# Julian W. Feiss
# Geologist and Educational Theorist

By Ron Brown
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We have spent the last three days here in Farmington, Missouri, a location that was alive with the sounds of mining a century ago. Indeed, 1904 was a singular year in American mining history. This nation was absorbed in mining our natural resources. Recent sites of Mining History Association conferences—Houghton, Ouray, Tonopah, Bisbee, Butte, Coeur d'Alene and Cripple Creek—were then vigorous communities producing both precious and base metals. Daniel C. Jackling, himself a product of the "show-me" state, had just begun work on the great Bingham Canyon property that would transform copper mining around the world. Colorado had entered a new era of labor conflict our colleague George Suggs described as "Colorado's Labor War." America was making halting steps toward becoming a military and political power in world affairs. President Theodore Roosevelt was attempting to resolve international conflicts in Asia and the Mediterranean, while proposing to "speak softly and carry a big stick" in international affairs. In that same year of 1904, Julian W. Feiss, the subject of this address, was born in Cleveland, Ohio.

While Julian Feiss is hardly a common name among mining historians, he deserves special attention on this hundredth anniversary of his birth. I first encountered Julian Feiss in the 1980s, less than a decade after his death from cancer on September 8, 1980.[1] This remarkable raconteur intrigued me then, and he has remained a persistent intellectual companion for the past two decades. I met Julian Feiss in his papers at the University of Wyoming's American Heritage Center. Then-director and personal friend Gene Gressley suggested that I peruse the newly acquired Feiss papers. When I began looking through Julian Feiss' collected letters, I realized that I'd encountered a distinctive personality—an extraordinary correspondent, a wide-ranging intellect, a thoughtful observer, a committed democrat with a small "d," an amateur astronomer, a sensitive critic, and an educated and urbane citizen of America and the world.

I was fascinated and copied four to five feet of his engaging correspondence. I asked Gene if he had read the Feiss material, and if he had any idea how I might use it? In answer to my questions, no, he had not read the Feiss materials, and he had no idea where I might find a niche for a piece on Feiss. He recently described Julian Feiss as "one of the most wide-ranging intellects in the mining profession." Gressley remembered that he had first met Feiss in 1968 or 1969 at Washington's Cosmos Club. Before this meeting Gene had spent three days with C. C. Hiles, a friend of Admiral Kimmel and an apologist for Kimmel's actions at Pearl Harbor. During their luncheon conversation Gene discussed with Feiss the conspiracy theory about American entry into World War II and was surprised that Feiss was conversant with the revisionist ideas, and even more amazed when Feiss quoted Hannah Arendt on "the banality of evil."[2]

Gene remembered Julian Feiss as "friendly, conservative in expression, and well liked by other mining engineers [and] geologists with whom I saw him come in contact at the Cosmos Club." He explained that Feiss was "a conservative, but immaculate dresser." Although Feiss scorned the bridge games

that preoccupied E. D. Gardner and his friends, Feiss occasionally invited other mining engineers and geologists to join him for lunch, and was interested in stimulating conversation and people. Gressley remembered Feiss as an engaging personality, a shy man of prodigious intellect who seemed to have known many of the great mining figures of the twentieth century.[3]

When I began teaching our newly-created Freshman Seminar at Texas State University in 1986, I turned instinctively to Feiss's correspondence to illustrate for my students a model of the broadly educated individual—our aspiration for our graduates. His example was all the more appropriate because he spent his life as an engineer, a corporate planner, and a government official. I chose a single letter from his correspondence and asked my students to read and comment upon the example that it provided of an educated man.

In this single letter, written in the early 1970s, he commented upon the Watergate crisis, the geology of San Isbel Island, sunspots, Masterpiece Theatre, the writings of Willa Cather, and recent biographies of Napoleon and Wellington. I could not have created a more poignant example of a broadly educated human being. Though few of my students aspired to the breadth and depth of interests that Feiss' letter illustrated, fewer still were able to identify his professional training: geologist and mining engineer.

Now permit me to jump forward a decade to a meeting of the Association of American Colleges and Universities, an organization dedicated to the advancement of general or liberal education in modern America. I was now an acting dean and struggling to lead my institution into a reexamination of our general education courses. It was a Friday noon in mid-January, and I had a thirty-dollar luncheon ticket, but was running late. Should I skip the luncheon or enter as unobtrusively as possible? Not wanting to forfeit my thirty dollars, I chose the latter option and sat down in the first available chair. I awkwardly introduced myself to my neighbor, a tall scholar who introduced himself as the recently appointed Dean of William and Mary College. His first name was Geoff, but I only half heard his last name, Feiss.

As we visited I learned that he was a geologist and had left the University of North Carolina to assume the academic leadership of America's third oldest institution of higher education. I told him of my interest in mining history and almost imperceptibly our conversation lead to his father—a mining engineer whose papers he and his mother had sent to the University of Wyoming. Suddenly the cherries aligned in my mind: Bonanza! Jackpot! "Are you Julian Feiss' son? Do you know Gene Gressley?," I stammered. He was equally shocked!

He explained that he had sent his father's papers to Laramie and wondered what, if anything, would happen to them. Would they be read? Would they contribute to a broader understanding of his father, or of mining and America in the twentieth century? He had not heard from Gressley for several years, and asked what was happening in Laramie. I shared a bit of the personal tragedy that I associate with Wyoming's discharge of the greatest archival collector of a generation.

Geoff Feiss told me that his mother was still alive and alert. Perhaps I'd be able to come to Williamsburg to interview her, he suggested. That I didn't make that trip is a personal loss that I shall not forget. Since that first meeting with Geoff Feiss, we've accidentally met twice more. Each encounter reminded me of a debt unpaid, so today I take this opportunity to reflect upon an extraordinary personality—a man of the twentieth century who observed, read, and reflected upon the changes that reshaped mining and our society.

Julian William Feiss was born on 17 April 1904 in Cleveland, Ohio, in a "large house on the very edge of Lake Erie." His father was Paul Louis Feiss, a Cleveland manufacturer, one-time president of the Cleveland Chamber of Commerce, and a member of

Woodrow Wilson's War Industries Board. Feiss was the eldest of four children born to Edith L. Feiss, and grew up in Cleveland, where he attended University School, a preparatory grammar and high school. He described himself as a poor student except in science, where he attained local fame by blowing up the chemistry laboratory with a hydrogen generator.[4]

Though he makes little direct mention of his early education, Feiss' correspondence indicates that he had a broad and good education in Cleveland. Furthermore, he grew up in a family that valued education and that could afford to and did acquire books. Feiss traced his interest in Africa to reading that began when he was six years old, and was heightened by his interest in adventure and the outdoors.[5]

In 1923 Feiss entered Princeton University where in 1927 he earned an A.B. degree "cum laude" in geology. In the summer of 1927 he took an underground position in the Coeur d'Alene mining district, where he timbered, mucked, and machine drilled for the Amazon Dixie Mining Company near Wallace. Realizing that he needed more education in mining, he applied for a William Boyce Thompson Fellowship, and in fall 1927 entered the School of Mines, University of Arizona, where he earned a masters degree two years later. While a graduate student, Feiss visited and studied mining methods at Bisbee, Ajo, Inspiration, Jerome, Globe, Silverbell, Congress Junction, Tombstone, and Hiltano. His thesis was a study of the ore deposits in the Hiltano Mining District.[6]

After graduating from Arizona in early 1929, Julian Feiss fulfilled a boyhood dream by accepting a position in Northern Rhodesia, where he became a field engineer and geologist with the Rhodesian Congo Border Concessions, Ltd., at N'Changa, along the border between Northern Rhodesia and the Belgian Congo. He directed an assistant and forty native porters in a field survey team, which lived by hunting in the bush. In 1930 he contracted amoebic dysentery and malaria and was sent to Johannesburg for treatment. He returned briefly to the field, but persisting symptoms forced him to leave Africa, returning by way of Kenya and Tanganyika to Switzerland and then to the United States.

Upon his return to the U.S. Feiss took a position as a consulting mining engineer with Crowell & Murray, Inc., a Cleveland-based firm. Although he never expressly said so, his father Paul or his family connections may have helped him land this position during the Depression. In any event, his career at Crowell & Murray ended on 1 August 1932, when he was nearly killed and permanently disfigured by a natural gas explosion in his father's garage in Cleveland.

He spent most of the next three and a half years in hospitals in Cleveland and St. Louis, where he underwent repeated plastic surgeries, which he termed "a remarkable development, about the only real good that seems to have come out of the Great War."[7] This dramatic injury altered Feiss' life; in 1934 he told Dean Gauss of Princeton that while he expected to survive his treatments, "it is the mental side that is most difficult. I have had eighteen operations to date, all under ether, and I enter each new operation with the same deadly fear that was present when I was first wheeled into the operating room."[8]

By 1937 Feiss was sufficiently recovered to accept a position as transportation engineer with Climax Molybdenum Company. During his five years in Climax he also worked as a testing engineer, a dust engineer, and finally as director of diamond drilling exploration. He left Climax in 1942, when he was called to active duty with the U.S. Army. He worked in intelligence as an Africa specialist, and was sent there in 1943-44. While assigned to Africa, Feiss covered Kenya, Tanganyika, the Rhodesias, the Belgian Congo, South Africa, Nigeria, the Gold Coast, French Equatorial Africa, Somalia, Anglo-Egyptian Sudan, and Ethiopia. This experience strengthened his knowledge of and interest in sub-Saharan Africa. Of this I

will say more shortly.

After the war Feiss became editor of the *Mining Congress Journal* from 1945 to 1947, then became assistant director of the U.S. Bureau of Mines until he was transferred to the Defense Materials Procurement Agency during the Korean War. In 1952 Feiss returned to the industry as a staff geologist with Kennecott Copper Corporation. He worked there until December 1961, when he returned to federal service as staff assistant to Dr. Thomas Nolan, director of the U.S. Geological Survey. Feiss spent the last years of his career in the Interior Department, before becoming the executive secretary of the Federal Metal and Nonmetal Mine Safety Advisory Committee before his retirement in 1973.[9]

Julian Feiss' correspondence demonstrates the extraordinary breadth and depth of his interests. He spent his entire career in activities directly or indirectly related to his training in geology and his childhood interest in Africa. He maintained his enthusiasm for both throughout his life, yet his surviving correspondence is largely personal and confidential. He was an inveterate letter writer, and typically wrote two to five-page letters of single-spaced correspondence upon his old typewriter. He kept nearly all of his incoming correspondence, retained copies of attendant notes and articles, and invariably copied his outgoing correspondence, whether to friends, family or professional colleagues. He attributed his comprehensive and earnest habits of letter writing to his mother, who had sent him off to Princeton with a postcard for each week so that he might keep her informed of his well being. She made him promise that he would write her weekly and later joked that he was determined to get her money's worth on a penny postcard. He further perfected his skill when he went to Africa and maintained extensive diaries of his daily activities there.[10]

While Feiss recovered from the physical effects of the explosion in 1932, he turned his attention to Africa and began writing an account of European explorers in Africa, which he tentatively entitled "Men Who Found Africa." He had searched for such a book when he returned, but found only scientific treatises or accounts badly out of date in their analyses. Though he never finished his manuscript, he returned again and again to the importance of Africa.[11] By the late 1950s he approached Princeton University with a proposal to donate his approximately four hundred volumes on Africa which he classified into three categories: "collector's items," "out of print, historical and memoirs," and "modern and junk." He concluded this donation to the Firestone Library in autumn 1961, as he completed plans for his return to Washington, D.C.[12]

Meanwhile, he became an alumnus advocate for course work on Africa. In 1960 Feiss described for his Princeton friend Bob Clifford a two-term course on Africa that ought to be developed. He explained: "The reason is that Africa, its history and problems, constitutes a subject that is to all intents and purposes a field in which the American student is totally ignorant—and I might add that this is also true for most college graduates." Though Feiss' first-term course proposal now appears unusually Euro-centric (nearly two-thirds would focus on the colonial era), it did include sections on geography, geology, climate, Africa's peoples, its languages, and its pre-European history. His second course would have been a regional studies offering to help Princeton students better understand African developments in the present.

Yet Feiss remained uncertain about whether Princeton was ready for an African course. He cautioned that such a curriculum change "must come from Princeton itself, from its official family and its faculty." Furthermore, he proved sensitive to the forces at work in modern Africa, when he explained in a post script that Islam converted six to ten Africans for each Christian convert. "Why?" he asked rhetorically; because "Islam sanction[s] polygamy . . . ; draws no color line; and finally is not the religion of the

hated or disliked white European."[13]

Six months later, Lewis H. Van Dusen, Jr., a member of the Board of Trustees' curriculum committee, queried Feiss about his proposed course on Africa. Feiss explained that he had been interested in Africa for at least twenty years and "anticipated that Africa was emerging as a world problem," but he reported that his efforts had had little impact until events in the Congo and elsewhere "jar[red] us out of our indifference and complacency."[14]

Feiss' experiences in Africa had occurred in the era of colonial consolidation and resource development. He was unquestionably a man of his time and his experiences. He repeatedly reminded correspondents such as Princeton's librarian, William Dix, that, while he was not an apologist for colonialism, nonetheless, "if anything good has come out of Africa in the last 25 to 30 years it has been largely because Europeans initiated it." Among the problems that the Europeans seemingly reconciled were "internecine wars, disease and pestilence, famine, tribal feuds bred from superstition and hate, and slave trading."[15]

For this realist, the past twenty years of African history would likely have produced both moments of satisfaction—as when South Africa abandoned apartheid and released Nelson Mandella—and profound sadness—as famine, regional and ethnic genocide, and the AIDS epidemic threaten the existence of millions of Africans. He hoped that his donation of books to the Firestone Library would assist scholars and Princeton students, but he remained apprehensive because human nature, as he observed it, was unpredictable.

Similarly, his work in the Bureau of Mines, the USGS, and as a staff geologist with Kennecott caused him to evaluate the appropriate character of undergraduate training in geology. As the product of an institution that still offered its graduates a broad general education, Feiss consistently affirmed the value of a reflective, broadly-based undergraduate experience. In an early letter home from Climax, Feiss told his mother that he saw the obvious benefits of "Princeton's cultured rather than scientific training." He proudly reported that the Denver office proclaimed his report on transportation and haulage "the most brilliant and readable report ever received at a Climax office." He attributed this to his courses in composition and his exposure to the intelligent men of the English department. He learned valuable skills in communication and critical thinking, and declared confidently that "one can always specialize later."[16]

These same skills aided him while he edited the *Mining Congress Journal*, but he realized that education for a new generation of geologists must incorporate more specialized training. His work in industry and as vice-chairman of the Engineering Manpower Commission persuaded him that an appropriate undergraduate curriculum was a persistent problem for Canadian and U.S. colleges and universities.

Feiss explained the dilemma succinctly in a letter of 3 April 1957 to Don Clark of the University of Wisconsin's Department of Mining and Metallurgy. "The basic question is: do we try to turn out educated people from our colleges or do we try to turn out men and women qualified to make a living? Do we produce citizens or do we produce technologists? Plato discussed this matter to some length in the Dialogues and we are still arguing about it two thousand years later." He knew that contemporary engineers needed additional technological training, but he also noted that the geological and technical problems are "easy by comparison to . . . problems involving employee relations, . . . labor strife, faulty legislation, bad systems of taxation or bad management." Perhaps, he mused, his own path offered the best approach: a liberal arts degree followed by two years for a master's degree in engineering.[17]

Four months later he addressed again the issue of appropriate geological education in his 25 August letter to Tom Nolan, then di-

rector of the USGS. Feiss wrote that since he had sent Nolan a copy of the report of Princeton's advisory council of the Department of Geological Engineering in early 1956, their correspondence over eighteen months had weighed the appropriate character of geological education. Feiss asserted that geology could not be covered in four years, because students needed supportive course work in sciences such as chemistry and physics, as well as requisite course work in general education.

The challenge as Feiss saw it was: "can the undergraduate curriculum be made more effective in terms of utilization of undergraduate time without sacrificing the advantages of a liberal education through emphasis upon professional (or even vocational) training at our leading colleges and universities?" Men like John Vanderwilt of the Colorado School of Mines argued that a strong scientific education could be just as effective as liberal arts training, and Feiss himself concluded: "I have never agreed to the aesthetic concept of education, that education for education's sake is a legitimate objective. I fear that I am sufficiently stupid to believe that if education is to justify itself it must be of use to the individual."[18]

Feiss still struggled with the appropriate character of a geological or mining engineering education as he discussed the subject with Charles F. Park, Jr., dean of Stanford's School of Mineral Sciences, in late January 1958. Park was anxious to promote increased basic research, but believed that the mining profession was indifferent to research's importance and purpose. He concluded that consequently "mining was getting far less than its share of top-notch scientists and engineers."

Feiss replied that "in order to evolve a climate for such [research] endeavor[s,] we require educated men and women, not trained technologists," but he sought the solution to the educational dilemma by defining the basic liberal arts as history, languages, mathematics and science. "Without them," he asserted, "no man or woman can claim to be educated at the start and upon this foundation all subjects and all professions must be built. Furthermore without them research cannot function effectively."

He explained sardonically that "mining company executives are largely the product of their college environment and at Mondakota School of Mines they were taught courses in mineral dressing, gas engines, hydro-metallurgy, petrology, etc. Some of these courses may have taught them to think but many of them were primarily methodology." Feiss concluded by attributing this failure of education and of the development of basic research to his own generation of geologists and mining engineers. "In the last analysis we have not been well educated and we have not tried to educate others."[19]

Exactly two years later he returned again to the issue of the proper education of mining engineers and geologists. His long-time friend Evan Just, professor of mining engineering at Stanford, asked Feiss to comment upon Just's plan for a distinctive Stanford engineering curriculum, which would be strong in the basic sciences, geology, and engineering, but also give more attention to the liberal arts and business than other institutions then provided.

Feiss explained that he, Tom Nolan, and Charley Park had a similar conversation in 1957 and 1958. He recalled that they had reached a consensus that mining education must "change to keep pace with changing concepts of learning in other fields." He stressed the importance of their deliberate choice of the word "learning," rather than "education." Feiss recollected that he had then observed that "mining education, at least as practiced in our western mining schools, was not by any means oriented towards educational objectives in any classical sense; our western mining education was primarily pragmatic, essentially technological, and almost entirely vocational."

Feiss believed that if Stanford sought to provide an education, it must necessarily include history, foreign language, philosophy, political history, literature, and music.

"Without some of this within your being, any claim towards education lacks validity." By 1960 Feiss had read Jacques Barzun's *Teacher in America*, and recommended it enthusiastically to Just. Feiss had also lived through the educational turmoil occasioned by Sputnik, as well as the mass media scandals that paraded as educational programming underpinned by "payola, fakery, mush and blatant insult." Education must be broad, he argued, or it is not education. The then-dreadful state of affairs persuaded Julian Feiss that American society often gave scant attention to public or collegiate education, but he affirmed with Barzun that "if we teach for the boy or the girl, not for the purpose of making a living or to satisfy the requirements of industry, in the end we *cannot* fail."[20]

In 1962, Feiss revisited the issue again and noted a disturbing trend in American society: the disappearance of the independent, educated professional. Engineers, like teachers, had become seeming cogs in large corporate and social bureaucracies. He predicted that the same fate awaited lawyers, who increasingly worked for large corporations, and physicians, who were becoming increasingly specialized and part of what would become a health care industry, or as Feiss termed it, "medical combines."

These developments only reinforced his belief that engineering must be understood to be a service occupation with broad social responsibility. He concluded, "engineering works are to be used by man. . . . To build or to design such works without recognition of the human factors involved (safety, air and water pollution, etc.) is to ignore the fundamental factors of life and human existence." Hence, for Feiss, engineering education with appropriate attention to the humanities had become more, rather than less, important.[21]

In a professional career that spanned almost five decades, Julian Feiss retained his commitment to the value of a broad, liberal education as an essential attribute of a professional mining engineer or geologist. In his interests in both Africa and mining geology, Feiss had begun his education through books and classroom experiences, but in both instances his personal life enhanced and deepened his love of learning. In his efforts to reform American collegiate education both in the humanities and in the sciences and engineering, he exemplified the engaged professional. He took seriously his perceived responsibility to give his employers an honest day's work for a living wage, to serve his society, to strengthen its institutions, and to leave the world a better and more humane place than he had experienced it.

Through these characteristics, Feiss showed himself to be an exemplar of what American educators now call the service learner, the civic learner, the engaged and socially responsible professional. While we now seek to create a curriculum for attaining these objectives, Julian Feiss discovered and pursued them as part of his life and career as a mining geologist and educated human being. In 1960 Feiss asked Evan Just a question that he had posed time and again to educators: "What are you educating for?" In Feiss' own case, his family, his friends, his teachers, and his life-changing experiences produced a man of unusual attainment and remarkable sensitivity.

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## Notes:

[1] *Washington Post*, Saturday, Final Edition, 20 Sep. 1980, cited on LexisNexis Academic (http://lexis-nexis.com/universe/printdoc).

[2] Gene Gressley to Ron Brown, 6 July 2004, e-mail in author's possession.

[3] Recollection of conversations with Gene M. Gressley.

[4] Copies, Julian W. Feiss (hereafter JWF) to Julian D. Conover, American Mining Congress, Arlington, Virginia, 12 Jan. 1946, box 9; JWF to Dennis Flanagan, Esq., editor, *Scientific American*, Washington, D.C. 14 July 1963, box 9, Julian W. Feiss Collection, American Heritage Center, University of Wyoming, Laramie (hereafter JWFC).

[5] Copy, JWF to Ray P. Holland, Esq., *Field & Stream*, Cleveland, 30 Mar. 1934, box 21, JWFC.

[6] Copy, JWF to Conover, Arlington, 12 Jan. 1946, box 9, JWFC.

[7] Copies, JWF to Conover, Arlington, 12 Jan. 1946, box 9; JWF to Gordon G. Sikes, Esq., Nassau Hall, Princeton, Cleveland, Ohio, 30 Mar. 1934, box 21; and JWF to Dean Christian Gauss, Nassau Hall, Princeton, Cleveland, Ohio, 23 Mar. 1934, box 21; all JWFC.

[8] Copy, JWF to Dean Gauss, 23 Mar. 1934, box 21, JWFC.

[9] Copy, JWF to Dennis Flanagan, Esq., Washington, 14 July 1963, box 9, JWFC. *Washington Post*, 20 Sep. 1980, Lexis-Nexis.

[10] Copies, JWF to Lynn Carrick, Esq., G. P. Putnam's Sons, Cleveland, 16 Apr. 1934, box 21; JWF to Gene M. Gressley, director, Western History Research Center, Washington, 30 Nov. 1978, box 19, JWFC.

[11] Copies, JWF to Norman M Penzer, Esq., c/o A. M. Philpot, Ltd., of London, Cleveland, 10 Jan. 1934, box 21; JWF to Ray P. Holland, Cleveland, 23 Mar. 1934, box 21; JWF to Lynn Carrisk, Esq., Cleveland, 16 Apr. 1934, box 21; A. Wetmore, assistant secretary, Smithsonian Institution to JWF, Washington, D.C., 11 Jan. 1934, box 21; JWFC.

[12] Copies, JWF to William S. Dix, Esq., librarian, Princeton University, New York, 11 Jan. 1958, box 6; JWF to Dr. William Dix, Firestone Library, New York, 8 Oct., 15 Oct., and 30 Dec. 1961; William S. Dix to JWF, Princeton, 12 Oct. and 28 Dec. 1961, box 8; copy, JWF to Dr. Robert F. Goheen, president, Princeton University, Washington, D.C., 9 July 1963, box 9; JWFC.

[13] Copy, JWF to Robert L. Clifford, Esq., Jero Patterson & Associates, NY, 14 June 1960, box 7, JWFC.

[14] Lewis H. Van Dusen, Jr. to JWF, Philadelphia, 19 Dec. 1960, copies, JWF to Van Dusen, NY, 24 Dec. 1960, box 7, and 3 Jan. 1961, box 8; JWFC.

[15] Copy, JWF to William S. Dix, Washington, D.C., 11 Mar. 1962, box 8, JWFC.

[16] Copy, JWF to Mother (Edith L. Feiss), Climax, Colorado, 5 Mar. 1938, box 21, JWFC.

[17] L. Donovan Clark, associate professor of mining engineering, to JWF, Madison, WI, 26 Mar. 1957; JWF to L. Donovan Clark, Scarsdale, NY, 3 Apr. 1957; box 6, JWFC.

[18] Copy, JWF to Tom (handwritten notation "To Tom Nolan, Director, U.S. Geological Survey), Scarsdale, NY, 25 Aug. 1957, box 6, JWFC.

[19] Charles F. Park, Jr., to JWF, Stanford, 17 Jan. 1958; copy, JWF to Charley, Scarsdale, NY, 21 Jan. 1958; box 6, JWFC.

[20] Evan Just to JWF, Stanford, 15 Jan. 1960; copy, JWF to Just, Scarsdale, NY, 17 Jan. 1960; box 7, JWFC (emphasis his).

[21] Copy, JWF to Carl Frey, executive secretary, Engineering Manpower Commission, Washington, D.C., 29 Dec. 1962, box 8, and 9 Jan. 1963, box 9; Carl Frey to JWF, New York City, 8 Jan. 1963; Joseph C. Elgin, dean of the Princeton University School of Engineering and Applied Science, to JWF, Princeton, NJ, 7 Jan. 1963, copy, JWF to Joseph C. Elgin, Washington, D.C., 9 Jan. 1963, box 9; JWFC.