

March 12, 1966

**Speech by Professor M. G. K. Menon, Sheriff's
Meeting in Memory of Dr. Homi J. Bhabha at
University Gardens, Bombay**

Citation:

"Speech by Professor M. G. K. Menon, Sheriff's Meeting in Memory of Dr. Homi J. Bhabha at University Gardens, Bombay", March 12, 1966, Wilson Center Digital Archive, Atomic Energy Commission, IDSA. Obtained and contributed by the Institute for Defence Studies and Analyses (IDSA).

<https://wilson-center-digital-archive.dvincitest.com/document/116937>

Summary:

Speaking at an event to honor the memory of Homi Bhabha, Professor Menon speaks about his influence on nuclear energy development in India and the creation of the Tata Institute for Fundamental Research.

Credits:

This document was made possible with support from Carnegie Corporation of New York (CCNY)

Original Language:

English

Contents:

Original Scan

Sheriff's Meeting in Memory of Dr. Homi J. Bhabha
at University Gardens, Bombay
March 12, 1966.

Speech by Professor M. G. K. Menon

It is for me a very great personal privilege to second this resolution which places on record the sentiments and feelings of this meeting of the citizens of Bombay held to honour the memory of Dr. Homi Bhabha. I speak here as one of the young scientists who worked under Homi Bhabha. I pay these few words of tribute not only on behalf of myself but on behalf of my friends and colleagues - the fellow scientists, technicians, administrative and other staff of the Tata Institute of Fundamental Research, the Atomic Energy Establishment Trombay, the Department of Atomic Energy, all located in this great city of Bombay; and other colleagues in the many associated sister institutions spread over this great country. I am sure that each one of them will join me in paying this tribute and would wish me to associate them with it.

Tributes have been paid to Homi Bhabha all over the world - we have received many from scientists, from scientific institutions and academies, from international organisations, from persons in all walks of life, from the highest to the lowest, all paying tribute to the many great qualities of that many splendoured genius. I shall mention only one of these spontaneous tributes as an example; it is a letter published in the "New York Times"; it was written amongst others, by Professor V. Weisskopf, one of the well-known theoretical physicists of the world, who has been Director-General of CERN in Geneva, which is perhaps the largest international organisation for research in pure science. Another signatory to this letter was

Dr. J. Weisner, who has been Science Adviser to the President of the U.S.A. Other signatories were Professor J. Zacharias and Dr. Cliver Cope the well-known Surgeon. One sentence of this tribute said "when Homi Bhabha of India was killed in the airplane crash on Mont Blanc on January 24, the world lost one of its greatest citizens."

There is so much one can say about Homi Bhabha that a few words seem so inadequate. However, when I look back on his life, I remember above all the visionary that he was, but with that characteristic most unusual for a visionary, the ability to transform vision into reality. And his vision was indeed all encompassing; he was himself, in every sense, a complete man, in whom was fused the best from the sciences and the humanities who epitomized all that I understand by culture and by good living.

This meeting has been fixed for today, the 12th of March, by intent or by accident; but it is a date most appropriate for us to pay this tribute to Homi Bhabha. Today is the birthday of the vision he had of setting up a school for fundamental research of the highest order, which became the Tata Institute of Fundamental Research, and of the vision of economic nuclear power for this country which is being translated into reality at Trombay, Tarapur, Rana Pratapsagar and Kalpakkam. Exactly 22 years ago, on 12th March 1944, Homi Bhabha wrote a letter which is one of the most visionary and prophetic letters that I know of in the history of science. It was written to Sir Sorab Saklatvala, Chairman of the Sir Dorab Tata Trust. You will forgive me if, in paying tribute to Homi Bhabha today I repeat, in his own words, some of the things he stated in that letter - for none could have put it better. They were the words of a visionary, of

a scientist of the highest intellectual calibre who had thought deeply about the problems he was writing about.

Homi Bhabha wrote: " It is absolutely in the interest of India to have a vigorous school of research in fundamental physics, for such a school forms the spearhead of research not only in less advanced branches of physics but also in problems of immediate practical application in industry. If much of the applied research done in India today is disappointing or of very inferior quality it is entirely due to the absence of a sufficient number of outstanding pure research workers who would set the standard of good research". He further said, "Moreover, when nuclear energy has been successfully applied for power production, in say a couple of decades from now, India will not have to look abroad for its experts but will find them ready at hand." This was his vision of abundant economic nuclear power, so vital for the development of this country. I would like you to remember that this prophetic sentence was written by one sitting in Bangalore in 1944; this letter was written more than a year before Hiroshima; the work on the atom bomb was being carried out with the greatest secrecy in the West; the only knowledge Homi Bhabha had was that nuclear fission had been discovered.

For the citizens of Bombay, it is of interest that in this same letter he said, "for the location of this school I think Bombay would be the most suitable place in India".

Homi Bhabha spent 1½ of the most impressionable years of his youth in the West. He had worked in the heady atmosphere of physics of the 1930s in association with some of the greatest names in physics of this century; Rutherford, Dirac, Cockcroft, Blackett, Heitler and Mott at

Cambridge and with Bohr, Kramers, Pauli and Fermi. India was indeed fortunate, that Homi Bhabha was prepared to return to this country to develop modern science and technology in India and to make a very considerable sacrifice in terms of his own scientific career. Had he chosen to remain abroad, to devote his creative genius, the genius which made him one of the youngest Fellows of the Royal Society at the age of 31, he could well have become known as one of the greatest scientists of our age. His patriotism is best expressed in his own words, again from that letter of 12th March 1944. He said: " I had the idea that after the war I would accept a job in a good university in Europe or America, because universities like Cambridge or Princeton provide an atmosphere which no place in India provides at the moment. But in the last two years I have come more and more to the view that provided proper appreciation and financial support are forthcoming, it is one's duty to stay in one's own country and build up schools comparable with those that other countries are fortunate in possessing". Could one ask for a greater spirit of patriotism or of dedication?

He went on to say: " The scheme I am now submitting to you is but an embryo from which I hope to build up, in the course of time, a school of physics comparable with the best anywhere." With the dynamic support of Mr. J.R.D. Tata and then of Prime Minister Jawaharlal Nehru this vision became the Tata Institute of Fundamental Research, an institution wherein every staff member, every stone of the building, every painting and flower bears the impress of Homi Bhabha. And this Institute, as Dr. Bhabha was himself fond of saying, became the cradle of our atomic energy programme.

About a decade later, as President of the First International Conference on Peaceful Uses of Atomic Energy, Dr. Bhabha made a prediction about power from the fusion reaction - power which in its explosive form has been seen in the hydrogen bomb but which needed to be tamed for peaceful uses. This remark of Dr. Bhabha's opened the way to more declassification than ever known before, and to international cooperation in this highly secret field. When humanity some day benefits from the peaceful uses of fusion power it will salute Homi Bhabha as one of the visionaries who advanced the time for it.

His visions of twenty years ago, in the most advanced and specialised disciplines of modern science and technology, have been translated, by his single handed efforts, in the incredibly short space of two decades, to become the concrete realities of today at the Tata Institute of Fundamental Research at Trombay at Tarapur and so on. Homi Bhabha died at the peak of his great powers, a legendary figure in his own lifetime, working towards the end with an urgency which had to be seen to be believed, working against time when he felt he had so much to accomplish, with more visions which would lead to a modern India and a better life for its people. All of us left behind carry very heavy responsibilities to transform these into reality as he would have done. That is the only tribute we can pay him and we shall.

The legacies he has left behind are not only the tangible programmes, buildings, equipment, gardens and the like, visible creations of his scientific and artistic abilities; but even more important is the legacy which is, in some sense, intangible - the large numbers of trained personnel, who have embraced the vision of a new India and who have

acquired confidence in their own abilities. Blackett has often stated that a first rate laboratory is one in which mediocre scientists can produce outstanding work. Homi Bhabha being above all a scientist of outstanding distinction understood this well and this is what he sought to create by the right environment and right conditions for work. He succeeded in enthusing those who worked around him with the same spirit of dedication in national endeavour which motivated him, enthused them to maintain the highest standards of scientific integrity and in setting standards of quality in all that they did. This viable, selfgenerating group of trained personnel, the scarcest commodity in a developing nation, products of Homi Bhabha's inspiring and warm leadership, are his richest legacy to this country, which has indeed been fortunate in having such a son.