

DAVID GRAINGER MARCUS WOOD-GUSH
BSc (Rand) PhD (Edin) Diploma Animal Genetics

David Wood-Gush who died suddenly, on 1st December 1992 in London, when just past his 70th birthday following a heart attack, was a man of remarkable abilities and achievements. He was internationally known for his contributions to animal welfare, having brought to this contentious field a rational approach based upon his leadership in research on the behaviour of domestic animals. His influence in science, as in all aspects of his life, was greatly augmented by the warmth of his personality and he leaves friends all over the world.

He was born, on 20th November 1922, in the Transkei region of South Africa into an old Quaker family which emigrated from Britain in 1820. His father was a magistrate and a man of radical views for his day. He went away to school in Grahamstown after which, when still in his teens at the outbreak of war, he began six years in the South African Air Force. He served in the North African campaign where he lost his left hand following botched medical care after a relatively minor accident. The manner in which he overcame this disability and the stoicism with which he coped all his life with intractable and increasing pain from a 'phantom limb' made a deep impression on all who knew him well.

Wood-Gush went from the Air Force to the University of Witwatersrand, coming to the University of Edinburgh in 1949 for post-graduate work in the Institute of Genetics. Following his PhD he joined staff of the Poultry Research Centre close by at King's Buildings and his main research interest switched to behaviour. He rapidly built up an active research group which added a new ethological dimension to the then current emphasis on physiology, genetics and nutrition as applied to help the growing poultry industry. Over the 25 years he spent there, he and his group contributed a stream of studies which advanced our knowledge in almost all aspects of the behaviour of chickens. This ranged from genetics, (studies on lines exhibiting high and low sexual drive and the subsequent effect of selection), through physiology (a beautiful series of experiments carried out in collaboration with A B Gilbert on the endocrine basis of nesting behaviour just prior to egg laying) to sexual selection and social behaviour. In one such study, Wood-Gush had a group of young birds released and left to their own devices on Holy Island off Arran for study of the development of their social organization without any of the constraints of captivity. Useful information was emerging but, alas, the island's stoats gained the upper hand too soon!

Early in his career, and far earlier than most, Wood-Gush recognised that it was important to investigate how chickens responded to the new intensive husbandry conditions. He was concerned by the levels of stress he observed. In 1964 Ruth Harrison's book *Animal Machines* shocked the general public into recognition that animal welfare was largely being ignored in the rush to increase productivity. The Brambell Commission was set up to establish standards for animal husbandry and immediately the relevance of Wood-Gush's work was recognized.

At this time animal behaviour was still - at best - a small component of the training of agriculture and veterinary students, but the climate was changing. When in 1978 the Poultry Research Centre amalgamated with the new AFRC unit at Roslin, Wood-Gush moved to the University Department of Agriculture and began teaching there. He developed work on other domestic animals and attracted students to work with him on pigs, sheep and horses. He was an excellent teacher and became much in demand for lectures to veterinary and agriculture schools across Britain. He wrote an admirable textbook on animal behaviour (*Elements of Ethology*, 1983), specifically for such students always stressing the relevance of good behavioural studies to animal welfare.

Perhaps his most influential work from this period, which has attracted international attention, was with pigs. He believed that the nearest we can come to asking domestic animals how they would like to be housed is to observe them under true 'free range' conditions, (cf. the chickens released onto Holy Island). A large and diverse area of hillside in the Pentlands became the 'pig park'. Wood-Gush was delighted to record how much wild pig behaviour was left in utterly domesticated large white pigs. The sows built huge nests, carefully sited for shelter and outlook, they were highly sociable and the young ones played a lot. Armed with this information and with the help of an outstanding young Swiss student, Alex Stolba, he devised a housing system which allowed several sows to rear their litters in contact with each other and, though confined, to move quite freely through a varied enclosure. Commercial trials showed that pigs reared this way cost little more than those reared intensively in totally unnatural conditions. This work, as much for its approach as for its technical details, has struck chords with veterinarians and agriculturists around the world.

Wood-Gush was active in work with the professional societies. He served as President of the Association for the Study of Animal Behaviour 1984-87, he was one of the Founders of the Society for Veterinary Ethology (now the International Society for Applied Ethology) and served as its Chairman. The University of Edinburgh made him an Honorary Professor in 1981 and in the same year he was elected a Fellow of the Society.

The pace of his scientific work was accelerated beyond what might be normal retirement age. He was invited for lecture tours and research collaboration to Australia, New Zealand, North America, Denmark and the Netherlands. One of his last enterprises was to develop the University's MSc course in Applied Animal Behaviour and Animal Welfare. The first of its kind, this is now firmly established with over a score of students from several countries coming annually. It will become a fitting memorial to his remarkable contributions.

Yet to acknowledge professional achievements is to capture only one aspect of his influence. Because of his disability, Wood-Gush often needed collaborators for experimental work. This never presented any problems, for he had a quite extraordinary capacity to form friendships and to keep them in running order. All his collaborators remained friends along with a host of others. He was the very best of company and loved to laugh. Their family grown up and dispersed, his wife Eola and he chose to live amicably apart. Although this meant living alone he was never a lonely person. He remained wonderfully sociable and totally involved with both his University work and his social life. He died checking in at a London hotel for a scientific conference. A shock for his many friends, but we must accept that this is exactly how he would have wished to go.

(This Obituary notice is based upon one which appeared in *The Scotsman*, 8th December 1992.)

AUBREY MANNING