

Newsletter

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Nehru Centre



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REST IN PEACE Pandit Birju Maharaj



Birju Maharaj was a name synonymous with Kathak dance form and his passing away is indeed an irreparable loss to the world of classical dance and music. Nehru Centre would miss him immensely as he had been associated with it for over two decades. Since 1997 Birju Maharaj had been conducting 'Kathak Workshops' at the Centre every summer and hundreds of dance aspirants would flock to Nehru Centre to learn from the great maestro. He never refused anyone, be it a child or a practicing artist. He was to hold his annual workshop in the month of May this year but fate willed it otherwise. May his soul rest in peace.



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Email: editor@nehru-centre.org

Feedback, comments are welcome.

Published for Nehru Centre
by **Shri Chandrakant M. Rane**
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Dr. A. B. Road, Worli,
Mumbai - 400 018.

Constituent Assembly Debates: Objectives Resolution of 1946

At its second meeting on December 10, 1946, the Constituent Assembly deliberated on the rules of business and the procedure for the election of the permanent chairman of the Constituent Assembly. On December 11, 1946, Dr. Rajendra Prasad was elected as the chairman of the Constituent Assembly, his name having been proposed by Acharya Kripalani and seconded by Vallabhbhai Patel.

Welcoming Dr. Rajendra Prasad, Dr. Sarvepalli Radhakrishnan, a member of the Constituent Assembly, said, "India is a symphony where there are, as in an orchestra, different instruments, each with its particular sonority, each with a special sound, all combining to interpret one particular score. It is this kind of combination that this country has stood for. It never adopted inquisitorial methods. It never asked the Parsis or the Jews or the Christians or the Muslims who came and took shelter there to change their creeds or become absorbed in what might be called a uniform Hindu humanity." He further added, "Gentleness can overcome the hardest things; it can overcome the softest things. There is nothing

impossible to be overcome by gentleness and therefore the sharpest weapon we have is gentleness. In Dr. Rajendra Prasad we have one who embodies this spirit of gentleness. He is the soul of goodness, he has great patience and courage... who incarnates the spirit for which this country stands. I only hope that this spirit of amity, concord and harmony which has come down to us (from the ancient past) will inspire our efforts."

On the fifth day i.e. Friday, December 13, 1946, when the Constituent Assembly met at 11 am, the Chairman invited Jawaharlal Nehru, a member from United Provinces, to move his Resolution which has become famous as the Objectives Resolution. Before moving the resolution, Nehru acknowledged the fact that there were many absentees. The Muslim League had not joined the Constituent Assembly and the princely states too had not sent their representatives. Nehru said, "Many members who have a right to come and attend the meeting are not here today. This, in one sense, increases our responsibility. We shall have to be careful that we do nothing which may cause uneasiness in others or goes

against any principle. We do hope that those who have abstained, will soon join us in our deliberations, since this Constitution can only go as far as the strength behind it can push it. It has ever been and shall always be our ardent desire to see the people of India united together so that we may frame a Constitution which will be acceptable to the masses of the Indian people. It is, at the same time, manifest that when a great country starts to advance, no party or group can stop it. This House, although it has met in the absence of some of its members, will continue functioning and try to carry out its work at all costs."

Nehru clarified that his Resolution did not go into details. He said, "It only seeks to show how we shall lead India to gain the objectives laid down in it... It is an undertaking with ourselves and with the millions of our brothers and sisters who live in this great country. If it is passed, it will be a sort of pledge we shall have to carry out. With this expectation and in this form, I place it before you." And Nehru moved the following Resolution:

"This Constituent Assembly declares its firm and solemn resolve to proclaim India as an Independent Sovereign Republic and to draw up for her future governance a Constitution; wherein the territories that now comprise British India, the territories that now form the Indian States, and such other parts of India as are outside British India and the States as well as such other territories as are willing to be constituted into the Independent Sovereign India, shall be a Union of them all; and wherein the said territories, whether with their present boundaries or with such others as may be determined by the Constituent Assembly and thereafter according to the Law of the Constitution, shall possess and retain the status of autonomous units, together with residuary powers, and exercise all powers and functions of government and administration, save and except such powers and functions as are vested in or assigned to the Union, or as are inherent or implied in the Union or resulting therefrom; and wherein all power and authority of the Sovereign Independent India, its Constituent parts and organs of government, are derived from the people; and wherein

shall be guaranteed and secured to all people of India justice, social, economic and political; equality of status, of opportunity, and before the law; freedom of thought, expression, belief, faith, worship, vocation, association and action, subject to law and public morality; and wherein adequate safeguards shall be provided for minorities, backward and tribal areas, and depressed and other backward classes; and whereby shall be maintained the integrity of the territory of the Republic and its sovereign rights on land, sea, and air according to justice and the law of civilized nations, and this ancient land attains its rightful and honoured place in the world and make its full and willing contribution to the promotion of world peace and welfare of mankind."

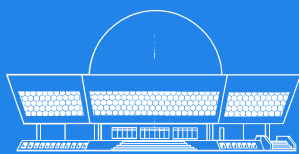
After reading out the Resolution, Nehru continued and said: "As I stand here, Sir, I feel the weight of all manner of things crowding around me. We are at the end of an era and possibly very soon we shall embark upon a new age; and my mind goes back to the great past of India to the 5000 years of India's history, from the very dawn of that history which might be considered almost the dawn of human history, till today. All that past crowds around me and exhilarates me and at the same time, somewhat oppresses me. Am I worthy of that past? When I think also of the future, the greater future I hope, standing on this sword's edge of the present between this mighty past and the mightier future, I tremble a little and feel overwhelmed by this mighty task... In this Constituent Assembly we are functioning on a world stage and the eyes of the world are upon us and the eyes of our entire past are upon us. Our past is witness to what we are doing here and though the future is still unborn, the future too somehow looks at us, I think, and so, I would beg of this House to consider this Resolution in this mighty prospect of our past, of the turmoil of the present and of the great and unborn future that is going to take place soon."

Thus were enunciated the fundamental principles on which the great edifice called the Constitution of India was built.

What Nehru said....

The House will notice that in this Resolution, although we have not used the word 'democratic' because we thought it is obvious that the word "republic" contains that word but we have done something much more than using the word. We have given the content of democracy in this Resolution and not only the content of democracy but the content, if I may say so, of economic democracy in this Resolution. Others might take objection to this Resolution on the ground that we have not said that it should be a Socialist State. Well, I stand for socialism and, I hope, India will stand for socialism.

... on Objectives Resolution, December 13, 1946



NEHRU PLANETARIUM

SKY SHOW : Awesome 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 only at the Booking Counter
Visitors are expected to strictly follow Covid-19 norms.

Luminiferous Aether Which Never Was*

In the last two issues, we discussed the speed and nature of light. By the end of the 19th century, the *speed* of light was successfully measured. As for the *nature* of light, two theories existed. According to one theory, light was a stream of particles that travelled in a straight line. This theory called the *corpuscular theory of light* was strongly advocated by Isaac Newton.

According to the second theory, light was a wave phenomenon. It was suggested by René Descartes and later supported by Newton's contemporary Robert Hooke, an English polymath and Christiaan Huygens, a Dutch mathematician and physicist. An all-pervasive luminiferous aether (Fig 1) was considered the medium which propagated these light waves.

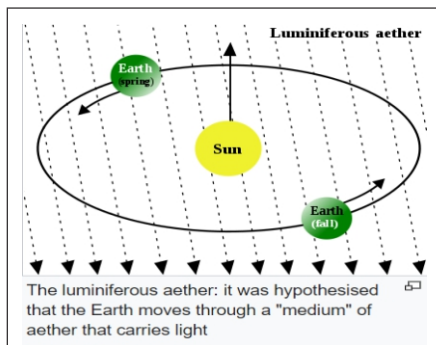


Fig. 1

Hence, by the 19th century, scientists had measured the speed of light. In 1879, Albert A Michelson measured the speed of light with unprecedented accuracy. Later, he took it upon himself to detect the existence of aether. In this article, we shall describe the experiment and its results.

However, before we proceed, let us understand the wave phenomenon itself.

A wave is the propagation of energy through a medium without the particles of the medium moving from the source to the endpoint. For example, when a mallet hits a gong, the gong starts vibrating. These vibrations, in turn, vibrate the air particles surrounding the gong. Likewise, the vibrations are carried further until they reach and vibrate our eardrums, and we hear the sound of the gong. Similarly, sound is transported from its source to our ears in the form of waves.

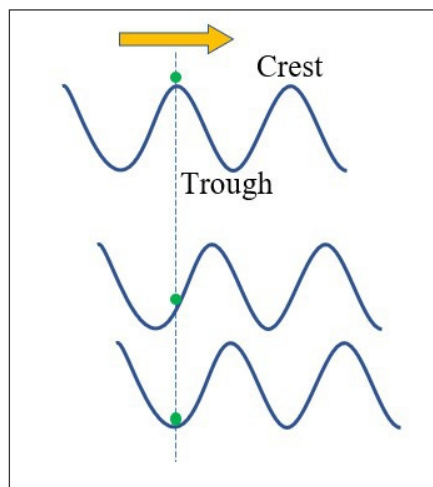


Fig. 2

Let us see the other property of waves. Consider a water-wave advancing from left to right (see Fig 2 above). The upper part of the wave is called a *crest*, and the lower part is called a *trough*. A ball at a certain point goes up and down but does not travel with the wave.

Overlap of two waves is termed as interference of the waves in physics (see Fig 3 below). When the crest of one wave overlaps the crest of other waves, the result is constructive interference. The resultant wave has a bigger or taller crest and shallower or deeper trough. This is termed as the *waves meeting in phase*.

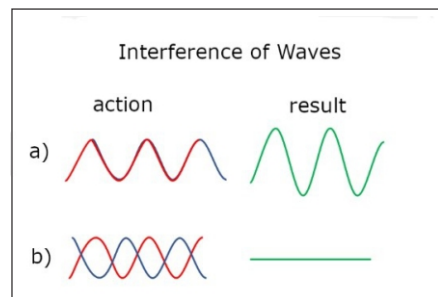


Fig. 3

When the crest of one wave overlaps the trough of the other wave, destructive interference takes place and the wave flattens. This is termed as the *waves meeting out of phase*.

Michelson decided to use this property of light to investigate the nature of the aether and its speed relative to the earth. He made an instrument, known as the *Michelson's interferometer*.

Figure 4 shows a schematic of this interferometer. From a source, light is passed through a slit and made to fall on a half-silvered mirror** at point O. Here 50% of light passes through the mirror and is reflected back by the silvered mirror at point A. The light is then reflected towards a microscope by the half-silvered mirror.

The other half of the light is reflected towards the second silvered mirror B where it is reflected back to the half-silvered mirror and reaches the microscope.

The light path OA and OB are made perpendicular and exactly equal to each other. It is then that the expected reflected rays from A and B would meet at O. Since both the path lengths are equal to each other, the waves meet in phase and there is constructive interference. Through the eyepiece of the microscope, the observer observes the central bright

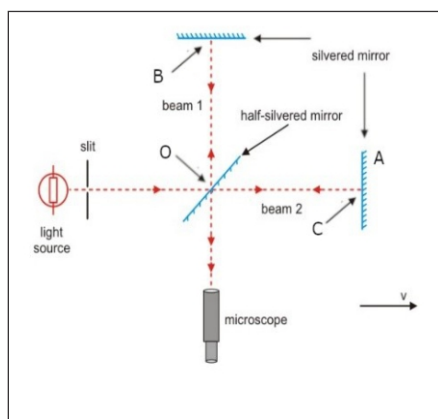


Fig. 4

line which is flanked by a series of bright and dark regions.

It is known that the Earth orbits the Sun at a velocity of about 30 km per second. Now, suppose the Earth is travelling in the direction O - A, indicated in the figure as 'v', the light wave in the direction of the motion of the Earth will experience push and resistance as a swimmer would experience while swimming up and downstream. The light wave perpendicular to the direction of the Earth's motion in the direction of O - B will experience the drag in the direction of O - A. The observer looking through the eyepiece of the microscope will see a shift in the position of the central bright line.

In 1887, Michelson teamed up with Edward William Morley to measure the velocity of aether with respect to the Earth. They mounted their optical elements on a massive sandstone slab of length and width of 1.5 meters each and a thickness of 30 cms. The slab was placed on an annular trough containing mercury. They took a series of observations for shifts in the central bright line and also rotated the slab

to take observations. This was done in April and July of 1887 and the result was published in November. They found zero shift in the central bright line indicating no measurable presence of aether.

This experiment came to be known as the 'most famous "failed" experiment' as this proof of non-existence of aether also meant that light is an electromagnetic wave that does not require a medium to travel.

* Luminiferous aether – This was the term used to describe a medium for the propagation of light. Later theories including special relativity were formulated without the aether concept, and today the aether is considered to be a superseded scientific theory.

** Half-silvered mirror – This is a mirror that is only half reflective coated, so that half the light that falls on it is reflected and the other half is transmitted.

SCIENCE LABORATORY

The science laboratory started conducting offline laboratory workshops from mid-December 2021. Two workshops on the topic of Force were conducted for the students of 8th, 9th and 10th standards. Covid appropriate discipline was strictly followed. All hands-on sessions were preceded by a lecture on the theory of the experiment.



Folk Dances of India - Karnataka

The art of dance finds reference in early historical Karnataka. The sculptures in the temples constructed during different periods depicted a variety of dance poses. Side by side was the institution of temple dancers called 'Devadasis.' In Karnataka, the ceremonial dances with ritualistic overtones are called by the generic name of 'Kunita'.

Some popular folk dances of Karnataka are:

Pata-da Kunita Dance: The *Pata-da Kunita* of Karnataka is traditionally performed when a village deity is taken out on ceremonial occasions. The dance has deep religious belief and originated from Vaishnavite rites. *Pata-da Kunita* literally means the dance of the *Patras* which are 10 to 15 feet long bamboo poles decorated with colorful silken ribbons and a small umbrella made of either silver or brass fixed on the top of each pole. The dancers wear *dhotis* and folded scarves slung crosswise from left shoulder to right-side waist and garlands and hold a *Pata*, the lower end of which is put inside a bag of cotton fabric slung from the shoulder. While dancing, the dancers form various choreographic patterns. Some of the dance movements have elements of acrobatics. Percussion music is provided by two kinds of native drums, namely, *tamte* and *nagarika*.



Pata-da Kunita Dance

Suggi Kunita Dance: *Suggi Kunita* is performed by the farming *Halaki Vokkaliga* community of North Kanara. The *Suggi* procession is taken out on the occasion of *Kamana Hunnime* or the Holi festival which falls on the full moon day in the month of March. The headgear of the dancers, called *Turayi*, looks like birds perched on a crop and is particularly eye-catching. Each dancer holds a small stick and a bouquet of peacock feathers in his right hand. The singing and dancing *suggi* procession is greeted in every house with *aarti*. The *Suggi Kunita* is believed to eradicate diseases in the village, bring rains and fulfil the wishes of the people.



Suggi Kunita Dance

Dollu Kunita Dance: The *Dollu Kunita* is the drum dance of Karnataka. It is performed by only men and is quite a vigorous dance having elements of acrobatics. This dance is performed by the *Kuraba* (shepherd) community living in the districts of Chitradurga, Shimoga and Bellary. Drums with two faces, which are slung from the neck called either *dhol* or *dollu* are played. *Dhol* is barrel shaped. *Dollu* is cylindrical and shorter in length. The body is made of pinewood. While the left face of the drum is of goat skin, the right is of sheep skin. The dancers play the drums loudly and dance vigorously. While dancing the drummers-cum-dancers make a pyramidal formation of three or four tiers by getting up on the shoulders of other dancers. The drumming of the dancers is complimented by indigenous trumpets, flute and cymbals.



Dollu Kunita Dance

POONAM JUVALE



Poonam, a self taught artist will exhibit landscapes and object paintings in water colours.

**Tuesday 15th February 2022 to
Monday 21st February 2022
(Circular Gallery)**

SUBHASH KHARAT



Subhash, a self-taught artist will display paintings on Buddhism and other religious subjects in acrylic on canvas.

**Tuesday 22nd February 2022 to
Monday 28th February 2022
(AC Gallery)**

PRALHAD ANANT DHOND Indian Masters' Retrospective

Pralhad Anant Dhond aka Dhond Master was popularly called Bhai Dhond and was a multifaceted personality. Born on November 11, 1908 at Ratnagiri, Dhond Master spent his childhood in Malvan amidst fisherfolk and the sylvan surroundings of that area. After matriculation, he joined Sir J. J. School of Art where he was fortunate to learn art from exceptional teachers like Bhonsule Master who was an expert in the use of oil colours.

After completing his studies, Bhai Dhond worked as an art teacher at the Shivaji Military School, Pune for some time. In 1934 he was appointed Department Head in Sir. J. J. School of Art and reached the prestigious post of Dean in 1958. He believed that art and creativity deserved more freedom and less restrictions. During his association with the department, he strove to raise the standard of art trainees and even introduced subjects like psychology and new teaching methods like Modern American Art Techniques. He also taught at Vishwabharati, Santiniketan. Dhond later served as the Director of Art for Maharashtra.

Prof. Dhond always worked in the medium of watercolours. A renowned German art critic of the thirties, Rudi Von Lyden, advised him to stick to the same medium. 'Watercolours bring out various moods of nature in a fascinating, transparent way', said Dhond. The prolific artist held several solo shows at Santiniketan (1949), Jehangir Art Gallery (1971, 1973, 1998), Artists Centre (1991) and Goa Kala Academy (1996).

The Nehru Centre Art Gallery had exhibited this great artist's works as a part of the Indian Masters' Retrospective in 2008-2009.



Rani Baug, Byculla in water colour



Seascape in water colour



Khada Parsi Statue in water colour

UNESCO World Heritage Sites in India

29. Mountain Railways of India

The Mountain Railways of India are outstanding examples of hill railways. Opened between 1881 and 1908, these engineering marvels are still fully operational as living examples of the enterprise of the late 19th and early 20th centuries.

The Darjeeling Himalayan Railway: The first hill railway to be built in India was the Siliguri-Darjeeling Railway, constructed in 1878. This railway line is 82 km long, with a 0.6096 metre gauge and runs mostly alongside the original cart road. Skirting lofty precipices and deep ravines, it goes up steeply over sharp curves to a height of 2134 m. Tunnels have been avoided by carefully laid out 'loops' and 'reverses'. The famous Batasia Loop is a popular tourist attraction.



The Darjeeling-Himalayan Railway

The Nilgiri Mountain Railway: This metre gauge railway, 46 km long, runs from Mettupalayam, a station on the main line joining Madras to the West Coast, to Ootacamund, the 'Queen of Hill Stations', lying at an altitude of 2286 m in the lovely Nilgiri Mountains. Nilgiri means 'Blue Mountain' and fully symbolizes the lovely forests on its slopes. The line has 16 tunnels totaling 942 m in length and passes over numerous girder bridges and arched spans up to 30.48 m rising high above the ravines. The sharpest curves have a radius of 100 m and the steepest gradient, which lies between Kallar and Coonoor stations, consists of a continuous length of 19.3 km. The severity of this gradient has led to the use of the rack and pinion system of construction in which cogs fitted on the driving wheels of the locomotives engage with the teeth of racks provided between the track rails and lever the locomotive forward. They also prevent it from slipping back. Every vehicle is provided with two separate brakes, one for the rack and one for adhesion, and a brakesman travels on it for operating these.



The Nilgiri Mountain Railway

The Kalka-Shimla Railway: The Kalka-Shimla Railway, built in 1903, winds itself through picturesque mountainside from Kalka, at an altitude of 853 m, to Shimla, 97 km away, 2134 m high. This 0.762 metre gauge line rises rapidly in a series of sharp curves up to 33.5 m radius and steep gradients, weaving in and out of 103 tunnels, totalling 8 km in length, over numerous deep cuttings and high embankments nestling on the hill side. There are many viaducts, consisting of masonry arches, totalling 2.8 km. The longest tunnel is 114 m, at a height of 1525 m above sea level.



The Kalka-Shimla Railway

The Darjeeling Himalayan Railway, the Nilgiri Mountain Railway, and the Kalka-Shimla Railway were designated as a UNESCO World Heritage Site under the name Mountain Railways of India. The Darjeeling Himalayan Railway received the honour first in 1999 followed by the Nilgiri Mountain Railway in 2005 and the Kalka-Shimla Railway in 2008.

Further reading at Nehru Centre Library:

- Indian Railways by M. A. Rao; National Book Trust, New Delhi, 1988. Call No. 385(54)/Rao. Barcode – 8113
- Exploring Indian Railways by Bill Aitken; Oxford University Press, New Delhi, 1994. Call No. 385(54)/Ait. Barcode – 12371

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
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 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)
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 - (7) NARAYAN L. SONAVADEKAR (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

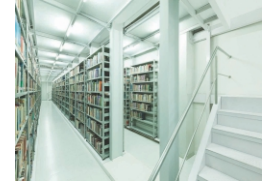
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New Arrivals: Books

Sr. No.	Title	Author/s
1.	नेमकचि बोलणे (मराठी)	सुधीर भोंगळे
2.	#पावसातलासह्याद्री शरद पवार (मराठी)	चन्नवीर भद्रेश्वरमठ
3.	मेरी प्रिय कहानियाँ (हिंदी)	भीष्म साहनी
4.	मेरी प्रिय कहानियाँ (हिंदी)	मन्नू भंडारी
5.	मेरी प्रिय कहानियाँ (हिंदी)	फणीश्वरनाथ रेणु
6.	मेरी प्रिय कहानियाँ (हिंदी)	शिवानी
7.	प्रेमचंद की ५१ अनमोल कहानियाँ (हिंदी)	मुंशी प्रेमचंद

MEET-THE-AUTHOR – #NCL ONLINE

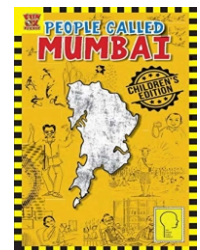
Children's author **Vinitha R** will take you on a journey of the Mumbai life.



People called Mumbai is a story book for kids with real stories of real people. Its not about heroes, villains, princesses and kings. Its not to celebrate the spirit of Mumbai. There is tragedy, adventure, humour, bravery and much more...

Date: Saturday, 5th February 2022
Time: 11.00 a.m. to 12.00 noon
Online: www.facebook.com/NehruCentreLibrary

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