

Aiming at a new collaboration of the global ‘peridotite geoparks’

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Mt. Apoi, Hokkaido, Japan, is composed totally of peridotites derived from the Earth’s mantle. The uplifting event of the peridotites has been explained as a westward thrusting of the North American plate on the Eurasian plate during the building stage of the Hidaka Mountains. The Mt. Apoi Geopark demonstrates the main theme ‘A story of gifts from deep inside the Earth connecting land and people together’ with three subthemes on the distinct categories of geology, ecology, and human history. The first subtheme is on peridotite, which is to understand the Earth’s interior and dynamic movement.

The following ‘peridotite geoparks’ are organizing a number of excellent peridotite geosites:

1.

Orogenic lherzolite: Mt. Apoi Geopark (in the Hidaka mountains, Japan), and Secia-Val Grande Geopark (in the Ivrea-Verbano zone, NW Italy).

2.

Ophiolitic peridotite: Geopark Harz Braunschweiger Land Ostfalen (the type locality of ‘harzburgite’, Germany), Lands of Knights Global Geopark (in the European Variscan orogenic belt, Portugal), and the Oman ophiolite geopark (in preparation).

3.

Peridotite xenolith: Jeju Island Geopark (Korea), and Azores Geopark (Portugal). Because of the unique origin of peridotites, all the ‘peridotite geoparks’ have a common subject encouraging visitors to think about the Earth’s interior, such as basaltic magma sources beneath active island-arcs, the global-scale dynamic movement, such as mountain building during plate collisions, and also the specific natural environment, such as alpine flowers in the peridotite mountains. In close communication with other ‘peridotite geoparks’, we aim to establish a new joint program of the global ‘peridotite geoparks’.