

**List of VM Consolidated documents of Dr. S. K. Kapoor**

**List 1 Different aspects of Vedic Mathematics**

**Aspect 35**

Vedic knowledge systems

- 1.To be face to face with basis base of Vedic systems
- 2.Devnagri alphabet with placement TCV values
- 3.Maheshwara Sutras with TCV
- 4.Water bed
- 5.To appreciate Vedic source of Ganita Sutras
- 6.Vedic Mathematics Values reach steps\*\*\*
7. Why Vedic mathematics
- 8.Multi dimension of time, Space and Time & Space in Mansara
9. Glimpses of Vedic Mathematics
10. Transcendental basis of Vedic knowledge
11. Scinthling filtering through transcendental joint
12. Self Referral format glimpsing
13. Taijomaua Aakash

**Aspect 35**

Vedic knowledge systems

1

**TO BE FACE TO FACE WITH BASIS BASE OF VEDIC SYSTEMS**

Vedas have reached us as Samhita, brahmanas, aryanks and upanishds. Inner evidence of available vedic

literature indicates that vedic knowledge stands organized as four Vedas: Rig Ved, Yajur Ved, Sam Ved & Athrav Ved. Rig Ved is of 21 Branches, Yajur Ved is of 101 Branches and Sam Ved and Athrav Ved are of 1000 & 9 Branches respectively. Further as that, each vedic branch as samhita, brahmana, aryank and upnaishds. This makes ved as a scripture of range of 4524 scriptures.

There are six vedanga: Siksha, Vyakran, Nirukt, Chandas, Jyotish & Kalp. One is to reach vedic domain along foundational format of vedangas. The basis base of grammarised scripture are maheshwara sutras which coordinate and organize devnagri alphabet letters. With it, Devnagri alphabet, as such, becomes the initiation format. Devnagri varanmala together with maheshwara sutras lay the foundation of the vedic systems of organization of vedic domain as of human articulated format.

Sadhakas fulfilled with intensity of urge to glimpse and imbibe values and features of format of vedic systems have to approach the vedic way manifesting as vedangas. And, this way, devnagri varanmala becomes the initiation value, as well as the end reach value of vedic systems. The beginning and end being at the same ment, as such, the

process in step become of cyclic (spatial format), which transcends the limitation of linear order.

It is this unique feature of availability of spatial order which makes spatial order 4-space as Creator's space. Scripture preserves that lord Brahma, four head lord is the over lord of creator's space. The idol of lord Brahma, as four head lord with a pair of eyes equipped in each head and sitting gracefully upon the lotus seat of eight petal and meditating upon transcendental lord within cavity of his own heart is blessed with the transcendental grace, as a result of which, lord Brahma multiplies as ten brahmas.

Sadhakas fulfilled with intensity of urge to acquire proper insight and to attain appropriate enlightenment about vedic systems shall follow the transcendental attainment path of lord Brahma, creator the supreme and to melt the mental states of manifested creation format and to be blissfully along the transcendental format and be face to face with format features and values of basis base of vedic systems. ■

अ इ उ ऋ लृ ए ओ ऐ औ  
1 2 3 4 5 6 7 8 9

### 5 x 5 वर्गा Varga consonants

क ख ग घ ङ  
1 2 3 4 5  
च छ ज झ ञ  
2 3 4 5 6  
ट ठ ड ढ ण  
3 4 5 6 7  
त थ द ध न  
4 5 6 7 8  
प फ ब भ म  
5 6 7 8 9


### अन्तःसथः Anthstha letters:

य र ल व  
1 3 5 7

### उष्मणः Ushmana letters:

श स ष ह  
2 3 6 9

### यमः Yama letters

■   
9 10 11 12 13 14  
15 16

2

DEVNAGRI ALPHABET WITH  
PLACEMENT VALUES

देवनागरीं

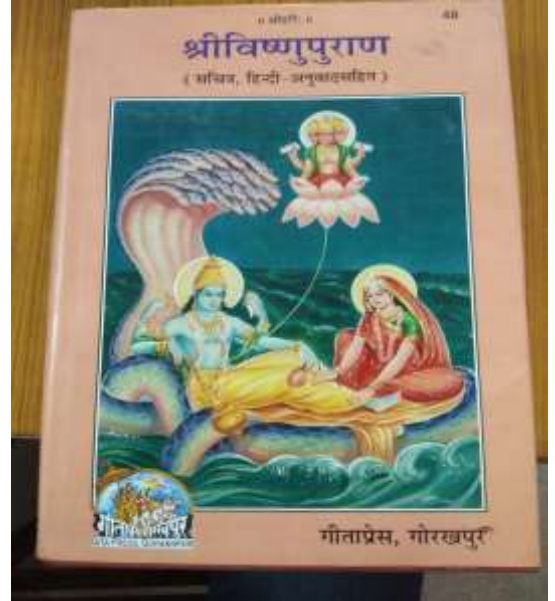
स्वरः Nine vowels

3  
MAHESHWARA SUTRAS WITH  
TCV

| S.N. | Sutra                          | TCV value                                | Total | Grand total |
|------|--------------------------------|--|-------|-------------|
| 1.   | अ इ<br>उ ण्                    | (1, 2,<br>3)<br>(7)                      | 13    | 13          |
| 2.   | ऋ लृ<br>क्                     | (4, 5)<br>(5)                            | 14    | 27          |
| 3.   | ए ओ<br>इ.                      | (6, 7)<br>5                              | 18    | 45          |
| 4.   | ऐ औ<br>च्                      | (8, 9)<br>(2)                            | 19    | 64          |
| 5.   | ह य<br>व र<br>ट                | (9, 1,<br>7, 3)<br>(3)                   | 23    | 87          |
| 6.   | ल ण्                           | (5)<br>(7)                               | 12    | 99          |
| 7.   | अ म<br>इ ण<br>न म्             | (6, 9,<br>5, 7,<br>8)<br>(9)             | 44    | 143         |
| 8.   | झ भ<br>ञ                       | (5, 8)<br>(6)                            | 19    | 162         |
| 9.   | घ ढ<br>ध ष्                    | (4, 6,<br>7)<br>(6)                      | 23    | 185         |
| 10.  | ज ब<br>ग ड<br>द श्             | (4, 7,<br>3, 5,<br>6)<br>(2)             | 27    | 212         |
| 11.  | ख फ<br>छ ठ<br>थ च<br>ट त<br>व् | (2, 6,<br>3, 4,<br>5, 2,<br>3, 4)<br>(7) | 36    | 248         |

|     |            |                     |    |     |
|-----|------------|---------------------|----|-----|
| 12. | क प<br>य   | (1, 5)<br>(1)       | 7  | 255 |
| 13. | श ष<br>स र | (2, 6,<br>3)<br>(3) | 14 | 269 |
| 14. | ह ल्       | (9)<br>(5)          | 14 | 283 |

4  
Water bed



**Introductory**

Scriptures well depict as above, the water bed posture of lord Vishnu.

'Water' is the second element of five elements range: Prithivi, Aapa, Agni, Vayu and Aakash.

The parallel sequential values range is 1, 2, 3, 4, 5.

With it, it takes us to value '2' dimension and (-2-space) as and, a step ahead, takes us dimension of dimension. '2-space'.

One may have a pause here +2-space and -2-space which and take note that 2-space deserves to be comprehended plays the role of dimension of well.

dimension of 6-space, One may have a pause here presided by lord Vishnu. and take note that 2-space as

With it, 'Water Bed' of lord a surface will be having a pair Vishnu becomes its spatial of faces in 3-space.

dimension of dimension. And, these pair of faces, will

With it, the posture of lord be of opposite orientations, in Vishnu on water bed as such reference to 0-space.

takes us to transcendence of It is this feature which also 6-space to its dimension of deserves to be comprehended dimension level. well.

### **2-space format**

2-space format takes us to different roles of 2-space.

The prominent six roles of 2-space are being (i) 2-space as dimension, (ii) 2-space as boundary. (iii) 2-space as domain, (iv) 2-space as origin, (v) 2-space as base, and (vi) 2-space as base format.

Simultaneously 2-space as dimension will take to 4-space as domain, which in the role of dimension, will take us to 6-space.

Still further, 2-space as domain has '0-space' as

### **0-space as dimension of 2-space**

Points of surface are fulfilled with structure of 2-space.

Points of surface as zero surface area takes us to value 0 as area unit extinguishing limit stage.

From this area unit extinguishing stage to full unit expression stage there is a value range expression for 2-space unit.

One may have a pause here and to be face to face with 2 as 1 to be face to face with 2-space unit.

One may further have a vertical axis in context of pause here and to be face to above pair of systems will face with  $1^2 = 1$  as area unit. make vertical axis, firstly as One may further have a third axis and secondly as pause here and take note first axis. that  $1^0 = 1^1 = 1^2 = 1^3 = \dots$  It is this simultaneously deserves to be comprehended reach for the vertical axis as well. third axis and first axis will make association of a pair of values 3, 1 to the same axis.

### **Horizontal and vertical lines**

One may have a pause here and to approach  $1^0$  as an horizontal line and  $1^1$  as a vertical line.

$2^0$  and  $2^1$  can be approached as an horizontal surface and vertical surface.

### **1 as 3 and 3 as 1**

One shall imbibe a system which approaches 1 as 3 and 3 as 1.

A surface and a vertical line, with pair of axis of the surface as first two axis will make vertical axis as third axis.

The other way round taking vertical axis as the first axis will lead to pair of axis of horizontal surface being second and third axis.

One may have a pause here and take note that the

reach for the vertical axis as third axis and first axis will make association of a pair of values 3, 1 to the same axis.

This reach, as it is a reach of system which works out 3 as 1 and 1 as 3.

One may have a pause here and take note that values pair (3, 1) and parallel to it spaces pair (3-space, 1-space) leads to the 3-space as domain and 1-space as dimension relationship.

### **Formulations pair Ek and Tria**

$$\text{TCV (एक)} = 8 = \text{TCV (त्रय)}$$

$$\text{TCV (द्वय)} = 16 = 8+8 = \text{TCV (एक)} + \text{TCV (त्रय)}.$$

$$\text{TCV (द्वय)} + \text{TCV (द्वय)} + \text{TCV (द्वय)}$$

$$= 48 = 2 \times 4 \times 6, \text{ value of dimension frame of 6-space.}$$

## 5 TO APPRECIATE VEDIC SOURCE OF GANITA SUTRAS

Dr S K Kapoor

Vedic knowledge has reached us in Devnagri Script. The Devnagri Varanmala has its own organization format. Ganita Sutras Text as well has reached us in Devnagri Script.

The text of Ganita Sutras is availing 283 letters, in all:

Ganita Sutra

(1) एकाधिकेन पूर्वेण । (2) निखिलं नवतश्चरमं दशतः ।  
(3) ऊर्ध्वतिर्यग्भ्याम् । (4) परावर्त्य योजयेत् । (5) शून्यं  
साम्यसमुच्चये । (6) (आनुरूपेद्ध) शून्यमन्यत् । (7)  
संकलनव्यवकलनाभ्याम् । (8) पूरणापूरणाभ्याम् । (9)  
चलनकलनाभ्याम् । (10) यावद्गुणम् । (11)  
व्यष्टिसमष्टिः । (12) शेषाण्यङ्केन चरमेण । (13)  
सोपान्त्यद्वयमन्तम् । (14) एकन्यूनेन पूर्वेण । (15)  
गुणितसमुच्चयः । (16) गुणकसमुच्चयः ।

Vedic Systems are to be approached the Vedic way. To have an insight about the organization features of the Text of Ganita Sutras, we have to have appreciation of the organization format features of Devnagri alphabet format. Fourteen Maheshwara Sutras settle the placements arrangement of 42 letters (9 vowels, 25 varga consonants, 4 antstha consonants and 4 ushmana consonants) of Devnagri alphabet, as under:

### DEVNAGRI ALPHABET WITH PLACEMENT VALUES

### देवनागरीं वर्णमाला

**स्वरः Nine vowels**

अ इ उ ऋ लृ ए ओ ऐ औ

1 2 3 4 5 6 7 8 9

**summation value = 45**

### 5 x 5 वर्गा Varga consonants

क ख ग घ ङ 1 2 3 4

5 summation value = 15

च छ ज झ ञ 2 3 4 5

6 summation value = 20

ट ठ ड ढ ण 3 4 5 6

7 summation value = 25

त थ द ध न 4 5 6 7

8 summation value = 30

प फ ब भ म 5 6 7 8

9 summation value = 35

**Grand summation value = 125**

### अन्तःसथः Anthstha letters:

य र ल व 1 3 5 7

summation value = 16

### उष्मणः Ushmana letters:

श स ष ह 2 3 6 9

summation value = 20

**(The grand summation value of above all 42 letters = (45+125+16+20) = 206)**

The Maheshwara sutras are the sutras of lord Maheshwara, the transcendental lord, and as such, these placement values are taken as divya ank Vyavsta (दिव्य अङ्क व्यवस्था) /

transcendental code value of the respective 42 letters of devnagri alphabet. As per this code of above transcendental code value, the formulation Devnagri Varanmala (देवनागरीं वर्णमाला) makes a values range as under:

| S. No | Letter | TCV | Total TCV |
|-------|--------|-----|-----------|
| 1     | इ      | 6   | 6         |
| 2     | ए      | 6   | 12        |
| 3     | वृ     | 7   | 19        |
| 4     | अ      | 1   | 20        |
| 5     | नु     | 8   | 28        |
| 6     | आ      | 2   | 30        |
| 7     | गु     | 3   | 33        |
| 8     | अ      | 1   | 34        |
| 9     | रु     | 3   | 37        |
| 10    | ई      | 4   | 41        |
| 11    | व      | 7   | 48        |
| 12    | अ      | 1   | 49        |
| 13    | ँ      | 2   | 51        |
| 14    | ण      | 7   | 58        |
| 15    | अ      | 1   | 59        |
| 16    | म      | 9   | 68        |
| 17    | आ      | 2   | 70        |
| 18    | ल      | 5   | 75        |
| 19    | आ      | 2   | 77        |

The summation value 77 of individual TCV values of 19 letters of formulation Devnagri Varanmala (देवनागरी वर्णमाला), together with the summation value (206) of individual values of above 42 letters of Devnagri alphabet is  $77+206 = 283$ .

The value 283 is parallel to the total summation value, as tabulated here under of individual TCV values of all

the letters of all the 14 'maheshwara sutras', as tabulated here under:

### MAHESHWARA SUTRAS WITH TCV VALUES

with ka Shiv leading to TCV value for letter ka being '5'

| S.N. | Sutra                    | TCV value                          | Total | Grand total |
|------|--------------------------|------------------------------------|-------|-------------|
| 1.   | अ इ उ<br>ण्              | (1, 2, 3)<br>(7)                   | 13    | 13          |
| 2.   | ऋ लृ क्                  | (4, 5)<br>(5)                      | 14    | 27          |
| 3.   | ए ओ ङ्.                  | (6, 7) 5                           | 18    | 45          |
| 4.   | ऐ औ च्                   | (8, 9)<br>(2)                      | 19    | 64          |
| 5.   | ह य व<br>र ट             | (9, 1, 7,<br>3) (3)                | 23    | 87          |
| 6.   | ल ण्                     | (5) (7)                            | 12    | 99          |
| 7.   | अ म ङ्<br>ण न म्         | (6, 9, 5,<br>7, 8) (9)             | 44    | 143         |
| 8.   | झ भ ज                    | (5, 8)<br>(6)                      | 19    | 162         |
| 9.   | घ ढ ध<br>ष्              | (4, 6, 7)<br>(6)                   | 23    | 185         |
| 10.  | ज ब ग<br>ड द श्          | (4, 7, 3,<br>5, 6) (2)             | 27    | 212         |
| 11.  | ख फ छ<br>ठ थ च<br>ट त व् | (2, 6, 3,<br>4, 5, 2,<br>3, 4) (7) | 36    | 248         |
| 12.  | क प य                    | (1, 5)<br>(1)                      | 7     | 255         |
| 13.  | श ष स<br>र               | (2, 6, 3)<br>(3)                   | 14    | 269         |
| 14.  | ह ल्                     | (9) (5)                            | 14    | 283         |

For further insight about Ganita Sutras, these sutras be visited along with Ganita Upsutras text of 236 letters Ganita Upsutra

(1) आनुरूयेण। (2) शिष्यते शेषसंज्ञः। (3) आघमाघेनान्त्यमन्त्येन। (4) केवलैः सप्तकं गुण्यात्। (5) वेष्टनम्। (6) यावदूनं तावदूनम्। (7) यावदूनं तावदूनीकृत्य वर्गं च योजयेत्। (8) अन्त्ययोर्दशकेऽपि। (9) अन्त्ययोरेव। (10) समुच्चयगुणितः। (11) लोपनस्थपनाभ्याम्। (12) विलोकनम्। (13) गुणितसमुच्चयः समुच्चयगुणितः।

This text is a composition of 236 letters.

For it, the placement values range (1, 2, 3, 4, 5, 6, 7, 8, 9) of above 42 letters of devnagri alphabet, (the values range be approached in terms of their formulations:

(1) एक, (2) द्वय, (3) त्रय, (4) चर्तु, (5) पञ्च, (6) षट, (7) सप्त, (8) अष्ट, (9) नव

These formulations lead to summation values of TCV values of individual letters being (8, 16, 8, 12, 15, 10, 14, 11, 17).

By taking above values (8, 16, 8, 12, 15, 10, 14, 11, 17) of formulations of values range (1, 2, 3, 4, 5, 6, 7, 8, 9), we will be reaching at tabulation for the above 42 letters as under:

| SN | Let | TCV value | Formu-<br>-lation | TCV of<br>ForM | Total<br>TCV |
|----|-----|-----------|-------------------|----------------|--------------|
| 1  | अ   | 1         | एक                | 8              | 8            |
| 2  | इ   | 2         | द्वय              | 16             | 24           |
| 3  | उ   | 3         | त्रय              | 8              | 32           |
| 4  | ऋ   | 4         | चर्तु             | 12             | 44           |
| 5  | ॠ   | 5         | पञ्च              | 15             | 59           |
| 6  | ए   | 6         | षट                | 10             | 69           |
| 7  | ओ   | 7         | सप्त              | 14             | 83           |
| 8  | ऐ   | 8         | अष्ट              | 11             | 94           |
| 9  | औ   | 9         | नव                | 17             | 111          |
| 10 | क   | 1         | एक                | 8              | 119          |
| 11 | ख   | 2         | द्वय              | 16             | 135          |

|    |     |   |       |    |     |
|----|-----|---|-------|----|-----|
| 12 | ग   | 3 | त्रय  | 8  | 143 |
| 13 | घ   | 4 | चर्तु | 12 | 155 |
| 14 | ङ   | 5 | पञ्च  | 15 | 170 |
| 15 | च   | 2 | द्वय  | 16 | 186 |
| 16 | छ   | 3 | त्रय  | 8  | 194 |
| 17 | ज   | 4 | चर्तु | 12 | 206 |
| 18 | झ   | 5 | पञ्च  | 15 | 221 |
| 19 | ञ   | 6 | षट    | 10 | 231 |
| 20 | ट   | 3 | त्रय  | 8  | 239 |
| 21 | ठ   | 4 | चर्तु | 12 | 251 |
| 22 | ड   | 5 | पञ्च  | 15 | 266 |
| 23 | ढ   | 6 | षट    | 10 | 276 |
| 24 | ण   | 7 | सप्त  | 14 | 290 |
| 25 | त   | 4 | चर्तु | 12 | 302 |
| 26 | थ   | 5 | पञ्च  | 15 | 317 |
| 27 | छ   | 6 | षट    | 10 | 327 |
| 28 | ध   | 7 | सप्त  | 14 | 341 |
| 29 | न   | 8 | अष्ट  | 11 | 352 |
| 30 | प   | 5 | पञ्च  | 15 | 367 |
| 31 | फ   | 6 | षट    | 10 | 377 |
| 32 | ब   | 7 | सप्त  | 14 | 391 |
| 33 | भ   | 8 | अष्ट  | 11 | 402 |
| 34 | म   | 9 | नव    | 17 | 419 |
| 35 | य   | 1 | एक    | 8  | 427 |
| 36 | श्र | 3 | त्रय  | 8  | 435 |
| 37 | ल   | 5 | पञ्च  | 15 | 450 |
| 38 | व   | 7 | सप्त  | 14 | 464 |
| 39 | श   | 2 | द्वय  | 16 | 480 |
| 40 | स   | 3 | त्रय  | 8  | 488 |
| 41 | ष   | 6 | षट    | 10 | 498 |
| 42 | ळ   | 9 | नव    | 17 | 515 |

With 515 as dimensional order, it will lead to the transcendence range (515, 516, 517, 518, 519) as base fold value 519 which is parallel to the total letters 519 = 283+236 of Ganita Sutras and Ganita Upsutras together.



For further insight of organization format of Ganita Sutras one shall revisit the maheshwara sutras in terms of formulations (1) एक, (2) द्वय, (3) त्रय, (4) चर्तु, (5) पञ्च, (6) षट, (7) सप्त, (8) अष्ट, (9) नव), as under:

shalokas of Srimad Bhagwad Geeta, the essence of Vedanta.

And, value (14) is parallel to the number of Maheshwara sutras. Further, value 14 is of organization  $14 = 2+3+4+5$ , which is parallel to four folds

| S. N | Sutra              | TCV value                 | Formulations values   | Total | Grand total |
|------|--------------------|---------------------------|---|-------|-------------|
| 1    | अ इ उ ण्           | (1, 2, 3) (7)             | 4 (space, 8, 14)  | 46    | 46          |
| 2    | ऋ लृ क्            | (4, 5) (5)                | It will further be relevant to take note that the TCV value of Anubandhas of Maheshwara sutras (7, 1, 5, 2, 3, 7, 9, 6, 6, 2, 7, 1, 3, 5) is of summation value (173) which is the synthesis value of a pair of transcendental ranges of creative order (4-space in the role of dimension of 6-space). The value 64 constitutes a reflection pair with value 46 and value 46 is parallel to gaps value of range of 47 points range. The difference value of 283 letters of sutras and 236 letters of upsutras is precisely 47. This feature brings us face to face with the mathematics of gaps bridging of Ganita upsutras by Ganita Sutras. | 46    | 90          |
| 3    | ए ओ झ्.            | (6, 7) 5                  |   | 10    | 125         |
| 4    | ऐ औ च्             | (8, 9) (2)                |   | 11    | 173         |
| 5    | ह य व र ट          | (9, 1, 7, 3) (3)          |   | 24    | 64          |
| 6    | ल ण्               | (5) (7)                   |   | 12    | 228         |
| 7    | ज म ङ ण न म्       | (6, 9, 5, 7, 8) (9)       |   | 15    | 257         |
| 8    | झ भ ञ              | (5, 8) (6)                |   | 11    | 341         |
| 9    | घ ढ ध ष्           | (4, 6, 7) (6)             |   | 10    | 377         |
| 10   | ज ब ग ड द श्       | (4, 7, 3, 5, 6) (2)       |   | 12    | 423         |
| 11   | ख फ छ ठ थ च ट त व् | (2, 6, 3, 4, 5, 3, 4) (7) |   | 14    | 498         |
| 12   | क प य              | (1, 5) (1)                |   | 8     | 609         |
| 13   | श ष सर             | (2, 6, 3) (3)             |   | 12    | 640         |
| 14   | ह ल्               | (9) (5)                   |   | 17    | 682         |
|      |                    |                           |   | 15    | 714         |

The formulation Anant (अन्नत) / infinitely infinite, is of TCV value 23. Parallel to it, is the formulation Sahastra (सहस्र) / thousand of TCV value 23. The complement of 714 to make it one thousand is 286. The value 286 as origin takes to value 283 (parallel to total letters of Ganita Sutras) as dimension. Here it also will be relevant to take note that with TCV value of letter (क्) = 1, it will make the total TCV values of formulation of values range 1 to 9, Maheshwara sutras as seven hundred which is parallel to the total number of

The values range (7, 1, 5, 2, 3, 7, 9, 6, 6, 2, 7, 1, 3, 5) of anubandhas in terms of formulations (1) एक, (2) द्वय, (3) त्रय, (4) चर्तु, (5) पञ्च, (6) षट, (7) सप्त, (8) अष्ट, (9) नव) takes to the values range (14, 8, 15, 16, 8, 14, 17, 10, 10, 16, 14, 8, 8, 15) of summation value (173). The adjustment of this value, out of value 700 leads to residue value being 527 and of it further adjustment for the TCV value of anubudhas (ण्) of double presence, the emerging value comes to be 520, one more than 519, the total letters of Ganita Sutras and Ganita

Upsutras. It would be relevant to take note that the text of Ganita Upsutra is having one unmanifest letter (ऽ). It will further be relevant to take note that Ganita Sutra 6 having word formulation (आनुरूप्ये), composition of eight letters, being within a bracket implying its two folds contribution in expressed manifest form of the feature of presence and also as unexpressed in unmanifest form of the feature of absence.

Sadhakas fulfilled with intensity of urge to appreciate the vedic source of Ganita Sutras may glimpse and imbibe all these features of the text of Ganita Sutra and Ganita Upsutra together with the features of Maheshwara sutras and of the format of Devnagri alphabet.

### Why Vedic Mathematics?

The questions which should be addressed are as to why the modern mathematics is held up, why its logic recoils upon itself and why there are mathematical problems, logical knots and mental blocks at all in the modern mathematical approach?

Well known problems of modern mathematics may be cited as:

- 
- 1 Everywhere continuous but nowhere differentiable functions
  - 2 Hypercubes 1 to 7 increase but hypercube 8 onwards decrease
  - 3 Space Filling Curves
  - 4 Riemann Hypothesis
  - 5 Goldbach's conjecture
  - 6 Fermat's Last Theorem
- 

Isn't it that these problems are there because of the axioms accepted by the modern mathematics?

And then follows a question as to whether Vedic mathematics is in a position to help the modern mathematics to come out of its mental block and to un-tie its logical knots and to solve the problems?

The Vedic geometric concepts worked out in the books of Dr. Kapoor promise us geometric comprehensions of our existence phenomenon transcending our existing three-space format. The real four and higher spaces formats of Vedic comprehensions are new wonderful worlds of very rich mathematics which may ensure us powerful technologies and much potentialised disciplines of knowledge. The basic comprehension pointed out is the way the cosmic surface constitutes and binds the solid granules as synthetic solids manifesting in the cosmos.

- Dr. Kapoor is attempting to reconstruct the discipline of geometry as a discipline based on Vedic concepts. He has designated this discipline as Vedic Geometry. His results has added a new dimension to the dialogue initiated with the interpretation of the Ganita Sutras and their potentialities brought to focus by Swami Bharti Krisna Tirthaji Maharaj.

Dr. Kapoor's conclusion is that this all is there only because of the acceptance of the geometric entity (monad) admitting no parts, and "1" has no predecessor. To overcome this, as per him, the modern mathematics needs Vedic mathematics' help to shift from monad without parts to a monad admitting parts. The elliptic equations format  $y^2=x^3$  is bound to give a conceptual slip and this, as per him, can be well glimpsed by chasing the format of this equation on simplex format to see how it is deceptive to appear to be so while as whole numbers artifices parallel to the dimensional frames is well evident inequality. As such, there is a need for the modern mathematics to re-address to itself about the need for re-settlement of the basics to come out of the mental blocks and logical knots to un-tie the

knots and to transcend the blocks and to be face to face with the wonderful worlds of reality awaiting ahead with all potentialities of their structural richness. The parallelism between artifices of whole numbers 1 to 26 and 26 sporadic groups is there because of the cosmic surface within the solids.

The recent academic research attempts and teaching experiments with the help of Vedic mathematical operations demonstrate their potentialities to provide the desired help.

The research results are bringing us nearer the traditional acceptance as that Vedas are written on the rays of the Sun. Vedic mathematics, science & technology is the mathematics, science & technology of the way the nature maintains grand unification of the existence phenomenon on the Earth through the rays of the Sun. It is in this grand design of the nature the individual Vedic mantras are impulses of consciousness. This design maintains the continuity of the life within human frame and beyond through the natural intelligence embedded in the human mind and in the rays of Sun. This continuity and parallelism when chased promises new wonderful experiential domains about new realities and the wonderful domains to unfold for us new disciplines of mathematics, science & technology.

Vedic sounds are multidimensional domain frequencies from within the particular dimensional frame as the structure of that domain. When the sounds are pronounced, the frozen frequencies get initiated and the self-organizing power of the Vedic sounds set the frequency's potentialisation process into action. It is this process whose utilization is the aim of different Vedic scriptures.

Rig Ved Samhita is the first Vedic scripture. It is the first book of the mankind. The mathematics precedes the composition of Rig Ved Samhita. Vedic Mathematics helped to transform the universal set of knowledge as a speaking language and in the process it itself as well

transformed as such and assimilated its identity into the Vedas.

Within Vedas, all discipline of knowledge transform their identity and get assimilated into the single discipline of organization of knowledge on geometric formats. Vedic geometry and mathematics as such help us to work out these formats.

Multi dimension of time, Space and time & space in Mansara

[This Article of Dr. S. K. Kapoor is published in January 2002 issue of Vedic Vastu Sandesh, Indore, India.]

## **PART I : VEDIC WISDOM**

### **VEDIC WISDOM**

Vedic wisdom is lively in the consciousness of living saints. It is also well preserved in the Vedic literature. The inner evidence of the available Vedic knowledge of the available Vedic literature makes it out that originally the whole range of the pure knowledge i.e. Vedic knowledge was vibrating from a single wholesome Ved. Subsequently this knowledge was organized by Maharishi Ved Vyas as four Ved namely. Rigved, Yajurved, Samved and Atharvved.

The knowledge of Rigved admitted 21 branches while the knowledge of other three Ved namely, Yajurved, Samved and Atharvved respectively admitted 101, 1000 & 9 branches. The organizational format of each Vedic branch consisted of four folds designated as Samhita, Brahmana, Aryanak and Upanishad. As such  $21+101+1000+9=1131$  Vedic branches had 1131 Samhitas, 1131 Brahmanas, 1131 Arynaks and 1131 Upanishads. These  $1131 \times 4 = 4524$  scriptures together came to be known as Vedic wisdom. In addition corresponding to each Ved, as applied value of the pure knowledge of the Ved is Upved. The four Upveds are Ayurved, Dhanurved, Gandharvved and Sthapathyaved. Our present day mathematics, science and technology come within the range of

Sthapatyaupved. Manasara is one such scripture of Sthapatyaupved.

### *MANASARA : SCRIPTURE OF STHAPATYAUPVED*

Sri Prasana Kumar Acharya had done a wonderful job of reconstructing the text of Manasara and preparing its translation in English and by drawing the plates.

The scripture begins with the prayer to Lord Brahma, the Creator, the supreme and ends with the chiseling of third eye of the idol of Lord Shiv. The broad organization of the scripture is of the range of 70 chapters with first eight chapters constituting a primary group-I. The next ten chapters i.e. chapter 9 to 18 constitute a primary group-II. Then comes the central part of the Mansara. Chapter 19 to 30 cover single story building to 12 storied buildings. These 12 chapters constitute a central group-I. Next 20 chapters i.e. chapters 31 to chapter 50 cover central group-II and with it the subject of architecture as such is completed. Then follows the subject of sculptures. The science of sculptures covered in chapters 51 to 70 can be organizationally divided in two sculptural groups. Chapter 51 to 65 constitute sculptural group-I and chapters 66 to 70 constitute sculptural group-II.

### **SPACE TIME FRAME**

The above topical division of the text has an organizational message of great importance as in terms of it we may reach at the geometric format of the organization of the knowledge of the scripture.

As the scripture begins with the prayer to Lord Brahma, the overlord of real 4-space and ends with the chiseling of third eye of Lord Shiv, the overlord of real 5-space, therefore, geometric format at the dimensional level is bound to be spatial with the flux of time being solid.

In short, the space time frame at the dimensional level is going to be  $E^2$  (space)  $\times$   $E^3$

(time). In terms of this dimensional order we shall be manifesting working geometric domain within the space time frame ( $E^2$ )<sup>4</sup> (space)  $\times$   $E^3$  (solid time). Here (today) we shall be concentrating upon the concepts and comprehensions of dimensions of space and time in Manasara. In a way, we shall be taking up the topic of space, time and space time in the light of Vedic wisdom. In the context, it may be relevant to note that the modern thought, mathematics, science and technology is speculating the general space time frame as  $E^3$  (space)  $\times$   $E^1$  (linear time).

The modern thought, mathematics, science and technology centre around linear dimensional reality but the Vedic systems avail multidimensional reality. The studies of the organizational formats of various Vedic scriptures reveal that higher dimensional geometric formats are being availed to organize the pure knowledge. Illustratively, we may take the case of the oldest book of mankind namely, Sakla Rigved Samhita.

### **RIG VED SAMHITA**

Fortunately Rigved Samhita is intact with us from first syllable to the last syllable and as the tradition goes, the whole range of Vedic knowledge is lively in this scripture of 432000 syllables, out of which 397265 syllables are manifest text while remaining 34735 syllables go deep as organizational format of the text and as such remain un-manifest.

For the present, we may accept it an axiom that knowledge and organization of knowledge are two distinct aspects of knowledge. Being scriptural text, we get the organized knowledge and as such both organization format and the text are to be accepted as the knowledge content of the scripture. It is like a truck with goods yielding weight of the truck as well as of the goods loaded in the truck.

### **Organisation of Rigved Samhita**

|                          |                     |
|--------------------------|---------------------|
| Total knowledge contents | 432000<br>Syllables |
| Manifest text            | 397265<br>Syllables |

|          |       |
|----------|-------|
| Mandals  | 10    |
| Ashtaks  | 08    |
| Chapters | 64    |
| Anuvaks  | 85    |
| Suktas   | 1028  |
| Vargas   | 2024  |
| Richas   | 10552 |

## Mathematical Basis

Mathematical basis of the organisational format of the Rigved Samhita reveals that the Vedic knowledge is organised on geometric format of real 6-space. It admits 4-space in the role of dimension while modern thought, mathematics, science and technology centre around 3-space reality and as such Veds are invincible fort for the modern mind. As such, we have to learn and understand the Vedic wisdom. For this we have to re-examine the rationale and basis of our axioms and postulates for accepting the reality as linear dimensional one. It is only by approaching the Vedic knowledge, the Vedic way, that we may have real bliss of Vedic wisdom.

## PART II : HIGHER DIMENSIONAL REALITY MATHEMATICAL BASIS OF VEDIC LITERATURE

Studies of mathematical basis of available Vedic literature reveal that 4 and higher dimensional reality was not only known to the Vedic seers rather the great use thereof was made by them for organization of pure knowledge.

Let us concentrate upon the nature of space around us. We can see that straight line is a track of a moving point while plane is a track of a moving (straight) line. Likewise, moving plane shall be creating solid space. More precisely, if we reinvestigate this phenomenon with the help of a point, interval, square and cube, we shall be noticing that moving point accepts line as its track, moving interval accepts square as its track and moving square accepts cube as its track. This would pose a question: What is the nature of the

track of moving cube/solid /3-space body/ 3-space setup or in the general, 3-space it self?







## HYPERCUBES 4, 5, & 6

To answer the same let us mathematise this situation as:

Taking point as a representative regular body of 0 space, interval, square and cube respectively as representative regular bodies of 1, 2 & 3 space, we may conclude that moving 0-space (body) accepts 1-space format, moving 1-space (body) accepts 2-space format; moving 2-space body accepts 3-space format, and as a logical consequence the moving 3-space body shall be requiring 4-space format. And in general, moving n-space body shall be requiring (n+1) space format. For convenient handling.

We may define and designate four and higher dimensional bodies in continuation of interval, square and cube as hypercubes. To be precise hypercube 4 shall be a representative regular body of 5-space and so on. Further to facilitate comprehension of main properties of hypercube and for symbolic representation of the set of properties synthesizing hypercube it would be desirable to have suitable symbols for them, particularly for hypercube 4, 5 and 6 for reaching at the concepts and comprehension of multi-dimensional spacetime frame being availed for organization of the knowledge of Manasara.

Let these 3 special symbols of hypercube 4, 5 & 6 be as:

| Interval  | Square  | Cube   | Hypercube-4   | Hypercube-5   | Hypercube-6   |
|---|---|--|---|---|---|
|  |  |  |  |  |  |
| 1-space body  | 2-space body  | 3-space body   | 4-space body  | 5-space body  | 6-space body  |

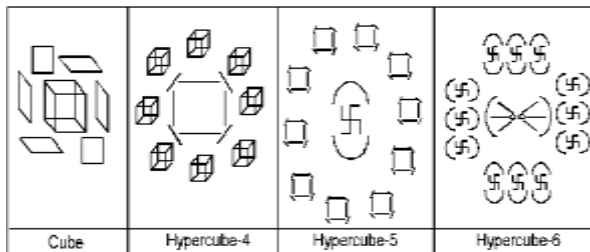
To have these symbols in continuity of the geometric setup of interval, square and cube, we have to first comprehend these geometric setups. As such, let us have a close look at the geometric setup of interval, square and cube. If we have close look at the geometric setup of interval,

square and cube, we may comprehend that interval has length ( $A^1$ ) and 2 boundary points ( $2A^0$ ) Square has area ( $A^2$ ) and 4 boundary line ( $4A^1$ ) and cube has volume  $A^3$  and 6 boundary surfaces ( $6A^2$ ).

$A^1:2A^0$ ,  $A^2:4A^1$  and  $A^3:6A^2$  suggest a common formulation  $A^n:2nA^{n-1}$ ,  $n=1, 2, 3$ .

This formulation would hold for all values of  $n$ . In particular, for  $n=4, 5$  &  $6$  we shall be getting  $A^4:8A^3$ ,  $A^5:10A^4$  and  $A^6:12A^5$ . The geometric message is that boundary of 4-space body is constituted by 8 cubes while the boundary of 5-space body is constituted by 10 hypercubes-4 and so on.

The boundary components of interval, square, cube and hypercubes 4, 5 & 6 are in the ratio 2:4:6:8:12. This would help us comprehend, appreciate and have the symbols of hypercube 4, 5 & 6 in continuity of and in that sequential order, hypercube 4, 5 & 6 with boundaries as:



**SHAD CHAKRA FORMAT OF HUMAN BODY**

Further it would help us comprehend and appreciate the Upanishad knowledge regarding the Shadchakra format of human body as that:

अथ बहिलक्षणम्। नासिकाक्रे चतुर्भि षड्भिरष्टभि. दशभि. द्वादशभि. कमात्।

The external characteristics, ahead of tip of nose, are four, six, eight, ten and twelve in that sequence.

These, as is evident are parallel to the sequence an order of boundary components of square, cube, hyper cubes-4, 5 and 6 as being four (lines), six (surface plates), eight (solid components), ten

(hyper solid-4 component) and twelve (hyper solid five component) respectively.

With this the Shad-Chakra format of human body accepting Sathapatya measuring rod constituted by representative regular bodies of 1 to 6 Space makes the human existence as within human frame of Shad Chakra format is of the order and as of format which is to run parallel to the manifestation and de-manifestation processes of flow of Jyoti from orb of the Sun through its rays.

**CONCLUSION:**

The conclusion of all conclusions comes to be that Vedic systems have successfully unified whole range of knowledge as a single discipline accepting Sathapatya measuring rod.

**Glimpses of Vedic Mathematics**

[Authored (1990) by Prof. Krishnaji, Prof. of Physics and Ex-Pro-Vice Chancellor, Allahabad University, Allahabad, India.]

Vedic mathematics was lost to the modern world over several thousand years. Fortunately, the renowned scholar Jagadguru Swami Bharti Krisna Tirthahji Maharaj, Shankracharya of Sharda Peeth and Goverdham Math discovered 16 Vedic Sutras and 13 Upsutras in the Parishistha of Atharvved. After continuous Sadhana and hardwork, he was able to decode them and get wide ranging mathematical principles and applications from them. He found that these Sturas cover all aspects of mathematical science in depth. He wrote sixteen volumes on Vedic mathematics covering all aspects of these sutras in depth. Unfortunately, the manuscript was lost which fact was finally confirmed in 1956. During his last days when his health was failing and his eyesight was weak, he rewrote from his memory an introductory account of the subject. He attained Mahasmadhi in 1960. Later in 1965 a book entitled “Vedic Mathematics” was published. This book is edited by Dr. V.S.Agarwala with the help of Smt. Manula Trivedi on the basis of manuscript and notes left by Swamijee. This book is therefore,

the first book to give a glimpse of Vedic mathematics and to reestablished the subject. The book attracted the attention of several Indians and foreigners. Dr. Narinder Puri of Roorkee University took up the cause of Vedic Mathematics in right earnest. His Holiness Maharishi Mahesh Yogi spread the message of Vedic mathematics throughout the world by sending Dr. Puri to several countries and making it possible for many schools all over the world start teaching Vedic mathematics. A former minister of Human Resource Development, in the Government of India, Sh. P.V.Narasima Rao made a reference in Parliament about the work on Vedic mathematics which created a wider interest in the nation. Rashtritya Ved Vidya Pratishthan started looking into the matter and appointed a committee on Vedic Mathematics. During the same period a controversy arose about the source of these 16 Sutras and the level of mathematics contained in them. One view was that these Sutras do not have a Vedic source and that they deal only with simple arithmetical operations.

In the meantime, Dr. Sant Kumar Kapoor, inspired by integrated impact of the Ganita Sutras, started working on basic aspects of the mathematical structure of Vedic literature. He got several clues from Ganita Sutras, Maheshwara Sutra and many other Vedic Mantras. He was inspired by the divine blessing from Yograj Sri Sripad Babaji of Vrindavan and His Holiness Maharishi Mahesh Yogi at Maharishi Nagar. He has been awarded Ph.D. degree by Kurukshetra University, in December 1990 on his thesis titled "Mathematical Basis of Vedic literature". His work shows that the potential of Ganita Sutras is much higher than what appears in the book "Vedic Mathematics" and the mathematical structure of Ganita Sutras is similar to that of Samved indicating that Ganita Sutras belong to Vedic family. His work shows that the Devnagri alphabet and the Vedic scriptures are mathematically organized. Perhaps a more important aspect of his work in the existence of Real Geometric Spaces of higher dimensions in the form of a continuum. A comprehensive description of his research is given in the next section. Dr. Sant Kumar Kapoor is presently working as a Visiting Professor in the Indian

Institute of Maharishi Vedic Science & Technology which is a part of Maharishi Ved Vigyan Vishwa Vidyapeeth, Maharishi Nagar. Three research students are working in our institution on the structure and properties of fourth, fifth and sixth dimensional spaces.

### **Vedic mathematical Research done by Dr. S. K. Kapoor**

Studies reveal that knowledge and organisation of knowledge are two distinct disciplines. The thesis of Dr. S.K.Kapoor is substantively covering the organisational aspect of Vedic knowledge. The main results of the thesis and his subsequent research can be summed as under:







Real 4 and higher dimensional spaces do exist.

Real 4 and higher dimensional spaces were not only known to the Vedic seers but those were precisely availed by them for organisation of vedic knowledge.

Vedic alphabet format is a precise setup of 4-space. The alphabet letters of Devnagri script, their forms formulations, combinations and rules etc. are precisely mathematical.

Sakala Rigvedic Samhita is the oldest scripture of mankind. The organisational format of this Samhita is precisely that of real 6-space.

Vedic knowledge accepts a measuring rod constituted by regular bodies of the first six real dimensional spaces which admit formulations as:

| Interval  | Square  | Cube   | Hypercube-4   | Hypercube-5   | Hypercube-6   |
|---|---|--|---|---|---|
|  |  |  |  |  |  |
| 1-space body  | 2-space body  | 3-space body   | 4-space body  | 5-space body  | 6-space body  |

The organizational format of Srimad Bhagwad Gita emerges to be of prime importance as it is parallel to the organizing power of the knowledge content of the scripture. This format tallies with the format of human body on the one hand and the sun on the other hand as of real 6-space.

The Trinity of Gods namely Brahma, Mahesh, Vishnu are the overlords of real 4, 5 & 6 spaces respectively.

The geometrical continuum expressed as manifestation layers of 4 folds of consecutive dimensional spaces contents. These folds of the nth manifestation layer can be represented as under:

| First Fold          | Second Fold         | Third Fold      | Fourth Fold         |
|---------------------|---------------------|-----------------|---------------------|
| Dimension           | Frame               | Domain          | Origin              |
| (n-2) space content | (n-1) space content | n-space content | (n+1) space content |

The transcendence from one manifestation layer to another manifestation layer giving rise to the following (five steps) chain reaction or five steps which are possible within the setup of Panch Mahabhut.

| Manifestation Layer | Dimension        | Frame            | Domain           | Origin           |
|---------------------|------------------|------------------|------------------|------------------|
| Nth                 | Space fold (n-2) | Space fold (n-1) | Space fold n     | Space fold (n+1) |
| (n+1)th             | Space fold (n-1) | Space fold n     | Space fold (n+1) | Space fold (n+2) |

Transition from one space to another space is to be had in terms of unlocking of the seals of the origin points of all the four folds of the manifestation. The modern mathematical models of transition from straight line to plane deserve serious reexamination. In particular the axioms of space filling curves and the axioms of 'one' without a predecessor deserve close scrutiny as their rationale emerges to be without basis.

The role of real numbers additive group (R,+) and real numbers field (R,+,\times) with reference to straight line deserve to be differentiated.

The plane deserves to be studied as four geometrically distinct quarters. One faced plane and two faced plane are two distinct geometrical setups and they deserve to be taken up as such.

The concepts of origin and dimension are two concepts with respect to which the modern geometrical models are not up to date. These two concepts deserves to be studied in detail as transcendence to the higher dimensional spaces is possible only in terms of their understanding.

Human body is a compactified phenomenon of multi-layer physiological existence. The start with state of existence is that of waking state which is parallel to the expression of 1-space as dimension into 3-space domain. Sequentially, the existence phenomenon unfolds until seventh state of consciousness which would be corresponding to the 7-space as dimension into 9 space domain. The origin point of the 6-space, being the 7-space setup, the human body, geometrically, turns out to be hypercube-6 and this would explain how the primordial sound, the planetary effects, the Yajna oblations etc. operate and precisely influence the individual existence patterns.

Srimad Bhagwad Gita is one such scripture whose organisational format precisely workout for us the structural set up and frames of the 6-space. The study zone of Srimad Bhagad Gita can be worked as under:

Srimad Bhagwad Gita Study Zone

|          |                    |                                 |                                 |                                  |                                  |                                  |                                 |                                 |                     |        |
|----------|--------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------------------|---------------------|--------|
| a/2      | a <sup>2</sup> /4a | a <sup>3</sup> /6a <sup>2</sup> | a <sup>4</sup> /8a <sup>3</sup> | a <sup>5</sup> /10a <sup>4</sup> | a <sup>6</sup> /12a <sup>5</sup> | a <sup>7</sup> /10a <sup>6</sup> | a <sup>8</sup> /8a <sup>7</sup> | a <sup>9</sup> /6a <sup>8</sup> | a <sup>10</sup> /4a | a/2    |
| —        | □                  | □                               | □                               | □                                | □                                | □                                | □                               | □                               | □                   | —      |
| 2×1 =2   | 4×2 =8             | 6×3 =18                         | 8×4 =32                         | 10×5=50<br>50×7=350              | 10×5=50<br>50×7=350              | 10×5=50<br>50×7=350              | 8×4 =32                         | 6×3 =18                         | 4×2 =8              | 2×1 =2 |
| Orbitals |                    |                                 |                                 | 350+350=700                      |                                  |                                  |                                 |                                 |                     |        |
| 2        | 6                  | 10                              | 14                              | 18=5+6+7                         |                                  |                                  |                                 |                                 |                     |        |

The organisational setups of Ganita Sutras, Maheshwara Sutras, Saraswati Mantras, Gyatri Mantra and Om formulation deserve interdisciplinary explorations.

Sankhay Nistntha and Yoga Nistha are complementary and supplementary of each other and as such their complementary nature and supplementary nature deserve to be distinguished well. Non-differentiation of the same is bound to



deprive us of most of the results in specific forms.

## **Transcendental Basis of Vedic Mathematics**

(Panel of Jury set up by the Bhartiya Vidya Bhavan to select candidates for Shri Guru Gangeswaranandaji Veda Ratna Puraskar-1997 had selected Dr. S. K. Kapoor for his excellence and service rendered in the field of Vedic Mathematics. The Panel of Jury had considered the evaluation report titled "Transcendental Basis of Vedic Mathematics". As good information about some aspects of Vedic mathematics of the report would be of great interest for the research scholars working in the field and as such same is being included here).

My **studies** culminating into the Doctoral Degree for my thesis titled "Mathematical Basis of Vedic Literature" accepted by Faculty of Mathematics, Kurukshetra University, Kurukshetra, summed up conclusions as under:

**Sum up of the results as those flow while working florescence-systems on Om formulation within framed domains are:**

1. In a nutshell, the conclusions are that the mathematics precedes the composition of Rigveda Samhita. Vedic Mathematics helped to transform the Universal set of knowledge as a speaking language and in the process itself as well stood transformed as such and assimilated its identity into the Vedas. Within Vedas, all disciplines of knowledge transform their identity and get assimilated into florescence systems admitting 432000 components channelizable on Om formulation. As such, need is to rewrite the history of mathematics, even the intellectual history of man well admitting fundamental unity of human intellect, the message with which the Rigveda ends "Samanam-astu.....Sushasati".

2. One line conclusion, of all the above conclusions, is that the entire Lower Vedic Mathematical domain stands exhaustively covered by single formula:

3. And the above formulation as well is nothing but the extended version of Divya Ganga flow through Om formulation. Divya Ganga flow crystallizes as florescent frames for the Eternal paths beyond and to which the Vedic florescence systems ultimately transformed.

**The thesis is divided into 12 chapters with contents as:**

### **1. Vedic mathematics**

(Introductory concepts)

– To settle the text

### **2. Om formulation**

(Vedic mathematics applications)

– To settle equivalent formulations:

- Om
- Pranava
- Aum
- Onkar
- Udgitha
- Vashatkara
- Swastik
- Anmoh

### **3. Vedas**

(Mathematics as a speaking language)

- Rigveda
- Yajurveda
- Samaveda
- Atharvveda

### **4. Adi Valmiki Ramayana**

(Vedic mathematical basis)

– Derivation of the frames and systems

on Om formulation in terms of framed domains sequence.

### **5. Urmahabhartam**

(Vedic mathematical basis)

– Derivation of the frames and systems on

Om formulation in terms of framed domains sequence.

## 6. Srimad Bhagwad Gita

(Vedic mathematical basis)

– Derivation of the frames and systems on

Om formulation in terms of framed domains sequence.

## 7. Sri Vishnu Shastranam Satotram

(Vedic mathematical basis)

– Derivation of the frames and systems on

Om formulation in terms of framed domains sequence.

## 8. Srimad Durga Saptasati

(Vedic mathematical basis)

– Derivation of the frames and systems on

Om formulation in terms of framed domains sequence.

## 9. Upanishads

(Vedic mathematical basis)

– Derivation of the frames and systems on

Om formulation in terms of framed domains sequence.

– Prasno Upanishad; Derivation of the frame and systems.

## 10. Shad Darshan

(Vedic mathematical basis)

– Derivation of the frames and systems on

Om formulation in terms of framed domains sequence of

- Nyaya Darshan
- Sankhya
- Vaishesika
- Yoga
- Mimamsa
- Vedanta
- Sankarshna

## 11. Puranas

(Vedic mathematical basis)

– Derivation of the frames and systems on

Om formulation in terms of framed domains sequence of Puranas.

– Srimad Bhagwat Puran; Derivation of frame & system.

## 12. Devanagiri alphabet

(Vedic mathematical basis)

– Derivation of frame and systems of the alphabet, its structure, forms and formulations of the letters within Pranava domain on

Om formulation for working out the sunlight florescence systems within framed domains.

– Maheshwara Sutras and Sanskrit grammar.

– Saraswati Mantras and Vedic grammar.

– Derivation of classical and languages alphabet.

– Mother computer language for all computer systems.

With respect to the value of research work, Professor in Structure Engineering, **Dr. Anand Parkash** of Civil Engineering Department, University of Roorkee, had conveyed in 1986 to Prof. L. R. Varmani, Department of Mathematics in Kurukshetra, Kurukshetra:

“It is my pleasure to convey to you my appreciation of the work undertaken by Mr. S. K. Kapoor in the basis artifice of our alphabet and number system conveying the basis energies channelization into atomic frames and their structures. His study of the sunlight reflecting on the different number frames resulting into all artificial intelligence and value judgment has the potential of a breakthrough in scientific thoughts bearing on the understanding of our universe permeating throughout our vedic literature.

I take this opportunity to congratulate you all the all-valuable inspiration and guidance for the brilliant research output by him.

With regards.”

Simultaneously, **Professor Anand Parkash** had enclosed general appreciation of the research result as under:

“It was very satisfying to listen Mr. Sant Kumar Kapoor to decipher the hidden code in the construction of alphabets and numbers channelising the basis energies in the atomic frames constituting their structure. His formulation that there are 108 basic energy sources constituting the fundamental format of the atomic tables is noteworthy.

His attempt to have breakthrough with the insight into sunlight being the basic source of all artificial intelligence and value judgment in this universal, interlinking the modern scientific knowledge with the vedic thoughts, deserve all encouragement and support for advancing the cause of applied research.

I with him all success in his mission.”

**Professor J. N. Kapur**, a well-known mathematician of our country, having hundreds of research articles and dozens of books of mathematics, and experience of more than four decades of actual teaching of mathematics at graduate and postgraduate levels, and of guiding several research scholars, had occasion to consider the geometrical validity of the framed domain sequence being arrived at in the thesis i.e.  $(a^n : 2na^{n-1}, n=1, 2, 3, 4, \dots)$  and his considered opinion conveyed to Professor Krishnaji, read as:

“The sequential interpretation of  $a^3/6a^2$ ,  $a^4/8a^3$ ,  $a^5/10a^4$  are valid.

‘n’ dimensional hypercube has ‘n’ dimensional content ‘ $a^n$ ’. It has ‘n-1’ dimensional content ‘ $2na^{n-1}$ ’, and the ratio is ‘ $a^n/2na^{n-1}$ ’. This has also ‘n-2’ dimension, ‘n-3’ dimension, ..... content which I have discussed in my article.

This part can be rigorously justified.”

**Professor Krishnaji** in his letter dated March 31, 1988 addressed to Hon’ble Chief Justice of Punjab & Haryana High Court had requested for sparing the services of mine for institute of Vedic Science for two years conveying as:

“We must congratulation you for having in your department such a brilliant and creative mind as Sri S. K. Kapoor, C.J.M., Rohtak, who can authentically expound the foundations of all order in nature, as the basis of the Vedic literature available to us through the oral honoured Vedic tradition. The work by him in his Ph.D. thesis is so basic that the authenticity of the Veda and Vedic literature is established with such mathematical precisions and credibility that through his work, it is possible now to establish the traditionally available Vedic literature as the most orderly and comprehensive literature of a perfect science of life. This has the potential to revolutionise the education in all parts of the world and bring perfection to life on Earth.

This revival of the absolute order with which the unified wholeness of natural law functions and maintains orderliness at every stage of evolution of life, is a blessing for every one in this scientific age, which is rising to be the age of enlightenment through Vedic Science, **Maharishi Mahesh Yogi** is currently formulating the Vedic science and will very much appreciate, if Sri S. K. Kapoor’s time and talent are available for structuring Vedic science at a rapid pace, which is such a perfect science of life that with its both approaches - subjective and objective, it far exceeds the benefits of modern science which functions through objective approach only. We will be grateful to you, if you kindly spare his services for our Institute of Vedic Science preferably for two years in order to propagate the results of his research to our universities in Europe and America - Maharishi European Research University, Switzerland, Maharishi International University, Norway, Holland and USA and the forthcoming University of Natural Medicine in Brazil and other institutes of higher learning.

With respectful regards” The report of work done during two year (1988 to 1990) as Visiting Professor in the institute with Professor Krishnaji as Chairman, as submitted by Professor Krishnaji to Hon’ble Chief Justice of Punjab and Haryana High Court, Chandigarh, is as under:

“Shri Sant Kumar Kapoor, Chief Judicial Magistrate, Rohtak, was granted leave by your goodself for two years to carry on research in Vedic Mathematics as a Visiting Professor, in our Institute. He joined us on 25th May 1988.

Shri Sant Kumar Kapoor has done exceptionally meritorious work in Vedic mathematics. He has developed concepts involved in the structure of “Om” and the two Vedic structures “Know Brahman quarter by quarter” and “know fourth quarter Brahman as integrated value of the first three quarters.” He has also developed Vedic concepts of multi-dimensional geometrical space and structural frames and systems. He has established that the regular bodies of geometrical domains constitute a framed domains sequence.

$$a^n/2na^{n-1}, \text{ where } n = 1, 2, 3, 4, \dots$$

and  $a$ =dimensional unit.

Using the above concepts, he has analysed several Vedic scriptures. Following are the results of his research activity:—

(i) Mathematical concepts and application to structural frames and systems of Sri Sri Vishnu Sahastranam Stotram.

(ii) Vedic mathematical concepts and applications to structural frame and systems of Sama Veda Samhita.

(iii) Vedic mathematical concepts and application to structural frames and systems of sixteen sutras.

(iv) Vedic mathematical concepts and application to structural frames and systems of Shrimad Bhagwad Geeta.

(v) Vedic mathematical concepts and application to unsolved mathematical problems – Five proofs of Fermat’s Last Theorem.

All the above have been published as Institute Reports. The last one “Fermat’s Last Theorem” has been published in the form of a book. Three Proofs have been published as a research paper in M.I.U. Journal “Modern Science & Vedic Science” Vol.3, No. 1, pp 75-104, 1989 USA. The two proofs have been submitted as a research paper to “Mathematical Reports of the Academy of Sciences” Canada. This work has acquired great importance because the original theorem was proposed by French Attorney and mathematician Pierre de Fermat in 1637 and nobody has succeeded in getting the proof inspite of continuous attempts by distinguished mathematicians for more than 350 years. Shri S. K. Kapoor has been awarded the Ph.D. degree by the Maharishi Research University, Seelisberg, Switzerland for his work on Sam Ved Samhtia.

The leave of Shri S. K. Kapoor is due to expire on 24th May, 1990, hence this report is sent for your information and official record.”

Simultaneously, Professor Krishnaji had made a request with Hon’ble Chief Justice for further leave for Institute, which was allowed and I worked for another two years (1990-1992) as Visiting Professor and my research results have been summed up in one of the articles by Professor Krishnaji in Mathematics Today and reproduced as Appendix A of my book “Fermat’s Last Theorem and Higher Spaces Reality Course”.

“Vedic mathematics was lost to the modern world over several thousand years. Fortunately, the renowned scholar **Jagadguru Swami Bharti Krisna Tirthahji Maharaj**, Shankracharya of Sharda Peeth and Goverdham Math discovered 16 Vedic Sutras and 13 Upsutras in the Parishista of Atharvved. After continuous Sadhana and hard work, he was able to decode them and get wide ranging mathematical principles and applications from them.

He found that these Sutras cover all aspects of mathematical science in depth. He wrote sixteen volumes on Vedic mathematics covering all aspects of these sutras in depth. Unfortunately, the manuscript was lost which fact was finally confirmed in 1956.

During his last days when his health was failing and his eyesight was weak, he rewrote from his memory an introductory account of the subject. He attained Mahasmadhi in 1960. Later in 1965 a book entitled "Vedic Mathematics" was published. This book is edited by Dr. V.S.Agarwala with the help of Smt. Manula Trivedi on the basis of manuscript and notes left by Swamijee.

This book is therefore, the first book to give a glimpse of Vedic mathematics and to reestablished the subject. The book attracted the attention of several Indians and foreigners. Dr. Narinder Puri of Roorkee University took up the cause of Vedic Mathematics in right earnest.

His Holiness Maharishi Mahesh Yogi spread the message of Vedic mathematics throughout the world by sending Dr. Puri to several countries and making it possible for many schools all over the world start teaching Vedic mathematics.

A former minister of Human Resource Development, in the Government of India, Sh. P.V.Narasima Rao made a reference in Parliament about the work on Vedic mathematics, which created a wider interest in the nation. Rashtritya Ved Vidya Pratishthan started looking into the matter and appointed a committee on Vedic Mathematics.

During the same period a controversy arose about the source of these 16 Sutras and the level of mathematics contained in them. One view was that these Sutras do not have a Vedic source and that they deal only with simple arithmetical operations.

In the meantime, Dr. Sant Kumar Kapoor, inspired by integrated impact of the Ganita Sutras, started working on basic aspects of the mathematical structure of Vedic literature. He got several clues from Ganita

Sutras, Maheshwara Sutra and many other Vedic Mantras.

He was inspired by the divine blessing from Yograj Sri Sripad Babaji of Vrindavan and His Holiness Maharishi Mahesh Yogiji at Maharishi Nagar. He has been awarded Ph.D. degree by Kurukshetra University, in December 1990 on his thesis titled "Mathematical Basis of Vedic literature".

His work shows that the potential of Ganita Sutras is much higher than what appears in the book "Vedic Mathematics" and the mathematical structure of Ganita Sutras is similar to that of Samved indicating that Ganita Sturas belong to Vedic family.

His work shows that the Devnagri alphabet and the Vedic scriptures are mathematically organized. Perhaps a more important aspect of his work in the existence of Real Geometric Spaces of higher dimensions in the form of a continuum.

A comprehensive description of his research is given in the next section. Dr. Sant Kumar Kapoor is presently working as a Visiting Professor in the Indian Institute of Maharishi Vedic Science & Technology, which is a part of Maharishi Ved Vigyan Vishwa Vidyapeeth, Maharishi Nagar. Three research students are working in our institution on the structure and properties of fourth, fifth and sixth dimensional spaces.

### **Vedic mathematical Research done by Dr. S. K. Kapoor**

Studies reveal that knowledge and organisation of knowledge are two distinct disciplines. The thesis of Dr. S.K.Kapoor is substantively covering the organisational aspect of Vedic knowledge. The main results of the thesis and his subsequent research can be summed as under:

1. Real 4 and higher dimensional spaces do exist.



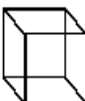

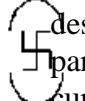
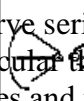
Real 4 and higher dimensional spaces were not only known to the Vedic seers but

those were precisely availed by them for organisation of Vedic knowledge.

Vedic alphabet format is a precise setup of 4-space. The alphabet letters of Devnagri script, their forms formulations, combinations and rules etc. are precisely mathematical.

Sakala Rigvedic Samhita is the oldest scripture of mankind. The organisational format of this Samhita is precisely that of real 6-space.

Vedic knowledge accepts a measuring rod constituted by regular bodies of the first six real dimensional spaces which admit formulations as:

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| Interval  | Square   | Cube   | Hypercube-4  | Hypercube-5  | Hypercube-6  |
|  |  |  |  |  |  |
| 1-space body  | 2-space body   | 3-space body   | 4-space body   | 5-space body   | 6-space body   |

The organisational format of Srimad Bhagwad Gita emerges to be of prime importance as it is parallel to the organising power of the knowledge content of the scripture. This format tallies with the format of human body on the one hand and the sun on the other hand as of real 6-space.

The Trinity of Gods namely Brahma, Mahesh, Vishnu are the overlords of real 4, 5 & 6 spaces respectively.

The geometrical continuum expressed as manifestation layers of 4 folds of consecutive dimensional spaces contents. These folds of the nth manifestation layer can be represented as under:

|                     |                     |                   |                     |
|---------------------|---------------------|-------------------|---------------------|
| <b>First Fold</b>   | <b>Second Fold</b>  | <b>Third Fold</b> | <b>Fourth Fold</b>  |
| Dimension           | Frame               | Domain            | Origin              |
| (n-2) space content | (n-1) space content | n-space content   | (n+1) space content |

The transcendence from one manifestation layer to another manifestation layer giving rise to the following (five steps) chain reaction or five steps, which are possible within the setup of Panch Mahabhut.

| Manifestation Layer | Dimension        | Frame            | Domain           | Origin           |
|---------------------|------------------|------------------|------------------|------------------|
| nth                 | Space fold (n-2) | Space fold (n-1) | Space fold n     | Space fold (n+1) |
| (n+1)th             | Space fold (n-1) | Space fold n     | Space fold (n+1) | Space fold (n+2) |

Transition from one space to another space is to be had in terms of unlocking of the seals of the origin points of all the four folds of the manifestation. The

modern mathematical models of transition from straight line to plane deserve serious reexamination. In particular the axioms of space filling curves and the axioms of 'one' without a predecessor deserve close scrutiny as their rationale emerges to be without basis.

The role of real numbers additive group  $(R,+)$  and real numbers field  $(R,+,x)$  with reference to straight line deserve to be differentiated.

The plane deserves to be studied as four geometrically distinct quarters. One faced plane and two-faced plane are two distinct geometrical setups and they deserve to be taken up as such.







The concepts of origin and dimension are two concepts with respect to which the modern geometrical models are not up to date. These two concepts deserves to be studied in detail as transcendence to the higher dimensional spaces is possible only in terms of their understanding.

Human body is a compactified phenomenon of multi-layer physiological existence. The start with state of existence is that of waking state, which is parallel to the expression of 1-space as dimension into 3-space domain. Sequentially, the existence phenomenon unfolds until seventh state of consciousness, which would be corresponding to the 7-space as dimension into 9-space domain.

The origin point of the 6-space, being the 7-space setup, the human body, geometrically, turns out to be hypercube-6 and this would explain how the primordial sound, the planetary effects, the Yajna oblations etc. operate and precisely influence the individual existence patterns.

Srimad Bhagwad Gita is one such scripture whose organisational format precisely workout for us the structural set up and frames of the 6-space. The study zone of Srimad Bhagad Gita can be worked as under:

Srimad Bhagwad Gita Study Zone

| $a/2$            | $a^2/4a$  | $a^3/6a^2$  | $a^4/8a^3$  | $a^5/10a^4$   | $a^6/12a^5$   | $a^7/10a^4$   |
|------------------|---|---|---|---|---|---|
| —                |  |  |  |  |  |  |
| $2 \times 1 = 2$ | $4 \times 2 = 8$  | $6 \times 3 = 18$   | $8 \times 4 = 32$   | $10 \times 5 = 50$  | $50 \times 7 = 350$   | $10 \times 5 = 50$  |
| Orbitals         |   |   |   | $350 + 350 = 700$   |   |   |
| 2                | 6   | 10  | 14  | $18 = 5 + 6 + 7$  |   |   |

The organisational setups of Ganita Sutras, Maheshwara Sutras, Saraswati Mantras, Gyatri Mantra and Om formulation deserve interdisciplinary explorations.

Sankhay Nistntha and Yoga Nistha are complementary and supplementary of each other and as such their complementary nature and supplementary nature deserve to be distinguished well. Non-differentiation of the

same is bound to deprive us of most of the results in specific forms.

Now let me take up how the subject contents of my different books are indexed in their prefaces. First starting with “Vedic Mathematical Study of Structural Frames and Systems of Sri Sri Vishnu Sahastranam Stotram”, published by Maharishi Ved Vigyan Vishwa Vidyapeetham, Maharishi Nagar–201304, (INDIA) (1991): “Preface

The present study aims at approaching the organisation format of the scripture; Sri Sri Vishnu Sahastranam Stotram. This is a scripture of 107 verses and it composes 1000 names of Lord Vishnu, who is overlord of real 6-space.

Though the modern mathematics too talks of dimensional spaces higher than three but those are mere mental-constructs. The modern mathematics has striped the concepts of dimension from geometrical reality and as such the suffix ‘Real’ before 6-space is of real significance here in this study.

If it is only while faced with problems of the classifications of the geometries of dimensional spaces and the sporadic finite groups, we are really face to face with the intensity and richness of each space beyond 3 space. Sylvester’s classification theory of n+1 geometries of n-space is just a property of real space. It is a simple shift from monad without parts which gives us 1-space as dimension of 3-space to synthetic monad of two parts of real space with 2-space as dimension. In a sequence, the real 5-space and 6-space are having synthetic monads of 3 parts and 4 parts respectively and accordingly their dimensions are 3-space and 4-space.

Vedic literature avails real 4, 5 & 6 spaces for organisation of knowledge. These spaces respectively contribute 24, 25 and 26 Tatavs (elements / characteristics properties).

The step beyond Sylvester’s classification or n+1 geometries of n-space would be to enter real 5-space where we shall

be getting  $2n+1$  geometries of signatures  $-n$  to  $+n$  of  $n$ -space.

The step beyond the 25th sporadic finite group would be a step into the real 6-space and we straight way get the number of elements of 26th sporadic finite group as  $10 \times 12^{64}$ . And with it, the classification assignment over which practically we have consumed complete nine decades or this century and still 26th group is eluding, gets answer from ancient wisdom of real spaces.

This would help us appreciate the ancient wisdom to accept the measuring rod of real bodies of first six real spaces admitting ratios of their domain parts as  $a^n : 2na^{n-1}$ ,  $n = 1, 2, 3, 4, 5, 6$ .

This all is being added here just to impress upon the rationale for the choice of Sri Sri Vishnu Sahastranam Stotram for organisational study.

However, I would like to add at the outset that by all means it is just a preliminary study into the structural frames and systems of this scripture and the real studies would follow from the pens of really the real privileged souls who, I pray, should spare moments from their blissful samadhi to give the desired direction to the flow of intelligence of the present generation.

Sri Sri Vishnu Sahastranam Stotram is the holiest of the Holy Scriptures whose enlightenment was the last discourse to the Pandavas given by great Bishma from his deathbed of arrows in the battlefield of Kurukshetra in the presence of Lord Krishna, incarnation of Lord Vishnu. This, that way, is the scripture of perfection and hence the proper scripture of the Sankhya nistha as well as the Yoga nishta.

His Holiness Sri Sripad Babaji initiated me into Sankhya nistha as the science of organisation of the Universe on the artifice of natural numbers. His Holiness

Maharishi Mahesh Yogi has initiated me further in the subject that the Sankhya nistha is the science of self-organising power of the pure knowledge.

The specific processing lines, which I describe as Sripad processing line is to know Brahman quarter by quarter and the Maharishi processing line is to know fourth quarter of Brahman as integrated quarter of first three quarters.

The present study in a way is nothing but the extent to which I could comprehend only that much and over and above that are the limitations on language and what not and so the humble request that they may skip over such stages by their own contemplation which is the only guide in such like adventures or mortals like me regarding the vedic scripture of perfection

x x x

With all humbleness this study is submitted with the hope that the advanced students of Vedic science and technology will continue the processing further into this and other scriptures. Here is a caution for them that the first correction which the modern mathematics needs in the discipline of geometry is regarding its hypothesis of space filling curves.

This hypothesis deserves to be rejected. The second thing which I would like to suggest is that the continuum be approached the Vedic way as manifested layers of four-folds of four consecutive space-contents and not 'individual dimensional space wise' as is being attempted at present by the modern mathematics.

Before submitting the present study for consideration of the scholars I feel it may duty to share the first principles of decoding the knowledge content from the organisational format of the Vedic scriptures. The keyword of



this principle is Shardha and culmination is the word nistha.

The principle operates as: Samsayatma Vinasyanti (Gita-4.40). Practical working rule comes to be that the doubt destroys everything, the scriptural commands deserves to be approached faithfully, the words of seers deserve to be taken up on their face value.

To have an idea that how difficult it becomes to gain anything from the Vedic systems the moment one approaches them with an initial doubts, we can see what mess stands created by the individuals about the powerful systems of Ganita Sutras.”

Professor Krishnaji has expressed by way of Forward of this book as:

“I am happy that, I am able to seek the blessings of H.H Mahairshi Mahesh Yogi on the first publication of the Indian Institute of Maharishi Vedic Science & Technology in a record time. Shri S. K. Kapoor, who is Visiting Professor in the Institute has produced, wonderful work, entitled “Vedic mathematical concepts and its application to structures and systems of Sri Sri Vishnu Sahastranam Stotram”.

This publication is the first publication or its kind in which Sh. S.K.Kapoor has introduced the Vedic geometric formula called “Gurudev formula” and has introduced the concepts of “Divya Ganga flow” and “Om formulation”.

He has explained the basic difference between conventional geometry and Vedic geometry e.g., the point in Vedic geometry has a structure whereas the point in conventional geometry is dimensionless.

He has gone into sufficient yet restrained details of the new concepts and the rules before applying them to the structural systems or the scripture Sri Sri Vishnu Sahastrannam Stotram.

He has shown without any strain and without any doubt that Vedic mathematical

concepts are able to explain unambiguously, the number of names of Lord Vishnu included in every individual Shaloka of the scripture.

His writing comes directly from his thinking. His gift of thinking is original but the inspiration given by H. H. Shri Pad Babaji of Vrindavan and H. H. Maharishi Mahesh Yogi is clearly visible. The knowledge is drawn from the vast treasure of Maharishi Vedic science and technology but the representation is original.

In recent year, there has been a revival of the ancient Vedic knowledge because a very large section of people have started realising that Vedas are the infinite source of complete knowledge and have existed from times immemorial.

However, there has been an unfortunate tendency, primarily due to ignorance, of comparing and trying to understand Vedic science in terms of the modern science. Very few people realise that the modern science utilises only the objective approach whereas Maharishi Vedic Science utilises both objective and subjective approaches to gaining knowledge simultaneously.

The epistemological nature of the ancient Indian knowledge is based on the understanding that the process of intuitive revelation of true knowledge in the individual mind can be controlled by eliminating the difference in the operation of emotions and intellect through their unification by the techniques of Yoga Darshan.

It will be of interest to the student of Vedic science, if they carefully understand the difference between modern science and Maharishi Vedic science.

Vedic mathematics is one particular component of Vedic science. Mathematics is called the queen of sciences and is the fundamental base on which all planning is done and all structures are raised.

Shri S. K. Kapoor is using this as an axiom and has applied the Vedic mathematics concepts as an integral part of Maharishi Vedic Science and Technology to investigate in the volume a particular case of structures and systems of Sri Sri Vishnu Sahastranam Stotram.

The readers may find it difficult to comprehend the subject during the first reading because they are used conditioned to the usual objective approach of conventional mathematics.

The second and subsequent readings, however, will reveal to them the real meaning of concepts and therefore, the immense beauty and power of this knowledge.

The Indian Institute of Maharishi Vedic Science and Technology is a research institute covering all aspects of Vedic Science & Technology including Vedic philosophy, structure of Vedic knowledge, Vedic mathematics, Ayurveda, Jyotish, Ganderva Veda Dhanurveda, Sathapatyaveda etc.

The Vedic science covers the widest possible spectrum from point to infinity and back to the point and the infinitely expanding universe. I hope that the present publication will re-open the infinite sources to pure knowledge, which has always existed in the supreme consciousness and has been frozen in the self-referral individual consciousness also from times immemorial.

One will find that before the main text there is an abstract table giving geometrical coordination of 1000 names of Lord Vishnu. To begin with, it may be incomprehensible to the understand reader, but it will certainly show that the Vedic geometry deals with the dimensions higher than 3, that is 4th, 5th, 6th dimensional frames whereas conventional geometry does not go beyond third dimensional frame.

The implications of this work are multidimensional and far-reaching. One aspect is the Vedic claim that faithful recitation of Sri Sri Vishnu Sahastranam Stotram can cure all

kinds of fevers. This can easily be understood because the studies reveal:

“The Vedic sounds are multi-dimensional domains’ frequencies from within a particular dimensional domain as the structure of that domain. When the sounds are pronounced, the frozen frequencies get initiated and the self-organising power of the Vedic sounds sets the frequencies’ potentialisation process into action. It is this process whose utilisation is the aim of different Vedic scriptures.”

This work is being submitted at the feet of H. H. Maharishi Mahesh Yogi for his blessing.

Jai Guru Dev!”

The book “Vedic Geometry” of mine published by M/s. Arya Book Depot, Karol Bagh, New Delhi (in 1994) indexes it preface as:

“The present introductory volume aims to introduce the ancient discipline of Vedic geometry. We may formally define Vedic geometry as a discipline of Geometry based on Vedic concepts.

Studies of mathematical basis of Vedic literature reveals that 4 and higher dimensional reality was not only known to Vedic Rishis but also put to practical use by them for organisation of pure knowledge on geometric formats, particularly, real 4, 5 and 6 space formats.

Vedic comprehension of geometric reality is characteristically different from our present-day conclusion. Basic difference in the two approaches viz. modern approach vis-a-vis Vedic approach can be appreciated in terms of the concept of dimension. Modern Cartesian dimensional approach makes all dimensional spaces the linear dimensional spaces as much as that 1-space is to play the role of dimension for all dimensional spaces while, on the contrary, Vedic comprehension

comes to be that n-2 space plays the role of dimension of n-space.

This glaring difference may well be focused algebraically as that as per modern model we may express 4, 5 and 6 spaces as  $A^4$ ,  $A^5$  and  $A^6$  while as per Vedic model their expressions comes to be  $(A^2)^4$ ,  $(A^3)^5$  &  $((A^2)^4)^6$ .

The above difference and impact of n-2 space playing the role of dimension of n-space comes to be that it requires 4 consecutive dimensional spaces to manifest a dimensional body as a 4 fold body having distinct dimension fold, boundary fold, domain fold and origin fold.

Our well-known solid bodies having cubes as their representative regular bodies avail 1-space as dimension fold, 2-space as boundary fold, 3-space as dimension fold, and 4-space as origin fold. In general n-2, n-1, n and n+1 spaces together synthesis and manifest 'n' dimensional body which may be designated as n-2 manifestation layer.

Also it may be designated as hypercube-n. This makes our modern set theory or binary compositions a study of 0 manifestation layer and Euclidean geometry a study of 1-manifestation layer while Vedic geometry takes up all manifestation layers within its domain.

The beauty of this discipline lies in its capacity to unify all discipline of knowledge as a single discipline. Illustratively, human body, sun, nucleus or nucleus of atom, 6-space, organisation of knowledge of Srimad Bhagwad Gita etc. etc. are all availing the format of hypercube 6 i.e. 4 manifestation layer.

This would help us appreciate the uniqueness of approach and richness of content of this discipline. But this is just a first glimpse. Real bliss lies ahead with unification of entire existence phenomenon as impulses of consciousness."

This "Vedic Geometry" book has 10 chapters with split-up of contents as under:

## Chapter-1

### *INTRODUCTION OF the subject*

- 1.1 Vedic geometry
- 1.2 Vedic knowledge
- 1.3 Vedic literature
- 1.4 Organisation of knowledge
- 1.5 Geometric formats
- 1.6 Organisation parallel to knowledge content
- 1.7 Four space
- 1.8 Five space
- 1.9 Six space
- 1.10 Trinity of gods.

## Chapter-2

### **BASIC CONCEPTS AND FORMULATIONS**

- 2.1 Synthetic monads
- 2.2 Manifestation layers
- 2.3 Transcendence at the origin
- 2.4 Regulation acceleration of transcendence
- 2.5 Measuring rod
- 2.6 Generation status of elements
- 2.7 Place value system
- 2.8 Power sets
- 2.9 Reflection operation
- 2.10 Structural constants

## Chapter-3

### **TRINITY OF GODS**

- 3.1 Trinity of gods
- 3.2 Lord Brahma
- 3.3 Lord Shiv
- 3.4 Lord Vishnu
- 3.5 Real 4-space
- 3.6 Real 5-space
- 3.7 Real 6-space
- 3.8 Mathematics of di-moand
- 3.9 Mathematics of tri-moand
- 3.10 Mathematics of tetra-moand

## Chapter-4

*Shadchakras*

- 4.1 Shadchakras
- 4.2 Shadchakras format of human body
- 4.3 First Shadchakra
- 4.4 Second Shadchakra
- 4.5 Third Shadchakra
- 4.6 Fourth Shadchakra
- 4.7 Fifth Shadchakra
- 4.8 Sixth Shadchakra
- 4.9 Coordination of Shadchakras
- 4.10 States of consciousness

## Chapter-5

**VEDIC GEOMETRY**

- 5.1 Vedic geometry
- 5.2 Mathematics of 4-space
- 5.3 Mathematics of 5-space
- 5.4 Mathematics of 6-space
- 5.5 Science of 4-space
- 5.6 Science of 5-space
- 5.7 Science of 6-space
- 5.8 Technology of 4-space
- 5.9 Technology of 5-space
- 5.10 Technology of 6-space

## Chapter-6

*Vedic number theory*

- 6.1 Vedic number theory
- 6.2 Parallelism between artifices of whole number and dimensional spaces
- 6.3 Chasing organisation of boundary of 5 space
- 6.4 Chasing organisation of boundary of 4 space
- 6.5 Chasing organisation of boundary of n space
- 6.6 Addition and bindary operation of 1-space
- 6.7 Substraction and bindary operation of -1 space
- 6.8 Real line is solid line
- 6.9 Dedekind's cut work out half open interval.
- 6.10 Calculus is science of boundary hypercubes.

## Chapter-7

*Ganita Sutras*

- 7.1 Ganita Sutas text
- 7.2 Organisation format of Ganita Sutras
- 7.3 Organisation of 16 Sutras
- 7.4 Organisation of 13 Upsutras
- 7.5 Organisation of 46 constructs
- 7.6 Organisation of 520 letters
- 7.7 To reach at the applied values of Ganita Sutras:
  - Ganita Sutra-1
  - Ganita Sutra-2
  - Ganita Sutra-3.

## Chapter-8

*Structural frames and systems***OF SAMVED SAMHITA**

- 8.1 Introduction
- 8.2 First part of Samved Samhita
- 8.3 Second and third of Samved Samhita
- 8.4 Purva Archik; Sum-up
- 8.5 Chapter-1 Dastis 1-12
- 8.6 Purva Archik Mantras of chapter-1

## Chapter-9

## Structural frames and systems of Srimad Bhagwad Gita

- 9.1 Organisation of knowledge
- 9.2 Understanding the systems of Srimad Bhagwad Gita
- 9.3 Organisation of the text of Srimad Bhagwad Gita
- 9.4 Organisation of the knowledge of 18 chapters.

## Chapter-10

## CONCLUSION AND THEIR APPLICATIONS TO THE SOLUTION OF FERMAT'S LAST THEOREM

- 10.1 Fermat's Last Theorem
- 10.2 Four folds approach
- 10.3 First proof
- 10.4 Proof by direct comparison
- 10.5 Transcendence approach
- 10.6 Power expression
- 10.7 Power sets
- 10.8 Aspects 1 to 12.

International Sanskrit Research Academy (Regd. Trust), Bangalore in its letter dated June 22, 1996, conveyed its editorial team's view regarding Chapter-9 titled "Structural frames and systems of Srimad Bhagwad Gita" of my book "Vedic Geometry" (pages 433 to 458) as under:

"This is an inter disciplinary study bringing out the link between the Vedic geometry and the classical text of philosophy namely Bhagavagita in the Chapter-9. This study can further lead us to understand the relation of Gita with other important scientific disciplines in the Indian tradition about which the present knowledge is very meager. This article is a stimulator for further studies."

In the Preface to my book "Fermat's Last Theorem and Higher Spaces Reality Course" published by M/s. Arya Book Depot, the subject content is indexed and focused as under:

"Preface

Present phase of intellectual history of man begins with seventeenth century. Over all these years, one statement, which remained source of intellectual challenge, is the statement of Fermat's Last Theorem. It is rightly stated "those non-mathematicians who really wants to understand the essential nature of mathematics and how it is created ought to begin with this discussion" (of our recorded history how bravely we fought to conquer the fort of this statement).

The French Attorney and mathematician Pierre de Fermat (1601–65) made his assertion in 1637 as the following note (original in Latin admitting English rendering translation as given below) in the margin of mathematics book (Bachet's translation of Diophantus' Arithmetica, great classics of ancient Greek mathematics) he was reading at that time:

*It is impossible to separate a cube into two cubes, a biquadrate into two biquadrate, or in general any power higher than second into two powers of like degree. I have discovered a truly remarkable proof which this margin is too small to contain'*

Prof. Paulo Ribenboim in his essay titled "Early History of Fermat's Last Theorem" highlights amongst other features, the fact that despite efforts no proof could be traced from the paper left behind by Fermat and that one school of thought is gaining grounds when he adds: 'It is very difficult to understand today how the most distinguished mathematicians could have failed to rediscover a proof if one had existed.'

This article despite above reservations earned a hopeful editorial comment: 'It is amazingly simple question but whose solution eluded the world, the world of mathematics to this very hour.'

The present work approaches this theorem from many angles and put forwards several alternative proofs but the crowning jewel is the equally simple answer for an amazingly simple question. The answer runs as that on format of volume of cube;

$$z^3 = x^3 + y^3 \text{ implies}$$

$$(z-2)^3 = (x-2)^3 + (y-2)^3 \text{ as}$$

$$a^3 = (a-2)^3 + 6(a-2)^2 + 12(a-1) + 12(a-1)^0$$

Number value cube = volume + surface area + length of edges + value of corner of geometric cubes.

The law of impossibility of infinite descent proves the case n=3.

As such the dimensional order of odd hypercube-n such that  $n=2m+1$  comes to be  $1 \times 3 \times 5 \times 7 \times \dots \times 2m+1$  and for even hypercubes-n such that  $n=2m$  comes to be  $2 \times 4 \times 6 \times 8 \times \dots \times 2m$ , therefore, for all hypercubes-n such that  $n=4$  implies that dimensional order of hypercube n is divisible by 3. Therefore, n is divisible by 3.

Therefore, the general case for  $n=4$  immediately follows from case  $n=3$  as we can rewrite  $z^n = x^n + y^n$  as  $(z^{n/3})^3 = (x^{n/3})^3 + (y^{n/3})^3$ . The case  $n=4$  was proved by Fermat himself. The initial choice or format of volume of cube restricts n to be greater than 2. Hence, the general proof.

The source concepts at the base of above proof is:  $n-2$  space plays the role of dimension of n-space. It is well preserved in our Vedic literature. Two such references are Uttarkand 79(ka) Ramcharitmanas and Bhagwad Mahapuram (10.9.15-16).

General Proof (at pages 104-110 of this book) was sent by the author to Prof. Paulo Ribenboim who referred it to referee but unfortunately lost it.

To be at most natural answer is an intellectual satisfaction but his is the beginning of the new wonderful higher dimensional reality displayed beyond this point.

The mathematical truth of this theorem is the basic foundation stone for jumping from three space reality to four and higher space reality. Aim of this work is to attempt a school courses for higher dimensional mathematics to mature the young brains by exposing them to the geometric formats of mathematics, science & technology of real three, five and six spaces over a duration of post-middle four years duration of school education so that present generation may have taste of the bliss of Vedic wisdom.

The efforts of the author would get amply rewarded if this work helps the students and teachers of mathematics to think about the ways and means of coming out of a single space (three space) model of mathematics, science and technology.

Eternity of Vedic knowledge is there because of eternal organisation formats of Vedic knowledge. Idols of Trinity of Gods manifest on formats of hypercubes 4, 5 and 6. These together as three folds of four manifestation layer with 4,5,6 and 7 space as dimension, boundary, domain and origin fold constitute a really wonderful format being availed as organisation format for Vedic wisdom.

Because of it, seven-place value system has a unique role to play. As is evident from the table below, all the six numbers 1 to 6 of seven-place value system acquire same value i.e 1 for power 6.

|               | Digits |   |   |   |   |   |   |
|---------------|--------|---|---|---|---|---|---|
|               | 1      | 2 | 3 | 4 | 5 | 6 |   |
|               | 1      | 1 | 2 | 3 | 4 | 5 | 6 |
|               | 2      | 1 | 4 | 2 | 2 | 4 | 1 |
| <b>Powers</b> | 3      | 1 | 1 | 6 | 1 | 6 | 6 |
|               | 4      | 1 | 2 | 4 | 4 | 2 | 1 |
|               | 5      | 1 | 4 | 5 | 2 | 3 | 6 |
|               | 6      | 1 | 1 | 1 | 1 | 1 | 1 |

As such, it may be very easy to physically test even case i.e.  $n-2m$  cases for  $n>4$  on seven place value system.”

The book “Foundations of Higher Vedic Mathematics” published by M/s. Arya Book Depot, has indexed in its Preface as:

“Ved means ‘knowledge’. Studies of available Vedic literature reveal that Vedic seers had successfully organised whole range of knowledge as a single discipline as a speaking language. Further, studies reveal that our ancestors could achieve success par excellence by first comprehending Reality which ends up as Triloki (three space) as higher dimensional Reality and secondly, by making use of this comprehension of higher dimensional Reality for the required geometric formats for organisation of Vedic knowledge.

Upanishads are the end-product of Vedic literature. The enlightenment of Upanishads takes us to the fundamental unity of Reality as much as that Purusha emerges to be the first manifested incarnation of Brahm (Sri Sri Vsihnu Puran). The specific enlightenment of Upanishads is that Lord Vishnu, Sun, Purusha, Atman and real six space are organisationally in unison with each other. It is this enlightened comprehension, which may be taken as the source for unification of knowledge on six-space format.

Further, studies of mathematical basis of literature leads to the conclusion that the organisation format of hypercube-6 (being the representative regular body of six space) is structurally very rich and is capable of organizing the whole range of pure knowledge as a single discipline as a speaking language as real six space, if viewed linearly, is a space of  $2 \times 4 \times 6 = 48$  linear dimensional order.

Upanishad further enlighten us that Lord Vishnu accepts hypercube-6 as format for His Idol, Shad-Chakra format of human body admits coordination through Sushmana Nari and takes us to the core of sun parallel to the measuring rod of first six hypercubes accepted by Sthapatya Ved. In fact, every Vedic literature makes use of one or other aspect of hypercube-6 for organisation of knowledge.

In the opening paragraph of chapter-1 of present studies it has been made specific that: Vedic mathematics, as it is, yet to be explored. Though whole domain and the scope of Vedic mathematics, as it is, yet to be explored but three distinct approaches, to which we may have access at present, are, firstly, 'on the artifices of whole numbers' of Ganita Sutras, as interpreted by H.H. Swami Bharti Krisna Tirthaji Maharaj, secondly 'on the geometric formats' of Maheshwara Sutras, as is expounded by H. H. Sri Sripad Babaji Maharaj, and thirdly, 'on consciousness state of human physiology' as unfolded by H.H.Maharishi Mahesh Yogiji Maharaj, known as 'Maharishi's Vedic Mathematics'.

Present studies are titled 'Foundations of higher Vedic mathematics' as here attempt is being made to reach at the foundations of higher Vedic mathematics on which the Vedic knowledge has been organised as a single discipline as a speaking language. Mahalakshmi Astham Stotram has been taken as the reference scripture for measure the success of studies.

Present study for foundations of higher Vedic mathematics is being divided into four chapters as four steps. The first step is to introduce the basic concepts and formats required for reaching at the organisation formats of different folds of Vedic mathematics text. This as such is the topic of study of the first chapter.

The inner evidence of available Vedic literature makes out that Om formulation is the basic formulation without whose proper understanding it may not be possible to have desired insight into the working rules of Vedic mathematics at the base of the organisation of Vedic knowledge and as such the second topic of study of chapter-2 is 'Om Formulation'.

The organisation of knowledge being for working out the systems which end up as Triloki and as such the third topic for detailed study which need be taken and in fact is being taken up in the present study as chapter-3 is 'Structural richness of a cube'.

With Mahalakshmi-Ashtakam Stotram at the centre and transcendental meditation as the basic technology, attempt has been made to ascertain the specific properties of a geometric space as the Santana (eternal format/real 5-space) accepted for the organisation of Vedic knowledge.

Mahalakshmi Ashtakam Stotram is a scripture of Stuti Shalokas devoted to Goddess Mahalakshmi. Devotees by faithfully reciting these Shaloks get blessed with Vibhuti and Shakti of Vishnu-lok. This is the fruit of pure knowledge, the Vedas.

Devotees just recite the Stuti shaloks with full faith and get blessed with the godly grace. For all those who wish to be blessed with such a

grace, for them, there is no choice, but to recite these Shalokas with faith. Such readers may straight a way go to the text of the Stotram (chapter-4) and faithfully recite the same be blessed with godly grace of Goddess Mahalakshmi.

The conclusion of the studies comes to be that: Vibhuti and Shakti of the Vishnu-lok manifests at boundary or Vishnu-lok (real 5-space in the role of boundary) as well as Saptrishi-lok as stands released with unlocking of the seal of the origin of Vishnu-lok. This is there because of the Goddess Mahalakshmi, the consort of Lord Vishnu, manifesting as real 5-space playing the role of boundary of 6-space and dimensional order of 7-space.

This privileged state of Vibhuti and Shakti of Vishnu-lok is there because of the Goddess Mahalakshmi. This is the state whose comprehension and understanding has much education for us who are interested in sciences, mathematics and technology of higher real spaces, particularly as to how the continuity of manifestations is being maintained by the dimensional contents which otherwise remain sealed at the origins of the dimensional spaces.

The concept of release of higher dimensional content with unlocking of the seal of the origin and transcendence setting into action is the most fundamental concept, which is not known to the present day sciences and technologies. Four consecutive dimensional spaces manifest simultaneously as four-fold manifestation sequentially playing the roles of dimension, boundary, domain and origin with origin normally remaining in dormant sate but otherwise being capable of being initiative.

This in Vedic technological language would mean chiseling of an eye. In Yogic language it would mean attaining transcendence state for higher state of consciousness. This precisely in geometric language would mean the release of next higher dimensional space.

Though in the present study which aims to outline some of the steps for foundations of higher Vedic mathematics, an attempt is being

made to make this study a self-contained one but despite every effort it has not become possible to go for defining each and every technical term used here and as such I feel that one reading of my book on "Vedic Geometry" may be of great help.

Before presenting the studies to the readers, I feel it my duty to express that this study simply would have been without shape, but for the enlightenment of Maharishi's Vedic mathematics' statement sharpened and focused by H.H.Maharishi Mahesh Yogiji Maharaj (as part of Maharishi's Absolute Theory of Defence). This has been annexed with the present studies to give the readers an idea as to what is going to be the final shape of things in the area of Vedic mathematics, and now wonderful worlds of higher dimensional Reality are awaiting for us.

Scholars may straight-a-way go to the Maharishi's Vedic Mathematics statement. The readers, who are not yet exposed to Vedic geometry and Vedic mathematics, may first go through chapter-3 of the present studies regarding "Structural Richness of a Cube". However, the readers who are already exposed to Vedic geometry and Vedic mathematics, they may start with chapter-1 titled "Steps for foundations of higher Vedic mathematics".

The reader who are interested to first to go through Om formulation, they may start with chapter-2 and the readers who are interested only in godly grace they may straight-a-way go to chapter-4 titled "Mahalakshmi-Ashtakam Stotram": Mahalakshmi Ashtakam Stotram blesses devotees reciting the scripture with faith.

With all humbleness, I share with the readers that my family has full faith in this scripture and everyone can be blessed with godly grace just by faithful recitation (three times a day) or Stuti Shaloks of Mahalakshmi Ashtakam Stotram.

Present study, in fact is a joint exercise of all the members of my family as every member has contributed for the completion of the work in his/her won way. Further I would like to



share with the readers that the present studies have become possible only because of the privilege to be at the feet to H.H. Sri Sripad Babaji Maharaj and had initiations into the organisation of Vedic knowledge and further being at the feet of H.H. Maharishi Mahesh Yogiji Maharaj and learnt Transcendental Meditation for transcendence values needed for reciting at the inner folds of organisation formats of Vedic knowledge.

Mahalakshmi-Ashtakam Stotram text is a composition of just 818 letter organised as just 11 Shaloks and its recitation even by reading the text is an exercise of less than five minutes. By way of study of chapter-4: "Mahalakshmi-Ashtakam Stotram", it has been expressed about the organisation and composition of this scripture as that: The composition of this scripture as that: The composition range of 818 units is firstly organised as 352 syllables. These 352 syllables are further organised as 85 Padas (words). The Padas range of 85 units is organised as 22 composition ranges as half is organised as 22-composition range as half Shaloks of 16 syllables length. Ultimately these 22 composition ranges get organised as 11 Shaloks of 32 syllables each.

The organisation of individual Shaloks as 32 syllables of equal parts of 16 syllables is parallel to the organisation of 32 teeth in the mouth grouped as two jaws of 16 teeth each.

The human Nad had ultimately gets regulated through these 32 teeth arrangement as Shabad (Mantras). The organisation of Nad of 818 units of Mahalakshmi-Ashtakam Stotram is parallel to the organisation of the affine space of a cube of 818 units. This organisation is further parallel to the organisation range of Vedic mathematics text of precisely 818 units.

Therefore, the organisation of 818 units composition of Mahalkshmi Stotram satisfy the first test of being of the potentialities of the nature which ends up as our Triloki. As such, everything what may be attained within human frame is ensured with faithful recitation of Mahalakshmi-Ashtakam Stotram.

The physical test of the organisation possible on the affine space within a cube and the intellectual test of the organisation of the Vedic mathematics text having been done, the interested readers may further have the satisfaction of the subjective test by themselves experiencing the taste of the Stotram.

For such interested readers, it is added that they should have faithful recitation of the scripture three times a day, initially with the help of written text till the text become fully enlivened in their consciousness, it would become possible for them to dispense with the written text and they may enjoy the recitation of the scripture while sitting in Pada-Asan. Though the recitation as such may turn out to be just of one-minute duration and even stage would reach where just attention would enliven the whole range of the text.

The blessed state of Mahalakshmi-Ashtakam Stotram getting enlivened just the moment there is attention to it becomes a permanent state provided one does not deviate from the laws of pure consciousness state which admits truth as its base/format for enlivened existence.

To achieve the enlivened state of existence may not be difficult but to make it a permanent state, one is to be ever truthful to oneself so that purity of consciousness is not diluted. If at any stage one feels that some circumstances of consciousness are having tendency to dilute the purity of consciousness, he should increase the number of recitations of this scripture to meet those uncalled for tendencies of those circumstances. Faithful recitation has the potentialities to overcome all such things."

This book "Foundations of Higher Vedic Mathematics" published by M/s. Arya Book Depot, has four chapters with split-up contents as:

## **1. Steps for foundations of Higher Vedic Mathematics**

1.1 Introduction

1.2 Main results

1.3 Basic geometric formats and concepts

- 1.4 Vedic mathematics text
- 1.5 Illustrative case: Fermat's Last Theorem
- 1.6 Organisation of Rigved Samhita
- 1.7 Jyoti Manifestation format
- 1.8 Triloki & trinity of gods
- 1.9 Conclusion

## 2. Om formulation

- 2.1 Introduction
- 2.2 First set of rules of Om formulation
- 2.3 Second set of rules of Om formulation
- 2.4 Third set of rules of Om formulation
- 2.5 Fourth set of rules of rules for Om formulation
- 2.6 Studies: 4 components of Om formulation as first four-dimensional domains
- 2.7 Illustration I: Structure of an atom
- 2.8 Illustration II: 120 years cycle of human destiny
- 2.9 Illustration III: Human physiology: Shadchakra
- 2.10 Illustration IV: Lagrangian  $n=8$ .
- 2.11 Appendix: Occurrence of 'Om' in the ancient literature and some questions regarding multi-dimensional spaces.

## 3. Structural richness of cube

- 3.1 Cube
- 3.2 Three space
- 3.3 Triloki and Lord Vishnu
- 3.4 Chasing Rigved organisation with cube
- 3.5 Chasing Vedic knowledge organisation with cube
- 3.6 Internal structure of a cube
- 3.7 Structural setups of a cube of edges as ten units
- 3.8 Bottlenecks of linear mathematics
- 3.9 Exposure to structural richness of cube
- 3.10 To arrive at a syllabi
- 3.11 For transition to course on hypercube-4

## 4. Mahalakshmi Ashtakam Stotram

- 4.1 Introduction
- 4.2 Text of the scripture
- 4.3 Text as composition of 818 letters
- 4.4 Shalokawise structural data
- 4.5 Gyan Vigyan Yog
- 4.6 Sri Sri Durgasaptati
- 4.7 Goddess Mahalakshmi
- 4.8 Five as organisation format

- 4.9 Jyoti manifestation format
- 4.10 On Sanatana format
- 4.11 Commentary

My modest work "Patanjali Unison Discipline" is my first attempt as more in the spirits of a Sadhaka then in that of scholar, was blessed by my Guru His Holiness **Sri Sripad Babaji Maharaj**, with his forward:

"This Indian spiritual wisdom revealed first in and through the Vedas was well systematised and reconstructed in the six orthodox systems of Indian philosophy, namely Nayaha, Vaisesika Sankhya, Yoga, Mimasa and Vedanta. Based on scriptural authority and expounded by eminent Acaryas, these celebrated Darsanas ensure salavation to the serious aspirant. It is well known that philosophy in India has not been merely an intellectual enterprise, but a way of life. And herein lies the Sadhanatmaka character of Indian thinking.

It is against this background that the philosophy of Yoga should be understood. While recently there is a craze for Yoga, there is less seriousness for a correct apprehension of this spiritual science. An attempt at is oversimplification and devising shortcut is what is apparent here and there. In fact, Yoga is a mater of eternal inspiration for the Sadhakas. Hence, the relevance of the repeated and renewed studies of the basic texts of these great disciplines has dominated search of the truth since time immemorial.

In the context of such a huge and rich literature on the subject, as is amassed on Yoga to-date, it is indeed not any easy task to write a fresh commentary on the Yoga-sutras of Patanjali, which number 196, are an example of brevity and perfection with which ancient learning was preserved at the hands of Rishis.

Even an explanation of the aphoristic expression requires a mastery of the language, as well as a deeper insight into the field. While the size of the Yoga Sutras is not voluminous, it has been very rationally classified to present a scientific picture of spiritual ascent.

The first section, dealing with the nature and technique of Yoga is known as Samadhi Pada, since it is devoted to explain what the Yoga is. Krishna reveals this lineage in Bhagvad Gita as:

The second section has significantly been termed as Sadhana Pada, since it expounds the reasons for which one should adhere to the path of Yoga. 'I taught this immortal Yoga to Vivaswan (Sun-god): Vivaswan conveyed it to Manu (his son); and Manu imparted it to (his son) Iksvaku' IV.1

It aptly analyses the miseries of life from which liberation is sought, and it prescribes external preparatory disciplines, which attune the Sadhaka to Samadhi. The third section, called as Vibhuti Pada, lays down the internal Yogic techniques, which unfold the mysteries powers prior to attainment of Samadhi. The transmission of the light of knowledge from man to man and from age to age is handed down through the great ancillary of cosmic memory by the enlightened one to the seeker in quest. Whenever this link of interaction is broken the energy is stagnant and humanity stands at the crossroad. Symbolically, the churning of divine and demonic forces comes to the point of creating problems for right discrimination to decipher the Truth and find the right dimension of consciousness.

The last section is naturally Kalvya Pada, which thoroughly deals with the basic philosophical doctrine involved in the Yogic conception of bondage and liberation.

Sri Sant Kumar Kapoor of the Haryana Civil Service (Judicial), Palwal, has done an humble service by writing the book titled "Patanjali Unison Discipline". His modest work is more in the spirit of a Sadhaka than in that of a scholar. He has attempted a simple explanation note for each Sutra of the Patanjali Yoga-Sutras. May God grant him further inspiration in this noble direction, as the Patanjali Yoga Darsana is to first taste the amrosia of yoga with the supreme, and then to reveal the experience. The lineage of Sadhakas as well as scholars has worked together on the Patanjali Yog Sutra from the ages to reveal and to experience the Yoga Sutras by their living evidence"

**His Holiness Sri Sripad Babaji Maharaj** saint of Vrindavan, the founder of Vraja Academy, Vrindavan blessed this work and made me His disciple emerging to His satisfaction of Maheshwara Sutras for proper channelization of natural order on the transcendental format of Om as Udgiti of Parvanava, AUM, Onkar and Vashitakar of Absolute order of Veda:

"The revelation of Eternal wisdom has been the eternal quest -- the meeting point of alpha and omega in Indian School of Thought. Lord Sri Sant Kumar Kapoor's quest – else engaged in the field of jurisprudence – has opened his intuitive faculty of study ancient scriptures in the light of modern mathematics. These studies were brought to focus by His Holiness Swami Bharti Krishna Tirthaji Maharaj, the Sankracharya of Kanchi Peeth around 1965.

As the Shrutis of the Vedas sing in chorus; "He is full, this is full, if fullness is taken out of fullness there remains fullness", so the heart of the Rigveda concludes that our thoughts should be same, our actions should be same, there should be no diversity between them, that the fullness of thought, speech and action should meet at alpha and omega, at-one-ment. To unlock the intuitive forces and dynamic energies in quest of the churned out Ambrosia the universal syllable AUM is beginning and the end.

This research work is on its way to arrive at this very conclusion. May the Supreme Divine bless this venture."

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For further information interested readers may visit websites:

[www.vedicganita.org](http://www.vedicganita.org)  
[www.geocities.com/vedicmathematics](http://www.geocities.com/vedicmathematics)  
[www.learn-and-teach-vedic-mathematics.com](http://www.learn-and-teach-vedic-mathematics.com)

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## SCINTILLING FILTERING THROUGH TRANSCENDENTAL JOINT

Dr S K Kapoor

## CONCEPTUAL STATEMENT

Mental state that everything is to be within a space is to be transcended as space itself

emanates from its source origin. Vedic Systems chase existence phenomenon within solar universe as that *Surya* (Sun) is the origin of *Aakash* (space). *Surya* itself is *Pram Vyoum* (transcendental content fulfilled domain). It brings in the concept of a Svambhu (self referral domain) It, in a way, amounts to transcendence from linear order to a spatial order and thereby there happens simultaneous existence phenomenon of a line and a surface within a surface.

## CHASE STEPS

Chase steps being followed here are: (i) Tejomau Aakash (transcendental space), (ii) Domain split format, (iii) Transcendental joint of self referral domain, (iv) Bio Chip format and functional set up of human head

## TRANSCENDENTAL SPACE

## DOMAIN SPLIT FORMAT

Surya (Sun) is a 6-space domain. Surya Prakash (Sunlight) universe makes transcendental space. Surya ank is '6'. TCV (Surya) = 13 is parallel to 13 versions of hyper cube 6. These 13 versions of hyper cubes 6 are the representative regular bodies of 13 geometries of 6-space. Hyper cube 6 is a four folds manifestation layer (4, 5, 6, 7) in 4-space. TCV (Surya Prakash) = 26, of organization  $26 = 5+6+7+8$ , parallel to four folds manifestation layer (5, 6, 7, 8) of hyper cube 7. It is this reach of format of hyper cube 6 of Surya (Sun) to format of hyper cube 7 of Dhruv (pole star) which is going to be the reach of a Tajjomau Aakash / transcendental space, of transcendental order (5-space as dimension). TCV (Dhru) = 19 = 6+13 while TCV (Surya) = 13

Domain split spectrum is of sequential streams flow of values range (1, 2, 5, 12, 29, 70, 169, 408, 985, ...). of these first 6 steps values (1, 2, 5, 12, 29, 70) for 13 domain, lead to values (13, 2x11, 5x9, 7x12, 5x29 & 3x70) of summation value  $(13+22+45+84+145+210) = 519$ . It is parallel to total letters of entire text of 16 Ganita Sutras and 13 Ganita Upsutras. Further at the seventh step of domain split streams flow value  $169 = 168+1$ , as one more than 168, primes of values range 1 to 1000, brings us face to face with the unified processing format of Sankhiya nishta and yoga nishtha of Vedic Systems being a set up of sathapatya Measuring Rod synthesized by hyper cubes 1 to 6 with parallel values range (1, 2, 3, 4, 5, 6) of summation value 21 as dimension value leading to 23 as domain value

parallel to TCV Sahastra, which is value 1000.

## TRANSCENDENTAL JOINT OF SELF REFERRAL DOMAIN

Surya ank (number value of surya domain) is '6'. The value '6' is the first perfect number being of triple proper divisors (1, 2, 3) of summation value  $1+2+3 = 6$ . It is unique perfect number, as in this case  $1+2+3 = 1 \times 2 \times 3$ . This feature of summation value of proper divisors being equal to the product value of the proper divisors is uniquely available in this very first perfect number alone. Further 4-space plays the role of dimension of 6-space. And,  $2+2 = 2 \times 2 = (-2) \times (-2)$  is the unique feature of number value 4. This feature of addition of value with itself, product of value with itself, as well as the product of reverse orientation value, with itself, being equal to 4, is uniquely available here, in case of

number value 4. Still further 2-space plays the role of origin of 4-space and 0-space plays the role of dimension of 2-space and,  $0+0 = 0 \times 0 = (-0) \times (-0)$ , as an integrated features format for quadruple values (6, 4, 2, 0) makes 6-space domain (surya / sun) as a unique universe. And, 5-space as origin of 4-space is the transcendental joint at the origin seat of creator's space, becomes the transcendental joint of the self referral domain itself as the origin of the creative dimension (4-space as dimension of 6-space) gets sealed and further 5-space as transcendental boundary envelops 6-space domain itself and the entire universe gets transcendently framed. So transcendently framed, 6-space domain as quadruple values 5, 6, 4, 5 of summation value 19 makes transcendental space as Dhru Aakash.

## BIO CHIP FORMAT AND FUNCTIONAL SET UP OF HUMAN HEAD

Vedic systems mathematics chase of set up of human head is of a bio chip format of transcendental domain. It is of integrated organization of 2-space in the role of dimension of 4-space and 3-space in the role of dimension of 5-space. The pair of spaces (2-space and 3-space) accept unified formatting as 2-space as boundary of 3-space. Further, 3-space is origin of 2-space. The transcendence of 3-space from 2-space domain, splits 2-space domain into a pair of 2-space(s) domains and makes it triple values set up (2, 3, 2) which with transcendence of 3-space origin, makes it a pair of setups of values [(2, 2), (3)]. This makes a set up (4, 3), which is parallel to the split of seven versions of hyper cube 3 as representative regular bodies of 7 geometries of 3-space of 3 positive signature geometries

and 4 non positive signature geometries. And also with permissibility of reversal of orientation, in the spatial order (2-space as dimension), the organization also becomes of features of (3 negative signature geometries and 4 non negative signature geometries). It also leads to the features format of Agni (Fire) as the third element as of a pair of parts of four arms and three arms respectively. It further takes to the Prithivi (Earth) the first element being a linear order 3-space format in 4-space as origin, and as such being of the synthetic set up of northern and southern hemispheres with southern hemisphere being of value 19 parallel to TCV (Dhru) and northern hemisphere being of TCV value 17 parallel to TCV (Aatma / Being), TCV (Dravey / Content) as well as TCV (Divya / Transcendental). Further, TCV (Mukh) = 15 and values pairs 15, 17 is of (dimension, domain) format.

With it, the Vedic systems mathematics chase of set up of human head gets centred at the transcendental joint / 5-space as origin of 4-space. The same takes to 3-space as origin of 2-space. It takes to values triple (2, 3, 2).

The same further takes to a pair of faces of a surface within 3-space. And, it is the transcendence from first face to second face through the solid origin which makes the functional set up of human head through its five fold transcendental structural setup : (i) Pair of Jaws, (ii) Pair of nostrils, (iii) Pair of ears, (iv) Pair of eyes and (v) Sixth eternal circuit seat as top tip of the head. It is through the top tip of the head that the transcendental space coordinate it with self referral origin of solar universe (7-space as origin of 6-space).

## VISIT TO ETERNITY GLIMPSE RANGE OF VEDIC SYSTEMS MATHEMATICS

Sadhakas fulfilled with intensity of urge to visit and to be parallel with Vedic mathematics systems chase of existence phenomenon of solar universe and of existence phenomenon within solar universe, may follow in terms of structural keys values of 16 letters of Ganita sutra-1 for reach at the structural values of mathematical domains of Ganita Sutras 1 to 16, in terms of first, first two, first three and so on, all the 16 letters values of Ganita Sutras 1 to 16, being tabulated as under:

| Letters of Sutras | TCV | Total TCV |
|-------------------|-----|-----------|
| 1. ए              | 6   | 6         |
| 2. नि             | 10  | 16        |
| 3. ऊर्ध्व         | 16  | 32        |
| 4. पर             | 10  | 42        |
| 5. शून्य          | 18  | 60        |
| 6. शून्यं         | 27  | 87        |
| 7. संकल           | 24  | 111       |
|                   | 35  | 146       |

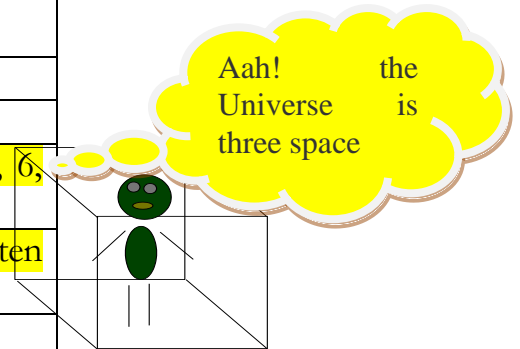


|                     |    |     |    |    |                           |
|---------------------|----|-----|----|----|---------------------------|
| 8. पूरणपू           | 28 | 174 | 15 | 43 | Tej to Prakash 15+13+15   |
| 9. चलनकर            | 42 | 216 | 16 | 55 | Transcendental joint of c |
| 10. यावदूनम् (य)    | 39 | 255 |    |    | boundary 11x5             |
|                     | 49 | 304 |    |    |                           |
| 11. व्यष्टिसमष्ट    | 47 | 351 |    |    |                           |
|                     | 70 | 421 |    |    |                           |
| 12. शेषाप्यङ्.केन   | 43 | 464 |    |    |                           |
| 13. सोपान्त्यद्वय   | 55 | 519 |    |    |                           |
| 14. एकन्युनेन पूर्व |    |     |    |    |                           |
| 15. गुणितसमुच्चय    |    |     |    |    |                           |
| 16. गुणकसमुच्चयः    |    |     |    |    |                           |

## GLIMPSE REAL 3, 4, 5, 6- SPACES FOR PERFECTION OF INTELLIGENCE

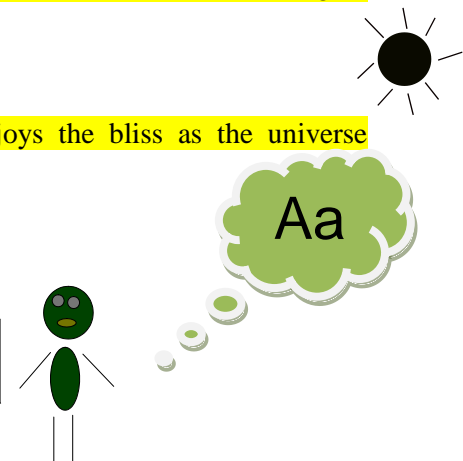
To be parallel with Vedic Systems mathematics of Ganita sutra one shall glimpse real 3, 4, 5, 6-space and to perfect ones intelligence.

| Sutra | Sequential Letters values | Parallel format  |
|-------|---------------------------|--|
| 1     | 6                         | Hyper cube-2 as (1, 2, 3)  |
| 2     | 10                        | Hyper cube 3 as (1, 2, 3, 4)   |
| 3     | 16                        | Transcendence of origins as (5, 6, 5)  |
| 4     | 10                        | Creative boundary of ten components $A^5:10B^4$  |
| 5     | 18                        | Hyper cube 5 as 3, 4, 5, 6   |
| 6     | 27                        | $3^3$  |
| 7     | 24                        | Creative dimensional fr  |
| 8     | 35                        | Transcendental dimens $7 \times 5$   |
| 9     | 28                        | 6-space to 7-space $1+2+4+7$   |
| 10    | 42                        | Synthesis of pair of spatial ranges $(2+3+4+5+6)+(2)+(2)$ the conditions enjoys the bliss as the universe being a 4-Space. |
| 11    | 40                        | Creative boundary components $10 \times 4$   |
| 12    | 49                        | Marutagana; $6 \times 8$ grid transcendence $7 \times 7$   |
| 13    | 47                        | Panch Vretiya (2, 5, 11, 23, 47)   |
| 14    | 70                        | Fifth domain split phase (1, 2, 5, 12, 29, 70)   |



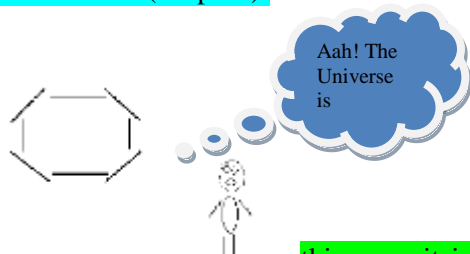
While sitting in a room, one gets conditioned as if the universe is just 3-Space. The movement one comes out of the room, the one with melting of

the conditions enjoys the bliss as the universe being a 4-Space.



Soon this blissful state manifests as a mental block and one becomes conditioned as caged within 4-Space

With mind transcending this state and the conditioning manifestation melt, and give way to the emergence of the transcendental state, one gets fulfilled with ambrosia of bliss of the transcendental worlds (5-Space):



This, this way, it is the sequential melting of the mental blocks conditioning the universe for the individuals intellectual ranges which is to be attended to and rest is to followed of its own.



It is this space glimpsing (Surya / Sun) as origin of 5-space (Aakash/space) which will help imbibe the format of existence phenomenon of our solar universe as well as the existence phenomenon within the solar universe.

## SELF REFERRAL FORMAT GLIMPING BY TRANSCENDENTAL MIND

Dr S K Kapoor

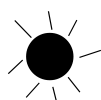
### CONCEPTUAL STATEMENT

Human mind is expression of bio chip of transcendental domain. It is the transcendental joint of human mind which

unfolds itself of its own and goes parallel to the self referral format features. It is this inherent feature of transcendental mind which is the aspect being taken up here in this write up.

### HUMAN HEAD

Human head is having set up features as of (i) Throat (ii)



Mouth, (iii) Nose, (iv) Ears, (v) Eyes, (vi) Top tip of head as a self referral cavity of inward flow through the transcendental



of mind at center seat of for flow within mouth at the door gate of throat opening within mouth. These six fold features beginning with the throat as a seat of 5<sup>th</sup> chakra and reaching uptill tip top of head as a seat of 6<sup>th</sup> chakra have in-between the quadruple set ups of mouth, nose, ears and eyes. The mouth has a pair of jaws and nose has a pair of nostril. Further, there is an ears pair, as well as, there being a pair of eyes. The pair of ears are of values pair (24, 24) parallel to a pair of dimensional frames of 6-space. This pair of

values go parallel to a pair of grids 4x6 which accommodates all 24 double digits numbers of 5 place value systems. A step ahead, the pair of eyes are of values pair (35, 35) which go parallel to a pair of grid 5x7 which accommodate all 35 double digit numbers of 6 place value systems. The pair of nostril are of values pair (40, 40) which go parallel to the 40 coordinates fixation of creative boundary of ten Components of the transcendental domain. The pair of jaws are of a pair of values 34, 34 which go parallel to the format of unity state domain (7, 8, 9, 10) of summation value 34. The end pair of values (5, 6) of the seats of throat and of top tip of head make a value 5+6 and further it also leads to coordination value (65) for the transcendental joint of mind. The same unfolds and leads to the reverse orientation value 56 as of sunlight coordinating eternity (Braham) TCV value 28 together with the factors of values range 1 to 28 being 56. And with it, this organization of all these features together make a transcendental mind of inherent potentialities of glimpsing self referral format allowing transcendence for light

through 6<sup>th</sup> circuit for reach uptill the seat of 5<sup>th</sup> circuit and back from seat of 5<sup>th</sup> circuit to 6<sup>th</sup> circuit.

### **TRANSCENDENTAL FIELD WITHIN SOLID HEAD FRAME**

The values (5+6, 65, 34+34, 40+40, 35+35, 24+24) lead to summation value  $342 = 283+59$ , which goes parallel to value 59 as value of a solid (frame) while value 283 is parallel to the total letters of entire text of Ganita Sutras 1 to 16, as a mathematics of the transcendental field within solid head. The value 342 avails triple digits (3, 4, 2) which brings digit 4 within pair of digits (3, 2). Further value 59 is  $59 = 60-1$ , one less than 60 as a value of 5x12 coordinates of fixation of transcendental boundary (5-space as boundary) of 12 components of self referral domain (6-space domain).

### **SELF REFERRAL ORIGIN OF TRANSCENDENTAL DOMAIN**

Surya (Sun) and 6<sup>th</sup> chakra of human frame, both are of 6-space format. Aakash (Space) and 5<sup>th</sup> chakra, both are of 5-space format. 6-space plays the role of self referral origin of 5-space. The transcendence of 6-space origin from 5-space domain, splits 5-space domain

as a pair of 5-space domains and thereby makes a transcendence format of triple values (5, 6, 5) parallel to the setup of triple entities (5-space domain, 6-space domain, 5-space domain). The values triple (5, 6, 5) makes summation value  $5+6+5 = 16$ . These features of self referral origin of transcendental domain come into play as a phenomenon of transcendental mind glimpsing self referral format at the origin seat of transcendental domain as a transcendental joint as center of the transcendental filed within solid frame of human head which coordinate first circuit of placement seat at nose tip, fifth circuit seat within throat and sixth circuit seat at top tip of the head. The remaining triple circuits of human frame namely, second, third and fourth circuits are of seats within human trunk. It is this organization of shad chakra (6 circuit of human frame as a pair of organization of (first, fifth and sixth circuits and of second, third and fourth circuit of pair of values triple (1, 5, 6) of summation value  $1+5+6 = 12$  and (2, 3, 4) of summation value  $2+3+4 = 9$  become the self sustained pair of parts of

human frame and that being so, both the parts may be operated for their segregation and it is this feature of human frame which is to become the basic foundation for chase of existence phenomenon within human frame. The whole range of human body technologies are to be of this organization format of a pair of set ups of head and trunk parts. This pair of parts set up of existence phenomenon within human frame goes parallel to the values reach of the formats of Rahu (राहु) and Ketu (केतु) grahas. The formulation (राहु) is of TCV value 17 while formulation (केतु) is of TCV value 14 which for (क-ब्रह्मा) transits as a value 17 and further, as (क-शिव) the same further transits as value 18. And still further, as (क-विष्णु) the same further transits as value 19. Here in the context, it will be valuable to take note that TCV Aatma (आत्मा) = 17 = TCV Drev (द्रव्य) = TCV Divya (दिव्य). TCV Shreer (शरीर) = 14, TCV Prakarti (प्रकृति) = 18, TCV Dhru (ध्रुव) = 19. These features will settle the surgical technique for segregation and re-synthesis of head and trunk

at the transcendental seat of 5<sup>th</sup> chakra within throat .

### **SOLID DIMENSIONAL FRAME OF TRANSCENDENTAL DOMAIN**

The transcendental domain (5-space domain) is of solid order (3-space in the role of dimension). The solid dimensional frame is a set up of 5 solid dimensions. At the origin seat is the self referral origin (6-space as origin of 5-space); 4-space as origin of 3-space. It is five folds split for solid dimensional frame of 5 dimensions into a pair of solid dimensional frame of half dimension which deserves to be comprehended well for to be parallel with the transcendental field within solid head framed. Further, one is to glimpse the emergence of solid dimensional frame of 5 dimensions at the center of the cube. Quadruple solid dimensions, gets synthesized with translation of 3 dimensional frames of half dimension imbedded within 8 corner points of the cube, translating along quadruple internal diagonals of the cube. The fifth 3 dimensional frames with origin at the center of the cube, together with above quadruple synthesized 3 dimensional frames, make a set

up of five 3 dimensional frames. Still further, one shall revisit the transcendental joints of (i) Pair of Jaws within mouth, (ii) Pair of nostril of nose, (iii) Pair of eyes, (iv) Pair of ears and (v) The transcendental joint of fifth chakra seat in throat with 6<sup>th</sup> chakra seat at tip top of the head, making transcendental joint of the human mind itself at the center of the brain. This set of penta transcendental joints are of values pair: (i) (5, 6), (ii) (34, 34), (iii) (40, 40), (iv) (35, 35) and, (v) (24, 24).

It is the transcendental phenomenon of simultaneous transcendence at all above five transcendental joints which inherently makes the phenomenon as a self referral phenomenon as the addition and multiplication operation as well as pair of orientations gets superimposed within creator space within 4-space with  $4 = 2+2 = 2 \times 2 = (-2) \times (-2)$  and  $0+0 = 0 \times 0 = (-0) \times (-0)$  and further as  $1+2+3 = 1 \times 2 \times 3 = 2+2+2$ . It is this inherent feature, which dissolves distinctive-ness of  $2+3 = 5$  and  $2 \times 3 = 6$  which deserves to be comprehended well to be parallel with the self referral format glimpsing potentialities of transcendental mind of

transcendental field within head of solid frame.

### **BODY AND BEING**

The segregation and synthesis techniques have to be parallel with the body (शरीर) and being (जीव) a unison of (dimension, domain) format. TCV (शरीर) = 14 and TCV (जीव) = 16 as values pair (14, 16) is of (dimension, domain) format. The arrangement of Shad Chakras as (first, fifth and sixth charkas) and as (second, third and forth chakras) is to have a meeting point at forth chakra and thereby the organization of quadruple values will be reached as of (forth, first, fifth and sixth chakras for head and (second, third, fourth and fifth charkas for the 'trunk' this reach as a pair of quadruple values (4, 1, 5, 6) will be of summation value 16 while (2, 3, 4, 5) will be of summation value 14. One shall sit comfortably and to permit the transcending mind to be parallel with these organization format features of shad chakras format of human frame to imbibe fully the phenomenon of self referral format being glimpsed by the transcendental mind.

(तेजोमय आकाश)

(TAIJOMAU AAKASH)

**TRANSCENDENTAL SPACE**

**Dr S K Kapoor**

### **CONCEPTUAL STATEMENT**

Agni (अग्नि) / fire, Prakash (प्रकाश) / light, Taij (तेज) / florescence, jyoti (ज्योति) / glow and Braham Jyoti (ब्रह्म ज्योति) / glow essence eternity are the unfolding phases of Taijomau Aakash (तेजोमय आकाश) transcendental space within Param viyom (परम वियोम) / transcendental cavity of creator space.

### **TRANSCENDENTAL CAVITY**

Creative origin (4-space origin) of 3-space manifests as a seal for 3-space domain. With split of a 3 dimensional frames into a pair of 3 dimensional frames, there happens melting of the origin seal and release of 4-space domain. With further split of spatial order dimensional frame of 4-space the transcendental seal of 4-space manifests a transcendental cavity within creator space itself. It is the creative boundary of transcendental cavity which sustains transcendental phenomenon of sequential transition and transformation

phases for Agni (अग्नि) / fire into 10 Mandals, 8 Ashtaks, 64 Adhyayas, 85 Anuvaks, 1,028 Sukhtas, 2,024 Vargas and 10,552 Richas. Param voyam (transcendental space) fulfilled with transcendental domains values are lively within this entire range of 4,32,000 Akshras. This lively phenomenon of this range of organization is followed by Yajur Ved. It is the Yajya process of Yajur Ved which takes to the Sama phenomenon of attainment of divya drva (दिव्य द्रव्य) for transformation of transcendental domain into a unified state. TCV (दिव्य , द्रव्य) = 34 = 7+8+9+10, parallel to four folds manifestation layer (7, 8, 9, 10) of hyper cube 9, the representative regular body of 9-space with 7-space in the role of dimension and 5-space in the role of dimension of dimension. In the context, it would be relevant to take note that TCV (अथर्व) = 17 and (17, 17) = 19 = TCV (ध्रुव), amounts to a reach in (ध्रुव लोक) (unity state 7-space domain). It is this reach of transcendental cavity as origin of origin of 5-space which deserves to be glimpsed and imbibed by the sadhakas fulfilled with intensity of urge to be parallel with vedic systems 4,32,000 Akshras organized as

for chase of the unity state 7-space domain of pole star.

### 7-SPACE AS ORIGIN OF 6-SPACE

The release of 7-space from origin seat of 6-space splits 6-space domain into a pair of 6-space domains and as a result there of, there emerges a transcendence format (6, 7, 6) of summation value  $6+7+6 = 19$  and further TCV (सप्त) = 14 transforms the transcendence format (6, 7, 6) into creative format (6, 7, 7, 6) of summation value 26 which accepts organization as  $26 = 5+6+7+8$  parallel to four folds manifestation layer (5, 6, 7, 8) of hyper cube 7 with 5-space in the role of dimension. It is this transcendental order of unity state domain which is the attainment of the transcendence format (6, 7, 6) of origin of self referral domain. This attainment is designated as consciousness attainment of values pair (7, 19). Sadhakas fulfilled with intensity of urge to be parallel with the consciousness state for intelligence shall glimpse and imbibe these values and features of transcendence format of 7-space as origin of 6-space.

### GANITA SUTRA 2 AND GANITA SUTRA 11

Sadhakas fulfilled with intensity of urge to be parallel with mathematics of this phenomenon of transcendence format of higher dimensional set up from within the lower dimensional domain shall glimpse and imbibe the mathematics of Ganita Sutra 2 and Ganita Sutra 11. The Ganita Sutra 2 (निखिलं नवतश्चरमं दशतः) has simple rendering 'all from nine and last from ten'. The Ganita Sutra 11 (व्यष्टिसमष्टिः) has simple rendering 'part as a whole'. To be parallel with these values one shall visit a range of N points of (n-1) point and the gap bridging of a pair of points (0-space set ups interms of 1-space set up between a pair of points (a line connecting a pair of points means that while the points are having 0-space generic units while the gaps is having 1-space generic unit. As such, while there are N-points, which lead to N number of 0-space generic unit, while gaps are (n-1) which lead to (N-1) units of 1-space generic. This would mean that though the gaps unit are, one less than N units of number of points but the units of gaps are of one decree more than that of units



of the points range. In this background one may appreciate that while 'all is exhausted as '9, still the last is 10, a value higher than '9'. Still further in the context of creative boundary of ten Components of transcendental domain, it can be appreciated that the geometric of creator space (4-space are 9 and as such 4-space gets exhausted coverage as value '9', so 'all from '9' and still the last 'is to be from '10' as, as many as ten 4-space Components are required to constitute a creative boundary of 5-space. It is in this background that, one may appreciate as that (समष्टिः) / whole stands completely processed as value '9', while (व्यष्टि) / part, takes care of value '10', as that the boundary which is of ten Components, but still it being of 4-space value, so it is to remain only a part of 5-space domain. Still further, when 9 numerals range (1, 2, 3, 4, 5, 6, 7, 8, 9) is provided double digits format as (01, 02, 03, 04, 05, 06, 07, 08, 09) the same a step ahead as '10' makes a reflection pair with '01' and that way reaches '01', as a remainder of ten on division by '9'. One shall sit comfortably and to be face to

face with these features and to imbibe the same to be parallel with processing steps of vedic systems. The sath path Brahman is one scripture which is fully availing, practically, all the mathematics values of Ganita Sutras including Ganita Upsutras. As such, for to be parallel with pure values of Vedic Mathematics of Ganita Sutras and Upsutras, one shall be face to face with the organization format of shakala rig ved samhita. And, one to be parallel with the applied value of mathematics of Ganita Sutras and Ganita Upsutras, one shall be face to face with the working steps of shat path Brahman. ■

## Vedic Mathematics formulations

### Formulations Rama & Krishna

1. Formulation Rama & Krishna are the foundational formulations of Vedic knowledge systems.

2. Formulation (राम) is of TCV value 15 and trans value 42.
3. Formulation (कृष्ण) is of TCV value 19 and trans value 39.
4. Values pair (राम, कृष्ण) is of TCV values pair (15, 19) and trans values pair (39, 42).
5. TCV values pair (15, 19) leads to transcendence range (15, 16, 17, 18, 19) of summation value 85.
6. The values pair (42, 39) leads to transcendence range (42, 41, 40, 39) of transcendence range 162.
7. The value 162 as summation value of quadruple values (39, 40, 41, 42) is parallel to four folds manifestation layer 39, 40, 41, 42 of hyper cube 41.
8. The value 85 of transcendence range 15, 16, 17, 18, 19 is parallel to 85 anuvaks.
9. The value 162 is value 6 is less than value 168 of the 168 primes range of values 1 to 1000.
10. Of 25 primes of values range 1 to 100, last six primes are 71, 73, 79, 83, 89, 97.
11. It will be blissful to take note that  $91+97 = 168$ .
12. Further,  $73+89 = 162$ .
13. And, also  $79+83 = 162$ .
14. It will be further blissful to take note that domain spilt stream spectrum is of value range (1, 2, 5, 12, 29, 70, ...).
15. Therefore the 6<sup>th</sup> steps of this range takes to value 70 and primes ahead uptill 100 are six namely (71, 73, 79, 83, 89, 97).
16. One may have a pause here and to have a fresh visit to formulation pair (राम, कृष्ण).
17. Lord Rama and Lord Krishna are the incarnations of lord Vishnu during Tritya Yuga and Dwapur Yuga respectively.

18. Formulation (रामः) is of TCV value 28 which is parallel to TCV (ब्रह्म).
19. And, value 28 is a perfect number value.
20. Formulation (कृष्णः) is of TCV value 32.
21. Value  $32 = 2^5$  is parallel to the frequency of reach at value 6 of choices from the values range (1, 2, 3, 4, 5, 6).
22. Lord Vishnu is the over lord of 6-space.
23. Value 15 is parallel to the value of solid dimensional frame of 5 dimensions of 5-space.
24. Value 19 is parallel to the value of southern hemisphere of our solar universe.
25. Further, value  $15 = 2 \times 7 + 1$  and value  $19 = 2 \times 9 + 1$ , go parallel to 7 and 9 spaces geometries respectively.
26. Further, value 7 is parallel to 7 geometries range of 3-space and value 9 is parallel to 9 geometries range of 4-space.
27. One may further have a pause here and take note that formulation (राम-सीता) is of TCV value 28 while formulation (कृष्ण-राधा) is of TCV value 33.
28. It will be blissful to take note that formulation (दृडबल) = 31 and formulation (पुरुषार्थ) = 33.
29. In the light, it will be a blissful exercise to proceed further to acquire more insight and further enlightenment about lord Rama and Lord Krishna preserved in Treta Yuga epic Adi-Valmiki-Ramayana and Dwapar Yuga epic Ur-Mahabharatam.
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