

## 【Kiyotsu Gorge】

Kiyotsu Gorge, through which the Kiyotsu River flows, stretches 12.5 kilometers from Tōkamachi to Yuzawa Yagisawa and is one of Japan's largest gorges. The area is known for its visually striking igneous rock formations and a 750-meter-long art installation that was added to Kiyotsu Gorge Tunnel in 2018. The gorge was designated a Natural Monument in April 1941 and was made a part of Jōshin'etsukōgen National Park in September 1949.

The rock formations, called "columnar jointing," were created when magma cooled into the igneous rock (porphyrite) that makes up both sides of the gorge. As the magma cooled, the outer layer cooled faster than the inner layer, causing the rock to shear along right angles. This rock was then gradually pushed to the earth's surface by tectonic activity and eroded by the Kiyotsu River. Unusually, both horizontal and vertical columnar jointing is visible along the gorge.

A path that followed the side of the gorge was closed to all visitors in 1988 for safety reasons, and for many years there was no access to the rock formations. In 1996, a 750-meter-long pedestrian tunnel was completed, from which visitors can safely admire the gorge at three lookout points.

In 2018, as part of the Echigo-Tsumari Art Triennale festival, MAD Architects renovated the tunnel, and reopened it as "The Tunnel of Light." The tunnel's last lookout—the installation's namesake—is covered with stainless steel panels, and its floor is flooded with spring water that reflects the gorge and the surrounding forest all throughout the room. Periscope, a café and souvenir shop situated near the mouth of the tunnel, was also designed by MAD Architects. The building's second floor has a hot-spring footbath with a mirrored opening in the ceiling that reflects the surroundings below.

Note: the tunnel is ordinarily closed from mid-January to the end of February but may be temporarily opened if the snow can be cleared.