Many Ramayanas: In Pursuit of the History of the Foundation of IISc and NIAS

S Ranganathan
IISc & NIAS
Wednesday
Discussion Meeting
November 12, 2008
Three Hundred Ramayanas:
Five Examples
and Three Thoughts on Translation

A. K. Ramanujan

How many Ramayanas?
Three hundred?
Three thousand?

At the end of some Ramayanas, a question is sometimes asked: How many Ramayanas have there been?

And there are stories that answer the question. Here is one.
References

On J N Tata

F R Harris
*Jamsetji Nusserwanji Tata*
*A Chronicle of his Life*, 1925
R M Lala,
*For the Love of India*
*The Life and Times of Jamsetji Tata*, 2004

Archives

India Office Library
UCL, London
National Archives
Tata Central Archives
IISc Archives Cell (2008)

On IISc

B V Subbarayappa
*In pursuit of Excellence, A History of IISc*, 1992
S Ranganathan, *India's Sci-Tech Powerhouse. (Indian Institute of Science in Bangalore, India)*
World and I, December 2000:
B V Subbarayappa, Letter to the Editor, Current Science, 2008
The complex interplay between Indian and British leaders, who were influenced by different traditions of higher educations throughout the world, as seen in the 16-year struggle to realize J. N. Tata’s dream, is a missing chapter in the study of higher education in India. A clearer understanding of this interaction might provide a more useful perspective from which to consider the problems that universities in India face today than that offered by the ‘transplantation’ model. This would seem to be especially so in the case of postgraduate teaching and research.

Kim P. Sebaly

Highlighting the Role of B Padshah
From Prof P Balaram’s talk on Jan 21, 2008
OUTLINE

• Inventing IISc
• The TATA Enterprise
  J N Tata, Dorab Tata, Ratan Tata, Burjori Padshah, J R D Tata
• The British Empire
  Lord Reay, Lord Curzon, Lord Minto, Sir William Ramsay, Prof Morris Travers
• The Mysore Durbar
  Krishnaraja Wodeyar, Regent Maharani
  Kempa Nanjammani Vani Vilasa Sannidhana, , Dewan Sir K Seshadri Iyer, Dewan Sir M Visvesvaraya, Resident
THE FOUNDER
OF IISc

JAMSETJI NUSSERWANJI TATA
PARSI CITIZEN OF BOMBAY
BORN MARCH 3, 1839
DIED MAY 19, 1904
TO HIS FORESIGHT AND PATRIOTISM
THE INDIAN INSTITUTE OF SCIENCE
BANGALORE OWES ITS ORIGIN
AND TO HIS MUNIFICENCE
A GREAT PART OF ITS ENDOWMENT
AS A DISTINGUISHED CAPTAIN OF INDUSTRY
AND PATRON OF LEARNING
HE PERCEIVED THE BENEFITS TO HIS
COUNTRY
OF ADVANCED RESEARCH IN SCIENCE
ARTS AND INDUSTRIES
AND FOUNDED THIS INSTITUTE
THE FIRST OF ITS KIND IN INDIA

THIS STATUE OF THE FOUNDER WAS ERECTED IN 1916
BY THE COUNCIL OF THE INDIAN INSTITUTE OF SCIENCE
Journey to the West

• The world's first university is Taxila
• Taxila (Takshashila), near Islamabad (BC 700-460AD)
• Nalanda University in Bihar (425-1040 AD)

Harshavardhana receiving Xuan Zang at Nalanda
British Universities

- Oxford University

The university traces its roots back to at least the end of the 12th century. Oldest University in the English Speaking World

- Cambridge University

in 1209 by scholars leaving Oxford after a dispute with local townsfolk. There-Octocentenary Year
February 2, 1835

Thomas Babington Macaulay Minute
“creating a class of persons, Indian in blood and colour, but English in taste, in opinions, in morals and intellect”

July 9, 1854
Charles Wood
President of Board of control of East India Company
Magna Carta of Indian Education “Turning away from the traditional Hindu teaching and Muslim Madarasa teaching in Arabic, the aim was to extend European knowledge throughout all classes of people and recommended that the form, government and functions of the University of London are best adapted to the wants of India

1857
Three Indian Universities were founded in Calcutta, Madras and Bombay
Blind copying of London University as Examining Universities, Qualification such as University of Calcutta Failed!
Additional universities in Lahore and Allahabad
Travers felt that Indian Universities should not follow Oxford or Cambridge and even London but must be modelled after Leeds, Manchester, Birmingham, Sheffield, Liverpool.
Mughal Durbar

Mughal Aurangazeb Birthday Celebrations, The Green Vault, Dresden
Proclamation
as the first Empress of India

Title as Kaisar -I-Hind
January 1, 1877

J N Tata names his Cotton Mill
as Empress Mill

Delhi Durbar 1877
Governor of Bombay from 1885-1890, Under-Secretary of State for India in 1894-1895, President of the Royal Asiatic Society and University College London and as first President of the British Academy from 1901-1907.

It is only by the combined efforts of the wisest men in England, of the wisest men in India, that we can hope to establish in this old home of learning, real universities which will give a fresh impulse to learning, to research, to criticism, which will inspire reverence and impart strength and self-reliance to future generations of our and your countrymen’
1892, J N Tata Endowment for Higher Education of Indians

"There is one kind of charity common enough among us... It is that patchwork philanthropy which clothes the ragged, feeds the poor, and heals the sick. I am far from decrying the noble spirit which seeks to help a poor or suffering fellow being. [However] what advances a nation or a community is not so much to prop up its weakest and most helpless members, but to lift up the best and the most gifted, so as to make them of the greatest service to the country."

The maiden grant was to Dr Freney Cama, who became one of the first women gynaecologists in India and who would come to have a maternity hospital in Mumbai named after her.

The first step to IISc
1893, Voyage with Swami Vivekananda

Birth of IISc

First Vision created Indian Institute of Science in 1909

Will the second journey from Bangalore to California lead to birth of second Vision for IISc?

SS Empress of India September 11, 1893
Courtesy APJ Kalam, Santa Clara, 2007
1898, J N Tata’s letter to Swami Vivekananda

"Dear Swami Vivekananda,

I trust you remember me as a fellow traveller on your voyage from Japan to Chicago. I very much recall at this moment your views on the growth of the ascetic spirit in India, and the duty, not of destroying, but of diverting it into useful channels.

I recall these ideas in connection with my scheme of Research Institute of Science for India, of which you have doubtless heard or read. 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 opinion that, if such a crusade in favour of an asceticism of this kind were undertaken by a competent leader, it would really 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. Do you think you would care to apply yourself to the mission of galvanizing into life our traditions in this respect? Perhaps you had better begin with a fiery pamphlet rousing our people in this matter. I should cheerfully defray all the expenses of publication.

23rd November 1898 Jamsetji N Tata
Sister Nivedita’s Role?
Swami, Mysore and Dr Kalam

Swamiji requested Maharaja of Mysore in a letter to donate the land for the research laboratory. Due to the immense respect the Mysore Maharaja had for swamiji, he gladly agreed, and due to that we see Indian Institute of Science today.

The message I would like to convey to this audience, dream gives vision, vision gives thoughts and thought leads to actions. Jamsetji brought two establishments to this country – first one was steel plant and the other was an educational research institution based on the vision of Swami Vivekananda.
Burjori Jamspji Padshah

1864-1941

Brilliant Student
Theosophsit, who later abandoned the association

Work in Cambridge with Sir J J Thomson
No degree from Cambridge

One of the few to understand Einstein’s relativity
Invited by Gokhale to join the Nationalist Movement

1896 Invited by J N Tata to give Assistance to J N Tata in all his projects
(Institute for Research, Steel, Hydroelectricity)
Johns Hopkins, however, made his great fortune by investing his money wisely in all sorts of ventures, most notably the Baltimore and Ohio Railroad, of which he became a Director in 1847 and Chairman of the Finance Committee in 1855.

In 1867, he gave consideration to the disposition of his tremendous wealth and, on August 24, he incorporated The Johns Hopkins University and The Johns Hopkins Hospital. After his death on December 24, 1873, his will was probated, and his fortune of seven million dollars was divided equally between the two institutions that bear his name.

Padshah chose JHU as a model for IISc
Proposed University or Institute of Research (Dec 13, 1898)

1. Scientific and Technical Department 1,52,000 R
   (a) Physics
      (i) Mathematical Physics
      (ii) Electrical Engineering
   (b) Chemistry
      (i) Advanced Inorganic Chemistry
      (ii) Organic Chemistry
      (iii) Analytical Chemistry
      (iv) Agricultural Chemistry

2. Medical Department 85,000 R
   (a) Bacteriology
   (b) Hygiene
   (c) Physiological and Pathological Chemistry

3. Philosophical and Educational Department 63,000 R
   (a) Method of Education
   (b) Ethics and Psychology
   (c) Indian History and Archaeology
   (d) Statistics and Economics
   (e) Comparative Philology

Total: 3,00,000 R
1902, Lord and Lady Curzon
1900, Sir William Ramsay

Discoverer of Noble Gases

Visit to India with Lady Ramsay as guests of J N Tata and recommended by the Royal Society in 1900

On the verge of the Nobel Prize in 1904

Prunes Tata’s Scheme from a University to an Institute

Recommended Bangalore as a location
Recommended Morris Travers for the Directorship

Foster father of IISc
Diary of Lady Ramsay- a rich resource
Morris Travers

Morris William Travers:

Ramsay and Travers obtained neon by distilling liquid argon obtained by passing air over hot Cu and hot Mg to remove oxygen and nitrogen.

University College London & Bristol University
First Director of IISc at age 34!
Padshah vs Ramsay & Travers

• “Willie fell into the hands of his private Secretary, a truly ferocious person, and worse still our master (he is called our servant, but we know better)”

From Lady Ramsay’s Diary

“He is sort of anchorite; he is a theosophist, vegetarian, and thamaturgic, altruistic, son of a sea cook, but an admirable Crichton after the Indian model”

William Ramsay

• An evil Genius
An Admirable Crichton

*The Admirable Crichton*, a critically-acclaimed social commentary with elaborate staging, about an aristocratic household shipwrecked on a desert island, in which the butler naturally rises to leadership over his lord and ladies for the duration of their time away from civilisation.

*The Admirable Crichton* is a comic stage play written in 1902 by J. M. Barrie. It was produced by Charles Frohman and opened at the Duke of York's Theatre in London on 4 November 1902.
Dunbhai Tata & Burjori Padshah

1861-1871

1864-1941
Relationship

Married?
*R M Lala*

Engaged?
*R M Lala, Tata Central Archives*

Cause of death at the age of 10 not known
Delhi Durbar 1903

Lord Curzon & Lady Curzon
Imperial Pageantry
J N Tata was not invited!
He attended all the same!

New York Times 1902
Plans for Magnificent Delhi Coronation Durbar
Imposing Ceremonies Which Will Take Place Near Scene of Many Deeds of British Valor and Heroism Performed During the Days of the Mutiny
Location & Land Donation

Contenders: Bombay, Roorkee, Bangalore
The Mysore Durbar

• Krishnaraja Wodeyar IV
• Regent Maharani Kempa Nanjammani Vani Vilasa Sannidhana
• Dewan Sir K Seshadri Iyer
• Resident:
Third Meeting of the Provisional Committee
held at the Residency, Bangalore,
on Monday’ the 13th July 1908. at 11-30 A.M.

V P Madhava Rao Esq CIE
Dr. Morris W. Travers, F.R.S,. Director.
Dr. Alfred Hay, M. I. E. E.
B. J. Padshah, Esq.
Mr. D. J. Tata was present by invitation of the Chairman

The Director stated that he had addressed the Hon'ble the Resident
with regard to the channel of communication between the Committee
of the Institute and the Mysore Durbar and received the following reply:—

I am directed to acknowledge the receipt of your letter of the 25th April 1908,
and, in reply, to state that so far as the Resident can at present foresee,
Correspondence between the Provisional Committee and the Mysore Durbar
may be conducted direct without reference to the Resident,
but any question involving the jurisdiction of the British Government
over the lands assigned for the purpose of locating
the Indian Institute of Science
should be referred to the Residency.” (Minutes No.7.)
Delhi Durbar 1911

King George V and Queen Mary
Autographed Portrait in Council Chamber

Morris Travers is an honoured Guest
Monument to the Founder:
March 10, 1922
Sir Dorab Tata

- 1859-1932
- Engineering in Cambridge University 1879
- Medical School

Sir Dorab was the quintessential entrepreneur, working tirelessly to make his father’s visionary ideas a reality — roaming the jungles of what is now Jharkhand in eastern India in a bullock cart to set up Tata Steel and pioneering the generation of hydroelectric power in the wilds of the Western Ghats — while Sir Ratan was a connoisseur of the arts and a passionate votary of social development. Again their role in IISC was minor. Both the sons left it mainly to B Padshah
Sir Ratan Tata

Sir Ratan gave a grant to support Mahatma Gandhi's work in South Africa and another for Gopal Krishna Gokhale's nationalist activities in India. He also funded the first archaeological excavation at Pataliputra, which resulted in the discovery of the 100-pillar Mauryan throne room of Ashoka's palace. He donated resources that enabled the London School of Economics (LSE) to research the causes of poverty and how to alleviate it, leading to the establishment in 1912 of LSE's Sir Ratan Tata Department. His role in IISc & the Steel Plant seems to have been minor.

Intimations of NIAS
The Transition: From an Imperial University to a National Institution

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<thead>
<tr>
<th>Status</th>
<th>British</th>
<th>Indian</th>
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<tr>
<td>Patron/Visitor</td>
<td>Viceroy</td>
<td>Presidents</td>
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<td>Lord Minto 1909</td>
<td>Rajendra Prasad</td>
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<td>Sir S Radhakrishnan</td>
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<td>C Rajagopalachari</td>
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<td>Council Chairman</td>
<td>Residents</td>
<td>V N Chandavarkar</td>
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<td>Rustum Chokshi</td>
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<td>Raja Ramanna</td>
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<td>Court President</td>
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<td>Sir M Visvesvaraya 1938</td>
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<td>Sir Ardeshir Dalal</td>
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<td>V N Chandavarkar</td>
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<td>John Msatthai</td>
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<td>J R D Tata</td>
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<td>J J Bhabha</td>
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<td>Ratan Tata</td>
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<td>Director</td>
<td>M Travers</td>
<td>Sir C V Raman</td>
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<td>Sir A G Bourne</td>
<td>Sir J C Ghosh</td>
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<td>Sir M Forster</td>
<td>S Bhagavantam</td>
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Visitors of IISc

Dr. Rajendra Prasad
Dr. Sarvepalli Radhakrishnan
Dr. Zakir Hussain
Shri Venkata Giri

Shri Fakhruddin Ali Ahmed
Shri Neelam Sanjiva Reddy
Giani Zail Singh
Shri R Venkataraman

Dr. Shankar Dayal Sharma
Shri K. R. Narayanan
Dr. A. P. J. Abdul Kalam
Smt. Pratibha Devi Singh Patil

Presidents of the Court

Seven decades ago on May 23, 1938 the final meeting on which a court had met together took place under the presidency of Sir M Visvesvariah.

Sir M Visvesvariah
1938-1946

Sir Ardesthir Dalal
1947-1950

Sir V. N. Chandravarkar
1950-1951

Dr. John Mathai
1951-1954

Mr. J. B. D. Tata
1955-1993

Mr. J. J. Bhabha
1994-1999

Mr. Ratan Tata
Since 1999

Chairmen of the Council

Till 1949 the British Resident in Mysore was elected as Chairman of the Council.

Sir V. N. Chandravarkar
1948-1958

Dr. Rustum Choksi
1959-1977

Dr. G. K. Chandiramani
1978-1985

Dr. Raja Ramanna
1986-2004

Dr. K. Kasturirangan
Since 2004
A Committee consisting of Sir William Ramsay, K. C. B., F. R. S., Professor W. H. Perkin, F.R.S and Sir Thomas Holland, K. C. I. E., F. R S., had been formed with Dr. R. W. Gray, of University College, London as Secretary to the Committee.

Advertisements had been inserted in "Nature", "Chemical News", and in the American paper "Science", and also in certain Continental journals.

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>1911</td>
<td>M Travers</td>
<td>General &amp; Applied Chemistry</td>
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<tr>
<td>1911</td>
<td>Alfred Hay</td>
<td>Electrotechnics</td>
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<tr>
<td>1921</td>
<td>G J Fowler</td>
<td>Biochemistry</td>
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<tr>
<td>1933</td>
<td>C V Raman</td>
<td>Physics</td>
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<tr>
<td>1942</td>
<td>V M Ghatage</td>
<td>Aeronautical Engineering</td>
</tr>
<tr>
<td>1945</td>
<td>Frank Adcock</td>
<td>Metallurgy</td>
</tr>
<tr>
<td>1947</td>
<td>C H Kent</td>
<td>Mechanical Engineering</td>
</tr>
</tbody>
</table>
**My First Excursion into History**

1984

**Professor Brahman Prakash’s Contribution to Metallurgical Education**

_S. Ranganathan_

**ABSTRACT**

Professor Brahman Prakash spent seven fruitful years (1951 to 1957) at the Indian Institute of Science, Bangalore, in the first formative phase of his career in India and that of the Department as he headed. His contributions to metallurgical education and research at the Centre are reviewed.

_I. INTRODUCTION_

Dr. Brahman Prakash joined the Department of Metallurgy, Indian Institute of Science, Bangalore, as Professor and the first Indian Head of the Department on January 1, 1951 and left the Department on March 31, 1957 to rejoin the Department of Atomic Energy. These seventy-five months he spent at Bangalore were extremely crucial for the development of the Department. In a way they were also crucial to Prof. Prakash's own development. Prof. M. G. K. Menon, has recounted the period that Dr. Hans J. Bhabha spent at the Institute: “I believe this was the period when he found his mission in life; he became aware of the role he could play in the development of India”. In a similar fashion it can be said that in the congenial and contemplative environment of the Institute, Prof. Prakash was preparing himself for his later missions in life.

In order to savour the accomplishments of Professor Prakash in metallurgical education, it may be instructive to look back upon how the Institute and the Department came into being and how he happened to join the Department.

II. GENESIS OF THE INDIAN INSTITUTE OF SCIENCE

Jambulal Tata was in many respects the most remarkable Indian of his time. In 1906 almost a century ago he conceived the idea of setting up an Indian Institute of Science. In September 1908 he offered property then worth two hundred thousand pounds as an endowment for organizing an Institute where the best intellects of the country should come into close touch with Western science and find new careers in industry. He passed away in 1904 but created the Institute in 1908 breaking the barriers of his own lifetime.

The author is Chairman, Department of Metallurgy, Indian Institute of Science, Bangalore 560 012.

**Brahman Prakash**

1951-1957

Head, Department of Metallurgy
The Beginnings of Metallurgy

1901
Chemistry, including metallurgical engineering, applied bacteriology

1906
In connection with the three main departments of chemistry, it is proposed to develop sub-departments of agricultural chemistry, pictorial chemistry, metallurgical chemistry, etc. These sub-departments may in time develop into separate departments, but at present it would be impossible to establish a full department of dyeing,

Similarly, metallurgy, in the modern sense of the word, could only be dealt with in
March 28, 1942
Court under the Presidentship of Sir M Visvesvaraiah

March 30-3-1942
Council
Dr J C Ghosh, Director

September 24, 1945
Prof Frank Adcock
Head of the Department

The Selection Committee
Dr Ch Desch FRS
Dr A McCrane FRS
Sir Charles Darwin FRS

July 1948
Foundation Stone laid by Sir M Visvesvaraya
DEPARTMENT OF METALLURGY

This Department was started in 1945 with the object of providing a course of instruction in Metallurgy to graduates in Physics, Chemistry and Mathematics and also offering facilities for fundamental and applied research in all branches of Metallurgy. Since last year, a one-year course in Iron and Steel Technology has also been started to train mechanical engineers for the steel plants of the public sector.

The Department is well equipped for instruction and research in all branches of Process and Physical Metallurgy. The equipment includes a Wilfley Table, a Humphrey Spiral, an Isodynamic Separator, a High Frequency Induction Furnace, a Wild Barfield Globar Furnace and an Electroanalyser in the Process Metallurgy Division and a Vickers Projection Microscope, a Leitz Metallograph, a Siemens X-ray diffraction unit, a Philips...
AnYang to Beijing

Nalanda to Bangalore