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CARL OWEN DUNBAR

1891—1979

A Biographical Memoir by
JOHN RODGERS

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Biographical Memoir

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Carl O. Dunbar

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BY JOHN RODGERS

CARL O. DUNBAR was one of the leading invertebrate paleontologists of his generation and the author of one of the most influential geology textbooks of his day. He made his contributions to science by indefatigable industry and careful, clear thinking in collating and understanding all the data on whatever subject he was concerned with. The same characteristics informed his teaching and helped to produce many of the leading paleontologists of the next two generations, some of whom have followed him into the fellowship of the National Academy of Sciences. In all respects, he was the successor of Charles Schuchert, as he was always glad to acknowledge.

Carl Dunbar was born on 1 January 1891, the son of David and Emma Thomas Dunbar, and grew up on their wheat ranch near Hallowell, Cherokee County, in the southeastern corner of Kansas. As a boy and young man, he had responsible jobs on the ranch, and he liked to remember those years and felt they had taught him the industry and thoroughness that he always exhibited.

He went to the University of Kansas in 1909. Almost by accident he took a course in geology with William H. Twenhofel, who had just finished his doctorate with Schuchert at Yale, and the teacher and subject at once inspired

Dunbar's interest. By the time he graduated he had chosen paleontology as a profession, and after a year of graduate work at Kansas, Twenhofel strongly recommended him to Schuchert for further study. Schuchert accepted him, and he came to Yale in 1914 with his new bride, Lora Beamer Dunbar.

Dunbar completed his doctoral dissertation in 1917; it is entitled: "The Paleontology and Stratigraphy of the Devonian of Western Tennessee." Schuchert kept him at Yale for another year to prepare the dissertation for publication and to work on fossil collections Schuchert had made in western Newfoundland, and Dunbar went to Newfoundland with Schuchert for two summer expeditions. In 1918 Dunbar went to the University of Minnesota as instructor of geology, but in 1920, when Schuchert was approaching retirement, he urged that Dunbar be appointed his successor. Dunbar therefore returned to Yale, where he taught without a break (he refused to take sabbaticals) from 1920 to 1959.

During the 1920s, Dunbar collected and studied in detail several groups of fossils of late Paleozoic age—the Pennsylvanian and Permian periods—from the west-central United States: fossil insects from Kansas; brachiopods from Nebraska; and above all fusulines, an extinct family of large foraminifera that evolved rapidly during those two periods and have proved of the utmost importance in worldwide correlation of late Paleozoic events, in good part because of Dunbar's research. Dunbar soon became the leading American student of fusulines and their evolution (though he never abandoned the other fossil groups, especially the brachiopods) and of the Permian period worldwide. His first monograph on the fusulines, published in 1927 in collaboration with G. E. Condra, State geologist of Nebraska, was, to quote J. W. Skinner, another student of fusulines and a friend and coworker of Dunbar's: "the first definitive study

of American fusulinids. . . . There can be no doubt that this work was instrumental in causing other paleontologists to take up the study of these Foraminifera.”

The Permian period was originally named for Perm in Russia, and in 1937, on the occasion of an International Geological Congress in the Soviet Union, Dunbar had the opportunity to visit the area and to become close friends with the leading Soviet paleontologists in his field. Although politically conversative, Dunbar never thereafter wavered in his belief that the U.S. and the U.S.S.R. should be natural collaborators and friends, not enemies.

Dunbar's teaching was a model of clarity, as all those fortunate enough to have been his students can attest. He was careful, well organized, and authoritative. Because he made constant notes on and thought critically about the new literature and revised his lecture notes every year, his courses in invertebrate paleontology and on North American stratigraphy were not only factually accurate and complete (except that the stratigraphy course rarely got out of the Paleozoic) but emphasized principles. Working from the details, he brought out the sweep of organic evolution as exemplified by invertebrate animals and the overall geological history of North America, along with the principles needed to understand it (ultimately that course was converted into a course in principles of stratigraphy). For his students these ideas became permanent acquisitions and enthusiasms.

Along with these courses, Dunbar inherited from Schuchert the historical geology section of the Yale series of textbooks of geology. Because of their accuracy and clarity, these textbooks dominated the field through the 1920s and 1930s and made a major contribution to professional education in earth science. Later Dunbar could say that textbooks of which he had written all or a substantial part had sold over a million copies.

From the first, Dunbar was associated with Schuchert in curating the already extensive collections in invertebrate paleontology belonging to the Peabody Museum of Natural History at Yale, notably during an interim of eight years after the old museum building had been torn down and before the new building was completed. In due course he became curator. Not only did he greatly enlarge the collections and see to it that they were in excellent, readily accessible condition, but he was deeply concerned that they and the other Museum holdings be an asset not just to professional scientists, but also to the University as a whole and the New Haven community. Accordingly, as curator, and later during his seventeen years as director of the Museum, he undertook a thoroughgoing remodeling of exhibits throughout the Museum. One major triumph, which he shared with his predecessor as director, A. E. Parr, was the one hundred-foot mural of the Age of Dinosaurs by Rudolph Zallinger, for which Zallinger received the Pulitzer Prize. He also revitalized the School Service Department of the Museum, which assisted schoolteachers and their pupils in learning from the Museum and its exhibits; for many years now the Peabody Museum has been visited by about a hundred thousand school children each year. Dunbar always emphasized that a Museum is not an antiquarian curiosity or a postage-stamp collection but should be like a great public and research library.

Dunbar's eminence was recognized by his peers. He was elected to the American Philosophical Society in 1942, to the National Academy of Sciences in 1944, and to the American Academy of Arts and Sciences in 1950. He was made an honorary member of the Geological Society of Mexico in 1944, a corresponding fellow of the Geological Society of London in 1950, and an honorary life member of the Society of Economic Paleontologists and Mineralogists in 1965. He

was elected president of the Paleontological Society in 1940 and was vice-president of the Geological Society of America that year. He received the Hayden Memorial Geological Medal of the Academy of Natural Sciences of Philadelphia in 1959, the Paleontological Society Medal in 1967, and the Twenhofel Medal of the Society of Economic Paleontologists and Mineralogists in 1977.

When Dunbar retired from Yale University in 1959, he and his wife moved to Florida to be near their son, Carl O. Dunbar, Jr., and his growing family. He did not stop his research, however, but by an arrangement with the University of Southern Florida in Tampa, and by periodic return visits to Peabody Museum, he kept up work on the fusulines for the next decade. In collaboration with Karl Waagé, his successor as professor and curator at Yale, he revised his elementary textbook, and he wrote a new book, *The Earth*, intended not for geologists but for the intelligent layman, which was published in England in 1966 and widely distributed in Europe. After several years, he reported to me: "This retirement business is a fraud; I'm busier now than ever." As the years went on, however, his activities became more leisurely, and his letters would also mention golf or fishing in the Gulf. He died at the age of eighty-eight, on 7 April 1979, in Dunedin, Florida, after a long, full life with many achievements, satisfactions, and rewards. His wife had died just five months earlier, but he left behind his son, his daughter, Mrs. Lora Louise Johnson of Atlanta, six grandchildren, and three great-grandchildren.

FOR MANY OF THE MATERIALS in this Memoir, I am deeply indebted to Karl M. Waagé, who made available to me a manuscript copy of his "Memorial to Carl Owen Dunbar," published in 1981 by the Geological Society of America. For further information of Dunbar's life and character, I heartily recommend that Memorial.

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