



## EVER FIELD Woodworking Plant

The Ever Field Woodworking Plant was designed as a timber processing facility for a construction company.

Using locally sourced Oguni Cedar from Kumamoto Prefecture, a "reciprocal frame system" was employed, where short timber lengths (under 4 meters) with small cross-sections lean against each other for mutual support. This creates a novel wooden space unlike anything seen before.

This beautiful space was realized through the combined innovative ideas of the architect and structural engineer, the production of three-dimensional construction drawings in collaboration with the lumber processing contractor, and the high level of skill demonstrated by the carpenters who carried out the build.

This initiative aims to further revitalize the timber construction industry that is crucial in rebuilding homes after natural disasters. It is also intended to act as a space for training carpenters and refining their skills. The building can also act as a temporary shelter for the community in times of disaster.





# Ever Field Woodworking Plant

## ● Building Plan Outline

This large-scale wooden structure is built entirely from locally sourced small- and medium-sized lumber. It was designed as a woodworking shop for the construction company that both owns and built it. The vast, column-free space is achieved through a “reciprocal frame” system, where short timber lengths (under 4 meters) with small cross-sections lean against each other for mutual support. The reciprocal frame used here is based on triangular units, primarily composed of 4-inch square (120mm) timbers and their halved counterparts. These units create a stable structure through a repeating pattern of support, where each element leans on another, which in turn leans on another, and so on.

While reciprocal frames are often limited to roof structures, this building uniquely employs the system for all structural elements, including the walls. The design seamlessly integrates the structural systems. The dome-shaped roof smoothly connects with the walls, and the building’s footprint is staggered to avoid encroaching on neighboring properties. The flexibility of the reciprocal frame also allowed for a corner entrance, making it easier for large vehicles to access the site.

Wood is often referred to as a living material. Like a living organism, it expands and contracts with changes in humidity, it’s flexible yet strong, and it even contributes to a relaxing atmosphere thanks to the phytoncides it releases. Wood also plays a role in environmental conservation by absorbing CO2. Even characteristics typically seen as drawbacks—variations in moisture content and strength, cracks, and inconsistencies in grain and color—can be embraced as unique qualities and utilized effectively in the right context. This building uses these characteristics of wood to its advantage, resulting in a structure that seems to breathe.



## ● Architect Profile



**Jiro Ogawa**  
1966 Born in Tokyo  
1990 Graduated from Department of Architecture, Tokyo Tech  
1996 Withdrew from doctoral program at Department of Sci. and Eng., Tokyo Tech after standard period of study  
2004 Founded Atelier Simsa Architects  
2009 Professor, Department of Architecture, Nippon Institute of Technology



**Yasushi Kobayashi**  
1980 Born in Mie Prefecture  
2003 Graduated from Department of Architecture, Nippon Institute of Technology  
2005 Completed Master's at Nippon Institute of Technology  
2007 Contemporaries  
2013 Joined aat+makoto yokomizo architects  
2020 Founded Kittan Studio

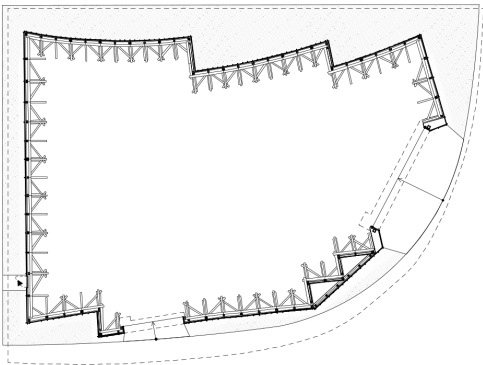


**Shota Ikeda**  
1981 Born in Tochigi Prefecture  
2005 Graduated from Department of Architecture, Nippon Institute of Technology  
2007 Completed Master's at Nippon Institute of Technology  
2007 TNA  
2014 Founded 3916 Architecture

● Main Works (Jiro Ogawa)  
Momigara Park, Mudmen, HDY

● Record of Awards (Jiro Ogawa)  
2003 Daikanyama Installation First Prize (EPSP)  
2010 AIJ Prize for Design (Nippon Institute of Technology Centennial Hall/Library & Communication Center)  
2017 Wood Utilization Contest, Excellence Award, Forestry Agency Director-General's Prize (Kumamoto Prefectural Disaster Prevention Aviation Center)

Floor Plan



Cross-Section



0 5 10 20m

## ● Construction Data

Name: Ever Field Woodworking Plant  
Address: 892 Furo, Kosa, Kamimashiki County, Kumamoto Prefecture, Japan  
Main Usage: Factory (woodworking shop)  
Operating Body: Ever Field Co., Ltd.  
Architects: Jiro Ogawa, Yasushi Kobayashi, and Shota Ikeda  
Contractors: Construction and Mechanical: Ever Field  
Electrical: TM Agent  
Site Area: 1,595.41m<sup>2</sup>  
Construction Area: 859.17m<sup>2</sup>  
Total Floor Area: 638.98m<sup>2</sup>  
No. of Floors: 1 (above ground)  
Structure: Wooden  
Exterior: Roof: Galvalume standing seam roofing  
Exterior Walls: Sasaraku clapboard siding finished with eco-friendly wood preservative  
Construction Period: December 2021–October 2023  
Total Construction Cost: 300,000,000 yen



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