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OFFICE OF THE PRESIDENT

MEMORIAL RESOLUTION
CHARLES F. PARK, JR.
(1903 - 1990)

Charles Frederick Park, Jr. died 11 December 1990, a week before his 87th birthday. Thus ended a long and multifaceted career as mining engineer, economic geologist, educator, and mineral economist. His loss will long be felt by his many former students, by friends throughout the world, by his colleagues at Stanford and the Geological Survey, by the mining companies to which he gave advice about the finding and processing of metallic ores, and by those who value his wise words about the economic and political role of the mineral industry.

Charles was born and spent his early life in Wilmington, Delaware. He liked to recall that his lifelong interest in rocks and minerals dated from a time in his boyhood when he found a collection of specimens that had been discarded by a widow in his neighborhood. After high school, by way of satisfying 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, and to Socorro he went. There he distinguished himself as captain of the basketball team, and in 1926 was awarded a degree in mining engineering. Then came two years as a mine surveyor, followed by a master's degree in geology from the University of Arizona (1929) and a Ph.D. from the University of Minnesota (1931). For 15 years he was a member of the U.S. Geological Survey, rising to the position of Geologist in Charge of the Section on Metalliferous Deposits. In 1946 he came to Stanford as professor of geology, from 1950 to 1965 was Dean of the School of Mineral Sciences (later Earth Sciences), and then held the Donald Steel Professorship until retirement in 1968. Thereafter he continued to teach part-time, found himself much in demand as a lecturer, and served for a term as visiting professor at M.I.T. and at the University of Michigan.

During his years with the Survey he examined and wrote detailed reports on 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

Washington, manganese in Cuba and Brazil. In accepting an academic position at Stanford he made it a condition that summers would be free for further studies of ore deposits, and now the work took him even farther afield – to Gabon, Libya, Chile, Peru, the Philippines, Australia – in addition to more areas in North America. Much of this work was done as a consultant for major mining companies. Near the end of World War II Charles was asked by the Army Corps of Engineers to evaluate the mineral resources of Germany, and in 1951 to survey the mineral industry of Japan and help with its rehabilitation. He could boast that he had studied mineral deposits on all continents except Antarctica.

From this long and varied experience he gained a basis for drawing conclusions about the origin of ore deposits, for much thinking about the politics and economics of the mineral industry, and for sympathetic understanding of the difficulties faced by developing countries in their efforts to become part of the industrial world. Ideas on such subjects found their way, of course, into his teaching at Stanford, where they were refined in lively discussion with the able students who came to his classes. His maturing thoughts about ore formation were expressed first in his many reports on mineral districts, and then were embodied in his widely used textbook *Ore Deposits*, written with Roy McDiarmid as co-author. 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), written with M. C. Freeman, Charles 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 spottily distributed over its surface. In voicing this concern, Charles crossed swords with many economists who feel that technology will always be adequate to satisfy the world's need for minerals by exploiting ever leaner kinds of ore.

In his scientific work Charles repeatedly emphasized the importance of observations in the field. Laboratory experiments were useful as a supplement to field work, of course, but the detailed study of outcrops in nature was the prime basis for speculations about ore formation. In published articles he expressed his annoyance with the apparent decline of interest in field work and the growing dependence on "black boxes" for basic data. In giving primacy to field observations Charles showed a resemblance to old-time naturalists, a trait that was evident also in his extensive knowledge of birds and his success in cultivating exotic varieties of cactus.

His love of the natural world made him a vocal defender of conservation, but conservation of a limited sort: in wilderness areas activities like mining and timber cutting should not be forbidden, but should be carried out with due regard for

“good housekeeping” to ensure minimum environmental disturbance. Such views came into collision with those of a more ardent environmentalist, David Brower of Sierra Club fame, when the two were invited by John McPhee to accompany him on a rugged trek through the northern Cascades. In the subsequent recounting of the trip that McPhee wrote for the *New Yorker*, the two antagonists managed to remain on speaking terms, even friendly terms, but neither convinced the other about the proper uses of wilderness.

During his 15 years as Dean, Charles saw the School of Earth Sciences blossom from a single department with a faculty of 20 to its present four departments and a faculty more than twice as large. He increased the School’s endowment nearly tenfold, and actively promoted cordial relations with alumni and with major petroleum and mining companies. A notable innovation was the appointment of a “visiting committee,” a group of outside experts asked to give the School advice about maintaining the excellence of its programs and personnel. At first a small group recruited largely from alumni in industry, the committee grew into the present Earth Sciences Advisory Board and includes representatives from academia and government. So successful has this venture proved that similar visiting committees have been set up by other schools and departments of the University.

Despite the demands of administrative work, Charles always gave much attention to teaching. His courses in ore deposits attracted students in large numbers, and at times his coterie of graduate students working for advanced degrees was larger than that of any other faculty member. In recruiting new faculty he continually sought good teachers as well as those eminent in research, and the success of his effort is shown by the fact that the student roster for several years included more National Science Foundation fellows than that of any other earth science school. His office door was always open, and he welcomed visits from students who had problems or complaints or who simply dropped in for a chat. He could be forceful when necessary, but students remember him most for his easy friendliness and sense of humor.

Honors and professional responsibilities came his way in abundance. From the New Mexico School of Mines he received an honorary Doctor of Science degree and from the University of Minnesota its Award for Distinguished Achievement. He was president of the Society of Economic Geologists and the International Association on the Genesis of Ore Deposits, and served on the Council and several committees of the Geological Society of America. Other memberships included the American Mineralogical Society, the Geological Society of Brazil, and the American Institute of Mining Engineers. He was kept busy as consultant to many mining and petroleum companies, both domestic and foreign, and as a member of the Boards of

Directors of the Homestake Mining Company, the Golden Cycle Gold Corporation, and the Freeman-Cooper Publishing Company.

Charles met Eula Blair during his days as a mine surveyor in New Mexico, and the couple was married in Tucson in 1931. Charles' former students and faculty acquaintances often describe the pleasant occasions when he and Eula entertained them in their home, recalling especially the goodies that Eula prepared and Charles' obvious pleasure in recounting humorous incidents from his travels. The sense of humor did not desert him even in his later days: to mark the growing disabilities of advancing years he was fond of saying, "There's plenty of brass in those golden years."

Charles and Eula had three children. Two sons, Frederick and Allan, have both followed their father's footsteps into mining geology. Daughter Martha teaches mathematics in a junior high school in Portland. 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 globe 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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