

Mount Usu is a volcano that emerged roughly 15-20,000 years ago after the formation of Toya caldera. It has erupted repeatedly, and there was a massive collapse near the summit about 7-8,000 years ago, triggering a rock avalanche that flowed into Volcano Bay. After a long period of dormancy, it resumed activity in 1663. Since then, over eight eruptions have been recorded, with two - in 1977 and 2000 - since the area was designated a national park. The eruption in 2000 originated in the western base of Mount Usu and created a new crater in Mount Konpira, among others, near the hot spring district. Sections of the nearby road were severely damaged. Hot water spurting from Mount Konpira became a mudflow and reached the hot spring district. In addition, there were repeated occurrences of tectonic movement, some as disruptive as to cause a 70-meter rise of the ground surface, damaging buildings, roads, and railroads. From the observation trails that were

constructed after the eruption, you can still see the craters releasing steam, as well as the ruins of the roads and buildings. Undoubtedly, Mount Usu is one of the most active volcanoes in Japan.

A Mountain that Never Lies

Eruptions of Mount Usu in historic times, followed by the formation of a lava dome, as well as its premonitory phenomena such as earthquakes and ground rupture, indicate there is a pattern to its volcanic activity. Thus scientists call Mount Usu "the mountain that never lies". In the Mount Usu neighbourhood, observation and research on volcanic activity in order to predict the eruptions have been advancing, and moreover, the production of a hazard map to estimate damage in case of a disaster and evacuation plans have been progressing. Emergency information announced prior to the eruption in 2000 led to a prompt evacuation of 16,000 local residents with no casualties.

Mount Usu and its Ongoing Volcanic Activities

Lake Toya Area Ecomuseum

– Town Development Coexisting with Volcanoes

Lake Toya Hot Spring and Soubetsu Hot Spring both located at the base of Mount Usu were created after the eruption in 1910, and have been developing ever since. They have sustained some damage from three eruptions thus far. Since the eruption in 2000, Toyako-cho has been working on disaster prevention and control by constructing a drainage to direct mudflow, and by removing schools to safer areas. Furthermore, the towns of Date, Soubetsu, Toyoura, and Toyako have begun incorporating the remains of past disasters into tours of the area, as well as providing educational activities (such as historical and scientific lessons) in order to increase the public's understanding of volcanoes. With the entire region serving as an ecomuseum, in other words "nature museum", the locals are making efforts to promote regional appeal.

A region so densely populated as this that lies so close to a highly active volcano is highly unusual. The residents are blessed with beautiful scenery and hot springs created by the volcano.



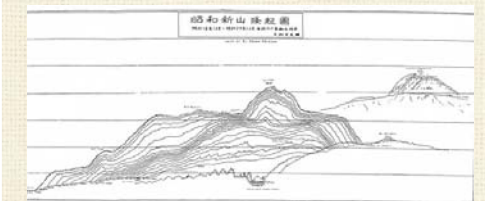
Eruption of Mount Usu and Lake Toya Hot Spring district (1977)



Eruption of Mount Usu (2000)

Column

Mount Showa Shinzan and Mimatsu Diagram



During the Second World War, the activity of Mount Usu which began in December, 1943 with a severe earthquake, raised the land on the east side of the mountain between 1944-45, creating a parasite volcano, Mount Showa Shinzan (elevation 407 meters). For about 600 days during this period, Masao Mimatsu (1888-1977), then a local postmaster, observed and measured geomorphological changes and kept a detailed record. Later, Mimatsu Diagram, the records of the daily rise of the base and the growth of the lava dome by his unique technique from a set point, was published at the international conference of volcanology in 1948, and became known as the world's first record of the process of volcanic growth.



Drawing by Masao Mimatsu Mount Showa Shinzan in 1954

By courtesy of Masao Mimatsu Memorial Museum