PRESENTATION OF THE MYSORE GEOLOGISTS' ASSOCIATION GOLD MEDAL TO DR. B. P. RADHAKRISHNA

Professor C. S. Pichamuthu, President of the Geological Society of India in awarding the Mysore Geologists' Association gold medal to Dr. B. P. Radhakrishna for the year 1972 said:

'The Geological Society of India awards the Mysore Geologists' Association gold medal once in two years for outstanding work done by a geologist on problems connected with Mysore geology. There was an organisation called the Mysore Geologists' Association which was started by Dr. Radhakrishna some years ago which functioned for several years and then found that after the Geological Society of India was formed they might as well merge with the activities of the Society. So the funds that were with them were passed on to the Geological Society of India, and from the interest on this amount this medal is awarded. An expert committee which went into the work done by recent researchers on Mysore geology, unanimously recommended that the medal this year be awarded to Dr. B. P. Radhakrishna for his work on Mysore geology. The Council approved of this and today we have assembled here for the presentation of this medal.

Dr. Radhakrishna entered the Central College as a student in 1934. He had a brilliant college career. He passed the B.Sc. (Hons) degree in 1st class securing the first rank and therefore the Mysore University awarded the Hanumappa Gold Medal. Immediately after passing the degree he joined the Mysore Geological Dept. in 1937. In the Mysore Geological Department he was entrusted with a variety of assignments which he performed with great success. During the early years he did quite a lot of geological and mineralogical surveys in various parts of the State and he has published the results of his work in the Records in various small notes. Dr. Radhakrishna was

a student of mine in the Central College and therefore I had abundant opportunities of noting with satisfaction his performance both in the class room and in the field.

When I became Director of the Department in 1948, I took the earliest opportunity of withdrawing him from the field to headquarters. I think this was one of the best things I did for myself, because once he came to the Department he was a very loyal colleague, an indefatigable worker and a good administrator. It was possible for me therefore to delegate quite a lot of my work to him with great confidence and I was able to concentrate on scientific work in the Department. Dr. Radhakrishna invariably accompanied me to the field, because it was advantageous that one who had seen so much of Mysore geology in the field should come with me to the field. During the years I was Professor in the Central College I was of course, very interested in field geology but in the University it was possible to go to the field only during Dasara and Christmas holidays whereas Dr. Radhakrishna had done several seasons of work in the field. So he was of great assistance and help to me and because he was fully aware of many of the problems of Mysore geology, we used to discuss them when we were in the field and also when we were travelling on the road. I look back with very great pleasure and satisfaction to those fruitful years of his association with me.

In 1952, a commercial wing of the Mysore Geological Department called the Bureau of Mineral Development was organised, and Dr. Radhakrishna was placed in charge of this. He soon opened up several mines for Chromite, Manganese ore, China clay, Asbestos, and so on. In 1958, this organisation was considerably enlarged. The name was changed into the Board of Mineral Development, and Dr. Radhakrishna was appointed as its first General Manager and Managing Director. During this period he expanded greatly the mining and trading activities of the Board in association with the State Trading Corporation. During the years he was engaged in applied geology activities such as mineral survey, mineral industry problems, and so on, he did not give up his interest in academic investigations, and he submitted a very fine thesis on the Closepet granite of Mysore State for which he was awarded the Ph.D. degree by the University of Mysore. This was a very creditable achievement because along with the full time work which he had to do in the field he was able to accomplish this also.

In 1963 he became Deputy Director of the Department of Mines and Geology, and a couple of years later he was appointed as Director which post he is now holding with great distinction. He is mainly responsible for the great expansion of the Department both in personnel and in the diversity and intensity of mineral exploration. Those of us who knew the size of the Department those days and see now the number of people employed here realise the rapid rate at which expansion has taken place and Dr. Radhakrishna is mainly responsible for this development.

In 1966 he initiated a groundwater cell in the Department and organised systematic groundwater surveys throughout the State. He has been a specialist in the development of groundwater resources and in the various problems associated with this, and his advice is now sought for in this connection both by the State Governments and the Centre.

Dr. Radhakrishna was entirely responsible for starting the Chitradurga Copper

Co., of which he is now the Managing Director. Under his able guidance the company is expected soon to become an important poducer of copper in India.

He is a Fellow of many learned Societies—the Geological Society of India, the Indian Academy of Sciences of which he is now a member of Council and the Indian National Science Academy which is the foremost scientific body in India today. He has been the Secretary of the Geological Society of India ever since its inception.

Dr. Radhakrishna has published over 100 papers in various scientific journals, which deal with different aspects of geomorphology, mineralogy, petrology, structural geology, engineering geology, groundwater, and mineral industry. All of them have a bearing on Mysore geology. On behalf of the Geological Society of India I have now very great pleasure in presenting the Mysore Geologists' Association Gold Medal to Dr. Radhakrishna for his outstanding contributions to Mysore geology, and in doing so wish him many years of useful activity.

Sri M. B. Ramachandra Rao, formerly Chief Geophysicist and Member, Oil and Natural Gas Commission in felicitating Dr. Radhakrishna said:

'I think almost all assembled here know very well the many sided contributions of Dr. Radhakrishna in pure and applied geology. On an occasion like this, it is fitting to recount some of his contributions. He began his career as a geologist in the lowest rung of the Mysore Geological Department thirty-six years ago. Dr. Radhakrishna and I worked together for some time. Young as he was then scintillating with enthusiasm and a high calibre intellect, he used to apply himself to any task assiduously and with purposeful devotion. I remember how carefully and correctly he mapped even as a beginner, the low grade bauxite deposits at Shivaganga near Holalkere. He then turned to geophysics for a time and worked with me near Chitaldrug. Geophysics was then a new subject to me also, and I had occasions to benefit from Dr. Radhakrishna's careful work and observant eyes. His valuable assistance in those formative years of my own career as a geophysicist is something which stands indelibly in my memory.

Much of the Terminology in Mysore geology had remained rather vague for many years. Terms like Champion gneiss, Keratophyres, graywacke, etc., had been used with different connotations on different occasions by the earlier geologists. Many local terms like Tarurite, Sakarsnite, Bidalotite, Kodamite, etc., required annotatiom. Dr. Radhakrishna took upon himself the laudable but thorny task of annotating the numerous terms in Mysore geology. After scrutinising the many publications of this Department covering a period of over forty years, he produced a draft of Mysore Geological Terminology. My own opinion was that he had done this very well indeed. However, this draft languished for a considerable time for getting the official seal, and then emerged with some modifications. It had been the bane of this Department as also of the Geolgoical Survey of India, that there were two versions—one the official view and the other the individual officer's views. I imagine that what was said to be the official view was not so much the consensus of opinion of officers of the organisation as it more often was the view of the head of the Department! Anyway, reverting to the topic of Mysore Geological Terminology, I feel that Dr. Radhakrishna's contribution was very useful and is still a good reference book.

The Closepet granites with pink porphyritic felspars had been regarded for long

to be a true granite congealed from a magma which intruded into the Peninsular Gneiss and Charnockites. Dr. Radhakrishna's detailed studies of these rocks brought to light the varied granitic and gneissic types comprising the Closepet granites and granitization phenomena in the formation of these rocks. His researches earned for him the doctoral degree of the Mysore University.

Another important contribution of Dr. Radhakrishna is his exposition of Peninsular Gneiss which had been used as an omnibus term for mapping all and sundry types of granites and gneissic rocks and presumed to be intrusive everywhere into the Dharwars. Dr. Radhakrishna pointed out that the so called Peninsular Gneiss includes amongst other things the primordial crust of the earth, although in somewhat modified form.

Dr. Radhakrishna is one of the earliest, if not actually the first, to point out the occurrence of large scale faulting in the Mysore Plateau to explain the physiographic features. I think the faults have since proliferated a lot as can be seen from the maps of Prof. Ermenko!

Dr. Radhakrishna's contributions in the fields of mineral prospecting, groundwater and technical administration are outstanding. He earned the high distinction and honour of the National Mineral Award in 1971. He organised the Mysore Minerals Bureau and it later blossomed into the prosperous Mysore Minerals Ltd. His initiative in exploration and mining for copper in Mysore has begun to bear fruit. As regards groundwater, his initiative and zeal dates back to almost three decades. It is his insistence that brought geophysical methods to aid in groundwater investigations in Mysore. Today, the Groundwater Division of the Department is one of the largest and best equipped amongst other State organisations of the kind.

Dr. Radhakrishna is an indefatigable worker whether it be in the field, laboratory or office. There is nothing he touches which he does not adorn. We can look forward to many more years of valuable service from him in the cause of geology and mineral development. I feel indeed proud today in joining you all in expressing our hearty congratulations to him on the award of the Mysore Geologists' Association Gold Medal which he so richly deserves. I wish him all success and long life.

Reply by Dr. B. P. Radhakrishna

It is indeed a great honour to immediately follow you Mr. President, in being the recipient of the Mysore Geologists' Association gold medal and to receive it at your hands. Our association has extended for a period of nearly forty years. I became your student at the Central College in 1934. Later when you became the Director of the Mysore Geological Department, you chose me as your Technical Assistant and during that period we roamed the length and breadth of the State trying to know more about its complex geology. Together we started the Mysore Geologists' Association, held meetings and brought out several good publications. Later I followed your foot-steps and became like you the head of the Department of Geology. Your help and guidance were available to me even in your retirement, for you kept up your regular attendance at the Office. In all these ways you have been to me like a father, friend and philosopher. It is most gratifying to me, therefore, to receive this medal at your hands to-day.

The geology of Mysore is so full of complexities that no one dare say that he has understood or solved its many problems. My own contribution has been negligible. The best period of my career between 1952 and 1962, when I could have made some worthwhile contribution was somewhat wasted in building a commercial organisation—the Board of Mineral Development. Since 1965, the increasing responsibilities of running a growing department have left little or no time to devote myself to the intensive study of any geological problem.

Years ago when I first joined the Department and had to work almost all the days of the year in the field, I spent long hours of the evening and night in going through the brown and brittle pages of the Records of the Mysore Geological Department. I was then lost in admiration at the way Dr. Smeeth had built up the Department. With the help of only a handful of officers, many of whom did not have a formal geological education, he was able to cover the entire Mysore State and produce a geological map which is unrivalled for its excellence even today. Dr. Smeeth in those early days had recognised the importance of utilisation of mineral resources. His account of the mineral resources of the State contained many useful suggestions about their industrial utilisation. Smeeth had also realised the importance of groundwater studies and made his officers observe the fluctuation of water levels in wells thoughout the State. It is a great pity that this work was not followed up. Again, he had realised the importance of minor minerals and made special efforts at collecting accurate statistics of their production. The Records of the Department of those earlier years bear ample testimony to the interest he had evinced in carrying out all these studies.

I had resolved that if ever an opportunity came my way I would revive all these activities. Such an opportunity did come when I became the head of the Department eight years ago. It has been my endeavour these last few years to give effect to the dreams of my youth. The implementation of the Chitradurga Copper project was one such which has given me a sense of fulfilment. The largest expansion in our activites during recent years is related to groundwater surveys and development. This section which was started in a modest way with the object of carrying out a survey of our resources has assumed new dimensions, thanks to the services of two senior hydrogeologists from overseas. A less spectacular but nevertheless significant development is the study of minor mineral resources. This study has brought to light the significant fact that the value of minor minerals produced in the State exceeds the value of major minerals! A beginning has been made in this direction but a great deal remains to be done.

My only regret is that in all these developmental activities, pure geologic studies have not recorded any significant progress. As a result of federal financial integration, systematic geological mapping was taken out of the purview of the State Department. This was not a healthy decision. Any Geological Department if it has to justify its name and existence should never give up systematic mapping on larger and larger scales.

While I own to a sense of disappointment in not being able to organise systematic geological studies within the Department, I derive a great deal of satisfaction when I see the steady growth of the Geological Society of India. No work has given me greater satisfaction and a sense of fulfillment than the work I have been able to do for the Society.

On an occasion like this, I must confess to an overwhelming feeling that in spite of my many human limitations, some force has led me on which has made me do things which have evoked your appreciation and brought me this honour. I bow my head in salutation to that Almighty power by whose grace even the dumb can talk, and a dwarf leap over mountains:

मूकं करोति वाचालं पंगुं लंघयते गिरिम् ।
यत्कृपा तमहं वन्दे परमानन्दमाधवम् ॥

GEOLOGICAL SOCIETY OF INDIA

Proceedings of the Annual General Meeting of the Society held on 21st April 1973 at 5 p.m. at the office of the Department of Mines and Geology, Race Course Road, Bangalore.

Present

1. Prof. C. S. Pichamuthu *(President)*
2. Prof. M. R. Srinivasa Rao
3. Prof. M. N. Viswanathiah
4. Prof. C. Naganna
5. Dr. S. Sambe Gowda
6. Dr. G. V. Anantha Iyer
7. Sri M. V. A. Sastry
8. Sri T. K. S. Iyengar
9. Sri V. Srinivasa Murthy
10. Sri Mir Azimuddin Alikhan
11. Sri N. S. Suryanarayana Setty
12. Sri B. G. Channappa
13. Sri T. B. Sundara
14. Sri B. Vasudevamurthy
15. Sri R. H. Sowkar
16. Sri K. G. Gubbiah
17. Sri R. Srinivasan
18. Sri H. Chandrasekhar
19. Sri G. S. Annaiya
20. Sri B. L. Srinivas
21. Sri J. V. Subbaraman
22. Sri K. Gavi Setty
23. Sri B. L. Rajasekhariah
24. Dr. B. P. Radhakrishna *(Secretary)*

1. Notice calling the meeting was read by the Secretary.

2. The Annual Report of the Society for the year ended 31-12-1972 together with the audited statement of accounts for the year was presented by the Secretary.

The written comments of Sri T. P. Krishnachar to the effect that 'Publication of Text Books' by the Society in the manner detailed in page 3 of the Report, does not come under the scope of the objects of the Society, were considered. The general consensus was that item 2(a) of the objects of the Society—'to promote the cause of advanced study and research in all branches of Geology'—was sufficiently comprehensive to include the writing and publication of books on specific aspects of Indian Geology.

As there were no other comments on the report and the statement of accounts for the year 1972, Sri G. V. Anantha Iyer moved and Sri B. L. Srinivas seconded the adoption of the Report.

The annual report and the accounts were unanimously adopted.

B. P. RADHAKRISHNA
Secretary

C. S. PICHAMUTHU
President