



## ROBERT P. SHARP

Professor of Geomorphology

**L**IKE MOST GEOLOGISTS, Robert P. Sharp spends as little time indoors as he can get away with. Since he is Professor of Geomorphology in the Institute's Division of the Geological Sciences, and in charge of the elementary geology course given to all Caltech sophomores besides, he is forced to spend a certain amount of time in classrooms and laboratories. Since he has also been serving, during the past year, as president of the Caltech Alumni Association, he is forced to spend a certain amount of additional time in conferences and meetings. Nevertheless, he would far rather—and, at the slightest excuse, does—take off to check on a glacier in Alaska, conduct a short trip into the field, or—all else failing—run around the track in Tournament Park.

Apparently all this outdoor activity has a highly salutary effect on his classroom teaching. His course, in fact, bears a certain resemblance to a Billy Graham revival, in the way it manages to convert unsuspecting students to the lifetime study of geology. And, as another tribute to his teaching, *Life* Magazine several years ago, through an intricately designed poll of students in 52 colleges, chose Sharp as one of Eight Great Teachers of 1950. Sharp is still highly suspicious of this poll, and—far from considering it an honor to have been named a Great Teacher by *Life*—maintains that it has taken most of the past two years to live down the reputation it gave him among his colleagues.

As an undergraduate at Caltech, Bob Sharp was a Good-Sized Man on Campus—a three-year letterman, quarterback on the football team, captain of the team in his senior year, as well as vice-president of the student body. He stayed on to get his M.S. here in 1935, then

went to Harvard on a scholarship. He received his Ph.D. there in 1938, for a thesis involving a structural and physiographic study of the Ruby-East Humboldt Mountains in Nevada—an area which not only proved ideal for geologic study, but (Sharp took care to check this in advance) offered wonderful trout-fishing besides.

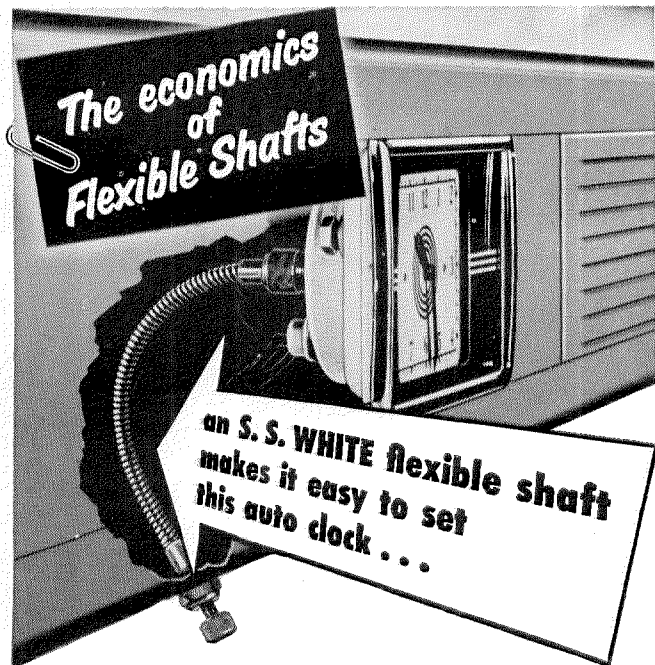
Sharp joined the faculty of the University of Illinois in 1938 and remained there until 1943, when he was commissioned into the Arctic, Desert and Tropic Information Center of the Army Air Forces.

He served a good deal of the time in Alaska and the Aleutians. In a typical operation, Sharp, Bradford Washburn—a civilian photographer and explorer—and two volunteer Air Force flying officers were set down at the base of Mt. McKinley in Alaska, to camp on the glacier there and test Air Force cold weather equipment.

Sharp and Washburn were old hands at this kind of rugged camping, but the Air Force men had never seen the inside of a tent before. Theoretically, these four men had crash-landed. They were discovered by Search and Rescue, and supplies had been dropped to them. Their problem was, first of all, to survive—and, in the process, to find out how well this could be done with standard Air Force equipment.

They had to work out the answers to such questions as: Can you sleep in a regular Air Force flying suit, without a sleeping bag? (Sharp's answer: No—not if you're interested in getting any sleep.) They also had to decide whether to sit it out on the glacier and take a chance on being picked up, or try to walk out to civilization.

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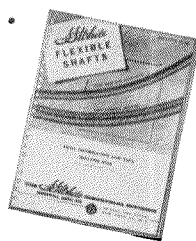
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They decided to walk, and came down the glacier, out to the Alaska Railroad. This trip took two weeks—the whole operation about two months. Sharp and Washburn stayed in good shape; they even gained a little weight on the junket. But the Air Force men had a rough time of it and lost between 10 and 15 pounds apiece. In fact, if they'd been alone, they probably would never have made their way out, and the strongest conclusion reached in this experiment was that inexperienced personnel, in the Arctic, shouldn't be expected to move away from the area in which they land.

After the war Sharp taught at the University of Minnesota, then came to Caltech as Professor of Geomorphology in 1947. Geomorphology is defined as the science of landforms, dealing particularly with their genesis and evolution. Unlike a good many other branches of geology, geomorphology deals with *present* geologic processes, and Sharp's special geomorphological interest is the activities of live glaciers. By studying these, he is better able to interpret features in the canyons of the Sierra Nevada, the Tetons or the Rockies, which were filled with similar streams of ice thousands of years ago.

Sharp began his studies of Alaskan glaciers in 1941, and he has returned, with field parties, for further observations during the summers of 1948, 1949 and 1951 (which have been reported in *E&S* for November, 1948, and January, 1951).

**Traveling man**

Though summer trips to cool climates are one of the pleasures of the geological life, it is nevertheless a fact that, of the past six summers, Bob Sharp has spent one (1) with his wife—not to mention assorted and periodic field trips which have kept him away from home during most of the other academic vacation periods.

As anyone can see, this is a matter that calls for a great deal of wifely understanding—of which, fortunately, Mrs. Sharp has a full share. This may be partly due to the fact that she was trained as a geologist herself. She received a B.A. in geology at Carleton College, an M.S. at Northwestern, and she would have gone on to get her Ph.D. if she hadn't decided to become Mrs. Sharp instead.

The Sharps now have a 17-month-old adopted daughter, and a pleasant house built about as close to the foothills as you can get in Altadena. Such ties of home and fireside, of course, exert a considerable influence on a wandering geologist. But a really seasoned geologist like Sharp can still bring some of the flavor of the field right into his home, when necessary, by scorning the effete bedrooms with which his house is equipped and sleeping, in solid comfort—outdoors.