

ASHIKITA COMMUNITY HALL

This community hall was constructed at the town of Ashikita where is about 1.5 hour far from Kumamoto-city. As a part of the Kumamoto Artpolis project, to propose a new timber construction system using local timbers was required.

120×900mm glue laminated timber members made from Japanese cedar were interwoven to create a basket-like configuration that spans the 45×36m hall, which is a part of a sphere with the radius of 40m. The connections of the timbers are cross lap joints screwed with lag bolts.

The building's four corners consist of curved, exposed concrete walls. The curvature of the walls helps keeping the dome from flattening out and softens the appearance of the building's exterior. Small spaces are enveloped in the main hall keeping the view of the interwoven timber ceiling.

Numerous testing and experiments were done for the building realization, including wind-tunnel testing, structural experiment of bonded plywood, and so on.