

S102

Facilities of Sustainable Building

建物の環境配慮設備

■ Purpose of Exhibition

This exhibition shows various eco-friendly devices we have in our Science Museum. It also explains where they are and how they work in detail. Natural energy is converted into electrical energy with a solar photovoltaic unit and wind generator device and it is used partly to source electricity for our Science Museum. Green walls and roofs absorb the sunlight and prevent this building from warming up. It can also reduce energy use for air conditioning. Underground water tanks to store rainwater save water, and a cool heat tunnel takes air from outside and sends it under the ground. The air passing through the tunnel gets cooler in summer and warmer in winter and it is sent to the air conditioner. This will use energy for air conditioning efficiently.



■ Additional Knowledge



Article by Masao Suzuki, curator

[Solar Panels Attached in Line]

Solar panels are usually put onto place of roof. But we cannot attach them on the roof of our Science Museum because we conduct rooftop stargazing sessions there. So the panels are placed in line on the south side windows of stairs. This will show the panels more clearly even from the park side.

[Automatic Green Sprinkler System With Rainwater]

Underground water tanks take rainwater running from the roof. Its huge tanks can store about 1,000 tons of water, and it is pumped up to the rooftop and used for rooftop and wall gardening. Its daily water supply is automatically managed efficiently by the system.

[Reusing Facilities of Sustainable Old Buildings]

A cool heat tunnel is constructed reusing underground structures of the former Astronomy Bldg and Science and Technology Bldg. Although it costs a lot more to dig over a whole underground of old buildings, reusing facilities of sustainable buildings can minimize wasted time and money for having good air conditioning system. It is only the underground structure but for these reasons, the former Astronomy Bldg and Science and Technology Bldg built in the 1960's have been retained.