

Rodney Helliwell (1940-2018)

Pioneering silviculturist and forest scientist who devised new ways of managing and valuing trees and woodlands in Britain

Rodney Helliwell died peacefully on 23th February 2018 after a long fight with cancer. He was 77 years old. With his passing, the world of tree and woodland conservation in Britain has lost an important advocate, someone not afraid to challenge orthodoxy and who promoted innovations rooted in a deep understanding of woodland ecosystem science. Almost to the end of his life, his inquisitive and analytical mind was still working hard, ignoring the physical challenges he endured. That sharp intellect and dedication were two things that made Rodney who he was, and were attributes that made him a valued colleague and much sought-after tree and woodland expert.

Rodney made significant and enduring contributions in several areas of tree, woodland and landscape management. But it is his championing of Continuous Cover Forestry (CCF), a term he was instrumental in defining and promoting, that will stand perhaps as his greatest legacy. Early in his career he identified the need to see woodlands as ecosystems that deliver multiple values and benefits. By maintaining a continuous woodland canopy and avoiding clear-felling, the dominant silvicultural practice in Britain, he saw an opportunity to manage the woodland resource in a more sustainable and nature-oriented manner.

A formative experience was in 1959, on a student placement to Sweden, when he worked for one of the few Swedish forest owners who practiced what we now call continuous cover forestry, despite the post-war forestry industry's crushing influence on silvicultural practices in that country. He delighted in recounting that this was the only profitable forest in Sweden and one where the owner always had timber to sell; the coffers were full, the staff were secure in full-time employment and the estate was permanently wooded. To Rodney, this was a simple demonstration of what so often happens when state and corporate institutions uphold practices that work against common sense and refuse to acknowledge what appears to be an obvious truth.



Rodney leading a session at the CCFG Workshop on *Daylight in the Forest*, Westonbirt, 2009.

Rodney completed his formal education at University College of North Wales (now Bangor University), where he gained a BSc (Hons) in Forestry (1961) and MSc in Forestry (1965); and at Birmingham Institute of Art and Design (now Birmingham City University) where he gained a Diploma in Landscape Architecture (1968). His career included spells in forest management with Cotswold Woodlands Ltd (1961-63), landscape planning with Staffordshire Planning Department (1964-1967) and conservation research/surveying with the Nature Conservancy (1967-1973), first at Attingham Park and then Merlewood. When the Nature Conservancy was re-organised in 1973, Rodney transferred to the Institute of Terrestrial Ecology (ITE), Merlewood, and continued his research into the growth of trees and herbs on different soils, in addition to surveys of woodland and montane vegetation.

In 1978 he established his own consultancy practice. This gave him the freedom to pursue a diverse range of advisory, technical and research projects, working with individuals and organisations throughout Britain and in Europe. Among several high-profile consultancies, he was engaged as terrestrial ecologist to the Channel Tunnel Project (1985-1996). This resulted in important examples of habitat translocation and new woodland creation, including the design of vegetation at Samphire Hoe, Dover, created on spoil from the tunnel workings. Although he officially retired in 2013, Rodney continued with research and writing. Fittingly, one of his final outputs was a literature review that covered 51 years of themes and papers in *Arboricultural Journal*.

Rodney possessed a rare ability to deal with complex scientific issues, and to make them accessible and practical. One example occurred when he was working for ITE establishing trials for species mixtures in Northern Ireland. One of the plots in the experiment was a random mixture of Sitka spruce and common alder. It is easy enough to calculate a random pattern from a formula, but how then to communicate that design to the planting gang with bags of transplants and planting spades? Rodney's solution was to provide each planter with a bag of coloured beads with an equal number of beads as there were plants. The planter took a bead out of the bag and, if it was red a Sitka was planted and if it was blue, an alder. The bead was then not returned to the bag but put into another bag so that each plant selected had an equal chance of being a Sitka spruce or an alder.

Rodney's capacity to combine academic rigour with practicality led to the development of a valuation system for amenity trees and woodlands. Arboriculturists know this as the Helliwell System. The basic approach is to allocate point scores under a number of different factors, such as tree size, life expectancy and suitability to setting. The points are then combined to give an overall comparative score for a tree or woodland. As a further step, it is then possible to apply a monetary conversion factor and attach a value to the point score. Rodney first published his methodology in 1967 and it remains the most widely recognised tool for valuing the visual amenity provided by individual trees and/or woodland in Britain. Endorsed by the Tree Council and the Arboricultural Association, the Helliwell System has been used extensively in court cases, insurance claims and public inquiries. Details of the method are contained in *Arboricultural Association Guidance Note 4: Visual Amenity valuation of trees and woodlands (the Helliwell System)* (2008).

Understanding how trees respond to light was one of Rodney's main interests in later years. This is a complex topic that has often been overlooked by woodland managers. Through his own research and review of this subject, Rodney wanted to communicate a better understanding of the fundamental elements of how trees interact with light. Many of his most recent publications dealt with this, and he would always point out when others described light in terms that were not entirely accurate. For anyone visiting his home in Wirksworth, there would invariably be a tour of the garden to see the latest seedling shade experiments he had set up, and a walk through his lovely native woodland where he was studying seedling growth under various conditions.

Rodney contributed to many national and international conferences throughout his career, where he enjoyed sharing his research findings, meeting colleagues and engaging in lively discussion. This was certainly the case with his work on CCF, which resulted in him being recognised as a leading proponent among his peers in Europe. It is through this international engagement that he was invited to be a signatory of the Pro Silva founding document, the declaration of Robanov Kot, in Slovenia in 1989, along with other eminent close-to-nature silviculturists including Hans-Jurgen Otto and Brice de Turckheim (both sadly no longer with us).

In 1986, Rodney attended a meeting at Pershore to discuss the possibility of a group being formed that would be dedicated to the management of uneven-aged forests. However, it was not until a subsequent gathering at Longleat, in 1991, that the association was formally constituted as the Continuous Cover Forestry Group (CCFG). Rodney became the founding chairman, but in his modest fashion, served only one term to allow others to take on the reins and develop the group without his influence. Although the group was primarily for foresters to exchange views and experience with CCF, there was always a mission to win more converts to the close-to-nature cause. On this basis, Rodney often said that the group should have a limited existence. He believed that once CCF was the default forestry practice in Britain there would be no need for a campaigning organisation. Unfortunately, this has yet to happen and the group is still going strong.

Beyond his consultancy work, Rodney found time to sustain a steady stream of scientific papers, commentaries and letters to editors. He was also an expert editor, and served for many years on the Editorial Board of the *Arboricultural Journal*, the peer-reviewed publication of the Arboricultural Association, where he helped many authors bring their ideas into the public domain. His own papers were published from the mid-1960s, and the themes of greatest interest to him were clear from the outset – ranging from tree biology and forest valuation to woodland ecology and management. Throughout his career he would revise and re-publish papers, keeping his work up-to-date and relevant for a new audience. Several papers and booklets dedicated to CCF were produced – his 1988 paper in *Arboricultural Journal* succinctly hitting the nail on the head with a pithy exposition of the advantages, issues and changes required to enable uneven-aged forestry to be more widely adopted in Britain. Later papers in *Forestry*, *Quarterly Journal of Forestry* and other publications elaborated on this theme. His short book on *Continuous Cover Forestry* (2002) was a sell-out and a revised, updated edition was brought out in 2013, with support from the charity *Woodland Heritage*. This was an attempt to translate scientific principles into advice for the practitioner and land owner.

Reading through some of Rodney's papers (available to download from ResearchGate) is remarkably prescient. One can appreciate the pride Rodney must have felt seeing ideas put into practice, and CCF becoming increasingly mainstream forestry. However, there must have been frustration, too, because some of his work really was far ahead of its time. Occasionally his irritation with what he saw as a slow pace of change would become public through letters in prominent forestry and arboricultural journals. To some colleagues who were the apparent target of his criticism, a Helliwell letter might have been an uncomfortable experience. However, those who knew him as a friend were always aware that his comments were founded on his scientific or professional experience, and he often felt pained to point out what he saw as errors or omissions.

Being a full-time silviculture, arboriculture and ecology consultant, Rodney had to carefully balance his many commitments. Beyond his scientific work and writing, he was greatly concerned with education and mentoring of young people across the tree and woodland professions. For several years he was involved with setting and marking papers for the Royal Forestry Society (RFS) Professional Diploma in Arboriculture, and provided training workshops on the Helliwell System for the Arboricultural Association. He also served as a judge for the *RFS Excellence in Forestry Awards*, and gave lectures at several universities. In addition to CCFG, Rodney was a stalwart of many forestry and arboriculture organisations. At the time of his death he was still an active member in eight learned and professional societies, including the Small Woods Association, British Ecological Society and Royal Society of Biology; and a Fellow of both the Arboricultural Association and Institute of Chartered Foresters.

Rodney was a quiet, brilliant man who was incredibly modest. He wanted to explore scientific truth but felt frustrated by the politics and cultural barriers that prevented development of a better, more efficient way of managing trees. Throughout his life, he felt lucky and proud to have the tireless support and encouragement of Carole, his partner for 47 years. Visitors were always made welcome at their large home in Wirksworth, with tea and home-made cake served by Carole in her cosy kitchen. He was also very proud of his two sons, Tristan and Linden, often updating colleagues on their study, travel and work news.

Rodney Helliwell was one of the great thinkers and doers in British forestry over the last 50 years. A lover of trees and nature, he will be remembered as a founder of the Pro Silva movement and a father of continuous cover forestry; his legacy is a profound change in management practices that will help shape our future woodland landscape. He leaves his wife Carole, two sons, Tristan and Linden, and two grandchildren, Toby and Saffronrose.

Rodney Helliwell, Silviculturist, Arboriculturist, Ecologist. Born: 2nd April 1940, Halifax, Yorkshire; Died: 23rd February 2018, Wirksworth, Derbyshire.

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