

Newsletter

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Nehru Centre



Discovery of India Building
Dr. Annie Besant Road,
Worli, Mumbai - 400 018.
Phone : 24964676
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Events At a Glance...

Library

Meet-The-Author

Join us with Fiona Fernandez, as she reads from her book "*H for Heritage: Mumbai*, an alphabetical exploration from A to Z that crisscrosses the city and its suburbs.

Date: **19th June 2024**

Time: **11.30 am to 12.30 pm**

Venue: **Who Are We Hall**

Entry Free

Culture Wing

Shaam-é-Afsaana

(Urdu Story Telling)

Date: **21st June 2024**

Time: **7.00 pm**

Venue: **Hall of Culture**

**Ground Floor,
Discovery of India Building**

Dear Subscribers

Please renew your subscription for the year 2024-2025 (April to March) so that the Newsletter can be sent to you without any break.

Please send cheque drawn in favour of 'Nehru Centre' only.

Constituent Assembly Debates Draft Constitution (contd.)

Dr. B. R. Ambedkar - Part I

"The first Draft Constitution as presented by the Drafting Committee to the Constituent Assembly contained 315 Articles and 8 Schedules. At the end of the consideration stage, the number of Articles in the Constitution increased to 386. In its final form, the Draft Constitution contains 395 Articles and 8 Schedules. The total number of amendments to the Draft Constitution tabled was 7365. Of them, the total number of amendments actually moved in the House were 2473.

Turning to the quality of the work done by the Drafting Committee, Mr. Naziruddin Ahmed felt it his duty to condemn it outright. In his opinion, the work done by the Drafting Committee is not only not worthy of commendation, but is positively below par. Everybody has a right to have his opinion about the work done by the Drafting Committee and Mr Naziruddin is welcome to have his own.

I am glad to find that with the exception of a solitary member, there is general consensus of appreciation from the members of the Constituent Assembly

of the work done by the Drafting Committee.

The task of the Drafting Committee would have been a very difficult one if this Constituent Assembly had been merely a motley crowd, a tessellated pavement without cement, a black stone here and a white stone there in which each member or each group was a law unto itself. There would have been nothing but chaos. This possibility of a chaos was reduced to nil by the existence of the Congress Party inside the Assembly which brought into its proceedings a sense of order and discipline. It is because of the discipline of the Congress Party that the Drafting Committee was able to pilot the Constitution in the Assembly with the sure knowledge as to the fate of each Article and each Amendment. The Congress Party is, therefore entitled to all the credit for the smooth sailing of the Draft Constitution in the Assembly.

The working of a Constitution does not depend wholly upon the nature of the Constitution. The Constitution can provide only the organs of State such as the Legislature, the Executive and

the Judiciary. The factors on which the working of those organs of the State depend are the people and the political parties they will set up as their instruments to carry out their wishes and their politics. Who can say what the people of India and their purposes are or will they prefer revolutionary methods of achieving them? If they adopt the revolutionary methods, however good the Constitution may be, it requires no prophet to say that it will fail. It is therefore, futile to pass any judgement upon the Constitution without reference to the part which the people and their parties are likely to play.

The condemnation of the Constitution largely comes from two quarters, the Communist Party and the Socialist Party. The Communist Party wants a Constitution based upon the principle of the dictatorship of the Proletariat. They condemn the Constitution because it is based upon parliamentary democracy. The Socialists want two things. The first thing they want is that if they come to power, the Constitution must give them the freedom to nationalize or socialize all private property without payment of compensation. The second thing that the socialists want is that the Fundamental Rights mentioned in the Constitution must be absolute and without any limitations so that if their party fails to come into power, they would have the unfettered freedom not merely to

criticize, but also to overthrow the State.

I do not say that the principle of parliamentary democracy is the only ideal form of political democracy. What I do say is that the principles embodied in the Constitution are the views of the present generation or if you think this to be an over-statement, I say they are the views of the members of the Constituent Assembly.

There is only one point of constitutional import to which I propose to make a reference. A serious complaint is made on the ground that there is too much of centralisation and that the states have been reduced to municipalities. As to the relation between the Centre and the states, it is necessary to bear in mind the fundamental principle on which it rests. The basic principle of federalism is that the legislative and executive authority is partitioned between the Centre and the states, not by any law to be made by the Centre but by the Constitution itself. The states under our Constitution are in no way dependent upon the Centre for their legislative or executive authority. The Centre and the states are co-equal in this matter. It is difficult to see how such a Constitution can be called centralism.

The second charge is that the Centre has been given the power to override the states. This charge must be

admitted. But before condemning the Constitution for containing such overriding powers, certain considerations must be borne in mind. The first is that these overriding powers do not form the normal features of the Constitution. Their use and operations are expressly confined to emergencies only. The second consideration is whether we could avoid giving overriding powers to the Centre when an emergency arises.

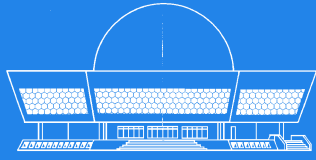
The solution of this problem depends upon one's answer to this question which is the crux of the problem. There can be no doubt that in the opinion of the vast majority of the people, the residual loyalty of the citizen in an emergency must be to the Centre and not to the Constituent States. For it is only the Centre which can work for a common end and for the general interests of the country as a whole. Herein lies the justification for giving to the Centre certain overriding powers to be used in an emergency. And after all what is the obligation imposed upon the Constituent States by these emergency powers? No more than this – that in an emergency, they should take into consideration alongside their own local interests, the opinions and interests of the nation as a whole. Only those who have not understood the problem, can complain against it.”

to be continued

What Nehru said....

There is nothing that we know of in prehistoric Egypt or Mesopotamia or anywhere else in western Asia to compare with the well-built baths and commodious houses of the citizens of Mohenjo Daro. In these countries, much money and thought were lavished on the building of magnificent temples for the Gods and on the palaces and tombs of kings.

...from Chapter 3, The Indus Valley Civilization, The Discovery of India.



NEHRU PLANETARIUM

Tel: 91-22-24920510
Mobile : 9892890510

SKY SHOW : BIOGRAPHY OF THE UNIVERSE

12 noon (Hindi) 1:30 p.m. (Marathi)
3:00 p.m. (English) 4:30 p.m. (Hindi)

(MONDAY CLOSED)

Tickets will be available online and at the Booking Counter.
Visitors are expected to strictly follow Covid-19 norms.

Email: managernpmumbai@gmail.com

Aryabhata (476 - 550 AD)

The fifth-sixth century astronomer-mathematician Aryabhata was the most outstanding scientist of the classical era. He authored several treatises on astronomy and mathematics. We know about his work from the works of his contemporaries, his disciples, and others who came later. Though most of his work is lost, his magnum opus, *Aryabhatiya*, has survived. In *Aryabhatiya*, Aryabhata writes that he was 23 years old and the year was the 3600th year of Kali-yuga. This corresponds to 499 AD.¹

Aryabhata mentions that he was a native of Kusumapur which was then the name of what later came to be known as Pataliputra, present-day Patna. He also mentions that he was 'Kulupa' which in all probability meant 'Kulapati'.

Statue depicting Aryabhata at IUCAA, Pune



We know from the writings of his contemporary astronomer/mathematician, Varahamihira and later authors like Brahmagupta and Bhaskara that Aryabhata wrote another book titled *Arya-Siddhanta*. It contained mathematical theories, as well as descriptions of astronomical instruments such as *shanku-yantra* (a gnomon or sundial) and *chhaya-yantra* (an instrument to measure shadows).

For his mathematical work and computations, Aryabhata used the Sanskrit *varnamala* to denote numbers and express quantities as was practiced in Vedic times. His tables of values were in mnemonic form which had to be memorized. Some of his works were

translated into Arabic, in particular by Abu Rayhan al-Biruni in 9th century AD.

In *Aryabhatiya*, Aryabhata summarises all the scientific knowledge known at that time in 121 verses. These are divided in four sections or *padas*, 13 being introductory verses and 108 that summarise mathematical and astronomical knowledge. It is also known as *Arya-shatas-aShTa*, which translates to Aryabhata's 108. *Shatas* is a hundred, and *aShTa* is eight. These verses are written in the *sutra* style, a genre of ancient and medieval Indian texts. *Sutra* style of writing consists of a terse, concise, short statement of a principle or aphoristic statement.

The four *Padas* and their contents, in brief, are as follows.

1. *Gitikapada* has 13 verses dealing with large units of time (*Kalpa*, *Manvantra*, and *Yuga*), and tables of trigonometric functions². One *Kalpa* is one day of Brahma, which is 4.32 billion human years; each *Kalpa* consists of 4 *manvantra* and one *yuga* is a complete cosmic cycle from its beginning to destruction. We see here that ancient astronomers were used to dealing with large numbers compared to their Mesopotamian and Chinese counterparts.
2. *Ganitapada* contains 33 verses. It covers a very high level of mathematical tools, including *ksetra vyavahāra* (mensuration) and methods of solving arithmetic, geometric, quadratic, simultaneous, and indeterminate equations (*kuttaka*).
3. *Kalakriyapada* has 25 verses dealing with different units of time and a method for determining the positions of planets for a given day. It also has calculations concerning the intercalary month (*adhikamAsa*) and *kShaya-tithis*.

4. *Golapada* has 50 verses that deal with aspects of astronomy and astronomical observations.

Some verses of interest from *Aryabhataiya* are given below:

In verses 6 and 7 of *Ganitapada*, Aryabhata explains how to calculate the area of a triangle and circle. To calculate the area of a circle, we need to know the value of the mathematical constant pi (π), which is the ratio of circumference of a circle to its diameter. He gives the value of this ratio in verse 10 of *Ganitapada*. Aryabhata says that the circumference of a circle whose diameter is 20000 will be 6283 or 62832 divided by 20000, which equals 3.1416. This value is accurate to two parts in one million to the value accepted today.

In *Golapada* verses 6 and 7, he mentions that the Earth is at the centre of the firmament and resting without any support. It comprises soil, water, fire and air and is surrounded by planets orbiting around it. He then says that the Earth is like blossoms surrounding a ball formed by the Kadamba flower. However, this verse does not indicate that he knew about gravity.



Kadamba flower

Verse 9 of *Golapada* is the most famous verse of *Aryabhataiya*.

अनुलोमगतिनैस्थः पश्चत्यचलं विलोमगं यद्वत्
अचलानी भानितद्वत् समपश्चिमगानि लंकायाम् ॥९॥

Here, Aryabhata says that the Earth is rotating on its axis. To explain this, he says that a person travelling in a boat sees the stationary objects on the bank of the river going backwards. Similarly, a person in Lanka would observe the stars moving from east to west. The same explanation was used by Polish priest-astronomer Nicholas Copernicus about 1000 years later.

Aryabhata has repeatedly used 'Lanka' in *Aryabhataiya* to indicate an imaginary place on the equator of the Earth due south of Ujjain, with the exact longitude of Ujjain and zero degrees latitude.

Aryabhata knew that a solar eclipse occurs when the Moon comes between the Earth and the Sun, and a lunar eclipse occurs when the Earth's shadow falls on the Moon. He also

gave a method for calculating the length of the Earth's shadow.

Aryabhata had set up an observatory at the Sun temple in Taregana, a small town about 30 kilometres from Patna where he calculated the Earth's rotation period as 23 hours, 56 minutes and 4.1 seconds. The modern value is 23 hours, 56 minutes and 4.091 seconds. He also calculated the duration of one year as 365 days, 8 hours, 35.5 minutes. The modern value is 365 days, 5 hours, 48.7 minutes. Aryabhata's value is 2 hours and 48.6 minutes longer. In percentage, his value is 0.032% larger than modern value.

In mathematics, there are equations called indeterminate equations and mathematicians from ancient times, from Arabic, Chinese, Greeks and Indians, have worked very hard to find solutions to such equations. These were discussed in Vedic texts as Sulbha Sutras. Aryabhata devised a method called *Kuttaka* (कुट्टक) meaning breaking into small pieces. This became the standard method of solving these equations. Initially it was called *Kuttaka-ganita* or just *kuttaka*.

Very little is known about Aryabhata's personal life. All we know is that he lived a full life and died in 550 AD at the age of 74.

¹ *Aryabhataiya* by Mohan Apte (Marathi edition)
ISBN 978-81-7434-380-9

² Trigonometry, from the Greek words trigon (triangle) and metron (measure), is a branch of mathematics that studies the relationships between the sides and angles of triangles. These relationships are identified by the names sine, cosine, etc.

Aryabhata had used *jjā* and *koti-jjā* for these relationships. When translated into Arabic, it was referred to as *jiba*, a meaningless word, and so they called it *jaib*, meaning 'pocket' or 'fold'. When translated into Latin, it became sinus, meaning 'cove' or 'bay', and finally came the English word 'sine'.

ANNOUNCEMENTS

1. In collaboration with Nehru Planetarium, Nehru Centre Mumbai, Centre for Extra-Mural Studies (University of Mumbai) is conducting a certificate course in Astronomy and Astrophysics for the academic year 2024-25 from July 2024. For details, contact rohanl.nehrucentre@gmail.com

2. Astro-photography Exhibition from 18 to 24 June 2024
Venue: Nehru Centre Circular Art Gallery



Shaam-é-Afsana

Story-telling is an art which is now being resurrected in almost all languages. The telling of short classic stories gives a new life to oral histories and inspires listeners to read more works by the writer. Urdu literature is replete with story-telling or *Afsana Nigari*, by which eminent scholars bring out the richness of the language through their readings.

The Culture Wing of Nehru Centre takes great pleasure in inviting lovers of Urdu literature to an evening of Urdu story-telling - Shaam-é-Afsana.

Shaam-é-Afsana will feature

M. Mubin & Sajida Jamal Ahmed Siddi

Critical appreciation

Mohammed Rafi Abdul Khaliq Ansari



M. Mubin



Sajida Jamal



Mohd. Rafi Ansari

Friday, 21st June 2024 at 7.00 p.m.
Hall of Culture

Entry: Free for all Urdu literature lovers on first-come, first-served basis

Review:

Folk Music Traditions of Kutch

On 26th April 2024, Nehru Centre had organized a programme of folk music traditions of Kutch presented by Kala Varso of Bhuj.

Various traditional forms of music from Kutch region were presented like Aradhi, Vaani, Sufi Kalam, with instruments like Ghado Ghamelo, Morli Jodiya Pawa, Morchang, Dholak etc.

Shri Lal Rambhia who has been associated with *Kala Varso* curated the programme and hosted it.

Shri Anandji (of Kalyanji Anandji fame), who hails from Kutch graced the occasion. A packed-to-capacity auditorium was enthralled by the performances and the artistes received a standing ovation at the end of the programme.

Below are some glimpses.



RAMESHWARI DEOKAR CHETAN VAITY

Rameshwari's paintings depict the beauty of nature.

Chetan's work is influenced by the sculptures of Shri Vinayak Karmarkar.

**Tuesday 28th May 2024
to Monday 3rd June 2024
(AC Gallery)**

RANG PRATISHTHAN

A group of twenty five artists will participate in this show with their artworks.

**Tuesday 28th May 2024
to Monday 3rd June 2024
(Circular Gallery)**

C. R. SHELARE

C. R. Shelare's abstract paintings are in acrylic on canvas.

**Tuesday 4th June 2024
to Monday 10th June 2024
(AC Gallery)**

SANTOSH KARDAK

Santosh is an interior designer and his landscapes are in water colours on paper.

**Tuesday 4th June 2024
to Monday 10th June 2024
(Circular Gallery)**

THE SOUTHERN GUJARAT CHAMBER OF COMMERCE & INDUSTRY

In this show, a group of thirty artists will showcase their artworks.

**Tuesday 11th June 2024
to Monday 17th June 2024
(AC & Circular Gallery)**

STUDY CAMP OF STUDENTS

Nehru Centre Art Gallery has been taking groups of art students to Study Camps to various places in India for the past 30 years. The selected works from these camps will be on display in the exhibition.



Tuesday 18th to Monday 24th June 2024 (AC Gallery)

ASTRO-PHOTOGRAPHY EXHIBITION

Nehru Planetarium has arranged the Astro-Photography exhibition, where selected and creative photography works will be on display.

Tuesday 18th to Monday 24th June 2024 (Circular Gallery)

'CHATAK' 2024

A Monsoon Show of Professional Artists



... and the first drop
of rain arrived to quench
the thirst of the Chatak
(a legendary bird)

The 30th year of 'CHATAK' will be organised by Nehru Centre Art Gallery. Forty artists from all over Maharashtra will participate and showcase works in various styles and mediums. Art lovers can view different styles of paintings and sculptures under one roof.



Tanvi Parekh



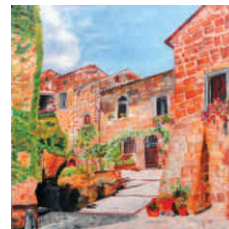
Rahul Ranade



Sachin Chandorkar



Dipali Sawant



Geeta Hawaldar



Niranjan Patgaonkar

**Tuesday 25th June 2024 to Monday 1st July 2024
(Both Galleries)**

RAMSAR WETLAND SITES IN INDIA

17. Odisha (Part 1)

Chilika Lake

Chilika Lake is the largest lake of Asia. It is a brackish water estuarine lagoon that sprawls along the east coast as also the largest wintering ground for migratory waterfowl found anywhere on the Indian sub-continent. It is an important biodiversity hotspot and some rare, vulnerable and endangered species listed in the International Union for Conservation of Nature's Red List of Threatened Animals inhabit it.

A survey of the fauna of Chilika Lake carried out by the Zoological Survey of India recorded over 800 species in and around the lagoon. This list includes a number of rare, threatened and endangered species, including the Barakudia limbless skink. On account of its rich bio-diversity and ecological significance, Chilika was designated as the first Ramsar site of India on 1 October 1981.



Barakudia limbless skink

Bhitarkanika Mangroves

Bhitarkanika mangroves cover a large area in the Brahmani River and Baitarani River deltas. Like many mangrove areas, the dense coastal forests provide vital protection for millions of people from devastating cyclones and tidal surges. Of India's 58 recorded species of mangroves, 55 species are found in Bhitarkanika, a wider mangrove diversity than in the Sundarbans. Avifauna includes 320 species, including eight kingfisher species. Birds such as Asian open bill, cormorants, darters, black ibis and egrets are frequently seen in the park. It is a well-known place to observe the giant saltwater crocodile, some growing to 23 feet in length, along with other semi-aquatic reptiles like the Asian water monitor and numerous snakes. It used to be the hunting ground of the erstwhile King of Kanika.

Bhitarkanika Mangroves was designated as a Ramsar Wetland site on 19 August 2002.



Giant crocodile of Bhitarkanika

Ansupa Lake

The Ansupa Lake is a small freshwater oxbow lake with a horse-shoe shape and is situated on the lap of Saranda and Bishnupur hills in Cuttack district.

Ansupa is formed by the Mahanadi River and is popular for its scenic beauty and rich biodiversity. It attracts visitors and tourists who come to see its rich floral diversity and some resident and migratory avian species.

The sides of the lake are lined with magnificent pink, red and white lilies whose leaves cover the surface of the water. This enhances the beauty of the environment. The lake is home to over nine species of submerged, 26 species of emergent and 12 species of floating plants. Besides, this popular lake houses 33 species of fish, 10 species of reptiles and three species of prawns. Ansupa Lake was designated as a Ramsar Wetland site on 12 October 2021.



Water lilies at Ansupa Lake

Further Reading at Nehru Centre Library:

- The beautiful India: Orissa by S.A. Rahman, Reference Press, 2006, Call no. 915.413/Rah, Barcode: 13328

NEHRU CENTRE PUBLICATIONS

Books for Sale

- Nehru Revisited
- India's Defence Preparedness
- Nehru and Indian Constitutionalism
- Internal Security in India
- Constitutionalism and Democracy in South Asia
- मुंबई: काल आणि आज
- Mumbai: Past and Present
- India and Central Asia
- Witness to History
- India-Russia Relations
- India-China Relations
- Remembering Einstein
- Challenges to Democracy in India
- Rule of Law in a Free Society
- Science in India
- Exploring The Universe

Colourful art catalogues for sale

- (1) GOPALRAO DEUSKAR (1995)
 - (2) VINAYAKRAO KARMARKAR (1996)
 - (3) MITTER BEDI (1997)
 - (4) S. L. & G. S. HALDANKAR (1998)
 - (5) BALAJI & HARISH TALIM (1999)
 - (6) D. G. KULKARNI (DIZI) (2001)
 - (7) NARAYAN L. SONAFADEKAR (2003)
 - (8) NAGESH B. SABANAVAR (2004)
 - (9) SAMAKALEEN (2005)
 - (10) VINAYAK S. MASOJI (2006)
- and many more...

ART FUSION catalogues

2007 / 2008 / 2009 / 2010 / 2011 / 2012 / 2013 / 2014

Set of five assorted gift cards
Designed by differently abled children

SANSKRUTI - CD ROM :
An aesthetics of Indian culture

DISCOVERY OF INDIA (VCD)

Set of ten greeting cards
Based on Discovery of India Exposition

Available at:
Book Stall, Ground Floor,
Discovery of India Building,
Nehru Centre, Worli, Mumbai - 400 018.



Ajjichya Pustakancha Hotel The Highway Library

This is the true story of Bhimabai Jondhale, owner and proprietor of 'Ajjichya Pustakancha Hotel'. The name fits beautifully as it is truly a 'hotel of books'. Located on the Nashik Agra highway, just before the Ozar airport is this fascinating place which I chanced upon. At the 10km milestone, a giant sized cup and saucer atop a makeshift tea booth mark the entrance.



Relax Corner



Bhimabai Jondhale (Aiji)

Bhimabai was married at the age of 11 when she was in only the 5th standard. She had a difficult life as the family was poor and her husband was an alcoholic and sold off their family land. With her children growing up, she wanted to send them to school. Left without a means to feed her family, Bhimabai worked for hours in different people's fields to bring food to the table. "I was fed up with the life we had. My son was going to school and had picked up a newspaper distribution job to help me," she shares. Her son, Pravin adds, "There was only one escape from the challenging life – move to the city".

Hence was born the Ajjichya Pustakancha Hotel. Relax Corner, the bookstore and library with neatly lined shelves of books edged with brightly painted flower pots welcome us as we step inside. Having always loved reading herself but never having had the opportunity, Jondhale decided to introduce the habit of reading to the customers who came to the hotel. In her words, "I wanted to make people put their mobile phones aside and read."

Bhimabai or Aiji, as she is fondly called greets us. Then arrives her young and enthusiastic son, Pravin who shows us around. I marvel at their enterprising nature and their urge to spread the love for books. As I walk around, I notice such innovative features, only a few of which are mentioned below.

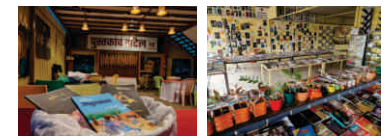
Self manufactured book stands with lovely books are put on the table to read while they await their ordered food and instead of looking into their phones.



Shidori – the book basket, so reminiscent of a basket of food covered with a cloth.

And you also get the choicest food to eat....

Website: <https://pustakanchhotel.com/>



nehru-centre.org/library.html
nehrucenlib.blogspot.com
nehrucen-koha.informindia.co.in
www.facebook.com/NehruCentreLibrary
www.twitter.com/nehrucenlib

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Editor
Arati N. Desai
Design & Layout
Imtiaz Kalu