Obituary: Professor John Alfred Catt (1939–2017)

Born in Maidstone, Kent, on 10th April 1939, John Catt was the son of a professional gardener who worked at the local Parish Church and Vicarage, so it was not surprising that he grew up with a life-long interest in nature, gardening and soils, and as a quiet but devoted member of the Anglican Church. He was educated in the county at the Ashford Grammar School, at the time one of the few in the country teaching Geology at A-level.

In October 1957 John joined the Geology Department of Hull University, which had gained full University status only three years earlier. The Department was then led by Lewis Penny, with John Neale and the newly appointed Mark Piasecki as the only other teaching staff in the Department, supported by two technicians, Mike Holiday and Peter Robinson. Like much of the small, but rapidly growing University, the Department was initially housed in adapted second-hand army huts. Though he was to spend the last half century of his life working and living happily with his wife Diana in Hertfordshire, John always retained a life-long special interest in, and affection for, Hull and the East Riding, saying later that his years there we ‘the happiest and most stimulating of his life’.

Registering initially for a joint Geology and Chemistry BSc, at the end of his first year he persuaded Lewis Penny and John Neale to allow him to transfer to the Special Honours Geology course, and at the end of his third year he gained a 2.1 degree, which enabled him to take up PhD research on the Quaternary of East Yorkshire, funded by a DISR research grant that had been awarded to Lewis Penny, who thus became John’s supervisor. There was a strongly collegial feel about the Department and its staff, with lots of lively discussion and cooperation between both the under-graduates and postgraduates, who through John’s six years also included Jack Doyle, Brian Fletcher, Keith Ingham, Alan Lord, Barry Rickards, Pete Rawson and myself.

The Department also had very close links with the Yorkshire Geological Society. In the autumn of 1957, the Society created a new student membership (at £1 a year subscription), and it was made clear by Lewis Penny and John Neale that all students were expected to join the Society! In return, the Department provided free Land Rover or minibus transport to all YGS indoor meetings across the region, which introduced the students to a range of topics and experts far wider than their formal curriculum. John applied for membership straight away, was formally elected to membership before the end of 1957 and so was present at the February 1958 Sheffield meeting that heard, with astonishment, Trevor Ford’s announcement of the discovery of the first Precambrian fossils in Charnwood Forest. John remained a member and strong supporter of the YGS to the end of his life 60 years later.

John’s doctoral research with Lewis Penny was a comprehensive review of the glacial geology of East Yorkshire applying the latest research techniques to an area that had been much studied and speculated over from the days of William Smith and John Phillips in the 1820s. Building particularly on the work of W.S. Bisat in the 1930s and 1940s (and, more recently, work by Lewis Penny and others) he demonstrated, among many other things, that: (1) the classic four-fold sequence of the Holderness coast,
known and described for almost a century, was, in fact, the product of only two major glaciations; and (2) the famous Sewerby Buried Cliff was not ‘prechacial’, as generally described, but dated from the Last Interglacial. John recalled that the External Examiner, for his thesis, *Stratigraphical investigations in the Pleistocene deposits of Holderness, East Yorkshire* (Hull University 1964), was Professor Fred Shotton, who gave him a very hard time in the oral examination and remained sceptical or worse for years afterwards. However, John was awarded the PhD: the thesis, together with his two linked joint papers with Lewis Penny in the *Proceedings of the Yorkshire Geological Society* (1966) and *Geological Magazine* (1967) that were based on it, remains important landmarks half a century later.

In 1963, the day after handing in his thesis to the University for examination, John took up an appointment as Scientific Officer in the Pedology (later Soils and Plant Nutrition) Department of the Rothamsted Experimental Station. He was promoted within the Scientific Civil Service successively to Senior Scientific Officer, then Principal Scientific Officer through to his retirement in 1998, and was Deputy Head of the Rothamsted Experimental Station as a whole and Acting Head of the Soils and Agronomy Department through 1988–1990. On his retirement he was made an Honorary Scientist, IACR-Rothamsted Research, and an Honorary Professor of Geography of University College London, retaining both titles to his death on 7th December, 2017.

His work across the decades at Rothamsted was very wide ranging, including research on soil genesis, classification, mineralogy and micromorphology, Quaternary stratigraphy of England and Wales, soil development on Chalk landscapes in south-east England and Liassic sediments in Yorkshire, loess stratigraphy, soil development and agricultural significance, palaeosols, remote sensing of soil and crop variation, soil erosion and minimizing the leaching of nitrate, phosphorus and pesticides into surface waters. Alongside his scientific duties for Rothamsted and its clients, John was very active throughout in academic cooperation and support. Over the years he supervised 14 PhDs in the Universities of London, Sussex, Southampton, Nottingham and Sheffield, and for the CNAA, and 10 visiting research students with placements at Rothamsted. He was also in much demand as a PhD examiner. He was equally generous with his time in supporting academic and professional bodies as a guest lecturer and field meeting leader, as well as holding at different times Visiting Professorships at Birkbeck College, University College London, Prague Agricultural University, Reading and East London, and serving terms as Secretary to both the Quaternary Research Association and the Institution of Geologists.

John’s published output included nearly 200 peer-reviewed papers, official reports and several books including *Soils and Quaternary Geology, Soil Management: Problems and Solutions* and *Hertfordshire Geology and Landscape*. In 1981 John was awarded an ‘earned’ (as opposed to the much more common Honorary) DSc by the University of Hull in recognition of his, by then already outstanding, publication record on Quaternary geology and soil science. Most recently, despite failing health due to a worsening breathing problem, which began when he became ill during the 1991 International Union of Quaternary Research (INQUA) triennial conference in China, he took on the formidable task of organizing the archives of the Quaternary Research Association and its more informal predecessors, and preparing, joint authoring and editing a formidable *History of the Quaternary Research Association* for its 50th anniversary. In this he ensured that the origin of what was originally called the Quaternary Field Studies Group could be traced back to an informal proposal by Lewis Penny during heated arguments at a 1962 YGS Yorkshire and Lincolnshire Field Meeting. However, John was too modest to record that the controversies centred on his own emerging research findings, supported by Lewis Penny.

Working through the details of his responsibilities, assignments and published outputs through his 35 years at Rothamsted, it is clear that only a small part of John’s formidable continuing post-doctoral Quaternary research, particularly that on Yorkshire, fell within the defined duties for Rothamsted, but was to a considerable extent motivated by his own fascination and continuing scientific curiosity with the subject, and often carried out in his own time – frequently in competition with his many local, national and international responsibilities. He was not only an outstanding scientist and professional, but also an amateur in the true sense of the word – someone whose motivation was primarily his love for the subject and its challenges.

Yorkshire and the YGS gained considerably from this, as his succession of significant publications on the Yorkshire Quaternary over more than 40 years, many in our *Proceedings*, demonstrates. In 2004 the Society awarded John Catt its highest honour, the John Phillips Medal (initially endowed by W.S. Bisat), in recognition of his outstanding contribution to the understanding of the geology of Yorkshire. He, in turn, honoured the Society with a masterful *The Pleistocene glaciations of eastern Yorkshire: a review* in the *Proceedings* for 2007, bringing together not just an assessment of the achievements of nearly two centuries of study and research, but also mapping out subjects needing further review or new research.

John was a gentle and often self-effacing man, intensely loyal to family, friends and colleagues. His faith – perhaps first noticed by his new friends within days of his arrival in Hull when he quietly sought out the Cottingham Parish Church and volunteered to join its fine choir – remained with him throughout his life. Living on the ancient Roman road of Watling Street in St Albans, in their retirement John and Diana were very active and much valued members of the community of the fine medieval St Stephen’s Church just a few hundred metres away, also on Watling Street. Despite his seriously deteriorating health John attended the Advent service at St Stephen’s and sang in the choir just days before his sudden death at home on 7th December, 2017. The large church was packed for his traditional Church of England funeral service, which ended with his long-standing colleagues in the choir singing a favourite anthem, ‘God so loved the World’ by Walford Davies, before John was taken out into the beautiful churchyard to be buried in the Anglian Till over Chalk with which John was so familiar.

Patrick Boylan