

PS Medal 2023 Acceptance Carlton E. Brett

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I am delighted and humbled to receive this award and can't help but recall that the first Paleontological Society Medal was given 60 years ago in 1963, the year that I learned the name of that first recipient—R.C. Moore—and declared that I wanted to study fossils.

Growing up on a family farm in New Hampshire, I was fascinated by animals. I drew farm scenes, and collected and sketched shells, butterflies, and bones. I thought of being an artist and naturalist. My father, Wesley F. Brett, was a skilled designer-craftsman, a farmer, and a revered professor of design. Mum—Helen (Pratt) Brett—had been an English teacher. They were outstanding educators and encouraged me to follow my interests.

Dad transferred from University of New Hampshire to Buffalo State College, and we moved from the 'Granite State' to the fossil-rich Niagara Frontier when I was ten years old. This was a defining event. I vividly recall seeing sedimentary rocks and fossils for the first time; I was hooked! My youthful haunts included the spectacular venues of Amadeus Grabau—Niagara Gorge and Lake Erie cliffs of western New York—and I wanted to follow in his footsteps. By the time that I graduated from Grand Island High School and entered State University of New York at Buffalo in 1969, I was determined to become a paleontologist.

As an undergraduate in the 1970s, I pursued geology, paleontology, and related subjects with a vengeance, mentored by Ed Buehler, a humble and unique individual who encouraged me to follow my own interests. In 1972, my interests in evolution were greatly stimulated by the seminal paper on punctuated equilibrium by Niles Eldredge and Stephen Jay Gould. I had argued, even with high school teachers, that the fossil assemblages of western New York showed not gradual change, but the same species in bed after bed of rock, punctuated by sudden changes. Eldredge and Gould were effectively arguing the same thing!

The year 1973 was a pivotal year in my life. I graduated from SUNY Buffalo and became engaged in October to fellow biology student Betty Lou Hilton. In that same month, I met the incomparable Gordon Baird, then a Ph.D. student at the University of Rochester, where I would later teach; we collaborated from that day onward.

At the University of Michigan, my Ph.D. advisor, Brad Macurda, furthered my interests in fossil echinoderms and introduced me to the notion of sequence stratigraphy. Fellow students Ed Landing, Dave Liddell, and George McIntosh became long-term partners in research.

In 1978, I was thrilled to obtain a faculty position at the University of Rochester, even as I was still finishing my dissertation on paleoecology of echinoderms and stratigraphy of the Rochester Shale. Dan Fisher, and later Judy Massare and Jeff Over, sparked interests in paleobiology and stratigraphic paleontology. Above all, the legendary Curt Teichert, retired but as productive as ever, was a nurturing role model.

Together with many dedicated students, Gordon Baird and I documented hundreds of stream cuts in upstate New York. On the drives home, we excitedly pulled together our hypotheses of stratigraphic relationships, facies models, and paleoecology. We formulated taphofacies concepts—modes of fossil preservation related to environments—and their relationship to sequence stratigraphy, sea level, and sedimentation. As we documented fossil assemblages, the concept of coordinated stasis emerged: entire animal communities were relatively stable for up to millions of years, then abruptly changed.

In 1993, I had the opportunity to join the SSETI project (Shelf and Slope Experimental Taphonomy Initiative) with Eric Powell, Sally Walker, Karla Parsons-Hubbard, and Anne Raymond to test the efficacy of 'taphofacies,' deploying samples in a wide array of modern marine environments. It was thrilling to go down in submersibles, as deep as 2000 ft (610 m) and see live crinoids out the portal. We gathered reams of data from 1993–2006 that supported the taphofacies concept.

In 1998, I was delighted to join the University of Cincinnati, a uniquely stimulating, collegial, and nurturing place for students and faculty alike. Cincinnati strata, so well exposed in the region, provided another natural laboratory for stratigraphic paleontology. My esteemed colleagues, especially Arnie Miller and Dave Meyer, and I are heirs to the famed 'Cincinnati School' founded by E.O. Ulrich. I have tried to transform local stratigraphy from 'EO-ulrichian' to a more nuanced 'Neo-ulrichian' sequence-based layer cake. I must also acknowledge ongoing collaborations with Ben Dattilo; Cincinnati Museum colleagues Brenda Hunda, Cameron Schwalbach, and Glenn Storrs; and the remarkable Cincinnati Dry Dredgers, the oldest amateur paleontology group in the country, founded by the great Cincinnati paleontologist, Ken Caster.

I maintain close ties to the Paleontological Research Institution in Ithaca, New York, and am greatly indebted to Warren Allmon and his excellent team. In summer 2023, a new Paleozoic research center was established, including the dedication of the Baird and Brett Research Collections.

My involvement with the international Ordovician, Silurian, and Devonian stratigraphic subcommissions, NATO projects in England with Peter Allison, and a Humboldt Prize for collaboration with Eberhard Schindler, Rainer Brocke, Peter Königshof, and others at the Senckenberg Institute in Frankfurt,

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Germany, have enabled me to examine global bioevents and cycles. This has led to my fascination with linking biological events and stasis blocks to patterns of changing volatility in sea level, climate, and the carbon cycle. I would need another lifetime to complete this work; much of that will be up to my wonderful students, who inspire me and keep me excited about research. I have always tried to reciprocate.

Finally, I must thank my wife, Dr. Betty Lou Brett, a biologist in her own right who has patiently encouraged me

for > 50 years. Our children, Kenton (an artist) and Leanne (a grade-school teacher), and now grandchildren, keep me grounded and humor an eccentric paleontologist father/grandfather.

As Gould reminded us, life is contingent. I often say to students: 'Find what you love to do, pursue it with a vengeance, and always be willing to seize opportunities.' I feel fortunate that contingencies have led me to an extraordinarily interesting career. It's a 'wonderful life'!! Thank you all so very much for your support and inspiration over the years!