

HINDU SEVIKA SAMITI (UK)

MAHILA SHIBIR 2020: WEST ENGLAND AND WALES VIBHAG



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ADHIKARI MESSAGES

Madhviji Haria Kendriya Karyawahika Hindu Sevika Samiti (UK)

The strength of Mahila shibirs has been growing year on year. Evolving from Annual National Shibirs, to Vibhaq Levels in 2019 and this year, 2020, in the format of the Vibhaq E-Mahila Shibirs. Covid-19 has not at all hindered the planning, progress, and execution of the truly engaging E-Shibirs year.

The focus areas on skill development has allowed all mahila to grow in confidence, further develop their skills and re-enforce their understanding of what is Sevika Dharma.

National and local teams have worked tirelessly in organising these Shibirs and through this, they themselves have instilled and nurtured many qualities; being steadfast, working as a team and of course endurance, all which are some key sevika samskars. Participants have set themselves on task and produced articles on the topics given to them, and for some, they have really pushed themselves and have come out of their comfort zones.

In total 342 sevikas from 7 vibhags wrote and submitted 411 articles. The articles where proofread, edited and formatted, ready for the launch of the e-book. The articles where based on wide ranging topics including the Uniqueness of Bharat, Ramayana, Home Medicines, The Science of Hindu Rituals and the Contribution of Hindu Women.

With over 500 mahila attending nationally, we have surpassed anticipated numbers, engaged and inspired a wide range of mahila base and identified future mahila karyakartas (leaders) in vibhaq (local) areas that will allow mahila work to grow, work selflessly and contribute to our society.

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Pranam,			
Madhyi Haria			

















ADHIKARI MESSAGES

Vidulaji Ambekar

Margdarshika

Hindu Sevika Samiti (UK)

I was very inspired when team decided to have "Mahila Milan" in different parts of U.K. and when I came to know more than 500 ladies are coming together. It is always jokingly said that "it's one of the wonders of the world when two ladies come together, keep quiet and stay together!" I would add here they have worked together to give a beautiful product of "E BOOK"!

Mahila Milan have proven it! And mind you not for gossiping but enhance their unknown skills like writing and speech!

So far so good. Once they were inspired, I was bombarded with so many beautiful articles from many ladies for having a look, from where I never expected that they could study, research, write in their own way and use technology too!

Well done! As a Ladies group you have proven beyond doubt that we as a group can move mountains if we wish!

Keep it up. World needs our different talents in this difficult situation let us use for larger community, and for betterment for all The Universe!

















DISCLAIMER

The following views and opinions expressed in the articles are the respective author's own and do not represent that of HSS UK or the author's places of work. While each author and HSS UK has made every effort to ensure that the information we are sharing is accurate, we welcome any comments, suggestions, or correction of errors. HSS UK is not responsible for any errors or omissions, or for the results obtained from the use of any information in the articles.















REVIEW

This is a wonderful book as most of the people that have contributed are writing for first time ever. However, it is commendable, the amount of time and effort they have put into the research they did and the information they have put together. People who are interested in Indian culture will love the information as they can gain knowledge about what Bharat achieved in terms of medicine and health care. The book explains many aspects of healthcare such as yoga, Ayurveda and food etc.

The younger generation outside of India who haven't had the chance to connect to Indian culture as much will truly benefit from this book. The articles will provide youngsters with information that will surely enhance their knowledge about our rich heritage.

Everyone should be able to relate to this information as information will make them realise and feel proud how Indian practices are being adapted by the modern world. Be it things which are common in our cuisine like turmeric, ginger, black pepper etc are being recognised and adapted by modern world or Yog being recognised and International Yoga day being celebrated all over the world.

Interesting recipes, yog asana details, interesting information about our mathematicians, scientists and sages is particularly captivating.

♣ Anu Mair Hounslow





















FOREWORD

Namaste Readers

This e-book is a unique compilation of articles; it is the first of its kind created by the mahilas (ladies) from West England and Wales Vibhag (region). The motivation behind this was to encourage the ladies to dive deep and explore Hindu contribution to the world and undertake a new skill of doing a formal research and publication.

In the wake of the current COVID- 19 crisis, we were unable to hold our annual mahila shibirs, so much like everything else the platform progressed to a virtual one. This is where the journey of the e-book began as a research project. But how do you inspire mahilas who are dealing with home schooling, working from home and so on, to research and write and that also in a 3-week period!!

This was cleverly thought out by a central team who understood the nuances the pandemic has created for our mahilas and cleverly designed an 'out of the box' idea giving the mahilas a purpose to research and write.

This e-book titled 'Hindu Contributions to the World' is a drop in the ocean of knowledge of our vast Indian heritage, culture and tradition which is a deep science. In today's 'fake media' world, the importance of researching has never been so vital. I am quite confident that the writers of this book will agree that research is the key for separating fact from fiction.

I hope this publication has given birth to a creative spirit for both the writers and you that will open doors for us to continue exploring topics close to our hearts. This e-book is by no means the end product but the beginning of a wonderful journey for all of us proud Hindus to venture on.

Hindu Sevika Samiti acknowledges all the hard work by Sevikas and we are inspired by their dedication.

A Rituji Vadhera West England Vibhag Karyawahika



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YOGA - India's Gift to the World

Namaste,

I wish you are in the best of your health when you read this article. In this article, we will have a guick look at the following topics:

- 1) Introduction
- 2) Origin & History
- 3) Yoga's spread around the World
- 4) Benefits of Yoga
- 5) Development and Present-Day Yoga



INTRODUCTION:

I truly believe in the statement made by the Indian Prime minister, Narendra Modi, that yoga is India's gift to the world. I find yoga a great way to relax, meditate and exercise. I learnt yoga during my university days at one of the ashrams in a holy place, Kurukshetra run by Patanjali Yogasutra, India.

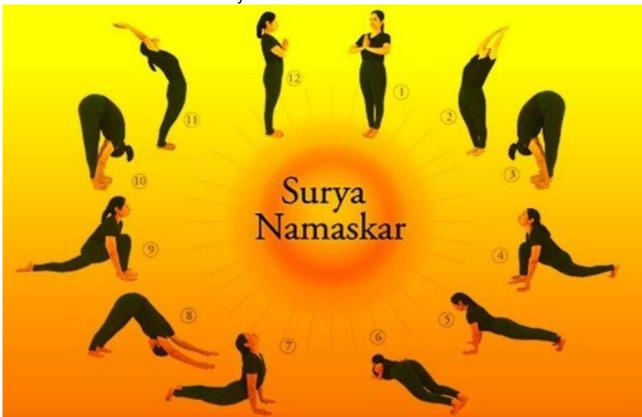
My mother also used to take a community class of yoga in the evening in India before the lockdown was enforced. It has been 20 years and I have been doing yoga ever since.

Yoga brings inner Peace

ORIGIN & HISTORY:

Yoga is one of the oldest sciences, originated in India, which is very useful for preserving and maintaining one's physical and mental health and also for 'spiritual evolution'. The practice of Yoga is believed to have started with the dawn of civilization. According to Hindu belief, Adiyogi Shiva is considered to be the first Yogi. It is believed that Yoga was first developed by the Indus-Valley civilization in Northern India more than 5,000 years ago. Yoga is derived from a Sanskrit word "yuj" which means to join or unite. The translation of the word yoga, then, is "Union." Yoga leads to the union of individual consciousness with that of the Universal Consciousness, bringing a harmony between the mind and body, Man & Nature. The word yoga was first mentioned in the oldest sacred texts, the Rig Veda.

The Surya Namaskar or Sun Salutations



Sun was given highest importance during the Vedic period. The practice of Surya namaskar may have been invented later due to this influence.

Pranayama was a part of daily ritual and to offer oblation. Though Yoga was being practiced in the pre-Vedic period (2700 B.C.), the Sage Maharshi Patanjali systematized and codified the then existing practices of Yoga, its meaning and its related knowledge through his Yoga Sutras. After Patanjali, many Sages and Yoga Masters contributed for the preservation and development of the field through their well-documented practices and literature.

YOGA'S SPREAD AROUND THE WORLD:

Swami Vivekananda was a Hindu monk who lived in the late 19th century. He travelled extensively in the west, living for a time in America and establishing the first Vedanta societies in San Francisco and New York. Through his public talks and writings, he was one of the first people to introduce the philosophies of Yoga and Vedanta to the western world

However, his influence was not merely felt in the west. He was one of the major voices in the revival of Hinduism in India, as well as the rise of nationalism in the face of British colonial rule.

Yoga was also spread around the world by the teachings of great personalities like Swami Ramakrishna Paramhansa, Sri T. Krishnamacharya, Sri Aurobindo, BKS. Iyengar, Swami Satyananda Sarasvati and the like.

BENEFITS OF YOGA:

Yoga has the potential to increase fat loss, develop muscle tone and build flexibility, leading to a more lean-looking physique. Some of the widely accepted benefits of Yoga are:

- I. Improve flexibility, strength, and posture.
- II. Better all-round fitness
- III. Weight Loss
- IV. Energy Boost
- V. Reduced Stress
- VI. Breathe better
- VII. Be happier
- VIII. Become more mindful
- IX. Improve concentration and think clearer
- X. Live longer

DEVELOPMENT AND PRESENT-DAY YOGA:

Now in the contemporary times, everybody has a conviction about yoga practices towards the preservation, maintenance and promotion of health.

Over the past decades, yoga has become part of the affluent western societies, drawing housewives and hipsters, new agers and the old-aged and corporate culture into a multibillion-dollar industry. The West views Indian yoga as an ancient, unchanging tradition, based on revelations made by the Vedic sages and promoting periodicals as the Yoga Journal and Yoga International. In the United States in particular, yoga has become a commodity. Statistics show that about 16 million Americans practice yoga every year. For most people, this means going to a yoga centre with yoga mats, yoga clothes, and yoga accessories, and practicing in groups under the guidance of a yoga teacher or trainer. Here, yoga practice comprises a regimen of postures (āsanas) often together with techniques of breath control (prānāyāma).

Yoga Education is being imparted by many eminent Yoga Institutions, Yoga Colleges, Yoga Universities, Yoga Departments in the Universities, Naturopathy colleges and Private trusts & societies. Many Yoga Clinics, Yoga Therapy and Training Centres, Health Care Units of Yoga, Yoga Research Centres etc. have been established in Hospitals, Dispensaries, Medical Institutions and therapeutic setups.







Yoga in front of Adiyogi Statue, India

(https://isha.sadhguru.org/global/en/wisdom/article/yoga-vs-gym)

Now-a-days, millions and millions of people across the globe have benefited from the practice of Yoga which has been preserved and promoted by the great eminent Yoga Masters from ancient times to this date.

The fact that the United Nations has marked June 21st as the International Yoga Day as proposed by Shri Narendra Modiji, is the biggest proof of widening awareness of benefits of Yoga from India to the entire world.

\Lambda Vandana Mittal, Bristol Pariwar Shakha





Patanjali's Yogasutra - A Summary

I believe one of the biggest exports of the Vedic tradition in recent times, is the practice of Yoga. This is evident in the recently introduced Yoga Day on the 21st June by the United Nations. However, I have always been a bit hesitant about the interpretation of the practice in the west, knowing there's more to Yoga than practicing asanas but not being very clear about what I was looking for myself.

Over the last year, I have had the privilege of being introduced to the practice of Yoga by the Art of Living Foundation. There's of course the practice of asanas, but more importantly, the intent behind the practice is much broader than just physical wellbeing. Yoga is a complete system that addresses the body, mind and the spirit. Maharishi Patanjali codified classical Yoga in Yoga Sutras which made them more accessible to the common man.

I have been fortunate enough to be part of a group recently, listening to Sri Sri Ravi Shankarji's commentary on Patanjali's Yoga Sutra. This was my first reading and I thought I'd use this opportunity to summarize what I understood from these discussions.

One point that clearly came out was the incisiveness and clarity of thought obvious in the text. Our sages were indeed scientists, philosophers and psychologists!

Patanjali starts quite simply by stating that the practice of Yoga guides you to the path back to yourself. Without this knowledge, he explains, the mind is always engaged in the activities of our senses, our memories, fantasies, logic and our thoughts and feelings (*vrittis*). We begin to identify with these *vrittis*, forgetting our true self. He elaborates on these with the understanding of a psychologist and then guides us on how to manage the overpowering nature of these vrittis.

Abhyaasa (practice) and vairaqya (detachment) are the tools he guides us towards, to help us manage our minds. So, what does abhyaasa entail? Patanjali explains that in its simplest form, it is the regular practice of being aware of our minds and the *vrittis*- and letting it go! Coming back to the present moment again and again takes abhyaasa and anushasana (self-discipline).

He agrees that this takes time and effort but emphasises that the practice needs to be constant, without breaks and be done with honour and respect in our hearts to be effective. I was struck by the emphasis placed on honour and respect. Respect and honour is an important part of our *sanskaar* and deeply embedded in the *bhaartiya* psyche. My understanding here is that he is inviting us to respect and honour each moment of our life by being fully present. Often as women we are required to multitask- my mind is often moving on to the next thing that needs doing, even before I have started a task! And yet my most precious memories are when I was able to be fully in the moment- with my children, my family, at work or most importantly, with myself.









The other important aspect of managing our *vrittis* is *vairagya*. Patanjali explains that the mind gallops towards our senses, our desires pulling our mind in different directions. He advises us to free ourselves from all desires- even that of happiness. Once we are centered in the knowledge of the Self, we become free of all fears, desires and aversions.

Yoga karmasu kaushalam- Yoga is skill in action. Participating in life and yet moving through it without cravings or aversions requires skill and Yoga shows us the path to achieve this.

Patanjali then goes on to explain the meaning of *samadhi* and the various ways to achieve it

Sama (equanimous) + dhi (intellect) = samadhi (equanimous state of the intellect).

Patanjali advises us that this state is only achievable by conscious relaxation and rest. We can think of sleep as unconscious rest and meditation as conscious rest. A busy mind will hinder the achievement of *samadhi*.

Patanjali describes this special state as one that is free from *klesha* (suffering), *karma* (action), vipaaka (consequences of the action) and ashaya (latent desire). As we get rid of these layers gradually, our natural Self or Being is revealed. We then begin to realise that God, Guru and you are all the same. When we reach this state of existence, a consciousness dawns. This results in clarity of thoughts and feelings, but we might also notice a physical change- we find that we have more energy and all obstacles in our paths seem surmountable.

Patanjali goes on to describe the 9 types of obstacles that might impede our progress on the path of Yoga- physical illness, mental illness, doubt, knowingly doing something that is not good for you, laziness, obsession with sensual objects, hallucinations, non-attainment of *samadhi* in spite of practice and the instability of the experience of *samadhi* making us question our practice.

We know that we have let these obstacles get the better of us and overwhelm us when we find ourselves experiencing sadness, bitterness, irregular shaky breathing, lack of coordination in the body or a hallucination.

If we examine the above closely, we notice that Patanjali is explaining the process like a scientist! He starts by describing the perfect state of mind, he moves on to explain the aetiology of imbalance in the human psyche and then tells us the symptoms to look out for! The next chapter automatically takes us to a treatment regime for these symptoms.

• Patanjali says *eka tattva abhyaasa* (one pointed practice) can lead us to the state of *samadhi*. One pointedness results in a calm mind. Most of us have identified with this experience at some point in our life.

- He gives us a practical tool to manage relationships- he advises us to be friendly with happy people; have compassion, not pity, for unhappy people; work alongside people who are meritorious and blessed; and ignore sinful people.
- Breath plays an important role in managing our emotions (a fact now recognised and practised in modern mental health treatments). Patanjali advises us to break the natural rhythms of the breath, holding and sustaining it in different rhythms. This is the yogic practice of *pranayama*, which teaches us to modulate the *prana*.
- If the above don't work, the mind can be stilled by focussing on any one of the senseseg. gazing at a flame, listening to *bhajans*, eating our meal with complete awareness can all lead to a calm, tranquil state. This is again a grounding technique that is used in mental health today to help patients regulate their emotional states.
- Patanjali says- *Vishokaa va jyotishmati* he is advising us to be without *shoka* (unhappiness), explaining that sadness is a state of mind that we create due to having wrong concepts. For instance, we might know we are 42 years of age but we lament that our body can't do as much as it could 20 years ago or more commonly as women, look like our 20 year old self! Patanjali encourages us to think of our mind as light and energy, not matter. He tells us that our minds become like the thoughts that we engage in- if we focus on thoughts of the Enlightened/ God/ Guru- we start assuming some of the qualities of this pure consciousness. Present day CBT works on core beliefs/ thoughts, feelings and behaviour- in my opinion this is reflected in this ancient *sutra* to some extent.
- Interestingly Patanjali then goes on to discuss sleep and dreams, telling us that knowledge of sleep and dreams can also awaken us to the truth.
- Patanjali emphasizes that there are many ways/ methods of meditation that can lead us to *samadhi*. All the ways are good, but it is important to choose one and stick with it. Moving from one Guru/ path to another can hinder our growth.

Patanjali tells us to observe our breath/*prana* when we find our senses scattered (eg. when we flick channels on TV, overeat, etc.). We will notice the unsteadiness in our *prana* at such times- he encourages us not to worry about it, but just to know it, observe it and stay with it. Just doing this will steady the *prana* and bring centeredness to our thoughts.

Patanjali describes different types of Samadhi-

- Sabeeja Samadhi- is experienced during activity. Think of a child completely engrossed in playing Lego, with steady eyes and being completely at one with the activity. Think of a time when you have looked at a sunset and found yourself immersed in the experience. This is sabeeja samadhi. You are completely relaxed and yet you retain sharpness of awareness in this state.
- *Savitarka Samadhi* Steadiness of thought in spite of sensory activity- you continue to experience thoughts, but they do not disturb you.

• Nirvichara Samadhi- is the thoughtless state of mind, the more you experience this state the more you experience the divine grace in life. This allows our intuitive knowledge to flourish.

There are many different states and types of samadhi- the path is long; every step is complete in itself.

Yoga is a middle path and the yogi remains enthusiastic, patient and dynamic- all at the same time!

Interestingly, Patanjali states that the state of *samadhi* can wipe out old impressions in our mind which are not supportive of the process of life. A lot of mental health work today is related to childhood traumas experienced by people. This sutra brings up a question- can Yogic practices be offered as one of the tools in the treatment plans of patients struggling with emotional dysregulation due to their traumatic history? A criticism of traditional psychotherapeutic methods is that retelling and processing a traumatic life story can inflict further trauma. If the practice of Yoga holds the key to wiping out old memories and impressions without retraumatizing the patient- it can be hugely helpful in the mental health sector. Mental health services offer 'mindfulness' services- these are focussed on being completely present in the present moment- as I have explained above, this is only one of the many practices that Patanjali has described, in our quest to achieve samadhi.

This takes us to Patanjali's Kriya Yoga (Yoga of Action). He describes Kriya Yoga as having 3 parts-

- *Tapas* is endurance and acceptance, willingly doing something that is not easy for you. For instance, a daily practice of exercise and meditation takes determination and endurance. This persistence in spite of the challenges is tapas. Patanjali describes the 5 fires/ challenges in life- the panchagni- the physical fire, fire of desire/ lust, fire of hunger/digestion, fire of knowledge/love and the fire of criticism. When we have been purified by these 5 fires (i.e. conquered these challenges), we reach our spiritual potential. Tapas can also be understood in the context of the *qunas*-
- Sattvic Tapas- is the tapas done without effort, naturally
- Rajasic Tapas- is the tapas done with a desire to achieve something. E.g. doing charity with the intention of showing it off or gaining approval.
- Tamasic Tapas- demonic tapas where people torture themselves, E.g. walking on fire or nails

Different kinds of tapas-

- Tapas of body- Having control over the body and the senses
- Tapas of speech- Practicing speaking sweetly- this becomes especially important as you grow on the path of Yoga because your words become more powerful.









- *Tapas* of the mind- is the ability to maintain the pleasantness of the mind, calm state, a silent mind and remaining in the Self (holding to the centeredness in you).

Tapas purifies and strengthens us- but we also must be aware that it does not make our ego larger. To avoid this, we need self-study or *swadhyaya*.

- *Swadhyaya* This is self-study. Patanjali advises us to be alert, observe and study our breath, thoughts and emotions. We should look into the motives behind our actionsmaking sure we are not misled by wrong intentions.
- *Ishawara Pranidhaana-* Devotion, love and surrender to the divine completes the process.

The process of Kriya Yoga helps to reduce suffering and helps to bring about samadhi, harmony and equanimity in life.

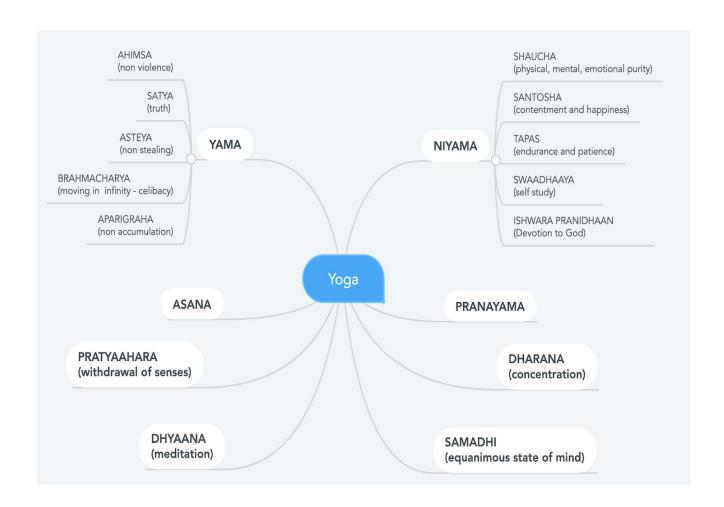
As I have said earlier, Patanjali was a scientist. He goes on to explore the root causes of misery or *klesha*, identifying them as- ignorance, craving, hatred, fear and oneness with our intellect and Self (i.e. sticking stubbornly to our point of view, despite contrary evidence). He says that these *kleshas* can be eliminated via meditation. Meditation makes these miseries and fears more subtle, thereby enabling us to return our mind to the Source. At this point he adds a warning, telling us that if we don't cleanse our consciousness of these five *kleshas*, we will carry this karma into our next life.

With the understanding of a psychologist, Patanjali explains that every event, however joyful, will come with some pain. Longing for the event, worrying about the event ending and then memories of the event- will all cause some amount of pain. An intelligent person sees through this *maya* and notices this pattern. If you look at life with wisdom, you see that pain is an integral part of every experience in this world. When we forget that the Self is separate, untouched by the *maya* surrounding us, we experience pain. Patanjali encourages us to enjoy the world and all its gifts, but to do so in the knowledge that we are separate from it. This is *viveka*.

As women, I believe most of us are very hard on ourselves- expecting perfection on all fronts- family, relationships, career. I find great wisdom and comfort in the next *sutra*. Patanjali tells us to be aware of the power of nature. The whole universe, including our bodies are made up of the 3 *gunas- Sattava, Rajas, Tamas*. These influence our thoughts and behavior patterns- but Patanjali advises us not to identify ourselves with the effect of these *gunas*, but to simply observe what is coming up for us and let it pass. For instance, when *tamas* dominate, it creates excessive lethargy, dullness and tiredness. This does not mean that you are lazy, but simply that your body might currently be in the premenstrual phase and needs the rest. You know this will soon pass. The body, the world, the universe are all constantly changing- the wise remember that the Self is untouched by this change.

Keeping the theory aside, Patanjali gave us practical tools to enable this knowledge to become experiential for all of us. He observes that all other species on the planet are completely governed by nature- they eat, sleep and mate in time according to the natural laws. As the human consciousness has been given the freedom to overrule the laws of nature, it has also been given the wisdom and discrimination (viveka) to make choices. Depending on the individual's choices, the human potential remains dormant or flowers into its full potential.

The 8 limbs of Yoga



(Ashtaanga Yoga) are the practical tools that enable the human consciousness to achieve its highest possibility- the impurities get eliminated and the *viveka* shines forth. An important point to remember here is that they are the 'limbs' of yoga NOT the 'stages' of yoga. There is a misconception that they need to practice in a particular order. Practice in all the areas can be done in parallel- they are all supportive of each other.

Yama - The five values as detailed in the diagram above can be considered universal values that are relevant to all times, in all places and for all people.

- Patanjali explains that a person who is grounded in *ahimsa* in both action and thought, can influence the actions of other living creatures such that they become nonviolent in his/her presence.
- Following *satya* implies not just being truthful with your words but with your intention as well
- Asteya can be understood as being generous. For instance, if you compliment someone on singing beautifully and in the very next second wish you had a voice like her- you have stolen from her- as you have experienced a tinge of jealousy and desired to have something of another person.
- *Brahmacharya* means moving in the infinity. When you are aware of your true nature and do not consider yourself to be just the body, celibacy becomes a natural state.
- I believe *aparigraha* is particularly relevant in today's consumerist times. Non accumulation of material things means that one has understood the eternal nature of life.

Niyama

- Shaucha can be understood simply purity and cleanliness of physical body and environment but we are also encouraging to maintain shaucha in our thoughts, feelings and emotions.
- *Santosha* is a practice and an attitude. Knowing that the world is a *maya* that is temporary, can help us smile even in adverse situations. This strength is *santosha* which can be developed by constantly practising *viveka*.
- Tapas, swaadhyaaya and ishwar pranidhaaana have been discussed earlier.

Asanas

Most of us are familiar with the sutra- *Sthiram sukham aasanam*. Patanjali invites us to be steady and comfortable in an *asana*. He says that when we are able to let go of the effort and relax into an asana, we can experience infinity in that moment. Practising *yogasanas* can help in rooting out internal conflicts. Like most of our yoga teachers, he reminds us here, not to hold our breath in an asana- to return to a natural breath by *gati vichchedaha* (breaking movement) by consciously taking deep long breaths.

Pranayama

Patanjali says breathe in, hold, breathe out, hold- with different counts and with attention on various parts of the body. In this one *sutra* he describes all the *pranayamas*. He cautions us to learn them with proper guidance. The practise of *pranayama* 'thins' down the curtain around our internal 'light'. It helps us see that we are the light. *Pranayama* also helps the mind to stay in *dhaarana*.















Dhaarana

Dhaarana is the mind's ability to stay focussed on any one thing. This can be practically experienced- after a good *pranayama*, we will notice that our mind becomes calmer, quieter and steadier.

Pratyaahara

Pratyaahara can be understood as the withdrawal of the senses. Following a guided meditation, singing bhajans, a dance session- all engage the mind at the level of the senses but are able to coax it to look inwards. This enables us to experience a feeling of wholeness, completion and elevation.

Dhyaana

Dhyaana simply means meditation. The practice of meditation helps reveal the Self to us.

Samadhi

We have seen and discussed the state of samadhi earlier in the discussion.

This was a humble attempt to summarise and understand these universal and timeless teachings. I remain amazed at the depth and clarity of thinking and understanding of the human experience shown in this ancient text. My hope is that as I become more established in my practice, subsequent readings will continue to reveal deeper layers of knowledge and understanding to me.

A Payal M Dayal, Bristol Pariwar Shakha

Connection between Yoga & Ayurveda

Ancient Indian practices for a healthy way of life

Yoga and Ayurveda are sister practices that originated in India thousands of years ago. Yoga is mentioned in the Yajur Veda, while Ayurveda is discussed in the Atharva Veda and Rig Veda. Ayurveda is the science of maintaining good health and Yoga is the practice of science. Both are considered to be related practices (mental and physical) which are known for their mind, body and soul healings and benefits.

Yoga and Ayurveda are very complementary to each other. We can think of them as two pillars which support each other.

Yoga deals with harmonising the mind, body and soul.

Ayurveda looks after a person's mental and physical health.

The link between the two sciences is the vital energy called Prana. Yoga is the prana's mind that seeks for the high evolutionary transformation. Ayurveda is its healing power which seeks to unite the living systems that have already been developed. Together they form a common system of self-improvement, self-control and self-restoration.

Yoga is part of Ayurveda...

Yoga is important for dissolving physical stress and calming the mind before meditation, and is central to dinacharya, the ayurvedic routine. Yoga balances all the three doshas and different poses have different effects. Forward bending postures cool Pitta dosha. Twists are good for Kapha because they stimulate digestion. Backward bends are heating and thus balancing to Vata type. Yoga postures tone every area of the body and cleanse the internal organs of toxins, which is one of the goals of Ayurveda.

...And Ayurveda is part of Yoga

At the same time, yoga practitioners can benefit from the ayurvedic daily routine as part of their yoga practice. Abhyanga (ayurvedic massage) helps to remove toxins from the body and relaxes the muscles for yoga practice.

Although, following both of these practices may not be possible always in the current lifestyle that we lead. Having awareness of the basic principles can go a long way to help us to integrate in our life. They are very complementary to one another working towards the same goal of good health and self- awareness.

Similarities:

• Both yoga and Ayurveda practices recognise that maintaining a healthy body is vital for the implementation of the four main goals in each person's life: Dharma, Artha, Kama and Moksha.

- Both sciences believe that the balance of the three doshas is of great importance in order to maintain good health.
- According to yoga and Ayurveda, good health is the basis of psychological, emotional and spiritual wellbeing.
- Both practices use methods to cleanse the body that simulate the natural detoxification of the organism, following natural routes of expulsion. In Ayurveda panchakarma procedure (5 cleansing actions) is applied, in yoga is called Shat Karma (six actions).
- Both systems describe the human anatomy and physiology similarly, which consists of 72 000 fine channels (Nadi), seven main energy centres (chakra), five body shells and kundalini shanti (energy).
- Both practices consist of 8 branches: Ashtanga Yoga and Ashtanga Ayurveda and they adopted the theory of Panchamahabhuta the five basic elements (Air, Earth, Ether, Water, Fire).

This was my first attempt at understanding yoga and Ayurveda. There was so much wisdom to explore and search in this topic. I chose this topic as I wanted to learn about it. It was a good opportunity in my life to know about it. I may apply these sister sciences into my everyday life.

🛦 Lina Cantilal Cangi, Bristol Pariwar Shakha



















Ayurveda

Introduction:

Ayurveda - term is derived from the Sanskrit word Ayur - Life and Veda - Science or knowledge. Ayurveda - sister science of Yoga which originated about 5000 years ago in India.

History of Ayurveda:

Ayurveda flourished during the Bronze Age civilization in the Indus Valley. Later, the centre of civilization moved to the Ganges Basin where the people who called themselves the Arya or nobles, practiced a positive and life affirming spirituality enclosed in the Vedas.

Ayurveda established its own identity as a distinct science after the Vedic period. The Ayurvedic texts are composed of two halves, the Great Three Classics Of Ayurveda and the Lesser Three Classics Of Ayurveda.



The Great Three Classics of Ayurveda consist of Charaka Samhita, Sushruta Samhita, and Ashtanga Hridayam Sangraha. Many Rishis like Shusrustacharya, Charakacharya etc. documented their great findings and contributed their effort and insight to make it available to all of us then, now and forever.

Principles of Ayurveda:

Ayurveda is addressed as the Mother of all healing systems. It is an old and natural healing process. Ayurveda defines health as a balanced state of Body, Mind and Consciousness. Ayurveda means the Wisdom or Knowledge of life longevity. Ayurveda looks at the whole person and understands the inter connection and importance of health in one's body, mind and spirit. Comparatively, conventional medicine is often disease-based approach and usually looks at curing the symptoms only.

Ayurveda looks at the whole person to address the root cause of the disease or imbalance, so when one implements the recommendations of Ayurveda the symptoms disappear, and one creates perfect health.

Ayurveda is considered by many scholars to be the oldest healing science. It stems from the ancient Vedic culture and was taught for many thousands of years in an oral tradition from accomplished masters to their disciples. Some of this knowledge was set to print a few thousand years ago, but much of it is inaccessible. The principles of many of the natural healing systems now familiar in the West, have their roots in Ayurveda, including Homeopathy and Polarity Therapy.















Just as everyone has a unique fingerprint, each person has a particular pattern of energyan individual combination of physical, mental and emotional characteristics—their own constitution. This constitution is determined at conception by a number of factors and remains the same throughout one's life.

Basic difference between Ayurveda and Western allopathic medicine:

Western allopathic medicine currently tends to focus on symptomatology and disease, and primarily uses drugs and surgery to rid the body of pathogens or diseased tissue. Many lives have been saved by this approach. In fact, surgery is encompassed by Ayurveda. However, drugs, because of their toxicity, often weaken the body.



Ayurveda does not focus on disease. Rather, Ayurveda maintains that all life must be supported by energy in balance. When there is minimal stress and the flow of energy within a person is balanced, the body's natural defence systems will be strong and can more easily defend against disease.

In summary, Ayurveda addresses all aspects of life – the body, mind and spirit. It recognizes that each of us is unique, each responds differently to the many aspects of life, each possesses different strengths and weaknesses. Through insight, understanding and experience Ayurveda presents a vast wealth of information on the relationships between causes and their effects, both immediate and subtle, for each unique individual.

Our bodies are a reflection of nature and we are composed of 5 elements. - Air, Ether (space), Earth, Fire and Water. We are all a combination of all 5 elements, but we have varying amounts of each. Ayurveda considers these 5 elements and categorizes them into Dosha - The word "Dosha" means Energy. The three kinds of Dosha identified are Vata, Pitta and Kapha.

Journey to know your own roots - doing research on Ayurveda has given me a good understanding of the connection between mind, body and soul.

A Payal Patel, Bristol Pariwar Shakha













Charaka and Sushruta - Pioneers of Ayurveda

|| शरीरे जर्जरीभूते व्याधिग्रस्ते कलेबरे ।

औषधं जाहनवीतोयं वैद्यो नारायणो हरिः ॥

Medicine (aushadhi) should be considered as sacred as water from the River Ganges (Jahnvi), and that a doctor (vaidya) should be considered as a form of Lord Narayana

This shloka is a belief in India who look upon the doctors as Gods.

We have all seen this in the recent times, in true sense, doctors have been gods saving lives

Yes, that is why we are showing our gratitude to the doctors, nurses and medical professionals during Pandemic by clapping for them and many other ways! So, it is a great opportunity, today to learn about two greatest scholars of India, **Charaka** and **Sushurta** who were ancient Indian doctors and key contributors to Ayurveda

What is that on the board??

It is amazing to know that even about 2000 years ago, India was a treasure of immense knowledge especially in the field of medicine.

Amongst various great contributions from India in the field of science, *Ayurveda* and *Yoga* are the most ancient and significant, relevant to healthy living even to this date. The early writings of Charaka and Sushruta touch upon every aspect of medical science which was unknown to the outside world till about the 8th Century. These works were first translated to Arabic and then to other languages.

Here is an insight into the life and contributions of these great scholars **Charaka and Sushruta**.









Maharishi Charaka (चरक) ca 100 BCE - 200 CE, Taxila



The word Charaka itself means 'wanderer'. Charaka is believed to have travelled around many places learning about medicines and treating people. Some ancient evidences show that Charaka must have been a court physician during the reign of King Kanishka.

<u>Quote by Charaka</u>

A physician who fails to enter the body of a patient with the lamp of knowledge and understanding can never treat diseases. He should first study all the factors, including environment, which influence a patient's disease, and then prescribe treatment. It is more important to prevent the occurrence of disease than to seek a cure

- Acharya Charaka is often known as the **Father of Indian Medicine** and is the principal contributor to Ayurveda.
- He is the author of Charaka Samhita which is an encyclopaedia of Ayurveda.
- Charaka Samhita is a collection of various valuable ancient theories on the human body, causes, symptoms and therapy for various diseases.
- It consists of eight parts/books with 120 chapters which Charaka is believed to have extended from the works of his own Guru Acharya Agnivesha.
- Sutra Sthana, Vidan Sthana, Viman Sthana, Sharir Sthana, Indriya Sthana, Chikitsa Sthana, Kalpa Sthana, Siddhi Sthana are the chapters of the Samhita, which covers causes, diagnosis, symptoms and herbal treatments of various ailments. They also include golden rules for a healthy way of life and longevity. This is also the fundamental principle of Ayurveda













- Interesting fact is, the whole Samhita is written in **Sanskrit** in the form of poems/verses with melody.
- In addition, Charaka Samhita also emphasizes the importance of healthy life (Aarogya) as an excellent means to acquire virtue (Dharma), wealth (Artha), gratification (Kama) and eternity (Moksha).
- This Samhita is not only an interesting source of medical practices but also gives an insight into the ecological, social and economic conditions of ancient India with an elaborate mention of various food habits specific to the different regions.

It can also be inferred that India was home to various medicinal herbs and spices which were used to prevent and treat diseases.

Maharshi Sushruta (सुश्रुत) ca 600 BC, Kingdom of Kashi (Bihar)



Sushruta has been referred to in Mahabharata as one of the sons of Maharishi Vishwamitra. He is also accepted as a descendent of **Dhanavantri** - the god of medicine in (Bhagwat Puran) Hindu scriptures.

Sushruta is accredited to be a great visionary who regarded surgery as the highest and important form of medicine.

He believed that a doctor must have the knowledge of both medicine and surgery without which he is like a 'bird with one wing'















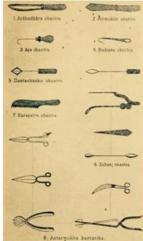


- Acharya Sushruta is known as mostly honoured as **Father of Surgery** who is renowned for his famous composition 'Sushruta Samhita'
- He is the pioneer of more than 300 surgeries and described the use of approximately 124 surgical instruments in his works.
- He is believed to be the first surgeon known to record his surgeries. His text is believed to be the first composition to describe rhinoplasty (plastic surgery for the nose).
- He is one of the earliest documented plastic surgeons, who described procedures for treating hemorrhoids, fistulae, as well as cataract surgery.
- Sushruta Samhita consists of 84 chapters with descriptions of 1,120 illnesses, 700 medicinal plants, 64 preparations from mineral sources and 57 preparations based on animal sources.
- The text describes various surgical techniques and interventional procedures like tooth extraction, hernia surgery, cesarean section, fracture management to name a few.
- It is evident from this Samhita that Sushurta was an expert in the use of anesthesia, an important aspect of surgery.

 Palm Leaves of the Suhruta Samhita are stored at Los Angeles County Museum of Art as seen in the picture here

- Sushruta is credited with the first surgeon to have used and described various surgical instruments which are fundamental for practices even today. The pictures here show the surgical instruments as shown in the ancient Indian text Sushruta Samhita yantra.
- As the language of ancient India, Sushruta Samhita is also written in Sanskrit and was later translated into various languages.





- The techniques described by him were used by British surgeons in India in the 18th century and by Italian surgeons two centuries earlier.
- The compositions of Charaka and Sushruta in the field of medicine is the basic foundation of medicine, still in practice even after more than 2000 years, a real treasure which adds to the glory of India's rich intellectual heritage.

\Lambda Kshama Nagaraj, Cheltenham Balagokulam Shakha











Ayurveda in Modern day

Why is the ancient wisdom of Ayurveda so relevant today for our busy modern lives?

Ayurveda is a simple and practical holistic healing system with principles that stem from ancient Vedas of India. Ayurveda aims at preventing and relieving the diseases of body and mind through self-observation and self-care.

How does Ayurveda translate for us in the present century?

The ancient wisdom of Ayurveda describes several ways to maintain balance within as the variables of life change around us like Seasons change, relationships change, we grow older and so on. The only constant in life is change. If we adjust ourselves internally according to external forces or stresses, we can remain in a state of relatively stable equilibrium and good health.

Ayurveda reveals the healing power of various commonly used herbs and spices in the Indian households. Turmeric is a good example of ancient wisdom that has been proven scientifically in the modern times. Turmeric is now known world over for its active ingredients, its anti-inflammatory and anti-bacterial properties.

Modern medicine utilizes some of Ayurvedic healing therapies for one main reason- they are effective.

Ayurveda is based on natural methods and one of the main purposes of Ayurveda is preventing diseases from appearing in our body. Modern medicine treats the disease with the help of drugs, Ayurveda facilitates healing with the amalgamation of five elements of nature.

The holistic basis of Ayurveda incorporates mental health in most aspects of health promotion, disease prevention and treatment.

Dietary habits, remedies and health promotions daily routines may vary from place to place, but their principles remain the same. Ayurveda may be practical in a self-sufficient manner in any climate and may serve to decrease dependence on experts and drug companies.

Ayurveda uses mainly plant extracts in its herbal oils and medicinal products. The natural medicine Ayurveda uses are non-invasive and don't contain any toxins. They also can be taken safely in combination with other medicines, following guidance from your health professional.

Ayurveda doesn't offer one-size fits treatment. Ayurvedic theory focuses on the individuals, unlike modern medicine. When offering healing treatment to a patient Ayurveda takes into consideration their individual doshas, their current overall condition and disease history. By doing this we can find the most effective therapy to stop the root cause of a patient's disease.













Speaking about Ayurveda and modern medicine, I was impressed with the various types of hay fever treatments. I suffer from very bad hay fever and have tried many remedies over the years. I was very impressed with the Ayurvedic approach to hay fever. It starts with looking at your digestive system. It looks at your dietary habits and the cause of the allergy. Of course, it is not an instant relief. I am trying to work through each system and will try to follow up regularly which is very important while following hay fever treatments with Ayurveda.

\Lambda Preethy Prasant, Bristol Pariwar Shakha













Ayurveda - Concept of Prakriti & Doshas

"Om namo bhagavate maha Sudarshan Vasudevaya Dhanvantareye" We pray to the god, who is known as Sudarshan, Vasudev and Dhanvantari.

One of the key fundamental theories of Ayurveda involves a system of understanding health and disease, known as the tri-doshas and Prakriti.

According to Ayurveda, every human being comes from a creation of the cosmos. Pure cosmic consciousness has two energies;

> Male energy- "Purusha" (choice-less passive awareness)

Female energy- "Prakriti" (choice-full active consciousness- divine dance of creation)



Prakriti first evolved as supreme intelligence, called "Mahat" (buddhi-individual intellect). This individual intellect called "ahamkara" is influenced by three basic universal qualities-

- Sattva (clarity of perception)
- Rajas (movement, sensation, feeling and emotion)
- Tamas (darkness, deep sleep, heaviness etc)

Sattva- from the essence of Sattva the five senses are created

- Ears to hear
- Eyes to see
- Nose to smell
- Tongue to taste
- Skin to touch

Rajas - from the essence of Rajas, five motor organs are created

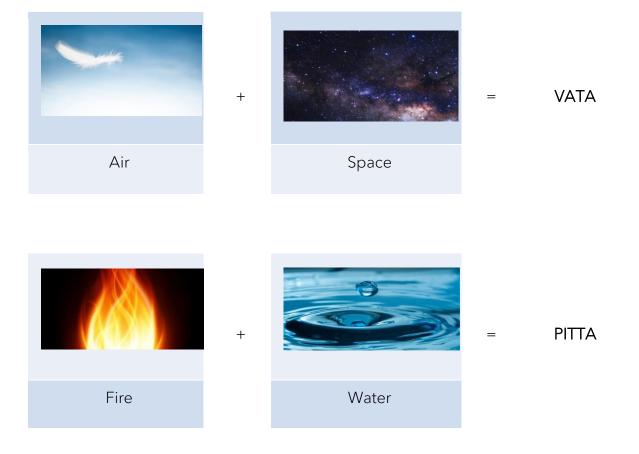
- Tongue
- Hand
- Feet
- Genitals
- Excretory organs

Tamas - is responsible for creation of subtle elements, from whom the 5 elements are manifested.

- Space expansion of consciousness. Ever present, humbly residing in the background, providing the other elements with opportunity to interact in this way
- Air Movement of consciousness. Air flows freely throughout the body, giving movement to biological function and feeding every cell with oxygen.
- Fire where there is movement, there is friction this in turn creates heat, so the third manifestation of consciousness is fire. Fire provides the body with heat and radiant energy and exists within all metabolic and chemical actions.
- Water because of the heat of fire consciousness melts into water. Water is a life sustaining nectar, making up more than 70% of our total body mass.
- Earth fifth element of consciousness. We nourish ourselves with food from the earth and eventually our body returns to the earthly matter from which it came.

Prakriti (constitution/own nature) is the ratio of interplay of 3 doshas that we are born with and our Prakriti is derived from our unique combination of 3 doshas.

Doshas are made up of structural elements of the universe.







KAPHA

Fire +water = Pitta



Air + Space = Vata

Water + Earth = Kapha

According to Ayurveda there are 7 body types:

Predominant (single dosha type)



Pitta

Kapha









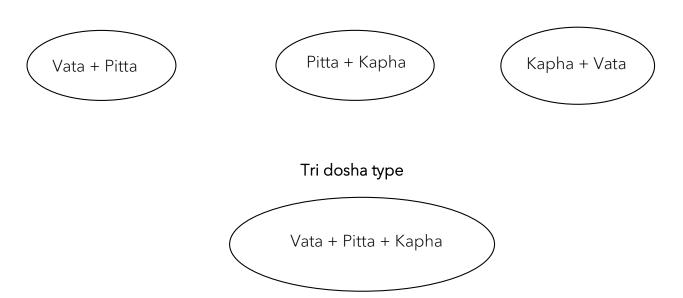








Dual dosha type



These 3 doshas of body are believed to determine the unique combination of physical, physiological and psychological features of an individual.

The Prakriti of a person is a consequence of the relative proportion of the three doshas. The dominant dosha of the person is believed to be determined at the birth, which is further modulated by the diet and lifestyle of mother, age of parents and the environment in which the person grows. All of these generate the unique Dosha-Prakriti of the individual. Prakriti categorises us into several groups based on phenotypic characters like appearance, temperament and habits.

The concept is claimed to be useful in predicting an individual's susceptibility to particular disease, prognosis of illness and treatment. The core concept allows implementation of ways for not only personalised medicine and treatment but also personalised prevention.

⚠ Dr. Bijal Raval, Bristol Pariwar Shakha

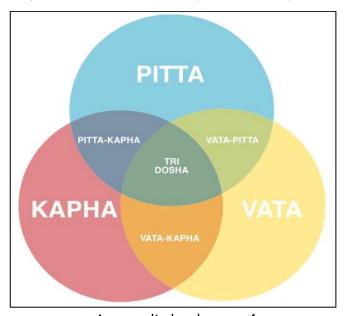
Doshas

The Doshas and body type combinations

Ayurveda identifies three basic types of energies or principles that are present in everyone and everything. These are called doshas and are identified by their Sanskrit names - Vata, Pitta, and Kapha.

The doshas are natural energies found throughout the human body and mind, which manage all our physical and mental processes.

The combination of these energies provides every living being with an individual blueprint for health and fulfilment. Ayurveda divides the different body types into seven categories, Vata, Pitta, Kapha, Vata-Pitta, Pitta-Kapha, Vata-Kapha, and Tri-dosha.



Ayurvedic body types¹

All the three doshas are present in every individual, and the body type is determined by the dominance of the doshas in the body. This can take the following forms:

- **Primary dosha constitution**: Generally, in most individuals, it is seen that one of the three doshas is usually more prominent, one is secondary and the third is least prominent. The body types in this category are Vata, Pitta and Kapha.
- Dual-dosha constitution: One can also have a dominant dosha and a second dosha that has a strong influence, this is referred to as a Dual-dosha constitution. The body types in this category are Vata-Pitta, Pitta-Kapha and Vata-Kapha.
- Tri-dosha constitution: On rare occasions that the Vata, Pitta, and Kapha are equally pronounced in a human being refers to a state called the Tri-dosha. When the Tri-doshas are balanced in an individual, a natural equilibrium is present that is the foundation of good health and equilibrium.













There is no 'best' or 'perfect' body type or dosha. Each of the categories have their own advantages and disadvantages. The following gives an overview of the three doshas.

The Doshas - An Overview

The doshas derive from the 5 elements of nature (translated into Sanskrit as the "pancha mahabhutas") and their related properties. The combinations of the elements give rise to the three doshas as seen below.



The elements and the derived doshas²

1. Vata

Vata represents space and air and is the energy of movement. Vata is often considered as the king of the doshas in the body. As the element of mobility, Vata is the conductor of the physiological and mental activity in the body. It is responsible for all bodily functions like respiration, blood circulation, blinking of our eyes, communication and muscle contraction.

Characteristics of Vata

Those dominated by the Vata dosha are commonly quick in thinking, thin and fast moving. Mentally, they grasp concepts quickly, but then forget them just as quickly. Although they are generally alert, restless and very active, people with a dominant Vata are also easily fatigued.

The Vata soul is creative, artistic & inspires others.

When in balance, the Vata is lively and energetic, and the balanced Vata individual will be active, creative, and gifted with a natural ability to express and communicate.

When unbalanced, Vata types may become fearful, nervous and anxious. An unbalanced Vata manifests itself with problems such as dry skin, dry hair and constipation. Other common Vata disorders include flatulence, tics, twitches and aching joints.

Balancing Vata

Adequate rest and relaxation are needed to keep the Vata in balance. Maintaining a disciplined schedule and a daily routine is very useful in assisting the Vata individual to effectively ground the moving energy. Steam baths, humidifiers and moisture in general are recommended. A daily oil massage before bath or shower is helpful to combat the dryness of the skin.

Food guidelines for managing Vata

In general, people with excessive Vata respond most rapidly to warm, well-cooked meals. The Vata constitution does not favour cold, icy foods and drinks. High consumption of spicy and astringent foods also contributes to Vata imbalance. Regularity in meal times is important for Vata and fasting should be avoided. They can tolerate moist, slightly oily and heavy foods. The diet should also include vegetables like broccoli, leafy vegetables and cauliflower. Consumption of sweet fruits such as bananas, coconuts, apples, figs, grapes, mangos, melons is recommended during the day. Dried fruits can also be eaten, but in moderation. Grains like wheat, brown rice and mild spices like cumin, nutmeg, ginger and cinnamon agree with the Vata constitution. A warm cup of milk before bed is also recommended.

2. Pitta

Pitta is the principle of fire and water, the moderator of digestion and metabolism. It is responsible for regulating the body temperature through the chemical transformation of food, governing digestion, absorption, nutrition, metabolism, promoting vitality and appetite.

Characteristics of Pitta

Those dominated by the Pitta dosha tend to be strong willed, determined and have leadership qualities. Pitta types have a fiery nature, so can come across as hot headed. The fire element manifests itself in warm bodies, penetrating ideas and sharp intelligence. They are enterprising and have the courage to follow their dreams.

When they're in balance, Pitta types are good decision makers, precise, sharp-witted, direct, and often outspoken. Imbalance in Pitta dosha manifests as excessive heated emotions and conditions. An unbalanced Pitta can lead to anger, agitation, short-temper and argumentative behaviour. It may cause burning disorders such as skin rashes, burning sensations, peptic ulcers, excessive body heat, heartburn, and indigestion and inflammation.

Balancing Pitta

People with a dominant Pitta must exercise during the cooler part of the day to blow off steam. Activities that require moderate physical exertion such as jogging, dancing, or cycling are recommended. Also, one must not skip meals or wait until one is famished to eat. To maintain a balance, one should try meditation, massages and inhaling cooling scents such as rose, mint and lavender.















Food guidelines for managing Pitta

General food guidelines for pacifying pitta include avoiding sour, salty and pungent foods. Pitta balance can be restored with sweet, bitter and astringent tastes and heavy, cool foods. Consumption of sweet fruits such as grapes, melons, coconuts, avocados, pomegranates, fully ripe pineapples is recommended, along with vegetables such as cucumbers, green leafy vegetables, pumpkins, broccoli, cauliflower, celery, okra, green beans, and zucchini. Avoid sour fruits, red meat, potatoes, tomatoes, and eggplant. The cooling properties of dairy can help balance the heat of Pitta. As such milk, butter, and ghee should be included in the diet. However, sour or fermented dairy products such as yoghurt or cheese may aggravate the Pitta.

3. Kapha

Kapha is constituted of water and earth and is the dosha of structure and lubrication. This dosha maintains body resistance. Kapha is primarily responsible for anabolism, the process of building the body, growth and creation of new cells as well as cell repair.

Characteristics of Kapha

Those dominated by Kapha are said to be solid, calm and thoughtful.

Kapha types are blessed with strength, endurance and stamina. In balance, they tend to have sweet, loving dispositions and be stable and grounded. Kapha-types also enjoy routine, but the routine should be variated often to keep them motivated.

When in balance, the Kapha promotes contentment and a sense of stability and support in our bodily functions. Consequently, an imbalance manifests itself by a feeling of inertia, difficulty in initiating any tasks, and a foggy mind. When out of balance, Kaphas tend to experience greed, envy, possessiveness and depression. If the Kapha type acts on the tendencies toward overeating, avoiding exercise, and excessive sleep for a long time, the Kapha Dosha is derailed and disorders such as depression, obesity, and diabetes mellitus may occur. Other disorders include slow digestion, wet cough and difficulty in breathing.

Balancing Kapha

To maintain a balance, indulge in gentle exercises and stimulating activities. Avoid daytime naps, especially after lunch. Variation in daily routine helps to keep the energy flowing. It is important to practice the art of letting go of attachments that are weighing you down, for example, by having a regular clear out.

Food guidelines for managing Kapha

Kapha types have a tendency to overeat so the golden rule for them is to eat less. An extra intake of fluids can also help to keep the energy flowing. All vegetables are good for Kapha, but one should emphasize leafy greens and vegetables grown above ground more than root vegetables while avoiding very sweet, sour or juicy vegetables. Buckwheat and millet are the optimal grains for them as they are more heating, followed by barley, rice and corn. They should avoid dairy products and fats of any kind, especially fried or greasy foods. They may benefit from the occasional use of stimulants such as coffee or tea.

To enjoy a balanced mind, body and spirit, our unique dosha constitution needs to be in a state of equilibrium, when it isn't, we fall ill. The balance of the constitution can be disturbed by several elements such as an unhealthy diet, stress, repressed emotions and insufficient exercise. To maintain balance and good health, a person must manage the three doshas, and increase or decrease them as conditions demand. In simple words, order and balance of the doshas means good health, whereas disease is disorder and imbalance of the doshas.

There are various free online guizzes available which can help to identify your Ayurvedic body type. I have listed a couple below which you can explore if you want to find out more about your doshic constitution.

https://chopra.com/sites/default/files/DoshaQuiz.pdf

https://www.ayurveda.com/pdf/constitution.pdf

The dosha constitution determined by such an Ayurveda test can help you to make changes to your lifestyle to be able to live a healthier life and enhance your wellbeing.

Disclaimer:

I am not affiliated, associated, authorized, endorsed by, or in any way officially connected with any of the websites mentioned in this article.

Picture References:

- 1 -www.bhbhujjwalsaini.com
- 2 -www.Yogamotion.com

\Lambda Dipti Ashar, Bristol Pariwar Shakha

Vata Dosha Balancing Recipes & Yoga Poses

Vata Dosha

Vata is one of the three basic energy types in the human body as per Ayurveda. Pitta and Kapha are the others. Each has a specific principal functionality and the human mind and body work to keep these in balance.

The word Vata means to blow or move like the wind. Vata Dosha is light, dry, mobile, cold, hard, rough, sharp, subtle, flowing, and clear.

A body and mind in which the Vata Dosha predominates expresses or reflects these qualities.

Vata when balanced promotes flexibility and creativity, when out of balance Vata can show symptoms of fear, anxiety, muscle aches and skin problems

Routine to help balance Vata Dosha-

Drink warm water with lemon & honey before breakfast. Walking half an hour before meal.

Foods that help balance Vata Dosha-

Nuts:	Almonds, Brazil Nuts, Cashew Nuts, Fresh Coconut, Peanuts, Pecan Nuts, Pumpkin Seeds & Walnuts.
Fruits:	Bananas, Grapes, Mango, Kiwi, Peach, Papaya, Melon, Pineapple, Fig & Oranges
Grains:	Rice & Wheat.
Vegetables:	Beetroot, Carrots, Cooked Vegetables such as Peas, Broccoli, Cauliflower, Sweet Potatoes, Courgettes
Spices:	Cardamom, Cumin, Ginger, Salt, Cloves, Fennel, Mustard Seeds, Oregano, Black Pepper, Thyme

I would like to share some recipes and yoga poses that are beneficial in balancing the Vata dosha.











Mung Curry by Arti

Ingredients	Instructions		
 4 Cups Mung 2 Chopped Onions 2 Chopped Tomatoes 4 Green Chillies Finely Chopped 5 Garlic Cloves Salt Turmeric Powder (Haldi) Garam Masala Red Chilli powder 1 tablespoon of Lemon Ajwain Seeds Curry Leaves 	 Boil Mung with pinch of salt. Heat a pan with 2 spoons of oil Add Ajwain Seeds, Garlic Cloves & Curry leaves in the Pan Add Onion & Green Chillies. Fry till transparent. Add Salt, Turmeric Powder, Garam Masala, Red Chilli powder Fry about 1 to 2 minutes then drain water from the Green Mung & add it to the pot. Add Chopped Tomatoes & 1 tablespoon of lemon Cook till the Mung is tender and soft. 		





Green Mung dal (raw)

Mung Curry













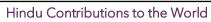




Quinoa Khichdi by Arti

Ingredients	Instructions			
 1 Cup of Quinoa 1 Tomato 1 Onion 2 Green Chillies 1 Potatoes Peanuts Salt Turmeric Powder Cumin Seeds Mustard Seeds Ghee Yellow Mung Dal 	 Heat Ghee in a cooker Add cumin and cinnamon Add onions, ginger garlic paste and sauté for 2 mins Add in tomatoes and mix well Add all veggies and mix well Add all spice powders and salt and mix well Add dal and water and mix well Add quinoa and cook till it is soft Serve 			





















Healthy Smoothie by Arti























Warming Vata Ayurvedic Tea

<u>Ingredients</u>

1/4 teaspoon ginger (fresh grated)

1/4 teaspoon cardamom (ground)

1/4 teaspoon cinnamon

1/4 teaspoon ajwain (carom) seeds

1 cup boiling water

Preparation

- 1. Mix the ginger, cardamom, cinnamon and ajwain seeds together
- 2. Boil the water and then add it to the herb and spice mixture.
- 3. Steep the tea, covered, for five minutes.
- 4. Strain and discard the herbs and spices and serve warm.

This Vata tea recipe was created by Ayurvedic chef Patti Garland of Bliss Kitchen.



https://www.verywellfit.com/vata-tea-recipe-89378

Vata Balancing Oatmeal

<u>Ingredients</u>

1/4 cup rolled oats

1 and 1/2 cups water

1/2 tsp cinnamon

1/4 tsp nutmeg

1/4 tsp cardamom

1 thumb size piece of fresh ginger (peeled and chopped roughly)

1 tsp ground flax seeds

1/2 tbsp tahini

1 tsp ghee optional for non-vegans

<u>Instructions</u>

- 1. Put the water, oats, ginger, and spices (except cardamom) in a saucepan. Mix well with a spoon to dissolve the spices. Cook until creamy.
- 2. Take off heat. Stir in cardamom. Top with flax seeds, tahini, and ghee.

https://www.blissfud.com/vata-balancing-oatmeal/



Yoga Poses for balancing Vata dosha's

1. Vriksasana



3. Chandra Bhedana Pranayama



2. Vajrasan



4. Virabhadrasana



My Experience



This is my first article. I really enjoyed researching Vata. I learnt a lot about Ayurveda. This will be useful in my future life. I learnt a lot about different exciting recipes & balance of food.

\Lambda Arti Patel, Bristol Pariwar Shakha

Pitta Dosha Balancing Recipes & Yoga Poses

Pitta is one of the three doshas as per Ayurveda. Pitta is the main energy of the body which controls the digestion, metabolism and hormones related to appetite.

An imbalance in Pitta can cause irritation to the digestive system in the form of nausea, acidity, constipation and in turn can cause skin problems, acne and redness in the eyes. This also affects the mental health causing impatience, intolerance, anger and irritability. Here are a few tips to keep Pitta in balance:

PITTA BALANCING RECIPES

Pandemic salad



This is a cooling fruit and vegetables salad (I have named it pandemic salad as I didn't get to go out and get all ingredients (3) (4))

I have used raw mango, chickpeas, sprouted green beans, cucumber, carrot, sweetcorn, green and red pepper. Salad dressing is made up of little olive oil, salt, black paper, mint and tiny little bit of lemon juice (optional)















Bitter Gourd and onion sabji



- 1. First chop bitter gourd, sprinkle salt and keep it aside for 10 minutes.
- 2. You can squeeze some juice out of the bitter gourd, but this step is optional (if you like bitter taste you can avoid this step).
- 3. Then take 2 spoonsful of oil in a pan, some chopped garlic, cumin seeds and then add chopped onion.
- 4. Cook the onions till they change their colour and then add bitter gourd.
- 5. Cook for 10 minutes on medium heat, stir occasionally, add spices like turmeric and half teaspoon of red chilli powder.
- 6. When bitter gourd looks cooked and has changed in colour, sprinkle 3 spoons of finely chopped jaggery and cook till it melts.
- 7. Enjoy it with family and friends.

Sprouted Green Mung



- a. To make this take 1 cup green beans, soak minimum for 4 to 6 hours and then keep it in a warm place for sprouting for 6 to 7 hours.
- b. Take 1 spoon of oil in a pan, add chopped garlic, ginger, cumin and curry leaves.
- c. Add your sprouted washed green beans in the pan.
- d. Add 1 cup water, turmeric, salt and sliced green chilli.
- e. Cook for 10 to 15 minutes.
- f. Once it is ready add some chopped coriander and enjoy it with your loved ones

Buttermilk (chaas)

Take 1 cup of mild homemade yogurt and add half cup of water to it. Whisk it well and don't forget to add ground cumin (salt is optional, I didn't add any in my chaas)



Our healthy thali for dinner is ready!









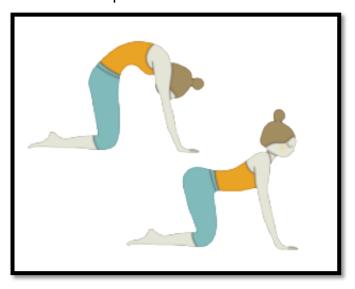






SOME YOGA ASANAS THAT BALANCE PITTA

1. Cat cow poses



2. Butterfly Pose



3. Bridge Pose



4. Child's pose



I have learned a lot about Pitta Dosha and developed new knowledge in Ayurveda

⚠ Mayurika Patel, Bristol Pariwar Shakha

Kapha Dosha Balancing Recipes & Yoga Poses

KAPHA BALANCE

Kapha is one of the three doshas described in Ayurveda and is responsible for solidity and all structures in the body. This is the principal energy which controls the fluids in the body. An imbalance of Kapha can present itself as allergies, congestion and lead to one being lethargic and slow with the mind becoming foggy and dull. It is important to keep a balance of the Kapha in our body.

Foods that are great for balancing Kapha in general are pungent, bitter, and astringent in taste. Ayurveda considers these tastes to be the medicine for warming, drying, and stimulating digestion for Kapha. Generally, all six tastes (sweet, sour, salty, bitter, pungent, and astringent) are recommended for healthy digestion! I will then share some recipes that help balance Kapha dosha.

FOODS THAT HELP TO BALANCE



YOGAINTERNATIONAL, COM

SPICY ROASTED CHICKPEAS:

Ingredients

- 2 cups cooked chickpeas (or 2 cans organic, no salt)
- 1 tablespoon sunflower oil or melted ghee
- 1/4 teaspoon cayenne pepper
- 1/2 teaspoon turmeric powder
- 1 teaspoon cumin powder salt (but go easy)

Instructions

- Preheat the oven to 425 degrees Fahrenheit.
- Rinse chickpeas and let them air dry for a few minutes
- Place in a bowl and mix with sunflower oil or ghee until evenly coated.
- Add cayenne, turmeric, cumin and salt. Mix well until evenly coated.
- Place evenly on a baking tray. Roast for 35 minutes, mixing every 15 minutes until they are golden and crunchy. It may take up to 50 minutes depending on how dry and crunchy you want them to be

https://www.pinterest.com/pin/1435523068 46208391/



LEMON CORIANDER SOUP

Ingredients

- 750 milliliters vegetable stock
- 1/3 cup diced carrot
- 3/4 cup shredded cabbage
- juice of 1/2 lemon
- salt and white pepper, to taste
- 1/2 cup chopped cilantro leaves
- 4 drops sesame oil

INSTRUCTIONS

- Combine vegetable stock, carrot, and cabbage in a large saucepan. Bring to a boil and add salt and white pepper to taste. Stir in lemon juice.
- 2. Add chopped cilantro and garnish with a little sesame oil, if desired.



https://goop.com/recipes/lemon-coriander-soup/















KAPHA AYURVEDIC TEA

Ingredients:

- 1/4 teaspoon dry ginger
- 1 clove
- 1/4 teaspoon dill seed
- 1/4 teaspoon fenugreek seed
- 1 cup boiling water

Instructions:

- 1. Mix the ginger, clove, dill seed, and fenugreek seed together.
- 2. Add the boiling water to the herb and spice mixture.
- 3. Steep for 5 minutes, covered.
- 4. Strain and discard the herb and spice mixture and serve hot.

https://www.verywellfit.com/kapha-tea-recipe-89376



SOOTHING KHICHARI

Ingredients:

- 1 cup basmati rice
- 1 cup split lentils (split masoor dal)
- 2 TBSP ghee (purified butter)
- 1 TBSP minced / fine chopped ginger
- 1 TBSP minced / fine chopped garlic
- 1/2 TBSP turmeric powder
- 1 TBSP black pepper
- Optional: 1 TBSP red chili pepper
- 1 1/2 TBSP Salt
- 1 TBSP cumin powder
- 2 TBSP coriander powder
- One cup of chopped vegetables of your choice (carrots, cauliflower etc.)
- 4 cups of water

Instructions:

- 1. Wash rice and split lentils and drain the water
- 2. In a heated pan add ghee. Add ginger and garlic. Sauté until it starts changing color.
- 3. Turn the heat to low and add all other spices. Add all vegetables to it and continue to sauté. Add rice and lentils. Add 4 cups of water and cook for 25 minutes on medium heat. After 25 minutes, cover it with a lid and switch off the heat.
- 4. Wait for 5 minutes. Serve it hot with a spoon of ghee on to it. If you want to make it soupy, add one extra cup of water while cooking.

https://piorliving.com/ayur Vedic-diet/khichari















RASAVALU BATETA NU SHAK BY VILMA

INGREDIENTS

- 500 grams Potato Boiled, peeled and chopped into cubes
- 1 tbsp coriander powder
- 2 tsp cumin powder
- 1 tbsp Chilli powder
- Salt to taste
- 1/4 tsp Turmeric powder
- 2 1/2 cups Water or as needed
- 2-tbsp-Oil

INSTRUCTIONS

- Take Cumin and coriander powder, Chilli powder, Salt and Turmeric powder in a bowl. Mix them very well and keep it aside.
- Heat oil in a pan. Add prepared masala mixture into the hot oil and cook it for a few seconds, stirring continuously. Add water into it. Mix well.
- Add chopped potatoes. Mix them and let it cook for 10 to 12 minutes over medium heat, stir occasionally. Add more water if needed. Crush some potatoes with the help of the back of the spoon to get a little bit thick gravy.
- Rasavalu Bateta Nu Shak / Potato Curry is ready.
- Garnish it with coriander leaves and serve with Hot puri, thepla or khichadi.



INGREDIENTS

- 500g 0% fat naturally set yogurt
- 1 tbsp sugar
- 5 pistachio nuts
- 5 almonds
- 5 cardamoms, ground
- 10 saffron strands
- 1 tbsp skimmed milk

INSTRUCTIONS

- 1. Place newspaper sheets on a tray. Place a clean towel on top.
- 2. Empty the yogurt onto the tea towel, drain all water from the yogurt for 3 -4 minutes.
- 3. Once drained, put the yogurt into the large bowl, add sugar and whisk thoroughly for 2-3 minutes. It should be thick and creamy.
- 4. Boil 1/2 the quantity of saffron strands and 1/2 the quantity of ground cardamoms in a small pan with the milk. Allow it to cool completely.









By Vilma.S





- 5. Once cold, add to the yogurt mixture.
- 6. Again, whisk well. Slice the pistachios and almonds very finely.
- 7. Add 1/2 the quantity into the yogurt mixture. Transfer to the serving bowl.
- 8. Decorate by sprinkling the remaining saffron strands, finely sliced nuts and cardamoms.
- 9. Refrigerate for 2 -24 hours for best results.

Special Note-According to Ayurveda, adding saffron and crushed cardamom powder helps to neutralize the mucous forming properties of yoghurt and make it more digestible. Kapha doshas should eat this occasionally with a pinch of ginger By Vilma.S

YOGA POSES FOR KAPHA BALANCE



Image from https://slideplayer.com/slide/7080879



















MY RESPONSE

I enjoyed making my first project, it was fun researching Kapha as it is such an entertaining and useful topic which I can implement into my daily life. I hope this was as fun for you to read as it was fun for me to make. I am thankful to my daughter for her help on this article.

⚠ Vilma Sobachande, Bristol Pariwar Shakha















Nature Worship

Vasudhaiva Kutumbakam - Nature for one and all

I would like to thank Hindu Sevika Samiti for giving the members this amazing opportunity to work on different Projects.

The topic I received was Nature Worship.

Instantly, childhood memories come back to me, and made me reflect on the present - how we have lost the teachings and respect taught to us by our elders, why the foundations that we had, which are so relevant now, are losing their appeal. It was a very rewarding research, which made me very aware, but I also have several regrets and feel like apologising to mother nature.

A lot of us who grew up in India must have very fond memories of going to our grandparents' homes, spending time with them, seeing their simple lifestyle, and their daily routine. I remember when I was young, my dad was posted to Delhi and every summer holiday, we would take the train from Delhi to Gonda, then a bus to Tarabganj, then a horse or bullock cart to our village, Narainpur. I took no notice of the heat or the journey, my eyes only searched for my Aaji. Her warm smile, loving personality and her simple attire: a cotton saree.

Her day would begin before sunrise, where she would go and get water from the well and make sure there was enough for all of us. Afterwards, she would do the pooja, starting with Surya worship. She would offer water, recite the shlokas, then get on with checking on each and every farm animal. She actually spoke to the cows, and I was not sure on why she was doing that, I was very young.

This would be followed with checking on the vegetables, trees, and other animals in the farm. Soon after, I would see her cooking food on the earthen pot with fresh vegetables from the farm; everything we ate was from the farm. She ensured we all prayed and thanked God and mother nature for the food on our plate.

Her stories revolved around nature, she talked about the Sun and its positivity, birds losing their homes if the trees were cut and natural calamities when we ignore the warnings of nature. I did not get to spend much time with my Aaji, she passed away when I was only 11. Due to this our trips to the village stopped and so did all the valuable inputs that she used to pass on.

What she did was that she made 'Nature Worship' her life, not by praying to them all the time but by also caring, respecting, valuing and thanking them.



Hinduism is so rich with respect and love for nature. The Vedas- Rig, Sama, Yajur and Atharva emphasise the importance of maintenance of the seasonal cycles.

We see divinity and holiness in nature, the sun, planets, rivers, mountains, flora and fauna (even the animals are divine!). Hinduism has volumes and volumes of shlokas, stories and temples dedicated to nature worship. The Sun Temple in Konark is one prime example. The visuals of Ganga Arti and the stories of Govardhan and Kailash mountain all show the respect for nature in Hinduism. The whole concept of Atman and the 5 core ingredients that are present in everyone: Fire, Water, Air, Earth and Space.

















Everything is sacred, the earth is Mother Earth, rivers are Mother Ganga and Mother Yamuna, mountains are where Lord Shiva resides. (Mt. Kailash), Mt. Govardhan has links with Lord Krishna, trees like the banyan and peepal are sacred. The Tulasi plant has a very specific place and so do the planets. The NavGrah pooja is well known.

However, as the western thinking took over our core beliefs, the Hindu values of respecting nature, not harming nature, all changed with modern living. Trees were cut, wildlife was destroyed, environments and rivers were all polluted and natural calamities became more frequent. What happened? Why did we become so selfish? We started looking at growth at the cost of our values where we ignored the simplicity with materialistic needs and desires. We took away the forests, we polluted the rivers and we polluted the air.

The whole teachings of Vasudhaiva Kutumbakam are so relevant now. If the bird could speak, if the squirrel could talk and if the wildlife could talk- they would tell us that this Prakruti is theirs as much as it is ours.

Let's go back to our roots, let's value and respect Nature, let the Shlokas and Mantras glorifying Nature be practised daily, literally and truly. Don't waste water, don't dump plastic, enjoy listening to the birds chirping and enjoy the sun rise and the sun set. Start seeing it from their perspective and everything will start making sense.

If we look around us there is so much that each one of us can do to build a better tomorrow. A tomorrow where nature smiles. Until we choose the path ahead wisely, we will falter at every step.

Let us all make a pledge, to keep Hinduism and its values alive. We know that the Atman resides in every creature and therefore each one of them deserves respect. Let us understand that worshiping nature must become an integral part of our daily routine.

Nature Worship should never be forgotten.

A Nandini Singh, Swindon Mahila Milan

Benefits of being Vegetarian

Benefits to the environment

- 1. Vegetarian food is considered dharmic and upholds the non-violence philosophy, where no killing of animals is involved.
- 2. Vegetarian food can reduce hunger in the world as it is cheaper to produce, whereas animal-based food takes a lot of land, air and water to produce equivalent
- 3. This also makes Vegetarian food environmentally friendly and reduces global warming.
- 4. Vegetarian food makes the world a safe place for animals which avoid breeding and slaughter of animals for food.

Benefits to the human body

- 1. Vegetarian food helps to reduce Cholesterol.
- 2. Vegetarian food is known to reduce risk factors on health like heart disease and cancer.
- 3. Vegetarian food is easy to digest for humans, all carnivorous animals have small intestines whereas the human body has the large intestine.



- 5. Vegetarian food is cheaper than meat.
- 6. In the Bhagavad-Gita, Bhagwan Krishna preaches that not only man should eat vegetarian food, but one should offer fruits, vegetables, grains to him to overcome the karmic reactions by killing plants.



Asha HR, Swindon Mahila Milan

Spices

Spices have been an integral part of Hindu cuisine for 2000 BC, even the ancient Indian epic Ramayana, mentions the use of cloves. Currently, India has a 12% share of the spice market continuing to be a major producer and exporter (Pruthi, 1993). We have utilised the medicinal and mouth-watering properties of spices. Passed down from generations, the spice boxes have become a key tool in the arsenal of any Hindu cook and the use has become an art form with people looking to add their own flair to dishes. Spices originated from plants so there are hundreds of different spices which allows for innumerate combinations of taste, depending on the quantities added to a dish. Below are the most widely used spices around the globe.

Cardamom



Cardamom is considered the third most expensive spice in the world due to the difficulty in harvesting it. It comes as seeds enclosed in a fibrous casing, which can be used to aromatise tea or desserts in both Western and Asian cuisine (Masterclass, 2019). Before breath fresheners and chewing gum, people used to chew on cardamom to fight oral bacteria. In Ayurveda cardamom has been used for its detoxifying properties leading to lower blood pressure (Streit, 2018).

Turmeric



Turmeric is the most common spice in India and is mainly used for its rich golden colour. Adding this spice transforms the dishes into striking meals. Turmeric has Curcumin which is an antioxidant and anti-inflammation. We often see it being applied to meat because of its antiseptic qualities and before plasters and ointments, turmeric was used to guard the wound against infection.

Cumin



Cumin is used to add a smoky depth of flavour and once it meets the oil you cannot miss the wonderful smell that envelops the house. The most traditional use of Cumin is to aid the digestive processes and is a rich source of Iron. It's properties in digestion are so impressive, people are switching from expensive medication to this natural alternative (Gunnars, 2018).

Cinnamon



Throughout history Cinnamon was rare and valuable, used in special dishes and in the Egyptian era given as a gift to Kings. Now, Cinnamon has become a common ingredient and you can buy it in every supermarket. Perhaps, the most famous use for cinnamon (in Asia) is for Biryani, you cannot find Biryani without cinnamon! The woody spice has an underlying earthy aroma that brightens up the dish. It is

grown in Kerala and Tamil Nadu, and it is a popular ingredient in western desserts such as cinnamon rolls. Apart from its taste, cinnamon is thought to reduce blood pressure lowering the probability of heart disease, act as anti-inflammatory and can improve the body's sensitivity to insulin, that leads to lower blood sugar and risk of diabetes (Leech, 2018).

Red Chilli Powder



Chilli powder is a rich crimson coloured spice made from dried red chilli. It is incredibly potent and so it is used sparingly in dishes depending on the taste buds of an individual. Many studies have found eating chilli can help burn fat as the compound capsaicin increases the body's metabolism. However, for the weight loss enthusiasts, a diet on chilli powder is not recommended by doctors and your stomach!

Mustard Seeds



Mustard seeds are small round seeds of the mustard plant and there are three types: black, brown, and white. In Indian cuisine, you fry the seeds in oil or ghee, and it can provide a nutty taste to a dish. Mustard tests the fortitude of the sinuses in the nasal cavity and the heat can spread through the body flushing toxins and lymphatic obstructions according to Ayurveda. Even in ancient Greece, Pythagoras noted the benefit of mustard seeds in remedy for scorpion stings (Immel).

Coriander



Coriander is well known through its refreshing aroma and the vibrant green colour it adds when used as garnish. In Ayurveda, coriander is used to assist appetite, digestive and detoxification processes. It is so unique as it can be used as a warming or cooling herb, the seeds are warming and the herb can be used as a juice which helps with skin irritation (Botanicals, 2019).

⚠ Kavitha Suresh, Swindon Mahila Milan

Introduction to Maths & Science - Cheltenham

Since ages Indian culture has influenced the world. Hinduism is not just a religion but an ideology. This ideology has shaped life and has constantly uplifted the entire society. Not only has Hinduism given us the social fabric but has made equal contributions in its development through advancement in Science, Technology and Maths.

Indian mathematics emerged in the Indian subcontinent from 1200 BC. All the mathematical concepts from zero to negative numbers, Arithmetic, Algebra and Trigonometry were picked up by mathematicians from the Middle East, China and Europe. This led to further developments that now form the foundation of many areas of mathematics and computer science.

The ancient system of medicine that is still widely popular in India as Ayurveda depended heavily on the use of plant and herbs. "Charaka Samhita" by Acharya Charaka is considered as the encyclopedia of Ayurveda. Vaccination, rhinoplasty and eye surgery were practiced in India for a long time. Acharya Sushruta (600BCE) was considered the father of surgery and his collection of work "Sushruta Samhita" is considered a unique encyclopedia of surgery.

Whether it was the first atomic theory founded by Acharya Kanad (600BC), the discovery of our solar planetary positions or the contributions by the chemical science wizard, Nagarjuna (100CE)- Hinduism and ancient India has played an incredible role in laying foundation of the present-day modern science and mathematics.

\Lambda Neetu Begwani, Cheltenham Balagokulam















Ancient Hindu's contribution in the field of Maths

The Study of Mathematics in the Indian sub-continent has a rich history and dates back to over 3000 years. Mathematics thrived for centuries in India before similar advances were made in Europe.

Ancient Indian texts contain the earliest symbol of Zero. The zero is one of the greatest conceptual breakthroughs in mathematics and has been traced to the Bhakshali manuscript, dating from the third or fourth century. According to radiocarbon dating the fragmentary text is inscribed on the pieces of birth bark and contains hundreds of zeroes. Indian mathematicians made several contributions to the study of trigonometry, algebra, arithmetic and negative numbers. One of the most useful and significant contributions by ancient Indian mathematicians has been the decimal system, we still use this system worldwide in the present day.

Brahmagupta was an Indian mathematician and astronomer who was born in 598A.D. and died in 668AD. He is the author of two early works on mathematics and astronomy. He was the first to give rules to use and compute with zero which were formalized in the Brahmasputha Siddhanta. He introduced rules of solving quadratic equations and for computing square roots. He also demonstrated rules for working with negative numbers. He referred to positive numbers as fortunes and negative numbers as debts. He condensed his mathematical basics into two chapters of his treatise. In chapter 12 called 'Gamita', he discussed rules for the fundamental integers and fractions as well as for series, proportions and geometry. Chapter 18 deals with intermediate equations of the first and second degrees and with algebra techniques.

European mathematicians were not willing to accept negative numbers and the zero as being meaningful earlier and this reluctance held them back for many years. Later they used zero and the negative numbers in a systematic way in the development of calculus in the late 17th century. Indian mathematicians like Bhaskara had already discovered many of Leibniz's (German mathematician) ideas over 500 years earlier. Bhaskara had also contributed to other branches of maths like arithmetic, geometry, algebra and trigonometry.

Undoubtedly, we can say that Mathematics today owes a huge debt to the outstanding contributions made by Indian Mathematicians over many hundreds of years-this is especially reflected in the beautiful numbers system invented by Indians on which much of mathematical development has rested.

\Lambda Abha Sharma, Cheltenham Balagokulam

Contribution of India in Mathematics & Science

Ancient Indian civilisation is one of the oldest civilisations and has a history with science and mathematics that dates right back to 1400 B.C. Bharat has remained the quintessential epitome of knowledge right from the dawn of mankind. Bharat has made ground-breaking inventions and discoveries even before the modern-day laboratories were set up. Indians have made many substantial contributions in the area of mathematics and science, shaping today's world. Extraordinary minds such as Āryabhaṭa, Brahmagupta, Srinivasa Ramanujan, CV Raman, Shakuntala Devi, Dr. Karmarker, Harish Chandra, CR Rao and many more, were extremely talented in the areas of mathematics and science.

One cannot imagine the modern era without Brahmagupta's zero, which is the basis of the binary system and vital to the invention of computers and today's digital world. It is an amazing fact that the results achieved in those times almost coincide with contemporary times.

The contribution of Charaka and Sushruta in the medicinal field is still in practice todayeven after 2000 years! A tangible treasure which adds glory to India's rich intellectual heritage.

CV Raman was the first non - white man to receive a Nobel Prize in physics for his pioneering work on the scattering of light. This was not only a huge step but a massive leap, for both physics and the equality of mankind.

India's gift to the world of mathematics is Srinivasa Ramanujan, who had no formal training in mathematics but went on to make substantial contributions to mathematical analysis, number theory and infinite series, to name a few. "An equation means nothing to me unless it expresses a thought of God." - this quote by Srinivasa Ramanujan reflects the influence of spirituality on his work. During his life he compiled nearly 3,900 identities and equations, of which many inspired a vast amount of further research and have opened entire new areas of work to the world. Another brilliant mathematician is Dr. Narendra Karmarker. He contributed in the area of linear programming which helps to make faster business and policy decisions.

Indian mathematicians and scientists have paved many steps on the staircase, the staircase which is our path towards total understanding of the world. Although, only a few great minds have been mentioned in this passage, there are still many more brilliant Indian minds from the past, the present and even the future – yet to leave their imprint on the world. Indian scientists and mathematicians will continue to innovate and pave more steps on this staircase, the staircase leading to the truth behind the many intricacies of the universe. These contributions by the intellectual giants to the world make us proud of our roots, enlighten and inspire us about our profound and phenomenal history.

The contribution from Indians to the world has been acknowledged by many greats and one of them is Albert Einstein - "We owe a lot to the Indians, who taught us how to count, without which no worthwhile scientific discovery has been made".

A Rashmi Sugur, Cheltenham Balagokulam

Modern Sciences are Unrecognisable without the Contribution of Hindus

Introduction:

When we refer to science, especially modern science, we always think about astronomy, physics, chemistry, biology and all its sub-sections. A few names that come to our mind are Galileo Galilei- the father of modern science, Albert Einstein, Isaac Newton, etc.

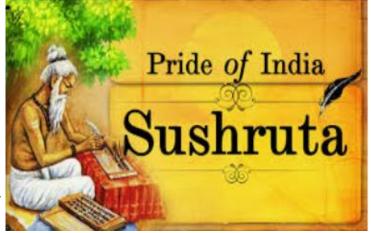
But less is known about research which has its origin in ancient India. This work mostly dates back to ancient Hindu sages, but the significant part of the facts is still unknown.

When scholars in the recent times researched on finding more about the ancient scientific researches and experiments, the findings were shocking. This led them to study about ancient Hindu Vedas and Upanishads to establish a link between modern science and ancient Hindu figures.

Medicine:

As we all know, during the period of Ramayana and Mahabharat the Hindu rishis were already aware about the science of weapons, warfare and medicine. Ayurveda, the ancient Indian science of medicine was discovered by Hindu rishis and scholars.

Sushrut, an ancient Indian physician is known as the main author of the "Sushruta Samhita". He is one of the number of individuals described as father of surgery and plastic surgery. Sushruta Samhita is considered to be a foundational text of Ayurveda. It is clearer now that the modern surgeries that we see and hear about were already a part of ancient Hindu science.



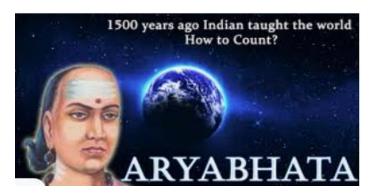
Physics and Mathematics:

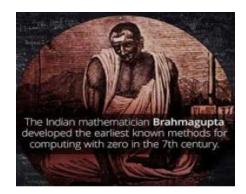
Whatever physics that we learn today, we always think about Albert Einstein and his theory of relativity. But when we delve deeper, we notice that even ancient Hindu kingdoms had many big physicists and mathematicians. One of them was Āryabhaṭa who was the first of the major mathematician-astronomers. He was also known for his discovery of "Zero", "Pi" and "Arya Siddhanta". He was the creator of relativity of motion. The study of arithmetic, algebra, trigonometry were part of his book "Aryabhatiya". But his main contribution was the discovery of "zero" in the place value system. He gave the world "digit 0" but it has been also noticed that Brahmagupta has invented symbol for "Zero".











20th century contributions:

Not only ancient Hindus and Indians but in as close as the 20th century, India had great physicists such as Dr C. V Raman-Nobel prize winner who discovered the "Raman effect" which explained about light traversing a transparent material. Shrinivas Ramanujan, a well-known mathematician researched infinite series and continued fractions.

Conclusion:

From the above citations and facts, it proves that Hindus and Indians have a recognisable and precious contribution in the field of modern sciences in various centuries and Yugas.

Mrs Aparna Kaustubh Dighe, Cheltenham Balagokulam















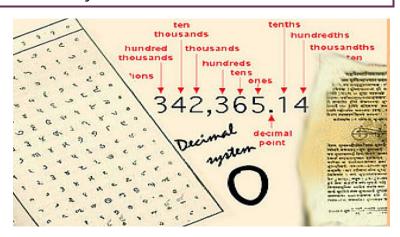




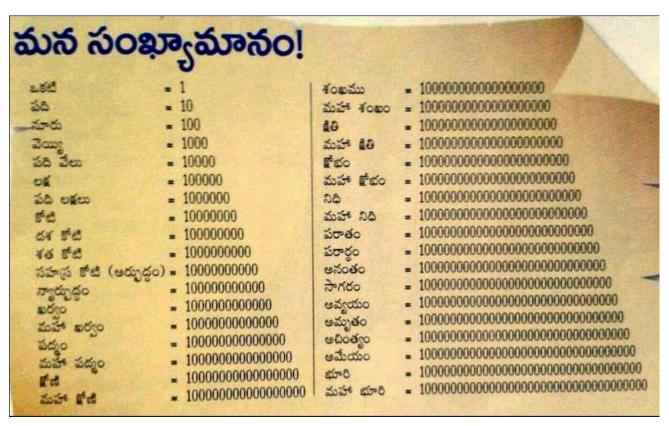
Indian Numerical System - The Basis of the Modern Numeral System

सांख्य मानम् – The Number System

The power of zero is sequenced in the following table. The number in each power indicates the number of zeros that should follow after 1.



Below is the transliteration of the number system, from Telugu into English, from Shata Koti (100 Crores) onwards: Arbhudamu, Nyarbhudamu, Kharvam, Mahakharvam, Padmam, Mahapadmam, Kshoni, Mahakshoni, Shankam, Mahashankam, Kshiti, Mahakshiti, Kshobam, Mahakshobam, Nidhi, Mahanidhi, Paratam, Parardham, Anantham, Sagaram, Avyayam, Amrutham, Achintyam, Ameyam, Bhuri, Mahabhuri.



The 'sankhya manam' is an exceptional paradigm of the wisdom of our great Maharishis, from which we can keep learning and get inspired.









Hindu mathematicians gave the insightful method of expressing all numbers by means of ten symbols - the decimal system. In this system, each symbol received a value of position as well as an absolute value. Due to the simplicity of the decimal notation, which facilitated calculation, this system made the uses of arithmetic in practical inventions much faster and easier.

Key Contributions:

The present-day Numeral-Decimal system, used all over the world, was developed by Indian mathematicians between the 1st and 5th centuries but was in use since 500 BCE. Indian Brahmi numerals are the predecessors to the numeral system.

The earliest text to use a decimal place system, including a zero, was considered to be the "Lokavibhāga". It is a Jain text on cosmology, in a medieval Sanskrit translation of 'Prakrit'

1	2	3	4	5	6	7	8	9		
_	=	≡	+	h	٠,	7	S	7		
Brahmi numerals around 1st century A.D.										

original language, which is dated to 458 AD. In this text śūnya (empty) is also used to refer to zero.

However, the origin of the modern decimal system can be traced to the Aryabhatiya, which states sthānāt sthānaṁ daśaguṇaṁ syāt (from place to place each is ten times the preceding). The concept of zero as a digit in the decimal system was developed by Āryabhaṭa, which enabled one to write numbers no matter how large they were by using only ten symbols.

Bhaskara I, a 7th century mathematician was the first to write numbers in the hindu decimal system with a circle for the zero. Bhaskara II, the leading mathematician of the 12th century, wrote the first work with full and systematic use of the decimal number system. Decimal, in mathematics is a positional numeral system employing 10 as the base and requiring 10 different numerals, the digits 0,1,2,3,4,5,6,7,8,9 It also requires a dot (decimal point) to represent decimal fractions.

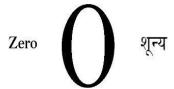
The binary number system, a set of the numbers 1 and 0, the language in which computer programs are written, was first described by the Vedic scholar Pingala in his book *Chandahśāstra (3rd/2nd* century BCE), a good example of Hindu scholar's understanding of the numeral system.

\Lambda Smt. Madhavi Gadepalli, Cheltenham Balagokulam

Invention of Zero - The Ingenuity of our Fore-fathers

THE ORIGIN OF ZERO







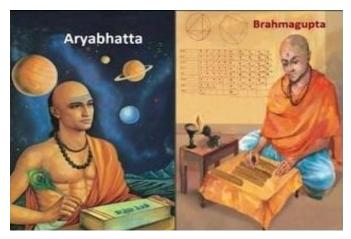
A large dot was originally a symbol for zero that appeared in an ancient Indian text called the "Bakhshali" manuscript, which consists of 70 leaves of birch bark filled with mathematics and the text in Sanskrit. The "Bakhshali" acted as a practical manual on arithmetic for merchants. In 2017, three samples from the manuscript were shown, by carbon dating, to come from three different centuries: 224–383 AD, 680–779 AD and 885–993 AD. This makes it the world's oldest recorded use of the zero symbol.

A key Question:

Does this mean that the manuscript predates a 9th century inscription of zero on the wall of a temple in Gwalior, India, which was previously considered to be the oldest recorded example of a zero?

The Answer is NO

The dot was originally used as a placeholder, like how "0" is used in the number 505 to denote that there are no tens but was not yet a number in its own right. It was Brahmagupta, who in 628 AD, first defined **zero** and its operation and developed a symbol for it which is a dot underneath the numbers.



Brahmagupta, a Hindu scholar, astronomer and mathematician was the first to define zero in arithmetic operations in 628 AD. He called the zero, "sifr," which means empty.

Āryabhaṭa, a great Hindu mathematician and an astronomer, gave the world the digit "0" (zero) for which he became immortal.

ZERO - THE MOST IMPORTANT DISCOVERY

Zero is one of the greatest paradoxes of human thought. It means both everything and nothing.

Without Zero we would lack calculus, financial accounting, the ability to make arithmetic computations quickly and there would be no decimals. Most importantly there would be no computers!

Can you name a few more things that would be impossible without a Zero?

FOUATIONS RELATED TO ZERO

Brahmagupta wrote on the nature of Zero in his book "Brahmasphutasiddhanta"

- 1) A + 0 = A
- 2) A 0 = A
- 3) A X 0 = 0
- 4) A / 0 = 0

His first 3 equations were correct, but he failed to express the product of the 4th one. He told it as zero instead of infinity. Later it was solved by another famous Hindu mathematician Bhaskara II. It was mentioned in his famous book "*Līlāvatī*".

ZERO - A Unique Number

The number zero is neither positive nor negative and appears in the middle of a number line. It is neither a prime number nor a composite number. It has been called a natural number and a place holder in the place value system.

A Smt. Madhavi Gadepalli, Cheltenham Balagokulam













Āryabhaţa

Did you know that India named its first ever satellite "Āryabhaṭa", in honour of the great Indian astronomer and mathematician of ancient India? Āryabhaṭa was one of the foremost mathematicians in the classical age of Indian mathematics and astronomy.

His major works are the *Aryabhatiya* and the *Aryasiddhanta*.

Early life

Aryabhaṭa mentions in the Aryabhatiya that he was 23 years old 3,600 years into the Kali Yuga, but this does not mean that the text was composed at that time. This mentioned year corresponds to 499 C.E, and implies that he was born in 476 C.E. As per the Hindu calendar system, Kali Yuga commenced from February 18 3102 B.C.E., Āryabhaṭa composed Aryabhatiya in the year (3601-3101) = 499 C.E and he was born in 476 C.E.

Not much is known about Āryabhaṭa's place of birth though it is speculated he was born in the region near the Narmada and Godavari rivers, and another source claims he was born in the region in present day Kodungallur (in modern day Kerala state). What is for certain was that he flourished in Kusumapura (later called Pataliputra, now known as Patna, Bihar state). The university of Nalanda flourished in the city at that time, and he is believed to have headed the university and built astronomical observatories across the region².

<u>Aryabhatiya</u>

His major work "Aryabhatiya", a compendium of mathematics and astronomy is frequently referred to in Indian mathematical literature and has survived to modern times.

Aryabhatiya can be considered to be a major landmark in the history of mathematics and astronomy. The text consists of 108 verses and 13 introductory verses and is divided into four *padas* (or chapters).

The Mathematical sections of Aryabhatiya cover arithmetic, algebra, plane trigonometry, spherical trigonometry, continued fractions, quadratic equations amongst others. Āryabhaṭa was the first person to approximate the value of pi (π) to 4 decimal places accurately (3.1416). His formulas to calculate the areas of triangle and circle were accurate, and he also determined the table of sines to a high degree of accuracy. The name "sine" is derived from Latin, which was derived from Arabic word "jiba", which is a transliteral translation of the Sanskrit word "jya" – "jya" was the term used in Aryabhatiya to define the "table of sines" as we understand today.

In the field of astronomy, Āryabhaṭa was the pioneer who inferred that the Earth is spherical, and it rotates on its own axis which results in day and night. He even concluded that the moon is dark and shines because of the light of the sun and explained that eclipses are caused due to the shadows cast by the earth and the moon.









One of his most significant impacts on Indian way of life and thought is that his astronomical calculations are used to define the Panchanga (Hindu calendar). The Panchanga is universally used in Hindu rituals throughout India to derive auspicious periods.

Āryabhaṭa's works were translated and utilised by mathematicians and astronomers outside India and greatly influenced and contributed to defining the systems we use today. India named its first artificial satellite "Āryabhaṭa" in his honour.

\Lambda Prachi Bharath, Cheltenham Balagokulam













Srinivasa Ramanujam

The 21st century is familiar with the popular British film "The Man Who Knew Infinity", which is based on the famous Mathematics Genius from India, Srinivasa Ramanujan.

Srinivasa Ramanujan is a common name very well recognised across the globe in the field of Mathematics who made great and original contributions to many mathematical fields, including complex analysis, number theory, infinite series, and continued fractions.

Here is an insight into his life and contributions.

Srinivasa Ramanujan FRS, born Srinivasa Ramanujan Aiyangar is considered to be one of the foremost Indian mathematicians of the 20th century. With no formal education, Ramanujam solved and derived mathematical theories that baffled his peers, and he made substantial contributions to mathematical analysis, number theory, infinite series, and continued fractions, including solutions to mathematical



problems then considered unsolvable. He left behind a body of work in his short life that continues to excite mathematicians to this day.

Early life

Ramanujam was born on 22 December 1887 in Erode, Madras Presidency, British India. As a young child, Ramanujam moved between various cities before eventually settling in Kumbakonam. Ramanujam was very close with his mother who taught him about the Hindu tradition and Puranas, to sing religious songs – and shaping him to be a very devout Hindu.

A child prodigy by age 11, he had exhausted the mathematical knowledge of college students who were lodging at his home. In 1903, when he was 16, Ramanujan obtained from a friend a library copy of "A Synopsis of Elementary Results in Pure and Applied Mathematics", by G. S. Carr. This was a collection of over mathematical 5,000 theorems. Ramanujan reportedly studied the contents of the book in detail. The book is generally acknowledged as a key element in awakening his genius.

Key Contributions

Ramanujam's genius began to be noticed by his peers, who were in awe of his capabilities. When he was 23, his work was noticed by the Indian Mathematical Society who then forwarded some of his work to leading Indian and British mathematical professors at the time. Eventually Ramanujam's works were sent to G. H. Hardy at Cambridge. Hardy was stunned by Ramanujam's work, claiming he had never seen anything like it before.

Ramanujam and Hardy corresponded by mail for a few years before Ramanujam eventually moved to Cambridge in 1914. The two collaborated to break new ground in advanced mathematics, most notably Ramanujan prime, the Ramanujan theta function, partition formulae and mock theta functions, have opened entire new areas of work and inspired a vast amount of further research.

Death and Legacy

Ramanujam coped with illness throughout his life, and he struggled more with his health when he moved to England. His dietary preferences made him susceptible to vitamin deficiency, and the onset of the First World War led to wartime rationing. Ramanujam collaborated with Hardy until 1919 and with his conditions worsening, he returned back to Kumbakonam where he died in 1920 with tuberculosis.

Ramanujam was one of the youngest mathematicians to be elected as a Fellow of the Royal Society. His work has created new branches of research in areas which were previously inconceivable, such as composite numbers. His birthday is celebrated as National Mathematics Day in India and numerous prizes have been created in his name both in India and abroad to encourage young mathematicians. Ramanujam recorded many of his results in notebooks, but in many instances, there were no records of proofs. One such notebook was found in 1976, which caused a huge amount of excitement in India and abroad. Mathematicians are still attempting to determine how Ramanujam deduced his results even after a century after which he first solved them.

A Prachi Bharath, Cheltenham Balagokulam

Shakuntala Devi

Shakuntala Devi - "Human computer"

Born: 4th November 1929

Death: 21st April 2013 (aged 83 years)



Shakuntala Devi was born in orthodox Kannada brahmin family, Bengaluru India. Her father noticed that her extraordinary ability to memorise numbers at age of 3 while playing tricks of cards in circus.

On Oct 5,1950, in an interview on a television show, she solved complex maths problems within seconds. She calculated the 23rd root of a 201-digit number in 50 sec. It took 4 mins for the professor to write the problem on the board and more than a minute for a unique computer to figure out the answer. The answers were correct and then onwards she became known as" human computer". She also wrote books on cooking and astrology.

In reality, Ms. Devi did not research or publish original results in number theory. But she was famous for her mental calculation talent and she worked to popularize mental arithmetic tricks and related puzzles. Her passion to expand the human capacity made her develop the concept known as "mind dynamics".













She established an educational foundation public trust to provide quality education to children from underprivileged backgrounds. She also helped spread global awareness about India's contribution towards mathematics. On 4 Nov. 2013, Shakuntala Devi was honoured with a 'GOOGLE DOODLE' on her 84th birthday. Her speedy mathematical skill developed astrological predictions for well-known people who were popular in the later years of her life.

Shakuntala Devi always mentioned-

"Without mathematics, there's nothing you can do. Everything around you is mathematics. Everything around you is numbers."

"Education is not just going to school and getting a degree. It's about widening your knowledge and absorbing the truth about life."

🚜 Karishma Modi, Cheltenham Balagokulam













Shakuntala Devi & her Achievements



Shakuntala Devi, also known as the "Human Computer", was known for her extraordinary skills in mental calculation and solving complex mathematical problems.

Born in Bangalore, her father discovered her extraordinary talent while teaching her a card trick when she was just three years old. Her father who was worked in a circus, left his job to be able to showcase her daughter's exceptional abilities through road shows.

At a very young age of six years, she displayed her abilities at the University of Mysore in front of way more mature and educated people. Adding to that, she had no formal education when she held these exhibitions.

At the age of 15, she moved to London with her father and started touring extensively across the world, demonstrating her abilities. Astonished by her mental capabilities, Arthur Jensen, a professor of psychology at the University of California invited her in order

to study her ability. To test her ability, Arthur Jensen presented her handful of problems involving arithmetic operations of very large number that could only be solved by a very precise algorithm. One of the problems he presented calculated the cube root of 61,629,875 and the seventh root of 170,859,375. Later Jensen reported that Shakuntala Devi was able to provide the solution (395 and 15 respectively) before he could himself note down the whole solution.

Her abilities were tested on numerous occasions, but no problem proved impossible for her.

She demonstrated the multiplication of two 13-digit numbers picked at random and gave the solution in just 28 seconds. For this achievement, her name was recorded in the 1982 Guinness Book of Records.

She shared her mental calculation techniques with the world through her book, *Joy of Numbers*.

Her mind-boggling mental capabilities continues to astonish the whole world and her enthusiasm for numbers continues to inspire the coming generations.

I particularly chose to write about Shakuntala Devi because her mental abilities made an impact worldwide and made India proud. People seem to have forgotten her achievements and therefore I researched on her to prepare this writing to honour her achievements.

Monika Sahdev, Cheltenham Balagokulam



















CR Rao

Calyampudi Radhakrishna Rao

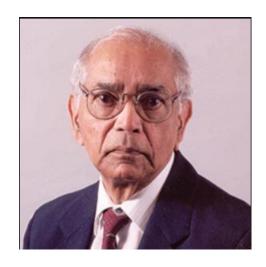
Born: 10 September 1920

(age 99)

In a world, heavily growing towards Artificial Intelligence and Big Data, the basic science of learning from data stems from statistics. An important name that comes to mind with reference to statistics is of C. R Rao who has been recognised as a living legend. His work has reached various fields from economics to demography and medicine.

WHO WAS HE?

- ➤ Worked in the areas of multivariate analysis, estimation theory and differential geometry
- ➤ Known for Cramér-Rao bound and the Rao-Blackwell theorem both related to the quality of estimators.
- ➤ He has served in the Indian Statistical Institute in Kolkata for nearly 40 years and is currently a professor at University of Buffalo, USA



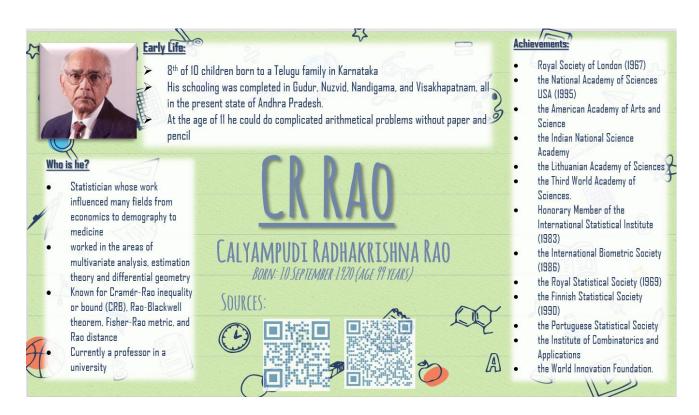
EARLY LIFE

- > 8th of 10 children born to a Telugu family in Karnataka, India
- ➤ His schooling was completed in Gudur, Nuzvid, Nandigama, and Visakhapatnam, all in the present state of Andhra Pradesh.
- ➤ At the age of 11 he could solve complicated mathematical problems without using paper or pencil!

ACHIEVEMENTS

- ➤ Honorary member of the Indian Statistical Institute.
- ➤ Guy Medal in Gold (2011) of the Royal Statistical Society
- > Srinivasa Ramanujan Medal (2003) of the Indian National Science Academy
- ➤ India Science Award 2010 (the highest award in a scientific field presented by government of India)

- ➤ Honoured with the National Medal of Science, the highest award in US in the scientific field, as a "prophet of new age"
- > Awarded Padma Bhushan and Padma Vibhushan by Government of India
- ➤ Various International recognitions from International Biometric Society, The Finnish Statistical Society and so on..



Meenakshi Ohri, Cheltenham Balagokulam

PC Mahalanobis

Prashanth Chandra Mahalanobis The Father of Indian Statistics (29th June 1893 - 28th June 1972)

WHO WAS HE?

- > Well known for contributions to statistics
- ➤ Invented the Mahalanobis distance, a statistical measure- widely used for metrics
- ➤ One of the first members of the Planning Commission of Free India.
- ➤ Invented Sample Surveys

EARLY LIFE

- ➤ Born to academically oriented family
- > Pursued early education in Kolkata
- Graduated with honours in Physics from Presidency College, Calcutta
- Moved to London and studied Physics and Mathematics from University of Cambridge where he was introduced to Statistics by one of his tutors



ACHIEVEMENTS

- > Member of the first Planning Commission of India.
- > Founder of Indian Statistical Institute
- > Fellow of Indian Academy of Sciences & Indian National Science Academy (1935)
- > Weldon Memorial Prize from the University of Oxford (1944)
- > Fellow of the Royal Society, London (1945)
- > President of Indian Science Congress (1950)
- ➤ Honorary Fellow of the Royal Statistical Society, UK (1954)





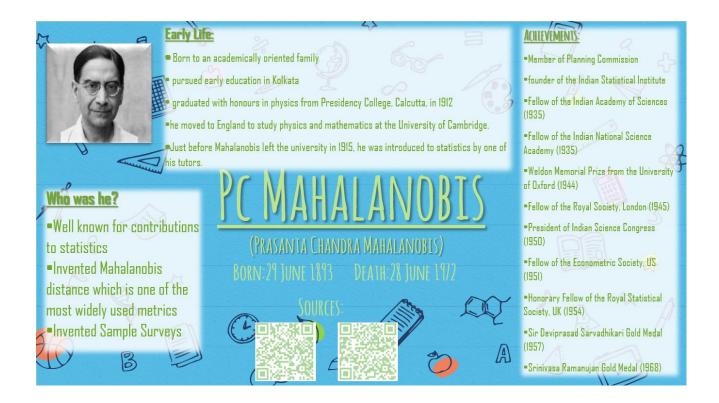








- Sir Deviprasad Sarvadhikari Gold Medal (1957)
- Padma Vibhushan (1968)
- Srinivasa Ramanujan Gold Medal (1968)



Meenakshi Ohri, Cheltenham Balagokulam

Harish Chandra

11th Oct 1923 - 16th Oct 1983

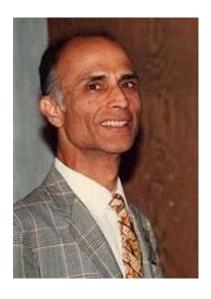
A popular name in the field of Mathematics in the 21st Century

WHO WAS HE?

> Indian American mathematician and physicist who did fundamental work in representation theory, especially harmonic analysis on semisimple Lie groups.

EARLY LIFE

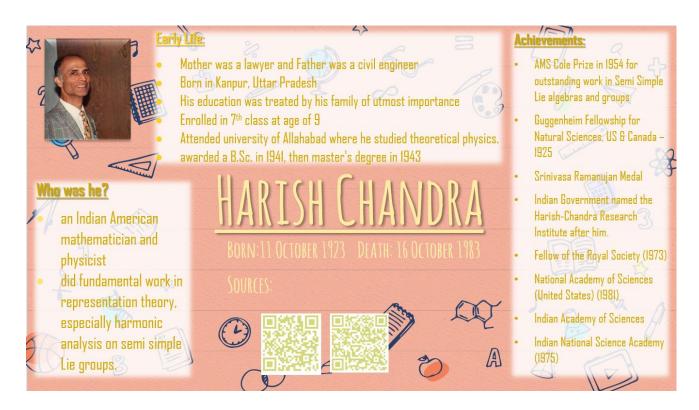
- ➤ Mother was a lawyer and father a civil engineer
- > Born in Kanpur, Uttar Pradesh in India
- > His education was treated by his family with utmost importance
- > Enrolled into class 7th at an early age of 9.
- > Attended Allahabad University where he studied Theoretical Physics
- ➤ He went to obtain his BSc in 1941 and Msc in 1943.



ACHIEVEMENTS

- ➤ Awarded AMS Cole Prize for outstanding work on <u>semisimple Lie Algebras and</u> groups
- > Honoured with the <u>Srinivasa Ramanujan Medal</u> by <u>Indian National Science</u> Academy in 1974
- > The Indian Government named the Harish-Chandra Research Institute after him- an institute dedicated to Theoretical Physics and Mathematics.
- ➤ Guggenheim Fellowship for Natural Sciences, USA and Canada1925.

➤ Fellow of renowned institutes like Indian Academy of Sciences, National Academy of Sciences (USA) and Royal Society.



Meenakshi Ohri, Cheltenham Balagokulam











Narendra Krishna Karmarkar

Famous Mathematician born 15th November 1955 in Gwalior, Madhya Pradesh.



EXPERIENCES

- ➤ In 1983, Kamarkar worked as a post-doctoral research fellow at IBM research. He was a member of the technical staff and fellow at mathematical sciences research centre, AT and T Bell laboratories.
- ➤ In 1984, Karmarkar worked at Bell laboratories in New Jersey. He published his famous result: the algorithm is a cornerstone in the field of Linear Programming. (LP)
- > In 1991 he was a professor of mathematics at MIT
- ➤ Between 1998-2005 he was the chair professor at Tata Institute of fundamental research in Mumbai
- ➤ Ratan Tata funded Karmarkar to create computational research labs in Pune. He created a team of more than 50 PhD researchers.
- ➤ Between 2006-2007, he was the scientific advisor to the chairman of the Tata group.

> Currently he is working on a new architecture for super computers.

ALGORITHM

- > Narendra Karmarkar is well known for his invention called as Interior point algorithm. It helps to solve Linear programming problems and was claimed to be very practical. It stimulated the development of several interior point methods, some of which are used in current implementations of Linear Program solvers.
- > Karmarkar's algorithm stimulated the development of several interior point methods, some of which are used in current implementations of Linear Program solvers.
- ➤ His Algorithm is solving complex optimization where solution time was reduced from weeks to days. And enables faster business and policy decisions.

AWARDS

Narendra's work was widely highlighted in the NEW YORK TIMES. He received lots of awards for his invention.

- > 1978 Received Gold medal in IIT Bombay by the President of India.
- > 1984 Fredrick W. Lancaster Prize of Informs.
- ➤ 1985 Marconi International young Scientist award.
- > 1988 Fulkerson prize for outstanding papers in the aread discrete mathematics of the mathematical programming society and the American mathematical society.
- ➤ 2000 ACM Paris Kannelakis Theory and Practice award.
- > 1993 Alumnus award computer science.
- > 1996 Alumnus award IIT

A Poonam Manocha, Cheltenham Balagokulam

Swami Vivekanand: Life, Teachings & Philosophy

"Arise, Awake and do not stop until the goal is reached" is an inspirational quote by Swami Vivekanda - one of the most famous and influential spiritual leaders with great knowledge of Vedanta and Yoga. Here is a summary of his life and teachings.

Swami Vivekananda (January 12, 1863 -July 4, 1902), whose pre-monastic name was Narendranath Dutta, was the chief disciple of Ramakrishna Paramahamsa and the founder of Ramakrishna Math and Ramakrishna Mission. Vivekananda ji was the first known Hindu Sage to come to the West, where he introduced Dharmic thought at the World's Parliament of Religions, in connection with the World's Fair in Chicago, in 1893. Here, his first lecture, which started with this line "Sisters and Brothers of America," made the audience clap for two minutes just to the address, for before this seminal speech, the audience was always used to this opening address: "Ladies and Gentlemen". He is a major figure in the history of the Hindu reform movements.

"British rule has been the record success in history in the hypnosis of a nation. It persuaded us to live in a 'death of the will', creating in ourselves the condition of morbid weakness the hypnotist desired until the master of mightier hypnosis laid his finger on India's eyes and cried, 'Awake'. Then only was the spell broken, the slumbering mind realised itself and the dead soul lived again."

This awakening created a great turning point in Indian history. For about a thousand years after the fall of Harsha's empire, decay and degeneration had set in, and the Indian mind had suffered a long spell of drought and desertification with a few meadows of green appearing here and there. Swami Vivekananda used the philosophies of Vedanta and Yoga to awake Indians to participate in the Indian independence struggle. He emphasised the need for physical and mental strength in fighting the British Rule and used these philosophies to guide people to attain these strengths.

1) Vedanta

In the early phase of British rule, an influential section of leadership even attempted to bury the few strands of the Indian culture that were still visible from underneath the desert sand. Lord Macaulay made the intentions clear in his well-known Minute of 1835: "We must have a class of persons, Indians in blood and colour, but English in taste, in opinions, in morals, and in intellect." He went to the extent of saying: "Who could deny that a single shelf of a good European library is worth the whole native literature of India." At that time, a large section of educated Hindus openly denounced Hinduism and said that they were ashamed of their origin.

It was in those dreary and depressing circumstances that Swami Vivekananda appeared on the scene like a hurricane, blowing out the desert sand and bringing to surface the treasures of Indian thought and philosophy. In a voice ringing with poetic perception and passion, he declared: "Here is the same India whose soil has been trodden by the feet of the greatest sages that ever lived. Here first arose the doctrines of the immortality of the soul, the

existence of a supervising God, an immanent God in nature and in man ... We are the children of such a country."

Such stirring declarations, made by Swami Vivekananda, during his extensive tours in the country, generated a wave of self-confidence in the nation and a will to stand up and be counted. An intellectual and spiritual environment conducive to the growth of the freedom movement was created.

2) Yoga

Swami Vivekananda during his first visit to America writes: "Our main problem is to be free. It is evident then that until we realise ourselves as the Absolute, we cannot attain deliverance. Yet there are various ways of attaining this realisation. These methods have the generic name of Yoga (to join, to join ourselves to our reality)."

These Yogas, though divided into various groups, can principally be classed into four: *Rajayoga, Karma-yoga, Jnana-yoga* and *Bhakti-yoga*.

Karma-yoga: Good actions lead to good karma. But bad actions lead to bad karma means the soul will remain distant from attaining moksha. This yoga of selfless action tells that through the correct actions, the 'troublemaker' ego can turn into the 'troubleshooter' ego. It says that even if you do not believe in God, just focus on your work with utmost honesty, dedication and power of your mind. Be non-attached and keep working for work's sake. Instead of worrying about the results, leave the fruits of your work to the Lord. The Karma without desire of return will destroy the selfishness, which is the root of all bondage. Swami Vivekananda asked the Karma Yogis to remember the watchword "not I, but Thou", and he explained further that no amount of self-sacrifice is too much for Karma Yogi.

Bhakti-yoga is the process of inner purification. Bhakti Yoga teaches that Bhakti or worship or love is the vital element for all human beings, which is pure and cosmic. But ego pollutes it and gives out negative elements like lust, greed, jealousy and anger and thus leads to misery. The object of Bhakti is God. Pour holy thoughts into the mind with prayer, chant holy words, study holy books and keep the holy company close to your heart.

The lower forms of worship, which embody the idea of God as a judge or punisher or someone to be obeyed through fear, do not deserve to be called love, although they are forms of worship gradually expanding into higher forms. We pass on to the consideration of love itself. We will illustrate love by a triangle, of which the first angle at the base is fearlessness. So long as there is fear, it is not love. Love banishes all fear. A mother with her baby will face a tiger to save her child. The second angle is that love never asks, never begs. The third or the apex is that love loves for the sake of love itself. Even the idea of objects vanishes. Love is the only form in which love is loved. This is the highest abstraction and the same as the Absolute.

Raja-yoga seeks to attain the divine by igniting the flame of knowledge of the self within. Since it is ignorance that binds the human soul to the world of dreams and desires, only Self-realization can dispel this ignorance. To attain Self-knowledge, raja-yoga asks the seeker to develop strong will power by the relentless practices of concentration and

meditation on the Self, with the support of pranayama, or control of breath, asana, or control of posture, and uncompromising adherence to austerity and self-control.

According to raja-yoga, eradication of the ego through karma-yoga is a long process, and most seekers do not have the patience to endure the sacrifice it calls for; bhakti-yoga requires abiding faith in the love of God, which is not always possible for an average seeker. Raja-yoga contends that the mind is generally too weak and perverted to follow the path of reason. Raja-yoga asks the seeker to confront the deep-rooted tendencies and restlessness of the mind by cultivating a single thought reminiscent of the Divine.

Jnana-yoga is the path of knowledge. Weeding out the darkness of ignorance through the light of knowledge, it brings the 'fire' and 'light' alive by burning all the impurities of the mind. The mind does not give up its attachment to worldly pleasures unless it has tasted something greater and higher. Self-knowledge, according to jnana-yoga, is true liberation. The Self is revealed in the mirror of the mind that has become purified through self-control and austerity.

Mrs. Dhanashri Ashish Channawar, Swindon Mahila Milan















Mahatma Gandhi: Life, Teachings & Philosophy

Mohandas Karamchand Gandhi was one of the most prominent leaders of India's nonviolent independence movement against British rule. Born in Porbandar, India, Gandhi studied law and advocated for the civil rights of Indians. He was popular as Mahatma Gandhi. Below are the key teachings of the philosophy of Mahatma Gandhi.

1) Ahimsa (Non-violence)

Ahimsa is mentioned multiple times in different Hindu scriptures, written thousands of years back, ranging from the Sruti such as the Rig Veda to Smriti such as the Patanjali Yoga Sutra to itihaas such as the Mahabharata.

Manusmruti considers ahimsa foremost amongst the 5 restraints (Yama) necessary in personal behaviour. The other 4 being truthfulness (Satyam), non-stealing or not-lying (Asteyam), purity of mind and body (Shoucham) and control of senses (Indriyanigraha). Atharvaveda states that ahimsa is not causing pain to any living being at any time through the actions of one's mind, speech or body. And about Ahimsa, Yajurveda states "Do not injure the beings living on the earth, in the air and in the water." Narada Bhakti Sutra states "One should cultivate such good qualities as nonviolence, truthfulness, cleanliness, compassion, and faith."

"Non-violence is an active force of the highest order. It is the soul force or the power of Godhead within us." Gandhi wrote in the weekly magazine called as Harijan on 12 November 1935

He taught 5 great lessons that led to his Ahimsa movement against British Rule in India.

- 1) the force of power never wins against the power of love
- 2) war always inflicts pain on everyone
- 3) we live for our values and passion, but our existence lies in the desire to live a peaceful life
- 4) "An eye for an eye only ends up making the whole world blind"
- 5) "We must be the change we want to see in the world"

Non-violent conflict aims to convert your opponent; to win over their mind and heart and persuade them that your point of view is right. An important element is often to make sure that the opponent is given a face-saving way of changing their mind. Non-violent protest seeks a 'win-win' solution whenever possible. In the non-violent conflict, the participant does not want to make their opponent suffer; instead, they show that they are willing to suffer themselves to bring about change. Non-violence has great appeal because it removes the illogicality of trying to make the world a less violent and more just place by using violence as a tool. Mahatma Gandhi inspired many prominent events in the world like Tibet's Dalai Lama peaceful and non-violent methods.

2) Satyagraha (peaceful protests)

Mahatma Gandhi used various ways of Satyagraha to oppose the British rule imposed on India and the humanitarian crisis during this period. Few of these are mentioned below

a. Uposhan (fasting and hunger strike)

A hunger strike is a method of nonviolent resistance or pressure in which participants fast as an act of political protest, or to provoke the feelings of guilt in others, usually to achieve a specific goal, such as a policy change. Mahatma Gandhi started his first hunger strike in 1932, in his cell at Yerovda Jail in Pune, Mohandas Karamchand Gandhi began a hunger strike in protest of the British government's decision to separate India's electoral system by caste. He undertook 17 fasts during India's freedom movement.

b. Asahakar (civil disobedience)

Not paying the tax imposed on salt

c. Swadeshi movement (Boycotting foreign goods and promote indigenous goods)

It started pre-Gandhi era and its chief architects were Aurobindo Ghosh, Lokmanya Bal Gangadhar Tilak, Bipin Chandra Pal and Lala Lajpat Rai, V. O. Chidambaram Pillai, Babu Genu. Swadeshi, as a strategy, was a key focus of Mahatma Gandhi, who described it as the soul of Swaraj (independence). This movement involved burning foreign made goods and encouraging people to use indigenous clothing. Gandhi promoted Charakha (spinning wheel) representing indigenous clothing.

3) Human Rights & Social Equity

Mahatma Gandhi fought against the Britishers to get back basic human rights for all Indians. Through his teachings of nonviolent protest and unconditional love, Gandhi has touched the lives of many and because of this, society today and societies to come will still reap the benefits of the change he has enacted and the process by which one should combat injustice.

Mahatma Gandhi is the cultivation of past iconic influences and will be the seed of future leaders that will come and enact change in all realms of society. His teachings have not only freed India from the British, but African-Americans have more civil rights because of Martin Luther King Jr., South Africans have been liberated from apartheid because of Nelson Mandela, along with many more leaders to come.

🔼 Mrs. Dhanashri Ashish Channawar, Swindon Mahila Milan

Hindu Contribution to the World regarding Languages

Our journey into writing about language contribution by Hindus to the world took us into the wealth of publications on India, Hindus, Hinduism, Scriptures, Sanskrit & other ancient literary articles. In simple terms, language can be defined as a mode of communication or expression, but it is more than that. We think and react in the language we know contributing to the culture and tradition that we share with people in our community.

Starting with India, a diverse nation with multiple cultures, traditions, languages and people with different faiths. It is also called Sapt Sindhu, the land of seven great rivers in Rig Ved. Sapt is seven and Sindhu means river thus giving the name Hindu. The way of life followed by the Hindus is called Hinduism or Sanatan Dharma i.e. 'eternal laws of nature' signifying unity in diversity. Today we have approximately 1.1 billion Hindus across the world and more than 70% are living in India. Hindus read, write and speak in various different languages. In Hinduism we have very many scriptures like Vedas that help us to manage our lives through some eternal and practical principles laid out in our scriptures.

Sanskrit is at the heart of all the Hindu scriptures being sacred and popularly denoted as 'Dev Vani' or 'language of the Gods'. Devanagari is the script derived from Sanskrit and has evolved into languages like Hindi and Marathi. Its impact can be seen in other Indian languages like Gujarati, Punjabi and Bengali.

Ancient Sanskrit philologist and grammarian Panini is believed to be the father of Sanskrit. He encompasses the largest literature of any languages and has influenced ancient and modern languages. His grammar is visible in all languages. *The Hindu.com, 24 Nov 2016*

Various scholars and thinkers interpreted and translated the Vedas to spread the ethics and principles within their respective communities. Even today Hindus across the world chant mantras in Sanskrit mainly during Puja.

When Sanskrit was at its peak as a <u>medium of education in India</u>, and in the ancient Indian universities, words got imported into Greek, Latin, Persian etc. There was also a great influence into all languages of the Indian subcontinent from Sanskrit. These Sanskrit words have today silently entered the original English Language.

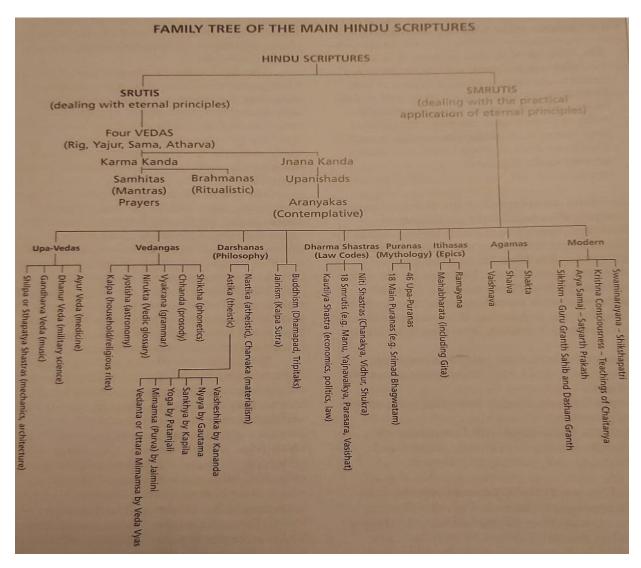
www.hitxp.com/articles/linguistics/english-loan-words-list-sanskrit-latin-greek-persian/

There is a long list of vocabulary that cuts across world languages inheriting words not just from Sanskrit but various other Indian languages. The colonisation by Mughals and British inherited the Indian words in their dictionaries. Buddhism scriptures inherited its roots from Sanskrit and have made its route into South East Asian countries. Various Universities around the world are now teaching Sanskrit and host language days and conferences to improve the understanding and knowledge.

Learning Sanskrit improves brain functioning. According to one research by the scientists of National Brain research Centre- NBRC- Reading Devanagari involves more activity in the human brain involved with processing of language. Even to be a master of subjects like -

Ayurvedic Medicine, Yoga, Indian Philosophy, Vedic Mathematics or Astrology, need basic understanding of Sanskrit to some extent. Because of the logical structure, grammar rules, a kind of precision, unmatched by other languages, unchanging syntax, it can be used as a computer language. <u>Cross-culture.com</u>-

Various subject matters inherit their principles from the ancient Indian scripture as shown in the family tree below. Most known aspect is for meditation, mindfulness, yoga and spiritual power.



Pic source: Explaining Hindu Dharma: A guide for Teachers, Vishwa Hindu Parishad, 2010, pg129

With migration of people due to various social and economic reasons, Sanskrit and other Indian languages made inroads into foreign land. In Europe and more locally we can see in places like Leicester, Birmingham, Southall and Reading where we hear more Hindi, Gujarati, Tamil and Punjabi on the streets than English. In Africa and Australia, Tamil, Bhojpuri, Hindi and Gujarati are popular spoken languages. more people speaking Hindi and Punjabi. South America recorded Hindi and Punjabi as the first languages arriving in the country. In North America Hindi, Telugu, Tamil, Gujarati, Bengali, Punjabi and Marathi











are some of the most common spoken languages. In Asia, Singapore, Maldives, Thailand, Japan and Russia are some of the countries where Hindu families have migrated and with them, they have taken Hindi, Tamil and various other languages.

Over the past few weeks researching the subject we learned, that languages evolve and continuously change whilst creating a new community, culture and tradition. The impact of language on the world by Hindus has been educational, social, economic and technological from past to present whether we talk about ancient universities, teaching of Indian languages and literature in foreign universities, translation of community information leaflets in Indian languages by policy makers around the world, business use during trade travels or invention of new machine and techniques. When we pass a language to future generations, it helps them better understand their own ancestors, people, place, culture, tradition and communities. Let's continue to share the knowledge to preserve, sustain and make a positive impact on communities we Hindus live in.

Remember - Hinduism is a way of leading self-less life where we believe in unity in diversity.

♠ Cardiff Sevikas











Hindu Contribution to the World's Languages

Did you know?

We have learnt some interesting facts and we would like to share these here with you...

India has 22 official languages, 150 major languages and 1652 mother tongues, about 19500 dialects.

50% of Bharat population is bilingual and 17% of the population is trilingual and this ability makes an Indian person flexible to work anywhere in the world.

Hindu population across the world is approximately 1.1 billion with the majority residing in India, Nepal and Mauritius followed by other countries across the world.

Hindi is one of the top 4 most spoken languages in the world after Mandarin, English and Spanish. World Hindi Day is celebrated on January 10 every year, marking the **anniversary of the first World Hindi Conference** which was held in 1975 inaugurated by the then prime minister Indira Gandhi. Since 1975, it has been organised in different countries like India, Mauritius, UK, US and South Africa.

Further continuing the effort to spread the Hindi language, in 1976 Atal Bihari Vajpayee and in 2014, Prime Minister Narendra Modi addressed the UN General Assembly in Hindi https://www.ndtv.com/india-news/atal-bihari-vajpayee-the-1st-indian-leader-to-address-unga-in-hindi-1901549 https://qz.com/india/272169/why-narendra-modi-will-deliver-his-un-speech-in-hindi/

National Hindi Diwas is celebrated every year on September 14, which is held across India at a national level, and marks adaptation of Hindi, written in Devanagari script as the official language.

www.indiatoday.in/education-today/gk-current-affairs/story/orld-hindi-day-2019-hindi-diwas-1427695-2019-01-10

The origins of Hindi is attributed to the Vedic language of Sanskrit.

Dominance of Sanskrit: a preview

Sanskrit, referred to as the mother of all languages, is an Indic language of the ancient Indian subcontinent with a 3,500-year history. Sanskrit "has the largest body of literature in the world and has seen continuous production of literature in all fields of human endeavour". Its geographical influence is seen in India, South Asia, South East Asia, Tibet, China, Korea and Japan. What is truly remarkable, Dr. Scharf said, is that "about five to 30 million extant manuscripts - that is 100 times those in Greek and Latin combined - have been written in Sanskrit."

www.thehindu.com/news/cities/mumbai/'Sanskrit-has-had-profound-influence-on-world-languages/article16689576.ece



Sir William Jones, the Anglo Welsh Philologist mentioned in his book, "The Sanskrit Language" published in 1786, that Sanskrit had resemblance to Greek and Latin and perhaps even related to Gothic, Celtic and Persian languages.

www.encyclopedia.com/people/literature-and-arts/language-and-linguistics-biographies/sir-william-jones

Every year the day of "Shravani Purnima" is celebrated as "World Sanskrit Day". There is an annual "World Sanskrit Conference" hosted at various locations globally. It has been held in various countries across North America, Europe, Asia and Australia.

Rick Briggs, a NASA researcher, stated in his article titled, "Knowledge representation in Sanskrit and Artificial Intelligence" that Sanskrit has all criteria and can be used for artificial intelligence (Briggs, 1985). It is often referred to as the most suitable language for computers.

Rig Ved, is the most ancient Indian collection of Vedic Sanskrit Hymns. Ved is the blessed mother of other sister religions and primary source of dharma. It is the sacred source of Indian culture, philosophy, science and thought process and supreme authority on matters of Hindu law. http://vedicheritage.gov.in/Vijnana_Bharati_1/VB_06_01.pdf

Thanks to the Vedic influence, Vedic Maths was discovered by Shri Bharati Krishna Tirthaji during his extensive research on the Vedas. Vedic Maths consists of 16 Sutras or Word Formulae and 13 sub-sutras (Sub Formulae) which can be used for solving mathematical problems in a far simpler manner.

Benefits of learning Vedic Maths

- 1500% faster than normal maths;
- Increases speed and accuracy;
- Improved academic performance and instant results;
- Sharpens your mind, increases mental agility and intelligence;
- Increases visualization and concentration in children;
- Become a mental calculator.

www.vedicmathsindia.org/vedic-maths/

From Local to Global Spread of the Language

Saṃskṛita Bhāratī UK and Chinmaya mission are some of the local institutions dedicated to preserving the language and transfer the knowledge through regular classes, activities and resources.

www.samskritabharatiuk.org/ www.chinmayauk.org/sanskrit-classes/

St. James' School, London has made Sanskrit compulsory for junior division. Some senior students take GCSE, AS and A level exams as well.

www.sanskritatstjames.org.uk/about-us/st-james-schools/

In *Germany, 14 of the top universities* teach Sanskrit, classical and modern Indology compared to just four in the UK. The summer school spans a month in August every year and draws applications from across the globe.

www.dailymail.co.uk/indiahome/indianews/article-3038926/Sanskrit-fever-grips-Germany-14-universities-teaching-India-s-ancient-language-struggle-meet-demand-students-clamour-courses.html

Japanese city of Kichijoji has its name based on Goddess Lakshmi. Japan has many temples dedicated to Hindu Gods. There are many words in *Japanese vocabulary that have Sanskrit roots* such as Sushi which has its origin from Sanskrit word 'Zaali'.

www.sanskritimagazine.com/newsworthy/japan-has-a-town-named-after-goddess-lakshmi-from-sanatana-dharma/

Vocabulary Facts

Before colonization, Indo Greek trade and business ties between India and Portugal had already facilitated the usage of Indian words in foreign languages. Mostly from Sanskrit, Hindi, Urdu, Malyalam and Tamil.

Ginger, Pepper, Indigo first entered Greek/ Latin vocabulary and then into English.

During colonization, some words from India that made their way to English are-

- Shampoo- Champo (Head Massage),
- Juggarnaut (Jagannath-Lord Vishnu),
- Khaki- 1848 Khak-Ash I-soil)
- Bunglow Bangla in Hindi
- Jute-Bengali-Jatha
- Thug-Hindi
- Mugger Hindi
- Chutney Tamil
- Pukka Hindi
- Bandana Hindi
- Pyjama Hindi
- Avtar

45% of English words have Sanskrit roots. *Indiastudychannel.com*

Some English words with Sanskrit origin-

- Mosquito Mashaka
- Bangle Bangri
- Sugar- Sarkara
- Camphor- Karpura
- Cash Karsha

(Indian Express, 25 Aug 2018)













Padma Award 2020 for Language and Literature relevant to the subject:

- Gloria Arieira, Brazilian Indologist, a pioneer of Sanskrit and Vedanta in Brazil
- Prithvindra Mukherjee, Bengali author, poet and historian respected for his research work on classical music and Bengal's revolutionary movement.
- Indra Dassanayake, Veteran Hindi professor from Sri Lanka- credited for the spread of Hindi across schools and Universities in Sri Lanka. (Posthumous)
- KV Sampath Kumar & Vidushi K S Jayalakshmi, editor, publisher, proof-reader and reporter of India's and perhaps the world's only Sanskrit newspaper- **Sudharma**www.padmaawards.gov.in/

Hope you enjoyed some facts on the subject.

⚠ Cardiff Sevikas













The 16 Sanskars in a Hindu Life

Definition of Sanskar in Hinduism

Hinduism is believed to be the oldest religion of the world, most who practice it, often refer to it as their Dharma also known as Santana Dharma. Hinduism is in fact a way of life with a structure and discipline.

Hinduism is built on many philosophies and rituals to help achieve spiritual nourishment, peace of mind and ultimately moksha. The most appropriate principles that apply to an individual are the four Purusharthas Dharma (duties) , Artha (Prosperity/wealth) ,Kama(desire) , Moksha (eternity) as well as Karma and Sanskaras. This article here is an insight into the 'Shodasha (16) Sanskaras' which in a way is celebration of life as it marks all the important stages right from pre-birth to post-death.

Sanskar gives a spiritual touch to the important events at different stages and helps to understand their significance.

Sanskars are of two types namely 'good sanskars' and 'bad sanskars'. Good thoughts and related actions when done repeatedly create an impression on the subconscious mind of an individual and his attitude becomes positive. Such actions are called 'good sanskars'. Bad thoughts and related actions when done repeatedly create an impression on the subconscious mind of an individual and his attitudes become negative. Such actions are called 'bad sanskars'.

Getting up early in the morning, reciting 'Karagre Vasate Lakshmi', paying obeisance to Mother Earth, paying obeisance to parents and elderly people, behaving with humility and love with everyone, maintaining cleanliness, living neatly, attending school every day, completing homework on time, helping mother in her housework are examples for good sanskar.

Getting up late in the morning, drinking tea-coffee, watching TV constantly, neglecting studies, back-answering, unclean habits, keeping the drawer of books untidy, telling lies, etc are examples of bad sanskar.

Good Sanskars play a good role in the progress of Nation. In days of yore all children would respect the elders. They would pay obeisance to them every day. They would recite Sanskrit Verses before having food. In the evening, the children would wash their hands and feet, light a lamp in front of the Deity and would recite stotras like Ganapati Stotra, Ramraksha Stotra, etc. They would sleep early in the night and would wake up early in the morning. This conduct would further generate good virtues in them. When compared to them, present day children have proportionately more of the bad sanskars. If good sanskars are instilled on the children at an early age, then it will make their life happy and help in progress of the Nation.

The sixteen sanskars:

1) GARBHADHAN

All sources recognize this as the first Sanskar. This is the enthusiastic prayer for a child. This is done for fulfilment of parental duty to continue the race. This sanskar is limited to the family members. This is performed by the parents of a child and also by the family. It also helps in the development of child growth. When a mother thinks positive and stays happy, she helps in circulating good hormones in her body, which deeply impact the well-being of her baby.

2) PUNSAVANA

This second Sanskar is performed during the third or the fourth month of pregnancy. The significance of this Sanskar is to invoke divine and good qualities in the child Like the first Sanskar i.e. Garbhadhan, Punsavana Sanskar is also restricted to the family members.

3) SIMINTONNAYANA

This Sanskar is performed during the seventh month of pregnancy and prayers are offered for the healthy physical and mental growth of the child. The other importance of this Sankar is to free the expectant mother from worries since the last 3 months are very difficult for pregnant women, both physically and mentally. On the day of this Sanskar, the expectant mother gets food of her desire. Only women are invited for this ritual and the gathering is kept small. The husband performs this ritual.

4) JATAKARMA

This Sanskar is performed at the birth of a child as a welcome sign to the new-born child into the family. Brahmins chant Mantras for a healthy, long life of the child. This Sanskar is restricted to the family level. During this Sanskar, the father feeds honey to the baby. and pierces the baby's ear. This ear piercing is supposed to enhance the memory of the child.

5) NAMAKARANA

This Sanskar is performed on the tenth, eleventh or twelfth day with recitation of Mantras. The baby child gets a name on completion of this Sankar.

6) NISHKRAMANA

This Sanskar is performed when the child is taken out of the home for the first time. The reason for this Sanskar is to show obedience to the sun, moon, fire, wind etc, - the Panchmahabhut. This is supposed to enhance the age and physical and mental development of the child.

7) ANNAPRASHANA

This Sanskar is performed on the sixth month, when the child gets solid food for the first time. Mantras recited and oblations are offered to the various deities.

8) CHUDKARAM

This Sanskar is shaving the head of a child. This is done in the first or third year of the child. The body of the child is protected and harmonized by this ceremony.

9) KARNVEDH

This Sanskar is performed in the fifth or the seventh year or at the end of the first year with Chudkaram Sanskar. Child's ear piercing is performed. This ear piercing is supposed to enhance the memory of the child.

10) UPANAYANA

This is the most important Sanskar, which marks the beginning of the next stage of life Youth. The word Upanayana means bringing near. The child is bought near to the Guru. This Sanskar is the second birth for a child - a spiritual birth. This Sanskar is performed during six to nine years of the child.

11) VEDARAMBHA

This Sanskar is done along with Upanayana. The setting up with the Sacred thread entitles the child to study the Vedas and participate in Vedic functions. The child commences his journey on the road to spiritual life. This is contrasted with a life of eating, sleeping and procreating, which kinds of life animals also live. The child is sent to Gurukul.

12) SAMAVARTANA

This Sanskar is performed before entering the grihastha ashram or the life of a householder. This is performed at the end of child's study in Gurukul. The student has to take the permission of his guru before entering the ashram. After this the guru gives him important guidelines or tips for the grihastha ashram.

13) VIVAHA

This sanskar is an entry into the second Ashram. The life as an individual family begins. Entering this stage of life, man has to take on his duties and has to pay spiritual debts by sacrifice, by procreating children and studying. The bride and groom walk around Agni hand in hand. The bride sacrifices grains in the fire and chants mantras.

14) VANPRASTHA

Man withdraws himself from all worldly activities, retires into the forest and prepares himself for taking sanyas. This is the life of a Vanprasth. This means dedicating the retired life to community service.

15) SANYASA

A sanyasi renounces the world and leads a life of study and meditation by living on alms. After considering all of the prerequisites, a senior sanyasi will induct him into the order at the right time. This is the time of freedom from all worldly responsibilities and

obligations. A true sanyasi is an embodiment of bliss or Ananda. He is the most respected and honoured person of the society and is looked upon with high reverence. The society seeks his guidance on practically all matters, spiritual and secular. Very few are blessed to be the true sanyasi.

16) ANTYESHTI

When death is imminent, a small piece of gold, tulsi leaf and drops of Ganga water are put in the mouth of the person on the death bed. The body is laid on the ground with the head towards the north. The last rites are performed to consign the dead body to flames to reduce it to ashes with chanting of very special Veda mantras for ennoblement of the soul on its final and infinite journey to salvation and thereafter.

\Lambda Deepali Bhatt and Anjali Mehta, Swindon Mahila Milan















Kalamkari - An Art of Fabric Painting from Ancient India

History of the Great Handicraft Art "Kalamkari":

Kalamkari is an ancient Indian art form of organic style of hand painting done on cotton or silk fabric with a tamarind pen, using natural dyes. The Kalamkari is a 3000 year old art practiced in Andhra Pradesh and Telangana. 'Kalam' means pen and 'kari' refers to craftsmanship, meaning drawing with a pen.

Kalamkari evolved out of an art of storytelling, especially the great stories of Ramayana and Mahabharata. In ancient times, the main story characters and scenes were drawn on a canvas.

Kalamkari is also known as *Pattachitras*. These are an art form that is still found in neighboring Odisha and other parts of India and Nepal.







Types of Kalamkari art:

There are two major forms. The first one is "Srikalahasti style" it is entirely hand worked. The second form is "Machilipatnam style" which primarily uses the vegetable dyed block painting. Sri Kalahasti Kalamkari had seen its golden era during the times of Vijayanagara Hindu Empire.

The process of treating the fabric:

The amazing end to end process of treating the fabric involves 23 steps- from bleaching using cow dung solution, softening, drying and washing. Each and every step has a significant rationale behind it and is well connected with science. For example, Kalamkari fabric is first treated with a solution of cow dung and water which is a natural way of bleaching. After that, the fabric is treated using buffalo milk and myrobalans (to avoid smudges, again a very natural organic way treatment). Then the fabric is washed 20 times and sun dried which makes it ready for painting.

Colors and drawings in Kalamkari art:

Tamarind twigs are used for sketching. Twigs are burned into a specific style and state to

















use like coal. Tools made out of bamboo sticks are used for outlining the fabric. There are specific processes to sharpen it, tie a cloth around and use a thread to tighten it. The cloth around the bamboo stick will act like a sponge. Once the bamboo stick is ready, it is dipped into a solution named "kasimi"- a black liquid prepared with iron ore/metal, water and a jaggery (remember no artificial colors, all ingredients are natural).

Many other colors used in Kalamkari art are made using natural ingredients, for example different types of leaves, flowers, roots of plants. The real beauty is making and mixing these colors in a very traditional way, an ancient practice continued for many generations. No color used in kalamkari is bought from the market or chemical based. All colors are made manually by the Kalamkari artists.

As soon as the painting (colouring) is done, the cloth is kept in a running water to remove the extra colours. This gives a very consistent colour all over the fabric. From the scientific point of view, this is in line with "Pascal Law" variation. To get the exact colour texture and more elegance, the cloth is boiled. One of the processes is called fermentation. This involves keeping the cloth in the sunlight for around 14 to 15 days. Kalamkari is dependent on nature. That is why if you wear those clothes, it does not affect your skin in any way. It is a medicated fabric.

Kalamkari art now a days:

Most of the work, specially "Srikalahasti style" is associated with Hindu temples, Ramayana and Mahabharata. Artists are producing many paintings, curtains with wonderful scenes from Ramayana, Mahabharata and Bhagavatam. This classic art is really helping to decorate the walls and halls of homes, making them more attractive interior decorations. At the same time, the mass market is not quite encouraging. To overcome this, Kalamkari art has expanded its works towards making Punjabi dress material, sarees, bedsheets, curtains, carpets etc. An average kalamkari dress or saree costs around 2000 Rupees. Andhra Pradesh Government corporation "Lepakshi Handicrafts" is helping to market the Kalamkari products.

Copyright: Images are sourced from the Andhra Pradesh Govt organization website https://lepakshihandicrafts.gov.in/main-category-kalamkari.html







⚠ Lavanya Pendlimari, Swindon Mahila Milan

Importance of Mandala's in Hinduism

Carl Jung a famous Swiss psychiatrist and psychoanalyst who founded analytical psychology said with reference to Mandalas, "In the products of the unconscious we discover **Mandala** symbols, that is, circular and quaternity figures which express wholeness, and whenever we wish to express wholeness, we employ just such figures." He believed that Mandalas had a calming and focusing effect on his patients.

Mandalas are a significant part of Eastern Religions, Hinduism, Buddhism, Jainism and Shintoism. The Mandala may be described as a concentric diagram representing the universe.



The Sanskrit word "Mandala" is a compound deriving from manda, which means "essence," and the suffix la, meaning "container" or "possessor." Consequently, the etymology of the word "mandala" suggests not just a circle but a 'Container of essence.'

The literal meaning of the word Mandala means circle and circles have very significance powerful in countless traditions, religions and primarily Hinduism. The circle itself is symbolic of the wholeness and oneness of the man. unity and it also symbolises the womb, motherhood and the act of nurturing. It represents the entirety of our psyche, to exhibit the divinity of the Self. Experts believe that in mandalas, the circle symbolises both, new beginnings and a state of completion.

As it turns out, we humans love circles.

The sun is a circle. Consider these familiar circles: the earth, the moon, flowers, eyes, faces, stars, snowflakes, halos, wreaths, cookies, wheels, gears, icons, buttons, the Olympics symbol which has five interlocking rings of different colors, representing the five major continents of the world united together in a spirit of healthy competition.









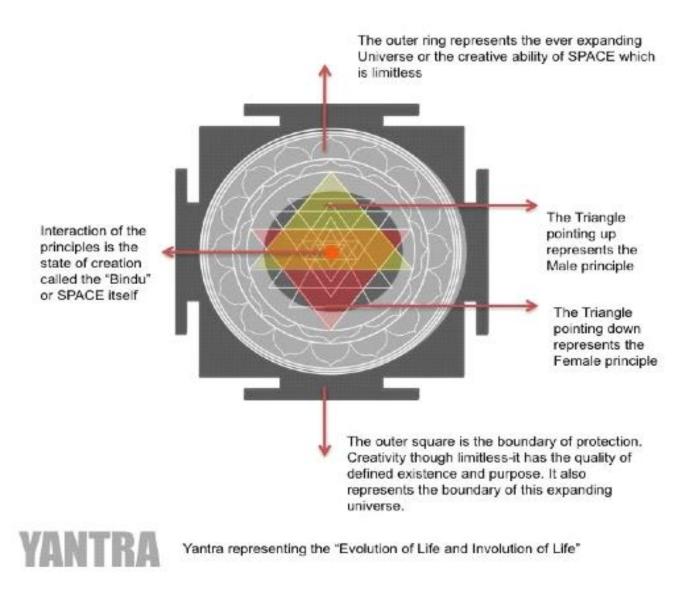




The Spiritual Significance and Traditional meaning of Hindu Mandalas

In Hinduism, a basic mandala, is also called a yantra. The Yantra is a chant that is related to deities. In mandala art, the Yantra takes the shape of a circle inside a square which means the personification of a deity.

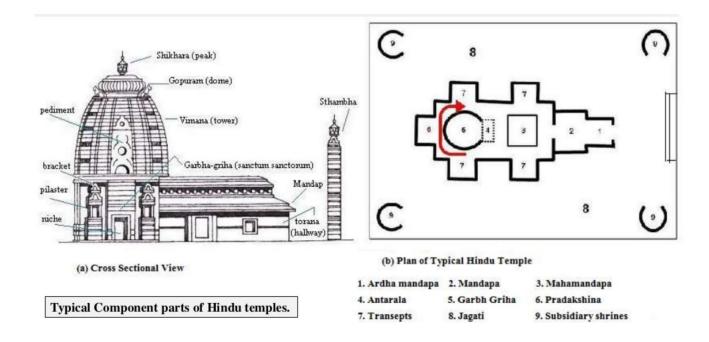
Sri Yantra - Featuring sixteen lotus petals (*The lotus is sacred not only because it transcends the darkness of the water and mud where its roots are, but also because of its perfectly symmetrical petals, which resemble a mandala.*) that are circled by a very complex design of intermingling triangles, the Yantra is a symbol of awareness without dichotomy.

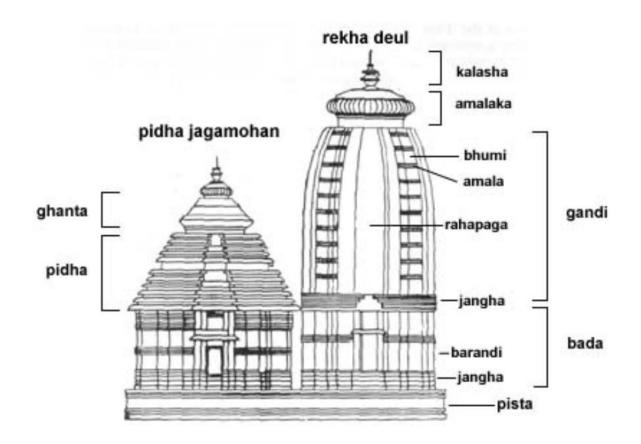


There are Trident Yantra and Ganesh Yantra as well

Ancient Hindu scriptures depict mandalas as a tool to view the spiritual universe, and represent the cycle of occurrence, reoccurrence and existence. Many of these designs are symbolic of Hindu deities, such as Ganesha, Saraswati and others.

One of the most common uses of the mandala was as a basis for design of Hindu temples, Cultural spaces and Palaces.













The mandala's symbolic power can be traced back to millennia-old roots in Indian temple architecture, which created sacred spaces linking the worshiper to the larger cosmos. In these temples, time and space were represented in a vocabulary of circles and squares. Similarly, a mandala helps believers visualize the universe and their place in it, often in relation to a specific deity found in the center of the image.

A Hindu temple's ground floor plan often takes the form of a mandala symbolizing the universe. Commonly used forms are Shree Yantra and Vastupurush Mandala. (Diagram of the Universe in miniature) The Vastupurush Mandala can be explained as a harmonious unification of the masculine divine and the feminine divine or the cosmic energy and the Earth energy respectively. For formulating the layout of the temple, the Vastupurush Mandala has been an imperative tool. In temple architecture, the most commonly used mandalas are those of 64 and 81 squares, with the various deities allocated places in accordance with their importance and with the qualities inherent to the diagram. While the temple is an analogue of the cosmos, it is also modelled on Purusha, Cosmic Man, outlined in the mandala.

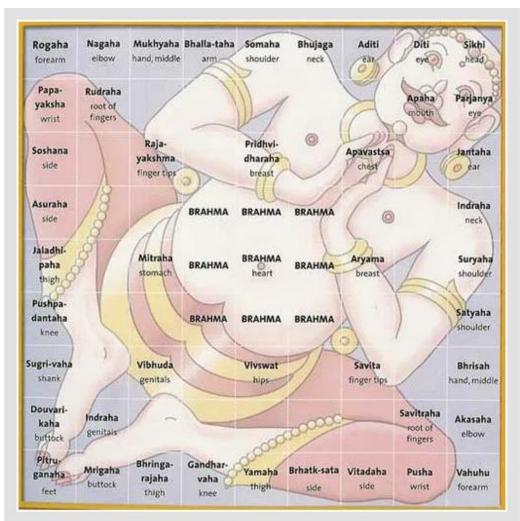


Image: Vastu Purusha Mandala

Use of the circular shape as a pathway to meditation and spiritual connection has a history almost as long as mankind. In India, it is estimated that the mandala began to be used as a religious tool around the 4th century, and it remains important to this day for practitioners around the world as a guide to spiritual transcendence and healing.

The Rajamandala (circle of states) was formulated by the Indian author Kautilya in his work on politics, the Arthashastra (written between 4th century BCE and 2nd century BCE). It describes circles of friendly and enemy states surrounding the king's state.

<u>Different types of Mandalas - Common Designs and symbolism of</u> Hindu Mandala

ELEPHANT MANDALAS



The elephant symbolises great power and strength, and the resolute nature that refuses to yield its conscience. Experts agree that the elephant mandalas represent both physical and mental capabilities to highlight the true strength of the soul. It is also regarded as a symbol of fortune, material growth, luck and rain. It can be seen as a form of the Buddha and the Hindu deity Ganesha. Shakyamuni was said to have been born in the form of an elephant, and when he acquired enlightenment, he turned into a white elephant. The elephant also happens to be one of the Seven Royal Symbols.

SURYA (SUN) MANDALA



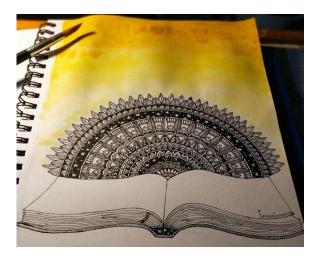
The sun has long been the symbol of vitality and energy and is used in mandalas to manifest those traits in your life. Some common meanings of sun mandalas include: Vitality, Passion, Energy, Creativity, Spiritual Growth and Self-Love.

FLOWER MANDALAS



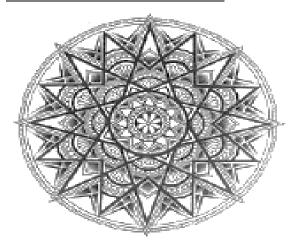
The 'Flower of Life' features a complex geometric design where countless overlapping circles are arranged in the appearance of flower petals. Often, the Flower is compared to the mandalas commonly used in Hinduism and Buddhism because of its overlapping circles and flower-like design. Basically, the Flower represents the existence of all creation in the universe, thus making it a powerful symbol of enlightenment and greater spiritual growth. It represents the Tree of Life, which symbolises both our material reality and non-physical growth. It is often regarded as a route to travel through various dimensions to form a connection with your soul and attain completion.

CIRCLE MANDALAS



Circle mandalas are undoubtedly the most attractive and common designs and they are famous for their power of drawing in the onlooker to an extent that we imagine ourselves dwelling within the design of the mandala. Basically, this is a reaction that we all experience while viewing circles, which is why circle mandalas are extremely effective at encouraging and inspiring.

GEOMETRIC MANDALAS



It is believed that geometric mandala designs are giving a deeper spiritual symbolism for observing the mechanisms of nature, along with the inner and external structures of the human body. Thereby, these complex designs allow thinkers to form a deep connection with man, nature and spirit. Geometry can take the shape of anything and everything in nature, be it a tiny shrub, a coastline or an attractive landscape.









OM MANDALAS



Hindu culture is surrounded by om images, and they are included in everything from important documents, to religious paintings, to temples. The word both starts and finishes sacred texts such as the Vedas and Upanishads and is said at the beginning and end of religious chants. As with mandalas in general, om is a symbolic representation of the connection between man, the divine, and the universe. Both the symbol and the word are used during meditation. The primary purpose of mandalas is also to build focus, attention and concentration which are all the essential features for meditation. So. it makes sense that the two are often found together.

LOTUS MANDALA

The Lotus is the symbolic representation of enlightenment. Resting your gaze on the lotus mandala can enlighten your spirit and enhance your mental growth. The Lotus mandala symbolizes purity of the human mind and soul. Integrating the Lotus Mandalas in your



surroundings helps you purify your thoughts and mind.

The people who love to meditate can stare at the petals of the lotus Mandala design and enhance their concentration and focus. It is great if you are looking to reach that stage of ultimate enlightenment.

Designing and coloring mandalas can help you focus your attention. You should also remember that mandalas go from the center and outwards. This is what will help you connect with yourself, free yourself, rebuild yourself, and create a relationship with yourself.

"Thus, the MANDALA is known as the mask of GOD through which eternity is to be achieved"

Jayashree Kharade, Swindon Mahila Milan

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