

# Newsletter

Vol. 10 Issue 12 DECEMBER 2009

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## Nehru Centre



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## Events At a Glance...

### Special Astronomy Lecture

Lecture by Dr. Jaydeep Mukherjee, on "Missions to the Moon and Beyond".

5th December 2009 at 5:00 p.m.  
Hall of Harmony

### Culture Wing

GHAZAL KA SAFAR

A Programme of Ghazals

8th December 2009, 6:30 pm  
Nehru Centre Auditorium

### Art Gallery

INDIAN MASTER'S  
RETROSPECTIVE  
Haren Das - A Master Printmaker

11th December 2009 to 3rd January  
2010 (AC Gallery)

### Exhibition

An Exhibition of Images of the  
Uprising of 1857

First Floor, Discovery of India  
Building, Nehru Centre

### Nehru Planetarium

Milestones In Astronomy

Lecture by Prof. Yashwant Gupta, on  
"Some Important Milestones in  
Radio Astronomy".

12th December 2009 at 5:00 p.m.  
Hall of Culture

## Indo- Russian Relations

A one day seminar on Indo-Russian relations with reference to the political aspects of today's Russian Federation and its economic transformation was organized on August 1, 2009.

The presentation of Prof. R. G. Gidadhubli who was one of the panelists was covered in the monthly newsletters for October 2009 and November 2009. Prof. P. L. Dash – Professor of Eurasian Studies, University of Mumbai was another panelist who presented his paper at the seminar. In his presentation he analysed the activities of those Soviet presidents who played their decisive role in the shape of things to come in present day Russia.

Elaborating the role of Gorbachev, Prof. Dash said "by the time Gorbachev ascended the General Secretary post in the Soviet Union in March 1985, the country was passing through a difficult phase of economic stagnation. Thus he inherited a system that was going to implode from within on its own pressure. To revamp the Soviet political culture was impossible without dismantling the economic base that supported rigidly centralized political super structure. The production system was, however, too rigid to be decentralized and the political structure equally stubborn in nature to resist change. Both aspects of governance were nowhere near

contd. on page 2

## An Iconic Building



Nehru Centre

Nehru Centre now has the stature of an iconic building. "Architectural Excellence", a book edited by Paul Cattermole, describes it as such amongst the buildings built in the 20th Century. Only two other buildings from India share this honour with Nehru Centre viz. the Rashtrapati Bhavan and the Bahai House of Worship, both at New Delhi.

Shri I. M. Kadri, an internationally acclaimed architect has designed this architectural masterpiece.

contd. from page 1

compatible zone of modern democracy. Time was ripe for a change, but nobody ventured to the realm of that uncharted path of reforms that Gorbachev ventured in. He was well ahead of all his contemporaries and far too a gentleman in dealing with the social system. He wanted to unleash the reform process within the Soviet framework without changing the basic structure of the state or its economy.

Continuing, Prof. Dash observed that an analysis of the Gorbachev quinquennium in power between march 1985 to the August coup in 1991 suggests that the very advent of Gorbachev in power marked a significant generational shift in Soviet power hierarchy. What paved the way for Gorbachev was the departure of the leaders of yesteryears and the advent of new faces in Russian politics. Breaking with the past was increasing obvious but nobody was willing to take this obvious path.

Presenting the graphic picture of the ground situation, Prof. Dash pointed out that the economy was already stagnant with no real growth for years except on the military front. The leaders were least interested to revamp the system without which no tangible results could be seen. Gorbachev understood the ills of the economy and began restructuring and shifting emphasis from the military to the civil sector by ordering conversion of many factories under the defence sector to be operated under civilian ministries. This did not, however, bring about the real change. Agriculture was particularly in pathetic condition. Restructuring agriculture sector with vast experience in the field was his first priority which he introduced within a year by 1986.

Another important change introduced was in the Soviet media – both print and electronic. Freedom of

speech and reporting which was gagged became norm of the day. More and more dissident writers actively launched an anti Soviet tirade against a crippling Soviet system that was ailing from within. In fact, the whole movement for independence across the Soviet republics was launched and spearheaded by dissident writers. They had expressed themselves candidly and fearlessly against the systemic discomfort they had been facing for decades under the Soviet rule.

Prof. Dash pointed out that Gorbachev's euphoric endeavour to overhaul the Soviet system through his twin policy of Perestroika and Glasnost without preparing the Soviet population, however, met with formidable resistance from different quarters of the society. The classic example was his anti-alcohol campaign which received overwhelming support from the females but fiercely resisted by the males.

The other most important policy that boomeranged was his nationality

policy. He was naively thinking that the national republics were docile. But with the available opportunity, people thronged the street to demand nothing else but total independence. It was too tough a task for Gorbachev to quell the nationalist uprisings in all Soviet republics.

Finally when Gorbachev endeavoured to keep the Soviet Union together through the signing of a Union Treaty in August 1991, his political opponent Boris Yeltsin trekked the reverse track and the diehard communists staged a coup, thereby undermining the entire process of Perestroika and Glasnost. The pro-reform and pro-Gorbachev Russians after the August coup suddenly became anti-Gorbachev and pro-Yeltsin. His good at reforming the Soviet Society suddenly turned away and the Russian president Boris Yeltsin took the centre stage in Russian politics to salvage the country from the coup plotters and ushered it in the western way of Capitalism.

(to be continued)

### Milestones In Astronomy

The seventh lecture of this series will be held on Saturday, 12 December 2009 at 5:00 p.m.

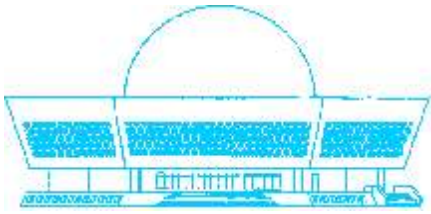
Prof. Yashwant Gupta, National Centre for Radio Astronomy (TIFR), Pune will speak on "Some Important Milestones in Radio Astronomy".

Venue: Hall of Culture, Ground Floor, Discovery of India Building

### What Nehru said ....

We can hardly have a political democracy without mass education. In other countries full-blooded democracy came after education had spread a good deal as a result of the economic revolution which had prepared the ground for it. But in most Asian countries, certainly in India, we have taken a huge jump to hundred per cent political democracy without the wherewithal to supply the demands which a politically conscious electorate makes. That is the essence of the problem in all the Asian countries. All our political life is really concerned with how rapidly we can bridge this hiatus between desires and their fulfillment.

December 6, 1957



## NEHRU PLANETARIUM SKY SHOW:

### "Hide & Seek in the Sky"

12 noon (Hindi), 1:30 pm (Marathi)  
3 pm (English) & 4:30 pm (Hindi)

MONDAY CLOSED

"Milestones in Astronomy": The fifth lecture of this series was delivered by Prof. Varun Sahni of Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune on Wednesday, 28 October 2009. He spoke on "The enigma of dark matter and dark energy". We bring you some excerpts.

Cosmology, as a field of Astronomy, was virtually unknown until 100 years ago. After Einstein formulated the General Theory of Relativity in 1914 we started addressing the issues related to the whole universe. In addition to matter in the form of planets, stars and galaxies, the universe also has some fossil radiation. This fossil light (in the microwave band), a relic of the Big Bang is known as the Cosmic Microwave Background Radiation. Its existence was predicted by the Russian scientist George Gamow in the 1940's and it was discovered by Penzias and Wilson in 1965 for which they were awarded the Nobel Prize.

One second after the Big Bang the temperature was ten billion degrees and today, 13 billion years later it has fallen to a very-very cold  $2.7^{\circ}$  K. By looking at the relic cosmic microwave background we see our universe the way it looked only 300,000 years after the big bang. It provides us with important clues about the early universe.

The question today is how did the stars and galaxies form? What we believe today is that they formed from a very-very tiny fluctuation in the distribution of matter which existed just after the Big Bang. These fluctuations grew over time, and a billion years after the Big Bang they were large enough to form stars and galaxies.

We directly observe only a small fraction of the total matter in the Universe. Most of the matter in the Universe does not shine. It is

dark and is called DARK MATTER. Only 4% of matter is in the form of stars and other 'baryonic' objects! The evidence for dark matter is indirect. Measuring the velocities of stars and neutral hydrogen in a galaxy we can determine the depth of its gravitational potential, and this implies a need for dark matter. Most likely dark matter is a relic from the early universe, just like the relic radiation. Since it does not appear to interact with baryons or with electromagnetic radiation, people speculate that dark matter may be non-baryonic in nature. Proposed candidates include massive neutrinos as well as new elementary particles. Such particles collectively are called WIMPS (weakly interacting massive particles). Other candidates include dwarf stars and mini black holes collectively called MACHO's (massive compact halo objects).

How do we detect Dark Matter? If dark matter is made of large objects failed stars, Jupiter-like planets or black holes then one can detect these objects using gravitational lensing. Since space is curved near a massive object light no longer travels in straight lines! Unfortunately, it appears that MACHO's can account for less than 15% of the total dark matter in our galaxy. Where is the remaining 85%? Possibly in WIMPS which are elementary particles left over from the Big Bang. Other commonly proposed dark matter particles are axions and sterile neutrinos. None of these are part of the standard model of particle physics, but they can arise in extensions to the standard model. Many supersymmetric models naturally give rise to stable dark matter candidates in the form of the Lightest Supersymmetric Particle (LSP). The Large Hadron Collider experiment may be able to detect the WIMPS.

If WIMPS are Majorana particles (the particle itself is its antiparticle) then two WIMPS colliding would annihilate to produce gamma rays, and particle-antiparticle pairs. This could produce a significant number of gamma rays and positrons in the galactic halo. The Fermi Gamma-ray Space Telescope, launched June 11, 2008, is searching for gamma rays events from dark matter annihilation.

One of the most exciting observational discoveries of the past decade is that the Universe is Accelerating!

Supernovae are amongst the brightest objects in our universe. Type Ia supernovae are standardized candles and can therefore be used to probe the universe on the largest



Prof. Varun Sahni delivering his talk

scales. Distant supernovae are systematically fainter than they would appear if the universe were decelerating. Distant supernovae are systematically fainter than they would appear if the universe were decelerating. Therefore the dimming of light from distant supernovae must have a cosmological origin.

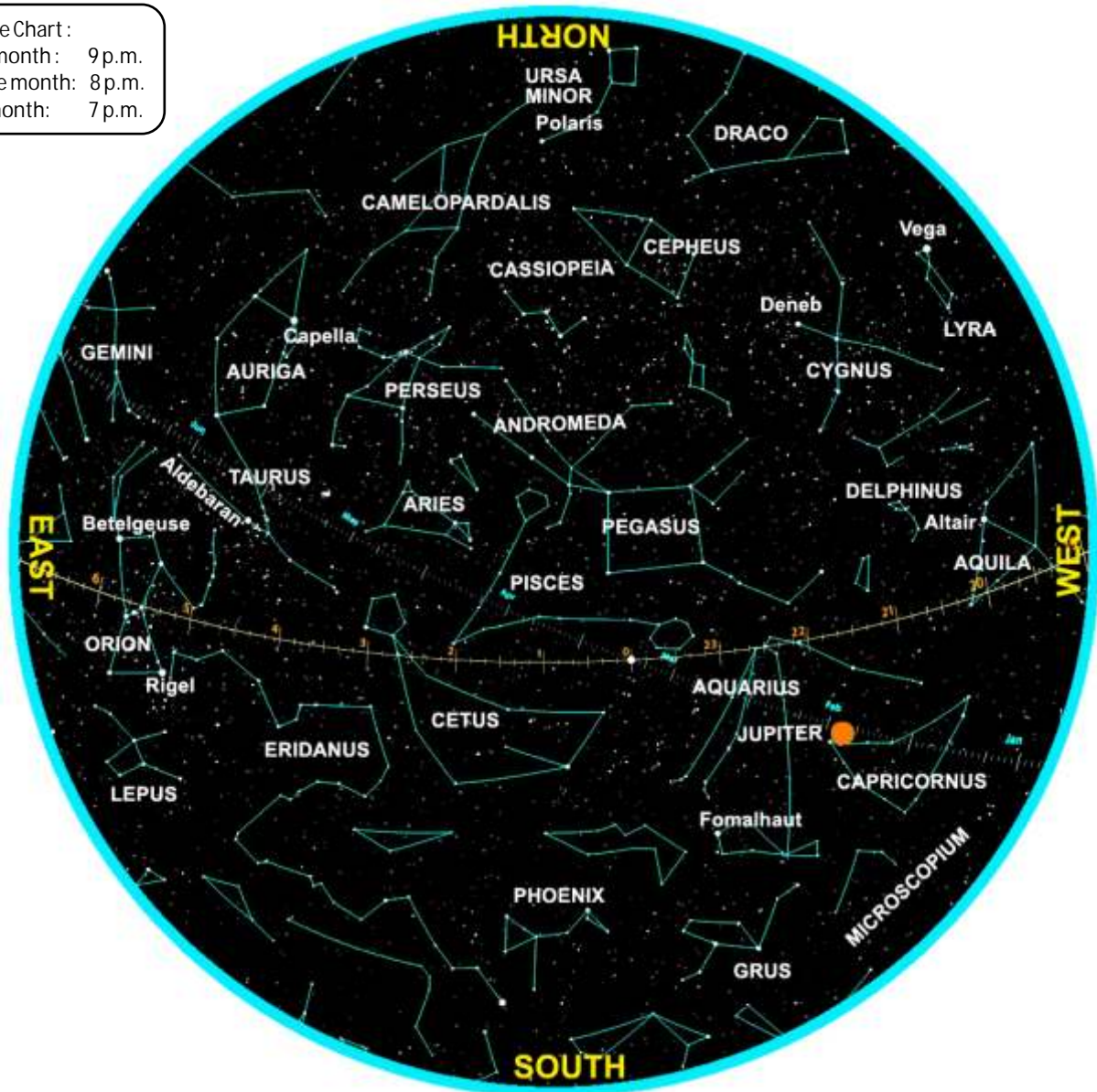
The source responsible for Cosmic Acceleration is presently unknown and has been called Dark Energy. Dark Energy has large negative pressure and could account for up to 70% of the total matter density in the Universe!! Dark Energy has negative pressure and can make the Universe Accelerate! If dark matter can be understood within the framework of Newtonian Gravity, to understand Dark Energy we need to turn to Einstein's theory of General Relativity.

A famous example of dark energy is the cosmological constant introduced by Einstein in 1917. It has the interesting property that its energy density stays the same as the universe expands. In contrast, the density of all 'normal' forms of matter and radiation gets diluted during the Universe's expansion. So if the universe contains the cosmological constant in addition to matter (visible + dark) then the density of the former will eventually dominate the latter!! This will cause the universe to accelerate at later times as observed. The cosmological constant will eventually dominate the density of the universe even if its value was much smaller than the matter density at early times!

Open Questions: What is the nature of Dark Matter? What is making the Universe accelerate? Are dark matter and dark energy related? When were the earliest galaxies formed? What happened before the Big Bang? I hope the answers to some of these questions come from students like YOU!!

# STAR CHART FOR DECEMBER 2009

Use the Chart :  
 Early month : 9 p.m.  
 Middle month : 8 p.m.  
 Late month : 7 p.m.



Hold the chart vertically before your eyes and turn until the geographical direction you are facing shows at the bottom of the chart. Only one planet, Jupiter (in Capricornus) is within the chart boundaries for the time the chart is drawn. Mercury is in the early evening sky in Sagittarius. Venus is visible in the morning sky in Scorpius-Ophiuchus region till the middle of the month. After that it comes too close to the Sun to be seen. Mars rises in Gemini around 10:30 p.m. in Cancer-Leo region. Saturn is in Virgo and rises around 1 a.m. Earth is at Winter Solstice on 21 December at 23:17 IST.

Phases of the Moon (timings in IST)

Full Moon ( <i>Poornima</i> )	Last Quarter ( <i>Krishna Paksha Ashtami</i> )	New Moon ( <i>Amavasya</i> )	First Quarter ( <i>Shukla Paksha Ashtami</i> )
02 Dec 13:00 hrs	09 Dec 05:43 hrs	16 Dec 17:32 hrs	24 Dec 23:06 hrs

### GHAZAL KA SAFAR

Nehru Centre is organizing a Ghazal programme "Ghazal Ka Safar".

Urdu has been the premier language of poetry in South Asia for two centuries and has developed a rich tradition in a variety of poetic genres. The Ghazal represents the most popular form of subjective poetry. A common and popular form of music in the sub-continent, Ghazal is also a poetic recitation.

Ghazal Ka Safar is conceived as a show which would revisit the evolution of this form of poetry and recall some popular masterpieces through live rendition on stage.

The show also showcases some of the popular compositions over the years by several eminent artistes like Mehdi Hasan, Ghulam Ali, Begum Akhtar and Jagjit Singh to name a few.

The details are:

**Script & Narration**  
Salim Arif

**Concept & Direction**  
Milind Oak

**Singers**  
Dattaprasad Ranade &  
Swarada Gokhale-Godbole

8th December 2009, 6:30 pm  
Nehru Centre Auditorium

Entry: Entrance Cards will be available on 5th December 2009 from 10:30 am until availability of entrance cards from Booking Counter of Nehru Centre Auditorium

### Nehru Centre's Children's Theatre Festival

November 14th is celebrated as "Bal Diwas". To commemorate the event, we presented a three days Children's Theatre Festival as detailed below:

11th November 2009      Nikki Aur Vicky by Funtoosh Player

12th November 2009      Jungle Dhoom.com by Ekjute Theatre Group

13th November 2009      Mummy Please by Yatri

The Festival was well attended by the children and also by general public who enjoyed the dramas.



A scene from the play "Nikki Aur Vicky"  
Directed by Smt. Vibha Chibber  
Funtoosh Player, Mumbai

A scene from the play  
"Jungle Dhoom.com"  
Directed by Smt. Nadira Babbar  
Ekjute Theatre Group, Mumbai



A scene from the play "Mummy Please"  
Directed by Shri Om Katare  
Yatri, Mumbai

# The Art Gallery

Open from 11:00 am to 7:00 pm daily

## Programmes for December 2009

BASUDEB BISWAS



Painting by Basudeb Biswas

Basudeb has received B.F.A. and M.F.A. in sculptures from Shantiniketan. His sculptures focus on the female form. He has had many prestigious shows to his credit. He has won many awards. Presently working as the Head of Department in Apeejay College of Fine Arts, Jalandhar. His sculptures are in metal and terracotta.

Tuesday 1<sup>st</sup> December 2009  
to Monday 7<sup>th</sup> December 2009  
(AC Gallery)

SUBHASH WAGH

Subhash has secured G.D.A. in Applied Art from Sir J. J. School of Art, Mumbai. He has won many state awards. He also has had many solo shows. His paintings are compositions in acrylic on canvas.

Tuesday 1<sup>st</sup> December 2009  
to Monday 7<sup>th</sup> December 2009  
(Circular Gallery)

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Painting by Subhash Wagh

GAYATRI



Painting by Gayatri

Gayatri is a self taught artist. The paintings are colourful compositions in acrylic on canvas.

Tuesday 8<sup>th</sup> December 2009  
to Monday 14<sup>th</sup> December 2009  
(Circular Gallery)

VINAYAK MINDHE



Painting by Vinayak Mindhe

Vinayak secured G.D.A. in Commercial Art from Mumbai. His

paintings are landscapes in water colours and pastels.

Tuesday 15<sup>th</sup> December 2009  
to Monday 21<sup>st</sup> December 2009  
(Circular Gallery)

NITAI DAS . GOUR DAS



Painting by Nitai Das

Nitai has B.F.A. in Arts from Shanti Niketan. His creations are mixture of Folk art and contemporary subjects. He is a pioneer in inducing modernism in elements of folk tradition. His paintings are in acrylic, oil, tempera, fiber glass etc.

Gour graduated from Kolkata. Presently working at Agartala, Tripura. His paintings are figurative compositions in watercolour and collage.

Tuesday 22<sup>nd</sup> December 2009  
to Monday 28<sup>th</sup> December 2009  
(Circular Gallery)

DHANASHRI PENDSE . SUNIL BAMBAL . SWARUPA DESHMUKH . PALLAVI DEODHAR . NAMITA PARAKH

Dhanashri has G.D.A. in painting from Pune. She has received National award. Her paintings are

figurative in acrylic and mix media on canvas.

Sunil has Government Diploma in painting from Pune. He has won many awards for his landscapes in water colours.



Painting by Sunil Bambal

Swarupa secured G.D.A. from Mumbai. Her paintings are compositions in oils on tribals.



Painting by Pallavi Deodhar

Pallavi received G.D.A. from Abhinav Kala Mahavidyalaya, Pune. Her paintings are figurative in acrylic on canvas.

Namita has Government Diploma in Art from Pune. Her paintings are figurative forms in acrylic on canvas.

Tuesday 29th December 2009  
to Monday 4th January 2010  
(Circular Gallery)

## INDIAN MASTER'S RETROSPECTIVE Shri Haren Das - Master Printmaker



Nehru Centre Art Gallery is presenting its seventeenth Indian Master's Retrospective. This year it is Haren Das, the Master Printmaker from West Bengal.



Haren Das was born in Dinajpur, East Bengal (now Bangladesh) in 1921. He explored various techniques relating to Print Making. He gained mastery in etching, drypoint, mezzotint, woodcut, wood engraving etc. He was recipient of Gold Medals from Academy of Fine Art (Kolkata, Delhi, Patna, Hyderabad).

Friday 11th December 2009  
to Sunday 3rd January 2010  
(AC Gallery)

## Review

## "Bal Disha" Children's Day Special



Shri Amole Gupte, inaugurating "Bal Disha" by lighting the traditional lamp. With him are Varuna and Haris

Nehru Centre Art Gallery had organised "Bal Disha" an exhibition of children's artwork. S. Varuna aged nine years from Chennai and Haris Imtiyaz Khan aged nine years from Pune participated.

The exhibition was inaugurated by well-known script writer, creative director and painter Shri Amole Gupte on 10th November 2009 at the Nehru Centre Art Gallery.

The exhibition received an overwhelming response from art lovers and media.

FOR PRIVATE  
CIRCULATION ONLY

## DISCOVERY OF INDIA EXPOSITION

### NEHRU CENTRE PUBLICATIONS BOOKS

RULE OF LAW IN A FREE SOCIETY

SCIENCE IN INDIA: PAST & PRESENT

NEHRU REVISITED

INDIAN ASTRONOMY

A Source Book

EXPLORING THE UNIVERSE:

The Planetarium Way

DISCOVERY OF INDIA

Abridged and illustrated & VCD Version

SANSKRUTI

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PROF. P. A. DHOND

ART FUSION 2009

ART FUSION 2008

ART FUSION 2007

COLLECTOR'S PRIDE

K. B. KULKARNI

VINAYAK S. MASOJI

SAMAKALEEN (Contemporary Five Artists)

NAGESH BHIMRAO SABANNAVAR

NARAYAN L. SONAVADEKAR

"GURU-SHISHYA"

BABA GAJBAR & GANPATRAO

WADANGEKAR

D. G. KULKARNI (DIZI)

MILLENNIUM SHOW

(A Century of Art from Maharashtra)

B. V. TALIM & H. B. TALIM

RAVINDRA MESTRY

Available at:

Discovery of India Exposition, Ground Floor,  
NEHRU CENTRE, Worli, Mumbai - 400 018.

### TO OUR READERS

Kindly write to us if there is any discrepancy in the address (or name). It is our aim to reach this publication well before the beginning of the month, to ensure that you do not miss any programmes of Nehru Centre.

Tel : 2493 3340, 2496 4676 Ext: 118

## Glimpses

### Know Your India:

## Continuity & Change

### Temples, Institutions and Sculptures

Temples were not just places to pray and meditate, where Brahmans chanted Sanskrit verses and where the forsaken took shelter. They were the axis of society, the final arbitrators of social interaction and the catalyst for social evolution. They became the link between ruler and ruled, between peasant and merchant, between God and man.

The temples combined their earthly and spiritual functions successfully. Thousands of sharecroppers tilled lands owned by temples. The temples collected all the customary taxes as well as any others that they wished to impose. They built and maintained irrigation works to increase the productivity of their lands. Their property was immune from the king's law and they dispensed justice as they saw fit.

In the urban centres they defined municipal institutions. They financed education and controlled curriculum. They employed thousands - priests, accountants, artists and devadasis. They provided medical care to sick animals and humans and fed the poor. They loaned money on interest to craft guilds and invested in trade and craft production. It was temples rather than the courts which provided the patronage to dance, music, poetry, architecture, sculpture and painting. And above all they provided spiritual solace to the seekers and splendid pageantry for all.

The immense variety and individuality of the sculptures produced is a compliment to the genius and creativity of the artists of these times. The ability to provide the palpability of flesh to metal or stone had been in evidence before. The art of this period remained true to its magnificent inheritance.

To be continued

Exposition open from 10.30 am to 5 pm - Every Day except Monday

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