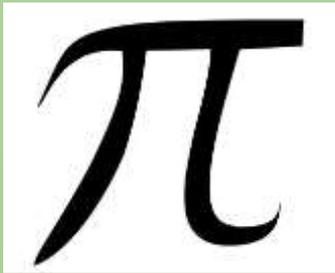




Influence of Aryabhata on Science and Mathematics

Aryabhata is considered to be one of the mathematicians who changed the course of mathematics and astronomy to a great extent. He is known to have considerable influence on Arabic science world too, where he is referred to as Arjehir. His notable contributions to the world of science and mathematics includes the theory that the earth rotates on its axis, explanations of the solar and lunar eclipses, solving of quadratic equations, place value system with zero, and approximation of pie (π).



Aryabhata exerted influence on the Indian astronomical tradition to such an extent that his presence was felt in neighboring countries and cultures also. There have been various translations of his work among which the Arabic translation during the 820CE is very significant.

When mathematical students are confused with trigonometry even today, Aryabhata had defined sine, cosine, versine and inverse sine back in his era, influencing the birth of trigonometry. The signs were originally known as jya, kojya, utkrama-jya and otkram jya. In Arabic they were translated as jiba and kojiba, which later when being translated into Latin was misunderstood to be 'fold in a garment' by Gerard of Cremona, who stated it as sinus, which meant fold in Latin. Aryabhata was the first mathematician to detail both sine and versine ($1 - \cos x$) tables, in 3.75° intervals from 0° to 90° , to 4 decimal places.

Aryabhata's astronomical calculations influenced the Arabians, who used the trigonometric tables to compute many astronomical tables. His calendared calculation has been in continuous use in India, on which the present day Panchangam is based. His studies are also base for the national calendars of Iran and Afghanistan today.

-Editorial Board

A Society as a Spiritual Organisation

It may be difficult for many of you to absorb all the noble ideas and immortal messages which have been pressed into your minds by the powerful speakers today as well as yesterday, but where there is interest, anything is possible. You can remember a whole world in your heads if you are really concerned with it, but you cannot remember anything, even the least of it, if you have no relationship with it. If there is an aspiration and the recognition of value in the deliberations of this conference, you will be able to remember every word that has been spoken. But if you have no interest, an axe to grind or distracted attention, it will be hard for the brain to retain this world of ideas, though they have an eternal value. We are not merely running a Society, and we are not merely an audience seated here to listen to a lecture delivered by a learned person or to hear a message that is imparted by a profound intelligence. We are here for a purpose which is superior to the purely organisational or social purpose. The righteousness which characterises human society, if it is to be a solid and enduring one, is certainly a super-social feature. The stability of society does not rest with the society itself. It is in a principle which is super-social, just as the health of our body does not depend entirely on the food that we eat and the physical exercises that we perform, but on the way in which we live. There is a peculiarity which is known as the conduct of life, the character of the personality and the envisagement of values in general. They condition our physical health, and they also determine the stability and solidarity of human society. "Seek ye first the kingdom of God" is the message of eternity, and "Follow the righteousness which belongs to Him" is the law of the cosmos which is mentioned in the Vedas as satya and rita. Law which is the righteousness of the Absolute is the condition of a successful, honest and divine living in this world.

-Article by Swami Krishnananda

Balance inside-out

If there is stability within you, it will be easier to bring stability outside you

Life is balance. Everything that you see as life, everything that you see as yourself is beautiful only when it is in balance.

Right now, if I lose my balance in body, I will fall off this chair. Sitting is balance. Standing is definitely balance. Standing on these two legs and balancing is not a simple act; you have taken it for granted.

When you were an infant and tried to stand up, you know what it took? You are doing it effortlessly right now. If the body goes little out of balance, then you will see, just to stand is such a feat. Don't take this balance for granted.



Just like sitting and standing, walking is supreme balance. Just two feet! The way you are walking, do you know how much is involved just to keep you balanced when you walk? It is a big thing. So, the most important thing in human life is that you transcend the limitations of the physical. You are the only creature on this planet, who has come with that capability; all the other creatures are trapped in their physicality. You are capable of rising beyond the physicality but not going against your physicality. This is not about rejecting the body; it is about going a little deeper, not remaining on the surface. This is one thing that must happen to every human being. If you lose balance in your thought, it is called insanity. If you lose balance in your emotion, the very juice of life, it becomes torture, both for yourself and for others. Your body, your thought, your emotion, your activity, everything is beautiful only if it is in balance. So, how to bring balance into one's life? What is the basis of this balance? Balance is such that even if you are on the battlefield, you are still balanced. If your inner balance is absolute, you can harness the external, your body, and your mind, to the highest possible level—and that is all a human being can do. When it comes to external situations, there is no such thing as perfect balance. Within myself, I may be absolutely balanced, but in activity, it is still a constant adjustment.

-SADHGURU JAGGI VASUDEV

Our home need Grandparents

The habit of helping to look after one's grandchildren is only present in members of the human race. No other known animal on the planet seems to have this particular trend. Strangely also, the tradition of grandparents playing an important role in the birth and upbringing of grand-children seems to be a universal trend among humans.

All of us know grandparents as symbols of wisdom; they speak from experience and tell us how to go to where they have been. They may not be up to date in matters of science and other branches of knowledge but they would have been through the 'school of hard knocks.' It is grandparents who tell us that though money and other symbols of wealth are nice to have, the real values in life are of the non-material kind. They themselves had probably discovered this through a lifetime of pain and sorrow.



It is very unfortunate today that, as part of the modern life-style, we are losing contacts with our grandparents. It is just not wise at all, but it is happening all around us, that after five million years of evolution, we are now discarding some of the most beautiful aspects of being a human. Pushing grand-parents out of the scene is one of them. Many of them are being exiled in old people's homes, where being deprived of something useful to do and of being loved and wanted, they waste away to early ends. One can only hope and pray that the trend will be reversed, if not for the sake of our grand-parents for the sake of the wisdom they have to offer all of us.

-Editorial Board

Camel Festival in Bikaner



Every year, the desert city of Bikaner, in India's state of Rajasthan, hosts one of the most colorful events in the world – the Bikaner Camel Festival, although many of the thousands of visitors who flock to Bikaner for the desert festival eagerly await the camel races that take place during the second day, one found the shearing and beauty contests the most fascinating. In the shearing competition, artists wielding sharp scissors transform their camels into breathing works of art, by shaving their coats to make room for traditional Indian patterns. Most of the camel owners adorn their camels with colorful accessories to attract the attention of the visitors. This festival starts off with a magnificent procession of bedecked camels against the red sandstone backdrop of the Junagarh Fort (1588-1593) in the town.

It is a colorful spectacle of beautifully decorated camels that fascinates the onlookers with their charm and grace. A sight of unusual camel activities like camel races, camel dances, and the bumpy, neck shaking camel rides highly fascinates the viewers. The camels display amazing footwork, dancing gracefully to the slightest direction of their riders.

Their displays and competitions accompany the color, music and rhythm unique to a fair in Rajasthan. The jubilant skirt swirling dancers, the awe-inspiring fire dance and the dazzling fireworks light up the fortified Desert City. The festivities reach to the peak with a different tenor as the renowned artists display a medley of folk dances and songs. Finally, the festival concludes on a fine note by magnificent display of sparkling fireworks which illuminates the desert city of Bikaner.



Adding 'value' to environment care



Every year as the World Environment Day approaches, a clamor for stricter green laws and regulations is heard across the globe. While laws are important, they are not enough to ensure environmental sustainability. We need to make care for environment a part of our value system. All the ancient cultures around the world have honored Nature – plants, rivers, mountain and nature have always been revered. In India it was a part of the tradition to plant five trees for every tree that was cut. Water was an integral part of all important rituals and ceremonies. Rivers were worshipped as mothers and the Earth was regarded as a goddess. This attitude of treating Nature as sacred needs to be revived in modern times. People also need to be educated in innovative ways to save water and use natural and chemical-free ways of farming. Mechanisms need be created for participation of civil society, especially the youth, for revival of water bodies, planting saplings and a life style geared towards zero waste. In reality, human greed and callousness are the root cause of pollution. The greed for quick and large profits severely disrupts the ecological balance, and not only pollute the physical environment, but also stimulate negative emotions on a subtle level. We need to attend to the human psyche, which is the root cause of pollution. Ecological degradation need not be an inevitable by-product of technology and development. It is not technology and science that pose a hazard, but the waste, we need to revive these attitudes and traditional practices that foster our connection with nature. People should be encouraged to have reverence for the planet, to revere trees and rivers as sacred, to treat people as sacred, and to see God in Nature. This will foster sensitivity; and a sensitive person can't but care for nature and nurture the environment material generated by technological and scientific processes. We need to find methods to consume the waste and develop non-polluting processes, such as harnessing of solar energy or natural farming. Above all, we need to be able to experience our world with an open mind that is free from stress, and from that place we need to create the means of protecting our beautiful planet Earth. The challenge of the present century is to maintain harmony in the environment even while allowing technology and science to grow.

-Article by Sri Sri Ravi Shankar

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