

Eduard Brückner's analysis of climatic change and climate impact

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ABSTRACT: Eduard Brückner (1862-1927) was a pioneer climate researcher interested in climatic change and variation. In his main work published in 1890, *Klimaschwankungen seit 1700 nebst Bemerkungen über die Klimaschwankungen der Diluvialzeit*, he attempts to reconstruct historical climate variations since about A.D. 1000 with some success.

Brückner's important innovation was that he recognized changing -- and for contemporary climatologists conflicting -- reports about climate as evidence for climate variability. Thus, he initiated and engaged in a debate whether contemporary climate change had to be understood as evidence for systematic change related either to the anthropogenic factors, especially deforestation, or occurred in response to dynamical processes in the climate system, possibly prompted by cosmogenic factors. In addition, Brückner examined the impact of climatic variations on health, transportation, agriculture and even the distribution of the power among nations. He did so by studying correlations for temperature and typhoid frequency, ice conditions and river transport, humidity and agricultural production and emigration. Brückner also pursues what has become another modern line of research, namely the impact of climate change on the economy and society. But not unlike many present-day researches, he fails to contemplate that along with climate change, technological, social and economic development takes place that make any prognosis about the impact of climate change on society obsolete unless dynamic social and economic changes are figured into the analysis. We conclude that Eduard Brückner engaged in a form of climate impact research and in a search for the origins of climate change that resonate in many respects with contemporary climate research.

The authors have prepared an anthology of Eduard Brückner: Stehr, N., and H. von Storch (Eds.), 2000: *Eduard Brückner - The Sources and Consequences of Climate Change and Climate Variability in Historical Times*. Kluwer Academic Publisher ISBN 0-7923-6128-8, 338 pp.