

## Awards and Citations

### Response by Richard A. Fortey for the presentation of the 2016 Paleontological Society Medal



Richard A. Fortey

I gratefully thank the Paleontological Society for the recognition given to me in the award of this medal, which came as a wonderful surprise. Derek Briggs's eloquent description of my life in paleontology is equally gratifying, although I struggle to recognize the figure decked in superlatives to which his address refers. I have always considered myself extraordinarily lucky to have been paid to do what I would have done anyway for nothing, ever since I collected my first trilobite at the age of fourteen. As I put it in one of my books: when I got my job at the Natural History Museum in London it was as if I had been instructed "amuse yourself—for money."

I believe that good fortune has had as much a part to play as talent or hard work in any success I have enjoyed. I started out by going to Spitsbergen as an undergraduate, and discovering one of

the most diverse trilobite faunas known, including completely new species and genera. In the kindly and distinguished Harry Whittington at Cambridge, I had the world trilobite authority ready placed to be my thesis advisor. I was there when Cambridge University was the epicenter of the plate tectonic revolution. It seems surprising now that recognition of biofacies was comparatively new in the 1970s, and to me it seemed a logical progression to relate trilobite distributions critically to the disposition of ancient plates. To do this properly it was necessary to do a detailed and scholarly appraisal of faunas—and once again, luckily for me, the Ordovician proved a critical time period in continental and biological evolution. My systematic (both meanings) exploration of Ordovician trilobites took me to Australia, Canada, Thailand, China, and the western USA. I even found

much new material in my own backyard in Wales, here accompanied by my good paleontological friend Bob Owens. New paleogeographies followed. As I became engrossed in the details of trilobite systematics, functional morphology became a particular interest, and I have sought to understand more about how trilobites fed, swam and interacted with their marine habitat ever since.

When I joined the Natural History Museum in London (then universally known as the BM [British Museum]) it was soon to become the center of another revolution—cladistics. By then I had inherited responsibility for the graptolites as well as trilobites, and to both groups I applied the new techniques developed by Colin Patterson and his colleagues to rationalize classification. The early development of graptolite colonies proved crucial, while ventral structures in trilobites provided new ways of attacking long standing problems of higher classification. My belief in studying specimens to get a proper appraisal of characters remains unshaken. Some of the concepts developed during this period remain in play, while others have become outmoded, which is exactly as it should be. To be in London at this particular time was nothing less than fortuitous.

With this background it was also natural to ask how trilobites as a **whole** related to the initial diversification of the arthropods. Whittington's Burgess Shale research group were busy clarifying the vital fossils at just the right time in the eighties. When I was sent Steve Gould's book *Wonderful Life* to review for *Nature*, I realized that the arthropods provided the best material to examine his challenging ideas. Derek Briggs and I set about producing what was the first computer-based cladogram illustrating the relationships among the early Cambrian arthropods—a research program that continues today. Recruiting Matthew Wills as our joint student allowed us quantitatively to test and refute Gould's claims about greater morphological disparity in the Cambrian. A decade later I collaborated with molecular biologists to see if their data might calibrate the 'phylogenetic fuse' that preceded the diversification of the animal phyla. I still regard this as an unresolved conundrum.

Much of my research has been achieved thanks to colleagues who have become friends. If I mention Bob Owens, Adrian

Rushton, and Robin Cocks as the oldest of these friends, Derek Siveter, Derek Briggs, Roger Cooper, Noel James, and Niles Eldredge followed shortly thereafter. Brian Chatterton, Alan Cooper, Nigel Hughes, and Mary Droser became good friends in the nineties. I cannot list all those with whom I have enjoyed fruitful collaborations—there are just too many of them. They are all tacitly acknowledged here.

My first book was written for the Natural History Museum, and so began my parallel life in trying to reach a public wider than just the research community. My books remain in print, which answers one of my more staid Museum colleagues who long ago warned me against wasting my time with "ephemera." I have been lucky with both my British publisher, HarperCollins, and my US publisher, Knopf, in having very supportive editors. Although I suspect that if my 1997 biography of *Life* had not sold so well I would never have been commissioned to write *Trilobite*, which is probably the nearest I will get to an autobiography. The UK edition has an exclamation mark after the *Trilobite!* that was dropped in the US. A pity: I wanted it to stand against all those books featuring *Tyrannosaurus rex!* to earn the trilobites the place they deserve. The books allowed me to broaden my horizons to become the natural historian I have always been at heart. They allowed me to visit parts of the world where the trilobites would never have taken me: to Hawaii, New Zealand, and Yellowstone National Park. I have been fortunate enough to have had the chance to develop my own narrative voice over eight books, which I hope serves to lead the reader further into the subject. I hope that this contributes in a small way to keeping paleontology alive as a discipline at a time when funding is often so precarious.

So thank you Paleontological Society for the award of your medal. And thank you to all those who helped me along the way to exploit the luck that accompanied me from the beginning.

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