

Capsule 12

SPECIAL ISSUE
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GALA OPENING AT DELHI



as part of the
countrywide Nehru's
and Raman's birth
centenary celebration
programme

NCSM SPEAKS

National Council of Science Museums is passing through an action-packed phase of time. Multipronged programmes that have been taken up, are being implemented concurrently, and well on schedule too. On the one hand there are developmental programmes across the country which will enable NCSM to open in the coming years many new facilities for people. Construction of new Centres are in various stages of completion at Delhi, Calcutta, Guwahati, Lucknow, Nagpur, Bhubaneswar and Bhopal. Activities will soon start in Imphal, Goa, Calicut, Vijaywada, Tirupati and Simla.

International interaction is going on for years, in order to better science museums' services for different strata of people. NCSM's role of catalytic support to budding science centres in India and

INTERNATIONAL WORKSHOP

International collaboration in the field of science museums took a new turn when 51 science museum professionals from 21 countries of the world assembled in India during December 1988. Alongwith their 16 Indian counterparts they went through several brainstorming sessions during the 9 day long workshop (5 to 13 December 1988) on Science Museums Without Walls; Exhibits to go.

Shri P. Shivshanker, Union Minister for Human Resource Development, inaugurated the workshop at the National Science Centre, Delhi, on December 05, 1988. After December 05-07 December the Delhi (05-07 December) the workshop was held at Nehru Science Centre in Bombay (08-09 December); Visvesvaraya Industrial & Technological Museum in Bangalore (10-11 December) and Birla Industrial & Technological Museum in Calcutta (12-13 December).

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(Details in page 6 and 7)



Marveling at the "Time of Fall" exhibit at Delhi

FUN SCIENCE

Concurrently with the workshop, the first set of FUN SCIENCE exhibits had a colourful inauguration at the National Science Centre in Delhi on December 05, 1988. Shree P. Shivshanker, Union Minister for Human Resource Development inaugurated the exhibition.

(Details in page 4 and 5)



MEET OF BUDDING THINKERS

Student representatives from all the States and Union Territories of India assembled at the National Science Centre in Delhi on December 20, 1988 for the final round of interaction in the Seminar. *Information Revolution* was the topic of this year, given to the school students to deliberate on, and it got thousands of young thinkers all over the country into intimate, involved and nevertheless critical discussions.

All the constituent units of

NCSM all over India actively take part to organise the seminars at different levels in a well-coordinated way. A major annual event of NCSM, organised in collaboration with the State Education Departments, this seminar has a multi-tier system: on a given topic of national relevance thousands of students all over India start interacting at block level, and gradually go up to the national level, through the successive stages of district and state level contests.



The Seminar - A platform for national integration.

MEET OF BUDDING SCIENTISTS

V isvesvaraya Industrial & Technological Museum in Bangalore organised the Southern India Science Fair-1988 during October 30—November 03, 1988 at St. Ebba's Higher Secondary School, Madras. The Government of Tamil Nadu collaborated with NCSM in this project.

A great many ingenious exhibits, artefacts and models were displayed and demonstrated in this Fair by student representatives of 123 schools from 5 States of the Southern India.

Science Fairs bring out the latent potentiality in the students.



NEHRU AND
A UNIQUE CELEBRATION BY NCSM

EXHIBITION ON C.V. RAMAN.



Everywhere, both at Calcutta (above) and at Bangalore (bottom) the emphasis was on visitors' participation.



RAMAN BIRTH CENTENARY



Pandit Jawaharlal Nehru, the first Prime Minister of India was a great visionary. He had an unbound zeal for advancement of science and technology in the new born country that India was, when he became the Premier. More important, he was the first to realise the importance of popularisation of science and propagation of a scientific ethos in the people. He also realised the role that museums can play in building up in the masses what he used to call the "scientific temper." About museums he said: "In formative period of childhood and youth, it is essential that people should come to museums and learn. Their minds will be affected by the objects which they see there. I should like this aspect of education through the museum to be developed."

Nehru's ideals always inspires NCSM to give shape to his dreams. To celebrate the birth centenary of Nehru which falls in 1989, NCSM has taken up a massive 13 month long programme. Under this programme many new facilities for the people in different parts of the country will be opened within the period (November 1988 - November 1989).

2500 km. apart in two different cities, at Calcutta and Bangalore, two like exhibitions were opened to public on November 7, 1988, the day when C.V. Raman was born a century ago. It is just appropriate for the NCSM to open the exhibition simultaneously in these two cities that nurtured the great science talent of the country. The two exhibitions were designed and developed by Birla Industrial and Technological Museum in Calcutta with support from her sister, Visvesvaraya Industrial and Technological Museum in Bangalore.

Graphic panels with many rare photographs capture and sequentially present the extraordinary life of this savant of science. An assortment of artefacts and participatory exhibits are there in the exhibition for the visitors to interact with, and recapitulate Raman's experiments in areas of acoustics and optics. An interesting part of the exhibition is the depiction of Raman's treatises on various topics that were published in international journals of repute, earning for him worldwide accolades.

The exhibition from Calcutta will move through Patna, Purulia, Bhubaneswar, Guwahati and Lucknow before it reaches Delhi on

November 7, 1989 for the validation of the centenary programme. Similarly the exhibition from Bangalore will move through Tirunelveli,

Madras, Hyderabad, Gulbarga and finally reach Bombay on November 7, 1989.

(Details of programme in page 8)

A NEW DISCOVERY OF INDIA

Nehru Science Centre in Bombay paid homage to the great visionary after whose name the Center is established, by dedicating a new gallery, "Our Heritage". The 10000 sq. ft. exhibition with 200

participatory exhibits depicts the country's five millennia of tradition in science and technology, based on which Pandit Nehru four decades ago launched a drive for building a modern nation.

Shri K. Brahmananda Reddy, Governor of Maharashtra inaugurated the gallery on 19th November, 1988.



NCSM INDIA
OFFERS**101**
HANDS ON
EXHIBITS
READY FOR
INSTANT USE

As the name rightly implies, here science is not a "subject", but an experience packed with fun. Here is an array of 101 fully participatory exhibits on a wide variety of topics, strewn all over a floor-space of 1000 square metres. When interacted with, they seem to be extremely quizzical and paradoxical in their manifestations; but reveal the inherent principles of science only to a probing, questioning mind.

NCSM has developed this set of exhibits for rendering catalytic support to the science centres in India and abroad who are in the budding and without ready infrastructure for exhibit development. NCSM supplies this set of international quality exhibits on cost basis, which as on date is Rs 40,00,000/- (US\$ 300,000). The price includes cost of exhibit design, layout design for specific exhibition hall(s), complete catalogue and instruction manual, free



The inauguration of the FUN SCIENCE gallery at Delhi was remarkable in the sense that science museum experts of the world over who assembled at the international workshop, had been present at the inauguration. Here they are seen in interactive participation with different exhibits.

FUN SCIENCE



installation within India and free training at Central Research & Training Laboratory (CRTL) of NCSM. 101 exhibits comprise the following topics :

Defying Gravity ?

Mathematics

Fluidics

Pendulum

Rolling Balls

Sound

Perpetual Motion ?

Optical Illusion

Fun with Electricity

Light

Magnetism

Mirrors

Chemistry

Concurrently with the international workshop, the first set of FUN SCIENCE exhibits was inaugurated at National Science Centre in Delhi on December 05, 1988 by Shri P. Shivshanker, Union Minister of Human Resource Development, Govt. of India.

NCSM SPEAKS

(Continued from page 1)

abroad also goes on unabated, with various projects. Work is also in progress for NCSM's massive project of setting up 1000 School Science Centres.

CAPSULE the newsletter is the vehicle for disseminating all the news to a wide audience throughout the world. News and views of all the likeminded organisations in India and abroad are invited by CAPSULE.



1. Probability Curve
2. Hot Air Balloon
3. Floating Ball.
4. Rebound Balls
5. Liquid painting
6. Transfer of Momentum

SCIENCE MUSEUMS WITHOUT WALLS - exhibits to go

The workshop envisaged development of new concepts and techniques for science museums exhibits and activities oriented towards outdoor facilities like Science Parks, Travelling Science Exhibitions, Loan Kits and various other outreach activities.

To cope with the current

social transformation that is going on in many countries, the science museums around the world are also in a process of continuous change. Working and animated exhibits were introduced to support and supplement artefacts. Interactive educational programmes were launched for better understanding of exhibits. Participatory and interactive exhibit concept gained favour in new science centres because of their immense learning possibilities, in addition to the entertainment value. The latest trend in the changing process is perhaps the outreach activities.

Conducting outreach pro-

grammes by science museums is not a new phenomenon. Travelling science exhibitions, science circus, museobus, community science programmes, science camps and fairs, science drama, video and TV programmes, films, mobile science demonstrations, circulating loan kits, nature camps and nature parks are some of the many examples. Latest addition to the concept is science park, an outdoor science centre, with interactive, robust and all-weather exhibits. Initial reasons for introduction of such programmes varied with different museums but all had one basic goal in common, and that was to

National Council of Science Museums organised this workshop, in collaboration with International Council of Museums (ICOM), United Nations Educational, Scientific and Cultural Organisation (UNESCO), and Indo-US Sub-Commission on Education and Culture.

serve more and more people.

Science museums and centres all over the world have worked and are working in this direction in their own individual ways. Various degrees of developments are also taking place. But there remains a marked communication gap. It is time when all



the experiences need to be synthesized in the form of a working manual which will be a kind of guideline for the science museums in developing new programmes or invigorating the existing programmes.

This was precisely the idea that took shape in the work-

shop, participated by 51 subject experts from 21 countries of the world.

The Indian team comprising experts from National Council of Science Museums and other Organisations in India was led by Dr. Saroj Ghose, the Director General of NCSM.



CIMUSET MEET IN INDIA AGAIN

The International Committee on Science and Technology Museums of the International Council of Museums met in India again during December 1988. The meeting of the Executive Committee of CIMUSET was held in National Science Centre, New Delhi, on 5th December 1988, just before the inauguration of the International workshop on "Science Museums without Walls". A General Body Meeting of all CIMUSET members was held at Birla Industrial & Technological Museum, Calcutta on 13th December. For

the first time, in between two ICOM General Conferences, a General Body Meeting of CIMUSET was convened.

This is not the first occasion when CIMUSET met in India. The first meeting of CIMUSET was held in India in 1969 under the Chairmanship of Mr. Frank A. Taylor, the then Director General of museums under the Smithsonian Institution. The CIMUSET again met in India in 1982 under the Acting Chairmanship of Mr. Victor J. Danilov, the then Director, Museum of Science and Industry, Chicago.



CALENDER OF EVENTS '88-'89

PROGRAMME FOR NEHRU'S BIRTH CENTENARY

PROGRAMME FOR RAMAN'S BIRTH CENTENARY

MONTH	PROGRAMME FOR NEHRU'S BIRTH CENTENARY	PROGRAMME FOR RAMAN'S BIRTH CENTENARY
November 1988	Inauguration of new exhibition hall on 'Heritage' in Nehru Science Centre, Bombay.	i) Raman Exhibition I at Calcutta. ii) Raman Exhibition II at Bangalore.
December 1988	i) Inauguration of 'Fun Science' exhibition in National Science Centre, Delhi. ii) Organisation of International Workshop on 'Science Museums without Walls'. iii) National Science Seminar for School students.	Raman Exhibition II at Bangalore.
January 1989	Inauguration of Mobile Science Exhibition for Madhya Pradesh.	i) Raman Exhibition I at Pune. ii) Raman Exhibition II at Gulbarga.
February 1989	i) Inauguration of Central Research & Training Laboratory, Calcutta. ii) Inauguration of Mobile Science Exhibition for North Bengal.	i) Raman Exhibition II at Madurai. ii) Celebration of National Science Day all over India.
March 1989	i) Inauguration of Regional Science Centre, Bhubaneswar. ii) Setting up 100 School Science Centres in Madhya Pradesh, Orissa, Uttar Pradesh, Bihar and West Bengal.	i) Raman Exhibition I at Bhubaneswar. ii) Raman Exhibition II at Tirunelveli.
April 1989	Inauguration of new exhibition hall in District Science Centre, Dharampur.	Raman Exhibition II at Tiruvandram.
May 1989	Inauguration of Mobile Science Exhibition for Uttar Pradesh.	Raman Exhibition I at Patna.
June 1989	Inauguration of Regional Science Centre, Lucknow.	i) Raman Exhibition II at Pondicherry. ii) Raman Exhibition I at Lucknow.
July 1989	Inauguration of new gallery on 'Electro-Technique' in Visvesvaraya Industrial & Technological Museum, Bangalore.	Inauguration of Raman Science Centre, Nagpur.
August 1989	Inauguration of hall of exhibition on 'Ocean' in Tirunelveli.	i) Raman Exhibition I at Jaipur. ii) Raman Exhibition II at Hyderabad.
September 1989	Inauguration of Mobile Science Exhibition for Assam & North Eastern States.	Raman Exhibition II at Nagpur.
October 1989	Inauguration of Regional Science Centre, Guwahati.	Raman Exhibition I at Delhi.
November 1989	i) Completion of new exhibition hall in National Science Centre, Delhi. ii) Inauguration of new Mobile Science Exhibition unit in Delhi.	i) Raman Exhibition I at Delhi. ii) Raman Exhibition II at Bombay.

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to our new home :
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APPLICATION OF SCIENCE IN ART



THE NEXT

The Regional Science Centre in Bhubaneswar, the first one in the State of Orissa, is going to have a gala opening. The Centre had been operational for quite some time, with its programmes, Science Park and the Museobus. Capsule-13 will give you the details.