய வளன் தன் காதை அறமுதல் விளங்கச் சொல்வாம்"

என்றருளினார். முழுமுதற் பொருளாய் இறைவனைப் பெயராற்றுகியாது முத்தொழில் புரியும் முறைமையானன் என்றறிவிக்கும் முனிவர் மொழிகள் அறிந்து மகிழ்த்தக்கனவாம். மும்மைசால் உலகமெல்லாம் படைத்தும் காத்தும் காத்தும்

வினையாடும் கடவுளை, “சீரிய உலகம் மூன்றும் செய்தளித்து, அழிப்பவல்லாய்,” என்று செம்மைசான்ற மொழிகளாற் சிறப்பித்தார். தனக்குவமையில்லாத் தனிப் பெருந்தலைவனை “நேரிய எதிர் ஒப்பில்லான்” என்று புகழ்ந்துரைத்தார். இருள் சேர் இருவினையும் கடந்து, அப்பாலுக் கப்பாலாயமைந்த ஐயனை, “நீத்த ஓர் கடவுள்” என்று நிகழ்த்தினார். உள்ளுவார் உள்ளத்தில் ஆனந்தத் தேன்சொரியும் வள்ளலின் திருவடிகையே “வேரிய கமலபாதம்” என்று வியந்துரைத்தார். அவனருளால் அவன் தான் வணங்குதலே இருவினையை வேறுக்கும் வழியென்றுணர்ந்த முனிவர். விமலன் பாதம்பணிந்து வளன் கதையை விளக்கலுற்றார். இவ்வாறு தேம்பாவணியில் அமைந்த தெய்வ வணக்கம்,

“உலகம் யாவையும் தாமுள வாக்கலும்  
நிலை பெறுத்தலும் நீக்கலும் நீங்கலா  
அலகிலா வினையாட்டுடையார் அவர்  
தலைவர் அன்னவர்க்கே சரண் நாங்களே”

என்னும் கம்பர் கவியோடு ஒப்பிட்டு நோக்கத்தக்கதாகும். இன்னும் தேம்பாவணி யில் அவையடக்கம் கூறப்போந்த முனிவர்

“சூசையுற்றன வரங்கள் தூய்கடல் கடக்கல் இல்லா  
ஒசையுற்றொழு கமிர்தம் உடைகடல் என்ன நண்ணி  
பூசையுற்றதனை நக்கப் புக்கென உளத்தைத் தூண்டும்  
ஆசையுற்று ஊடனேனும் அருங்கதை அறையலுற்றேன்”

என்று அருளிய உவமை கம்பர் அவையடக்கக் கவியின் உவமையை நினை ஆட்டுவதா கும். சூசையென்னும் வளன்கதையை வளமார்த்த பாலாழி யென்றும், அக்கதையை ஆர்வத்தனும்ப் பருகியதன்னை, ஆசையுற்ற பூசையென்றும், முனிவர் கூறும் உவமை கம்பர் உவமையை ஒத்திருக்கக் காணலாம். எண்ணரிய நலம்வாய்ந்த இராம கதையை எழுதப்போந்த கம்பர்,

“ஒசை பெற்றுயர் பாற்கடலுற்றொரு  
பூசை முற்றவும் நக்குபு புக்கென  
ஆசைபற்றி அறையலுற்றேன் பற்றிக்  
காசில் கொற்றத் திராமன் கதையரோ”

என்றிசைத்த உவமையின் சொல்லும் பொருளும், வீரமாமுனிவர் கவியில் விளங்கித் திகழக் காணலாம். தேம்பாவணிக்கவியின் சுற்றடியில் அமைந்த “ஆசையுற்று ஊம னேனும் அருங்கதை அறையலுற்றேன்” என்னும் முனிவர் மொழிகள் “அன்பெ னும் நறவம்மாந்தி மூங்கையான் பேசலுற்றான், என்ன யான் மொழியலுற்றேன்” என்னும் கம்பர் வாக்கைத்தழுவி எழுந்தனவென்று கருதுதல் மிகையாகாது. முன் னரே கூறியவாறு, கம்பர் காவியத்தின் மணம் தேம்பாவணியில் ஆதிமுதல் அந்தம் வரை கமழ்ந்து இன்பம் விளைத்தலால், அதனை முற்றிலும் ஈண்டு ஆராய்தல் இய லாது.

இனிச் சிந்தாமணியின் நந்தாச்சுவையினை நுகர்ந்து இன்புற்ற வீரமாமுனி வர், நாட்டுவளம் கூறும் கவிகளிலும், நகர நலம் கூறும் கவிகளிலும், சிந்தாமணியின்

சிறந்த வாடை வீசுகின்றது. தேமாவும் தீம்பலாவும், தெங்கும் வாழையும் எங்கும் நிறைந்து இலங்கிய ஏமாக்கத நாட்டைப் புகழப்போந்த சிந்தாமணியாசிரியர்,

“காய் மாண்டதெங்கின் பழம் வீழக் கமுகின் எற்றி  
பூமாண்ட தீந்தேன் தொடைகீறி வருக்கை போழ்ந்து  
தேமாங்கனியோடு வாழைப்பழங்கள் சிந்தும்  
ஏமாங்கதமென்னும் இசையால் திசை போயதுண்டே”

என்று செழுந்தமிழ் மொழிகளால் எழுதியமைத்தார். இக்கவியின் இன்பம் நுகர்ந்த முனிவர், குதேய நாட்டுவளம் கூற நேர்ந்தபொழுது,

“பாய்ந்த தெங்கதின் பழங்கள் வீழ்தலால்  
வாய்ந்த வாழை மா வருக்கை ஆசினி  
சாய்ந்த திங்கனி சரிந்த தேம் புனல்  
தோய்ந்த வா யெலாம் இனிமை தோய்ந்தன”

என்று திருத்தி யமைத்துத் திளைப்பாராயினார். ஒங்கிவளர்ந்த தெங்கின் பழங்கள் வீழ்தலால், வாழைக்கனியும் மாக்கனியும், வருக்கைக்கனியும் ஆசினிக்கனியும் சிதைந்து சொரிந்த செந்தேன், குதேய நாட்டுச் சோலை யெங்கும் பாய்ந்து நிரம்பிய தென்று தேம்பாவணி கூறும் மொழிகளில், சிந்தாமணியின் செழுஞ்சுவை விளங்கக் காணலாம். இன்னும் வளமார்த்த வயல்களில் மள்ளர் ஈட்ட பசும்பயிர், கருவுற்றுக் காய்த்துக் கணிந்தபொழுது தலைகவிழ்ந்து தாழ்ந்து நின்ற நிலையினைத் திருத்தக்க தேவர்,

“சொல்லரும் சூற்பசும் பாம்பின் தோற்றம் போல்  
மெல்லவே கருவிருந்தீன்று மேலலார்  
செல்வமே போல் தலைநிறுவித் தேர்ந்தநூல்  
கல்வி சேர் மாந்தரின் இறைஞ்சிக் காய்த்தவே”

என்று கணிந்த மொழிகளால் அருளிப்போந்தார். சிறியரே மதிக்கும் செல்வத்தாற் பிறக்கும் செருக்கினை அறுத்து, பெருமிதமின்மையே பெருமை யென்னும் உண்மை யைத் 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. வளமார்த்த வயல்களில் பூரியர் செல்வம்போல் நேராக நிரிந்து 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 சுவை யை வடித்தெடுத்துத் தேம்பாவணியிலமைத்த வீரமாமுனிவரது கவிச்சுவை அறிந்து போற்றத் தக்கதாகும்.

அரியதோர் அகராதி தொகுத்தும், அருங்காவியம் இயற்றியும் தண்டமிழ் மொழிக்குத் தொண்டிசெய்த வீரமாமுனிவர், நன்னூல் முதலிய பன்னூல்களையும் ஐயந்திரிபற நுதியுணர்ந்து, தொன்னூல் விளக்கம் என்னும் பெயரால் ஒரு செந்தமிழ் இலக்கணம் செய்தருளினார். இந்நூல் எழுத்து முதல் அணியீடுகவுள்ள ஐந்திலக்கணங்களையும் அழகுறத்தொகுத்துரைக்கின்றது. நன்னூல் போலவே இந்நூலும் நூற்பாவால் அமைந்துள்ளது. நூல்வழக்கில் அமைந்த செந்தமிழ் மொழியின் திட்டபுது முணர்ந்து ஐந்திலக்கண நூலும் உரையும் எழுதிய அருந்தமிழ் முனிவர், உலகவழக்கிலமைந்த தமிழையும் இனிதறிந்து, 'கொடுத்தமிழ்' என்னும் பெயரால் லத்தீன் மொழியில் ஓர் இலக்கண நூல் வரைந்துதலினார். தமிழ் மொழியைப் பழையறப்பேசவும் எழுதவும் கருதி முயலும் பிறநாட்டறிஞர்க்கு இந்நூல் பேருதவியாக நிற்பதாகும். பழம் பெருமைவாய்ந்த தமிழ் மக்கள் பண்பினை, இத்தாலிய நாட்டினரும் இனிதுணருமாறு, தெய்வப்பலமைத் திருவள்ளுவனார் இயற்றிய திருக்குறளின் அறத்துப்பாலையும் பொருட்பாலையும், வீரமாமுனிவர் லத்தீன் மொழியிற் பெயர்த்தமைத்தார். இன்னும் இவர் இயற்றிய காவலார்க்கலம்பகம், கலிவெண்பா, கித்தேரியம் மாணை, அன்னையமுருகல் அந்தாதி முதலிய சிறுகாப்பியங்களையும், வேதியர் ஒழுக்கம், வேதவிளக்கம், வாமன்கதை, குரு பரமார்த்தன் கதை முதலிய வசன நூல்களையும் குறித்து மற்றோரிடத்தில் 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. கல்லிலும் செம்பிலும் அமைந்த சாசனங்களைக் கற்றும், மண்ணுன்முழ்கி மறைந்து கிடந்த பழம் பொருள்களை அகழ்ந்தெடுத்தும் தமிழகத்தின் பழைய வரலாற்றை அறிய முயன்றார் சிலர். தமிழ் மொழியில் அமைந்த விழுமிய அறநூல்களை மேலோநாட்டு மொழிகளில் மொழிபெயர்த்தமைத்தார் சிலர். இவ்வாறு பலதுறைகளிலும் முயன்று அருந்தமிழ் மொழியின் ஆழத்தைப் புகழ்ந்ததையும் அறிவுறுத்திய ஐரோப்பிய அறிஞரது அரும்பணியை இனிவருத்தும் தொகுத்தும் ஆராய்வோம்.

பெரும்பாலும் பத்தொன்பதாம் நூற்றாண்டிற் பணிசெய்யப்போந்த இவ்வறிஞர் வரலாற்றை அறிவதன் முன்னமே, அக்காலத்தில் தமிழ் மொழி இருந்த நிலையினை அறிந்து கொள்ளுதல் அவசியமாகும். தொன்று தொட்டு இந்நாட்டில் வழங்கியவரும் தமிழ் மொழியை ஆதிசுவன் தோற்றுவித்தான் என்று ஆன்றோர் கூறி மகிழ்ந்தார்கள். முத்தமிழ் முனிவராய் அகத்தியர் இறைவன் அருள் பெற்று மூன்று கவடாய்முனைத்தெழுந்த முதுமொழிக்கோர் விரிந்த இலக்கணம் அருளிப்போந்தார். அம் முனிவரது நன் மாணவராகக் கருதப்படும் தொல்காப்பியனார், தொல்காப்பியம் என்

னும் பெயரால் ஒரு சிறந்த இலக்கணம் செய்தருளினார். அகத்தியமும் தொல்காப்பியமும் 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 வகுத்தருளிய இறைவனே, தென்மொழியைக் குறுமுனிக்கு அறிவுறுத்தார் என்று கூறியமைந்தார்கள். தமிழ் மொழியில் ஒப்புயர் வற்றதாலாய் விளங்கும் திருக்குறளைத் தமிழ் மறையென்றும் பொதுமறையென்றும் போற்றினார்கள்.

“ஆரியமும் செந்தமிழும் ஆராய்ந்து இதனின் இது  
சீரிய தென வென்றைச் 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 இன்னோரன்னமொழிகளால் இனிது விளங்கும். தமிழ் நாட்டிற் பரவிய சாக்கிய மதத்தையும் சமணமதத்தையும் வேறுபடுத்தி, மீண்டும் சிவநெறி பரப்பத்தோன்றிய சைவச்சான்றோரும், வைணவ நெறியை நிலை சிறுத்திய ஆழ்வார்களும், ஆரியத்தையும் அருந்தமிழையும் வேற்றுமையின்றிப் போற்றுவாராயினர். பண்ணார்த் தைவந்தமிழிற் 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 இதுகாசங்கள் தமிழில் மொழிபெயர்க்கப்பட்டன. வான்மிகமுனிவர் வடமொழியில் எழுதிய ஆதிகாவியத்தைத் தமிழ் மொழியில் அமைக்கப்போந்த கல்லியிற் பெரியகம்பர், “தேவ பாடையின் இக்கதைசெய்தவர்” என்று முதனூல்செய்த முனிவரைப் புகழ்ந்துரைத்தார். “வாங்கரும்பாதம் நான்கும் வகுத்தவான்மிகியென்பான் 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. முதனூல்களாகத் தமிழில் எழுந்த நூல்களுக்கும் வடமொழியில் முதனூல் உண்டென்று கூற முற்பட்டார் சிலர். வடநூல் முடிபுகளுக்கிணங்க வலிந்தும் நலிந்தும் தமிழ் நூல்களுக்கு உரை

செய்யத்தலைப்பட்டார் சிலர். நன்னூல் செய்த பவணந்தியாரும், சின்னூல்செய்த குணவீரனாரும், வீரசோழியியற்றிய புத்தமிழ்திரனாரும் 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 கருதத்தக்கனவாம். சாசனங்களில் வடமொழி வடிவம்புனைந்து வழங்கும் தமிழ்ப்பெயர்களை நான்கு கூறுகளாக அவர் வகுத்துரைத்துள்ளார். சில தமிழ்ப் பெயர்கள் மூற்றும் 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 அருஞ்சலமாகவும் அமைந்தன. இவ்வனம் 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 பத்தினியாயினள். இவ்வாறே மாமல்லபுரம் மகாபலிபுர மாயிற்று. சிராப்பள்ளி, தேவாரப்பாடல் பெற்ற பின்னர் திருச்சிராப்பள்ளியாகிப் பின் திரிசிரபுரமாகமாறி, முத்தலை வீரனாய் திரிசிரன் வழிபட்ட இடமாயிற்று. இப் பொழுதும் சில ஊர்ப்பெயர்கள் இவ்வாறு மாறிக்கொண்டிருத்தலை நாம் கண் கூடா கக் காண்கின்றோம். தில்லையம்பதியின் எல்லையில் அமைந்த ஆரே என்னும் சிற் றார் புராணமியற்றும் புலவர் கைப்பட்டு. நீர்த்தனபுரியாக நியிரப்பார்க்கின்றது. ஆடுகள் மலிந்திருந்த காரணத்தால் ஆதியில் அவ்வூர் ஆரே என்று பெயர் பெற்றி ருத்தல் கூடும். மன்னார் குடிக்கு அருகேயுள்ள பூந்தநல்லூர் என்னும் சிற்றூர், பூவி முந்த நல்லூராகத் திருந்தி, இலங்கையர் கோன் கவர்ந்து சென்ற சேதையின் பூங்கு ழுவின்னன்று நழுவின நறுமலர் விழுந்த இடத்தைக் குறிப்பதாயிற்று. இவ்வாறன்றி: பழம்பெயர்களை அறவே துறந்து வடமொழிப்பெயர்புனைந்து விளங்கும் ஊர்களும் உண்டு. புள்ளிருக்கு வேரூர் 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 பரவுவதாயிற்று. திராவிடம் என்னும் வடசொல்

லேதிராமிடம், திராமினம் திரமினம், தமிழ், தமிழ் என்று ஆயிற்றென்று இலக்கண நூலோர் 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 நாணுவர் அறிவுடையோரே,  
வடமொழி தமிழ் மொழி யெனுமிரு 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 ஐனரி வீசுவதாயிற்று. காலையில் எழும் கதிர வன்போல், காலுடுவெல் என்னும் மொழிநூற் புலவர் இந்நாட்டில் தோன்றினார் தென்தமிழ் நாடாய் திருநெல்வேலியிலமைந்த இடையன்குடியென்னும் சிற்றூரைத் தம் இருப்பிடமாகக் கொண்ட இவ்வறிஞர், உலக வழக்கினும் நூல் வழக்கினும் அமைந்த அருத் தமிழ் மொழியை ஆர்வமுறப்பயின்றார். இவ்வாறு காலுடுவெல் தமிழ் மொழியைக் கற்றுநுந் 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 காலுடுவெல்லாசிரியர், நூற்றாண்டின் பின்னர்த் தலைவாணி வீசக்கண்டு மகிழ்ந்தார். தமிழோடு மிக்க தொடர் புடைய மலையாள மொழியை முட்டறக் கற்ற ருந்தார்த்தர் என்னும் மொழிநூற் புல வர் மலையாள இலக்கணமும், மலையாள அகராதியும் எழுதிப் போந்தார். கன்னட வர் மலையாள இலக்கணமும், கலைவாணர் தாம் ஆராய்ந்தறிந்த மொழியை நிலைகண்டெணர்ந்த கிட்டல் என்னும் கலைவாணர் தாம் ஆராய்ந்தறிந்த உண்மைகளை அரிய கட்டுரைகளின் வாயிலாக வெளிப்படுத்தினார். ஆந்திரமொழியை ஐயமறக் கற்றுணர்ந்த ஆர்டன் என்னும் ஆசிரியர், தெலுங்குமொழியின் இலக் கணம் தெரிவிப்பாராயினர். இவ்வாராய்ச்சிகளின் பயனாக, கன்னடமும் களி கணம் தெரிவிப்பாராயினர். இவ்வாராய்ச்சிகளின் பயனாக, கன்னடமும் களி கணம் தெரிவிப்பாராயினர். தமிழ் மொழியோடு நெருங்கிய தொடர்புடைய 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 காலுடுவெல் லுள்ளத்தில் தெள்ளிதின் விளங்கிற்று.

இவ்வாறு திராவிட மொழிகளின் ஒற்றுமை யறிந்த ஆசிரியர், உலகில் வழங் கும் மற்றைய செம்மொழிகளையும் பொதுவுற கோக்கிப் போந்தார். இவ்வுலகில் 19

வழங்கும் மொழிகளை, மூன்று குடும்பங்களாக மாக்ஸ் முல்லர் என்னும் பேராசிரியர் முன்னரே வகுத்திருந்தார். ஆரியம், துரானியம், சிமிட்டியம் என்னும் பெயர்கள் மூன்று குடும்பங்களுக்கும் முல்லரால் கொடுக்கப்பட்டன. இவ்வகையில், லத்தீன் கிரீசு, சமஸ்கிருதம் ஆகிய மொழிகள் ஆரிய வகுப்பின் பாற்பாடும் துங்கேசியம், மங்கோலியம், துருங்கியம், பின்னியம் முதலிய மொழிகள் துரானிய வகுப்பின் பாற்படும். அரேபியம், அரமேயம், ஈபிரேயம் முதலிய மொழிகள் சிமிட்டிய வகுப்பின் பாற்படும். இவ்வாறு மூன்று கிளைகளோடு முளைத்தெழுந்த முதுமொழிகளின் இயல்களை, ஆசிரியர் கால்டுவெல் ஆராய்ந்த பொழுது, திராவிட மொழிகள் துரானிய 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 நெருக்கிப் பழகிவந்த பான்மையால் வடமொழியினின்றும் பலசொற்கள் தென்மொழியில் இடம் பெற்றமை இயல்பேயாகும் என்று எடுத்துரைத்தார். அவ்வாறே தென்மொழியினின்றும் பல சொற்கள் வடமொழியில் வழங்கும் தன்மையை விளங்கிக் காட்டினார். திராவிடமொழிகளின் ஒப்பிலக்கணம் என்னும் விழுமிய நூலின் வாயிலாக ஆசிரியர் கால்டுவெல் இவ்வரிய உண்மைகளை வெளியிட்டகாலத்து, மேற்கூறிய டாக்டர் ருந்தார்த்தரென்பவர்: 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 போந்தார். இவ்வாறு, மூன்று அறிஞர் மூன்று திராவிட மொழிகளை முட்டாறுத்துக் கற்று, ஒரு முடிவிற்கு வந்த முறைமை அறிஞர் கருத்தைக் கவர்வதாயிற்று. 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 கற்றறிந்த மாந்தர் மனத்திற் பதிந்தது. ஒப்பிலக்கணமென்னும் நூலின் அறுபத்தத்தில் 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. ஐயறிவுயிராய் 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 அடவியாதவின், 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 பொருள்படுவதாகும். திராவிட மொழிகளில் இச்சொல் இயற் சொல்லாக இருவகை வழக்கிலும் 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 ருந்தார்த்தரென்னும் ஆசிரியரும் பல திராவிடச் சொற்கள் வடமொழியில் இடம் பெற்றிருத்தலை மொழிநூல் முறையில் ஆராய்ந்தெழுதியுள்ளார். கால்டுவெல் காலத்திற்குப் பின்னர் கன்னடஆங்கில 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 முதல் கண்டெணர்த்திய

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 அசையுற 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 அசேரியா முதலிய தொன்னாடுகளில் வழங்கிவந்த மித்தானி என்னும் மொழியும் பல கூறுகளில் ஒற்றுமையுடையனவாம் என்று பிரெளன் என்னும் மொழிநூற்புலவர் 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 பிளினி தாலமி முதலிய சரித்திர ஆசிரியர் எழுதிவைத்த குறிப்புக்களையும், ஆக்கியோர் பெயர் விளங்காத பெரிபிளஸ் என்னும் தூலையும் பிபூடிங்கர் படங்களையும் நன்றாகத்தருவி 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 ஆழநெடும்புனல் ஆழிகடந்து யவனமாதர் கழுத்திலும் காதிலும் அழகுற இலங்குவதாயிற்று. குமரிக்கும் கோடிக்கும் இடையேயமைந்த கொற்கைத் துறையிற் குளித்தமுத்து கலத்திலும் காலினும் சென்று காவலர் முடிமேல் களித்தமர்வதாயிற்று. கொற்கைப்பெருந்

துறையில் விளைந்தமுத்தின் பெருமையைப் பழந்தமிழ் தூல்களிற் பரக்கக்காணலாம். தலையாலங்கானத்துச் செருவென்ற நெடுஞ்செழியனது பெருமை பேசப் போந்த புலவர்,

“விளைந்து முதிர்ந்த விழுமுத்தின்  
இலங்கு வளையிருஞ் 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 சிற்றூராகப் பொருளை நாட்டில் அமைந்திருக்கின்றது. நித்திலம் நல்கிய நிலத்திரைக்கடல் இப்பொழுது நான்கு மைலுக்கு அப்பால் விலகி நிற்கின்றது. முற்காலத்தில் அலையொலிமலிந்த மூதூர் இப்பொழுது அமைதியுற்று துஞ்சுகின்றது. முத்தம்மதரும் தென்கடல் கொற்கைக்கு முத்தம் அளியாது 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 போர்ச்சுகேசியர் அவ்வாற்றின் சங்கமத்துறையில் அமைந்த காயலைக் கைவிட்டுத் தூத்துக்குடியில் துறைமுகம் அமைத்தார்கள். பொருளை யாரும் பெருங்கடலும் போர்புரியும் துறையில் அகப்படாத இவ்வூர் முந்துறு ஆண்டுகளாகத் தென்னாட்டிற் சிறந்ததுறைமுகமாகவும் முத்துக்குளிக்கும் துறையாகவும் நின்று நிலவுகின்றது.

யவனநாட்டு ஆசிரியர்கள் கொற்கைத்துறையென்று குறித்துவைத்த குறிப்பினையும், மார்க்கோபோலோ எழுதிவைத்த காயலைப்பற்றிய குறிப்பினையும் துணை

கொண்டு பழமைவாய்ந்த கொற்கையின் பெருமையையும் காயலின் செழுமையையும் ஆராய்ந்து விளக்கியபெருமை ஆசிரியர் கால்டுவெல்லுக்கே உரியதாகும். இன்னும் சேரநாட்டுக் கரையில் அமைந்தமுசிரித் துறையைக்குறித்துச் சில சொற்கள் கூறுதல் இன்றியமையாததாகும். இவ்வூர் பழந்தமிழ் நூல்களில் முயிரிக்கோடு என்றும் முசிரி என்றும் வழங்கக்காணலாம். இக்காலத்தில் முசிரியென்னும் பெயர் அறவேமறைந்து போயிற்று. ஆயினும் பழையநூல்களைத் துணைக்கொண்டு ஆராயும் பொழுது முசிரித்துறைவாணிகத்திற் சிறந்திருந்த வரலாறு விளங்கித்தோன்றும். இத்துறையின் பெருமை பேசப்போந்த புலவர் ஒருவர்

“சுள்ளியம் பேரியாற்று வெண்ணுரை கலங்க  
யவனர் தந்த வினைமாண் நன்கலம்  
பொன்னொடு வந்து கறியொடு பெயரும்  
வளங் கெழுமுசிரி”

என்று அழகுறப்புகுந்துரைத்தார். சுள்ளியென்னும் சிறந்த ஆற்றின் வெள்ளிய நுரைகலங்க விரைந்து போந்த யவனர் கலங்கள், மிளிரும் பொன்னொடுவந்து மிள கொடு மீண்டன என்று முசிரியின் பெருமையைக் கவிஞர் வியந்து புகழும் முறை போற்றுதற்குரியதாகும். இம்முசிரித்துறை இக்காலத்திற் கொடுங்கோளூர் என்று வழங்குகின்றது.

இவ்வாறு தமிழின் தொன்மையைப் பிறநாட்டு ஆசிரியர்கள் எழுதிவைத்த புறச்சான்றுகளால் நிறுவிய ஆசிரியர் கால்டுவெல் தமிழ்மொழியின் தனிப்பெருமையை அகச்சான்றுகளாலும் விரித்துரைத்து விளங்கவைத்தார். திருந்திய திராவிட மொழிகளாய் தெலுங்கும், 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  
மற்றையர் உள்ளவும் இல்லவும் அஃறிணை.”

என்று தமிழ் இலக்கணநூலோர் வகுத்த முறையினை ஆராயும் பொழுது, அறிவினை அடிப்படையாகக்கொண்டு இத்திணைப்பாகுபாடு எழுந்ததென்னும் உண்மை இனிது விளங்குவதாகும். ஆரியவகுப்பைச்சேர்ந்த வடமொழியில் பால் வகுப்பு முறைசொல் நோக்கத்தால் எழுந்ததேயன்றிப் பொருள் நோக்கத்தால் எழுந்ததாகத்தோன்ற வில்லை. சிமிட்டிய குடும்பத்தைச் சேர்ந்த மொழிகளிலும் பால் வகுப்புமுறை ஆரிய முறையை ஒத்ததாகவே அமைந்திருக்கின்றது. துரானிய குடும்பமொழிகளின் பெயர்ச்சொற்கள் யாவும் அஃறிணையிலேயே அமைந்துள்ளன. சேதனப்பொருள்

களையும் அசேதனப் பொருள்களையும் வேற்றுமையின்றி அஃறிணைப்பெயர்களாகக் குறிக்கும் துரானிய முறை மேற்கூறிய இருமுறைக்கும் மாறுபட்டதாகும் என்பது சொல்லாமலே அமையும். ஆகவே சொல்நோக்காற் பால் முறைவகுத்த ஆரியமொழியையும், பெயர்களினைத்தையும் அஃறிணையாக்கியதுரானிய மொழியையும் பொருள் நோக்காற் பால் முறைவகுத்த தமிழ் மொழியையும் ஆராய்ந்து தமிழ்த்திணைப் பாகுபாட்டின் செம்மையைக் கால்டுவெல் நன்கு விளக்கிப்போந்தார்.

வடமொழி தென்மொழி யென்னும் இருமொழிகளையும் இனிதுணர்ந்த சில ஞானமுனிவரும் தொல்காப்பியப்பாயிர விருத்தியில் உயர்திணை அஃறிணை என்னும் சொற்பாகுபாடுகளும், அகம் புறம் என்னும் பொருட்பாகுபாடுகளும் இன்றோரன்ன பிறவும் வடமொழியிற் பெறப்படா என்று கூறுவாராயினர். இவ்வாறு ஆரியமொழிகளிலும் துரானிய மொழிகளிலும் சிமிட்டியமொழிகளிலும் காணப்படாத உயர்திணை அஃறிணை என்னும் வகுப்புமுறைமேற்கூறிய மித்தானிய மொழியிற் காணப்படுகிறதென்று ஆசிரியர் பிரௌன் கூறும் குறிப்பு ஆராய்தற் குரியதாகும்.

இன்னும் வல்லினம், மெல்லினம், இடையினம் என்று இலக்கண நூலோர் மெய்யெழுத்துக்களை வகுத்த முறையில் டகரவர்க்கம் தென்மொழியினும் வடமொழியினும் காணப்படினும், இவ்வொலிகள் ஆதியில் தென்மொழியிற் ரோன்றி வடமொழியிற் சென்று சேர்ந்தன என்று ஆசிரியர் கால்டுவெல் அறிவிக்கின்றார். வடமொழியோடு தொடர்புடைய ஏனைய ஆரியமொழிகளில் இவ்வொலிகள் காணப்படாமை யால் அவ்வொலிகள் திராவிட மொழியினின்றும் வடமொழிக்குச் சென்றிருத்தல் கூடுமென்று அவர் கருதுகின்றார். ஆயினும் ஆசிரியர் ஆராய்ந்துணர்த்திய குறிப்புக்களை உண்மைகாணும் உயரிய நோக்கத்தோடு ஆராய்தல் அறிவுடையார் கடனாகும்.

இனி, தமிழ் மொழியினின்று 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 தென்முரிவரை திராவிடமக் கள் பரவியிருந்தகாலத்தில் கோழிகள் மேலைக்கணவாய்களின் வழியாக மத்திய ஆசியாவிற்குச்சென்று சேர்வனவாயின. துரானியமொழிகளில் கோரிஎன்றும் கூர் என்றும் வழங்குஞ்சொற்கள் கோழி என்னும் தமிழ்ச்சொற்களின் சிதைவையாகும். தமிழ் மொழிக்கே சிறப்பாக உரிய மூகர வொலிபிற நாட்டார் நாவில் ரகரமாகும் என்பது

மொழிதல் உண்மை. ஆகவே தூரணிய மொழிகள் வழங்கும் ஆசிரியர்களுக்குக் கோழிசென்றபோது அதன்பெயரும் அதனோடு சென்றது என்று தெரிகின்றது. நாட்டுக்கோழியின் வரலாறு இவ்வாறாக ஐரோப்பிய நாடுகளில் வாழ்ந்துவந்த ஒருவகைக்கோழி பதினாறாம் நூற்றாண்டில் தமிழ் நாட்டிற்குக் கொண்டுவரப்பட்டது. டர்க்கி என்னும் ஆங்கிலப்பெயர் வாய்ந்த இக்கோழியைத் தமிழ் நாட்டார் வான் கோழியென்று அழைத்தார்கள்.

“காண மயிலாடக் கண்டிருந்த வான்கோழி  
தானு மதுவாகப் பாலித்துத்—தானுந்தன்  
பொல்லாச் சிறகை விரித்தாடினாற் போலுமே  
கல்லாதான் கற்ற கவி.”

என்று மூதுரையிற் காணப்படும் செய்யுளில் வண்ணமயிற் றேகையின் பெருமையும் வனப்பற்ற வான்கோழிச் சிறகின் சிறுமையும் இனிது விளக்கக்காணலாம். 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 பனுவல்கள் பெரும்பாலும் எட்டுச்சுவடிகளில் அடங்கியிருந்த காலத்தில் அந்நூல்களை மெய்வருத்தம் பாராது பயின்று தமிழின் செம்மையை நிலை நிறுத்திய ஆசிரியரது ஆர்வம்போற்றத் தக்கதேயாகும்.

## பௌத்த மதமும் அதன் பிரிவுகளும்.

By

K. SRINIVASACHARIAR

(Annamalai University)

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 அச்சிட்டெள்ள 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 நையா யிகர்களைக் காட்டிலும் பதின்மடங்கு ஆற்றலும் தேர்ச்சியு முடையவர்களென்பதை மறுக்கமுடியாது. தத்துவங்களை ஆராய்வதற்குப் பௌத்தர்களே நையா யிகர்களுக்கு வழிகாட்டியவர்கள். பௌத்தர்கள் தங்கள் சித்தார்த்தத்தைப் பல யுக்திகளால் நிலைநிறுத்துகின்றனர்.

ஒரு பௌத்தக் கிரந்தத்தில் “சுவர்ணத்தைக் காய்ச்சியும் வெட்டியும் உரைத்தும் பலபடியாகப் பரிகழிப்பதுபோல் நீங்கள் என் வார்த்தையைப் பலவிதமாய் ஆராய்ந்துபாருங்கள், ஒ பிக்ஷுக்களே! அப்படி ஆராய்ந்து சரியெனத் தோன்றினால் என் வார்த்தையை ஒப்புங்கள். கௌரவத்தை முன்னிட்டோ, தாக்ஷிண்யத்தாலோ என் வார்த்தையை மதிக்கவேண்

டாம்.<sup>1</sup> என்று பறைசாற்றப்பட்டிருப்பது கவனிக்கத்தக்கது. புத்தரால் இம்மதம் நிலைநிறுத்தப்பட்டதுபற்றி பெளத்த மதமென வழங்கப்படுகிறது. புத்தருக்கு முன்னேயே இம்மதம் காசியபர், கணகமுனி முதலியவர்களால் கண்டு பிடிக்கப்பட்டிருந்தும் புத்தமுனியாலேயே ஆங்காங்குப் பிரசாரம் அடைந்திருப்பதைக் கொண்டு 'சாங்கர மதம்,' 'ராமாநுஜ மதம்' என்றற்போல் பெளத்த 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 குருவின் கருத்தன்று. மற்றென்னவென்றால் இப்பிரபஞ்சம் இருக்கிறதென்றே இவ்வேயென்றே (सत् என்றே) (असत्, என்றே) அல்லது இருவகைப்பட்டதென்றே (सदसत् என்றே) அல்லது இவ்விரு வகையிலும் சேராத்தென்றே (सदसद्विभक्षणम् மென்றே) சொல்லமுடியாது. எனெனில் இப்பிரபஞ்சம் இறுதியில் பாதிக்கப்பட்டுப் போவதால் சத் என்று கூறமுடியாது. தோற்று வதால் முயற்கொம்புபோல் 'அசத்' ஆகாது. விருத்ததர்மங்களான ஸத்வமும் அஸத்வமும் ஓரிடத்தில் சேராததலின் ஒரு பொருளும் 'ஸத்ஸத்' ஆக இருக்க முடியாது. ஸத் அன்றென்றால் அஸத்தாய்விடுகின்றமையாலும், 'அஸத்' தன்றென்றால் 'ஸத்' தாய் விடுகின்றமையாலும் இரண்டு வகையிலும் சேராததென ஒன்றையும் சொல்லமுடியாது. ஆகவே எஞ்சி நிற்பது சீழ்ச் சொல்லிய நாலுவகைகளிலும் சேராத சூன்யமேதான் எனச் சொல்லவேண்டும்.<sup>2</sup> இதுதான் சூன்யோபதேசத்தின் கருத்தென்பது "நாணாதனைத்து மிலதென்று நால்வகையிதன்று என்றும் வாணாறுக்கின்ற மத்திமத்தான்" என்ற பரமதபங்கத்தின் பாட்டினால் நன்கு விளங்குகிறது. மேலும் பதார்த்தங்களுக்கு 'ஸத்வம்' (இருத்தல்) ஸ்வபாவமாகில் ஆகாசம்போல் அவைகள் எப்போதும் ஸத்தாகவே யிருந்துகொண்டிருப்பதால் அவைகளை உண்டுபண்ணக் காரணங்களைத் தேட வேண்டியதில்லை. 'அஸத்வம்' ஸ்வபாவமாகில் ஆகாசத் தாமரையைப்போல் அஸத்தான பதார்த்தங்களை எக்காரணத்தாலும் உண்டுபண்ணமுடியாது. ஆதலால், பதார்த்தங்களை இவ்விதமென்று சொல்வது இயலாதாகையால் சூன்யமேதான்

1 तापाच्छेवाच्च निकषात् सुवर्णमिव पण्डितैः ।

परीक्ष्य मिश्रवो ग्राह्यं मङ्गलो नतुगौरवात् ॥

2 मलमालसवसन्नबाध्यनुमयात्मकम् ।

चतुष्कोटिविनिर्मुक्तं तत्त्वं साध्यमिका विदुः ॥

தத்துவமெனச் சொல்லவேண்டும்.<sup>3</sup> இவ்வுபதேசம் இப்பிரபஞ்சத்தில் வைராக்கியத்தை யுண்டுபண்ணி அதன் வாயிலாக யாவரும் சார்த நிலையை அடைந்து உய்ய வேண்டும் என்பதே அம்முனிவரின் கருத்தாயிருக்கவேண்டும். இவையே குமரிலர் ஸ்மிருத்யதிகரணத்தில் வெளியிட்டிருக்கிறார்.<sup>4</sup>

சீடர் நால்வரில் ஒருவர் குருபதேசத்தை அப்படியே ஏற்றுக்கொண்டு ஸர்வ சூன்யவாதியானார். இவரை மாத்தியமிதர் என்றழைக்கிறோம். குருவின் உபதேசத்தை மறுபேச்சில்லாமல் அப்படியே ஏற்றுக்கொள்ளுமாறு குருபக்தி வீஞ்சியிருப்பதால் இவரை உத்தமரெனச் சொல்லவேண்டும். ஆனால் உபதேசம் சரிதானா வென்று ஆராய்ந்து பார்த்து ஆகேபங்கள் ஒன்றும் செய்யாததால் அதமரென்றும் சொல்லவேண்டியிருக்கிறது. ஆகவே இரண்டு படியிலுமில்லாமல் இவரை நடுவே நிறுத்துவதுதான் உசிதமென நினைத்து மாத்தியமிதரெனப் பெயரிட்டார்கள். இரண்டாவது சீடர் புறப்பொருள்கள் இல்லையென்பதை ஒப்புக்கொண்டு அகப் பொருளான ஞானத்தையும் இவ்வேயென்றால் உலக வ்யவஹாரம் எப்படி நடக்குமென்று ஆகேபிக்கத்தொடங்கினார். இவர் உபதேசத்தில் சிலவற்றை இசைத்து சிலவற்றை ஆகேபித்ததால் யோகாசாரரெனப் பெயர் பூண்டார். பெளத்த மதத்திற் சேர்வி 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 कारणावेक्षा व्योमादेरिव युज्यते ।

कार्यस्यासम्भवी हेतुः क्षणव्यादेरिषासतः ॥

बुद्ध्या विविच्यमात्रानां स्वभावो नावधार्यते ।

अतो निरमिलव्यास्ते निःस्वभावाश्च वर्णिताः ॥

इदं वस्तुबलावातं वदन्ति विपश्चिताः ।

यथा यथाभाविष्यन्ते विशीर्यन्ते तथा तथा ॥

4 विज्ञानवाक्षणमग्नैरात्म्यादिवादानामप्युपनिषत्प्रभवस्य विषयेष्वात्यन्तिकं रागं निवर्त्तयितुमित्युपपन्नं सर्वेषां प्रामाण्यम् । 1. 1. 8 तन्त्रवार्तिके,

P. 136. Ananda Press.

அவைகளைப் ப்ரத்யக்ஷத்தால் அறிய முடியாது. அழியும் பொழுது தம்மைப்பற்றிய ஞானத்தில் தமது உருவத்தைக் கொடுக்கின்றன. பிறகு ஞானத்தின் உட்சென்ற உருவத்தால் வெளிப்பொருள்களை அறியக்கின்றோ மென உபதேசித்தார். உடனே டீடர் இப்படி நீங்கள் கேட்கக் கேட்க உபதேச ஸுத்திரத்தை வளர்த்திக்கொண்டு போகிறீர்களே. இதற்கோர் முடிவுதானில்லையோவெனக் கேட்டார். இவர் ஸுத்திரத்தின் முடிவைக் கேட்டதால் ஸௌத்ராந்திகரெனப் பெயர்பெற்றார். பிறகு நான் காவது டீடர் வெளிப்பொருள்கள் ஞானத்தால் அறியக்கப்படுகின்றனவாய் அனுபவத்தில் தெரியவில்லையே. ப்ரத்யக்ஷமான பொருள் ஒன்றுமேயில்லை யென்றால் அதுமானந்தான் எப்படி ஏற்படக்கூடுமென வார்த்தையிலுள்ள விரோதத்தைக் காட்டி ஆகேபித்தாராதலால் வைபாஷிகரெனப் பெயரிடப் பெற்றார். இவருக்கு வெளிப்பொருள்களும் ப்ரத்யக்ஷத்தான் என்று உபதேசித்தார்.

வியாசரண்யர் முதலியவர்கள் இவ்வண்ணமே மாத்தியமிகர் முதலிய பெயர்கள் ஏற்பட்டிருப்பதாய்ச் சொல்கிறார்கள். ஆனால் பரோடாவில் வெளியாயிருக்கும் தத்வஸங்கிரஹம் என்ற பெளத்த நூலின் முகவுரையிலிருந்து வேறு காரணமும் இருக்கலாமெனத் தோன்றுகின்றது. அதாவது, புத்தர் நிரவாணம் 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, விரயபிடகம், அபிதம்ம பிடகம், என்ற மூன்று பாகமாய் திரட்டிற்று. பிறகு இப்படித் திரட்டிய உபதேசங்களில் பல விவாதங்களும் அபிப்ராயங்களுமேற்பட்டு அம்மதமே பதினெட்டுப் பிரிவுள்ளதாயிற்று. மாகதி பாஷையிலிருந்த திரிபிடகத்தை அசோகன் குமாராகிய மகேந்தன் ஹிலோனில் பரவச் செய்தான். இப்படிப் பலவாண்டுகள் கழிந்த பின் காஷ்மீர் 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 பாஷையில் மொழிபெயர்க்கச் செய்தான். அந்த மூன்று பிடகங்களும் முறையே ஸம்ஸ்கிருதத்தில் ஸுத்திரோபதேசம், விரயவிபாஷா, அபிதம்ம விபாஷா, என்ற மூன்று க்ரந்தங்களாய் மொழிபெயர்க்கப்பட்டன. கனிஷ்கனுக்கு முந்தியே காத்தியாயனீபுத்ரரென்பவர் அபிதர்மஞானப்ரஸ்தான மென்ற க்ரந்தத்தை ஸம்ஸ்கிருதபாஷையில் 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 ஏற்படவேண்டுமென யோழிய வாதத்தால் ஏற்படாதென வாதிப்பதால் யோகாசாரரெனப்பெயர் ஏற்பட்டிருக்கவேண்டுமெனக் கருதுகிறார்கள். பாஸ்கர பாஷ்யத்தில் நுகத்தடியில் கட்டப்பட்ட எடுத்துகளைப்போல் ஸமாதி, ஸம்யக்தர்சனம், என்ற இரண்டையும் நடத்தும்<sup>5</sup> மார்க்கத்திலிருப்பவர்களைப் பொருள் கூறப்பட்டிருக்கிறது. கீழ்ச் சொல்லியபடி பொருள்கள் உளவென்றோ இவ்வென்றோ கூற முடியாமலிருப்பதால் சூன்யமென்று சொல்வதுதான் நடுவழியென்று அதைக் கைப்பற்றியவர்கள் மாத்தியமிகர்கள்.<sup>6</sup>

இப்படியாக இதுவரையில் புத்தர் முதலில் சூன்யம் தத்வம் என்று உபதேசிக்கத் தொடங்கிப் படிப்படியாக வெளிப் பொருள்களும், ப்ரத்யக்ஷங்களே என்கிற வரையில் ஒப்புக்கொண்டிருக்கிறாரென்று சொன்னோம். சிலர் முதலில் பாஹ்ய பதார்த்தங்கள் கூணிகங்களென்பதை ஆரம்பித்துப் புத்தர் படிப்படியாகக் கடைசியில் சூன்யமே தத்வமென்று உபதேசித்திருக்கிறாரென்று, அபிப்ராயப்படுகிறார்கள். அவர்களின் அபிப்ராயமாவது; புத்தர் ப்ராகிருத விஷயங்களில் மதியிழந்து மண்டி அழிந்து போகும் மாநாடரிடம் கருணைகொண்டு இவர்கள் இவைகளில் வெறுப்புக்கொண்டு நல்லதொரு உந்தமான நிலையை அடையவேண்டுமென்று எண்ணி அநுபவிப்பவன், அநுபவிக்கப்படும் வஸ்து, அநுபவத்துக்கு ஸாதனமான கருவிகள் யாவும் கூணிகமென உபதேசித்தார். தீபஜ் வாஸையையும் திருஷ்டாந்தமாகக் காண்பித்தார். டீடர்கள் ஜயா, ஜ்வாலையொன்று ஸ்திரமாயில்லாவிடினும் ப்ரவாஹம் போல் வந்துகொண்டிருக்கும் அதன் தொடர்ச்சியால் நாம் வெளிச்சத்தைப்பெறவில்லையா? தொடர்ச்சியாய் வந்துகொண்டிருக்கும் நதீப்ரவாஹத்தில் ஸநாநம், பாநம் முதலியவற்றைச் செய்து ஆநந்திக்க வில்லையா? அதுபோல் பதார்த்தங்கள் கூணிகங்களே யானாலும் அவைகளின்

5 शमथविषयना युगनक्षवाही मार्गो योग इति योगलक्षणम् । शमयेति समाधिस्थिते, विषयना सम्यग्दर्शनलक्षणा । यथा युगनक्षौ बलीवद्दौ बहतः तथा योमार्गः समाधिसम्यग्दर्शनवाही स योगः तेनान्वरतीति योगाचार उच्यते ॥ भास्करभाष्यम्: 2. 2. 28.]

6 अतो भावाभावास्तद्व्यरहितत्वात् 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 சற்றேனும் விடவில்லை. உடனே புத்தர் அவர்களைப் பார்த்து நீங்கள் உண்மையில் விஷயங்களை அநுபவிப்பதாகவா நினைத்துக் கொண்டிருக்கிறீர்கள், இல்லை, அவைகள் ப்ரத்யக்ஷமாய் அநுபவிக்க கூடியவைகளே அல்ல, அவற்றின் உணர்வு ஊஹமாத்திரமான அநுமானமேயன்றி ப்ரத்யக்ஷமான அநுபவமல்ல. பதார்த்தங்கள் அழியும்போது தமது உருவத்தை ஞானத்தில் கொடுக்கின்றன. பிறகு ஞானத்திலுள்ள உருவத்தால் பதார்த்தங்கள் அழிக்கப்படும்பொழுது 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 ருசிக்குறைவாயிருக்கிறதா? ஒவ்வொரு வஸ்துக்களின் ஸ்வரூபத்துக்கேற்ப அவைகளின் ஸ்வபாவங்களும் வேறுபட்டிருக்கின்றன. ஆகவே பாஹ்ய பதார்த்தங்கள் அநுமேயங்களே யென்று தீர்ந்துவிட்டால் அவ்வநுமான ரூபமான அநுபவம்தான் நமக்கு ஆநந்தமென்று சொல்லிப் ப்ராகிருதபோகங்களிலேயே மண்டியிருந்தார்கள். அதன்மேல் புத்தருரு உண்மையில் பாஹ்ய பதார்த்தங்கள் இருந்து தமது உருவத்தை ஞானத்தில் கொடுத்து நசித்துவிடுகின்றன வென்பதுமில்லை. அவ்வுருவங்களும் ஞானத்துக்குத் தன்னுள் தானாக தோன்றுகின்ற கற்பனைதான். 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 மானுக்கு தன் நாபியிலேயே கந்தமென்கிறாற்போல் அநுபவிக்கவேண்டிய பதார்த்தங்களை கற்பிக்கும் திறமை நம்மிடமே யிருந்தால் ஓய்வின்றி 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 இவ்வளவுதானா, சீ ப்ரபஞ்சத்தில் உண்மையில் ஒன்றுமேயில்லை என்று வெறுப்படைந்து விஷயப்பற்றை அடியோடுவிட்ட

னர். ஆகவே குன்யமே தத்வமாயிருந்தாலும் குரு பற்பல அதிகாரிகளைக்குறித்து பற்பல விதமாய்த் தத்வங்களை உபதேசிக்கலானார்.<sup>7</sup>

பௌத்தமதம் கனிஷ்கனுடைய காலத்தில் மஹாயானம், ஹீனயானம், என இருபிரிவுடையதாயிற்று. ஸர்வம் குன்யம் என்ற இடைவிடாத எண்ணம் ப்ரஜ்ஞா என்றும் அதன் முதிர்ந்தநிலை ப்ரஜ்ஞாபாரயிதம் என்றும் 'மகாயானம்' என்றும் கூறப்படுகிறது. இந்நிலையை அடைந்தவன் மாஹாயானிகன். இவனுக்குத் தான் பிறரென வேற்றுமையிராது. பிறர் அடையும் துன்பங்களைக் கண்டுவருந்து வான். தன் கஷ்டத்தால் பிறர்துன்பம் நீங்குமானால் தான் அதை ஸந்தோஷத்துடன் ஏற்றுக்கொள்வான்.<sup>8</sup> அவர்கள் கஷ்டம் நீங்கினால் தான் பரமானந்த மடைவான்.<sup>9</sup> தான் போதிஸத்வான்கு ஸுலபமாய் நிர்வாணம் அடையக்கூடியவனாயிருந்தும் பிறர்படும் துயரம் கண்டு மனம் சகியாதவனாய் அவர்களோடு கூட நிர்வாண மடைய விரும்பி அவர்களிடையே இருந்துகொண்டு தன்னாலியன்ற உபகாரத்தைச் செய்துகொண்டிருப்பான். இங்கு ஒரு மாஹாயானிகன் "கலியின் கொடுமையால் செய்யப்பட்ட ஏனையோரின் பாபங்களினைத்தையும் நான் வாங்கிக்கொள்கிறேன், அவர்களை வதைக்காதே விட்டுவிடு" என்று சொல்லியிருப்பது நோக்கத்தக்கது.<sup>10</sup> இந்த மஹாயான வித்தார்த்தத்தை அடியொற்றி ஒன்பது க்ரந்தங்கள் ஏற்பட்டிருக்கின்றன.<sup>11</sup> இவைகளிலிருந்து சில வாக்யங்கள் ஸர்வதர்சனஸங்கிரஹம் முதலிய

7 देशना लोकनाथानां सत्त्वाशयवशानुगाः ।

मिचन्ते बहुधालोके उपायैर्बहुभिः पुनः ॥

गम्भीरो-सानमेवेन कविबोभयलक्षणा ।

मिक्षाहि देशना भिक्षा शून्यताद्वयलक्षणा ॥ (बोधिविचसविवरणे)

8 बहुनामेकदुःखेन यदि दुःखं विगच्छति ।

उत्पाद्यमेव तद्दुःखसदयेन परात्मनोः ॥ (बोधिचर्यायाम्, P. 338)

9 मुख्यमाने पुसत्वेषु येते प्रामोद्य सागराः ।

तैरेव ननु पर्याप्तम् मोक्षेणारसिकेन किम् ॥ (बोधिचं. 341)

10 कलिकलुषकृतानि यानि लोके मयि निपतन्तु विमुच्यतान्तु लोकः ।

(तन्त्रवार्तिके, 1. 3. 2; 195

P. 195. Ananda Press.

11 अष्टसाहस्रीतन्त्रापरमिता, गण्डव्यूहः दशभूमीध्वरः समाधिराजः लङ्कावतारसूत्रम्, सखर्मपुण्डरीकः तथागतगुण्यकम्, ललितविस्तरः सुवर्णप्रभासः ।  
(इति नव ग्रन्थाः)

கர்த்தங்களில் மேற்கோளாக எடுக்கப்படுகின்றனவே யொழிய அந்த கர்த்தங்கள் ஒன்றாவது நமக்கு இதுவரை கிடைக்கவில்லை. தனது துக்கங்களை மாத்திரம் தடுத்தகொண்டு போதிஸ்தவனாகி 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 சுற்று விரிவாக விசாரிப்போம். சீடர்கள் நால்வரும் பதார்த்தங்கள் அனைத்தும் கூணிகங்களைச் சாதிக்கின்றனர். ஆனால் மாத்தியமிகர் பரமார்த்த சத்தியமான சூன்யத்தை உபதேசிக்க உபாயமாக சம்விருதி சத்தியமென்கிற (संवृत्तिसत्यं) அதாவது அலித்யையினால் தோன்றுகின்ற பதார்த்தங்களை ஏற்படுத்திக்கொண்டு அவைகளை கூணிகங்களைச் சொல்லுகின்றனர்.<sup>12</sup> மற்றவர்கள் தாங்களிசைந்த பதார்த்தங்களை உண்மையிலுள்ளதென்றும் ஆனால் கூணிகங்களெனவுங் கூறுகின்றனர். இதைக்கேட்கும்போது இப்படியு மொருவர் சொல்லுவாராவென்று நீங்கள் ஆச்சரியப்படலாம். ஆனால் நாயாயிகர்கள் சொல்லுவதைக் கேட்பீர்களானால் இந்த வித்தார்த்தத்திலும் நீங்கள் திகைப்படைய மாட்டீர்கள். நாயாயிகர்கள் ஒவ்வொருகூணத்திலும் நமக்குப் புதிது புதிதாகச் சரீரமுண்டாய்க் கொண்டிருப்பதாகச் சொல்லுகிறார்கள். நாம் உண்ணும் ஆகாரம் ஜடராக்நியினால் பக்குவமாகி சரீரத்தின் அவயவங்களிற் சேர்ந்து ஒவ்வொருகூணமும் சரீரத்தில் ஒரு விருத்தியையோ குறைவையோ செய்துகொண்டிருப்பதால் சரீரமே ஒவ்வொரு கூணமும் மாறிக்கொண்டிருக்கின்றது. அப்படி ஒவ்வொருகூணமும் உளருவதும் குறைவதும் கண்ணுக்குப் புலப்படாவிட்டாலும் புத்தியால் பிரதிக்கூணமும் வளர்ந்துகொண்டும் குறைந்துகொண்டு மிருப்பதாகத்தான் சொல்லவேண்டி யிருக்கிறது. உதாஹரணமாக ஒரு தடாகத்தில் ஒவ்வொரு மழைத்துளியாலும் ஜலம் பெருகிக்கொண்டிருக்கிறது. கிணற்றிலிருந்து இறைக்கப்படும் ஒவ்வொரு தோண்டியாலும் நீர் குறைந்துகொண்டிருக்கிறது. ஆனால் ஒவ்வொரு மழைத்துளியிலும்பொழுது 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 देख्यते ।

परमार्थमनागम्य निर्वाणं नाधिगम्यते ॥ बोधि०प० 865

उपायभूतं व्यवहारसत्यं उदेयभूतं परार्थसत्यं । (बोधि० 872)

யாலும் கிணற்றுஜலம் குறைந்திருக்க வேண்டுமென்றும் அறியக்கின்றோம். ஆகாயத்தில் ஈகூத்திரங்களை இப்பொழுது ஓரிடத்தில் பார்க்கிறோம். சற்று நேரத்திற் கெல்லாம் அவைகளை முன்பார்த்த இடத்திற்கு வெகுதூரத்திலிருக்கக்காண்கிறோம். இதிலிருந்து அவைகள் தங்கள் இடத்திலிருந்து கொஞ்சங் கொஞ்சமாக நகர்ந்து சென்று கொண்டிருக்கின்றன வென்பதை அறியக்கின்றோம். ஆனால் அவைகள் ஒவ்வொருகூணமும் நகர்ந்து சென்று கொண்டிருப்பது நமக்குத் தெரிவதில்லை. அப்படியே சரீரமும் திடீரென முன்னிலிடப் பருமனாகவோ இளைப்பாகவோ ஆவதற்கு நியாயமில்லை யானபடியால் பிரதிக்கூணமும் அவை வளர்ந்து கொண்டோ குறைந்துகொண்டோ இருக்கின்றன. ஆதலின் அவைகள் கூணிகங்களேயாகவேண்டும். இப்படி நாயாயிகர்கள் சிலவற்றை மாத்திரம் கூணிகங்களெனச் சொல்லுவதால் பாதிவநாசிகர் (अर्धवैनाशिकः) என்றும் எல்லாவற்றையும் கூணிகங்களெனச் சொல்லுவதால் பெளத்தர்கள் முழுவநாசிகர் (सर्ववैनाशिकः) என்றும் அழைக்கப்படுகிறார்கள். இங்கு உண்டானவுடனே அழிந்துவிடும் சுபாவமே கூணம் எனப்படுகிறதே ஒழிய கூணம் என்ற தனித்தபொருள் ஒன்றில்லை. அந்தச் சுபாவத்துடன் கூடிய பதார்த்தங்களே கூணிகங்கள்.<sup>13</sup> வஸ்துக்கள் பிறக்கும் பொழுது அவற்றினழிவும் உடனுண்டாவதால் அவையனைத்தும் கூணிகங்களாகின்றன. மேலும் சகல பதார்த்தங்களும் பிரயோஜனமுள்ள ஒருகாரியத்தைச் செய்கின்றன வாதலால் கூணிகங்களா யிருக்கவேண்டுமென்று (यत्सत् तत् क्षणिकम्) அறியக்கின்றோம். ஸ்திரமான பதார்த்தங்களுக்குப் பிரயோஜனமுள்ள காரியங்களை ஏதகாலத்திலோ வரிசையாகவோ உண்டுபண்ணத் திறமையில்லை. ஏனென்றால் ஒருசுவன் ஒரு குடத்தைச் செய்யும்பொழுதே மூன்று காலத்திலுள்ள குடங்களைச் செய்யும் திறமையும் அவனுக்கிருக்குமானால் அப்பொழுதே எல்லாக் காலங்களிலுமுள்ள குடங்களைச் செய்யவேண்டும்.<sup>14</sup> அத்திறமை அப்பொழுதில்லையென்றால் பின்னையும் அத்திறமை ஏற்படமுடியாது. இப்பொழுது முனைய உண்டுபண்ணத் திறமையிலாத கல்லுக்கு பிந்திப் அத்திறமை ஏற்படுமென்றால் யார் நம்புவார்கள். உதவிக்காரணங்களின் (सहकारिकारण) உதவியால் அந்தந்

13 उत्पादानन्तरस्थायि स्वरूपं यच्च वस्तुनः ।

तदुच्यते क्षणः सोऽस्ति यस्य तत् क्षणिकं मतम् ॥ (तत्त्वसंग्रहे.)

P. 142. Gaikwad Oriental Series.

14 कार्याणि हि विह्वन्ते कारणसंनिधानतः ।

समर्थेतुसत्त्वावे 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 உத விக் காரணம் தேவையாயிருக்குமன்றோ? ஆகவே உதவிக்காரணங்களுக்கு ஓர் இடத்திலும் முடிவு ஏற்படாது. மேலும் ஸ்திரமான வஸ்துவில் எக்காரணங்களா லும் யாதொரு விசேஷமு மேற்படுவதில்லை யென்பதைப் பார்க்கிறோம். மழையா லும் வெய்யிலாலும் ஸ்திரமான ஆகாசத்தில் ஏதாவது விசேஷ மேற்படுகிறதா? <sup>15</sup> ஆகவே உதவிக்காரணங்களின் உதவியை நாமும் பொருள்கள் எக்காரணத்தாலும் ஸ்திரமாயிருக்கமுடியாது.

(To be continued.)

## SABAPATHI VILASA NATAKA

15 वर्णातपाभ्यां किं व्योमभर्मण्यस्ति तयोः फलम् ।

वर्मोपमभेत्सोऽनित्यः क्षतुस्य भवत्फलः ॥

—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 Venkatesvara 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 मङ्गलम् ॥

॥ श्रीसभापतिविलासनाटकम् ॥

वामाङ्गस्तनकुम्भपत्रमकरीविन्यासशिल्पक्रम-

स्विद्यद्वक्षिणपाणि रौद्रकरुणासंवादिसीमालि<sup>१</sup>कम् ।

अस्त्रीपुंसनपुंसकाकृति किमप्यानन्दगन्धोन्मिल-

दिव्यं तन्मिथुनं तनोतु भवतामानन्दमव्याहतम् ॥ १ ॥

अपिच—

लज्जासाध्वसमन्थरं भगवतो दृष्टिं सरागोदयां

पश्यन्त्या मदनाय चाथ परुषां गाढागसे दुःखतः ।

प्रायेण क्रमजातलीनपुलकं सङ्कोचयन्त्या वपुः

पार्वत्याः <sup>३</sup>किलिकिञ्चितं प्रदिशतु श्रोयांसि भूयांसि वः ॥ २ ॥

(नान्द्यन्ते ततः प्रविशति सूत्रधारः)

सूत्रधारः—(पुरोऽवलोक्य सानन्दम्) अमी खलु <sup>१</sup>तमीरमणखण्डशिखण्डकस्य पटुनटनारभ-  
टीपरिलुठितजटाटवी<sup>२</sup>कुटङ्करिखदमरतरङ्गिणीसमुत्तुङ्गतरङ्गभङ्गनटनपौनः पुनीपुनरुक्त-  
नन्दिकरतलाहतमुरजरवस्य करुणावलोकनपरिपालितशरणागतजनततेः कनकसभा-  
पतेर्यात्राप्रसङ्गेन सन्निहिताः सकलकलाकलापसुधांशुधिकृतमज्जनाः सज्जनाः ।  
अहो ! परमानन्दनिदानममीषां दर्शनम् । तथाहि—

(१) प्रियतमेन वक्षितायाः पञ्चरचनाविन्यासोऽनर्घराधवे प्रसिद्धः. (२) भलिकम् = ललाटः.

(३) “रोषाश्चहर्षभीत्यादेः सङ्करः किलिकिञ्चितम्”. (४) तमीरमणः = चन्द्र.

(५) कुटङ्कः = गुहाच्छादकः.

सुखं किमपि पुण्यति स्फुटयति प्रतीतिं यश-  
स्तनोति सकलेप्सितं दिशति दोग्धि शुद्धिं हृदि ।  
तमोभवभयं क्षणादिव समूलकावकष-  
त्यदः कथय किञ्च यद्वितनुते सतां दर्शनम् ॥ ३ ॥

तदेषां पुरः किमपि रूपकं निरूप्य कुलक्रमागतामभिनयविद्यां<sup>१</sup>फलेग्रहीकरिष्ये ।  
<sup>२</sup>निरूपयिष्ये मम सहायसम्पत्त्या खलु भवितव्यम् । कुतः  
समर्थोऽपि विधेयेषु<sup>३</sup>सहकृत्वानमीहते ।  
<sup>४</sup>नुनुत्सुरन्धतमसमनूरुं कांक्षते रविः ॥ ४ ॥

(नेपथ्याभिमुखमवलोक्य) आर्ये! इतस्तावत् ॥

(प्रविश्य नदी)

नदी—अय्य ! एसं हि ॥ (आर्य ! एषाऽस्मि)

सूत्र—आर्ये रङ्गचन्द्रिके ! साधीयः खलु परिषदः<sup>५</sup>सभाजनम् ।

नदी—(साश्चर्यम्) अय्य ! तेषु तेषु ठाणेषु चहुविहाहिणयधुरन्धरेहिं अहोहिं ण दिट्ठो  
ईरिसो महन्तो सज्जनसमाजो । (आर्य ! तेषु तेषु स्थानेषु<sup>६</sup>चतुर्विधाभिनय-  
धुरन्धरैरस्माभिर्न दृष्ट ईदृशो महान् सज्जनसमाजः ॥)

सूत्र—सत्यमाह भवती । विनापिमहोत्सवमुत्सवसमयमिव सन्ततमिदं पुरं चिदम्बरमन-  
वधिजनसङ्घतरङ्गितमुत्तरङ्गयति पुङ्खानुपुङ्खान्तरानन्दम् ; किमुत प्रवर्तमानेऽस्मि-  
न्महोत्सवे । प य—

कर्णाटकाटकरहाटकलिङ्गकोट-

काङ्गमीरकेरलकशूरशकाङ्गवङ्गैः ।

तुण्डीर पाण्ड्य तुलुवैरपि मद्रचोल-

नेपालमालवमुखैर्निखिलैरमेलि ॥ ५ ॥

(१) सफलीकरिष्यामि. (२) निरूपयितुमिच्छोः ॥ (३) सहायम्. (४) नोदितुमिच्छुः.  
(५) आगन्तव्यम्. (६) सात्त्विकाङ्गिकाचिकाहार्थभेदेन.

किञ्च,

साहित्यामृतपारणाय कतिचित्कुर्वन्ति गोष्ठीं जनाः  
वादायापि ससंभ्रमाः कतिपये कण्डूलजिह्वाञ्चलाः ।  
पुण्याः केऽपि मिथोविवेक्तुमनसः पौराणकीस्ताः कथाः  
सङ्गीतागमभङ्गिपुङ्घितधियः सभ्याः परेऽभ्यागताः ॥ ६ ॥

नदी—ता मण्णे नवाणं पि रसाणं अहिअरणं एदं ठाणं ति (तस्मान्मन्ये नवाना मपि रसा-  
नामधिकरणमेतत्स्थानमिति ।)

सूत्र—कः सन्देहः ! तथास्तु—

उद्दीप्रोदारभूषैर्युवभिरललितोद्गण्डनाटयैश्च शैवैः

योगिव्यूहैः कृशाङ्गैः करनमितधनुःप्रक्रमैर्वीरवर्गैः ।

सेवायातैश्च भूतादिभिरपि विबुधैर्मस्करीन्द्रैश्च शान्तैः

मूर्ताः शृङ्गारमुख्या अपि च नवरसास्तन्वते नित्यवासम् ॥ ७ ॥

नदी—ता एवाणं अणेअरसप्पओअसंभावणिज्जाणं दुक्खरंखु आराहणम् (तस्मादेतेषा-  
मनेकरसप्रयोगसम्भावनीयानां दुष्करंखल्वाराधनम् )

सूत्र—किन्नाम दुष्करं मतिमताम् !

नदी—णं णिरुवेदु अज्जमिस्सो । (मनु निरूपयत्वार्थमिश्रः)

सूत्र—(विचिन्त्य) पश्चात्कथयामि मन्थरमन्थानमथितकलशसलिलनिधिसमुद्यतमुष्ण-  
लहरीकुलकलकलनिनदमदहरणचणकोलाहलसज्जलजलधरनिनदनिष्यन्दबभूवुरेण मह-  
लध्वनिना समवस्थापयामस्तावदिमान् ॥ (नेपथ्याभिमुखमवलोक्य)  
मारिष ! प्रवर्त्यतां रङ्गप्रसाधनविधिः ।

(नेपथ्ये मृदङ्गध्वनिः सङ्गीतश्च)

नटी—(समन्तादवलोक्य) महलरवाणुबन्धिणासङ्गीदेण पुञ्जीभूदो चित्तगदोविअ सव्वो-  
वि जणो दीसइ । णिरुवेदु सामाहओहदं रुवअं अयमिस्सो । (महलरवानुबन्धिना  
सङ्गीतेन पुञ्जीभूतश्चित्रगत इव सर्वोऽपि जनो दृश्यते । निरूपयतु सामाजिकोचितं  
रूपकमार्यमिश्रः ॥)

सूत्र—(पुरोऽवलोक्य) अस्मान्नु<sup>१</sup>द्युयोजयिषोः परिषदस्सकाशात्पत्रहस्तो मारिष इत एवो-  
पसर्पति । उपलब्धसामाजिकनिदेशा विचारयामः । (प्रविश्य पारिपार्श्वकः  
पत्रमर्पयति । सूत्रधारो गृहित्वावाचयति)

“सद्यस्संफुल्लमल्लीनवमधुरहरीमाधुरीरीतिभाजो

वाचो यस्मिन्मनोज्ञा विविधबुधजनाद्वादमुद्वेलयन्ति ।

पुण्यश्लोकस्य कीर्तिस्त्रिभुवनभवनाभोगसौधावकाश-

स्फूर्जच्चन्द्रातपोद्यद्वलमभरिता यत्र शोभां बिभर्ति ॥ ८ ॥

चन्द्रोत्तंसकथामाध्वीरसोद्गारैकशालिने ।

सन्दर्भायातिहृदय तस्मै तिष्ठामहे वयम् ॥ ९ ॥ इति ”

(परिवृत्य) आर्ये ! अपि श्रुतः परिषदादेशः ?

नटी—कोणाम तारिसो पबन्धो ? (को नाम तादृशः प्रबन्धः)

सूत्र—(विचिन्त्य) कण्ठगतमेव विमृश्यते चामीकरम् । ननु निर्दिष्टिगुणोत्तरं सभापति-  
विलासनामास्मद्वशमेव सकलरसमणिगणहाटकपेटकं नाटकम् ॥ तदेतत्पयुञ्जा-  
नैरस्माभिरवश्यं रसपारवश्यमानेतन्न्यानि सामाजिकमनांसि ।

नटी—(सकौतुकम्) को णाम कविन्दो तारिस्स पबन्धस्स (को नाम कीवन्द्रः तादृशस्य  
प्रबन्धस्य)

सूत्र—आर्ये ! जानासि सकलकलाकलापपारदृशा मण<sup>२</sup>ल्लराग्रहारवासी धर्मराजामिधो  
मनीषी ।

1, उद्योजयितुमिच्छन्त्याः । 2, मणल्लराग्रहारः, मण्यार्जुनक्षेत्रपरिसरवस्ती ।

नटी—केणणमुणीअदिपडिदिणणपबन्धण्णिमाणजम्मजसोधणसाररिच्छोलिआसुरभिअदस-  
दिसामुहो ; सअलभूमण्डलपण्डितमण्डितनित्यद्वयविद्यानटीरङ्गस्थलायमाना-  
णेन्दुमुणिन्दसहासंपत्तसत्तमासासव्वहोमापरणामहेओसोविहुवेन्दो । जस्स दव्वो  
अरसिहामणिभाण्य जीहाकिदसणिहाणकंपि उक्खरिसं पुस्सइ । अप्पआस-  
विजिम्भमाणसुमधुरचित्तवित्थअचहूविहकइदासन्दस्सिअचमक्खारस्स णा डअप्प-  
मुहरूपअचित्तिरेतित्तित्तअपज्जापहिअमणीसाविसेस्सतस्सकोणामणसिलाअइ ॥

(केन न ज्ञायते प्रतिदिनप्रबन्धनिर्माणजन्मयशोधनसाररिच्छोलिकासुरभितदशदि-  
शामुखः, सकलभूमण्डलपण्डितमण्डितनित्यद्वयविद्यानटीरङ्गस्थलायमानज्ञानेन्द्रमुनीन्द्र-  
सभासंप्राप्तषड्भाषासार्धभौमापरनामधेयः सविबुधेन्द्रः । यस्य दर्वाकरशिखामणिभाण्यं जिह्वा-  
ग्रकृतसन्निधानं कमप्युत्कर्षं पुष्यति । अप्रयासविजृम्भमाणसुमधुरचित्तविस्तारचतुर्विधकविता-  
सन्दर्शितचमत्काराय, नाटकप्रमुखरूपकचित्रैतिवृत्तपद्यापथिकमनीषाविशेषाय तस्मै को  
नाम न श्लाघते ।)

सूत्र—तत्त्वमबोधि भवती । अथवा

नैतच्चित्रं ललितमधुरं धर्मराजस्य सूरैः

वाचां विस्फूर्जितमिति जगत्ख्यातविद्यावतारः ।

यस्य ज्यायानुपसुरगुरू रामनामा मनीषी

भाष्यं पातञ्जलमुपदिशन्भाति विद्वज्जनेभ्यः ॥ १० ॥

किञ्च ;

श्रीमन्निधुवकश्यपान्वयः॥णिर्णिर्णितसर्वागमो

निर्वेलप्रथितावदानजनुषा कीर्त्या जगद्भासयन् ।

यत्तातो भुवि<sup>१</sup>वैद्यनाथसुमतिर्वै<sup>२</sup>कुण्ठयोगीश्वरः

सद्यःसंन्यसनेन चिद्धनसुधान्भोवेरगादेकताम् ॥ ११ ॥

(1) पूर्वाभमे. (2) सन्धासाभमस्त्रीकारावन्तरम् .

तस्य खलु सकलदिगन्तरसन्ततचन्द्रायमानयशसो धर्मराजमनीषिणो हृदयानन्दनो  
नन्दनो वेङ्कटेश्वरो नाम कवीन्द्रः, तेनहि निर्माय नाटकमिदं भगवतः पादाम्बुजयोः  
समर्पितमासीत् ॥

नटी—पसंसणिज्जो खु सो कर्हन्दो । अह पसिद्धेसु भगवन्तस्य चरिदेसु ठिदेसु कीस  
थलमाहम्भैकवरं नाडअं ॥ (प्रशंसनीयः खलु स कवीन्द्रः । अथ प्रसिद्धेषु भगवतश्च-  
रितेषु कस्मात्स्थलमाहात्म्यैकपरं नाटकं निर्मितवान् ॥)

सूत्र—(सस्मितम्) मुग्धे ! अत्रैव खलु सभान्तरे तादृशयोगीन्द्रध्यानमयलोचनविषयोपि  
सन्त्यक्तकैलासविलासश्चार्मणलोचनगोचरतामुपैति भगवानकुण्ठपरमानन्दताण्डवः  
खण्डपरशुः ॥

नटी—जुज्झइ एदम् ॥ (युज्यत एतत्) ॥

सूत्र—किञ्च ॥

नटी—किमण्णम् ? (किमन्यत्) ?

सूत्र—कदाचिदाद्रौत्सवालुलोकयिषया स्थलमिदमाटीकमानः स कवीन्द्रः श्रावयन्स्वकृतीः,  
प्रतिज्ञाराषवानन्दनाम्नि नाटके प्रसङ्गादुपवर्णितं चिदम्बरमाहात्म्यमुपश्रुत्य जातकौ-  
तुहलैः सर्वैरपि स्थलनिवासिभिरादिष्टः ॥

नटी—(सविस्मयम्) किमाणत्तममीहिं सिवभक्तसिरोमणीहिम् ? (किमाज्ञप्तममीभिः शिव-  
भक्तशिरोमणिभिः ?)

सूत्र—विद्वत्पुङ्गव वेङ्कटेश्वरकवे वाणी तवेयं दल-  
न्मन्दारान्तरमाकरन्दलहरीमाधुर्यधुर्योदया ।  
तन्निर्माय चिदंबरेशविषयं किञ्चिन्नवं नाटकं  
चेतः प्रीणय नश्चिदम्बरकविर्भूयास्त्वमेतावता ॥ १२ ॥

नटी—अच्चरिअं एदाणं कवीन्द्रसहाअणसम्मूहीणत्तणम् ॥ अहतारिसविवेअपेसलमणा को  
णाम् ? (आश्चर्यमेतेषां कवीन्द्रसभाजनसम्मूखीनत्वम् ॥ 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 !

दलि<sup>१</sup>तवियुगहन्तः कन्दलच्चूतवृन्द —

प्रसृमरमकरन्दस्यन्दनन्दन्मिलिन्दः ।

नवनवसुमगन्धप्रोद्धतानन्दगन्धः

कलयति बहुमन्तर्विस्मयं मे वसन्तः ॥ १८ ॥

सूत्र.

विकासपदचम्पका विरहिमानसाकंपका

ललन्मृदुलमारुतागलितकोकिलालीरुताः ।

मदाकुलमधुव्रता मदनमोदनैकव्रता

दिशान्ति मधुवासरा मुदममी कनत्केसराः ॥ १९ ॥

आर्ये ! तदमुमेव समयमधिकृत्य प्रवर्त्यतां सङ्गीतकम् ॥

नटी. तहा (तथा) (इति गायति)

चन्दणगिरिन्दमारुदच छल 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 तन्निर्व्यूढप्रतिपदसुधास्यन्दिबचसा ॥ २२ ॥

१. दलिता वियुजा विभीषिनीनामहस्ताङ्गारः येनसः ।

नटः—(साश्चर्यम्)

सङ्गीतेनामुना सर्वे ज्ञातसर्वकला अपि ।

सञ्जातामन्दसन्तोषा मन्ये सामाजिका इह ॥ २३ ॥

सूत्र.—मारिष ! मैवं वादीः । अस्मदीया भक्तिरेवानन्दकारणममीषाम् । न पुनः कला-  
वैदग्धी । तथाहि

अन्यैरनेकयत्नैरतिचिरदुःसाधचित्तसन्तोषाः ।

अनितरसाधारण्या भक्त्या सन्तः प्रसीदन्ति ॥ २४ ॥

(नेपथ्ये)

भद्र ! भरतपुत्र ! सम्यगभिहितमन्यैरनेकयत्नैरिति ।

सूत्र.—(पुरोऽवलोक्य) आः कथमवसरजः कनीयानवलम्बितनन्दिकेश्वरभूमिक इत एवा-  
भिर्वर्तते । तद्वयमप्येनमुपतिष्ठामहे ।

॥ इति निष्क्रान्ताः ॥

॥ इति प्रस्तावना ॥

(ततः प्रविशति नन्दिकेश्वरः)

नन्दिकेश्वरः—(अन्यैरिति पठित्वा सश्लाघम्) सम्यगुक्तमनेन कुशीलवकुटुम्बोद्धेन ।

तथाहि—निखिलनिगमगिरामगोचरोऽपि भगवानम्बिकापतिरमुष्मै मध्यन्दिननन्द-

नाय बालर्षये तादृशभक्तिपराधीनो महान्तं खलु करोति प्रसादम् । (विचिन्त्य)

अहो भक्तजनपारतन्त्र्यं देवस्य । यदादिष्टोस्मि देवेन । यथा वत्स ! सकलभुवन-

संराजोविराजोद्भूदयपुण्डरीकानुकारिणि पुण्डरीकपुरे विरचितसन्निधानं श्रीमूल-

नायकाभिधानं मामेव महता खलु तपसा समाराधयति मध्यन्दिनस्य महर्षेस्तपः-

फलं बालमुनिः । तदयमर्हत्यालोकयितुमस्मदानन्दनटनम् । ततः तिष्ठाट-

वीमधिगत्य भवता मदाविर्भावसमुचितस्थानमुपलभ्य प्रतिनिवर्तितव्यमिति ।

(सस्मितम्)

द्रष्टुं यत्पदपङ्कजं हरिरपि तैलोक्यकुक्षिभरिः  
 बागीशोप्यनलं यदीयमुकुटं साष्टापि लोकानिमान् ।  
 अन्तर्यामितया चराचरमिदं व्याप्नोति योऽयं जग-  
 तस्य ज्ञापयतीतरोऽविदितमित्यस्मन्महत्वान्तरम् ॥ २५ ॥

(विचिन्त्य) के वयम्? एतदप्यनिर्वचनीयकुहनामय्या कयापि कारुण्यकल्या  
 परिक्रीडमानस्य भगवतो विलसितं विवरीतुम् । तद्यथादिष्टमनुतिष्ठामि । (गमनवेगम-  
 भिनयन् पुरोऽवलोक्य ।)

चण्डकररश्मिवारणचतुरिमुदुर्दान्तभूरिशालौघा ।  
 मण्डयति भूविभागान्महतीयं तिलवनवाटी ॥ २६ ॥

किञ्च

पुलकितवकुलरसालं पुंघितकलकण्ठतरुणसल्लापम् ।  
 चुलकितनमोऽवकाशं चोरयते तिल्वकाननं चेतः ॥ २७ ॥

यावत्प्रविशामि (प्रवेशमभिनयन्-साश्चर्यम्) अत्र खलु—

उडुपटलसदृशानुद्धहन्त्यो गुलुच्छानविरलदलजालैरन्धकारानवन्त्यः ।  
 मरिचिकिसलभग्नग्रासमाद्यचकोरा विदधति मुदमक्ष्णोर्वीथयः पादपानाम् ॥ २८ ॥

अपिच

शास्त्राग्रेरलस्य विश्रमसुखं संपादयन्तोऽन्वहं  
 प्रत्यग्रप्रसवस्तुतैर्मधुरसैरासे<sup>१</sup>चकानामपि ॥  
 पुष्पैराश्रमवासिनो मुनिजनान्सन्तर्पयन्तःफलै-  
 रप्येते वनपादपा विदधते पुण्यं सदा पुष्कलम् ॥ २९ ॥

(१) अस्य विश्रमसुखं संपादयन्त इति पूर्वोक्तान्वयः

(अन्यतःचक्षुः प्रसार्य साश्चर्यम्)

माकन्दगुच्छमकरन्दकृताभिषेका  
 लोभप्रसूनरजसा धवलीकृताङ्गाः ।  
 एतेऽम्बुजासनपरिग्रहनिष्पकपाः  
 पञ्चाक्षरीजपपरा इव भृङ्गराजाः ॥ ३० ॥

(पदान्तरं गत्वा)

विहगविरुद्धम्भाद्वेदमुद्रोषयन्तः  
 परिणतनववल्लीपुञ्जचञ्चजटौघाः ।  
 वनभुवि सहमाना द्वन्द्वतापातिरेकं  
 मुनय इव तपस्यां तन्वते शाखिनोपि ॥ ३१ ॥

अतश्च

मुनिपरिचयादेते दूरीकृताखिलकरुमषाः  
 पुरविजयिनः पुण्यास्तास्ताः पठन्ति कथाः शुकाः ।  
 करिपरिवृद्धाः सिञ्चन्त्येते च पुष्करणीजलैः  
 कठिनतपना<sup>१</sup>मोदं मौनीन्द्रपर्णगृहाङ्गणम् ॥ ३२ ॥

(पदान्तरे स्थित्वा सहर्षम्)

कर्पूरः कदलीदलान्तगलितैरन्योन्यसंघट्टना-  
 दुष्कर्णैरपि चन्दनैर्मृगमदव्यासङ्गमेदस्विभिः ।  
 कोणे शीलयतो गुहासु सुरतं वाताभकाःकिन्नर-  
 द्वन्द्वस्य प्रविशन्त्यशङ्कितममी तुष्टा हि पि<sup>२</sup>ष्टातकम् ॥ ३३ ॥

(अन्यतो गत्वा)

१. तपनामोदं = सूर्यातापम् २. पिष्टातकम् = पटवासकः.

चर्वचर्वमितो रसालकिसलानीषत्पुरोजाग्रतः  
 स्वादुङ्कारममी समं युवतिभिर्मोदेन पुंस्कोकिलाः ॥  
 कुप्यदर्प<sup>१</sup>कदर्पनिर्भरभुजाकृष्टेक्षुषाणासन-  
 केङ्कारोदयतारतारमधुना <sup>२</sup>कूजामुपस्कुर्वते ॥ ३४ ॥

इतश्च

सदयमिह हि शृङ्गाग्रेण कण्डूविनोदं  
 कलयति बत मूले कर्णयोः कृष्णसारे ।  
 अनुभवति सुखानामद्वयं सामरस्यं  
 मदपरवशतारा स्तम्भिताङ्गी कुरङ्गी ॥ ३५ ॥

(कतिचित्पदानि गत्वा)

नवनवकलिकालीनप्रपञ्चागमध्यात्  
 कथमपिच विनिर्यन्काननाभ्यन्तरेषु ।  
 पुलकयति शरीरं फुल्लमल्लीमतल्ली-  
 परिमलभरतान्तः पावमानः प्रवाहः ॥ ३६ ॥

(सर्वतोऽवलोक्य)

अत्र खलु मत्तद्विरदकपोलभित्तिप्रसृमरदानलुभ्यद्भ्रमरसमूहमुग्धध्वनिमुखरेषु, चूत-  
 प्रवालभङ्गास्वादनसयानुषङ्गखेलत्पिकालीपुंखितारक्तकाकुभङ्गिवाचालितेषु, मन्दवातामन्दली-  
 लावनचन्दनाशोकनीपकुन्दमन्दारमरुवककिन्दुकधवपिचुलिन्दमुखविटपिदन्तुरसरणिषु पिहि-  
 ततरणिकिरणततिषु वनोद्देशेषु सञ्चरन्विनोदयानि क्रूरसमुच्छसितमध्वश्रमम् ॥ (इति  
 परिक्रम्य पुरोबलोक्य साश्चर्यम्)

१. दर्पकः = सम्मथः. २. कूजा = अञ्जलिशब्दः.

अस्य खलु मध्ये तिल्ववनस्य—

उत्तुङ्गसौधशिखरान्तरहेमकुम्भ-  
 रोचिःप्ररोहकपिशीकृतदिव्यलोका ।  
 मध्यस्फुरन्मदनशासनमौलिचन्द्र-  
 ज्योत्स्नाविधूततिमिरा नगरी चकास्ति ॥ ३७ ॥

हन्त ! हन्त ! अतिकैलासमिदं स्थानम् स्थाने खलु अत्रस्थाने देवस्यानन्दताण्डवम् ।

(समन्तादवलोक्य)

वातोन्नतितकेतुचीनपटिकाकिम्भोरिताशामुखा-  
 न्युन्मीलन्मणितोरणान्तररणद्वण्डप्रकाण्डान्यपि ।  
 द्वारोत्तम्भितकायमानविलसन्नानामसूनावली-  
 भाञ्जि प्राञ्चि गृहाणि काञ्चनमयान्यादीपयन्ते दिशः ॥ ३८ ॥

(सनिर्वेदम्) सर्वतःसञ्चरतोऽपि न मम नयनसरणिमादौकते मध्यन्दिननन्दनः ।  
 तदिदानीमत्युन्नतनानाविधप्रकारगोपुरमण्डपमण्डलमण्डितं देवालयमिमं गत्वान्वेषयामि ।  
 (प्रवेशमभिनयन्) हन्त ! कुम्भसंभवमीतो निवसति परमम्भोनिधिः । (विमृश्य) केनचित्पु-  
 ष्यतीर्थेन भवितव्यम् कस्य मुखाद्याथातथ्यमुपलप्स्ये (विलोक्य) अस्यैव तीर्थस्याधितीरम् ॥

भसितधवले गात्रे रुद्राक्षदामपरंपरां

स्फटिकगुटिकां पाणौ विभ्रत्कण्ठशिशुर्मुनिः ॥

शिवमयमिदं विश्वं पश्यत्यसाविति मन्महे

पुलकमुकुलैः सर्वाङ्गीर्णैर्यदङ्गमलङ्कृतम् ॥ ३९ ॥

(साशंसम्) अयमेव मध्यन्दिननन्दनः स्यात् । (सहर्षम्) हन्त ! कियद्वासुष्य भाग-  
 धेयम् ।

१. कायमानः = वातासेवार्थं गृहद्वारि कस्यमात्रः पर्णमयः प्राङ्गणमात्रः भाषायां लङ्कलं  
 इति क्पातः

यतः

अस्य किल दर्शनाय स्पृहयति हा हन्त भक्तिपरतन्त्रम् ।

विभिहरिविमृग्यमाणं तदपि च तेजः शशाङ्कचूडालम् ॥ ४० ॥

यावन्मण्डपान्तरित एवास्य विसंभभाषितानि कर्णातिथीकरोमि । (तथातिष्ठति)  
(ततः प्रविशति मध्यन्दिननन्दनः, शिष्यश्च)

माध्यन्दिनिः—

सकृद्दृष्टे यस्मिन्नुदयति परानन्दलहरी

सदानन्दालोकासुतमपि न तृप्त्यै जनिमताम् ॥

पदाम्भोजे तस्मिन्निरमिव पतित्वा पुररिपोः

त्यजेयं तापानामहमहमिकामेष किमहम् ॥ ४१ ॥

शिष्य.—आअरिअ ! किं पुनो पुनो सन्दिहिज्जह, कहिअं खु तत्तभवन्तेहि तातचरणेहि  
अहिलदेवदंसणपहविदूरोवि भत्तिमेत्तसुलहो भभवन्तो भवानीबल्लहो-त्ति (छा-  
आचार्य ! किं पुनः पुनः सन्दिह्यते ? । कथितं खलु तत्रभवद्भिः तातचरणैः अ-  
खिलदेवदर्शनपथविदूरोपि भगवान् भवानीबल्लभः भक्तिमात्रसुलभ इति) ।

माध्य.—वत्स ! कौण्डिन्य ! ततः खस्वचरमयोनिदुस्साधमपि चरणकमलदर्शनसुखमभिल-  
षामि देवस्य ।

(विचिन्त्य, सरोमाञ्चम्)

गुरुचरणकटाक्षवीक्षणाल्या

प्रभवति कामगवी हितेषु नो चेत् ।

विषयमरुमरौचिवोचिकायां

मम लुठतः कथमस्तु शम्भुसेवा ॥ ४२ ॥

कौण्डि.—णवरं सम्भुसेवव ।

ण्हाणण्णोसिवगंगापअंमि णिवसो चिअंबरे एत्थ ।

सिवसेवाअप्पहवदि गुरुक्कलुणासारपरिपाओ ॥ ४३ ॥

(छा—केवलं न शम्भुसेवैव ।

रुो—स्नानं नः शिवगंगापयसि निवासश्चिदम्बरे चात्र ।

शिवसेवा च प्रभवति गुरुक्कलुणासारपरिपाकः ॥)

नन्दि.—किमिदं शिवगंगाभिधानं तीर्थम् ? ।

कचित्कमलकाननं कचन शैवलानां कुलं

कचित्कुमुदमण्डलं कुहचनोत्पलानां चयः ।

कचिद्भ्रमरसन्ततिः कचन सारसानां ततिः

कचित्कुररपालिका कचन हंसरीञ्चोलिका ॥ ४४ ॥

किञ्च,

तटवनतरुभृङ्गीगानभङ्गीभिरङ्गी-

कृतजललहरीभिः स्यूतभागा शिलाभिः ।

विवृतकमलगन्धैर्वीचिवातप्ररोहैः

वितरति शिवगंगा विस्रयं मानसे नः ॥ ४५ ॥

माध्य.—अवितथमाह भवान्, विरमतु क्षणम् । (ध्यानमुकुलितलोचनस्तिष्ठति)

नन्दि.—अहो ! अनन्यपरत्वममुष्य ।

(स्पर्शसुखमभिनीय, सरोमाञ्चम्)

फुल्लत्पङ्कजमाकरन्दकणिकाविक्षेपपौनःपुनी-

नित्याकल्पितदुर्विना मुखरिता मुग्धैः पिकानां रवैः ।

आवृन्तं हसितस्पृशां सुमनसामामोदमेदस्विनो

मन्दं मन्दममी समीरशिशवो<sup>१</sup>वान्तो हरन्ति भ्रमम् ॥ ४६ ॥

(आनन्दपरवशस्तिष्ठति)

माध्य.—वत्स ! चिरात् प्रसन्नो भगवानम्बिकापतिः । तदुत्तिष्ठ । पुष्पभाजनमादाय  
भगवतः श्रीमूलनायकस्य सेवया जन्मेदं पुनीमहे ।

कौण्डि.—जं आअरिअस्स रोचह ।

(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, शिरस्यञ्जलिं घटयन्)

नमस्तुभ्यं गङ्गासलिललहरीसेचनकन-

ज्जटावल्लीगुच्छभ्रमकरसुधासूतिशिशवे ।

शिव श्रीमूलेश त्रिपुरललनालोचनपथः-

सवन्तीसन्दोहप्रभवगिरिमूतालिकदृशे ॥ ४७ ॥

(सगद्गदम्)

क चाहं जात्यन्धो विविधजननैकान्तवसतिः

क च त्वं ब्रह्मेन्द्रप्रमुखसुरदुर्बोधमहिमा ।

तथाप्याकाङ्क्षेऽहं तव चरणसन्दर्शनसुखं

कुतस्तन्मे सिध्येत् कुटिलविषयव्यापृतधियः ॥ ४८ ॥

1. वान्तः बाधातोः क्षतरि 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 तादृशभागधेयस्याभूमिः, इदं पुनरनिवार-  
णीयं अनवधिदयासागरेण देवेन ।

येषां दैवतमिन्दुशेखरमिदं तत्त्वं हि पञ्चाक्षरी-

मन्त्रावृत्तिविशोधितान्तरमला ये यैस्त्वमध्यक्षितः ।

ये रुद्राक्षविभूषिता भसितमेवालेपनं यैः कृतं

तेषां पादसरोजधूलिसविधे वासोऽस्तु मे जन्मधु ॥ ५० ॥

नन्दि—अहो स्पृहणीयस्मरणोऽयं बालमुनिः । अथवा मध्यन्दिनमहर्षिरेव । तथाहि—

कलशपयोधेः कौस्तुभ इव यस्मादेव गुणनिधिर्जज्ञे ।

स्पृहयति को वा लोके तस्य न मध्यन्दिनस्य भाग्याय ॥ ५२ ॥

कौण्डि—आअरिअ सव्वस्स वि वञ्छिदस्स सम्पादअं खु, भअवन्तस्स अच्चणं, ता भाअ-  
णगताई कुसुमाहं गण्हिअ अच्छेहि देव्वं । [छा—आचार्य सर्वस्यापि वाञ्छित-  
स्य सम्पादकं खलु भगवतोऽर्चनं तस्मात् भाजनगतानि कुसुमानि गृहीत्वा  
अर्चय देवम् ] (पुष्पभाजनमर्पयति)

माध्य—(गृहीत्वा, पुष्पाण्यादायावलोक्य) अहह, द्विरेफद्विषितानि पुष्पाणि । (सकम्पम्)  
किं करोमि मन्दभाग्यः ।

(दण्डवद्भूमौ पतति)

नन्दी—कथमथापि दयाविमुखो देवः

ईदृशि भक्तेऽपि विभो ! वैमुख्यं चेत्परं पुरातराते ।

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 ॥

(साम्बजलिबन्धम्)

नयनेऽस्वगात्राय नतसौभाग्यदायिने ।

नमः पश्यदलीकाय नाथाय दुहितुर्गिरेः ॥ ५४ ॥

[इति प्रणमति]

कौण्डि—(साश्चर्यम्) आअरिअ ! शक्ति उद्बुद्धि, एसो बुसहाहिरूढो देवो पुरसाहणो

(छा—आचार्य, श्रुतिरिति उत्तिष्ठ । एष वृषभधिरूढो देवः पुरशासनः ।)

माध्य—(श्रुतित्युत्थाय, देवदर्शनमभिनीय ; सकौतुकानुरागकम्पगद्गदम्) देव ! भक्तजन-  
पारिजात ! । (इत्यर्धोक्ते, आनन्दाश्रुपिहितनयनो मूर्च्छामभिनयन् , किञ्चिदिव  
संज्ञामधिगम्य)

नम इदमव्याजदयानर्तितचिन्ताय देवदेवाय ।

सकलजनतामुमुक्षाप्रत्युपहारैकहेतवे तुभ्यम् ॥ ५५ ॥

(नेपथ्ये)

वत्स ! मध्यन्दिननन्दन ! सन्तुष्टोऽहं अनया सकलजनविस्मयनीयया भक्त्या ।  
तरं 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 ।

धनपरिणतिमेदः कश्चनानन्दसिन्धो-

रिति शिव कृतपुण्याः केपि संविद्व्रते त्वाम् ॥ ५८ ॥

आस्तां तदेतत् ।

पुण्यार्थं गच्छतः कस्ये तव पूजाविधायिनः ।

नियतं हस्तपादे तु व्याघ्ररूपं शिवास्तु मे ॥ ५९ ॥

अधारम्य दयाधार मम नाम्ना पुरन्तिवदम् ।

ख्यातमस्तु समस्तेषु भुवनेष्वम्बिकापते ॥ ६० ॥

(नेपथ्ये)

अस्तु तव हस्तचरणे रूपं वैयाघ्रमेव बालमुने ।

व्याघ्रपुरीति 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 मठिआमेव्वगच्छस्स (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 । (विस्मयाश्रितस्तिष्ठति प्रविश्य)

भानुकम्पः—(परिक्रम्य, उपसृत्य, प्रणम्य च साञ्जालिबन्धम्) देव द्वितीयपरमेश्वर ! नन्दि-  
केश्वर ! दारुकावनवासिनां मुनीन्द्राणां गर्वनिर्वापणं आरचयिष्यन्मोहिनीरूपेण महा-  
विष्णुना सनाथीकृतपार्श्वः स्वयमपि अङ्गीकृतपिङ्गरूपः प्रत्यनन्तरं भवन्तमपेक्षते स्वामी ।

नन्दि—अनुलङ्घनीयो देवादेशः, किन्तु व्याघ्रपादस्नेहो मां व्यामोहयति । (विचिन्त्य)  
भवत्त्वेवं । (भानुकम्पस्य कर्णे) एवमिव ।

(इति निष्क्रान्तास्सर्वे)

॥ इति प्रथमोऽङ्कः ॥

श्रीः

॥ अथ द्वितीयोऽङ्कः ॥

(ततः प्रविशति तापसी)

तापसी—आणत्तं हि देवीए अरुन्धर्हेए-जह “ माहविए ! एत्थ सुहरं सुरहिगव्वसंबद्धिआ-  
णणान्दाए, णन्दणो वच्छओ उवमण्णु विहुसण्णिहाणे फलमूलवाअं अब्भ-  
वहारं, अहिणन्दइ, णवेत्ति विआरिअञ्जत्ति णिवत्तेहि त्ति (आज्ञासमि देव्या  
अरुधत्त्या यथा “ माधविके ! अत्र सुचिरं सुरभिगव्वसंबद्धितः ननान्दुर्नन्दनः  
वत्स उपमन्युः पितृसन्निधाने फलमूलप्रायमभ्यवहारमभिनन्दति न वेति  
विचार्य झटिति निवर्तस्वेति ॥)

(अमं नाटयन्ती पुरोऽवलोक्य)

इदं पुरो तिलवणम् । जाव प्रविशामि । (इदं पुरस्तिस्त्ववनं यावत्प्रविशामि)

(प्रवेशमभिनीय, अवलोक्य च)

एसाखु महेसिणा वसिट्ठेण णिअमइणीए सुत्सूसत्थं, पेसिदा कामहेणुसमुप्पण्णा  
वासन्तिआ ; सअंपडिदाहं पलाहं गण्णार्हं, ता एताए वअणेण जानिस्सम् । (एषा  
खलु महर्षिणा वसिष्ठेन निजभगिन्याः शुश्रूषार्थं प्रेषिता कामधेनुसमुत्पन्ना वासन्तिका स्वयंप-  
तितानि फलानि गृह्णाति । तस्मादेतस्या वचनेन ज्ञास्यामि ॥)

(ततः प्रविशति फलग्रहणव्याघ्रा वासन्तिका) वासन्तिका (साश्चर्यम्) अच्छो !  
देवदेवस्स प्रसादातिसओ ; जं खीरत्तिणो बालस्स खीरोदहिं एव्व दत्तवन्तो । हन्त !  
देवदेवस्य प्रसादातिशयः ॥ यत्क्षीरार्थिनो बालस्य क्षीरोदधिमेव दत्तवान् ।

**माधविका**—(उपसृत्य) हला ! वासन्ति ए सयमेव विन्मज्जितहिअआ किंपि किंपि मंतेसि । (सखी वासन्तिके ! स्वयमेव विस्मयाक्षितहृदया किमपि किमपि मन्त्रयसि ।)

**वासन्तिका**—(परिवृत्य अवलोक्य) कहं माहविआ ! अवि कुशलं देवीए अरुन्धईए सहपिअदमेण महेसिणा ? (कथं माधविका । अपि कुशलं देव्याः अरुन्धत्याः सह प्रियतमेन महर्षिणा ?)

**माधविका**—कुशलमेव सत्त्वं एकमुपमण्णुणो वच्छस्स आहारविआरमन्तरेण (कुशलमेव सर्व, एकमुपमन्योर्वत्सस्याहारविचारमन्तरेण)

**वासन्तिका**—(सस्मितम्) किं अज्जवि आहारविआरो वच्छस्स ? (किमद्यापि आहारविचारो वत्सस्य ॥

**माधविका**—किं अज्जवित्ति । कहेहि किं जादम् । (किमद्यापीति ! कथय किंजातम् ॥)

**वासन्तिका**—हला ! जाणासिखु लद्धसिवप्पसादेण वग्घपादेण पिदुवअणगौरवादो अम्ह सामिणो भइणी परिणीदा, कालक्कमेण लद्धवतीअ उवमण्णुणामहेअं तणअम् सोवि जादमेत्तो पल्लविदकोदुहलाए देवीए अरुन्धईए सयमेव इदो निजास्समं पाविदो संवद्धिओअ सोरहेण खीरेण । पुणोवि, तणअमुहालोअणसमुस्सुएण मुणिणा, वग्घपाएण इदं ठाणमाणीदोत्ति । (सखि ! जानासि खलु लब्धशिवप्रसादेन व्याघ्रपादेन पितृवचनगौरवादस्मत्स्वामिनो भगिनी परिणीता, कालक्रमेण लब्धवती च उपमन्युनामधेयं तनयम् । सोऽपि जातमात्रः पल्लवितकौतूहलया देव्या अरुन्धत्या स्वयमेव इतो निजाश्रमं प्रापितः संवद्धितश्च सौरमेण खीरेण । पुनरपि तनयमुखावालोकेन समुत्सुकेन मुनिना व्याघ्रपादेनेदं स्थानमानीत इति) ।

**माधविका**—सत्त्वं एदं विण्णादम् । तदोतदो ।

(सर्वमेतद्विज्ञातम् । ततः ततः)

**वासन्तिका**—तदो अ जत्थ दिणम्मि सो आअदो, तस्सि एव एत्त सुलहेण पलमूलाइणा वग्घपादो तणअं भोअइमुवक्किदवन्तो । (ततश्च यस्मिन्दिने स आगतः, तस्मिन्नेवात्र सुलभेन फलमूलादिना व्याघ्रपादः तनय भोजयितुमुपकान्तवान् ।)

**माधविका**—(विहस्य) तं इदं अमिअपाणमुदिअस्स 'सोव्वीरेण सन्तप्पणम् ॥ तदो तदो (तदिदममृतपानमुदितस्य सौवीरकेण सन्तर्पणम् ॥ ततः ततः ॥

**वासन्तिका**—तदोअ स उवमण्णू सुमरिदसुरहिदुग्धो अणवरदं रोदिउं पवुत्तो । (ततश्च स उपमन्युः स्मृतसुरभिदुग्धः अनवरतं रोदितुं प्रवृत्तः)

**माधविका**—तदो (ततः) ।

**वासन्तिका**—तदोअ रुण्णसुण्णव्हं तणअस्स मुहं आलोअइदुमपालअन्तो सो मगेसी गहिऊण तं बालं सिरिमूलणाहस्स सणिहाणमेव अइगदवन्तो ।

ततश्च रुदितशून्यपथं तनयस्य मुखं अवलोकयितुमपारयन्स महर्षिर्गृहीत्वा तं बालं श्रीमूलनाथस्य सन्निधानमेवाधिगतवान् ॥)

**माधविका**—(साश्चर्यम्) तदो (ततः) ।

**वासन्तिका**—तदोअ वच्छ अकिञ्चणोहं इमं परमेसरमन्तरेण णत्ति मह अण्णा गह्वत्ति गइदवत्तम्मि पिअरम्मि कूलकसकुहाकुहिअओ सो खीरकण्ठो देवस्स एव्व सणिहाणे रोदिदुं पवुत्तो (ततश्च वत्स ! अकिञ्चनोहमिमं परमेश्वरमन्तरेण नास्ति ममान्या गतिरिति गदितवति पितरि कूलकषक्षुभितहृदयः स खीरकण्ठः देवस्यैव सन्निधाने रोदितुं प्रवृत्तः ॥)

**माधविका**—(सत्वरम्) तदो (ततः) ।

**वासन्तिका**—तदोअ तवणकिरणमिलाअन्तपच्चगचंपअकुसुमदामदअणिज्जं तं बालं दट्टूण भअवन्तोवि दीणजणरक्खणदिक्खिदो दुग्धजलहिमेव्व दत्तवन्तो ।

१. सौवीरकम्—क्षाकिततण्डुलोदकं भाषार्था कण्ठोदकं इति प्रसिद्धम् ।

(ततश्चतपनकिरणम्लायमानप्रत्यग्रचंपककुसुमदामदयनीयंतं बालं दृष्ट्वा भगवानपि दीनजनरक्षणदीक्षितो दुग्धजलधिमेव दत्तवान् ॥)

**माधविका**—अच्छरिअम्. अह वग्गपादो किं पडिबज्जइ ? (आश्चर्यम्; अथ व्याघ्रपादः किं प्रतिपद्यते ?)

**वासन्तिका**—अज्जखु बंहलोअणिवासं भरहकुडुम्भं आणअन्तेण णन्दिएसरपेसिदेण भाणुकंपणामहेएण देवकिंकरेण किंवि किंवि साणन्दं वाहरन्तो, तस्स एव पूजाए फलमूलाइं आणेदुं मं पि तुवरिदवन्तो (अथ खलु ब्रह्मलोकनिवासं भरतकुटुम्बमानयता नन्दिकेश्वरप्रेषितेन भानुकंपनामधेयेन देवकिंकरेण किमपि किमपि सानन्दं व्याहरन्तस्यैव पूजार्थं फलमूलान्यानेतुं मामपि त्वरयितवान् ॥)

**माधविका**—हला ! अच्छभ्युअंखु कहेसि । ता, गदुअ भाणुकंपवग्गपादाणं णट्टआणं बवसिदं विआरम्ह ॥ (सखि ! अत्यद्भुतं खलु कथयसि । तस्माद्भूत्वा भानुकंपव्याघ्रपादयोः नर्तकानाञ्च व्यवसितं विचारयावः ॥) इति निष्क्रान्ते ।

इति प्रवेशकः ।

(ततः प्रविशतो व्याघ्रपादभानुकंपौ, कौण्डिन्यश्च ॥)

**व्याघ्रपादः**—साञ्जलिबन्धम् भगवन् ! प्रमथनाथपादारविन्दसेवारसैकमय-दिव्यरूप दीनानुकंप ! भानुकंप ! तत्क्षणसमेधमाननिखधिकानन्द-दुर्ललितहृदयावगणितकरणतया स्वप्नानुकल्पं पुनरपि सकृत्प्रसीद वक्तुम् । यदादिष्टं भगवता द्वितीयपरमेश्वरेण नन्दिकेश्वरेण ।

**भानुकंपः**—(सस्मितम्) सखे ! व्याघ्रपाद ! भगवदनुकंपाभाजनस्य स्थाने खलु भवतः प्रपञ्चविस्मरणम् ।

## ॥ सूक्तिकदम्बम् ॥

वि. प. रामस्वामिशास्त्री.

(अण्णामलैविध्वविद्यालयः)

मृण्वन्तु ! सर्वे सुधियः सभाचित्तोपरजकम् ।  
इदं सूक्तिकदम्बं मे साधुकाव्यचिदर्शनम् ॥ १ ॥  
महदाश्रयपात्रेण बालिशोऽपि महान्भवेत् ।  
इत्येतद्दर्शितं दृष्टं दोषज्ञैः तत्त्ववेदिभिः ॥ २ ॥  
साधु काव्यं निषेवेत पापंरः पण्डितोऽपि वा ।  
एको जानाति शब्दार्थावन्यो वेदाशयं कवेः ॥ ३ ॥  
काव्यं प्रगीतं बहुधा पूर्वाचार्यैर्विचक्षणैः ।  
धर्मशास्त्रमिदं नित्यं पाराशर्यमुनिर्जगौ ॥ ४ ॥  
कृष्णयैव गृहस्थानां पाण्डवानां निरत्यया ।  
धर्माप्रच्यवकीर्तिश्च स्थिरा स्यात्कथमन्यथा ॥ ५ ॥  
एकपत्रीव्रतं धर्मं स्त्रिया हि मयुरब्रवीत् ।  
इत्येषाऽपेशला युक्तिर्व्यासोक्तेर्दूषणाय नः ॥ ६ ॥  
यथा मुनिर्मनुर्मानं तथा व्यासो न संशयः ।  
अनन्ता नैगमीशशाखा व्यभजद्यः शिवाय नः ॥ ७ ॥  
काव्यं च यशसे गीतं सञ्चरितनिबन्धनम् ।  
अस्मिन्कवियशःप्रार्थी कालिदासो निदर्शनम् ॥ ८ ॥  
अस्तौहिनवरं नित्यं चर्मरुषीदितः कविः ।  
मयूरस्तेन तत्प्रीत्या चिराय सुखमावसत् ॥ ९ ॥  
एवं निवृत्त्यै पापेभ्यः श्रेयसश्चोपलब्धये ।  
लौकिकव्यवहारार्थं काव्यं सेवेत यत्नतः ॥ १० ॥  
किमध्वरशतैस्सांगैः चिदानन्दरसात्मिका ।  
काव्ययज्ञेन सम्पन्ना रतिः प्राप्येत केनचित् ॥ ११ ॥

### सूक्तिकवम्बे

वेदान्ता नीरसा जाता ब्रह्मज्ञानफला अपि ।  
 यावज्जागर्ति सरसा काव्यश्रीधारुबन्धना ॥ १२ ॥  
 अथवा, बहुनैतेन किं; विना काव्यसम्पदा ।  
 वेदाः शास्त्राणि विद्याश्च सर्वा विफलतामियुः ॥ १३ ॥  
 शास्त्रे सुदुर्ग्रहोऽप्यर्थः स्वदत्ते कविसूक्तिषु ।  
 आधारस्योत्तरावर्यमाधेयं प्रतिपद्यते ॥ १४ ॥  
 एकमेव हि माणिक्यं भीषणं फणिमूर्धनि ।  
 बधूत्तमात्रे निहितं चारु सम्पद्यते यथा ॥ १५ ॥  
 अजुष्टकाव्यमार्गस्य शास्त्राधीतिर्निरर्थिका ।  
 अभ्याधानमकृत्वा कः कुर्याद्यज्ञभरं द्विजः ॥ १६ ॥  
 आजस्यं लोकतत्त्वानामिष्टानिष्टोपपत्तिषु ।  
 तन्त्रेष्वकुण्ठितां बुद्धिं सूते काव्यपरिश्रमः ॥ १७ ॥  
 वाल्मीके रामचरितं पाराशर्यस्य भारतम् ।  
 कं धर्मे नोपदिशति? किं तत्त्वं तत्र नास्ति च? ॥ १८ ॥  
 लोकापवादो बलवानित्यमन्यत राघवः ।  
 राज्यस्यानुग्रहायातः प्रियां सीतां वने जहौ ॥ १९ ॥  
 यथा प्रजानां वचनं तथा कुर्वीत पार्थिवः ।  
 वदात्मसुखलोभेन राज्यं कुर्वेत्तु दुष्यति ॥ २० ॥  
 सीता दुष्टेति वितथं जानन्सत्यव्रतो हरिः ।  
 कथं तत्याज? विपिने दयितां पूर्णगर्भिणीम् ॥ २१ ॥  
 अधर्ममेतं मन्यन्ते दोषज्ञाः केऽपि बादिनः ।  
 सत्यं सन्त्यज्य यद्रामः प्रजानां हितमाचरत् ॥ २२ ॥  
 अन्ये विमर्शनिष्णाताः कलयन्तीमपच्युतम् ।  
 धर्मं; यदप्रियं सत्यं नान्वतिष्ठदहो! धुनिः ॥ २३ ॥  
 'प्रियञ्च नानृतं ब्रूया' दिति जागर्ति चेत्स्पृतिः ।  
 अहो! वत महत्पापं रामेणाचरितं वृथा ॥ २४ ॥

### प्रथमो गुच्छः

अथापि, राज्ञा रामेण राजधर्मोऽयमाहतः ।  
 यत्सत्यमप्रियं राज्ये कुर्वेन्दुष्यति पार्थिवः ॥ २५ ॥  
 प्रजानां कुशलाधानं राजधर्म इति स्थितिः ।  
 सत्यादप्यस्य माहात्म्यं पूर्वाचार्याश्च सज्जगुः ॥ २६ ॥  
 एवं विमृश्यमानं हि काव्यं सूते सनातनम् ।  
 धर्मं; हन्येताददनो हविर्मृष्टान्तु कश्चन ॥ २७ ॥  
 एवं काव्यस्य मीमांसा कर्तव्या कृतकौतुकैः ।  
 विद्वद्भिरन्वहं प्राप्स्यायिष्टस्यानिष्टहानये ॥ 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 बादिनाम् ।  
 विमर्शकानाञ्चान्येषां कलापण्योपजीविनाम् ॥ ३१ ॥  
 न केवलं भारतीया भारतीयकर्षेर्गिरः ।  
 विचारयन्ति; तुष्यन्ति रसचर्वणया न च ॥ ३२ ॥  
 आङ्ग्लेयानां तथान्येषां कवीनां काव्यमाधुरी ।  
 आस्वाद्यते यथाऽस्माभिस्तद्विमर्शरसज्ञया ॥ ३३ ॥  
 विदेशीयास्सहृदयास्तथास्मत्काव्यसंपदः ।  
 प्राच्यसाहित्यवीथ्याऽधिगन्तुं यत्रांश्च कुर्वते ॥ ३४ ॥  
 इदानीमांग्लभाषायाः प्राबल्यादयवाऽन्यतः ।  
 प्राचीनविद्यासरणिः नष्टा वत चिराय नः ॥ ३५ ॥  
 काव्यं प्रसन्नगम्भीरं महद्वस्तुनिदर्शनम् ।  
 यथावच्छेदधिगतं मोदाय विदुषां भवेत् ॥ ३६ ॥  
 अलङ्कारागुणान्नीतीध्वनिं वा रसमुन्नयम् ।  
 वक्रोक्तिमौचित्यं वापि काव्यात्मानं विदुर्बुधाः ॥ ३७ ॥

अज्ञात्वैवोपनिषदमिमां काव्यस्य शाश्वतीम् ।  
 बाह्यमापातमधुरं ज्ञात्वा तुष्यति दुर्मतिः ॥ ३८ ॥  
 स्मृतमन्वो 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 ।  
 ताभित्यदोषान्जानाति काव्यद्वेषी खलो नरः ॥ ४१ ॥  
 कवीनां भारतीयानां काव्यदृष्टि विलक्षणाम् ।  
 प्रकृतावाश्रितां तद्वलीयमानां न पश्यति ॥ ४२ ॥  
 काव्यमीमांसकम्मन्याः प्रतीच्याः केऽपि सम्प्रति ।  
 अपजल्पन्त्यनाघ्राय कालिदासवचस्सुमम् ॥ ४३ ॥  
 पाश्चात्यानां मतं वेदमल्पज्ञोऽस्मासु मन्यते ।  
 आङ्ग्लभाषाविदग्धोऽपि परप्रत्ययनेयधीः ॥ ४४ ॥  
 काव्यश्रियं न जानाति कवेस्सहृदयात्परः ।  
 दुग्धाब्धेर्मयने 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 ।  
 अयापि प्रतिभाशून्यः कुर्यात्सहृदयोऽपि किम् ॥ ४८ ॥  
 यदि कश्चित्सहृदयः न कविर्विद्यते, ततः ।  
 कामं तस्याधिकारोऽस्तु काव्यार्थस्य विमर्शने ॥ ४९ ॥  
 एतैस्तु शक्यते नैव प्रतिषेद्धुमिहावनौ ।  
 कवीन्सहृदयांश्चैव काव्यवर्तमानुगान्मतम् ॥ ५० ॥

इति प्रथमो गुच्छः ॥

विमर्शो द्विविधः प्रोक्तश्चरित्वादेक इष्यते ।  
 अन्यः काव्यादर्थैतौ च मिथस्सख्यमवाप्नुतः ॥ १ ॥  
 'उपमा कालिदासस्य' वचसां रामणीयकम् ।  
 मृङ्गार आत्मा काव्यस्य करुणाद्युपबृंहितः ॥ २ ॥  
 एतत्परीक्ष्य तुष्यन्ति पूर्वं केऽपि विमर्शकाः ।  
 कृपेश्वरितमज्ञात्वा स्वभावश्च विशेषतः ॥ ३ ॥  
 दुर्दैवतो भारतेऽस्मिन्पूर्वसूरिकथाश्चिरम् ।  
 श्रुता न रक्षितास्सम्यगहो ! कालेन विस्मृताः ॥ ४ ॥  
 कालिदासस्य चरितं स्वभावं जन्मनामनी ।  
 पितरौ गृहिणीं कालं को विजानाति पण्डितः ॥ ५ ॥  
 पूर्वाख्यानं गृहीतश्चेदजपालं इति श्रुतिः ।  
 काली(लि)प्रसादसम्पन्नवाग्व्यक्तिरिति च प्रथा ॥ ६ ॥  
 काव्येष्वन्विष्यमानेषु स द्विजन्मा बहुश्रुतः ।  
 प्रकृतेः कविराजश्च नैकशास्त्रविस्मरदः ॥ ७ ॥  
 उज्जयिन्यां कवेर्जन्म साधयन्ति विपश्चितः ।  
 'मेघ'गम्यप्रदेशानां वर्णनाचातुरीविदः ॥ ८ ॥  
 कालेऽस्य कविराजस्य विवदन्ते विमर्शकाः ।  
 अभिवर्णस्य कालं केऽप्यभिप्रेतस्य वापरे ॥ ९ ॥  
 विक्रमार्कशकाब्दादि 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 विमर्शकाः ॥ १३ ॥

राज्ञां कालेन कालस्तु निर्णेतव्यः कवेरपि ।  
यत्पूर्वे स्मरयो राज्ञः कस्यापि समिति गताः ॥ १४ ॥  
पद्ममित्रस्य समितिं क्रतुं वर्णितवान् मुनिः ।  
पतञ्जलिस्ततो राज्ञस्सकालिक इति स्मृतः ॥ १५ ॥  
सभ्य आसीत्कनिष्कस्य वृद्धो बौद्धो महाकविः ।  
अश्वघोषो व्यरचयद्यो बुद्धस्य कथां शुभाम् ॥ १६ ॥  
भट्टिः श्रीधरसेनस्य वलभीवल्लभस्य च ।  
हितार्थी शब्दशास्त्राङ्गं पौलस्त्यस्य वधं जगौ ॥ १७ ॥  
बाणस्सभामलङ्कृत्य हर्षवर्धनभूपतेः ।  
रूपकत्रयकर्तुर्हि चरितं पावनं जगौ ॥ १८ ॥  
रामाभ्युदयकर्तुर्हि यशोवर्ममहीपतेः ।  
भवभूतिरभूत्सभ्यः श्रीकण्ठपदलाञ्छनः ॥ १९ ॥  
अभेदं कविनानेन मीमांसापारदृश्वनः ।  
भट्टोव्येकस्य जानन्ति नव्याः शास्त्रविमर्शकाः ॥ २० ॥  
कविर्वाक्पतिराजोऽपि सभ्योऽभूदस्य भूपतेः ।  
काव्यं गौडवहो नाम प्राकृतं प्रणिनाय सः ॥ २१ ॥  
काश्मीराख्ये जनपदे न्यवसन्कवितल्लजाः ।  
राज्ञां बहुमता वैके शतकाब्धवमात्परम् ॥ 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 कुवलयानन्दं श्रीमानप्पट्टदीक्षितः ॥ ३१ ॥  
डेह्रीभर्तुश्च 'दारस्य' 'वाजिहान' महीपतेः ।  
दयापात्रं जगन्नाथो जगदाभरणं जगौ ॥ ३२ ॥  
कवेः कालस्य विज्ञानात्स्वभावो ज्ञेय इष्यते ।  
तज्ज्ञानान्महती व्यक्तिः सतः काव्यचितो भवेत् ॥ ३३ ॥  
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तेन मैमांसिकी रीतिः कथं सख्यमवाप्नुयात् ? ॥ ३४ ॥  
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केचिद्विमर्शकम्पन्या अवजानन्ति चापरे ॥ ३५ ॥  
ऐतिहासिकरीतिश्च प्राधान्यं जानते बुधाः ।  
प्रतीच्या युञ्जते नित्यमगुं काव्यविमर्शने ॥ ३६ ॥  
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ततस्तेषां सुसिद्धा स्यादैतिहासिकपद्धतिः ॥ ३७ ॥  
'वेक्सपियर्' कविराजस्याप्येवं कृतिषु संशयः ।  
किं नटेन प्रणीतास्ताः ? कविराजाऽथवा यथा ? ॥ ३८ ॥  
कस्मिन्काले रूपकेषु कीदृशानि प्रणिन्यरे ।  
आसां विपतिपत्तीनामितिहासाञ्च निर्णयः ॥ ३९ ॥

## सूक्तिकवम्बे

रूपकेषु हि यत्रासौ नेतृणां चरमां दशाम् ।  
वर्णयामास करुणं प्रेक्षावद्दुःखकारणम् ॥ ४० ॥  
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एतद्ग्रहस्यं विज्ञातुं क्लेशयन्त्यात्मनो बुधाः ॥ ४१ ॥  
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यत्काले यादृशी प्रज्ञा नवोन्मेषविधायिनी ।  
तत्काले तादृशं काव्यं जायते रसमञ्जुलम् ॥ ४३ ॥  
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तथैवास्य कथेश्चित्तविकारान्वर्णयन्ति 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, तद्द्रूपकेषु 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 Annamalainagar 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 Millennium, 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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