POPULAR HINDU ASTRONOMY

TĀRĀMĀNDALAS AND NAKSHATRAS

“देवादस्र: वे नक्षत्राणि” Tait. Brāhmaṇa.

BY

KALINATH MUKHERJİ

WITH A FOREWORD —
BY

N. C. LAHIRI

Price: Rupees Twenty Only
DEDICATED

(With his permission)

TO

SIR M. J. HERSCHEL, BART., M.A.,
Sometime District and Sessions Judge of Nadia,
Bengal

As Humble Tribute of Gratitude for his inspiring a
number of Under-graduates of the Krishnagar College

WITH LOVE FOR THE STARS

BY

One of them

THE AUTHOR
FOREWORD

Astronomy and medicine are the two branches of science the development of which started with the dawn of civilization. The curiosity about the heavenly bodies and their movements prompted the ancient mankind to become star-gazers. These observers of the sky attributed some definite shapes to the different clusters resembling animals, birds and human beings, and associated many allegories and legends with them. All the countries of the world had contributed to the naming and grouping of stars, but the work of India, China and Egypt in this respect has been remembered by the subsequent generation. The ancient Rishis of India had embodied the results of sky-gazing even in the Vedas, the earliest scripture of the world now available to us.

No nation can flourish properly unless the early history of the country is fully known to the subsequent generation. Due to long alien domination, the old history of our country was submerged in oblivion, and we became accustomed to accept all the episodes and allegories in their face value. In the later half of the nineteenth century, many scholars in different parts of our country took up the study of ancient Indian subjects and as such this period may be called the renaissance period of Indian culture. They unveiled the truth that was concealed in our different old literature, including the Vedas, Upanishads, Puranas and epics. The work of studying the astronomical branches was undertaken almost simultaneously by Balagangadhar Tilak, Sankar Balakrishna Dikshit and in Bengal by Kalinnath Mukherji and Jogesh Chandra Ray. The present book is the result of Mukherji’s untiring efforts in studying our old scriptures with an astronomical eye.

Just as the geographer must know his globe, so the astronomer must know the names and positions of the stars and star clusters in the celestial sphere. The knowledge of the names of stars and the constellations and their mapping out is a primary necessity of all astronomers. This has now assumed great
importance in view of the present-day advancement of mankind whose astronauts are soaring deeper and deeper into space having the vast stellar sphere as their only guide.

In mapping out the celestial sphere mainly on the basis of knowledge gathered from ancient books of India, the author with his scholarship, devotion and perseverance brought out this book about 70 years ago. It is a descriptive astronomy, so to say, geography of the heavens prepared on the basis of the Hindu scriptures.

On the basis of his research the author has meticulously drawn up the map of the entire celestial sphere divided into two maps of northern and southern hemispheres. He carefully illustrated them with figures drawn by himself. These two maps detailing stars and heavenly bodies along with other maps, figures and illustrations first appeared in his Sanskrit book 'Bhagola Chitram'—published in the year 1901. These two maps have been included in the book which gives a glimpse as to how our ancient astronomers described the celestial sphere in the study of practical astronomy.

Born in a middle class Brahmin family at Jaidia in Jessore district, now in East Pakistan, the author had college education at Krishnagar. He graduated with honours in the year 1872 with Mathematics, Philosophy and Sanskrit. He then studied Law and got the degree in 1873. While he was a student at Krishnagar College, he came in contact with Sir M. J. Herschel, M.A., Bar-at-Law and also an astronomer who was the grandson of Sir William Herschel, the great astronomer. The author had the privilege of getting considerable inspiration and guidance from Sir M. J. Herschel in the study of astronomy and the stars. As a mark of tribute and respect he dedicated the present book to his preceptor. In the year 1873 the author started practice at the bar in his home district and soon became one of the leading practitioners. He was also a Vakil of the Calcutta High Court.

Although a lawyer, astronomy was the subject of his great love and devotion. For the purpose of getting unobstructed view of the celestial sphere he constructed a house near his
village home in a wide open place away from the crowded locality and gave its name Riponpalli after the name of Lord Ripon, formerly Governor-General of India. In every weekend he used to go to Riponpalli from Jessore and engaged himself in studying the stars in the heavens from a small observatory erected for the purpose. Thus he gathered the knowledge about stars not only from books of astronomy and old texts, but also from practical observations carried out by himself.

The present book 'Popular Hindu Astronomy—Part I' was published in 1905. This part comprises six Vithis, out of the twelve Vithis in which the celestial sphere was divided by the author. Part II of the book comprising the other six Vithis was in the press, but could not be published during his lifetime and the manuscripts are also not available now. He has however discussed briefly all the twelve Vithis in his 'Bhagola Chitram' a map of the heavens which is in Sanskrit, as well as in his Bengali Book "Tara". The remaining six Vithis have been included in the present edition of this book taking the data given in the above two publications.

The author in his book has collected all the legends from the Vedas, Ramayana, Mahabharata, Puranas and even from later works like those of Kalidasa that have any reference to stars. He has also hunted up Zend-Avesta, the old scripture of the Parsi community as also other old books of the Western nations, and by so doing he has tried to establish a close relationship among all the early ideas. In this respect he may be regarded as a pioneer and deserve great credit which all research workers would accord to him ungrudgingly. He has paved the path of modern workers in the field in establishing a good relationship among the early nations of the world and in deciphering the inner significance of the allegories.

It is difficult to restrain oneself from putting the question as to whether all the stories associated with the stars are real historical events or they are merely mythical stories. It is no doubt true that many of these stories are fiction or myth coming down from the early period. But still there are some stories which are associated with real historical persons. For example,
we can mention the name of Agastya, the Aryan sage who is believed to have first explored South India. He started for his southern journey and finally went up to Sumatra or Java wherefrom he did not return. His kinsmen not finding him to come back, named a bright star of the southern sky after the sage.

The author has correctly brought out the fact that originally Krittika was the first nakṣatra of the lunar zodiac and consequently Vrina was the first Rasi. Unlike the present-day usage, Krittika nakshatra and Vrina rasi were taken to start simultaneously at that early age. This assumption gives a solution to a very pertinent question of horoscope-making which baffled all research workers in the field. This is in respect of the horoscope of Sri Ramachandra as given in the Ramayana.

It has been stated that Rama was born in the Navami tithi of Chandra Chaitra when the sun was in Mesha rasi and the Moon was in Punarvasu nakshatra. Although it is not known whether it is a real horoscope of a historical person or one fabricated by later astrologers to fit in with the events of life of Ramachandra, there is a great discrepancy in the birth chart judged from the present-day principles of calendric astronomy, as discussed below. In a navami tithi the moon must be ahead of the sun by 96 to 108 degrees. If the sun be taken to have occupied even the first degree of Mesha, then the moon must be situated between 6 and 18 degrees of Karkata rasi in order to get the navami tithi. But in this position of the moon we get the lunar nakshatra as Pushya or Aślesha and not Punarvasu which ends at 3° 20′ of Karkata. This anomaly is solved if we take for granted that in early days Krittika nakshatra started with Vrina rasi. This gives the ending point of Punarvasu as 6° 40′ of Karkata. So if the sun is taken to be situated at the first degree of Mesha and the moon about the 6th degree of Karkata then it gives a complete solution to the anomaly.

As is naturally expected from a practical observer of the heavenly bodies, the author expressed anxiety over the deplorable condition of present-day Panchangs which give inaccurate positions of the Sun, Moon and planets. He expressed his grief
for the inefficiency of later astronomers in applying proper Vi\textipa{\textordmasculine}ja corrections to the planetary positions as had been done in early years even up to the time of Ganesa Daivagna (born 1402 S. E. or 1480 A.D.). The author suggested fresh corrections to be determined and applied to the mean positions of the heavenly bodies, but he himself could not do that presumably due to his other preoccupations. The desired Vi\textipa{\textordmasculine}ja corrections to the mean elements of the Surya-Siddhanta to obtain the correct mean elements have now been determined and are given below:

<table>
<thead>
<tr>
<th>Element</th>
<th>Vi\textipa{\textordmasculine}ja correction for 14 April 196</th>
<th>Annual variation of Vi\textipa{\textordmasculine}ja</th>
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<tr>
<td>Mean-Sun</td>
<td>+ 0° 13' 26.48</td>
<td>+ 8.49</td>
</tr>
<tr>
<td>Solar-Apogee</td>
<td>+ 1 41 03.90</td>
<td>+ 11.51</td>
</tr>
<tr>
<td>Mean Moon</td>
<td>+ 0 03 02.22</td>
<td>+ 8.10</td>
</tr>
<tr>
<td>Lunar-Apogee</td>
<td>− 5 32 03.67</td>
<td>− 22.42</td>
</tr>
<tr>
<td>Lunar Node or Rahu</td>
<td>− 3 47 52.73</td>
<td>− 9.65</td>
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<tr>
<td>Mean Mercury</td>
<td>− 6 34 11.98</td>
<td>+ 27.25</td>
</tr>
<tr>
<td>Mean Venus</td>
<td>− 8 07 43.26</td>
<td>− 21.02</td>
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<tr>
<td>Mean Mars</td>
<td>+ 1 33 22.05</td>
<td>+ 17.85</td>
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<tr>
<td>Mean Jupiter</td>
<td>− 4 33 11.35</td>
<td>− 6.75</td>
</tr>
<tr>
<td>Mean Saturn</td>
<td>+ 5 52 43.27</td>
<td>+ 27.75</td>
</tr>
</tbody>
</table>

If we use the mean elements of Surya-Siddhanta corrected by the amounts of Vi\textipa{\textordmasculine}ja derived from the above, and also use the equations of centre and Sighra equations properly corrected and brought up to date, then our Surya-Siddhanta calculations can also give the positions of planets that would agree with modern observation. But it is a pity that till this date some of our Panchang-makers are paying no heed to the modern requirement and they are still adhering to the 400-year-old V\textipa{\textordmasculine}jas.

For the purpose of distinguishing and assigning different names to the ecliptic stars through which the moon passes, attempts were made from very early time in some countries to divide the star groups into constellations. In Indi\textordmasculine} a the ecliptic stars were divided into 28 divisions even in the Vedic times. These are known as nakshatra divisions or lunar mansions. As these clusters of stars do not cover equal lengths of the ecliptic,
the original divisions were naturally of unequal length. We get a description of this unequal division in the work of Bhaskara-
charya, who has stated that it was introduced by early sages (those like Garga). In this unequal division system there are 15 nakshatras of normal length which is 13° 10' 35" the mean daily motion of the moon. The nakshatras Bharani, Ardra, Aslesha, Svati, Jyestha and Satabhisaj were of half the above length and the nakshatras Rohini, Punarvasu, Uttara Phalguni, Visakha, Uttara Asadha and Uttara Bhadrapada were of one and half times the normal length, and Abhijit's length was only 4° 14' 15" the residue of the circle. With the introduction of computational astronomy, the above unequal division was found very inconvenient for practical calculation. As a result the ecliptic was subsequently divided into 27 equal parts and Abhijit was excluded from the list. Thus we now get 27 nakshatras or lunar mansions of 13° 20' each starting from Asvini. It is likely that this equal division system came into vogue when the nakshatra cycle started from Krittika at the Vedic times about 2000 B.C. At the time of the Vedanga Jyotisa Calendar (1350 B.C.) when the nakshatra cycle started from Dhanistha, the equal division system was fully established. Much work remains to be done regarding this unequal division system of the nakshatra cycle which was in vogue in the earliest times.

In his Sanskrit work the 'Bhagola Chitram' the author has drawn up charts showing the positions of nakshatras according to different authorities and he has selected the yogatras or principal stars of the nakshatra divisions taking into consideration the views expressed by these authorities.

A table is appended showing the initial points of all the nakshatra divisions both according to the equal division and unequal division systems. The equal division system is based on the present-day accepted theory of Chitrapaksha in which the star Chitra or Virgin is taken to occupy the middle point of the cycle which is the same as the middle point of Chitra nakshatra. As regards the unequal division system, it is very difficult to say with certainty whether the divisions started from Asvini or any other nakshatra like Krittika, Magha, Chitra,
Sravana or Dhanistha. We have, however, given the initial points of the unequal division system starting from Asvini.

In the table the different yogataaras along with their Chitra-paksha nirayana longitudes have also been given. These yogataaras are according to the Surya-Siddhanta as identified by Burgess. In this case also it is difficult to say whether these stars as identified were known as such in the Vedic times and in the later period prior to the evolution of the Siddhantic system of astronomy in our country.

The author has introduced a new system of nomenclature in respect of the stars which closely follows the present astronomical system of naming by use of the Greek alphabet. The names of the yogataaras as identified by the author have also been added in the table with the names as given by him. It has been noticed that in some cases the two identifications are not identical.

As regards the Indian names of the different stars and star groups, it is found to be a difficult task to assign appropriate names to them, although the need for such Indian names has now become paramount. The Siddhantas give the names of only a few stars mostly near the moon's path, which have, however, been adopted by the author. As regards stars of other regions, the author has taken much pains in associating them with fables from our old scriptures and assigned to them some names appropriate to our ancient history. The four maps included in this book consummate the result of his labour. One or two such maps have been published by some other authors in our country. Those who are working in the line of assigning Indian names to the different stars and constellations corresponding to the present astronomical names will find a helpful guidance from the present book. These maps and those published by other authors will be their basis for the compilation of a standard all-India star atlas with Indian names of stars and constellations.

One cannot but sincerely thank the author for the pains-taking devotion and strenuous labour undertaken by him in collecting different fables and anecdotes from different Indian texts as well as those from the Middle East and Western
TABLE

<table>
<thead>
<tr>
<th>Nakshatra</th>
<th>Initial point (Equal div.)</th>
<th>Initial point (Unequal div.)</th>
<th>Yogatara, with Nirayana Long. (After Burgess)</th>
<th>As identified by the author</th>
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countries and establishing a reasonable link between them and their relation with stars, a work which will guide and help all those who are associated with the research work in the field.

Calcutta
20th February, 1969

N. C. LAHRI

(1 Phalguna, 1890 S. E.)
AUTHOR'S PREFACE

The chief-glory of the Indo-Aryan race lies in their perfect system of the science of astronomy, the noblest and the grandest of all sciences. It is however at the same time a difficult science, as it has to deal with objects ever running at a very high rate of motion, in some cases, almost inconceivable, and not always uniform. Astronomical calculations therefore require corrections every year, every month and every day, nay every moment. These corrections are technically called vija (वीज), the want of which, for a long time, has now thrown the Hindu calendar and with it the Hindu religious ceremonies and Hindu national festivals into utter confusion. The celebrated mathematician and astronomer Ganesa (born S.E. 1402), the illustrious son of the renowned astronomer Kesava (born S.E. 1378) observes with just pride, “that the Grahas (planets) were right in their computed places in the time of Brahma, Acharya (Brihaspati), Vasishtha, Kasyapa and others by the rules they gave, but in length of time they differed. In the beginning of Kaliyuga, Parasara’s (B.C. 1300) book answered, but Aryabhatta (born S.E. 398) many years afterwards, having examined the heavens found some deviations and introduced a correction of vija. After him when further changes were observed, Durga Singha, Mihira (born S.E. 427) and others made corrections. After them came the son of Jishnu, Brahmagupta (born S.E. 520) who made the necessary corrections. Afterwards Kesava (born S.E. 1378) fixed the positions of the planets and sixty years after Kesava, his son Ganesa (born S.E. 1402) made corrections.”

It is time to make fresh corrections in our astronomical calculations for want of which the Hindu almanacs are relapsing into a state of confusion. Futile attempts are being made here and there to correct the positions of the planets; but to do so with any degree of success, it requires actual observations of the heavens carried on by practical astronomers. Book-learning can hardly improve matters. But no observation is possible
without astronomical charts and instruments. As to the former, the uncouth and inaccurate and in some cases obscene charts of the Nakshatras found in some of the astrological works are the only ones now extant; works on the ‘Nakshatra Vidyā’ being no longer in existence. We have therefore to reconstruct an atlas of the Hindu astronomy, but to do so the only course left open is to accept and adopt European charts.

As regards the nomenclature of the stars, asterisms and constellations, we can hardly expect to derive much help from the Siddhāntas, the only astronomical works that have come down to us; because they are, as their names imply, solely concerned with the technical branch of the science. The names of a few stars of mathematical importance and the names of the twenty-eight Nakshatras (asterisms or constellations as the case may be) and of the twelve Rāsis (राशि) or signs as they are called in the West, are all that we find in them. As we have said, no work on “Nakshatra Vidyā” or descriptive astronomy has come down to us. As for the names of the stars, asterisms and constellations other than those mentioned in the Siddhāntas, where are we to get them? The reply is that though the Rishis of old have not left us tablets and cylinders, boundary stones and cuneiform inscriptions like the Babylonian sages, they have left for us a vast store of legends and myths in the Sāstras, which interpreted in their proper light, are sure to yield much valuable astronomical informations we want. And we can glean them from the narratives that abound in the Samhitās and Brāhmanas, in the Upanishads and Tantras, in the Itihāsas, and the Purāṇas. The ancient Hindu looked upon the Nakshatras (a) as the abodes of the Gods,

vide:

२३०. वै नक्षत्राणि।

T. Br. I. 5. 2. 5.

and upon the more brilliant stars as the weapons to kill the Asuras (Darkness), such as Vajra (वज्र) the thunder, Sula (सुल)...

(a) The Sk word Nakshatra like its Akkadian synonym Kakkaš and its Semitic synonym Mūl, is used to denote a star, an asterism and a constellation, as well as a planet and a meteor.
the spear and so forth. "When therefore the constellations are personified in a human figure, this figure is naturally represented as armed with some weapon." Thus most of our "Gods and Goddesses" are armed with weapons.

The earliest Hindu astronomer (we use the word in its literal sense) had in his mind certain ideas as to the attributes of his divinities before he began to locate them, each in his proper sphere in the heavens. For its all-pervading rays, the Orb of Day was allotted to Vishnu (विष्णु), lit., the all-pervading one; while for her softer beauty, the silvery "Queen of Night" was allotted to Vishnu's consort Lakshmi (लक्ष्मी), lit., one having dark spots. The lustrous Orb of Venus, as the morning star was allotted to the great warrior Usana, a phase of Indra (इन्द्र), and the beautiful Orb of Venus as the evening star, to Sachi (साचि), lit., the white), and Rati (the Goddess of Love); and the fiery Orb of Ares - Mars to Kāma, the God of Love. The brilliant Orb of Brihaspati received Indra. The dark and sluggish Orb of Sani - Saturn (Satan) holds Yama the Death-God, and so on; Pushan, the great charioteer of the Sun-God, with his goat steeds, was placed in the constellation (Auriga) situated above the Vernal Equinox (B.C. 4250) the Door of Heaven (Rv. X. 70. 5.); and Sepha Betāta in Cepheus and so on.

Each of the thirty Nakshatras had its patron divinity, the Asvis brothers, Yama and so on; and the good Yama, the first-born and the chief of the Fathers, was placed on Draconis, the Pole-star of B.C. 3000, above the Pitris alias the Sastrapis in Ursa Major.

Legendary heroes also had their share. Parasu-Rāma is the Indian brother of the Gk. Perseus, and Kumāra Skanda is the Indian analogue of the Biotian Kandaon (Orion). The Southern Cross holds Trisanta, a king of the solar dynasty.

Our astronomical Rishi believed in his heart of hearts that one day he himself would pass on to one of the heavenly luminaries and that many of the "stars are the lights of religious men".

Sat. Br. VI. 5. 4. 8.

(a) ग्रहयागगत्तन—Grahayāgatatva
This grand old idea peculiar to our Rishis of austere piety, has filled the heavens, as is popularly believed, with Agastya and Lopā-mudrā, Vasishtha and Arundhati, Suniti and Dhruva.

It may be said without any exaggeration that our Epic poets and the Aitihāsikas have drawn their materials so largely from astronomical myths that one can hardly discover any trace of historical legends in their works.

We have illustrated our standpoint by a few examples to be found in our Introduction to this work (Vide. pp.7-63). To them we draw the reader’s special attention. In this connection we should also remind him that matters religious do not come within the scope of the present work.

Every mountain, every river, every shrub in India, observed a great Sanskrit scholar of the West, has a story of its own to tell, and we only wish to add that every star (we use the word in a comprehensive sense) important either on account of its superior brilliancy or of its prominent position, has a story of its own to tell to the Indians. The origins of these stories are to be found in the Vedas, as we have attempted to illustrate in these pages.

We can hardly hope that our work will find an easy acceptance with the Vedic scholars. Because while we had to adopt the existing translations and paraphrases of the verses referred to in it (and we have thankfully adopted them) we could not accept the interpretations sought to be put on the verses concerned by commentators Eastern or Western. If any one will turn on a starry night from the Vedic texts to the nocturnal sky, he will see at a glance that it would be practically impossible to do so.

Our judicious readers will no doubt find that the interpretations we put on them are nothing but the logical result of the investigations started by the leaders of the modern school of Vedic interpretations with the noble object “to discover and disclose the spirit and truth of the most ancient and venerated literary records that are the heritage of Aryan man”. However in this connection we must admit that our responsibility
is very great indeed, and in the words of the illustrious poet, my only hope lies in—

उत्पदस्त्रयेदि श्रम सोधि समानसभ्यः
बालोपायं निरवधिः विपुला च पुष्ये: ||

I cannot conclude without publicly expressing my deep obligations to Prof. Henry Stephen and to Babu Harijiban Banerjea, M.A. My special thanks are due to the former for much valuable assistance, most freely given, in supplying me with informations as to the true import of the classical names of the stars and the constellations. As regards the latter I may truly say that without his labours in preparing copies for the press and in correcting the proof sheets, this work could not see the light.

Lastly, I should add that for the purpose of illustrating by way of analogy the result of my labours and researches I have freely quoted from the Researches into the origin of the Primitive Constellations of the Greeks, Phœnicians and the Babylonians lately published by Mr. Robert Brown (J).

Ripon-Palli,
Jessore,
in Bengal,
June 23rd, 1902.

Kalinath Mukherji
Towards the end of the nineteenth century during the renaissance period of Bengal, the author, my grandfather, devoted himself to the study of the stars with special reference to Hindu Sastras. He undertook the research work in the subject after having received inspiration and guidance from Sir M. J. Herschel, a grandson of the great astronomer Sir William Herschel, to whom he dedicated this work.

The first publication of the author's work was मनोलिप्त, an Atlas on Hindu Astronomy in Sanskrit and this was published in 1901. In the following year he published "Tara", a Bengali book on Hindu Astronomy. In 1902 he wrote the present book Popular Hindu Astronomy. Part I of the book was published in 1905.

In all his works the author divided the celestial sphere into twelve divisions called Vithis. Part I of the Popular Hindu Astronomy comprised six Vithis. Part II of the book which comprised other six Vithis was in the press but could not be published during his lifetime and even the manuscript could not be traced thereafter.

The author has however discussed briefly all the twelve Vithis in his Bengali book Tara and in मनोलिप्त. I desired to have the Vithis seven to twelve included in this new publication.

I have been very fortunate in getting friends who have ungrudgingly offered their help and encouragement in getting the new edition of the book. I am grateful to Sri N. C. Lahiri, M.A., Ganitacharya and Ganita Kalanidhi, who is an authority on the subject, for his authoritative foreword. My thanks are also due to Sri Arun Kumar Lahiri who translated the Vithis seven to twelve from the Bengali Book Tara and incorporated relevant slokas from मनोलिप्त. I am thankful to Rev. Father Antoine of St. Xavier's College, Sri Radhagobinda Chandra, astronomer, Sri Ananta Kumar Mitra, Advocate, Sri R. Subramaniam, Curator, Birla Planetarium for their time to time
advice, suggestions and guidance in getting this new edition in its present form.

In the end, thanks are due to Messrs. Sree Saraswaty Press Ltd. for their co-operation for bringing out this book in time.

The day on which I write this note is a memorable day for the mankind being the day of the wonderful conquest of the Moon, the greatest epoch-making event of science and glorious fulfilment of generations' dream to inscribe foot-steps on lunar surface—an achievement of Neil Armstrong and Eldwin E. Aldrin and their comrade Michael Collins—the three heroes of all time to come:

Dated : July 21, 1969

NIRMAL MUKHÉRJEA
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<td>1</td>
<td>Kāśyapiya Mandala (Cassiopeia)</td>
<td>208-209</td>
</tr>
<tr>
<td>2</td>
<td>Dhruvamāṇa Mandala (Andromeda)</td>
<td>209</td>
</tr>
<tr>
<td>3</td>
<td>Mina Mandala (Pisces)</td>
<td>209-210</td>
</tr>
<tr>
<td></td>
<td>The Nakshatra Revati</td>
<td>209-210</td>
</tr>
<tr>
<td>4</td>
<td>Bhāskara Mandala (Sculptor)</td>
<td>210</td>
</tr>
<tr>
<td>5</td>
<td>Sampati Mandala (Phoenix)</td>
<td>210</td>
</tr>
<tr>
<td>6</td>
<td>Hrada Mandala (Hydrus)</td>
<td>210</td>
</tr>
<tr>
<td>7</td>
<td>Grāba Mandala (Nebecula Minor)</td>
<td>210</td>
</tr>
</tbody>
</table>

Four Maps taken from the Author's "Atlas of Hindu Astronomy".
ABBREVIATIONS

A.P. = Agni Purāna
A.Br. = Aitareya Brāhmaṇa
A.V. = Atharva Veda
B.P. = Bāmana Purāṇa
Bh.P. = Bhabishya Purāṇa
Black Yv. = Black Yajur Vedas
Br.P. = Brāhmaṇḍa Purāṇa
Br.S. = Brahma Siddhānta
B.V.P. = Brahma-Vaivarta Purāṇa
R. Brown = Robert Brown's Primitive Constellations
Chh.Up. = Chhandogya Upanishad
G.P. = Garuda Purāṇa
K.P. = Kalika Purāṇa
Kum. = Kumāra Sambhava
Kur.P. = Kūrma Purāṇa
Maha = Mahābhārata
M.P. = Markandeya Purāṇa
Mat.P. = Matsya Purāṇa
N.P. = Nārada Purāṇa
Nir. = Nirukta
Nir. N. = Nirukta Nighantu
P.P. = Padma Purāṇa
Pr.Up. = Prasna Upanishad
R.Deva. = Radha Kānta Deva
Raghu = Raghu-vamsa
Rām. = Rāmāyana
Rv. = Rig-Veda
Sat.Br. = Satapatha Brāhmaṇa
Sk.P. = Skanda Purāṇa
Sr.Bh. = Srimat Bhāgavat
S.Yv. = Sukla Yajur Veda
S.S. = Suryya Siddhānta
T.Ar. = Taittiriya Āranyaka
T.Br. = Taittiriya Brāhmaṇa
T.Sam. = Taittiriya Samhita
V.P. = Vishnu Purāṇa
Var.P. = Varaha Purāṇa
V.D.P. = Vrihat Devi Purāṇa
V.N.P. = Vrihat Naradiya-Purāṇa
V.S.S. = Vrihat Sāma Samhitā
Yv. = Yajur Veda
INTRODUCTION

DEFINITIONS

TARA (तारा) OR STAR

A star is an isolated speck or point of light in the firmament. The term includes the sun and the Graha-Panchaka (ग्रहपञ्चक) i.e., “Planets-five” commonly called the Tārāgrahas (ताराग्रह). In India stars of astronomical importance received special names derived from the myths connected with them and in few cases special names denoting their positions in heaven or in constellation.

The star names Prajāpati (प्रजापति), Agni (अग्नि), Lubdhaka (लुभक), and Agastya (अगस्त्य) are connected with national myths, while “Dhruva” (धृव - शकु) i.e., a peg denotes the position of the star in the heavens and “Brahma-hridaya” (ब्रह्मह्रिदय) the position of the star in the constellation in which it is situated.

In the west also this method prevailed in early days. In 1603, this cumbersome method was superseded by the elegant invention of Bayer, a German Astronomer. This invention consisted in calling the stars in each constellation after some letter in the Greek Alphabet,* the sequence of the letters

* The Greek Alphabet—

<table>
<thead>
<tr>
<th>Letter</th>
<th>Greek Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>α</td>
<td>Alpha</td>
</tr>
<tr>
<td>β</td>
<td>Beta</td>
</tr>
<tr>
<td>γ</td>
<td>Gamma</td>
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<td>Delta</td>
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<td>ε</td>
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<td>ζ</td>
<td>Zeta</td>
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<tr>
<td>η</td>
<td>Eta</td>
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<tr>
<td>θ</td>
<td>Theta</td>
</tr>
<tr>
<td>ι</td>
<td>Iota</td>
</tr>
<tr>
<td>κ</td>
<td>Kappa</td>
</tr>
<tr>
<td>λ</td>
<td>Lambda</td>
</tr>
<tr>
<td>μ</td>
<td>Mu</td>
</tr>
</tbody>
</table>

ν Nu.
ξ Xi.
ο Omicron.
π Pi.
ρ Rho.
σ Sigma.
τ Tau.
υ Upsilon.
φ Phi.
χ Chi.
ψ Psi.
ω Omega.
depending on the positions of the stars in the constellation-figure, or in the order of their magnitudes, in each constellation.

Thus the largest star in the constellation Aries (Mesha = मेघ) is called “\(\alpha\) Arietis” meaning “\(\alpha\) of Aries”.

The star next in magnitude is called \(\beta\) Arietis and so forth. We have to follow this method in the absence of any of our own, but in the place of the Greek letters unfamiliar to us, we propose to substitute numerals 1, 2, 3, &c.

Thus \(\alpha\) Arietis = 1 Meshasya,

\(\beta\) Arietis = 2 Meshasya

and so forth.

But as we have tried, as far as possible, to follow the order of magnitudes more closely, there has been disagreement in many instances.

2. STHULATVA (स्थूलत्व) OR MAGNITUDE

The largest and brightest stars are said to be stars of the first magnitude. Next come stars of the second magnitude and so on by a descending scale.

3. BHAGOLA (भगोल) OR THE SIDEREAL SPHERE

The inner surface of the hollow celestial sphere is called the Bhagola, literally the star-sphere.

4. KHAGOLA (खगोल)

The term literally means the round Sky. It means the space within the Bhagola and includes the solar system.

5. JYOTISHA CHAKRA (ज्योतिष चक्र) OR THE ZODIAC

The Zone or belt in the star-dome, through the middle of which runs the Ravi-mārga (रविमार्ग) or the Ecliptic, is called the Jyotisha Chakra. It is 360° long and 16°, 18° or 20° broad according to different schools of astronomy. It is so called either because of its being chiefly used in Jyotisha (astronomy) or of its being the high road of the sun, moon and other planets.
DEFINITIONS

6. RASI CHAKRA (राशि चक्र) OR THE SOLAR ZODIAC

The Zodiac when divided into 12 equal parts for the purpose of computing the month by movement of the sun along the ecliptic is called the Rāsi Chakra or the Solar Zodiac and each subdivision is called a Rāsi (राशि) or sign. In a secondary sense a Rāsi means a principal constellation in the Zodiac and in its literal sense a Rāsi means a large group of stars. The first point of Rāsi Chakra is the point 10° east of star 6 Minasya (ζ Piscium).

7. BHA-CHAKRA (भ-चक्र) OR THE LUNAR ZODIAC

The Zodiac when divided into 27 equal parts for the purpose of computing the daily movement of the moon is called the Bha-Chakra or the Lunar Zodiac and each of the divisions is called a Nakshatra. Riksha-Chakra is another name of Bha-Chakra. The first point of Bha-Chakra was at the first point of Krittikā Nakshatra in the Vedic age. The modern Luni-solar Zodiac is a combination of the Rāsi Chakra and Bha-Chakra commencing from the first point of Rāsi Chakra which is also the first point of Asvini Nakshatra.

In a secondary sense Nakshatra means a star, a group of stars large or small i.e., either a constellation or an asterism of the Lunar Zodiac.

8. YOGATARA (योगतार) i.e., THE PRINCIPAL STAR

The word Yogatārā means the principal star in a Nakshatra used in astronomical observations and computations; the rest of the stars in the Nakshatra simply serve to facilitate its easy recognition and to give the Nakshatra a figure, generally a fancied one.

9. THE RAVIMARGA (रविमार्ग) OR THE ECLIPTIC

Marking day by day on the globe representing the starry sphere, the position of the setting sun with reference to the
nearest Zodiacal star, we get 365 points arranging themselves on a great circle around it. This great circle is called the Ravimārga. It passes through or by the stars Svāhā (स्वाहा), Anila (अनिल), Garddabha (गर्दभ), Khyāti (क्षयति), Chitrā (चित्रा), Yāmyakilaka. (याम्यकीलक), Divya-Chanchalā (दिव्यचंचला), Duryyodhana (दुर्योधन), and Mulakilaka (मुलकीलक).

10. THE VISHUVAT (विषुवत) OR THE EQUINOX

The word Vishuvat originally meant the middle one. In astronomy, the term means a moving point in heaven. The sun, when at this point, makes equal day and night everywhere on the surface of the earth. The point is therefore called in western astronomy Equinox (equal day and night). It is also called Krāntipāta (क्रान्तिपात). There are two such points in heaven. One is Mahāvishuva Samkrānti (महाविषुव संक्रांति) i.e., the Vernal Equinox and the other the Jalavishuva Samkrānti (जलविषुव संक्रांति) i.e., the Autumnal Equinox.

11. THE VISHUVATI REKHA (विषुवती रेखा) OR THE EQUINOCTIAL

The great circle which passes through the two Vishuvat points dividing the sidereal sphere in the Northern and Southern hemisphere, is called Vishuvati Rekha i.e., the equinoctial.

Vishuvat may therefore be defined to be a point where the Ravimārga cuts the Vishuvat Rekha, either in the middle of the sun’s northing or of its southing. It is to be observed that the plane of the terrestrial equator when extended to the star-sphere will touch every point of the Vishuvati Rekha. Vishuvati Rekha lies equidistant from both the celestial poles, and it divides the Bhagola into two equal parts; the Northern Bhagolārddha (भगोलार्द्ध) or the Northern celestial hemisphere called the Devabhāga and the Southern Bhagolārddha, i.e., the Southern celestial hemisphere called the Asurabhāga. The Vishuvati or the equinoctial passes by or through stars 1, 11 Timeh; 7 Kālapurushasya; 11 Shashtha masasya; 2, 8 Kanyāyāh; 7 Garurasya and 2 Kumbhasya.
12. **AMSA (अंग) or DEGREE (°)**

Every circle is considered to be divided into 360 equal parts. Each part is called an Amsa (अंग) or degree.

13. **KALA (कला) or MINUTE (')**

Each amsa is sub-divided into 60 equal parts. Each part is called a Kala or minute.

14. **VIKALA (विकला) or SECOND (")**

Each Kalā is again sub-divided into 60 equal parts. Each part is called a Vikalā (विकला) or second. In the division of the Ravimārga into degrees a point 10' east of the star *Mulakilaka* is to be taken as the beginning of the solar Zodiac. 30° make a Rāsi. Thus a star having a longitude of 33° is said to be at Long. 1°. 3°.

15. **AYANANTA (अयनात) or SOLSTICE**

The plane of the Ravimārga is inclined to the plane of the Vishuvati at 23° 27'.

Thus half of the former plane lies to the north of the latter plane and half to the south of it.

The point in the Ravimārga farthest from the Vishuvati on its north is called Uttara Ayanānta (उत्तर अयनान्त) *i.e.*, the Northern Solstice or Summer Solstice; and the point in the Ravimārga farthest from the Vishuvati on its south is called Dakshina Ayanānta (दक्षिण अयनान्त) *i.e.*, the Southern Solstice or the Winter Solstice. A Solstice is equidistant from the Equinoxes.

16. **RISHI-REKHA (रिषीरेखा) ENG. SOLSTITAL COLURE**

The great circle which passes through the poles of the plane of the Vishuvati and the two solstices is called the Rishi-Rekha (रिषीरेखा) *i.e.*, the Solstital Colure.

17. **DHRUVA (ध्रुव) or CELESTIAL POLE**

The Bhagola (or the celestial sphere) like the terrestrial ball has its poles, which are simply the poles of the earth extended to the celestial concave. The celestial North Pole is called
Uttara Dhruva (उत्तर धृत्र) and the celestial South Pole is called the
Dakshina Dhruva (दक्षिण धृत्र). The line joining the two Dhruvas
is called the Dhruvayashih (ध्रृवयाषिणि) i.e., the axis of the world.

The star lying at or near the Uttara Dhruva is called the
Saunya Dhruva Tārā and the star lying at or near the Dakshina
Dhruva is called the Tānya Dhruva Tārā.

18. KADAMBA (कदम्भ) OR POLE OF THE
  ECLIPTIC

The North Pole of the Rāvimārga is called Kadamba and
its South Pole may be called Parakadamba and the line joining
Kadamba and Parakadamba may be called Kadambayashiti (कदमबयशिति).

19. VIKSHEPA (विक्षेप) OR CELESTIAL LATITUDE

20. DHRUVAKA (ध्रूवक) OR CELESTIAL LONGITUDE

The position of a heavenly body is known by the celestial
latitude and longitude called Vikshepa and Dhruvaka, the former
representing its distance north or south of the ecliptic and the
latter its angular distance measured eastward from a fixed
point 10° east of the star Mūlakilaka and counted along the
ecliptic by the arc subtending the angle.

21. HELIKA ASTA (हेलिका अस्त) OR HELIACAL
  SETTING

The heliacal setting of a star takes place when the sun
approaches so near as to render it invisible by its superior
splendour.

22. ASTAMANA (अस्तमन) OR COSMICAL RISING

A star is said to be in astamana when it has the same
longitude with the sun and it invisibly rises with the sun.

The stars Nilamani, Brahmahridaya, Nishthya, Vāsudeva,
Pratishtha, and Ratnapuri are said never to become invisible
during heliacal setting. Vide S. S. IX. 18.

23. HELIKA UDAYA (हेलिका उदय) OR HELIA-
  CAL RISING

The heliacal rising of a star takes place when after
having been in conjunction with the sun, during which it
remains invisible, it emerges from the sun's light so as to be visible in the morning before sunrise. In the Suryya Siddhānta Helikāudaya is simply called Udaya.

24. TARA-GUCHCHHAKA (तारागुच्छक), ENG. STAR-CLUSTER

A collection of small stars may be called Tārāguchchhaka or Guchchhaka (गुच्छक) i. e., star-cluster.

25. TARA-MANDALA (तारामण्डल) OR CONSTELLATION

A large group of stars is called Tārā-mandala or Mandala. (मण्डल).

26. ASTERISM

A small cluster of stars forming part of a constellation is called 'Asterism'.

Thus most of the Nakshatras are Asterisms.

EXAMPLE 1

THE CHHAYAPATHA (छायापथ)

Ak. Batgakas (death road).
Bab. Khi-gall-a (canal of water).
Gr. Galaxias (The Milky Way).
Lat. Via Lactea, Zend. Vanant,
Pers. Rakh-vad (watery way) and Rahihajiyan.
Zend-myth: Ardvi-Sura-Anahita (The high powerful and undefiled).
Eng. The Milky Way; Galaxy.
Italian. The path of St. James of compustilla.

The luminous Zone which is observed in a clear moonless night, as a beautiful band of soft light stretching completely across the heavens, is commonly called Chhāyāpatha (छायापथ) and Somadhārā (सोमधारा) (a). To an ordinary observer it appears as a sheet of white cloth 12 feet broad, forming a bandage around the two hemispheres, and torn here and there

(a) छायापथ: देवपथ: लोमघारा नम: सरित ।
इति विभुवशेषः ।
as if by ravages of time. The keynote of creation seems to lie hidden in its folds. The Deva-patha has not failed to strike wonder and admiration in the minds of people both ancient and modern, savage and civilised. The charming influence of its serene light has touched the heart of one and all in every age. Contemplation of its grandeur and soft light has brought solace to many a mind affected by the throes of this miserable earth and has made many a sad heart cheerful. This led the Hindu Rishi (sage) to call it, and very rightly it seems, Somadhārā (सोमधारा) or the stream of ambrosia. And it became in course of time the idol of his nation. For centuries this noble structure in heaven puzzled the western mind. But, be it said to the credit of the Hindu Rishis that they had nearly hit the mark long before Pythagoras of Samos (B.C. 540) or the great Roman Poet Ovid (born B.C. 43) could do so in the west. Vide...

Mahā III 43. 12.

Cf. Its groundwork is of stars through which the road Lies open to the Thunderer’s abode.

Ovid.

It was Marcus Manilius, born in the first century of the Christian era, the great astronomical poet of Rome, who took the strings of Ovid and advocated the true idea that the Milky Way was composed of myriads of faint stars.

"Or is the spacious bend serenely bright, From little stars, which there their beams unite And make one solid and continued light."

Astronomicon.

The immortal discovery of Galileo (born A.D. 1564) has revealed to man in some measure its real nature. The misty light of Somadhārā is in reality produced by the combined lustre of myriads of faint stars.

Sweeping with his powerful reflector, Sir William Herschel came to the conclusion that there were at least two crores of
stars in this celestial river. It stands as a gigantic buttress of the sidereal heaven.

Vide

विषमः दिवः: Rv. ix. 89.6; 87.2; 86.25; 108.16.

The general course of the Via Lactia is a great circle passing by the two celestial poles and intercepting the Zodiac between the constellations of Mithuna (मिथुन) i.e., Gemini and Karkaṭa (करक्त) i.e., Cancer in the Devabhāga, and those of Vṛischiκha (वृश्चिक) i.e., the Scorpion and Dhanuṣ (द्वन्द्व) i.e., Sagittarius of the Asurabhāga of the celestial sphere. In the North, it flows through the constellations Kāśyapiya (काश्यपीय) i.e., Cassiopeia of the west, Brahmā (ब्रह्म) i.e., Auriga of the west and Parasu (पद्म) i.e., Perseus of the west, on the one hand, and Sephāli (शेपालित) i.e., Cepheus of the west, Hamsa (हंस) i.e., Cygnus of the west and Garura (गरुड) i.e., Aquila of the west, on the other.

In the South, it flows through the constellation Mrigavyādha (मृगवायद्ध) i.e., (Lat.) Canis Major and abruptly terminates, opening out into a wide fan-like expanse, in Arnava-yāna (अर्नवयान) i.e., (Lat.) Argo-navis not far from the star Agastya (अगस्त्य) i.e., (Lat.) Canopus, on the one hand; and passing through the constellation Vedi (वेदि) i.e., Ara, Mahishāsura (महिषासुर) (Lat.) Centaur and Trisanku (त्रिसङ्कु) i.e., Crux; it abruptly terminates in the same constellation Arnava-yāna near the star Kapila (कपिल) i.e., η Argus, opening out again into a wide fan-like expanse.

Here the continuity of the Somadhārā is interrupted by a wide gap.

The Milky Way was regarded by the Vedic Rishis, (A) as a divine heavenly body, (B) as the path of the Sun and the spirits, (C) as the great celestial river, (D) as the celestial mountain, (E) as the celestial snake, and lastly (F) as the bridge thrown across the upper ocean.

A

As a heavenly body it is called Soma-pavamāna (सोमपवमान) i.e., the flowing ambrosia.
Soma as a Vedic Devatā is threefold—(1) Soma-pavamāna (सोमपक्षमान) i.e., the Somadhārā (सोमधारा), (2) Soma (सोम) i.e., the moon, (3) Soma or Soma-rasa (सोम वा सोमरस) i.e., the Soma plant or Soma-juice. Of the threefold Somas, one (i.e., Soma-pavamāna) resides in the high heaven, one (i.e., the moon) in the mid-region (मध्यस्थन) (a) and the other (i.e., Soma plant) on the earth. Vide.

तृतीयम् धाम महिषः सिसासन् सोमः विराजम् ब्रुति ज्वस्या ।

Rv. ix. 96. 18.

The Vedic Rishis knew full well that the moon lies in the antārīkṣa (अन्तरीक्ष) i.e., mid-region and they called him Madhya-sthāna Devatā (मध्यस्थन देवता) and not Dyūsthāna Devatā (दयूस्थन देवता) or a god of the high heaven like the Sun. Vide Nirukta.

While Pavamāna Soma is situated in the highest heaven, (Vide Rv. ix. 86.15 श्रीम धाम ध्रष्मी प्रकाशो) it is stationed over and above the Nakshatras. Vide Rv. x. 85. 2.

चतुर्विधमाला धामं उपर्ये सोमं भाषितः ।

While Soma, the moon, lies far below them. Vide Vish.-

Purāṇa II. 7.

And the Surya-Siddhānta says, in describing the eclipse, ‘The moon, from below, like the cloud, obstructs the Sun’s view.’ Vide

व्रतक: मास्त्रस्य हस्ते: व्रतस्य: घनत्व मेवेत्

S.S. IV. 9.

But in the Purāṇas, Soma-pavamāna and Soma (the moon) seem to have been confounded. This accounts for the Paurānik statement that the moon stands higher than the Sun. Vide

पुष्पः योजनल्लो तु सौरः मैत्रेय ! मण्डलम् ।

V.P. II. 7. 5.

Note: The description applies to the Soma-pavamāna, otherwise called Somadhārā i.e., the stream of Ambrosia and not to Sasi (सशी) or the moon.

(a) The moon is therefore called Madhya-sthāna-Devatā, the god of the middle region. Vide Nir N.
SOMADHARA (सोमधारा)

In the Vedas, Somadhāra i.e., the Milky Way is called the stream of Ambrosia or the Dhārā (धारा) (stream) of Soma (सोम) ambrosia. Vide

सोमस्त्र धारा पवते

Rv...ix. 80. 1.

Like the Sun it stands high in Heaven and lightens the world. Vide

वसु विशाल तितिति पुनां: मुचना उपरि सोम: देव: न युष्मः

Rv. ix. 54. 3.

It is the spring of waters. Vide

इति तेक बलसः गुणते मितुत्सानः

Rv. ix. 89. 6.

It is a sea. Vide

तवम् समुद्रः असि

Rv. ix. 86. 29.

It is the King of the Rivers and it flows in thousand streams. Vide

राजा सिन्धुमाम् पवते पति: दिव: श्रतत्व पाति पाथिमः

Rv. ix. 86. 33.

सहस्यार: शतवाजः हन्दुः

Rv. ix. 100.10.

It stands as a very high buttress of the heavens. Vide

दिव: विश्रम्य: उत्तमः

Rv. ix. 108. 16.

The King of the Rivers wears a sheet of cloth. Vide

राजा सिन्धुमाम् धवलित्व वासः

Rv. ix. 89. 2.

It is visible at night and not at day. Vide

दिवा हरिः दय्यो नकम श्रवः

Rv. ix. 97. 9.

It is of white colour in heaven. Vide

शङ्खमु रूपम् कृते

Rv. ix. 74. 7.
It encompasses the whole heaven. Vide

Vimana: Rājas:


The horse has moved along the pathways and Pavamāna flowed like rain from heaven. It comes to us with thousand streams and sinks in the firmament and upon the bosom of its mother. Vide

Bṛha śca: bāhū: parārthā: abhāvaḥ dīvā: n brāh: pavamāna: bhojhaḥ; sahso'hi: brāhdayaḥ nī ṛjale maṇḍu: cakreṇa bhā ca sāman:।

Rv. ix. 89. 1.

It fills the four seas. Vide

Rāmaḥ: sarvātmanā ca bhūtraḥ: brāhmaṇyo'ḥ sāmaṁ vibhāt:।

Rv. ix. 33. 6.

It made the stars shine. Vide

.............bhūtadv yād dīvā: rōcma kāvya:।

Rv. ix. 85. 9.

It gives light to the Sun. Vide

tab vṛddīñśī pavāman: vṛddī:।

Rv. ix. 86. 29.

abjanātā pavaḥ vṛddīḥ ānātāḥ।

Rv. ix. 97. 41.

While the moon shines with light borrowed from the sun. Vide

Svita śūryāṁ maṇḍevād maṇḍam āśrayate।

Nāstak padv jyoṭilāmaḥ somayāḥ dhadāti।

Yuddham "bhārīvyaḥ: brāhī dītī: maṇḍaḥ" dītī।

Nirukta xi. 1. 8.

Somadāhāra came from the highest peak of mountain ( the highest ridge of heaven ). Vide

Ṛṣa śca víśvai pavāmaṁ bhaṇaḥ।

Rv. ix. 87. 8.

Note: In the Purānas the Gaṅgā is said to be the daughter of the Hima-vat ( The Himalaya ).

It was brought down to earth by the daughter of the Sun.
Vide.

पवर्जीन्य इब्राम महिसं त्म सुदिन्तु दुहिता शा बामति

Rv. ix. 112, 3.

Note: This reminds one of Raja Bhagiratha's bringing down the Gaṅgā.

And flowing in the heaven, from the sky, the streams fall on the summit of the earth. Vide

पवमानाः दिव: परि बन्तीरोधत अभ्रस्वत: पुषिण्या: अदि सानि

Rv. ix. 63, 27.

Note: This summit is, we suppose, called the Peak of Mount Sumeru in the Purāṇas. Vide

मेह जुने पतलि उच्चेः सिन्धुः रंगी अग्निलाच व पी. II: 3, 107

The Somadhārā is divided into seven currents flowing through the sky. Vide

सस्म प्रवतः चा दिवम

Rv. ix. 54, 2.

cf. बिससज्जः ततः ग्रामाः हरः बिन्दुसर:भगति

तत्त्वाः बिस्रमानामायाः सस्म ग्रोजांसि जिरिऎ

Rām I. 34, 11.

Compare also the seven parts into which the Heavenly stream is divided by the Babylonians.

1. The river of the fishes,
2. The river of the birds,
3. The river of the serpents,
4. The river of the goddess Gula (Gurra—watery deep).
5. The river of god Marduk (Perseus).
6. The river Gar-gal (the high cloud).
7. The river of the Sun-God (Tammuz-Ningir-Su-Phaethon-Orion).


As the child of Virāt (विराट) i.e., firmament, the queen of King Varuna, the Milky Way is called Virāja (विराज). Vide

बस्याः विराज

T. Ar. III. 9.

विराज: नामा कामद्वा भमत्व भुमिस्विन् लोके।

T. Sam. IV. 4, 11.
Varuna is equivalent to the Sun and Virāja (विराज) becomes, in a feminine character, Virajā alias Suryā (सूर्या), the daughter of the Sun (सूर्य), who mounted the car of the Asvins (अष्टिद्वस्म) the stars Soma and Vishnu (the stars Castor and Pollux of the west). Vide

आ बाम् रघु दुहिता सूर्यस्य काम्यं हि विस्तिरता वर्णता ज्यति।

Rv. I. 116. 17.

And every star-gazer can verify the statement by a glance at the Mithuna Mandala (मिथुन मण्डल) the constellation Gemini where the Milky Way passes close by the Twins.

Suryā again is the consort of the Sun. Vide

सूर्य तः सा पुत्रः हि सूर्यस्य पि।

Nir. XII. 1.7.

This Suryā again plays an important part in Hindū myths. Under the name Devaki (देवकी) or Devakini (देवकिनी) Suryā became the consort of Vasu-Deva (वसुदेव). Vide

देवका सूर्याया सत्यम् प्रयोगे रघु महाभूत।

S.B. X. 1.

Cf. Ak. Dauke=Dav-kina=The lady of the Earth. (R. Brown, I. 353.)

The Milky Way as Soma-pavamāna (male), is the father of the gods. Vide

पिता देवानाम् जनिता सूर्यस: विषयम् दिवः परमः शक्षित्या॥

Rv. IX. 87. 2.

And as Somadhārā (female), it is called Aditi (अदिति), the great mother of the Sun and other gods. Vide

माता देवानाम्।

Rv. I. 113. 19.

It begot all the heavenly luminaries and the Sun in waters. Vide

जनयन्ति रोचना दिवः जनयन्ति शक्षु सूर्यम्॥

Rv. IX. 42. 1.

In the shape of a stream it flows on, in accordance with the primeval plan. Vide

यह प्रहो न मन्यना देव: देवेष्या: परि भार्या पवते सूर्य॥

Rv. IX. 42. 2.

Surely, all this evidently means the Somadhārā and not the moon or the Soma plant.
Elsewhere the Milky Way is considered as divided into two portions by the celestial equator, the northern and the southern semicircles. The former is called Aditi (अदिति) the unbroken and the latter Diti (दिति) i.e., chaos, the broken, the two wives of Kasyapa (कस्यप) the tortoise-shaped firmament). One is the mother of the gods and the other the mother of the demons. Vide

अतः च ज्ञाते अदितिम् दितिम् च।

Rv. V. 62. 8.

And as Aditi is identical with Suryā, she is said to be the wife of the Sun.

Vide Sukla Yv. XXIX. 60.

It is the famous Tārāvati (तारावती). (Vide : K. P. 48.)

In the Paurāṇik version of the Vedic myth, Suryā is called Bhadrā (भद्रा) or Subhadra (सुभद्रा) and as such she is the sister of Rāma-Krishna reduplicated in the star Soma (सोम) and Vishnu (विष्णु) i.e., Castor and Pollux; and the statues of the Trio are said to be in the holy Temple of Puri. Subhadra eloped with Arjuna, the hero of the Mahābhārata. Compare: Helena was the sister of the Twins, Castor and Pollux and she first eloped with Theseus and Pirithous (पारी ?).

B

The Milky Way was supposed by the early Vedic astronomers to be the sun’s path (a). Nor were the Vedic astronomers far off from the mark so far as the equinoxes are concerned. The Vernal and Autumnal equinoxes were in the midst of the Milky Way from before B.C. 4850 to B.C. 3725, taking the rate of precession as laid down in the Siddhāntas viz., 75 years per degree.

King Varuna, says the Vedas, hath made a spacious pathway for the sun to travel. Vide

उस्म हि राजा वशः चक्कर सुभवं पन्याम् भनु पत्वं च।

Rv. I. 24. 8.

It was called the path of Aryaman the sun. Vide

(a) Cf. The theory of Metrodorus (B.C. 277).
Rv. I. 105. 6.

*Indra* is also said to have cut the path for Aryaman (अर्यमन्) the sun. Vide

इन्द्रः कुषाय बनम् उदयनचयः। सः दिवम् अनिक्षतः।
सः अर्यमनः पवनः अभवनः।

T. Br. I. 7. 6. 6.

*Atharvan* is said to have laid the path for the rising sun to travel; then the loving sun, the guardian of Law sprang up. Vide

यक्षः अर्यमनः पवनः तते ततः सुर्यः बलमाः वेनः आ अभवन।

Rv. I. 83. 5.

The path of the Deva (देव) the sun, came to be called Deva-patha (देवपथ); but it was also used by the Pitris (पितृन) the spirits of the dead. Vide

आयात्तु नः पितरः सौम्यसौ ब्रह्मस्वात्तुः पवित्रः देवस्यानः।

Rv. VIII. 85. 13.

(a) Who is this Krishna (कृष्ण)? *Nirukta* gives the answer. It is the night-sun. Vide—

क्रष्णः रामः साविन्दः

Yv. xxix. 19. 58.

रामः चारी लिते रशिते

Vaijayanti,

तत्सात् रामायानः कृष्णपर्ययः

Nir. N. 1. 7.

The sun has two separate phases, one form comes on, and the other is reverted and thereby he causes night and day. Vide

क्रष्ण हृद्यः कृष्णलः बलमः दे रस्ये कृष्णो रोचमः। क्रष्ण अन्यतं एतं परिष्कृतम् अभवते ज्योति रात्रियां महि: कल्याणः।

Av. XIII. 2. 42.43

Cf. Tennyson’s “Darkness rises from the fallen sun.”
The Milky Way is also the path the Pitris follow on their way to Yama’s abode and as such it is guarded by his two dogs [\(=\) the stars Syâm \(=\) स्याम and Sabala \(=\) सबल \(i.e.,\) the stars \(\lambda\) and \(\nu\) Scorpionis]. Vide

र्वे ते श्राणो यम ! राशितारी चतुर्दसी पवित्रहसी नृष्णसरी।

Rv. X. 14. 11.

That same path leads either to the gods or to the fathers.

S. Br. I. 92. 2.

Two paths are known, one leading to the gods and the other leading to the fathers.

Mahā. xiii. 525.

Note: Yama is the fireless sun as observed at the time of setting and rising, as well as at the time of its southing. He was born first of all mortals and he died first. He was placed at the head of the Pitris in heaven and was called Pitri-rāja or Dharma-rāja, and his last abode was star 1. Sisumārasya \(=\) β Ursae Minoris. In course of time he came to be regarded as the punisher of the sins of the wicked people and he had to reign also in Hell, supposed to be near the South Pole.

Thus both the northern and the southern paths of the Milky Way might be called Yama’s patha. But as it is, the portion followed by the sun in his southing is called Tama’s patha, otherwise Chhāyāpatha, \(=\) छायापथ \(a\) and the part followed by the sun in his northing is called Deva-Patha. Vide

उत्तर: सचितु: पन्या देवायान: च स: स्मरतः:

V. P. II. 8. 85.

(\(a\)) Literally the path of the shades of the dead.
The Somadhārā is also called Svātī-patha (स्वातीपथ). Vide
स: नेलेन इल: सेदु: सागरे मकरालये ।
शुद्धेव सुमग: श्रीमान् स्वातीपथ: इव हन्मे ।
Rām. VI. 22. 70

The Matsya-purāṇa calls it the bright-path leading to the
abode of gods. Vide
एष: बिरजा: फिन्या द्वस्ते देवलयमः ।
M. P. 43. 16.

The Mahābhārata calls it, as we have shown, Sura-vītha:
(सूरवीथि) or the Sun’s path. And the Rāmāyana calls it
Rāja-patha (राजपथ) or the road of Indra, the King of Heaven.
Vide
ददशं तमू राजपथम् दिवि देवपति: यथा
Rām. II. 17. 6.

Kālidāsa calls it Svarga-paddhati (स्वर्गपद्धति). Vide
पीडऩयाति न मां विज्ञाता स्वर्गपद्धति: अमोग लोलुपातव ।
Rag. ix. 87.

Compare: ‘It was the passage of Ghosts’, ‘Path of
Spirits’, ‘Road of Souls’ and ‘the Death Road of the Baby-

C

As a river, the Vedas call it Rasā (रसा).
‘As Rasā flows around the world.’ Vide
परि न: सम्भवतः चारया सोम! विब्यतः
सर भारसा इव विद्यमेव ।
Rv. IX. 41.6.

समुद्रे यथ रसाय इत्यादि: ।
Av. IV 2.5.

“How hast thou made thy way over Rasā’s waters.” Vide
कञ्चि इत्यं रसाय: अति: पविषि
Rv. X. 108. 1.

Grammatically, Rasā = Sarasvati (सरस्वती). Vide, Nirukta.
XI. 3. 4.
The Somadhārā is called Urjāni (उर्जाणी) i.e., one full of waters. Urjāni, say the Vedas, hath, O Asvins! mounted on your car. Vide

र्व. इ. ११९. २.

The celestial river, we have shown, is divided into seven branches, and the seven sacred rivers of the Hindus are reduplicated in those branches.

Many a river of Hindusthan was reduplicated in the Milky Way at the Paurānic age.

It became the Sarasvati, the Ākāsa-Gaṅgā, the Brahmaputra, the Yamunā, the Mahānadi, the Devanadi, and the Virajā.

After the rivers Sarasvati (सरस्वती), Brahmaputra (ब्रह्मपुत्र), and Mahānadi (महानदी), it was called the Sarasvati, the Brahmaputra, and the Mahānadi. After the Gaṅgā (गंगा), it was called the Ākāsa-Gaṅgā (आकास-गंगा) and in fact both the celestial and the terrestrial streams were linked together. After the Haimavati ( हैमवती-गंगा), it was so called. After the Yamunā (यमुना), it was called Divya-Yamunā (दिव्य यमुना). As the river of the Gods, it was called Deva-nadi (देवनदी). As it lies beyond the creation, it was called Virajā (विरजा).

Sarasvati, say the Vedas, illuminates the vast upper Sea with her lustre. Vide.

र्व. इ. १. ३. १२.

The course of the Ākāsa-Gaṅgā (आकास-गंगा) and that of the terrestrial Gaṅgā are said to form an entire stream, and from its rise in the highest heaven to its fall in the Bay of Bengal, the stream is traced in the Purānas with admirable exactness.

The portion of the heavens lying to the north of the Rishis in the constellation Saptarshī Mandala, which is surrounded by the circle of Dhruvas (a) i.e., the northern

(a) नवराष्णि च सम्बाष्णि मामकानि भवानि कथ। २५

यावत लोकः परिरथन्ति त्रितृत्व एवानि सम्बाष। २६

राम. इ. ६०.
pole stars of successive ages and at the centre of which lies the Kadamba i.e., the Pole of the ecliptic, is called the Tritiya Vishnu-Pāda (सूर्य पिनाक) or the param-pada (परमपद) of Vishnu (a). Vide

V.P. II. 8

There, in the third Vishnu-pāda, lies the source of the holy stream. The nail of Vishnu's left toe rent the heaven, and waters lying outside the universe, flowed through the hole (b). Dhrueva i.e., the north Pole star holds the streams on his head (c).

The stream passes through the Saptarshis in Kāṣyapiya Mandalā (=constellation Cassiopeia) and flows through the Brahma-Mandalā (=constellation Auriga). At last it falls on the summit of Sumeru (सूर्य) i.e., the north pole of the earth.

Note: This last fall is a very deep leap. Vide

V.P. II. 8.

V.N. P. XI. 180.

(a) This portion of the heavens is, we believe, called Sarvato-Bhadra (सर्वतोभद्र) i.e., the best of all in the Tantras, which is said to be surrounded by the great Serpent (=Takshaka).

(b) This hole is called Brahmaranchra (ब्रह्मरांच्र) in the Tantras. Vide

V.P. II. 8. 107.

(c) This may not be quite correct with respect to the present Pole star, but it holds good with respect to the star β Cephei which was the Polaris about B. C. 20750 and which again shall be the Polaris A.D. 6250.
Here the stream is divided into four channels viz., Sītā, Alakānanda, Chākṣhus, and Bhadrā. Vide

Sītā represents the eastern portion of the celestial stream. Vide

पूर्वाक्षाम् दिन्ति सीता तथा ।

V.D.P. I. 5. 88.

And Bhadrā otherwise Subhadrā represents the northern portion of it. Vide

भद्राख्या च उत्तरल वै ।

V.D.P. I. 5. 88.

Note: The Somadhārā as Sītā (Sītā) became the heroine of the Rāmāyaṇa, and a part of it flowing through the Nakshatra Mula presided over by Rāvana, came to be known, we believe, as the Rāvana-Gāṅgā (a)-; as Bhadrā otherwise Subhadrā (Sūmata), she became the sister of Rāma-Krishna. Vide

उपास्य सिते पति दृष्टीया पुष्पसंगिता
तत्त्वाम् रथे समारोह्य रामम् मात्र बद्र्या सहृ
स्मद्ध पुराण ।

The southern branch of the Heavenly stream named Alakānanda (Alakānanda) flowed southward from the mount Sumeru and crossing the Himalaya mountain (Himalaya parvata), it entered into India. In the plains of India, it flows eastward to the sea. Vide S.B.V. 17. 1. 10.

It is interesting to note that according to the Rāmāyaṇa, the Holy stream first falls on the head of Siva (Siva) represented, we believe, by the constellation Sephali (Sephali) i.e., Cepheus of the West [originally, (Ph) Keph, the divine stone = Baityllos] (b). Vide

(a) Cf. “The twentieth Persian lunar Mansion is Vanant (= θ, κ, λ, ν Scorpionis). The Vanant Yashī is a prayer addressed to the Star Vanant, by which the Dasturs understand the Milky Way.” Here the Milky Way derives its name from the asterism Vanant (= θk. Mula.)

(b) Vide, R. Brown I. 30.
This is astronomically more correct than the Purānas.

The stream is called also Virajā (विरजा).

Once Sīkrīshna was enjoying the company of Srimati Rādhā in the halls of music and dancing, within the lonely extensive wood (महारथ) of heaven. But he left her and sought the company of another Gopi named Virajā (विरजा). Rādhā was informed of her lover’s unfaithfulness. She and other Gopīs raised a cry which frightened away Krishna from the company of Virajā. Virajā died of fear for detection. She turned into a river. That river encompasses the whole celestal sphere. Krishna sorely felt her absence and began to cry bitterly on the river’s bank. At his request Virajā appeared before him in the shape of the River-goddess. The lovers met again. She bore him seven sons, who incurred her displeasure. Accursed by her, they had to come down to the earth from heaven in the shape of the seven seas. Vide, B.V.P. II. 49.
Elsewhere the same Purāṇa speaks of the Virajā (Milky Way) as the great celestial river. Vide

गोलोकम् दस्यामास विरजाम् च केदीभरीम्
V.P. III. 43, 24.

It is the Vasudhārā (सबुधारा) of the Jainas. Close to the mount Gayasiras (गयसिर:) i.e., the setting hill, flows the holy Mahānadi. Vide

नमः गयसिरः यथा पुण्या चैव महानदी
Mahā. III. 43. 11.

It is the Deva-nadi and the Akāsa-Gaṅgā. Vide

पशा देवनाधि पुष्या यथा ! गैलोक्यापावतो।
आकाशाङ्ग्षा राजेन्द्र ! तत्र आप्सूय गमिष्यसि।
Mahā. XVIII. 3. 28.

It is the Divya-Tamunā near the constellation Orion. Vide

प्राकू एव दिव्य यथाना क त्यज्या महामणः पुर्ते।
पुरां पतिः लोहित्ये गला द्रवतः योजये।
K.P. 82. 83.

Compare: The Milky Way was called the inaccessible stream by the old Egyptians and the canal of waters or the stream of the upper sky by the Babylonians. Vide: R. Brown II. 34.

D

It is called a mountain, both in the Vedas and the Purāṇas. Vide

शम रोदसी वहती शमः अभिषः शम न देवानां सुह्वादिन सन्तु ||
Rv. VII. 35. 3

Vide also

ख्रण शूकरुपस्य ततो भेतः पवंत भयवत् ||
Mahā. III. 228. 27.

भपरत भजन्तवः भोतम शर स्तस्म: सुसंहतय ||
Mahā. III. 224, 10.

E

The Somadhārā looks like a great serpent encircling the heavens.
"With laud I sing the Ahi, born of floods. He lives in the
waters of 'the stream in the middle air (Milky Way).’ Vide

अषुजात उक्ते: बहिः गुणोऽिष्ट वुर्ध नदीनाम् रजः: सोऽिदन्

Rv. VII. 34. 16.

This serpent is called Ahir-budhna and it is inseparable
from the Milky Way.

The river Rasā is also called Surasā; the great serpent
mother. Vide

तत् देवः संगमविज: ग्युद्धा: च परवर्यः।
ब्रह्म वन सुश्रुणानं सुरसास्म नागमात्रसः

Rām. VI. I. 139.

The "infinite" Milky Way, as a snake, is called Ananta
(अनंत) who holds up the Earth on his head. Vide निर: पृथिव्यः।

Rv. IX. 87. 2.

And as it lies beyond the Universe, the snake is called
Sesha (सेष) the Last.

The Vedic Somadhāra—Pauranic Adri-Sūtā Subhrā (ब्रह्मचर्या
), compares well with the Ardvi Sura Anahita (Sk. अनंति )
of the Avesta.

"The spring named Ardvi Sura, says the Avesta, purifies
the seed in man, the fruit in the woman’s womb, and the
milk in a woman’s breast. It is the holy water-spring.

"Ardvi Sura Anahita (the high, powerful, undefiled) is the
heavenly spring from which all waters on the earth flow down,
whose fountains are on the top of the mythical mountain
Hukairya in the star region, whom Ahura Mazda, at the prayer
of Zarathustra, ordered to come down from the stars to the
earth made by Ahura, that the great lords might worship her.
These great lords are Ahura himself, Yima (यम ) Azi-Dahaka
(अदितक), Thraetaona (त्रेतन ) Keresaspā (करसाप ) Kava-usa
(कावु सुसा ) Vaisāka’s sons (विशाखा पुत्र ) and Thrita (त्रिता )."

"She is connected with Azi (अदि) the storm fiend. She is
a maid, fair of body, most strong and nobly born. She wears
a crown with hundred stars; जीतę wears a mantle fully
embroidered with gold” ; “she wears a golden necklace and
ear-rings.”
Cf. The great Vālmiki describes Lakshmi who rose out of the ocean when it was churned, in a similar strain. Vide Up floated on her lotus-bed
   A maiden fair and tender eyed,
   In the young flush of beauty’s pride,
   She shone with pearl and golden sheen,
   And seals of glory stamped her queen.
   On each round arm glowed many a gem,
   On her smooth brows a diadem,
   Rolling in waves beneath her crown,
   The glory of her hair flowed down.
   Pearls on her neck, of price untold,
   The Lady shone like burnisht gold.

Prof. Griffith

"Her descent from the golden Hukairya is said to be a very deep one.

The large river known afar, which is as large as the whole of all waters that run along the surface of the earth, falls powerfully from the height of Hukairya (= Huger = Alborz) down to the sea Vauro-Kasu (वस्नकश) i.e., the Arabian Sea. She has a thousand cells and a thousand channels." Vide Abanyast, Avesta (a).

Soma-pavamāna himself forms his own bridge across the waters on high.

This King (Soma-pavamāna) is praised and honoured as ordained, himself the bridge, the sage spreads over the waters.

Prof. Griffith

Rv. X. 61. 16.

The bridge thrown across the upper sea by Sri-Rāma is only another phase of the celestial bridge.

The bridge, says Vālmiki, glittered like the Milky Way in heaven. Vide

(a) Prof. M. Haug identifies Ardvi-Sura-Anahita with the planet Venus.
And lastly, with its Seven Streams the well-known Vasudhārā of our Vedic ceremonies well represents the Celestial River with its Seven Currents.

Mah. XII. 338.

EXAMPLE II.

NAKSHATRA KRITTIKĀ (कृत्तिका नक्षत्र)

The first Nakshatra of the Luni-Solar Zodiac is the Nakshatra Krittikā (कृत्तिका). It consists of six small stars out of a group of eight. The asterism is also called Shat-Krittikā (षष्ठी कृत्तिका) but no names of the individual stars composing the Nakshatra are to be found in the Siddhāntas. However, we can have their names, as well as the names of the other two stars in the group, from the Purāṇas and the Mahābhārata. The whole group is called the Pleiades in the West. About the Krittikās, the Satapatha Brāhmaṇa declares:

1. He may set up the two fires under the Krittikās, for they, Krittikās, are doubtless Agni’s asterism. So that, if he sets up his fires under Agni’s asterism (he will bring about) a correspondence (between his fires and the asterism): For this reason he may set up his fires under the Krittikās.

2. Moreover the other lunar asterisms consist of one, two, three or four stars, so that the Krittikās are the most numerous (of asterisms): Hence he thereby obtains an abundance. For this reason he may set up his fires under the Krittikās.

4. On the other hand, (it is argued), why he should not set up the fires under the Krittikās. Originally, the latter were the wives of the Rikshas (रिक्षा) i.e., Bears. For the seven Rishis were in former times called, the Rikshas (रिक्षा) i.e., Bears. They were, however, precluded from intercourse with their husbands, for the latter, the seven Rishis rise in the north, and they (the Krittikās) in the east.
5. But he may nevertheless set up (his fire under the Krittikās): For Agni doubtless is their mate, and it is with Agni that they have intercourse. For this reason, he may set up (the fire under the Krittikās).

The Shat Krittikās (षट्कृतिका) with Arundhati (अरुणथती) are the seven wives of the Saptarshis (सप्तर्षि), the seven sages, though originally as a single Bear-constellation had only one wife. Vide

यथा सस्त्रोथितां पर: एकम बाहुः।

Nir. X. 3. 2.

तस्यौराय वर्णन।

T. Ar. III. 9.

The later seven wives are Sambhuti (संभूति), Anasuyā (अनसुया), Kshamā (क्षमा), Priti (प्रिति), Sannati (सन्नति), Arundhati (अरुणथती) and Lajjā (लज्जा). Vide

मरीचि: अभि: पुलह: पुलस्तर: बड्डु: बल्लितः।
विग्रहः च महामागः चक्षुरो मानसः: सुल्तः।
संभूति: अनसुया च लज्जा श्रीतिश्च सन्नति:।
अरुणथती तथा तमा तद्यथा लोकमातरः।।

इति पाण्डु स्त्रायङ्गेण्, ॥२॥

Of these seven wives Arundhati alone has a place in the Saptarshi Mandala (सप्तर्षिमण्डल). The Mahābhārata gives an elaborate exposition of the narrative hinted at in the Satapatha Brāhmaṇa.

Seeing these wives of the best of the Brāhmaṇas (Saptarshis), the mind of Agni (अग्नि) became agitated. On a second thought, after being baffled in all his efforts to win the hearts of these Brāhmaṇa ladies, and with a heart burning with passion Agni repaired to a forest with a determination to destroy his own life. At the same time Svāhā (स्वाहा) daughter of Daksha, set her heart on him and she came to know all that had led Agni to hide himself in the deep forest. Actually tortured by the pangs of love, she thought within herself, 'as I too am distressed with love, I shall assume the guise of the wives of the seven Rishis and in that disguise
I shall seek the Fire-God, so smitten with their charms. This done he will be gratified and my desire too will be satisfied.'

Mahā III. 223. 33-41

The beautiful Sīvā (सिवा) endowed with great virtues, beauty and unspotted character was the wife of Angiras (अंगिरास: ). That excellent lady Svāhā first assumed the disguise of Sīvā and went to Agni and told him her mind. Agni filled with joy, married her and that lady joyfully took the germ in her hands. And then she thought within herself that those who would observe her in that disguise in the forest, would cast an unmerited slur upon the conduct of the Brāhmaṇa ladies' in connection with Agni. Therefore, to prevent this, she should assume the disguise of a bird and in that state, she would more easily get out of the forest.

Then assuming the disguise of a winged creature, she went out of the forest and reached the white mountain, begirt with numbers of quivers. She, quickly ascending a peak, threw that germ into a cave and then assuming successively the forms of other five wives of the seven Rishis she continued to daily with Agni. But on account of the great ascetic merit of Arundhati and her devotion to her husband she was unable to assume her form. And O! Chief of Kuru's race! Svāhā, on the first lunar day, threw six times into that cave, the germ of Agni and thrown there, it produced a male child endowed with great power. And from the fact of its being regarded by the Rishis as cast off, the child born therefrom came to be called by the name of Skanda (स्कन्दः), and the child had six faces twelve ears, as many eyes, hands and legs, but one neck and one stomach.

Mahā. III. 224. 14-17

And those seven Rishis, when they heard that a son of great power had been born to them, divorced their six wives with the exception of Arundhati.

Mahā. III. 225. 8.

The boy addressed Indra saying "Do thou appoint me as the leader for the well-being of cows and Brāhmaṇas."
And he was appointed by Indra and other Gods. Then Indra thought of Deva-Sena and on the recommendation of Indra, Skanda duly married her.

Mahā. III. 228. 22-23. 45, 47

These six wives of the seven Rishis then repaired to the camp of Skanda. Disowned by the Rishis, the virtuous ladies of high religious merit, quickly came to the husband of Deva-Sena and told him. “We, O son! have been cast out by our god-like husbands without any cause,” and on his recommendation Sakra (शक्र) assigned them a place in the Zodiac, fallen vacant by the absence of Abhijit (अभिजित) from it, out of her jealousy to her rival Rohini (रोहिणी), and the asterism Krittika presided over by Agni shines with seven heads. For Vinata (विनता) also said to Skanda “Thou art as a son to me; I desire, my son! to live with thee always.”

‘Be it so’ said Skanda, ‘thou shalt I’ve honoured by thy daughter-in-law.’

Mahā. III. 229. 1. 3. 11, 13.
Of the other two stars of this group, one is Devasenā (देवसेना) and the other is called Vīnatā (वीनता), the mother of (गुड़). Devasenā seems to be the largest star of the group.

Vide

प्रयाणात्वकला देवसेना च नारद।

मार्गातु पुज्यतमा या च श्री कृपालिता॥

हरि भज्ज्वसंग गणेशस्वरूपे॥
And we identify the star with star Alcyone of the Greeks *i.e.*, star 3 Vrishasya ( = η Tauri ).

[Vinatā, the mother of Garuda was allowed by Kārttikeya to live with Devasenā (a) - (Gr. Aleyone), and we feel no hesitation in identifying the star with the star 22 of Vrisha ( ν ), called Pleone in the west, when we remember that she was the mother of the bird Alcyone.]

**EXAMPLE III**

NAKSHATRA MRIGA-SIRSHA ( नक्षत्र श्रीश्रोत ) IN

MRIGA MANDALA ( मृग मण्डल )

THE CONSTELLATION ORION

The third Nakshatra of the Lunar Zodiac lies in Mrigα, the Northern portion of which is included in the third division of the solar zodiac. It is called Mriga-Sirsha ( मृगशीर ) and it consists of a group of three stars, the northernmost of which is the Yogatārā ( योगतारा ) or the head-star (b). The Suryya-Siddhānta gives its latitude 10° S and longitude 2h.30m. The star indicated is the star ιι of Kalapurusha *i.e.*, λ Orionis, which with its two companion stars, forms the head of Orion. We thus get the equation:

_Nakshatra Mriga-Śira_ = the head of Orion.

Now the question is, whether we have any Sanskrit name for the constellation Orion. Let us try to answer it.

With intent to create the animal kingdom,—we give the substance of what the Rig-veda says—Prajāpati ( Brahmā ) felt a passion for his own daughter. Vide

पिता वर्तमान दुहितिर्म भधिस्तुकर।

Rv. X. 61. 5-9.

The Aitareya Brāhmaṇa says in explanation:

Prajāpati cast lustful eyes on his own daughter, whom some call Heaven, others Dawn. The latter is called Ushā or Sarasvati in the Vedas. He transformed himself into a buck

(a) खुष्या पूज्यमाना ने देवि विज्ञाति निस्ता।
(b) बिशाखा विष्णुन भोम्यमाने योगतारा वचन स्मुला।

S. S. VIII. 16.
(Risya—रिस्य), whilst his daughter assumed the shape of a female deer (Rohit—रोहित). He approached her. The Gods saw it, (crying), ‘Prajāpati commits an act never done before.’ In order to avoid the evil consequences of this, the gods enquired for some one who might destroy the evil. They then put the most fearful bodies of theirs in one. This aggregate of the most fearful bodies became a god, Bhutavat by name. The gods said to him, ‘Pierce this.’ So he did. He then said ‘I will choose a boon from you.’ They said ‘choose.’ He then chose as his boon sovereignty over cattle. That is the reason why his name is Pasumān (पशुमान) i.e., the Lord of Beasts.—Bhutavān attacked him and pierced him with an arrow. After having been pierced he became a constellation. They call him—(Prajāpati) Mriga (मृग) or deer; and him who killed, Mriga-vyādhha (मृगव्याध्य), hunter of the deer. The female deer—Rohit, into which Prajāpati’s daughter had been transformed, became the asterism Rohini (रोहिणी).

The arrow, which had three parts, became such an arrow Trisandhi (त्रिसंधी) or three-knotted....

Haug’s Aitareya Brāhmaṇa. III. 33.

"8. He may also set up his fires (under the asterism of) Mriga-Sirsha. For, Mriga-Sirsha indeed is the head of Prajāpati.

"9. On the other hand (it is argued), why one should not set up his fire under Mriga-Sirsha. The latter indeed is
Prajāpati's body. Now when they (the Gods) on that occasion pierced him with what is called the three-knotted arrow, he abandoned that body, for the body is a mere relic (or dwelling, bāstu) unholy and sapless. He should therefore not set up his fire under Mriga-Sirsha.

"10. But he may nevertheless set them up under Mriga-Sirsha. For assuredly, the body of that God Prajāpati, is neither a relic nor unholy." (Sacred Books of the East).

The above narrative gives us a good many of astronomical informations. The asterism Mriga-Sirā is then the head of the Heavenly Deer. Thus we come to the second equation:

\[ \text{Prajāpati} = \text{Mriga} = \text{Orion}. \]

The constellation, we believe, is called Kālapurusha (कालपुरुष) in our astrological works.

The asterism Mriga-Sirsha stands north of a stellar trapezium traversed in the middle by a row of three stars and interspersed by other stars and nebulae. The constellation is surrounded by a balloon-shaped stellar environment. The whole is called the constellation Orion in the Western charts, and evidently the constellation is the Heavenly Deer called Kālapurusha. The four stars at the four angles of the trapezium may well represent the four hoofs of the Deer.

Thus we find, Orion = The Deer-shaped Kālapurusha. It is interesting to find that Orion met with a fate very similar to that of his Indian brother Kālapurusha (कालपुरुष). Orion fell in love with Merope, one of the stars in the Pleiades. At the instigation of her father, who had been much exasperated at his treatment of the maiden, Bacchus deprived him of his sight. After his death, Orion was placed among the stars.

Note—The only difference appears to lie in the objects of their love. In the case of Kālapurusha it was Rohini, a star in the asterism Hyades, and in the case of Orion it was Merope in the Pleiades.
EXAMPLE III (a)
NAKSHATRA ROHINI (रोहिणी नक्षत्र)

In the Vedic age Nakshatra Rohini consisted of a single star. Vide

प्रजापते: रोहिणि ।
T. Br. I. 5.

प्रजापते स्वाहा, रोहिणि स्वाहा ।
T. Br. III. 1. 4. 2.

Latterly, four more stars were allotted to it, to give it the shape of a sakata (शक्त) — i.e., a cart. The easternmost star of the group is the Yogatāra (योगतारा) of the Nakshatra. Vide

रोहिणि भादिति मुलानाम् प्राची ।
S. S. VIII. 19.

The S. Siddhānta places the Yogatāra at Lat. 5° S. and Long. I. 19° 30'; and Messrs. Colebrooke, Burgess and Bentley unanimously identify the star with a Tauri called Aldebaran by the Semitics. This is star 1 of Vrisha of the Hindu astronomical charts. It is a star of the first magnitude and of deep yellow colour. From its colour, the Hindu astronomers must have bestowed the name of Rohini on the star. Besides we may fairly presume that the Yogatāras have always remained the same since the Vedic age.

For both the reasons we hold that in the Vedic age, star 1, of Vrisha (a Tauri) was the star that constituted the Nakshatra Rohini. As the name Rohini has been transferred from star 1 of Vrisha to the group itself, we propose to call star 1, Rohit (रोहित).

For, the star represents the red-coloured she-deer called Rohit, of the Ait. Brāhmana. Rohini represents the divine cow Suravi (सुरवि). Vide

रोहिणि सुरवि: देवीं
भदिति: देवकी हि बमुल। Hari-vamsa.

"Aldebaran" may be transliterated into Haladdivarna—(हलद्वीर) i.e., the yellow-coloured.
EXAMPLE III (b)

MRIGA-VYADHA (मृगव्याध)
LUBDHAKA (लुधक)

We have shown that "Rishya (रिष्य) i.e., the he-deer of the A. Br" = the constellation Orion, and that "the she-deer of the A. Br" = asterism Rohini. It follows as a matter of course that the Mriga-vyādha Pasumān (मृगव्याध पशुमान) of the Aitareya Brāhmaṇa must be some heavenly body. Now let us see what heavenly body represents it. The S. Siddhānta places Mriga-vyādha at Lat 40° S. and Long. II. 20°. Vide...

विशेष च सन्यन्त श्रो शुष्कबाण: व्यवस्थित:

विशेष: दक्षे मानेव बः श्रष्ये ब्रह्माव: भुजन्त् भुजन्त्।

S. S. VIII 10-11.

And the acute Raṅganātha in his commentary says that the whole constellation Mriga-vyādha is compressed here into a star, the star Lubdhaka. Vide...

सुषुष्क: लुधक: सन्यन्त: बिघरति-भागे स्थित:। हिति रक्षानि:।

Messrs. Colebrooke, Burgess and Bentley all agree in identifying the star indicated, with star a Canis Majoris, called Sirius = star I of Mriga-vyādha Lubdhaka of the Hindu charts.

We therefore hold on the authority of Raṅganātha, that Mriga-vyādha is the name of a constellation in which the star Lubdhaka is situated.

Nor was the Siddhānta unique in compressing a constellation into a star. "But, although in Homer," says Brown, 'Kuon' = the dog Sirius, i.e., a particular star, yet considering all the facts, I strongly incline to the opinion that the Homeric 'Kuon' is also a constellation, one of the (gr.) Teirea. The words signifying 'stars' and 'constellation' are used so loosely and so interchangeably that the sense has to be gathered more from the context and general consideration than from the particular term employed, as if the great star were a compression of the constellation and the constellation an expansion of the star."


We therefore get the equation:

Mriga-vyādha = the constellation Canis Major, and Lubdhaka = the star Sirius.
EXAMPLE III (c)

ISHU TRIKANDA (इशु-त्रिकांड)

i.e., The arrow with three parts.

We have now to find out what represents in heaven the 'Ishu Trikanda' of the Ait. Brähmana.

We know that an arrow made of stars should consist of three stars lying in a straight line, as in the cases of the arrow-shaped asterisms Pushyā (पुष्या) and Sravanā (स्रवणा). The Ishu Trikanda or the arrow with three parts requires three such stars and this stellar arrow should be in such a position that shot from the direction of the Mriga-syādha-Lubdhaka it would hit both the Heavenly Prajāpati Deer and the Nakshatra Rohini-Rohit. The question then is, have we any such stellar arrow in heaven? We find that there is such an Ishu Trikanda in heaven. The three stars in the belt of Orion represent, we believe, the Ishu Trikanda of the Ait. Brähmana. That these three stars alone could be meant by the Ishu Trikanda will appear pretty clear even to an indifferent observer of the heavens, who cannot fail to discover that the stars Lubdhaka (Sirius) and Halaudivarna (Aldebaran) are in a line with the three stars concerned, that stand across the navel of the heavenly deer. We have therefore the equation: Ishu Trikanda - the belt of Orion.

EXAMPLE IV

SVAN (स्वन्)

The star Sirius of the later Greeks was the star Cyon (= dog) of Homer (a). Was the star Lubdhaka, then, the Svan (स्वन्), i.e., dog, or Divya-Svan (दिव्यस्वन्), i.e., the Heavenly dog of the Vedas? We believe it was.

That Divya-Svan is a heavenly luminary will appear pretty clear from the following passages of the Vedas:

Athsarva Veda VI. 80.

1. He fleet in the firmament observing all the things, that be. We with this offering will adore the greatness of the Heavenly Hound.
2. The threè, the *Kālakāñjas* set aloft in heaven as they were gods. All these I call to be our help and—keep this man secure from harm.

3. In waters is thy birth, in heaven thy station, thy majesty on earth and in the ocean. We with this offering will adore the greatness of the Heavenly Hound.

Prof. Griffith.

1. अन्तरिते पति विस्वं भूतः अवचकाशतः
   शुमः दिव्यस्य यत् महः तेन ते हृतिश्व विपेषाम्।

2. ये नयः कालकाशः दिवम देवः द्रश्यताः
   तानस संप्राति शुमेः उष्णे बसैं अरिस्तः तात्सी।

3. श्रोतुः ते जनम दिव्यम् ते सच्चतिः समुद्र अनन्त महियाः
   शूनो दिव्यस्य यत् महः तेन ते हृतिश्व विपेषाम्।

Av. VI. 80.

That the Vedic Rishis felt scorching heat on the appearance, technically called the heliacal rising, of the Heavenly Hound or its tooth-star is obvious from the following passages, though written in a figurative language:

When O' bright son of Saramā!
Thou showest thy tawny tooth,
It gleams like lancer's point within thy mouth,
When thou wouldst bite; go thou to sleep.

Vide Rv. VII. 55. 2.

यत् बर्जः सार्स्मयै दत्तः पिल्लाहः वच्चसी
विद्व मर भाजन्ते विश्वः उपस्यकस्ये सप्ततो नि सुखप।

Compare, what Aratos says of Canis-major and its tooth-star Sirius (literally, the scorcher).

......His portentious jaw
Bears at the end a star which scorches most,
Resplendent; so men it the Scorcher call.
Phainomena 582-5.

We have thus the equations:
Star *Lubdhaka* = Star Danta (*द्वं*), and
Tārā Mandala *Mriga-nyādha* = the constellation Svan (*श्वन*).
EXAMPLE V

SARAMA (सारमा)

Deva-Suni Sarama (सरमा) of the Vedas may well be identified with the star Procyon of the Greeks. No doubt we are the first to make the suggestion, but we have very strong reasons for doing so.

The Greek name Sarama is Maira (the Sparkler) (Μερα) as well as Procyon (one who rises heliacally before the Cyon or Sirius = the Dog).

The grounds for identification are strong and varied and it is desirable to give them here in detail, as the point is not beyond the pale of all honest controversy.

The name of Sarama implies, one who moves (swiftly). Her other name Deva-Suni (देवसुनी) means Dog of the gods. She is the primeval parent of the canine species. Every dog therefore bears the patronymic Sarameya शारमेया in Sanskrit.

The Hindu cosmology recognises threefold creation.

1. The Ādhyātmic (आध्यात्मिक) or Metaphysical.
2. The Ādhidāvīc (आधिदैविक) or Heavenly.
3. The Ādhibhautic (आध्यभूतिक) or Terrestrial.

As to the second, Prajāpati, says the Taittirīya Brāhmaṇa, created all animals and each of them occupied a star. Vidē

प्रजापतिः पूर्व-प्रयतनः
ते नान्त्रोऽन्त्रा उपातिष्ठत्।

T. Br. I. 5. 4.

Of these primeval animals, Airāvata (अरावत), Uchchailsravās (उच्चैलसव) and Sarama (सरमा) fell to the share of Indra, the Bull (बृह) and the Dog (अग्न) fell to the share of Sīva, and Aquila, i.e., Garuda (गरुड) to the share of Vishnu, and Capricorn, i.e., Makara (मकर) to the share of the Heavenly Gaṅgā (आकाश गंगा).

It will not be out of place here to observe that the Greek philosopher Platon calls the fixed stars ‘divine and eternal animals’.

These theories may be well connected with the naming of the constellations after animals, both in the East and in the West.
It follows therefore, that Saramā (सारमा) the primeval dog, is a denizen of the starry sphere, if she herself is not a star or a collection of stars. The characteristics of Saramā as found in the Vedas, can be attributed only to an Ārdra (आर्द्र) the rain-giving star (a). We can give here the substance of the Vedic literature dwelling on the point.

Indra the rain-god, or the Sun as rain-giver, has to rescue the fertilising cattle (rains) breaking open the dark prison (clouds) in which they are kept in secret confinement by Panis (पःि), the agents of Vritra. Like a true sportsman, he has for his help-mate, the dog Saramā, who shows herself to run ahead of him (i.e., rises before the Sun) in search of them (Vide, Rv. IV. 16–8), crosses the Rasā (रसा) to track the stolen cows to their place of confinement (Vide, Rv. X. 108. 8. 3) (b), and finds them out to convey the khabar (news), as the sportsmen say, to her great master (Vide, Rv. V. 45, 1-8). It is she again, who finally in the flood’s van leads them forth (Vide, Rv. III. 31.6).

In the Vedas, mention is made of three Sārameyas (सारमेय) or the offsprings of Saramā. One of them, as we have shown, is her great son, the Heavenly Svān (स्वान) or the Dog (Vide, Rv. VII. 55. 2; Av. VI. 80. 1-3). The second and the third form the twins ‘Syāma-Savalau’ (स्यामा-सवलौ) or the stars Shaulah and Lesath; constituting the Nakshatra Vichritau (विचृताँ), called Mulā (मु्ना) in astronomical works, and guarding the path to Yama’s abode. Vide:

Rv. X. 14, 10-11.
Av. XVIII. 2, 10-11.
Tait Sam. IV. 4, 10-12.
Tait Ar. II. 6. 1.

Nor is the Paurānic Saramā unconnected with the sidereal sphere. For she is said to be a daughter of Prajāpati Daksha

(a) The stars Sirius and Procyon were Bāhu (बाहु) literally the two arms, i.e., helpers of Indra and they together formed Nakshatra Ārdra in the early Vedic period. Vide:

बाहुः कुतिस्काः प्रजापते: रोहिष्णी
सोमस्य श्रवकः: श्रूव्य बाहुः। T. Br. I. 5. 1.

(b) तथा रसायः: श्वतरे प्रवःिस्र। Rv. X. 108. 2.
(द्वारा), father of the 27 Nakshatras married to the Moon. The Mahābhārata assigns her the status of a Graha (ग्रह), i.e., a heavenly body of evil disposition. Vide:

सरामा नाम वा माता-सूर्यै देवी जनाधिपिन्।

बनपुरि, २२६१३३

इसे तु बण्डादशा बन्धे वै महा: मांसमुखिनिः।

बनपुरि २२६१३६

A careful consideration of all these fairly raises a strong presumption in favour of the first portion of the proposition laid down above, namely that Saramā is a star and is identical with Procyon.

All that now remains is to establish the identity of Saramā, mother of the canine species, with Procyon (the leader of the pack).

In the Vedas, as we have already observed, Saramā is said to have crossed the Raśā, a mythical river that encompasses both the heavens and the earth.


In the Avesta the same river is called Rangha (रंघा). And we feel no difficulty in identifying it with the great celestial river, i.e., the Milky Way. We are thus told to look for Saramā on the banks of the Heavenly Gaṅgā. We know that her great son, the Dog, lies on the western bank of it and we may fairly conclude that she was supposed to have started from some point close to her son, in crossing over to the eastern bank of the great stream which now lies between her and her son. It is to be remembered that Procyon also lies to the east of the Milky Way. But the eastern bank has a world-wide circuit. So the two stars Saramā and Procyon may lie like Poles asunder. Saramā, says the Mahābhārata, followed Skanda (स्कंद), the celestial Generalissimo in his march. Skanda, we know, is figured in the Constellation Orion, also called Kandaon (the prince) by the Boiotians. Thus we can trace the star Saramā to that part of the Heavens, where Procyon lies, a little way off to the east of Orion and beyond the Milky Way. The Hindu guides stop here and fail to lead us exactly to the goal. But foreign help is not wanting, and with which we hope to reach
our destination. By the early Semitic Astronomers of the Euphratean Valley, Procyon was called Kakkab Palura, or ‘the crossing-of-the-water-dog,’ who was supposed to have crossed ‘the Great Stream,’ as the Egyptians called the Milky Way (Vide, Renouf, the Egyptian Book of the Dead, Part III., p.139).

In the Euphratean name of Procyon, we find a vivid image of Saramā crossing the Rasā (रसा). An ancient tablet figured by Schliemann, shows a part of the Milky Way (not Scorpion, we suppose) in the centre, a dog (male) on one side and a dog (female) on the other. The latter stands for Kakkab Palura, i.e., the star Saramā. Lastly, ancient western astronomers speak of no other Dog on that side of the Milky Way and we have no reason to suspect that the Vedic Rishi had located his Saramā elsewhere. Procyon lies 27° east of the present solstitial colure. Astronomical consideration would therefore lead us to the conclusion that the star enjoyed the honour of being an Ādrā (आद्रा) or the rain-giving star in a very remote age.

In conclusion, it is but fair to mention that Professor Max Muller finds a remnant of the Vedic Saramā in the name of Helenā. But we submit with the deepest respect for his vast oriental scholarship that irrespective of philological affinity, Saramā, the messenger of the celestial King Indra, is closely allied to Hermes, the messenger of the Greek Zeus. Elsewhere he himself highly approves the Kuhn’s discovery:—Hermeias (sons of Hermes) Sārameyas (sons of Saramā). It follows, therefore, as a matter of course, that Hermes = Saramā. It would have been more satisfactory if Helenā, the Greek sister of Suryyā (सूर्या), the daughter of the Sun (Sk. Heli), could be connected with the Sun (Gr. Helios).

We have therefore the equation:

The Star Procyon = Saramā.

Since the star Saramā had to come down to the Āsura-bhāga of the heavens, she has been regarded as a demon in the Purānas. In Krittivāsa’s Rāmāyana, she appears as the wife of Vibhishana (विभीषण), attending on Sītā (सीता).
EXAMPLE VI

SARAMEYA-JUGALA (सारमेय जुगल)

There is a constellation in the Western charts, invented by astronomer Hevelius in A.D. 1690, which is called Canis Venatici or the two grey-hounds. The constellation lies far to the north of the star Chitṛā (चित्रा) i.e., the star Spica of the Western charts.

There is a narrative, in the Vedas about a clan of Asuras called Kālakāṇias. They built up a fire-altar called Rauhina (रौहिन) to ascend the heavens. On the fall of Rauhina (stairway), two of them flew up to the heavens in the shape of dogs from the vicinity of the star Chitṛā (चित्रा). It was Indra, the thunderer, who rent Rauhina into pieces when scaling the heavens. Vide:

यः रौहिण बल्कर ब्रजवाहु: शाय आरोहन्तम्।

Rv. II. 12. 12.

An explanation of the above allusion, we find in the Satapatha Brāhmaṇa II. 1. 2. 13-17.

13. Now the gods and the Asuras, both of them sprung from Prājāpati, were contending for superiority. Both parties were desirous of rising to yonder sky. The Asuras then constructed the fire-altar called Rauhina (रौहिन) (i.e., fit to ascend by) thinking thereby ‘we shall ascend to that sky’.

14. Indra then considered, ‘if they constructed that fire-altar, they will certainly prevail over us’. He secured a brick and proceeded thither, passing himself off for a Brahmin.

15. ‘Hark ye’, said he, ‘I will too put on this brick for myself.’ ‘Very well’ they replied. He put it on. The fire-altar wanted but very little to be completely built up, when he said, ‘I will take back this brick, which belongs to me’. He took hold of it and pulled it out, and on its being pulled out, the fire-altar fell down, and along with the falling fire-altar, the Asuras fell down. He then converted the bricks into thunderbolts and clove the Asuras’ necks.

17. Thereupon the gods assembled and said ‘Chitram (चित्र)’, wonderful it has proceeded with us who have slain so many
(Asuras) enemies'. Hence the Chitratoam (चित्रातोम), i.e., the wonderful nature of the Nakshatra Chitṛā (चित्रात्र) (i.e., the star Spica).

The Brāhmaṇa says later on, that the Asuras were deprived of speech by the Devas. Vide, S. Br. III. 2. 1. 2-3. This is based on Rv. I. 130.9, where Indra is said to have deprived the Asuras of their speech. Vide.

बाह्म अस्न: मुभावति.

As the object of all the Brāhmaṇas and Upanishads, Tantras and Purāṇas is simply to explain the Vedas, the Taittiriya Brāhmaṇa takes up the string and declares:

There were Asuras, the Kālakāṇjas (कालकाण्य). They constructed a fire-altar with a view to gaining the world of heaven. They, every man of them, put a brick to it. Indra passing himself off for a Brahmin put a brick on for himself saying, this one Chitṛā (चित्रा) (the star Spica) by name is for me.' They climbed up to heaven. Indra, however, pulled out his brick, and they tumbled down and became spiders. Two of them flew up (to heaven) and they became the two Heavenly Dogs (i.e., Canis Venatici).

Tait. Br. I. 1. 2. 4-6.

कलकाण्यः वै नाम अस्न: भास्न। ते सुवर्गाय लोकाय अभि अविचितः। पुष्पः इष्टकों उपादतः। पुष्पः उ इष्टकों सं: इन्द्रः माह्यः। शुरवः: इष्टकों उपाधि। श्रव्य च चित्रा नाम इति। ते सुवर्गालिङ्का आपारोहण सः। इन्द्रः इष्टकों आहुतः ते वा बाह्मावतः। वे वा अकोत्सज्ज्ये ते उन्नाम्यः अस्वः। दौ उद्गातः। तौ दियो भास्नो अथवः।

तै: ब्रा: १. १. २. ४-६

Now we find in the heavens, as we observed before, two stars a little way off to the north of the Nakshatra Chitṛā, in a constellation called Canis Venatici or 'the Two Hounds' in the western astronomical charts. The Vedic narrative very likely refers to this constellation. And we identify the two Hounds with the two Kālakāṇjas who flew up to heaven in the shape of dogs. And the Rauhina-fire-altar seems to be the Tower of Babel referred to in the Genesis of the Holy Bible. The Holy Bible has the same traditional story in it. Vide, Genesis XI.

1. And the whole earth was of one language and of one speech.
2. And it came to pass, as they journeyed from the east, that they found a plain in the land of Shinar and they dwelt there.

3. And they said one to another, go to, let us make bricks and burn them thoroughly. And they had brick for stone and lime they had for mortar.

4. And they said, go to, let us build us a city and a tower whose top may reach unto heaven and let us make a name, lest we be scattered abroad upon the face of the whole earth.

5. And the Lord came down to see the city and the tower which the children of men builded.

6. And the Lord said, behold the people is one and they have all one language, and this they begin to do, and now nothing will be restrained from them which they have imagined to do.

7. Go to, let us go down and there confound their languages, that they may not understand one another’s speech.

8. So the Lord scattered them abroad from thence upon the face of all the earth, and they left off to build the city.

9. Therefore is the name of it called Babel, because the Lord did there confound the language of all the earth and from thence did the Lord scatter them abroad upon the face of all the earth.

Kritivása, the author of the Bengalee Rāmāyana, alludes to this anecdote. It is said there, that the Asura Rāvana, king of Lankā, in his death-bed expressed his regret in not having built in his better days, a Rauhina (रौहिन), i.e., staircase for the sinners to mount the heaven. The myth is given in Homer’s Odyssey XI. 305-325. Oto and Aphialtes in order to fight the immortal gods, piled Ossa on Olympus and Pelion on Ossa; and they were destroyed by Apollo.

We have thus the equation:

Canis Venatici = the two Kātakānjas.

From what source Astronomer Hevelius, so far back as A.D. 1690, got access to the narrative of the Taittiriya Brāhmaṇa, that led him to invent the constellation Canis Venatici with the two Hounds, is more than what we can tell at present.
EXAMPLE VII
BHUTESA MANDALA. (भूतेश मण्डल)
Sūm. Ak. Sib-zianna, Gr. Boötes,
Sem. Al-ramih.

To the north of the constellation Kanyā (कन्या) or Virgo lies a very important constellation, which, we think, represents the Sun-God Siva-Bhutesa. In this we are not actuated in the least by linguistic affinity.

The constellation is called Nakshatra Svāti (स्वाति), which means a sword. It is also called Nishthya (निष्ठ्य) or Nishthi (निष्ठि) or Diti (दिति)-i.e., Chaos. We know this Nakshatra has many stars; but the exact number of stars the Nakshatra includes, we have no means to ascertain now. Vide:

यथा प्रलयशेषशानां स्पृशिता स्वात् बोगतारकः।

S. S. VIII. 19.

प्रलयशेषशानां प्रवशिष्ट नक्षत्राणि आदिनिर्बन्धश्च-स्वाति-समिरूप-रवितारामणि

स्वातारामु वा अल्पन स्पृशिता महति सा बोगतारा स्वातः॥ द्विति

Ramganātha.

Modern Hindu astronomers have reduced the number of stars of the Nakshatra to a single one. Vide:

इकुमाहान्तर-एकतारके
बायमे मुदति मौलिकायगः।

Kālidāsa.

So we must call the constellation by some name or other, and we suggest the name Siva-Bhutesa.

Visvāmitra, says the venerable bard of Vithoor, created a counter-set of the Saptarshi Mandala and the Nakshatras, as well as another host of stars for the southern celestial hemisphere called Asura-bhāga, as opposed to the northern celestial hemisphere called the Deva-bhāga, which was created by Brahmā.

The statement was no idle talk coming out of simple imagination and excepting the existence of the traditional Angra-Mainyu of India, every word of Vālmiki can be verified by a
close comparison of the two hemispheres, the Deva-bhāga and the Auro-bhāga. In fact, comparison shows that the stars and the constellations of the north are reduplicated in the south.

1. We have Saumya-Dhrūva (सौम्य द्रव) in the north and Yāmya-Dhrūva (याम्य द्रव) in the south. Vide. S. Siddhānta XII. 43.

2. We have the Chitra-Sikhandi Mandala (Saptarshis = सप्तर्षि) literally 'the Peacock Constellation' in the north, and the Mayura Mandala (मयूर मण्डल) (Saptarshis) or the Constellation Pavo in the south.

3. We have the Mriga Mandala (Heavenly deer) (usually called the Kālapurusha Mandala) or Orion in the north and the Mriga-asya or the Deer-headed Makara (Capricorn) in the south.

4. We have the asterism Rohini (रोहिणि) in the north, and the asterism Rohini, now called Jyesthā (ज्येष्ठा) in the south.

5. We have the asterism Visākha (विसाख) or Betelgeux (β Orionis), astronomically called Ārdra (आईड्र) in the north and the asterism Visākha (विसाख) (α and β Librae) in the south.

6. We have the twins Asvinau (अविनो) (α and β Geminorum) in the north, and the twins Vichritau (विच्रतौ) (λ and ν Scorpionis) in the south.

7. We have Vāna Mandala (वाण मण्डल) or Sagittā in the north and the asterism Pāṣupat Vāna (पाषुपत वाण) (i.e., the belt of Orion) in the south.

8. It is needless to multiply instances in support of the statement of so high an authority as Vālmiki. Suffice it to say, that we have the northern Brahma Mandala reduplicated in the Kālapurusha Mandala in the south.

We have a Bhutanath-Pasumān in Mriga-vyādha Mandala with a bluish-white star Lubaḍhaka (Sirius) in the south. As Siva is called Nila-lohita (नीललोहित), i.e., Blue-Red, we are sure to have his original in the north, with a red star in it. For, without a Bhutanath Pasupati clad in a red star in the north, the Pasumān clad in the bluish-white star Lubaḍhaka, cannot form the complete Nila-lohita (नीललोहित), i.e., Siva (सiva). The question now resolves itself into a simple one of identification.
Nakshatra Svāti or Nishthyā, we know, has Vāyu Deva (वायुदेव) or Wind for its presiding deity. He bears a sword and is born of Nishti (निष्ठ) i.e., Chaos or Darkness. Who can represent such a deity save and except the Sun-God Siva-Bhutesa? If further proof is necessary in support of our position, we may say that we have an overwhelming mass of strong evidence in store.

We know, Siva Bhutesa as Sarva (सर्व), i.e., Darkness, holds a sūta (सूत) or a spear in his hand, and as Pasupati (पशुपति) or the shepherd, a beast in his hands (a); as Vāyu-deva he is Ugra (उग्र), i.e., the terrible; as Soma (सोम), i.e., the Moon, he is Mahā-deva (महादेव); as Jala-deva (जलदेव) or water-deity he is the Bhava (भव) ; and lastly he is Mridha (म्रिद्ध) or the joyful and Bhairava (भैरव) or the shouter.

In the Euphratean astro-theogony, constellation "Sib-zianna," we are told, was 'the Shepherd God-of Heaven' and 'the King of Night', i.e., the Moon and he was connected with the great Wind. And lastly Euph. Sib water.

And in that constellation the star Papsukala was a Falchion (sword), a weapon in the hands of Merodakh (मरोधक ?)

The Euphrateans had another Sib-zianna in the south. In Greece, the constellation Bootes was a shepherd and Bear-ward or the Guard of the Great Bear (Saptarshis).

In Rome he was a Shouter and a Lanceator.

In the Greek myth, Bootes was called a friend of Dionysos and the father of Erigone. Ikarius, alias Bootes, having introduced wine in the country, was killed by some shepherds who fancied they were poisoned. Erigone, conducted to his grave by his faithful dog Maira, hanged herself, and the three were translated to heaven as the three stars Bootes, Virgin (स्वर्ग) and Procyon (Sk. Saramā).

The myth indicates the close connection between Kanyā (Virgo) and Bootes.

In Arabia they call it Al-auwa (=shouter), Al-hakhar (herdsman), Al-ramih (= Lanceator), and Haris-al-semak (= guardian of heaven).

(a) परशु ययुगवरामीति हस्तं प्रसन्नः। श्रद्धि
शिवप्रत्यां ।
Leaving aside the linguistic affinity between the names Siva-Bhutesa and Sib-zi-anna-Bootes out of all considerations, the internal evidence found in the characteristics of Sib-zi-anna-Bootes and in the close relations between Bootes-Virgin and Bootes-Great-Bear, naturally reminds one of Siva-Bhutesa, the husband of Kumāri (कुमारी) the Virgin, and the disciple of Rishi Angiras (अंगिरस) in the Saptarshi Mandala; and makes him unwittingly look to Sib-zi-anna and Bootes as Variants of their grand original prototype, the great Siva-Bhutesa of Hindu Theogony.

EXAMPLE VIII

BHISHIMA (भीष्म)

Now we take a Solar Hero for the purpose of illustrating our standpoint. We mean the great hero Deva-vrata (देवव्रता) surnamed Bhisma-Deva (भीष्मदेव), of Mahābhārata. Aditi (अदिति), says the Veda, gave birth to eight sons. With seven she went up to heaven and cast away the eighth, Mārtanda (मार्तण्ड), i.e., the Sun, there, i.e., in the sky. Vide:

ब्रह्म पुत्राः: अदिति: ये जाताः: तन्त: परि
देवानु उपर्य पेतु सामि: परा मार्तण्डम् आस्यत।

Rv. X. 72. 8.

These eight sons, says the Great Scholiast, are Mitra (मित्र), Varuna (वरुण), Dhātri (धात्री), Aryaman (अर्यमन), Amsa (अंस), Vaga (वग), Vivasvān (विवस्वान) and Āditya (आदित्यa).

The heavenly Gāṅgā, says the Mahābhārata, gave birth to eight Vasus. Seven she took away one by one and the eighth one called Devavrata (देवव्रत) or Mahā-vrata (महाव्रत), she left to his father. Vide:

ब्रह्म पनाम् ब्रह्मेऽ पुत्रे जाते।

Mahā. I. 98. 15.

ब्रह्म गहना जहुः सुमा महायामसेविता।
ब्रह्मेऽ ये वसत: देव: महाभागा: महायाः।
वेदां च अनन्ते हेतु: मनोक्षेत्र दयाता।
स्वस्तिः ते अस्तु गमिन्यायं पुस्तम् पाठि महावरस।

Mahā. I. 100.
The Vasus are: Dhava, Dhruta, Soma, Vishnu, Anila, Anala, Praiyusha and Pravāsha. Vide:

पवः मुखः च सोमः च विश्वः च अनिलः अनलः ।
प्रायुषः च प्रवशः च खस्तः एते बस्तः स्मृतः ।

Bharata.

The eighth Vasu, Prabhāsha or Dyau is the Day, i.e., the Sun, who was cursed to live for ever in this world. Vide:

शी: राजन् मानुः दोषे चिरम् बत्तथ्यति मारतः ।

Mahā. I. 99. 44.

Thus Mārtanda was the eighth son of Aditi (Milky Way), and Bhishma was the eighth son of Heavenly Gāṅgā, i.e., the Milky Way.

In the famous Graha-yoga (ग्रहयोग) or great combination called the Kurukshetra Yoga, which ushered in the Kali-yuga, the Sun had to take a prominent part. (a).

Hindu astrology attributes to Āditya-Mārtanda extreme power for ten days.

सूर्यवर्त उच्चानं नियम्य मूर्त खीं कुलीर अन्त्युष्युंकः ।
दिक बिधिर इवंद्रस्य तिथिः शरान्तं पञ्चविविशालं च निशां ।
अंशान्तं अति दवति सवनं च अन्त्यं तुधान्तं तुधान्त ।
मानुः एव अंशान्तं पदनयवं सुधान नोचान सुधोचान ।

Hiti Chānaka

In the war of Kurukshetra (b), Bhishma became the leader of the Kaurava army, and he fought for the first ten days only. Vide:

‘दराहि नित: तन: मोक्षः पश्चवाहिनीम
निर्विन्युः प्रमणिः जीवितेऽपरत्पः।’

Mahā. VI. 116. 10.

The Sun appears with its ten-thousand rays. Bhishma was backed by the ten-thousand Solar-troops called the Nārāyani Senā (नारायणी सेना). The setting Sun kills ten-thousand Rākshasas every evening. Vide:

(a) In this yoga, three Tithis (तिथिः), three Nakshatras and three Yogas take place in one day. Vide:

एकौमन् सार्वदिने तिथियत नाक्षत्रयोगवानान्य स्मृतः ।

(b) Literally meaning the ‘High field’.
Vide also :

सन्यासालोकों संभागः रोदे प्रसंसारः
मन्देवः राजसः योगः सर्वाम दुर्बलिन्ति स्वादिष्टः
प्रजायति कुलः शापः तथा सजः योगः राजसः
अबजः लम्बः शरीराणाम् युग्मः दिने दिने

V.P. II. 8. 45-46

Vide also :

बब्रुदः अश्वमालम् अतीतः स्वानः कृष्णः दृशः सहखः
आवेत तम रूपः स्वाय चमनसम् अस्च रूपसः
गुमनाः स्वप्तः

Rv. VIII. 85.13.

And Bhishma kills ten-thousand strong every evening. Vide :

तस्मात योजन सतत्यामभि प्रयोगेन अयुततः सः

Mahā: V. 156. 21.

Indra snatched away a wheel from Surya’s Chariot.

सुपायु सुदर्दगु ल्ये चक्रम् ईशान: योजना

Vide, Rv. I. 175. 4.

Krishna attacked Bhishma with his discus. Vide :

ततः तुमारम् चुणावमुखः सूर्यमालम् क्षतिहरतः
सुरान्तं दुर्भावम् भूतेन चक्रम् यथात् विवधं विदुष्य वाहामु
स्वायत्तं गाम च चर्गः महाराजाः ब्रह्मेन कृष्णः प्रससार भोप्यथम

Mahā. VI. 59. 88-89.

During the period in which the war took place, the Rishi-
rekhā (श्रीरेखा), i.e., the solstitial colure (originally discovered)
passed through the Nakshatra Magha (a), which lies below the
constellation of the Seven Rishis (सातरी). This constellation is
called the Chitra Sikhandi Mandala (चित्र शिखराणिसंग्रह), lit.
‘the Peacock’. The Sun is the Vatsa-Vaskya (वातस वस्क्य) or the
yearly calf. Born in the beginning of the year on the first day
of its northing, the Sun grows more and more powerful every
day, till it crosses the point called the summer solstice, where

(a) When King Tudhisithira, says Varaha, ruled the earth, the Muni
were in Magha. Colebrooke.
the solstitial colour cuts the ecliptic, and enters in its southing. During its southern declension the Sun begins to wane gradually for a period of six months, at the end of which it gets a fresh lease of life. Vide:

V.P. II. 8. 65.

Therefore the Sun had to begin to wane, in the course of this war, after having crossed the Nakshatra Meghā below the constellation Chitra-Sikhandi and in front of the Nakshatra Arjuni (अर्जुन), also called Phalgunī (फ़ाल्गुनी).

Bhishma Deva gives up the fight at the sight of Prince Sikhandi (lit. the peacock), who was a female before (a), throws away his weapons and succumbs to the prowess of Arjuna, the hero of the Epic. Vide:

अर्जुन: सर्वे शार: पुरस्कृत्य शिरस्विनन्त ।
नामेव विषये: तीक्ष्णे: अभिद्रव्यु दैतित: ॥
अमङ्ग्ले यवते विस्तारं को धृतं च निरोधत: ।
त भृद्वन्तु अन्योपस्यस्यमु मृत्युस्सतु कथ्यन ॥

Mahā. VI. 108. 82 83.

The Sun sets every evening and dies to be born the next day. Vide:

अथ मरार स: तथ: समु आन ।

Rv. X. 55. 5.

Bhishma falls in the evening to die. Vide:

सावधे निमितिः मूसी ।

Mahā. VI. 120, 7.

The Sun draws water rising high in the shape of vapours and drinks it with his foot (rays). Vide:

विस्वान्तु वर्षमः तीर्थे: अदाय अगत: जलम ।

V.P. II. 9. 9.

वद्रृम पदाय: ।

Av. IX. 9. 5.

Bhima drinks water flowing upward from beneath the earth, pierced by Arjuna with an arrow, which is represented by the

constellation Vāna (वान), i.e., the constellation Sagitta of the West. And it is curious to observe that the water resembled ambrosia flowing in the Milky Way (a). Vide:

विभविवाम पाधः पाथेः मोक्षस्य दशिने।
उदयनात ततः धारा वारिणो विमला गुमा।
श्रीस्य अवस्यक्षाय दिव्य गन्धर रसस्य च।
अतिपरते ततः पाधः सीता आलोध्य तथा।

Mahā. VI. 123, 23-25.

His (arrow-like) rays bear the Sun up aloft. Vide:

वेद्व उ तयम जातेब्द्वम देवम अवस्यि जेताभ्य बोधण्यो निवासः।
Av. XX. 47.19; Rv. I. 50. 1.

Bhishma lies on a bed of arrows (सरसाय), Vide:

स्त्रेष्ठे शरालप्ते मेदमिर्मु ब्रह्मण्डल तथा।
Mahā. VI. 121, 8

The Yearly Calf finishes its annual course at the end of its southing, and takes a fresh lease of life.

For his death, Bhishma had to lie down on his bed and to wait six months of the sun’s southing (b). Vide:

शेषे श्रव्य संवाये श्यायवे सावलो शावण्डः रंजे।
Mahā. VI. 122, 14-15.

The Sun dies every evening, and at the end of every year, springs to life again. Vide:

सातिते: पुत्रे: अष्टि: उप प्र ऐतृ पूर्वीयम् गुमम्।
प्रजाये मृत्यूवे वतुं पुनः मातृणेषु था भ्रमरः।
Rv. X. 72.9

Vide also:

वस्त्रेऽवस्त्रेऽ।
Rv. I. 164, 5.

And Bhishma could die at his own pleasure. Vide:

पिता तुस्तेने मे पूर्वपृथ्वीं यदा कासी विवाहिता।
स्वाम्भर मरणम् दत्तम अवस्यक्षाय रंजे तथा।
Mahā. VI. 120. 33.

(a) The Milky Way lies to the right of Bhishma, the Sun-god, reduplicated in the Constellation (Gr.) Heracles (Lat. Hercules), the Solar Hero.

(b) This yearly lying down of the sun is called Sayana (शयन) of Suryya-Nārāyana.
Such are the incidents of life common to both the Sun and Bhishma. And to an unbiassed scientific enquirer, we think, the identity is complete. An accurate identification of the Solar Hero will materially increase our knowledge of a great number of star-names and astronomical phenomena, as will appear in the sequel.

On Bhishma’s fall, (a) his holy mother, the Gaṅgā or the Milky Way sent down to him the seven Rishis in the guise of a Hamsā (हंस) or Swan. Vide:

तत्स्य-तत्र मन्दम आसाय गंगा हिंसत: मुता।
महामृतं हृदक्षिणे प्रेयथामास तत्र वै॥
तत्र: समातित: हंसा: त्वरिता: मानसाभिषसः।
अजमु: सहिता: द्रष्टुम मीणाम दुःपितमाहम्।

Mahā. VI. 120, 96-97.

These Swans refer to the bird, Cygnus, (Gr. Kyknos) in the Milky Way. We have it then, that Bhishma lies close to the Milky Way. Vāna Mandala (वनमंडल) or Sagitta of the West and Hamsā-Mandala in the Milky Way are also close to him. We therefore hold, that the stellar reduplication of Bhishma (the Solar-God) is the Constellation Harikulesa (हरिकुलेस), i.e., Hercules of the West.

It is remarkable, that (Lat.) Hercules (a Sun-God) (Gr.) Herakles (Ph.) Malqarth Harekhal (Ak.) Lugal, is connected with this very bird sent by Gaṅgā to Bhishma Deva. Malqarth Harekhal is represented in the sphere as shooting an arrow (the Constellation Sagitta) against the three constellations, the Eagle (Sk. Garuda = गरुड), the Vulture (=Heb. Tartak =Sk. Türkshya or Vāna Mandala) and Cygnus (= Sk. Hamsa Mandala = हंसमण्डल). He is further reputed to be always slaying those dear and near to him.

R. Brown I. 235.

EXAMPLE-IX
THE NAKSHATRA MULA

Mula is the seventeenth division of the Lunar Zodiac, and it lies in the ninth division of the Solar Zodiac. In the Vedic

(a) मुत्यः देव: विस्त्रान्त य अष्टम: तु बदिते: मुतः।

M. P. 128-39.
age the Nakshatra was also called Vichrita or Vichritau and consisted of one or two stars. The Siddhānta gives the latitude and longitude of the head-star; viz. Lat. 9°S and Long. VIII —1°. Messrs. Colebrooke and others find that the star indicated is 2 Vrischikasya (=λ Scorpiionis or the star Shaulah of the western maps); and its companion star is undoubtedly 7 Vrischikasya ν Scorpiionis (Lesath ?) of the western charts. These two stars are marked 2 and 7 in the constellation Vrischika in Hindu charts.

We therefore find that the Nakshatra Vichritau of the Vedic age consisted of stars 2 and 7 Vrischikasya (i.e., λ and ν Scorpiionis), since we believe that the Jogalārīs of the Nakshatras have never been changed.

The Siddhāntas do not give the names of the individual stars composing any Nakshatra. But from the Vedas, we can have the names of the two stars composing the old Nakshatra Vichritau (चित्तो). The Nakshatra is commonly called Mūlā (मूला), an abbreviation of the full name Mūla-Varhāni (मूलवर्हणो). ‘Vichrita’ (चित्त) means ‘destroyer of one’s own race’, (Vide, सत्त कुलं चित्तमिति हिनस्ति हति सावयः). Mulavarhāni also means ‘destroyer of one’s own race’ (Vide, मूलं एवं अविनाशितमि हति मुलवर्हणो । Tait. Br. 1. 4. 2. 3). The Nakshatra was Nirriti (निर्गति) for its presiding deity. (निर्गति द्यो मूलवर्हणो Tait Br. 1.5.1.)

Now Nirriti means either Yama (यम) i.e., Death-God or Rākshasesvara (राक्षसेश्वर) i.e., Rāvana (रावण), the king of the Rākhasos (राक्षस), i.e., the demons. Hence, the Atharva-Vedas declare, ‘The Vichritau of Yama.’ Vide:

अथ यमायां जातः चित्तः यमस्तः ।
Av. VI. 110, 2.

And hence Vālmiki puts to the mouth of Lakshamana, that ‘Mūlā the patron Nakshatra of the demons is blackened and crushed by the touch of the long-tailed Comet.’ Vide:

नेत्रतं नैक्षतनात्म नक्षत्रं चिन्तितोऽऽवते ।
मूलः मूलवतास्यं भूष्यते भूष्यकेतुनां ॥

Rām. VI. 4. 51.
In the Vedic period the Nakshatra had, as we said, two stars. Vide:

अमो े सुभो दिवी निर्वृत्ती नाम तदरके।

Tait. Ar. ii, 6, 1.

These two stars are said in the Vedas to be the two dogs of Yama, called Sabala (शबलो). Vide:

अति हर सार्मेन भानी चतुर्द्धी शबलो साहुना यथा।

Rv. X. 14.10.

They guard the path to Yama's abode and look for the dying man. Vide:

यीं ते शानी यम । रक्षतारौ चतुर्द्धी पविराः नुष्णस्तो।

Rv. X. 14.11.

Note: Readers may verify the statement by actual observations of the stars concerned, the path meant being a section of the Milky Way called *Pitriyāna*. Vide:

पित्रयान: ये पत्थर बैठानार पथाव बहि:।

V.P. II. 8.80.

Sabala (शबलो) includes Shyam (श्याम) and Sabala (शबल) (cf. Pitarau. पितरौ). Vide:

दिन्यो भानी व्यासशबलो तैवस्तुकुलोऽज्ञो।

Quoted by Sāyana.

Vālmiki makes the 'two dogs' the two spies of Rāvana (रावण), and names them Suka (शुक) and Sārana (शारण). Of the two stars of the Nakshatra *Vichrita*, the eastern one is the Yogatārā (योगतारा) or the head-star of the asterism. Vide:

रोहिणी-आदित्य-मूलानी प्राची।

S.S. VIII. 19.

The post-Vedic astronomers have allotted seven or nine more stars to the Nakshatra to give it the figure of a conch-shell (Sk. श्रव), i.e., a blowing shell, kept in every Hindu house for the purpose of raising a *rava* (रव) or row, on festive occasions. These seven stars are 3, 6, 12, 13, 14, 16 and 17 of Vrischika. And these stars, added to stars 2 and 7, form the modern Nakshatra Mulā. Vide:

मौलिभानि नाश्तरकाण्डः गूणभे गूणम् श्रव मूलिभिः।

इति गणक कालिदासः।
To draw a figure of a conch with the nine stars indicated, would be quite a feat. We have drawn the shell of the conch only with the five stars 7, 2, 6, 14 and 3 Vrischkasya (ν, λ, κ, ι, θ, Scorpionis).

The great Hindu Epic is no doubt capable of being interpreted in an astrological sense. The war between Rāma and Rāvana is a repetition of the old war between Light and Darkness: between Indra and Vritra, i.e., the Sun and the Cloud. (Vide, Rv. 1. 32).

In the great Epic, the combatants are simply reduplicated in heavenly bodies. The stellar conch falls in the sign Dhanuh (क्रुः), i.e., the Archer of the Hindu Solar Zodiac, and astrologically the Archer is a dark or nocturnal sign. Vide:

अन-गोवितं दुमावः करक-चन्द्र-दुग्गः तथा।
निरा सङ्खः: सङ्खः: च परे शक्षात्राय दिनातिप्रः।

Manohara Daivagna.

The stellar Conch-shell, presided over by the King of the demons, may be well named Rāvana (रवन) from the fact of a conch being chiefly used in making a rava (रव) or sound.

Cf. The Prince of demons is said to have been called Rāvana for his having raised a terrible rava (रव) or noise after his birth.

The story related in the Rāmāyana describes the overthrow of the Sun by the Sagittarius-Darkness. The Sun-God loses his wife Suryya (सूर्य) (a) ‘the solar light,’ in this contest. Suryya (b) (सूर्य) is reduplicated in the heavenly Gaṅgā

(a) सूर्या सा पुनः द्वस्य सूर्यस्य प्रनो।

Nir. N. XII 1. 7.

(b) कर्णेशु: महारोश्यं: स्वातिः सूर्या सूर्यस्य सर्वस्या।

सर्वं: चूमस्य त्वापः प्रिये भैतां विस्वतः।

Trikānda-Sesha.

सूर्या एव रव ज्ञाः सूर्या सम्पथते।

सर्वं: स एव रव।

Nirukta. v.6.
THE BABYLONIAN ASTERISM

(a) Sitā literally means Paddhāti (पद्धति) or furrow. The Heavenly Sitā was supposed by the ancients to be the Sun’s path, ‘The Sky-furrow, = the Ecliptic’. (R. Brown). Vide:


(b) Prof. Sayce regards Ner or Nerra as the personification of Death (R. Brown).

Cf. Sk. Nirriti = the Death-God.
\(\theta, \kappa \lambda\) and \(\nu\) Scorpionis, and it has given its name to the Milky Way. Hence Vanant means also the Milky Way in the-Zend-Avesta. Vide, Vanant Yast.

The asterism represents, we believe, Panchajana (पञ्चजन), a mythical Asura, whose skeleton formed the blowing shell of Srikrishna. We have accordingly named the star 14 Vrischikastya.

It also represents 'the conch-shell' sounded by Bhagiratha, while leading the Heavenly Gangā from heaven down to the spot on the earth, where lay the ashes of the sons (stars) of King Sagara (सगर) i.e., the Sky.


**EXAMPLE X**

**BUDHA (बुध)**

Brahma, says the Suryya-Siddhânta (revealed at the end of the Satya-yuga), divided himself into twelve equal parts called Râsis (राशि), and secondly into twenty-seven equal parts called Nakshatras (नक्षत्र) ... (a). Vide:

पुनः ब्राह्म आत्मानं विभज्ज राशि संज्ञयम्।

नक्षत्रविभिन्न भूयः सर्वविभावस्य वर्गे ||

S.S. XII. 25.

The object of the former division is to fix the limits of the Sun's monthly course in the Zodiac, and the object of the latter division is to fix the limits of the Moon's daily course in it. A Nakshatra is therefore metaphorically called Chandra Griha (चन्द्रगृह) or the lunar mansion.

The Itihāsa (ऋतिहास) explains this simple astronomical thesis in its own peculiar way.

In the beginning of the Tretā-Yuga, says the Mahābhārata, Asvini, Bharani, Krittikā and others, twenty seven daughters in all, were born to Prajāpati Daksha. And he duly married them to the modern Tārāpati (तारापति) or the Moon.

It is interesting to note, that this re-arrangement of the Zodiac at the end of the Krita-Yuga presupposes an older division of the Zodiac, existing from the commencement of the Krita-Yuga itself. This older or primitive division evidently

(a) Daksha is another name of the Creator Brahmac.
means, we believe, the twelve divisions of the Zodiac, marked by 12 stars, for the purpose of computing the Bṛhaspatya (ब्रह्मस्थत्व) the Jupitorial year. (a). This fact led to Brihaspati's being called Tārāpati in archaic days.

This change of husbands of the Tārās (तारा), alias Nakshatras gave rise to the well-known popular story of the Moon's elopement with Tārā and the birth of Budha (बुध) or Mercury, as the result of their illicit union. Even the invention of a second birth could hardly save the reputation of the unsullied stars, from the hands of satirists or Aitihāyikas (story-tellers).

The planet Budha is also supposed to be born of the Lunar Asterism Sravisthā (स्रविष्ठा), and it is therefore called Sravisthā Bhava (स्रविष्ठा मंव).

**EXAMPLE X**

<table>
<thead>
<tr>
<th>Sk. Angāraka (अंगारक)</th>
<th>Sum. Ak. Bir (Vermilion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sk. Lohitāṅga (लोहिताङ्ग)</td>
<td>Ak. Simut (The red-light)</td>
</tr>
<tr>
<td>Sk. Yama (यम) (b) or the Death-God</td>
<td>Euph. Kakkab Balga (star of Death)</td>
</tr>
<tr>
<td>Sk. Virabhādra (वीरभाद्र) or The Great Hero</td>
<td>Euph. The star of the Hades-God Nergai (The Great Hero)</td>
</tr>
<tr>
<td>Sk. Krura-Graha (क्रुरमह) or the Evil Planet</td>
<td>Sum. Ak. Khut (The Evil)</td>
</tr>
<tr>
<td>Sk. Virochana (विरोचन) or The Opaque one</td>
<td>Per. Ker-wan Kush (The Grave-digger of the caravans)</td>
</tr>
<tr>
<td>Sk. Nava-dīdhitī (नवपित्ति) or One of fresh lustre</td>
<td>Euph. Numia (That which is not)</td>
</tr>
</tbody>
</table>

(a) The names of some of the 12 months, Madhu, Mādhava, Sakra, Suchī etc. of the Vedic age, are connected with these 12 divisions or their presiding deities.

(b) Like the waning Sun, the fading Mars, when receding from the Earth is called Yama (यम).
Sk. Kumāra (कुमार) or The Prince  
Ak. Sarru (The King)

Sk. Mangala (मंगल) or The Good One  
Euph. Manma (No body)

Sk. Māra (मारा)  
Lat. Mars. Gr. Ares

Sk. Varshārchis (वर्षाचिस:) or One bright in the rainy season

Sk. Āshādhā-ḥava (आषाढ़म) or The child of the Nakshatra Āshādhā

Sk. Rādheya (राधेय) or The child of the Nakshatra Rādhā

Sk. Kuja (कुज) or The child of the Earth

Sk. Sambarā (सम्बार) or The Messenger

The planet Maṅgala, says the Skanda Purāṇa, is Yama (यम). Vide:

In the Euphratean Astro-theogony, the planet Mars is the star of the Hades-God Nergal (= the Great Hero). Vide, R. Brown, I. 73.

The planet Mangala says the Padma Purāṇa is a duplication of Kārttikeya—Orion (a). Vide:

There is thus a particular connexion between the ill-omened red planet Mars and Kārttikeya, represented by the ill-omened red star Visākha-Ardrā (विषाख अर्द्रा) (b).

Note. Visākha is a name of Kārttikeya. Vide:

(a) In the West, Mars is said to have his reduplication in the red and unlucky star a Scorpionis (= 1 Vrischikas) called (Gr.) Antares (the equal-Ares).

(b) In fact Maṅgala (Mars) is said to have emanated from the body of Kārttikeya. Vide:

Mangala is also called Virochana (विरोचन) (i.e., one without glow) in India, and Numia (that which is not) in Babylon, from the fact that the planet recedes from the earth, until it is almost invisible. Cf. “Mars is the God of the blind.” — (R. Brown).

For its red light, we call it Angāraka (अंगाराक), i.e., ‘red-hot charcoal’ and Lohitāṅga (लोहिताङ्ग), i.e., ‘red-bodied’. In the West, they call it (Ak) Simut (red star) and Bir (vermilion).

As the war-god, we call it Vira-bhādra (वीरभाद्र), literally the “hero-excellent”.

As the most ill-omened planet, by way of humouring it, we—call it Mangala (मंगल), i.e., “the good one” and the Babyloniens knew it as Khul (the evil), and out of fear he would take no names of it, but would speak of it as Manma (No body).

The planet shines in the rainy season, and is called Varshār-chīs (वर्षारचिस). Astrologically, Mangala is the son of Prithvi (पृथ्वी), i.e., the Earth and of her husband Vishnu (a). Vide:

उषेण वृहागु पुष्पगम्य तु मंगलं समाजयत॥

B. V. P. I. 9. 21.

It is also said to have owed its birth to a sweat-drop of Vishnu, and to have been nursed by the mother earth (b). Vide, Sk. P. 1. 11.

पुरा हि भ्रमन: विपश्च: स्वेदविन्दु: पपात ह ।
महायु ततः: दुरभाग: असी लोहिताङ्ग: महीनालाल:।
जात: स्वेदन् मेदित्या: वित्त्वा पुष्पवीपते:।

The Vāmana Purāṇa relates its birth to have taken place when the great Asura Andhaka literally the darkness was killed by Siva, the Sun-God. Vide:

स: भुवाम् न्यपताद विप्र स्वेदविन्दु: शिवानास।
तत्साखं बस्त्तर भुवाम: बालक: समगायत।।
स: बल: तुपित: अलक्ष्यं पपौ शिक्रम्य आन्धकम्।
प्रहारिलयं जगत: शुभामहम् महीनय्यज्ञि त्वद्व-वशगम्य महात्मन:।

Vām. P. 68.

(a) So the planet Rādhya-Mangala (राध्या-मंगल) was a son of Vishnu —Aditya, the Sun. Vide:—

विष्णु: आदित्यः।

Nir. IV. 2.

(b) Mars is five times brighter when nearest to the Earth.
The Padma Purāṇa betrays the secret of many a myth, in which Mars plays an important part.

In ancient days, says the Purāṇa, a sweat-drop fell from the brow (= the Moon) of the angry "Trisuli (त्रिसुली), literally 'the Lanceator', for the destruction of Daksha. Passing through all the Pātālas (पाताल), it burnt the seven seas. It had many heads and many eyes, and it looked like a burning fire. It had 10,000 arms and 10,000 legs. It was called Vīra-bhadra. Vīra-bhadra destroyed Daksha's fire sacrifice [in honour of Brihaspati (ब्रह्मस्तन्) i.e. Jupiter]. Siva recalled him, and said, 'Thou hast well destroyed Daksha's fire; no need of burning the world any more. Allow the world to enjoy peace, and be the foremost of the planets. Son of the Earth! thou shalt bear the title of Angāraka (अंगारक), i.e., 'red-hot charcoal' and thou shalt be translated to the Heavens'. Hearing this, Vīra-bhadra of variable brilliancy was pacified, and suddenly turned into a planet. While receding from the earth, his brilliancy undergoes a variety of changes, until he becomes almost invisible, and he is therefore called Vīrokchana (वीरोक्षण), i.e., 'the dark one' by the Devas and Dānavaś. The planet is also called Kuja (कूज), i.e., son of the Earth, Lohitāṅga (लोहिताङ्ग), i.e., red-bodied, and of the five planets it is the middle one. Its brilliancy is equal to that of Kārttikeya (= Visākha-Ardra). Vide:

शक्ति उपायः
पुरा दत्तात्रिनिष्ठेऽदितम् ब्रिहत्तिलिनः
अपतेऽभूमक्ष्य स्तवदिन्नः लोकातः
भिल्वा समस्तपातालवः अदशत् सस सागरान्
अनेकवक्षनयान् जलद-जलन-भोपन्
वीरमद्: तत् मोहातः कर्पाद-महते: ुः ्
कुल्वा तसा यह-समनम ु: भूतलः संज्ञनम
बिजगद्द विधेयू भूयः शिवेन विनवारितः

रिव उपायः
क्षमू हल्यादि वीरमद् ् दत्तात्रिनिष्ठ: ्
ददानीम ् यः येन तोऽदाशेन कर्माणा
शान्तिप्रदानात् शुभेष्यम ् महाशास्त्र: प्रवेदः ्
भस्मक: तत् ख्यातिमू प्रतात् ज्ञ गमिष्यसि
देवलोके द्वितीय तदद्यत्मम् महिष्यति
MANGALA

We therefore get the equation \( \text{Vira-Bhadra} = \text{the Planet Mangala} = \text{Virochana} \), the son of Prahlād or the Moon \( (a) \), which adorns Siva's forehead.

We further find that \( \text{Mangala alias Yama} = \text{Maama alias Ner-gal} \). It is interesting to observe that the Vedic \( \text{Devalā Kāma (Kām)} \) alias \( \text{Māra} \) has all the characteristics of the Babylonian God \( \text{Ner-gal} \), who is a variant of \( \text{Yama Mangala} \). Vide: Vithi 1, Māra Tārā.

CONCLUSION

These are, in short, a few of the examples which illustrate our idea that the narratives found in Hindu Sūtras are susceptible of being interpreted in a secular and scientific aspect, when supported by the testimony of the stars themselves. The idea is the outcome of many years' study of the subject. But we have succeeded in working it out only in a few instances. Much more will be accomplished in the future by patient workers in the field with better means and ampler opportunities at command.

\((a) \) \( \text{Yama Prahladana chai} \)
TARA MANDALAS AND NAKSHATRAS

VITTI I (a).

Vitti I, runs from the North Pole Star to the South Pole Star extending 30° from west to east along the celestial equator, i.e., from station XII to station I in both the sidereal hemispheres. Vide, Chart 5.

It consists of six constellations (b).
1. Parshu Mandala (पर्षु मण्डल) (29) (c)
2. Trikona Mandala (त्रिकोण मण्डल) (4)
3. Mesha Mandala (मेघ मण्डल) (18)
4. Timi Mandala (तिमि मण्डल) (22)
5. Yagna-kunda Mandala (यागनकुण्ड मण्डल)
6. Yam Mandala (याम मण्डल) (34).

1. PARSU-MANDALA (पर्षु मण्डल) [70](d)


The constellation Perseus stands at the top of Vitti I, close to Brahma Mandala (ब्रह्म मण्डल), Auriga. According to the Almagest, the constellation contains 29 stars visible to the naked eye. The Sura-nadi (सूरानदी) or the heavenly stream (i.e., the Milky Way) runs through the constellation. The stars 1, 2, 3, 1, 6 and 17 Parsh (η, γ, α, δ and μ Persei) form a well-marked Bow; while the stars 3, 11, 13 and 12 Parsh (γ, τ, θ and ι Persei) form the blade of a Kuthāra (कुथार) the Pole-axe, the stars 1 and 2 Parsh (α and β Persei, called Mirfak and Algol respectively) constituting the Pole. Temporary stars looking like burning fire-balls, blaze forth and then fade away in this constellation and in Brahma Mandala, from time to time.

(a) A Vitti is a section of the star-sphere. Here we use the term in the sense of a section running from the North Pole to the South Pole, extending 30°, from the west to the east, and forming a twelfth part of the star sphere.

(b) The constellations are arranged in the Vittis, with reference to the longitude of the largest star in each of them.

(c) The figures indicate the number of naked-eye stars in the constellation according to Migale Syntaxis Tet Astronomias of Ptolemy, commonly called by its Arabic title ‘The Almag·st’ (i.e. the greatest).

(d) The figures in brackets [ ] indicate the number of stars in the constellation according to Prof. Peck.
This fact very likely gave rise to the Greek myth that Zeus in the form of a shower of gold, came down through the roof of the prison—where Danaé (=Dawn) had been confined and became by her the father of Perseus.

According to the Greek legends, the Sun-God Perseus (the most famous of all men) holds in his hand the head of Medusa, (one of the three Gorgon sisters) which he himself had cut off.

The constellation with all its legendary tales, reminds one of the Hindu legendary hero Parsu-Rāma (परशुराम), commonly called Parasu-Rāma (परशुराम), a son of Yamadagni (यमदग्नि), literally 'the burning fire', and of Renukā (रेनुका) literally 'one made of dust' (i.e., the Milky Way). He was born with Parsu (पर्सु), a battle-axe in his hands (c), with which he cut off the head of his mother Renukā (रेनुका), under the orders of his great father.

To expiate his sins, the matricide hero had to bathe in the sacred stream Brahma-putra (ब्रह्मपुत्र), a river, he himself caused to flow by cutting its way through the dry lake called Brahma-kunda (ब्रह्मकुण्ड) lit. 'the lake of Brahmā' (ब्रह्मा).

He alone is said to have extirpated the whole warrior class twenty-one times. That makes him the most famous of all men in India.

We know that Paurānic poets speak of the prototype of Parsu-Rāma as a collection of stars. Vide:

\[
\begin{align*}
\text{तन्मथे पुस्तः युधः कीर्तिः मीलवाससः} & \\
\text{रत्नदान्य निदःशः दुष्टेष्यः व्योतिषां गणः} & \\
\text{ततः रामः हितः ह्यातः प्रजातः ब्रमः खोऽगोऽ कुले} & \\
\end{align*}
\]

P. P. I. 49.

\[\text{(a) भारतवास्थेष्य जातः परशुः सह} \]
\[\text{सहकः परशुः तत्वः तमू जहाति कुलच न} \]

K. P. 89-5.

Cf. Indra was also born with the sajra (सज्र), the thunder-bolt. Vide:
\[
\begin{align*}
\text{शाब्दः करिकम् इशणम् सत्यासुधः कर्मह रहस्य सुसामुदम्} & \\
\end{align*}
\]

Rv. I. 131. 3.

Note: Parsu is one of the names of sajra. Therefore, Parsu-Rāma = a phase of Indra.
We have it then, without depending much on the phonetic affinity of the Gr. word Perseus with the Sk. Parsu, that

Gr. Perseus = Sk. Parsu-Rāma.

From the position, the star 1 (α Persei) occupies in the constellation, we have named it Kūthāra-prīṣthha (कूथरा प्रिष्ठ).

**STAR MAYAVATI (मायावती)**

Sum-Ak. Sibi ( = double eye )  
Sem. Alghul ( = the evil one )  
Eng. Agol.

The star 2 of Parasu (= β Persei) is a variable star and we identify it with Māyāvati. The star in general shines as a star of the 2nd magnitude. It is a Kāmarupa-tārā (कामरूप तारा) or Vāhurupa-tārā (वाहुरुप तारा) i.e., a variable star. Once every 69 hours, it slowly decreases in brightness till in about 4½ hours it has lost almost ½ th of its light, and appears as a star of the fourth magnitude. It now shines as such for about 19 minutes and then in 3½ hours’ time regains its maximum brightness and retains it for 60h 41m—the remaining part of its short period of 69 hours. The star was therefore called Sibi (= double eye) by the Babylonians, and Alghul (= the demon monster of the West) by the Semitics and Arabs.

Māyāvati (मायावती), literally ‘the changeful’, is the consort of Māra (मार), the Hindu Cupid.

For further particulars, Vide, post, the star Māra.

We have said that Parasu-Rāma = Indra, and the variable nature of its principal star Māyāvati (मायावती), ‘the changeful,’ made the Vedas declare:

'Maghavan (Indra) weareth every shape at pleasure, effecting magic changes in his body.' Vide :

Rv. III. 53. 8.
RENUKA MUNDA (रेणुका मुन्दा)

STAR 7. PARSOH = ρ PERSEI

This star, with the star Algol and some smaller stars adjoining it, form the ‘Caput Meduci, (the head of Medusa) of the Western charts. But we have made the star 7 with some smaller stars adjoining it, representative of the head of Renuka and have named the group ‘Renukā Munda’.

2. TRIKONA MANDALA [27]

(त्रिकोण मण्डल)

Gr. Delloton Lat. Triangulum.

We have translated the constellation name.

MESHA RASI (मेष राशि)

This Rāsi is the first of the twelve divisions of the Solar Zodiac (a); and comprises 30° of it extending from a point lying 10 minutes east of the star 6 of Mina (मीन) (ζ Piscium). We may call the star Mula-kilaka (मुलकिलक) lit. the starting station. The other eleven Rāsis follow it one by one eastward. Vide:

विपुल-कान्ति-कृत-देव-पालित-पुर्वमागस्यता: दियते। ।
मेघास्य: राशय: कान्ति-कुलय: पूर्व-दिक्कमात् ॥

Munisvara.

The sun in its apparent annual journey through the heaven passes successively into and out of the twelve Rāsis or signs of the Zodiac. Each of these Rāsis is popularly regarded as occupied by a single Tārā Mandala (तारामण्डल), from which it derives its particular name. But a Rāsi and its Zodiacal Mandala do not correspond, and the ‘Signs of the Zodiac’ are not the same as the ‘constellations of the Zodiac’ (more often spoken of as the ‘Zodiacal constellations’). In fact, there are more than 12 Tārā Mandalas in the Zodiac. Nor are the twelve Tārā Mandalas, from which the 12 Rāsis derive their names, confined within the limits of their respective Rāsis.

(a) पुन: द्रादर्शा बात्माः विभाजत् राशि संभृत् ॥

S.S. XII. 25
Thus Mesha Rāsi consists of the Western portion of Mina Mandala (मीन मण्डल), the eastern portion of Mesha Mandala (मेश मण्डल), and the northern portion of Timi Mandala (तिमि मण्डल) and it comprises the whole of the Nakshatras Asvini and Bharani, and the first quarter of the Nakshatra Krittikā.

3. MESHA MANDĀLA [52].
(मेश मण्डल)

Gr. Krios Lat. Aries

Eng. The Ram. Hindu Astrology Kriya (क्रिया) (a)

Presiding deity Maṅgala.

According to the Almagest the Tārā Mandala contains 18 stars visible to the naked eye. It derives its name from the Sun-God Indra, who is styled ‘the Ram.’ Vide:

लम्ब तु मेशम महाय लम्ब: ... ... !

Rv. I. 52. 1.

Within the Mandala, there are the Nakshatras Asvini (अस्विनी) and Apabharani (अपभरणी), the last two divisions of the Lunar Zodiac (b). The stars of the former form the tail and those of the latter the head of the stellar Ram.

NAKSHATRA ASVINI (अस्विनी नक्षत्र)

Euph. Kakkab Gam. (the asterism of the sickle)

Ar. Al-Sheratan. Tait Br. Asva-yujau (अस्वयुजान)

Presiding deity: Asvinau

The Nakshatra (space) is the twenty-sixth division of the modern Lunar Zodiac of 27 Lunar-Mansions (c), and the first Lunar Mansion of the modern Luni-Solar Zodiac. The Nak-

(a) क्रिया-पातुरी-रूपाको-प्रभ-पाय-प्रभ-प्रो-प्रभ-शाखा:
	तीर्थक: भाकोफेर: हुड़ोग: घ अत्यं-मम मन्त्रम् ।
	भृति देवमनोहरः ।

(b) नक्षत्रुपितम सूयः सरसिताभकं वर्षी ॥

S.S. XII. 25.

(c) Lunar mansions are called Sieu in China and Manzils in Central Asia.
shatra (Asterism) consists of the stars 1, 2, 4, Meshasya (α, β, γ Arietis). It looks like a horse-head. Vide:

कालिदास.

The star 1 (= α Arietis) is the Yoga-tārā (योगतारा) i.e., the head star or the principal star of the asterism. The Surya-Siddhānta defines the Yoga-tārā to be the northern-most star of the group (a), and places it at Lat. 10°N and Long. 0-8°. Colebrooke identified the star indicated, with the star 1 of Mesha, called Hamal—in the West. We have transliterated the name into Amala (अमल). Astrology allots the Nakshatra to the brothers Asvinau (अस्विनी) from whom it originally derived its name Asvini; and the twenty-sixth division of the Lunar Zodiac is called after this asterism. It is from the Nakshatra Asvini that the month of Asvina (अस्विन) derives its name. For, the full Moon of this month is generally observed to pass through this division of the Lunar Zodiac.

In the Vedic age the Nakshatra was called Asvayuk (अस्वयुक्) and it consisted of two stars. Vide:

ऋषिन्ये स्वाहा भ्रशुगम्याय स्वाहा।

T. Br. III. 1. 5.

NAKSHATRA' APA-BHARANI

(अपभरी नक्षत्र)

Lat. Musca. Ar. Al-bolein

Black Yv. Ap-sarani (अपसरणी)

Presiding deity: Yama

This Nakshatra (space) is the 27th division of the ancient Lunar Zodiac and the second division of the Lunisolar Zodiac. The Nakshatra (asterism) consists of the stars 3, 6, 9 Meshasya (=41, μ, 36 Arietis). The stars form nearly an

(अ) विशाखा ऋषिनी सौम्यायाम योगतारा चतुर स्वाता।

S. S. VIII. 16.
equilateral triangle (a). The star 3 (λ Arietis) is the Yoga-śūryanā. The Suryya-Siddhānta defines the Yoga-śūryanā to be the southern-most star of the group (b), and places it at Lat. 12°N, and Long 0-20°. Burgess identifies the star with the star 3 of Mesha. We have called it Apsarani (अभयारणी).

Astrologically, Yama (यम) is the presiding deity of the asterism, which is therefore also called Yāmyā (याम्या) or Yama-daivata (यमदेवत). By astronomical abbreviation the Nakṣatras is commonly called Bharani (भरणी).

In the Vedic age the Nakṣatra was also called Āpsarani. Āpa-varani seems to have had three stars: Vide: यमाय स्वाखा, अभयारणीया: स्वाखा

T. Br. III. 1. 5.

Ar. Al-botein consists of the stars 7, 5, 8, Meshasa (σ, δ, ζ, Arietis).

4. TIMI MANDALA [108]

(a) (तिमि मण्डल)

Gr. Keitos (= the seamonster = a whale)
Lat. Cetus. Eng. The seamonster

The constellation consists of twenty-two naked-eye stars. We have translated the name. The star 1 of Timi (= c Ceti), called Mira in the West, deserves special notice.

STAR MARA (सार तारा)

Ak. Akh-na (= worm + eclipse)
Gr. Mira (wondrous) Lat. Mira

The star 1 of Timi is a Kāmarupa-śūryanā (कामरुप-शुर्यना) (i.e., one “changing at its pleasure”) or a variable star, which during each interval of 331 d. 8 h. passes through the following phases. During 15 days it attains and preserves its maximum brightness,

(a) तारकशत्रके मिकोलोके। तति कालिवर्जय:।
(b) भरणी-चाप्रेय पिन्नासम रेवतव्र: वैत दशिणा।

S.S. VIII. 18.
the brightness of a star of the second magnitude; its brightness afterwards decreases during the next three months, until it becomes completely invisible. The star remains in this state for five months after which it reappears, its light increasing continuously during three other months. Its cycle of variability then comes to an end and it attains its maximum brightness.

The planet Mañgala (माण्डल) i.e., Mars, the son of Vishnu, when nearest to the Earth in opposition, is five times brighter than when it is farthest away from her. This fact evidently led to the reduplication of Mañgala in the star Māra.

As patient and careful observers of the heavens, the Hindus could not but detect the frolics of this Kāmarupa-tārā. And the result was the following narrative about Kāma (काम) i.e., the Indian Cupid, found in the Purāṇas, but based on the authority of the Vedas. Kāma is now generally regarded as the God of wish and desire in general, including love. In the Vedas, he is identified with Agni (आग्नि), the Fire-God; Vide:

विद्यात्वत्वम् उ कामस्य भाषुः।

Av. III. 21. 4.

and he is said to have gone into the sea. Vide:

काम: समुद्रम् भविषेत।

Av. III. 29. 7.

The Paurānik story runs thus: On the sixth day of the birth of Pradyumna (प्रदुःध्या) alias Mañgala (माण्डल) i.e., Mars, the son of Vishnu-Krishna, the demon Sambara (सम्बर) i.e., darkness, cloud or the dark constellation Mina (a), stole the boy away from the lying-in-room, to get rid of his future destroyer and threw the boy into the sea, where a fish ate him up. Māyāvati (मायावती), i.e., Venus (b), the consort of Pradyumna (Cupid) who lived with Sambara, passing herself off as the wife of the demon Sambara, got her boy-husband from the fisherman who had caught the fish. The boy grew up to a

(a) Pisces is a dark Rāsi and Venus becomes powerful in it.
(b) Venus has her phases like the Moon. She may therefore be called Māyāvati (मायावती) i.e., ‘the changeful’. The star Māyāvati therefore well represents Venus in the sidereal heaven.
man and came to know his own wife. He then slew the demon Sambara and liberated his wife from the demon’s bondage.

Vide:

पञ्चे बशि जातमार्ते दु ग्रहु नमू सूतिकामगाहवहै।
मम एव: हस्ता रति मुनि! हजबानु कालमार्ते। २
हिला विचलित च प्रकरणम्: प्राह-उत्थो वननानि।
परित तत्र च प्रकरणम्: मदुस्य: नधराह बालक। ४
दासीति मतस्यान्तरे सा दृश्य अविषेद्यमान।
हुनाम मन्यताति: दर्षस्य अथाभूमिल। ७
नारदेऽ एव मुखाद: सा पाल्यामास म राहस्य।
साच च शुमेन कथामास म पनि: ल्वेमेति नै। २५
हुनाम्: सम्यoggles ग्रहम् च: समाधीयद। १७
उद्धित् च तथा सादृश्याकाम पितु: गूढः। १६

V. P. v. 27. 2-1:0

We believe that the stellar reduplications of Mâyavati, Sambara and Kāmadeva are the star Mâyavati, the fish in the Mina Rāsi (Pisces), and the star Māra (७ Ceti) respectively.

In the East, the invisible state of the star Māra represents the temporary death of Kāma, supposed to have been caused by the superior lustre or fire of the star Lubdhaka (लुबधक) i.e. Sirius, the stellar representative of the God Siva Bhutavat (Vide—Introduction, Ex. VI) who predicted the reappearance of Kāma.

Vide:

रति: उज्जव।
कामस्य द्रविषाम् भावायाम् रतिम् माम् विहिः सुमा।
गिरो भरिषम्: ममावान् गिरोऽस्: तत्सस्य विस्तित।
तेन प्रस्य मल्लेन कोषाफळ विस्फाय वोबनम्।
विम्बिज्ञा भर्ष-शिखर-वचालाम् काम्: मममवशिः।
बर्दु: दु दर्शनम् वातान्त्रेषु द्वेष मयाविज्ञ।
सत्तुतिः: धनु सत्तुतः: लत: माम् गिरोऽस: अवज्ञद।
हुनाम्: भ्रमू: कामाविष्टे कामोपपिति: भविष्यति।

P. P. I. 40.

Cf. Gk. Eros (Lat. Amor or Cupido) the God of Love, is the son of Venus and Mars. He is the usual companion of his mother Venus (W. Smith).

In the West the temporary disappearance of the star may have given rise to this idea of Cupid’s blindness.
We had thus to draw Cetus swallowing the body of the boy Cupid represented by the variable star Mira (a).

It is interesting to note that in the Babylonian legends, Cupid and Venus are said to have thrown themselves into the waters of the Euphrates, at the appearance of the giant Typhon (=The Indian Sambara) near the Southern Fish (=Pisces Australis), the Dakshina Mina (दक्षिण मीन) of Hindu Charts; while Hyginus connects Pisces with the Euphrates giving a legend that Venus and Cupid took the form of fish in that river (R. Brown).

According to a Greek myth, Pisces are the fish which carried on their backs Venus and Cupid when they fled from Typhon (R. Brown).

5. YAJNA-KUNDA MANDALA [58]

(यज्ञकुण्ड मण्डल)

Lat. Fornax Eng. Furnace

The constellation was invented by LaCaille in 1752. We have simply translated the western name of the constellation.

6. YAMI MANDALA [143]

(यामी मण्डल)

Ak. Pur-edin (=River, strong one of the Plain, The Euphrates) Gr. Eridanos

Lat. Eridanus, and Amnis

and Potamos

The stars in this constellation form the figure of a river with a human skull on its bank. We have called the stellar river Yāmi (यामी), the great daughter of the Sun-God. The heavenly Tamunā (तमुना) or Yāmi is supposed to take its rise from the celestial Brahma-Putra (ब्रह्मपुत्र) i.e., a portion of the Milky Way adjoining Brahma Mandala, the Constellation Auriga, and to fall to it again. Vide:

(a) Mina-Ketan (मीन-केतन) i.e., one who has a fish for his 'House', is another of the names of Kāma. Vide: प्रशुन्म: मीनकेतन: । स्तवमः
The star 1 of Tāmi is called Achernar in the West. We have translated the name of the star Achernar (Sem. Akhir-al-Nahr—end of the river) into Nadi-Mukha (नदीमुख).

VIPRA MUNDA (विप्र मुण्ड)

The stars 4, 20, 8, 7, 19, 13, 12, 17 and 9 of the constellation Tāmi (=α, π, δ, ε, ξ, η, τκ and another, Eridani) are in the shape of a human head. The 'Stellar Head,' we believe, represents the head of Phæthon (the shining one), cut off by Zeus on the banks of the Eridanus.

Visva-rupa (विस्वारूप), literally 'the most beautiful in the world' the Indian analogue of the Greek Phæthon, was subdued by Indra and killed by Trita (Heavenly Light); and we have accordingly called 'the Stellar Head,' Vipra Munda.
TARA MANDALAS AND NAKSHATRAS

VITHI II

The second vīthi consists of the following constellations:—

1. Chitra-kramela Mandala (चित्रक्रमेल मण्डल)
2. Brahma Mandala (ब्रह्म मण्डल) (14)
3. Vṛṣṇi Mandala (वृष मण्डल) (44)
4. Ghatikā Mandala (घटिका मण्डल)
5. Suvarnāsrama Mandala (सुवर्णास्रम मण्डल)
6. Āraka Mandala (आरक मण्डल)

1. CHITRA-KRAMELA MANDALA [117]
   (चित्रक्रमेल मण्डल)

   Lat. Camelopardalis    Eng. Giraffe

   This Mandala stands at the top of Vithi II. The constellation was invented by Hevelius in 1690. We have simply translated the constellation name of the West.

2. BRAHMA MANDALA (72)
   (ब्रह्म मण्डल)

   Rv. Rathitama Pushan (रथीतम पूषन)
   lit. Pushan, the best of the charioteers
   Ak. Margidda. Ph. Rakho (charioteer)
   Euph. Mar-urbi (chariot)
   Gr. Heniochos (bridle-holder)

   To the south of Chitrakramela, lies the important Brahma Mandala. In this Mandala there are 14 stars visible to the naked eye.

   The venerable bard of Vithoor speaks of Brahma Rāsi (ब्रह्मराशि) or the constellation Brahma in the following terms:—

   "The planet Sukra (=Venus of the West), a son of Bhrigu, with serene light follow thee. Brahma Rāsi and the Rishis look cloudless and they move round the star Dhruva (ध्रुव) i.e., Polaris, displaying their full brilliancy."  Vide:
So the great poet gives us the following facts: (1) *Brahma Rāsi* is a constellation; (2) it does not lie far away from the Rishis (रिषि) or the Great Bear; and (3) it moves round Polaris.

What constellation then is this *Brahma Rāsi* of Vālmiki? Or in the language of Astrology, what is that constellation which is presided over by *Prajāpati Brahma*?

The Suryya-Siddhānta gives the latitudes and longitudes of the two stars, Prajāpati (प्रजापति) and Brahma-hridaya (ब्रह्मह्रिदय). It places the star Prajāpati at Lat. 38° N. and Long. 1-27°, and the star Brahma-hridaya at Lat. 30° N. and Long. 1-22°. With these scientific data, we can identify the star Prajāpati with δ Aurigae, and the star Brahma-Hridaya, also called Brahma-hrit (ब्रह्मह्रित) by astronomical abbreviation, with ξ Aurigae. We have it then, that the two stars Prajāpati and Brahma-hrit are in the constellation Auriga. These two stars exactly occupy the top and middle of the constellation Auriga, representing the head and heart of Brahma.

Then again the course of the Heavenly Gaṅgā (गंगा) *i.e.*, the Milky Way, described in the Purāṇas, helps us in fixing the position of *Brahma Rāsi* exactly in the same place in the Heavens. Vide, Introduction. Ex I. We thus get the equation:

*Brahma Rāsi* = Auriga.

But the identification is not complete in all respects; for a complete history, we have to look to the Vedas.

To the western savants, the origin and character of Auriga do yet remain shrouded in mystery. They no doubt connect it with ‘the Goat’ and ‘the Kids’, but can give no reason for doing so. R. Brown has taken much pains to find out its antecedents, but he does not feel on *terra firma*. Vide, R. Brown. II, 51-2-118. One may learn something from the Vedas in which lies its background. When rightly understood, 'the
rustic songs’ will unfold to the star-gazer a vast treasure of much valuable astronomical knowledge.

Of the God Pushan, the Vedas declare:

*Pushan!* thou goest on an embassy to the Sun, in thy (stellar) golden boats that travel in the sky across the upper ocean.

\[
\begin{align*}
\text{या:} & \text{ ते गुणूः नाव: शन्त: सदुः हिरण्ययो: शन्तरिते चररति: } \quad \quad \text{I} \\
\text{तामि:} & \text{ राति दुल्खम ऺुष्णिष्ठ्य} \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \text{I I} \\
\end{align*}
\]

Rv. VI. 58. 3.

*Pushan is the world of Light.* Vide:

\[
\text{बलो: राति: } \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad 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\quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \qua
The best charioteer has guided the (stellar) golden wheel of the Sun’s car through the variegated (stellar) Bull.

रत्न बल: पल्ले गति खुश: चक्रम ग्रीयम्। दिवि चित्रागम रथम्॥

Rv. VI. 56. 3.

The car of the Sun is his orb. Vide:

... सूर्यम् च चतुः दिवि चित्रागम रथम्॥

Rv. V. 63. 7.

Cf. “Auriga is now known as ‘the charioteer’, although no chariot is visible, and in Ptolemy’s Star-list, as well as in our modern representations, he is described in the attitude of a shepherd carrying a goat on his shoulder and a pair of little kids in his hand.”


The stellar isosceles triangle or the stellar arrow of the Rāmāyana, is called Ārā (आरा), the saw. The glowing Pushan holds the saw. Vide:

... आराम विसर्य आपने॥

Rv. VI. 53. 8.

Brandishing his lightly-moving goad, Pushan goes forth. Vide:

मन्त्राम पूशा चित्रागम उद्द वरीयत्रत् ... ...॥

Rv. VI. 58. 2.

As the constellation lies side by side with Bhadrā, the northern branch of the Milky Way (Vide, Introduction, Ex. I.) like husband and wife they form a pair.

‘Let Bhadrā,’ says Bharadvāja, 'be now a loving friend to thee.'

... ... मद्य ते पूषन रातिः चस्यु॥

Rv. VI. 58. 1.

As the constellations Brahmā (Pushan) and Parasu-Rāma (Indra) are situated side by side, they are hymned together in the Vedas. Vide:

Rv. VI. 57.

“Goats are the team that draws the one, the other hath (two) Bay-steeds at hand,

With both of these he slays the fiends (i.e., darkness).”

Prof. Griffith.
Note: The two horses of Indra-Parasurāma, are the two stars in the Nakshatra Asvayujā (सबस्युजा), the Twin Horses.

When Indra, wondrous strong, brought down the (encircling) streams, the mighty water floods, Pushan was standing by his side.—Prof. Griffith.

र्व. VI. 57. 3.

STAR BRAHMA-HRIDAYA (ब्रह्माह्रिदय तारा)

Lit. the Heart of Brahmā

30°N 52°E

Sum. Ak. Askar (The Goat), Ph. Aix. (The Goat)

Sem. Igu. (The gate star)

Gr. Aix (The Goat). Lat. Capella

Eng. The Goat Star

It is a star of the first magnitude and of yellow colour. It is the star 1 of Brahman (≡ α Aurigae).

The star 1 Brahmanah seems to be the battleaxe of Pushan.

Vide:

“So, Lord of all prosperity, best wielder of the golden sword,”—Prof. Griffith.

र्व. I. 42-6.

Note: The stars, and especially the greatest stars are the important weapons of the Light-powers against Darkness. (R. Brown.)

Cl. Sk. Sañcī = the Sword.

It is interesting to note that in Hindu astronomical myths, Agni, the goat-headed fire-god, is represented in the starry heaven by the star Agni (≡ 2 Vrishatya = β Tauri = Nath), situated to the south of and in the same longitude with Brahmahridaya.

र्व. VI. 57. 4.

भ्र: मूला नैमिनयः द्वागम्बुदः ब्रह्मसः ।

Mahā. III. 225, 28.
The star *Agni* is therefore connected with *Pushan's flock of goats*.

As regards the Semitic name of the star, we will presently show that *Vālmiki* seems to have taken the heaven's gate to be near the star.

Of the other important stars in this constellation, star 2 of *Brahmā* (β Aurigæ) lies on the breast of *Brahmā* and we call it *Urah* (उर) or 'the breast star'. Cf. Ar. *Menkalina* (= the shoulder of the rein-holder).

**RAMA-VANA (रामवाण)***

*Lit: the arrow of Rāma*


(Eng. The Kids)

The stars 6, and 8 of *Brahmā* (= η, ζ, Aurigæ) are called 'The Kids' in the West. Cleostatos (B.C. 548) placed them beside Aix. The Kids with 5 *Brahmānaḥ*, form the figure of an arrow-head, 5 *Brahmānaḥ* marking the point of the arrow. The position of the stellar arrow-head between the constellation Parasu (परशु) *i.e.*, Perseus of the West, and the star *Igu* (= the Gate star), leads us to identify it with the famous *Rāmo-Vāna* (रामवाण) *i.e.*, 'the arrow of Rāma', which was shot by Sri-Rāma at Parasu-Rāma to shut the latter out of the Heaven's gate.

"*Parasu-Rāma* said to *Rāma*, 'take this bow'." Vide:

भृन्म भायच्छ राधव ।

Mahā, III. 99. 50.

"And Rāma took the celestial bow." Vide:

राम: दासाविः दिन्मस्त हसता रामस्त काम्भक्ष ।

Mahā, III. 99. 51.

"Then *Parasu-Rāma* gave unto *Rāma* a celestial arrow saying 'place this on the bow-string and draw to thy ear'." Vide:

तत्त्व राम: दूरी दिन्मस्त यमदन्नः महायतमः ।

परम भाकृष्टेष्वरैः वनव मानक्ष्यताम हर्त ।

Mahā, III. 99. 54.
"By his superior refugence Rāma overpowered Parasu-Rāma who lost his glory." Vide:

रङ्गोऽमि: गलवोच्चव्याय यामदग्रं: वज्रीकुलः।

Rām. I. 77. 12.

Also,

निर्ग्रध्य रिपुरास भूतसि भूमरेष: हव भूमकेतनः।

Raghu. XI. 31.

"Sri-Rāma then shot the shaft." Vide:

तत्: स: मनवान्विष्णु: ते बाणम: वे सुमोऽच ह!

Mahā. III. 99. 61.

And it blocked his path to heaven.

भागीवत्य हुक्लोधिष्णोसङ्कवद्व स्वंगमार्गः-परिचो दुर्लक्षः।

Raghu. XI. 88

"And he found his future heavenly abode undone."

(a) Vide:

स: हुतान्: व्यः रामेण स्वान्: लोकान्: तपसा अजितान।

Rām. 76. 22.

"And he exclaimed 'as I have no desire to satisfy, I do not feel for the loss of heaven'."

पीढ़िविभिषित न मा खिरोऽकलः स्वङ्गीपद्वितरंस्वग्लोलः।

Raghu. XI. 37.

"After Parasu-Rāma had gone away, Rāma put the bow in the hands of the far-spreading Karuna (वर्ण), the god of the firmament.'" Vide:

गते रामेण प्रशान्तास्य राम: दासरविः बुनः।

वह्नाय अयामेवाय दृशे हस्ते महायानः।

Rām. I. 77.1.

"Parasu-Rāma afterwards regained his glory." Vide:

प्रासवान्: च चुन: तेज: तीर्थे अश्विन: पाण्डुन्दन।

Mahā. III. 99. 70.

The celestial 'Bow' could only be either the Rain-bow or the stellar bow in Parsu. The celestial 'arrow', primarily the rays of the Sun, is reduplicated in the asterism Rāma-Vāna. And

(a) Note:—Indra as a Madhyasthāna Devatā had no right to enter Heaven. Vide, the Nirukta.
the 'gate of heaven' is the Vernal Equinox guarded by the star Agni (2 Viśrṣaya = β Tauri) (a) which he reopens on the first day of every year. Cf. (Sem) Igu (= Gate of Heaven), i.e. the star Brahmahrit (α. Aurigæ).

We know that Śrī-Rāma is an incarnation of Viṣṇu (विष्णु).

Vide:

कौशल्या चतुर्वद्य रामम् दिव्यवालकशंसूतम्।
विष्णोऽभावं महामार्गे वृह वेचाकुकुन्दनम्॥

Rām. I. 18. 10-11.

And we know that Viṣṇu is the Sun. Vide:

ऐते विष्णोऽभादित्वर्ण नायरी।

Nir. VI. 2. 37.

We also know that Parasu-Rāma is no other than Indra (इन्द्र) himself. (Vide, Vīthi I, Parasu Mandala.)

Thus in this legendary tale, we get a satisfactory explanation as to why Indra-Dhanus (इन्द्रधनु:), the rain-bow, is popularly called Rāma-Dhanus (रामधनु:), and also a Paurāṇika explanation of the variable nature of the star Māyā-vatī or Algol.

VRISHA RĀSI (वृषराशि)

Presiding deity: Sukra (सूक्र), Venus

The Rāsi forms the second division of the Solar Zodiac, and it lies east of Mesha Rāsi (मेघराशि). It consists of a part of Mesha Mandala and a part of Vṛisha Mandala and it comprises the last three quarters of the Nakshatra Kṛittikā, the whole of Nakshatra Rohini and the first half of the Nakshatra Mrigasirā.

VRISHA MANDALA [127]

(वृष मण्डल)

Ak. Gutaana (= the Heavenly Bull). Ph. Aleph
Gr. Taurus Lat. Taurus
Eng. The Bull Hindu Astrology. Taburi (ताबुरि)

The constellation has 44 stars visible to the naked eye. In this constellation we have the Nakshatras Kṛittikā (क्रित्तिका) and

(a) Vide, Āgni tārā, infra p. 88.
Rohini (रोहिणी), as well as some unformed stars. The razor-shaped Krittikās form Kākūt (काकूत), the hump and the letter-V-shaped Rohini, the head of the stellar Bull. The Bull is alluded to in Rv. IV. 1, and VI. 56. Vide, p. 75.

KRITTIKĀ NAKSHATRA (कृत्तिका नक्षत्र)
Sk. Mātri-Mandala Ak. Mula (= the star)
(मातृमण्डल)
Euph. Te
(= The foundation)
Chin. Mao
(= Sun-open door)
Sk. Bahulā (बहुला) Sem. Aritun
(= The cluster)
Heb. Kimah (= family)
Gr. Pleiades (= numerous)
Lat. Vergile = (The stars of the branches)

Presiding deity: Agni, the Fire-god

Mātri-Mandala is the well-known star-cluster of over 400 small stars, out of which a group of stars varying from 6 to 8 in number, may be visible to the naked eye according to the strength of the observer’s eyesight. But the group is so compressed that the unaided eye can hardly discern the constituent members of it.

It presents a hazy and blurred aspect to the observer without a reflector, but in autumn, when the sky is clearer the group presents a very charming sight, as it seems to emit waves of electric light in dark but cloudless nights.

Krittikā is the first Nakshatra of the Lunar Zodiac. The Nakshatra is said to consist of six stars in the shape of a fire-flame. Vide:

अष्टशिखावन्नश षट्तारकामयम्

Kālidāsa.
The stars concerned are 16, 17, 18, 19, 20 and 21 Vrishasya (=20, 19, 16, 17, 23, 27 Tauri).

The Suryya Siddhânta puts the Yôga-târâ at Lat. 5°N. and Long. 1.3°. But as to the identification of the star indicated, Colebrooke, Burgess and Bentley are not unanimous.

But there is another means of identifying the star. Elsewhere the Siddhânta says that the southern-most star of the group is the Yôga-târâ. Vide:

मरणी खाणे व पित्राणाम रेखस्या: चैव दलित्ता।
S.S. VIII. 18.

The Star 20 of Vrishâ (=23 Tauri) is the southern-most star of the group and can therefore be safely accepted to be the Yôga-târâ of the asterism.

As the first Nakshatra of the Lunar Zodiac, while the Vernal Equinox (a) was in it, it ushered in the new year of the ancients, which was computed from the day of the full moon in this Nakshatra, and which was from that fact called the Kârtikâd (कार्तिकादि) year. For the same reason the Vedic month Uṛjā (उर्जा) was called Kârttika (कार्तिक), and the Moon was surnamed Krittikâ-bhâba (कृत्तिकाब्बा), lit. the child of the Krittikâs.

It is no wonder therefore that the asterism would be called Mâtris in India, Te in Babylon, and Ma-o in China.

Bahulâ (बहुला) seems to have been the original popular name for the asterism, and the names (Sem.) Aritum, (Heb.) Kimah, (Gr.) Pleiades, testify to that fact. The well-known nursery-tale about the seven champâ (चम्पा) brothers and their sister Karavi (करवी), relates to this fine group of stars. “Other Nakshâtrâs,” says the Sâtpatâha Brâhmana, “have one, two,

(a) The Vernal Equinoctial point was in Krittikâ for the period of a thousand years from B.C. 2700 to B.C. 1700. As the sun attained yasas (यस: ) or full strength and brilliancy on reaching the point in his northing, when the gate of heaven was re-opened for him to enter the Northern Hemisphere, he could be said, during the period, to be gifted with yasas by the Krittikâs at his birthday, i.e. at the commencement of the
three or four stars, but the Krittikās have numerous stars (i.e., six in number). It is therefore called Bahulā (बहुला), lit ‘the numerous.’ Vide:

एकम् दे श्रीणि जलवारि द्रति वा अन्याणि नक्षत्राणि
बय एवं एव भूविषा: यद्य कृतिका:।

S.B. II. 1.8.2.

Also,

असर्ये स्वाभा कृतिकाभ्य: स्वाभा।

T.B. III. 1.4.2.

The razor-like shape of the Nakshatra seems to have suggested the name Krittikā (नक्षत्रका), lit. a cutting instrument, for the asterism.

In the Phaenomena of the Greek astronomical Poet Aratos (B.C. 270), the Pleiades formed a separate constellation distinct from the stellar Bull. But in the Hipparcho-Ptolemy star-list (B.C. 150-A.D. 150) the Pleiades are included in the stellar Bull.

The above-mentioned historical facts give some clue to the name Mātri Mandala (मातृमण्डल), lit. the constellation of the mothers, which the Krittikās bear even to the present day. Vide:

अस्स्मतीः भवस्म चैत्व विष्णोः श्रीणि पदानि च।
कालसंग्रहणः न परस्यच्छ च: परमेश्वरः मातृमण्डलः।

Sk. P. IV. 42. 12.

Aischylos (B.C. 525-456) alludes to the central position of the Pleiades in the Heavens; and Euripides speaks of the ‘Central Pleiades’ in allusion to their position in the Heavens; and they are regarded by Madler (A.D. 1846) as the central

original solar year. Thus Krittikā came to be regarded as Jasadā (यस्दा) literally one bestowing yasas or brilliancy, the Faurānic mother of the Vedic Sun-God-Krishna. Vide:

यस्दा त्वा यस्दी तेजोदाम त्वा।

T. Sam. IV. 4.7.3.

Also,

यद्य पत्ति बादित्यस्य कृष्णम रूपम्।

Chh. Up. III. 3.3.
group of the system of the Milky Way. The German astronomer also put forth an idea that there exists some central point in the universe, around which the Sun with its bevy of planets and comets, revolves in the course of millions of years; and he suggested that such centre is situated in the direction of the star Alcyone (Sk. Deva-Sena) in the Pleiades.

Many are the legendary tales that exist about the Kritikās both in the East and in the West. For further particulars, Vide, supra, p. 26.

(2) NAKSHATRA ROHINI (रोहिणी नक्षत्र)

Gr. Hýades (The rainy ones)
Lat. Pluviae (Pigs); Scutalae (The piglings)
Vedic Rohit (The female deer)
Paurāṇik Suravi (सुरवि) (The celestial red cow)

presiding deity: Prajāpati (प्रजापति)

Rohini is the second Nakshatra of the Lunar Zodiac. In the Vedic age, the Nakshatra (asterism) had only a single star, Vide:

प्रजापते: रोहिणी ।

T.Br. I. 5. 1.

प्रजापतमेव स्वाहा रोहिण्ये स्वाहा ।

T.Br. III. 1.4.2.

The stars 1,7,5,12,14 Vrishasya (=-α,ε,θ,γ,δ Tauri) form the Nakshatra (asterism). The asterism resembles a sakata (शकट), cart (a), or the letter V. We have seen that the Yoga-lārā of the Nakshatra is the star 1 Vrishasya (=-α. Tauri), which may be called Rohit (रोहित). From the deep yellow or the reddish colour of the star, the Nakshatra is called Rohini. The Nakshatra is also called Suravi, the celestial red cow, in the Purāṇas. For further particulars, Vide, p. 34.

(a) पञ्चतारामिका शक्ताकृति: रोहिणी ।

Planets attaining Lat. 2°S. at Long. I. 17° are said to accomplish ‘Sakata-bheda’ (शकट भेद) or the breaking of the cart. (S. S. VIII. 13). This incident is utilised as the sakata-bhanjana-lilā (शकट माण्जन लीला) i.e., cart-breaking labour of the Sun-God Srikkishna in the Purāṇas.
Note:—We have shown that in the Vedic age the Nakshatra had only a single star, and the star was Rohit (रोहित) lit. the red she-deer of the Ait. Br; and as the name Rohini has been transferred to the asterism, the Yoga-tārā may be called Rohit.

The Nakshatra Rohini had its reduplication in the Southern Hemisphere. It was reduplicated in the Nakshatra Rohini, now called Jyeshtā. Vide:

हन्त्रस्य रोहिणिः।

हन्त्राय स्वाहा ज्येष्ठाय स्वाहा।

T. Br. I.5.4.

T. Br. III. 1.2.1.

Rohini is the consort of the Moon. Vide:

चन्द्रमास: रोहिणिः।

T. Ar. III. 9.

And as such, she became the mother of the planet Budha (बुध) Mercury, called Rauhineya (रौहिनेय) after her. Vide:

बुध: सौभ: रौहिनेयः। रस्ममः:

But the Purāṇas attribute the birth of Budha to the illicit union of the Moon and Tārā, literally, the star, the abducted wife of Vrihaspati, the planet Jupiter.

The Paurāṇik story is evidently founded on Rv. X. 109 and Av. V. 13, where Tāракā, the wife of Vrihaspati is related to have been abducted by a man of the Kshatriya caste, but no mention is found of the birth of Budha.

STAR ROHIT (रोहित तारा)

Sum. Ak. Bir. (the vermilion)
Sem. Aldebaran (The follower, of Pleiades)
Lat. Oculus Tauri (The eye of the Bull)
Eng. Aldebaran

The star, as an asterism, was Rohit (रोहित), the ‘red deer’ of the Ait. Br. and Suravi (सुरावि) of the Purāṇas.

याम बाहुः तारका एषा विकेशी हृति।

Av. V. 13. 4.

The Eng. name Aldebaran may be transliterated into Haladdi-varna (हलदीवर्ण).
STAR AGNI (अग्नि तारा)

Sem. Al-natih (the Butting)
Ar. Kabdhī-l-inan (the heel of the rein holder)
Eng. Nath

Of the remaining stars in Vrisha Mandala, the star 2 Vrishasya (=β Tauri) deserves particular mention. It is a star of the second magnitude, and it is called Nath (Sem. Al-natih = the butting) i.e., one lying between the constellations Auriga and Taurus.

The S. Siddhānta calls it Agni-tāraka (अग्नि-तारक) and gives its Lat. 8°N and Long. 1° 22°. Colebrooke identifies it with β Tauri.

Agni-tāraka is famous for its nearness to the earliest known Vernal Equinox, which was to its South, and which the Fire-God had to guard. For further particulars, vide, Kālapurusha Mandala.

STAR SVĀHĀ (स्वाहा तारा)

STAR 3 VRISHASYA = ζ TAURI

It is a star of the third magnitude and lies about 8 ft. S. E. of Agni-tāraka. We suppose that the star represents Svāhā (स्वाहा), the neglected wife of Agni (अग्नि), lit. the Fire-God.

Immediately to the N.W. of Svāhā, lies the Nebula M. 1, called the Crab Nebula, and to the south of Svāhā lies the Stellar Cock, both the objects being invisible to the naked eye.

The love-story of Svāhā and Agni and the birth of their son Skanda (स्कन्द) is narrated in Book III. of the Mahābhārata and in other Purāṇas. (Vide, Introduction, Ex. II.) The chief actors in this story are Agni, Svāhā, the Krittikās, Kumāra-Skanda, Vinatā and Deva-senā.

We have seen that the stellar reduplications of Agni, the Krittikās, Vinatā, and Deva-Senā are the stars 2, 16-21, 22 and 4 Vrishasya respectively. It now remains to identify Kumāra-Skanda and Svāhā.
Considering the positions respectively occupied by Agni, the Kritikās, Vinatā and Deva-Senā in the locality, it is but fair to presume that the star 3 Vrishasya (= ζ Tauri) would best represent Svāhā.

In Boiotia, the constellation Orion was called Kandaon (= the Prince). In Hindusthan Kārttikkeya (कार्त्तिकेय) is called both Skanda and Kumāra (कुमार) (The Prince). We therefore get the equation:

Kumāra-Skanda = Kanda-on, the Prince.

4. GHATIKA MANDALA [50]

( गटिका मण्डल )

Lat. Horologium

This constellation was invented by La-Caille in 1752. We have translated the constellation name into Ghatikā Mandala.

5. SUVARNASRAMA MANDALA [55]

( सुवर्णास्रम मण्डल )

Lat. Dorado. Eng. the Sword-fish

This constellation was invented by Bayer in 1664 A.D. To the east of the constellation Horologium, lies the Suvarnāsrama Mandala, so called from its gold-like yellow colour.

The star 4 Suvarnasya (= R1 Doradus) is a very red star and a variable one, its magnitude varying from 5.0 to 6.5, i.e., nearly to invisibility. This fact led us to call it Lopā-Mudrā (लोपामुद्रा), literally, the vanishing one.

Lopā-Mudrā was the daughter of Vidarvarāja (विदर्भराज), and the wife of Maharshi Agastya (महास्तम). Lopā-Mudrā (originally the Moon) is said to have been translated to the South Heaven by her Lord Agastya (The Sun-God) (a), and there lodged in a palace adorned with golden pillars (b). Vide:

(a) ब्राह्मण: महावान विष्णुः।

विष्णुः: भारतस्यः।

A.P. 206.1.

(b) The original couple was the Sun (सूर्य) and the Moon (Chandrā चन्द्र or Chandramā चन्द्रमा). Vide: Vithi. III. Mithuna Mandala.
The Sun and the Moon are reduplicated in the stars *Agastya* (Lat. Canopus) and *Lopā-Mudrā* (=the star R. Doradus) respectively.

6. ĀDHĀKA MANDALA [26]

(आधाक मण्डल)

Lat. *Reticulum*

This constellation was invented by La Caille in 1752. We have simply translated the Constellation name.
VITHI III

The third Vithi comprises the following Mandalas or constellations.

1. Mithuna (मिथुन) (25)
2. Kāla-purusha (कालपुरुष) (38)
3. Sasa (सस) (12)
4. Kapota (कपोत) --
5. Mriga-vyādha (मृगव्याध) (29)
6. Arnavayāna (अर्नवयान) (45)
7. Chitra-patu (चित्रपटु)
8. Abhra (अभ्र)
9. Chatvāla (चत्वाला)

MITHUNA RĀSI

(मिथुन राशि)

Presiding Divinity: Budha (बुध), Mercury.

This Rāsi is the third division of the Solar Zodiac. It lies to the east of Vrisha Rāsi (वृषराशि), and covers 30° of the Solar Zodiac. It consists of the eastern portion of the Vrisha (वृष), the northern portion of Kāla-purusha (कालपुरुष), and the western portion of Mithuna (मिथुन). The Rāsi is called after the Mithuna Mandala. It comprises altogether two and one-fourth Nakshatras of the Lunar Zodiac, viz., the second half of the Nakshatra Mriga-sirā, the whole of the Nakshatra Ārdrā, and the first three quarters of the Nakshatra Punarvasu.

MITHUNA MANDALA [64]

(मिथुन मण्डल)

Sum.-Ak. Mastabba-galgal (The Great Twin).
Sem. Tuāme-Rabui (The Great Twins)

The Mandala derives its name from the celestial pair, the Sun (male) and the Moon (female), who are reduplicated in the stars 2 and 1 Mithunasya (="a and β Geminorum").
The pair is said to be of human shape, one holding a club and the other a lyre. Vide:

मद्व्यो घटी नृभुजनम समद्व सवीणाम् ।
वर्षजयेण मकरं समग्नस्त।
तौली समस्तद्वहना दुःखी च चन्या ।
शेषाः स्वनाम सच्छ्याः सवर्णा ।।

Manohara.

Prajāpati, says the Praśna-Upanishad, created a pair, male and female. They, thought he, will multiply their race. The male was Aditya (आदित्य) the Sun; and the female was Chandramāḥ (चन्द्रमा:) or Chandra (चन्द्रa) the Moon. Vide:

स: सूर्याम सवमास्यते ।
रथिः च प्राणसः च रहित।
दत्ते न वहुः प्रसा करिष्यत: ।
आदित्यः ह वेष प्राणः रथः यज चन्द्रमाः: । — P. Up. I. 4.5.

Vide also, S. Yv. IV. 2. 1.

"The stars Castor and Pollux," says Mauder, "are shown as man and woman on many Zodiacs."

The pair was originally connected, we believe, with the birth of day and night, month and season, and a new year was brought about by their movements.

There are two Nakshatras in this constellation, viz., Invakā (इवका) and Punarvasu (पुनर्वसु).

THE OLD NAKSHATRA INVAKĀ

(इवका नक्षत्र)

Presiding Deity: Soma (सोम), the Galaxy

Bab. Kakkab khi-gall-a (= the asterism-of-the-canal-of water)

Per. Rakhuad (the watery way)

The Nakshatra Invakā or Iloaitā (b) is defined to be made up of five stars lying above the Nakshatra Mriga-sirāḥ (म्रिगाजिर), the head of the Mriga-kālapurusha. Vide:

(a) As the Āśvins learnt Madhu-vidyā (मधु विद्या), the instrumental music from Maharshi Dadhichi, they are represented with Vinā (विना) the lyre in their hands. For further particulars, Vide: post; Vinā Mandala. Cf Lava-Kusa.

(b) Both the names seem to be connected with a flight of herons, the Sk. words Vaka and Vala having cognate significations.
The stars of the Nakshatra arrange themselves in the form of a flight of herons.

And no other five stars capable of forming the asterism in question, can be found in the locality, than the stars 7, 5, 3 and 6 Mithunasa and 3 Vrishasa ( = γ, μ, η, ζ Geminorum and ζ Tauri).

Ivala was a division of the archaic Lunar Zodiac of thirty Nakshatras. The Nakshatra had for its presiding deity Soma-pavanāna (=The Galaxy). Vide:


Ivala was an auspicious Nakshatra for bridegrooms. Vide:


Pratistāna: pratiśaya: udāraṁ. 21 16 1

Vālmiki refers to the asterism as the bow of Rudra, placed by way of trust in the possession of King Devarāṇa, and broken into two pieces by Rāma as a price for Sītā’s hand. Vide:

Tad rāma rādhārāmam mahāram. 12

Vāmśaṅkam tadanvālom bājāmabhavan pūrvaṁ eva vāmaṁ. 13

Rām. I. 66.

Parivaśam nāsa-pañcām bhūnam rājāntan. 16

Tad bājā amanand. madhya naśang. mahāvāna. 17

Rām. I. 66.

In the Mahābhārata, the asterism forms the golden umbrella of Skanda-Orion. Vide:

Tad tad kāraṇam durmā bhīṣmam ayūrom tāt. 1

Mahā. III. 228. 23.

And its five stars are ‘the five fires’, protecting king Vāna (वान), literally, ‘the Arrow’ (‘Iśu-Trikanda’) Vide:

Tad: bhāsām udāraṁ jīvaṁ nīlaṁ tathā durmā. 1

Dūnyaṁ kṣitam viśvāṁ: pūrṇavāmaṁ loke. 1

V. P. V. 33. 26.
The 7th asterism of the Euphratean Scheme of the Lunar Zodiac of thirty asterisms \( a \), is called *Kakkab Khigall-a* = the ‘asterism-of-the-canal-of-water’ (The Galaxy). ‘The asterism’, says R. Brown, ‘consists of the stars \( \eta, \mu, \nu, \gamma \), and \( \zeta \) Geminorum’ (the stars 7, 5, 14, 3 and 6 *Mithunasya*). But a similar enumeration of the Nakshatras found in Book III of the T. Br., tends to show that the asterism *Mriga-sirah* was the third, while *Invaka* \( b \) the fourth asterism of the Hindu Lunar Zodiac. Vide:

\[ \text{मुगलोपत्र खांहा। स्वांसे त्रशा।} \]

T. Br. III. I. 4. 2.

**NAKSHATRA PUNARVASU**

(पुनर्वसु नक्षत्र)

Presiding Deity: *Aditi* (अदिति) \( c \)

Euph. *Kakkab Su-pa* (the asterism of the lustrous one)

Euph. *Kakkab Ankitames* (= the asterism of Heaven and Earth)

Gr. *Dioskouroi* = Kastor and Polyeuces

Lat. *Castor and Pollux*

The Vedic name of this Nakshatra is *Punarvasu* (पुनर्वसु), i.e., the dual of the word *Punarvasu* (पुनर्वसु), which implies, that the Nakshatra originally consisted of two stars. Vide:

\[ \text{अदितिे पुनर्वसु।} \]

T. Br. I. 5. 7.

\[ \text{अदितिे स्वांसे पुनर्वसुन्मध्या स्वांसे।} \]

T. Br. III. 1. 3.

The *Yoga-tārā* (योगतारा) or the head-star of the Nakshatra was the eastern one. Vide:

**रोहिणी-अदिति-पुलानाम प्राची।**

S. S. VIII. 19.

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\( a \) The 28 Nakshatras of the old Hindu Lunar Zodiac with the 2 old Nakshatras *Invaka*, and *Sārdula* might make up the thirty Nakshatras of the archaic Hindu Lunar Zodiac alluded to in Rv. X. 189.3.

\( b \) The *Invaka* may well represent the *Vaka-Aśura* (वक-अशुर), whom the nocturnal Sun-God *Srikrishna* had to kill.

\( c \) We have shown that, *Aditi* (= the undivided one) = *Suryād* = the northern half of the Milky Way; while another phase of *Aditi* or *Devaki* is the Goddess Earth herself. Vide: *Nirukta*. 
The S. Siddhānta gives the latitude and longitude of the 
Yoga-tārā, viz., Lat. 6° N. and Long. 133°; and Colebrooke 
has found it to be the star 1 Mithunasya (= β Geminorum = the 
star Pollux). The companion star is evidently the star 2 
Mithunasya (= α Geminorum = the star Castor). Thus we 
identify the stars 1 and 2 Mithunasya with the two stars of the 
Nakshatra, as originally constituted. Punarvasu (पुनर्वसु) means 
a reduplication of two of the eight Vasus (a), viz., of the 
Sun and the Moon, the Vedic Asvinau (अस्विनौ). 

The stellar couple is either the Earth and Heaven (द्वादश), the Sun and Moon (चतुर्थमसे), the Wind and Fire 
(वायुमसे), or the day and night (रात्रि). Each 
of these four couples is known as 'Dual Devalās' in the Vedas; 
but of the four couples, the Nirukta enumerates the first, 
second and the fourth and not the third one, as Asvinau. Vide:

शास्त्र-विभिन्न बहुरात्राः सूर्य्य-चन्द्रमसे वा 
अन्यथाशिवस्थ-अन्यथाये।

Nir. N. V. 6. 1.

We know that the Sun and the Moon are regarded as the 
two sons of Aditi. Vide:

तेन त्वा भादित्यो रज्जुरामू सुगृहराविन्से द्विमा।

Av. VIII. 2. 15.

We therefore hold that the two stars 2 and 1 Mithunasya 
(= α and β Geminorum), represent the brothers, the Sun and 
the Moon in the Nakshatra Punarvasu (पुनर्वसु), while the same 
two stars, as we have seen, represent the pair Sun (male) and 
Moon (female) in Mithuna Rāsi.

We have thus the equation:

Punarvasu = Asvinau = the Sun and the Moon = Gr. Dioskouroi 
= Kastor and Polydeuces = Lat. Castor and Pollux.

(a) Dhara, Dhruva, the Moon, Sun, Wind, Fire, Night and Day. Vide:

भरो: भ्रमसे: च विश्वः च भाटिन्य: धनगः 
पवित्रः च प्रमाणः: च वत्सः शाहो हसे स्मृतः: ।

रति मरतः: ।
We have therefore named the yellow-coloured star 1 Mithunasya, *Soma* (सोम) *i.e.*, the Moon and the bluish-white-coloured (or the green-coloured) star 2 Mithunasya, *Vishnu* (विष्णु) *i.e.*, the Sun. For,

\[ \text{विष्णु=} \text{बारिस=} \]

Nir. N. IV. 2. 37.

In other words as an asterism, the two stars are regarded as the brothers *Asvinau* or *Punarvasu*, and as the makers of the Mithuna Mandala, as Āditya-chandramā the couple, male and female.

It is to be remembered that the Nakshatra-Asvinau alias Punarvasu of the Deva-bhāga (the Northern Celestial Hemisphere), is again reduplicated in the Nakshatra Vichritau (विचृतौ), alias Mulā of the Asura-bhāga (the Southern Celestial Hemisphere). It is also to be borne in mind that the Mihuna Rāsi of the Devabhāga is again reduplicated in the Rāsi Minau (मीनावै), Pisces of of the Asura-bhāga.

For further particulars, vide: Nakshatra Mulā and Rāsi Mina.

Modern astronomers have detached the star 2 Mithunasya (= a Geminorum) from the Nakshatra as originally constituted, and have added four stars to it; thus, at present, the Nakshatra consists of five stars, which have arranged themselves in the shape of a bow. Vide:

मन्यवल्लिं शिरासानाक्ति शम्भरस्य सुरमाणेष्व गता:
विशिष्टा: सुमुखि पश्चातार्के पश्चपावकमिता धर्मवियादः।

Kālidāsa.

So the Nakshatra consists of the stars 1, 8, 10 Mithunasya and 1, 2 of Suni Mandala (β, λ, δ Geminorum and α, β Canis Minoris.)

In the west both the Nakshatra (asterism) and Mandala (constellation) are named after the same twin brothers.

‘The original Twins,’ says R. Brown, ‘were the Sun and the Moon, who were reduplicated in the Zodiacal Gemini. In the Homeric account of *Kastor* and *Polydeukes*, they are said to be
alive alternately, i.e., when the one is in the Upper-World of the living, the other is in the Under-World of the dead, Day and Night, the Sun and the Moon, as well as the Heaven and the Earth. Here then, we have the origin of the apparently singular expression 'asterism of Heaven and Earth' as applied to the stars \( \alpha \) and \( \beta \) Geminorum. They represent, by virtue of the Law of Reduplication, two stars (Sun and Moon), which combined together occupied at the same time 'the Heaven and the Earth.' R. Brown I. 59.

The above would read as a very fine exposition of a passage in the Nirukta (Nighantu) already quoted. Viz.

\[
\text{धावाण्विन्यों भहौतिते, सात्रामण्डल सो, वभिः शन्त-अशिषयैौ.}
\]


Of the unformed stars of Mithuna, 12 Mithunasya is an opera-glass double. It lies 2 ft. S. W. of Anila (8 Mithunasya = \& Geminorum):

Mithuna forms the home of the important Meteor-radiant of December 10 to 12.

2. KĀLA-PURUSHA MANDALA

(कालपुरुष मण्डल)

\begin{align*}
\text{Rv. Risya (रिस्य), the Deer} & \\
\text{Rv. Varāha (वराह), the Boar} & \\
\text{Presiding Deity: Rudra} & \\
\text{Rv. Apām-napāt (अपाम-नपात) (the} & \\
\text{son of the waters)} & \\
\text{Rām. Gaṅgā-suta (गंगासुत) (the} & \\
\text{son of Gaṅgā)} & \\
\text{Rv. Visva-rupa (विश्वरूप) (the} & \\
\text{world's beauty)} & \\
\text{Rv. Trisirā (त्रिशिरा) (the three-} & \\
\text{headed)} & \\
\text{Mahā. Skanda (सकंद)} & \\
\text{Kumāra (कुमार)} & \\
\text{Kārtikeya (कार्तिकेय)} & \\
\text{Visākhā (विसाख)} & \\
\text{Bali (बलि) (the strong)} & \\
\text{M.P. Kumāri (कुमारी) (the female} & \\
\text{warrior)} & \\
\text{Hindu Astrology} & \\
\text{Presiding Deity: Prajāpati Soma} & \\
\text{Heb. Yara and Ari} & \\
\text{Euph. Yari (Lord of the wild Boar)} & \\
\text{Zend. Apām-napāt (the son of} & \\
\text{waters)} & \\
\text{Sum. Nin gir su (Lord of the river} & \\
\text{bank)} & \\
\text{Lat. Aquosus} & \\
\text{Euph. Tam-muz} & \\
\text{Ak. Duwuzi or Duzi} & \\
\text{Gr. Phaethon (the shining); and} & \\
\text{Orion} & \\
\text{Lat. Orion} & \\
\text{Gr. Kandaon (the Prince)} & \\
\text{Sem. Kohain-dayan (the prince—the} & \\
\text{Judge)} & \\
\text{Eg. Sech or Sahu (a wild hunter)} & \\
\text{Ph. Kesil (the strong)} & \\
\text{Heb. Kesil (the strong)} & \\
\text{Lat. Bellatrix} & \\
\text{Kāla-purusha (कालपुरुष)} & \\
\end{align*}
The magnificent constellation of Kāla-purusha is a very beautiful assemblage of stars—mostly prominent—two of which are amongst the first 20 stars of heaven.

The Mandala is easily recognised by the three stars forming ‘Ishu Trikānda’ (ईषुत्रिकाण्ड) the three-knotted arrow of Mrīga-vyādha (मृगव्याध), the Deer-hunter (vide, p. 31 ante).

We have shown (vide, pp. 31-33, ante) that the head of Prajāpati-Mrīga-Orion forms the Nakshatra Mrīga-sirāḥ, the third Nakshatra of the modern Luni-solar Zodiac. Prajāpati felt a passion for Rohini (रोहिणी) the Dawn, who is the wife of Chandramāḥ (चन्द्रमाः), the Moon. Vide:

चन्द्रमाः: रोहिणी।

T. Ar. III. 9.

It follows therefore that the Prajāpati in question is a variant of the Moon.

Cf. The goodliest of men (Od. XI. 310), Orion is beloved by ἕσ (the Dawn) and slain by Artemis (the Lunar power). Vide, Od. V. 121 (R. Brown).

Orion has played the most important part in the legendary tales of the East as well as of the West. We have shown (vide, Introduction, Ex. III.) that in one of the Vedic narratives, the constellation represents the Mrīga-Mandala (मृगमण्डल) called Kāla-purusha Mandala (a name of doubtful origin). Now let us examine other tales connected with the constellation.

**APĀM-NAPĀT**

(अपाम-नपात्)

The celestial stream with one of its offshoots nearly surrounds the constellation. It is, therefore, called Apām-napāt (son of the waters). This offshoot is marked by a row of little stars arranged in a curve. That part of the Galaxy is also marked by a similar row of stars. Both the rows together form a bad capital Greek Omega (Ω). ‘On every side,’ says—the Rig Veda, ‘the bright Floods have encompassed the bright resplendent offspring of the Waters’—Prof. Griffith. Vide:

अपाम-नपात् परितत्त्वे: आयः।

Rv. II. 35, 3.
Note:—This stellar Omega resembles the peacock’s tail spread out.

About Apām-nāpāt, the Rig Veda further declares:—
Golden-in form is he, like gold to look on, his colour is like gold, the Son of Waters.
When he is seated fresh from golden birthplace, those who (bestow lustre) ‘present their gold,’ give food to feed him.

Prof. Griffith.

Vide:
हिरण्यस्वर्ण: स: हिरण्यस्वर्ण्यक्ष्यामस्वरापातु स: वृक्ष हिरण्यवर्ण: ।
हिरण्ययात्री परि योगे: निलयु हिरण्यद: (a) द्रमति बल्क्य भर्ते ।

Rv. II. 35. 10.

Note: हिते-दीर्घये यदू ततो हिरण्यय ।

“He is the lord of might among the mighty.”

Prof. Griffith.

Vide:
स: दद्धाम्य दशमुति: वर्तु ।

Rv. I. 95. 6.

“The never sullen waters, youthful maidens carefully deck-
ing wait on him (the Prince) youthful.”

Prof. Griffith.

Vide:
तम् असेरा: गुहतय: गुहानम् मस्थेन्यमाना:
परिपत्ति आप: ।

Rv. II. 35. 4.

Note:
युवानम् = युवराजम्। शति सावण: ।

He is tall like a mountain.
I make (the head of the mountain-like tall one) “his back” to shine.

Prof. Griffith.

Vide:
सम् खानु मार्गं भि ।

Rv. II. 35. 12.

(a) The Paurānic Yasodā (यसोदा)
He is very swift. ‘The rapid son of waters.’ Prof. Griffith.

Vide:

āpam-nāpāt baṣāudaḥ.

Rv. II. 35. 1.

Agni, the son of the Waters, is borne by swift horses.
Vide:

मन्—जुन: जुमाक: यस्य बहुन्ति।

Rv. I. 186. 5.

The Zend Avesta puts the whole matter into a nutshell and declares:—

“We sacrifice unto Apām-nāpāt, the swift-horsed, the tall, the shining lord, the lord of the females, we sacrifice unto the waters made by Mazda and holy.”

Avesta Sirozah, II. 7.

It is interesting to observe that (the constellation of) Apām-nāpāt (Gr. Aquosus) otherwise the Celestial fire, is taken as the Sun by the commentators of the Vedas.

Brown traces the name Orion to the Akkadian Ur-nana, “the Light of Heaven,” a poetical and a most natural title for the brightest of all the stellar groups. He further thinks that the name was given, because the constellation was taken as a stellar reduplication of the great Light of Heaven, the Sun’ (Maunder).

RUDRA (ऋद्र)

Ak., Sib-zianna As. Ri’ubutsame
(Shepherd of the life of heaven)

The constellation is also called Rudra (ऋद्र) literally ‘the crying one,’ i.e., the roaring Tempest God.

Cf. In the West, Orion was doleful. (αὐτῶν). Vide: R. Brown I. 142.

“Rudra excels all in glory (a) and is the oldest of the old men.”

(a) ‘Orion heads the whole orderly array of heaven.’

R. Brown. I. 256.
Vide:
शष्ट: जातस्य रूद्रः। श्रीया बुधि तत्स्तमः तवसा कब्रवाहो।

Rv. II. 33. 3.

Note—From this fact might have originated the name Kāla-purusha in India.
He was the Lord of heroes. Vide:
... जयद् बीराय ... ...

Rv. I. 114. 1.

Cf. 'The mighty strength of Orion.'
(R. Brown I. 156).

'He shines in splendour, like the Sun, refulgent as bright gold is he.'

Prof. Griffith.

Vide:
यः शुकः हस्य सुभवः हिरण्यम् वर कोचते।

Rv. I. 43. 5.

Of all the stars he is supremely brilliant. Vide:
शष्टः देवानाम् (a) वसु:॥

Rv. I. 43. 5.

Note.—Rudra (रूद्र), the stellar giant, presents to us a personification of Hari (हरि), the Sun.

... यः हरिः सः हरिः स्पृतः॥

Var. P.

Rudra is called 'The Celestial Boar'.
"Rudra is the heavenly boar."

"Him with the braided hair, we call with reverence down, the wild boar of the sky, the red, the dazzling shape."

Prof. Griffith.

Vide:
दिवः भराहम् भर्षम् कप्पिदिन्म् त्रेसम् रुपम्
नमसा नि हुवामहे।

Rv. I. 114. 5.

(a) As to, Deva = Star, vide:
देवः देवानां मर्यादिः ...

Av. XIII. 1. 40.
"It is the Celestial Boar which gives chase to its immediate neighbour, the Great Dog. Vide:

तमसूरस्य दृष्टि हि तव दर्दं तूकः।

Rv. VII. 55. 4

Cf. Tammuz-Adonis received his fatal wound when hunting the boar. Here we have, in original, the myth of the death of the Solar hunter stricken by the tusk of the Boar of Storm and Darkness (R. Brown).

"The tawny adorns himself with bright gold decorations."

Prof. Griffith.

Vide:

व्यायः गुणोमिति धिययेहि हिरयेहि।

Rv. II. 33. 9.

From the three stars in his head, Rudra is called the three-eyed. Vide:

अम्बकम् वणैम्हे।

Rv. VII. 59. 12.

Referring to the position of the star 16 Mrigasya (Φ Orionis) in his head, Rudra is called Susipra (शुमिप्रा - हुमान्), the high-cheeked. Vide:

कन्छ् शुमिप्रा।

Rv. II. 33. 5,

Alluding to the nebulous ring around the star 11 Mrigasya (λ Orionis) in the head of Orion, the Veda calls Rudra, Kapardi (कपर्दी), the man with the braided hair. Vide:

ख्याय तबसे कपर्दी।

Rv. I. 114. 1.

Alluding to the circle of little stars around the constellation, the Veda says:—

Worthy, thy (beautiful) ‘many hued’ and (dim) honoured necklace.

Prof. Griffith.
Vide:

अहृत् निष्कृष्य वजनम् विष्णुपम् ।

Rv. II. 33. 10.

As the constellation portends a great wind, Rudra is called the father of Maruts (मरुत्), the storms. Vide:

आ ते पिता मस्ताम् मुन्मनां एहुः ।

Rv. II. 33. 1.

Referring to the bow-shaped asterism Iklalā, lying close to Kāla-Purusha, the Veda says:

Rudra! firm is thy bow.

Prof. Griffith.

And probably referring to the sharp Meteor showers of November, called the Orionids, the Veda says:

‘Rudra! with swiftly-flying shafts,’

Prof. Griffith.

Vide:

हमा ख्यात स्थिरपन्नवे गिरि श्रीस्वस्य देवाय लघावने ।

Rv. VII. 46. 1.

Rudra is a houseless wanderer. Vide:

तवेषम् यम्म रुद्रम् यज्ञासाध्यं बदुम् कविम्
अवसे नि हुयामहे ।

Rv. I. 114. 4.

In the Constellation Rudra—Orion, we have the Nakshatra ‘Bāhu’ (बाहु), literally ‘the two arms.’ Vide, post.

VISVARUPA (विष्णुप)

The most glorious constellation of the sky is naturally named Visvarupa (विष्णुप), ‘the sum total of the world’s beauty’. And from the three stars 11, 16, 17 Mrigasya (α Φι Φα Orionis) marking his head, Apām-nāpāt derived one of his names Trisirāh (त्रिश्रिता: ), ‘one with three heads’.

The Heavenly priest Brihaspati (ब्रह्मस्ति) Jupiter, says the S. Bh., having been insulted by Indra, king of the Gods, vanished
from heaven. The absence of the Leader of the divine host from heaven emboldened the Asuras, who under the guidance of their priest Sukra (सूक्त्र) Venus, overpowered the Devas. The Gods headed by Indra, elected Visvarupa, son of Tvashtrā (त्वस्त्र) lit. the carpenter of the world, to the priestly office fallen vacant thereby. Visvarupa subdued the Asuras led by their priest Sukra. Indra afterwards suspected the new priest’s fidelity and cut off his head (vide: S. Bh. VI 7-9).

The whole of this long story is based on the Hymns 9 and 99, Book X of the Rig-Veda.

‘Indra struck the roaring demon (Visvarupa - Rudra), and to subdue the six-eyed and three-headed one (Trisirāh), lent his might to Trita who tore off the boar into pieces with his sharp-nailed finger.’ Vide:

स: हत दातिः चतुरवस्तुः पति: दत्त षड्क्रमः
विश्वायोऽधिय दमयत्।
अर्थ त्रित: नो बोजस्त्र द्वंदान: निष्पा वराहम्
भयः-अघया हृत।

Rv. X. 99. 6.

‘Indra, who raised a loud noise around the cattle of Visvarupa, son of Tvashtrā, cut down the demon’s head looking upward and full of valour and glory. And his three heads hang down (a). Vide:

भूरि हत: तन्द्र: वहन-ह-नजन्तम्म बोज: धव: बलि निलू
सत्वपि: मन्नवानम्।
त्वाग्रास्त्र चिति विषक्षस्त्र गोमासम्याबकाण:
शीष्म शीर्षां परा बर्ध।

Rv. X. 89.

Note:—Mark, how graphically the Rishi describes the head of Orion, inclined to the right.

Cf. Phaethon (the shining), son of Helios (Sun) and Clymene, was so presumptuous as to request his father to drive the chariot of the Sun across the heaven for one day. But he

(a) A complete story of Visvarupa-Trisirāh is given in the Sr. Bh. Vide: Sr. Bh.
being too weak to check the horses, they rushed out of their track. Thereupon Zeus killed him and hurled him down into the river Eridanus.

In the Mahābhārata, the Vedic Apāṃ-nāpā, Visvarupa, Trisirāh-Rudra, all reappear in the single character of Skanda.

In the Euphratean sphere, according to Prof. Sayce, Tam-muz (Ak. Duwu-zi) represented Orion. Tam-muz is identical with the Sun-Divinity Nin-gir-su (the Lord of the river bank). Tam-muz—Nin-gir-su received his fatal wound just as Phaethon perished in the Eridanus.


SKANDA (स्कन्द )

The Mandala further represents Skanda (स्कन्द ) alias Kārttikeya, the generasissimo of the celestial army.

The birth of Kumāra Skanda has been related in the Introduction (vide pp. 27-31, ante). The boy was named Kārttikeya (a) after the Krittikās, his foster mothers. We now resume the story given in the Mahābhārata.

"Being surrounded by masses of red clouds flashing for the lightning, the boy shone like the Sun rising in the midst of red clouds."


(a) Vide:

	तम् कुमारम् ततः जातम् स-स्त्राः स-सहस्रवणः
	चौर-सम्बन्धनाय इक्षिका: समयोजयः ।

Rām. I. 38. 23.

अपलयस्मृतः कार्तिकानां च कार्तिकेष्व: ततः स्वरूपः ।

PP. I. 6.

Cf. Maia (20 Tauri=16 Vrishatya), daughter of Atlas (Sk. अलास) and Pleione, was the eldest of the Pleiades and the most beautiful of the seven sisters. Arcas (Sk. Arkah, अरक:), the son of Zeus by Kallisto was given to her to be reared.

W. Smith.
The boy discharged his arrows at the white mountain (The Galaxy).

P. Roy's Mahā. III. 224. 33.

Maharshi Visvāmitra (The star Lubdhaka) performed his natal and other ceremonies.


The Mātrīgana (मात्रीगण), literally the mothers (of the Universe) (a), were sent to kill him. But when they approached the boy they took pity on him, and offered themselves to nurse and suckle him. They asked him to become their son and they said, 'Lo! the milk oozes from our breast' (originating the Milky Way).

P. Roy's Mahā. III. 225. 21-23. (b)

The Vedic God Agni (Pushan) came in the guise of a goat with his kids and dallied with him.

P. Roy's Mahā. III. 225. 24. (c)

Sakra (शक्र) i.e., Indra hurled his thunderbolt at Skanda. And there arose from Skanda's body a youth with a club in hand (d), who was named Visākhā (विषाखा).


Honoured by the Maharshis, he looked grand. The golden umbrella held (over his head) looked like a halo of blazing fire. That bright God, the conqueror of Tripura, himself fastened the celestial wreath of gold of Visva-Karma's manufacture round the child's neck.

P. Roy's Mahā. III. 228. 22-25.

That boy was appointed the generalissimo of the celestial army, and the red cock presented to him by Agni became his ensign, and he married Devasenā (देवसेना), the star Alcyone,

(a) They represent one of the phases of the Kritikās.
(b) Cf. Madler's theory about the Milky Way.
(c) In the Sk. Edition of the Mahābhārata in our possession the text for the last three lines does not occur. We therefore quote Vālmiki on the point.

(c) Agni here stands for Pushan, the presiding deity of Brahma Mandala.
(d) Orion of the Greeks has a club in hand.
(Mahā. III. 228. 32-47) lying at the central point of the Universe and representing the whole stellar system.

Then a fiery and powerful being came out of the body of Skanda. The great deity fell down to devour the children of men (a). Skanda-apasmāra is the name by which the planet is known to the best of the Brāhmīns (b).

P. Ray’s Mahā. III. 229. 24-25

The terrific star Sakuni is called Vinatā. The monster called Ḡutanā is the star Ḡutanā.


Suravi, said to be the mother of the bovine kind, and Saramā, the mother of the canine species, with others of that class, are the eighteen evil Heavenly bodies fond of meat and wine.

Mahā. III. 229. 33. 36.

They all followed him.

Skanda replied to Śvēhā, ‘Excellent lady! in this way Agni shall always live with thee!’

Mahā. III. 230. 6.

Then Brahmacā, the lord of creatures, said to the great general, ‘Do thou go and visit thy father Mahādeva, the conqueror of Tripūrā’.

Mahā. III. 230. 8.

‘Be it so’; so saying, the high-souled great soldier with fatherly love, honoured his father Mahādeva.


(a) It is the planet Aṅgaraka (Sk. Māra = Lat. Mars). This star (Mars), says Dr. Lacouperle, is named in Central Asia and Persia, Ker waan kush (the grave-digger of the caravans), because as long as the caravans observe its rising with Orion in the morning, robberies and death follow the stations. R. Brown.

Cf. The birth of Virabhadra (vide ante, pp. 61-62).

(b) Skanda-Kandson—Orion is therefore said to be the patron divinity of the planet Maṅgala—Mars. Vide:

स्कन्दराधिकृतम् भौमम् ख्कितितस्यभिति।

महायागतस्य।
The white mountain shone with blossoming trees of Santānaka and Karavira, as well as with celestial birds, when that great son of the Fire-God was associated as the leader of the celestial army.


Hara with his consort Pārvati, in a chariot shining with sunlike refulgence, repaired to the tree called Bhadra-bata (a).

Mahā. III. 230. 27.

With these words Mahēśwara received him (Skanda) in his embrace and then dismissed him.

Mahā. III. 230. 57.

The firmament with stars was in a blaze, and the whole universe in a state of utter confusion and darkness over-spread the whole world.


Hard-pressed by the Dānavas, the celestial troops turned their back.

Mahā. III. 230. 65.

Then Mahisha with the Dānavas struck terror into the hearts of the Gods.

Mahā. III. 230. 84.

The mighty general, O King! discharged a javelin; the missile cut off the head of Mahisha.

Mahā. III. 230. 94-95.

Skanda has thousand arms (b).

Mahā. III. 231. 13.

And he rides on a peacock.

Suvarna presented him a peacock.

Mahā. XIII. 86. 21.

Cf. “He (Kārttikeya) is represented as riding on a peacock, indicating thereby that he is the head and all the planets and stars are in his train.”

J. Bentley.

(a) Or the Akṣhayo-bata (अक्षयोभट). For further particulars, see Vīthi.

(b) Hence we have Vāna-rāja with thousand arms and King Kārttavirya with thousand arms. One was killed by Parasu-Rāma (Indra, the thunderer), and the other by Śrīkrishna (the Solar God, Indra).
Vide:

लोहितां ये महता संशोध: सहविचूला।
लोहितांगमुसंहतमाणि दृष्टः खं बिलतः। 3124116-
नन्दु: गिद्धन ब्लुजुल्गा बाणान् जमे यहोगी। 3124132
जातकम्बिकांतत्स्य निवा किंये चं चं महाकुमः। 3125113
कामिनी: भस्मु चैने तथा इति चक्र ता तः।
युज्य: तं ब्रह्मतिवर्ण पद्म विश्वददना: तु तः। 11

उत्तु: च एनं चं अश्वार्क पुष्य मध महावल।
भविषयस्व न: सर्वं प्रमा: स्तुत्वविक्र्या। 3125121-123
भरतः भस्मा वैषमयः ब्लाणावः वज्रमवः।
रम्यामाति शैलात्यं बालं कौञ्जनकेः: इव । 3125128

* * *

जूजयमाणं द्वारकस्य स्त्रा: पुरुषा: क्षयः। 3126114
जूजयमाणं द्वारकस्य सुभाष्टं पुरुषोऽपि । 3126115
वृणु: जन्म बिहारादृशं जात: बिशाखः तेन स: सम्बवः। 3126117

शतिव शुचुने तत्र पूज्यमान: महापिनि:।
तत्र तता काश्चनम्, छुय्यम् भिस्मामान्, म्यरोचत । 3126123
विशेष सूपसिद्धस्य पावकस्य अलमण्डलम्।
बिश्क्रमान्तः च ब्रह्म दिश्यमाला हिरनंदाय। 3126124
शाबद्ध निःपुरस्ते न स्वयं एव यश्निता। 3125125
त: भविष्यक: महता समन्ते: ईश्वरेण: सह:। 3125123
कुक्कुट्ट्या: ब्रह्मन्तः: दत्तः तथा: केनु: अलकुमुः। 3125132
प्रत्यं: स जमाह स्या पाणिं यथाविधि:। 3125147

tत: शरीरार्थ द्वारकस्य पुष्य: पावकमः।
मोक्षु: मन्ता: स: मर्यादामान निःशुप्पात महामुः। 3126124
स्वयं स: अभयमुः क्षमता: राजस्म: सम्बवः।
स्वयं स्वामिस्य शरीरेण भवत: यह: । 3126125
निवान तु महा रौढ़ा कथ्यते शकुनिमहः।

पुण्यानां राजस्योऽश्व: तं विचारतू नूलनामहः। 3126126
गवां माता तु या प्राप्त: कथ्यते सूरसिं: नुस। 3126132
सर्वा नाम या माता सुप्ना देवी जनायिन्यः। 3126133
हः हमु तु वहादेशः लोकः वे महा: मांसपुरुषः। 3126136
प्रां शरीर: त्याय साछः चछा वृद्धिः वर्तति। 3126136
ततो भगव महासेन प्रजापति: भवनाथविनः।
भस्मिन्ध महादेवं पितरं निःपुरातनः।। 3127128
The stellar warrior is double-phased as (1) Kumāra, the God of War and (2) Kumāri, the Goddess of War. The Mārkan-deya Purāṇa gives a fine graphic description of Kumāri.

‘I bow down to Kumāri encompassed by the Cock and the Peacock,’ Vide:

Mārkan-deya Purāṇa 5.11.12

Cf. The star 4 Mrigasya (γ Orionis) is called Bellatrix (the female warrior) in the West (a).

One who carefully observes the Constellation Orion, and takes note of the fact that in its vicinity shine the star Agni, the stellar cock (b), and the star Svāhā (svāhā) as well as

(a) As the divinity of the constellation appears to have combined both the male and female potentialities, it may well illustrate the androgynous concept of the Moon as Hara-Gauri (हरागौरी), which in modern times is interpreted as ‘half male—half female,’ in the Purāṇas, and that of Venus as Śrī and Sukra, the Goddess of Love and the God of war.

(b) In classical times Orion was popularly called ‘Cock’s foot.’ Vide, R. Brown 1.82.
Somadhārā (सोमधारा) the Galaxy, surnamed Putanā (पूतना) in the Purāṇas, and that the cluster of 400 little stars called the Mātri Mandala (मातृ मण्डल) i.e., the Pleiades including the stars Deva-Senā (देवसेना), Vinata (विनता) and the six wives of the Saptarshis (सप्तर्ष), blaze to its west, and that the stellar cow Suravi (सुरावी) represented by the asterism Rohini glitters to its N.-W., and also that the star Saramā (सरमा) Procyon sparkles to its west, and the star Lūdbhaka (लुभक) alias Visvāmitra (विश्वामित्र) burns to its S. E., and that it lies close to the Galaxy, which with one of its offshoots encompasses the constellation, cannot but be struck at the close and vivid resemblance, the surroundings of the Mandala bear to the elaborate description of the army of Kārttikeya, marching upon Mahishāsura, the Darkness, as given in the Great Mahābhārata.

One cannot pass over the broad hint given to him by Vālmiki about the stellar embodiment of Skanda, when the poet states that ‘those who have faith in that God shall hereafter enjoy his company.’ Vide:

भक्त: च य: काति के ये कावुत्स्य युवि मानवः।
शास्यमानु पुनर्प्रेते: च स्कन्द सानुल्ल्यताए ब्रजेत्॥

Rām. I. 37. 32.

And when he notes the fact that the five stars of Ilañā may well represent the umbrella, and the balloon-shaped row of stars round the constellation, the golden wreath of Kānta (कान्त) (lit. the beautiful) (a), and when he further notes the similarity of the death met with both by Phaethon-Orion and Visvarūpa-Kārttikeya (b), and that Kumāra rises with the seven mothers (the Galaxy) (vide, Rv. VIII. 96. 1), he cannot but conclude that the original of Kārttikeya is surely to be found in the sidereal heavens.

This is a curious instance of how easily legendary history may turn astronomical myths to its greatest advantage.

(a) Kānta (कान्त) is one of the names of Kārttikeya.

(b) The Poet narrates Skanda's death rather in mysterious language.
VĀNA-RĀJA

We may add that the constellation seems to represent also Vāna-Rāja (वाणराज) literally ‘the Arrow-king’ (a), of the Vishnu Purāna, Srimat Bhāgavat and Hari-vamsa. King Vāna, says the Vishnu Purāna, was a protege of the Deva Rudra (b). His daughter Ushā (उषा) had Chitra-lekha (चित्रलेखा) for her companion and Anirudha (अनिरूढ) for her beloved. Vāna-Rāja was destined not to succumb to his enemy, till his ensign, the Peacock-tail, and his vanguard, ‘the five fires,’ vanished away. Sri-Krishna, the Sun-God, cut off the ensign of King Vāna, and put out ‘the five fires’. ‘Trisirah,’ the three-headed general of Rudra ( Orion), bravely fought to protect Vāna. Vāna hurled the weapon Brahmasirah at Sri-Krishna. Both Rudra (रूढ्र) and Kārttikeya gave battle to Sri-Krishna, who threw his Sudarsana Chakra (सुदर्शन चक्र) at King Vāna. The Chakra cut off his thousand arms, and was about to kill him, when at the intercession of Rudra, Sri-Krishna pardoned him.

V.P. V. 32-33.

In this narrative:

Vāna-Rāja = the arrow of Deva Bhutavat of the Aitareya Brāhmaṇa (i.e., ‘the belt of Orion’, of the Western charts).

Rudra = Orion.

‘Peacock tail’ = the Ω shaped starry environment surrounding the Constellation Orion.

‘Five fires’ = the five stars of the Nakshatra Ilvalā.

‘Trisirah’ = the three-headed Orion.

Brahma-sirah (ब्रह्मसिर: ) = the head of Brahmā-Prajāpati = the asterism Mrigasirā.

‘Kārttikeya’ = Orion.

‘Sri-Krishna’ = the Presiding deity of the nocturnal Sun.

‘Sudarsana Chakra’ = the Solar Orb.

(a) Isha-Trikāṇḍa (इष्ट सन्काण्ड:) of the Ait. Br. otherwise Pāśupata Vāna (पशुपत वाण:) of the Puranas. seems to be impersonated in Vāna-Rāja.

(b) In fact the arrow was his own.
KÄRTTA-VIRYYA.

Another legendary hero Kärtta-viryya, who kept Rävana, the king of the demons, in confinement and who was killed by Parasu Räma in revenge for his father's death, seems to be represented by this constellation. In commemoration of all these legendary tales we call:

The star 1 (ß Orionis), Vänā-Räja,
The star 2 (α Orionis), Visākha (विसाख),
The star 3 (ε Orionis), Aniruddha,
The star 4 (γ Orionis), Kärttikeya,
and the nebulous star 18 (θ¹ Orionis), Skandāpasmāra (a).

VALI (वलि)

Lit. The strong, the mighty man.

Orion also represents Vali, once the king of heaven (b), whose liberality is proverbial.

That Vali is a heavenly luminary, appears pretty clear from various passages in the Mahābhārata. Vali says to Indre,

'Your three worlds I do light'. Vide:

तब-अपि च एवं तैलोक्यम् वियोतामि अहम् एव च ।

Mahā. XIV. 224. 83.

Vali abdicated his heavenly throne out of his own free-will and now clad in an asinine skin lived in the sky; vide:

तत् ददशी संविलिम खरस्फोत संवृतम् ।

* * * शून्यागारे इलात्मकम ॥

Mahā. XIV. 223. 12

(a) The planet An̄gāraka (अंगारक) is represented in the Sidereal Heavens by this Nebulous star.

(b) Like Skanda, Vali, the king of the heaven, is said to be adorned with the umbrella and necklace. Vide:

न ते पस्यामि भूक्षरम् न हृदन्याजनेन न च ।

भूक्षरस्य हृदन्यम् न पस्यामि, भुदरापित ॥

Mahā. XIV. 223. 23.
and in the midst of a cave, vide

वदा जिहिः: समुद्रः पूर्वेकृते बिले हितन्।

Mahā. XIV. 223. 17.

where he hoarded up all his treasures.

गुहायाम् निहितानि लघु मस्त रत्नानि पृष्ठिः।

Mahā. XIV. 223. 25.

Vali was adorned with a necklace. Vide:

मक्ष्यतम् चते माल्यः न पुरायिः अभुराविषिः।

Mahā. XIV. 223. 23.

The celestial pea-hen was with him.

वले का इम्स् अपकान्ता रोचमाना शिखिड़िनी
त्वचं: हिलता समकृतूरा दीपनामाना स्वतेन्द्र।

Mahā. XIV. 225. 3.

Note:—This pea-hen is a reduplication of the northern pea-hen (Ursa major).

Vali (वलि), lit 'the mighty,' King of the Asuras and son of Virochana (विरोचन) the planet Maṅgala—Mars, was a familiar figure in the West. The great Bocotian poetess Korinna (B.C. 500), conqueror of Pindar, hymned the mighty hero Orion 'as a noble and pious man'.

R. Brown. I. 144.

In the Kendalian of Sophokles of Colonus (B.C. 495), Orion appeared with the Dwarf on his shoulders (R. Brown). But the scientific explanation of all the myths about the Dwarf, Sun-God, and the mountain-like tall and mighty hero Vali-Orion is found in the sacred books of the East.

We have said that Svarga-dvāra (स्वर्गद्वार), the door of heaven (the Vernal Equinox), was between the stars Svāhā (ς Tauri) and Agni (β Tauri) about B.C. 3725.

Agni, the Fire-God ( hồi Orion) guarded the door. 'Agni!' says the Rig-Veda, 'throw open the door of heaven.' Vide:

वि अभ्यन्ताम् द्वारं देवीः।


And again, ‘the mountain-like tall Agni,’ says the Mahābhārata, ‘stood in the way of the Pāndavas, while ascending the heavens’. Vide:

शब्दिन्म ् तदरथुः तत्र स्थितम शैलम् ० ्व ्बधतः ।

मार्गम आवृत्तम लिखन्त्म सादातू पुष्किङ्गहम्

Manā. XVIII. 1. 35.

The Sun at the Winter Solstice cannot stretch his feet (rays) (a) to the North Polar region. This fact makes him a dwarf.

When the Dwarf, Sun-God, reached the Heaven’s door in his northerly course, he became powerful enough to give light to both the Poles of the Earth simultaneously; in other words, while at the Vernal Equinox, his left foot is stretched to the North Pole and his right foot to the South Pole of the Earth, while a third foot (?) on the head of Vali—Orion. This plain astronomical phenomenon gave rise to the famous story of the pious Vali’s making a free gift of the three worlds to the Dwarf Vishnu, the Solar God, who appeared at his gate as a beggar.

The Vedic Svarga-dvāra, the Vernal Krānī-pāta (क्रान्तिपात) or the Equinox of the astronomers, was surnamed Vali-dvāra (वलिद्वार) or Orion’s Gate.

The last mention of Vali-dvāra is found in connection with the liberation of Kali (कलि), the regent of Kali-yuga (कलियुग), the Iron Age, who in the disguise of a Mesha, had been tied in the abode of Vali, at his gate and was let loose by him on the advent of Kali.

Note—The stellar Mesha was to the South of the Celestial Equator, or in other words, in the Southern Celestial Hemisphere, called the Asurabhāga (Vali’s abode) about B.C. 1700.

(a) पादा: रमिश्त्रि तर्यते । इत्यमः ।
In the Kāla-purusha Mandala we have two Nakshatras Mriga-sirā and Ārdā. The old Nakshatra Bāhu was also situated in this constellation.

**THE OLD NAKSHATRA BĀHU**

* (प्राचीन बाहु नक्षत्र)

Lit.
The two arms
Euph.
Kakkab Lugal
(The asterism of the mighty man)

Presiding deity: Rudra Mrīḍha.
Ilu Meruduku
(The God Merodukh)

The Nakshatra consisted of the stars 2 and 4 Mrigasya (α, γ Orionis) forming the two shoulder-joints of Rudra—Orion.

 Vide: T. Br. I. 5.1.

If Bāhu be taken as the third asterism of the Lunar Zodiac instead of Mriga-sirha, then the asterism Itvalā must consist of the stars 7, 5, 14, 3, 9 Mithunasya (η, μ, ν, γ, κ Geminorum).

The modern Ārdā has been formed by detaching the star 4 Mrigasya from the asterism Bāhu. The asterism (Lugal), says Brown, will be α Orionis alone or with some other portion of Orion.

**THE NAKSHATRA MRIGASIRĀ**

* (मुर्गशिरा नक्षत्र)

Literally, The head of the Deer (Prajāpati)
Patron divinity: Soma (सोम), The Moon
Black. Yv.: Mriga-sirha (मृगाशिर)
Euph.
Kakkab Mas-lab-ba-tur-tur
(The asterism of the little twins)

Ilu-Nin-sur
(The Goddess lady of rising (Venus))

The Nakshatra forms the leg of a cat (α); and it consists of the stars 11, 16 and 17 Mrigasya (γ, φ and φ¹ Orionis). We call the star 11 Mrigasya, Risyā (रिस्य); 16 Mrigasya, Rudra (रूद्र) and 17 Mrigasya, Trisirā (त्रिशिरा).

*(a)* Vide:

मृकिкуणक पदांखो विभो ब्योम पथमिलिते त्रितार्के।

Kālidāsa.
The month Mārga-sirsha derives its name from the full moon near this Nakshatra.

In the Vedic age, it had only a single star. Vide:

सोमाय स्वाहा मृग्सीघ्याय स्वाहा ।

T. Br. III. 1.5.

NAKSHATRA ĀRDRĀ

(आद्र नक्षत्र)

Lit. The sweat-making one

Presiding divinity: Rudra, the roaring Tempest-god also called Mridha

Euph. Kakkab-Lugai ḍho Maruduki
(The asterism of the mighty man)

From the time when the solstitial colure moved backwards from the Nakshatra Ārdrā Lubdhaka (आद्रलुब्धक), the sweat-making star Lubdhaka (1 Sunah = a Canis Majoris), the star Visākha alone or with some other stars of Kālapurusha assumed the title of the Nakshatra Ārdrā.

The Yoga-tārā of Ārdrā, says the Siddhānta, is the most prominent star of the group. Vide:

यथा प्रत्येकायाम् स्वतः स्याद् योगातराः ॥

S. S. VIII. 19.

The Siddhānta puts the star at Lat. 9° S. and Long. II. 7°-20° and Messrs. Colebrooke and others identify the star with α Orionis.

Modern Hindu astronomers would have the Nakshatra consist of a single star by way of analogy with the old Ārdrā. Vide:

प्राकृति उस्म्त-एक-तारकामयम् ।

Kālidāsa.

Cf.

ख्राय स्वाहा, अदृष्ट व्याहा ।

T. Br. III. 1. 3.
Of the minor stars in this constellation, the stars 8, and 18 Mrigasya in the Nebula M. 42, as well as the row of little stars arranged in the shape of a Capital Greek Omega (Ω) surrounding the constellation, deserve special notice.

(1) Mayura-Tunda

Lit. The neck and head of the Peacock
Ar. Saiph (The sword) Eng. The Sword
Lat. Ensis Orionis (The sword of Orion)

The stellar Prince Skanda rides on the Peacock, whose neck is marked by a short row of stars below the three-knotted arrow, they being the stars 19, 20, 8, 18 and 21 Mrigasya headed by the star 13 Mrigasya (ν, δ, ϵ, θ1, c and σ Orionis). The tail of the Peacock is represented by the famous Omega (Ω)-shaped stars around the constellation Kāla-purusha, lying in the Galaxy and its offshoot, and probably forming "the bands of Orion" (Job XXXVII). (a).

(2). Guhā (गुहा)

Lit. The cave

The soft offshoot of the Heavenly Stream surrounding the western borders of the constellation Kāla-purusha, has again to act a very solid part. When the galaxy is looked upon as the Vedic God Parvata (पर्वत), the Holy Hill of Heaven, its offshoot then forms with it the famous Guhā (गुहा) or the cave of Vala, in which he imprisons the floods, and which Indra breaks open. Vide:

तवम् बलस्य गोमति: शप शव: अद्धिन्त: विलाम्।
Rv. I. 11. 5.

(a) Cf. The "bands of Orion" in the famous passage "Or loose the bands of Orion."
Vide also,

वील विल ब्रह्मज्ञानी: गुहा: विल हन्द्र विन्मा:।
ब्रह्मद: उतिया: अनु।।

Rv. I. 6. 5.

खपाम विलम ब्रह्मित्तम यद्र ब्राह्मोद्र वृष्ण

र्घवनान्तु र्घञ्चत्वार।।
Rv. I. 32. 11।

Note: Later on, Vala had to act the part of Vati (वलि), who was imprisoned in this cavern. Vide:

यद्र वलिए: समुद्द्रो पूजाकोले विले लिहिए।।

Mahā. XIV. 223. 17.

After this Guhā, Skanda is called Guha.

The famous Guhā also represents Kanyā-pura, the capital of King Vāna, where he imprisoned Aniruddha (अनिरुद्ध), the Sun-God (S.S. XII. 14), who had been carried off to his lovesick daughter Ushā (उषा), the Morning, by her friend Chitra-lekhā (चित्रलेखा) the planet Venus.

The imprisonment of Auriuddha led to the war between the King and Sri-Krishna grandfather of Aniruddha. See Supra. p. 112. Vide:

V. P. v. 30; Harivamsa 175-184.

Cf. Orion was carried off by Eos (Aurora), who had fallen in love with him. But as this was displeasing to the Gods, Artemis killed him with an arrow (W. Smith).

(3). PANIS (पणि)

The little stars forming the ‘bands of Orion’, may also well represent the Panis (पणि), the agents of Vritra, guarding the clouds imprisoned in the cave. Vide:

अयः निषिद्धः सरसं ब्रह्मद्वन्दः: ... ...।
रश्चन्ति तत्पण्य: येव सुनोष्य: ... ...।।

Rv. X. 108. 7.
3. SASA MANDALA [31]

(शश मण्डल)

Lu. The Hare

Mahā. Kapoti (Lit. The She-dove) Gr. Logos (Hare)
Lat. Lepus (Hare) Eng. The Hare

To the west of Mriga-vyādha are situated two small constellations Kapoti and Kapota (कपोत).

In the Western charts, the Constellation Kapota is named Lepus (the Hare), and Kapoti, Columba (the Dove).

The stars 6, 5, 1, 2, 3, 9, 8 and 7 of Sasa (γ, ζ, α, β, ε, and another, δ and γ Lepi) form the she-dove. The stellar configuration in the Mandala is exactly the same as in Kapota. Kapota consists (chiefly) of eight stars situated in a manner similar to those of Kapoti.

The stellar Dove is hymned in Rv. X. 155. and Av. VI. 26-29.

The Mahābhārata evidently in explanation of the Vedic hymns, relates the story of the translation of the hunter with the Dove and its mate to heaven. The story runs thus:

A Vyādha (व्याद) or a fowler bagged a she-dove and put it in a cage and went on in pursuit of his game, but could get nothing more. Night overtook him and he took shelter under a tree, shivering with cold and hunger. Out of hospitable feelings, the she-dove asked her consort sitting in their nest on the tree, to make fire for their guest. The fowler warmed himself and wanted some food. As nothing else was available, the she-dove asked her consort to burn himself in the fire, who did so, and the she-dove followed her lord, not liking to survive him. The Vyādha followed them repenting his past life. All the three were rewarded with a place in heaven. The Vyādha shines like Indra among the stars, and the Doves shine in heaven.

We give above only the substance of chapters 146-49 of Bk. XIII of the Mahābhārata, and to those chapters we would
refer the reader, merely quoting the following passages from them.

तत: कुतपतिः: वै सः पञ्ची प्रहसन् ३३।
तव मस्तिः तत: परिस्मय प्रविबेश महामति: । २४६
पतितस्य संप्रदीर्घम प्रविबेश हुताशनम् । २४६१६
तत: स्वर्ण गत: पञ्ची विमानवरम आशित:।
कम्मेणा पूजित: तव रेमे स: सहारय्या। २४६१२
अन्यायाय वप्वत्व अवकाल्य, लुष्पक: तदा । २४६१२
तत: स्वर्गस्य आत्मानम् अपवर्त विगतम्बर:। २४६१२
वज्रग्रंथपश्चावागमस् मथे आज्ञत्वम् दद्धवत्।
एवं बलु कपोत: च कपोती च पतितता।
लुष्पक्यन सह स्वर्ण गत: पुष्पयेन कम्मेण । २४६१२
विराजते हि सा जिन्द्रम क्षेत्रीय दिवि स्थिता। २४६१५

Mahā. XIII. 149.

There cannot exist any manner of doubt as to the identity of the Vyādha and the Kapota, with the constellations Mrigavyādha (the Indian hunter, Canis Major) and Kapota (Columba or the Dove). And as the three live together in heaven, the Kapoti being by the side of the Kapota and looking at its mate, we can safely locate her in the small and pale constellation lying immediately to the north of the Kapota and contiguous to and west of the Indian Hunter, the configuration of its stars being extremely suggestive.

But probability is not proof. Whether this constellation is the exact locality, which was in the minds of the ancient Aitihāsikas (ऐतिहासिक) lit. story-tellers, we should not venture to assert positively. The Hare (Lepus) may lie hidden in the bulky mass of Indian Mythology. But till it turns up, Kapoti may be allowed to occupy the place.

4. KAPOTA MANDALA

(कपोत मण्डल)

Lit. The Dove

Lat. Columba or Columba Noachi (The Dove or Noah's Dove)

The stars 5, 6, 1, 3, 7, 8, 4, 2 Kapotasya (σ, μ, α, ε, another, and another, γ, β, Columbae) form the celestial Kapota, whose
translation to heaven is mentioned in the Mahābhārata, as referred to in the foregoing Mandala.

Royer, in the West, invented the constellation in A.D. 1679.

5. MRIGA-VYĀDHA MANDALA

(Mugavāpaḥ Manḍala)

Lit. The Dear-hunter or the hunter

Vedic. Svina (श्वन्), the Dog

Euph. Lik-vudé (=The dog of the Sun)

Gr. Cynos (Κυων) (=The Dog)

Sem. Kāhab-Samsi (The Dog of the Sun)

Lat. Canis Major (The Great dog)

Eng. The Great Dog

The Mandala lies to the S.E. of Mriga (Orion). We read in A. Br. III. 33:

“The Rishya (रश्य), lit., ‘the Deer’ (into which Prajñāpati, father of Rudra transformed himself) who, struck by the arrow, jumped up to heaven,” says the A. Br., “is popularly called the constellation of Mrīga; the well-known constellation of Mrīga-vyādha is the Hunter (a), the familiar asterism of Rohini is the Rohit (She-Deer) and the famous Ishu-Trikāṇḍa is the three-knotted arrow of this story.” Vide:

ब्रिह्द उद्धृः उद प्रपतत्तम एतं गुणः हति आच्छन्ति।

यः उ एव मृगवाप्यः सः उ एव सः। या रोहिण्डः सा रोहिन्यः। यः एव दशुः त्रिकाण्डः। सः एव दशुः त्रिकाण्डः।

A. Br. III. 33.

(a) The great hunter repeated and wept for having killed his father Prajñāpati with an arrow, and was called Rudra (रूद्र), the weeper.

Vide:

सं किल पितरं प्रजननम् मुषा विष्णूतम् अनुशोचनं अस्ति। तदृशः दशुः।

Nir., X. 1.5.
We have also seen that the constellation represents the dog of Indra (इन्द्र).

‘Thou dog of Indra!’ says the Rig-Veda, ‘at Indra’s singers barkest thou?’. Vide:

स्तोतृतुः इन्द्रस्य रायसि किं... ... ... !

Rv. VII. 55. 3.

We have further seen that the Constellation Svan was also called Arjuna (अर्जुन) lit., the white one. Vide:

यथौ अर्जुन! सारणे! दत्त: विश्रज बल्हसे!

Rv. VII. 55. 2.

As Indra is a variant of the Sun, it is not at all surprising that the Mandala would be called Kakkab Lik-udu and Kalab-Samsi in the West.

Now, Bhutanath-Pasupati of the A. Br. (Bhutanath Pasupati of the Puranas) is the Mriga-vyadh—Svan of the Vedas. As both Pasupati-Vyadh and Svan occupy the same Mandala, by a very natural process Pasupati-Vyadh became, in course of time, the presiding deity of the dog Svan. It is for this reason that we find that Bhairava (बैरव), literally ‘the vociferator,’ a variant of the hunter (Vyadh), has a dog for his horse and is called Svasta (स्वस्त) i.e., one who rides on a dog.

But a dog alone would not make a huntsman’s equipment complete. To piece out the picture of a hunter, nature must provide Pasupati-Kirata with a sringa (ष्रंग) or a hunting horn, and it is satisfactory to find that the five principal stars of the constellation viz., 1, 2, 3, 4 and 5 Swah (α, ε, δ, β and γ Canis Majoris) form a buffalo’s horn or rather a hunting bugle. This is a rather singular circumstance.

We have said that both the Vedic Visva-rupa (Gr. Phæthon) and Rudra are called the Boar in the Vedas (vide, ante, p. 101). Now we find that the Boar is close to Pasupati-Kirata, the Indian Hunter (Mriga-vyadh). The two heavenly bodies may bring back to the recollection of the readers of Bhārahi (A.D. 78), the whole plot of his famous poem the Kiratha-Arjuniya.
THE STAR LUBDHAKA

(लुब्धक तारा)

I Sunah = a Canis Majoris

Rv. Tishya (तिश्य) (The burning or the bright one)

| Zend. Tistrya |
| Gr. Seirios (scorcher) |
| Lat. Sirius |
| Eg. Sopdit |
| Bab. Kak-ban (the bow-star) |

Rv. Suan (श्वन)

| Euph. Ka-lik-ka (the tongue of the dog) |
| Sem. Lesan-kalbe (the tongue of the dog) |
| Lat. Canis and Canicula |
| Eng. The Dog-star |

Rv. Kostā (कोष्ठ); lit. the Jackal

Pur. Sivā (सिवा); lit. the She-Jackal

Rām. Viscāmitra (विष्णुमित्र)

The volume of Lubdhaka is supposed to be 500 times larger than that of the Solar orb. Lubdhaka is known to be about 26 times, and its faint companion about 9 times heavier than the Sun. It is 625,000 times more distant from the Earth than the Sun, and its actual velocity is 32 miles per hour.

In the Vedas the star is said to be of Pisanga (पिसंग), reddish-yellow colour. Vide:

यत् ब्रज्जुन ! सारमेव ! दतः पिसंग यन्त्रसे।

Rv. VII. 55.2.

But at present the star is one of the intensely white stars in the heavens. The redness of Sirius, says Seneca (B.C. 67), is so strong as to exceed that of Mars (Maṅgala); and Claudius Ptolemy (A.D. 150) says, it was the same colour as Cor. Scorprii (Pārjīṭa) (R. Brown II. 124). These statements of colour make the identity of Lubdhaka and Sirius complete in all respects.
The S. Siddhânta gives the Lat. and Long. of the star; viz. Lat. 40°S and Long. 20°. Colebrooke identifies the star with Sirius.

We have shown (vide, ante p. 36) that Lubdhaka, the brightest star of heaven, is described as the tooth of the heavenly Svan both in India and in Greece. The star is the tongue of the great dog in Western Asia.

Lubdhaka is also called Tishlya (तिष्या), the ‘burning’ or the ‘bright one’, and is said to be an archer (a).

We invoke to our gathering place, says the Rig-Veda, the archers, Krisānu (Brāhaspati), Tishlya (b) and Rudra (रूद्र) strong amid all the Rudras (Prof. Griffith). Vide:

क्रिषानुस अस्त्रुत तिष्यास सप्तस्ये आस्त्रयस रूद्रस रूद्रिण्यम हतामहे।।

Rv. X. 64. 8.

The Star-king is called Tistrya and the first star in the Avesta.

(a) Vide: Rv. X. 64. 3; V. 54. 13.

Tishlya, says Sāyana, is a star (तिष्यास नक्षत्रम च). Tishlya, as an archer, may be connected with the Bab. Kaka-ban (the bow-star). A glance at that part of heaven, shows that the Ishu-Tri-Kânda, the three-knotted arrow, must have been shot by the Vedic Hunter at the He-deer and the She-deer from the point, the star Lubdhaka occupies.

(b) The Nakshatra which is nearest to the Summer Solstice becomes Ārdrâ (आर्द्र), literally the sweat-making or the Sudorific one. And when the Sun is just on the point of the Ecliptic, Hindu holidays of Ambu-vâchô (अम्बूवाचि) lit. the rain-indicator, end. Hindus have to observe the Ambu-vâchi by fasting for three days. It is curious to find that Brahmarrsi Vasishtha’s famous fast for three days is connected with the Heavenly Dog. Vide:

वसिष्ठ: तृप्तित: अष्ट्रायिन निरात्र-अलबियोजन:।
यत् अम्बूण दिति सास्त्राचमृददरो च जनाप च।।

Rv. VII. 55. 2. notes

On the authority of the lexicographer Halâyudha, Sir Raja R. Deva in his famous Sk. Lexicon puts Ketu-Graha as a synonym of Ārdrâ-Lubdhaka.

We leave the judicious reader to make his choice between Ketu Graha, the Descending Node, and the star Lubdhaka.
Vide:

We sacrifice unto Tistrya

* * * *

We sacrifice unto the first star

Tir. Yast. VI.

Tistrya, in the form of a horse, jumps into the sea of Vouroka [ -Sk. Varuna-Kasa (वरुण-कस) - the celestial water, the Milky Way], and waters overflow from the Heavenly sea.

On the Iranian side Haptoiringa (Sk. Saptarshis) is the leader of the stars in the north. Vanant (Sk. Mulâ) is the leader of the stars in the South (Bund. II. 7). But Tistrya is the leader of the stars in general (Bund. II. 5). On the Indian side the star is also called Visvamitra (विस्वामित्र). According to the Mahâbhârata and the Râmâyana, Visvamitra (the star Lubdha) is the creator of the southern stars.

“Mad with anger,

He created a second set of the Saptarshis in the south and another host of stars there.”

Vide:

सुजन्द दश्यात्राय सस्मान अपरान दु: । 
नद्यज-चंद्रम अपरम अस्कन्त कोपमुक्षिते: II ।

Râm, I. 60. 21.

Vide also:

प्रतिश्रयुक्तां नद्याणि चकार य: ।

Mahâ. I. 11 34.

Cf. Of the Heavenly bodies, Angra-Mainyu, says the Avestâ, created the planets and Ahuramuzda created the stars.

For further particulars, vide, Vithi VI Trisamku Mandala.

The star Lubdha is connected by play of words (a) with Koshtâ (कोशता), the jackal. Alluding to the fact of Lubdha (Sirius) following up the Boar (Orion) in his rise on the Eastern horizon in the autumn and winter, the Rig-Veda declares in a pun:

(a) Lubdha means both the hunter and the jackal.
The fox steals up to the approaching lion, the jackal drives the wild boar from the brushwood. Prof. Griffith.

Vide:

स्वसे सियासः प्रक्षोभसः बातसः कोशो बराहम् निः बात्र क्ष्यातः ।

Rv. X. 28.4.

Svan-Siva (=the Constellation Canis Major) assumes the guise of Sīvā (सिवा=the feminine form of Sīva (सिवा), the she-jackal, in the Purāṇas; and as such she becomes the guide of Vasu-Deva carrying the new-born Sun-God Śrīkrīṣṇā in his arms to the vernal equinox near the Kṛttikās (a), to begin the new year. Compare:

‘Ye (i.e., Visva-Devas) raised the Sun to heaven by ever-fastening Law, and spread broad Earth, the mother, out on every side;’ Prof. Griffith.

Vide:

दे श्रते युधिष्ठिर्य आरोहयत् दिबि अपययन् पृथिबीम् मातरम् दिवि ।

Rv. X. 62. 3.

THE OLD NAHKSHATRA ĀRDRA-LUBDHAKA

(प्राचीन आर्द्रा-लुब्धक नक्षत्र)

Lit. The star Lubdhaka forming the Nakshatra Ādrā

Euph. Kakab Kak-Si-Sa | Asar-rab-sami (station great
(The Star, the leader) | of the Heavens)

Before A.D. 1150 the star Lubdhaka seems to have formed the old Nakshatra Ādrā (आद्रा), lit. 'the sweat-making one', of the Hindu Lunar Zodiac.

Because,—

(1) The star bears the double name Ādrā-Lubdhaka. The commonsense view of the meaning of the double name is plain enough.

(2) As the Nakshatra Ādrā is mentioned after Ivalā, the 5th Nakshatra, the archaic Ādrā must have followed Ivalā, and no star other than Lubdhaka can fill the position better, and possibly answer the name Ādrā-Lubdhaka.

(a) The vernal equinox was near the Kṛttikās (Pleiades), about 2225 B.C.
Vide:

हरवाल: सोदबैवता: रोद्राद्विसुराह्तम्।

G. P. I.

(3) No other theory can account for the existence of the large gap of about 26° (in the Lunar Zodiac of the Brāhmaṇa period which has come down to us), between the 6th asterism Viśākha-Ādrā and the 7th asterism Punarvasu, than what we suggest; viz., that the abandonment of the Nakshatra Ilvalā and the transfer of the title of Ādrā from Lubdhaka to Viśākha, were the real causes of the gap.

The scorching heat felt by the Vedic Rishis at the cosmical rising of the star is proverbial; and in modern times it seems to have been connected with Am u-vāchi (अमुवाचि), lit. 'the rain-indicating days'—three in number. The Dog's heliacal setting, cosmical rising, and heliacal rising gave to the Romans their Dies Caniculares or the Dog-days.

'About the identity of the asterism Kak-si-va, a great deal of controversy has taken place in Europe. Prof. Sayce, M. Halevy and Geo. Bertin identify the star with Sirius. Dr. Oppert, at one time thought it was the Little Bear, while Jensen identifies it with Antares. Prof. Hommel regards it as Procyon.

Of course, such a title as the Leader naturally reminds us of Sirius, brightest and chief of the fixed stars.'

(R. Brown)

6. ARNAVAYĀNA MANDALA [363]

(अर्णवयान मण्डल)

Lit. The ship

Rv. Nau (नौ) \{ Euph. Maganda-anna (the ship of the canal of heaven) \}
(The ship) \{ Gr. Argo (the bright) \}
{ Lat. Argo-navis (the bright ship) \}
{ Eng. Argo \}

The Sun is the original Nau (नौ), the ship (a), always plying in the Upper Deep, and the Mandala is a reduplication

(a) मध्य दिश: तरणिष्ठ भागमानम्।

Av. XIII. 2. 36.
of it. This Mandala is the largest of all the constellations. The stars 9, 20, 12, 7 and 24 of Nau (= π, σ, γ, λ, ψ Argus) form the keel of the stellar ship; the stars 8 and 11 Navah (= ζ, θ Argus) represent the main-mast, and the star 16 Navah (ξ Argus), and others represent the sail. The star 1 Navah is either the rudder or the anchor of the ship and is called Māna (मान), literally, pole or weight. Māna (Canopus) is attached to the ship by a stellar chain.

The heavenly ship is spoken of twice in the Atharva Veda.

4. There moved through heaven a golden ship, a ship with cordage wrought of gold.

There the Gods won the Kushtha plant, the blossom of eternal life.

5. They sailed in pathway paved with gold, the oars they plied were wrought of gold.

All golden were the ship where-in they carried Kushtha down to Earth.

Prof. Griffith.

Vide:

हिरण्ययो नी: शच(्) तु हिरण्यवल्लम्न दिवि।
तत्र अन्नस्य पुष्य देवा: कुष्म प्रवृत्तत। ॥ ४
हिरण्ययो: पव्यान: जासु: अरित्राणि हिरण्यया।
नाबो हिरण्ययो: जासु: यामि: नि: अवहन्त्। ॥ ५

Av. V. 4. 4-5.

Again

7. There moved through heaven a golden ship, a ship with cordage wrought of gold.

There is Amrita incarnate, and thence was Kushtha born.

8. Where is the sinking of the ship and where is the summit of the Hill of Snow,

There is Amrita incarnate and thence was Kushtha born.

Prof. Griffith.
Vide:

रिज्यो नौः अचरतू हिरण्यवानना दिवि।
तत्र अमुस्त्र्य चतुष्यां ततः कुष्ठः अन्जायत॥

यत्र नावमसंख्य यत्र निर्मितः शिरः।
तत्र अमुस्त्र्य चतुष्यां ततः कुष्ठः अन्जायत॥

Av. XIX. 39-7-8.

‘Proctor’, say R. Brown, ‘connected Argo with Noah’s ark, and it is not improbable that it represented the huge ship of the Euphratean Deluge story’. But this ship cannot well represent Manu’s ship of the Hindu Deluge story (a), towed by the primeval fish.

Manu’s (मन्यु) ship was towed by the primeval Fish. The Great Fish in the Constellation Mina, still drags the ship-like Nebula M. 31, on which Manu (the Sun) with all the animals might be borne, from the dark southern Deep to beyond the point of the Vernal Equinox.

For further particulars, Vide Mina Rāsi.

This bright Nau (Argo Navis) stands in the midst of the Milky Way, and it seems to be referred to in the following passage of the Rig-Veda.

The King of Rivers (Soma-pavamāna, the Milky Way) wears a sheet of cloth and flows over the bright Ship of Heaven (Argo Navis—the bright ship). Vide:

राजा सिन्धुनामू भविष्टि बासः।
नावस्त्र नावम् शा ब्रह्मतू रघिष्ठाम॥

Rv. IX. 89.2.

Note: Śāyana derives the word Rajisthā (रजिष्ठ) from the word Riju (रजु), i.e., straight; but we prefer to derive the word as used here, from the word Rejah (रेजः), i.e. brightness. Cf. Srawissthā (श्रविष्ठ) from Srawah (श्रवः) and Bhuyissthā (भूयिष्ठ) from Bhuyah (भूयः), &c.

No constellation either in the North or in the South can produce a more brilliant record of supplying the polar circle with so many and so excellent Pole-stars, than Nau (Argo) Mandala.

(a) Vide Tait. Sam. VII. 1. 5.; T. Br. I. 1. 35; Sat. Br. XIV. 1. 2;
Av. XIX. 39.8.
The stars 22, 17, 6, 25, 5, 12, 20, 18 and 1 Nāvah (ω, ν, λ, κ, δ, γ, σ, ν and a Argus) with some others cover about a third of the Southern Polar circle. Of these, the stars 22, 17, 6, 5 and 18 Nāvah are excellent Pole-stars, while the rest are fairly near the celestial South Polar circle. The brightest star of this Polar circle is Agastya, which was near this Pole about B.C. 12,000.

This explains why our venerable bard of Vithoor with truly scientific instinct, makes his Visvāmitra, the Indian Angra Mainyu, propose to the discomfited Devas, the following term as a sine-qua-non of compromise.

‘Let all the Nakshatras and my own Pole-stars, created by me remain for ever’. Vide:

नक्षाणि च सन्तोषति मायानि भुजानि भयम् ॥ २५ ॥
यावत् लोकाः परिम्याते तिन्तु पतानि सर्वेऽः ॥
मद्विलानि ... ... ... ... ॥ २६ ॥

Rām. I. 60.

THE STAR AGASTYA

(अगस्त्य तारा)

The star 1 Nāvah = a Argus

Rv. Agastya (अगस्त्य)
(The presser of the Ocean)  
Gr. Merigeios (The ground star)
Ar. Subail (The ground star)
Lat. Terresiris (The ground star)

Rv. Agastya (अगस्त्य)
(The presser of the Mount)
Māna (मान) (The rudder or weight)
Mānya (मान्य) (Polaris)
Māndārya (मान्दार्य) (Polaris)
Gr. Kanobos (The rudder)
Eg. Kārbena
Lat. Canopus

The star Agastya is also called Māna, Mānya, and Māndārya (मान, मान्य, मान्दार्य). The Suryya-Siddhānta places the star at Lat,
80°S and Long. III 0°, and Colebrooke did identify it with the star Canopus. Agastya is the seventh in magnitude and the second in splendour of the starry host; it being inferior only to Lubdhaka—Sirius in brilliancy. The star twinkles the most rapidly. It appears to flicker like a candle in the wind and flashes out in rapid succession. So the star does not look as a round body like other stars, but as a narrow radiant piece of silver ending off in two points. Hence the flower Vaka bears the name of Agastya.

About B.C. 12,000 Agastya was the South Pole-star. Agastya, as a Pole-star, is a variant of the Solar God Vishnu. Vide:

A. P. 206. I.

And as such, he is the husband of Lopamudra (लोपमुद्रा), i.e., one who loses her phase, i.e., the Moon (vide, Rv. I. 179).

The two Pole-stars, both the northern and the southern, says the S. Siddhanta, are situated directly over the two projected ends (=Poles) of Mount Meru which passes through the centre of the Earth, and forms its axis. Vide:

S.S. XII. 34.

S. S. XII. 43.

The two Pole-stars may, therefore, be said to press down the two Poles of the Earth's axis.

As the star Canpous was the South Pole-star about B.C. 12,000, it was called Agastya (अगस्त्य) (a), a title appropriate enough for its place.

Kālidāsa alludes to the Polar throne of Agastya in—

Raghu. XVI. 44.

(a) Aga (अग) means a Mount, a tree or the sea; and the root word Sti (स्ति) means 'to press down.'
From its relation to Māna (मान) the axis, the star was also called Mānya (मान्य), the child of Māna (a), and Māndārya (मान्दार्य), the child of Māndāra (b), both titles appropriate enough to its place then occupied. Vide:

एष: व: स्थोम: मस्त: श्यम् गी: मान्दार्योऽस्य मान्यस्य कारो:।

Rv. I. 165. 15.

For the same reason Agastya was figuratively called Māna (मान), the axis. Vide:

Rv. VII. 33.13.

We have it then that the word Agastya originally meant the Pole-star. There were always two Agastyas or Pole-stars (vide, p. 132). And we believe, the pair held, so to speak, the north and the south respectively. The earliest known north Pole-star Abhijit (अभिजित) (Vega) seems to have been first called Agastya (the Pole-star) (B.C. 12,500).

'So the north was his original home.' Vide:

स्त्रम् आश्रयम् सौम्यम् उपासगाम।

B. P.

But when Canopus, the first Pole-star in the south, was found out (B.C 12,000), it also claimed its natural title Agastya. And the star received it. In the allegorical language of the Purāṇas, Agastya therefore had to go to the south. Vide:

इति एवं उक्तवा महजनम् जगाम।

दिशम् सं: यामीम् सहसा अन्तरीजम्।

B P.

(a) The word Māna means a rod, a weight or measure, and probably in a secondary sense the axis. Mānya, therefore, means one measured by Māna (the axis). Vide:

मानेः सभित: यस्मातः तस्मातः मान्य: इति उच्यन्ते।

Br. Sam.

(b) Māndara (मन्दर) is a peak of Mt. Meru (the axis of the Earth). Mount Māndara is said to have been carried by the Devas and the Asuras to the Upper Ocean for the purpose of churning it; in other words, to ascertain the two pole-stars and to fix the positions (by latitudes and longitudes) of heavenly bodies, the axis of the Earth was projected to the heavens by the astronomers of the North (Deva-bhāga) and of the South (Asura-bhāga).
Abhijit (Vega) (a), the earliest known Pole-star, consequently lost its original title and had to be called by another name. The new name was Vasishtha (वशिष्ठ) or 'one pre-eminently immovable or lustrous'.

It may therefore be rightly said that Agastya and Vasishtha were something like twin-brothers.

It is therefore declared in the Vedas:

'Born at the sacrifice, urged by adoration, both with a common flow bedewed the pitcher.

Then from the midst thereof, there rose up Māna, and thence, they say, was born the sage Vasishtha.'

Prof. Griffith.

Vide:

ततं: इ मान: वज्ञ हयान मत्यातु: ततं: जातम् वशिष्ठच भाहु: वसिष्ठः ।

Rv VII. 33. 13.

The reader is doubtless aware that the Pole-star is that prominent star which from time to time is nearest to the Pole of the Celestial Equator; and that after a certain season it has to move on. So when Agastya had to lose the southern Polar throne, he returned to the north again to occupy the North Polar throne.

But it is difficult to say what was the star meant. The star 11 or 15 Takshakasya may well represent the throne in question.

Agastya is said to have drunk the whole Samudra (समुद्र), i.e. the celestial ocean. Vide:

समुद्रः शोकितः वेन स: मे अगस्तः प्रसीदत् ।

N. P. (b)

This is merely the Paurānic way of telling a simple astronomical fact, namely, that on the heliacal rising of the star

(a) The star is no longer the Pole-star. It is now the chief star of the modern Nakshatra Abhijit (Lyra).

(b) Compare what an Egyptian poet says of Karbana:

'Which pours his light in a glaze of fire,
When he disperses the morning dews.'
Agastya, the rainy season ceases (a). The cult of Agastya takes place in Bengal for three days before the Sun enters Kanyā Rāsi, i.e., for the last three days of the solar month of Bhādra (माघ), (August-September). Vide :

ब्राह्मण गान्तोरे कल्याणे शेषभूते: तिरीणं दिने:।
वर्षारू दृष्टुः ब्रह्मस्थाय गौडेश्निवासिनः॥

G. P. 1. 119 1.

About the heliacal rising of Agastya, we culled the following from J. Bentley's Hindu Astronomy.

I. Parāśara says:

The star Agastya rises heliacally, when the Sun enters Hastā (हस्ता), and disappears when the Sun is in Rohini.

Note: The Sun enters Hastā about the 11th day of the Solar month of Āsvina (आषिं) ; and the Sun is in Rohini about the 11th day of Jaishtha. For four months, therefore, Agastya remains invisible.

II. The B.V.P. and Bh. P. state that the heliacal rising of Agastya takes place when the Sun is 3° short of Virgo, i.e., when the Sun's longitude is IV. 27°.

Note: The time indicated is about the 28th day of the solar month of Bhādra (माघ).

III. Varāha tells us that Agastya rose heliacally at Ujjain, when he would be in 23° of Simha.

Note: The time indicated is about the 23rd day of Bhādra (माघ).

At the time of Pandit Raghunandana, the heliacal rising of Agastya took place about the 17th day of Bhādra (माघ). Vide, Sir Raja R. Deva.

(a) Agastya is one of our season-stars. Or, its heliacal setting the rainy season comes in, and on its heliacal rising it ceases, or in other words, the Upper Deep gets dry. This fact gave rise to the popular belief about Agastya's drinking off the Upper Deep. Hence his other name Samudra-Soshake (समुद्र-शोषक), i.e., the Drinker of the ocean.

Cf. "We know the nature of thy mind, Verily thou wilt give us naught." Prof. Griffith.

Vide:

विष मि ते यस्मन: अस्मम्यं हतु न दित्सति॥

Rv. I. 170-2
Agastya is one of those mythic personages who are found in the ancient traditions of many a nation. One of his peculiar functions was to keep the Ecliptic clear for the Sun to travel unmolested. Thus when the Vindhya Parvatas (विंध्यपर्वत), i.e., the clouds of the mid-region (a) rose too high to allow the Sun to travel freely, Agastya (Canopus) put them down, his presence (heliacal rising in September) being sufficient for the purpose.

Cf. The peculiar office of the asterism Vanant (Nakshatra Mulâ), says the Mino-Khired, is to keep the passes and gate of mount Alburz round which the Sun, the Moon and the stars revolve, and to preventPAIRIS and DAEvAS from cutting off and breaking the road of the Sun. Vide, Mino-Khiredd XL. 9:12.

Note:—Zend. Daivas = Hindu Asuras.

KAPILA TĀRĀ
(कपिल तारा)
2. Nāvah = $\eta$ Argus

The star $2$ Nāvah is a star of the first magnitude and is a variable star. It varies in magnitude from 1.0 to 7.0 in a period of 67 years. In April 1838, the star was in the declining state of its light, but bright enough to be compared with Rohit. About March 1843 a new outburst took place, the star surpassed Agastya in brilliance and almost rivalled Lubdhaka. It is now on its way towards another maximum which may be expected in the course of the next ten years to come.

It is a star of Kapila (कपिल) or reddish yellow colour, subject to sudden outbursts of lustre. The star lies nearly at the southern end of the western branch of the heavenly Gaṅgā (the Milky Way), which is said to have been allowed to come down from heaven at the joint prayer of Prince Bhagiratha and Maharshi Kapila, to save from eternal perdition, the souls of the former’s ancestors burnt to ashes by the fire that flashed all of a sudden from the latter’s angry eyes.

Rām. 1. 41.

(a) Parvata (पर्वत) is one of the names of the Cloud. Vide, Nir. I.10.
Kapila is said to have attained a place in heaven and to shine there like a lamp-light, which burns only at intervals. Vide:

सम्पेद मण्डलम पुष्यम सबितः शशिन: चथा।
दीपज्योतिः खल्लेण परमातमनि चुक्ववान्॥

P.P. V. 18.

The Sun is the original Kapila. Vide:

drśānam ākāsakapilam ... ॥

Rv. X. 27. 16.

For he is of Kapila colour.

वसन्ते कपिलः सूर्यः ...ः कौम्भः।

And the Sun (Vishnu) was reduplicated in this star of the South. Vide:

drusū: kapilam tva vaṣṭrād evam satālām॥

Rām. l. 40. 25.

For all these reasons, we find that 2 Nāvah (η Argus) = Kapila (a).

After Kapila, the western branch of the Ākāśa-Gangā is called Kapila-dhārā (कपिलधारा) literally, 'the stream of Kapila'.

7. CHITRA-PATU MANDALA

(वितारपतु मण्डल)
Lat. Pictor

This constellation was invented by La-Caille in A.D. 1752. We have translated the constellation name.

8. ABHRA MANDALA

(अभ्र मण्डल)
Lat. Nebecula Major

This constellation was invented by Royer in A.D. 1679. We have translated the constellation name.

9. CHATVĀLA MANDALA

(छत्वाल मण्डल)
Lat. Mensa

This constellation was invented by Flamsteed, the first Royal Astronomer of England, in A.D. 1725. We have translated the constellation name.

(a) The star Kapila is ‘Mārīcha’ of the Atlas of Hindu Astronomy.
VITHI IV

The fourth vithi has six constellations:

1. Vana-mârjâra Mandala (वनमार्जारमण्डल)
2. Karkata Mandala (कर्कतमण्डल) (13)
3. Suni Mandala (सूनिमण्डल) (2)
4. Eka-sringi Mandala (एकास्रिंगमण्डल)
5. Krikalâsa Mandala (क्रिकलासमण्डल)
6. Patatri-mina Mandala (पतत्रिमिनमण्डल)

1. VANA-MÂRJÂRA-MANDALA [46]

(वनमार्जारमण्डल)

Lat. Lynx

This constellation was invented by Hevelius in 1690. A.D. We have translated the Western name of the constellation.

2. KARKATA RÂSI

(कर्कट राशि)

Karkata is the fourth division of the Solar Zodiac. It lies east of the Mithuna Râsi and extends 30° in length. It comprises parts of the Mithuna Mandala, Karkata Mandala and Hrada-sarpa Mandala. And it consists of the last pâda (पद) or quarter of the Nakshatra (space) Punarvasu and the whole of the Nakshatras Pushyâ and Asleshâ.

KARKATA MANDALA [62]

(कर्कट मण्डल)

Ak. Nagar Asurra    Gr. Karkinios
Ph. Sertan           Lat. Cancer
Sem. Nam Garu        Eng. The crab
Chin. (the Hare)     Hindu Astrology. Kulira (कुलीर)

Karkata is the smallest and the least conspicuous of all the Mandalas of the Zodiac.

Of the thirteen naked-eye stars of this Mandala, the stars 2, 3, and 4 Karkataya (α, δ, γ Cancri) form the asterism Tishya (तिष्य).
Besides these stars, there is the round-shaped Nebula M. 44. It is a very remarkable Tārā-stavaka (तारास्तवक) lit. star-cluster visible to the naked eye. We call it Madhu-chakra (मधुचक्र). This Nebula forms the trunk or body of the Crab, and the stars 3 and 4 Karkataśya (δ and γ Cancri) form its two forelegs. The stellar crab stands facing the East.

Of the unfomed stars, the star 5 Karkataśya (ζ Cancri) called Kaikeyi (कैकेयी), is a triple star and a wonderful binary system (a).

NAKSHATRA TISHYA

(तिश्य नक्षत्र)

Sk. Pushya (पुष्य) (b)

Euph. Kakab Gu-sir-kes-da

(=Asterism of the yoke of the enclosure)

Ak. Mastabba—Tur-tur (The Little Twins)

Presiding deity : Brihaspati (ब्रह्मपति)

Jupiter, the Bow-star

The asterism consists of the stars 2, 3, and 4 of Karkata (–α, δ, and γ Cancri) and is in the shape of an arrow. The S. Siddhānta puts the yogatārā at Lat. 0° and Long. III. 16°, and at the middle of the arrow (c); Messrs. Colebrooke and others identify the star with the star 3 Karkataśya [=δ Cancri, called (Lat.) Asellus Australis, the Southern Ass]. In the Vedic age the asterism had only a single star. That star was very likely the star 3 Karkataśya, because the head-star must be supposed to have remained unchanged. Vide:

श्रीमत्याय तान्त्रिक तिश्य तान्त्रिक

T. Br. III. 1. 3.

The star 4 Karkataśya (–γ Cancri) called Asellus Borealis, the Northern Ass lies to the N. W. of the Yogatārā and it marks the point of the arrow. The star 2 Karkataśya (–α Cancri) lies to the S. E. of the Yogatārā and it marks the wing of the arrow.

(a) The asterism Tishya, surnamed Pushyā impersonates Kaikeyi in Valmiki’s Rāmāyaṇa; but we have transferred the name to 5 Karkataśya.

(b) The name Pushyā is connected with the annual festival of the Pushyaratha (पुष्यरथ), lit. the ceremonial car, held at the time when the Moon is in the Nakshatra Tishya alias Pushyā.

(c) श्रीमत्याय मथ्याय। S. S. VIII. 18.
THE STAR LOPĀSA

(लोपास तारा)

Lit. The Fox

Ak. Lulla (the Fox)

The Vedic name of 2 Karkatasa is Lopāsa, the Fox. Referring to its position in heaven in front of Simha, the Lion, the Veda states in a riddle:

"The fox steals up to the approaching Lion."

Prof. Griffith.

Vide:

लोपास: सिंहप्रत्य चालकस्मृतम् ....... II

Rv. X. 28. 4.

THE TWIN STARS RĀSABHĀU

(रासभो) (a)

Lat. The Twin Asses

Rv. Rāsabhau (रासभो)

{Ak. Mastabba Tur-rur (The little twins)
Gr. Onoi (The twin asses)
Lat. Aselli (The twin asses)
Eng. The twin asses

The stars 3 and 4 Karkatasa (δ and γ Cancri) are called in Latin Asellus Australis and Asellus Borealis, the southern and the northern asses. They lie very close to the stars 1 and 2 Mithunasa called Asvinau (Dioskouroi) (β and α Geminorum), who had the Rāsabhau (रासभो) for drawing their Ratha (रथ), chariot.

Astronomically, Asvinau Punarvasu (= the stars 1 and 2 Mithunasa = the stars Vishnu and Soma); Rāsabhau = Mastabba Tur-rur = Onoi = Aselli = 3 and 4 Karkatasa (δ and γ Cancri); and Rati (रति), lit. the car Madhu-chakra Praesepe; the two

(a) In the Rig-Veda, Rāsabha (singular) is used. Vide:

युज्ञास्य रासभम् रथे ...... I

Rv. VIII. 74. 7.

But the Nirukta understands as Rāsabhau (रासभो) (dual). Vide:

रासभो बसियताहि।

Nir. N. I. 15. 4.
stars 3 and 4 Karkatasya drawing, dragging or pushing the car, being called Pushya (पुष्य), lit. the supports of Pushya ratha (पुष्य रथ), the ceremonial car.

MĀTRIKĀ MADHU-CHAKRA

(वातुका मधुचक्र)
Lit. the Bee-hive

Vedic. Rathā (रथ)
(the Car)  |  Gr. Phatne (The Manger)
          |  Lat. Praesepe (The Bee-hive)
          |  Eng. the Bee-hive

To the east of the bow-shaped Nakshatra Punarvasu, and at a distance of about 12 feet from it lies the Tārā-stāvaka (तारास्तावक), the star-cluster Madhu-chakra. It is in the shape of a full moon (a), with a nine-inch diameter. It is a collection of very small stars, so thickly crowded that their dim lights mingle together. Even the strongest eye-sight cannot single out any star out of them. It is therefore generally described as a mass of 'star dust'. It looks like a piece of cloud of reddish colour. This nebula lies S. E. of the star 1 Mithunasya (β Geminorum) and N. E. of the star 1 of Suni (α Canis minoris). It is to be noted that in Southern India Madhu-chakra is identified with the Nakshatra Pushyā.

The nebula is called Phatne in Greek, Praesepe in Latin and the Bee-hive in English.

The first telescope, turned upon the Tārāstāvaka, revealed to Galileo its real nature and he counted 30 stars within its borders.

We know that when the sun enters the Nebula, we have the copious rains of Srāvana (श्रावण), or July-August. The Rathā (रथ) or car of the Arvinau, represented by Madhu-chakra, is said in the Vedas to be drawn by a couple of asses (b). The car is described

(a) श्रागोमतानासत्यरमेनभवतापुष्यान्डेनयातम् ।
Rv. VII. 72. 1.

(b) रासमीभववाहो । हस्ति निरुख् ।
as "looking like a piece of autumnal cloud dropping honey as it moves." Vide:

प्र वातु राष्टन कुष्ठकः न निघटत पूर्वीः ह्रस्व चरति मण्डलकितवः इत्यादि।

Rv. I. 181. 6.

We have shown that the twins Castor and Pollux are the Asvinau of the Vedas, and that the stars 3 and 4 Karkatasya are their two asses; and it follows as a matter of course that the nebula M. 44 giving the downpour in the month of Srāvana, is their Ratha (रथ) or car dropping nectar.

The nectar or honey is said to be supplied to the Bees by the Asvins, the masters of the celestial Bee-hive. Vide:

महुर्विषयं मन्त्रं वन्तु सरस्वत्वः...॥

Rv. I. 112. 21.

Thus in an astronomical aspect we get Pūṣya-ratha (पूष्यरथ) the ceremonial car of the Asvins, complete in every respect.

The origin of the Hindu-annual festival Rātha-yātra (रथयात्रा), is evidently connected with the commencement of the tropical year called Varsha (वर्ष) (a) computed from the ascension of the Sun-God to the high temple of the Summer Solstice.

The equation, Pushya-ratha—the Crab, might have something to do with the Crab’s being popularly called Dasa-ratha (दशरथ) in most parts of India (b).

When the Summer Solstice was in Karkata for 2250 years (from B. C. 1850 to A. D. 400), the Sun-God appearing in the Sign Crab or Karkata on the advent of a new tropical year, might fairly be called ‘the son of the stellar Crab’ (Dasaratha).

From the reddish colour of the Nebula M. 44 the stellar Crab, i.e. the fourth Sign or Rāsi is said to be of Pātala (पाताल) or reddish colour. Vide:

क्रम सिद्ध हरित पातल पाण्डव विचित्रवः।

Jyotishhatattva.

Note—Mātrikā Madhu-chakra or rather the Crab itself, may well represent Mantharā (मन्थरा) (lit. ‘the slow-moving one’) of Vālmiki.

(a) देव अन्येऽं वर्ण साहित्यम।

V. P. II. 8. 65,

(b) Cf. The popular derivation of the word Dasaratha (दसरथ) the crab, is connected with its ten legs.
3. SUNI MANDALA [25]  
(शुनी मण्डल)
Lat. Canis Minor  
Eng. The Little Dog

In the Hipparch-Ptolemy star-list the star Procyon (α Canis Minoris) was raised to the rank of a constellation, which had two stars assigned to it, viz., α and β Canis Minoris. We have identified Suni with Canis Minor and Saramā with Procyon (vide Introduction, Ex. V.).

STAR SARAMĀ (सरमा)
Euph. Palura or Pallika (= the crossing-of-the water-dog)  
Ph. Keleb Maim (= the dog of the waters)  
Gr. Prokyon (one who rises before the star Kyon)  
Mair (= the sparkler)  
Lat. Mera (the Dog of Icarius)  
Procyon (one who rises before the star Cyon)  
Eng. The Little Dog

It is a star of the first magnitude and of yellowish colour.

We have said that the star Saramā = Procyon (vide Introduction Ex. V) and the star Pratyusha = Gomeisa (β Canis Minoris).

As the two Vāsus, the two stars represent the twins Asvin/aśu as Pratyusha and Pravāsha, the Day and Night.

It is highly instructive to read the remarkable observation made by Prof. Max Müller about Saramā: “Saramā in the Veda is spoken of as a dog—a swift dog running along the sky—that was supposed to find out the cows that had been carried off by the Panis and hid in a cave. What is said of Ushās is said of Saramā.”

THE OLD NAKSHATRA BĀHU  
(प्रापिन बाहु नक्षत्र)
Lit. The Asterism, ‘The Two Arms’  
Presiding Deity: Rudra (रुद्र), The Tempest God
Euph. Kakkab Pal-ur-a  
(The asterism ‘the crossing-of-the-water-dog’)

The two arms of Rudra, we have said (vide: p. 116), formed the old Nakshatra Bāhu (बाहु).
It would therefore seem that the stars 4 and 2 Mrigasya representing the two arm-pits of Rudra, constituted the Nakshatra Bāhū; and that when the northern Solstice moved on to this division of the Lunar Zodiac, the Nakshatra was styled Ardā; and the star 4 Mrigasya had to be detached from the asterism. This hypothesis at first sight seems to clear up matters; but unfortunately for this identification there are certain grave difficulties in its way.

In the list of Nakshatras, given in the T. Br., Bāhū is placed between the two Nakshatras Invakāś and Punarvasū. Vide:

क्रिष्णः कुष्ठिका। प्रजापते: रोहिणी। सोमस्य इत्यका: विततालि। स्त्रस्य बाहू। अदित्येण पुनस्भवेऽ॥

T. Br. I, 5. 1.

Now the question is which two stars form the asterism Bāhū (बाहू), lit. the two arms presided over by Rudra.

Our reply is a tentative one and we have to speak here subject to correction.

In the locality indicated, i.e., between the Nakshatras (asterisms) Invakāś and Punarvasū, we have only two stars Lubdhaka and Saramā suitable for the purpose of forming a lunar asterism, and no others. We have additional reasons to believe that Lubdhaka was surely one of the two stars, because the star still bears the name Ardā-Lubdhaka (आर्द्र लुब्धक ), lit. the rainy Lubdhaka.

Saramā also, we have shown, has all the characteristics of Ardā (vide, Introduction Ex. V).

We know that owing to the precession of the Equinoxes, the northern Solstice moved backward from Saramā to Lubdhaka between A. D. 25 and A. D. 1525.

As to their presiding deity, the rainy Ardā-Lubdhaka, and the ‘Weeping’ Saramā-Procyon could have no god better suited for them than the Weeping God Rudra (रुद्र) iti. the crying one. Vide:

क्रिष्णः क्रिष्णमेवः रोहिणी: प्रजापते। सप्त: स्यात।

इत्यका: सोमस्य इत्यवस्यः क्रिष्णमेवः उदाहरण॥

A. P. I. 59. 2.
Vide also,

नात्राय स्वाहा । अद्रोध्राय स्वाहा ।

T. Br. III. 1. 5.

Note—It is pretty clear from the foregoing, that at one time Lubdhaka alone formed the Nakshatra Ārdra. It is further to be noted that the abandonment of the Nakshatras (asterisms Invakās and Viśū accounts for the unusually large gap between the modern Nakshatra Viśākha-Ārdra and the famous Nakshatra Punarvasu.

4. EKA-SRIMGI MANDALA [46]

(एकश्रुृंग्णि मण्डल)

Lat. Monoceros

This constellation was invented by Hevelius in 1690 A.D. We have translated the constellation name.

5. KRIKALASA MANDALA [36]

(क्रिकलास मण्डल)

Lat. Chamaeleon. Eng. Chameleon

This constellation was invented by Bayer in 1604 A.D. It is a lizard-like reptile whose colour changes with its tempers. We have translated it into Krikalāsa.

6. PATATRI MINA MANDALA [28]

(पतत्री मीन मण्डल)

Lat. Piscis Volans Eng. The flying fish

This constellation was invented by Bayer in 1604 A.D. We have translated the constellation name.
The fifth Vithi comprises the following constellations:
1. Simha-sāvaka Mandala (सिंहशावक मण्डल)
2. Simha Mandala (सिंह मण्डल)  (35)
3. Hrada-sarpa Mandala (ह्रदासपरा मण्डल)  (27)
4. Shasthāṃsā Mandala (शष्ठांश मण्डल)
5. Vāyu-yantra Mandala (वायुयान्त्र मण्डल)

1. SIMHA-SĀVAKA MANDALA [32]
   (सिंहशावक मण्डल)
   Lat. Leo Minor  Eng. Lesser Lion
   This constellation was invented by Hevelius in 1690 A.D.
   There are no important stars in this constellation. We have translated the constellation name.

2. SIMHĀ RĀSI
   (सिंह राशि)
   Presiding Divinity : Surya (सूर्य) The Sun
   Simha Rāsi is the fifth division of the Solar Zodiac. It lies to the east of Karkata Rāsi. Strictly speaking, this Rāsi comprises parts of Simha, Shasthāṃsā and Kanyā Mandalas.
   The Rāsi consists of the Nakshatras (space) - Maghā, P. Phalguni and the first pāda or quarter of the Nakshatra U. Phalguni.

SIMHA MANDALA [94]
   (सिंह मण्डल)

<table>
<thead>
<tr>
<th>Ak. Urgula (the Big dog)</th>
<th>Gr. Leon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph. Layish</td>
<td>Lat. Leo</td>
</tr>
<tr>
<td>Sem. Aru</td>
<td>Per. Shir</td>
</tr>
<tr>
<td>Euph. Lik-gula</td>
<td>Eng. the Lion</td>
</tr>
<tr>
<td>Heb. Aryeh</td>
<td>Hindu astrology : Leya (लेय) (a)</td>
</tr>
</tbody>
</table>

The Rig-Veda has a well-known reference to the Stellar Lion in a fine riddle.

(a) कियतावृति जितमु मुलार लेय यूक कौप्याल्पयः।

Varāhamihira.
"The fox steals up to the approaching lion."

Prof. Griffith.

Rv. X. 28. 4.

Note:—The fox is the star 2 Karkatasya, which seems to run in front of the Lion. The star is Lulla (the Fox) of the Euphratean Star-list (a).

Leo is a very fine constellation. The brilliant stars of this constellation are mostly of pāndu (पाण्डु) i.e., yellowish-white or bluish-white colour (b), and its presiding deity the autumn Sun is also of pāndu or yellowish-white colour (c).

The Sign is therefore said to be of pāndu colour. Vide:

बायमसितिे हृदित पातल पाण्डु विचित्रा: ||

Jyotishatattva.

The constellation Leo has three Nakshatras (asterisms) in it; viz., Maghā (मघा), Purvā-Phalguni (पूर्व फल्गुनि), and Uttara-Phalguni (उत्तर फल्गुनि). But technically, the Rāsi Simha comprises only the first two of them, U. Phalgui falling in the Rāsi Kanyā.

The asterism Maghā forms the fore-part of the Lion, and P. Phalguni its middle part; while the star 2 Simhasya (= β Leonis), the Yogatāra of U. Phalguni, lies in the tuft of its tail.

In its feminine character, the constellation is called Simhkā (सिंहका), and as such she is the mother of Rāhu (राहु), who is called Saimhikeya (सैभिके) lit. the child of the Lioness, after his mother. Rāhu is the legendary serpent which is supposed to cause the eclipse of the Sun and the Moon. Rāhu seems to be the constellation Hṛdya-Sarpa (हृदसर्प), Hydra which lies below the Lioness.

The stars 1, 2, 3, 4 and 6 Simhasya (α, β, γ δ and θ Leonis), the five conspicuous stars of the constellation, forming the body of the Lion which is of Pāndu colour, and of which the presiding deity is also of the same colour, very likely suggested the idea

(a) R. Brown. 1. 360.
(b) Vide : Sk. Lexicon by Sir Raja R. Deva.
(c) पाण्डुः सर्दिच प्रमुः || Kurma Purāṇa XVIII.
of the five Pândavas (पञ्जपाण्डव) of the legendary history of the Mahabhárata.

THE NAKSHATRA MAGHĀ

(मघा नक्षत्र)

Rv. Aghāh (अघा)

Bab. Kakkab-Gis-bar (Wood of light) ; and
Kakkab. Gub-bar-as-tu-e-kur (=Fire-flame ruler of the temple of the host of Earth)

Ar. Al-Guba Eng. The Sickle

The Nakshatra consists of the stars 1, 3, 5, 8, and 12 Simhasya (=α, γ, η, ε, δ, Leonis) which form the figure of a plough (a), the ploughshare being just on the Ecliptic. The Star 1 Simhasya which represents the ploughshare, is the Yogaśād of the asterism Maghā. The S. Siddhānta puts the Yogaśād at Lat. 0° and Long IV. 9°; and Messrs. Colebrooke and others identify it with the star 1 Simhasya (=α Leonis, the star Regulus). In the Vedic age the Nakshatra was called Aghāh (अघा), and consisted of more than two stars (b). Vide:

भा सुह गावः बुज्जिंशोः परिद्वसते।

Rv. X. 85. 13.

Now, भस्मः = मघा = मघा नक्षत्रम्। Sāyana.

Therefore, Aghāṣu = in the Nakshatra Maghā of many stars.

The presiding deities of the Nakshatra are Pitarah (पिताः) i.e., the Fathers, otherwise, the well-known Saptarṣis (सप्तर्षि) or

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(a) लाक्ष्यलाक्तिति पञ्जतास्ये। Kālidāsa.

(b) The reader will observe that, in the Vedas, no express mention is found about the number of stars included in any one of the Nakshatras. But we can have an idea of the number of stars in a particular Nakshatra, from the forms, singular, dual or plural, as the case may be, in which its name is used by the Vedic Rishis. We have seen that the singular forms, Rohini (रोहिनी) and Tishyah (टिश्या), the dual forms Asva-yują (अस्वयूज), Vāhu (वाहु) and Punarāsu (पुनरासु), and the plural forms Kṛitikā (कृतिका), Invakāḥ (इन्वाकः), Asteshāḥ (अस्तेशः), and Maghāḥ (मघा) occur in chapter 5, Book 1 of the T. Br. These forms clearly indicate the number of stars in each of the Nakshatras concerned.
NAKSHATRA MAGHA

‘the seven sages’ in the constellation Saptarshi. (a) These Pitris have, in their turn, Yamarāja (यमराज), the heavenly Judge for their chief (b).

The Nakshatra Maghā is therefore closely connected with Yama, the Divine king of the pious dead and the patron divinity of the North Pole-star (α Draconis in B.C. 3000). And this connection led to its yogatārā being called Yama-rāja-putra (यमराजपुत्र) i.e. the son of Yama-rāja (c).

Cf. The presiding deities of the Euphratean Kakkab Cub-bara (α Leonis) are Ilu sin and Ilu Nergal [—The God, the Moon, and the God, the Great Hero (Death-God)] (d).

The name of the month of Māgha (माघ) is derived from the full moon at or near this Nakshatra Maghā. At the advent of the Kaliyuga (e) (कलियुग), on the day of the full moon at Maghā (माघ), there was the famous concourse of three lunar days (Tithis), three Nakshatras and three planetary fights in one day, known as the ‘Kurukṣêtra-yoga’ (कुरुक्षेत्र योग) (f), lit. ‘the concourse in the High Field’.

(a) Vide :

ते मरीचि-आदयः समस्तेऽते पितरः स्मृतः ।

बराहपुराणम् ।

(b) पितृन समशेषप्राप्त बूः :

.... ।...

Av. XI. 6. 11.

मममारः पितृवतः :

.... ।...

.... ।.. हमन: यमराजः यमः ।

Amar-Simha.

(c) Astronomically, the connection between the Pole-star 7 Takshakasya (α. Draconis) and the star 1 Sinhasya, is a very simple one; because the Pole-star occupied the highest point of the line called Rishi-rekhā and the star a point below it.

(d) R. Brown II. 73 and 81.

(e) माघे च शौर्यस्यायम् वै घोरं कलियुगम स्मृतम् ।

Br. P.

(f) कुरुक्षेत्र योगः = एकस्मिन् सावनदिने तिथिक्रय-नचन्त्रस्य-योगत्रयाणां च श्रधः । इति स्मृति । Vide : Sir. Raja. R. Deva.
The root word Magha, means to adorn, or to play with dice. Magha is also one of the names of the Kunda (कुन्द) flower. We are at present unable to explain with certainty the derivation of the name of this Nakshatra.

From Maghā, the Planet Sukra (शुक्र) Venus (male), the son of Bhrigu, received one of its names Maghābhū (मघाभु), lit. the child of Maghā, while Śrī (श्री), i.e., Venus (female) is said to be born of Bhrigu (ब्रह्म) and his consort Khyāti (ख्याति).

Vide:

देवी भाताविष्ठातारी मुँगोः: ख्याति: अदेवतः।
श्रम्यं च देवदेवस्य पतनी नारायणस्य या।

V. P. I. 8. 16.

The androgynous character of Sukra (Venus), fully appears in one of its names Lakshmi-Sahaja (लक्ष्मी-सहज) i.e., ‘one born along with Lakshmi’ alias Śrī. As the morning star it is Sukra, (Lucifer=Satan) (a) the leader of the Asura party, and as the evening star it is Śrī or Rati, the Goddess of Love. In the ruins of Kanarak in Orissa, there is a statue of the planet in the female form.

Cf. In the cuneiform inscriptions of Western Asia, Istar-Venus is described as a ‘female at Sun-set’ and a ‘male at Sunrise’. R. Brown II. 159.

On the authority of the astronomical Rishi Garga, Varāha the well-known Indian Astronomer states that the Munis (मुनि),

(a) The planet Sukra (शुक्र) Venus, was known to the Vedic Rishis as Uṣanā (उषना). The name Sukra is not found in the Rig-Veda. We read (Rv. I. 121. 12.; VI. 20. 11) that Uṣanā is the especial friend and favourite of Indra. Indra even goes so far as to identify himself with him (Rv. IV. 26. 1). He is never connected by the Vedic Rishis with the Asura-party. It is only the Paurānic poets who place him at their head.

Cf. ‘How art thou fallen from Heaven, Lucifer, son of the morning?’ Isaiah XIV. 12.

Note: “Gregory the great”, says Kitto, “understands this passage of Isaiah in reference to the fall of Satan, in consequence of which the name (Lucifer) has been applied to Satan.”
i.e., Rishi-rekhā (श्रवणिक) the solstitial colure, passed through Maghā, when king Yudhishtira reigned (a). This would place his reign in B.C. 2525.

The Babylonian name for the Nakshatra is very suggestive, as it seems to put the asterism at the top of Ziqqurat (the Tower of Babel = Fire-Altar Rauhina).

STAR YAMA-RĀJA-PUTRA

(यमराजपुत्र तारा)

Ph. Melekh (The king)  Gr. Basiliskos (The little king)
Sem. Sar-ru (The king)  Lat. Rex or Regulus (The little king)
Ak. Lugal (The king)  Cor Leonis (The Lion’s Heart)
Eng. Regulus

Rishi-rekhā, the solstitial colure, which proceeds from the Pole-star for the time being, once passed through the star 1 Simhasya (α Leonis) which lies on the Ecliptic. At the time, the star occupied, as a matter of course, the highest point of the Ecliptic and was naturally regarded as ‘King of the stars’. The close connection which then subsisted between the star lying on the solstitial colure and the Polar star Yama lying at the root of the line, gave rise to a right royal pedigree, and the star received the title Yama-rāja-putra (यमराजपुत्र), lit. son of Yama-rāja presiding over the North Pole-star, the star 7 Takshakaya (α Dracois).

As Dharma (धर्म) lit. the immutable Divine Law of the universe, is impersonated in Yama (यम), the primitive Sun of the Hindu theogony, Yama-rāja is called Dharma-rāja, and Yama-rāja-putra, alias Dharma-rāja-putra, the star 1. Simhasya, was

(a) आसन् मवासू मनयः शास्ति पृथिवी देविष्ठे देवते ।
   हृति राजतरतिकाः ।
naturally called *Yudhishthira* (युधिष्ठिरः = युधि + स्थिर ), lit. 'one always steady in war' (*a*).

The *yogatāra* of *Maghā* (from *Magha*, to play with dice) could not but be addicted to dice-playing.

**NAKSHATRA PURVA-PHALGUNI**

(पूर्वफल्गुनि नक्षत्र)

Presiding deity *: Bhaga* (*भग*), the blind Solar God (*b*).

Rv. *Arjuni* (अर्जुनि)

Āk. *Kakkab ili-ku-a* (The asterism of Marudukh, the Oracle God)

Ar. *Al-Za'bra*

The Nakshatra consists of the stars 4 and 6 *Simhasya* (δ and θ Leonis) situated in a line running from north to south (*c*).

The S. Siddhānta puts the *Yogatāra* of P. Phalguni at Lat. 12° N. and Long. IV.—24°, and Messrs. Colebrooke and Burgess identify the star with the star 4 *Simhasya* (δ Leonis).

In the Vedic period also, the Nakshatra consisted of two stars. Vide: अयंतः पूर्वेण फल्गुनीः.

In the Rig-Veda the Nakshatra is called *Arjuni* (अर्जुनि), and it consists of two stars. Vide:

अवायः हन्यते बलुः: परिवर्तते.

Rv. X. 85. 13.

(*c*) The Mahābhārata relates the fall of the planets, Saturn (*Duryodhana*), the Sun (*Bhisma*), and Mars (*Karna*), before the immutable Law of the Universe, impersonated in the star *Dharma-rāja-putra*, in the famous planetary fight which ushered in the Iron age (*Kali-yuga*).

(*f*) But according to the T. Pr. the deity is *Aryaman* (अर्यमनः) the patron divinity of twilight. Vide:

अयंतः पूर्वः फल्गुनिः.

T. Br. I. 1. 4. 2.

(*c*) द्रिक्षोऽर गरे हितार्के। कालिदासा.

But the Nakshatras *Purva* and *Uttara Phalgunis*, as well as the two Bhadrās, are said in astrological works to be like a *Khatā* (खठा) or bed-stead in shape. The correct reading is, we believe, *Khanta* (खठा), a post, and not *Khatā*, as two stars can hardly make the figure of a bed-stead. As both the asterisms are called *Arjuni* (अर्जुनि), we have to draw them in the shape of two *Arjuna* trees (अर्जुन वृक्ष) i.e., *Terminalia Arjuna*. 
Arjunyoh - Phalgunyoh - In the Nakshatra Arjuni of two stars.

From this single passage, we can fairly presume that even in the pre-historic days, the system of Nakshatras of the Hindu Lunar Zodiac was brought to a perfection. We should not pass over the interpretation which Sāyana puts on this valuable passage, highly important from an astronomical point of view. According to him ब्रह्म = मणिः = मणि (नाडेप = In the Magha Nakshatra of many stars, and ब्रह्म = फल्गुनियो = तोऽ नजः (नाडेप = In the Phalguni, alias Arjuni Nakshatra of two stars.

We have two Nakshatras that bear the name Phalguni, and from a Grammatical point of view, therefore, one may say that the word Arjunyoh means "of the two Arjunis". But there is only one Nakshatra which is called Magha. How can the name be used in the plural form, Aghas (अघास), i.e. in the Aghas, unless it means 'in the Nakshatra Agha of many stars'? If Aghas means 'in the Nakshatra Magha of many stars,' surely the context would show that.

Arjunyoh - In the Nakshatra Arjuni of two stars.

Prof. Weber seems to have overlooked this important passage, when he says that 'the Taittiriya Samhitā and Sapatapatha Brāhmaṇa do contain the first allusion to the system of Nakshatras or Lunar Mansions marking the daily stations, occupied by the Moon during his circuit round the heavens.'

—The Indian Nakshatras II. 278.

The word Arjuna primarily means white. In a secondary sense it means the white Arjuna or Phalguna tree (a). The Nakshatra was named Arjuni, either because of the white colour of its two stars, or because of its being erect like an Arjuna tree (Terminalia Arjuna). From the Nakshatra Purva Phalguni the planet Brihaspati (Jupiter) derived one of its

(a) It is really very curious to find that the Hero of the Mahābhārata bears the names Arjuna and Phalguni derived from both the names of this Nakshatra.
names Purva Phalguni-bhava (पूर्वफल्गुनिभव) lit. the child of Purva-Phalguni. Grammatically Phalguni-bhava = Phālguna.

NAKSHATRA UTTARA-PHALGUNI

(.उत्तरफळ्गुनि नक्षत्र )

Presiding deity: Aryaman.* (अर्यमंन) 
The Black. Yv. Arjuni (a)
Euph. Kakkab-Lanas-su" (= The asterism of the flaming one) 
Ar. Al serpha (The Lion's tail)

The Nakshatra—consists of two stars, 2 Simhasya (β Leonis) and 12 Kanyāyāh (ν Virginis) situated in a line running from north to south (b). The S. Siddhānta gives the latitude and longitude of the yogatāra, viz., 13° N. and V. 5°; and Messrs. Colebrooke, Burgess, and Bentley identify the star with β Leonis.

The star 2 Simhasya is named in the Mahābhārata, Uttara (उत्तर ) (the son of King Virāṭa (वीराट), who is said to have a lion on his banner (c). Vide:

ध्वजम च सैम्रेजः सुमुके रथेपुनः।

Mahā. IV. 66. 13.

And the star 12 Kanyāyāh is named Drupada (द्रुपद ).

The star 2 Simhasya is named Denebola (Sem. Dzeneb-al-Asad = Ar. Zanab-al-asad), or the tail of the Lion (Simha-lāngula सिंह लांगुला ) in the West.

From U. Phalguni, the month of Phālguna (फळ्गुन) derives its name.

* Bhaga the Sun God. The Black Yv.
(a) The two Arjunis may well represent the Tamalārjunau (तमालार्जुन) i.e., the Twin Arjuna trees, which the Sun-God Srijñana had to break off.
(b) Vide: दद्मिन-उच्चर-मिलित वारङ्गापूर्ण। Kalidāsa
(c) Cf. In the Babylonian scheme this asterism has the Lion for its patron divinity.

R. Brown II. 82.
3. **HRADA-SARPA MANDALA [118]**

(हूः सप्त भवतः)

Ak. Tsir-gal (= the Great snake)
Ph. Nakhasch main-(the snake of the water)
Gr. Hydra (= the water-snake) Lat. Hydra
Eng. The water-snake

The constellation stretches from the confines of Mithuna to those of Vrischika. In Greek mythology, Hydra is said to be a water-snake living in the marsh of Lerne. The Babylonian Merodach, the Sun-God, attacked the serpent and the Greek hero Hirakles (Lat. Hercules), also a Sun-God, well-nigh killed it with the help of his attendant Iolaus (a). The snake had originally seven heads. The heads grew rapidly from 7 to 9, and from 9 to 100 (Aratos and Virgil). In India Srikrishna, the Sun-God, found in the Hrada (हूः), the deep pool of the Yamunā, Kāliya (कालिय) the dark snake with many heads. He trampled its head under his feet and was about to kill it, but took compassion at the intercession of his wife and granted it its life, on condition of its leaving the Yamunā waters. He ordered him to go to the Upper Deep, and not to fear Garuda (गरूड), the snake-killer bird, who, he said, was sure not to molest one marked with chakra (चक) the disc, an emblem of his foot stamp, on its head. Vidē:

हूः कालियनागस्य दृश्ये कात्तिव भवत्स्यम् ।
खास्य बुधस्य शिवस्य प्राणस्य उपविकामः ।
वेशासः द्रष्ये अभ्यास स्थित्वा वर्णस्य शर्महः निरुक्तः ।
यद्र उल्लिख्ये व कृते ननाम भवेत् तत्: सिरः ॥

नास्त्र त्रेयं त्रीया सर्पं! कन्दर्चितं वध्यनं जले ॥
सामुद्यायस्य श्रेष्ठम् समुद्यायस्य श्रेष्ठम् ॥
तद्र पदानि च ते सर्पं! हूः मुर्स्विनि सागरे ॥
गरूः प्रहरिपुरः त्वथ्ये न प्रहरिष्यति ॥

V. P. V. 7.

The constellation has now its upper portion in the Deva-bhāga, and the lower portion in the Asura-bhāga.

(a) Vide, R. Brown I. 104 and W. Smith’s Class Dictionary.
In the disguise of a Deva, the serpent Rāhu drank Soma in the company of the Devas. The head of the serpent was severed from his body by Vishnu (विष्णु), the Sun-God, with his chakra (चक्र), the solar disc. The head went heavenward and is called Rāhu (राहु), and the tail which fell down earthward is called Ketu (केतु). Ketu gave birth to comets and fiery meteors. Vide: Bh. Pr. VIII. 9. 24-26.

Astrologically, the great snake Rāhu (राहु) presides over the two chāndra-pātas (चान्द्रपात) (a) the Nodes of the Lunar orbit, ascending and descending. Vide:

देवताकोशः भगवान् शरणानां केतु त्रिभुजारः अकालम्।
निदित्यमतिपि विद्येयं च अन्तर्दुरान्तमानम्।

S. S. II. 6.

The water-serpent is said to be a child of the Lioness (Sk. सिंह), and after its mother, Rāhu is called Saimhikēya (सैम्हिकेय). During the solar eclipses, the Sun was supposed by the Hindus of the prehistoric period to be darkened by Svar-bhānu (स्वरभानु), lit. the celestial Sun (vide: Rv. V. 40. 5; S. Br. V. 3. 22 and IV. 3. 4. 23).

यदि त्वा सूर्य स्वरभानु: तमसा विभव्यत् वातुरः।
अन्तःशत्वित्वं यथास्मा: मुननानि अदीश्यः।

Rv. V. 40. 5.

The darkness, which eclipsed the Sun was naturally thought to be an unseen monster Ahi (अहि), the serpent, called Rāhu (राहु), literally ‘the hidden one’ (= solitary) (b). Vide, Av. XIX. 9. 10. And Rāhu was reduplicated in the stellar watersnake.

(a) The two Lunar Nodes are the two points where the Ecliptic cuts the Lunar orbit. And as the two points are not stationary but moving, their presiding deity Rāhu is called a Graha or a planet. Sk. Ketu = the tail, and Lat. Nodus = the tail.

(b) The word Rāhu is connected with the root Rahah (रहः = solitude). Cf. The star Alphard (= the solitary) = the star 1 of Hrada-Sarpa.
Hence in Astrological phraseology, Svarbhānu = Rāhu = Darkness. Vide :

About 2900 years ago, the highest point of the Ecliptic, otherwise called the summer solstice, lay over Hydrā's head; and as in his southing, the Sun-God begins to fade, or to speak astrologically, to sleep after having reached this point, people naturally attributed the loss of the solar fire to the Sun's contact with Hrada-Sarpa. This Hrada-Sarpa, called Kāliya (कालिय), 'the Dark one', in the Purāṇas, became associated with Rāhu, the eclipse-maker Dragon.

Thus was Rāhu reduplicated in the Hrada-Sarpa, and this was the origin of the fight between the Sun-God and the stellar snake (Hydra) Hrada-Sarpa. Accordingly we have called the star 1 Hrada-Sarpasya (α Hydrae) Kāliya (कालिय) lit. Darkness.

The Hrada-Sarpa with its coadjutors Karkata and- śrīchika, is collectively called Vāsuki (वासुकि), who covers more than five consecutive Rāsis, namely from Karkata (Cancer) to Dhaaµh Rāsi (the Sign Archer), on which the Sun-God takes his rest during his southing. The Sun-God is therefore astrologically said to sleep for over five months on the back of the snake Vāsuki (वासुकि), otherwise called Ananta (अनन्त) lit. the endless snake, and Sesha (शेष) (a), lit. the last thing in the lower Abyss. This fact made the serpent Vāsuki, a creature, a Mitra (मित्र) lit. a friend, nay a brother of the Sun (b). We have accordingly called the star 2 Hrada-Sarpasya (ζ Hydrae), Vāsuki (वासुकि); and the star 9 Hrada-Sarpasya (β Hydrae), Sesha (शेष).

(a) It is interesting to observe that the plough-shaped Maghā stands on the shoulder of the serpent Ananta whose incarnation, the plough-holder Vjalārāma was. Vide,

मैत्रे युगात्म कम्भ यत्र रामेन अमवत्तु कुत्सम ।
अनन्तेन ब्रम्मरीयेष शेषे दर्पोहुवत ॥

V, P, V. 35 3

(b) The characteristic of both the Moon and Hrada-sarpa are combined in Lakshmana the incarnation of Ananta.
It should be observed here that owing to the retrograde motion of the Summer Solstice, the *Sayana* (शयन) of the Sun-God has receded backwards, and we now observe the *Sayana* in the middle of *Āshāra* (June-July) when the Sun travels through Mithuna (Gemini), instead of in the beginning of *Srāvana* (July-August) when the Sun travels through Karkata, the Crab.

A straight line dropped from 3 *Simhasya* through 1 *Simhasya*, leads straight to the star *Kāliya*.

In this Mandala, lies the Nakshatra *Asleṣā* (आस्लेष) and the important star *Kāliya* (कालिया).

**THE NAKSHATRA ASLEṢĀ**

(आस्लेष नक्षत्र)

Euph. Kattir-ninake (= the mouth-of-the-snake-drinks)

Bab. Kakkab Tur-us-mal-makh | Ilu Damu- (The God, the Divine Judge) (a)

(= the asterism, son of the supreme Temple)

Lat. Caput Hydrae (The head of Hydra)

The separation of Rāhu's head from the body made the head *A-sleṣā* (आस्लेश), literally, one which has lost its connection with the body. And the cluster of five, or more properly, six stars forming the disc on the hood of Hydra, is called the Nakshatra *Asleṣā* (आस्लेष); while *Ketu* (केतु), the tail cut off, being a continuation of the Nakshatra *Asleṣā* is called *Asleṣā-bhava* (आस्लेशाभव), lit. the issue of *Asleṣā*.

The asterism consists of the stars 2, 6, 10, 11, 13 *Hrada-Sarpaya* (ζ, ε, η, δ, σ Hydrae). The stars form the figure of *chakra* (चक्र), the disc on the hood of a snake (b), generally confounded with a wheel. Kālidāsa (A. D. 1242) would assign seven stars to the asterism, that is to say, he would add the stars 5 and 1 to the group and make the asterism resemble a dog's tail in shape. Vide:

मौखिरे मुनागे शुचीके मुरुराकाटिनि वसहारा:।

Kālidāsa

(a) Vide, *Maghā*.

(b) चक्राकाटिनि पञ्चारां। Jyotisha.
Compare. Gk. Kynosoura (= 'dog’s tail') = The little Bear.

The easternmost star of the cluster, representing the disc of Hydra’s hood, is the Yogatārā of the Nakshatra Asleshā (a). The star 2 Ḥrada-Sarpasya (ς Hydrae) is the easternmost star of the group and is therefore the Yogatārā. The S. Siddhānta puts the Yogatārā at Lat. 7° S. and Long. III. 19°; and Mr. Burgess identifies it with the star 6 Ḥrada-Sarpasya (ς Hydrae). Astrologically, Lakshmana was born under the Nakshatra Asleshā. We have accordingly named the star 6 Ḥrada-Sarpasya (ς Hydrae), Sumitārā (सूमित्रा).

THE STAR KĀLIYA

(कालियतारा)

Euph. Allā (the snake)  
Ak. Tur  
Chi. Tah

Sem. Al-Ferd (= the solitary)  
Eng. Alphard

It is a red-coloured star of the second magnitude and looks very fine.

4. SHASHTHAMSA MANDALA [30]

(षष्ठम्स मण्डल)

Lat. Sextans

This constellation was invented by Hevelius in A.D. 1690 and we have translated the constellation’s name.

5. VĀYU-YANTRA MANDALA [28]

(वायुयन्त्र मण्डल)

Lat. Antilia Pneumatica

This constellation was invented by La Caille in A.D. 1752, and we have translated the name.

(a) Vide:

रोहिणि भाद्रिय-मूढानाम प्रची सर्पस्य वै बहि:

S. S. VIII. 19.
VITHI VI

This Vithi comprises the following constellations.

1. Saptarshi (सप्तर्षि)  (35)
2. Sārameya-Yugala (सारामेययुगल)
3. Kari-munda (करिमुन्द)
4. Kanyā (कन्या)  (32)
5. Suparna (सुपर्ण)  (7)
6. Kāmīyā (कामीया)  (7)
7. Trisanku (त्रिसंकु)
8. Makshikā (मक्षिका)

1. SAPTARSHI MANDALA  [122]
    (सप्तर्षि-मण्डल)

    *Lit.* 'The constellation of the seven sages'

Rv. Pitārah (पितारः)
(The fathers)

Rv. Saptarshis (सप्तर्षिः)
(The seven sages)

Rv. Saptamayurīyah
(सप्तमयुरीयः)
The seven Pea-hens)
Mahā. Chitra-Sikhandi
(चित्रा सिखंधी)
(The Pea-cock)

Rv. Rikshah (रिखः)
(The Bear)
Rām. Jāmbuān
(जाम्भुआन)
(The Prince of the Bears)

Zend. Amesha Spēnas
As. Bilu-zakki-mati.
(= The lord of the ghost-world)
Zend. Haptoiring (a)  (The
goers by seven)
Lat. Septen-triones.
(The seven ploughing Bulls)

Ph. Dub-kabir
(The Great Bear)
Gr. Arctos Megale
(The Great Bear)
Lat. Ursa Major
(The Great Bear)

(a) *Haptoiring* is the leader of the stars in the north (Bund II. 7), and
is entrusted with the charge of the gate and passage of *Heil* to keep back
demons and demonesses, fairies and sorcerers (Minokhired 49. 15).
SAPTARSHI MANDALA

Rv. Vrihat-Ratha
(The Long chariot)

Paurānic. Sakata (सकट)
(The cart)

Paurānic. Suruchi (सुरुचि)
(The beautiful)

Ak. Margidda (The Long Chariot)
Lat. Plaustrum Major
(The Great Waggon)
Chin. Ti-cheh (The chariot of the supreme)
Eng. Churl's (Charle's)
Wain
The Great Wain
The Waggon
The Plough
The Butcher's cleaver

Gr. Kallisto (The beautiful)
Gr. Helike (The twister)

Of the stars of this Mandala:
The star 1 = Angira (आंगिरा); Ar. Alioth (=the Jot)
" 6 = Krotu (क्रोतु); Ar. Dubhe (= the Bear)
" 3 = Marichi (मरीचि); Ar. Benetnasch (= Procession of
    mourners) or Alkaid
" 5 = Vaisishthā (वायसीश्चत); Ar. Mizar (= the Test)
" 6 = Pulaha (पुलाह); Ar. Mirak (= the Loin)
" 6 = Pulastya (पुलस्त्य); Ar. Pheea (= the thigh)
" 11 = Atri (अत्रि); Ar. Megrez (the root of the tail)
The star 20 = Arundhati
(The evening)

The seven solar rays, says the Rishi Yāska, are the Saptar-
Rishayah (सप्तरश्यय). Vide:

सप्तरश्ययः सस्व आदिपरस्मयः हि बदन्ति नैस्का:

Nir. I. 1. 5.

Each of them “had a local habitation and a name”. And
the seven shining stars of the northern sky represent them.
They were deified and collectively called Pitarah (पितरः), the
Fathers (a). The Brahma Siddhānta edited by Rishi Sakala,
gives the positions occupied by each of the seven Rishis and Arundhati. We have accordingly designated the eight stars concerned, as described above.

They are the seven Gods (rays) born of Aditi. Vide:

रेषा: आदिवा: वे सत।

Rv. IX. 114. 3:

And Aditi placed them in heaven and cast away Märtaṇḍa (सांचा), the Sun. Vide:

अष्टो पुजाः ब्रह्मते वे जलाः तत्व: परि।

रेवानु वर-न्येण सति: परा मार्ताण्डम् भात्यद।

Rv. X. 72. 8.

In the Avesta, the seven Rishis re-appear as the seven Amesha spentas, one of whom—Ahura-Mazda afterwards became the leader, and Mithra (a) (Sk. Mitra—Sk. Märtaṇḍa—the Sun), the Light of Heaven, was associated with them as a chief god.

"As Mazdaimism struggled on towards unity, Ahura-mazda became the supreme creator, and other six gods became his subjects and creatures.

But Mithra Ahura, invoked as an indivisible unity, reminds one that the creator was formerly a brother to his creatures." (Darmesteter).

They are the sages with thousand eyes, and born of servour, and living in servour, they protect the Sun. Vide:

सहस्रीयम् क्रया: वे गोपायति सूर्यरूपः। (b)

श्वेती तपस्वतः यस्म तप:—जानू अथि गच्छतात्।

Rv. X. 154. 5.

"And in recognition of their patronage, the setting Sun lowers his flag at their rising and looks up to them with a reverential bow." Vide.

वष: प्रस्थापिताश्च न समाधिविनेकतुता।

शहसरिरिणा सान्न्य द्व्रामस्य दुर्दीर्धता:।

Kumār. VI. 7.

(a) Pers. Mīrēr = the Sun.

(b) On this dictum of the Veda, Vālmiki made King Jāmbudvīp (The Great Bear) the Prime Minister of Rāma the nocturnal Sun-God.
“Like a dark steed adorned with pearl, the Fathers decorated heaven with constellations; They set the light in day and in night the Darkness.”

Prof. Griffith.

Vide:

अभिरवाच्य न कृमनेमि: अथवः नवचरोमि: पितरः: धाम् अष्टिकान्
राष्ट्रम् तम: बदुः: ज्योति: अहं: ... ... ||
Rv. X. 68. 11.

They created the five elements. Vide:

समर्प्य: मूलकृताऽः ते ||
Av. VI. 108. 4.

They form one body. Vide:

यत्ता समासीन् पर: एकम् भादुः: ||
Rv. X. 82. 2.

As a constellation they form a collective body. Vide:

मण्डले हि एकाकाम् अविमान्: ||
Nir. X. 3. 2.

And the seven stars are known as the ‘Chitra Sikhandi’. Vide, Mahā. XII. 336.

एकतं हि निता: च उन्न: चिरशिखिण्डन: ||
बयम् हि ब्रह्मण: पुषा: मनसा: पुरुषकृताः: ||
They had one wife—Arundhati (अरुण्धती), ‘the Evening’. Vide:

श्रीगीण्यां अरुण्धती: ।
Tait. Ar. III, 9 (a).

They are the seven bright sparks of fire. Vide:

त्री: सस चिरुलिप्रकः: ।
Rv. I. 191. 12.

They are the seven Pea-hens (Sk. Mayuri). Vide:

त्री: सस मयूयः: ।

(a) The Purānas give them seven wives (vide Introduction. p. 34).
They are the seven pea-cocks. Vide :

सत्सप्तः मरोक्ष-अधि-सुखः चिन्तितशिखणिनः।

Amara.

In interpreting the famous passage about the रिखशाह (श्रङ्गः)

अमो ये श्रङ्गः निभितासः उचा……।

Rv. I. 24. 10.

the Niruktakārs understand रिखशाह to mean the stars. Vide :

शङ्गः स्वस्मिः दत्त नमाचारणः।

Nir. N. III. 29.

But the बाजसनेयिणः would understand रिखशाह to mean the Bears.

तथा च बाजसनेयिणः भामभन्ति शङ्गः।

हतिः हि स्म व वै पुरास शङ्गपीन्द्र शाचवन्त।

Vide, Sāyana’s Commentary Rv. I. 24. 10.

The Sat. Br. accepts this view. Vide :

Sat. Br. II. 1. 1. 4.

The Mandala forms the ब्रिहत रत्न (brasatā), lit. the Long Chariot of Indra. Vide :

यत्र राष्ट्र ब्रह्मः निघानम्……।

Rv. III. 53. 6.

On this car Indra and king Nakusha ride together. Vide :

राष्ट्रं अस्ते नाहुणे सुकुलवि सुकुल्य तराव सुकुल्यः॥

Rv. VIII. 46. 27.

It is made of gold (stars). Vide :

राष्ट्रं हिरण्यः॥

Rv. VIII. 33. 4.

And its yoke is uplifted. Vide :

पत्र रत्र भूः वृक्षः उत्कुट्टः॥

Rv. VIII. 33. 18.

And this simple astronomical dictum is adopted by the great poet Māgha, who thought that these seven stars resembled a cart. Vide :

Vide :
Cf. “Where yon gaunt Bear disports a tail.”

Aratos.

Compare also, “the three stars (ε, ζ, and η) ............. suggest just the curve of a plough-handle.”


Note: Astronomically, the yoke of the car = the tail of the Bear = the plough-handle.

Zina (जिन) Zeus-Jupiter, as the child of the Peacock, is called Chitra-Sikhindjah (चित्रसिखिंद्धज). Vide:

मृंग: बाणिण्स: वाचस्यन्त: चित्रसिखिंद्धजः.

Amara.

And Srutarpān (सूर्यपान), lit., one versed in Sruti or the Vedas, i.e., Jupiter, as the child of Riksha (रिक्षा) the Bear, is called Arksha (आर्क्षा). Vide:

आ अर्क्षास्तु वुष्ठहृतमस्म वेदेऽर्ष्य असिद्धानवस्य।

वस्य सूर्यस्त व्रह्त: आर्क्ष: अनीको एससे।

Rv. VIII. 63. 4.

Cf. Arktos (The Great Bear) was pursued by her son Arkas (The Little Bear) in the chase.

W. Smith.

Cf. When Rhea was about to give birth to Zeus, she retired to Kretan-Lyktos and hid the infant in a cave (Hesiod Theog 477-84), where young Zeus (=Lat. Jupiter=Sk. Dyaus-pitar) was nurtured by two Bears, viz. the Great Bear and the Little Bear.

Cf. “Aige” (the star Brahma-kridaya) “was assisted in nurturing Zeus by her sister Helike (the Twister=the Rishis); (Hyginus). Aige was changed into the Goat star Aiz. Helike into the Bear which twists around the Pole.”

R. Brown I. 221.
Brahmā and the Rishis guard the Pole-star and twist around
him in token thereof. Vide:

V. P. I. 12. 95.

Rām. VI. 4. 48.

Cf. And the Bear which they likewise call the Wain, which
turns round without moving away (Homer. Od. V.).

Cf. The tails of the Bears guard 'the Atlanteian Pole'
(Euripides).


The Rishis worshipped Skanda. Vide:

Mahā. III. 228. 23.

Cf. "The Bear keeps a watch on Orion."

Homer. Od. V.

Everywhere the seven stars of Ursa are connected with
Orion. Vide: "Seek him that maketh the seven stars and
Orion."

Amos. V. 8.

The stellar Pea-cock represents one of the phases of Indra-
Satakraṭu, king of the Heavens. Vide:

Rām. VII. 18. 5.

And the pea-hen represents Rādhā. Vide: Brahmānda
Purāṇa—Chapter Rādhā-hridaya.

As the constellation is situated a little way off the point
called Dhruvabindu (धृवबिन्दु), the celestial Pole, Indrasrikrisna,
the champion of the blue sky, who represents the starry heaven,
very slightly inclines his head to the left, so as to touch the
plumes of the pea-hen with it. Srikrishna is, therefore, represent-
ed as wearing a crest-like head-gear made of pea-fowl's feathers.
Vide: ibid.

We read in the Rv. X. 109. 4. that the Saptarshis are the
'Gods of old,' and they are called the "Fathers" (पिताः) in
Rv. X. 131. 6. They live in Yama's home (Rv. X. 135. 7), where they rejoice in his company (Rv. X. 14. 10), and in fact Yama, the divine judge is their regent.


The dead go to them (Rv. X 14. 1; 154. 4.) and they punish men for their sins (Rv. X. 15. 6), as councillors of king Yama. Cf. "It" (the Great Bear), says Brown, "was particularly connected with Mul-il, Lord of the Under-world and Night-world, and in this respect was called Wul-mo-sarru (the Lord-of-the-voice-of-the-firmament). In W.A.I. II. XLVIII. 56, Margidda itself is described as "Lord of the Ghost-World" (Ar. Belu-Zakki-mati), which practically makes it a nocturnal manifestation of Mul-il."


Compare also, "Haptoiring is entrusted with the charge of the gate and passage of hell."

Minokhired.

Compare again:

"And he had in his right hand seven stars."

"And he laid his right hand upon me, saying 'I have the keys of hell and of death'."

Revelations I. 16-18.

As to the female aspect of the constellation, Brown says:

"Kallisto the mother of Arkas is turned into a Bear and then made into the stars called the Great Bear (Paus. VIII. iii. 2). Kallisto is only Artemis Kalliste, the Semetic Reine Meri. The beautiful (Kalliste) Phoenician goddess is at once Virgin and mother. Kallisto-Kalliste, the beautiful mother goddess is like Rhea connected with the Bear and also with the Semetic East, and Ursa Major = Kallisto (the beautiful constellation).

The same idea of Ursa Matronalis and the same connection between the Bear and the Semetic goddess, appears in the well-known ritual of Artemis Braunonia. The Bear then is the nurturing fostering creature remarkable in itself."

The reader knows that below the nurturing fostering Bear, lies the stellar Lion, and above her the snake Takshaka (Draco)
And the great divine foster-mother Jagat-Dhātri (जगद्धतिः) lit., the Nurse of the Universe, sits in her serene majesty upon a Lion, with a snake upon her left shoulder, called the Nāgopavīta (नागोपवीत) lit. the sacred thread made of a serpent.

It is a great mistake to suppose that such an incongruous symbolism can be the result of any free-thinking.

Note:—The reader will note that the little divine foster-mother, who is worshipped on the sixth lunar day after the new moon by every householder, is not to be confounded with the great divine foster-mother. Because the former is Shashthi (षष्ठी) alias Dev-e-mañā, a variant of the Shat-Kritikās (a) of the Mātrimanālā, and she rides on a cat and not on a lion.

Br. V. P. II.

As to its Stars, Atri has diminished in lustre during the last century.

The stars 11, 6, 5, 2, of Saptarshi (8, γ, β, α Ursae Majoris) are said to have been less brilliant formerly. The stars 5 and 2 of Saptarshi are called 'the pointers', because they very nearly point towards the star Dhruti (धृतिः) i.e., the Pole-star of the present age.

Of the minor stars of this constellation:

(a) The stars 10, 14, 9, 19, 15 and 12 of Saptarshi (τ, κ, θ, ν, 23 and ο Ursae Majoris) form the figure of a serpent falling downwards. The figure represents the fall of the serpent-king Nahusha from the high-heaven. Vide:

Mahā. III. 181. 38.

The star 10 in the mouth of the serpent, is the radiant point of the meteoric shower of November 30.

(b) The star 17 of Saptarshi (ξ Ursa Majoris), a double star and a binary system with a period of 60 years, situated

(c) The Shat-Kritikās themselves are referred to as the foster-mothers.

Rām. I. 38. 23.
just over Phalguni alias Arjuni Nakhatra, represents the famous Chakra (चक्र), literally the wheel, through which the Lakṣhya (लक्ष्य) the target, the Fish’s eye, had to be shot. The hero of the Mahābhārata had to pierce this target as a price set down by Drupada (द्रुपद) lit. the world tree, for the marriage of his daughter Drupadi (द्रुपदी).

(c) The star 20 of Saptarshi (80 in Flamsteed’s enumeration) is a very little star. But it deserves special notice. The star is called Arundhatī (आरुंधती), literally, the red evening; and in fact the star is a reduplication of the evening. Arundhatī forms with Vasishthā a double to the eye. And the star is therefore called (Ar.) Alcar, the attendant.

She lies very close to Vasishṭhā (♀ Ursa Majoris) whose devoted “little wife” she is. In Hindu marriages, the bridegroom has to point out to his bride the star Arundhatī as the prototype of conjugal devotion. Vide:

हुवा उपरात्ताय उपनिश्चिस्म भुवम् दृष्यति। ।
अरुंधतीसम् च ।

Govila II. 3. 3-9.

वसिष्ठाः ई स्या द्विवसिष्ठाः गोविलं बनम्।

Vasishthā is in every way the first of the double stars. Arundhatī forms with it a double to the eye, but it has also a much closer bright companion.

The reader knows how Sandhyā (सन्ध्या), lit. the evening, the daughter of Brahmā and the sister of the Saptarshis, had to abandon her body, the exquisite charms of which, had captivated her father and brothers; and how she afterwards assumed a new form under the title of Arundhatī (आरुंधती), lit. the evening and married Vasishthā. Vide: K. P. II.-III.

In consideration of the legendary tales handed down to us from the archaic period, it is very necessary to bear in mind the simple astronomical facts which underlie them.

The Pole-star is the lord of the starry host and he is also the lord of the evening. Brahmā as the presiding deity of Abhijit, the earliest known Pole-star, was necessarily the lover of the evening. When Vasishṭha, one of the seven sages occupied the Polar throne, she had to become his consort.
The seven sages, the creators of the world as the progenitors of all living beings, are called the Fathers; while their father Brahmā is titled Pitāmaha the grandfather. Vide:

अमर.  

They figure as the seven Amesha-Spentas (a) in the Avesta, and Arundhati, their sister, as Ashi Vangahi, the fairest. Vide:

1. We sacrifice to Ashi Vangahi.
2. The daughter of Ahura Mazda, the sister of the Amesha Spentas.
3. Ashi is fair, Ashi is radiant with joy; she is far-piercing with her rays.

Ashi Yast.

The name Haptoiring has occasioned a great deal of controversy in the West. Darmesteter does not translate the name. Prof. Haug (Haptoiring = The seven Bears) and Dr. Steingass (Haptaurang = The seven Heavens) disagree, and R. Brown favours the latter’s view. The Sanskrit analogue of Haptoiring, would very likely be Saptairinga (sāpta = seven; i + rī = the goers by seven).

This meaning of the word accords well with the famous Vedic passage:

“Whither by day depart the stars (Rikshas) that shine at night, set high in heaven above us.”

Rv. I. 24. 10.

Cf. Jyotiringa (jyoti = light) (b), ‘the goer with light’ (the glow-worm).

The Saptarshi Mandala is known as Sātpāyāse-khatte among the Maharatta peasantry.

Brihath Ratha the Great Chariot seems to have been regarded by the Paurāṇiks as the elephant Airāvata of Indra.

Cf. “Some tribes have regarded them as being like a bear, whilst others have thought them like an elephant.”


(a) The undying and the well-doing ones.
(b) (jyoti: + rī) = Light + Goer.
2. SĀRĀMEYA-YUGALA MANDALA [40]

(सारमेय युगल मण्डल)

Lat. Canes Venatici

Eng. The Grey hounds or the hunting dogs

Underneath the tail of the Peacock lies a little group.

This constellation was invented by Hevelius in A.D. 1690. But the stars had long been known to the Vedic Rishis as the heavenly Twin dogs, called the two Kālakanjas.

Vide: Introduction Ex. VI.

The star 1 = Jyeshta Kālakanja (ज्येष्ठ कालकंज) = Cor-Caroli.

The star 2 = Kanishta Kālakanja (कणिष्ठ कालकंज)

The star 1 (a Canum Venaticorum) is known as Cor-Caroli, or “Charle’s Heart,” so called because Sir C. Searborough declared that it shone with a peculiar brightness the night before Charles II. made his entry into London on his restoration (E. W. Mauder).

3. KARIMUNDA MANDALA [50]

(कारिमुण्ड मण्डल)

Lit. The head of the Elephant

Rv. Ursa-nābhi-Mandala (उष्णाभिमण्डल) lit. the constellation of the spiders

Gr. Plokaemos (The Tress)

Lat. Coma Berenices (= The Tress of Berenice)

Eng. The Tress

Below the twin Kālakanja dogs there lies a fine cluster of very small stars.

We have fully dealt with the story of the construction and demolition of the Rauhina-Tower (vide, Introduction, Ex. VI). The reader remembers that its two chief masons went up and became the twin dogs, and the rest tumbled down and became spiders. We shall only add here that the spiders originally formed the constellation, into which, later añ, was located the huge elephant of Bhagadatta king of Prāk-Jyotisha (Assam).
Cf. what the astronomer Serviss wrote of the constellation:

"You will perceive a curious twinkling as if gossamer, spanked with dew-drops, was entangled here. One might think the old woman of nursery rhyme, who went to sweep the cobwebs out of the sky, had skipped this corner or else that its delicate beauty had preserved it from her house-wisely instincts" (Maunder p. 46).

It is noticeable that the actual configuration of the stars in this constellation suggests the figure of an elephant's head (a). The Hindu star-gazers of old also evidently perceived the same figure in the constellation. Otherwise Hindu Astro-theogony would not have represented the presiding goddess of the 6th Sign of the Solar Zodiac as riding on an elephant.

We have drawn the figure of the constellation accordingly.

The stellar-head of the Elephant in question, situated as it is to the right of the Virgin Mother, reminds one of Ganesā the lord of a multitude.

This constellation, says Prof. Peck, was invented by Tycho Brahe in A.D. 1603.

"But the tress (Plokamas) of Berenike, queen of Ptolemaias Energetes", says Brown, "was by the united efforts of Konon, the astronomer of Samos, and Kallimachos the Alexandrian Grammarian poet, raised to the skies, B.C. 243."

The story of its naming, says Maunder, is that Berenice, the queen and sister of Ptolemy Energetes vowed her beautiful hair to Aphrodite, should her consort return safely from an expedition on which he had set out. The consecrated tress was stolen from the temple soon after its dedication. And Konon, the royal astronomer of Alexandria, declared that the goddess had caught the tress up to heaven, in proof whereof he pointed out the constellation to the king and queen.

(a) The numerous stars of this cluster may have been called Gana-Devas (गणदेवता), and their presiding deity Ganesa (गणेश), on whose rising in the east, Parasurāma in Parasu Mandala sets in. This phenomenon gave rise to the statement in the Brahma Vaivarta Purāna, that Ganesa caused Parasurāma to revolve round the heavens. Vide: Br. V. P. III. 43.
KANYA RĀSI
(कन्याराशि)

Pres. Divinity: Budha (बुध) Mercury

This Rāsi is the sixth division of the solar zodiac. It lies to the east of the Simha Rāsi and comprises the eastern portion of Simha Mandala, the whole of Suparna Mandala and the western portion of Kanyā Mandala. But the Rāsi consists of the last three pādas or quarters of the Nakshatra (space) U. Phalguni, the whole of the Nakshatra Svāti and the first half of the Nakshatru Chitṛā.

KANYA MANDALA [139]
(कन्या मण्डल)

Lit. the (Heaven) daughter

Rv. Apah
Pur. Kumāri (कुमारी)
(the heaven daughter)

Sat. Br. Sukanyā (सुकन्या)
(the beautiful girl)
Mahā. Śāvitri (सावित्री)
(the consort of the Sun)

Rām. Savari (शवरी)
(The huntress)

Mahā. Prithā (पृथा)
(The Great Lady)

Pur. Sati (सती)
(the chaste one)

Pur. Sukesī (सुकेसी)
(one having beautiful tresses)

Pur. Mohini (मोहिनी)
(the enchantress)

Sum. Ak. Abnam
(the proclaiser of rain)

Sum. Ak. Istar
(Heaven daughter)

Sem. Ashtoreth
Gr. Astarte

Gr. Artemis
(the huntress)

Gr. Parthenos
(the Virgin)

Lat. Virgo (the Virgin)
Eng. the Virgin

Sém. Ariadne
(the very chaste one)

Gr. Kalli-plokamas
(one having beautiful tresses)

Ph. Erek-hayim
(the Virgin)

Hin. Astrology. Pātheya (पाथेय)
"The chief stars of the Virgin, six in number, make an irregular capital Y, lying on its side, the stem and the lower branch of the Y, very nearly marking the Ecliptic" (Maunder).

The star 1 (α Virginis) called Tārā (तारा) is of bluish-white colour, and the stars 3 and 5 (ε and β Virginis) are of yellow colour; while the star 6 (δ Virginis) is of red and the rest of white colour. The Mandala is therefore said to be Vichitrā (विचित्रा) or variegated in colour. Vide:

ब्रह्म सिंह द्रिष्टि पावन पाण्डु विष्णुः।

The star 1 is in the forehead, the star 2 called Nabhîtārā (नाभितारा), a binary system with a period of 170 years, is in the navel, the stars 6 and 3 form the left leg, and the stars 9 and 5, the right leg of the stellar Kanyā.

Close below Virgo are the constellations Kāmsya (कांस्य), "the Cup" of ambrosia, and Suparna (सुपर्ण), the Eagle, the Cup being underneath the Virgin’s feet.

The presiding goddess of the sixth division of the solar zodiac is the Virgin and mother, called Kanyā (कन्या) (a).

In India she represents the female divine power, representing the Sun, the Moon and Venus and holding in her left hand the star Apāmvatsa a variant of Apām Napāt (अपाम नपात) the Fire-God—Orion, and a ear of corn (emblem of the Moon) in the other. She rides on the solar Nau (नौ) the boat. Vide:

जले नौकास्थ-सत्याप्रियारिणी स्थि।

Manohara.

मधो दिबः तरणी भ्रामणाम्।

Av. XIII. 2. 36.

Note:

तरणिर स्यूद्धस्वति सायणः।

On the banks of the Euphrates, she is the reduplication of Istar—Venus, holding a ear of corn in her hand and Duzi (Orion =Sk. Skanda) on her knees (Robert Brown II. 44).

(a) Sīvā (सिवा), the wife of Siva (सिव), appeared in the form of a Virgin before the gods. Vide:

कन्याप्रेमी देवानाम् भयते इसानं दर्शै॥

V. D. P. I. 19. 62.
"The representations of the Greek Artemis show her either as a huntress or as the goddess of the Moon. As a huntress her attributes are the bow, quiver and arrows or a spear, stags and dogs. As the goddess of the Moon, she wears a long robe which reaches down to her feet, a veil covers her head and above her forehead rises the crescent of the moon. In her hand she often appears holding a torch."

W. Smith.

Note. The fire or torch may well be the symbol of Orion, and the crescent moon represents the third eye of the great goddess mother.

Amongst other Hindu names for Kanyā are Āpah (आप: ) the waters; and Savari (शवरी ), the Huntress. The first name is preserved in the name Āpa (आप ) for the star 6 Kanyāyāh and the second name, we believe, in the name for 3 Kanyāyāh. In Babylon the Sign was called Abnam, the watering channel. In India the autumnal equinox at the eastern extremity of the Sign, is called the Jala-Vishva-Samkrānti, (विश्वविश्वायसंक्रान्ति ) lit. the watery Equinox.

Savari has a tale of her own to tell.

On the western shore of the Pampā, says the Rāmāyana, the fine hermitage of Matanga lies deep in the woods, and there lives the immortal votaress named Savari (शवरी ) who served the vanished anchorites, the disciples of Matanga. (a) Vide :

तत् तद राम पम्पाययः तीर्यम ब्राह्मणम पश्चिमम्।
शामस्मथानम अपलसु पुरवी काकुत्सि प्रयति ॥२५
मतलयज्ञनिधेय विषुव्यं रघुनदन ॥३०
मतमस्विषयम् तत्त्विन्द्रवशप्यः सुसमाहिताः ॥३२
तेवाद समायेश्वापि दुर्यते परिचालिणि।
श्रमणी शवरी नाम काकुत्सिं चिरजीविनौ॥३५

Rām, III. 73.

On the approach of the brothers, Siddhā rose to her feet with hands joined, and touched their feet. Vide :

(a) As such the Rishis may well be called Mātangas. A punning etymology connected their name with the elephant Airāvata. In the Rig-Veda no mention of the famous Airāvata of Indra is found.
Rām. III. 74. 6.

‘On your arrival to Chitra-Kuta’ said she to Rāma, ‘my Gurus (the seven Rishis) flew to their heavenly mansions (stars in the constellation Chitra Sidhānti Mandala) in dazzling chariots, enjoining me to stay here till your arrival and to offer you hospitality.’

Vide :

Vide :

Rām. III. 74. 14-16.

‘Their mandate induced me to collect (a) all the fruits that grow on the banks of the Pampa, and I offer them to you.’

Vide :

She tasted the fruits to test their sweetness, and then gave them to her guests. Vide :

Therefore, Savari = the Gleaning Maid.

Then Rāma said to the votaress whose holy vows were perfected, “I have been duly honoured; Go where you be pleased to live.” Vide :

With the permission of Rāma, she resigned her body to the flames and like burning fire, she rose to heaven. And like a

(a) Cf. The star 3 Kanyāyāḥ (= Virginis) is (Gr.) Procyon (= the fruit-plucking-herald), (Lat.) Vindemiatrix (= the Vintage-herald), and (Eng.) the Gleaning Maid; and we propose to call it Savari.
flame of lightning, she illuminates that part of the heavens where she rests near the seven Rishis. Vide:

अनुष्ठानोऽव रामेश दुर्व भातामय छतारसे।
वजद-पावक-संवारा खर्माकं ग्नाम् हृ।
चिराज्यन्ति तस्म आसम, बिदुषन सोदामिनी गया।
वत ते मुक्ताल्मण्; बिन्दर्त्ति महत्थः।

Rām. III. 74. 32-35.

The immortal Savari, called Siddhā (सिद्धा), living in the neighbourhood of the Rishis, cannot but be the consort of the divine Savara, commonly called Kīrata (किरात) the hunter, i.e., Siva-Bhutesa (सिवस्यवेश), and Savari is known as the constellation Kanyā (कन्या) in heaven. It is interesting to note that Savari is associated with fruit (फलम्) and fire which Kanyā holds in her hands. Vide:

जले नौकास्यर-सत्यसिखासिनी संधा।

श्री दीपिका।

Cf. With Aratos, the Virgin is Astraea, the spirit of Justice, once in the Golden age, a dweller amongst the men. But when an inferior race in the Silver age succeeded their fathers, she withdrew to the mountains, and fled thence to the sky when the Brazen race fashioned murderous weapons and devoured the flesh of plough-oxen for their food (Maunder).

In the Mahābhārata, Kanyā re-appears as Prithā (पृथा) lit. the great Lady, i.e., the earth (cf. Gr. Parthenos), and as such she is the consort of King Pāṇḍu (=the stellar Lion of Pāṇdu colour, presided over by the solar God). Vide:

क्षण सितैं हरित पातल पाण्डुविनित्रा।

हरित न्योदितत्त्व।

Prithvi (पृथ्वी) or Uṃā (उमा) is therefore reduplicated in Kanyā again, and as such she is the consort of the Lance-holder himself. Vide:

उमापृथिवी।

Nir. XII. 4. 9.

Vide also,

खरेणी-पृथिवी घोरा गदिनी चाकिनी तथा।

हरित देवीमाहात्म्यम्।
Later on, Kanyā is again represented by Draupadi. The goddess Sri (Venus) is said to be a daughter of the Lance-holder Sīva-Bhuṣesā (Gr. Bootes) who had to come down to the earth and take her birth as Draupadi for her love for the Pāṇḍavas, and who was taken back to heaven after the war of Kurukṣetra.

Vide:

तथा द्रौपदी पाण्डवीणि कुसुमोलपलमालिनीम्।
विनया स्वर्गस्म ब्रह्म्य तत्ततिन्यं बहुवर्षं सम्भवेऽपि।।
श्री एवरुपदीरुपा लयनि मातुरूणि गता:।
रति-वर्धमान्य मत्ताम् हि एव निमित्तं शुलभाणिना॥


This fact leads us to call the star 5 Kanyāyāh (= β Virginis) Draupādi (द्रौपदी) the daughter of Drupāda, the world-tree (a).

This story reminds one of the Greek Erigone daughter of Icarius (= Bootes), the wine-drinker, both of whom were translated to heaven as Perthenos (Lat. Virgo) and Bootes (vide, Smith’s Classical Dictionary:) Duḥsāsana is said to have laid violent hands on the robes of Draupādi. Vide, Mahābhārata II. 66.

Cf. ‘Thus we meet’, says R. Brown in describing the constellation-subjects in Euphratean arts, ‘with Istar (a) as a warrior goddess, despoiled of her garments in the under-world.’

As Sukanyā, she is the faithful consort of Kyavana, the planet Sani (Saturn).


As Sā-nil, she is the devoted bride of Satyavān (Av. X. 8. 42) alias Rītavān (Rv. II. 27. 4), the God of Truth—the Sun-God. And the reader is no doubt familiar with the story of her rescuing her dying bridegroom from the clutches of Yama the Death-God.

Cf. “And her (Istar’s) errand is to seek her lost bridegroom Dwuzi-Tammaz (the Sun-God) in the under-world, as described in the now familiar legend of the Descent of Istar.”

R. Brown I. 65.

(a) Cf. ‘Istar originally represented the Moon in its female phase (Luna.) But Istar was subsequently identified with the planet Venus, and her stellar constellational reduplication is the Sign Virgo.’

R. Brown. I. 64.
As Sukesī she is the consort of Rudra the Sun-God, and mother of Mars, whose constellational reduplication is the gorgeous Orion.

V. P. 1. 8. 6-10.

And lastly as Mohini, she got possession of the 'Cup' of Amrita, by enchanting the Asuras with her charms, but was deceived in her turn by Rāhu (Hydra). Rām. I. 45.

"In the Euphratean sphere it seems," says R. Brown, "that the figure of a dog was placed behind the Lion." In a Graeco-Babylonean Tablet, 6 Simhasya-(θ Leonis) was called "the end of the tail of the dog of the Lion". The XIIth Arabian Masjīl consisting of the stars 5, 9, 2, 6 and 3, Kanyāyāḥ (β, η, γ, δ, and ε Virginis) is called Al-auwa (the Howler). And 5 Kanyāyāḥ (β Virginis) is called Zawizava (the retreat of the Barker), and 2 Kanyāyāḥ (γ Virginis) at the angle of the five stars, Zawiyah-auwa (the Barker's corner).

Nergal, the Death-God, presides over the asterism XVI of the Tablet of the thirty stars, consisting of the stars 9, 2, 6 and 3 Kanyāyāḥ (η, γ, δ and ε Virginis); and in the disguise of a dog, Tama the Divine Judge of the Hindu theogony, followed the famous five Pāndava brothers while they were ascending to heaven.

Kanyā seems to be the patron constellation of the city of Kanyāpura (Cawnpur or Kanpur) and Kumāri, that of our southern peninsula Kumārikā.

THE NAKSHATRA CHITRĀ

(चित्र नक्षत्र)

Pres. Deity: Tvṣhṭā (त्वस्थता) (the carpenter of the world) (a)
Ak. Kakkab Sakh. Ilu Da-mu (the asterism of prosperity, god of the sky-furrow)

According to the S. Siddhānta, the Nakshatra Chitrā is composed of several stars; but the Paurānik astronomers allot to it only a single star 1. Kanyāyāḥ (α Virginis) called Tārā. The S. Siddhānta puts the star at Lat. 1°30' S. and Long. 180°,

(a) According to the Black Yv. Indra.
and Colebrooke and others have identified it with the star Spica. In the Vedic age the Nakshatra had also one star. Vide:

\[\text{नक्षत्रा निवाला} \]


\[\text{तव्र क्षत्रा निवाले स्वाहा} \]

T. Br. III. 1. 4.

As to the origin of the Nakshatra’s name, vide, Introduction Ex. VI.

The month-name Chaitra is derived from the Nakshatra Chitra.

It is interesting to find that in the Euphratean Scheme, the asterisms XIII and XIV are connected with the “Temple of the hosts of Earth” (The Tower of Babel?). The two asterisms answer the Nakshatra X and XI of the modern Hindu Lunar Zodiac, viz., Magha and P. Phalguni.

In Indian Almanacs Chitra is represented as a goddess with ten arms.

**THE STAR “TĀRĀ”**

(“तारा” तारा)

Ak. Sūpa (The lustrous)
Bab. Nēbhūtusāzīri (The one called the Ear of corn)
Ph. Zera (Ear of corn)
Eg. Ėpa (The Lord)
Sem. Al-simak (The Prop)

| Gr. Stackys (Ear of corn) | Lat. Spica (Ear of corn) | Eng. The Ear of corn |
| Gr. Mikros-Kantaráros (The little lance-holder) (a) |

First, we have Sāti, the Virgin Mother, as a single star, Tārā; then Sāti, the Virgin Mother, as an asterism, Chitrā, consisting of the star Tārā with some adjoining stars; and ultimately when it is thought necessary that the constellation should be spread as far as possible over the ecliptic, we arrive

(a) The Hindu goddess Tārā holds a trisula or sula (शूल) the lance.

Vide:

\[\text{तारा देवीमाहात्म्यम्} \]
at the full figure of Sati as a constellation, Kanyā; there being
a striking natural resemblance between the form portrayed and
the actual arrangement of the stars. The sacred and all-pervad-
ing body of Sati-Tārā is punitiously said to have been cut into
fifty-one oldest known constellations, the objects of adoration
of the astro-theogonical school of worshippers.

THE OLD NAKSHATRA SVĀTI

(प्राचीन स्वाति नक्षत्र)

Ak. Uz (The goat)  Sem. Enzu (The goat)
Bab. Kakka' Luiim (= the asterism-of-the-goat)

This asterism, says Brown, includes the stars 10, 13 and 14,
Kanyāyāh (=ε, κ, and λ Virginis), and is called in the Persian
and Indian schemes 'the Good-goer' i.e., the leading goat of
the flock.

THE STAR SAVARI

(शवरी तारा)

The star 3 of Kanyā = ε Virginis
Gr. Protygiter
Lat. Vindemiatrix
Eng. Fruit-plucking herald

From its being connected in time with the vintage, the star
appears to have attracted more attention than what its mere
brightness seems to warrant.

THE STAR ĀPA

(आप तारा)

Lit. The waters
6 of Kanyā= δ Virginis

This is a star of historical importance, because with the
stars Tārā and Apām-vatsa, the star gives a fair idea of the
Equinoctial Colure of the time when the Hindu zodiac was
made a fixed one.

The star forms the left knee of Kanyā.
The star is a reduplication of Ápah (श्राव), the waters, the mother of Skanda. The S. Siddhânta gives the Lat. and Long. of the star, viz., 9° N. and VI. 0° respectively.

THE STAR APĀM-VATSA

(अपाम् वत्स तारा)

Lit. The child of the water
11 of Kanyā = θ Virginis

The star is a reduplication of Apām-nāpāt "the child of the waters" (Skanda-Orion), and its name Apām-vatśa is a variant form of Apām-nāpāt. The S. Siddhânta gives the Lat. and Long. of the star, viz., 3° N. and VI. 0° respectively.

The names of the two stars—Āpa and Apām-vatśa—have a close affinity to Abnam, the Akkadian name of Virgo. And the natural configuration of the stars in the constellation, evidently shows θ Virginis to be the child in the lap of the Virgin mother. But as it is, "Early Christian thought recognized a reference to the promise of 'the Seed of the Woman' of Genesis iii. 15, in 'the ear of the corn' (Spica) the Virgin carries in her hand, and the expression in Shakespeare's play of Titus Andronicus, 'the good boy in Virgin's lap' refers to the Mediaeval (Christian) representation of the Sign as the Madonna and Child" (Maunder).

It is remarkable that the Siddhântas place the star Apām-vatśa (θ Virginis) in Kanyā's lap: Apām-vatśa being another name of the Vedic Apām-nāpāt, "the child of the waters" (=Prince Skanda of the Mahābhārata).

5. SUPARNA MANDALA

(सुपर्ण मण्डल)

Pres. deity: Savita (सविता), the Sun

Āk. Im-dugul-khu (The great storm-bird)
Sem. Ramānu-ikkābd (The storm-god is terrible)
Ph. Ouraib (The crow)
Gr. Kora (The crow)
Lat. Corvus (The raven)
Eng. The crow

The Ecliptic passes through the middle of Virgo, below which lies the constellation of the bird Suparna (सुपर्ण), lit. the
strong-winged. The Sun stands over Suparna at the latter part of the month of Āsvina (Sept.-Oct.). The Sun is therefore said to ride on Suparna, and he is its presiding God (a). Suparna is therefore called Eīsa (एतस्) (b), the horse of the Sun.

Suparna is represented as an eagle with the head of a horse.

For further particulars, vide, Vithi. X. Garuda.
—Suparna is said to be a son of Vinaṭā (विनता) lit. "the sloping one", i.e., the sloping Hydra who sucks her child Suparna.

Cf. Tiamat (Hydra) gave the brood of crows suck (Brown, I. 109).

Taimat is the Euphratean sister of the Indian serpent Taimāta. Vide. Av. V. 15. 6; 18. 4.

THE NAKSHATRA HASTĀ

(हस्तानास्य)

Pres. deity: Savūṭa (सविता), The Sun

Euph. Asterism No. XVIII

Kakkab Ansu Kur-ra (The asterism of the animal from the East; i.e., the horse) Iṣu-Imbudug-Khu (The God, the great Storm-Bird)

The stars 1, 2, 3, 4 and 5 of Suparna ( = β, γ, δ, ε, and α Corvi) constitute this asterism. The stars form the figure of a man’s hand. The star 1 is at the wrist, and the stars 3, 2, 4, and 5 represent the four fingers, excepting the middle one; and we have named the stars accordingly. The S. Siddhānta places the Togatārā at Lat. 11°S and Long. V. 20°; and Messrs Colebrooke and Burgess identify the star with the star 3 Suparnasya (= δ Corvi).

The star 6 Suparnasya (ζ Corvi, a faint star midway between the stars 1 and 4) is an opera-glass double star.

(a) Vide:

सुयवी: अक्ष सवित: ग्रहमान ठूँ: माता: स: उ भस्य शन्तु धर्मम् ||
Rv. X. 149. 3.

(b) वद ईम आशु: वहति देश: पत्र: विभासेच चढ़से धर्मम् ||
Note: The reader will observe that in the Euphratean scheme, the constellation is the crow and the asterism is the horse, while in India the constellation is the Eagle, a horse-headed bird.

Cf. "The horse and the crow are depicted next to each other. There is thus a close connection between the Lunar Zodiac Asterism of the Horse and the constellation Corvus, the *Kakkab Kurra*-being ultimately identical with *Kakkab Im-dugud-Khu*" (R. Brown, ii.84-5).

6. KĀMSYA MANDALA [13]

(कामस्यमण्डल)

<p>| | | | |</p>
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<tbody>
<tr>
<td>Ak.</td>
<td>Lut-tir na (The cup of the snake)</td>
<td>Gr.</td>
<td>Kreter (The cup)</td>
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<tr>
<td></td>
<td>Lat.</td>
<td>Crater (The cup)</td>
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<tr>
<td>Ph.</td>
<td>Asour (The cup)</td>
<td>Eng.</td>
<td>The cup</td>
</tr>
<tr>
<td></td>
<td>Sem.</td>
<td>कृष्ण-चिडी (Bowl of the snake)</td>
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We have translated the constellation-name. But the cup being close to Rāhu, it may well be connected with the vessel Amrita which Vishnu in the disguise of Mohini received in her hand from the infatuated Asuras and from which he poured down nectar (अमृतम्) to the Gods, excluding the Asuras who did yeoman's service in churning the Upper Deep, to get the Amrita out of it. Rāhu (Hydra) in the disguise of a Deva (God) did drink it. But when the fraud was detected, an uproar ensued and in the tumult Vishnu must have thrown down the cup and taken up his Chakra to cut off the head of the fleeing serpent.

The star 2 Kāmsyas (a Crateris) forms the pedestal of the cup, and the four stars 5, 4, 1, and 6 Kāmsyas (ξ, γ, δ, and θ, Crateris), arranged in a bad semicircle, mark the bowl of the cup, the stars 4 and 1 being at the bottom of the bowl.

The cup is on the point of being upset. Vide, Mahā. I. 19.
TRISANKU MANDALA  

7. TRISANKU MANDALA [16]  

(त्रिश्चकुमण्डल)

Lat. Crux  
Eng. The Southern cross

The constellation Crux was invented by Royer in 1679 A.D. In India or rather to the Hindus the constellation was known from long before.

The Sun as the upholder of Truth (Sk. Ritam) or the Law of the Universe, is called Satya-dharmā and Ritavān in the Vedas, (vide Av. X. 8. 42 and Rv. II. 27. 4), and Satyāvṛata and Satyavān in the Purāṇas. He was not born to enter the heavens, but was destined to be born and to die, in the Antarikṣa (अन्तरीक्ष) or the mid-region between the earth and the heavens. Vide, Rv. X. 72. 8-9 and vide also, Introduction, Ex. VIII.

The Sun-God has three Padas (पद) lit. stations, one at the rising hill, one at mid-heaven and the third at the setting hill. Vide:

व्रति पद विचक्रमे विष्णुः।

Rv. I. 22. 18.

These three stations are naturally regarded as the Sun’s three posts or pegs (Sk. Sanku=शंकु) i.e., resting places.

From this fact the solar hero came to be represented as King Trisanku (त्रिश्चकु) or the ‘three-stationed’.

Then again the Sun goes up to (1) the Northern Solstice in the Deva-bhāga, but cannot rise higher and he has to retrace his steps southwards and crossing (2) the Equinox he goes down to (3) the Southern Solstice in the Asurabhāga, but no further.

This astronomical phenomenon gave rise to the Paurāṇik story of King Satyavrata, surnamed Trisanku (a). King Satyavrata, says Vālmiki, was the son of King Prithu of the Solar race. He committed three sins which turned into Sankus, and he could not therefore enter the heavens.

From his three Sankus, the king came to be known as Trisanku, and he asked his family priest Brahmarshi Vasishtha to perform a yajna for his translation to heaven. Vasishtha refused

(a) Cf. “Dius Fidius, as well as Sancus was originally the name of Jupiter.” Max Müller. p. 151.
to officiate in the yajna of a king guilty of three sins. The king went over to Rishi Visvāmitra, who commenced the yajna (वा), but the gods did not accept the offerings. Visvāmitra made a gift of his own righteousness to the king and advised him to go to heaven. The King began to ascend to the heavens. On his nearing “the vernal equinox” (= the gate of heaven) below the star Agni about B.C. 4250, Indra ordered him to go down and the king began to fall headlong earthwards, calling upon his priest newly elected, to protect him. This enraged the Rishi who enjoined him to stay, and created another heaven in the south for the king’s residence with a counter set of Dhruvas (Pole-stars), Saptarishis (the seven Rishis), and other constellations, Nakshatras and stars, and was about to create a second Indra to reign over the heaven created by himself, when a concordat was effected between the antagonistic parties.

The Asurabhāga or the Southern Heaven with its constellations, Nakshatras, stars and circle of Dhruva-lārās created by Visvāmitra the Paurāṇik brother of the Avestic Angra-Mainyu (a), was recognised as a part of heaven itself, and Trisanku was allowed to stay there as a Deva (देव ) in his falling posture (b) with the Maharshi Vasishtha (c) below him. Orion with its three belt-stars, represents King Trisanku with his three sins

(a) Of the heavenly bodies, Angra-Mainyu (Skr. अग्रमण्य ) or the evil principle, is said to have created the planets and Ahura Māzda (Skr. अहूरामत ) or Asura the great, i.e., the good principle is said to have created the stars. Vide Avesta.

(b) स्वगी: वस्तु सतारीस्थित विशेषी: वस्तु शास्त्र:।
नक्षत्राणि च स्वरूपाणि संपन्नानि व्रजानि भव:।
वास्तु लोकः: परिन्यन्त तिन्तु पतानि सर्वः:।
मल्लकानि ... ... ... ॥

Rām. I. 60.28-29.

(c) The story of the translation of Trisanku to heaven by Visvāmitra would naturally lead one to suppose that it was Rishi Visvāmitra, who was with Trisanku at the time of his fall from heaven, and in accordance with this supposition the star I of Trisanku was named Visvāmitra in my ‘Atlas of Hindu Astronomy’. On a further consideration, we think that the opinion of the holy saint Rāmānuja Svāmi should be followed.
entering heaven, half of his body being above and half below the celestial Equator. And the three stars 2, 3, and 4 of Trisanku Mandala- (β, γ, and δ Crucis) represent King Trisanku in his “headlong downfall”, and the star 1 Trisankoh (α Crucis) represents his priest Vasishtha. Vālmiki notes the fact when he makes Lakshmana say to Rāma while marching on to Lankā.

“And great Trisanku, glorious king
Ikshaku’s son from whom we spring
Beams in unclouded glory near
His holy priest whom all revere”

Prof. Griffith.

Vide:

тришаку: вимах: мати: раниш: сурорхит: ।
питамах: пур: астмакам: हल्लाकुशाम् महातमाम् ॥

Rām. VI. 4. 49.

And the holy sage Rāmānuja Svāmi (A. D. 1128) explains the passage, observing that the constellation lies in the South with the star Vasishtha, the priest of the solar race, in it.

सर्नोरिह: विरिक्षरिह: हल्ल: हल्ल: त्रिशकु: अस्तमकम: पुर: माति। तत्व द्वितिषमित्रतवः ।

Vide, the Svāmi’s Commentary on Rām. VI. 4. 49.

The contest between Vasishtha (the Vedic brother of the Avestic Ahura Māzda) and Visvāmitra the Indian Angra Mainyu, for the possession of the mundane cow (= Aditi, the northern half of the Galaxy, or the Earth) is a proverbial one. Vide, Rām. I. 53-56.

A story is related by the great scholiast Sāyana Āchāryya, in which the star 1 Trisankoh (α Crucis) appears to represent Brahmarshi Vasishtha, and the three stars 2, 3 and 4 Trisankoh (β, γ, and δ Crucis), the (three-headed) watch-dog of Yama. The legendary tale speaks of the hungry Vasishtha’s being attacked by the watch-dog of Yama, during his thieving excur-
sions into Yama's storehouse. The dog re-appears as the three-headed Cerberes in Greece. Vide, Sāyana's notes on Rv. VII. 55.

8. MAKSHIKĀ MANDALA [35]

( मलिकामण्डल )

This constellation was discovered by Bayer in 1803 A.D. We have translated the constellation-name.
This Vithi comprises the following constellations:

1. Sisumāra Mandala (शिष्युमार मण्डल)
2. Bhutesa Mandala (भूतेश मण्डल)
3. Tulā Mandala (तुला मण्डल)
4. Sārdula Mandala (शार्दूल मण्डल)
5. Mahīshāsura Mandala (महीशासुर मण्डल)
6. Vṛittā Mandala (वृत्त मण्डल)
7. Dhumrāt Mandala (धूम्रात मण्डल)

1. SISUMĀRA MANDALA (Ursa Minor)
   (शिष्युमार मण्डल)

Sisumāra Mandala or Dhruva Matsya (Ursa Minor) stands at the top of Vithi VII(a).

This constellation consists of seven stars. Dharmatārā or 1 Sisumārasya lies at the head of the constellation and Dhruvatārā or 2 Sisumārasya (=α Ursa Minoris) lies at the tail of Sisumāra Mandala. It is stated that by observing the Dhruvatārā during night one may be free of any sins committed during the day. Dharmatārā is situated at a distance of 8 cubits south of Dhruvatārā and Indratārā (3 Sisumārasya) is situated 2 cubits away from Dharmatārā and lies at the mouth of Sisumāra Mandala.

2. BHUTESA MANDALA (Bootes)
   (भूतेश मण्डल)

This constellation consists of stars of yellow colour as that of the Sun. It lies to the north of the constellation Kanyā. If the curved tail of Chitārā Sikhandi is extended to the star ‘Tārā’, the brilliant star Nishthya (Arcturus = α Bootes) will be seen. The Nishthya tārā lies at the middle of the curved line.

(a) कारामय मण्डलः शिष्युमाराक्रमि मणोः।
    दिबि रूपं हरेयंतु तत्वं पुर्णे स्थितं भूवः॥

हस्ति विष्णुपराणम् ३६५२
Nishthya is also seen by joining the line between Pulaha and Kratu. The observer will also reach near Nishthya if the line joining Draupadi and Savari is extended. The beauty of this star attracts the heart of the observer so much that the observer cannot forget it. Hiranya-chakratārā is situated at a distance of 4 cubits east of Nishthya.

NAKSHATRA SVĀTI (a)

(स्वाति नक्षत्र)

Presiding Deity : Pañcā

Svāti is the fifteenth nakshatra of the lunar zodiac. The nakshatra has only a single star of Kumkum Varna. The name of the star is Nishthya (Arcturus = θ Bootes). Svāti nakshatra lies to the north of Chitṛā nakshatra. The name Svāti or Kharga has been given to it as the rays of Nishthya tārā removes darkness (tamah).

3. TULĀ MANDALA (Libra)

(तुला मण्डल)

Presiding Deity : The planet Venus (मुन्य)

Tulā is the seventh rāsi of the solar zodiac. It consists of five stars. 1 Tulasya (Saumya Kilaka or β Libra) lies distant east of the star Tārā. Nishthya, Tārā and Saumya Kilaka form an isosceles triangle. Nishthya is situated at the top of this triangle. 3 Tulasya (Tarit) lies at the south of Saumya Kilaka. Saumya Kilaka and Tarit are situated at the northern and southern sides of tulādanda (balance). 2 Tulasya (Yāmya Kilaka) lies at the top of tulādanda just in the west from the middle of tulādanda. 6 Sārādulāsya lying to the south-east of Tarit tārā and 3 Sarpasya lying at the north-east of the Saumya Kilaka are supposed to represent the two carriers of the tulādanda (balance). The nakshatra Visākhā lies in Tulā Mandala.

(a) कुकुमास्थवर कवारक : १ हस्ति कालिदास : १
THE NAKSHATRA VISĀKHĀ OR RĀDHĀ 

(visākha va rāṣṭa)

Presiding Deity: Indra and Agni

Visākha is the sixteenth nakshatra of the lunar zodiac. According to Vedas, Visākha nakshatra consists of two stars. It lies to the east of Śrīvīṣṭa nakshatra. In the Vedic age it consisted of two stars viz., 1 and 2 Tulasya, and the yogatāra was 1 Tulasya (Saumya Kilaka). But according to modern astronomers it consists of the same five stars of the Tulā Mandala forming a torana (arch) (b). The month name Vaisākha is derived from Visākha nakshatra as the full moon of the month occurs at Visākha nakshatra. The old name of Visākha nakshatra is Rādhā. Another name of the month of Vaisākha is Rādha.

4. SĀRDULA MANDALA (Lupus)

(Shaṅgūl māṇḍala)

Sārdula Mandala lies to the south of Tulā Mandala. The stars 1, 2, 3 and 4 Sārdulasya form the body of Sārdula Mandala and 5, 6, 7 and 8 are in the shape of the tail of Sārdula Mandala. The old Vyāghra nakshatra lies in this Mandala.

THE OLD NAKSHATRA VYĀGHRA (VRIK)

(prāchāna śāraya nakṣatra—vruk nakṣatra)

The old Vyāghra nakshatra perhaps consisted of the stars 1, 2, 3 and 4 Sārdulasya. In the Athārva Veda, it is stated that one who is born in Vyāghra nakshatra becomes a good warrior but kills his parents (vide A. V., 6-110-3).

5. MAHISHĀSURA MANDALA (Centaurus)

(mahishāsura māṇḍala)

Mahishāsura Mandala lies to the south of Sārdula Mandala. In the month of Vaisākha, an observer at Calcutta may find during midnight at the southern point two brilliant stars.

(a) राशि विशाखा गुप्ते है। शति बमरकोषः।
(b) तोरणाहितिन्य पक्षातर्के। शति कालिदासः।
These two stars are first and second stars of Mahishāsura Mandala. 1 *Mahishāsurasya* (*= α Centauri*) is the 3rd brilliant star and 2 *Mahishāsurasya* (*= β Centauri*) is the 10th brilliant star of Bhagola (celestial sphere). The two stars lie at a distance of ~3 cubits from each other in the east-west direction. The star 1 *Mahishāsurasya* (*= α Centauri*) is the nearest star to the earth.

6. **VṛTTA MANDALA** (Circinus)

(वृत्त मण्डल)

7. **DHUMRĀṬ MANDALA** (Apus-)

(धुम्राट्मण्डल)
VITHI VIII

The eighth Vithi consists of the following constellations:

1. Harikulesa Mandala (हरिकुलेश मण्डल)
2. Uttara Kirita Mandala (उत्तर किरीट मण्डल)
3. Sarpa Mandala (सर्प मण्डल)
4. Vrischika Mandala (वृषिक मण्डल)
5. Dakshina Trikona Mandala (दक्षिण त्रिकोण मण्डल)
6. Manadanda Mandala (मणदंड मण्डल)

1. HARIKULESA MANDALA (Hercules.)
   (हरिकुलेश मण्डल)

To the western part of the star Nilamani and to the east of Bhutesa Mandala lies the Harikulesa Mandala. The stars of this Mandala form the figure of three lotuses. The inner part of the lotus consists of the stars 8, 1, 2, 7 and 15 Harikulesasya. The middle part is formed by the stars 12, 5 and 9 Harikulesasya and the outer part consists of the stars 4, 16, 3 and 12 Harikulesasya. The solar system with its family of planets moves towards the star 12 Harikulesasya. The motion of the Sun per Vipala (0.4 sec.) is 6--miles. The star 2 Harikulesasya is considered to be the best binary of the Universe. The double star of 2 Harikulesasya completes the revolution about each other in 35 years.

2. UTTARA KIRITA MANDALA (Corona-Borealis)
   (उत्तर किरीट मण्डल)

Uttara Kirita Mandala lies between Harikulesa and Bhutesa Mandalas. The stars of this constellation form the figure of a necklace in the sky. This necklace-shaped constellation is seen in the north-east side of the star Nishithya.

3. SARPA MANDALA (Serpens)
   (सर्प मण्डल)

Mahāsarpa stands at the south of Uttara Kirita Mandala. Uttara Kirita is seen placed on the hood of Mahāsarpa.
4. **VRISCHIKA MANDALA (Scorpius)**

(मुषिचक मण्डल)

Presiding Deity: The planet Mars (मंगल यह)

*Vrischika* is the eighth *rasi* of the solar zodiac. It comes to the meridian at midnight of the month of Jyaistha. The shape of this constellation looks very beautiful and attractive among the constellations. The observer can easily identify this constellation which forms the figure of a scorpion. *Vrischika* Manda is consists of three nakshatras, viz., Anurādhā, Jyesthā and Mulā.

**THE NAKSHATRA ANURĀDHĀ**

(अनुराधा नक्षत्र)

Presiding Deity: Mitra (मित्र)

*Anurādhā* is the seventeenth nakshatra of the lunar zodiac. The nakshatra consists of four stars which form the figure of a serpent *(a)*. Anurādhā nakshatra lies at a distance of 8 cubits south-east of *Visākhā* nakshatra. To the east of Visākhā nakshatra, the four stars 8, 5, 11 and 18 *Vrischikasa* lie at the face of Vrischika. These four stars which form the figure of a serpent constitute the *Anurādhā* nakshatra. The name of this nakshatra is Anurādhā as it follows the Rādhā nakshatra. 5 *Vrischikasa* (=8 Scorpiii) is the brightest among these four stars and is also the jogatārā of Anurādhā nakshatra.

**THE NAKSHATRA JYESTHĀ**

(यजस्ता नक्षत्र)

Presiding Deity: Indra (Jyestha)

(इंद्र वा यजस्त)

Jyesthā is the eighteenth nakshatra of the lunar zodiac. Jyesthā nakshatra is formed by three stars looking like the tooth of a boar *(b)*. The nakshatra lies about 5 cubits south-

*(a)* सर्पः्हति सन्ततारामः। हति कालिदासः।

*विभिन्नतारामः सत्यतःः। हति दीपिका टीका।*

*(b)* यजस्ताताकरात्सतिरस्तियान्तिरस्का। हति कालिदासः।

*बलयाहः्हति। हति दीपिका।*
east of Anurādhā nakshatra. Jyesthā nakshatra consists of three stars, viz., 1, 9, and 10 Vrishikasya lying in the neck of Vrischika and forming the figure of a bird.

The middle star of this group is of reddish colour. It is a first magnitude star and is 17th in order of brilliance. Jyesthā nakshatra has derived its name from Indra whose name is Jyestha. 1 Vrishikasya or Rohini tārā (Antares = α Scorpii) is the yogatārā, i.e. the principal star of Jyesthā. The month name Jyaistha is derived from the full moon occurring at or near the nakshatra Jyesthā. The name Jyesthāgni of this nakshatra is also found in the Atharva Veda. It is stated in astrology that if any native (Jātaka) is born during Moon’s stay in this nakshatra, it does harm to the elder brothers.

THE NAKSHATRA MULĀ

(मुला नक्षत्र)

Presiding Deity: Nirriti (Yama or Rākshasesvara)

Mulā is the nineteenth nakshatra of the lunar zodiac. It consists of five stars shaped like a conch shell. Mulā nakshatra lies about 8 cubits to the south-east of Jyesthā nakshatra. The present name of this nakshatra is Mulā and its old name is Vichrita. Mulā nakshatra is formed by the five stars situated at the tail of Vrischika and the figure looks like the letter ‘ba’ (ब) of the Bengali script (a).

This asterism consists of the five stars 2, 7, 3, 14 and 9 Vrishikasya and represent the figure of a conch shell. Vichrita nakshatra was supposed to consist of the two stars 2 and 7 Vrishikasya lying at the mouth of the conch shell. According to the Atharva Veda (vide A.V., 6.110-2) the native (Jātaka) born in the Vichrita nakshatra destroys his family. And for this reason the name Mulavarhāni is assigned to Vichrita nakshatra in Taittiriya Brāhmaṇa (vide T.B. 1-4-2-8).

According to Rig Veda (vide R.V. 10-14-10) the stars 2

(a) सिंहपुजाराः। शतो मुखतित्तमाणि।
मौलिमाणि नवारकादिति मूलभे स्वतन्त्रअभिस्थिति। शति कालिदास।
Vrischikasya (Syām tārā) and 7 Vrischikasya (Sabal tārā) are considered to represent the two messengers of Yama. These two stars lie at the door of the Yamapatha or Chhāyāpatha. Syām tārā is the yogatārā of Mulā nakshatra.

5. DAKSHINA TRIKONA MANDALA
   (Triangulum Australis)
   (वस्त्र त्रिकोण मण्डल)

6. MĀNADANDA MANDALA (Norma)
   (मानहङ्ग मण्डल)
VITHI IX

Vithi IX consists of the following constellations:

1. Takshaka Mandala (तक्षक मण्डल)
2. Vinā Mandala (वीणा मण्डल)
3. Sarpadhāri Mandala (सर्पधारी मण्डल)
4. Dhanus Mandala (धनु मण्डल)
5. Dakshina Kirita Mandala (दक्षिण किरित मण्डल)
6. Duravikshana Mandala (दुरविक्षण मण्डल)
7. Vedi Mandala (वेदी मण्डल)

1. TAKSHAKA MANDALA (Draco)
   (तक्षक मण्डल)

Takshaka Mandala lies between Sisumāra and Saptarshi Mandalas. Sisumāra is surrounded by Takshaka Mandala. The star 1 Takshakasya (Sparsamani tārā=γ Draconis) in the northwest direction of the star Nilamani lies 10 cubits away from it. 12 Takshakasya lying at the tail of Takshaka Mandala is very close to the Dhruvatārā. At the beginning of Kaliyuga the star 7 Takshakasya was the Dhruvatārā. It lies at the middle of 3 Sisumārasya (Indra) and 4 Saptarshika (Vasishta). The Kadamba Bindu between the two stars Dhruva and 1 Takshakasya is situated in the coil of Takshaka Mandala.

2. VINĀ MANDALA (Lyra)
   (वीणा मण्डल)

This constellation lies to the east of Harikulesa Mandala and west of Chhāyāpatha. 1 Vināyāḥ (Nilamani tārā or Vega=α Lyrae) is the principal star of this Mandala and is the 4th bright star of the sky.

A unique parallelogram is formed by the four stars 2, 3, 5 and 6 Vināyāḥ. The old nakshatra Abhijīt is situated in the Vinā Mandala (a).

(a) तार्काश्रयात्मकस्त्राकादात्मिति॥ शिति व्योतिषयः ॥
THE OLD NAKSHATRA ABHIJIT

(प्राचीन अभिजित नक्षत्र)

The old nakshatra Abhijit consists of three stars viz., 1, 4 and 5 'Vināyāh. The stars form the figure of the water chestnut (Sringātaka or Pāṇiphala). Nilamani is the yogatārā of this asterism. This asterism is situated very distant north of the lunar zodiac.

3. SARPADHĀRI MANDALA (Ophiuchus)

(सर्पाधारी मण्डल)

This constellation lies to the south of Harikulesa Mandala.

4. DHANUS MANDALA (Sagittarius) (a)

(धनु: मण्डल)

Presiding Deity: The planet Jupiter (बुध्मयति मह)

Dhanuḥ is the ninth rāṣi of the solar zodiac. Dhanus is situated north-east of Mūla nakshatra and lies to the western side of Chhāyāpatha. In this Mandala there are no bright stars of first or second magnitude. As such it is a rāṣi indicating night. The constellation consists of two nakshatras of the lunar zodiac viz., Purva Āsādha and Uttara Āsādha.

THE NAKSHATRA PURVA ĀSĀDHA (b)

(पूर्व आषाढ़ नक्षत्र)

Presiding Deity: Āpa (आप)

Purva Āsādha is the twentieth nakshatra of the lunar zodiac. It consists of 4 stars and looks like a bedstead. Purva Āsādha

(a) पूर्वाऔतिथ्याकार शेषाकार भनुङ्गारी पुरषः † धीत जातकविन्द्रः।

पनुस्तरकङ्गातन दौयमानो भनुङ्गारः।

………..

दूराण्यो मकरो ज्वालापुष्करनः। वज्रान्धः।

मकरेण नादीचारि यस्ते च महोदयते।

रिक्र कुम्भु पुरग स्वतवादिरं व्यात्मकः।

दूराण्यालावः कुम्भः स्वादी ज्योधिंकलाशः। † धित वामन पुराण । ५ ।

(b) धुर्महति चतुर्दशान्तिकाः। हः व्योठितः।

गजनानांकृतं द्वितापस्तातिकाः। हः व्योठितः।

संयमिन्त्र निर्मोहं चतुर्दशकर्कर्माणि। हः कालिदासः।
nakshatra lies 10 cubits east of Mulā nakshatra. It is situated to the north-east of the conch shaped Mulā nakshatra and near the eastern bank of Ākāśa Gangā or the Milky Way. The nakshatra consists of the stars 1, 6, 5 and 3 Dhanushah. The stars form a rectangular area. The name of the nakshatra has been assigned as Āśādhā as the asterism looks like a brick. The two stars of the northern side lie in the Chhāyāpātha or Milky Way. The star 3 Dhanushah which lies in the extreme north is the yogatāra of this nakshatra. It is known by the name Tulasī. The month-name Āśādhā is derived from the full-moon occurring at or near the Purva Āśādhā nakshatra.

THE NAKSHATRA UTTARA ĀŚĀDHĀ (a)

(उत्तर आशाधा नक्षत्र)

Presiding Deity: Vīswadevo (विश्वदेवो)

Uttara Āśādhā is the twenty-first nakshatra of the lunar zodiac. It lies 10 cubits away to the north-east direction of Purva Āśādhā nakshatra. It consists of the four stars 11, 4, 9 and 2 Dhanushah and forms the shape of a winnowing basket. In some opinion it consists of the stars 4, 2 and 8 Dhanushah looking like the tooth of a boar. The star 2 Dhanushah is the yogatāra of this asterism. The star may be called Lanāī.

5. DAKSHINA KIRITA MANDALA (Corona Australis)

(दक्षिण कीर्ति मण्डल)

6. DURAVIKSHANA MANDALA (Telescopium)

(दुरवीक्षण मण्डल)

7. VEDI MANDALA (Ara)

(वेदी मण्डल)

(a) श्यामाकृति ताराचुत्तियात्मकः

हिति कानिदासः ॥

गाजपतवक्ता बालतारामयः ॥

हिति दीपिका हीतः ॥

‘बालान्न मनः’ हिति सात्तवाचाय: शतपथब्राह्मणः ॥ ६। ३। १११॥
VITHI X

The tenth Viṣṇi has ten constellations:

1. Hamsa Mandala (हस मण्डल)
2. Srigāla Mandala (श्रृगाल मण्डल)
3. Vāna Mandala (वाण मण्डल)
4. Garuda Mandala (गरुड मण्डल)
5. Sravisthā Mandala (श्रविष्ठा मण्डल)
6. Makara Mandala (मकर मण्डल)
7. Anuvikshana Mandala (अनुविक्षण मण्डल)
8. Sindhu Mandala (सिन्धु मण्डल)
9. Mayura Mandala (मयुर मण्डल)
10. Ashtāmsa Mandala (अष्टांश मण्डल)

1. HAMSA MANDALA (Cygnus)
   (हस मण्डल)

   Tārā-Hamsa lies to the east of Vinā Mandala. Hamsa is floating in the Ākāsa Gaṅgā in the south-east direction. The star 1 Hamsasya is situated at the tail of Tārā-Hamsa and is known as Puchcha tārā (α Cygni). The stars 3, 2 and 5 Hamsasya mark two wings of the Swan or Cygnus and 4 Hamsasya lies at the mouth of Tārā-Hamsa and is known as Hamsamukha tārā. The star Hamsa-mukha can be seen if the line joining the two stars Nilamani and 2 Vināyāh is extended towards the south-east direction. The observer can identify the Puchcha tārā if the joining line between the stars Pulaha and Dharmatārā is extended. According to Mahābhārata the seven Risis (sages) took the form of a Swan.

   (Vide, Mahābhārata, 6/120/96-97)

2. SRIGĀLA MANDALA (Vulpecula)
   (श्रुगाल मण्डल)

   To the south of Hamsa Mandala lies the Srigāla Mandala. The story of attainment of heaven of the Srigāla (Jackal), the
Minister of Sārdūlarāja, has been narrated in the Mahābhārata (a). But the position of the Śrīgāla is not mentioned.

3. VĀNA MANDALA (Sagitta)

(वाण मण्डल)

Vāna Mandala lies in the Somadhārā to the south of Śrīgāla Mandala. It has been narrated in the Mahābhārata that the arrow thrown by Arjuna raised the nectar water of Bhogavati.

4. GARUDA MANDALA (Aquila)

(गरुड़ मण्डल)

This Mandala lies in the Somadhārā to the south of Vāna Mandala. Garuda stole nectar (amrita) for the Nāgas as ransom for the deliverance of his mother from slavery, as narrated in the Mahābhārata (b). This legend is represented in the sky. At the time of taking away the Amrita (nectar), Krisānu Deva, the keeper of the Amrita, pierced Garuda by an arrow (c). The nakshatra Sravanā looking like an arrow lies in the Garuda Mandala.

THE NAKSHATRA SRAVANĀ (d)

(श्रवणा नक्षत्र)

Presiding Deity: Garuda-vāhana Vishnu

Sravanā is the twenty-second nakshatra of the lunar zodiac. The nakshatra lies about 20 cubits north-east of Uttarāsadhā nakshatra. Sravanā nakshatra consists of the stars 8, 1 and 2 Garudasya and these three stars form the shape of an arrow. This Tārā-shara is situated to the east of Somadhārā and opposite to Nilamani. The star 1 Garudasya (Altair = α Aquilae) is the 11th brightest star of the sky. It is of yellowish colour. The star is also known as Vāsudeva and it is the yogatāra of Sravanā nakshatra. The month-name Srāvana is derived from the full-moon occurring at or near the Śravanā nakshatra. This asterism is situated very distant north of the lunar zodiac.

(a) Vide, Mahābhārata, 12/3.
(b) Vide, Mahābhārata 1. 33. 10.
(c) Vide, R.V. 4. 27. 3 ; 1.112. 21.
(d) तारकायमिति स्राविनी। शति कालिदासः।
5. SRAVISTHĀ MANDALA (Delphinus)

(श्रविष्टा मण्डल)

Sravisthā Mandala lies to the east of Garuda Mandala and on the eastern side of Chhāyāpatha (Milky Way). This mandala consists of Dhanisthā nakshatra.

THE NAKSHATRA DHANISHTHĀ (a)

(धनिष्ठा नक्षत्र)

Presiding Deity: The Varuṣa.

Dhanisthā is the twenty-third nakshatra of the lunar zodiac. This nakshatra consists of five stars viz., 1, 2, 3, 5 and 6 Sravishthasya forming the shape of a Mridanga (a kind of drum). Dhanisthā lies about 7 cubits to the east of Sravanā nakshatra. The name Dhanisthā has been assigned to it from the sound of the drum. 1.Sravishthasya (β Delphini) is the principal star of this nakshatra. This asterism is situated very distant north of the lunar zodiac.

6. MAKARA MANDALA (Capricornus)

(मकर मण्डल)

Makara is the tenth rāsi of the solar zodiac. The front part of Makara resembles a deer and the rear part a fish. Makara is facing to the west. There are no bright stars of first or second magnitude in this Mandala and as such it is known as a rāsi indicating night. If the line joining the two stars Nilamani and Vāsudeva is extended to the north-east direction, it intersects the Makara Mandala. The small stars 7, 8 and 9 Makarasya lying to the east of Uttarāsādhā nakshatra form a small isosceles triangle. The top of this triangle is in the southern side. This triangle is the head of Makara. A double star of yellowish colour and of fourth magnitude in brilliancy lies about one foot north of the triangle and another double star is situated to its north. These two double stars form the two horns of Makara. The tail of Makara (Makara puchcha)

(a) दस राशियाँ में सोपेदाने जैन मण्डलाकृतिनि पर्यायदाहे। श्रीति कालिदासः।
consisting of many stars form a triangle and lies to the north of the head of Makara (Makara munda).

The stars of this Mandala are very small and as such they have not been taken into account to constitute any nakshatra of this Mandala.

The Makara Mandala consists of two nakshatras Sravanā and Dhanisthā lying very distant and the nakshatras are known from the two small clusters of stars. Makarasura stole away the Vedas from Brahmā by influencing him and fled to the deep ocean. Thereafter Vishnu taking the image of a fish recovered the Vedas from the vast ocean (a).

7. ANUVIKSHANA MANDALA (Microscopium)

(अनुविक्षण मण्डल)

Anuvikshana Mandala lies to the south of Makara Mandala.

8. SINDHU MANDALA (Indus)

(सिन्धु मण्डल)

Sindhu Mandala lies to the south of Anuvikshana Mandala.

9. MAYURA MANDALA (Pavo)

(मयूर मण्डल)

Mayura Mandala lies to the south of Sindhu Mandala. According to Vālmiki, Maharsi Visvāmitra while creating the southern hemisphere also created a duplicate Saptarshi Mandala (Vide, Rāmāyana, 1.60.21). It is believed that the Saptarshis resembling Chitrasiyandis in the Devabhāga inhabited in the Mayura Mandala.

10. ASHTĀMSA MANDALA (Octans)

(आष्टांश मण्डल)

Astāmsa Mandala comprises of a few stars having brilliance of the sixth order. The star 2 Ashtāmsasya is very close to the Yāmya-Dhruva (Southern Pole star) and is taken as the Yāmya-Dhruva of the present time.

(a) Vide, Padma Purāna, 5. 92.
VITHI XI

Vithi XI consists of the following constellations:

1. Sephāli Mandala (शेफालि मण्डल)
2. Godhā Mandala (गोधा मण्डल)
3. Pakshirāja Mandala (पक्षिराज मण्डल)
4. Asvatara Mandala (असवतर मण्डल)
5. Kumbha Mandala (कुम्भ मण्डल)
6. Dakshina Mina Mandala (दक्षिण मीन मण्डल)
7. Sārasa Mandala (सारस मण्डल)
8. Chanchuvrit Mandala (चन्चुवृत मण्डल)

1. SEPHĀLI MANDALA (Cepheus) (शेफालि मण्डल)

No stars of the first or second magnitude in brilliance lie in this Mandala. Sephāli Mandala stands to the north-east of Hamsa Mandala and the constellation stretches from the confines of Hamsa Mandala to those of Sisumāra Mandala. The line passing through the first and second stars of this Mandala nearly touches the Saumya Dhruvatārā (North Pole Star) if extended in the northern direction. Sephāli Mandala occupies a part of Chhāyāpatha (Milky Way).

2. GODHĀ MANDALA (Lacerta) (गोधा मण्डल)

Godhā Mandala stands to the south of Sephāli Mandala.

3. PAKSHIRĀJA MANDALA (Pegasus) (पक्षिराज मण्डल)

It can be observed that the four stars lying far east of Sravisthā Mandala form a square of equal sides. These four stars represent the four hoofs of Pakshirāja. A bright star can be seen to the south-west of this square which is known as 2 Pakshirājasya (Markab = α Pegasi). About 10 cubits to the west
south-west of this star lies another brilliant star 1 Pakshirajasya. The star is situated at the head of Pakshiraja Mandala.

Pakshiraja Mandala consists of two nakshatras viz., (1) Purvabhadrapada nakshatra and (2) Uttarabhadrapada nakshatra.

THE NAKSHATRA PURVABHADRAPADA OR PRAUSTHAPADA (a)

(यूरवभाद्रपाद नक्षत्र द प्राउष्ठपाद नक्षत्र)

Presiding Deity : Aja Ekapād (ज एकपाद)

Purvabhadrapada is the twenty-fifth nakshatra of the lunar zodiac. The nakshatra lies to the far east of Dhanistha nakshatra. Purvabhadrapada consists of two stars shaping like a bell. The two stars are situated to the west of the square-size area. Among the two stars the northern one is 3 Pakshirajasya (३ पेगस) and is the yogatāra of Purvabhadrapada nakshatra. The month-name Bhadra is derived from the full moon occurring at or near Purvabhadrapada nakshatra.

THE NAKSHATRA UTTARABHADRAPADA

(उत्तरभाद्रपाद नक्षत्र)

Presiding Deity : Aahir-budhaah (अहीर-बुध)

Uttarabhadrapada is the twenty-sixth nakshatra of the lunar zodiac. It comprises two stars looking like a bell. Uttarabhadrapada lies about 8 cubits to the east of Purvabhadrapada nakshatra. This asterism is formed by the two stars lying to the east of the parallelogram area of Pakshiraja Mandala. Among these two stars, the northern one is known as 1 Dhrvamātuh and the southern one as 4 Pakshirajasya. 1 Dhrvamātuh (य पेगस) is the yogatāra of Uttarabhadrapada nakshatra.

4. ASVATARA MANDALA (Equuleus)

(अष्टतर मण्डल)

This Mandala lies to the south-west of Pakshiraja Mandala.

(a) मार्मूति-मूलिकोरिस्तिते पूर्वभाद्रपादमेंद्वितारे। हरि कालिदासः।
5. KUMBHA MANDALA (Aquarius)

(Kusum Mandala)

Presiding Deity: Gridhra Vahana Sani (Saturn)

Kumbha is the eleventh rasi of the solar zodiac. Kumbha Mandala lies to the south of Pakshiraja Mandala. In this Mandala there are no bright stars of the first, second or third magnitude and as such it is known as a rasi indicating night. Satataraaka nakshatra is situated in this Mandala.

THE NAKSHATRA SATATARAKA or SATABHISHA (a)

(Shattaraka nakshatra or Shatamisha nakshatra)

Presiding Deity: Indra (In)

Satataraaka is the twenty-fourth nakshatra of the lunar zodiac. Satabhishaka nakshatra consists of hundred very small stars arranging themselves in the form of a circle. This asterism lies very distant south of Purvabhadraka nakshatra. The star at the middle of these hundred stars is known as 7 Kumbhastha (ι Aquarii) and is also the yogatara of this nakshatra. During the Moon's stay in this nakshatra, if anybody is attacked with fever, it is thought that even hundred physicians cannot cure the patient. Presumably for this reason the other name of this nakshatra is Satabhishaka.

6. DAKSHINA MINA MANDALA (Pisces Australis)

or

MAHAMINA MANDALA

(Rasimno Mandala or Mahimno Mandala)

The Mahimna Mandala stands to the south of Kumbha rasi and south-east of Makara rasi. The principal star of this Mandala is 1 Dakshinamimasya or Matsuamukha (Fomalhaut = - Piscis Australis). It occupies the face of the Mahimna. It is a very brilliant star and prominent among the group of the second magnitude stars. The observer can identify Matsuamukha by extending the line passing through the two

(a) मण्डलामिशतारकाकाळः: | इति कालिदासः: |
stars of the Purvabhādrapada nakshatra to the south. It will be observed that the star Matsyamukha is placed at the face of the moon-fish pointing to the east.

7. SĀRASA MANDALA (Grus)

(सारस मण्डल)

Sārasa Mandala lies to the south of Dakshinamina Mandala.

8. CHANCHUVRIT MANDALA (Toucan)

(चन्चुव्रित मण्डल)

Chanchuvrit Mandala lies to the south of Sārasa Mandala.
VITTHI XII

Vithi XII comprises the following constellations:

1. Kāsyapiya Mandala (काष्यपीय मण्डल)
2. Dhruvamātā Mandala (ध्रुवमाता मण्डल)
3. Mina Mandala (मीन मण्डल)
4. Bhāskara Mandala (बास्कर मण्डल)
5. Sampāti Mandala (समपाति मण्डल)
6. Hṛada Mandala (ह्रद मण्डल)
7. Grāba Mandala (ग्राबा मण्डल)

I. KĀSYAPIYA MANDALA (Cassiopeia) [a]

(काष्यपीय मण्डल)

This Mandala stands at the top of the twelfth Vithi and passes through the streams of Ākāsa Gangā (Milky Way.) It is mentioned in the Vishnu Purāṇa that the matted hair of Saptarshis (seven sages) is floating in the streams of Ākāsa Gangā (b). The sages like Marichi etc. of the Saptarshis of Śvāyambhūva Manvantara lie far away from Ākāsa Gangā. But it is thought that sages like Kāsyapa etc. of Vaivasvat Manvantara remain in this Mandala. For this reason it is known as Kāsyapiya Mandala.

The constellation is very close to Dhrvatārā. It is believed that Suniti, the mother of Dhruva, lies in this Mandala (c). The five principal stars of this Mandala are so placed that in the sky they look like the figure ‘W’ of the English script. For this reason this Mandala has been stated in the Rig Veda as the chariot of Trisanku (d).

(a) सप्तरशिष्यविद्धिन्त्रं विश्वासिणीन् गोतमः 
काष्यपििमण्डलः वस्तुसर्फः सत्यतः II श्रीस्रीमण्डलः

(b) Vide, Vishnu Purāṇa, 2. 8.

(c) Among the two names of this Mandala, we have assigned the name Dhruvamātā (Suniti) to the Mandala lying to the south of Kāsyapiya Mandala.

(d) Vide, R. V. 9. 62. 17.
In the year 1772 A.D. a new bright star was observed in this Mandala. The famous astronomer Tycho Brahe has given a detailed description of this new star. This star was brilliant like the planet Venus and was visible even during the daytime.

2. DHARUVAMATĀ MANDALA (Andromeda)

(धुरुवमाता मण्डल)

The name of any Mandala lying to the south of Kasyapiya Mandala is not found in our Sāstras. It is likely that some part of this Mandala remains in Mina Mandala and other part in Pakṣhīrajā Mandala. However the assignment of any name to this Mandala is necessary. From this viewpoint we have given the name Dharuvamātā to this Mandala. The main star of this Mandala - 1 Dharuvamātuh (Pratīsthā tārā) lies in Pakṣhīrajā Mandala. It is the yogatārā of Uttara-Bhādrapada nakshatra. The star 2 Dharuvamātuh is included in Mina Mandala and situated at the tail of Revati.

3. MINA MANDALA (Pisces)

(मीन मण्डल)

Presiding Deity: The planet ‘Jupiter’ (झुह्स्तपति महि)

Mina is the twelfth rāsi of the solar zodiac. There are no bright stars of the first, second or third magnitude in this Mandala. Mina Mandala has derived its name from the appearance of the Revati nakshatra looking like a fish. The Mandala contains Revati nakshatra. At the head of Mina Mandala there is a nebula known as M 32.

THE NAKSHATRA REVATI

(रेवती नक्षत्र)

Presiding Deity: Pushā (पुषा)

Revati is the twenty-seventh nakshatra of the lunar zodiac. It contains 32 stars forming the shape of a fish. It lies 4 cubits to the east of Uttara-Bhādrapada nakshatra. The figure of the fish of Revati is facing to the west lying in the northern
direction. The tail of the fish is composed of the stars 6, 4 and 5 Minasya. The three stars form the shape of a bow. The easternmost star is 6 Minasya (Mulakilaka tārā). The head of the fish is formed by the three stars 7, 5 and 14 Dhruvamātuh. The stars 2 Dhruvamātuh and 8 Minasya lie at the back of Revati. The stars 9, 4, 10 and 12 Dhruvamātuh constitute the belly of Revati nakshatra. 6 Minasya (ζ Piscium) is the yogatārā of this asterism which lies at the tail of Revati.

4. BHĀSKARA MANDALA (Sculptor.)
   (भास्कर मण्डल)
This Mandala lies to the south of Mina Mandala.

5. SAMPĀTI MANDALA (Phoenix)
   (सम्पाति मण्डल)
Sampāti Mandala stands to the south of Bhāskara Mandala.

6. HRADA MANDALA (Hydrus)
   (ह्रद मण्डल)
Hrada Mandala is lying to the south of Sampāti Mandala.

7. GRĀBA-MANDALA (Nebecula Minor)
   (ग्राब मण्डल)
Grāba Mandala is lying to the south of Hrada Mandala.
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