OBITUARY

PROFESSOR M. K. V. BAPPU
(1927–82)

It was with intense shock and deep sorrow that the news of the untimely demise of Professor M. K. V. Bappu was received last month. In this sad event, the world astronomical community has lost one of its leading figures and here in India we have lost one of the main architects of modern Indian astronomy.

Prof. Bappu underwent a major by-pass heart surgery on August 9, 1982 at Munich while on a teaching assignment there. He was recovering from the surgery, but his condition worsened suddenly owing to kidney failure and he died on the 19th August afternoon.

Prof. Manali Kallat Vainu Bappu hailed from Kerala; he was born on August 10, 1927 at Hyderabad where his father was working in the Nizamiah Observatory.

For Prof. Bappu, Astronomy was a life-long passion. He was exposed to the enchantments of the subject early in his childhood as he used to accompany his father to the Nizamiah Observatory in Hyderabad. I met Vainu Bappu first when the Indian Academy of Sciences held its annual meeting in Hyderabad in 1943. Then he was a young boy of sixteen and he cycled a long way to hear the discourses given by Prof. Sir C. V. Raman. He told me some time ago that his meeting with Raman was the turning point in his life. It is interesting to recall that his first paper was published when he was sixteen, describing the spectrum of the night airglow obtained by means of a spectrograph.

He obtained his Bachelor's degree (1946) and the Master's degree (1949) in Physics from the Madras University.

A providential meeting with the astronomer Harlow Shapley and the assistance of Prof. C. V. Raman in recommending him for the Hyderabad State Government scholarship paved Bappu's way to Harvard University and his professional career was launched. Soon thereafter, while still a student, his first discovery of the Bappu-Bok-Newkirk comet was made for which Bappu won the Donohoe Comet Medal (1949) of the Astronomical Society of the Pacific. After completing his Ph.D. in 1952 he joined the Hale Observatory on a Carnegie Fellowship, the

first Indian to receive such a fellowship. Two years later Bappu's major work was accomplished, namely, the discovery of the Wilson-Bappu Effect which has been extensively used for stellar distance determination.

Young, brilliant and with demonstrated abilities, Bappu could have stayed on in the west to reap the fruits of modern facilities in an already established intellectual atmosphere. Instead, his pioneering zeal, his taste for challenge and his abiding devotion to his native land brought him back to India in 1955 in order to strive for the revival of astronomy in India. The founding of the Nainital Observatory and the rejuvenation of the one at Kodaikanal were the result of his indefatigable industry and far-reaching vision. A grander creation was yet to come: the Indian Institute of Astrophysics. An active centre of research, which is still growing, the Institute is a monument to Bappu's creativity, leadership and inspiration. One of his dreams takes shape -- the dream of providing India with a large telescope - as the machines polish to perfection the huge mirror that will be the heart of a ninety-inch telescope. Outside, the neat, well laid-out lawns and the blossoming roses speak of a man who was passionately in love with every aspect of Nature.

He led four expeditions for observing the total eclipses of the sun: 1955 Sri Lanka; 1963 Maine, U.S.A.; 1970 Miahautlan, Mexico; and 1980 Jawalagere and Hosur, India. In 1959 he led an expedition for observing occultation of Regulus by Venus, at Tuticorin, India.

He had many significant research publications to his credit, which may be classified under the following categories, namely, (i) Physics of the Sun, (ii) Physics of the Stars, (iii) Physics of the solar system, (iv) Physical phenomena in galactic and extragalactic systems and (v) Astrophysical Techniques. His first two papers in *Current Science* appeared in 1946 when he was still a student of 19 years of age at Osmania: "The effect of colour on the visual observation of long-period variable stars" Jan. 1946, p.18 and "On the visual light curve of Rt. Eridani", July 1946, p.190. Subsequently *Current Science* published three more of his articles. "Raman and Astronomy" May 5, 1971, p.217; "Optical Astronomy in India -- prospects of the next decade" Dec. 5, 1972, p.829; and "Chromospheric Emission Intensities and Stellar Evolution" Jan. 5, 1982, p.24.

Many were the honours, both national and international, that Prof. Bappu received. To name a few, he was an Hon. Foreign Member of Royal Society of Science, Liege, Belgium and an Hon. Foreign Associate of Royal Astronomical Society of London. He received the Bhatnagar Award in 1971, the Meghnad Saha Award in 1977 and recently in 1981 he was decorated by the National Award of Padmabhushan. He was selected for the S. N. Bose Medal 1983. He was a Fellow of the Indian National Science Academy and of the Indian Academy of Sciences. He was the Vice-President of the Indian Academy of Sciences since 1980 and the Chairman of the editorial board of the Journal of Astrophysics and Astronomy of which he was one of the co-founders. He was the President of Astronomical Society of India during 1973-74. He was Vice-President of the International Astronomical Union from 1967 73, and was President/Member of some of the IAU Commissions. For the past three years he had been serving as the President of this Union - a unique honour that made him the pride of the Indian astronomical community.

For all his achievements and honours, Prof. Bappu was a courteous, pleasant and friendly person. Beneath his commanding presence and the aura of leadership lay his profound simplicity that stemmed from a total commitment to his calling and a full understanding of the individual's role in the larger scheme of things. In his presidential address to the General Assembly of the International Astronomical Union, that was fated to become his final farewell, he said: "Time and again we have seen how an individual has appeared on the scene and transformed a picture of gathering confusion into one of logical rigour and aesthetic simplicity. In the final reckoning, it is this aspect of Man that is a responsibility shared by each one of us in our individual roles, be it of a teacher or senior colleague.... The history of the human race provides the evidence that the spark of enthusiasm which fires the genius in Man has no regional preferences for its origin. To fan this streak into the flame of intellectual achievement is at once an obligation and an assurance of a dynamic future". Little did he realise that these words really applied to himself. Before he was snatched away by fate from our midst, Prof. Bappu had fulfilled the obligation and has assured a dynamic future for astronomy in India.

We may here recall a very moving tribute to Bappu paid by Prof. H. J. Smith, a near-lifelong friend, at the meeting convened in Patras, where the International Astronomical Union was in session and which should have been presided over by Bappu. Of the many inspirations which guided Bappu's life he touchingly mentioned two: an abiding love of nature and the words of Kipling's poem 'If'. By way of comfort to his grieving mother Prof. Smith paid the final tribute to Bappu by adding a final couplet:

Since you ran the course against all odds,
and won
You did indeed become a man, my son"

1 September 1982 S. Ramaseshan