



## Trevor David Ford (1925–2017)

**Supplementary material:** a chronologically-arranged list of 301 publications authored or co-authored by Trevor Ford is available at <https://doi.org/10.6084/m9.figshare.c.4931547>

The much-celebrated geologist and speleologist Trevor David Ford died peacefully on 22nd February 2017, shortly before his 92nd birthday. He was a very well-known earth scientist, published a truly prodigious number of articles, scientific papers and books (301 of these are listed in the online [Supplementary material](#)), and was a geological polymath. Trevor was especially well-known, however, for his work on the geology of the Peak District and the late Precambrian Ediacaran biota.

Trevor Ford was born in Essex on the 19th April 1925. His father's job was relocated to Sheffield when Trevor was a baby, so his lifelong connection with Yorkshire was established very early on. Trevor became good friends with Peter Harrison, a contemporary who lived nearby. Peter's family managed Speedwell Cavern, one of the show caves in nearby Castleton, northern Derbyshire in the Peak District. The two boys frequently visited Speedwell Cavern, and Trevor rapidly fell in love with caves, caving and geology. Trevor's secondary education was interrupted by World War II (WWII), and he became a temporary bank clerk before being called up for the Royal Air Force. His flying career was cut short when it was discovered that Trevor had suboptimal colour vision. He was then transferred to the Royal Navy as a Stores Assistant in the Far East. When WWII ended, Trevor returned to Sheffield and resumed his caving activities at Speedwell Cavern. Soon after his demobilisation from the armed forces, Trevor successfully applied to read geology at the University of Sheffield. He began his undergraduate studies in 1947 and Trevor wrote a dissertation entitled *The origin of limestone caves*. Trevor stayed on at Sheffield to do a PhD on the Ingleton and Stainmore coalfields. His first substantive paper, a review of Blue John from Castleton, appeared in this journal in 1951.

After his PhD, Trevor's first job was as an Assistant Lecturer in Geology in the Department of Geography at University College, Leicester, starting in 1952. At the time, Trevor and his senior colleague, John H. McDonald ('Mac') Whitaker, taught geology to geography students. The Department of Geology at Leicester was instigated in 1954, three years prior to University College, Leicester, being awarded university status, and staff numbers consequently expanded rapidly. Trevor was therefore one of the founders of the department and was instrumental in shaping it into one of the UK's leading Earth Science research and teaching establishments. He was a prominent member of the

department for 35 years until he formally retired in 1987, but was then given emeritus status and always maintained close links. Trevor was a diligent and excellent teacher; he always delivered clear, comprehensive and detailed lectures. He frequently exhibited a somewhat brusque manner, but this was simply a façade. He was consistently very supportive and sympathetic and would willingly help with all aspects of undergraduate mentoring. He also supervised 22 PhD students who mainly worked on the geology of the Peak District.

Trevor's geological research was largely on all aspects of the geology, geomorphology, mineralisation, mining history, palaeontology and speleology of the Peak District, and he established himself as the global expert on these topics. A particular highlight was his discovery that the pipe mineral veins in the Peak Limestone Group have been water-conducting into the Quaternary, and that this phenomenon has produced extensive alluvial/fluvial placer deposits of baryte, galena and sphalerite in karst cavities. Trevor's final scientific paper, co-authored with one of us (NW), was a comprehensive review of the mineralisation of the South Pennine Orefield and published in this journal in 2016. This was a culmination of extensive fieldwork by both authors to study the Mississippi Valley type lead-zinc mineralisation of the area. Trevor also worked on the mining history of the Peak District, and published many papers in the *Bulletin of the Peak District Mines Historical Society* (see the online [Supplementary material](#)). His co-authored work with Jim Rieuwerts, *Lead Mining in the Peak District*, is a landmark publication on this now-vanished industry and is now in its fourth edition. Trevor was always enthusiastic about public outreach and wrote many popular publications on the gemstones, geology, mining history, ornamental rocks, scenery, show caves and speleology of the Peak District.

Trevor's most significant publication, however, was not on his beloved Peak District. In stark contrast, it was undoubtedly his descriptions and interpretations of the Neoproterozoic fossils *Charnia masoni* and *Charniodiscus concentricus* from a disused excavation, North Quarry, in Charnwood Forest in north Leicestershire, published in this journal in 1958. The subcircular *Charniodiscus* was interpreted to be the holdfast of the frond-like *Charnia*. Both genera are representatives of the Ediacaran biota, a distinctive assemblage of enigmatic benthic, sessile organisms that represent the earliest complex multicellular organisms and are confined to the latest Precambrian.

Trevor's 1958 paper was the first well-dated report of this important biota, which had previously been reported from the Ediacara Hills of South Australia, and from Namibia and Newfoundland. In 1956, a schoolgirl, Tina Negus, observed *Charnia masoni* at North Quarry, but her geography teacher did not believe her because the Precambrian was then considered to be entirely unfossiliferous. One year later, in 1957, local schoolboy Roger Mason and two friends found *Charnia masoni* while rock-climbing at the same site. Roger and his father understandably thought that *Charnia masoni* was a plant, and took a paper rubbing of it to Trevor for advice. It would have been easy for him to adopt the same attitude as Tina Negus' geography teacher, but instead Trevor agreed to visit North Quarry to see the fossil *in situ*. He was convinced that *Charnia masoni* was organic in origin, and therefore highly significant. He then arranged for the type specimens to be extracted and wrote formal descriptions, cautiously assigning *Charnia* to soft-bodied algae. The biological affinity of the Ediacaran biota is still intensely debated. Trevor's 1958 paper made a considerable impact because the metasedimentary rocks containing *Charnia* in north Leicestershire are unambiguously Precambrian in age. One of the outcomes of that paper was that it led to Trevor being invited to undertake geological mapping of the Neoproterozoic Chuar Group at the base of the Grand Canyon sedimentary succession in the USA.

Trevor also wrote many articles on the history of geology, particularly the early researchers on the Peak District such as John Whitehurst and White Watson. He ran an undergraduate field trip to the Isle of Man for many years and hence became an expert on the Ordovician to Quaternary geology of the island, and published on this topic. Trevor also worked on tufa and travertine during the 1990s. Furthermore, he was one of the premier UK speleologists. His boyhood trips to Speedwell Cavern imbued him with a profound love of caves and cave science. Trevor was a founder-member of the Derbyshire Caving Association (DCA), and he produced the first edition of *Caves of Derbyshire* in 1964. He wrote extensively on all aspects of speleology.

Trevor loved to work for volunteer-run societies in both geology and speleology. These duties were largely the positions of Chairman and Editor. He started early, and was the Editor of the *Journal of the University of Sheffield Geological Society* between 1951 and 1952 when he was a PhD student. Trevor edited the *Transactions of the British Cave Research of Great Britain* (later *Cave Science* then *Cave and Karst Science*) from 1973 to 1993. He also became Editor of the *Bulletin of the Peak District Mines Historical Society* (latterly *Mining History*) in 1965, and did this job until 2000. Trevor did not stop there; he was also the Honorary Editor of the *Transactions of the Leicester Literary and Philosophical Society* from 1986 to 2000. He also chaired the latter three societies, and was President of the East Midlands Geological Society between 1982 and 1985.

In 1974 Trevor was rewarded for his research by the Geological Society of London with a moiety of the Lyell Fund. Three years later he was awarded Honorary Membership of the British Cave Research Association, a society he helped to initiate, and in 2009 was elected an Honorary Member of the Yorkshire Geological Society. Trevor was awarded the Certificate of Merit by the Speleological Society of the United States in 1995. However, his most high profile honour was when he was awarded the OBE in the 1997 Queen's Birthday Honours List for 'services to geology and cave science'. In 1998, Trevor was awarded the 'Champion of British Sport' medal by the Derbyshire Caving Association. The University of Derby conferred upon Trevor an honorary Doctor of Science degree in 2016 to acknowledge his contributions on the geology of the Peak District.

Trevor Ford was one of the giants of traditional geology. He was devoted to both his undergraduate and postgraduate students, and to his subject. Trevor always displayed great humanity despite a sometimes stern exterior. He is survived by his two daughters Alison Tagg and Janet Baxter, and by his granddaughter Kirsty Baxter.

**James B. Riding and Noel E. Worley**