SOME IMPRESSIONS OF LIONEL STAVELEY

Lionel Staveley retires at the end of Trinity term 1982. The meeting today is proof of the unusual degree of respect and affection that he has won, both from several generations of Oxford chemists and also from the international scientific community. In some ways, a man of Edwardian dignity, yet, like MacMillan, he can display a good-humoured sparkle that causes people to warm to him. No undergraduate can forget the contrast between the first meeting, as part of a nervous group sitting on the edge of that sofa in his college room, listening to the tall, dry, authoritative figure formally explaining the ways of the Oxford Chemistry School; and the sight, a few days later, of the same man donning that amazing fur coat, preparatory to bicycling along the foggy autumnal dusk of Mansfield Road.

It is this frequent combination of the expected and the faintly bizarre that makes him such an effective teacher and leader. He has quietly and modestly shaped or redirected the careers of many men and women of science, not only providing the soundness of knowledge and judgment that they expected when they came to him but also the courage to tackle experimentally difficult problems of great theoretical interest. It has been said that he seems always to put the interests of others before his own. Not only his wide circle of scientific friends notice him. That well-known sceptic, Berni Alder, the father of computer simulation, said in the late '60s that Staveley is, for him, the ideal type of scientist; whenever Berni looked for experimental data on really interesting systems, he found that is was Staveley who provided it and the quality was always good.

His manner puts him with the best of the old Oxford tradition but his mind projects him into the contemporary international scene. He was brought up in the classic mould of successful Oxford scientists. He was born in the small and attractive Lincolnshire town of Stamford (within ten miles of the village of Braunston, home of the forebears of his contemporary and close scientific colleague, the present Warden(*)).

His earliest scientific paper predates his degree and presents the results of work he carried out with Moelwyn-Hughes. He studied for his B.A. under C.N. Hinshelwood, then tutor at Trinity College, Oxford when that figure was at the height of his redoubtable intellectual powers. He was awarded a first class honours degree in 1936 but was always remained sensitive to the strain that finals put on students. He would retail the account of an annually recurring dream of being at a viva, not as an examiner but as a student, being awarded a lowly degree by grimly triumphant examiners.

He left England for Munich, to study under Clusius for a doctorat but returned because of the imminence of war. (Eating a dismal British Rail sandwich on a train journey to London in 1965, he recounted how as a student, he would by choice take is evening meal at the station restaurant in Munich because of the combination of quality and cheapness that it offered).

Returning to Oxford as a lecturer in 1938, he was elected a Fellow of New College in 1939, and embarked on research reflecting British war needs. Those of us who would browse among the many theses on his office shelves during the long nocturnal hours of a low temperature calorimetric run, became used to the injunction, found midway in the early volumes, not to read the ensuing sections unless possessing appropriate security clearance from the Ministry of Supply.

From these early studies of kinetics and adsorption, which did not give him the fullest intellectual enjoyment (''I've served my apprenticeship on kinetics; now young Dickens(**) can take his turn, so to say''), he began the series of low-temperature studies of solids and liquids discussed at this meeting. From the '50s to the '80s, he has sought to illuminate theory by experimental study of relevant models, using such analogies as solid clathrates for the early lattice theory of liquids, fusible white precipitate to represent the three-dimensional dimer problem and so on.

This work started in Oxford and might well have stayed there, had it not been for the happy accident of a sabbatical term as Cherwell Visiting Fellow at Pennsylvania State in the summer of 1962. He returned with a new respect for Americans, particu-

(*) A.H. Cooke
(**) P.G. Dickens

larly students ("I gave them two hour lectures starting at 8 a.m. and, do you know, not only were they keen, but they were always all on time"). The wealth of international collaboration that resulted, is reflected in the awards of:

1957-59 Member of Council of Chemistry Society
1962 Cherwell Visiting Fellow to U.S.A.
1962 Visiting Professor at Pennsylvania State University
1963-67 Chairman of Comission on Data and Standards, I.U.P.A.C.
1968 (Jointly with W.B. Streett) Russel B. Scott Memorial Award of American Chemical Engineering Society for outstanding papers of 1967 in Cryogenic Engineering Research
1970 Visiting Scientist at N.B.S. Boulder and
1970 Visiting Professor, University of Michigan
1973-79 Invited Lecturer at Gordon Conference
1974 Chairman of Sixth Experimental Thermodynamics Conference
1975 Visiting Professor at the New University of Lisbon (first graduate course on Physical Inorganic Chemistry given in any Portuguese University).
1975 Chemical Society Award Thermodynamics and Electrochemistry
1979 Elected Corresponding Member of the Academy of Sciences, Lisbon
1983 Lennard-Jones Lecturer of the Royal Society of Chemistry (Conference on Liquids and Liquid Mixtures, Hull).
1983 Special award by Portuguese Chemical Society

Much of his work is described in that impressive volume with Neville Parsonage "Disorder in Solids" which doubled the publisher's expectation, both with regard to time of writing and to length. A similar version of his liquid studies is eagerly awaited.

Each of us who studied with Lionel probably think we have a reasonable feel for the whole man, yet during discussions about this meeting over the last two years, we have consistently been surprised at the strength of the perception by others of facets of his work that are almost new to us. This is why so many people can each highlight such a variety of scientific achievement at today's meeting.

ROGER LINFORD
School of Chemistry
Leicester Polytechnic
Leicester LE1 9BH UK

Photo: Jorge Calado

L.A.K. STAVELEY

Born	11 November 1914
Attended Stamford School	1921-32
Matriculated at Trinity College, Oxford	1932
B.A. (Hons) Chemistry	1935
B.A. (First Class Hons) Chemistry	1936
M.A. (Oxon)	1939
D. Sc. (Oxon)	1960