

H-1-1 Transition in Viewpoints on Space



"What lies beyond?" "Why is there day and night?" "Why do stars shine?" People living in ancient times focused their thoughts on the sky and land that seemed to expand to infinity. The Sun shone one moment and could not be seen the next. The moon gradually disappeared. Rivers flooded during specific periods. Many people wondered about the area beyond their own world, and their imagination took flight.

H-1-2 Path of Man Gazing at the Stars



Newton once said, "If I have seen further it is by standing on ye shoulders of Giants." Modern astronomy, which tries to solve the mysteries of outer space, first became possible when man stood on the shoulders of giants known as "scientific achievements" that they had been developing over a long time. Here, you will learn about the development of astronomy and the achievements of scientists.

H-2-1 Armillary Sphere Edo Period, around 1776



The armillary sphere is an instrument invented in China and used to measure the position of celestial bodies. During the Edo Period, this type of instrument was made even in Sendai clan, and the Japanese observed the starry sky with keen interest. There are only about 40 armillary spheres remaining in Japan, but this is the only one that is actually used to make observations. Other armillary spheres were used as models of the sky.

H-2-2 Celestial Globe Edo Period, Anei Years (1772 to 1780)



Western astronomy was introduced in Sendai clan by Yasusuke Toita in the Edo Period, a time when many astronomers were cultivated. This celestial globe remains today as proof of such activities. A celestial globe is a model of the starry sky. It is made to appear as though you are looking at the projection of stars that you see in a planetarium but from the outside of the dome. It is believed that results from observations were recorded on this celestial globe.

H-2-3 Quadrant Edo Period (Around 1850)



In astronomy, it is necessary to make highly precise observations. This quadrant is an instrument for measuring the height of stars. The scale on the quadrant is very precise, and it is possible to read angles down to the minute (1/60 of a degree). This quadrant is believed to have been made by a craftsman using the same technique as the one used by Tadataka Ino. Ino is renowned for creating the first complete map of Japan and achieving a high national ranking for astronomy in Sendai clan during the Edo Period.

H-2-4 Ancient Constellation Map



Constellations, star charts, and astronomy are often associated with Western beliefs. However, star charts have long been in existence in the East, mainly in China. How are the stars that you know drawn on this map? Take a look at the constellation map through the eyes of the ancient people.

THE HISTORY OF ASTRONOMY

Exhibit Guide



SENDAI ASTRONOMICAL OBSERVATORY
仙台市天文台

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What does the world around you look like?
The starting point of astronomy.

H-1-2 Path of Man Gazing at the Stars

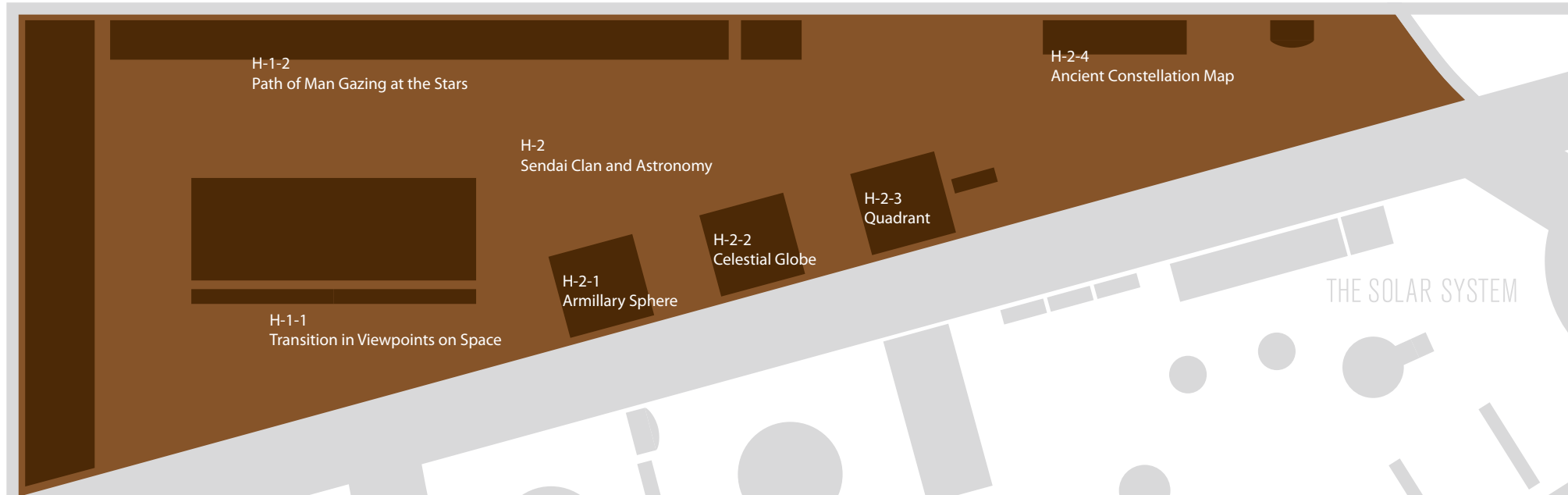


Trace the history of astronomy through the scientists who solved mysteries one by one.

H-2-1 Armillary Sphere



Huge efforts were made in astronomy in Sendai and in Japan.



H-2-2 Celestial Globe



The neatly written markings show how carefully the observations were made.

H-2-3 Quadrant



You can see the introduction of Western science and the precise observations.

H-2-4 Ancient Constellation Map



Star charts existed long ago even in the East. Do you recognize any of the constellations?