

A Mist Connection: The Icelandic Laki Fissure Eruption of 1783

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When Eyjafjallajökull erupted in 2010 and brought international air traffic to a halt, it became a well-known fact that Iceland is home to active volcanoes. The Laki fissure (Lakagígar) is not a world-renowned volcano; it is not cone shaped, but a 27 km long fissure located remotely in the Icelandic highlands. Fissure eruptions tend to be less explosive, but they have the ability to erupt for long periods of time and to eject large amounts of lava and gases. The Laki fissure eruption lasted eight months and produced the largest amount of lava of any eruption in the last millennium.

The Laki fissure eruption is special as the released gases were transported towards mainland Europe via the jet stream, where they became visible as well as smellable as a sulfuric dry fog. News about an Icelandic volcanic eruption, however, reached Europe only after the fog had vanished again. Thus, the contemporaries in the summer of 1783 were left alone to speculate about the cause of the unusual weather. Europe was in the midst of the Late Enlightenment during this time and many theories were developed, but an Icelandic volcanic eruption was only one theory among many. My project will go beyond the year 1783 for two reasons: Firstly, because the winters following the eruption were extraordinarily cold; secondly, to trace the scientific discourse to discover when the connection between the dry fog of 1783 and the Laki fissure eruption was finally understood.

My project will also go far beyond the actual Laki fissure in Iceland to reconstruct and analyze the rich cultural understanding of contemporaries in the German Territories, Britain, Ireland, and North America. I plan to analyze the impacts the Laki fissure eruption had on the northern hemisphere, if and to what extent these were interpreted differently in different regions, and which explanation and coping strategies and practices were evoked.

Until now the eruption has mainly been studied by volcanologists and geologists; it has not yet been studied extensively by historians. This project is primarily a contribution to the field of environmental history. But the study will incorporate other disciplines as well, such as cultural and social history, history of knowledge and history of science, historical climatology, historical anthropology, and disaster history. The historical analysis, the incorporation of different fields, including an interdisciplinary approach of environmental history and geology, make this project unique.

The study is based on many different kinds of sources: contemporary newspaper articles have proved themselves to be a very rich source type for the German territories. They will be used for the other regions, such as Great Britain and Ireland, North America and the Atlantic as well. Other sources are scientific writings by contemporaries, the ephemerides of the Societas Meteorologica Palatina, ship logbooks, harvest registers, historical maps, and other ego documents. The perceptions and knowledge gained from the primary sources shall be confirmed with historical climate databases as well as historical climate maps.

From the study of a past volcanic eruption we can learn something about our current and future dealings with climate change, as climate change is something that can be stated scientifically but can barely sufficiently be explained. The Laki fissure eruption occurred invisibly to the contemporaries, due to distance and the state of science at the time. Today, invisible disasters still occur—partly they are initiated by climate change, such as the loss of biological diversity. The study of invisible connections is therefore relevant far beyond the eighteenth century.