

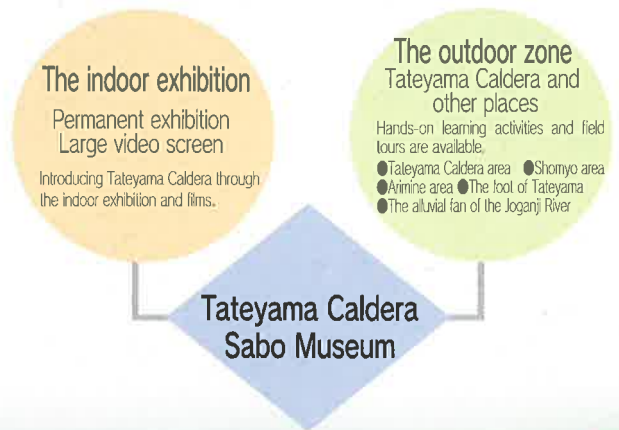
Welcome to Tateyama Caldera Sabo Museum

Overview of Tateyama Caldera Sabo Museum

Tateyama Caldera, a unique structure formed by volcanic activity and erosive processes, is one of the leading major landslide sites in Japan and an important area for understanding the natural history of Tateyama. A vast amount of landslide sediment left in the Tateyama Caldera had repeatedly caused landslide disasters along the Joganji River. To protect Toyama Plains, one of Japan's major erosion control projects has been carried out over the duration of more than 100 years. With respect to two themes—"The Nature and History of Tateyama Caldera" and "Sabo (erosion control)" at "Unknown, Another Side of Tateyama"—the museum seeks to introduce these issues, as well as provide education thereof to people through its activities.

Caldera = Cauldron (in Portuguese)

Basic museum layout



Large video screen theater

"Collapse" and "A Drama of the Earth," 3D hi-definition films (twenty minutes for each film), are shown on one of Japan's largest screens (320 inches).



Guidance corner

Information on Tateyama is offered to Tateyama visitors.



Sabo (sediment control) General Information Center

Provides information on sediment control in Japan and around the world.

1

Collapse



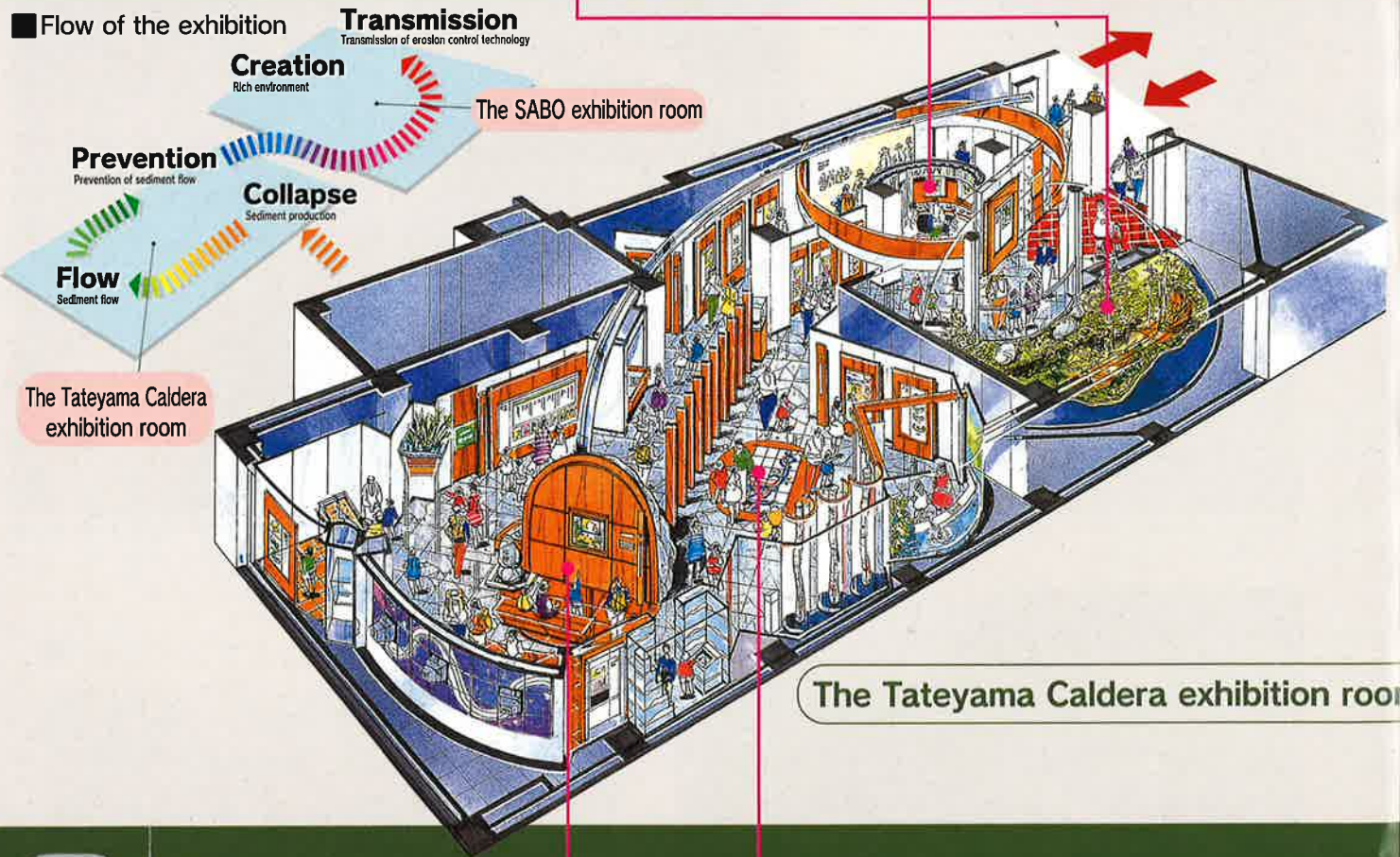
Tateyama Caldera Observatory

Diorama illustrating the view from inside Tateyama Caldera.



Geology of Tateyama Caldera

Exhibits of rocks constituting Tateyama Caldera. Visitors can touch them with their own hands and learn about their characteristics.



2

Flow



Theater for conveying the major disaster of the Ansei era

The mini theater comprises artwork involving a large boulder with a height of 3 meters. Animation of the major disaster of the Ansei era.



Let's take a walk along the Jogajiji River

When you walk on the map with 3-D glasses on, you can see the detailed terrain from the area along the Jogajiji River.

3

Prevention



The exhibition of the Torokko trains actually used

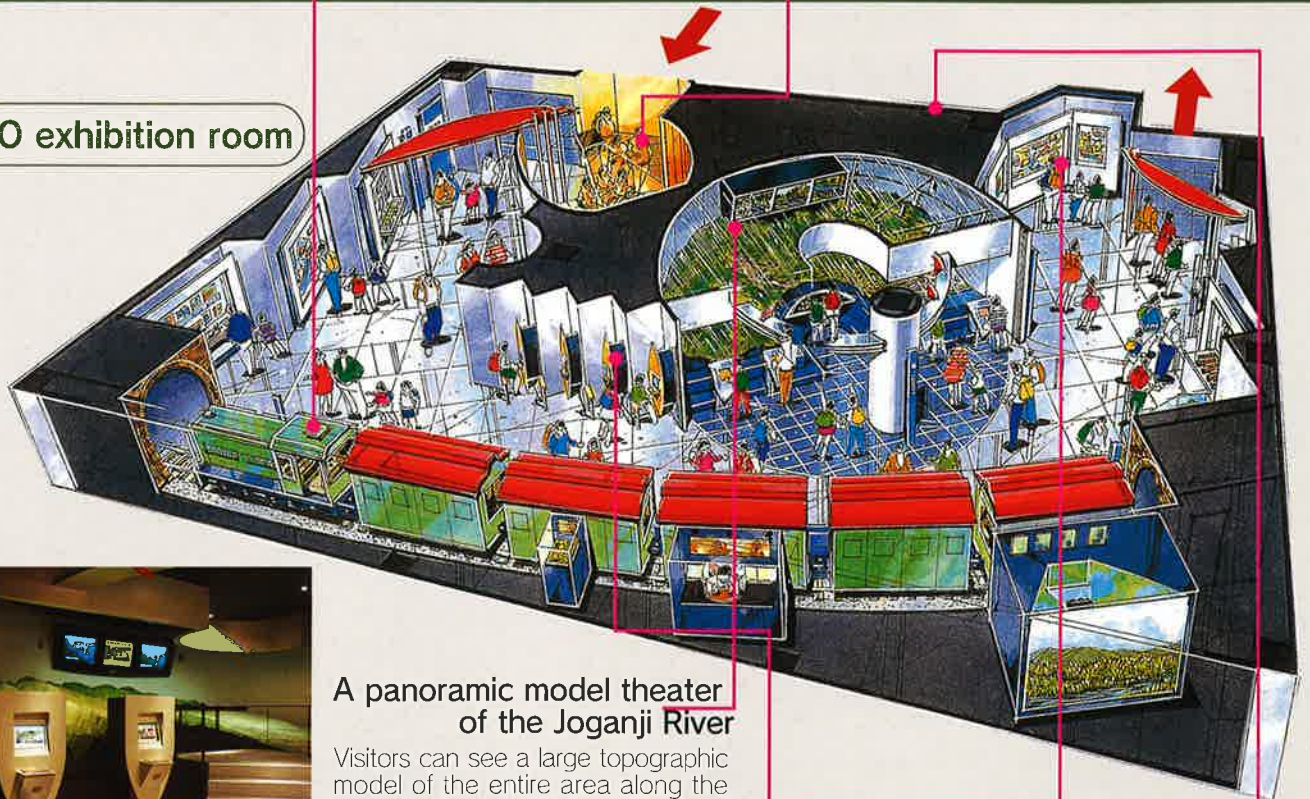
Torokko trains are the symbol of Tateyama Sabo. Changes in the way each truck transported materials, the history of Shiraiwa Sabo Dam, and Masao Akagi and the history of Tateyama Sabo are introduced. The "Welcome to the Torokko trains" lets visitors get a feel for a torokko train ride.



Life-threatening landslide disasters

Landslide disasters that affect the lives of many are vividly illustrated through edited news images.

The SABO exhibition room



A panoramic model theater of the Joganji River

Visitors can see a large topographic model of the entire area along the Joganji River and live images of the Joganji River and an animated film concerning mudflow disasters.

4

Creation



Disaster prevention simulation game

The simulation game lets you consider how to prepare for and what to do in the event of disasters.



Sabo contributing to creation

Shows how sabo work helps protect lives and supports the creation of a prosperous society.

5

Transmission



SABO video library

Videos provide information on landslide disasters and erosion control projects.

Exhibition overview

◆ Tateyama Volcano and Tateyama Caldera

Tateyama Volcano is located in the northern part of the North Alps in Toyama Prefecture. Tateyama Volcano is also sometimes called Midagahara Volcano, since the mountains of the North Alps—including Mt. Oyama, Mt. Onanji, Mt. Tsurugi and Mt. Yakushidake—are not volcanoes. Signs indicate volcanic activity first began here around 200,000 years ago, leading to eruptions and major pyroclastic flows some 100,000 years ago, and the creation of the vast Midagahara Plateau. Small-scale magmatic eruptions thereafter created volcanoes like Mt. Tengusan, Mt. Murodosan, Mt. Washidake, and Mt. Tombidake, as well as Murododaira plateau. Magmatic eruptions stopped some tens of thousands of years ago. Occasional phreatic eruptions, which began around 10,000 years ago, formed explosion craters, Mikurigaike pond among them, which then filled with water. Tateyama Volcano is an active volcano, and volcanic activity is still observed at Jigokudani and Tateyama Caldera.



Tombi Kuzure (major landslide at Mt. Tombi)

An oval depression adjacent to Midagahara and stretching 6.5 kilometers from east to west and 4.5 kilometers from north to south, Tateyama Caldera was formed by the erosion of rocks crushed by faults or transformed by volcanic activity. Many cracks (gravity faults) are found in the walls of the caldera, which tend to collapse easily. They have been especially vulnerable to earthquakes, and large volumes of unstable collapsed sand and gravel are found in the caldera.



Jigokudani



Karikomi Pond and caldera walls

◆ Beginning of Tateyama Sabo (erosion control at Tateyama)



Chisui Kembunroku (Report on Earth and Water)
[Owned by Toyama Prefectural Library]

In the 5th year of Ansei (1858), activity along the "Atotsugawa Fault" led to the "Hietsu Earthquake", estimated at magnitude 7.1. The earthquake caused landslides at Mt. Otombiyama and Mt. Kotombiyama in Tateyama Caldera and the production of vast amounts of sediment. Thereafter, two major debris flows struck the lower reaches of the river, causing the greatest amount of damage ever encountered in the history of the prefecture. This event is called "the major disaster of the Ansei era."



Trokko trains: The symbol of Tateyama Sabo



Thereafter, the Joganji River became a raging river, flooding repeatedly and causing serious damage. To control sediment in Tateyama Caldera, Toyama Prefecture began erosion control work in the 39th year of Meiji (1906). The work was taken over by the national government in the 15th year of Taisho (1926). Erosion control in Tateyama Caldera has been undertaken to protect the lives and safety of those living on the Toyama Plains.

Shiraiwa Sabo Dam

Let's go to Tateyama Caldera!

Hands-on learning about erosion control at Tateyama Caldera

Participants visit Tateyama Caldera to learn about its social and natural history and erosion control. Hands-on learning activities are held twice a week from July to October.



Application requirements

- ① Applicants must be in good health and third-graders in primary school or older. (Primary school students must be accompanied by parents.)
- ② A fee is charged.

Application method

Please visit the museum website or call or write to the museum.



Shiraiwa Lower Reach Observation Deck



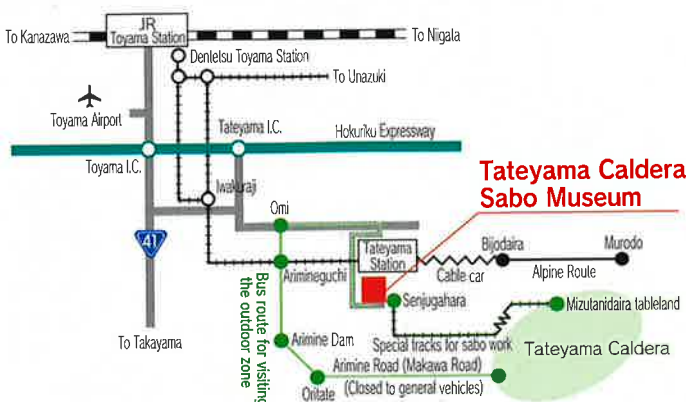
Site of Tateyama Hot Springs



Landslide Monument at Dashihara



● Location of the museum and access



● Information

[Opening hours]

9:30 to 17:00 (No admittance after 16:30)

[Closing days]

Mondays (open if the date coincides with a national holiday); days immediately after national holidays, year-end and New Year holidays

* Open during Golden Week and summer vacation (open at 8:30)

[Admission fee]

An admission fee applies if you wish to see the Tateyama Caldera exhibition room or large-format films.

	General admission	Group admissions (20 people or more)
Adult	400 yen	320 yen
College students	320 yen	200 yen

* The following visitors are admitted free of charge.

- High school students and younger students or handicapped persons

One minute walk from Toyama Chiho Railway Tateyama Station
Around 40 minutes by car from Hokuiku Expressway Tateyama I.C.



Museum of Mountains, Rivers, and People
立山カルデラ砂防博物館
TATEYAMA CALDERA SABO MUSEUM

68 Aza-Bunazaka, Ashikuraji, Tateyama-machi,
Nakanikawa-gun, Toyama Prefecture 930-1405
Tel: 076-481-1160, Fax: 076-482-9100
Website: <http://www.tatecal.or.jp/>