Geostory related to volcanic eruptions, farm products and landscapes: an example of the Hayasaki Seashore in Unzen Volcanic area Global Geopark

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Highlights of a Geopark are not only outcrops, rocks, strata, and natural landscapes with earth scientific value, but also human histories, cultures, and local customs. Especially in Japan, where natural disaster occurs frequently, such as earthquakes, volcanic eruptions, tsunami and so on, the life-style of people is strongly affected by natural phenomena. But, in other words, these disasters bring us Japanese original culture. Unique features of Japanese Geoparks are, therefore, that tourists can enjoy a relation between the lives of local people and Earth's activities. In this Poster Presentation, we introduce the geostory of the "Hayasaki Seashore".

The Hayasaki Seashore is the place where the Shimabara Peninsula was born. About 4.3 million years ago, submarine volcanoes started to erupt around the Hayasaki area. In an early stage, strong phreatomagmatic explosions caused by contact basaltic magma with seawater-shattered magma, and a lot of volcanic ash was deposited. As the volcano grew, only magma spouted out from the crater. Later, the force of the eruption declined and the basaltic lava flow covered the surface. The first figure of Shimabara Peninsula was a volcanic island such as current Hawaii Island. This is the formation process of Shimabara Peninsula, analyzed by characteristics of pyroclastic strata.

These volcanic eruptions affected the living of people deeply. The potatoes, which are main farm products in Shimabara Peninsula, are harvested from reddish-brown soil in Hayasaki area. This reddish-brown soil is only generated when the conditions of basaltic strata, warm and damp climate are matched with each other in a long history of 4 million years. Stone walls of potato fields in Hayasaki area are also unique. Local people use planar lava blocks separated along cooling joints inside lava flows when they make stone walls. Local scene is, therefore, indirectly affected by volcanic eruptions.

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