

Peter Plesch - a Tribute

Dear Traudi, dear family members, dear colleagues and friends, it is indeed an honour to be asked to join the distinguished members of the family to pay tribute to Peter, our esteemed colleague and friend. My task is to say a little about his extensive academic life and work at Keele. In doing so I hope to evoke and embellish your own memories and so enhance your own impressions of the remarkable man who enriched all our lives, Peter Plesch.

I first met him in 1961 when my family returned to this country from the United States. Almost immediately and literally, I came into collision with Peter's collection when he kindly offered to lend us some pieces of furniture. It was only later, after helping him to manoeuvre a heavy chair down round the bend in the stairs at 10 Church Plantation that I realised the vase on the window sill, which had teetered but not toppled, was probably worth far more than me.

Peter had arrived at Keele ten years before, in 1951, being one of the first non-professorial staff to be appointed. These were the famed "gum-boot" days and he lived in one of the many Nissen huts which, together with Keele Hall made up the fabric of the then University College. Together with his Professor, H.D. Springall, he helped devise the chemistry part of the multi-disciplinary curriculum, for which Keele was rightly famous. The Keele Foundation Year was made for Peter with its weekly discussion groups between students and staff from a broad spread of subjects, and the variety of contacts and activities allowed his influence to spread well beyond Chemistry.

Peter taught physical chemistry, the branch of the subject that tries to answer the "why" and "how" questions of the subject. He had an inimical style of lecturing but it is not unfair to say that generations of students found Peter's lectures a bit of a challenge. However this was more than balanced by the practical course which he devised and ran for the whole of his time at Keele. The heart of his method was to go through the writing up with a toothcomb, in order to encourage the student to appreciate fully what he or she had done. He could be very tough, with some sessions ending in tears, but his patience in sitting with pairs of students in the lab., working through the details and theory of what they had done, was truly amazing. And his rigorous approach earned him much respect. When one met students long after they had left Keele, Peter was always remembered.

He had come to Keele from Manchester where he obtained his PhD under the supervision of the eminent Michael Polanyi, working on what Peter discovered to be cationic polymerization. Polymers are the constituent molecules of plastics and the trick in this trade is find trace substances, catalysts, which will enable the small simple constituent molecules to join up and polymerise into long chains. Peter discovered that, in some reactions, water was a co-catalyst and this led to his life's work in a very difficult field.

The experimental problem is that water vapour is all around us and every solvent contains traces of water. Peter and his group devised all sorts of ingenious glass devices for keeping water out while manipulating the reagents and products under vacuum. He and most of his coworkers became accomplished scientific glassblowers.

But the experiments are just the start of the problem - these reactions proceed via very short lived intermediates and Peter was imaginative enough to incorporate newer concepts to gain an insight into the reaction mechanism and actually to observe some of the intermediates. He was also adept at manipulating the complex mathematical equations describing these systems.

Peter published about 150 research papers and a book on polymerization. Like most of us, he refereed, anonymously, the work of his colleagues in the field before publication. He was a vigorous defender of the English language and a ruthless critic of sloppy science. But he was

also most helpful to non-English speaking scientists, sometimes essentially re-writing their papers for them.

On retirement Peter was keen to resume practical bench chemistry at Keele to try out some new ideas. However he soon ran into the Health and Safety at Work Act; he had learned his undoubted practical skills in rather more robust times, and was prepared to take more risks than are now deemed acceptable. He persevered with his writing and published another book on experimental techniques, for he had the feeling that the techniques and apparatus which he and his generation had developed would be lost if someone involved did not record them carefully. He published his last scientific paper just after his ninetieth birthday.

In his extensive work he was ably supported by some forty research students and post-doctoral workers, whose appreciable contributions he was glad to acknowledge, and who remained friends and colleagues for the rest of his life. And he had numerous contacts with colleagues across the world - often visiting them to lecture and for discussions. He seemed tireless when travelling, making almost regal "progresses" from Department to Department across North America and Continental Europe. Both Peter and Traudi were clearly welcome guests throughout the world. Peter was a titled visiting professor in several universities and companies. He received a higher doctorate from his Alma Mater, Cambridge, and a Personal Chair from Keele in 1978.

Peter had a great love of science in general and, at an early age, was greatly stimulated by Albert Einstein himself, who visited the Plesch's summer home in Berlin when Peter was a boy. He told a nice story of how, on one occasion, Einstein gently explained the practical difficulties of young Peter's ingenious design for a perpetual motion machine.

He had such a wide range of interests, running an intellectual dining club at Keele, and later gathering a group of younger staff from several science departments around him to form the Inquirers who met regularly for informal discussion on the latest scientific developments. The Inquirers still continue their discussions today; several of the individuals maintained their contacts with Peter until his death and are here with us today.

For many of you, it is surely through Peter and Traudi's wonderful collections of Roman Glass and beautiful artifacts from the Far East, that you know him. Some of you may be surprised to learn that he was twice in the Guinness Book of Records - once in 1959, for the highest price ever paid anywhere for any kind of ceramic - and then in 1970 when that piece was sold. He also applied his science to studies of ceramics and glass, and was author of several learned papers in this field. He would have been pleased to know that, at the Stoke Museum last Saturday, Frank Rutten from Keele organised an outreach exhibition on the Chemical analysis of Ancient Artifacts - for which Peter donated many of the items.

And Peter relished the fact that, in his fifties, he was offered a chair of physical chemistry in Germany and the Curatorship of a Gallery of Oriental Art in the United States. Happily he preferred the unfashionable though most congenial North Staffordshire!

It was Peter's attitude to his collections that enthralled me: when my teenage middle son was trying his hand at throwing pottery, Peter suggested he might like to come over and see a few pieces. On arrival Peter handed Stephen a largish heavy bowl and urged him to take it, to feel it, to turn it over, to admire the glaze and so on. When Stephen put the item down - Peter said quietly: "that's two thousand years old". He really wanted you to enjoy what he had and to share his enthusiasm. As those of you who visited his and Traudi's beautifully arranged collection at Sutherland Drive will have felt; the importance was not the value - he wanted you to appreciate, as he did, the look, the feel, the intricacy and the art of his pieces.

However Peter also had some odd interests, one of which was the supernatural. Personally I could not follow his enthusiasm for haunted houses, spoon bending and what he darkly called

"coincidences". It was always stimulating to argue with him about such matters, or indeed anything else - his arguments were generally well thought out, and could be very persuasive, even if you knew that, sometimes, he was quite wrong!

One final point: conversations with him were always stimulating. However I found out early on that you had to be careful, since you could end up working for him! And it was still true in his nineties, as the kindly representative from the RSC Benevolent Fund found on her first visit to Peter at Northampton. She came away with a request to find some money for a part-time research assistant to pursue his latest idea - which is not quite within the Benevolent Fund's remit!

In concluding this tribute to Peter, I would like to say that, with his totally different background and range of interests, his deep curiosity about everything and his overriding enthusiasm, he encouraged me to look at new vistas and possibilities, and thus he appreciably enriched my life.

And I believe that he had a similar effect on most people; he brought so much, and he encouraged us all to make the best of our own opportunities as he had done himself. In short he truly enriched all our lives, and that is why we are grateful that Peter Plesch was our colleague and our friend.

*Peter Borrell
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