Ian Campbell passed gently from this earthly scene at the age of 78 on February 11, 1978, in San Francisco, a victim of a quiet but valiant fight with cancer over a dozen years. Others will write of his awards and professional accomplishments during 28 years as professor and administrator at Caltech and a decade as State Geologist and head of the California Division of Mines and Geology, and of his stewardship of countless committees, his leadership of professional societies, and his many, many public services. My aim here is to illuminate some aspects of his character by means of personal recollections and observations.

We arrived at Caltech at about the same time, but in totally different capacities, he in 1931 as a new assistant professor in Geology and I in 1930 as a freshman. It was one of the pleasures of my life to have been his student and eventually his close friend and colleague during the succeeding 48 years.

Ian's outstanding characteristic was his warm, unselfish, devoted service to others. This trait surfaced early when,
presumably by being a little vague about age, he was able to enlist in World War I and saw duty with the 361st Ambulance Company of the 91st Division along the northern front in France and Belgium. He must have been barely 18 when the armistice was signed—an event at which he was present and by which he was deeply impressed. Down inside Ian was a much freer spirit than his usually decorous conduct would suggest. As a young man he loved motorcycling and the free openness of that mode of travel. The Harley-Davidson Company once awarded him a medal for traveling by motorcycle from Portland, Oregon, to Portland, Maine.

When he and his wife, Kitty, a professional geologist in her own right, first came to Pasadena, they lived in a small backyard house just north of the Huntington Hospital. I had a particular fondness for the student nurses of that hospital in those days, so I had occasional first-hand reports on Dr. Campbell's conduct. My informants told me that during the 1933 Long Beach earthquake Ian ran shouting from his house, not in fear but with excitement over the occurrence of this powerful natural phenomenon and its scientific implications.

Ian Campbell *californicus*, an appellation affectionately bestowed by one of his close faculty associates, was an incorrect designation. It should have been Ian Campbell *oregonensis*, for he was an out-and-out Oregonian. Ian grew up in the state and loved every aspect of it, passionately. I once aroused his ire, during a fall-season trip through Oregon, by asking if the red berries on a mountain ash were Oregon cherries. He let me know in no uncertain terms that Oregon cherries were to go or stay, turn right or left, or arousing his ire, during a fall-season trip through Oregon, by asking if the red berries on a mountain ash were Oregon cherries. He let me know in no uncertain terms that Oregon cherries were to go or stay, turn right or left, or twice as red, besides being deliciously edible. His father, Dugald, was an early cherry grower in the Eugene area. Ian had friends and friendships all over the world, but some of his warmest relationships were based on early Oregon associations.

Ian was an indefatigable letter writer, often with multiple copies to all concerned. Legions of graduate students with degrees in geology from Caltech will tell you emphatically that the sole reason they came to Caltech was a letter from Dr. Campbell. Each missive was a highly personal, carefully crafted effort that completely out-classed the form letters of other colleges and universities. Students were one of his prime concerns. Once they were admitted to Caltech, he taught them well and ministered to their other extracurricular needs with care and devotion. No one could handle the problems of draft deferment more expeditiously, yet wholly properly, than draft-board member Campbell. He knew the system inside-out from work on Selective Service Board 190 from 1940 to 1946, and his chairmanship of Board 92 from 1948 to 1959. He always provided a sympathetic ear to other student woes and problems and was unusual in his follow-up action on such matters.

One of the problems about the many Campbell letters and notes was the atrocious handwriting. It is reputed that only two people in the world could really read it, Norna Reno, long-time secretary of the Caltech Geology Division, and wife, Kitty. Even Kitty sometimes had trouble. One summer my wife, Jean, motored from the Midwest with Kitty and young son Dugald. Ian was somewhere abroad, as I recall. Each evening on the trip Kitty would take out Ian's latest letter to puzzle over a few remaining undeciphered words just to be sure she wasn't failing to act upon some request Ian had made. Most of us could generally make out the main gist of a Campbell note, but we were often unsure as to whether we were to go or stay, turn right or left, or do nothing. Fortunately Ian used a typewriter whenever possible.

One discipline I learned from Ian was to write postcards while waiting to be served at a roadside cafe during travels. He always had a shirt-pocket full of cards; they were a penny each in those days and obviously appealed to his Scottish sense of thrift, and to mine too. I have often speculated about the greater pleasure experienced by recipients of Ian's cards, as they slowly and haltingly unlocked the secrets of his message, compared to the casual glance given a card written in clear handwriting. People are fascinated by puzzles, and his cards were puzzles with infinite appeal that could be worked on for days.

The Campbell Christmas party was always one of the outstanding events of the holiday season. It came in two parts. In the late afternoon a gathering was held for staff, faculty, and old friends. The evening of the same day was devoted to the party for students. Of the two installments, one always had the sneaking suspicion that the Campbells enjoyed the student party more. After eating and drinking everything in sight and staying way beyond any reasonable hour, the students departed with a feeling that someone truly cared about them.

Ian was very good at combining fun and games with work. He enlivened the laborious, almost deadening, chore of measuring the amount of mineral phases in rock thin sections by inventing a competition known as the "micrometric sweeps." The winner of this prize was announced with great flourish and high-flown oratory at the annual spring petrology party in the garden of the Campbell home on South Bonnie Avenue in Pasadena. On the same occasion the winner of the hand specimen contest was also honored. This was Ian's contribution to the nearly lost art of fashioning decent hand specimens in the field. They were inspected with exquisite care as to shape, size, evidence of misplaced hammer blows, and sophistication of geological features represented. Many of the best of these specimens, and some were very good, repose to this day in showcases in the Arms Labora-
Caltech graduates.

Occasionally of a late afternoon Ian might appear at the office door of a student or faculty member with an unexpected invitation to engage in a little game of darts. In a state of wonder, the invitee followed the host to the sub-basement of Arms Laboratory, and there in all its splendor in semidarkness on the side of a rock-storage cabinet was a dartboard. Few people could trim the canny Scot at his own game, throwing darts in the gloom. With sympathetic and gentle words for the stray shots of his competitor, Ian quickly demonstrated who was the better thrower.

Allied to the sense of fun was one of the more remarkable Campbell traits, that of blunting an antagonistic confrontation by illuminating the humor of the situation or turning the whole thing into a joke. While some of us might fume over the irritating actions of an associate, Ian always saw the amusing side of the affair. An irritating action became the source of a chuckle for him, which he readily shared with others. This facility must have been one of the reasons he lived long and happily.

Although conservative in dress and behavior, he was remarkably liberal in politics. One can suspect that he even occasionally voted for Norman Thomas as a way of expressing discontent with the prevailing political scene. Ian fought for various causes, large and small, with sustained ingenuity, endurance, and tact that often won the day. It was under his stewardship that the headquarters of the Geological Society of America, of which he was then president, moved from its traditional headquarters in New York City to the fresh open spaces of Boulder, Colorado. This was like opening the windows and turning on the lights in a room too long tightly closed and shrouded in darkness. He was the innovator of many changes in the California Division of Mines (and Geology) during his tenure as State Geologist. Most Caltech gentlemen now lunching in open shirted comfort at the Athenaeum are not aware that it was the dogged, continuing effort of Ian Campbell that eventually led to the abolishment of the coat-and-tie requirement for the noon meal there. Even the matter of Dick Jahns' mustache could be a subject of Campbell advocacy, a struggle he won over formidable opposition from Dick's wife, Frances.

Ian was deeply proud of his Scottish heritage. When traveling or camping with him, you ate your breakfast porridge (oatmeal) without sugar. Sugar spoiled the taste. He welcomed the various "Macs" to Caltech with special warmth and gusto, although their ancestors may have slaughtered the Campbells in the Highlands years ago. They were, after all Scotsmen. He saw to it that the officers of the Geological Society of America, at their annual national meeting in Los Angeles in 1954, were escorted to their places at the head table by a kilted bagpiper. It is even rumored that unearthly noises occasionally ascending from the sub-basement of Arms Laboratory came from his own bagpipes. He was a Scottish spartan in terms of his own wants, but he was generous beyond words to others.

Only once in my career was I irritated with Ian. It happened during my PhD oral examination at Harvard, and he wasn't even there. The venerable Charles Palache, professor of mineralogy, handed me a piece of paper that showed a collection of dice with various markings on their faces. He asked if I had ever seen it before, and when I said no, he was pleased. He explained it was from a quiz Dr. Campbell once gave to a class at Harvard while working as Palache's assistant. Palache then proceeded to grill me on the crystallographic symmetry elements of those dice. I performed poorly, all the while silently cursing that diabolically clever Scotsman, Campbell.

The students, staff, and faculty at Caltech never had a truer, warmer, more devoted friend than Ian Campbell. Integrity, devotion, sincerity, good humor, patience, tolerance, compassion, kindness, humility, and industry are all words that come to mind when one thinks of the man. Generations of Caltech students will remember him as the one who made the rigors of a Caltech education not only bearable but an enriching experience. In Ian's own words, "There are many ways to serve," and in my words, "Ian Campbell exercised more of those ways than any other person I have ever known." He loved his fellow beings, and in turn was deeply beloved and respected by them. □

The Ian Campbell Graduate Fellowship in Petrology

In memory of Professor Ian Campbell, the Division of Geological and Planetary Sciences has taken the initial steps to establish an Ian Campbell Graduate Fellowship in Petrology, which will enable us to provide support for students concentrating their work in the broad area of geological sciences that Ian so ably fostered at Caltech and that remains a central field of research and study in the Division. An endowment fund to support the fellowship is being sought, and contributions in Ian’s memory are invited.

Barclay Kamb, Chairman Division of Geological and Planetary Sciences

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