

描かれたオーロラ-歴史的オーロラ研究における絵画史料の可能性-

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Illustrations as a rich-data source for historical aurora research

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This study is an examination of the usefulness of historical drawings and paintings when conducting research on auroras that occurred in the past Japan.

Records of auroras in Japan have been well documented in many ancient journals and manuscripts including the *Nihon-shoki*. Starting in the eighteenth century, there was a rapid increase in the number of Japanese texts that mention auroras. There are at least two reasons for this. First, this was a period when written language began to allow information to be disseminated throughout all levels of society, from the samurai and nobles down to the common people. The second reason would be the increased occurrence rate of extremely rare auroras that were visible across all over Japan.

We focus on historical documents related to the great aurora which was observed in Japan around September 17, 1770. We had already gathered more than 100 records related to this aurora, including several impressive drawings and paintings. These illustrations can be categorized according to three themes: (1) a depiction of people observing the aurora with expressions of shock and fear, (2) an attempt to depict the characteristics of the aurora phenomenon itself, and (3) an attempt to record the aurora together with other disasters.

In this study, we analyzed the illustrations from the viewpoints of both the social and physical sciences. For the sociological approach, we used a comparative analysis of the manuscripts to study people's perceptions of the aurora phenomenon and their intentions in attempting to leave a record in the form of illustrations. As a scientific approach, we conducted a comparative analysis on the colors, brightness, and time variation of the aurora as depicted in a variety of illustrations, with the actual detailed descriptions in written texts. We also discuss how these approaches are useful for other sociological and scientific research.

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References

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