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Significance of the geomorphological approach for the reconstruction of paleo ice-sheets

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In the paleoenvironment research, there are at least two data obtained only by using the geomorphological approach. The one is the history of paleo ice-sheet dimension and subglacial environmental data based on the glacial geomorphological technique, and another is the history of the relative sea-level variations used the coastal geomorphological technique. These data can provide the information about the geographical distribution of past ice sheet, mass balance mechanisms and ice-volume changes using glacial isostatic adjustment model. In this presentation, we introduce the paleo environmental significance of geomorphological approach using the case of East Antarctic ice sheet.

Keywords: ice sheet, glacial geomorphology, subglacial environment, coastal geomorphology, relative sea-level variation, glacial isostatic adjustment