

Memorial to Dorothy Jung Echols 1916–1997

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Dorothy Jung Echols, professor emeritus in the Department of Earth and Planetary Sciences at Washington University in St. Louis, passed away on February 4, 1997, at Barnes-Jewish Hospital in St. Louis. A respected scientist and much-loved teacher, Dorothy inspired and trained many who went on to distinguished careers in the geosciences. One of the pioneering women geologists of her time, Dorothy worked initially in the petroleum industry from 1938 until 1946. She served on the faculty of Washington University in St. Louis from 1951 until her retirement in 1982. Dorothy was active in the geosciences until her death.

Born Dorothy Ann Elizabeth Jung on September 9, 1916, in Bronx, New York, Dorothy spent her childhood and graduated from high school in Brooklyn, where, as a high school student, she was once asked what her career goals were. “I like minerals,” she replied. “Rocks, to you.”

Dorothy received her B.A. in geology from New York University, where she was captain of the NYU Varsity Swimming Team in 1934 and 1935, and a member of the Women’s Swimming Association. Like her father, Dorothy was an athlete. In 1935 she was awarded the Florence Frankel medal for excellence in swimming. She graduated from NYU with distinction in 1936.

Dorothy went on to graduate school at Columbia University, where she earned a Master’s degree in geology in 1938. She then moved to Houston, Texas, in search of a job. This was at a time when there were few women geologists, and even fewer working in the petroleum industry. Dorothy was fond of telling the story of the Houston geologist who advised her to get a job working in the Humble Coffee Shop, where she would likely meet a husband. But she was not deterred. She obtained a job in 1938 with Republic Production Company (now Sinclair Oil), and worked there for three years as a geologist and micropaleontologist.

In 1941 Dorothy married Leonard S. Echols, a research chemist for Shell Oil Company, and returned to New York, where, from 1941 to 1942, she worked as assistant to the chief geologist (Foreign Division) at the Texas Company. Dorothy and Len moved to St. Louis in 1942, where they built a home. From 1946 to 1951, Dorothy was a geologic consultant for Pond Fork Oil and Gas Company of Charleston, West Virginia.

Dorothy began her career at Washington University as a laboratory instructor in the Department of Geology in 1948, working with Betty Kellett Nadeau, who became a lifelong friend. In 1951 Dorothy was hired as a research associate in the department, to fill the position vacated by Betty Nadeau. Dorothy’s husband Leonard passed away in 1963, at which time he was chief engineer for Shell in St. Louis. Len’s death left Dorothy with four young children and a career. She continued to teach at Washington University until her retirement in 1982.

Dorothy’s greatest legacy was as a teacher. During her tenure at Washington University, she directed the course of a great many graduate (and undergraduate) careers. Dorothy served as



thesis advisor to many and chaired a number of doctoral committees, in spite of the fact that she herself never completed a doctorate. In addition to courses in basic and advanced micropaleontology, Dorothy taught an introductory-level course entitled *Geology in the Field*, composed largely of weekend field trips throughout Missouri and Illinois. It was here that many of her young protégés first came to know Professor Echols. Her ability to instill her students with a basic understanding of field geology, and with the fascination and lure of the science of geology, was remarkable. “Cut your teeth here in Missouri on layer-cake geology,” she would say, “and then go out west and work on the more complicated stuff.”

Her brand of teaching was unique. Dorothy—or “Mrs. E” as most of her students knew her—was much more than a teacher and advisor. As one student wrote upon her retirement, she was “teaching more than paleontology.” Her association with her students extended well beyond the classroom. Her house at 218 Calverton Road was a second home for many. Among the remembrances offered at her retirement were more than one reference to her annual swimming pool parties and the late-night bouts of poker. Another of her students wrote that it must be “a great achievement to be such an important influence on the lives of so many people.” And the young man who wrote the following note was speaking for many when he said “... if I had to pick one person whose influence, both personal and academic, has helped me the most, it would be you.”

Dorothy instilled in her students a desire to be responsible members of the geologic profession, and to look at all research with a critical eye. Attendance at professional meetings was *de rigueur*—both for Dorothy and her students—not only to keep up with “the latest poop,” but also to know the people involved, for she felt strongly that knowing the endlessly fascinating parade of personalities who peopled the profession was an important part of one’s education. Her standards were high, her sense of humor unflinching, and those who welcomed her guidance and stewardship were rewarded with an affection and care that was—and is—rare.

In 1982, the year of her retirement, Dorothy received the Neil Miner Award from the National Association of Geology Teachers for “exceptional contributions to the stimulation of interest in the earth sciences....” Not easily impressed by the awards and fanfare that often accompany a successful career, Dorothy valued this particular award a great deal; it was displayed proudly in the front hall of her St. Louis home. “I never intended to be a teacher,” she once said. But it was as a teacher that Dorothy had her most lasting effect on the profession.

It was during her years at Columbia University that Dorothy met Doris Curtis (then Doris Malkin), a fellow graduate student in geology at Columbia who had just completed her Ph.D. oral examination. Doris, who went on to become the first woman ever elected president of the Geological Society of America, became Dorothy’s friend, confidante, mentor, and colleague for more than 50 years. It was after Len’s death in 1963 that Dorothy and Doris began to travel together. They attended meetings, field trips, and international congresses, and toured much of the globe in each other’s company. In many ways quite different people, they had in common the fact that they were both pioneers in a field largely dominated by men (at that time), and they both loved the oil patch. Doris went on to a distinguished career in the oil business, and Dorothy went on to academia. They both married, and though Doris never had children of her own, she was “Aunt Dodo” to Dorothy’s four children, and very much a part of their family. Dorothy’s longtime friendship with Doris was one of the most significant and joyful parts of her life, and Doris’s death in 1991 was a great loss, both to the profession at large and to Dorothy personally. Over the course of their 50-year friendship, Dorothy and Doris worked together, published together, and respected one another’s strengths. Doris once wrote of Dorothy:

She brings a spirit of learning, inquiry, knowledge, wisdom, and adventure to the classroom and the laboratory, whether it be in the introductory level class for non-majors or at the Ph.D. research level. Her students want to learn, they do learn, and they become successful produc-

tive scientists, or lovers of the earth. They leave her courses with a built-in lifelong scientific attitude, and a loyalty to the earth sciences and to “Mrs. E.” Her personal, caring approach to teaching fosters these attitudes.

Dorothy was a respected scientist as well as a teacher, and prided herself as such. She published regularly throughout her career, often with her students, and was well known for her work in the Gulf Coast. Dorothy was active in SEPM, AAPG, and GSA. She was a Senior Fellow of the Geological Society of America, a Fellow of the American Association for the Advancement of Science, and a member of AAPG, SEPM, and the Paleontological Research Institution. Dorothy was invited to serve as shipboard paleontologist aboard the *Glomar Challenger* for legs 58 and 82 of the Deep Sea Drilling Project; Doris accompanied her in both instances as shipboard sedimentologist. In 1979, Dorothy and Doris formed the consulting firm of Curtis and Echols. Dorothy continued to work as a consultant until her death.

On New Year’s Day of 1997, I phoned Dorothy to wish her well and inquire about her health. When I asked how she was, she replied, “not well.” I knew then that something was wrong, for in all our years of friendship, I’d never heard that tone in her voice. She was diagnosed with terminal inoperable lung cancer the next day. One week later, I flew to St. Louis to spend a few days with Dorothy, knowing that it would be my last chance to do so. For three of those days, she remained in Barnes Hospital, but she was able to return home to her beloved “218” a few days before I left. Although Dorothy had been blessed with good health for nearly all of her life, the rapid progress of the disease left her weak, and I was able to spend only a couple of hours with her each day. In those hours, we spoke of the things that had been important to her: her husband, her family, her students, her friends, and her career. She left detailed instructions for the disposition of her professional books and papers, as well as instructions for the notification of her many colleagues and friends. She asked then if I would be willing to write this memorial.

The night before I was to return home, I sat with Dorothy in her bedroom. “I don’t do good-byes,” she said. I assured her I would stick my head in her room the next morning before I left. But I didn’t; she was a woman of her word, and I knew it. During much of Dorothy’s career at Washington University, Margaret Bewig, the department secretary, served as a friend and confidante to many of us, and she was a close friend of Dorothy’s. “You’ll never meet another one like her,” Margaret would often say. And even then, we knew that was certain.

Dorothy is survived by her four children: Leonard S. Echols III, Jon Jung Echols, Lizette DePue Echols, and William Ring Echols, as well as her sister Lizette von Gal, five grandchildren, and one great-granddaughter. Those of us who were part of her extended family share in their loss.

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* As Dorothy Jung.

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