

**Eulogy given at the Service of Thanksgiving for the life of Jack Harris
at St George's, Cam on 19th February 2009 by Revd Canon Dr Mike Tucker**

We have come here today with Ann, Peter, Wendy, Ian, Perlita and all the family to pay our last respects to Jack and to give thanks for his life. His was life of many facets, to the outside world as scientist, writer, campaigner and socialist, to the more personal world of family, friends and acquaintances as a kind and caring man of real integrity, always willing to help, always striving for a better world.

Jack was born near Newport in Monmouthshire in 1932 and educated at Larkfield Grammar School in Chepstow. As schoolboy he was a fine athlete who excelled at 100 and 220 yards sprints and played wing three-quarter for Larkfield rugby team. He could have studied English but, coming from a working-class background, he chose a more secure career in science and so studied metallurgy to doctorate level at Birmingham University. In 1959 he joined the Central Electricity Generating Board and after two year's secondment to Sheffield University he transferred to Berkeley Nuclear Laboratories, newly-opened to carry out research into topics associated with the UK's nuclear power programme.

In 1965 Jack was appointed the leader of a group at Berkeley responsible for the examination of the highly radioactive spent fuel rods and for assessing the results. He and his team, together with their counterparts in the Atomic Energy Authority at Windscale, were largely responsible for extending the useful lifetime of the fuel well beyond its original design. For this achievement, Jack was awarded, jointly with Dr Wally Eldred of Windscale, the Royal Society's Esso Gold Medal for Energy Conservation in 1979.

The topic which most interested Jack during his career was metal corrosion and the strain it could place on the underlying material. Beyond his nuclear concerns this expertise led to his explaining the damage to the historic railings around St Paul's Cathedral and to his becoming an honorary advisor on the repairs at St Paul's and other historic buildings. He lectured on these topics at the Tate Gallery, the Molecule Club and the Royal Institution.

Jack received a number of accolades in his life. In 1981 he received the MBE. He was elected a Fellow of the Royal Academy of Engineering in 1987 and a Fellow of the Royal Society in 1988. When his brother Rex was also elected a Fellow of the Royal Academy of Engineering in 1994, they became the only two brothers ever to have both received this honour.

After taking early retirement in 1990 Jack held visiting professorships at the Universities of Bristol, Oxford and Swansea, dealing mainly with the ethical dimension of science. He also devoted much time to science writing, serving on the editorial boards of various scientific journals. He wrote many articles, on topics ranging from the madness of King George III to the possibility of life on other planets. Jack was also a lover of art and was particularly keen on the St Ives group of artists, some of whom he knew personally.

Jack was deeply concerned about the spread of nuclear weapons, and in 1995 he attended the Pugwash conference at Hiroshima on the 50th anniversary of the dropping of the first atomic bomb. This organisation comprised scientists committed to the abolition of all nuclear weapons, and Jack became a leading figure in British Pugwash, serving as its vice chairman from 2002 till 2008. In the words of the president of the Royal Society, Lord Rees, "He was a fine example of the 'activist' and socially concerned scientist, and we need more like him."

Through his membership of the Labour Party Jack served on the Board of Visitors at Leyhill Prison, and on a Home Office working party on adjudications in prisons. He maintained an interest in this area throughout his life. During a trip to the United States in 1980 he visited the Brushy Mountain Prison in Tennessee, where he thoroughly enjoyed meeting and giving talks to the prisoners. In recognition of this Jack received the award of "honorary convict" – one of his proudest honours.

Despite their seven-year difference in age, Jack and his brother Rex were very close as children, and remained so throughout the intervening years. Not that Jack wasn't something of a handful. Rex relates how he remembers Jack as a boy lying under their Dad's barrel of cider and catching the drips in his mouth, consuming a significant amount of alcohol before being caught. Once Jack jumped out of a high tree in the garden with an umbrella in a vain attempt to simulate a parachute jump, escaping – thanks to the umbrella – with only a broken leg. This was a feat Jack repeated later in life in Cam, this time accidentally and without the aid of an umbrella, but he survived this, as he did later when caught up in the Paddington train disaster.

As children the relationship between the boys was not all sweetness and light. Rex's birth was heralded by Jack standing at the bottom of the stairs and shouting: "You can send that bugger back - we three were alright without him!" As they grew up the brothers shared a double bed. On cold nights, on coming to bed Jack would push his younger brother from the side of the bed he had made warm into the cold side. When Rex tried to shout out complaining, Jack would hold his head under the bedclothes till he promised to shut up.

Jack had gone off to Birmingham to University in October 1950 where he met his future wife Ann, a nurse at the Queen Elizabeth hospital. They were married in Malvern in 1956. It was from here that the central platform for the rest of Jack's life began to be built, the base from which he launched into all his other interests.

One only has to read the quotes from letters that friends and one-time colleagues of Jack's in the various areas to which he devoted his life to be deeply impressed by the impact he invariably made. And through these quotes come glimpses of his character as a human being, "a man of absolute integrity and the essence of kindness" (from Prof Robert Hinde of Cambridge University), "a real friend with the interests of everyone at heart and someone striving for a better world for everyone" (from Prof John Finney of British Pugwash), "someone always willing to help and encourage the younger generations" (from Dr Frank Duckworth) and "someone who brought delight into our lives" (from Dr Albert and Jeannie Westwood).

Not surprisingly these characteristics equally shone through in his more personal life, the life known and loved by his family: by Ann to whom he was so devoted a husband for 52 years; by Peter, Wendy, Ian and Perlita to whom he was a beloved father who took such a close interest in their education and welfare; by Rex to whom he was a beloved elder brother despite all the teasing Jack meted out to him in their younger days; and by his grandchildren Katy, Laura, Emil, Sophia, Emily and Louise to whom he was a lovable and rather eccentric professor figure, full of interesting facts and stories.

To those of us who worked with Jack at Berkeley Labs he brought a breadth of vision and interest to our life there. It was as though Jack, for all his dedication to making nuclear power a success, had a hot line to the world beyond nuclear power – the wider world of science, of the arts, of social concern and of politics. As one colleague Dr Kay Simpson wrote, she would not forget "his huge fund of stories and encounters, and how widely he read, all of which he used to great effect in his regular articles and, for a smaller audience, in lunchtime conversation." To all of us younger members of staff he was a good friend and encourager rather than a traditional management figure. One of my first memories of Jack after I joined the Labs was of his being dismissed as a "ruddy socialist" by the big boss because of a stand he took on everyone sharing the radiation dose during the decommissioning a highly radioactive facility.

In the words of the reading from Ecclesiastes, "To every thing there is a season, and a time to every purpose under heaven." Whatever one's beliefs – and for Jack a belief in God was never possible – we are all given talents to put to the greatest possible use during our time on earth, during our "season", to realise fully the innate potential that is in us. Jack would have believed that the journey towards reaching this full potential ends at the end of this life. I believe it continues further. But up to this point in time it has been a journey that all of us have shared with Jack – a journey in which he, more than most, has shown us the way and helped us to follow it. May he, at his journey's end, find the peace he wanted all to enjoy, not just a peace that is free from war, not just a peace based on justice, but a still deeper peace – a peace that passes all understanding. Amen.