

Memorial to Walter C. Sweet

1927–2015

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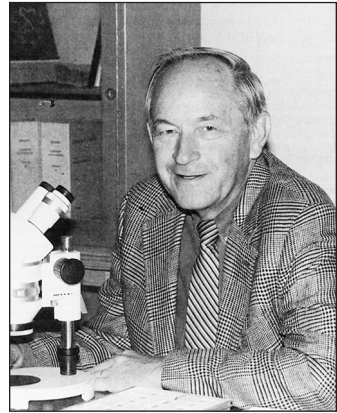
Walter C. Sweet, professor of earth sciences emeritus of The Ohio State University and a globally known paleontologist and stratigrapher, passed away at the age of 88 on 4 December 2015 in Tucson, Arizona. He had suffered a heart attack a couple of weeks earlier and undergone a bypass heart operation from which he never recovered.

Walt was born on 17 October 1927 in Denver, Colorado, the son of Homer and Marion Sweet. The family also included a daughter who died early. After a high school education in Denver and a brief military service during which he was mostly stationed in Guam, Walt attended Colorado College and graduated with a B.Sc. degree in 1950. He then enrolled at the University of Iowa, where he was awarded his M.S. degree in 1952 and his Ph.D. degree in 1954. His graduate adviser was A.K. Miller, an internationally well-known cephalopod paleontologist.

Being Miller's research assistant, Walt became greatly influenced by his research methods and developed expertise in cephalopods as well as biostratigraphy. Walt's Ph.D. dissertation was based on mapping of the Upper Ordovician Fremont and Harding formations in part of the Rocky Mountains in central Colorado south of Denver as well as investigation of the Harding conodont fauna and the Fremont cephalopod fauna.

After completing his Ph.D., Walt accepted in 1954 an offer to be an instructor at The Ohio State University, where he was promoted to assistant professor in 1957, associate professor in 1961, and professor in 1966. He became professor emeritus in 1988. Apart from spending a year as Fulbright Scholar in Oslo, Norway, in 1956–1957, and six months as visiting professor at Lund University, Sweden, in 1966, he spent his entire 35-year teaching career up to his retirement at The Ohio State University, where he was a major mover behind the early development of a virtually dormant program in paleontology and stratigraphy that came to be ranked among the top 10 in the United States and known internationally. Walt was a very successful educator, who taught a wide variety of courses. He received the department's Distinguished Teaching Award twice (1971, 1982) and co-authored a textbook on introductory geology, which was published in two editions (1966, 1982) and used at several universities. He served as thesis advisor for approximately 40 students, several of whom, such as T.J.M. Schopf, Anita Epstein (Harris), Mark Kleffner, and Jeff Bauer, have become known internationally.

Much of Walt's early paleontological research was on cephalopods, which were dealt with in about half a dozen papers. This includes his 1958 monograph on nautiloids from the Oslo region, Norway, in which he described more than 20 new species. Several years later, he produced extensive chapters on cephalopods in volume R of the standard handbook *Treatise on Invertebrate Paleontology*, and he maintained an interest in cephalopods throughout his life. However, from the late 1950s on, most of his research dealt with conodonts and conodont



biostratigraphy. Initially, most of his research was on the Ordovician, but from 1968 on, he also became an internationally recognized expert on Triassic and Upper Permian conodonts and conodont biostratigraphy, especially in Pakistan, Kashmir, Iran, Italy, and Greenland. Beginning in 1960 and for more than 25 years, he had close scientific cooperation with Stig M. Bergström, who joined the Geology Department faculty at The Ohio State University in 1968. Walt's research resulted in more than 125 publications, and he became an internationally known authority on virtually all aspects of conodonts. In the 1960s, he cooperated with Bergström in the development of multi-element conodont taxonomy, that is, the classification of conodonts based on the element apparatus of the conodont animal, rather than on isolated single skeletal parts. Although initially met with considerable skepticism, this more biologic taxonomic approach is now used globally whenever possible. Walt's broad conodont expertise was summarized in his 1988 book *The Conodonta. Morphology, Taxonomy, Paleoecology, and Evolutionary History of a Long-Extinct Phylum*, which has become an international classic that is still used worldwide as the best available overall summary of this widespread and important fossil group. This book includes not only a review of a large amount of previously published information, but it also contains a wealth of new interpretations, especially regarding the relationships between different conodont taxa and their evolution through time. Walt was also one of the principal authors of the revised conodont part (1981) of the *Treatise on Invertebrate Paleontology*. The wide appreciation of Walt's scientific work is shown by the fact that colleagues have named at least three fossil genera (*Sweetodus*, *Sweetina*, *Sweetocristatus*) and several new species (e.g., *Cahabagnathus sweeti*) for him. Although he described numerous new genera and species of conodonts, much of his work in the Ordovician and Permian-Triassic was basically of a biostratigraphic nature, and he was one of the pioneers in using graphic correlation within these stratigraphic intervals.

During his long career, Walt received several major scientific awards, such as the Pander Gold Medal (1985), which is the highest international award in conodont research, the Society of Sedimentary Geology's Raymond C. Moore Medal (1988), and the Paleontological Society's Medal (1994), the latter two awards being the two most prestigious ones in paleontology and soft rock geology in North America. Only one other person in the world has received all three of these awards. Walt was also a Fellow of several scientific societies.

Walt was very active in professional service. For instance, he was secretary (1976–1982) and later president (1983–1985) of the Paleontological Society and chief panderer (=president) of the Pander Society (1975–1985). For many years, he was also a very active member or corresponding member of the Ordovician, Permian, and Triassic Subcommissions of the International Commission on Stratigraphy.

Although he maintained a general interest in paleontology and stratigraphy in his retirement years and occasionally attended geology seminars at The Ohio State University, he published only a couple of conodont papers during the last 10–15 years of his life. This was no doubt partly due to an eye problem that prevented him from using a microscope, combined with the fact that during the last few years of his life, his wife required virtually constant supervision after a serious stroke.

The fact that he spent much time during his childhood at the family's mountain cottage west of Denver is likely to have resulted in his love for mountains and the landscape in the West. During many years after his retirement, he and his wife spent the winter half of the year at a condominium they had acquired in Tucson, Arizona, and in 2013, they—somewhat unexpectedly—permanently moved to Tucson from their retirement apartment in Columbus. A major reason for this was in all probability the great deal of physical assistance needed daily by his wife that was more easily available at a reasonable price in Tucson.

Walt was a hard and well-organized worker, who had strong ideas about how research should be carried out, both in the lab and at the desk. From his school days, he was very fond of the English language and had excellent editorial skills. He checked student theses and journal manuscripts in great detail and did not hesitate to point out even minor errors. This applied also to his extensive work as reviewer of manuscripts for a large number of geology journals.

Most of the time, Walt was helpful and friendly but demanding to students and coworkers, and he tended to maintain a formal attitude to non-academic university people. In the company of old friends, especially from abroad, he could be quite easy-going and enjoyable. He had very firm opinions about a variety of matters, and had a certain temper. When experiencing matters that he felt were not correct, he did not hesitate to clearly express his opinion, which was not always appreciated by everybody. However, his broad knowledge, sharp and critical mind, and his ability to think “outside the box” will be greatly missed by many conodont workers and other paleontologists around the world.

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