

Geological studies in the Japanese Antarctic Research Expedition

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The Japanese Antarctic research program initiated on the occasion of the 3rd International Geophysical Year in 1957-58. Japanese geologists have been studying in the Antarctic since 1957. More than 80 geologists participated to the basement geology programs during the past 60 years. Their activity area extended from the Lützow-Holm Bay to Enderby Land to the east and central Dronning Maud Land to the west. They revealed the regional geology through extensive mapping resulting in the publication of the Antarctic geological map series in various scales. The petrological and structural studies aimed to elucidate the evolution of continental crust with high-grade metamorphism and magmatism. It is no exaggeration to say that the study of the ultra-high temperature metamorphism in Japan initiated from the study of the Antarctic geology. Moreover, recent high-precision geochronological studies enabled the comparison of mutual relationship among the assemblies of Gondwana. However, the Antarctic ice sheet prevents to reveal the entire figure of the tectonic history of the Antarctic continent. This talk presents a brief review of the geological studies of JARE and discusses the future perspective.

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