

# A brush with Sir CV



I can't recollect whether he responded to my *pranams* and *pravara* citation or not but I heard him shouting impatient expression at me: "What? What? Why do you want to disturb me?"

"No sir. I have come on behalf of the University of..."

"I have nothing to do with any university. Don't disturb me. You may get out."

Collecting all my thoughts and mustering all my courage I said in words spiced with the

best sentiments: "Sir, we in India today are a blessed lot. For, we are fortunate to live contemporaneously with a world scientist of your dimension, and to see and listen to you full bloom. Generation to come will think of you as a great legendary hero who had helped Indian science rise out of dust. Future men of science drawing inspiration from your example will work on the lines charted by you. Therefore, sir, I feel, I feel very strongly too, that it is our

sacred duty and responsibility both to us and to our progeny to record your life, thoughts, work, and above all your charismatic personality. Let not posterity accuse us of having failed in this regard. I implore you earnestly that you may be pleased to help me in this labour of love."

"What? What did you say? You seem to be quite interesting!" There was a faint smile on his radiant face like the first moon of the bright half of the

Hindu month. That cheered me and I dwelt on the fact how he had imported status to 'native' science and infused self-confidence among Indians.

"Well sir! Please come in. Let us sit and talk."

I followed him elatedly. He walked to his chair on one side of the large working table while I stood behind a chair facing him on the other side.

"Please sit down, sir" Raman said.

"No sir, not when you are standing."

"Sir, now you are my guest. Our culture has prescribed the dictum *atithi devo bhava*. First you and then I."

I obeyed his command. He continued "Now tell me, sir, what you want to know."

I handed over the University letter beseeching him to give his biographical details.

"Look sir! The mundane details of my life are of no value to me. Like anyone else I was also born, educated etc."

"But you are so different from the rest, you are a unique person..."

"Raman is different from others because of his Raman effect. You can't separate the two. And if one wants to write on the Raman effect one should at least be M.Sc. in physics. Now what is your qualification sir?"

With terrible uneasiness I said haltingly "I am not an M.Sc. (physics), but a mathematician..."

"Then this job is not for you. Do not disturb me any more. You may get out." He stood up. I was back to square one. I had nothing else to do except to stand up and 'get out'. However, I made bold to say "Sorry sir, I shouldn't have come to you without doing my homework. I will do it now and come again."

For the next one month I daily spent several hours with the physics professor in my college to learn as much as possible about the Raman Effect. I visited several libraries in the city and collected all available literature on Raman and the Raman Effect. Finally I prepared a complete life sketch of Raman highlighting his scientific career. As my file grew, my confidence increased, and I felt I was better equipped to face the scientist.

I wrote him a letter, and two days later rang him to get the confirmation for our meeting. He said "Yes I can recall our meeting some weeks ago. You have written such a nice letter

ONE day in 1967 I received an assignment from Prabhuddha Karnataka, a literary quarterly of the University of Mysore, to contribute an article in Kannada on 'Sir C. V. Raman - his life, work and achievements' for their golden jubilee number to be published in 1969.

Being a mathematics, not physics, lecturer I had been hesitant to take on the assignment but I could not resist the editor's charmingly persuasive letter in reply to my earlier negative response.

And so I made my first 'pilgrimage' to the Raman Research Institute at Hebbal which was then at the outskirts of the

made him come out with a faint suggestion. I could perhaps meet Lady Raman, explain my purpose and await her direction.

In a matter of minutes I was at Raman's home. Lady Raman herself opened the door when I tapped. Her reaction was no different from the secretary's: "My husband does not tolerate any intrusion into his time. You better give up the hope of meeting and spending some time with him."

Several minutes of steady imploring finally produced a ray of hope. She said, "You leave behind your address and phone number. I will let you know after discussing it with him".

The promised green signal from her didn't materialise even

Sir C.V. Raman was a man of many moods. His love for research matched his desire to be left alone. So that, he led the life of near-recluse, not wanting to be talked to or written about. On the occasion of the birth centenary of the first Indian Nobel laureate in Science, G.T. Narayana Rao recalls how he overcame heavy odds and managed to penetrate the scientist's reserve

## RETROSPECTIVE

growing city. I had tuned myself to face any situation.

I stood at the wide open gates. There was no visible sign of human activity in the vicinity. The prominently displayed caution on the notice board was chilling. It said: "The Institute is not open to visitors. Please do not disturb us". Serenity reigned supreme. For a while I hovered undecided but then I stepped into the forbidden territory completely camouflaged beneath the trees and totally blended into the natural set up, stood the solitary office. I met the secretary and explained my mission. I learnt that Raman hadn't permitted him to entertain any call from any quarter for an interview. Raman, now in his late '70s, desired absolute privacy and peace to attend to his research.

"Okay sir, would you then please answer my queries on Sir CV?" I pleaded. "No please. I don't have his permission for this either," he replied politely but firmly.

My persistent requests coupled with the fact that I wasn't a journalist but an academician

after a week. My subsequent telephonic call drew a blank. I decided to visit the Institute again. The verandah stretched from one end to the other. It was open at the far end while the near end provided entry to an offset room. Except for this room and one facing me, all rooms across the verandah were closed and locked. Inside the room facing me, I saw a typist busy at work. He hadn't yet noticed me. I waited patiently; when he noticed me I explained my mission expecting to be rebuffed. "So you want to see the Master?" he said, with a heavy accent on 'MA'. "Write your name and designation, and also the purpose of your visit."

I waited with trepidation as he entered the room. From behind the curtain, there sprang out like a dart the great Sir C. V. Raman in his characteristic white turban, loose hanging necktie, odd fitting open coat, baggy pants, full shoes, and hyperpowerful eyes which contained in them all the curiosity, impatience and wonder of mankind. I was in the den face-to-face with the lion.

about the efforts you have put in. How can I say no to you? Come in at 3 p.m. tomorrow."

The next day, promptly at 2.50 p.m., I stood at his doorstep. At 2.59 p.m., I heard his familiar footsteps, and within seconds he was there greeting me warmly "You are wonderfully punctual and punctilious too. Come in Sir."

We were again seated face-to-face in his chamber. Pointing at the bulky file and other material I was holding, he queried "What is all this?"

"Raman Effect, sir."

With a mischievous chuckle and approving gesticulation he remarked, "I am glad sir, you have passed well in my seemingly harsh test."

For the next 3 hours it seemed

between two opposing claimants: his office duty and research. His original work in the Association attracted worldwide attention. As if in confirmation of this, Sir Asutosh Mookherjee, the then Vice-Chancellor of the Calcutta University and a noted talent-scout invited him to join the Calcutta University to honour the Palit Chair in Physics. Sir Asutosh himself was a reputed researcher in mathematics.

Without a second thought, Raman left his secure, remunerative and power-wielding government job to the University.

It was during his years here that Raman recognised and demonstrated that the energy of a photon underwent a partial transformation within matter.

## MILESTONES

- Born November 7, 1888. "...With a copper spoon in my mouth", he used to say to elaborate his father's strained financial conditions.
- As a teacher, his father drew a salary of Rs. 10 per month.
- At the age of 14, he entered college.
- At 18 years of age, in 1906, he published his first scientific paper in a prestigious London Journal.
- At 19, he obtained his MA degree - a first class topped with a gold medal.
- In 1907, he was compelled to take up a job in the Finance Department of the Government in Calcutta.
- In the same year he joined the Indian Association for the cultivation of science and began scientific work in real earnest "after office hours". He remained there till 1933.
- In 1924 he was invited to open a symposium on the scattering of light at the Toronto meet of the British Association in Canada.
- In 1928, he discovered the phenomenon which is now named after him - the Raman Effect.
- In 1929, Raman was awarded the Hughes Medal by the British Royal Society.
- The year 1930 brought him the Nobel Prize for Physics.
- In 1934, he became Director of the Indian Institute of Science (IISc), Bangalore.
- In 1948 after retirement from the IISc, he began the Raman Research Institute of which he was head till he died in 1970 a few weeks before his 82nd birthday.

as though I was his sole concern. It was more a soliloquy with eyes focused on me but mind browsing freely in the past.

He traced the picture of his student days in Madras at the Presidency College, and his getting into a research problem in physics. But lack of opportunities in the slave country that India was then and the medical unfitness certificate that disqualified him for the stay in England to do advanced research in physics forced him to appear for the All-India competitive examination in which he came out brilliantly. He was appointed Assistant Accountant-General and posted to Calcutta.

One evening while returning home from office by bus he noticed a sign: Indian Association for the Cultivation of Science. He hopped out of the bus and became a member of the Association. From then onwards, he had to divide his time.

His original work earned him the Nobel Prize in 1930.

Recalling the work he and his team had put on this, he was all praise for his associates. "As in hockey, so in science, 'esprit de corps' is what matters", he said.

He continued his one-man talk and went on to recall the later unhappy events that led to his forced exit from Calcutta. Neither did his stay at the Indian Institute of Science, Bangalore, bring him happiness. "When merit and quality are replaced by sycophancy and provincialism, science is lost".

"Perhaps those unhappy feelings spurred you to start your own research institute?" I asked.

"Well, a true scientist wants a congenial environment to work. He wants to concentrate all his energy on the question haunting him. Nothing should distract him from his goal".

"But sir, I see the whole

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campus practically empty. You can't work in a vacuum. Is it because you don't get the proper type of research-oriented pupils?"

"Young researchers are to be nurtured and guided. At this stage of my life, can I really cope with the exacting demands such a work will call for? Besides present-day graduates have greater attraction for lucrative posts or foreign trips for which they want their research degree to serve as passports. They are not fired with the desire of researching for its own sake. Security is the first enemy of curiosity. But curiosity is the mother of research. So, you see, I began as a loner, and am now ending as a loner".

He spoke at length on Indian politics and Indian science: more politics in science and less science in politics. "There is no reason why this great country of ours cannot produce men of eminence like Planck, Einstein and Bohr. But....."

Dusk had cast its thick veil without notice. Visibility inside the chamber was virtually nil. He stood up and stared at his watch. He couldn't make out the time. He looked at me. "It is 10 past 7 sir" I said.

"Sir, I have spoken enough and more. Most of it is for your information only. Please do not bring all this in your article: that may land me in unnecessary

controversies. Neither do I have the time nor mood to involve myself in them. Having overcome all of them what I want now is absolute peace and non-interference."

"I promise, sir. I will submit the script to you when it is ready and only after getting your approval..."

"No need. I have faith in you."

Carefully he ensured that everything was in order. We stepped out. He locked the chamber. We moved down to the yard and walked together till the crossroads where he had to turn right and I left. The observatory across the road was silhouetted against the deep blue firmament. Yonder stars dancing to the tune of gravity were beckoning us to hitch our wagons on to them.

Pointing to the dome he said "Sir, you may come again. Do you know what an exciting thing the sky is?"

"Is not astronomy the mother of all science, sir?" At that moment, Lady Raman arrived. Throwing a stern look at me, she administered a loving warning to him for his forgetfulness; he had missed his evening coffee. "You see, Mr. Narayana Rao, when he is possessed by any idea, he neglects his physical needs..."

"No, being possessed acts as the elixir of life", he protested.

The old couple moved homeward.