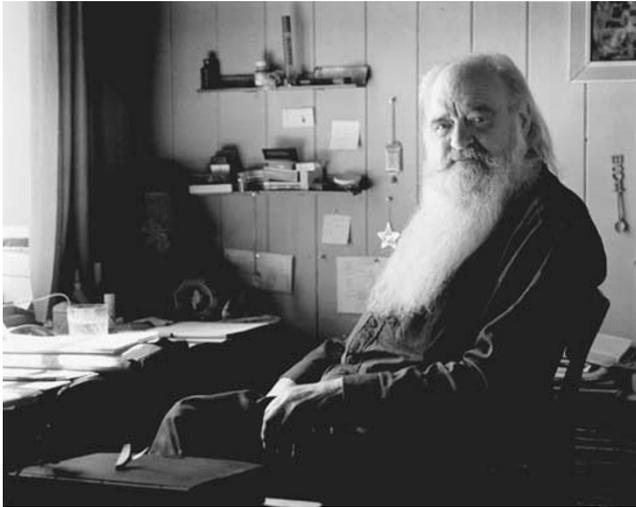




Obituary

Stafford Beer



Stafford Beer, one of the most remarkable figures which British operational research (OR) has produced, died in Toronto on August 23 2002 at the age of 75 years after a considerable period of ill-health. He was President of the Society in 1970–1971. A charismatic, even flamboyant, character, he founded two major and pioneering OR groups; wrote some of the best books about the subject; and was a world leader in the development of systems ideas. He is widely acknowledged as the founder of the field of Management Cybernetics. This international stature led to his engagement as advisor to several national Presidents. His recognition was always greater abroad than at home, where the British establishment was evidently uncomfortable with his large-scale vision and radical orientation.

His thinking and practice on how decisions about complex social systems could best be made went through a number of phases. As an operational researcher, he pioneered the use of interdisciplinary teams to tackle problems in business, government and society. As a systems ‘guru’ he was concerned with designing appropriate feedback loops into social systems. His more recent work was on participative methods to enable large groups to arrive at solutions to their own problems. What united these aspects of his work was an early and consistent commitment to a holistic approach to complexity.

Stafford Beer was born in London in 1926, where his father was Chief Statistician at Lloyd’s Register of Shipping. He went to Whitgift School, where his search for knowledge

was too self-willed and determined for the school’s sixth form to contain. At 17 years of age, he started a degree in philosophy and psychology at University College London, but after 1 year left to join the Army. He saw service as a company commander and in intelligence in India, and stayed there until 1947. He remained in the Army, working as a psychologist (despite his lack of a degree) on personnel issues, leaving with the rank of Captain in 1949.

At about this time he was gripped by the realisation that OR, so successful during the war, had immense possibilities in peacetime also. Indeed, he came to the conclusion that both as an intelligence officer and as a psychologist he had in fact been practising operational research. (In the post-war period OR had a wider remit than is allowed today.) Stafford had also read Norbert Wiener’s *Cybernetics* and wrote to him to say ‘I think I am a cybernetician.’ It was Wiener, the father of cybernetics, who later identified Stafford as the father of management cybernetics.

After the Army, Stafford joined the United Steel Companies on a 2-year management apprenticeship. Appointed to a management position in Samuel Fox, one of the components of United Steel, he soon had the ear of Fox’s General Manager Sidney Howes. He was appointed as Production Controller, a job that had not previously existed, and then he persuaded Howes to set up an OR group, which he headed. As a result of Howes’ sponsorship, it was not long before the group was given responsibilities across United Steel, and moved near to its Head Office in Sheffield. Stafford named it the Department of Operational Research and Cybernetics, and its offices as Cybor House.

The management of British industry of this era was largely non-graduate, fusty and traditionalist. Although United Steel was a progressive company by these standards, this is a very relative accolade. The operational research group and its expansive head were widely viewed as verging on the eccentric. In these circumstances, the success of the group can be seen as remarkable, and a tribute to Stafford’s vision and drive.

The group grew in size to 70 or more professionals, carrying out a wide range of studies across United Steel. No other UK group of the period came anywhere near the size and scope of the United Steel and British Coal (then National Coal Board) groups. (According to Stafford, on appropriate definitions his group was the larger of the two.) In early work, Stafford used tiddleywinks for a manual simulation of flow through steelworks. A later development

was his Stochastic Analogue Machine, employing ball bearings. A big step forward came in 1956 when Cybor House took delivery of a Ferranti Pegasus, one of the first computers in Britain devoted to management (as opposed to scientific computing). United Steel became particularly noted for its contribution to computer simulation, developed under the leadership of Keith Tocher.

In 1961, at the age of 34, Stafford Beer left to launch SIGMA (Science in General Management Ltd.), the first substantial operational research consultancy in the UK. He ran SIGMA in partnership with Roger Eddison, another future President of the Operational Research Society (1966–1967). Stafford had an innovative recruitment policy involving hand-written advertisements, the inclusion of social scientists and the provision of sabbaticals. SIGMA prospered, and its professional staff had grown to over 50 before Stafford left in 1966 to join the International Publishing Corporation (IPC), which had been one of SIGMA's clients. IPC was then the largest publishing company in the world, and Stafford was appointed as Development Director. He ran the New Enterprises Division, and pushed IPC into innovative technologies, many of them IT-based. It was in this period that he coined the term 'Data Highway', 30 years before the designation 'Information Highway' came into vogue.

From 1970 he operated as an independent consultant, and over the coming decades he carried out work in 23 countries. Most notable of his projects was his assistance to the government of President Salvador Allende in Chile, a country where SIGMA had done extensive work a few years earlier.

For over 2 years until Allende was overthrown in 1973 in the bloody Pinochet coup, Stafford Beer and a substantial project team worked on a new cybernetics-based control system, applying it to the entire social economy of Chile. As workers occupied privately owned factories, the sector itself was growing by leaps and bounds. Project Cybersyn was to be a real-time computerised information system—a breathtakingly ambitious project given the technology of the time. Its scope went from the local workshop to the national economy in 11 recursions of Beer's Viable System Model. The coup prevented the full realisation of the system, but an incomplete version was used to help defeat the CIA-funded truckers strike that preceded it. Stafford subsequently undertook cognate commissions for the Presidential Offices of Mexico, Uruguay and Venezuela, answering directly to the President in the latter two cases.

From the publication of his first book *Cybernetics and Management* in 1959, a systems approach to the management of organisations was his central concern. In this, he built on the foundations of cybernetics laid down by Norbert Wiener, Ross Ashby and his principal mentor Warren McCulloch. A series of four books based on his 'Viable System Model' were published during the 1970s, of which *The Brain of the Firm* is the most celebrated. However, in the

1990s he turned his attention to a complementary approach, introduced in his 1994 book *Beyond Dispute: The Invention of Team Syntegrity*. Team Syntegrity is a participatory method for enlisting the creativity of substantial groups to develop innovative solutions to shared issues. Non-hierarchical and democratic, it is in tune with the growing pressure to involve all stakeholders in the decision-making process. It has been widely adopted, with a growing international network.

The extent of his international reputation was perhaps not as widely known among the UK OR community as it might have been. Partly, this was a consequence of his increasing concentration on a systems perspective—a re-orientation he shared with his old friend Russ Ackoff in the United States. Certainly, Stafford felt that his ideas were insufficiently appreciated in Britain, particularly in government and establishment circles. Nevertheless, wide professional and academic recognition is indicated by his many society presidencies, visiting chairs and honorary degrees—remarkable achievements for someone with no first degree! This most singular distinction was removed by the award in 2000, at the age of 73 years, of a higher doctorate, a DSc from the University of Sunderland, in recognition of his published work.

His impact on the way we think about management and systems was due both to his magnetic personality, and to the power of his writing. His 1966 book *Decision and Control* won the Lanchester Prize of the Operations Research Society of America. It charms readers with its style as it engages them with its content. In this, as in his other writings, he takes an expansive view of his subject matter. His approach was always challenging, even subversive, to conventional modes of decision-making. Radically then, unfashionably now, he believed in the benefits of a scientific approach, although he railed against reductionism. Unlike other management writers he saw science as freeing thought and action, not trapping it in narrow procedures and techniques. Indeed, it was a constant theme of his that the greatest possible autonomy of action should be maintained at all levels of the organisation, not just at the top.

As one might have expected, his term as President of ORS was turbulent. He initiated a root-and-branch rethink of the Society's structure. One particular proposal, for a Register of Practitioners to guarantee professional competence, proved unacceptable to members, but it fell to Tocher, his successor as President, to handle the resulting dissent.

Stafford Beer was a larger than life character. He was tall, broad and brimful of energy, and in later years bearded like an Old Testament prophet. His enthusiasm for life in its many aspects could be over-powering and quite non-Anglo-Saxon. The world of those who encountered him tended to polarise between those who were distrustful of what they saw as his showmanship, and those who were converted into lifelong admirers and supporters. He himself was deeply loyal and affectionate to his friends. It was typical that

Stafford spent the year following the Pinochet coup concentrating on helping to find safe places outside Chile for members of the project team.

Prior to 1974, Stafford Beer had all the appurtenances of managerial success—a stockbroker belt mansion with a sound-activated waterfall in the dining room, a swimming pool, a Rolls Royce. In that year, he renounced most of his material possessions and moved from the London suburbs to live in very simple style in a small stone cottage in the remote hills of Ceredigion in mid-Wales. Only in recent years did it gain running water and a telephone. From the mid-1980s he divided his time between the cottage and an alternative base in Toronto, which has become a centre of interest in his work. His range was extraordinary. His management writings spanned the fields of human cognition and communication—and he illustrated many of his own books. Beyond that, he taught yoga and published books of his poems; his paintings were exhibited, most notably in an apse of the Roman Catholic Cathedral in Liverpool in 1992 and 1993.

Stafford Beer held honorary doctorates from Concordia University in Montreal, Canada, the University of St Gallen in Switzerland, the University of Valladolid in Spain and the

University of Glamorgan in Wales. He was also an Honorary Fellow of the Universities of St David's in Wales and of Liverpool John Moores University, where he was named Honorary Professor of Organizational Transformation and where his collection of books and papers resides; an Honorary Fellow of the International Institute for Social Invention, a Fellow of the World Academy of Arts and Science, and a Fellow of the Royal Society for Arts and Science. He served as President not only of the Operational Research Society, but also of the Society for General Systems Research (now the ISSS) and the World Organization for Systems and Cybernetics, a post he held at the time of his death. He was a quondam trustee of the American Society for Cybernetics (and was awarded its McCulloch Plaque) and was for 20 years a Governor of the International Council for Computer Communication.

He was married twice, in 1947 to Cynthia Hannaway and in 1968 to Sallie Steadman, and had eight children. His partner of 21 years, Allenna Leonard, was a colleague in his work.

Jonathan Rosenhead

*(and with particular thanks to
Allenna Leonard and Dick Martin)*