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There is no greater university than Nature. How many lessons is Nature trying to teach us? Children, you should carefully observe each and every natural phenomenon. There is so much for us to learn from them. Even from small things we can gain great insights. Such insights will illumine our mind. Life will become blissful.

Look at a river. As it flows along its journey from the mountain peak to the sea, it

caresses everything it touches. Similarly we should merge our individuality into the Paramatma. We should adapt that attitude of the river. It doesn't care who bathes in it – whether it is a man or a woman. It doesn't care if someone is a leper or healthy, rich or poor. It accepts, caresses and washes clean whoever comes to bathe in it. That is the nature of a river. One man may curse it; another may praise its beauty in a poem. Regardless of all these the river remains the same. One man drinks its water, another takes a bath in it, a third uses it to perform oblations. The river does not discriminate against anyone. When the attitude of the river overflows into one's vision and action, we call it compassion. This is the very first lesson we should learn from Nature – the lesson of the river. The virtue of compassion must grow in us.

What a sense of self-sacrifice Nature has. Nature does nothing for herself. Once you children understand the selfless way in which Nature expecting nothing in return, we would never try to harm her. The sacrifice seen in Nature is another lesson for us. We should respond to that with at least a fraction of that sacrifice. We should bring in this attitude of sacrifice in our interactions with every other living being.



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## Editorial

Our land, rich in knowledge has the power to answer most of the fundamental questions that one can ask and our past has always offered the best solutions to many of the problems that we face today. Yet many times, the solution goes unnoticed, and much of the past remains unexplored by the present generation. The intention behind this quarterly journal is to bring to light some great gems of knowledge from our past.

In this issue of Samvit, we bring to you some very interesting articles, such as the ones like the different endangered varieties of rice in India – the necessity to keep them in their pristine nature to that of the symbolism in the stories of Nachiketās. The Kerala school of Astronomy has pioneered in the socio-scientific areas of our culture. The education pattern in India before the British rule not only helped in reaching one's goal but also showed us the path we should follow. 'The beautiful tree' is a testimony to this fact. The article on Bharatanatyam traces the origin and evolution of this classical dance form as it is seen today. The magic thread helps identify the richness of our aurvedic tradition. The travelogue included in the journal beckons us to the alluring landscapes of the enchanting world of Karnataka. One of the highlights of the issue is our interview with the famous Kathak dancer, Shovana Narayan. The issue thus attempts to encompass a miniature form of the cross section of our rich, varied culture.

*"India was the motherland of our race, and Sanskrit the mother of Europe's languages: she was the mother of our philosophy; mother, through the Arabs, of much of our mathematics; mother, through the Buddha, of the ideals embodied in Christianity; mother, through the village community, of self-government and democracy. Mother India is in many ways the mother of us all."*

Will Durant  
American historian

# The Kerala School of Astronomy & Mathematics

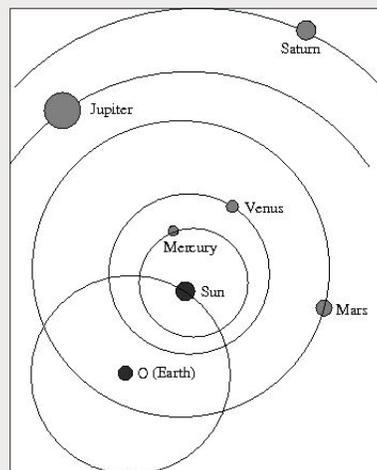
By Aparna Dhanapalan  
S3 EEE

Kerala's medieval history spans over several centuries beginning with the reign of the Perumals of Mahodayapuram (ninth century). The birth of the Kerala school of Mathematics and Astronomy can be traced back to this era. The Indian society, as such an agrarian one, needed an accurate calendar and depended on astronomical computations of the positions and movements of celestial bodies to predict seasonal and climatic changes. For example, a fourteenth century text on astronomy by the great Vatasseri Parameswara became a reference guide for cultivation of both paddy fields and dry land. Astrology was a very important part of life in Kerala as much as in India. It was needed to determine auspicious times for a naming ceremony, first feeding, marriage etc. The *Jathaka* considered to be a very important document in everybody's life also was computed by the astrologers. Medieval Kerala had a lot of ideas that were influenced by both the overseas and the earlier Indian traditions. These ideas left their footprints on every aspect of local disciplines literature, religion, art, science and technology. Thus emerged a new regional identity in Kerala. Scholarly texts were written in Sanskrit and in Manipravalam (a mixed language of Sanskrit and Malayalam).

The birth of Kerala astronomy is associated with the great 4th century figure Vararuci, who composed the Chandravakya (moon sentences) to aid astronomical calculations. It was from about the beginning of the 9th century CE when the Kulasekharas came into power, that Kerala's cultural scenario began changing in a big way. The famous Advaita philosopher, Sankara gave a kick start to the emerging vedic ritualistic and philosophical culture. Kautilya's Arthashastra, one of the early treatises on statecraft, was recorded in old Malayalam. Kutiyattam and Kuttu, the earliest forms of Kerala dance drama got standardised and popularised. Astronomy as such was getting more attention now, and during Ravi Varma's reign it was given a further boost. He is believed to have established an observatory containing a giant armillary sphere in the capital of his empire, Mahodayapuram (identified as the present-day Kodungallur), under the charge of Sankaranarayana, the court astronomer. Kerala is justified in boasting that she has produced a great many important astronomers like the great Aryabhata (debatable fact), the legendary Govinda Bhattathiri, Haridatta, Govindaswamin, Sankaranarayana and without doubt Madhava.

According to popular legend, after performing a bhajanam, Govinda was given the gift of foretelling the future. As a result when a swamiyar (high priest) consulted him, the swamiyar was told that as a result of him arousing Lord Krishna's anger, he was condemned to three more births; namely those of a rat-snake, a bull, and a tulsi plant, in that order. Probably disturbed at his own prophecy he is said to have left for foreign parts to study under the scholar, Kaanchanoor Aazhvar.

Referred to as 'Golavid' (master of spherics), Madhava was the pioneer of the Kerala School of Astronomy and Mathematics. He belonged to the priestly class and came from Sangamagrama (present day Irinjalakkuda) situated near Thrissur. His only surviving works are in astronomy. He revised the Chandra vakyas, calculating the exact positions of the moon, correct to the second for every 36 minutes of the day. Vararuci's version only had an accuracy to the minute. His fame rests on his discovery of the infinite series for circular and trigonometric functions, commonly known as the Gregory series for arctangent, the Leibniz series for  $\pi$  and the Newton power series expansions for sine and cosine. In the book, *Yuktibhasha*, results discovered by Madhava and details are included. This is probably the first textbook on Calculus, written by Jyeshthadeva, a disciple of Damodara. Vatasseri Parameswara, also a disciple of Madhava, came up with the Drgganita system which was a major development in planetary astronomy in Southern Kerala. He stressed on the importance of checking theories against experimental observations. After Madhava the next most noteworthy person of the Kerala School was Nilakantha Somayaji, disciple of Damodara and son of Parameswara. His younger brother Sankara was also well versed in astronomy. The great Malayalam scholar, Tuncattu Ezhuttachan was his disciple. His fame rests on his book



Nilakantha's Planetary model

*Tantrasangraha*, which follows the drgganita system and covers a lot of topics related to various astronomical calculations. He also developed a computational scheme for planetary motion which is superior to the one that was later developed by Tycho Brahe. The line of direct disciples of Madhava continued till Acyuta Pizarati, a student of Jyeshthadeva. By the time of Acyuta, Malabar was a conflicted region, a constant warfield for rival European powers, the Dutch and the Portuguese. Despite all these the School held fort till well into the nineteenth century. At about this time Sankaravarman, the Raja of Kadattanadu wrote *Sadratanamala*, in 1819, perhaps the last important work coming out of the school.

The Kerala School boasts of a certain code of conduct. As Parameswara advocated, the school gave high importance to cross checking the theoretical values with the observed data. If they didn't match changes were made in the theoretical propositions. Most of the works that came from the Kerala School adhered to Aryabhata's school of thought. Almost all the works were written in the Malayalam language, accessible to the common man. Every theorem and formula was given an explanation about the underlying principle. It followed the traditional system of teaching and learning. For over a period of 600 years several hereditary and teacher-pupil lines of astronomical traditions existed. This is one of the reasons for the achievements of Kerala's excellence in astronomy and mathematics during the Medieval times.

Ever since Needham showed that the sixteenth century Chinese science and technology seem to have been more advanced than their European counterparts, it has been fashionable for science historians to wonder 'why modern science did not emerge in non-western societies'. On the contrary while examining our scientific history, for example the Kerala School, it is pretty evident that our mathematicians had come up with far more accurate findings than the later born western scholars. The magnanimity of the genius of the likes of Ramanujan, Jagadish Chandra Bose and many others also is unparalleled. We Indians must make an effort to truly delve deeper into all those secrets still hidden from our immediate sight, but has been actually revealed by those great Indians who lived centuries back. It is said that we humans do not discover anything new, but merely remember what we already know. In that sense our Indian ancestors have remembered a lot compared to the rest of the world.

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# Magic Thread – That Cures Anorectal Disorder.

Dr. R. N. Tripathy

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**D**isease of anus & rectum are prevalently high in the society. A recent study conducted on the prevalence of anorectal disease in India was by the Indian Proctology Society. In a defined population of some states, approximately varied from 17 to 20% while in London approximately 10% of all hospitalised patients and 4% of new patients were reported to suffer from these types of diseases. Some important causes out of a number of them are sedentary life style, irregular and inappropriate diet, prolonged sitting and psychological disturbances like anxiety and depression etc. It has been mentioned in earlier classics that the above mentioned causes result in derangement of the power of digestion which leads to constipation and in turn to all abdominal disease, hence to anorectal disorder also. A constipated bowel is the devil's workshop. The hard stool so formed due to constipation, while passing through the anus produces trauma to the anal verge and results in the genesis of anal fissure. Infection travels by hard stool lodged in anal gland and leads to anorectal abscess and fistula. Constipation increases the back pressure into haemorrhoidal veins to produce piles.

These disorders are absolutely embarrassing to the patient. The skin around the anus is one of the most pain sensitive regions due to rich nerve endings. Even a mild form of disorder can produce great discomfort to the patient. In the initial stage of the disease, most of the patients avoid consulting the doctor and explaining their problems because they feel ashamed. This hesitation can lead to manifold increment in the disorder. Most of the patients suffering from anorectal problems, are also gripped by one or the other sort of mental disturbances in the form of anxiety or depression.

Among the list of anorectal disorders, fistula, fissure and haemorrhoids are commonly seen. Modern physicians too consider these conditions as difficult to cure as their ancient counterparts found. Moreover, fistula among these three disorders is the most notorious one to tackle and cure. Results of surgery (fistulectomy) seem to be unsuccessful as its recurrence is inevitable in most of the cases even after complete excision of the track and meticulous dressings.

The challenges as described above were accepted by the forerunner of Ayurveda and a scientific approach was made towards the management of these miserable disorders. Different compendia were analysed, the references on the management of anorectal diseases were collected and analyzed in a scientific framework. As a result of these studies the Kshara Sutra came into existence. The treatment of fistula has been revolutionised after the availability of Kshara Sutra. The revolutionary steps so called had facilitated its spread not only all over the country but also abroad alike. At present, the fistula is not a big challenge as recurrence rate is almost nil after the Kshara Sutra treatment. People have started realizing that Ayurveda has a lot to offer in this field.

## Kshara Sutra

'Kshara Sutra' is a Sanskrit phrase in which 'kshara' refers to anything that is corrosive or caustic, while 'sutra' means a yarn or thread. This knowledge is explained in the texts of one of the most ancient medical branches known to mankind, that is - Ayurveda, which originated long ago and flourished in India. Ayurveda is still at its peak in India and gaining great popularity worldwide.

The earliest reference available about Kshara Sutra is in Charak Samhita Sotha Chikitsa (treatment of swelling and inflammatory conditions), which is thought to be the earliest documented medical text written during 1500 – 1000 BC. It was then mentioned by the "Father of Surgery" Sushruta, in his text named *Sushrut Samhita* for the treatment of Nadi Vrana (sinus), Bhagandara (fistula), Arbuda (excision of small benign tumour) etc. Although *Brihatrayi* - the chief three texts of Ayurveda mention the use of kshara sutra, there is no description of their preparation properly.

If we go back to the medical history there is a method called 'Appolinose' which is nothing but the use of threads in fistula-in-ano as referred by Hippocrates. It was also found that the diseases were treated to some degree of success by traditional people with the methods running in the families in the name of 'Chands' method and 'Madrasi' method by using a thread as the main ingredient in the treatment.

In recent days Dr. Shankaran from B.H.U was the first person to present 'Kshara Sutra' in a scientific manner to the medical field. Later the work was carried out in more detail by Prof. Dr. P.J. Deshpandey, who was a renowned surgeon at IMS, Banaras Hindu University, Varanasi, who was acclaimed to be the Sushruta of the modern era.

## Preparation of Kshara Sutra

It was Chakrapani Dutta in the late eleventh century who, in his book Chakradatta, who first mentioned the method of preparation with a clear-cut indication of its use in for bhagandara and arsha (haemorrhoid). The book explains that smearing a sutra (thread) repeatedly in the latex of snuhi (Euphoria nerifolia) and haridra (turmeric) powder makes the Kshara Sutra. Later authors like Bhavamishra, Bhaisajyaratnavali etc. also mention the same method. But because of briefness of preparation and inadequate explanation of procedure of application, it lost its popularity among Ayurvedic surgeons. Later in Rasatarangini a better procedure in the preparation was introduced, but the credit for popularizing the procedure goes to late Prof. P.J. Deshpandey and his team. They are the ones who have rediscovered and standardized this 'Kshara Sutra' in the present era. The Department of Shalya, and the faculty of Ayurveda, IMS, BHU should be credited for the abundant use and popularization of this technique. Soon thereafter Prof. Kulwant Singh in the Department of Shalya IPGT & RA, Gujrat Ayurved University, Jamnagar used the Kshara Sutra in other anorectal conditions like Piles (hemorrhoids), Chronic fissure with sentinel tags and other benign growths. Thousands of patients of various anorectal disorders were treated successfully in Jamnagar under his supervision.

The preparation of the kshara sutra is described as follows.

भावति रजनीचूर्णः सनुहकिषीरे पुनः पुनः । वन्धनात् सुदुहं सुत्रं भनित्तयार्शो भगन्दरम् ॥

(चक्रदत्त अर्श चक्रित्सा 148)

सुधादुग्धे वसुत्रपुतहरदिराचूर्णसंयुते । नषिकितेन तु तुलेन स्वल्पेन खलु यत्नतः ॥  
प्रलपितं सुदुहं सुत्रं छायायाम अथ शोषयेत् । वलिपिय सप्तधा ह्योवं शोषयेत् भषिजां वरः ॥

(रसतरंगिणी 527-528)

The Composition of kshara sutra is:

1. Surgical barber linen threads no.20
2. Fresh latex of 'Euphoria nerifolia' (snuhi)
3. Specially prepared alkaline ash of "Achyranthus aspera"
4. Dried powder of "Curcuma longa"
5. Sterilization by ultra violet radiation & pH maintained around 9 – 11 (9.2)

## How Kshara Sutra works

They cut through of fistulous tract is by the pressure exerted on anorectal tissue by the moderately tight Kshara Sutra tied in the fistulous tract. The presence of Kshara Sutra in the fistulous tract does not allow cavity to close down from either ends and there is a continuous drainage of pus along the Kshara Sutra itself. The Kshara Sutra slowly and gradually cuts through the fistulous tract from apex to the periphery. There is an ideal simultaneous cutting and healing of the tract and no pocket of pus is allowed to stay back. The Kshara (Caustics) applied on the thread are anti-inflammatory, and slough agents and in addition, have property of chemical curetting. The Kshara Sutra remains in direct contact with the tract and therefore, it chemically curettes out the tract and sloughs out the epithelial lining, thereby allowing the fistulous tract to collapse and heal. Due to its antibacterial property, it does not allow bacteria to multiply in its presence. The pH of Kshara Sutra is towards the alkaline side and therefore it does not allow rectal pathogens to invade the cavity.

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# Interview With Shovana Narayan (Padmashri)

Neethu Narayan & Gayathri A (S3ECE)

**1. It is an honour to be talking to you Madame, First of all we thank you for this interview. Shall we talk about the origin of Kathak....**

'Kathak' originated in temples of northern central India on the banks of Indo Gangetic river (river Ganga). The word Kathak is derived from 'Katha' which means story and 'Kathakar', the storyteller. When the Brahmin Priests of the temples were doing the poojas, prayers, offering the sermons to the almighty, they went into a state of ecstasy, started using gesticulation and mime. and that sowed the seeds of Kathak dance form. So you have two kinds of Kathak one which narrates stories, called 'Pathak Kathak' and the other stream is the Kathaks who take on characters of the mythological stories and dance it out, called the 'Dharak Kathaks'. We are the 'Dharak Kathak' and that is how 'Kathak' was born in the temples with the original dancers as the Brahmin Priests. It is very old, more than 2500 years old because the earliest inscription that is found till today is from the Maurya period 4th century BC and it is in Prakrit language which were written in the Asokan Brahmi script and describes that the Kathaks dance in praise of the almighty on the banks of the Ganges Kathak is also mentioned in Mahabharatham Adiparv and Anushasik Parv. So this is the origin of Kathak and its has been there for the last 2500 years..... and more.

**2. How is Kathak different from other dance forms?**

See, all art forms in India are similar because they are all born in the temples of the different regions of the country. All were born out of devotion. All of them enact stories from the mythological tales whether it is Kathakali, Mohiniyattam, Bharathanatyam, Sathriya, Kathak, whatever. All of them have the same aim which means you have to elevate your inner sense, and the listeners also, to the great higher levels and become one with the almighty. That is the similarity in them all. Where the difference comes in is the way you treat the body from waist downwards. In Kathakali it is broad, Odissi looks at it as 's' and '8' and it always making a circle, Bharathanatyam in triangles. These movements automatically effect the upper body. Kathak, is like in real life *samapan* position, it takes the *thribhag* position *abhag* position and also the *araimandali* position, but only, like you do it in the real life as a part of dynamic movement so it has a different flavour to it. So it is how you treat the body particularly from waist downwards that gives it a different flavour but all are same because without using *hasthamudras* or without using *navarasas* you cannot tell a story, so all of them use it.

**3. What was your inspiration for learning Kathak..**

I was put into Kathak when I was two and a half yrs old by my parents because I was born and brought up in Calcutta and then in Mumbai and Delhi. I have only known Kathak. I was also put into other dance forms when I was 7 or 8 years old, but I loved Kathak. It is beautiful. Every dance form is beautiful. For me, I have found my entire life and being in Kathak. It gave me the entire range of expressions to a word and I could dance on it for hours realizing it from its realistic to its philosophical meaning. I could go on from the slowest step to fastest step from to the *athivilambith* to the *athidhruth*. I could just expand on the *abhinaya* alone. It gave me the entire canvas of expression.

**4. How about the musical support in the background....**

That's there because when you are performing, it gets highlighted. Dance means rhythm. Rhythm is what supporters give you. Somebody has to sing the *Sahithya*. So the vocal support has to be there. Music, *Sahithya* and *Darshak*, all the 3 along with dance go together to make a complete package.

**5. Could you elaborate on the motivation behind the dance on Khajuraho Temples....**

Whenever you talk and think about Khajuraho, you think about beautiful sculptors but also about a different aspect. When I kept on thinking about Khajuraho, when I kept on looking at the sculptors I found that there was a philosophy behind why it was done, if you look at the way the temples are made. The sculptures of the base part are of the Brahmacharya period of life. It depicts the student sitting with the Guru, imbibing knowledge and other skills and whole of the Brahmacharya period. The next portion is of the Grihastha ashram, then vanaprastha and last sanyasa, where you have transcended everything. So from the sculptures you can see after that there is nothing. And so there was a beautiful philosophy between the whole thing. If you really look at it that way you will find a method in the sculptors and the design of the temples. It just represents the four ashrams of life.

**6. Something about your guru?**

My first guru was Guru Sadhana Bose. She was a famous dancer and actress of yester years from Bengal. She was the granddaughter of the famous social reformer of that time, Keshab Chandra Sen. People who knew about her said that she was very graceful and it seemed as if she has no bones. I have little remembrance about her. My father was then transferred to Bombay. The next Guru was Kundan Lal of Jaipur Kharana, and he gave me a solid foundation for Kathak. When I came to Delhi my Guru was Birju Maharaj. His eye for details and the lining of body and the clarity of movements were amazing. I had the good fortune to learn from these three great maestros.

## Tibet's Great Yogi Milarepa-Book Review

S Pooja Babu, S3ECE

Some say that "the evolution has not come to an end in man". Much to our surprise the proponents of this hypothesis were indeed sceptical, who later, with unflinching faith in their quest postulated this tentative generalisation and left us with a creative multitude of "what if". Regardless of the gravity of thoughts, all doctrines, theses, axioms or postulates couched in the potted concepts of words must err on one side or other. Hence it is in this sense that this book has its existential stand point. As it bears no doctrine, no thesis it is rather a volume of precepts to undo the misty picture of unreality deeming no fanatical documentation.

Tibet's great yogi 'Milarepa' is one amongst those revered biographical books that unfolds the subterranean mysteries of eternal truth. Dowed in spiritual temperament the book has the added merit of putting up the challenge to the readers to prove the authenticity of their quest. This is so because it pronounces firmly on faith, forbearance, altruism and emancipation. This book is translated from the original Tibetan biography of 'JatsunKhabum' recorded by his disciple Rechang.

The story is about a poor wicked boy who eventually turns into a wise old yogi to be held in the highest esteem. Milarepa is depicted as an ordinary human being at first and then upon meeting a great misfortune, he is encouraged by his mother to learn black magic and thereby to destroy almost all his enemies using the black art.

When he comes to know about the Karmic Law he becomes afraid that he would be born in one of the lowest worlds and suffer greatly. So he decides to dedicate his life to spirituality so that he would be free from his accumulated evil *karma*. With the help of a Lama he meets his main guru Marpa the translator. Marpa pretends to be cruel to Milarepa, fully aware that Milarepa will become his best student. Milarepa bears his guru's cruelty with great patience; but eventually he can't bear it anymore and finds another guru. But without the blessings of Marpa he finds his spiritual advancement a mere exercise in sheer futility. Hence he returns to his former guru. Pleased by his realisation, Marpa shows his compassion and grants him all the doctrines that would allow Milarepa to gain enlightenment. After many years of meditation in solitude, Milarepa finally achieves the state called "Buddhahood"

There is less praise to the yogi and more factual information about his travels and experiences when he was meditating in solitary caves.

The heart of this book is Milarepa's songs. His songs are the touchstones of the highest excellence that triggers an unhampered curiosity and unquenchable thirst to drink the life giving elixir - "Nirvana". It delivers an exotic prospect of understanding the world from an altogether different perspective. It is well emphasised in the book that truth is beyond the fetters of causality. It may sound terse, irrational and is beyond all semantic distinctions which assault our intuitions and demolishes our misconceptions. Marpa's treatment of Milarepa may at first sound unjust but it was mainly to train Milarepa to the path of attaining enlightenment, because Marpa knows all too well that any ordinary mortal cannot stand its wilderness if the suchness of "Buddhahood" is once revealed in one quantum leap.

Under Marpa's guidance Milarepa undertook the most rigid asceticism and attained enlightenment in one lifetime which is quiet phenomenal as enlightenment in its distilled intensity worth many thousand lifetimes in fleshy forms. Milarepa's faithful devotion, religious zeal and monumental forbearance set forth an example of the cofactors that contribute to one is upliftment towards a 'Buddhahood'.

# The Language of Gods

Nehakumari, S3 EEE

*“If* I were asked what the greatest treasure which India possesses is and what is her finest heritage, I would answer unhesitatingly that it is the Sanskrit language and literature and all that it contains. This is a magnificent inheritance and so long as this endures and influences the life of our people, so long will the basic genius of India continue. If our race forgot the Buddha, the Upanishads and the great epics (Ramayana and Mahabharata), India would cease to be India.”

*-Jawaharlal Nehru*

Sanskrit is the mother of all languages. Its own spirit, of perfection and its contexts make it attain an unsurpassed zenith in the development of languages several known to us. As the greatest scholars have traced, the most fundamental words in all languages are derived from Sanskrit.

If Sanskrit can find its true place in India, it will also help India find its true place in the world. For among all the languages of India, it is Sanskrit that is identified the most with Indian civilization and culture, with all that is priceless and is India's gift to the world. If there is a need of examples, The Mahabharata, The Ramayana and various other scriptures, commentaries and *kavyas* have been translated into various languages. It is easily understood by people from all over the world.

It is the most ancient language, and at the same time it is a living language, an eternal language. And those who have experienced the world of the Divine, and those who have contacted the higher entities and personalities of the divine worlds, reveal that Sanskrit is the language of the Gods. The most beautiful and spiritual among the thousands of languages being spoken on the earth is Sanskrit, called Devavani, meaning “The Language of gods.”

In fact Sanskrit is related not only to all languages of India but has also got a close link with most western languages. It is said that Sanskrit belongs to Indo-European branch and occupies a central position there.

So, Sanskrit is not only the language of Gods, but it is the language of those who have experienced God, the Sages. It is the language of those who are experiencing God.

“.....Apart from all the mediums of imbibing virtues like sense of duty, integrity, devotion, faith, etc one more medium is Sanskrit language. By speaking consistently in Devavani the so-called downtrodden or the depressed class of the society also feels elevated. They not only feel confident but also develop samskars, which is the very base of any developmental activity. Therefore, Sanskrit Sambhashan is one of the prominent aspects of rural development, the work being undertaken by swayamsevaks across the country. There are a number of villages in the country where all daily activities of life are conducted only in Sanskrit. The prominent villages in this group are Muttoor and Hosahalli in Karnataka and Jhiri and Mohad in Madhya Pradesh where Sanskrit has truly become language of the masses, more than 95 per cent the people of Muttoor and hundred per cent people in Jhiri speak Sanskrit.

Apart from Muttoor, Hosahalli and Jhiri; Mohad and Baghuwar in Madhya Pradesh and Ganoda under Banswara district of Rajasthan are also the villages where Sanskrit is spoken by the majority of the villagers. Not only for asking well-being of each other but even while ploughing the fields, talking on telephone, purchasing goods from the grocer's shop, getting the hair cut at barber's shop, preparing food in kitchen, etc. people freely speak Sanskrit. The containers having spices and other things in the kitchen too contain the names in Sanskrit and the richness in that experience matters to them more the benefits like use of a language for getting jobs etc. It is our language and we have to learn it is the only feeling amongst them. The pleasure of using the sanskrit language.

Muttoor, a village of about 2,000 inhabitants, is located about 8 km south of Shimoga in Karnataka. The Tunga river flows gently on one side of the village. Its fame as the Sanskrit Gram has spread far and wide. Sanskrit is the spoken language of over 95 per cent of the people here. Soft and dulcet, a conversation sounds like a Vedic recital. Though it is a journey,

which began about 500 years ago, Sanskrit has been modified as per the modern needs here by Sanskrit Bharati. As one enters the village he is greeted with “ bhavatha nam kim? (What is your name?), “coffee va chaayam kim ichchhathi bhavan? (What will you have, coffee or tea?). The pronunciation of “Hari Om” instead of ‘hello’ and “katham asti” instead of ‘how are you?’ are common here.

Study of the language here begins from Montessori level, where kids are taught rhymes and told stories in Sanskrit-even Chandamama and comics printed in Sanskrit are available here. While the language is a compulsory subject in schools, teachers and even students talk to each other in it. Muttoor is not a cloistered hermitage shy of the outside world. Many of its youngsters have moved to cities in search of greener pastures in pursuit of higher education. Some are teaching Sanskrit in universities across the State and more than 150 young men and women are in the field of IT as software engineers. Many foreign students also visit the village to learn Sanskrit and stay with them in true guru-shishya tradition.

Another village where major language is Sanskrit- Jhiri comes under Rajgarh district of Madhya Pradesh. The population of the village is 976 and all the people including small children, women, elders, school-going children, literate and illiterate speak fluently in Sanskrit. Sanskrit Bharati had started conducting Sanskrit Sambhashan camps in the village in 2002 through one of their activists. In Jhiri, the farmers while ploughing their field even order their oxen in Sanskrit and the oxen too follow those instructions The village Panchayat takes special steps to popularize Sanskrit in Mohad. Even Scheduled Castes and Scheduled Tribes and Muslim families speak Sanskrit without hesitation. Similar picture can be seen in Baghuwar village, which is near Mohad.

Due to the Sanskrit language caste discrimination between the so-called lower and upper castes has reduced. The ability to speak Sanskrit helps people to hold their head high. This oneness has helped the village to progress in several respects.

It is not necessary for a person to be literate for learning Sanskrit. Undoubtedly, a literate person can pick up the language easily, but an illiterate person too can learn it. There are thousands of people who were earlier fully illiterate but now speak fluently in Sanskrit.

The credit for this silent revolution surfacing in the country to popular the use of Sanskrit goes to various organizations all over India, for example, Sanskrit Bharati. Thousands of its activists are burning the midnight oil to take this movement forward.

We are compelled to only one conclusion: Sanskrit is the one language which can play the role of the national language of India. We have seen the various criteria needed for such a language and found that no other language comes close to Sanskrit in fulfilling simultaneously all these criteria. Because Sanskrit meets all our needs and conditions perfectly. because it is the soul of India and the only fit vehicle for its expression, the only language that can bind India into one nation and people - Emotionally, Culturally and Spiritually. It alone can help India to rise again as a leader in the ways of the spirit.

As Sri Aurobindo has said :

“Sanskrit language, has been universally recognized by those competent to form a judgment, is one of the most magnificent, the most perfect, the most prominent and wonderfully sufficient literary instrument developed by the human mind.”

So Sanskrit is our language and we need to know it, not for the sake of others but for our own sake.

Jayatu Sanskritam !!!

# India And Greece

Preeti Das  
S5 EEE B

Greece, the place of mythology, Gods and of course the place where Olympics was born! It is one of those exotic countries that continues to fascinate the rest of the world.

According to historians, the contact between Greece and India goes back a long time, to the time of Homer. However, at that time the most they knew of India was that it was a country with people of dark complexion, some said a country towards the "setting of the sun" and others said towards the "rising of the sun". They first heard about India from the tales of the Egyptians, Phoenicians and Persian merchants. It was not until the Achaemenian conquest of Greek cities in Asia Minor that the Greeks became aware of the kingdom, races and culture of the East. Greeks and Indians had a close trading relationship. The first three Mauryan rulers had close contacts with the Greeks. Bindusara wrote to Antiochus asking him to send some sweet wine, some figs and a sophist to teach him to argue. The wine and figs were duly sent to him along with the



explanation that sophists were not a marketable commodity amongst the Greeks! There have also been rumours of a matrimonial alliance between Chandragupta and Selucus Nicator.

There are some historians and authors who firmly believe that Greeks and Indians were in contact way before the time of Alexander, even before Homer. In fact they argue that the culture, the tribes and even the language of Greece have borrowed its origins from India, or rather from the people who lived in the Indian sub continent.

Pococke, in his book 'India in Greece', brings out the fascinating theory (that has been doing the rounds for quite some time now) of Indian Colonisation. He says that at a very early time, the present day Greece was colonized by India. He reasons that it is because of this fact that many events in Greek mythology, names of rivers, mountains and even cities and also the language finds its parallel with Indian tales, Scriptures, names and Sanskrit.

He says that assuming that all the names of rivers, mountains and cities have some meaning; these meanings can be expressed only in the language they were named in. As a Greek he should be able to give the meanings of those names; but he cannot. That is because they are not Greek names. They belong to some other language, which in turn should be able to express their meanings. If this language is identified then the origins of the early inhabitants of Greece can also be successfully determined. He supports this theory with many examples and logical conclusions.

One of the examples that he gives is: the name for the ancient kingdom of Greece, Macedonia (Makedonia) comes from 'Maghedan' - another name for the providence of Bahar (Bihar). Maghedan was so called from the numerous families descended from the saint- Magha.

He also explained the concept of Centaurs. Centaurs are usually understood to be mythical creatures: half human and half horse. But the earliest explanations of Centaurs is as a race of men living in the forests and mountains of Thessaly, who led a crude and savage life, but altogether were not unacquainted with the useful arts. Centaurs or Kentaur-oi is derived from the word 'Kandhar'. So, it can be concluded that Kentaur-oi was the immigrants of Kandahar (present day Maharashtra).

Greek mythology talks about Cheiron, the Centaur who trained and taught the Trojan War hero, Achilles. According to Pococke, both Cheiron and Achilles were descendants from the Rajput tribes (one of the many

Indian tribes that made Greece their home). Cheiron was called "Pheer-theios" (peer) or "God-like saint". Peer is an old settlement in Punjab (just like Pheerae in Thessaly!). Peer and Pheerae originate from an old Persian word signifying "venerable elder or saint". Achilles' father was a friend and a relative of Cheiron. But, the historians have distorted the history so much that now it seems to be nothing more than a myth, for who would believe in the existence of a creature that is half human and half horse?

Also, the words "hero" comes from the word Har or Haro (meaning war or God of war) from whence comes Kand-Har the tribe of Rajpoots who worships the deity. The word "Hurrah" comes from the word "Haro".

Aristoxenus, the musician, quotes an anecdote: once certain Indian philosophers went to Greece to meet Socrates. They wanted to know the objective of Socrates' philosophy. Upon being told that it was an enquiry in human affairs, they burst out laughing, saying that no one could enquire into the human affairs if they were ignorant of Divine ones! This story (if true) may explain the points of similarity between Indian philosophy and that of Plato's. It also shows that the Indian philosophers frequently travelled to Greece and were so well versed in Greek and philosophy that they could easily converse with Socrates.

Schroeder, who has shown many points of similarity between religious-philosophical and mathematical doctrines of Pythagoras, with those of India's, credits India with the origin of these doctrines. In India, they are comprehensible by the intellectual life of people, but in the case of Pythagoras they appear without any connection or explanatory background. He says: it is possible that Pythagoras came across Indian philosophers somewhere in Greece or Persia and got his philosophical ideas from them.

Some also believe that Greek philosophers were influenced by the Samkhya philosophy. The doctrine of Empedocles that nothing can arise that has not existed before, and nothing existing can be annihilated, finds its exact parallelism in Samkhya doctrine about the eternity and indestructibility of matter. Greek tradition records that philosophers from Greece travelled to Oriental countries to study philosophy.

From all the examples mentioned above, we may wonder whether the historians today know the real history, either of our country, or of the world. If the theory of colonization of Greece by India is true, then it may very well be that Greece is nothing but an extended part of India. If this be true, then what about other countries of Europe?

## Reference

India in Greece by E. Pococke

## Page 3 (cont)

### Summary and conclusion

- Kshara sutra performs chemical cauterization.
- Mild complications with minimum risk.
- Reduces hospital stay and costs.
- Avoidance of incontinence, bleeding, deformity and stricture
- Most effective, safe, economical and ideal alternative of surgery for fistula-in-ano.
- Early ambulation cures all types of fistulae, high cure rate.
- Average cutting time 0.78 to 1cm /week.

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# The Beautiful Tree

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S3 CSE A.

I was on my way to Mumbai CST from Mankhurd. The sub was filled with women from different walks of life - the lipstick stricken ladies with classy handbags to brow-creased mothers with wailing children on their hips. Little girls with small bags inched their way through the crowd selling baubles and other trinkets. I looked at my watch. It was 11 o'clock. Yes it should be school time. My little sister, who was almost of their age, would be at school - laughing, playing or maybe slogging at her books without a care as to what she would eat for the next meal.

As I watched the milling crowd around me, I spied a little girl with a toddler strapped to her back. Yet another salesgirl. But with an additional burden. I stared at her in fascination as she interacted with her prospective customers, very efficiently and promptly. I admired her street smartness and her ability to multi-task at that tender age. Yes, it seemed she had learnt a lot from a very young age - hands-on. To me, my sister paled in comparison in spite of her one-of-the-best-school education.

It made me wonder about what constituted a good education. Wasn't that poor little child a shade better equipped than my so-called-better-educated sister to deal with life?

The primary aim of Vedic education was to develop a student's wholesome personality. The students obtaining education from gurukuls considered their teachers equivalent to God himself and such a close bonding was never seen in history before. Another astonishing feature of the Vedic education was that corporal punishment was never heard of, instead the teacher respected his pupil's personality infusion of religious education was considered a must unlike the Britishers who emphasized on spoon-feeding and matter-of-fact subject in education.

'The Indian system of education is a functioning system of education, that in some ways is superior to schooling obtained in European countries. Our ancient system has been destroyed after the arrival of Britishers' says Dharampal in 'Indigenous Indian Education in the 18th century' while some claim wrongly that the colonial rule brought into India a stabilised education and gave it a proper structure.

What brought about the dichotomy in the educational system? Or is it that it only appears to be a dichotomy. Dharampal says, prior to 1770, the interest of the British lay in areas like mercantile, technological or were concerned with comprehending and evaluating Indian statecraft. Fields like Indian religions, philosophies, scholarship and the extent of education were not ventured into by the British due to which they failed to recognize the richness in India.

As the British gained a stronghold in India, the Collectors of the various districts of India were asked to submit details of the educational structure prevailing in their respective zillas for the year 1826. The table below summarizes the facts and figures of the number of colleges and schools in various districts.

	Schools	Colleges
Ganjam	255	
Vizagattam	914	279
Rajahmundry	291	49
Masulipattam	484	171
Guntoor	574	107
Nellore	697	
Cuddapah	494	
Bellary	510	23
Seringnaphatham	41	
Malabar	759	1
North arcot	630	69
South arcot	875	
Chingleput	508	51
Tanjore	884	109

Trichnopoly	790	9
Madura	844	
Tinnevelly	790	
Coimbatore	844	173
Salem	607	
<b>Total:</b>	<b>9801</b>	<b>1041</b>

It has been established that the educational techniques introduced by the Britishers in the middle of the 17th century, were already well established in India. For example, a total of 1095 places enumerated under the term 'colleges' had been reported by the collectors while the number of European universities had only risen from 760 to 1800 in the early 19th century.

Also, in 1802 a 'Peel's Act' was introduced wherein young children had to be provided, during the first four years of the seven years of apprenticeship, competent instruction in reading, writing and arithmetic and to secure the presence of his apprentice at religious teaching for an hour every Sunday.

Around the same time, one of the collectors in India observed that 'at the age, roughly between 10 to 16 years, if a young man doesn't have the means of obtaining instruction, he leaves his home and proceeds to the residence of a man of his own caste who is willing to afford instruction without recompense. He however does not derive sustenance from his teacher for he is poor himself, so the student is supported entirely by charity from the inhabitants of the village.' The children thus brought up are taught to deal with various aspects of life - moral, philosophical, social, and religious as well as the basics of the 3'Rs'.

Unfortunately, now due to their British-oriented education, Indians have become, since the past century, too literal, too much caught up with mere words and phrases. They have lost practically all sense of the symbolic nature of what is said or written. Undue stress is laid on rote memory while the true nature of education is given a by-pass.

The neglect and deliberate uprooting of Indian education system had several consequences in India like:

- it destroyed the Indian social balance in which persons from all sections of society appear to have been able to receive fairly competent schooling.
- it kept most educated Indians ignorant of the society they live in, the culture which sustains the society and their human beings and has induced a lack of confidence and loss of bearing amongst the people of India in general.

This brings to my mind, a famous speech by Mahatma Gandhi at Chatham House, London, wherein he commented on the British influence on Indian educational system. He stated that 'Instead of taking hold of things, as they were, the Britishers began to root them out. They scratched the soil and began to look at the root and left the root like that and the Beautiful Tree perished.'

The 'Beautiful tree' needs to be revived. The moral and social fabric of our country lies in the hands of the youth. By giving the youth of all classes an integrated system of education wherein moral and can expand to take in the most needed basic values to strengthen the world of tomorrow. Social attitudes are not just preached but practiced, their minds. They become equipped to reach for the stars while being firmly grounded in values.

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# Bharathanatyam – Evolution And Trends

**B**harathanatyam is a traditional artform, believed to have originated in south India. The charm of 'Bharathanatyam' is that once we hear the beats, our mind catches up with the tune and emotions meander along with the performing artist. Of course the same would have been the feeling of all students of Amritapuri campus who witnessed the soul-stirring and mesmerising performance by Lavanya Ananth, a renowned artist.

The history and evolution of 'Bharathanatyam' is quite appealing. Hence, let me start from the temple age. 'Bharathanatyam' was earlier known as 'Dasiyattam' which was only performed in temples and courts of great kings, which meant that the artform was considered highly sacred. It thrived in south India and traces its roots almost completely to the rules and order formulated in *Natya sastra* by Bharatha Muni. The artform was cradled in Tamilnadu specifically in the Tanjavur quartet and the legacy of practising Bharathanatyam was with the *Isai-velalar* community of Tamilnadu. As I mentioned earlier, this dance form was presented only before a royal audience and also for temple functions to reinforce the faith of the people.

The fact to be noted is that, even though 'Bharathanatyam' is highly interlinked with Hindu customs and traditions, it is proficient enough to depict any subject from Buddhism, Islam, Christianity and many others. Hence we experience a higher level of artistic elation or 'rasanubhooti' and spiritual thrust. Indeed, this is a secular dance form. It was because of this that many artists and choreographers could beautifully portray themes like nationalism, environmental issues, motherhood, etc...

In 'Bharathanatyam', there is equal space for both men and women. In the olden days, almost all dancers were women. But, over centuries, we have witnessed the emergence of many gifted male dancers too. Of course, we believe that the greatest of all dancers is Lord Siva (Nataraja), a *purusha*. The fact is that the artform has remained as 'ekaharya' where the same person wearing the same costume enacts different characters irrespective of their gender.

Now let us go to the architecture of 'Bharathanatyam'. There two main aspects

- 1) Nritya: the purely rhythmic part which is confined to footwork and movements of body and hands.
- 2) Abhinaya: this is conveyed through gestures and facial expressions.

The traditional, secular Bharathanatyam recital includes *alarippu*, *jatiswaram*, *sabdam*, *varnam*, *padam*/*javali*, *tillana* and *sloka*. In this regard, let us go through the words of T.Balasaraswati, the celebrated dancer. In a lecture delivered at the Tamil Isai Sangam, Madras, translated from Tamil by the late S. Guhan and reproduced in [Bala on Bharathanatyam](#), a monograph published by the Sruti Foundation (now out of print), the legendary exponent of Bharathanatyam said:

"I believe that the traditional order of the 'Bharatanatyam' recital... is the correct sequence in the practice of this art, for revealing the spiritual through the corporeal.

The greatness of this traditional recital-pattern will be apparent even from a purely aesthetic point of view. In the beginning, *alarippu*, which is based on rhythm alone, brings out the special charm of pure dance. The movements of *alarippu* relax the dancer's body and thereby her mind, loosen and coordinate her limbs, and prepare her for the rest of the dance. Rhythm has a rare capacity to concentrate. *Alarippu* is most valuable in freeing the dancer from distraction and making her single-minded.

The joy of pure rhythm in *alarippu* is followed by *jatiswaram* where there is the added joy of melody. Melody, without word or syllable, has a special power to unite us with our being. In *jatiswaram*, melody and movement come together. Then comes the *sabdam*. It is here that compositions, with words and meanings, which enable the expression of the myriad moods of Bharathanatyam, are introduced.

The 'Bharatanatyam' recital is structured like a Great Temple: we enter through the *gopuram* (outer hall) of *alarippu*, cross the *ardhamandapam* (half-way hall) of *jatiswaram*, of *sabdam* and enter the holy precinct of the deity in the *varnam*. This is the space which gives the dancer expansive rhythm and scope to revel in the music, *varnam* is the continuum which gives ever expanding room to the dancer to delight in her self-fulfillment, by providing the fullest scope to her own creativity as well as to the tradition of the art.

"*Pad-as* now follow:

In dancing to *pada-s*,

one experiences

and quiet

entering the

its external

*expanse*

the outer

in the dark

the rhythmic

*varnam* yield

music and *abhinaya*

to the *padam* is akin to

cascading lights of worship

are withdrawn and the drum

beats die down to the simple and solemn chanting of sacred verses in the

closeness of God. Then, the *tillana* breaks into movement like the final

burning of camphor accompanied by a measure of din and bustle. In

conclusion, the devotee takes to his heart the God he has so far glorified

outside; and the dancer completes the traditional order by dancing to a

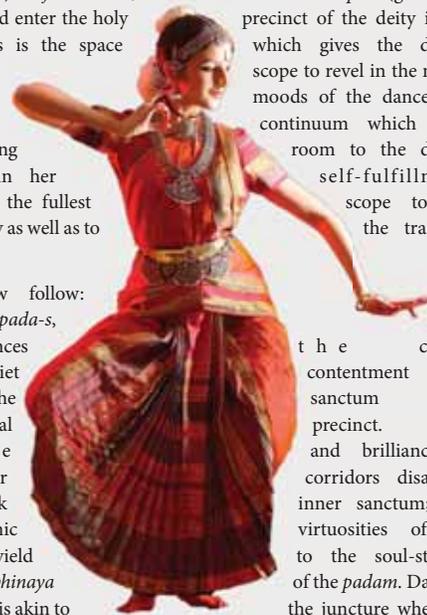
simple devotional verse."

According to Balasaraswati, music is an integral part of 'Bharathanatyam'. The matter presented depends on the song-text or lyrics and, for this reason, the foundation laid by the singer and the support given by *Mridangam* and Violin artists is inevitable. This actually widens the scope of 'Bharathanatyam' as it gives the freedom to choose any premise. This has lead to the reflection of not only *bhakti* but also contemporary themes and

to the inclusion of compositions from many other non-traditional languages. Padma Subramanyam, the famous and versatile dancer presented 'Gandhi Mahaan Kathai' on 2nd October 2012 going through all the incidents in Bappuji's life from birth till death. In a

newspaper report by Rupa Srikanth in [The Hindu](#) on 4th October 2012, the performance was aptly described as being neither 'Bharatanatyam' nor 'Bharatanrhytham' but a beautiful musical opera accompanied by dramatic visuals. This proves that these modern trends are getting accepted by even senior, expert artists. This can be seen even in the 'Aharya', costume and ornamentation of the dancer. It was Rukmini Devi, the adept dancer, who first changed costume to sari from the old Dasiyattam dress. The wave still continues. Accepting the changes and upholding the glory, let this artform inspire many more generations to come.

Jayashree M. P.  
S5 EEE



**"The experiment has to go on and any experiment for it to stand the test of time, takes long. Only, one has to be very careful that one does not mar the style." -Meenakshi Chittaranjan**

## Chamundi Hills, Palace & Vrindavan Gardens in Mysore

A trip to Bangalore and Mysore was something that we Amrita School of Ayurveda had longed for. So we were pretty thrilled when such a trip materialized. It was basically a study tour organized by the 'Dravyaguna' a Department of Amrita School of Ayurveda. On the sunny afternoon of 10th July 2012, we set out on a 5-day tour that would bring our hearts close to the city of Mysore forever. The long distance from Vallickkavu to Bangalore meant that we had to travel by train. We spent a whole day on the train having fun with our friends and teachers.

The next day we reached Bangalore and spent some time studying the famous institute, FRLHT.



The Foundation for Revitalization of Local Health Traditions (FRLHT) is an institute dedicated to the study of medicinal plants and traditional knowledge. Over the past 14 years, FRLHT has been leading researches on various issues

related to conservation and management of medicinal plant resources. The Centre, along with the State Forest Departments of several states, was successful in setting up 55 sites for conservation of priority medicinal plants. Our visit there was truly enlightening and we were able to get a glimpse of the vast traditional knowledge-base of the country.

Another important stop we made while we were in Bangalore was at Vivekananda Yoga Anusandhana Samsthana (VYASA). VYASA is a University approved by the Government of India for Yoga and Yogic Sciences. It is one of the four premier yoga institutes in the country and famous for both its mission and its area of expertise. The Vivekananda Yoga Anusandhana Samsthana is the most comprehensive repository of yoga and spiritual lore, and modern knowledge of science and technology. On the one hand we were all amazed to know such a university existed while on the other, we were all inspired by its vision and this instilled in us the responsibility to give importance to such centers of excellence and to encourage others to do the same. That night we reached Mysore. Mysore is the cultural capital of Karnataka. We must make a choice depending on our time. So we chose the palace, the gardens and the hill for the two days we had before us.

We planned to make a pilgrimage to the Chamundi temple the following morning. The next day all of us woke up early and prepared ourselves for the exciting day ahead.



After a 2 hour journey we reached the foot of the Chamundi hill. Here the Devi is called Chamundi because according to the Devi Purana, Devi killed the evil demons Chanda and Munda. Devi, who also slayed Mahishasura, the evil demon in the form of buffalo,

is believed to be residing there on this hill and protecting her devotees. Here Devi is called Chamundi or Chamundeshwari. Chamundeshwari Devi has been worshipped by all including the Royal Wodeyar family of the Mysore kingdom. Chamundi Hill is not only a holy place but also a place of natural beauty and a seat of architecture. Also, the world famous Mysore Dasara Festival sees Chamundeshwari Devi as the center of culture and tradition of the land.

We decided to climb the hills rather than take a bus. We had absolutely no idea how long we had to walk in order to reach the hill top. So we decided to use the time and the walk to have some fun. We walked in groups, playing pranks on each other and some competed to reach the hill top first. On the hill-side, a few miles from the temple, we came across a big beautiful statue of Nandikeswara. It is of black granite. Many wonderful stories of miracles are attributed to this Nandi here. Around this place there are caves and cave temples also. Even to this day *sadhus* live there doing *tapasya* for the good of the world, we were told. We stopped for a

while and offered tributes to Lord Nandi who is Lord Shiva's divine vehicle. We resumed our journey and finally upon reaching the destination we were wonderstruck by the breathtaking beauty of both the temple and its vicinity. We were led inside the big architectural wonder of a temple. The Devi was decorated with jewels and flowers. The atmosphere in the temple changed our mood to that of devotion and soon we found ourselves mindfully absorbing the divine spirit in the serene setting.

After those intense moments we gave ourselves a break by going shopping in the nearby market. We bought everything we found interesting: rings, lockets, chains, books on regional history, sandal wood carvings of idols of gods and goddesses, other fancy artifacts etc.

Then we moved on to our next destination, the Mysore Palace! We had our lunch before reaching the palace; but the palace gates were not yet opened. So we ended up waiting outside for a few hours. We, walking around in the midday sun, looked at the palace structure from outside, appreciating its secular architecture. The colorful domes above resembled Russian buildings! However we killed our time by shopping around, eating mangoes and watermelons from the street vendors.



At about 4 in the afternoon the entry gates opened and we rushed into the palace along with a large crowd of tourists. It was interesting to see many police officers riding horses inside the palace premises. However even more interesting was the effect that the palace had on us. We were completely awestruck by the sheer beauty of the palace, the perfection in its architecture and the elegance in the engravings. The Mysore palace gained in our minds its rightful place as an architectural symbol of ancient Indian art. Inside the palace we visited the royal chambers and the darbar hall. It was enchanting to see mirrors in each and every corner of the palace. Then we were led into a set of rooms in a separate block into the palace grounds; it was a museum where the weapons, amour, swords, the royal horse saddles, the elephant equipment etc were all put on display. It was interesting to us modern people who are familiar with weapons that explode and kill, be it bombs or pistols. We understood how in olden times war was fought by bravery and directly between the opponents, unlike the current treacherous wars where innocent masses become victim. Inside the palace were places of worship also. We visited the palace temples and took the darshan of "Laddugopal ji", Krishna who is fond of laddus! There was a treat of riding on elephants or camels. Some of us took such rides and felt like the proud soldiers of the past.

At around 6 pm, despite our desire to enjoy the visit longer, we had to leave the palace. The next day we planned to visit the world famous "Vrindavan gardens." It is adjoining KRS Dam, the pride of Indian Engineering, thanks to the eminent engineer of pre-independent India, Sri Mokshagundam Visweswariah. Sir MV was a notable Indian engineer, scholar, statesman and the Diwan of Mysore during 1912 to 1918. He was a recipient of the Indian Republic's highest honour, the Bharat Ratna, in 1955. Every year, 15 September is celebrated as Engineer's Day in India in his memory.

We should have gone there during the day to see the beautiful garden, but our lethargy took the toll. It was 7 pm when we reached there! This forced us to go to the spot without exploring the gardens. However we were just in time for the musical fountain. We got to see and enjoy the beautiful display of colorful lights on the innumerable founts of water. They call it "Musical Fountain" because the programmed founts spring up in beautiful patterns and the lights color them up variously, all in tune with the background music. This is the first of its kind in the country. After two days of excitement and learning, that day we retired to the hostel in the Mysore campus of Amrita University. Mysore has many more interesting spots for visitors. We wished we had more time for this great city of Mysore and its splendor.

Nair Harsha Unnikrishnan & Surya Ravindran  
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# Ramayana and the ideal Governance

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The world may be compared to a gigantic stage, where the drama of life constantly unfolds with individual souls being the actors. There exists no meaning to it. It needs to be created. The ultimate purpose of human life is to realise the fact that we are the eternal, primordial soul and that pure bliss is our true nature. It is hard to know the dividing line between the Creator and the created and to realise the underlying oneness. It requires intense *tapas*. The great *rishis* of ancient India realised this truth and formulated the *Vedas*, *Upanishads* and other texts which essentially convey the purpose of this life and the laws to be followed. In this beautiful creation of the Lord, there exist certain rules which we have to follow to bring in harmony, peace and happiness to our lives. The Ramayana and the Mahabharata convey these complex principles through stories which are very easy for the common man to decipher. A foreigner once said, "The Ramayana alone is sufficient to inspire generations. So, burn all the other literature of the world." As long as there is Ramayana, there is India!

The Ramayana is replete with incidents from which we can learn to live fulfilling lives. Lord Rama is portrayed as an ideal human being. The purpose of his life was to re-establish *dharma* on earth. There is a lesson to be learnt from every happening in the Ramayana. The political system of ancient India was extremely efficient. We will not find one kind of governing principles in the epic Ramayana and another kind of governing principles in the epic Maha Bharatha. Both the epics talk about the same principles of good governance. Hence we can call these governing principles as Indian laws of Good Governance. Sri Rama never invented new laws. He followed the already existing principles of good governance and established righteousness. Thus Lord Rama had firmly established the *Sanathana Dharma* by his practice and by implementing laws of good governance. He continued the traditions of his father Dasarath and his ancestors, who had set before him a treasure house of ideal governing practices. To understand more about the good governance followed by Lord Rama, let us see who a good King is.

The word King is often identified with the accumulation of power. But it is not so. The meaning of the word "king" had been well defined as "Ranjanathwath Raja". It means "the person who brings happiness and prosperity to the people is called the king". The king should be able to get the love and affection of the people. The word 'king' denotes the responsibility of the ruler towards the ruled. Vedic literature is replete with welfare principles for the good of the world in the form of *sruthis*. The principles of *sruthis* were implemented in governance. They had been clearly elucidated in the *sastras* of *Raja neethi* (Indian political Science). These Indian Political thoughts have been wonderfully portrayed in the epic Ramayana and were given to us as ideals.

When foreign armies invaded our country, they called the then prevailing culture and social structure of this land as religion. They had even named the language of this land as the language of religion. As years rolled by, all the traditional books written in the language of this land were called as religious literature.

By looking at Ayodhya, Lord Ram's birthplace, we can understand the governance of the kings of Ayodhya. Valmiki had wonderfully explained the beauty of governance.

Our scriptures were clear that the king should be an advanced spiritual aspirant. Being spiritual means realizing the Oneness of Creation. It is being one in spirit with all creatures of the world and rising above body consciousness. A person of spirituality feels that he is not the body but the spirit which is manifestation of the Infinite divine force. If a wrong perception descends on the ruler or on the ruled that life is meant for the satisfaction of sensual needs (bodily pleasures), then there will be no end for crimes in the society.

We all have to rule our minds since we play a vital role in forming the society around us. Most often, we fail to understand that there exists a king in all of us and due to ignorance we become the slaves of our mind.

Good body, good speech and a good mind are the three important qualities of an efficient king. He should have a cool temperament and calm mindset and not agitative ones. This will help make him an able decision maker. The king should take appropriate decisions at appropriate times. An able king should be a good orator. It is said that those rich in speech, shall be naturally endowed with wisdom, discrimination and high contemplation. Self control, practice of austerities, motivation, abilities and pleasing manners are other qualities a good King displays. "*Lokay purusha saraginah*" means, the king should have good personnel management skills. He should be able to understand the psychology of his subjects. He should be able to assess the abilities of the person by looking at a person. He should be gentle in his dealings and only speak truth. The king should stand by his words and assurances. He should stick to his decisions. The decisions should be implemented even in his absence.

Intellectuals are to be respected and never to be insulted by the king. During the time of Rama, *Brahmins* were considered as intellectuals. The word *Brahmin* should not be attributed to caste. The word *Brahmin* represents intellectuals. Any government that humiliates intellectuals has no future. Both the king and intellectuals should enjoy the other's confidence. If the King trusts the wise of the nation, he can share secrets with them and it will be of invaluable help to him to reach future decisions. No doubt, he must have the trust of the king and display tantamount confidentiality and integrity. The discussions are to be considered as closely guarded secrets. The king's words should not agitate others nor should the king get agitated by other's words. The king should not have sharp tongue or should not use harsh words against anybody including commoners. The king should have great self-restraint and exhibit grace, when dealing with others. He should exercise right discrimination for exhibiting restraint and grace. The King should not exhibit interest in unwanted things and should have the right abilities to focus his mind on matters that deserve his attention.

The subtle points discussed above especially the do's and don'ts of king's characteristic features, shows the maturity of the civilization of this great country. If we assume that, the Ramayana had happened 10000 years ago then that shows that India had a Great culture and highly evolved civilization ages ago.

Ancient Indian laws of governance are very essential today. These laws of good governance are meant for all ages and all times. Time flies, ages pass by, events pass, yet man remains the same. Man does not change. By comprehending epics like Ramayana and Mahabharata, that were told ages ago, we can conclude they are eternally useful guide.

We normally say, 'times have changed', This is not true. Time never changes; it just revolves around in cycles. The Sun rises in the east. Seasons march in with precision. Nature around us has not changed. The nature of human being has not changed. Same love, same envy, same hatred, same enmity same characters we see around us, similar to the characters portrayed in Ramayana. People will not change. Rulers will not change. So, Good Governance is nothing but the manifestation of goodness and purity. Good governance stands on the pillar of righteousness. Every branch of political science echoes the above eternal truth. Political science is all about the ways and means of governance with objective of safeguarding people's welfare without keeping aside righteousness. Onerous responsibility is on the intellectuals to implement these Governance principles of ancient India by suitably adopting them into the streams of our lives and thus helping us improve the quality of living on the one side and on the other side enriching those moral values that upholds the guarantee lasting peace and happiness.

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Translated into English by J Chandrasekhar (Cultural Education)

# Endangered Rice Varieties in India

Anand M and Joe John  
S3 ME

India is home to trillions of species of flora and fauna. The genetic diversity in India knows no comparisons. In recent years the genetic base of the traditional rice varieties has narrowed down drastically endangering the gene pool as a whole. According to the studies of Dr. Richcharia, over 4, 00,000 varieties of rice existed in India. This simply means that even if a person were to eat a new rice variety every day of the year he would live for over five hundred years without reusing a variety! Unfortunately this gene pool population has been reduced alarmingly, to barely 2000 landraces (varieties). This means that we have lost almost 95% of the landraces. Why has this happened? The sole reason that can be attributed to it is that industrialized agriculture favours genetic uniformity.



Kitchili Samba

- Highly suitable for the South Indian meal and also used for making a special dish called 'biriyani'.
- Highly suitable for dry sowing.
- Highly resistant to pest and disease.

Genetic uniformity and selective breeding are the new born children in the farming sector as it was introduced during the much talked about and lauded Green Revolution. The Green Revolution introduced HYV (High Yield Variety) seeds, needing extensive irrigation and use of chemical fertilizers, insecticides and pesticides. The science of selective breeding nurtures a conceptual dichotomy between nature and humans. It ignores the multitude of traditional farming techniques that are eco-friendly. The fallacy with all these methods is that a single disease agent or climatic fluctuation can put an end to the specie as a whole. Also, the plight with the issue is that if atleast one variety of species is known to exist widely, the species cannot be declared an endangered one. The infamous Irish potato famine has taught us that genetic uniformity hastens the doom of the species. The Indian rice gene pool suffers the same threat.

There is a host of reasons why the gene pool of the landraces is to be conserved. The main reason being that these traditional varieties can adapt to the climatic vagaries in India. This is because the seed varieties have been perfected by nature during millions of years. The much popular HYV (High yield variety) seeds introduced in the Green Revolution are not suited to all farming conditions and there are situations where the indigenous varieties are better suited. For instance, 'Kalarpalai' is a rice variety of Tamil Nadu which can be cultivated even in the alkaline soil.



Kurangu samba

- The earheads are very long.
- There are upto 267 grains in one earhead.
- The rice of this variety is suitable for the South Indian meal.
- It grows in areas prone to water logging as well as dry areas.
- Highly resistant to pest and disease.

'Vadanasambha' is a highly drought resistant sample. Many farmers in Jharkhand and West Bengal prefer to grow some rice varieties with erect flag leaf because graminivore (the birds that feed on grains) birds cannot perch on them. Wild relatives of Uridhan and Bunodhan are associated with religious rites in West Bengal and Kanakchur rice is extensively used in making the aromatic sweet moa in Jaynagar area in South 24 Paraganas district. The most remarkable among these are 'Jugal', double-grain rice and 'Satin', the triple-grain rice. These are less vulnerable and highly resistant to pests and insects. These need less farm inputs and yield better straw which may be utilised as cattle feed and roofing material. Farmers in every part of country have deep knowledge of their own rice varieties, of their environmental and nutritional requirements and their properties and peculiarities. This has enabled them to harvest a crop even under the most severe stress situations. Farmers also possess high yielding varieties of their own which are not recognised in agricultural extension programmes.

There are two ways to conserve genetic diversity of rice. Traditional crop varieties can be stored *ex situ*, or away from the farm, in seed banks or gene banks where seeds are stored in "deep freeze". Agricultural scientists can then test, identify and isolate different traits from the seeds, which, in turn, could be incorporated into new breeds *in situ*. On-site conservation, on the other hand, requires that seeds of the varieties to be conserved are grown and multiplied on farms, where the desired traits can be refined through adaptations to changes in the natural environment. To the average farmer, however, *ex situ* gene banks are, as a rule, esoteric and out of reach. Gene banks hardly ever provide farmers with the seed varieties they want. Instead, gene banks exploit the seeds collected from farmers to produce HYVS, which are immediately usurped by a handful of multinational firms, patented, and sold to the farmer. Very often, the HYV seeds are sold to the farmer as a component of a package deal which includes a set of chemical fertilizers and pesticides, and a blanket prescription as to how and how much to use; and the folk variety seeds get lost in the process. A local *ex situ* seed exchange centre that promotes *in situ* conservation could solve this problem.



Seeraga Samba

This article would not be complete without mentioning the mind numbing toil of Dabal Deb to collect and conserve the traditional landraces. He has established such an exchange centre in Bankura district of West Bengal. Funded and supported by Navdanya, New Delhi, the centre is named Vrihi Beej Binimoy Kendra, which is the first of its kind in Eastern India (Vrihibeing is the Vedic name of rice). The centre now has a collection of over 750 accessions of folk rice variety samples collected from the eastern Indian provinces. CIKS, Centre for Indian Knowledge Systems, is an organisation devoted to exploring the contemporary relevance and applications of traditional Indian systems. They too have a storage of diverse landraces. Many individuals have developed interest and have come up with such organisations.



Thooyamallee

We can hope and strive for the best. Let us pray to the almighty that Dabal Deb's contributions are recognized and "Vrihi" become a Government of India organisation to protect the endangered Indian rice gene pool population.

## The Saviour of the Indian Rice Gene pool

Dabal Deb is an agriculture scientist, a biologist with doctorate in Ecology. He is on a mission to gather, conserve, popularise and distribute the indigenous rice varieties in India. Debal Deb is on a mission to conserve vanishing traditional rice varieties. He is the founder of Vreehi Beej Binimoy Kendra, New Delhi. The organisation has been started for the same purpose. In his two-acre demonstration farm in Basudha of Bankura district in West Bengal, Mr. Deb, has cultivated 720 folk varieties of rice in the last 17 years. He retired from his job for this sole reason. Dabal and his wife have plighted to have no children so that Dabal can devote his life for the purpose of conservation of landraces. Else the gene pool will have to face peril. Meanwhile, Deb has the intentions to bring back the folk culture so as to relive the past and make the history repeat and thus the rice varieties can survive.

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# Nachiketas - In pursuit of Guru

Sreelakshmy Koonath  
S3 CSE A

Once upon a time, there lived a braahmana named Vajashrava (Uddaalaka), who being desirous of heavenly rewards, decided to perform the Viswajit sacrifice. The yagna was duly performed with great splendor. However, when the gifts which were to be offered were brought forward, his son Nachiketas, observed how worthless the animals which his father was offering were. Nachiketas, who was of tender age, knew that he had no right to question his father's actions yet his heart at once became filled with *Shraddha*. [The complete meaning of *Shraddha* cannot be explained through any one English word. The word *Shraddha* can be loosely defined as faith but the word has a much deeper meaning. Acceptance by a firm judgment of the mind based on the scriptures and the Guru's instructions is called *Shraddha* or faith. 'Acceptance by firm judgment' is not to be confused with what is generally called blind acceptance.]

Nachiketas could not but reflect: By merely giving these cows, my father cannot gain any punya. If he has vowed to give all his possessions, then he must also give me. Otherwise his sacrifice will not be complete and fruitful. He said to his father: "Dear father, to whom wilt thou give me?" Vajashrava, who was busy with the yagnam, did not pay any attention to his son and on being repeatedly questioned by Nachiketas, out of sheer exasperation, Vajashrava shouted: "I hereby gift you to Yama".

Nachiketas thought: Among many (of my father's pupils) I stand first; among many (others) I stand in the middle (but never last). What will be accomplished for my father by my going to Yama? Although he realized that his father's harsh reply was only the expression of a momentary outburst of anger; he believed that great harm might befall his father if his word was not kept. Therefore he sought to strengthen his father's resolution by reminding him of the transitory condition of life. He said: "All things perish, Truth alone remains. Why, then, fear to sacrifice me?" Thus Nachiketas convinced his father that he should remain true to his word and send him to Yama, the Ruler of Death.

Nachiketas was taken to the abode of Death, but Yama was not there and the boy waited without food or water for three days. Yamadharmaraaja returned on the fourth day and saw little Nachiketas at his doorstep. He felt pained for having kept an *Athithi* (visitor) waiting, that too a *baalaka* braahmana, without food and water. Along with His wife, Yami, he rushed to welcome Nachiketas with all the customary rituals. Yamadharmaraaja still did not feel completely satisfied in serving him. So he told Nachiketas, "Dear child, I have offended you by keeping you waiting for three days. To wash away my sins, I request you to ask for three boons".

Nachiketas said "My first wish is, when I return home, may my father conquer anger and always be pleasant". Yamadharmaraaja was very happy with Nachiketas for his self-less wish. Nachiketas said, "Lord, I have learnt that Gods and Goddesses abound in Heaven. They know no fear. They are not concerned about old age. They are immortal. If we have to attain Godhood, we must be well versed in the Knowledge of Fire (Agni-vidya). As my second boon, I seek that Knowledge of Fire from you." Nachiketas continues, "Lord! Every living being in the world is mortal. They go through a cycle of happiness and grief in accordance with their meritorious work or sin. It is said that even if the body dies, the soul remains eternal. So there are cycles of births and deaths. What is the secret of this? Are there no ways and means of overcoming this grief?"

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Kindly let me know if there is one. This shall be my third request."

Yama granted the first two boons immediately and tried to convince Nachiketas to give up his third wish. Only a deserving person must be taught *Aatmagnyaanam* and hence Yamadharmaraaja tested Nachiketas by offering him gold, pearls, coins, horses, elephants and even the happiness of Swarga in order to tempt Nachiketas. Instead Nachiketas replied firmly, "I do not wish for anything else." Finally, Yama granted him the third boon too, and Nachiketas was enlightened with *Aatmagnyaanam*"

Thus a complex subject is conveyed through the use of a subtle parable, *The Kathopanishad* begins with this fictitious story.

In this story, the main question that would arise is who or what does "Yama" represent? What is the significance of the three days (that Nachiketas waited for Lord Yama)? What is the significance behind the three wishes granted to Nachiketas? In order to understand the greatness of Kathopanishad, it is of prime importance to understand what Yama signifies.

The main message from this story is that if we want to learn anything we should approach a Guru who has mastered everything about that subject. Here, Nachiketas wants answers to questions such as "Is there an *atman* in our body? Does that *atman* last beyond our death? Or does that perish with our body?" The only one who could answer these questions is the one who has conquered death, that is, Lord Yama himself - the God of Death. By giving Nachiketas such a Guru, the Rishis have enhanced the beauty of Kathopanishad.

By taking into consideration the disciple's maturity and his ability to grasp what is taught to him, the Guru gives advices. In this story, Nachiketas is the young boy or the *brahmachari*. Vajasravas sends him to *gurukulam*. As it is said in the *Atharaveda* (11-5-1/2), "Aacharyo Mrityu" i.e. death is 'acharya' (Guru). Giving a boy to death is symbolic to giving the boy to the Guru. This is the importance behind a father saying the lines "Mrithyurachaarya sthava" during the upanayana period of a young Brahmin boy.

The father is giving away his son to the ultimate Guru and thus ending the father-son relationship and marking the second birth of the young son in his "acharyakulam". Now the boy is called *Dvija* (born afresh). The three days ceremony in upanayanakalam is representative of the Guru holding the pupil as in a womb, impregnating him with his spirit and delivering him in a new birth [Atharveda (11-5-3)]

The three days fast observed by Nachiketas, the one that is observed by all young boys before this ceremony is done as a cleansing ritual.

The second birth of the boy can also be interpreted in another way. The parents only give the boy a physical existence. It is the Guru who moulds the mind of the disciple. This is referred to as the complete/perfect birth.

The next act of the young boy going back to his father and being cordially received is reflected in Nachiketas' first boon of requesting that his father may recognize him. Following this, the second boon reflects on what should be done for *Grahasta jeevitham* [dharma of a householder]

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