

Harry Blackmore Whittington

24 March 1916 – 20 June 2010

DAVID L. BRUTON

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David L. Bruton, Natural History Museum (Geology), University of Oslo, Postboks 1172 Blindern, NO-0318 Oslo, Norway; d.l.bruton@nhm.uio.no

Until his death in 2010 at the age of 94 Harry Whittington was still very much the doyen of trilobite workers, and I extend warm thanks to the organisers for dedicating the Prague meeting to him and for the invitation to include my opening address in the present publication. For me, Prague and Harry Whittington bring back happy memories because it was Harry who defined my PhD topic in 1961, and it was in Prague that I began my studies in 1962. He had published his work on silicified odontopleurid trilobites (Whittington 1956) and suggested I should follow this up by revising Barrande's collection of those trilobites housed in the National Museum in Prague. During his long career Harry published more than 150 papers, the vast majority on trilobites and non-trilobite arthropods, numerous books on the subject including major contributions to the first trilobite Treatise in 1959, and then single-handedly he edited and compiled four sections and jointly a fifth of the first volume of the new Treatise in 1997. Interestingly enough, his first publication on trilobites was devoted to trinucleid trilobites described by Joachim Barrande (Whittington 1940). His last publication (Whittington 2009) appeared when he was 93!

His scientific career was dominated by seven major periods of his life: student years at Birmingham University (1933–1938); a Commonwealth Fund Fellowship at Yale (1938–1940); the war years in Rangoon, Burma (1940–1941) and Chengdu, China (1941–1945); a lecturing post at the University of Birmingham (1945–1949); and his most productive years as professor at Harvard (1949–1966) and in Cambridge, England (1966–2010).

As a student his rise was meteoric, having at Birmingham attained a BSc aged 20 in 1936 followed by a PhD in 1938. He began his studies as a geographer but quickly changed to geology after having followed lectures on the evolution of the Midland's landscape and the palaeo-



Figure 1. Harry Whittington, Cambridge, 1997. Note the dark (undyed) hair that he retained to the end. Photograph, courtesy of Karl Bruton.

graphy involved in this. His palaeontological interests were aroused by the work of L.J. Wills, who at the time was studying Triassic scorpions using similar methods to those described by Gerhard Holm in Sweden, in which beautifully preserved cuticle was etched off the surface of the rock and then mounted on glass plates to display the transparent films of limbs, antennae and sensory hairs. It was the work by Wills that Harry remembered so well when he commenced study of the Burgess Shale arthropods, some 30 years later.

The Yale years were when he met his American wife, Dorothy, whom he married in 1940. She travelled everywhere with him, and was his field assistant and the one who, he always maintained, found the best trilobites. Her death in 1997 terminated a marriage of 57 glorious years.

In Burma, Harry taught geology at a college in Rangoon and did fieldwork in the western part of the country before he and Dorothy had to make a dramatic escape because of the Japanese invasion of the country. The couple finally ended up in the Refugee University in Chengdu, China, and while here Harry did pioneer fieldwork in the Himalayan area of western Szechuan, which was later published before and after the war (Whittington 1944, 1946).



Figure 2. Burgess Camp, 1967. Harry Whittington flanked by Bill Fritz with son Peter and Jim Aitken. Photograph from Bruton (2011b).

His return to Birmingham after the war provided a lectureship in the Department of Geology and while there he earned his DSc degree before returning to America and the Museum of Comparative Zoology, Harvard University in 1949.

The Harvard collections included a valuable assortment of Bohemian trilobites from the famous Schary Collection which Harry often used in comparative work on Ordovician trilobites, which were his favourites although he also published several papers on Cambrian, Silurian and Carboniferous trilobites. His work covered all aspects of trilobite ontogeny, morphology, ecology and classification. This work was often backed up by exquisitely preserved silicified material etched from the Ordovician of Virginia. Harry was first introduced to the etching methods by G. Arthur Cooper, a very dear friend and mentor, and he later benefited from the joint work based on collections made by Bill Evitt (Whittington & Evitt 1954).

Harry was very much a field geologist and stratigrapher and his work on the Ordovician rocks of the Bala area, North Wales, together with Doug Bassett and Alwyn Williams (Bassett *et al.* 1966) led to a four-part trilobite monograph published by the Palaeontographical Society (Whittington 1962, 1965a, 1966a, 1968). His work with Cecil Kindle (Whittington & Kindle 1963) on the carbonate slide conglomerates of Cow and Table heads of western Newfoundland produced a series of beautifully preserved trilobites (Whittington 1963, 1965b) which afforded a detailed stratigraphy demonstrating the intermittent collapse of a platform edge. Here it is safe to say that a combination of field mapping, detailed stratigraphy and distribution of faunas led Harry to become one of the foremost experts of the Ordovician System. Together

with Chris Hughes, he contributed to three valuable contributions on Ordovician palaeogeography and faunal provinces (Whittington & Hughes 1972, 1973, 1974), which provided fundamental ideas for then-current thoughts on plate tectonics and continent positions.

Harry's systematic work was always beautifully illustrated with line drawing reconstructions. His ability as a draughtsman went back to his early school days when he attended technical drawing classes. His exquisite photographic plates displayed details of morphology, elegantly revealed by careful preparation, each step executed by his own efforts. He spent hours at work with the vibro-tool well into his 80s and his unlimited patience was an inspiration. I shall never forget that, while I was studying at Harvard in 1964, he showed me each morning for the best part of a week how he had prepared the hypostome of *Neseuretus* and then made a latex cast of the result (Whittington 1966b). He was convinced that the solution to trilobite classification lay in the morphology of ventral sutures and hypostomes (Whittington 1988a, b).

Harry enjoyed a privileged position at Harvard for 17 years before being called (he did not apply) to the Woodwardian Chair in Cambridge in 1966. He was then 50 years of age. Accepting this position was a difficult decision for him to make for two main reasons. First, the Charles D. Walcott Collection of Cambrian fossils from the Burgess Shale in the U.S. National Museum of Natural History, Washington, D.C. had been recently reorganised and made readily accessible, and he had looked through it during a previous visit. Secondly, the Geological Survey of Canada, through Digby McLaren, invited him join a survey party in British Columbia, the object being to re-open Walcott's

Figure 3. The Oxford trilobite meeting, 2001. Burgess Shale workers; standing (from left), Alberto Simonetta, Desmond Collins, David Bruton, Harry Whittington, Derek Briggs Terry Fletcher; kneeling (from left), David Rudkin, Diego García-Bellido Capdevila, Kevin Brett. Photograph by Anne Bruton.



Figure 4. Reception for Harry Whittington at Queens College, Cambridge, October 2002, following the award of the Emperor of Japan's International Biology Prize in 2001. From left: David Bruton, Derek Briggs, Harry Whittington, Richard Fortey, Chris Hughes. Photograph by Anne Bruton.



Quarry at Burgess Pass, make new collections and organise a future team to describe the unique assemblage of fossils in the Burgess Shale. After much soul searching, he accepted the Cambridge offer and arrived there after having spent a preliminary field season at the Burgess Quarry site in 1966 (Whittington 1985). I joined him in a second season at the quarry in 1967, together with Jim Aitken, Bill Fritz and students (Bruton 2011b, fig. 3c), and a major five-week effort produced enough material to start a revision of the fauna. The Burgess work was a new challenge for Harry but his patience and experience with the vibro-tool soon revealed amazing details. He devised a method of illustration using camera lucida line drawings and careful photography using

white light or UV illumination of specimens in air or immersed in alcohol. For me, Harry's first Burgess work, on *Marrella*, illustrates these techniques best of all (Whittington 1971), and his unique ability of three-dimensional visualisation led to some of the remarkable reconstructions of the animals he and his team produced. He also prepared a detailed account of the appendages of *Olenoides*, presented at the first international trilobite meeting held in Oslo in 1973 (Whittington 1975), and followed this with a description of *Triarthrus* in a joint paper with John Almond (Whittington & Almond 1987). Harry last attended an international trilobite meeting in Oxford in 2001 (Fig. 3).

Harry's endeavours and leadership in the Burgess

Shale project made it a spectacular contribution to our understanding of early life, rewarded by his receiving in 2001 the prestigious Emperor of Japan's International Biology Prize which he received in person, after some hesitation having travelled to Japan aged 85 (Fig. 4). The silver vase he received was donated to Sidney Sussex College in Cambridge and the generous monetary award was shared in various ways, in aid of future palaeontological research.

Harry received some of the highest awards his profession can bestow including election to the Royal Society in 1971, receipt of medals from the Paleontological Society of America, the Palaeontological Association, the Geological Society of London (twice) and the Geological Association of Canada.

Harry Whittington was a man of extreme modesty and disliked a fuss. He was immensely supportive of those who needed his help. He was proud of his students and followed their careers, many to high posts in academia. Sadly he had no children but he was always interested in the family life of those around him. Above all he was generous with credit when he thought it was due!

For those of you in the present Prague audience who knew Harry, I have attempted to rekindle some fond memories of him. For those who did not have the privilege of knowing him, I hope you will agree that, for us all, he produced some of our trade's most exciting data and we have still much to learn from his thoughts and interpretations.

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