

Robert Latham

We meet today in sadness, to mourn the passing of a dear friend and colleague. Robert Latham was a truly loveable man, modest, quiet and good humoured: a man who fitted comfortably into whatever milieu he found himself, be it a country town like Fleet or a university common room. He was no showman, and never sought the limelight; but he was good company, and could entrance his listeners with many an entertaining anecdote delivered in that unmistakable and endearing accent he acquired in the Wirral. In his actions, as in his speech, he was always deliberate, purposeful and unhurried. He was the ideal companion to have in the laboratory — more especially in circumstances where things might go badly wrong. Whatever the crisis, he never became agitated or showed undue emotion. Instead he would just remark "Well, well, we'd better put things right!" and then proceed calmly and serenely to do just that. No wonder he earned the respect and affection of all who worked with him.

And, indeed, many did come to work with him, particularly at Imperial College in London, where he spent

the greater part of his career. In 1948 he had already established a fine scientific reputation in Cambridge when the invitation came to him from Sir George Thomson (a Nobel Laureate in Physics) to move to Imperial and start up research in the new field of Plasma Physics. Mastery of this subject is an essential step towards the goal of nuclear fusion and the generation of electricity ~~by the conversion~~ by the conversion of hydrogen into helium. Robert's firm grasp of engineering principles, combined with his deep knowledge of physics, made him the ideal person to design and construct the large, complicated pieces of apparatus needed in this work. When Professor PMS Blackett (another Nobel laureate) succeeded Sir George Thomson as head of the Physics Department, work in Plasma Physics was greatly expanded. Generation after generation of research students came to study the subject under Robert's guidance, and learned their trade by the example he set and the encouragement he gave.

The group has never looked back, and today it is a major centre for Plasma Physics research. Its present head, Professor Malcolm Haines, is one of Robert's former pupils. Professor Haines is with us here today, together with a substantial number of people who were Robert's colleagues and friends.

The way in which science is carried out in the universities has changed greatly since Robert's student days in Cambridge. The efforts of the individual research worker are now constrained by research committees, peer reviews, and the writing of interminable grant applications and progress reports. None of this bureaucracy was to Robert's taste. He belonged to the old school that considered a physicist's place was in the laboratory doing physics, not sitting in a managerial chair. No doubt the change was inevitable, but all of us who worked with Robert will remember and value the honesty and integrity he displayed in upholding his own way of life. And if the occasion demanded it — perhaps an injustice to one of his students — he never flinched from the uncongenial business of rising to the defence.

The launching of the Plasma Physics group <sup>first called High Temperature Physics Group</sup> was undoubtedly the highlight of Robert's scientific career, but he made very significant contributions in other areas as well. During World War II he was involved in the design of high power microwave oscillator valves for use in radar: these were later adapted to drive linear particle accelerators. In Cambridge, Robert was a senior member of the cyclotron team and did research on the scattering of neutrons. And at Imperial College he was involved for a time with the Van de Graaf high voltage generator used in the study

of the energy levels of atomic nuclei. Here, too, his feet-on-the-ground engineering approach was invaluable for success in the measurements, while he also played a major part in the theoretical interpretations. His quiet confidence that a little persistence would usually yield an answer often bore fruit.

In recent years, Robert became increasingly interested in the problems of General Relativity. The behaviour of a Foucault pendulum (which demonstrates the rotation of the Earth in space) can be analysed to distinguish between relativity theory and theories involving an ether. Robert introduced such an experiment into the undergraduate teaching laboratories, thereby injecting a 'real-life' interest into an area more noted for repetitive exercises. With his assistant, John Last - who is also here today - he carried out a series of similar experiments deep underground in the UK and in South Africa. These experiments were reported in the Proceedings of the Royal Society. Robert continued with this work into retirement, maintaining his enthusiasm for experimental science to the end.

The picture of Robert I have attempted to draw is based largely on his life as a professional physicist. Not surprisingly the same personal characteristics show no less clearly in other settings; in the hospitality of his West London home and among the many friends he made here in Fleet. Robert's exploits on behalf of this lovely old church must have warmed the hearts of all its parishioners. His labours, in Fleet and Imperial College, were both labours of love. We rejoice in his achievements, as much as we mourn his loss. To his wife Julia, and to his children and grandchildren we give our deep sympathy and understanding at this very difficult time.

H.R.A.