Memorial to D. Jerome Fisher 1896–1988

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D(aniel) Jerome Fisher was called Jerry by everyone who knew him more than ten minutes. One exception is his good wife, Dorothy, who has always called him Jerome. He may have been responsible for the contemporary first-name trend; when I first met him in 1936, the students all called him Jerry. It took me quite a time to acclimate to such familiarity with an elderly gentleman (age ~40) and faculty member. Jerry came to the University of Chicago as an undergraduate, getting his B.S. in 1917. These years were put to good use athletically as well as scholastically, for he was center on the football team for two years when the University of Chicago team was known as The Monsters of the Midway (a title later usurped by the upstart Chicago Bears). He was also captain of the Big Ten Conference track team (winner of the championship in high jumping and pole vaulting, and of the first all-around track and field meet, in



Urbana, held by the Big Ten), and recipient of the all-around Championship and Bond Medal, the conference medal for excellence in scholarship and athletics. After graduation he coached the freshman football squad under Stagg for about ten years. If he was then anything like the jocular Jerry that I knew, he must have been in marked contrast to the staid and stiff faculty of those days. It's probable that he was different, for Dorothy tells me that he always called his mother by her first name (Fannie), and that his mother told Dorothy's mother that he was a "strange boy."

Jerry was born on June 14, 1896, in Canton, New York, where his father was professor of pastoral theology and sociology at the Canton Theological Seminary. The family moved to Galesburg, Illinois, when Lewis Beals Fisher became president of Lombard College and the Ryder Divinity School, and then to Chicago as the Dean of the Ryder Divinity School when it became affiliated with the University of Chicago in 1911. Jerry thus became part of the university and the Hyde Park community in high school. He remained so with the exception of the years 1917 to 1919, when he enlisted in the Army; eleven months of that time were served with the American Expeditionary Forces in France. He married Dorothy Dorsett on his return in 1919, and he and Dorothy ultimately made a break from Chicago, moving to Phoenix in 1968, seven years after retirement. David Lewis Fisher is a surviving son; Jerome Dorsett Fisher (1926–1948) and Donis (Mrs. Marvin) Shapiro (1923–1986) preceded Jerry in death.

Jerry's introduction to geology came as a freshman in 1914, when he took a course in the subject, which he had never heard of, from a lean and hungry graduate student. He was hooked. Mineralogy, from Albert D. Brokaw, was part of an M.S. in 1920, and his Ph.D. was magna cum laude in geology with Rollin Salisbury in 1922. Jerry's professional career was as mineralogist first and geologist second, although his publication record shows significant forays into geological work, and he had appointments as a geologist with the Illinois Geological Survey (1921–1934), the U.S. Geological Survey (1924–1943), and the South Dakota Geological Survey (1941–1942). Unlike many whose teaching is shaped by research interests, Jerry's research was strongly guided by his first real teaching assignment. While Jerry was still a graduate student in 1921, R. S. Knappen suddenly left Chicago over a salary dispute involving \$400. The department turned to young Jerry to fill in, and he was

appointed instructor in mineralogy, a position he filled at successively higher ranks until his retirement. He was a founding member of the International Mineralogical Association and was its president from 1960 to 1964; he also served as president of the Mineralogical Society of America in 1957. With characteristic energy, Jerry assumed an active and true leadership role in both organizations, not merely resting on the laurels of what some would consider an honorary position. Also, unlike some whose involvement with mineralogy is as a discipline which they may divorce from a larger relation to the Earth, he always melded the geological with the mineralogical or crystallographic, to the benefit of both. The mineral djerfisherite was named in his honor by Louis Fuchs in 1966.

Jerry put an inordinate amount of effort into his courses; his informality did not extend into relaxed leniency in his relations with students. His undergraduate mineralogy course took over 40 hours a week of most students' time (certainly of mine), for the most part with laboratory identification. He loved designing teaching aids and gadgets as well as devices and instruments for research, and took up most of the time of Bill Schmidt, departmental technician, in building, modifying, and repairing his things. Notes from Jerry to Bill requesting something always ended with the word "PRONTO." His blackboard-sized stereo nets are still in use, as are optical devices and the wonderful crystal structure models of minerals he so meticulously and tediously constructed by hand, using wire and painted plastic-wood atoms, long before any such things were generally available. He called these "nuclear models," as opposed to packing models. I cut my eyeteeth on the feldspars with one of them; the toothmarks probably still show in my work. He particularly liked optical gizmos, and one of the most complex was a "universal-type microscope" (see bibliography, 1960). He was fascinated with 3-D pictures, stereo projectors, and viewers for stereo crystal drawings, and he took many photographs himself for projection to the Polaroid glasses-wearing audiences. In his desire for a powerful scenic stereo effect, he used a single camera on tripods stationed 20 feet apart. During the elapsed time between the two photos, clouds could, and did, move enough that the picture would practically tear your eyeballs out.

He was meticulous and well ordered in his work, and demanded precise work by his students. Any book he read had more written all over it than printed in it. Labels on mineral specimens, on instructions for the use of apparatus, and on instructional and teaching material are detailed and clear; his handwriting still pervades the departmental collections. He taught a course in plane-table mapping as well as crystallography and mineralogy, and he demanded that precision of closure for lines geometrically projected around a crystal drawing, as well as those "topographically" carried on a map, had to be with a resolution of little more than the thickness of a sharply pointed 9H pencil. Jerry worked through each student exercise, and they were commonly returned with areas circled and marked "DOPED!" or "FUDGED!"

For many years, the honcho of crystallography at Chicago was William H. Zachariasen, a leader in the field of x-ray diffraction since his student days with V. M. Goldschmidt. Zach was in the Department of Physics, and although he had been inspired by minerals early on and had solved a number of mineralogical structures, he had little contact with the (then) Department of Geology. It was not until after World War II, under the (reluctant) chairmanship of N. L. Bowen, that the geology department got its first x-ray generator and cameras. It is my impression that Jerry, who had wanted x-ray apparatus 25 years earlier, felt he had been unable to get it primarily because of Zach, but this could have been conjecture on his part. I recall the celebration of the "new year" with Coke and lab alcohol in 1947 when the first machine turned over 1947 on the running time meter. Before then, Jerry had plunged headlong into single-crystal diffraction using Weissenburg and Precession cameras; procedures for crystal orientation and similar instructions were stuck all over the laboratory. Fritz Laves and I had a difficult time getting our hands on goniometer heads, for Jerry had pre-empted most of them for his phosphate crystals.

Jerry enjoyed playing cards. A daily canasta game after lunch at the Quadrangle Club was perhaps a warm-up for later serious bridge, and the card room was but one step up from the club's billiard

room, where Jerry was also a devotee of cowboy pool—then as now played with complex house rules and, for the most part, by scientists. His fine physique, vigor, and lung power were adequate to blow billiard balls on the table as though they were ping-pong balls, and he would occasionally do so after closely missing a frustrating shot; then his vibrant laughter would ring through the lobby.

Jerry retained his physical vigor until late in life, and for some years after retiring to Phoenix, he made regular climbs up Squaw Peak. He rafted down the Colorado in the Grand Canyon with a student group during the six-year period he was on the faculty at Arizona State University. This vigor had at times been expressed to others in a manner not always viewed pleasurably (except in hindsight) by the recipient. Shorty Olson recalls entering a Halloween party in Jerry's basement, and when declining a suggestion that he duck for apples, being grabbed by Jerry and Harley Bretz (another rough and tumble guy) and being aided in doing so, neck deep. Shorty says, "Lord, those guys were strong." Jerry seemed to prefer setting his bridge opponents to making a slam (the only case I can think of where setting is more violent than slamming), and delighted in returning tennis balls not at or even into, but through Shorty, or Carey Croneis, or Rollin Chamberlin. All of these activities were accompanied by his resounding laughter. He loved to sing, and when Jerry sang, everyone for blocks around knew it. Perhaps he did so with thoughts of his musical career, which he dropped after high school in Galesburg, where he played cornet in a seven-piece (one girl) dance band.

Jerry's long affair with the geology department at Chicago is apparent in his 147-page history, "The Seventy Years of the Department of Geology, University of Chicago, 1892-1961," published on the eve of the formation of the new Department of the Geophysical Sciences. Jerry's dedication to the department and to the university was deep and sincere. It remained so in spite of the efforts, for the most part, of one man, to deprive him after World War II of most of what he cared about, including his courses, his research support, and thus his dignity. Jerry had bridged the transition from the Chamberlin-Salisbury era to the "modern" post-war reconstruction, and Walter Newhouse, who succeeded Bowen as chairman, felt that Jerry was no longer at the forefront of science. Factions developed within the department, and faculty meetings became strained and unpleasant. Several people treated less harshly than Jerry left the university. Jerry didn't, and his physical stature as an athlete was matched not only by his internal strength and dignity, but also by an institutional loyalty that culminated, after retirement, in a major gift to the department. The substantial gift is designated to foster the progress of research in the areas of mineralogy and petrology. David Fisher, also a university of Chicago alumnus, orchestrated and contributed to the fund, kindly aided by matching monies from the Bell System. It took a big man in more than stature to do this, and Jerry, not really wealthy, was certainly that. He was proud of his role as a donor, and I am proud of him as a person.

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