Beno Gutenberg

A tribute by Robert P. Sharp

An era in the science of geophysics came to an end with the death of Professor Beno Gutenberg of Caltech's Seismological Laboratory on January 25, 1960. Dr. Gutenberg was the dean of modern seismology, and his several hundred published papers and seven books constitute an important segment of the literature in that field published during the past half century.

Beno Gutenberg was born in Darmstadt, Germany, in 1889, took his PhD in geophysics at Goettingen in 1911, and published his first major scientific paper, on the earth's core, in 1912. In 1930, at age 41, when the fruits of years of hard scientific labors were just beginning to bring him recognition and stature in Germany, he chose to cast his lot with a small seismological laboratory in Pasadena. That single act probably did more than anything else to shift the center of seismological research from Germany to the United States.

The act took courage, and courage was one of Dr. Gutenberg's outstanding characteristics. He never lacked the courage to expose his thoughts and concepts to the rigorous inspection and evaluation of the scientific community through publication. More importantly, he always had the courage to admit readily and freely when they were in error. In fact, he seemed to take great delight in seeing someone demolish one of his pet ideas, and on occasion even joined in the mayhem with high good humor and evident enjoyment. This is the mark of a big man.

On the other hand, Beno Gutenberg countless times stood tenaciously and steadfastly in defense of his ideas, and time has proved him right. For years, on the basis of anything but convincing evidence, he defended his concept of a low velocity layer in the mantle of the earth. Now even the Russians sitting in conference in Geneva on the problem of atomic explosion detection ruefully admit he was right. At times, Gutenberg was almost mystically intuitive in his sense of what was right. This is the mark of a great scientist.

Beno was also a realist. He was exceedingly fond of remarking: "In the last 20 years 400 papers have been published on such and such a subject (many of them by Beno Gutenberg himself) and now we know even less about it than we did then."

The man dripped ideas. He couldn't rest until they were in print. He faithfully, efficiently, and effectively discharged his obligations to science. There was no slowing down; his passing leaves no great unpublished backlog; he was always current and up to date. His latest book, *Physics of the Earth's Interior*, was published just last October. The pencil that he laid down, when seized with an attack of influenza that led to complications causing his death, was still warm. He was cut down at the peak of his career; there had been no downturn. What finer statement can be made of a man of 70 years?

As a personality, Dr. Gutenberg sparkled. His enthusiasm bubbled over and he gave it generously to all. The twinkle in his eye and the kindly smile were always there. Even in argument, his points were always made in a gentlemanly manner and a kindly way. Not only was he admired, liked, and respected by all; he was literally adored by those who worked closely with him. Gutenberg is gone but the knowledge he gave us of the earth's core, the mechanism and energy of earthquakes, the structure of the earth's crust, and of countless geophysical phenomena of our globe will remain forever. The sparkle, warmth and kindness of his gentle personality are also firmly entrenched in our memory.