

## The Birth of the Indian Institute of Science

A weakness for history and the temptation to retreat into the past, in order to escape the pressures of the present, has drawn my attention to two books which have appeared over the last year or so. Ramachandra Guha's compelling account of our history in the post-Independence era (*India after Gandhi: The History of the World's Largest Democracy*, Picador, 2007) and Rajmohan Gandhi's uniquely personal view of Mahatma Gandhi (*Mohandas: A True Story of a Man, his People and an Empire*, Penguin/Viking, 2006) re-live much that has happened in India over the 20th century. Both books, formidably sized and extensively researched, are a testimony to the ability of talented authors to bring the past alive, permitting ordinary readers to be informed, educated and, at times, inspired. A key element in writing history is the passion to hunt for long forgotten records in libraries and archives. It is this fondness for things past that has nudged me into thinking about the birth of the Indian Institute of Science (IISc), which will soon enter the hundredth year of its existence. The history of IISc is intimately linked with the story of the evolution of higher education, research and science and technology in India, over the course of the turbulent years of the 20th century. It is a story that begins in the high noon of the British Empire and spans the entire period of the nationalist movement that culminated in Independence. It is also a story of the birth and growth of the science and technology enterprise over the last half a century. It is a story that begins with an act of philanthropy, unprecedented for its vision and unmatched for its generosity in the years that have followed. This journal, like many other institutions which would appear in later years, was conceived and midwived into existence on the IISc campus in the early 1930s. This column, therefore, seems to be an appropriate place to remember the past.

IISc was the second scientific research institution to be set up in India. The distinction as the country's first research centre, in the modern era, must be accorded to the Indian Association for the Cultivation of Science (IACS), which was born in Calcutta (now Kolkata) in 1876, the brainchild of Mahendralal Sircar, ably supported by Father Lafont. IISc was founded somewhat later, in 1909, after a long and difficult period of gestation, but developed on a pattern entirely different from IACS over the course of the century. Indeed, a comparative study of the growth and development of these two institutions may prove educational for those who seek to build new institutions today. In trying to piece together an authentic historical record of the institution, where I have worked for so long, and in attempting to create a permanent

Archives for the future, I have realized, with some dismay, that history is not a subject of any significance within the precincts of a research institute. But, in many ways, there is much to be learnt from the events of the early years of IISc.

To what sources must we turn in order to recapture the key events in the genesis of what is, arguably, India's most important scientific research institution? There are two biographies of Jamsetji Tata: the first by Frank Harris which appeared half a century ago (*Jamsetji Nusserwanji Tata: A Chronicle of His Life*, Blackie, 1958) and the second, a smaller and more recent account, by R. M. Lala (*For the Love of India: The Life and Times of Jamsetji Tata*, Penguin/Viking, 2004), whose publication coincided with the Tata Centenaries. There is one account of the birth and development of the IISc, authored by B. V. Subbarayappa that appeared in 1992 (*In Pursuit of Excellence*, Tata McGraw Hill). All three sources detail the events that followed J. N. Tata's initial proposal to pledge a substantial part of his wealth towards creating a research institute or university. The Tata scheme was the product of a penetrating vision that could see very far into the future. The idea of a postgraduate research institution must have seemed far fetched in the 1890s, at a time when university education had an extremely limited reach. J. N. Tata backed his vision with an unprecedented act of philanthropy and most remarkably did not want his name to be associated with the new institution, thereby paving the way for support from all quarters. For the scheme to materialize two conditions had to be met. First, assured annual support from the government of India, whose powers were vested in the British Viceroy in Delhi, was essential. Second, identification of a location and a land grant was crucial to the implementation of the scheme. The British government's objections were overcome by 1905 and the grant of land from the Maharaja of Mysore was realized in 1907, culminating in the issue of a formal vesting order in May 1909. J. N. Tata died in 1904, unaware that his idea would indeed bear fruit. The tradition of philanthropy was firmly established in the House of Tatas when his sons, Dorab and Ratan, committed themselves to the vision of establishing a research institute. The story of the long struggle to ensure that the IISc did indeed come into existence and its difficult years after birth are not well known.

There are many elements in the saga of the Institute's birth. J. N. Tata's letter to Swami Vivekananda is now a part of the Institute's folklore: '...It seems to me that no better use can be made of the ascetic spirit than the establishment of monasteries or residential halls for men dominated by this

spirit, where they should live with ordinary decency and devote their lives to the cultivation of sciences – natural and humanistic. I am of the opinion that if such a crusade in favour of an asceticism of this kind were undertaken by a competent leader, it would greatly help asceticism, science and the good name of our common country; and I know not who would make a more fitting general of such a campaign than Vivekananda...'. The discussions on the import of J. N. Tata's letter have been elaborate (Basu, S. P., *Prabuddha Bharata*, 1978, pp. 413–420; 448–458), although Harris' original biography confines this episode to a footnote. Both men, undoubtedly, saw with remarkable clarity the need for India to build its own centres for research and technological advancement. Sadly, both died several years before the founding of the Institute, Tata in 1904 and Vivekananda in 1902.

Today India is in the throes of a new round of institution building. It is clear that many schemes can be conceived in committee rooms; the real challenge lies in defining and realizing a vision. Can anything be learnt from the past? How was the plan for creating IISc drawn up and how successfully was it implemented in the early years? How did the bureaucracy of British India respond to an initiative that had no precedent? The answers to these questions are necessarily long and buried in hundreds (indeed thousands) of pages of documents (some disintegrating) lying in the National Archives in Delhi. A few are to be found in the more recently created Tata Archives in Pune and, of course, in the libraries in London, which maintain much of the written record of nearly two centuries of British presence in India. As the institutional archives begins the slow process of collecting and cataloguing records that are more than a century old, I have realized that the story of the early history of IISc really centres around one man, Burjorji Padshah (1864–1941), and his complex and, at times, difficult relationships with two Englishmen, George Nathaniel Curzon (1859–1925), the Viceroy of India and Morris Travers (1872–1961), who was the first Director of the Institute.

By all accounts, Padshah was a remarkable man. Intensely loyal to the vision of J. N. Tata, he worked unceasingly to bring the projects of the steel plant, hydroelectric company, and the research institute to fruition. Padshah, a ward of J. N. Tata, came under the spell of Gopal Krishna Gokhale, but moved on to work for the establishment of the Institute. He toured the world between 1896 and 1898 to learn from Western experience. He drafted the early documents of which the report entitled 'Institute of Scientific Research for India' (1898) must really mark the starting point for the long and protracted negotiations with the British government. The idea of using an American Institution like Johns Hopkins as a model, rather than British or European universities, was due to Padshah. Even a cursory glance at available archival material between 1898 and 1910, establishes Padshah as a central figure in realizing Tata's vision. Padshah's skills at negotiations, his prodigious intellectual abilities and his complete detachment from material pleasures seem to have been key elements in his successful pursuit of the goals set by J. N. Tata. His personal idiosyncracies were such that Mahatma Gandhi (with whom he later corresponded) had this to say: '...I had never met him (Padshah), but friends said that he was eccentric. Out of pity for horses he would ride in tramcars, he refused to take degrees in spite of a prodigious memory,

he had an independent spirit, and he was a vegetarian, though a Parsi' (*Sands of Time* (Tata Archives), April 2005, p. 4).

I am no historian, but was fascinated by an essay authored by Kim Sebaly in *History of Education* (1985, 14, 117–136) entitled 'The Tatas and University Reform in India, 1898–1914', which a young and alert colleague stumbled upon, while surfing the Internet. Sebaly details the persistent efforts of Padshah to promote the Tata scheme in the face of Government reservations. The low point in the struggle was reached when Padshah publicly proclaimed that the new Viceroy (Curzon) was 'in sympathy' with the scheme. This drew a blunt response from the Home Secretary: '...desist from quoting Lord Curzon's name or views'.

Almost the very first issue that Curzon faced when he landed in Bombay as the new Viceroy in December 1898 was the proposal to set up the Institute. Indeed, a deputation including J. N. Tata and Padshah met him on 31 December 1898. Curzon was a brilliant and complex man. The veteran journalist Durga Das provides an assessment, a generous one: 'In a real sense, nevertheless, Curzon was the midwife of India's emergence on the world scene... What Curzon set in motion was decades later to find consummation at the hands of Jawaharlal Nehru' (*India: From Curzon to Nehru*, Rupa & Co, 1981). A quotation from Curzon, used by Durga Das, highlights an imperial ambition: 'India is the pivot of Empire, by which I mean that outside the British Isles we could, I believe, lose any portion of the Dominions of the Queen and yet survive as an Empire; while if we lost India, I maintain that our sun would sink to its setting'. Durga Das has a tempered view of Curzon's efforts in university education: 'The measures Curzon introduced to reform university education and promote technical training bear the stamp of a courageous vision, although they confirmed his anti-Indian bias by excluding Indian intellectuals from membership of the commissions on university education.'

In piecing together a documentary record of an institution's early days I have had tantalizing glimpses of individuals and events. From the Tata Archives there are letters, hard to decipher at times, from Padshah to Gokhale. From the archives at the University of Strathclyde comes a letter from Sister Nivedita to the Scottish 'thinker and planner' Patrick Geddes (28 January 1903) which says: '...The last time I saw Tata's Secretary he was quarrelling with (William) Ramsay in order to have yourself named as the Principal of the Institute. Personally, I think nothing will come of this scheme'. At the University College in London there is still a treasure to be seen, an unpublished manuscript of Morris Travers' autobiography. Why study the history of IISc? Kim Sebaly notes that his first visit to India in 1965–66 was to do 'research on the establishment of the IITs'. He notes that he then discovered what he regards 'as the source of the social and intellectual capital that led to their establishment after Independence: the IISc, Bangalore'. He adds: 'However important foreign technical assistance was to the establishment of the IITs, I thought (and still think) the story could be more accurately told through a better understanding of the struggle to establish the Institute'. The full story of the IISc and the men who built it is yet to be written. If the right scribe is found, it should be a tale worth reading.

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