

## Outstanding geoheritage values of the Hantangang River Geopark in Korea

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Two local governments (Pocheon City and Yeoncheon Gun) in Gyeonggi Province (Korea) developed a strategic plan to develop a national geopark (eventually global geopark) along the Hantangang River.

Hantangang River has been regarded as one of the significant geoheritage sites showing special volcanic landforms in Asia. About 500,000 to 130,000 years ago, basaltic lavas from multiple volcanic activities were erupted from Orisan (Ori Mountain) near Pyeongyang area in North Korea. These lavas flowed down for over 110 km crossing a large plain making a broad lava plateau (Cheolwonpyeongya Plain) and continued to flow along the river valley with incised gorge in Pocheon-Yeoncheon regions with various types of volcanic landforms with beautiful landscapes along the river valley. Along the river, geological features such as multiple lava flow units, basaltic columnar joints, columnar joint-produced waterfall, pillow lavas, paleo-fluvial deposits and paleosols can be found, which were produced by a combination of volcanic activities and river erosion processes. The presence of pillow lavas which are larger than 1 meter in diameter along the valley provides significant geoheritage values because it is not common to find such a large amount of pillow lavas on land. Precambrian metamorphic rocks together with Mesozoic granite add geodiversity values.

The Hantangang River Basalt Gorge has very significant geological and geoheritage values to understand the volcanic activities during the Quaternary Period near convergent plate boundary and the special landforms produced by river erosion in central part of the Korean Peninsula. This type of lava flow is known to be very unique and rare in the world, geological and geoheritage values in this area are of international significance. This area also includes one of the most important archaeological sites (Paleolithic remains of the Acheulean culture) along the river.

Local governments started to develop a geopark program along the river with geotourism and sustainable socio-economic development by strong involvement of local residents. Various geodiverse features in this area together with numerous archaeological, ecological, historical and cultural elements provide a great potential of this area for a national and global geopark in the future.