

THE 24 FOUNDING FATHERS

Vol. 21

10.08.2022



BENO GUTENBERG

One of the most outstanding researchers in the field of geophysics

Beno Gutenberg was born in Darmstadt on June 4, 1889. After graduating from school, he began studying mathematics and physics in Darmstadt in 1907, but his interest in the physics of the earth led him to the University of Göttingen in 1908, where he attended lectures in meteorology and geophysics in particular. In 1911 Gutenberg received his doctorate under Emil Wiechert with the topic "Die seismische Bodenunruhe".

In 1913, Beno Gutenberg obtained a position at the Central Office of the International Seismological Association (ISA) in Strasbourg. In the same year he published a paper in which he succeeded in proving the existence of an earth core at a depth of about 2900 km, which was one of the most fundamental discoveries in the field of seismology.

After the end of the 1st World War and the dissolution of the ISA, Beno Gutenberg became a private scholar without permanent employment and also took over the management of his father's soap and light factory in Darmstadt. In 1924 he habilitated at the University of Frankfurt and in 1926 became a non-civil servant associate professor and also took over the supervision of the Taunus Observatory.

Since Gutenberg's efforts to obtain regular employment were in vain because of his Jewish religion, he accepted an appointment as professor in California at the California Institute of Technology (Caltech) in 1930. He also became the senior seismologist at the Seismological Laboratory of the Carnegie Institute in Pasadena. During his time at Caltech, Gutenberg accomplished many important achievements, such as the introduction of the earthquake magnitude scale with Charles Frances Richter, a better understanding of earthquake focal mechanisms and the structure of the Earth's body and its elastic properties and temperatures. He also published numerous textbooks, e.g. "Seismicity of the Earth" and "Physics of the Earth's Interior".

For his tireless work and great achievements in the field of seismology, Gutenberg also received numerous awards such as the William Bowie Medal of the American Geophysical Union, the Wiechert Medal of the DGG, and he became a member of the National Academy of Science in Washington and also president of the Seismological Society of America and of the International Association of Seismology and Physics of the Earth Interior.

Beno Gutenberg retired in 1958 and died of pneumonia on January 25, 1960, at the age of 70.

DGG PRO - Public Relations & Outreach, Hannover

Modified after **Knopoff L. (1999)**: Beno Gutenberg – June 4,1889-January 25, 1960, DGG Mitteilungen 4/1999, 2-15; **Jacobs F. & Börngen M. (2019)**: Wiechert, Mintrop & Co. – Die 24 Gründungsväter der Deutschen Geophysikalischen Gesellschaft. Publisher EAGLE.