Roland Eötvös

1848 - 1919

He was one of Europe's foremost climbers

Roland, Baron von Eötvös came from an aristocratic and intellectual family. His father was the head of instruction and religious affairs in the Hungarian cabinet at the time of his birth. Later he became a famous Hungarian writer. Young Roland was educated and prepared for government service. **He entered the University of Budapest in 1865 as a law student, but he was already interested in mathematics.**

In 1867 Roland moved to the University of Heidelberg, where he studied mathematics, physics and chemistry. He went for a short time to the University of Königsberg but soon returned to Heidelberg and obtained his PhD in 1870.

In 1872 he was appointed to a professorship at Budapest University. In his early teaching on liquids he devised the 'Eötvös law', approximately describing the relationship between surface tension, molar volume and temperature for liquids.

Later, practically all of Eötvös's scientific papers concentrated on his life's work: gravitation. He devised the sensitive 'Eötvös torsion balance', in 1888, for the measurement of minute gravitational differences in land mass, and demonstrated conclusively Galileo's assertion that all bodies have the same acceleration in a gravitational field. His experiment proved that the gravitational mass is proportional to the inertial mass up to 8 decimal figures *(not just 4 decimals as was known before)*. This work became one of the building stones in Einstein's later development of the theory of general relativity.

Parallel to the geophysical application of the torsion balance, he pursued an investigation of the magnetic anomalies accompanying gravitational effects. His interest in magnetism led him to paleomagnetic work on bricks and other ceramic objects that covered a period of about 2000 years. Another side issue attracting his interest was the shape of the Earth.

In 1876 Eötvös married Gizella Horvath, the daughter of the Minister of Justice. They had two daughters, Ilona and Rolanda.

His main relaxation was mountain climbing. For quite a long time he was well-known as one of Europe's foremost climbers; a peak in the Dolomites is named after him. Very often his daughters were climbing companions.

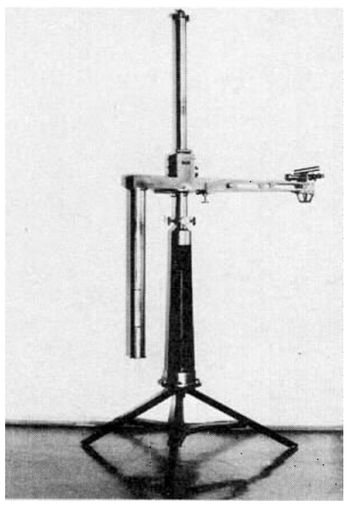
Apart from his research, Eötvös made great efforts to improve the training of high school teachers, and **he was the Minister of Education for a period.**

Rather than recruiting 'theoreticians' Eötvös preferred patient observers, who were ready to record the readings of his gravimeter without distraction through thousands of hours.

In 1883 Eötvös became a full member of the Hungarian Academy of Sciences and in 1889 he was elected its President. Many honors were bestowed upon him, including election to a number of foreign academies, as well as prizes. The Royal Hungarian University of Budapest was renamed the Roland Eötvös University in 1950.

S.E.

He studied the shape of the earth



The Eötvös torsion balance