

Scientific networks and data-exchanges in European seismological research during the 1930s and 1940s.

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Seismology, as a scientific discipline, came of age in the early 20th century, when seismographs became more advanced. As the sophistication of instruments increased so did the scientific network connecting the seismic stations. Data was routinely published in bulletins and exchanged through global networks, organized by geophysical societies. The societies actively initiated and coordinated international research through conferences and journals, but networks also developed between individual seismologist and across societies.

In Denmark Inge Lehmann was the nation's sole seismologist from 1928 to 1952 and in charge of the seismic stations in Denmark and Greenland. Her 1936-discovery of the Earth's inner core relied on access to several types of network. Firstly institutionalised network of data exchange between seismic stations, secondly personal networks cultivated on conferences to develop ideas and share information. Thirdly on a joint understanding of how to read seismograms developed through personal visits to seismic stations across Europe.

Through her research on P-waves she developed a strong belief that it was essential for scholars to have access to original seismograms from various stations instead of having to rely on readings done by others. Seeing the need for a European based network to promote easy, impartial access to seismograms and knowledge, she was one of the chief architects behind the founding of European Seismological Commission in 1949/1952.

Based upon Inge Lehmann's correspondence, which previously has not been available for research, this paper explores the role of international scientific networks in 1930s and 1940s European seismological research.