

### **Mt. Fugen Hiking Trail: Volcanoes of the Myōken Caldera**

The Shimabara Peninsula has been shaped by the movement of magma deep beneath the earth. Volcanoes have grown, erupted, collapsed, and grown again, creating the peninsula's mountainous landscape. Beginning three and a half million years ago, most volcanic activity took place in the south and west, and volcanoes slowly formed an island off the coast of Nagasaki. But about 500,000 years ago, the volcanic activity suddenly shifted north, creating the oldest of the Unzen volcanoes. These eruptions connected the volcanic island to Kyushu, creating the Shimabara Peninsula.

Over the next 150,000 years, pressure from the magma flow decreased. The center of the peninsula began to sink as parallel faults to the north and south slowly pulled the central region apart, leaving behind a graben (a valley formed between two faults as they pull apart from each other). In the 350,000 years that followed, many volcanoes formed lava domes within the Unzen Graben. With the pressure released after an eruption, these volcanoes would often collapse into their own emptied magma chambers and form calderas. This activity is what created the Nodake Caldera some 70,000 to 150,000 years ago. The cycle continued as the Myōken volcano formed within the larger caldera, eventually collapsing after the eruptions of nearby Mt. Kunimi (1,347 m) and Mt. Mayuyama (819 m).

The remains of the collapsed volcano—the Myōken Caldera—can be seen today. The rim of the caldera forms a narrow trail with steep drops on either side. To the east are Mt. Fugen (1,359 m) and two peaks, Tateiwanomine and Shimanomine; all three were formed by consecutive eruptions 4,000 to 5,000 years ago. Looming above them is the newest and tallest of Unzen's lava domes, Mt. Heisei Shinzan (1,483 m), which was formed during eruptions from 1990 to 1995.