

Interactive comment on “Jens Esmark’s Christiania (Oslo) meteorological observations 1816–1838: The first long term continuous temperature record from the Norwegian capital homogenized and analysed” by Geir Hestmark and Øyvind Nordli

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More and more old meteorological data is needed, at best from the last millennium, to reliably estimate range (including natural) of changes and variability of climate in this time, as well as causes of climate changes. As a result, the idea of data rescue activity has been enthusiastically taken up by many scientists. In recent years a significant growth in this kind of activity can be seen, which is also reflected in a rising number of publications. The majority of them can be assigned to the new discipline which was

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born within climatology and was termed “historical climatology”. The reviewed paper belongs to this category. In a very detailed way, the authors present new meteorological series of data from Oslo rediscovered by them for period 1816–1838. Source data, quality control and homogeneity of data series are perfectly presented (with a very detailed description of metadata) and the best climatological knowledge was used to obtain the most reliable temperature data. For this purpose, modern techniques of quality control and homogenization procedures and methods have been successfully used. All different kinds of metadata information have also been used to correct the data as best as possible. In the improvement of data quality, both historical (parallel) observations) and contemporary series of data from Oslo have been used. In the paper, the authors give an extensive and complete, as well as scientifically and methodically correct, analysis of data elaboration and climate characteristics in Oslo for the study period. The paper is clearly written, well structured and well documented. One small weakness may be the fact that the paper is quite long; fortunately, not all documentation is included in the main body of the paper. I can only suggest removing Figure 4, which in my opinion is not important; Figure 5 is enough to present Esmark’s Christiania protocol. I must say that the amount and quality of supplementary material is appropriate and that all the documentation placed there is very helpful towards understanding the results presented in the main body of the paper.

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