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Open Access Earth System Science Data Discussions

Interactive comment on "A digital archive of human activity in the McMurdo Dry Valleys, Antarctica" *by* Adrian Howkins et al.

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This manuscript describes an impressive collection of diverse historical material for the McMurdo Dry Valleys, an iconic site for Antarctic research by many scientists for more than 50 years. The collection includes digitized photographs, papers, interviews, maps, drawings and data sets, and is housed in the NSF-LTER website. A link is provided to a portal and search engine to discover, access and download the items, and an additional link is provided to the metadata records (in CSV format) that describe location, file type, date, source and other details for each item. As pointed out in the manuscript, this provides an excellent resource for historical analysis, environmental change assessments, land management (including tourism) and science planning, and it is a model that could be applied to other regions of the world. These historical records

are especially important given the rapid changes now taking place in the polar regions - it is a superb resource.

In response to the review criteria: Yes, the data and methods presented are new; there is high potential for the data being useful in the future; the methods and materials are described in reasonable detail, with a couple of minor suggestions (see below). The article itself is appropriate to support the publication of a data set. There was a helpful selection of material for the four figures. I could not find the supplementary material (Table S1) that is referred to.

Concerning data quality: the data set is accessible via the given identifier, and is complete as a first collection that can now be updated. The data quality is variable - some images are only poorly resolved and have many imperfections (e.g. dust on the slide, lens or scanner, poor color rendition), and the metadata are not always complete because the exact date is unknown. The authors might note this by saying that the quality and resolution are variable, but an inclusive approach was taken to maximize the scope of the database.

Further points: The images are taken by many people and "copyright for each item remains with the respective contributor" – in that case, how would permission be obtained to reproduce any of these materials, for example in another publication?

Please give the four bounding coordinates for the geographical area covered in this database.

Please explain the criteria used for selecting the publications for inclusion. They seem incomplete; for example I searched on 'Onyx River' and could only find two publications among many: 'Spatially discontinuous strain in the "semi-rigid" zone of an ice cliff. 1973. 'Principal cation concentrations for a length profile of the Onyx River, Wright Valley. 1973'

It would be useful to include the reports from the Japanese Teams in the 1970s and

1980s (Tetsuya Torii et al., as shown in Fig 1!); these include the classic paper by Yuki Yusa on the solar modeling of Lake Vanda, which is always hard to track down.

Line 29 (and twice later) states: “the raw data are available at the Environmental Data Initiative https://doi.org/10.6073/pasta/6744cb28a544fda827805db123d36557” But these are not the raw data – they are metadata (CSV files describing each data item). It seems that the actual data are the photographs, the maps, audio clips etc.

ESSD Editors may need to comment: this article will have a doi, the collection of metadata has a doi, but the data itself (the images, maps etc) are in a relational database that does not have a doi assigned - is that OK?

Story Maps: First Western Journey, 1911 Follow the route of the first expedition into the Dry Valleys in 1911. Maybe this should be ‘first exploration’ because the first expedition visit was in December 1903, led by Scott, who wonderfully proclaimed at that time: “It is certainly a valley of the dead.”

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