

Dr Kenneth Hepworth

Colleagues will be sorry to learn of the death, on 13 September 2020, of Dr Kenneth Hepworth, former Lecturer in the Department of Textile Industries. The following tribute has been contributed by Dr Hepworth's family and former colleagues.

Ken's educational life began at Dewsbury Wheelwright Grammar School followed by a degree course at the University College Hull (later the University of Hull) attaining a BSc in Mathematics from University of London in 1948. His first permanent position was at BSA in Birmingham dealing with noise problems in motorbikes. He was appointed to a Wool Textile Research Council Fellowship in the Department of Textile Industries in 1955, under the supervision of Professor A H Nissan, Research Professor of Textile Engineering, then, upon his retirement, by Professor P Grosberg, his successor, and later the Head of Department.

Ken's academic work was concerned with the study of loom noise and his theoretical analysis successfully addressed the complex circumstances within commercial weaving installations. Ken's work on his PhD thesis, *The problem of loom noise, 2 vols, 1961*, was based on this study. He successfully attained his doctoral degree in 1962, following this research work, the results of which were presented at an Institution of Mechanical Engineers Symposium. Ken published and edited many papers. He also visited the Patent Library in Leeds to research material appertaining to his specialist field.

Ken was appointed as Lecturer in Textile Engineering, in 1960-61, and collaborated closely with both Professor Percy Grosberg and Dr Gerald Leaf during a very active and fertile period in the development of the subject. In due course, Ken's attention turned again to weaving and his research in this field extended over many years and is valued for insights into the dynamics of woven fabric formation and for the ingenuity of his experimental technique. Its great commercial significance offered an alternative to empiricism in producing fabric of consistent quality.

Ken's involvement in textile engineering reached into his teaching and he soon developed a course in preparatory weaving processes supported by lucid theoretical explanations. Following the retirement in 1974 of Duncan C Snowden, Lecturer in Weaving, Ken took over the teaching of weaving mechanisms, which in turn introduced him into undergraduate teaching. The subject had previously been largely descriptive but Ken preferred an engineering analysis. Eventually the subject was accepted by his students, especially those with an arts background and the academic standing of the subject was enhanced.

During his career there was much technological progress in weaving machinery which he introduced, even forming short courses and post-lecture tutorials. Ken was very good with students, giving them great help with their studies and any concerns that they might have about his subject. He made several friends world-wide, many of whom he was still in contact with well into his retirement.

Ken was a private individual who did not suffer fools gladly, so his academic work and friendships were very precious to him. He lived with his wife, Barbara, for most of his life, having met at University College Hull. Barbara, a research fellow in the Department, specialised in theoretical and mechanical properties of knitted fabrics, and they collaborated on the subject pioneering a series of exchanges together with the Polytechnic University of Lodz, Poland, for discussion of mutual interests. They were also guest lecturers in the University of Minho, Portugal. Barbara, luckily, had a good sense of humour and partnered Ken to a tee.

In his personal life, Ken was a loving family man, not only with Barbara, but also with their daughter Ruth, who followed intellectually in a similar vein. After Ruth was married to husband Simon, their grandchildren inherited and studied their interests of music, computers and engineering. Ken and Barbara were very proud and supportive of their family, daughter and son-in-law, grandchildren, and their great-grandchildren. They looked forward to their visits and to hearing about their active lives.

Both Ken and Barbara were intensely interested in classical music and Ken had a great collection of such works at home. They often attended concerts, meeting and discussing works with friends of similar tastes. Ken's knowledge of electronics furnished him with the ability to build high-quality amplifiers. In his youth, Ken had an interest in fairgrounds, especially the machinery found there, and often worked as a 'barker' during vacations. Such attributes would hold well in a weaving shed – little would he realise at the time!

There goes the life of a man of many interests.

He will be greatly missed by us all.

Vera Whitehead, with contributions from Dr Kenneth C Jackson, Dr George C East, Dr Philip Kendall-Smith, and Ruth Blake.