

THE LAKI FISSURE ERUPTION AND STRANGE WEATHER PHENOMENA IN THE GERMAN TERRITORIES IN THE SUMMER OF 1783

Katrin Kleemann

(Rachel Carson Center for Environment and Society)

Resumo/Abstract

The dry fog that was visible for two months throughout Europe during the summer of 1783 can be seen as a great example of a cross-border phenomenon. The spirit of Enlightenment challenged contemporary scientists to emerge from the fog of superstition and find rational explanations for the unusual state of the atmosphere. My paper presents the results of the research I conducted for my master's thesis about the impacts of an Icelandic volcanic eruption in 1783. Weather was an integral part of an agrarian society's livelihood in the 18th century and the weather of 1783 was extraordinary even for a year situated within the Little Ice Age. The summer was characterized by a persisting dry fog, a sulphuric odour, heat, numerous thunderstorms, earthquakes, etc. The Laki fissure eruption started in June 1783 and lasted until February 1784. The remote Icelandic volcano ejected 122 megatons of sulphur dioxide, the largest amount of any northern hemisphere eruption in the entire Holocene. The gases formed a fog that was carried south-eastward by the Jet stream, a fog which appeared above Europe in mid June 1783. The news of an Icelandic eruption, however, reached Europe in September – after the fog had already disappeared. The impacts of the Laki eruption upon Britain and France have been studied qualitatively and quantitatively, their influences on the German territories, however, have not yet been considered. My research deals with how media and science in the late Enlightenment shaped the contemporaries' perception and interpretation of the unusual weather within the German territories during the summer of 1783. I applied methods of environmental history and history of science by using four newspapers from different German cities from June to October 1783, and seven scientific publications from 1783 and 1784 as sources. Contemporary descriptions and debates disclosed that religious and scientific explanations were completing each other, rather than excluding one another. The German debate in 1783 was still strongly influenced by physicotheology, a line of thought that tried to bring biblical tradition together with scientific knowledge; proof of god's existence was to be found in nature's wonders. There was not one accepted interpretation of the fog's origin but a plurality and simultaneity of religious and scientific theories. It was debated whether the dry fog was caused by the vapour of flooding, peat burning, earthquakes releasing sub-terrestrial odour, electricity in the air or the lack thereof, smoke of meteors, volcanism, or if it was God's blessing for the harvest. The Laki fissure eruption is an example of a volcanic eruption having sociocultural impacts upon distant regions. A society's vulnerability does not only depend on its ability to produce knowledge but also the transfer of knowledge to the population. As the real cause of the dry fog was obscure, scientists developed theories to explain the unusual phenomena. Newspapers spread those ideas. Newspapers and

scientific publications both referred to one another. In 1783 the natural sciences were not evolved enough to reliably identify the Laki eruption as the source of the dry fog.

CV

Katrin Kleemann

Education

Starting 10/2015 Rachel Carson Center for Environment and Society, Munich, Germany

PhD Student

10/2011 – 10/2014 Freie Universität Berlin, Germany History, Master of Arts; grade: 1.2 (very good)

10/2007 – 08/2010 Christian-Albrechts-Universität zu Kiel, Germany History / Cultural Anthropology, Bachelor of Arts; grade: 1.2 (very good)

Employment

05/2015 – 06/2015 Freie Universität Berlin, Germany Research Assistant for Prof. Veronika Lipphardt

11/2014 – 03/2015 Beyond History, Hamburg, Germany Researcher, conducting genealogical research

03/2012 – 10/2014 Max Planck Institute for the History of Science, Berlin, Germany Student Research Assistant for Prof. Veronika Lipphardt

Presentations

July 2015 Poster presentation: The Laki eruption and strange weather phenomena in the German territories in the summer of 1783. 8th ESEH Conference, Versailles, France
January 2014

Talk: The Laki fissure eruption and the dry fog of 1783. Seminar Series, Max Planck Institute for the History of Science, Berlin, Germany

Memberships

2015 – present Verband der Historiker und Historikerinnen Deutschlands e.V.

2015 – present Climate History Network

2014 – present European Society for Environmental History