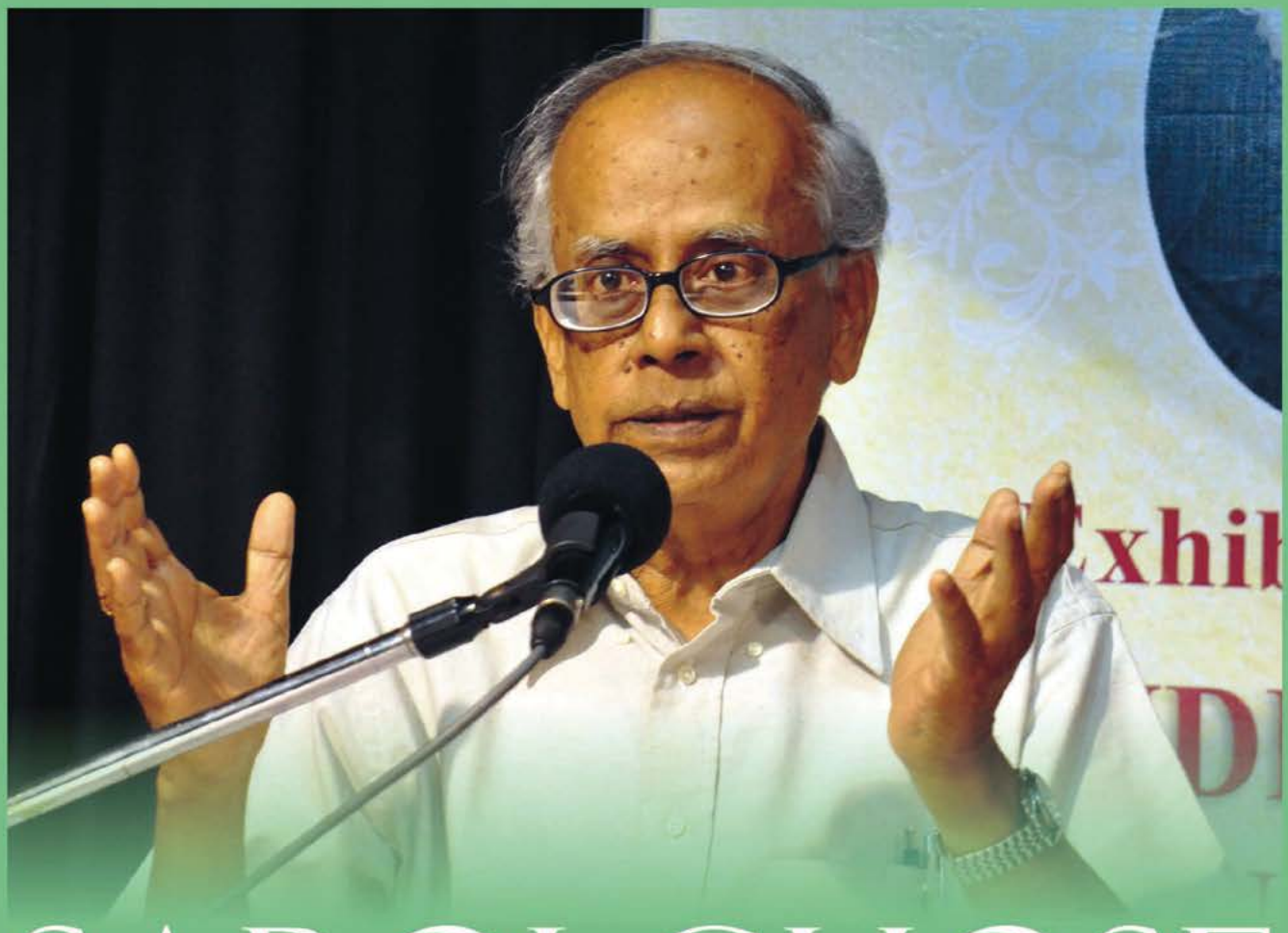


SAROJ GHOSE
and
Museums of Science Technology
and
History in India

Saroj Ghose and Museums of Science Technology and History in India

Jayanta Sthanapati and **Gautam Seal**

Abstract

The article narrates how Saroj Ghose nurtured and refined his own career, made himself ready and then launched himself in building a unique platform of non-formal science education in India through the Science Museum and Science Centre activity. His significant achievements, both during his tenure in National Council of Science Museums, as well as, during his post-retirement years, are highlighted here. The reader will be guided through the evolution of Science Museums, the transition from traditional Science Museums to interactive exhibit-based Science Centres, the rise of Science City concept and finally, the introduction of Story-telling Museum. The article pieces together the story of his vast contribution and the enormous success he met. It concludes with the loads of acclamation he received over the years.

Introduction

A museum is a non-profit, permanent institution in the service of society and its development. Open to the public, it acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purpose of education, study and enjoyment[1]. There are over 55,000 museums in 202 countries, and India now has over 650 museums.

The 'Oriental Museum of the Asiatic Society of Bengal', later named the Indian Museum, was the first museum in India, established in Calcutta (Kolkata) in 1814[2]. Museums in India are divided broadly into the categories such as Agriculture, Anthropology, Archaeology, Art, Crafts, Culture, Engineering, Forest, History, Industry, Medical, Memorial, Military, Natural History, Religious, Science, Technology, and Transport.

In the early years of the 1950s, Jawaharlal Nehru, first Prime Minister of India, Ghanshyamdas Birla, a prominent industrialist, K S Krishnan, a renowned physicist and Bidhan Chandra Roy, the then Chief Minister of West Bengal took considerable interest in the establishment of science and technology museums in the country. With their support and under the leadership of Ved Prakash Beri, Ramanatha Subramanian and Amalendu Bose, three science museums, namely, Birla Museum (1956) at Pilani, Science Museum of National Physical Laboratory (1956) in New Delhi and Birla Industrial & Technological Museum (1959) in Kolkata, were opened respectively[3].

[1] Definition of Museum, as adopted by the International Council of Museums (ICOM) at the 22nd General Assembly in Vienna on 24th August 2007.

[2] "The Indian Museum 1814-1914", Calcutta: Baptist Mission Press (1914).

[3] Jayanta Sthanapati, "BITM Turns Sixty: A Journey Through History", a publication of BITM (2019) 2-36.

While the science museum in New Delhi was short-lived and the one at Pilani grew slowly, BITM soared with numerous thematic exhibit galleries and educational activities. It also gave catalytic support towards the establishment of the Visvesvaraya Industrial and Technological Museum (1965) in Bangalore (Bengaluru). Both BITM and VITM were then under the Council of Scientific and Industrial Research (CSIR).

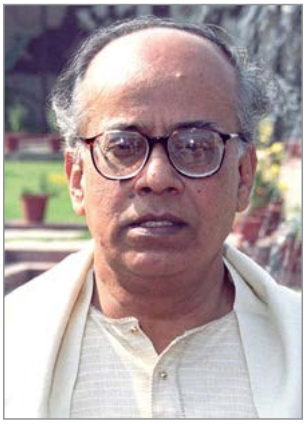
One of the significant reasons for the success of BITM was the appointment of the right man in the right place. In 1990, Amalendu Bose, then retired, was asked who his prominent associates were during the initial years of BITM? Bose recollected "I remember P. M. Niyogi and Shashanka Sekhar Ghosh, both excellent in manipulative work in the workshop. They were of mature age when recruited. While appointing Saroj Ghose, R.M. Chakraborti and Samar Bagchi, I tried to have younger engineers who would contribute towards the betterment of the science museum for a longer period. I find that I was right. All of them grew up with the science museums and dedicated their lives to the museums"[4]. Three decades have since passed, and we find that Bose was absolutely correct in selecting and grooming the future leaders of science museum movement in the country. Unfortunately, by now we have lost A. Bose, P.M. Niyogi, S.S. Ghosh and R.M. Chakraborti. We met octogenarian Samar Bagchi and Saroj Ghose at the Diamond Jubilee Celebration of BITM on 2nd May 2019 and found them actively associated with the museum community.

In 1978, the National Council of Science Museums (NCSM) was formed, under the aegis of Govt. of India, with Amalendu Bose as its first Director. After he retired in 1979, Saroj Ghose took over as Director and then from 1986, as Director-General. He held this position till 1997.

During the past six decades, Saroj Ghose has been the trailblazer in the Indian Science Museum scenario. He has also set an example by creating high-tech story-telling history museums in the new millennium. On the occasion of his 85th birth anniversary, we would look back at the contributions he made for enriching our science, technology and history museums and also at the influence he had on subsequent generations of science museum professionals to achieve greater heights and keep our head high in the international arena.

Growth of Science and Technology Museums in India

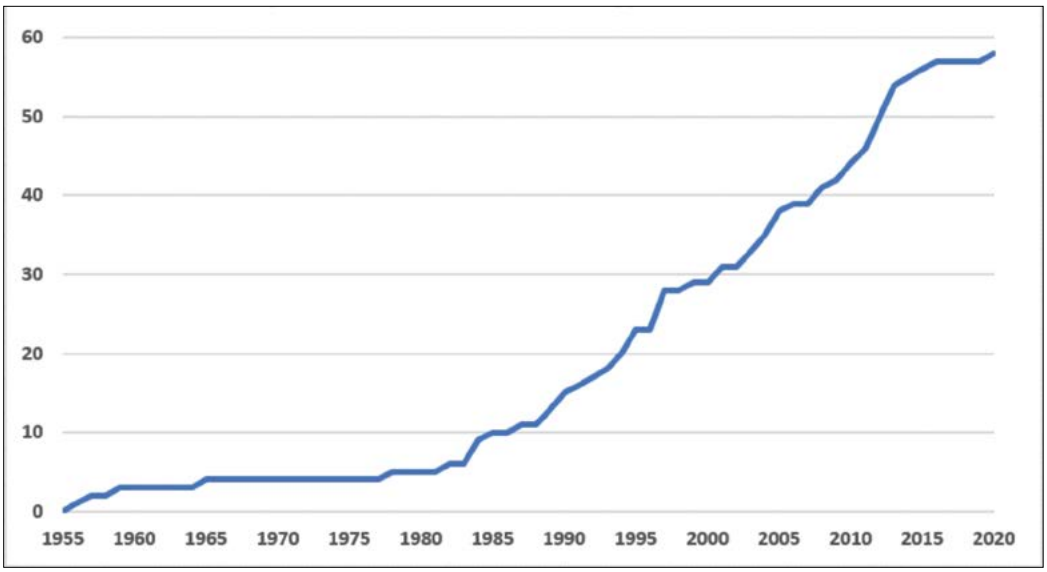
Science Museums aim to portray the growth of science, technology and its application, to develop scientific temper and to create, inculcate and sustain a general awareness amongst the people. As many as 58 science museums have been established in India since 1956. These science museums fall under four distinct categories: A – Science Cities (3), B – National level Science and Technology Museums, and Science Centres (6), C – Regional or State Science Centres (21), and D – Sub-regional and District Science Centres (28).



Saroj Ghose in 1997

[4] Amalendu Bose, Communication to J. Sthanapati, 26 June 1990.

During the past sixty-five years, various Government and NGOs have developed 13 science museums which fall under the said categories. Out of the remaining 45 establishments, 22 were set up and run by NCSM and rest 23 were developed by NCSM and handed over to State agencies.[5] The phenomenal growth of science and technology museums in India is presented graphically in the figure .



Yearly growth of science and technology museums in India (1956-2020)

It will be interesting to note that in 18 years, Saroj Ghose, as Director-General of NCSM, had established 18 science centres – 2 at national, 7 at regional, 8 at sub-regional levels and finally, and to epitomize it all, the Science City in Kolkata. Besides these, he had formed the NCSM Headquarters in Kolkata, which also houses the Central Research and Training Laboratory. Ghose from his recollections shared the names of R. M. Chakraborti and S. K. Bagchi as his close associates and several others, such as Amit Sarkar, S Ramamurthy, G. Nagarajan, P. K. Bhaumik, T. K. Ganguly, I. K. Mukherjee, D. Basu, J. Sthanapati, S. Goswamy, M. Parvathinathan, G.S. Rautela, A. S. Manekar and K.G. Kumar who assisted him in the flurry of activities under the flag of NCSM throughout the country.[6]

Early Life and Education

Saroj Kumar Ghose, the only child of his parents, was born on 1st September 1935 in Calcutta. After Matriculation with flying colours, Saroj took admission in Presidency College to study 'Intermediate Science' and then graduated in 'Electrical Communication Engineering' from Jadavpur University. Besides studies, he actively took part in Annual Science Exhibitions during his stint at the University and came up with several unique electronic exhibits.

[5] Jayanta Sthanapati, "Project Report: History of Science Museums and Planetariums in India", Indian Journal of History of Science 52.3 (2017) 357-368.

[6] Saroj Ghose, "The Glittering Diamond", Diamond Jubilee Celebration of Birla Industrial and Technological Museum (1959-2019), a publication of NCSM (2019) 10-11.

With this knack for hands-on science activities, relevant educational background and inquisitive bent of mind, Saroj Ghose joined BITM as a Technical Officer in 1958 under Amalendu Bose, Planning Officer.[7]

While serving with BITM, Ghose moved to the USA where he earned an M.S. degree in 'Control Engineering' from Harvard University and was subsequently engaged with research in the history of science and technology at the Smithsonian Institution, Washington DC. In 1974, he submitted a thesis on 'The Introduction and Development of the Electric Telegraph in India' with Jadavpur University and earned a PhD degree in Engineering.[8]

Mobile Science Exhibition - Taking Science Beyond the Four Walls

After directing BITM since its inception in 1959, Amalendu Bose handed over the reins to 29-year-old Saroj Ghose in March 1965 and shifted to oversee VITM Bengaluru. Later that year, BITM, under Ghose's leadership, carried the message of science beyond its four walls, when it launched a travelling exhibition called 'Mobile Science Museum'. It was a unit on 'Our familiar electricity' that had 30 exhibits mounted on portable stands. The exhibition was inaugurated by Prafulla Chandra Sen, Chief Minister of West Bengal on 17th November 1965 at Narendrapur Ramakrishna Ashram School, about 17 km from BITM. Although a significant activity in some parts of the World since the 1950s, this was the first indigenously developed travelling science exhibitions in India.

Inauguration of Mobile Science Museum by Chief Minister of West Bengal (1965)

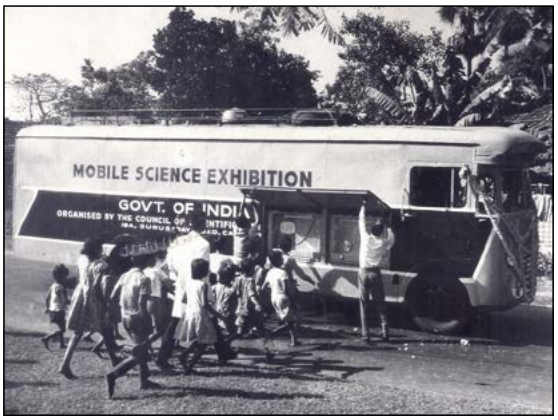
According to Ghose, during his stay at the Smithsonian Institution (September 1964-January 1965), he was greatly influenced by a travelling exhibition called 'Artmobile', launched in 1953, by the Virginia Museum of Fine Arts in Richmond, USA

[7] Sadananda Torasia, “Dr Saroj Ghose – The forerunner of the science museum in India”, Bigyan Diganta (2016) 111-116. [In Odiya]

[8] Saroj Ghose, "'The Introduction and Development of the Electric Telegraph in India", PhD dissertation, Jadavpur University, Kolkata, 1974. Also, in Annual Report of BITM (1974) 41.

After returning to India in March 1965, he narrated his concept of Mobile Science Museum to Syed Hussain Zaheer, the then D.G., CSIR in New Delhi, who gave full support to the project.[9]

In early 1966, Ghose realized the operational difficulties of the mobile science museum. Later that year, he introduced the 'Museobus', a specially designed structure on a standard truck chassis that mounted a set of 28 exhibit cabinets of identical size in four rows, two facing outside and two facing inside. The first 'Museobus' carrying working exhibits on 'Transformation of energy' was inaugurated at Barsul Vigyan Mandir near Shaktigarh in Bardhaman district of West Bengal. Ghose renamed the travelling unit as the Mobile Science Exhibition (MSE).



The First Museobus or Mobile Science Exhibition Unit (1966)

In the last 55 years, the science museums and science centres under the NCSM have developed 55 MSE units on more than 40 topics. During 2018-19, twenty-one centres of NCSM presented such mobile exhibitions in the country at 1262 sites catering to 31,05,208 student visitors.

We can say for sure that introducing MSE was innovative and the most ambitious project of Saroj Ghose. It was a formidable challenge to keep the museobus running for 8-9 months a year. Changing sites every three days requires meticulous programming, advance knowledge of road condition, mobilization of the support of school authorities, and careful planning of operating staff. Emulating NCSM, many museums in the country started their own museoubus but failed to sustain. Our kudos to all those science museums and centres engaged in exhibiting science on wheels and reaching the rural masses.[10]

Nehru Science Centre – The first Science Museum to Indulge in Interactivity

In 1968 Amalendu Bose returned from Bengaluru to Kolkata and became Chief Curator with supervisory power to overview activities of BITM Kolkata and VITM Bengaluru, headed then by Saroj Ghose and Rathindra Mohan Chakraborti, respectively.

Bose was given further responsibility to establish the third science museum, in Bombay (now Mumbai), to be named Mafatlal Scientific and Technological Museum (MSTM). The House of Mafatlals made a generous gift of Rs 75 lakh to CSIR for the MSTM project. The CSIR, however, did not initiate any action despite vigorous persuasion from Bose and later from Ghose. As a result, the Mafatlals got dejected and finally retracted.

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[9] Saroj Ghose, Email message to J. Sthanapati, 18th November 2014.

[10] Jayanta Sthanapati, "Mobile Science Exhibition in India: 1965-2014", Journal of the Dept. of Museology, University of Calcutta, 11 & 12 (2016) 40-62.

In 1969, two unique science museums (or hands-on science teaching centres, to be more specific) were opened in North America. Frank Oppenheimer created the first one named Exploratorium in San Francisco. The other one was the Ontario Science Centre developed by William T. O'Dea in Ontario. These institutions were different in terms of their exhibits and mode of presentation from conventional science museums like the Deutsches Museum of Munich, the Science Museum in London or the Museum of History and Technology at Smithsonian Institution in Washington DC.

During 1968-69, R.M. Chakraborti was an understudy to W.T. O'Dea in Ontario Science Centre for nine months. Also, between 1971 and 1974, Saroj Ghose went to join a research project at the Smithsonian Institution. He visited Exploratorium twice, came in close touch with Frank Oppenheimer and carefully studied the exhibits. Ghose and Chakraborti, being very close friends, discussed the new mode of presentation in these two centres and longed for a similar kind of institution in India. Ghose on his return to India in June 1974, convinced Amalendu Bose on the futuristic concept of science centres and argued that the proposed museum in Bombay should be set up as a science centre primarily with hands-on interactive exhibits. He prepared a brief project proposal for the Nehru Science Centre which Bose approved and submitted to the CSIR in 1975. Finally, in 1977, Pratap Chandra Chunder, the then Union Education Minister accorded approval for the science centre project.[11]

Prime Minister Rajiv Gandhi at Nehru Science Centre after its inauguration by him (1985)

Thus, the project to establish the first national-level interactive science centre begun in Mumbai. Easy accessibility demanded a prominent location. Ghose did not hesitate to accept a garbage dumping yard of about 11.7 acres at a vantage place in Worli provided by Bombay Municipal Corporation. Builders, architecture, exhibits, funds, everything fell in place. Work went on in full swing, and the science centre was ready in seven years. Prime Minister Rajiv Gandhi did the honour of dedicating the centre to the nation on 11th November 1985. NSC Mumbai became a trendsetter in the gradual replacement of the classical science museum philosophy by the interactive science centre concept in the country. This path-breaking success story, encouraged Ghose, henceforth, to establish all science centres in India, in line with NSC Mumbai.[12]

[11] Saroj Ghose, Email message to J. Sthanapati, 15th October 2010.

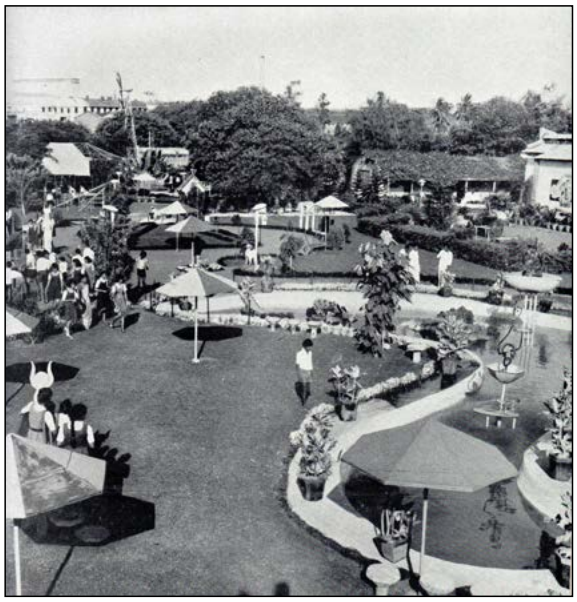
[12] Saroj Ghose, "A memorable event", Silver Jubilee Celebrations of Nehru Science Centre (1985 -2010), a publication of Nehru Science Centre (2010) 8-9.

Children's Science Park – The First Interactive Outdoor Science Exposition

India is credited worldwide for creating the first full-fledged outdoor science exposition called 'Children's Science Park' at Nehru Science Centre Mumbai in 1979 in the International Year of the Child, proclaimed by U.N. It was Saroj Ghose, the Project Officer, who created this facility.

In 1978, when work for NSC Mumbai began, Ghose had realized that it would take at least five years to complete the project, including the construction of gigantic buildings and installation of exhibits. But the financiers, including the state government, would not have the patience to wait for so long. So, he had to show something very quick.[11] An open stretch of land, about 6 acres, in front of the proposed science centre was selected for developing into a science park with hands-on exhibits, pathways, water bodies, amidst hedges, shrubs and trees. A set of six interactive exhibits based on fundamentals of physics were developed and installed during that year.

Before NSC Mumbai, in 1977 the Exploratorium, under the guidance of Frank Oppenheimer, had developed five physics playground exhibits by utilizing a grant from the Association for Science Technology Centres (ASTC). They installed four unusual swings and a slide race temporarily in front of Palace of Fine Arts (housing the Exploratorium). Unfortunately, the project was called off because of budget constraint, issues concerning maintenance and aesthetics of the area.[13] Saroj Ghose moved ahead with his plan, converted the garbage dump into a beautiful eco-friendly park with sixty plus large hands-on exhibits, and by late 1979, gifted the science park to the children of Mumbai.[14]



Children's Science Park of NSC Mumbai (1979)

Since the early 1980s, many science museum professionals from various parts of the World visited the Nehru Science Centre and appreciated the science park concept. Some of them have even gone on record to say that Indian work had inspired them to establish similar parks on their own soil.[15] Science parks were seen to come up in the USA, U.K., Belgium, Israel, Singapore, and so on. Today, India has over forty science parks as an integral part of most science museums, science centres and science cities. They spice up the experience of thousands who visit them.

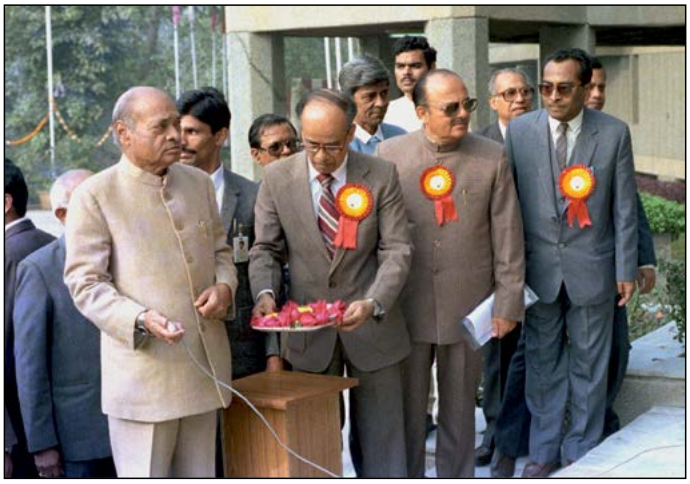
[13] "Exploratorium develops successful prototypes for playground equipment demonstrating physics", Association of Science-Technology Centers (ASTC) Newsletter, (January 1978): 5.

[14] Annual Report, Nehru Science Centre, Mumbai (1979-80) 5-6.

[15] Jayanta Sthanapati, "The Physics Playground", Science Reporter, 53 (02) (2016) 25-28.

National Science Centre, Delhi – Interactive Science Centre with Historical Perception

In the early 1980s, when NSC Mumbai was still in the making, Saroj Ghose initiated action to set up National Science Centre, New Delhi, an impressive unit of NCSM. A suitable land at Pragati Maidan was acquired for the centre on long-term lease from India Trade Promotion Organization, Govt. of India.



Inauguration of NSC New Delhi by Prime Minister P.V. Narasimha Rao (1992)

India's first two major science and technology museums, BITM and VITM, had concentrated on the collection, conservation, documentation and exhibition of historical artefacts and also presented open-lab science experiments. NSC Mumbai was planned to be an interactive science centre based on hands-on science. For the National Science Centre, Ghose decided to offer interactive exhibits again, but with strong historical bias.[16] It took ten years to complete the first phase of the centre with three galleries, namely, Information Revolution, Fun Science, and Science & Technology Heritage of India. A huge Energy Ball exhibit was also on display. The National Science Centre was dedicated to the nation on 9th January 1992 by P. V. Narasimha Rao, the then Prime Minister of India. Within a year, NSC was conferred with the coveted Dibner Award for the year 1993 by the Society for the History of Technology, Washington DC for the Information Revolution Gallery.[17] Arguably, NSCD, set up in the capital, boosted NCSM as a national body.

India: A Festival of Science – An Exhibition on Science and Technology Heritage of India

In 1982, the Indian and British governments had jointly organized a six-month-long 'Festival of India' in England. It was a celebration of Indian culture, art and science. The Science Museum in London then presented an exhibition on the history of science in India, including traditional advances in the past, and then the introduction of western scientific thinking in the country. In the same year, President Ronald Reagan and Prime Minister Indira Gandhi decided to hold an 18-month long 'Festival of India' in the USA during 1985-86. It was also decided that the Government of India will sponsor an exhibition about science in India which would begin at the Chicago Museum of Science and Industry in 1985. It would travel to other science museums in the USA.[18]

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[16] Saroj Ghose, "My Reminiscences", Silver Jubilee Celebration of National Science Centre (1992-2017), a publication of National Science Centre New Delhi (2017) 13.

[17] Jayanta Sthanapati, "National Science Centre turns Twenty Five", Science Reporter, 54 (1) (2017) 44-46.

[18] Douglas C. McGill, "Festival of India is set for the U.S. in 1985-86", The New York Times, 12th July 1984, accessed 28th July 2020, https://www.nytimes.com/1984/07/12/arts/festival-of-india-is-set-for-the-us-in-1985-86.html.

The Government of India in 1984, accordingly assigned a demanding task for NCSM to create, within a short period, a travelling exhibition to present the science and technology heritage of India. Saroj Ghose and his team took only ten months to conceptualize, design, and fabricate the exhibits in-house. The travelling exhibition 'India: A Festival of Science' vividly depicted our 4500-year-old heritage in science & technology, through interactive panels, 3-dimensional exhibits, artefacts, original objects, period rooms, films, live demonstration, etc. It toured the USA for two years and held exhibitions in eight famous science museums.[19] The show received huge appreciations from the American public and media. Later, similar exhibitions travelled to USSR, France, Bulgaria, and China. An abridged form of the presentation was later displayed permanently in NSC Delhi, NSC Mumbai and Science City Kolkata.

Nobel Laureate S. Chandrasekhar in 'India: A Festival of Science' Exhibition in Chicago (1985)

President of India and Governor of West Bengal at the Dedication Ceremony of NCSM Headquarters and Central Research and Training Laboratory (1993)

[19] Annual Report, National Council of Science Museums (1985-86) 16-17.

Science City, Kolkata – A Step Ahead of Science Centre

Science City, a landmark of Kolkata in the post-independence era for science communication, is the first and largest of its kind in India. Situated on a 50-acre plot of land of sprawling greenery, it is a constituent unit of the NCSM. The Science Centre complex was dedicated to the people by Inder Kumar Gujral, Prime Minister of India on 1st July 1997, in the Golden Jubilee Year of our Independence.

Incidentally, the Cité des Sciences et de l'Industrie (City of Sciences and Industry), Paris opened in 1986 is the biggest science museum in Europe with an annual footfall of over 5 million. Perhaps, it was for the first time a large science museum was named as the city of science. According to Reader's Digest, both these institutes in Kolkata and Paris are among the top fifteen science museums in the World.[20]

The Science City Kolkata is by nature similar to a science centre but with a much broader scope of operation. It portrays the growth of science & technology and their application in society, for all visitors including students, family groups and tourists, with the help of educational and entertaining exhibits. In 1992, Saroj Ghose had conceptualized this Science and Technology enclave. In 1993, the Calcutta Municipal Corporation transferred the entire land (partly gifted and partly on long-term lease) to NCSM for the project.

Prime Minister Inder Kumar Gujral and Chief Minister of West Bengal Jyoti Basu during Inauguration of Science City Kolkata (1997)

The Kolkata Science City primarily consisted of two major facilities – the 'Convention Centre Complex' and the 'Science Centre Complex'. The facilities of the Convention Centre were (i) Main Auditorium with 2232 seating capacity, (ii) Mini Auditorium with 393 seats, (iii) Seminar Hall complex comprising of 11 halls and a lobby, (iv) 2.5 hectares of an open exhibition ground, and (v) parking space for around 500 vehicles. The Science Centre complex at the time of opening in 1997 was spread over four independent buildings or facilities: (i) Space Odyssey enclave where visitors experienced a thrilling voyage of the universe through Space Theatre, Space Science Exhibition, Time Machine, 3D Theatre, Spinning Platform, Van-de-Graaff Generator, and interactive multimedia kiosks on Solar System, (ii) The Dynamotion Hall with an aquarium, a large butterfly enclosure, and many interactive exhibits on physics and bioscience, (iii) An Evolution Park, a gallery showcasing the evolution of life on Earth, where one

[20] Tamara Gane, Fifteen of the Best Science Museums in the World. Reader's Digest, 19th March 2020. https://www.rd.com/list/science-museums-around-the-world/, accessed on 28th July 2020.

hundred static and pneumatically controlled exhibits were displayed in seven-period settings, and (iv) the outdoor exposition comprising of a Rope Way, Musical Fountain, Road Train, and a set of thirty interactive exhibits on Physics.[21]

The Science City, with its enormity and impact, has changed the skyline of Kolkata. With an annual average footfall of 1.5 million, it is the highest visited amongst all science museums in India. Financially self-sufficient, it runs on its own steam.

Undoubtedly, Saroj Ghose had set a unique example of perseverance before the science museum professionals, and also, the concerned administrators and policymakers of the country by completing this gigantic project, from conceptualization to commissioning, only in five years and that too during the last five years of his service in NCSM.

Gujarat Science City, Ahmedabad – The Third of its Kind in India

The Gujarat Science City, the third science city in the country, was established in Ahmedabad by the Department of Science and Technology, Government of Gujarat in six phases between 2001 and 2012. It was Narendra Modi, Chief Minister of the State, who in the late 1990s dreamt of the project. He desired to showcase the modern marvels of science and technology before the community, to develop a scientific temper, nurture and stimulate scientific faculties of mind, and to promote innovative and experimental activities. Thinking led to planning and later to the building of the Gujarat Science City.

Narendra Modi, Chief Minister of Gujarat and Lal Krishna Advani, Leader of the Opposition in Lok Sabha during the opening of Hall of Science (2008)

[21] Jayanta Sthanapati, "India's first Science City Turns 20", Dream 2047, 19 (Nov 2016) 22, 32-34.

The State Government, in 1999, involved Saroj Ghose, as an advisor, right from preparing the project document to the completion of the Gujarat Science City.[22] The visitors' facilities of the Science City include Space & Communication Pavilion, Hall of Science, Planet Earth Pavilion, Electro-dome, Children's Activity Centre, Energy Education Park, Life Science Park, Dancing Musical Fountain, Ride Simulator, India's First IMAX 3D Theatre, Amphitheatre, Giant LED Screen, and basic amenities like car parking area and cafeteria.[23]

Projects of Saroj Ghose shaped by his trusted lieutenants

Saroj Ghose retired as Director-General of NCSM in September 1997, and Ingit K. Mukherjee held the position till January 2009. Besides establishing several new science centres, Mukherjee and his team completed three significant projects which Ghose had initiated during his tenure as D.G. These were Kurukshetra Panorama and Science Centre, in Haryana (2001), Rajiv Gandhi Science Centre (2004) in Mauritius, and introduction of M.S. Course in Science Communication in collaboration with BITS, Pilani from 2005.

Vibrant History Museums in the New Millennium

From the 1990s, there was a growing interest worldwide towards adopting story-telling communication approach in museums to establish better personal connections between visitors and contents. We may recall that Saroj Ghose in the early 1990s had introduced a similar approach in the Information Revolution Gallery of NSC Delhi. In the new millennium, he had continued with the same method but took the help of advanced technologies. He profusely used state-of-the-art communication technology, animated shows, virtual reality, large-screen interactive computer-based multimedia system, multi-screen panoramic projections, and animatronics, as was available from time to time.

Kolkata Panorama – The First Story-telling Museum of the Country

Kolkata Panorama is India's first story-telling history museum that used advanced technology for presentation of its exhibits. In the historic Town Hall of Kolkata, the museum was conceptualized and given shape to by Saroj Ghose. The Kolkata Museum Society, a wing of Kolkata Municipal Corporation, developed the museum. Opened in 2002, it is a popular tourist attraction.

The museum, covering an area of 1200 square meter, contains nineteen enclaves depicting the city's contribution in the fields of art, science & technology, education, literature, music, performing arts and its history, since inception. The novel technique of virtual reality is used to present a 'Walk Through' of Old Kolkata or the battlefield of Plassey, interact with Job Charnock, Rabindranath Tagore or Subhas Chandra Bose, follow the funeral procession of Tagore, or take part in the jubilation of 15th August 1947.

[22] Apparao Raja Mahanty, Email to J. Sthanapati, 26th August 2014.

[23] Information and image, Gujarat Council of Science City, Ahmedabad, 18th October 2014.

State-of-the-art communication technology of Kolkata Panorama enables visitors to enjoy the music, drama and films of old Kolkata. Animated shows and sound-light-animatronics-projection brings alive events like Quit India Movement, the Bengal Famine, agitation against the INA Trial, Riot of 1946, Mahatma Gandhi's peace move, Independence and partition of the country. A panoramic circular nine-screen LCD projection on Freedom Struggle in and around Kolkata is worth mentioning feature here.[24]

Parliament Museum – Unveiling the Story of Indian Democratic Heritage

The Parliament Museum, narrating the story of Indian Democratic Heritage, was the 2nd high-tech story-telling effort by Saroj Ghose. Set up in the Parliament Library Building, period rooms here describe the democratic reign of Asoka or that of Emperor Akbar. Virtual walking along with Gandhi in 'Dandi March' or taking part in 'Transfer of Power' is an unforgettable experience. Getting the feel of sitting alongside the national leaders and listening to Jawaharlal Nehru, delivering his historic 'Tryst with Destiny' speech is a standout treat. Projection of the evolution of Constitution, Indian Parliament, State Assemblies and Parliaments of the World, and the artefacts and souvenirs from various countries gives the museum a universal flavour.[25]

A.P.J. Abdul Kalam, the then President of India, inaugurated the museum on 14th August 2006. In the Visitor Book, he wrote "Dr Saroj's vision, sensitivity, grasp of history, breadth of concept and design, depth of understanding, of both simple and complex technologies related to museum development, his dedication and total commitment to the task has transformed a part of our parliament complex into this beautiful institution for culture and learning".[7]

Rashtrapati Bhavan Museum – The Symbol of Indian Freedom, Democracy and Unity

Continuing with his story-telling venture, Saroj Ghose depicted the legacy of Indian Presidents and the history of the freedom struggle in the Rashtrapati Bhavan Museum. Keeping with the elegant ambience, this museum showcases over 2000 exquisite and invaluable artefacts symbolizing Art, Culture, Heritage and History of India, including those from the British era. They are housed in three heritage buildings - Presidential Stable, the Presidential Garage, and the Clock Tower. The first phase of the museum, exhibiting numerous gifts the Presidents received over the years, was inaugurated on 25th July 2014 by A.P.J. Abdul Kalam, the President of India.

The 2nd phase, inaugurated by Narendra Modi, Prime Minister in the presence of President Pranab Mukherjee, on 25th July 2016, was more multifaceted. It displays horse-drawn carriages, personal belonging of successive Presidents and depicts making of Rashtrapati Bhavan and other Raisina Hill buildings. The Freedom Movement, Legislative milestones, Three-dimensional busts of Presidents speaking through holographic projections, the virtual feel of walking with Mahatma are some of the

[24] Kolkata Municipal Corporation, https://www.kmcgov.in/KMCPortal/jsp/KolkataPanorama.jsp , accessed on 15th July 2020.

[25] Information brochure, Lok Sabha Secretariat, New Delhi, 23 July 2020.

other important features. These, along with various regal paintings, sculptures of Vedic period, a 3D theatre and a seven-screen projection showcasing life in Rashtrapati Bhavan thrill the visitors.[26]

Prime Minister Narendra Modi and President Pranab Mukherjee
at Rashtrapati Bhavan Museum after its Inauguration by the former (2016)

Awards and Distinctions

The illustrious career of Saroj Ghose is studded with many national and international recognitions. He was awarded 'Indira Gandhi Prize' from the Indian National Science Academy as well as 'Hari Om Trust Award' from University Grants Commission for Popularization of Science in 1988. In the following year, he was conferred with 'Padma Shri', the fourth-highest civilian award in India in Science & Engineering by Government of India.

Saroj Ghose receiving Padma Bhushan Award from A.P.J. Abdul Kalam,
President of India (2007)

[26] Information brochure and image, Rashtrapati Bhavan Museum, New Delhi, 27 July 2020.

In 1996, while honouring him with 'Primo Rovis International Prize', the Trieste International Foundation, The Abdus Salam International Centre for Theoretical Physics, Trieste, Italy lauded Saroj Ghose for his outstanding contributions towards popularization of science and technology throughout the World. In 1997, he was elected 'ASTC Fellow' [Association of Science and Technology Centers, USA], in recognition of his energetic leadership of the National Council of Science Museums of India, International Council of Museums, and Science Centers worldwide. In 2001, NCSTC, Govt. of India awarded him 'National Award' for best effort in science popularization amongst children. North Bengal University then conferred upon him D.Sc. (Honoris Causa). The crowning moment of his professional career came in 2007 when Government of India bestowed him with 'Padma Bhushan', the third-highest civilian award in the Republic of India, in Science & Engineering.

Saroj Ghose had held several important positions in the International Council of Museums (ICOM) between 1974 and 1998: (i) Vice-President of ICOM-CECA (1974-80) [CECA – Committee for Education and Cultural Action], (ii) Vice-President of ICOM-CIMUSET (1983-89) [CIMUSET – International Committee for Museums and Collections of Science and Technology], (iii) Chairman of INC-ICOM (1984-90) [INC – Indian National Committee], (iv) Chairman of ICOM-ASPAC (1989-92) [ASPAC – Asia Pacific Alliance], (v) Member of the Executive Council of ICOM (1989-92), and (vi) President of ICOM Paris (1992-98).[27]

The salutations and acclamation thus received make Saroj Ghose an iconic figure, not only in the museum sphere but, in any professional field in India and abroad.

The Doyen turns Eighty-five

Saroj Ghose has always been known as a dynamic and ambitious museum professional. His colleagues greatly admired him as a perfectionist, a firm disciplinarian and for his ability to lead from the front. He was decisive, had an extraordinary ability to foresee the future and anticipate results. His determination, meticulous nature of planning and execution, extracted the best out of his juniors and made them ready for future challenges. Although very persistent, he was respectful to his seniors, coworkers and acknowledged their efforts. As an upright man with unlimited ingenuity, he was readily acceptable by Governments, both in centre and states, and maintained a healthy relationship. Stringent belief in deadlines, helped Ghose achieve the near-impossible feat of developing more than 30 science centres and museums throughout India. Each one more innovative than the previous and echoing his goal 'Science for the millions'.

We all wish Dr Saroj Ghose a very 'Happy Birthday' on his 85th Birth Anniversary on 1st September 2020.

[27] Information collected from the office of the DG, NCSM (1998).

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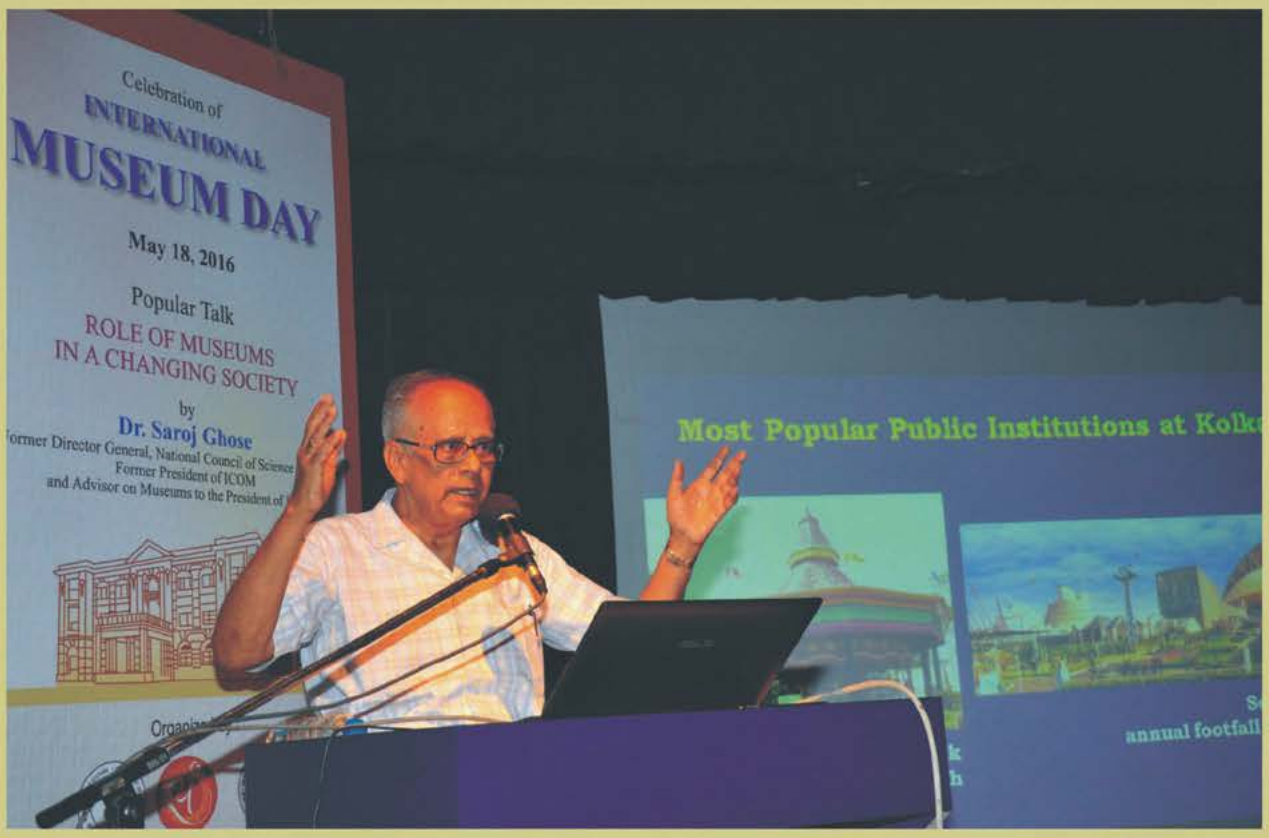

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