

BHUGOLA VARNANAM

by Saint

SRI VADIRAJA

Introduction, translation, commentary and illustrations

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Published by :

Akhila Bharata Madhva Maha Mandali
(Madras Branch)

Digitized and Uploaded by:
Hari Parshad Das (HPD)
on 20 July 2013.

Price : Rs 65/-

Available at :

A. B. M. M (Madras Branch), 'Dharma Prakash',
10, Raja Annamalai Road, Madras 600 084

SHRIGONAPATHEEYANAM



By Saint Sri Vādināja
PUBLISHERS - A.B.M.M. (MADRAS BR.) DHARMA PRAKASH

॥ ॐ ॥ श्रीः ॥ ॐ ॥

DEDICATED TO
Acharya Sri MADHVA



Who, in all his three manifestations as Hanuma, Bhima
and Madhva upheld the glory of Lord Sri Hari

This our humble tribute on the occasion of the
celebration of his 750th Jayanti

(1988 - 1989)



Sri A. R. Badarinarayan, Ex-Edn Minister & M. P., Sri Visweshathirtha Swamiji Sri Pejavar Mutt ;
Sri Vijnananidhi Tirtha Swamiji of Sri Sripadaraja mutt, Prof : S. K. Ramachandra Rao
Sri V. Badarayana murthy

॥ श्रीः ॥

H. H Sri Vishweshwara Tirtha Swamiji,
Sri Pejavar Adhokshaja Mutt
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UDUPI-576 101 Karnataka
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BLESSINGS

Bhakti means knowing God and loving Him intensely. By knowing how God has created this wonderful world we get to appreciate God's greatness much more and our love for Him increases. Therefore it is necessary for us to become well acquainted with the vast universe that God has created.

Material science enlightens us with the knowledge of Nature, Geography and Astronomy ; and it also tells us about the vastness of the universe and the marvellous forces hidden in it. Thereby we become aware of God's unlimited powers. Our sages and seers have not only surveyed the universe by their mystic powers, but they have also comprehended and discussed the unseen features of the world. If we look into our ancient books it will be clear that our writers had become familiar long long ago with the secrets of nature discovered by modern scientists. We may see that our ancient astronomers had spoken about the gravitational force in their own way even before Newton discovered it. Our sages had seen many things which are beyond the scope of modern scientific instruments.

At present, there appears to be a great gulf between what our ancient texts declare and what the modern discoverers think about the details of Geography. But, if the eastern pandits and the western class of scientists

come together to hold critical discussions, it will help the world to find new light and to form a decisively correct picture of the universe. And it may also help us to understand the true import of our ancient texts. Generally, the apparent meanings of puranic texts are not the true meanings. Sri Madhwacharya has indicated that there are hundreds of ways in understanding the meanings of the puranas and, without knowing them, one cannot get at the heart of puranas. Therefore, it is not right to criticise the puranas as unscientific without making a proper study of puranic texts. As there are many knotty points in the puranas, hard to resolve, there are inconsistencies in modern science too. Hence, the riddles may be solved only when scientists and pandit philosophers sit together and hold discussions.

Sri V. Badarayana Murthy has made a deep study in this respect and has dealt with the ancient texts on scientific lines. He has attempted to meet the modern questioners with satisfactory answers. We wish that those who seek knowledge will give him all encouragement to pursue his efforts.

On the basis of facts culled from Srimad Bhagavatam and other relative texts, Sri V. Badarayana Murthy has rendered into English Saint Sri Vadirajaswamy's Bhugola Varnanam. We are glad to welcome this work which will be quite useful to those who are eager to get a true picture of the universe. We pray Sri Krishna to bless Sri V. Badarayana Murthy to serve Him further by holding the torch of knowledge.

We are pleased to offer compliments to the Akhila Bharata Madhwa Maha Mandali, Madras branch, for taking up the publication of this work.

(Sd.) Sri Vishweshwara Tirtha Swamiji.

Camp : Madrapuri (Madras)

13th day of the bright half of Bhadrapada Month

13-9-1989

ಶ್ರೀ ಶ್ರೀ ವಿಶ್ವೇಶತೀರ್ಥ ಸ್ವಾಮೀಜಿ
ಶ್ರೀ ವೇಜಾನರ ಅಧೋಕ್ಷಜ ಮಠ
ಜಗದ್ಗುರು ಮಧ್ವಾಚಾರ್ಯ ಸಂಸ್ಥಾನ
ಉಡುಪಿ - 576101, ಕರ್ನಾಟಕ

ಫೋನ್ : 20498

ಭಗವಂತನ ಮಹಾಮಹಿಮೆಯನ್ನು ತಿಳಿದುಕೊಂಡು ಅವನಲ್ಲಿ ಮಾಡುವ ಆತಿಶಯ ಪ್ರೇಮವೇ ಭಕ್ತಿಯಾಗಿದೆ. ಭಗವಂತನ ಜಗತ್ ಸೃಷ್ಟಿಯೇ ಮೊದಲಾದ ಅದ್ಭುತ ವ್ಯಾಪಾರವನ್ನೂ ತಿಳಿದಾಗ ಅವನ ವಿಶೇಷ ಮಹಿಮೆಯ ಪರಿಚಯವಾಗಿ ನಮಗೆ ಅವನಲ್ಲಿ ಆತಿಶಯ ಭಕ್ತಿಯು ಉಂಟಾಗುವುದು. ಅದಕ್ಕಾಗಿ ಪರಮಾತ್ಮನು ಸೃಷ್ಟಿಸಿದ ಈ ವಿಶಾಲ ವಿಶ್ವದ ಪರಿಚಯವೂ ನಮಗೆ ಅವಶ್ಯವಾಗಿದೆ. ಭೌತಿಕ ವಿಜ್ಞಾನವು ಪ್ರಕೃತಿ, ಭೂಗೋಲ, ಒಗೋಳಗಳ ವಿವರಣೆಯ ಜೊತೆಗೆ ಈ ವಿಶ್ವದ ವಿಸ್ತಾರ ಮತ್ತು ಪ್ರಕೃತಿಯಲ್ಲಿ ಅಡಗಿರುವ ವಿಚಿತ್ರ ಶಕ್ತಿಗಳ ಪರಿಚಯವನ್ನು ಮಾಡಿಸಿ ಭಗವಂತನ ಅನಂತ ಶಕ್ತಿಯ ದರ್ಶನವನ್ನು ನಮಗೆ ನೀಡುತ್ತವೆ. ನಮ್ಮ ಋಷಿ ಮುನಿಗಳು ತಮ್ಮ ದಿವ್ಯ ದೃಷ್ಟಿಯಿಂದ ವಿಶ್ವವನ್ನು ನಿರೀಕ್ಷಿಸಿ ನಮ್ಮ ಕಣ್ಣಿಗೆ ಅಗೋಚರವಾದ ಪ್ರಸಂಚವನ್ನೂ ವಿವೇಚಿಸಿದ್ದಾರೆ. ನಮ್ಮ ಅನೇಕ ಪ್ರಾಚೀನ ಗ್ರಂಥಗಳನ್ನು ಅವಲೋಕಿಸಿದಾಗ ಆಧುನಿಕ ಬೌತಿಕ ವಿಜ್ಞಾನಿಗಳು ಕಂಡು ಹಿಡಿದ ಪ್ರಕೃತಿ ರಹಸ್ಯಗಳನ್ನು ಅದಕ್ಕಿಂತ ಎಷ್ಟೋ ವರ್ಷಗಳ ಮೊದಲೇ ನಮ್ಮ ಗ್ರಂಥಕಾರರು ಕಂಡಿದ್ದಾರೆಂಬುದು ಸ್ಪಷ್ಟವಾಗುವುದು. ನ್ಯೂಟನ್‌ನು ಹೇಳಿದ ಆಕರ್ಷಣ ಶಕ್ತಿಯ ವಿಷಯವು ತಮ್ಮದೇ ಆದ ರೀತಿಯಲ್ಲಿ ಪ್ರಾಚೀನ ಜ್ಯೋತಿಸ್ಕೃದ್ಲಿ ಉಲ್ಲೇಖವಾಗಿರುವುದನ್ನೂ ನೋಡಬಹುದು. ವಿಜ್ಞಾನಿಗಳ ಉಪಕರಣಗಳಿಗೂ ನಿಲುಕದ ಅನೇಕ ಸಂಗತಿಗಳನ್ನು ನಮ್ಮ ಋಷಿಗಳು ಅತೀಂದ್ರಿಯ ದೃಷ್ಟಿಯಿಂದ ನೋಡಿದ್ದರು ಇಂದು ಭೂಗೋಲದ ವಿಷಯದಲ್ಲಿ ಆಧುನಿಕ ಸಂಶೋಧಕರಿಗೂ ನಮ್ಮ ಪ್ರಾಚೀನ ಗ್ರಂಥಗಳಿಗೂ ತುಂಬಾ ವಿರೋಧಗಳು ಕಂಡು ಬರುತ್ತವೆ. ಆದರೆ ಆಧುನಿಕ, ಪೌರಸ್ತ್ಯ ವಿಜ್ಞಾನಿಗಳಿಬ್ಬರೂ ಒಂದೆಡೆ ಸೇರಿ ಚರ್ಚೆ ವಿಮರ್ಶೆಗಳನ್ನು ನಡೆಸಿದರೆ ಈ ವಿಷಯದಲ್ಲಿ ಜಗತ್ತಿಗೆ ಹೊಸಬೆಳಕು ದೊರೆತು ವಿಶ್ವದ ಬಗ್ಗೆ ಸರಿಯಾದ ನಿರ್ಣಯವನ್ನು ಪಡೆಯಲು ಅನುಕೂಲವಾಗಬಹುದು. ನಮ್ಮ ಪ್ರಾಚೀನ ಗ್ರಂಥಗಳ ನಿಜವಾದ ಅರ್ಥವನ್ನು ತಿಳಿಯಲು ನಮಗೆ ಇದರಿಂದ ಸಹಾಯವಾಗಬಹುದು. ಪುರಾಣಗಳಿಂದ ಅಪಾತತಃ ತೋರುವ ಅರ್ಥವು ಅದರ ನಿಜವಾದ ಅರ್ಥ

ವಾಗಿರುವುದಿಲ್ಲ ಪುರಾಣಗಳ ಸರಿಯಾದ ಅರ್ಥವನ್ನು ತಿಳಿಯಲು ನೂರಾರು ಪ್ರಕಾರ
 ಗಳು ಇವೆ ಎಂದೂ, ಅವುಗಳನ್ನು ತಿಳಿಯದೆ ಪುರಾಣಗಳ ನಿಜಾರ್ಥವು ಗೊತ್ತಾಗಲಾರ
 ದೆಂದೂ ಶ್ರೀ ಮದ್ವಾಚಾರ್ಯರು ನಿರೂಪಿಸಿದ್ದಾರೆ. ಆದುದರಿಂದ ಪುರಾಣಗಳನ್ನು
 ಸರಿಯಾಗಿ ವರತೀಲಿಸದೆ ಅವುಗಳಿಂದ ತೋರುವ ವಿಷಯಗಳನ್ನು ಅವೈಜ್ಞಾನಿಕ
 ವೆಂದು ಹೇಳಬಾರದು. ಅದರಂತೆ ಆಧುನಿಕ ವಿಜ್ಞಾನದಲ್ಲೂ ಅನೇಕ ಅಸಂಭವದ
 ಗಳೂ, ಬಿಡಿಸಲಾರದ ಕಗ್ಗುಂಟುಗಳೂ ಇವೆ. ಆದುದರಿಂದ ಭೌತಿಕ ವಿಜ್ಞಾನಿಗಳೂ,
 ಅಧ್ಯಾತ್ಮವಾದಿಗಳೂ ನೇರಿ ಚರ್ಚಿಸಿದಾಗಲೇ ಈ ಎಲ್ಲಾ ಸಮಸ್ಯೆಗಳನ್ನು ಪರಿಹರಿಸಿ
 ಕೊಳ್ಳಬಹುದು. ಶ್ರೀ ಬಾದರಾಯಣಮೂರ್ತಿಗಳು ಈ ದಿನೆಯಲ್ಲಿ ತುಂಬಾ ಅಧ್ಯಯನ
 ನಡೆಸಿ ಪ್ರಾಚೀನ ಭೌಗೋಳಿಕ ಗ್ರಂಥಗಳನ್ನು ವೈಜ್ಞಾನಿಕವಾಗಿ ವಿವೇಚಿಸಿದ್ದಾರೆ.
 ಆಧುನಿಕ ಆಕ್ಷೇಪಣೆಗಳಿಗೆ ಸಮರ್ಥವಾಗಿ ಉತ್ತರಿಸುವ ಪ್ರಯತ್ನ ನಡೆಸಿದ್ದಾರೆ.
 ಜಿಜ್ಞಾಸುಗಳು ಅವರಿಗೆ ವಿಶೇಷವಾದ ಉತ್ತರೇಜನ ನೀಡಬೇಕಾಗಿ ಬಯಸಿದ್ದೇವೆ.

ಶ್ರೀ ಬಾದರಾಯಣಮೂರ್ತಿಗಳು ಭಾಗವತ ಮುಂತಾದ ಗ್ರಂಥಗಳ
 ಆಧಾರದಲ್ಲಿ ಶ್ರೀ ವಾದಿರಾಜ ಗುರುವರ್ಯರು ರಚಿಸಿದ ಭೂಗೋಲವರ್ಣನೆ
 ಗ್ರಂಥದ ಅನುವಾದವನ್ನು ರಚಿಸಿದ್ದಾರೆ. ಜಿಜ್ಞಾಸುಗಳಿಗೆ ಉಪಯುಕ್ತವಾದ ಈ
 ಕೃತಿಯನ್ನು ಸ್ವಾಗತಿಸುತ್ತಿದ್ದೇವೆ. ಇದೇ ರೀತಿಯಲ್ಲಿ ಶ್ರೀ ಬಾದರಾಯಣಮೂರ್ತಿ
 ಯವರಿಂದ ವಿಶೇಷವಾದ ಜ್ಞಾನ ಸೇವೆಯನ್ನು ಶ್ರೀ ಕೃಷ್ಣನು ಮಾಡಿಸಲೆಂದು
 ಆಶಿಸುವೆವು. ಇದನ್ನು ಪ್ರಕಾಶನಗೊಳಿಸುತ್ತಿರುವ ಮದರಾಸಿನ ಅಖಿಲ ಭಾರತ
 ಮಾಧ್ವ ಮಹಾಮಂಡಳಿ ಶಾಖೆಯನ್ನು ನಾವು ಅಭಿನಂದಿಸುತ್ತೇವೆ.

Camp : ಮದ್ರಾಪುರಿ
 ಭಾದ್ರಪದ ಶುಕ್ಲ ತ್ರಯೋದಶೀ

13 - 9 - 1989

(ಸಹಿ) ಶ್ರೀ ವಿಶ್ವೇಶತೀರ್ಥರು

II Sri Gopinatho Vijayate II

SRI SRIPADARAJA MUTT,
No 58, Raghavendra Colony,
Chamarajapet, Bangalore-18

Date 24-9-1989

This blessing is communicated to Vedamurti Badarayanacharya in the name of Sriman Narayana.

We have gone through the script of 'Bhugola Varnanam', a product of much Painstaking. Although it was not possible to go through it in greater detail, we are pleased to say that the style and the analytical Presentation of facts are sure to help the general readers to get a clear bird's eye view of this universe created by God. It has been possible for Sri Badarayanamurthy to present the most sublime facts in quite a simple manner since he has made a deep study of many scriptural texts and has also gone through several books on modern science with a critical outlook. Another noteworthy feature is that he has pointed out how the views of the followers of other religions— especially the Christians and the Muslims, agree with the Madhva concept of Cosmology as dealt with specially by Sri Vadirajawamy, who is acclaimed as 'Bhavi Samira'—the would-be Vayudeva. Thus the author of this text has rendered useful service to humanity.

The efforts of modern scientists to unravel the secrets of nature have their own limitations and often lead to differing opinions. Also, the great efforts put

forth by scientists and modern philosophers to seek happiness seem to be somewhat ridiculous and not fruitful. Sri Badarayana murthy has rightly pointed out this fact. Since scientific achievements and modern philosophical approaches are mostly opposed to intrinsic truth, it would be profitable for every one to make an honest effort to understand Vedic truths visualised by the seers; truths which cannot be discovered by mechanical aids. Sri Badarayana murthy's attempt to make Sri Vadiraja swamy's Bhugola Varṇanam palatable to scientists too is quite laudable.

If the well-intentioned readers sincerely go through the book and understand it, the author's efforts will be richly rewarded. With this conviction we offer our Prayer to the Lord of our adoration – Sri Sri Gopinatha, not different from Sri Sri Hayavadana and Sri Sri Rangavittala, to bless the author with a long lease of useful life.

Thus we conclude with the awareness of Srīman Narayana.

(Sd) Sri Vijnananidhi tirtharu.

We offer respectful salutations to Sri Sri Vishweshā tirtha swamiji of Sri Pejāwar Mutt, to Sri Sri Vijnananidhi tirtha swamiji of Sri Sripadaraja Mutt for their blessings, and to Prof : K. T. Pandurangi, who has furnished a critical preface for this publication.

A. B. M. M. (Madras Branch)

|| ಶ್ರೀ ಗೋಪೀನಾಥೋ ವಿಜಯತೇ ||

ಶ್ರೀ ಶ್ರೀಸಾದರಾಜ ಮಠ
58, ರಾಘವೇಂದ್ರ ಕಾಲೋನಿ,
ಚಾಮರಾಜಪೇಟೆ, ಬೆಂಗಳೂರು - 18.

ತಾರೀಖು 24-9-1989

ವೇದಮೂರ್ತಿ ಬಾದರಾಯಣಾಚಾರ್ಯರಿಗೆ ನಾರಾಯಣ ಸ್ಮರಣಪೂರ್ವಕ
ಬರೆದು ಕಳುಹಿಸಿದ ನಿರೂಪ.

ಶ್ರೀ ಬಾದರಾಯಣಮೂರ್ತಿಯವರು ಬಹಳಷ್ಟು ಶ್ರಮಪಟ್ಟು ಬರೆದಿರುವ
ಭೂಗೋಳ ವರ್ಣನೆ ಎಂಬ ಗ್ರಂಥದ ಕರಡು ಪುಸ್ತಕದ ಕೆಲವು ವಿಷಯಗಳನ್ನು
ನಾವು ಓದಿರುತ್ತೇವೆ. ಈ ಕರಡು ಪ್ರತಿಯ ಎಲ್ಲಾ ವಿಚಾರವನ್ನೂ ಓದಿಲ್ಲವಾದರೂ,
ಈ ಪುಸ್ತಕದ ಶೈಲಿ ಮತ್ತು ವಿಷಯಗಳ ವಿಶ್ಲೇಷಣೆಗಳು ಸಾಮಾನ್ಯ ಜನರಿಗೂ
ಪರಮಾತ್ಮನಿಂದ ಸೃಷ್ಟವಾದ ಈ ಜಗತ್ತಿನ ಒಂದು ವಿಹಂಗಮ ನೋಟದ ಅಭಿ
ಪ್ರಾಯವು ಬರಲು ಸಾಧ್ಯವೆನಿಸುವಂತೆ ಇವೆ ಎನ್ನುವುದು ಅಡ್ಡಿಯಿಲ್ಲ. ಈ ಗಹನ
ವಿಷಯವನ್ನು ಇಷ್ಟು ಸರಳ ರೀತಿಯಲ್ಲಿ ಬರೆಯಲು ಬಾದರಾಯಣಮೂರ್ತಿಯವರು
ಅನೇಕ ಶಾಸ್ತ್ರಗಂಧಗಳನ್ನೂ ಹಾಗೂ ವಿಜ್ಞಾನಿಗಳು ಈ ವಿಚಾರವಾಗಿ ಬರೆದಿರುವ
ಪುಸ್ತಕಗಳಲ್ಲಿನ ಅವರ ಅಭಿಪ್ರಾಯಗಳನ್ನೂ ಸೂಕ್ಷ್ಮ ದೃಷ್ಟಿಯಿಂದ ಪರಿಶೀಲಿಸಿರು
ವುದಲ್ಲದೆ ಅನ್ಯಮತೀಯರು ಅಂದರೆ ಕ್ರೈಸ್ತಮತದವರು ಮತ್ತು ಇಸ್ಲಾಂ-ಮತ
ದವರುಗಳೂ ಈ ಜಗತ್ ಸೃಷ್ಟಿಯ ಬಗ್ಗೆ ವ್ಯಕ್ತಪಡಿಸಿರುವ ಅಭಿಪ್ರಾಯಗಳು
ಎಷ್ಟರ ಮಟ್ಟಿಗೆ ಮಧ್ವಶಾಸ್ತ್ರಕ್ಕೆ, ವಿಶೇಷವಾಗಿ ಭಾವೀ ಸಮೀರರೆಂದು ಪ್ರಸಿದ್ಧರಾದ
ಶ್ರೀ ಶ್ರೀ ನಾದಿರಾಜಸ್ವಾಮಿಗಳವರ ಭೂಗೋಳ ವರ್ಣನೆಗೆ ಸರಿಹೊಂದುತ್ತವೆ.
ಎಂಬ ಅಂಶವನ್ನು ಯೋಗ್ಯ ರೀತಿಯಲ್ಲಿ ತಿಳಿಸಿ, ವಿಶೇಷ ಉಪಕಾರ ಮಾಡಿರುತ್ತಾರೆ.

ಮುಖ್ಯವಾಗಿ, ವಿಜ್ಞಾನಿಗಳು ಪ್ರಕೃತಿಯ ಸ್ವರೂಪವನ್ನು ತಿಳಿಯಲು
ಮಾಡಿರುವ ಎನೆಲ್ಲ ಸಾಧನೆಗಳೂ ಸಹ ಒಂದು ಅವಧಿಯನ್ನು ಹೊಂದಿರುವುದು
ದಾಗಿಯೂ ತಿಳಿಸಿರುವುದಲ್ಲದೆ, ಈ ವಿಜ್ಞಾನಿಗಳು ಹಾಗೂ ಈಗಿನ ತತ್ತ್ವಜ್ಞರುಗಳು
ಕೇವಲ ಸುಖಕ್ಕಾಗಿ ಮಾಡುತ್ತಿರುವ ಪ್ರಯತ್ನಗಳು ಹಾಸ್ಯಾಸ್ಪದವೇ ಹೊರತು
ಫಲಕಾರಿಯಲ್ಲ ಎಂಬ ಅಭಿಪ್ರಾಯವನ್ನು ವ್ಯಕ್ತಪಡಿಸಿರುವುದು ಯುಕ್ತವಾಗಿರುತ್ತದೆ.

ಮೇಲೆ ತಿಳಿಸಿದಂತೆ, ವೈಜ್ಞಾನಿಕ ಸಾಧನೆಗಳೂ ವೈದಿಕ ತತ್ವದಿಂದ ಭಿನ್ನರಾದ ತತ್ವಜ್ಞರ ತತ್ವಗಳೂ ನೈಜತತ್ವ ಸ್ವರೂಪದಿಂದ ಭಿನ್ನವಾಗಿರುವ ಕಾರಣ, ಅವಿಶೇಷತೆಯುಗಳಾದ ವೇದಗಳ ಅರ್ಥವನ್ನು ಸರಿಯಾಗಿ ತಿಳಿದು, ತಮ್ಮ ಜ್ಞಾನ ಚಕ್ಷುಸ್ಸಿನಿಂದ ಯಂತ್ರೋಪಕರಣಗಳಿಂದಲೇ ತಿಳಿಯಲಸಾಧ್ಯವಾದ ತತ್ವರಹಸ್ಯಗಳನ್ನು ತಿಳಿಸಿಕೊಟ್ಟಿರುವ ಶ್ರೀ ಶ್ರೀ ವಾದಿರಾಜರ ಭೂಗೋಳವರ್ಣನೆಯನ್ನು ವಿಜ್ಞಾನಿಗಳೂ ಒಪ್ಪುವ ರೀತಿಯಲ್ಲಿ ನಿರೂಪಿಸಿರುವ ಈ ಪುಸ್ತಕವನ್ನು ಸಜ್ಜನರು ಪ್ರಾಮಾಣಿಕವಾಗಿ ಓದಿ ಅರ್ಥೈಸಿಕೊಂಡಲ್ಲಿ ಈ ಗ್ರಂಥಕರ್ತರ ಶ್ರಮ ಸಾರ್ಥಕವಾಗುವುದೆಂದು ಭಾವಿಸಿ, ಗ್ರಂಥಕರ್ತರಿಗೆ ನಮ್ಮ ಆರಾಧ್ಯಮೂರ್ತಿ ಶ್ರೀ ಶ್ರೀ ಹಯವನದ ರಂಗವಿಠಲಾತ್ಮಕ ಶ್ರೀ ಶ್ರೀ ಗೋಪೀನಾಥ ದೇವರು ಪೂರ್ಣ ಸಾರ್ಥಕ ಆಯುಸ್ಸನ್ನು ಕೊಟ್ಟು ಕಾಪಾಡಲೆಂದು ಪ್ರಾರ್ಥಿಸುತ್ತಾ ಮಾಡುವ ನಾರಾಯಣ ಸ್ಮರಣೆಗಳು.

(ಸಹಿ) ಶ್ರೀ ಶ್ರೀ ವಿಜ್ಞಾನನಿಧಿ ತೀರ್ಥರು

ನಮ್ಮ ಈ ಪ್ರಕಟಣೆಗೆ ಮೆಚ್ಚಿ ಆಶೀರ್ವಚನವನ್ನು ನೀಡಿರುವ ಶ್ರೀ ಶ್ರೀ ಪೇಜಾವರ ಮಠಾಧೀಶರಾದ ಶ್ರೀ ವಿಶ್ವೇಶತೀರ್ಥ ಶ್ರೀಪಾದಂಗಳವರಿಗೂ, ಶ್ರೀ ಶ್ರೀಪಾದರಾಜ ಮಠಾಧೀಶರಾದ ಶ್ರೀ ವಿಜ್ಞಾನ ನಿಧಿತೀರ್ಥ ಶ್ರೀಪಾದಂಗಳವರಿಗೂ, ತಮ್ಮ ವಿಮರ್ಶಾತ್ಮಕವಾದ ಪೂರ್ವ ಪೀಠಿಕೆಯನ್ನು ದಯಪಾಲಿಸಿರುವ ಪ್ರೊ|| ಕೆ.ಟಿ. ಪಾಂಡುರಂಗಿಯವರಿಗೂ ಹೃತ್ಪೂರ್ವಕವಾಗಿ ನಮ್ಮ ನಮನಗಳನ್ನು ಸಲ್ಲಿಸಲು ಸಂತಸವುಳ್ಳವರಾಗಿದ್ದೇವೆ.

ಅಖಿಲ ಭಾರತ ಮಾಧ್ಯಮಹಾಮಂಡಲಿ
(ಮದರಾಸು ಶಾಖೆ)

PREFACE

(by Prof : K. T. Pandurangi, former Professor of Sanskrit, Bangalore University ; President, Mythic Society, Bangalore)

I had the pleasure of reading the English summary of Bhugola Varnanam of Sri Vadiraja tirtha, prepared by Sri V. Badarayana Murthy. He has also added a long introduction to this work which incorporates the gist of the papers presented at the seminar on cosmogony and cosmography organised by him in Bangalore during August 1987.

This volume has two purposes in view. 1. To make clear the concept and details of the Geography of the whole universe consisting of the fourteen lokas as described in Bhugola Varnanam by Sri Vadiraja tirtha to such readers who do not know Sanskrit. 2. To elucidate this concept and details in terms of modern knowledge on this subject.

It is natural that the two do not agree in all the details. One should not be in a hurry to reject either the traditional or the modern merely on this ground. Scientific enquiry knows no end. Modern science is still quite young and should have the ambition to grow. Its experimental method is only one way of scientific enquiry. Our ancient seers probably had much superior methods of enquiry. They were able to cultivate certain mental faculties of man that could probe into the mysteries of the universe much deeper.

Sri Vadiraja tirtha, the author of Bhugola Varnanam, was one such great seer of mystic powers. His Bhugola Varnanam was the outcome of both his direct vision of the structure of the universe through his mystic power and also his deep study of puranas that give the details of the universe. Therefore, modern scientists should take it as a guide to continue their enquiry further. Sri V. Badarayana Murthy has analysed the contents of this great work in a simple and clear manner. He has given modern equivalents of calculations of the locations of planets and distances, seas, worlds, etc., and this is very helpful to understand the ancient calculations.

The gist of the seminar papers included in the introduction throws useful light on different aspects of this problem. It is heartening to note that many young scientists have handled the matter with an open mind and with convincing arguments. I appeal to senior scientists to overcome their prejudice that the Vedas and puranas contain unscientific and imaginary data and all this does not stand any scientific scrutiny. They must accept the fact that our ancient seers were more close to Nature and had different methods of enquiry other than the present day experimental method. But their conclusions are still available in our ancient literature and we must try to find the clues to understand them. If we are not able to read the script of certain ancient documents, we should not rush to the conclusion that these ancients had no language at all. Our branding of our ancient scientific thought as unscientific amounts to such an attitude.

Sri V. Badarayana Murthy has done well in bringing this great work on world Geography to the notice of modern scholars. The pictures and charts included by him have added to the usefulness of this volume.

K. T. Pandurangi

12th August, 1989

BHUGOLA VARNANAM

Education after independence has taught us only to laugh at our ancient wisdom. The material Science which gets Iron's share under Education, has no answer to human problems, for it does not accept that a man has a soul to save.

Added is the bluff that is carried on vehemently that our earth has three motions. The first, it spins on its own axis. The second, it orbits round the sun. The third, it has precession. If we accept these motions for the earth, no life would be possible on this earth.

Our ancient Scriptures hold that the earth is stationary. Not only that; it is just one of the fourteen lokas created by the Lord. Even though their truth is vouchsafed for us by the Lord, Himself, thanks to the doubts injected by Material Science, which is based on imperfect perception and logic based on such faulty perception, even scripturally oriented people feel timid to project the views given by Scriptures.

Shri V Badarayana Murthy has made a life-long study of both the views. No one is asking anyone to accept this view or that view. But there is sufficient scope for further scrutiny on received knowledge which is paraded before our children.

It is for the serious reader to consider the two views and arrive at his own conclusion. Saint Sri Vadiraja has given this work, so that the devotees of the Lord may see their way clearly.

(Sd) K. RAGHUPATHI RAO



Chaturmukha Brahma in the navel lotus of Sriman Narayana

'BHŪGOLA VARNANAM'

BY:

SAINT SRI VĀDIRĀJA

INTRODUCTION

Ācārya Sri Madhva classifies souls not only as belonging to three main types, good, bad and mediocre; but he also classifies them as belonging to several grades according to their innate abilities. This is in accordance with 'Prasthāna thraya' - Brh̄ma Sūtras, Ten Major Upaniṣads and the Bhagavadgīta, as also according to the several smritis and puranas. If only to inform the average readers who may not be familiar with Brahma-sūtras and the Upaniṣads, we may ask them to refer to the 16th chapter of Bhagavadgīta where souls are clearly branded as belonging to the divine group and the demoniac group; and it is natural that there should be a middling group, neither fully divine, nor fully demoniac. The very name of the chapter is 'Daivāsura sampad vibhāga'.

Among souls of divine inclination, there are several grades such as the best of humans, human sovereigns, human gandharvas, divine gandharvas, divine sovereigns, Ganapati and

his equals, Agni-the fire God Maharshis, Devarshis like Bhṛgu and Nārada, the Sun, the Moon, Kubera, Yama, Indra, Kāma (wish-creating master), Śankara, Garuda and Śeṣa. This is in the ascending order- only a few details mentioned.

There is a class of souls, higher than Garuda and Śeṣa; they only are eligible to occupy the post of Caturmukha Brahma. (Female souls, the true partners of the male souls mentioned, are also having gradations). During every Brahma Kalpa-period of creation and sustenance, there will be two hundred such souls, the one who has completed his training during 199 previous Brahma Kalpas, now occupying the seat of Brahma. Next in the order of gradation, downward, are Vāyu, Lātavya, Gavya, Vaktavya, Jnātavya, and so on. (These details are found in Vāmana purāna).

Saint Sri Vādirāja is the 198th, 'Lātavya', in the upward scale of gradation. He is almost as good as the 199th, Vāyu, and during this, his period of probation, he engages himself in the activities of Brahma and Vāyu, of course, with their co-operation. The activities of these three souls are universal. There is nothing in this universe in which they are not engaged. They are everywhere and in every thing - living or non-living, doing their jobs for them.

Lord Sri Lakshminārāyana, the Supreme Being, is their Master.

We are more likely to believe in autobiographies than in biographies penned by adorers. Saint Sri Vādirāja has given us his autobiography in his text 'Vṛndāvana Ākhyānam', containing 22 chapters. The wondrous part of it is that he was just known generally as a great saint and the greatest scholar of Madhva sastra during his life time; but, sometime after he entered his bṛndāvan (Samādhi) having no tryst with death at the ripest age of 120, he entered the body of a born-dumb brahmin with his spiritual part, and dictated his autobiography such that people might believe his words. This is history of the period of the famous Krishnadevaraya of Vijayanagar. There is monumental evidence for all this if one cares to inspect.

The following are the salient facts in 'Bṛndāvana Ākhyānam' bearing relevance to 'Bhūgola Varnanam'. In these days of topsyturvy knowledge of the vast universe put forward by the scientist folks, people may not believe if it is said that Saint Sri Vādirāja had the ability to go anywhere in the fourteen worlds and that he was honoured by the Gods to whichever upper world he went and that he was fortunate enough to go to the

Abode of Srīman Nārāyana in 'Sweta Dvīpa', where he was blessed by the fond embrace of the Supreme Lord.

These details go to show that his 'Bhūgola Varnanam' is not just a concept formed by the study of puranas like Srīmad Bhāgavatam. He has given us first-hand knowledge of all the regions of the universe, which he visited and saw actually.

Knowledge of truth published by the śastras is tested with reference to visual perception, logic and the Vedic literature ('Pratyakṣa', 'Anumāna' and 'Āgama'). To these is added what is known as 'Āpta Vākya'- words spoken by reliable persons. Who else could be a greater 'Āpta' or more reliable person than Saint Sri Vādirāja, a saint of the highest order, the most profound scholar, and one who had full mastery over spiritual powers? For our reliance on 'Āpta Vākya' I shall give an example which seems to be nearest to us. Some one asked Ten-singh, 'Have you seen the yeti? Do you believe that such a thing as that exists? Tensingh replied, "I have not seen the yeti. I do not generally believe what I have myself not seen or experienced. But, it seems, my father saw the yeti twice; and I cannot disbelieve his words". Such indeed is 'Āpta Vākya', the word of a reliable person - one who is well-

informed, discerning and has no intention to cheat others. Therefore, Saint Sri Vādirāja's 'Bhūgola Varnanam is Apta Vākya' for us. It is not only reliable; it can stand the test of modern science by all counts.

At present, science and traditional knowledge seem to be at loggerheads. Therefore, I shall endeavour to point out the limitations of scientific investigation and the authoritative declaration of the puranas and religious literature in general. While doing so, I shall freely draw upon the information provided by several scholars in their papers presented at the seminar on 'Cosmogony and cosmography' held in Bangalore during the year 1987.

The following are the salient points presented by myself in the back-ground paper, 'Beginning of beginning'.

There are two clear versions about the 'Beginning of beginning'- the creationist view and the evolutionist view. The creationists seem to be on firm ground although, at present, many of its votaries are unable to stand on their legs. On the other hand, many modern scientists are finding fault with Darwin's way of drawing conclusions.

An intelligent study of the scriptures goes to show that God created all things gradually, the physical features and the living beings.

Even according to historical survey it must be admitted that the Vedas are the earliest records of human thought. However, it is held in Hindu tradition that the Vedas are only revelations, heard or visualised by sages and not the product of human thought. When the Kuran and the Bible are also said to be revelations, there must be truth in considering them as such. All the three have not combined to deceive humanity. These revelations are also spoken of as the Word of God. Vedas are eternal and authorless; but God gives expression to them. Veda means knowledge. It is God's knowledge. He is in 'Omkāra' and he is 'Omkāra swarūpa'. Then, is it not right to say that Vedas are authorless?

Modern scientists, who bank upon the 'Big bang', theory of creation and evolutionism are really to be commended for their good guesses although they are ignorant about the true details. The puranas, among all the religious literatures, tell us how God goes on with the work of creation through divine agents by a series of 'big-bangs'-'Kṣhobhā' or 'Ālodana', over a long long period of

864,0000000x360x50+1050 crore human years, and how living beings were created in the order of the simplest to the most complex during a period of 1050 crore years. It is said that the divine agents were satisfied only after they had moddled the human frame with all its computarised mechanism and its intellectual and emotional abilities enabling man to know God and his ways and to worship Him.

Professor S.K.Ramchandra Rao, in his inaugural address delivered at the said seminar under the benign presidentship of Sri A.R.Badarinarayan, BA.BL., Ex-Education Minister of Karnataka and Ex. M.P., said that the birth of the universe was not an accident according to Indian scriptures. Further he said that the 'Big bang' theory does not have much use for the intuitive faculty of man, which finds its worthy place in the Vedas and other Hindu scriptures.

His Holiness Sri Viśwesatīrtha swāmīji of Pejāwar mutt, who blessed the seminar with his holy presence, supported prof.S.K.R. Rao's view saying that there was a systematic governing of the universe by a force outside it. He also said that much before Newton put forth his famous theory of gravitational pull, the Indian scriptures had spoken of it.

Prof.K.T.Pāndurangi, who delivered the valedictory address at the seminar under the worthy presidentship of Prof:K.T.Srīnivāsa Iyengar, said that the experimental method was not the only means to knowledge and that the scientists should come forward to understand Vedic truths. Intuition, inspiration and revelation are to be respected.

The tribute paid to Vedic literature by Sri T.V.Vedavyāsa, M.sc. Lecturer, St. Joseph's College, Bangalore, in his paper 'Science and the Vedas' is worth noting. Here it is -

"Science is defined as systematized knowledge. In the modern sense it is knowledge gathered by means of human endeavour and brought to the form of a dependable system. Naturally it must be incomplete and imperfect. But the Vedas provide us with systematic knowledge in ready-made form.

"THE features of the Kali age are out and out materialistic. Therefore it is hard for many to believe in the invisible worlds of which the Vedas speak. But this should be no hindrance to those who make honest efforts to know things as they are. The laboratory method, with its own limitations, is not the only means to gain knowledge. Clinging to that method and rejecting all else is not wisdom at all.

"Some would call as fictitious whatever they cannot see or experiment upon. But historical facts cannot be rejected although they may not be matters of routine nature. Tānsen, the court musician of Akbar, had such mastery over 'Dīpak rāg' that he could make the wick of an oil lamp catch fire and get lighted up. Ācārya Sri Madhva could make seeds to sprout into seedlings in his hand by chanting the required Vedic hymn. But such persons are very rare to find. Nevertheless, they are historical personages.

"Let us not bother ourselves much about the authorship of the Vedas. If only we take a look at the several sciences contained in the Vedas, we will be forced to admit that they are surely revelations and not the work of cowherd Aryans. Vedic mathematics is the origin of not only the Arabic numerals and the decimal system, but it is the source of Algebra, Geometry, Trignometry and many more branches of mathematics. In the Atharva Veda we find the sources of many many sciences such as Āyurveda, Śilpa Śastra, Vimāna Śāstra, Loha Vidya, Jyotiśśastra, Pāka śastra, Hatayoga, etc. The Sāmaveda is well-known as the source of the musical science.

"Musical science is highly rational. It would be astounding when it is observed that the seven primary sounds-sa, ri, ga, ma, pa, da,

ni, signify seven knowledges conveyed by the sun's rays and symbolised by the seven horses of seven colours. The Supreme Lord presides over the seven divisions of day and night with his seven forms-Aniruddha, Pradyumna, Samkarṣaṇa Vāsudeva, Nārāyana, Varāha and Narasimha.

Sri T.V. Vedavyasa concludes his paper saying, "Let us hope that scholars and doctorate-holders in every branch of modern knowledge will be humble enough to consult recognised pandits of the older order for clarification of doubts and for enlightenment."

Dr. A.R. Vasudeva murthy, D.Sc., of the Indian Institute of Science, Bangalore, delivered a lecture on 'Ancient Indian Chemistry' with the aid of slide projection. He stated that right up to the 18th century, India was looked to even by Imperial Rome as the most skilled of nations in such chemical industries as dying, tanning, soap-making, glass and cement. By the sixth century A.D., Indians were ahead of Europe in Industrial chemistry - Everyone knows about the chemical excellence of cast iron produced in Ancient India.

Thus, Dr. Vasudeva murthy has given glowing tribute to vedic Sciences.

Dr. Jayaprakash Narayan, M.B.B.S., M.D. (Ay), President, Karnataka Ayurvedic and Unani Practitioner's Board etc., along with Dr. Nagesh, P.R., M.D. (Ay) - speaks of the science of Ayurveda revealed in the Atharavanaveda - "It is interesting to note that 'Ayurveda, being mostly a material science, has adopted all the theories of materialism as envisaged by the Samkhya School, which finds its parrallel in modern Darwinian theory. It is said that the Acarya of Caraka Samhita clarifies the need for the knowledge of similarity between the self and the universe to make known to the human being that the cause for all happiness or otherwise is himself/herself and none else."

Dr. M.P. Alexander, M.Sc., (Ag), Ph.D (Ohio, U.S.A) senior scientist and Head, Division of plant Genetic Resources, Indian Institute of Horticultural Research, Bangalore, delivered a lecture illustrated with slides to emphasis the creationist view by demonstrating with the help of pictures on the screen how God's creation is wonderful and beyond human reasoning. He showed and clearly explained the mystic symbols on Rudrāksha Omkār 'Śivalinga', 'Trident', 'Snake' and the like.

In this connection, I wish to draw the attention of readers to look at the 'Nāgalinga Puṣpa' when it blooms in early spring. One

can see, how, the pedestal of the flower exhibits the 'Śivalinga', with the thousand-headed serpent lifting its hoods above the 'Śivalinga'!

In spite of such proofs, why do people fail to give credit to scriptural details and hang on to the dubious present-day sciences?

Miss. Usha.K.Adya gives the answer in her paper, 'Role of Renaissance in the world'.

"By the beginning of the Middle Ages in European History, the Christian religion began to lose its hold on the common people and made way for the new thinkers who based their line of argument upon the ways of the early Greek thinkers. They began to question everything and, strangely enough, the Christian priests failed to provide satisfactory answers. Development of sciences in the 16th and the 17th centuries helped the new thinkers to proceed on materialistic lines, neglecting the religious views.

"British rule in India for nearly two centuries paved the way for the spread of European New Learning in our country. The teaching of modernised history gave a signal blow to Puranic lore. We go through religious duties and ceremonies without actually believing in their foundations. How can there be any

sincere belief when our historical sense treats Vedas and Puranas as Myths? Hence, our present need is to see to the 'Revival of Indian Learning and Culture' in its pristine form."

Sri V.L. Praveen, B.E. has pointed out that the fundamental error made by modern thinkers is the world-wide belief in evolutionism at the cost of creationism. His remarks are worth our consideration. He says - "Charles Darwin, the main propounder of the theory of evolution, tells us that life first appeared in waters and developed simple aquatic creatures, which in course of time developed into terrestrial and aerial creatures. But he fails to account for the appearance of life to begin with. His laws of natural selection and survival of the fittest form poor logic; and it is not at all scientific as no laboratory method can prove it. How and why people believe in such an 'ism' is ununderstandable. The western thinkers might have had reasons for such belief in the face of the so-called Biblical statements telling that the entire creation was the work of six days and that it is just 6000 and odd years since creation began. Geological proof goes thoroughly against it.

The creationist view that we can find in Vedic literatures, on the other hand, presents a clear scientific account of facts.

"Therein we are told how primordial matter was transformed into grosser and grosser modes to form the nine outer envelopes of the universe (and it took half of Brahma's life period - 'Prathama Parārdha'. Then the grosser materials were created by chemical big bangs, known technically as 'Pancīkarana'.

"Life within the 'Brahmānda' started first in waters even as Darwin guessed. Lord Nārāyana entered the gross waters of the Brahmānda with all the souls to be brought into creation, and gave them gross bodies through the agency of Mahālakshmi, his spouse and Mistress of Nature. Vedas bear testimony in this respect. MahāLakshmi says "Mama yoniḥ apsu Vāntassamudre". My creator is in the waters and my field of activity is therein to begin with". Srīmad Bhāgavatam, Viṣṇu rahasya and the other puranas clearly tell us how living creatures were developed over a long long period by the divine agents of the Creator, the 'Beginning of beginning'. Seven stages of creation are clearly mentioned - aquatic creatures, reptiles, animals of land, birds, mammals, higher mammals like the cow and the horse, and then, man".

Sri.V.L. Pravin makes out a case to show how the modern mind is viciated by total dependance on the Darwinian theory of evolution. Erich Van Daniken was surprised to find marvellous examples of human genius among the ruins of Maya Civilisation, America (for details, one may look into his very interesting book 'the Chariots of the Gods'). He does not actually mean true divine beings by the word 'Gods'. He only means some human beings from some other planet with better developed skills.

The fact is that this author would have formed a different opinion altogether if he had access to vedic literatures - especially details found in the Atharvana Veda and the Puranic accounts which tell about the skills with which Viswakarma (divine architect) and Mayāsura (architect of the demons) are endowed.

Sri G.B. Gururajachar, M.Sc., Lecturer National college, Gowribidanur, writing about 'Cosmogony and Cosmography as gleaned from Bhagavadgita' quotes relevent verses from the text to show the nature of the universe and the greatness of its creator. Here are a few verses -

"Vedānta krid veda videvacāham"

(I am the author of Vedānta and I know the meaning of the Vedas; non else).

This line of the verse clearly tells us that Sri Vyāsamaharṣi is the same as Sri Kṛṣṇa, 'Vedānta' being used here to mean the Brahmasūtras. Therefore, we have to agree with what Sri Vyāsamaharṣi has said about Cosmogony and Cosmography in Srīmad Bhāgavatam and in the other Puranas.

"Aham kṛtsnasya jagataḥ prabhavaḥ
pralayaḥ tatha"

(I am the creator of the entire universe and I am its consumer).

"Mayādhyakṣeṇa prakṛtiḥ sūyate sa carācaram
Hetunānena kaunteya jagad viparivartate"

(Under my supervising lordship, the mistress of nature gives birth to living creatures and material forms. The world undergoes changes on account of this).

"Tribhiḥ guṇamayaiḥ bhāvaiḥ yebhiḥ
sarvam idam jagat
mohitam nābhijānati māmebhyaḥ param avyayam"

(The beings in this world are overpowered by ignorance caused by the three material modes. Hence, they do not know that I am different from and superior to all else and that I am changeless.)

"Avyaktam Vyaktim āpannam manyante mām
abuddhayaḥ
param bhāvam ajānanto mama avyayam anuttamam"

(Those who are unintelligent think that I assume material bodies. They do not know the excellence of my being, which is changeless and very very superior in every respect).

The two verses quoted above clearly show that the world is real and different from the changeless Brahman.

"Mayā tatam idam sarvam jagat avyakta mūrtinā
Matsthāni sarva bhūtāni nacāham
teshvavasthitāḥ"

(This universe is fully pervaded by my unseen personal presence. I am supporting all things, myself being supported by none).

The word 'different' is misconstrued by the supporters of monism. When it is said that material things and individual souls are different from the Supreme Being, they assume that they should be outside Brahman or that

there should be holes in Brahman to locate them. The Verse quoted tells us how Brahman is inside and outside everything and every one without being contaminated. The word 'mūrti' tells us that He has His non-material forms. But we should note that each one His forms is in every other form in its fullness and that the different forms make one form, singly or in groups.

Stanzas 20, 21 and 22 in Chapter XIII tell us that matter and spirit are eternally different. It is matter that undergoes changes. The non-material spirit is the one who suffers pleasure and pain. But the Supreme Spirit is only the witnessing Master permitting the other spirits to go through experiences. He is the sustaining and consuming Lord of the universe.

"Ābrahma bhuvanālokaḥ punarāvartinaḥ arjuna"

"Kṣīṇe punye martya lokam viśanti"

The purpose of teaching the Bhagavadgita is more to convey the philosophy of the Vedas in its practical aspect than to describe the apparent cosmological features. Yet, there is some reference to cosmography too in so far as it has a bearing on the use of philosophical knowledge.

The two lines quoted above make clear mention of the six divine worlds above and the earth below them. The importance of the human world on earth is indicated as being the training ground for souls.

"Yadgatvā na nivartante tad dhāma
paramam mama"

This line tells us definitely that there is the 'Vaikuṅṭa loka' which is the supreme-most and which is eternal. It also indicates that the trained souls enter that Abode of eternal happiness and they don't need to come back to earth. Vaikuṅṭa loka is fully non-material. Entering that loka means getting back into Brahman and not becoming Brahman. Saint Sri Vādirāja has pointed out that 'Aikya' means 'Ekatra bhāvaḥ' or being together, and not 'Ekasya bhāvaḥ' or becoming one. Grammatically, he says that 'Aikya' cannot be split as 'Ekasya bhāvaḥ'.

It is usually believed that Sri Śankara-cārya has considered this world as a mere illusory effect. But the late Sri Vedantam Subbiah Shastry of Bangalore says that it is not so. He has written a book, "Is the world an illusion according to Shankara?" His son, Sri Geetha Prabhu, B.Sc., B.E., M.E., dealt with this topic at the seminar.

Here we give quotations from the book referred to:

"The very words of 'Advaita' and 'Nirviśeṣa' have been interpreted by the later commentators and text book writers in such a way as to suit their conclusions or 'Siddhānta'. They mean by the words 'Advaita' and 'Nirviśeṣa' that except Brahman nothing else exists; and as a result, they have decided and established that the world does not exist at all and it is only an illusion or misconception which ceases to exist after self-realisation. This is proved to be contrary to Śankara's commentaries because Shankara has established that the world is as real as Brahman. Śankara has established clearly that though He is stated to be 'nirguṇa' and 'nirviśeṣa', Brahman alone is responsible for the creation of this universe, because He is Omniscient and Almighty by His nature."

"If Brahman is not the creator of this universe, He is no Brahman at all. Mere logical arguments by pandits with their vast learning of Sanskrit do not alter the facts.

The world is still here even for them to say that the world is an illusion."

There are two papers contributed to the Seminar, one by an eminent Christian Father

and another by a Muslim Scholar, both of which bring out the similarity between the puranic concept of the universe and the concepts held by the Bible and Kuran.

Father V. Francis Vineeth, CMI, L.Ph., Ph.D.(Rome), Ph.D. (Oxford), Director, Dharmaram Pontifical Institute, Bangalore, has explained how God is the Creator, Himself remaining the unchanging Centre in the form of 'Word'. All else is His reflection. This is exactly like Brahman, who is the original of Omkāra, creating the whole universe by the vibrating effects of the mantras emanating from Omkāra.

Quoting from the Psalms of David, the following lines are given -

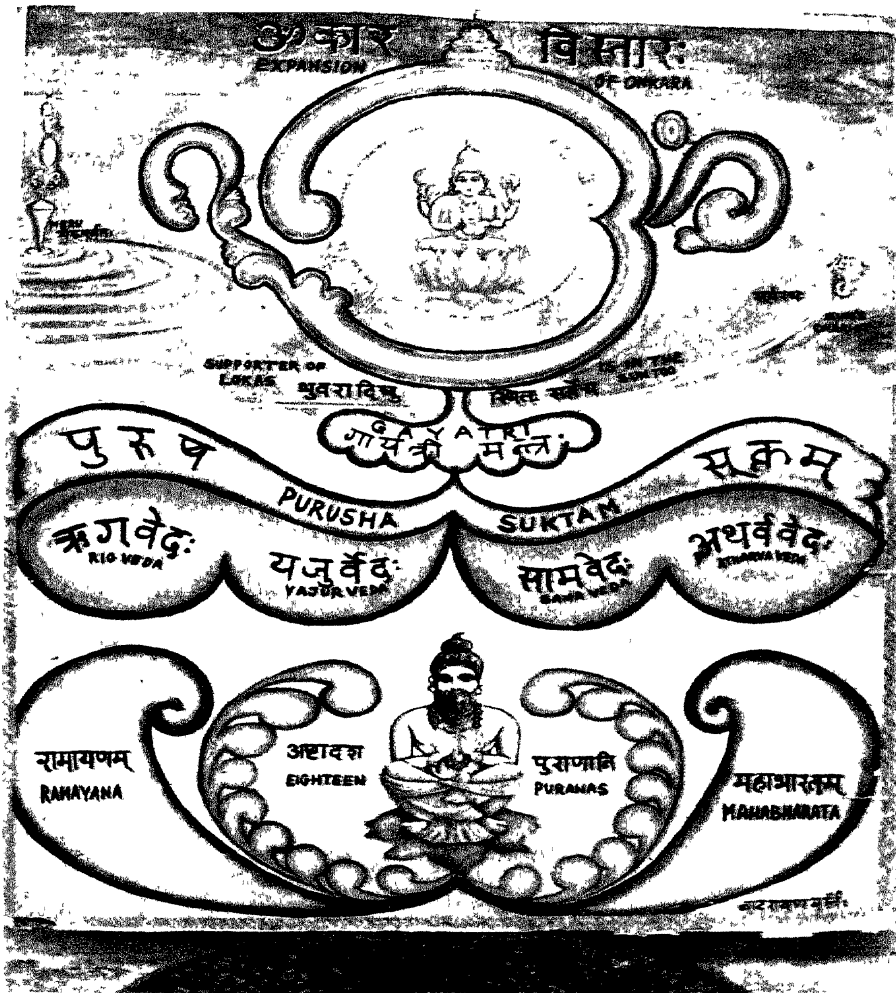
"Thou didst set the earth on its foundations,
so that it should never be shaken
Thou didst cover it with the deep as
with a garment;
The waters stood above the mountains
At thy rebuke they fled;
The mountains rose, the valleys sank down
to the place which thou didst appoint
for them."

Herein we find a parallel concept to the deeds of Ādi Varāha Avatar, when the Lord brought up the earth from where it had been

kept sunk by the mischief of the demon Hiraṇyākṣa, and how it was set in its place, hardened by mixing the fat from the bodies of the demons Madhu and Kaitabha who were both killed by Ādi Varāha. Rising of the ocean waters above the mountains and their coming down refers to the 'Jala Pralaya' and the blessing deeds of 'Matsyāvātāra'. In fact, the first Manu, Swāyambhuva, 'Adi Manu' is the same as Ādimanu, Ādim, Adam, Adham. The Christian term Manoa is the same as Manu.

Historically considering the antiquity of the Vedas, we must admit on the evidence of the parallels shown that the Kuran and the Bible are only the echoes of the Vedas, all the three being no less than the 'Word' of God. That 'Word' which we call 'Omkāra' is the same as - Aum, Aumen, Amen!

Father Francis Vineeth has beautifully summed up his thesis in the following words - "In the Christian vision of the beginning we have the infinite Being with its ineffable 'Word' in the centre. This Word becomes flesh, which when shared, gives rise to humanity which is placed in a universe prepared by the same 'Word' for its own human self-expression". Here, the 'Word' represents God; flesh represents Jesus Christ, the Saviour who appeared in a human body, and humanity stands for mankind in general. It



Expansion of "OMKARA"

"The Angels and the Spirit
Ascent unto Him in a day the
Measure wherefore is fifty
Thousand years." (S. 70:4)

Look at the following -

"God is He who
Created seven firmaments
And of the earth
A similar number." (65:12)

Here we find clear mention of the fourteen worlds spoken of in the Puranas. Seven firmaments means worlds located in the visible sky - Bhuloka, Bhuvarloka, Swarloka, Maharloka, Janaloka, Tapoloka and Satyaloka.

'Of the earth, a similar number' means the netherworlds within the bowels of the earth - Atala, Vitala, Sutala, Talatala, Mahatala, Rasatala and Patala.

Similar are the following lines -

"To Him belongs what is
In the Heavens and earth
And all between them,
And all beneath the soil." (20:6)

See also -

"See ye not
How God has created
The seven heavens
One above another." (71:15,16)

Reference to the 'Kala Cakra' of the Puranas is in the Kuran thus -

"It is not permitted
To the sun to catch up
The moon, nor can
The night outstrip the day.
Each (just) swings along
In (its own) orbit
(according to law). (36:40)

The above first three lines hint about the retrograde motions of the sun and the moon with reference to the constellations. The moon's velocity in retrogression is greater. While the sun falls 1 degree behind the moon covers 12 1/2 degrees behind every day.

Sri R.P. Shenoy of Karkala presented three very interesting papers - (1) Dream, a stabiliser of the Cosmos; (2) Vortex drilling - a method to get energy from another dimension; and (3) Atom - a product of relative speeds of two vibrations. But, the subject

being too abstract for the present introductory content, details of the papers are not considered here. However, his concepts of + and - (positive and negative) vibrations as representing Purusha and Prkriti, and the concepts of the abstract 'Kāla' and 'Akasha' linked with the material world of 'Time' and 'Space', are really interesting and thought-provoking.

We now come to the paper presented by Dr. C.R.Raghuṇandan, a young and brilliant scholar well-versed in modern science and in the traditional sastras. The paper is 'Review of Bhugola Varnanam' by Saint Sri Vadiraja.

This paper is like a very good thesis prepared for a doctorate degree. As the author himself says, "This paper reviews this work of Vādirājaswāmy". His observation about the meaning of 'Bhūgola' is quite good, because most people are misled by the modern meaning of the word and they need to know the right meaning. 'Bhūgola' in this context means 'Brahmānda', the golden shell covering the universe and not a globular earth of very small dimensions.

He prefers the yojana measure as being equal to six miles as it satisfies the puranic figures to be in agreement with actual measurements. For example, in Bhavisyottara

Puranam it is stated that the Tirumalai hills are situated 300 yojanas to the south of the Ganga. This being equal to 1800 miles (300 x 6), the measurement is exact.

The measurements concerning the land of gold, and the Lokāloka mountain around, is made a controvertial issue leading to some confusion. But Saint Sri Vādirāja's interpretation leaves no room for such controversy. Dr. Raghunandan's placement of mountains in the Ilāvrita Varsha also leads to some confusion. His concept of 'Vāyu Kūrma' finding support on 'Vishnu Kūrma' does not find mention in Saint Sri Vādirāja's 'Bhūgola Varnanam'.

At the end of the paper he draws contrast between the puranic and the scientific views about the universe. His conclusion, that the modern measurements regarding distances between stars must be erratic, is indeed noteworthy.

Smt. Padma Nagaraj, B.Sc., B.Ed., in her paper 'Our concern about the Universe', distinguishes four types or rather grades of knowledge in the following manner -

- (1) Jnāna - Recognising something as such.

- (2) Sujnāna - Understanding the properties and uses of a thing.
- (3) Vijnāna - Knowing the divine agency at work behind the apparent natural phenomena.
- (4) Prajnāna - Knowledge of Self and the Supreme Self.

Hence, according to this analysis, modern science is only 'Sujnāna' and not 'Vijnāna' as the indian scientists have preferred to call it.

She remarks that it is good to develop scientific attitude to know things precisely and to be guarded against religious hoaxes. But that itself does not help us to know what our concern is in this universe. The scientists' concern is to know more and more about the nature of things and to see how best they could be harnessed for the betterment of life here and now. Even a pure scientist is likely to be influenced by the society of which he forms a part; and the utility side of science does haunt him. The industrialists make the utmost use of him for their own profit. And even governments make use of him, generally for welfare works; but using scientists for preparing all sorts of weapons of war is quite common. So much so,

science seems to have reached demoniac dimensions and it has become the night-mare for every living thing.

On the other hand, a philosopher is concerned more about finding the ultimate cause behind the universe of our experience such that our life here may become really meaningful. But, human intellect having its own limitations, only religious philosophy is truly helpful to know our concern about the universe.

When we speak of religious philosophy, religious conflicts begin to stare at us. But such conflicts are due to human nature and not due to religious teaching. Smt. Padma Nagaraj quotes the words of Sri M. Hidayatulla ('Heritage' - Dec. 86) who has said, "As the poet Iqbal has said, religion does not teach enmity and discord." There is also his quotation from the Kuran - "O prophet, tell those who do not believe in me that they are believing in some other God (God with a different name?). You are believing in your God. They are not likely to believe in your God and you are not likely to believe in their God. Their religion is for them and your religion is for you."

Hence, Smt. Padma Nagaraj stresses the need for leaning upon religious philosophy

which draws its tenets from revelation. Finally, she says "A thorough knowledge of Cosmogony and Cosmography is quite essential to realise the purpose of creation as ordained by the Creator, by which knowledge alone man can seek happiness here and hereafter; and that is his main concern.

Sri K.S. Venkatesha murthy, B.A., poses a question in his paper - "Is life worth living?"; and he endeavours to provide the answer. Selected parts from his paper are given here to make a summary of the answer.

"Science can solve problems only to create fresh problems. Scientists may assert that they can unravel every secret of nature in due course and that they can also find out the spiritual aspects of nature if at all they exist. How long will it take - a few million years ??? What is its relevance to you and to me if there is no soul to fall back upon?"

"A word about religion. Being scared by the ruffles resulting from religious fervour, many would like to keep religion away from public life. The ruffles are rather due to human weaknesses than to religions themselves. It is like taking an over-dose of a prescribed medicine or of an addicted drink. Because our eyes detract us by bringing

undesirable sights to view, is it wisdom to close our eyes and proceed?"

"My suggestion to the scientists is this - Let them go on with their methods of understanding the world. But, at the same time, let them attempt to understand Vedic literature in the right manner. That will surely bring desirable benefits to one and all. Their progress too will be quickened when they come to know the substantial secrets hidden in Vedic lore."

"With an understanding of the organisation of the universe according to the ordering by the Supreme Being, comes the understanding of the purpose of life. Through rough and smooth or thick and thin life is meant for the upliftment of the soul. True philosophy does not advocate detachment from the pleasures of life which are there to give a foretaste of eternal happiness. Of course, the cost of happiness here on earth is too dear; but it is quite necessary. According to Madhva Śāstra, life is enjoyable and worth living. Pleasure and pain are the lessons for life. 'Go through life and win the game' is the advice offered by Sri Purandara dāsa."

Sri K. Mohan Rao, radio artist, presented a paper on the relevance of the Puranas. The

main point to note is that the puranas are the necessary commentaries to be relied upon to understand the true import of the Vedas. Only, they need to be carefully made use of to guard against interpolations, omissions or additions. "Itihāsa purānābhyām vedam samupabrimhayet."

It was my share to present the following five papers at the Seminar - 1) Basis for belief. 2) Creation and Structure of the Universe. 3) The fourteen worlds. 4) 'Kala Cakra' (Time Wheel) and 5) Relevance of Cosmogony and Cosmography.

Since much of the material contained in my papers is gathered from Saint Sri Vādirāja's 'Bhūgola Varnanam' and from Srimad Bhāgavatam and other relevant texts, I need not give a summary of the contents thereof. That will be made use of in the rendering of 'Bhugola Varnanam' itself where necessary. However, it may not be out of place to say a few things about 'relevance'. But I shall reserve it to be included as appendix to the text in hand - 'Bhūgola Varnanam'.

By a perusal of the Seminar papers the following conclusions may be drawn -

1. Vedic literature is truly scientific; but it has escaped the notice of western

scientists whose investigations into the past stop with the Greeks of 600 B.C.; and they would give some light credit to the Chinese and never to Indians!

2. Although history books tell us that the cowherd Aryans composed the Rig Veda around 1500 B.C. when they had settled in the Punjab and that they composed the other Vedas later on, true historians like Max Muller have opined that the Vedas are the earliest human records and that their dates cannot be fixed.
3. The puranas were not composed by different Vedavyasas during the A.D.'s. They are the works of a single Maharshi of that name and they were composed during the early part of Dwāparayuga. Sri Śankarācārya and Ācārya Sri Madhva consider him as the very incarnation of Lord Nārāyana, the Creator Himself. It is no wonder then that he wrote the Maha Bharata long long even before the Kauravas and the Pandavas were born and that he could tell us about the Maurya period of Indian history in his Bhavisyottara Purana.

The Bible and the Kuran are also revelations - abbreviated and simplified Vedas, wherein we can find parallels in

plenty. Those two revelations are mostly meant for the people of this age who suffer under stress and strain of modernisation, especially in the western countries.

5. The Vedas are the richest mines of precious knowledge although the lava of the volcano of European Renaissance has covered the mining areas at present.
6. A few parallels hinted under item 4 may be examined -

(i) 'Amen' is the same as 'Aum' or 'Om'.

(ii) The syllable 'Om' is considered as the 'Word of God' in all the three revelations. The Muslims call it as "Alla ke ruh" (Breath of Allah).

(iii) Six days of creation is identical with six Manukalpas of the puranas.

(iv) Noah's Arc is the same as the ship held aloft by the Matsya Avatār of Viṣṇu to save Vaivaswata Manu and the rest from the deluge (Jala Pralaya).

(v) Vaikunṭa = God's Heaven = Jannat.

(vi) Nitya Naraka = Hell,
(different from Purgatory) = Dozakh

(vii) Fourteen worlds = Seven upper
worlds — Bhuloka to Satyaloka and
seven nether- worlds (spoken of in
the Kuran) — Atala to
Patala.

7. The European Renaissance gained ground because the Christian scholars of those days failed to satisfy those who began to question them. Perhaps, that was due to corruption and degeneration in the Church as history tells us.

8. The present plight of the Indians is that, being influenced by western scientific notions, they turn a deaf ear to Vedic teachings although there are pandits who can yet convince them as well as the western scientists.

When I wrote to Sri J.R. Lakshmana Rao, well-known scientist at the Manasa Gangotri in Mysore during the year 1972 requesting him to offer his candid opinion about my views, he wrote in reply-

"It is my opinion that you are trying the impossible, I mean the task of reconci-

ling the scientific view of the universe with the unfounded speculations of our religious men. There is absolutely no chance of your influencing my thinking."

Such is the pride and prejudice of our country-men at present to a very large extent.

9. Life is precious and the soul is hungry to seek realisation and release from the miseries of mundane living which presents more sorrow than happiness. We should learn the truth about human limitations while in a miserable plight and when in happier mood, we should think of the measures to be adopted to find eternal happiness.
10. Attempting to gain all the required knowledge through scientific methods and to gather all happiness by means of scientific gadgets is nothing but a wild goose chase. It is like rejecting a welcome feast and going a-begging for food.
"Siddham annam parityajya bhiksām
atati durmatih.
11. The fundamental error that is being committed today by philosophers, scientists and the common folk is their

blind dependence on the theory of evolution and rejecting the truth about God and His creation. But let us see how systematic and convincing the Vedic description of creation is.

Modern scientific investigation stops at the Sky which they consider as vacuum. But an Indian scientist has recently announced that he can get electricity out of vacuum. Therefore it cannot be really a void without any material however subtle it may be - call it ether or by any other name.

Vedic literature tells us that the sky is formed by what is known as 'Akasa tatva'. Not only this. It goes to the very beginning of beginning. It tells us about three primordial non-cognisable modes - Satva (principle of light and knowledge), Rajas (principle of activity) and Tamas (principle of inertia, darkness and ignorance). At the commencement of creation, the Mistress of matter, Sridevi, creates disturbance (Ksobha) in the restful modes at the behest of Lord Narayana and brings out the three principles by the first, mild 'big bang' of pure Satva and pure Tamas. When pure Tamas is acted upon by pure Satva, the visible Satva, Rajas and Tamas (yellow, red and blue respectively) emerge from pure Tamas wherein they are hidden.

A further 'big bang', mixing the three principles - 100 Satva + 10 Rajas and 1 Tamas, brings out 'Mahat tatva' (principle of pure intellect). A part of 'Mahat tatva' is taken out and mixed with the three original principles in different proportions to form the 'Ahamkāra Tatva' (Ego principle) of three shades - Vaikārika ahamkāra, wherein Satva predominates, Taijasa ahamkāra, wherein Rajas predominates and Tāmāsa ahamkāra wherein Tamas predominates. The first one is used to give subtle bodies to divine agents and to create the physical mind which finds location in our nervous system, in the spinal chord at the heart level.

We may here note that the mind is not something vague but the most subtle instrument made to receive impulses from the external world and to transmit them to the knowing 'Self', the owner of the body; also to respond to the external world on his behalf. The Self is a spiritual entity. He is the knower and experiencer. This individual self, inhabiting the body by the grace of God, is yet a learner being trained to realise himself. Therefore, the different functions of the body are governed by divine agents, the favourites of God. They know themselves and apprehend the events of the material world; and they help the individual self to know and feel.

Vidyā Ganapati is at the gate of the mind opening towards the external world. That part of the mind which is close to the gate is presided over by Indra and Kama, the former taking cognisance of events and the latter creating desire. They receive impulses and offer responses on behalf of the owner - self. Above them is Pārvatīdevi, spouse of Śiva, receiving the impulses and translating them into knowledgeable terms. Her sphere of the mind is known as 'Buddhi' (informative intelligence). Above her, presiding over the third section, is Lord Siva, the Master of the Ego principle; and he makes the self to feel, 'I know'. There are two other superior compartments of the mind - 'Citta' and 'Cetana' presided over by Garuḍa and Śeṣa respectively, the former being responsible for sifting the right from wrong knowledge and consolidating it by thinking, and the latter responsible for storing knowledge as 'memory'. Thus we see that the mind consists of five departmental functions, of which we are well aware of the outermost compartment and have vague notions of the other four. Is this not analogous to the conscious mind and sub-conscious mind of modern psychology? Does it not tell us that Vedic knowledge is vastly more scientific than modern science?

Let us continue the chain of creation. Out of the second shade of Ahankara Tatva, the abilities of the sensory and the motor organs are created. Out of the third, five subtle elemental modes are created - Śabda tanmātra (source of sound), Sparśa tanmātra (medium for touch sensation), Rūpa tanmātra (medium of light that shows things), Rasa tanmātra (medium for taste) and Gandha tanmātra (medium for the formation of solid things which are generally characterised by smell). All the modifications of the original three modes described so far are of the subtlest kind from our view point although the lower ones are comparatively grosser than the higher ones.

The creation of Brahmānda, the golden egg enveloping the universe, is out of the 'Gandha tanmātra' also known as 'Prithvī tanmātra'.

Within the Brahmānda, the five gross elements are created by 'Alodana' or the 'big bang' into which modern scientists have had a good peep, but have failed to go much beyond the sky.

The sky itself is created by a process known as 'Panchīkarana' (chemical combination) 120 parts of Śabda tanmātra being combined with 20 parts of each of the other tanmātras.

The air element is created by combining 120 parts of Sparśa tanmātra with 20 parts of each of other four. Similarly, fire, water and earth are created. These five are only gross elements appearing in the form of the 'NEBULE' of modern science. And it is really the 'big bang' within the Brahmānda that has been responsible for the creation of the elements of air, burning bodies, the planets and the vast earth, 300 crore miles in diameter, not the planet earth.

Excepting the agnostics among scientists, who have built up prejudicial complexes in themselves, all other great scientists have admitted the limitations of human knowledge and have declared that the mystery about the 'beginning' is ever a mystery for them.

The following are the words of Einstein himself; one of the most leading scientists of our days.

"The most beautiful and most profound emotion we can experience is the sensation of the mystical. It is the power of all true science. He to whom this emotion is a stranger, who can no longer wonder and stand rapt in awe, is as good as dead. To know that what is impenetrable to us really exists, manifesting itself as the highest wisdom and the most radiant beauty which our

dull faculties can comprehend only in their most primitive forms - this knowledge, this feeling is at the centre of true religiousness."

"My religion consists of a humble admiration of the illimitable superior spirit who reveals himself in the slight details we are able to perceive with our frail and feeble minds. That deeply emotional conviction of the presence of a superior reasoning power, which is revealed in the incomprehensible universe, forms my idea of God."

Vedic literature, therefore, comes to our aid where modern science fails and ends. Before concluding my introductory observations, I wish to pose the following questions to be squarely answered by scientists -

1. Light being mass converted into energy, does it not suffer resistance as it proceeds from a distant star before it reaches our optical instruments? If it has to face resistance in space due to known or unknown causes, how can we speak of the constancy of velocity of light through out the universe?
2. However minutely precise be our geometrical or other methods based on parallax, spectroscopy, classification of stars

according to luminosity and the like, how can we be sure of stellar distances and distances between stars and between galaxies. As some scientists have confessed, if it may be about 50% wrong, look at the difference - two stars said to be 1000000000000000 miles apart, will be only 10000000 miles apart.

3. According to Einstein's concept of Relativity, "the heart beat of a person, travelling with a velocity close to that of light, would be relatively slowed along with his respiration and all other physiological processes. He would not notice this retardation because his watch would slow down in the same degree. But judged by a stationary time keeper, he would grow old less rapidly. In a Buck Rogers realm of phantacy, it is possible to imagine some future cosmic explorer boarding an atom-propelled spaceship, ranging the void at 167,000 miles per second, and returning to earth after ten terrestrial years to find himself physically only five years older." (Extract from 'The universe and Einstein' by Lincoln Barnett, a splendid book recommended by Einstein himself).

This phantacy is indeed fantastic. It need not be a phantacy, but reality. There is

a parallel of this in the puranas. King Raivata went to Brahmaloaka, which is 750000000 miles away from the earth, in the winking of an eye by means of yogic power and waited there a few moments before he could get an interview and consult Brahma about a suitable bridegroom for his daughter, Revati; and then he returned to earth to find that some lakhs of terrestrial years had elapsed by then. Both father and daughter had grown older by that much. (This is concerning persons of divine abilities born on earth unlike those of ordinary human beings).

Here, the main point to note is that the universe is not governed only by physical laws through out as our scientists would fondly believe **without actual experimentation**; there are also divinelaws working through natural and supernatural laws.

Calculation of time is the same for all, depending upon the 'Kāla Cakra' (Time Wheel); but its application differs. A day of Brahma = 4320000×2000 human years; of other divine beings = 360 human days ; of the manes = 30 human days.

Thus there is relativity as well as commonness of time in the three cases cited

Without putting to test this valid explanation how is it right to stick on to the Theory of Relativity or any other?

4. We speak of suns and solar systems within the millions of galaxies. Have the scientists found at least one more solar system within our own 'galaxy'?
5. We also speak of galaxies of different types. Are there any galaxies seen in the southern celestial hemisphere except the two Megallanic clouds? If not, what is beyond there to the south?

[For the information of scientists it may said-

- i) What looks like a galaxy is just a cluster of millions of divine vehicles in the form of stars, racing at unimaginable velocities around the upper worlds.
- ii) There are starlike planets, the abodes of Yaksas, Guhyas and the like, in the southern sky upto a certain extent. Srimad Bhagavatam, canto V may be consulted.
- iii) The upper worlds and even the neighbouring regions of our globe (perched at the southern edge of Jambūdvīpa) are all invisible to our eyes and to our instruments because they differ in composition although the entire universe is

composed of the same elements. It is said in the puranas- "Adrsyā dhātavaḥ sarve samutpannā jalā adayaḥ"]

6. The question of questions is -

"Will our scientists ever get over the human tendency of succumbing to pride and prejudice in order to know the truth? Will they use a little introspection to shift from the mere physical to the spiritual?

Let the wise ones build up a growing community to save the world from the darkness of materialism. Let them hold the torch of spiritual light and let there be a Renaissance of religious culture based on Revelations.

Now, it is my pleasant duty to thank the Akhila Bhārata Mādhva Mahāmandala (Madras Branch) for having come forward to publish this work which was long pending publication. My special thanks are due to the office bearers of 'Dharma Prakash', Madras, for having taken the initiative in this respect. As regards the Seminar papers which I have freely made use of to weave my introduction, I should thank the donor who generously offered me Rs.10,000 to conduct the Seminar. He desires to remain incognito out of sheer modesty; but, as I have gauged, he is a

person of saintly qualities inspite of the unusual opulance with which God has blessed him. My thanks are due to him and his noble-minded secretary as well. I will be failing in my duty if I do not offer thankful respects to Sri Vijnananimidhi tirtha swamiji of Sri Sripadaraja Mutt, Mulbagal, who was good enough to declare open the exhibition on the occasion of the Seminar, and who is my well-wisher for bonafide reasons. My thanks are also due to my friend and well-wisher, Dr. Miles Davis (Patita Pavana Das), Director, International Institute of Indology, Inc., U.S.A., for his encouraging letter which arrived just on the eve of commencing the printing of this book. And I thank the proprietor and staff of Kāmadhenu Printers, Tyagarajanagar, Bangalore, for their genial cooperation in printing this book. My thanks are due to M/s DYNARAM ELECTRONICS AND COMPUTERS, Bangalore - 4, for excellent computer composing of this book.

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BHŪGOLA VARNANAM

of

Saint Sri Vādirāja

==

INVOCATION

(Verses 1 - 8)

I bow down to the feet of Lord Nārāyana who appears with His Horse-headed form (Hayagrīva), who is both far and near and is dear to those who always remember Him. He is not fully comprehended even by the Upaniṣads. He has afforded lodging in His heart to Kamalādevi (Sri Mahā Lakṣmi) who knows Him and yet knows Him not. He is verily the lake wherein the fish-like eyes of adoring devotees move about sportively. He is indeed Lord Hayagrīva. I bow down to Sri Vyāsamaharṣi, who is the sun that dispels the darkness of our hearts. He is the originator of all the sacred sciences. He is none other than Lord Sri Nārāyana, the Creator of all. Lord Vedavyāsa is like the thunderbolt that strikes at those who choose the wrong path and mislead others.

My salutations to Srīdevī, the highest in intellect and the model of modesty, but fearless at heart. Her looks are tenderly kind in bestowing wealth; and at the same time they make our hearts free from all sorts of afflictions. My salutations to Bhūdevī, sister-like to Srīdevī. She blesses us with wisdom. She was graciously lifted up by the tusk of Lord Varāha (God who appeared in Boar form)*. She is the abode for saints who find joy in the scriptures. She makes the god-minded souls happy.

I bow down again and again to Ācārya Sri Madhva whose glory finds praise in the beginningless Vedas, who is without any flaw and is quite pure, whose intellect is the highest, always engaged with the memory of the Almighty Lord, whose glory is the subject matter of the Vedas. His form is quite enchanting and it fills one's heart with the milk of kindness. Similarly, I offer my salutations to Bhāratī devi, fully endowed with female virtues, custodian of the principle of intellect, a bee of devotedness at the lotus feet of Sri Hari, the foremost among the souls of her kind and the bestower of opulence to the devotees of God.

My salutations to all spiritual masters who discard the evil-minded ones as enemies and help the good souls to sail across the

ocean of life; and who bestow boons like the wish-fulfilling tree to those who serve them faithfully.

[* Here is reference to the episode of bringing up the submerged earth at the beginning of Svetavarāha Kalpa when the Lord in Boar form killed the demon Hiranyākṣa and replaced the earth in its place after making it hard and unfoldable by mixing with it the fat of the demons Madhu and Kaitābha who were also killed.]

THE BRAHMĀNDA

(14 - 17)

Brahmanda or the hollow golden shell containing the universe is fully round in every direction, east to west or north to south. In it, twice its inner complement is Ghanodaka (solidified water) and the region of darkness is circular in shape, lying as it does within the Ghanodaka stretch. It is twice as wide as the circular earth which occupies the middle part. Upaniṣads describe the earth as 'Prithvī' - that which is spacious with abundance of wealth for living beings. The earth is said to stretch from sea to sea as the brahmin seers conceive it. It has the Meru mountain at its very centre and it contains seven islands and seven oceans stretching around the Meru centre. They are circular in form. The three together

- earth, dark region and Ghanodaka - measure fifty crore yojanas from end to end. This is factual and not fictitious.

MEASUREMENTS OF THE THREE REGIONS

(in the ratio of 1:2:4)

(14 - 17)

Of the three regions mentioned, the earth occupies a circular stretch having a diameter of seven crore yojanas. Being double that in stretch, the region of utter darkness measures fourteen crore yojanas. Considering the stretch of Ghandodaka as being twice that of the dark region, it measures twenty eight crore yojanas. From the Meru centre, the earth measures $3 \frac{1}{2}$ crore yojanas in all directions. The region of darkness and the Ghanodaka region measure 14 crore and 28 crore respectively putting the opposite parts together. Therefore each of the opposite parts measure only half of the said count.

DISTRIBUTION OF THE REMAINING ONE CRORE YOJANA

(18 - 54)

As detailed heretofore, 49 crore yojanas are distributed among the three regions, (7+14+28 = 49). The remaining one crore yojana should be converted into lakhs. Of the 100 lakh yojanas, 14 go to earth, 28 to

the dark region and 56 to Ghanodaka. Thus, 98 lakh yojanas are distributed leaving a balance of 2 lakh yojanas. This should be converted into Thousands (two hundred thousand). Of these, 28 thousand for earth, 56 thousand for dark region and 112 thousand for Ghanodaka are distributed. 196 thousand being thus distributed, the remaining 4 thousand should be converted into hundreds (40 hundreds). The earth takes 5 hundred, the dark region 10, and Ghanodaka 20. Now the total is 35, leaving a balance of 5 hundred yojanas (500). This is distributed in the ratio of 70:140:280, making a total of 490, with a balance of 10 yojanas. This 10 is distributed as 1:2:4; only 3 yojanas now remain.

An intelligent person converts the 3 yojanas into 12 krośas (1 yojana = 4 Krośas). Now, the distribution is as follows -

$$1 \frac{1}{2} : 3 : 6.$$

Thus, 10 $\frac{1}{2}$ krośas having been distributed, 1 $\frac{1}{2}$ krośas still remain. The table of measurements being-1000 dandas = 1 krosa, and 4 krośas = 1 yojana, 1 $\frac{1}{2}$ krośas means 1500 dandas (staff length). Distribution - earth 214, dark region 428, and Ghanodaka 856, thus making a total of 1498 dandas. The remaining 2 dandas convert

themselves into 8 hastas (4 hastas or cubits = 1 danda). Distributing as 1:2:4 for the three regions respectively, the balance will be 1 hasta which is equal to 24 angulas (inches). Again, after distributing as 3:6:12, three inches still remain to be distributed. 3 Vṛhis make 1 angula (Vṛhi means a paddy seed). Therefore 3 angulas are equal to 9 vrhis. Distributing as before - 1:2:4, the length of 2 vrhis still remains to be distributed. One vrhi being equal to seven sarṣapas (mustard seeds), now we are left with a stretch equal to 14 sarṣapas put side by side. The distribution being as 2:4:8, no balance remains.

The Vedic mode of measurements being in this manner, measurements in all other respects must follow suit. Lord Sri Hari who came down incarnated as Sri Vyāsa Maharṣi, has thus shown the mode of distribution in the ratio of 1:2:4 - each unit being a seventh of the whole. Therefore the Puranas tell us that the hollow of Brahmanda measures exactly fifty crore yojanas. The fractional parts being added to 7, 14, and 28, the total will be 50 crore.

[We may note that the measurement is exactly precise even to the extent of a single mustard seed. The 2 mustard seed measurement attributed to earth in

the final analysis are distributed as one on each of the opposite sides of the circumference.]

TABLE OF MEASUREMENTS

7 Sarṣapas (mustard seeds)	- 1 Vṛhi (length of a paddy seed)
3 Vṛhis	- 1 Angula (inch)
24 Angulas	- 1 Hasta (cubit)
4 Hastas	- 1 Danda (staff length)
1000 Dandas	- 1 Krośa
4 Krośas	- 1 Yojana 32000 feet or 6.06 miles

ACTUAL MEASUREMENTS

Region	Earth	Dark region	Ghanodaka
Yojanas	7,14,28,571	14,28,57,142	28,57,14,284
Krosas	1 1/2	3	6
Dandas	214	428	856
Hastas	1	2	4
Angulas	3	6	12

Vrhis	1	2	4
Sarṣapas	2	4	8

[The distribution is perfect to a mustard seed when it is in the ratio 1:2:4. How did Saint Sri Vādiraja learn such mathematical procedure? Not at any present day school at all! He was a master of Vedic mathematics. Could the 'Cowherd Aryans' create such mathematics around 1500 B.C.? Then, is it not the gift of the ageless Vedas? Certainly, the evolution theory loses ground.]

Fractions of sevens, seventies and the such of the one crore remainder being added to 49, it makes the 50 crore yojanas - the measurement of the hollow space within the Brahmanda. Since corn seeds and other things were larger in size during the 'Kṛta yuga', the measurements are based on the sizes of the mustard seeds and paddy seeds of that yuga. The earlier sages have kept these points in view when they have declared that the Brahmānda interior measures 50 crore yojanas.

[Tolstoy's story, 'Grain as big as a Hen's Egg' bears witness to the fact that seeds and the like were bigger in the Kṛta age. For the same reason, a man's cubit measured 24 inches then as against 18 inches now obtaining. Consequently, the average height of man in those days was 8 feet, of course, leaving margin for

abnormalities. Incidentally, we may note that Āchārya Sri Madhva is described as a personality of eight feet in height and that every one could have darśan of the bust of that personality as he moved in the midst of crowds in procession.]

The earth was created in the Kṛta yuga and therefore its measurements agree with the standards of that age. Lord Sri Mahā Viṣṇu created the earth during the first Kṛta yuga of the first 'Kalpa'.

[Here, a 'Kalpa' means a day of the four-faced Brahma, the obvious creator. The first day of his 51st year was devoted to the creation of the earth and all other things. A day of Brahma is equal to 1000 'Mahāyugas' - the four ages Kṛta, Treta, Dvāpara and Kali put together; and his night is of equal duration. The four ages rotate in the same order. Creation of the earth was during the very first Kṛta yuga. The first day of Brahma, referred to above, goes by the name 'Padma Kalpa' since the created earth and the heavenly regions followed the patterns of the lotus flower. This period lasted for 432 crore human years. - Mahāyuga = 43,20000 x 1000 years.

On the second day of Brahma began the 'Sveta Varāha Kalpa', of which mention has been made in respect of lifting up the earth to its position by Lord Varāha, God in Boar form. This Kalpa has run a course of six Manu Kalpas and we are now under the regime of the seventh Manu, Vaivaswata. The first one

was Svāyambhuva Manu or Ādi Manu. (Compare - Ādima, Ādim, Adam, Adham). From the commencement of the regime of Ādi Manu it is 197,29,49090 years upto 1989 A.D. And, from the commencement of Padma Kalpa when the earth was created, it is 1060 crore years in round figures. If only the Christian pandits had known this, the geologists and biologists of the Renaissance period in Europe would not have found fault with the facts about creation as presented in the Bible. Even according to the Bible, 6000 years means six Manu Kalpas, each Manu's life-span being 1000 years. A Manu's regime lasts for 71 Mahayugas. Therefore each year of a Manu is equal to 300000 human years. This, multiplied by 6000, gives a figure of 180 crore years. Since the Bible says that it is 6000 and odd years, add the period covered by 27 Mahayugas of Vaivaswata Manu Kalpa + Krta, Treta and Dvapara and 4989 years of the present Kali age; and that will be 180 + 17,29,49089 = 197,29,49090 years as given in our 'Pancanga' (Hindu Calendar).]

THE TERRESTRIAL REGION

(55 - 58)

Basing our concept on the measurements indicated here-to-fore, the earth should be understood as consisting of the seven islands and the seven oceans, the middle most island Jambūdvīpa measuring one lakh yojanas, and each of the outer islands being twice as large as their inner complements. Similarly, the seven surrounding oceans too should be

considered. Thus, the diameter of the circular earth measures 5 crore and 7 lakh yojanas upto the encircling land of gold, which itself is surrounded by the land of diamond. The last two are known as 'Antyādhyaṛdha sthala' This point will now be discussed.

ANTYĀDHYARDHA STHALA

(Land of gold and land of diamond)

With reference to the location of Lokāloka parvata (which surrounds the entire terrestrial region) the measurement of earth other than 'Brahma bhūmi' is said to be 6.08 crore yojanas. To reach the full measurement of 7.14 crore yojanas, we still require 1.06 crore yojanas. The measurement given for the region around Śuddhodaka ocean being 1.28 crore yojanas, the land of gold should therefore measure 64 lakh yojanas on each side. 'Adhyardha' does not actually mean half; but it means 'with a little addition to half'. Therefore, a little more than half of 64 should be taken as 42 instead of 32 in order to satisfy the scriptural statement.

[If this procedure is followed, the total measurement will be -

- | | |
|--|---------------|
| 1) Earth with seven islands and oceans - | 5.07 crore |
| ii) Land of gold, both opposite sides | - 0.64 --" -- |
| | 0.64 --" -- |

iii) Land of diamond, both sides	- 0.42 --*--
	- 0.42 --*--

	7.19 crore
	yojana;

The excess of 5 yojanas ($7.19 - 7.14 = 0.05$) should be assigned to Brahma bhūmi extending beyond 'Vajralepa' (Land of diamond) and forming part of the foot of the Lokaloka mountain - just a fringe of it.]

If this position is not maintained, the measurement of the Brahmānda interior would be more than 50 crore yojanas. If the Land of gold is taken to measure 96 lakh and the land of diamond, half of that - 48 lakh, then the terrestrial region would measure $5.07+0.96+0.96+0.48+0.48 = 7.95$ or 8 crore yojanas. Following the ratio of 1:2:4, the Land of darkness will have to measure 16 crore and Ghanodaka, 32 crore. The total would be 56 crore yojanas; and this is entirely wrong.

What has been said herein about the Land of gold and Land of diamond is in agreement with the opinion of Ācārya Pūrnaprajna. If the fringes of the earth were just earthy, it being prone to denudation, the measurement, given as exact to a mustard seed would not remain constant. Hence Lord Sri Hari has created the hard diamond land around.

[Finally Saint Sri Vādiraja says in all humbleness that his statements are certified to be correct by Ācarya Sri Madhva, residing in his heart.]

ANDHANTAMAS

(Region of complete darkness)

(79 -83)

The pit of darkness known as 'Andhantamas' is situated below the earth level, sunk in Ghanodaka. This region surrounds the Lokāloka parvata and is termed as 'Adhogati' or the downward path. Because 'Andhantamas' is below the level of Ghanodaka, it is possible for sinners to go down into it to some extent and to come up again. That they go down and come up has been stated by Sri Vyasa maharṣhi, the author of Brahma Sutras.

[The pit of darkness is very very deep. Sinners, who deserve greater punishment than what they may suffer in the ordinary hells, are made to go down into the pit of darkness to some extent and they come up. But those, who are thrown down into the lower parts known as 'Tamas', 'Mahā Tamas' and 'Andhantamas', never come up. They are the third kind of souls who are doomed to suffer in the eternal hells.]

The principle of darkness extends even higher than the Lokāloka parvata which is 51

lakh yojanas high. It is petrified darkness like water turned into ice. If it were not so, where was the need for Sri Kṛṣṇa, Lord of the Yadus, to create a tunnel through it by means of his Cakra (disc weapon)?

[The Cakra wielded by Sri Kṛṣṇa is of the principle of light in the main. It is praised thus - "Sudarsana mahājwāla koti sūrya sama prabhā" - a weapon blazing with the brightness of crores of suns. When Sri Kṛṣṇa had to drive Arjuna's chariot towards 'Anantāsana' in the Ghanodaka - far beyond the petrified circle of darkness, he had to cut through it and make a tunnel. It was easy for the disc of light (Cakra) to cut through the darkness. This was on the occasion of bringing back the dead son of the Guru.]

From time immemorial, demons like Kali and his troop have been dropped into this pit of darkness and are bound to suffer acute pains. Their number is uncountable. (It is because there are innumerable Kalis with their followers, those who were thrown into 'Andhantamas' during the countless previous Brahma Kalpas.) Even during 'Mahā pralaya' (the long period following final dissolution of the universe), just even like Vaikunta loka, this hell remains in its place without undergoing extinction by the consuming fire of 'Pralaya' and the like. But the suffering demons of that region are taken up into the belly of Sri Hari (who rests on the banyan

leaf like an innocent child). Even when the demons are there in God's belly, they suffer pains so natural to their own non-material bodies - sore-eyes, headache, stomach pain and also different kinds of bodily and mental illness. (Body here means the non-material body). Again, by the command of Sri Hari, they are assigned to 'Andhantamas' - the hell of eternal damnation, when another universe is created. There they are tormented by fire, rock-fall, sharp weapons and piercing beaks of birds; and by being made to wade through excretion, urine, blood and the like. They suffer varieties of pains as they did during the previous Kalpas. No doubt, it is their fate to suffer in 'Andhantamas'; but such suffering is the need of their very nature. They are incorrigible, veteran sinners, whose perverted knowledge (Mithyājñāna) makes them so.

Because the selves are non-material, they cannot be cut to pieces and made into parts. As such, rock-fall or use of weapons do not destroy the spiritual selves; they only inflict pain. When the demons are made to suffer being bit by leeches with diamond-like teeth, being subjected to the heat of fire, by rock-fall, or by being made to wallow in the mire of excretion, urine and blood, and by hearing constant wails and fearful cries, or when pungent and bitter liquids are poured

into their eyes, ears and noses, it is their innate sorrow that expresses itself. These painful experiences are referred to as 'Panca Kaṣṭa' (five-fold torture affecting the sense organs) - hearing hurtful cries, seeing horrible weapons, smelling nasty things, torture suffered by the taste of hot liquids, and suffering cuts by sharp weapons.

[For any ordinary person, this description appears to be repugnant. But that is due to the wrong notion of universal kindness. Those who plead for divine mercy for one and all are only the kind-hearted good souls; it is not the demons themselves. They prefer suffering and blasphemy; and they find pleasure in it. It is like Satan in Milton's 'Paradise Lost', saying "I can make a Heaven of Hell". This aspect is not very easy to appreciate unless one takes the trouble to understand what the non-material soul is and how souls differ from each other by their very natures. (The mango tree prefers the sweetening minerals for its growth while the neem tree prefers only minerals that give bitterness.)]

THE NETHER WORLDS

(93 - 98)

Within the hollows of the earth down below are seven worlds ranged one below the other. They are Atala, Vitala, Sutala, Talātala, Mahātala Rasātala and Pātāla. Each of these is 10000 yojanas in extent

(width and height). Thus they occupy a total area of 70,000 yojanas. The Meru mountain has its base into the earth to the extent of 16,000 yojanas. The gaps between the seven nether worlds make a total of 3000 yojanas (500 yojanas in each case). The earth extends still further below to a depth of 11 thousand yojanas; it is all rocky in nature. (16+70+3+11 = 100 thousand)

[In Srīmad Bhāgavatam, the eight directional elephants (Asta diggajas) are said to be standing beneath Pātāla loka, supporting the worlds above them. Evidently, their location should be within the range of the last mentioned 11,000 yojanas.]

ĀDI ŚEṢA (99 - 102)

Ādi Śeṣa is worshipped by all the serpents of Pātāla loka. He has his situation in the Ghanodaka down below; and he is immortal. He finds himself supported by 'Vāyu Kūrma' - Mukhya Prāna in tortoise form; Ādi Śeṣa's tail rests thereon. He is quite strong. Lifting one of his thousand hoods, he supports the worlds above him so that the earth does not sink into Ghanodaka. Hence he is hailed as 'Sarva loka dhurandharah'.

[Hearing about the effort put by Ādi Śeṣa in keeping the earth from sinking down, any modern person

is sure to laugh at the very idea in view of Newton's Law of Gravitation. But, one who knows the truth, laughs at the modern man for his sheer ignorance. The earth is not just a globe of 8000 miles in diameter, going round the sun. In fact, it does not move at all. It has a stretch of 30 crore miles, with the Meru mountain at the centre and the nether worlds beneath. The gravitational force is towards 'Viṣṇu Kūrma' who supports the Brahmanda with the whole universe within it. Gravitational force is nothing but the will of the Omnipotent Lord working through material bodies. God's ways are wonderful, not easily understood just by human intellect. He has huge forms as well as forms which are more minute than the minutest. The 'Viṣṇu Kūrma' form enters into the various 'Vāyu Kurma' forms giving gravitational forces to all things - big and small, according to their masses. Therefore, we may say that Newton's guess was right; but he had no chance to know the whole truth. The secret of secrets is that it is the Omniscient Lord Himself who acted as the original (Bimba) of Newton or Kepler or Einstein and discovered certain secrets of nature - of course not all, only to work out the features of Kaliyuga. He is known as 'Yugādikṛt'.]

Ādi Śeṣa by himself, is not competent to support the worlds. His strength is derived from the Supreme Lord 'Samkarṣana', whom he worships in his heart. The space occupied by Ādi Śeṣa ḥm Ghanodaka is 99,000 yojanas.

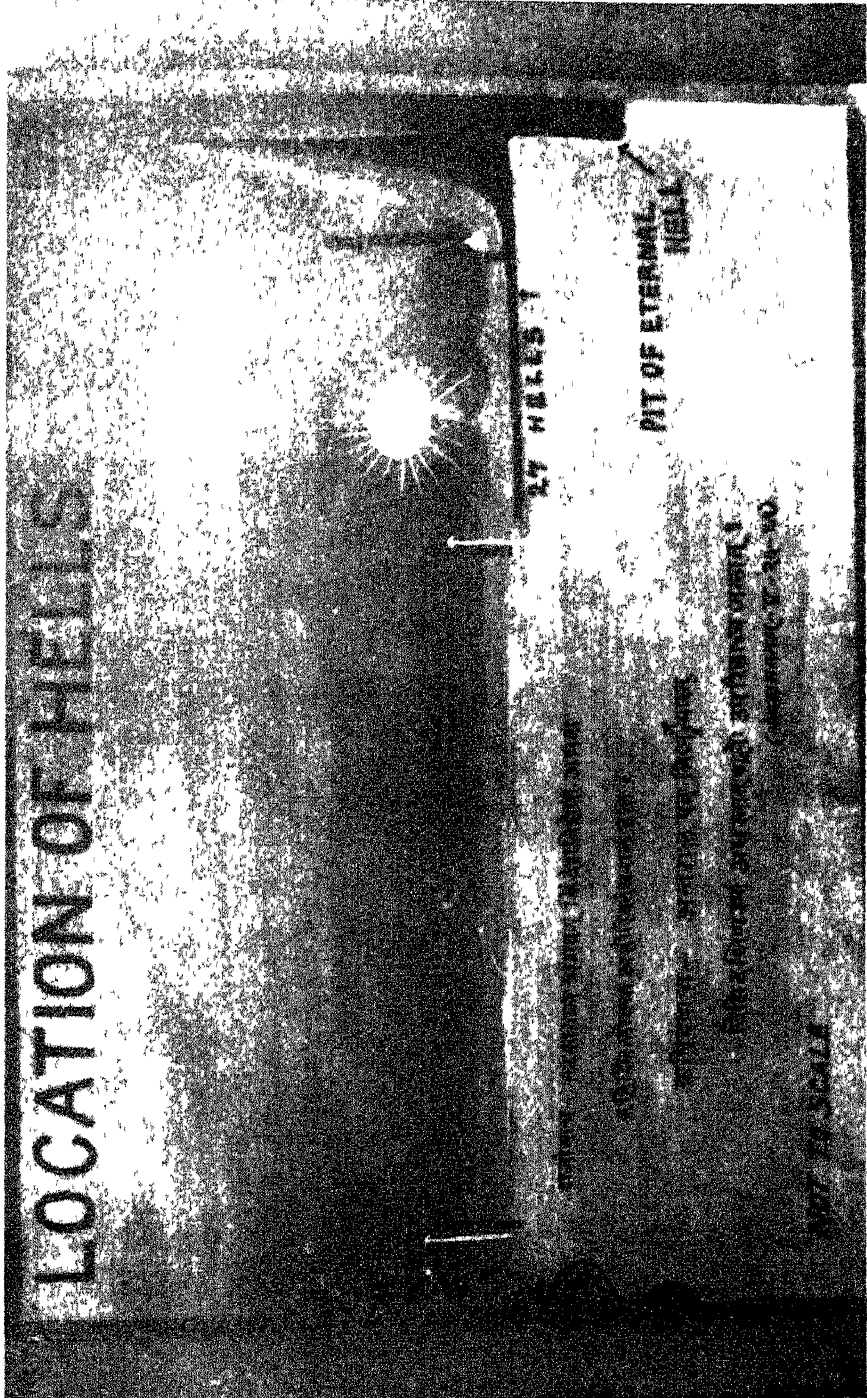
[In fact, the Serpent form supporting the worlds is Lord Samkarsana Himself; and He is known as 'Ananta'. Ādi Sesa is only like a tool in the hands of a master.]

LOCATION OF HELLS

(103 - 107)

On the left hand side (south, in this instance) lower than the visible earth level, there is a big moat, many yojanas wide and deep. At its edge is 'Samyamanīpura', God Yamadharma's city, where he is always attending to his duties. There are thousands of his servants who are very cruel by appearance. The 'Vaitaranī' river is here; and it is a terror to sinners. After crossing this river with a foretaste of the sufferings in store, they are taken down into hells like 'Raurava', which are horrible. Thousands of such hells are there for punishing sinners of different kinds. These hells are in the southern direction, at the level of the 'Astadiggajas' beneath Pātāla loka.

Another capital city of Yamadharma's kingdom is also in Heaven. It is the harbinger of happiness to those who have done meritorious deeds here on earth.



“Sun-1 lakh yojanas above the Manasottara mountain ;
Moon-1 lakh yojanas higher (near our globe); and location of hells.”

[The directions spoken of in the Puranas are not conventional as the modern Theory of Relativity would consider it. Just as there is the Samyamānīpura of Yamadharma on the slopes of the Mānasottara mountain, there is the Devadhāni, city of Indra, 90 degrees away from it on another part of the mountain slopes. Another 90 degrees away from it and just opposite to Devadhani, is the Nimlochani city of king Varuna. Just opposite to Samyamānīpura there is the city of Alakāvati, where Kubera is the King].

The Meru mountain being the central relative point of reference, the four cities are said to be to its south. The Meru mountain itself and the Pole star, right above it at the tail end of Lord 'Simśumāra, are to the north of all else on earth. Bhāratadesa, the heart of Bharata Khanda, faces the south; and sunrise to the Bhāratīyas (Indians) is in the longitudes of Indra's city, Devadhāni. That is east for Indians. When this is decided, it is easy to decide the other directions. For India, Japan is in the eastern longitudes and it is appropriate to have called it as the 'Land of the Rising sun'.

In Srīmad Bhāgavatam, the hells are said to be located beneath the earth, but above Ghanodaka. Since the hard earth extends downward, upto where it finds support on Adi Sesa's head, the hells, which are in line with the directional elephants, are naturally above Ghanodaka and below the surface of the visible earth.

Here is substantial ground for us to conceive that the seven islands with their surrounding oceans, are not flat like a single rupee coin; but they take a terraced type of arrangement. Thus, the Puṣkara Dvīpa is two lakh yojanas lower than the upper edge of the basket-like Jambudvīpa; and the surface of Ghanodaka, beyond the region of darkness, is in line with Puṣkara dvīpa. The location of hells is slightly above this line.]

VIṢṆU KŪRMA

(106 - 109)

Underneath the earth borne by Ādi Śeṣa, Ghanodaka extends to a depth of 24 crore, 99 lakh yojanas, where it touches the golden shell of Brahmānda. That shell itself is 100 crore yojanas in thickness; and it rests on the back of Viṣṇu Kūrma, almost like an atom.

[In the case of Ādi Śeṣa, the weight of the vast earth is compared to that of a mustard seed; in the case of Viṣṇu Kūrma, the weight of the Brahmānda, with the entire universe in it, is compared to that of an atom. Really speaking, this is only to make us to see the difference between Ādi Śeṣa and Mahā Viṣṇu. In the case of the latter it is no weight at all.]

THE UPPER WORLDS

(110 - 123)

Including the visible terrestrial world, the upper worlds are seven in number, the seventh and the uppermost being 'Satya loka'.

The 'Antarikṣa loka' begins one lakh yojanas above the earth. The 'Svarga loka' is at an altitude of 50 lakh yojanas. It is beautiful with divine palatial buildings. Antarikṣa loka and Svarga loka are one crore yojanas breadthwise. Above Svarga loka is 'Mahar loka', at an altitude of 75 lakh yojanas above the former. It is populated by Siddhas and ṛṣis in large numbers. Above it is 'Jana loka' at an altitude of 1,12,50,000 yojanas. Then comes 'Tapo loka', 1,68,75,000 higher up. This loka is fully populated with Siddhas and ṛṣis; and provides abundance of amenities of all kinds. The three lokas now spoken of - Maharloka, Janaloka and Tapoloka, have abodes beautified with varieties of gems in plenty. The extent of these three lokas is similar, each measuring a third fraction of 50 crore - 16,66,66,666 yojanas and 2 krosas. Putting together the altitudes of all the lokas spoken of and adding the gaps in between the adjacent lokas, the total altitude will come to 4,06,25,000 yojanas.

Having a simialr distance in between, the 'Satya loka' begins. Therefore, it is at an altitude of 8,12,50,000 yojanas above the earth. That is where Brahma's abode is situated. Its extent is similar to that of the three lokas beneath it. The Satya loka itself has an altitude of 4,12,50,000 yojanas. (The total altitude of all the upper worlds will be 16,25,00,000 yojanas). The Satya loka of Brahma is shaped like a tuber at its base. It is somewhat thin in the middle like a stalk and, at the top, it spreads out all round like the petals of a lotus flower. It is very very wide.

The lokas of the universe, being all shaped to resemble lotus flowers, the whole thing looks like a huge lotus blooming upon the Ghanodaka.

[Considering the earth itself, we should take into account, the pedestal-like Jambuddvipa, the terraced arrangement of the other six islands and the mountain ring of Puskara dvipa; and also the other mountain ranges of the other islands. Then, Bhuloka verily looks like a huge lotus flower.]

VAIKUNṬA LOKA

(129 - 133)

At an altitude, twice that of Satya loka, there is Visnu loka, which the seers call

Vaikunṭa. It is at an altitude of 16,25,00,000 yojanas above the earth. Its extent is twice that of Brahma's loka. It is neither created, nor destroyed. From its centre at the base, right upto the shell of Brahmānda, it measures 8,75,00,000 yojanas. It is there that the released souls move about in celestial planes of the non-material world.

THE BRAHMĀNDA

(129 - 133)

Measuring from the base of the Meru mountain, upto the shell of Brahmānda above, it is 25,00,00,000 yojanas. All the lokas are contained within this range. Upward, eastward, westward, north or south, or in any other direction it measures 25 crore yojanas. This is with reference to the centre at the base of the Meru mountain. But, putting together the measurement from the Meru centre towards the south upto the shell of Brahmānda, the Brahmānda as a whole measures fifty crore yojanas every way from end to end. It is fully round and made of gold. It's thickness is 100 crore yojanas.

THE THREE ABODES OF VIṢṆU

(133 - 149)

Upon the Ghanodaka on the northern side is the Abode of Viṣṇu, known as 'Anantāsana'.

It is Srīdevi who is in the form of that loka where the released souls are. The learned say that it is at a height of one lakh yojanas. A similar Abode is in the milk ocean (Kṣīra Samudra) at an altitude of one and a half lakh yojanas with reference to its neighbouring earth. This Abode is called 'Sveta dvīpa'.

The three Abodes - Vaikunṭa, Sveta dvīpa and Anantāsana are only the forms of Sridevi. (They are non-material). They are thronged again and again with limitless numbers of released souls; and yet, they afford more and more accomodation. They are never completely filled up. Even a hall constructed by Visvakarma (the architect of gods) is able to accomodate limitless number of persons and things. Then, is it any wonder that the Abodes of Viṣṇu are ever more and more accomodative? The belly of a sage (Sage Agastya) could contain the ocean. As such, the three Abodes of Visnu certainly possess wonderful capacity since they are no other than Mahā Laksmi, the source of all abilities. During the period of 'Mahā Pralaya' the released

souls enter the womb of Viṣṇu; and there too, they are happy since their non-material bodies are just the stuff of joy. During the period of creation, they return to the said Abodes. Their joy consists in praising the Lord's glory - Joy Galore, prostrating at His feet and looking at His admirable form, often and often. They also enjoy different kinds of pleasures - of course, non-material.

The capital city of Vaikuṅṭa, Ayodhyā by name, lies within seven fortifications and only the released souls enter into it. This city brightens the directions all around on account of its beautiful terraced quarters, adorned with wonderful gems. This city area is called 'Parama Vyoma' - non-material space. Around this city of Ayodhya flows the 'Virajā' river which rids the souls of the burdens of their causation bodies (linga śarīras) when they take a dip in its waters. The river is like a moat encircling the city. No unreleased soul can ever cross it. Upto the seventh inner gate of the outer fortifications there is fear of bondage on account of the 'Pradhāna Vyoma' (material sky) there. Within the bounds of the Viraja river, this sky is powerless. Hence it is declared in the Purānas that it does not exist there. Therefore, the Virajā river is said to flow between the material sky and the non-material sky. Brahma takes a dip in that

river with the other eligible souls at the time of release from bondage. The causation bodies of all of them are got rid off; and then they get into the inner city, Ayodhya. Even Brahma goes only upto the seventh gate of the outer fortification before release; he does not enter the inner city. Then who else can ?

[The city of Ayodhyā has seven rounds of fortification with abodes and inter spaces. These are meant for the released souls of different grades. Right in the middle of the quadrangle inside the fortification, there is Viṣṇu's superb mansion with its three fortifications.

The 'jīvanmuktas' (souls who have no need of rebirth, but are yet with their causation bodies) are permitted to enter the outer fortifications of Vaikuṅṭha loka and to share the joys thereof. It was here, at the seventh inner gate, that Jaya and Vijaya were cursed by the four sages of tender age - Sanaka and the others. The binding force of Māyā is there. This part of Vaikuṅṭha gets destroyed during 'pralaya' and is reconstructed when a new universe is created.]

NINE OUTER ENVELOPES

(150 - 152)

The golden Brahmanda is the earthy envelope surrounding the universe. It is one hundred crore yojanas thick. Surrounding it

are nine other envelopes, each ten times bigger than its inner complement. They are the envelopes made of the subtle material principles - water, fire, air, sky, ego (ahamkāra tatva), intellect (mahat tatva), Tamas, Rajas and Satva. The fourteen worlds of the universe are all contained at the core of these envelopes. Such is our wonderful universe. But, with all its envelopes, it is so tiny that it is not enough to occupy fully a single hair-pit on the body of Lord Srīman Nārāyaṇa. Then, who else among the gods can stand comparison with Him? Let the learned ones find out.

[The universe, with its ten envelopes (including the earthy envelope of Brahmāṇḍa), measures 100000000050 crore yojanas. If this cannot fully occupy a hair-pit of Lord Nārāyaṇa, imagine his stature! This form of the Lord is known as 'Brihan Nārāyaṇa'. Hence it is said of him "Atyatiṣṭat dāsāṅgulaṃ". 'Angula' here means each one of the envelopes. The same Lord Nārāyaṇa is also in our fore-brain (cerebrum) with the name 'Vāsudeva'. Measuring from the chin upward with fingers held sideways, He is above the measure of ten fingers.]

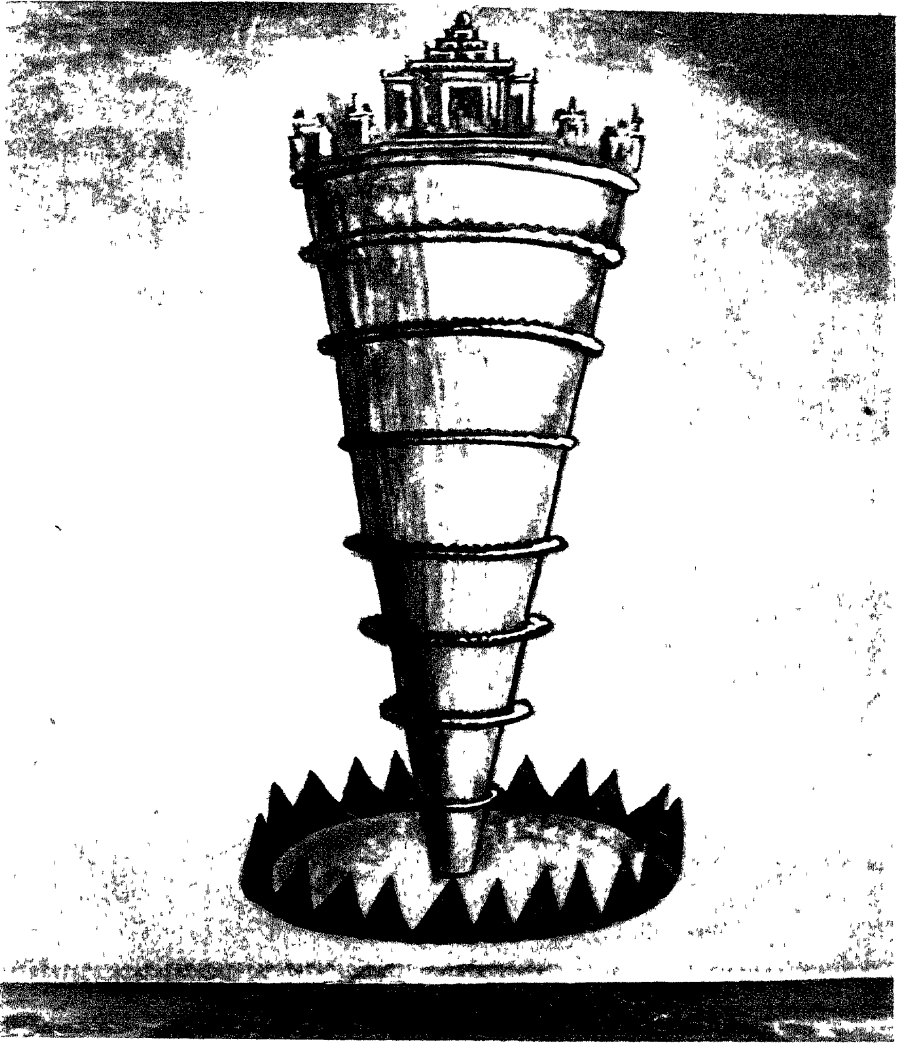
THE MERU MOUNTAIN

(153 - 163)

The golden Meru mountain is one lakh yojanas high. It is surrounded by the nine

Khandas (Varṣas of Jambū dvīpa). It is the abode of Siddhas (souls who have attained a high degree of perfection). For all measurements concerning the universe, the Meru is the central point of reference. This mountain is thin at the base and goes on broadening gradually towards its top which is quite broad. The mountain resembles the 'Unmatta' flower. At the surface base it has a width of 16,000 yojanas and it goes down into the earth to the extent of 16,000 yojanas. From the base upto the top, the Siddhas and yogis dwell.

At the top, the mountain has a width of 32,000 yojanas. It is round at the top and three sided at its base (like the cornered base of a nail). From the base to the top the mountain measures 84,000 yojanas. The circumference at the top is 96,000 yojanas (in round figures). There, in the middle, is the city of Brahma, known as 'Sātakaumbhi'. Its palatial mansions are beautified with rare gems. The city is 10,000 yojanas long and equally broad. There, the Gandharva chiefs, the prominent ones among the Siddhas, sages like Vāsiṣṭha and gods headed by Indra worship Brahma seated on the throne of gems. At the edges of the Meru top there are eight cities of the



“ Meru Mountain ” with Brahma’s abode at the top.

directional gods, one in each of the eight directions. The Meru mountain supports them all.

THE RIVER GANGĀ

(164 - 171)

River Gangā pours down constantly in the open courtyard of Brahma's palace such that he might use the waters for his 'Sandhyā vandana' (worshipping Sūrya Nārāyana thrice a day - morning, afternoon and evening). The other gods there, also use it. By Brahma's behest the river Gangā takes four courses to come down to earth from the Meru top and to purify the denizens here. Even now we can see it. The branch 'Sīta' joins the sea (Lavana Samudra) on the east. 'Alakanandā' pours into the southern sea and is quite famous as the purifier of the world. The branch 'Cakṣu' reaches the western sea and 'Bhadṛā' joins the northern sea. This river purifies those who use its waters in worshipful manner wherever they be in the four quarters (of Jambūdvīpa). The river was again brought to our earth in another form by the efforts of Bhagīratha. This river is called 'Mandākini' in the Himalayas. When it began to pour down in the Himalayan region, Śiva locked it up in the meshes of his knotted hair. (This was to mitigate the force with

which Gangā came down; hence the name 'Mandākini'). Being let down from the knotted hair and following Bhagīratha the fresh flow of waters joined the original course of the river; and after crossing the point at 'Devaprayāga', the river went down into the bowels of the earth to reach 'Kapila āśrama' in the nether world to sanctify the ashes of the 60,000 sons of Sagara cakravarti, burnt down by the angry look of Sage Kapila.

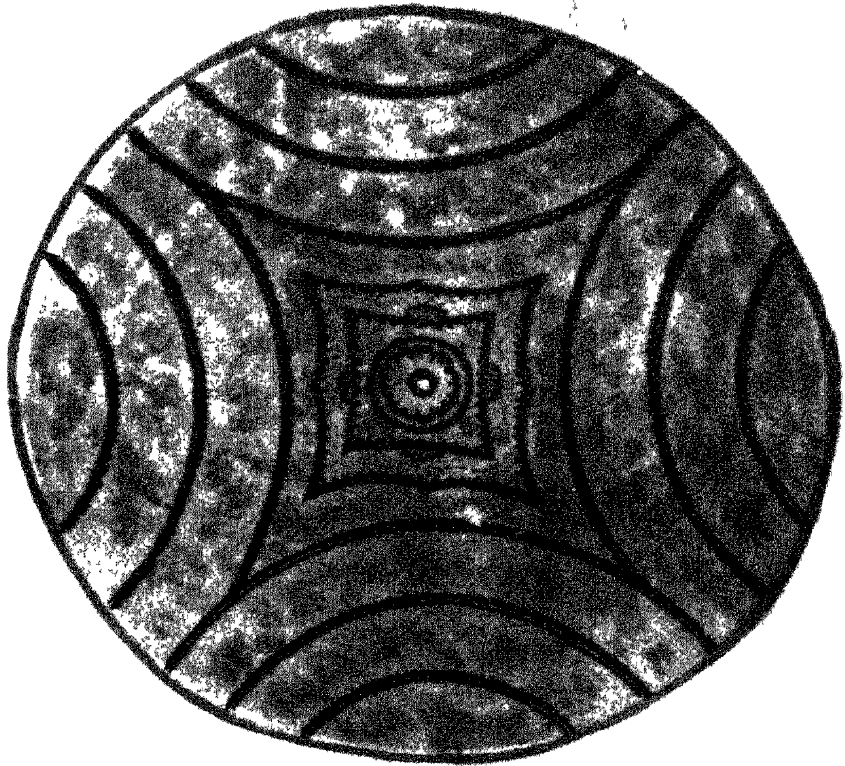
[The Gangā river flows in visible and invisible forms. ('Rūpāntarena vahati), it is also in the form of the stars of the Milky Way ('Ākāśa Gangā')].

ILĀVR̥TA KHANDA

(171 - 183)

This Khanda (Varṣa) spreads around the Meru base which measures 8000 yojanas from its centre, in every direction. There are four supporting mountains on each of the four sides around the base. These mountains are each 2000 yojanas wide and 10,000 yojanas high. Beyond these mountains there is a stretch of 5000 yojanas, and this makes up the 9000 yojanas from the Meru base.

The four supporting mountains are Mandara, Merumandara, Kumuda and Supārśva, in the four directions commencing from the east.



"Ground plan of Jambudvip.

"The Meru at the centre and the nine Varshas Ilavrita (Middle) Bhadrasha (east) Ketumala (West) Ramyaka, Hiranmaya and Uttara Kuru (north) ; Harivarsha, Kimpurasha Varsha and Bharatha Varsha (South) ;

There are four gigantic trees on the four mountains - Cūta (mango), Jambu (rose apple tree), Plakṣa (indian fig) and Nyagrodha (banyan) respectively. Each of these trees is 100 yojanas high and the spread of the branches is to the extent of 1100 yojanas. The fruits of the trees resemble mountain peaks.

The ripe jambū fruits of the tree upon Merumandara (south) drop down and the juice flows as the Jambū river. The juice spreading on its banks, when dried up, becomes the finest gold which is known as 'Jāmbūnada'. The divine beings, who visit this region, drink the juice and make different kinds of ornaments for themselves out of 'Jāmbūnada' (gold).

[Taking into account half of the Meru base and adding the width of the supporting mountain on any of the four sides, the total will be 10000 and there should remain another 7000 yojanas, not 5000, because the Ilavrta Khanda measures 34,000 yojanas from end to end. Perhaps, we have to allow a gap of 2000 yojanas between the Meru base and the supporting mountains (Kīlādris).

We should, however, make provision for another round of mountains, not mentioned in this text. According to Srīmad Bhāgavatam, there are eight mountains, each 9000 yojanas long; and two of them

placed on each side. Since they are compared to the 'Kuśa' grass bundles put around the sacrificial altar, each of the two mountains should be in a continuous line, with some gap or no gap between them. Evidently their location is within the range of 5000 yojanas indicated above.

Srīmad Bhāgavatam is the authoritative text which tells us about Cosmography; and information gathered from any other source should be in accordance with it. That is what Ācārya Madhva says

"Yathā bhāgavatetu uktam bhauvanam
kośa lakṣanam,
Tasya avirodhato yojyam
anya granthāntare sthitam"]

In this Varṣa we find only the fair sex moving about day and night. No male person enters it for fear of Bhavānidevi's curse. If any one trespasses, he is transformed into female form like Ila, the son of Manu. The female attendants of Gaurīdevi are one hundred million ('arbuda') in number. Śiva, along with Gaurīdevi, worships the form of Lord Samkarṣana, one of the 'caturmurtis' - Vāsudeva, Samkarṣana, Pradyumna and Aniruddha. Lord Samkarṣana is the **SUN**, brightening the hearts of yogis.

This Ilāvṛta Varṣa is bounded by four mountains on the four sides. On the eastern

side is the Gandhamādana mountain stretching between Nīla and Niṣadha mountains. It is 2000 yojanas in width. Of the same width, on the southern side, is the Niṣadha mountain. It stretches from the eastern ocean upto the western. (This refers to the Lavana Samudra around Jambūdvīpa). On the western side is the Mālyavan mountain, lying between Nīla and Niṣadha even like the Gandhamādana. On the northern side of Ilāvṛta is the Nīla mountain, as wide and as long as Niṣadha. Siddhas inhabit these mountains.

BHADRĀŚVA KHANDA

(183 - 193)

The eastern part of Jambūdvīpa is occupied by only one Varṣa, the Bhadrāśva. It stretches upto the ocean on the east. Bhadrāśravas, the son of Dharma, is there worshipping Lord Hayagrīva; and he is the ruler of that Varṣa. It is fully populated with his subjects. There are two other boundary mountains within the Khanda - Jaṭara and Devakūta, to the east of Gandhamādana. The two mountains extend between Nīla and Niṣadha, each being 2000 yojanas wide and 18,000 yojanas long. Barring the space occupied by the three mountain ranges (Gandhamādana, Jaṭara and Devakūta) the Bhadrāśva Varṣa measures 27 thousand yojanas from west to east. Although Bhadrāśva is a

single Varṣa, the two extra mountain barriers mentioned, have been created by the Omniscient Lord to maintain symmetry on all the four sides. A similar arrangement is there in the western Varṣa. With the two additional mountain ranges the Bhadrāśva Khanda is divided into three stretches, each nine thousand yojanas in width. It should be thus construed because it is said in the texts that each of the nine Khandas of Jambudvīpa is 9000 yojanas in width. Symmetry is thus maintained.

THE THREE SOUTHERN VARṢAS (193 - 208)

To the south of the mighty Niṣadha mountain lies the Hari Varṣa Khanda. It is 9000 yojanas wide. Here the great devotee, Prahlāda and the denizens of the Varṣa worship the Narasimha form of the Supreme Lord. The boundary mountain on the south is Hemakūta, 2000 yojanas wide and 10,000 yojanas high. (Its length is 10% less than that of Niṣadha. Therefore, it is 90,000 yojanas in length).

To the south is Kimpuruṣa Varṣa, 9000 yojanas in width. It is bounded on its south by the Himavān mountain, similar to Hemakūta in breadth and height. The length is less by 10,000 yojanas (in round figures) on account



“Bharatavarsha with Bharathe Khanda at the edge”

of the circular shape of Jambūdvīpa and the ocean surrounding it. Along with the inhabitants of the Varṣa, Hanuman (the greatest of devotees) worships Sri Rāmacandra, Lord of Sītādevī.

Then comes Bharata Varṣa (to the south of the Himavān mountain), having the same width as that of the neighbouring Varṣa. It stretches upto the ocean on the southern side. This is the Varṣa that provides opportunities for human beings to earn merit.

On a peak of the Himavān mountain, the sacred 'Badarikāsrama' is situated. Here, Nārāyana with Nara (Lord Nara-Nārāyana) is worshipped by expert yogis. Sage Nārada and the seven ṛṣis too worship Nara-Nārāyana, day after day. It is here too that the Lord in the form of Vedavyāsa is served by Ācārya Sri Madhva, the third 'avatāra' of Sri Vāyudeva. There are many other 'munis' following his example.

In between the boundary mountains, each of the three Varṣas is 9000 yojanas in width. The same concept holds good in the cases of the three northern Varṣas also. If it is not thus conceived, the measurement of 50,000 yojanas on every side from the Meru centre cannot be maintained. If the Ilāvṛta Varṣa is taken to measure 34,000 yojanas, each of

the two varṣas on its sides gets 27,000 yojanas allowing space for the boundary mountains. The same concept holds good in the cases of the three northern and the three southern varṣas, each being 9000 yojanas wide and the boundary mountains occupying 2000 yojanas each.

(9 x 3 + 2 x 3 = 33 thousand).

[The Himavān mountain referred to is the boundary mountain between Kimpuruṣa Varṣa and Bharata Varṣa - 2000 yojanas wide, 10,000 yojanas high and 80,000 yojanas long. But, the Himālayā mountain with which we are familiar is only 50 yojanas (300 miles) wide, 1 yojana (5.5 miles) high, and 330 yojanas (2000 miles) long. Its location is in 'Dandakāranya' of Bharata Khanda, which forms just a big lump at the edge of Bharata Varṣa, which has a width of 9000 yojanas (60000 miles in round figures). The Badarikāśrama and the Kilas in our Himalaya are only mini prototypes. Then, when it is said that Ācārya Sri Mādhva flew off from Anu Badari to Mahā Badari, it means that he took a jump from our Himālaya to the bigger Himālaya covering a distance of 96,000 k.m. This is nothing to be marvelled at in the case of our Ācārya who is the avatar of Vāyudeva, who enters into every one of the activities of this universe.]



·Bharate Khanda—oblique directions of satellites.

KETUMĀLA VARṢA

(208 -213)

On the western part of Jambū dvīpa there is only one varṣa, the Ketumāla (resembling the Bhadrāśva on the east). This extends upto the sea on its west. Here, Lord Viṣṇu is worshipped with the name 'Kāmadeva'. He is like crores of 'Manmathas' combined in one. (Manmatha and his spouse Ratīdevi are well-known for beauty). Our Lord's beauty is par-excellence.

The life-span of man on earth is limited to 36,000 days and 36,000 nights. There are as many (72,000) daughters of Brahma, lording the life-courses of human beings. They serve Sri Ramādevi who worships her Lord Kāmadeva with 'mantras' of which she is the life spirit and the meanings of which she is fully aware.

Here too, as in Bhadrāśva Varṣa, there are two extra mountains in proper positions, maintaining the 9000 yojanas measure regarding the widths of the Varsas. Pavana and Pāriyatra are the two mountains. Lord Sri Hari has created them to make the island look symmetrically beautiful.

[The last sentence of the above Paragraph speaks of the artistic sense of Saint Sri Vādirāja; and it also pays a humble tribute to Sri Mahā Viṣṇu, the Artist of artists.]

THE THREE NORTHERN VARṢAS

(214 - 224)

To the north of the Nīla mountain is the Rāmyaka Varṣa. This is also 9000 yojanas in width. Here, Vaivasvata Manu and the sages of the Varṣa worship Lord Sriman Nārāyana in His 'Matsya' (fish) form. The boundary mountain on the north is 'Śveta'. It extends between the eastern and the western oceans; and its length is 1/10 less than that of the Nīla mountain. Width is simialr.

To its north is the 'Hiranmaya Varṣa' and its northern boundary is formed by 'Śringavān' mountain. It also extends between sea and sea and is comparable to the 'Śveta' mountain in this respect. But its length is 10% less than that of 'Śveta'. There are many Siddhas and ṛṣis here. In this Varṣa the Supreme Lord is worshipped in His Tortoise form (Kūrma) by Aryama, the chief among manes, and by the other inhabitants.

Beyond Hiranmaya Varṣa is the Uttara Kuru Varṣa, inhabited by divine beings and ṛṣis. It extends upto the ocean on the north. With reference to its boundary mountain Śringavān, this Varṣa also has an extent of 9000 yojanas. It is like its counter-part - Bharata Varṣa on the south. Here, Lord Sri Nārāyana is always worshipped in His Yajna Varāha (Boar) form by Bhūdevi and the occupants of the Varṣa.

Hari varṣa and the other two to the south of Ilāvṛta varṣa are similar to Rāmyaka, Hiranmaya and Uttara kuru on the northern side. Each of these six varṣas extends from ocean to ocean, lengthwise.

[When it is said of a few mountains that they are inhabited by Siddhas and ṛṣis, it is indicative of the fact that all other mountain regions are similarly the abodes of sagely persons. In fact, there is not an inch of space in this universe which is not made use of for some purpose or the other. Every mountain, every valley, every river has its own presiding deity with assistants to provide amenities to the devotees of God.]

FOUR OTHER MINOR MOUNTAINS

(224-227)

On the eastern side of Himādri there is another Kailāsa mountain where resides the

three-eyed god Śiva, spouse of Umādevi. On the western side of Himavān there is the Karavīra mountain. In the same way there are two mountains on each side of Sṛṅgavān to the east and to the west. They are Tṛsṛṅga and Makara. Here too there are siddhas and ṛṣis in large numbers. With these four mountains the Meru appears to be strong with four arms.

[Mention of Kailāsa as a separate mountain where Śiva resides with Umādevi reminds us that Śiva's abode is in several parts of the universe, discharging various functions to bless the beings and to earn merit for himself to a very high degree. He resides at the Kailāsa peak of the Himalayas of Bhāratadesa, at the Kailāsa mountain right now mentioned, at the foot of the Meru mountain and Tapoloka above. We should know that he resides in all these places simultaneously and not frequently. Divine personage are capable of being at different places at the same time with their fractional spiritual parts, having the fullness of the original for all purposes.]

LAVANA SAMUDRA

(227-229)

The Jambūdvīpa is vast containing as it does the nine varṣas. Having the golden Meru mountain at its centre, it is the midmost island, with a diameter of one lakh yojanas. It is surrounded by the 'Lavana

Samudra' (Ocean of brackish water), the width of which is also one lakh yojanas (six lakh miles in round figures.)

[Before proceeding further to learn about the other six islands surrounding Jambūdvīpa, it is necessary to have a clear concept of Bharata Varṣa and Bharata Khanda which form parts of that island. We know that Bharata Varṣa is the southernmost division with the bigger Himālaya as its northern boundary and having a width of 9000 yojanas (55,000 miles).

Jambudvīpa should be considered as being basket-like in shape for obvious reasons. It has an altitude of one lakh yojanas. This statement may be supported by the following argument -

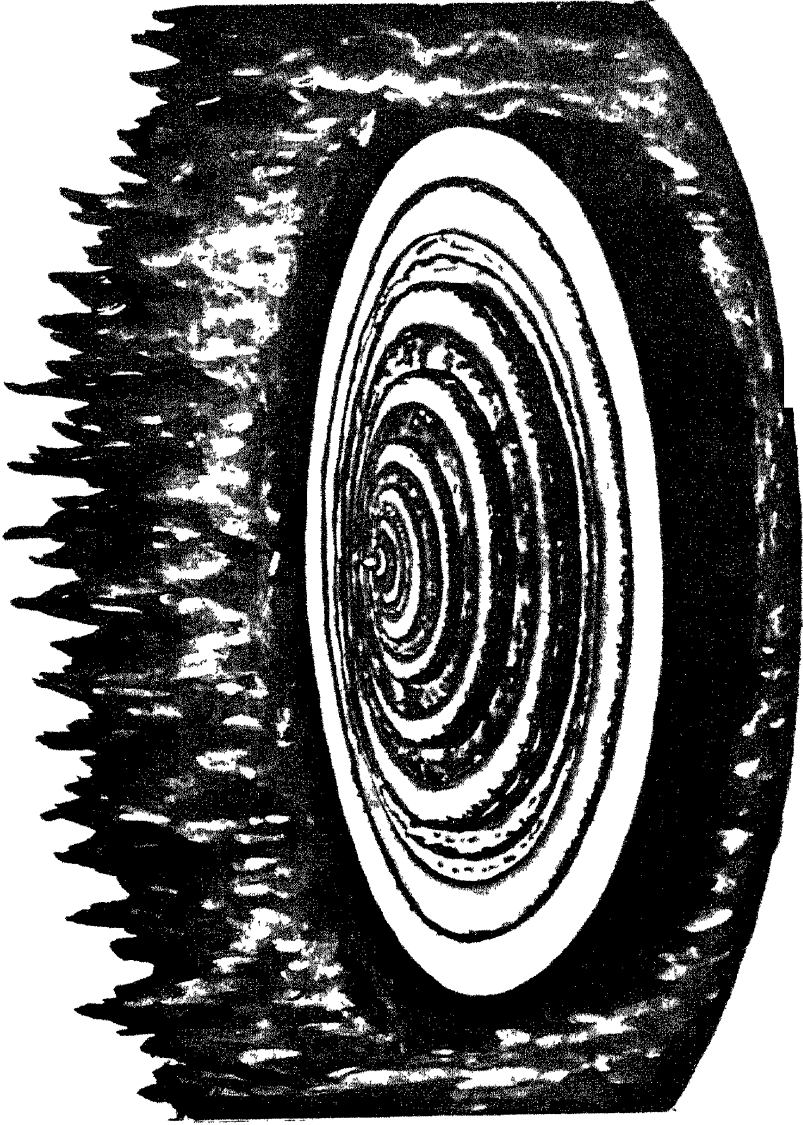
The island is circular. The orbits of the sun and the moon are almost in line with the Equator of Bharata Khanda, our globe. This is corroborated by the words of Śrīmad Bhagavatam which speaks of the sun's 'Udagayana' (northern course), 'Daksināyana' (southern course) and 'Vaisuvadayana' (course corresponding to the celestial equator). The orbit of Rahu is said to be 10,000 yojanas (60,000 miles) lower than that of the sun. Birds like garuda (white-breasted eagle) and swan and syena (hawk) are said to fly in regions still farther down below. All these are not possible if the entire earth, 30,000,000 miles wide, should be entirely flat. It must therefore have higher and lower parts, Jambūdvīpa being at the highest level. Our globe, Bharata Khanda, is perched

at the southern edge of the basket-like Jambūdvīpa. It is not a planet going round the sun. This concept is substantiated by the statement of one, Sri Anantharamu of Bangalore, who had joined the crew of the first Indian Antarctic expedition. He says that the south pole region projects downwards like a cone. He also says that this region has not been properly surveyed. Therefore it is indeed a fiat lie to say that the south pole region is slightly flat like north pole region.]

THE OTHER SIX ISLANDS

(230 -241)

Surrounding the Lavana Samudra there is the 'Plakṣa' island (which is so called because it abounds with Plakṣa trees - indian fig trees of gigantic size). It is double the width of the ocean of brackish waters (two lakh yojanas). Of similar width is the 'Ikṣu Samudra' (ocean of waters with the taste of sugarcane juice) around Plakṣadvīpa. It is populated by Siddhas (the highly qualified souls). Around it is the 'Sālmala dvīpa, four lakh yojanas in width and the 'Surā Samudra' (of wine-like waters), of the same width, spreads around it. After that is 'Kuśadvīpa' (where Kuśa grass clusters grow very very tall like blazing pillars). It has double the width of 'Sālmala dvīpa'. It is surrounded by 'Sarpi Samudra' (ocean of waters with the qualities of ghee) having the



“Seven islands and seven oceans, surrounded by Loka-aloka Parvata”.

same width. Then we have 'Krauncha dvīpa' (which derives its name from the mountain of the same name). This island and the 'Dadhi Samudra' (with waters of yogurt quality) have double the widths of their inner complements. Each of these is 16 lakh yojanas wide. The next is 'Śāka dvīpa' surrounded by 'Kṣīra Samudra', (ocean of milk-like waters), each 32 lakh yojanas in width. The last of the seven islands is 'Puṣkara dvīpa' (island of huge lotus flowers of gold), 64 lakh yojanas wide. It is surrounded by the ocean of pure waters - 'Subhodaka Samudra' having the same width. The entire earth is surrounded by the land of gold - 'Hema bhūmi', along with the adjoining land of diamond - 'Vajralepa'. The Lokāloka mountain goes round the whole stretch of earth described so far. The limit of the earth is marked by this mountain ring. In this way the earth spreads round the Meru centre on all sides and it is there to provide all the needs of living beings including the divine class, the sages, the manes, the sovereigns as well as human beings. This earth provides happy conditions to one and all. The presiding goddess, 'Bhūdevi' is most dear to Lord Sri Nārāyana. The earth is plentiful with all kinds of plant life and holy forests, crowded with the hermitages of 'munis' (sages). Rivers with ~~holy~~ waters are also there. Mother earth keeps the living beings happy and contented.

There are rich mines containing precious and useful metals and the rarest gems. It is for this reason that the earth gets its name 'Vasundharā'. She is indeed the mother of the world displaying proverbial quality of forbearance. Being seated on the lap of Lord Varāha, she looks quite pretty.

[Saint Sri Vādirāja has given a breif but precise description of the features of Brahmānda, not with a view to duplicate the details found elsewhere; but it is to say things without leaving room for doubts regarding locations, measurements and such other things. The way in which the text is prepared indicates that there must have been a good deal of confusion in the minds of the learned men of his days. He has removed misapprehensions in the clearest manner. In a concluding verse he himself says that it is so. "Vakyārtha kathana vyājāt bhūgolam iti varnitam".]

KĀLA CAKRA (THE TIME WHEEL)

(242 - 256)

The limitless Time (Mahākāla) is rendered possible to be reckoned by the human beings since it is made countable as 'ghatika', day and night, 'Pakṣa' (fortnight), 'Māsa' (month), 'Ṛtu' (season) and 'Ayana' (course of six months) and, finally 'Varṣa' (year). The wonder-working Lord has formed this 'Kāla Cakra' in order to create facility for the courses of the nine planets, the Rāsis

(constellations of stars), the 'Tārās' (stars), the seven sages (Saptarṣis) and the divine, dazzling star-like vehicles of Gandharvas, Siddhas and the merited human souls. The courses are located differently in space and the Lord holds them all in their courses at all times. The courses are all circular at different distances and altitudes, and they look quite brilliant with the lustre of rare gems. The courses are thousands and thousands of yojanas apart. The wheels of the 'Kāla Cakra' are twelve - nine for the nine Planets, one for the 'Saptarṣis', one for the stars and one for the 'Rāsis' (constellations). The knowers of scriptures call this as 'Kāla Cakra'. Since the 'Hemanta' and the 'Śiśira' seasons are considered together, the Cakra is considered as having five spokes; and, with reference to the twelve months, it is also said to be having twelve spokes.

Since the mechanism helps the counting of time divisions, it is known as 'Kāla Cakra'. The 'Vāmana sukta' speaks of 'Dvādaśāra' and 'Pancāra' only for the said reason. This Kāla Cakra extends over crores of yojanas in the wide wide sky.

Above the Meru mountain, the Supreme Lord, in the form of 'Śimśumāra' (the scorpion

form) stands to a height of 36 lakh yojanas, with his pretty face turned downward and his tail end held up to touch the 'Dhruva Mandala' (Pole star orbit). The body of this form is ringed in the middle and the tail part goes up. The brilliance of this form of Lord 'Simśumāra is much more than that of a thousand suns. It is He who makes the Time Wheel to go round and round as if it is a part of Himself. The main shaft-like powerline has its starting point atop the Meru mountain and extends outward to the extent of crores of yojanas.

[Although Time is an abstract concept, yet it is some thing. According to Grammar, whatever can be thought of and named is a thing; it need not necessarily be material by nature. As such, Time is something although it cannot be perceived by our external senses as material objects are perceived. Modern thinkers say that it has no local standing except in the relative sense of being taken into account as deciding the order of events as past, present and future. But, even as they themselves predict, the present universe will meet its end only to recreate itself. That means that the order of events, parts and wholes, continue to be and they have their pasts, presents and futures. Therefore, the sense of Time is eternal. If the concept of Time were not separate from the events, we could only think of events and not of their sequence. Therefore eternality, in its abstract sense (apart from events), is undivided and

inconceivable; but yet, it is there. It is known as 'Mahā Kala'. This Maha Kala cannot be recognised as such by us; but, the Omniscient eternal Co-ordinator of all things knows it as some thing that is.

Even during the period of 'Mahā Pralaya', when the present universe is consumed and another is yet to be created, the things to be created - causal matter and spritual entities, remain in the womb of 'Bāla Kṛṣṇa' lying upon the banyan leaf like an innocent child. Mukhya Prāna, the would-be Brahma, carries on the function of respiration in the spiritual bodies of the other souls, who are awaiting further courses of training for liberation. The process of respiration is by repeating 'Hamsa mantra',; not by means of physical air. When Mukhya Prana completes 21,600 repetitions of the mantra, it covers a duration equal to one human day of 24 hours. Thus Mukhya Prana too knows the passing of Time by the grace of the Supreme Lord - The Co-ordinator of all. The period of 'Mahā Pralaya' is recognised as being equal to the life-span of a Brahma, which is known as 'Para' (864,000000 x 360 x 100 human years). With reference to the Supreme Being, ParaBrahma, this 'Para' period is something like a night of 12 hours. When this night is nearing its end, when an hour and a half is still remaining, (12 1/2 years of Brahma's life-span), Sṛīdevī, the eternal spouse of Lord Sri Nārāyaṇa, assumes her 'Durgā' form and praises the Lord with the hymns of 'Śrutigita' entreating the Lord to begin the creation of a new world for the sake of the souls to be released. Oh,how kind is that Mother of the universes!

During the period of creation, the same Mahā Kala, running like a continuous stream, presents itself to be recognised in the form of the Time Wheel giving room for the movements of the planets and enabling human beings to take note of the passing of time in its fractional parts like moments and its wholes like hours, days, months and years. Thus we see that Time is a separate abstract something, flowing eternally like a stream, during the passage of which events occur. Therefore Time is not dependent on its relation to the occurrence of events. In fact, in a way, every thing else depends upon Time; or, Time is almost synonymous with the Will of God. It is the Will of God that orders the events of the universe.

The grand-old-sire, Bhismacarya, pointed out at Sri Kṛṣṇa sitting with the Pandavas before him as he himself lay resting upon the bed of arrows, and said to Dharmaraya, "the events of this world are all ordered by the Time factor and that is no other than the charming personality of Kṛṣṇa sitting before us.

It is also interesting to note that 'Mukhya Prāna' and 'Garuda', born of him, are also in charge of 'Kāla' (Time) and they too go by the name 'Kāla'. There is yet another who goes by that name; and that is 'Yamadharma', god of death. He knows when to send for the living beings to have a tryst with him!

In the description of the Kāla Cakra given by Saint Sri Vādirāja we see that there are star-like devine vehicles distinct from the 27 star groups and

the constellations. They are said to be crores and crores in number and crores and crores of yojanas apart. Certainly, our Saint did not use a modern telescope, nor did he use electronic methods for computing numbers and distances. Yet, here is the truth about heavenly bodies. Vedic information is correct. Modern findings, though approximating Vedic truth, are nevertheless faulty to a large extent. Suppose a star-like vehicle of a Gandharva king's servant is following the starlike vehicle of the Master. The two being different in brilliance, how can the scientist distinguish them precisely? Evidently his calculations will be erroneous.

The mention of 'Dhruva mandala' suggests that the seemingly motionless Pole star has its own very small local orbit. The word 'Mandala' is suggestive.

Scientists do not know how the celestial bodies acquired their motions at unimaginable velocities. They simply call it 'constant velocity'. Why and how, they cannot tell.

But, as the wise Einstein has opined, there must be a universal coordinating spirit directing the events of this universe with their spatio-temporal relationships. Here is the actual description of the coordinating factor.

Lord Śimśumāra, with head down and tail up, turns round and round like a gymnast right above the Meru axis and, projecting shaft-like power lines from His

body and with power lines from Pole Star Point, controls the movements of all celestial bodies. Lord Śimśumāra gradually lifts the Kāla Cakra up during a period of six months and lowers it during the next six months making the Sun's chariot cross the Equator northward and southward, as also making the moon and the Rahu planet to keep pace with the sun. The seasons occur for this reason; and the earth need not go round the sun with inclined axis as the too clever Copernicus suggested.

Srīmad Bhāgavatam clearly points out how the Time Wheel is lifted and lowered when it speaks of 'Udagayana' (the northern course), 'Daksināyana' (the southern course) and 'Vaiṣṇavadayana' (equatorial course). 'Viṣṇuvad rekha' means the Equator. This also suggests that Bharata Khanda is indeed globular in shape.

The same V Canto of Srīmad Bhāgavatam tells us about the extensions of 'Candra mandala' and 'Rahu mandala' saying that the extension in the case of the Sun is 10,000 yojanas; and it is 12,000 (dvadasa), in the case of the moon and 13,000 (trayodasa) in the case of Rāhu. Pandits misconstrued the words 'dvādaśa' and 'trayodaśa'. Vijayadhvaḥja ācārya, an authoritative commentator, following the verdict of Ācārya Sri Madhva, has said that 'dvādaśa' means 'dvidaśa' - twice ten, i.e. twenty; and 'trayodaśa' means 'tridaśa' - thrice ten or thirty. Pandits also made the mistake of confusing the word 'mandala' to mean the orb instead of its orbit.

The correct interpretation is as follows

- The extension of the sun's course is 5000 yojanas to the north of the celestial Equator and 5000 yojanas to the south of it. Hence the extension of 'Sūrya mandala' is said to be 10,000 yojanas. Similarly, to keep pace with the sun in the northern and the southern courses, the extension of the moon's course is 10,000 yojanas up and 10,000 yojanas down, and the extension of Rāhu's course is 15,000 north and 15,000 south. (Some say it is 20,000 and 20,000 - 'dviguna').

Apart from the annual northern and southern courses, the moon has also northern and southern courses every fortnight. This may be seen by any one by observing the moon's position in the sky night after night.]

THE MAIN WHEEL (DHĀRA) OF KĀLA CAKRA

(257 - 265)

There is one horizontally placed wheel of gold (not the gross material gold with which we are familiar), located just above the Mānsottara mountain in Puṣkara dvīpa, the outermost of the seven islands. This wheel always goes round and round and it is meant to take the entire Kāla Cakra with it.

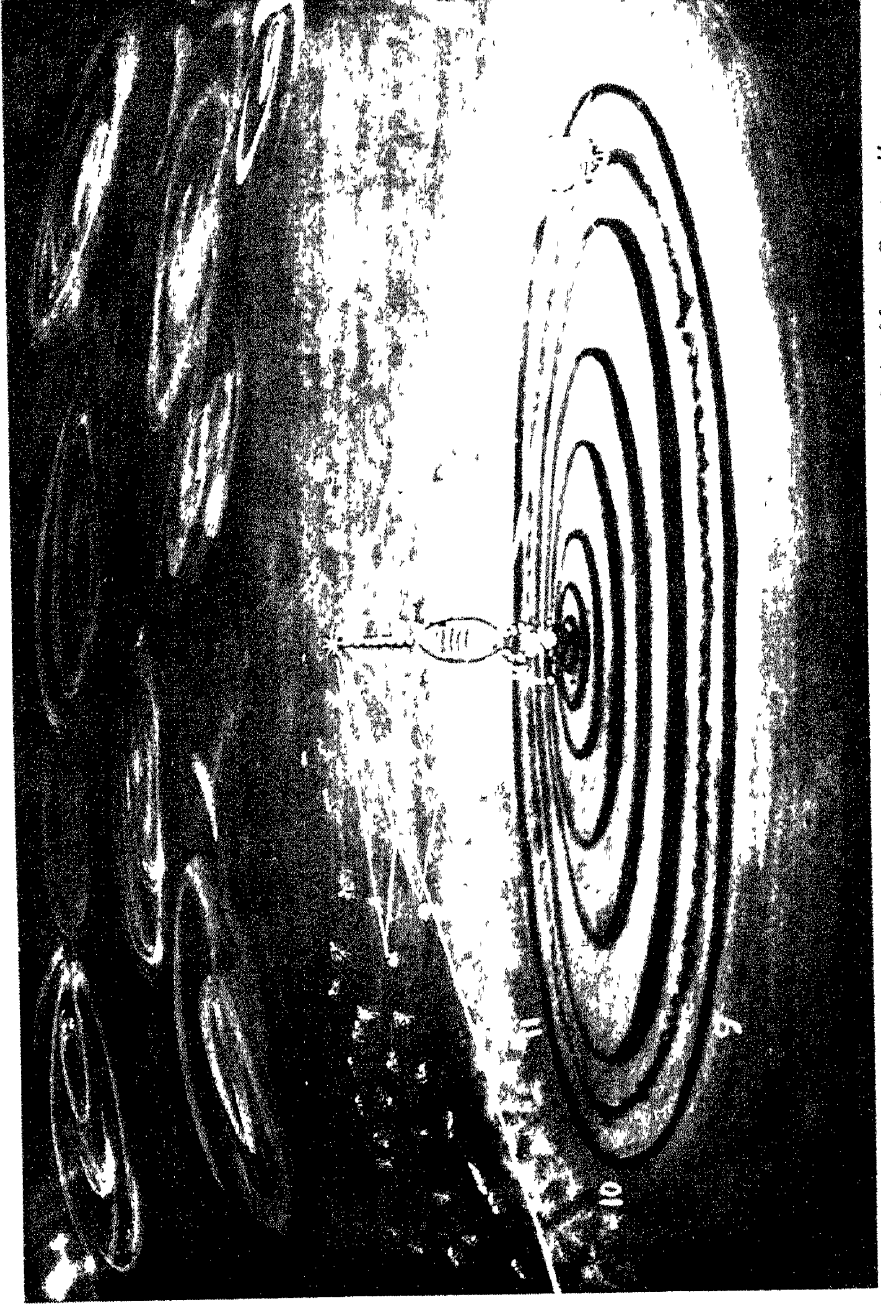
[Every heavenly body has its own wheel forming part of the Kāla Cakra to go round along with it, but with varying velocity. The entire Kāla Cakra may be

compared to an open umbrella with its apex at the Pole Star and its base at the main wheel.

Saint Sri Vādirāja refutes the arguments of the so called learned men of his days who maintained that the said main wheel was meant for the sun's movement only. He argues how it would be possible for one and the same wheel to go both slow and fast at the same time. Therefore, he says, that the sun's chariot has a wheel of its own apart from the main wheel of the Kāla Cakra which is meant to take the entire mechanism with it. Since it is studded with stars and star-like bodies, it is known as 'Jyotiścakra'. This wheel moves because Lord Śimśumāra moves it.]

Our saint asks, "How can the horses running upon the main wheel, dragging the sun's chariot, also make the wheel to move with them? Also, how can we account for the slower movement of the sun's chariot as compared to the faster movement of the Time Wheel? In the world of mechanical devices we are familiar with two wheels - one horizontal and the other verticle upon it for two kinds of movements simultaneously. The same rule should be applied here also.

[Should we not marvel at the engineering knowledge displayed by our saint? It is from the Vedic store; not from modern scientific findings and appliances.]



“Kala Chakra - ‘The Time Wheel’ - Sun’s path around the Meru Centre.”

The movement of the sun's chariot is similar to the movements of the other celestial chariots - those of the planets, the stars and the like. Every one of these chariots has its own circular golden path befitting it.]

THE SUN'S CHARIOT (266 - 295)

Upon the main wheel of the Kāla Cakra runs the sun's chariot drawn by seven horses. This chariot has only one wheel and its course upon the Kāla Cakra is right above the Mānsottara mountain ring. This is also of gold, brightening every direction with the brilliance of gems. The diameter of the circular course is many many yojanas and it is held dear by Lord Sri Hari.

The Kāla Cakra or Jyotiścakra is comparable to a huge chariot; and it is motivated by Sri Hari in His Śimsumāra form. Day after day it moves with great velocity, having the Meru mountain at the centre. This Kāla Cakra covers a distance of nine crore and fifty one lakh yojanas every day, taking the stars and planets along with it. The changes in seasons - cold, warm and hot, occur on account of this Jyotiścakra. (This is due to the northern and the southern courses manipulated

by the lifting and lowering of the Time Wheel by the tail end of Lord 'Simsumāra). Because of the three seasonal changes effected, this Cakra is said to consist of three sections of its hub ('Trinābhi'). This Cakra (main wheel) itself is made to run without the need of horses to draw it; hence it is called 'Anarva' (Horseless). But, as it makes use of seven modes of learning, it is also said to be drawn by seven horses (This is in a metaphorical sense); and the seven horses are also considered as one. The Cakra is said to be drawn by seven horses or seven-in-one because of its fast motion resembling the gallop of horses. But it should be remembered that this Cakra (main wheel) is different from the sun's chariot which is indeed drawn by seven horses.

[This description shows evidently that Saint Sri Vādirāja is refuting the wrong view held by the other pandits who were confusing the Kala Cakra with the sun's chariot. Another point to note is this - It is said that the main wheel of the Kāla Cakra, upon which the sun's chariot runs, covers 9 crore 51 lakh yojanas in a day. It means that the circumference of the wheel is also 9,51,00000 yojanas. Therefore, its radius will be $9,50,00000$ miles in round figures ($9,51,00000 \times 6.06 / (21/7) \times 1/2$); and the distance between us and the sun is the same. Compare this with the modern astronomical figure, 9,30,00000 miles. Is it not something to wonder at?

Our saint anticipates objections and gives proper answers as can be seen in the following explanation.]

The Kāla Cakra extends from the Meru centre to the mid part of the Mānasottara mountain and reaches right upto the Pole star above. The 'Śvetadvīpa Abode' of Lord Sri Nārāyaṇa is located in the Milk ocean, within the bounds of the Cakra. The objection would be, 'How can the Cakra pass through the Abode of Svetadvīpa without obstruction?' The answer is that just as the all-pervasive Viṣṇu (the proprietor of the sky and the sky itself, it being known as 'Viṣṇupada') does not obstruct the movements of the heavenly bodies, so also the Śvetadvīpa Abode stands as no obstruction.

GHATIKA AND MUHŪRTA

(277 - 288)

The statement that day and night are equal to thirty, thirty means that they are equal to the periods of thirty 'ghatikas' each. In word-compounding in Sanskrit language there is what is known as 'Lupta madhyama samāsa' - missing the middle term in compounding the words. (Similar is the case in question. The missing word is to be understood from the context. Therefore, 'thirty' here means thirty ghatikas). A 'ghatika', then, will be equal to 24 minutes

(12 x 60 /30). The 'ghatika' concept is there to arrive at the concept of 'Muhūrta' which is reckoned for going through auspicious rituals (2 1/2 ghatikas = 1 Muhūrta. 24 x 2 1/2 = 60 minutes. Here we find the 24 hours-a-day concept). It is thus to be conceived cleverly, not simply clinging to the word meaning. This is the verdict of the Divine Lord Vedavyāsa.

This almost equal division of day and night of 30 ghatikas each is true only when the sun is in conjunction with the 'Tula' (Libra) and the 'Meṣa' (Aries) constellations. These two months do not clearly witness the increase or decrease in the durations of day or night. During the months 'Tula' (Libra) and 'Meṣa' (Aries), a day consists of 12 muhūrtas; and twelve muhūrtas make a night. When the sun's position goes on changing towards the upper five or the lower five constellations, the durations of days and nights also vary. It is for this reason that Sri Śuka Maharṣi said in Srīmad Bhāgavatam that the twelve muhūrta concept should not be applied to months other than 'Tula' (Libra) and 'Mesa' (Aries).

[For those in the northern hemisphere, duration of day time goes on increasing as the sun migrates northward from one 'rāsi' to the other, commencing from 'Vṛṣabha' (Taurus); and the duration of nights

increases as the sun goes southward, commencing from 'Vṛścika' (Scorpio).

Here we have the clearest indication to say that our ancients knew our part of the earth to be a globe; and that was unlike the Greeks of Ptolemy's time who considered it to be flat and round like a rupee coin. However they were not entirely wrong because the wide wide earth upto the sweet-water ocean 'Śuddhodaka Samudra' - a stretch of 30 crore miles, is certainly round like a rupee coin although not fully flat. The Greeks and the other learned men of the Middle East had forgotten all about this wide invisible expanse of the earth and they mistook our part of the globular earth to be flat. Why, for that matter, even most of the oriental pandits of our own times have such wrong notions. They must revise their opinions by learning to read between lines. How this should be done, I will illustrate with two examples.

- (1) Jambūdvīpa should be considered as being basket-like in shape because, it is said that the sun, the moon and the stars do not shed their lights in the Ilāvṛta Varsa, the middle most region.
- (2) The moon's chariot should be located not too far from our globe as in the case of the sun just because it is said that its course is one lakh yojanas above that of sun. Śrīmad Bhāgavatam clearly states that the moon's chariot is above the rays of the sun, not above the sun.

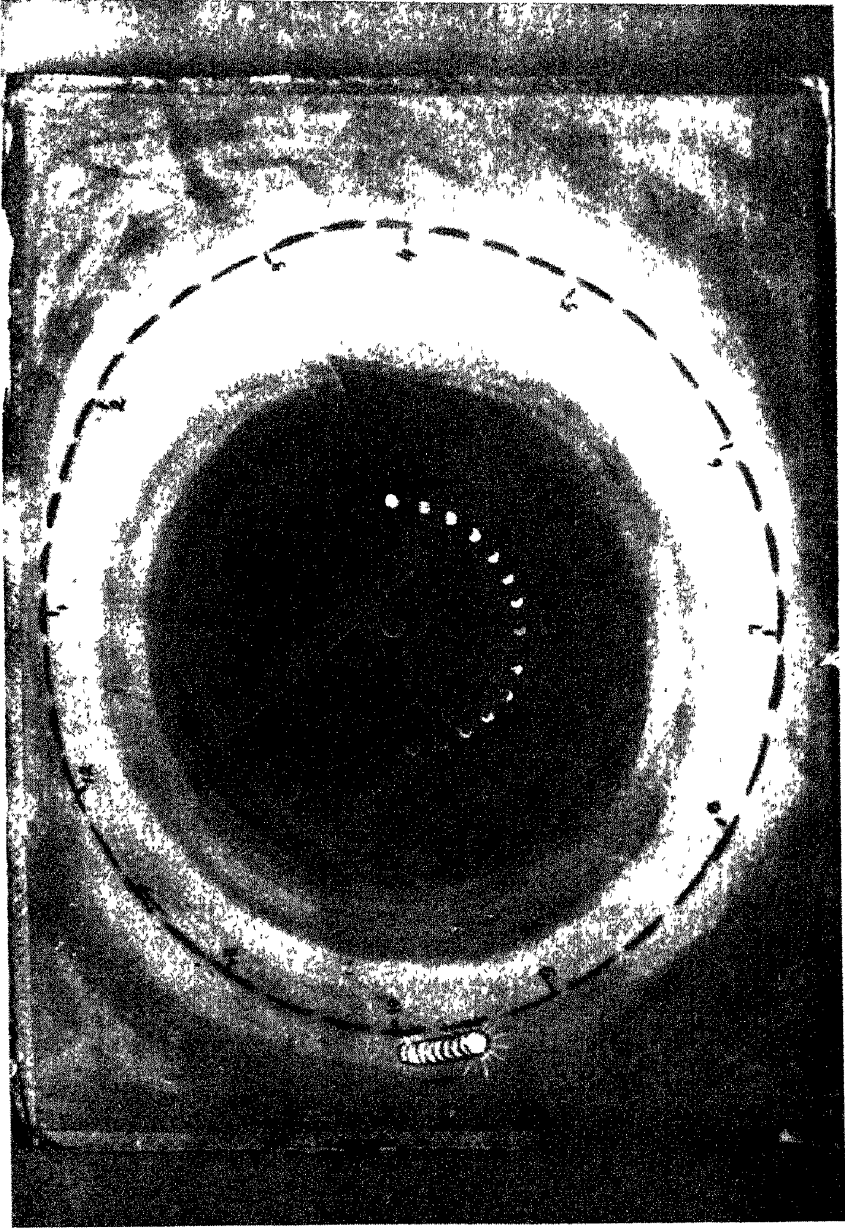
But our pandits miss the meaning of the words 'arka gabhastibhyaḥ upariṣṭat', meaning, above the rays of the sun.]

MOVEMENTS OF THE PLANETS

(288 - 294)

The Sun's chariot covers a distance of 34,00800 yojanas in a muhurta, this being its velocity day after day. In this way, the total distance covered will be 8,16,20000 yojanas (to the nearest thousand).

[However, this still falls short of the distance covered by the supporting wheel of the Kāla Cakra, which is 9,51,00,000 yojanas. This falls short by 1,33,80,000 yojanas. But the position of the sun with reference to the constellations will be just 1 degree behind. The Kala Cakra will have gone 1 degree further than its starting point along with the constellations when the sun reaches the starting point in 24 hours. This is like a person walking forth in a moving train, in the the same direction, from the last carriage upto the first one near the engine. Let us say he will have covered 1000 feet by walking. But, actually, he will have covered the distance travelled by the train plus the distance covered by walking. If he were just sitting in the last carriage, he would have covered only, say, five miles when the train had covered that distance and stopped. But, in the said instance, he will have covered five miles, plus 1000 feet.]



Retrograde movements of the sun and the moon , and the phases of the moon.

This is what Sri Śuka Mahārṣi has said about the lagging of the sun's chariot. Hence there is no contradiction involved in his statement.

The sun's chariot, along with 'Aruna' and the seven horses, is at an altitude of one lakh yojanas above the earth. Moving slower than the Kāla Cakra, the sun touches the constellations behind, gradually, one after the other. The constellations move faster, almost with the same velocity as that of the Kāla Cakra. They too lag to a slight extent, but the sun's lagging is perceivably more. This is known as 'Vāmagati' (retrograde motion). The sun takes one month to cover each constellation by the retrogression, as it were.

THE OTHER PLANETS

(295 - 309)

The moon's motion being much slower than that of the sun, it remains far behind the sun every day; and by its quick retrogression every constellation is covered just in 2 1/2 days. The velocity of the moon's chariot, therefore, exceeds that of the sun so far as retrograde motion is concerned.

'Guru' (Jupiter) takes one year to cross each constellation by retrogression. Similarly, 'Sani' (Saturn) takes two years to touch each successive constellation behind. Its velocity being slower than that of the other six planets, the name 'Sanaiscara' (slow-mover) is appropriate.

In this way, the movements of the planets are said to be in the backward direction. (But, that is with reference to the constellations). This backward movement resembles that of an ant going round upon an oil machine wheel in the same direction. During every round it finds itself more and more backward with reference to the hub at the centre. (The fact to be noted is that the ant does not move backward; but it only falls behind; and this is like going backward with reference to a companion starting at the same point as another, but out-stripping the latter and making that other to fall behind).

If all the planets really move in the backward direction, at sunrise we can see the back of the Sun god instead of his front; and how then is it possible to offer him 'arghya' (water to wash his hands)? Therefore, the movements of the planets must be understood only as explained by us. It is in agreement with what is said in Srīmad Bhāgavatam, stating that the Sun keeps the Meru mountain

both to his right and to his left as he moves upon the Kāla Cakra in the same direction. We should also know that the deities of the planets do not misbehave by circumambulating Lord Śimśumāra in the wrong direction. They do certainly go one full round along with the Kala Cakra every day, keeping the Lord (and the Meru below) to their right. -They also fall behind with reference to the Kāla Cakra itself on account of their lagging; and this is as if they are keeping the Lord to their left.

A thick shaft of gold, projecting from the Pole star point, holds the mechanism of the Kāla Cakra in position without allowing it to drop down upon the earth.

The deities in charge of the constellations, who determine the 'ghatikas', have greater velocities while moving upon the Time Wheel; but the planets are prone to fall behind.

PLANETS RĀHU AND KETU

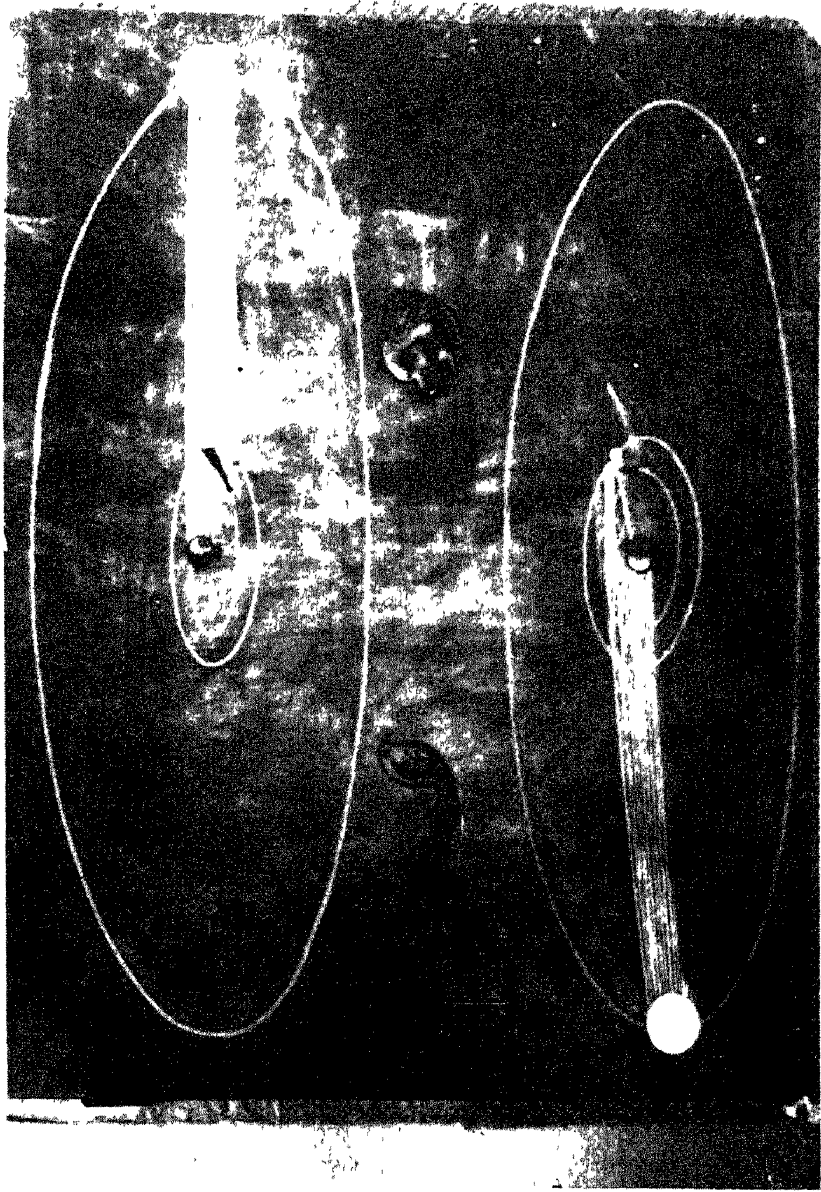
(309 - 320)

The Rāhumandala (the route of Rāhu's circuit) is situated upon the lowest wheel of the Kāla Cakra, at an altitude of 90,000 yojanas above the earth (10,000 yojanas below the level of the sun's path). The planet Ketu, with a hundred tail-like projections,

is also at the same spot (It is as if the two planets are twins whose bodies are joined together, back-to-back). The glorious Lord cut off the head of the demon Rāhu (as also the head of Ketu) when he attempted to share nectar stealthily at the time of 'Amṛtamanthan'. The heads of the two demons have occupied the status of planets having just tasted a few drops of nectar. They are there only to torment the sun and the moon. However, their spiritual presence in the planets is negligible. The oblations offered to Rāhu and Ketu are accepted by divine presences dwelling in those two planets; and the Lord Himself accepts the offerings through those divine presences and blesses the worshippers.

The Sun's route lies on a different wheel of the Kāla Cakra, one lakh yojanas above the earth. He is there to bless the world with his bright auspicious rays. On another wheel, one lakh yojanas still higher, the moon moves upon its own path.

On the occasions of eclipses, the sun and the moon face each other, moving as they do on their own paths. On the new-moon day they are towards the same constellation; and on full-moon days too, they face each other being exactly towards opposite constellations. If Rāhu also takes position at similar



“Solar and lunar eclipses, Sun’s rays or moon’s rays cut off by the black jet proceeding from Rahu”

longitudes, then an eclipse takes place. What is known as 'Pancagraha yoga', also happens under similar conditions (Five planets ranged towards a common constellation).

[Rāhu is a black planet below the level of our part of the earth. Ketu is dark-brown in colour. Their path is 10,000 yojanas lower than the path of the sun; not exactly down below the sun. Similarly the moon is one lakh yojanas higher; but not right above the sun. According to the Puranas, the moon's path lies above the 'Lavana Samudra' surrounding Jambūdvīpa. It is thus to be construed because it is said that there is an island called 'Candra dvīpa', within the area covered by the moon's orbit, 4000 yojanas away from Jambūdvīpa and that it is 1000 yojanas wide. It is also said that the Gangā waters coming down from the cleft in Brahmanda, washing the uplifted left foot of Lord Trivikrama, reached the several upper worlds and ultimately touched the top of the Meru mountain; and as it did so, it covered the 'Candra mandala', which extends downward from the breast of Lord Simsumara and covers the area enclosed by the moon's orbit. This would be possible only if the moon's orbit were somewhere above the 'Lavana Samudra' and not at all if it were right above the sun's path.

Since Rāhu and Ketu pester the moon also by cutting off the moon's rays coming to us, their planet should be nearer to our earth than the moon.

We may thus note how the Puranas have located the Sun and the Moon at distances of 9,30,00000 miles and 2,50,000 miles away from our globe respectively. Just because some learned men misinterpret things, we should not try to find fault with the Puranas without proper understanding. For instance, the greatest oriental religious adventurer, Srila Prabhupada, the sponsor of the 'Hare Krsna' movement, has said that it is not possible to believe that astronauts landed upon the Moon because that planet is crores of yojanas away being located one lakh yojanas above the sun. He has also said that the astronauts must have reached only a nearer planet like Rahu. This is against the version of the Puranas as well as against the modern findings by geometrical method.

It is strange that the staunch followers of religious teachers believe implicitly whatever those teachers say without using discretion. Although all scientific guesses may not be correct as in the case of stellar distances, we should attempt to harmonise rational findings with puranic facts. For example, the distance between our earth and the sun is said to be 950 lakh miles (approximately) both in the puranas and in our geography texts.

Coming to the occurrence of eclipses, we have to disagree entirely with the views of modern astronomers. Rāhu and Ketu are the slowest in motion taking about 18 years to cover each constellation by retrogression while moving also forward along with the Time Wheel. Therefore, they often meet the sun or the moon

at the same longitudes. They are not merely nodes or crossing points of the paths of the sun and the moon. The planet of Rāhu and Ketu is actually there. Modern astronomers have not turned their telescopes towards that planet; or perhaps, it is not recognisable, being dark in colour.

To say that the earth covers the moon or that the moon covers the sun during eclipses, is but a convenient guess. The three planets are never in the same straight line. If this argument is put forth, the scientists readily take shelter under parallax effect. But that is no excuse.

The fact is different. The planets being at different altitudes, there is no question of their coming together in a straight line, Rāhu, when at the same longitudes, sends out a black jet and cuts off the rays of the sun or the moon as the case may be. This is known as 'Grāsa' or swallowing. If it is the turn of Ketu, he sends up dark brown rays and consumes the rays of the sun or the moon. Any one can verify this statement during lunar eclipses, finding black or dark brown shadow upon the moon's orb - black when it is the turn of Rāhu and brown when it is the turn of Ketu. Actually, there will be no shadow upon the sun or the moon. To us it looks like that since the rays are cut off from our view partially or fully.]

THE STAR WORLD

(320 - 345)

Above the moon's orbit, the star world extends upto 30 lakh yojanas. In the middle areas the merited souls - Gandharvas and Siddha class of divine personalities, along with their consorts, enjoy life, moving as they do in their divine vehicles. They eat nice food, drink sweet juices and they sing and dance. They drink the sweet waters of the Gangā pervading in the sky (Ākaśa Gangā). Their vehicles are crores and crores in number and they are in the forms of stars. (They are stars of their own kind). Even now men can see them. Because of the brilliance of these star-like vehicles and of the stars and planets, the Time Wheel is called as 'Jyotiścakra' - the 'Wheel of Light'.

The location of the constellations is in between the moon and the stars (the 27 star groups).

The planet Śukra (Venus) is two lakh yojanas higher than the stars. Budha (Mercury) is two lakh still higher; Kuja (Mars), another two lakh higher; another two lakh higher is Brhaspati (Jupiter), the divine priest. Two lakh yojanas above Jupiter is Śaniścara (Saturn). The

'Saptarṣi' mandala' (great bear) is 11 lakh yojanas above Saturn; and 'Dhruvamandala' (Pole star) is 14 lakh yojanas above the orbit of the Saptarṣis. Thus, the Pole star is at an altitude of 37 lakh yojanas above the earth.

[Here we are certainly at loggerheads with modern scientists and astronomers, who say that the nearest star 'Alpha' is at least 4 light years away and that the Pole star is still farther away. Having seen how Vedic information is fully correct, we should not be afraid of finding fault with human calculations. There must be something wrong somewhere with their instruments or their mode of calculation. The Pole star is only 2,22,00000 miles away from us, and not more than 200000000000000 miles away. Just as there are star-like divine vehicles below the Pole star, there are also divine vehicles of greater brilliance and velocities at higher altitudes near the upper worlds, moving in different directions. Perhaps, these are mistaken as Pulsars and Quasars and Galaxies.]

As the planets go along their courses, Gandharvas and Apsaras sing and dance and go with them in front. They make themselves merry again and again with sweet scents, flowers, delicious food and nice drinks. The learned brahmins on earth chant hymns in their praise and offer oblations and salutations. These divine beings bless the good

souls with auspicious things and curse the bad ones with disastrous effects.

[Here is the truth about the satellites or moons of the planets.]

Thus the glory of the Kāla Cakra has been described.

The Puṣkara dvīpa surrounds the Milk ocean (Kṣīrābdhi). In its middle part runs the Mānasottara mountain ring brightening all directions. In between the opposite sides of this mountain ring, the distance is 2 crore, 51 lakh yojanas. The Kala Cakra extends thus far.

Some say, out of ignorance, that the sun sinks into the western ocean and enters the Nether worlds and then rises in the east. This is against Vedic information. It should not be accepted. On account of the terraced formation of the seven islands, Puṣkara dvīpa is the lowest; and therefore the setting point and the rising point of the sun are at lower levels in comparison with the location of our part of the earth. Hence it looks as though the Kāla Cakra goes down and comes up.

[Here we see how Saint Sri Vādirāja criticises the wrong views held by the ignorant ones, who said that the earth is round like a rupee coin, surrounded by a

deep ocean. This is how the early Greeks and the Europeans of the medieval period thought. Indians were no exception, influenced as they were by the Greeks after Alexander's invasion of India. To be truthful, all this is due to the curse of Sage Gautama and the onset of the Kali Age. Sage Gautama cursed the thankless sages that their knowledge should be dimmed.

It is sad to note that the great Āryabhata unwittingly accepted the Heliocentric theory proposed by the later Greeks.]

In Mahābhārata it is said that there is another Time Wheel in Pātāla loka upon which move another sun and another moon. The denizens of that region swoon down during day time on account of the hot rays of the sun and are revived when the cool rays of the moon strike them. This Time Wheel also is said to be lifted and lowered. The ignorant ones have confused this Time Wheel for the Kāla Cakra of the 'Antarikṣa' above the earth. This is like mistaking a rope for the snake.

We should believe only in the words of Sage Vedavyāsa who is none other than Lord Sri Nārāyaṇa. That the terrestrial Kāla Cakra goes round and round circumambulating the Meru mountain, can be understood by

observing the 'Saptarṣi Mandala' which goes round the polar axis, as every one can see.

THE ENVELOPES COVERING BRAHMANDA

(345-348)

The Brahmanda (the golden shell covering the universe) is 100 crore yojanas thick. It is surrounded by the watery envelope which has a thickness of 1000 crore yojanas (Arbuda). Around it is the envelope of the fire element with a thickness of 'Nirbuda' yojanas (10,000 crore) . Similarly, there are other seven envelopes, each ten times thicker than its inner complement. They are - Air element, 'Kharva' (100,000 crore); Sky element, 'Mahā Kharva' (1000,000 crore); Ego element (Ahamkāra), 'Padma' yojanas (10,000,000 crore), Mahat tatva element (principle of intellect), 'Mahā Padma' (100,000,000 crore); Tamoguna (principle of ignorance), 1000,000,000 crore - 'Kṣoni'; Rajoguna (principle of activity), 10,000,000,000 crore - 'Mahā Kṣoni'; and Satvaguna (principle of light and knowledge), 100,000,000,000 crore yojanas - 'Sankha'. But the extent of the universe within the Brahmanda is only 50 crore yojanas.

[Here we should recollect what has already been said (St. 152). The huge Brahmānda, with its nine envelopes, is not big enough to fill a hair pit on the body of Lord Nārāyana. By this we should understand

that every thing has a limit; but our Lord is limitless. He is the limit for every thing. There is no question of what is beyond, although with our material-mindedness we are sure to pose such a question.]

CONSUMATION OF THE UNIVERSE

(348 - 358)

As the 'Śruti' declares, "Yasya bramhaca Kṣatranca ubhe bhavati odanam", the living beings of the four castes, the great sovereigns, ordinary human beings and the other creatures as well as divine beings, demons, serpents, yakṣas, gandharvas, aquatic creatures, piśacas in crores - all, all are sanctified by the ghee of their bodies and are consumed by the Lord at the time of dissolution. He has a variety of drinks in the oceans. Vegetation and fruits of different kinds form the herbal medical stuff. All these are cooked in the fires of 'Pralaya' and the Lord Himself is the cook. Having consumed everything, he mixes the ashes of the golden Brahmānda into the surrounding water envelope and drinks it up like a digestive potion. He then rests upon the banyan leaf like an innocent child, tasting the thumb of his lotus-foot, inserted into his lotus-mouth, the foot being held by his lotus-hand.

"Karāravindena padāravindam
mukhāravinde vinivesayantam,

Vatasya patrasya pute
śayanam bālam mukundam manasā smarami."

[Here is a description of the 'Laya' process, taking back the created things to their original state, step by step. The concept of the Lord swallowing everything does not mean that He is hungry and thirsty. He is not at all affected in any manner by the process of creation or dissolution. He is praised in the 'Purusa sukta' thus - "Sāśane anaśane abhīh". He creates and sustains so that the dependent selves may qualify themselves for their final goals; and, when he goes on with the work of dissolution, he gathers up the merits and demerits earned by the souls to reward or to punish them, and he also converts the created material world into its original state of 'Avyakta', the unmanifest 'Prakṛti'.]

'SAMARPANA' (DEDICATION)
(358 - 361)

Thus, a description of the universe has been offered that the Lord may be pleased with this act. This is authored by Vādiraja Bhikṣu, the devotee of Ācārya Sri Madhva. Let the gods find pleasure in going through it. The writing of the text was occasioned by the debate regarding certain details about the universe.

My salutations to Lord Laksmipati who is the resort of the yogis; and my salutations to Ācārya Sri Madhva, who knows the Śastras perfectly.

=====
Sri Kṛṣṇārpanam astu
=====

ANNEXURE - 1

What Scientists say about the Theory of Evolution

The traditional view of evolution is that living things change gradually over millions of years. But the fossil record always shows abrupt changes; new groups of organisms replace old ones with no evidence of transitory forms.

'Missing links' was the phrase conveniently used. It is as though new groups evolve in isolation, then rapidly spread and completely replace the old ones.

The meteorite theory is put forward for extinction of species on a large scale. The volcanic theory is being advanced now.

Regarding the meteorite it is said - The sun's companion star, with elongated orbits, comes nearer and upsets the cloud of comets which bombards the earth. This occurs every 26 million years.

"It is a nice theory, but not all geologists and astronomers accept it." [Compare - The Puranas declare that catastrophies occur every 30 million years. This is known

as 'Manu Kalpa Pralaya' = 71 maha yugas (4320000 x 71 years)].

"Yet the problem remains of seeing how one group of organisms changes into another."

"We could therefore hardly expect to detect gradual changes into another." (Quotations from Edward Ashpole's article, Deccan Herald, Sept. 2, 1984).

F.J. Noronha (Deccan Herald, Sept. 30, 1984) refutes Edward Ashpole's views, saying, that the latter's statements show contradiction when he says,

(i) "But the fossil record does exist. That is the important point. Evolution has certainly taken place." - As against this.

(ii) "But the fossil record always shows abrupt changes. New groups of organisms replace old ones with no evidence of transitory forms."

F.J.Noronha continues - "Ever since Darwin published 'Descent of Man' in 1871, it has been the pet theory of evolutionists that man has descended directly from the ape by mere chance. The idea sparked off a worldwide search for missing links. Many of the

'Discoveries' proved to be frauds. The most famous was Piltdown Man installed in the British Museum in 1912, and exhibited as irrefutable proof of evolution. Investigation revealed that the skull of an ancient human was attached to the jaw of a freshly killed monkey and that the famous tooth had been painted to lend antiquity. Such aberration from scientific integrity must cast serious doubts on the authenticity of fossil records."

[Fossil records there are; and they do point out the stages of creation by the agents of God as has been pointed out in the introduction. Mere human guess leads one no where. For example scientists hold the opinion that the iceland of Antarctica was once a greenland. But it is strange that they overlook the phenomena of the movements of the earth's crust during periods of 'catastrophe'. They only think of meteors and volcanoes. But our Puranas tell about the upsurge of the ocean and consequent disturbances during 'Manu Kalpa Pralayas'. The fault is not that of the modern scientists who blindly follow the revolutionist Renaissance thinkers, who were not satisfied with the views of the religious magnates of their times. But if only they had access to our Puranas in those days, things would have been quite different.]

Albert Einstein - (based on Abraham Pais' Biography of Einstein - article by Rajendra Prasad, Deccan Herald, 25.3.1984). There is

a remark about Einstein's "unceasing quest for harmony in natural and social phenomena."

[This is certainly a pointer signifying the need of an omniscient, omnipresent, omnipotent Supreme Being. The very first stanza of Srimad Bhagavatam speaks of such a Being who is responsible for 'harmony' since He is in the right know of things - "Arthesu abhijnah, swarat" (He, the source of all knowledge, knows what things and spiritual beings are and He is independent Master)].

Einstein has said, "The basis of all scientific work is the conviction that the world is an ordered and comprehensible entity."

Regarding the scope of scientific research he says, "But I do not doubt that the day will come when the description too (his own theory of relativity) will have to yield to another one, for reasons which at present we do not yet surmise. I believe that the process of deepening the theory has no limits".

"Science without religion is lame; religion without science is blind."

"Truth, independent of man, independent of consciousness, independent of sense

experience, independent of morality " - this was Einstein's religion.

[Is this not like Brahman, free from material attributes !]

Talking of the deep and wonderful experience of the mysteriousness of the cosmic structure, he said, "I content myself with making **amazing conjectures** about these secrets and humbly try to create a far-from-full mental picture of the perfect structure."

"**Need to believe** always provides greater impetus for the need to know."

Fraud in Science

(C.S.G.Prasad, Deccan Herald, Aug. 14, 1983)

"The famous case of the Piltdown man, surely the most celebrated hoax of all time in science"

Why does fraud occur at all in scientific fields? There are many reasons why. There is firstly the culture of "publish or perish". 'Massive cooking up of results' is there.

There is enormous competition in the world of science - to get ahead of his or her

peers. There is temptation to 'fabricate results'.

Some times perfectly respectable studies are labelled as frauds because established science does not like the implications of this or that particular study.

[This is what has happened to puranic truths in our country.]

Competition and preconceived notions, then, are the two most important reasons behind fraud in science.

We still do not know how many undetected frauds continue to adulterate science; there is no way of knowing either. Given this dismal prospect, how can we continue to believe in scientific truths ?.

[Nature of stars and stellar distances belong to this field of scientific truths, largely conjectures, not established truths.]

Photograph of the Earth

A photograph of the globe earth was published in 'Kannada Prabha' as the complete picture of the earth (28.9.83).

I doubt if it is a true photograph or a 'cooked up' picture of the artists' skill.

How could one obtain a full photograph of the entire earth 8000 miles in diameter, from a distance (height of 600 mi , is indeed surprising.

The clear contours of the continents therein certainly point out to artistic fraud.

Sūrya Siddhānta

(Astronomy based on Helio-centric theory)

If we look into the 'Bhūgola Adhyaya' (P. 245) of 'Sūrya Siddhānta'; which is in the form of a dialogue between the Sun God and Mayasura, (Kāśi Sanskrit Granthamāla - 144), any discerning person will easily find out that the meanings of the original texts are perverted to make out preconceived meanings. The twisting of meanings could not be done while translating the original verses; but the perverted meanings are given in the latter half of the chapter, stating clearly, "It is the opinion of all the ancient thinkers that all the planets go round the earth; but the new thinkers are of opinion that the sun is steady and the planets, including the earth, go round the sun (P. 225).

The very text of 'Sūrya Siddhānta' seems to be a mixture of sensible puranic verses and inserted new ones to press forward modern views.

Moreover, 'Sūrya Siddhānta' is meant to delude the demoniac minds of 'Kaliyuga',

those who follow Mayasura, the architect of the demons.

In this context, it may be noted that the 'Māya Civilisation' reminds us of Mayāsurā and his brood, who only could have created marvellous artistic and engineering models, beyond the ability of ordinary human beings, referred to in "Chariots of the Gods".

ANNEXURE - 3

(Miscellaneous)

Two Indian mathematicians working in a Siberian University, Dr. Paul Gulati and his wife Shobha Gulati, authors of 'Similarity Theory', say that Einstein was wrong. They say, "In this theory, light velocity is not held as constant (as Einstein did) and there is no clock paradox which follows from Einstein's theory".

Fifth Force in Nature

"When you see something as fundamental as a new force it is likely to change many things. We will have to rethink many views of Particle Physics and Cosmology".

(Sunday Herald, Bangalore, 26.1.86)

Chinese links with Vedas

Prof Huang Xinchuang ponders whether the Vedas sustained the Chinese dynasties. The Chief Editor of the 'Chinese Encyclopedia' now being compiled, Prof. Huang told visiting researchers of the Institute of Oriental Study from Thane, near Bombay, recently, that "virtually every Chinese dynasty got the Vedas translated from Sanskrit to classical Chinese". Manuscripts on Yoga and Ayurveda,

including Pātanjali's "Yoga Sūtra" and the "Sushruta" and "Charaka" Samhitas were similarly translated, the professor said and claimed that over 5000 such manuscripts are available in China, several of them pre-dating manuscripts extant in India.

(Deccan Herald - Saturday, Aug. 23, 1986)

Sri M.B.K. Sharma, Astronomer, Usmania University, says, "The moon is too large to be regarded as a true satellite".

ANNEXURE - 4

Process of Creation

'Avyakta Prakrti' - Latent original matter consisting of only pure 'Satva' and pure 'Tama' at rest in God's womb.

|
Disturbed by God's will at the outset of creation.

(Ksobha or Disturbance = Physical mixture)

|
'Satva', principle of light, intelligence and joy
acts upon

'Tama', principle of darkness, ignorance and misery

|
'Sabala' - multi-coloured principle
|

| | |
(1) Satva (yellowish) (2) Raja (reddish) (3) Tama (bluish)

100 Satva + 10 Raja + 1 Tama

'Mahat Tatva' - principle of intellect, partly used for
the body of Caturmukha Brahma, apparent Creator.

(Viṣṇu in Brahma)

|

Mahat Tatva + Some Satva + Some Raja + Less Tama

|

Ahamkāra Tatva
(Body of 'Śiva')

|

| | |

Some A.T.+ some Satva+
some Raja + less Tama
'Vaikārika Ahamkāra'
(Viṣṇu in Śiva)

|

|
Bodies of
divine beings
(very very
subtle)

Subtle Mind
(To be
located in
the core of
the spinal
chord.)

Some A.T+ some Satva+
more Raja + some Tama
'Taijasa Ahamkāra'
(Brahma in Śiva)

|

|
Five abilities
of sense organs

Some A.T.+ less Satva +
some Raja + more Tama
'Tamasa Ahamkāra'
(Śiva proper)

|

|
Five abilities
of motor organs

|

'Tanmātras'

'Tanmātras'

-
- | | | | | |
|---|--|---|--|--|
| 1) Principle
of Sound
(Sabda
Tanmātra) | 2) Principle
of Touch
(Vāyu
Tanmātra) | 3) Principle
of Sight
(Tejas
Tanmātra) | 4) Principle
of Taste
(Rasa
Tanmātra) | 5) Principle
of Smell
(Gandha
Tanmātra) |
|---|--|---|--|--|

ANNEXURE - 5

Pancīkarana

(Creation of gross matter by 'Alōdana' or Chemical combination)

Inside the shell of Brahmānda, purest gold, 'Gandha Tanmātra' principle, concretised.

|
Contents of Brahmānda

(five subtle material principles, the 'Tanmatrās' dissolved in the watery principle entering into Brahmānda).

|
Watery principle concretised as hardened water (Ghanodaka or Garbhodaka) to fill the lower half of the hollow Shell. The upper half remaining as Subtle Sky).

|
Formation of gross matter
(Pancīkarana)

<u>Sound Principle</u>		<u>Touch Principle</u>		<u>Sight Principle</u>		<u>Taste Principle</u>		<u>Smell Principle</u>		<u>Gross element</u>
120	+	20	+	20	+	20	+	20	=	Material Sky
20	+	120	+	20	+	20	+	20	=	Air

Sound Principle -----		Touch Principle -----		Sight Principle -----		Taste Principle -----		Smell Principle -----		Gross element -----
20	+	20	+	120	+	20	+	20	=	Fire
20	+	20	+	20	+	120	+	20	=	Water
20	+	20	+	20	+	20	+	120	=	Earth

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Earth = Formation of mineral salts, etc., settling down to occupy the middle part of the surface of the hardened subtle waters. The formation of earth, 48 crore k.m. in diameter, in ecologicistic and artistic manner - the hand of Goç !

All this is Vedic information, not scientific guess.

ANNEXURE - 6

Final Verdict

The theory of evolution was the product of European Renaissance. The intelligentsia of the west probed into the past of Greece, Egypt and China, to some extent, the last two grudgingly. They never cared to look into the past of India, perhaps, due to the prejudicial feeling created by British domination.

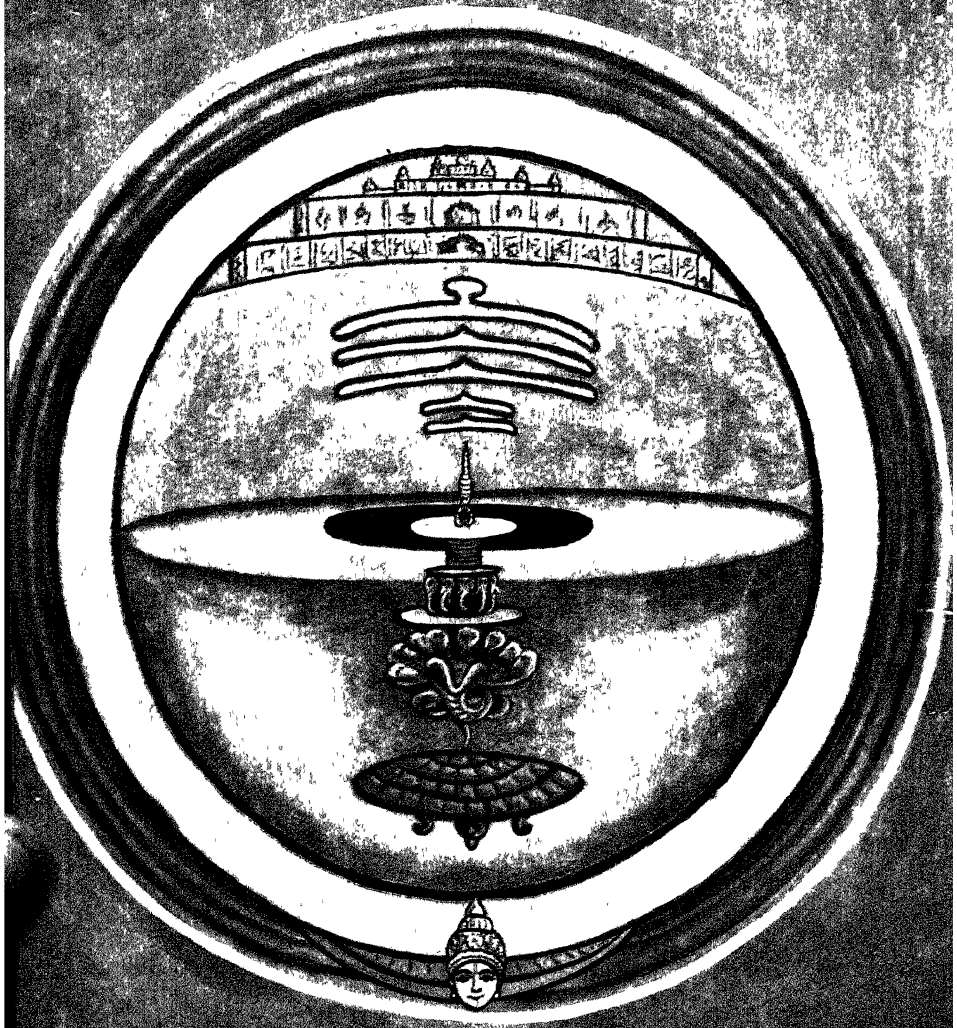
A study of Vedic literature on oriental lines will show much internal evidence to say that the Vedas are Revelations; not just the cream of human thought.

When we familiarly come across astounding inspiration and intuition, is it not right to respect the intuition of the great seers ? Ramanujam, the mathematical prodigy, once said to his peers in England that his family deity, Nāmagiriyamma gave in his dream the solution for a difficult problem that was worrying the heads of every one of them.

As regards Cosmogony and Cosmography, the western scholars gathered only hazy and distorted notions from later Greece and its successor Rome.

It is for the wise ones to dig deep into the oriental mines.

BHUGOLAKSHANA BRAHMANDA WITH THE UNIVERSE



AND THE NINE ENVELOPES
Not to Scale.