



1857 – 1934

## KARL MACK

Head of the Earthquake & Climate stations in Stuttgart-Hohenheim

Karl Friedrich Mack was born in Ludwigsburg on August 29, 1857. After leaving school, he studied mathematics and natural sciences at the universities of Stuttgart, Tübingen, Berlin and Strasbourg. He subsequently obtained his doctorate in 1883 in Tübingen on the pyroclastic behavior of boracite. From 1884 onwards, Mack initially worked in Ulm as a district administrator and teacher in the school service. During this time, however, he continued his scientific work, and in 1886 he founded an earthquake commission in Württemberg at the society for *Vaterländische Naturkunde*.

In 1887, however, Karl Mack was appointed professor of physics, meteorology and climatology by the Agricultural Academy of Stuttgart-Hohenheim due to his great scientific talent, thus succeeding Wilhelm Conrad Röntgen. Due to his wide-range expertise, his duties grew steadily, and he became head of the Hohenheim earthquake station and of the Hohenheim climate station in 1893. In addition, Mack was head of the meteorological department of the Württemberg State Statistical Office in Stuttgart from 1891 to 1896.

Karl Mack continuously improved the equipment of the earthquake station, which was initially only equipped with non-registering seismoscopes. From 1905, this included several horizontal pendulums with continuous registration on soot paper and, from 1913, time synchronization of the seismographs by radio waves was also possible. In the same year, he also acquired a Mainka pendulum at his own expense to solve the problem of registering short-period near earthquakes. Mack also participated in the construction of self-developed seismometers together with August Schmidt.

As part of his scientific work, Karl Mack investigated earthquakes in southwestern Germany and the structure of the earth's body. The Tonga earthquake of 1917 also awakened his interest in surface waves that circulate the earth several times, so-called return waves (*Wiederkehrwellen*). In 1926, for example, he published an article in the journal *Zeitschrift für Geophysik* entitled "Einige Bemerkungen über Weltbeben und die sogenannten Wiederkehrwellen." He also continued his scientific work in the field of meteorology by investigating the climate in Hohenheim and the formation of clouds and their vortex phenomena. After Mack had co-founded the DGG in 1922, he was elected as an assessor in the management board in 1924. A year later he went into well-deserved retirement.

On January 27, 1934, Karl Mack died in Stuttgart-Degerloch at the age of 76.

*DGG PRO – Public Relations & Outreach, Hannover*

Modified after **Jacobs F. & Börngen M. (2019)**: Wiechert, Mintrop & Co. – Die 24 Gründungsväter der Deutschen Geophysikalischen Gesellschaft. Publisher EAGLE; **Mack K. (1927)**: Geschichte der Hohenheimer Erdbebenwarte von ihren Anfängen bis zum Jahr 1925. Württembergische Jahrbücher für Statistik und Landeskunde.