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Memorial of Charles F. Park, Jr.
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Charles F. Park, Jr., spent his early life in Wilmington, Delaware. He was fond of recalling that his interest in rocks and minerals dated from a time in his boyhood when he found a collection of specimens that had been discarded in his neighborhood. After high school, to satisfy an urge to see the West, he embarked as a steerage passenger on a ship bound for Galveston. A chance acquaintance on the voyage persuaded him that the New Mexico School of Mines was a good place to pursue his geologic interests, so to Socorro he went. Here he distinguished himself as captain of the basketball team, and in 1926 he was awarded a degree in mining engineering. There followed two years as a mine surveyor for the Empire Zinc Company in Hanover, New Mexico, then a master's degree in geological engineering from the University of Arizona (1929) and a Ph.D. in geology from the University of Minnesota (1931). From 1931 to 1946 he was employed by the U.S. Geological Survey, rising to the position of geologist in charge of the section on metalliferous deposits. Just after World War II he moved to Stanford University as professor of geology, then for 15 years he was Dean of the School of Mineral Sciences (later Earth Sciences), and then holder of the Donald Steel professorship. After retirement in 1968, he continued to teach part time, was much in demand as a lecturer, and served as visiting professor at Massachusetts Institute of Technology and the University of Michigan.

While with the Geological Survey he examined and wrote detailed reports on many mining districts in the U.S. and Latin America—gold ores in the southern Appalachians, iron in Alaska and the Lake Superior region, zinc and manganese in the Metaline district of Washington, groundwater in eastern Oregon, manganese in the Olympic Mountains and in Cuba, and manganese and iron in Brazil. His acceptance of an academic post at Stanford was on condition that his summers would be free for further studies of ore deposits, and then the work took him even farther afield—to Gabon, Libya, Chile, Peru, the Philippines, Australia, and other areas in North America and Brazil. He could boast that he had studied mineral deposits on all the continents except Antarctica.

This long and varied experience gave him a basis for drawing conclusions about the origin of metallic ores, for much thinking about the politics and economics of the extractive mineral industry, and for sympathetic understanding of the difficulties faced by developing countries in their efforts to become part of the industrial world. His ideas on such subjects found their way, of course, into his teaching at Stanford, where they were refined in lively discussions with the many able students who were attracted to his classes. His maturing thoughts about ore formation were expressed first in his many reports on mineral districts, then were embodied in his widely used textbook *Ore Deposits* with Roy McDiarmid as coauthor. After three editions (1964, 1970, 1975), the book was extensively revised in collaboration with John Guilbert and retitled *Geology of Ore Deposits* (1986). In two other books, *Affluence in Jeopardy* (1968) and *Earthbound* (1974, 1981), he expressed his deep and growing concern about the future of a small planet on which the population is increasing exponentially and the nonrenewable mineral resources are limited and unevenly distributed over its surface.

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In all his scientific work, Charles emphasized observations in the field. Laboratory experiments were useful as a supplement to field work, of course, but for himself the detailed observation of ores as they occur in nature was the prime basis for speculation about origins. In published articles he voiced his annoyance at the apparent decline in interest in field work and the growing dependence on "black boxes" for basic data. In some ways he resembled an old-time naturalist, a trait that was evident also in his extensive knowledge of birds and his success in cultivating exotic species of cactus. His love of nature made him a vocal defender of conservation, but conservation of a limited sort: in wilderness areas the exploration for and extraction of metallic ores should be permitted, he believed, but only with a scrupulous attention to "good housekeeping" that would ensure minimal environmental disturbance.

In the academic world Charles was saddened by the apparent decline in interest in mining engineering and extractive metallurgy programs, and he tried valiantly to keep those programs alive at Stanford. It was an effort doomed to failure because it ran counter both to national trends and to the wishes of local administrators. In other respects he was a great success as dean, even though he had accepted this administrative chore reluctantly. He revitalized the School of Earth Sciences after a period of faculty dissension, expanded its offerings, handled faculty differences and student complaints with understanding and a sense of humor, and was especially effective in cultivating cordial relations between the School and its supporters in the mining and petroleum industries.

Charles met Eula Blair during his days as a mine surveyor in New Mexico, and the couple were married in Tucson in 1931. His former students and faculty acquaintances often describe the pleasant occasions when they were entertained in their home, recalling especially the goodies that Eula prepared and Charles' obvious pleasure in recounting humorous incidents from his travels. They had three children: a daughter, Martha, who teaches mathematics in a junior high school in Portland, and two sons, Allan and Frederick, who have both followed their father's footsteps into mining geology. Also surviving are five grandchildren and four great-grandchildren.

Stanford has lost a distinguished teacher and academic statesman, the country has lost an eloquent spokesman for the mineral industry in its relations to government and society, and many among the geological and mining community around the world have lost a respected colleague and a good friend. To keep his memory alive, Stanford has established the Charles F. Park, Jr., Fund for the benefit of future students.

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