

Nineteenth-century East Asian climate reconstruction from the perspective of history of science

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ABSTRACT: In this presentation, I will present preliminary results of a recent collaboration between a team of meteorologists led by Takehiko Mikami of Tokyo Metropolitan University and my team of historians at Kobe University in a research project on the historical reconstruction of the climate of East Asia in the nineteenth-century.

It has long been believed that quantified and instrumental meteorological observation in Japan began after the establishment of Hakodate Meteorological Observatory in 1872 and Tokyo Observatory in 1875. However, our research has revealed much earlier instrumentally observed data, dating to as early as 1800, mainly related to Dutch activities around Deshima, Nagasaki. These data provide meaningful historical evidence in reconstructing the climate of the period.

As an historian of science, my task is mainly investigating historical materials, namely nineteenth-century instrumentally observed meteorological records so far unknown or unexamined. These historical materials are to be examined scientifically by our meteorologist collaborators. Here I would like to discuss some new historical discoveries concerning several series of meteorological data collected by Dutch, English and French expeditions and by scientific personnel in Japan and neighboring regions in the nineteenth-century. I will also discuss some of the earliest meteorological observations taken by Japanese indigenous intellectuals.

My task as an historian is also interpreting the larger significance of these materials. In doing so, I would like to discuss the historical context of these early meteorological activities as an important aspect of the “modernization” of Japan, and locate it as a milestone in “the introduction of modern western science” in Japan.