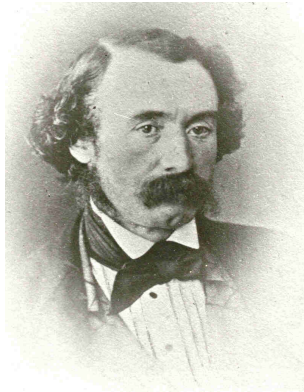


## Robert Mallet (1810-1881)



Robert Mallet, an Irishman born in 1810 at Ryders Row, off Capel Street, Dublin, is known as the father of seismology from experiments he carried out on Killiney Beach, County Dublin, to examine the velocities of energy passing through various materials including rocks. The experiments involved the detonation of kegs of gun powder buried in the sand and measuring the travel times of the shock waves at a distance of 0.5 miles. This was in fact the first "controlled source" seismological experiment ever to be performed in Ireland or anywhere else in the world.

Mallet graduated from [Trinity College Dublin \(TCD\)](#) with a degree in Natural Science in 1830 and went on to work in his fathers iron foundry in Capel Street, Dublin City, where he helped manufacture among other things, the very characteristic iron railings that surround Trinity College and which bear his family name at the base. A very active and prolific investigator in many branches of engineering and natural science, Mallet became interested in the phenomena of earthquakes and contributed many papers on the topic to [Royal Irish Academy \(RIA\)](#), and [Royal Society of London \(RSL\)](#).

He was elected to the Royal Irish Academy at the very early age of 22 in 1832. He enrolled in the British Association for the Advancement of Science in 1835 which helped finance much of Mallet's research in seismology.

In 1838 he became a life member of the Royal Geological Society of Ireland located in the Dublin Customs House and acted as its President from 1846-48.

He presented to the RIA his most significant paper on 9th February 1846 on earthquake dynamics.

He is also responsible for coining the word "seismology" and other related "seismo" words e.g. the isoseismal map, which he used in his research.

The RIA awarded Mallet the Cunningham medal for his research into the theory of earthquakes on 15th March 1862. Ironically, Mallet's first experience of an earthquake happened in Dublin in 1840's.

He was awarded an honorary D. Litt. from TCD, and in 1877 the prestigious [Wollaston Medal](#), the [Geological Society of London](#) highest honour.

On the 16th December, 1857, the area around [Padula, Southern Italy](#), was devastated by a very strong earthquake in which 11,000 people were killed. At that time this earthquake was the 3rd largest known quake in the world and was reckoned to be 7.00 on the Richter Scale. Robert Mallet, with letters of support from Charles Lyell and Charles Darwin, petitioned the Royal Society of London and received a grant of 150 pounds sterling to go to Padula and record first hand the devastation that had occurred. The resulting report was presented to the RSL as the "Report on the Great Neapolitan Earthquake of 1857". This was a major scientific work and made great use of the latest research tool of photography to record the devastation caused by the earthquake.