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Laudatio of Alexander HALL winner of the SPHN Marc-Auguste PICTET Prize 2016

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Alexander HALL (Photo A. Hall)

It is a great pleasure to introduce Alexander Hall the recipient of the 2016 Marc Auguste Pictet Prize in the History of Science. This years' prize was devoted to the history of meteorology and of the climate sciences, the topic of Hall's wonderful dissertation entitled *Risk, Blame, and Expertise: The Meteorological Office and extreme weather in post-war Britain.*

Alexander Hall did his undergraduate in environmental studies at the University of Manchester, before getting a Masters degree in the History of Science, Technology and Medicine and a PhD in 2012 at the same University, which hosts the Centre for the History of Science, Technology and Medicine, one of the most active centres in the field in Europe, under the late John Pickstone, Michael Worboys, and Jon Harwood. Alexander Hall was then a Visiting scholar and lecturer at York University (Toronto), and a postdoctoral researcher at the University of Nottingham. He is now a Research Fellow at Newman University's Centre for Science, Knowledge and Belief in Society, in Birmingham, UK.

Now let me tell you a few words about this dissertation, and why it was selected for the Pictet Prize. Hall opens his dissertation with an anecdote. In 1987, Michael Fish, a weather forecaster of the Met Office, the United Kingdom's national weather forecasting institution, was on BBC television and said to an audience of millions: "Earlier on today, apparently, a woman rang the BBC and said she heard there was a hurricane on the way... well, if you're watching, don't worry, there isn't!" Actually the next day, the worst storm since in 1703 hit the south coast of England, killing 19 people and causing millions of pounds of material damage.

As Hall points out, this anecdote is interesting because in the following days, not only Michael Fish, but the scientists of the Met Office as a whole, were the subject of blame, if not for the storm itself, at least for its dire consequences. Hall, drawing on Mary Douglas's anthropological work on risk and blame, uses this story to ask an important historical question: How did science, embodied in an institution like the Met Office, become the spokesperson for natural disasters and become the subject of blame when they occurred differently than predicted? What was long considered an Act of God, with nobody to blame for, became in the twentieth century, something conceptualised as a "risk", created and managed by scientists operating weather forecasting models and simulations.

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What makes Hall 's study important is that it is not "just" about the weather. It is about how the twentieth century became a "risk society", as the sociologist Ulrich Beck put it, with risks created and managed in large part by science, an age of "rationalized uncertainty". Weather predictions, just like epidemic predictions (think of the seasonal flu), have become crucial elements in how modern society are governed, and deeply shape the place of science within them. Taking part in the growing quantification of nature and social life, which has taken place since at least the 18th century, the sciences now routinely construct risks based on probabilities, of cancer or storms developing for example. But when these risks are communicated to the public, they take on an entirely new meaning; probabilities and statistics do not map easily onto human hopes and fears.

His study is also important in that it illuminates the multiple links between science and society, meaning the public, the state, the economy, and more. For a long time, studies in the history of twentieth century science have focused on supposedly "fundamental sciences", theoretical physics for example, ignoring the more "applied" ones like meteorology. Yet meteorology is perhaps a more typical science of the twentieth century, from biotechnology to nanotechnology, in which scientific work is inextricably linked with public concerns and the governing of societies. Meteorology is special, however, in that it deals with highly irregular events. Volcanic eruptions, earthquakes, and tornadoes are all natural events, which the sciences have had a difficult time turning into scientific phenomena, with their regularities and constant features, from which they could theorise and build predictions.

One last reason why Hall's dissertation is so important today is that it offers a window into today's "crisis of expertise", the increasing challenges to the expertise of science in society. Science has always offered expert advice, that was true of Galileo, Lavoisier, and most other "scientists" in history. But in the twentieth century, the role of the scientific expert has become a highly public one, the archetype of which is Stanley Kubrick's Dr. Stangelove, the physicist advising the US government in the fictional "war room", who brings the world to the verge of total annihilation because he thinks it is the most rational course of action to take.

Hall's story covers mainly the period from 1945 to 1963, comparing the role of the Met Office in predicting extreme weather events. To set the scene, Hall discusses how the shortage of fuel in the extreme winter of 1947 was mainly blamed on the weather, rather than the inability of the government to predict it – to the government's delight. At the time, the Met Office only played a peripheral role in UK public life. Since its creation in 1854, the Met Office has been a source of information about the weather for the naval forces (and later air forces), but it was only in the postwar period, that it took on a role of consultant on government policy and became a publicly recognised organisation.

It took the North Sea Flood of 1953, killing over 400 people, for the Met Office to develop a sophisticated warning system for extreme weather conditions. A major turning point in the 1950s was when the Met Office decided to present the weather forecasts and warnings on television by having a dedicated meteorologist present them, making the Met Office, in the public eye, the spokesperson for meteorological risks. The Met Office developed a language to talk to the public, transforming statistical results produced by complex mathematical models into a discourse about risks that could be acted upon by the public. By doing so, the Met Office gained great public visibility and authority, but became the subject of blame when the weather turned out unexpectedly. By 1963, when another severe winter occurred, the government was able to manage adequately fuel supplies with the help of the Met Office's predictions, showing how this infrastructure of risk management had become an efficient and integral part of modern society.

With this, I would like to close by once again congratulating Alexander Hall for writing such a well-documented, illuminating and insightful dissertation.