



PROJECT INFORMATION

Project Name

Nest We Grow

Architects

College of Environmental Design UC Berkeley , Kengo Kuma & Associates

Location

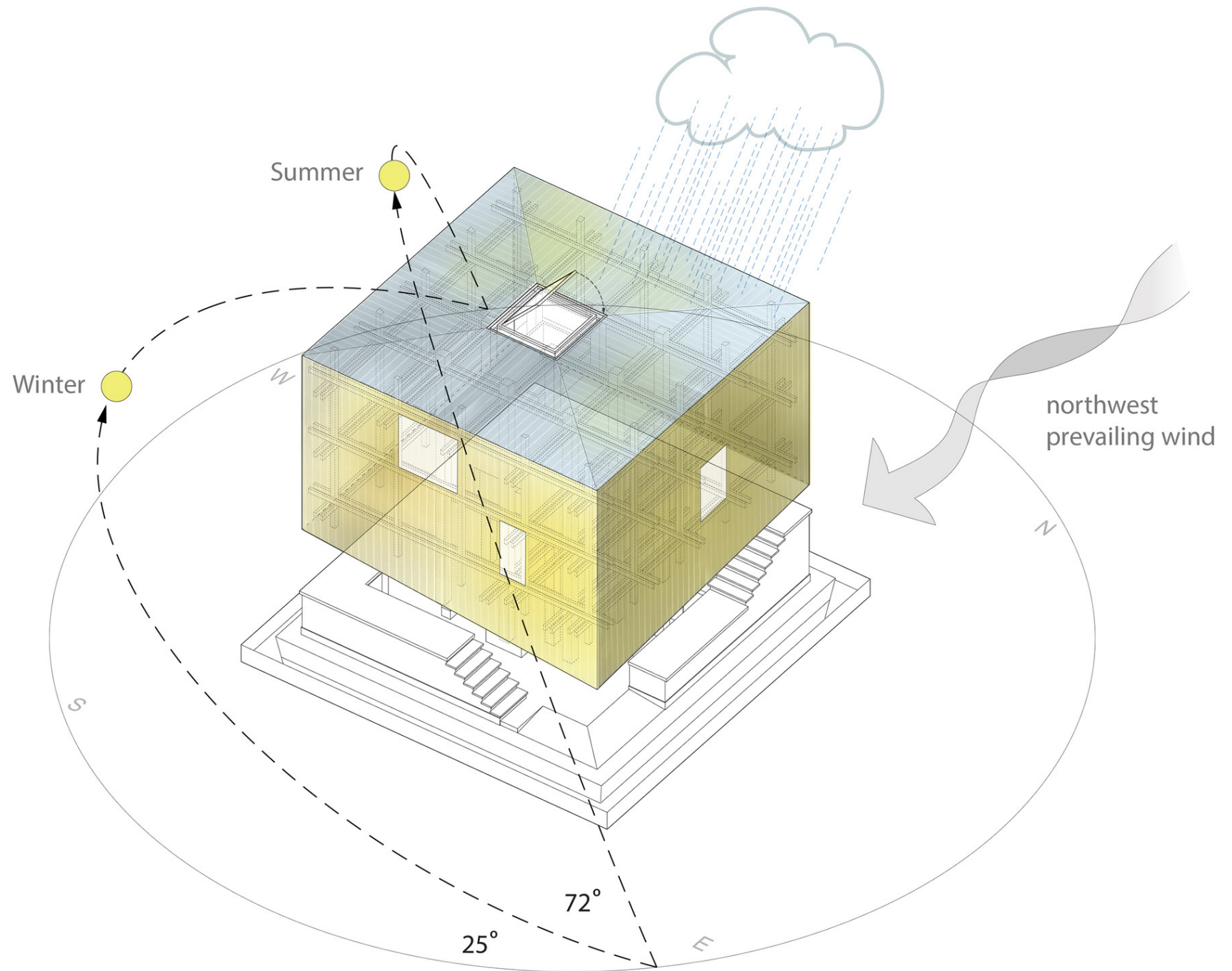
Hokkaido, Takinouegenya, Takinoue, Monbetsu District, Hokkaido Prefecture 099-5600, Japan

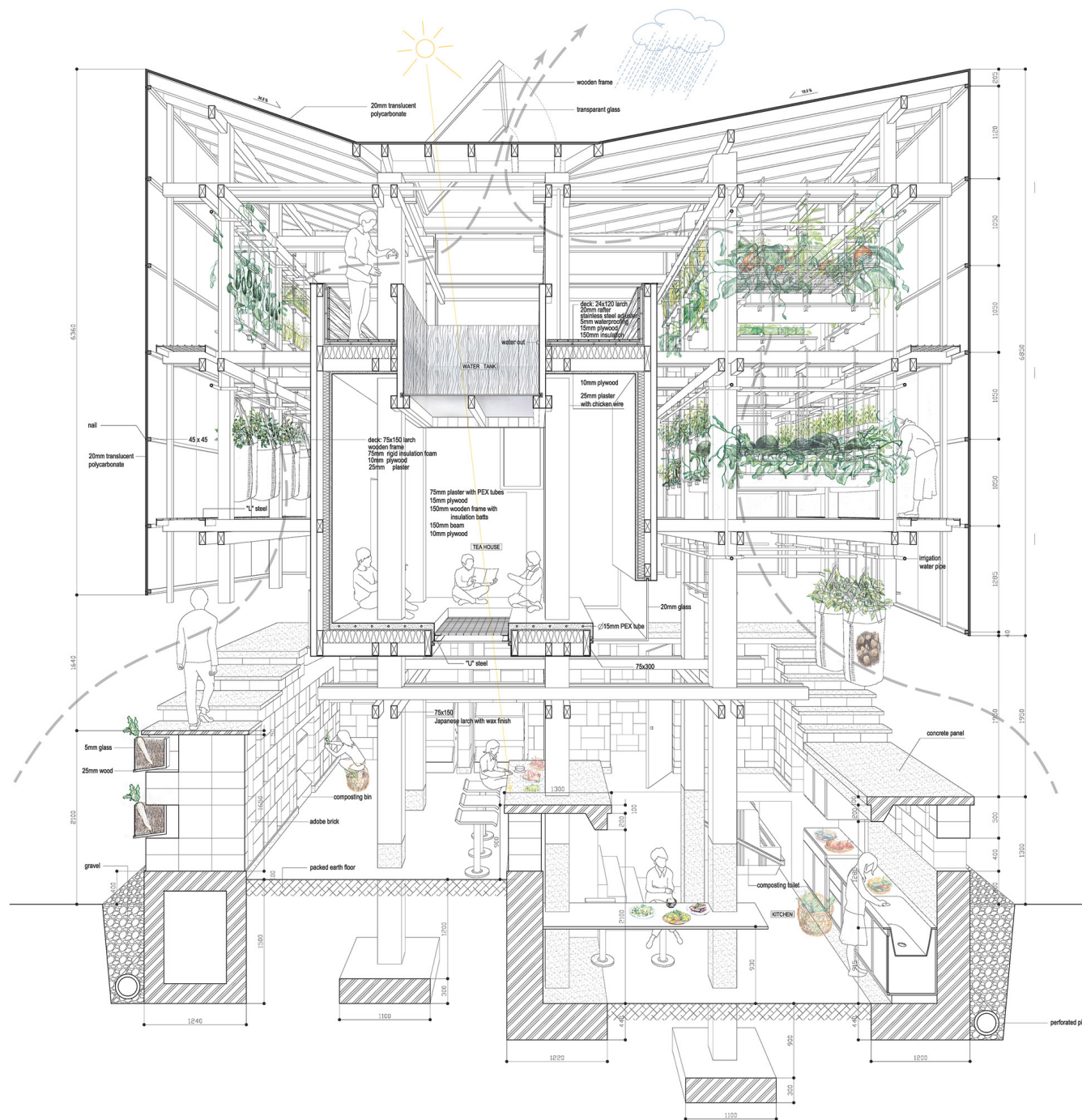
Project Year

2014

LOCAL CLIMATE INFO

August is the hottest month in Hokkaido with an average temperature of 22°C (72°F) and the coldest is January at -4°C (25°F) with the most daily sunshine hours at 7 in June. The wettest month is September with an average of 171mm of rain. The best month to swim in the sea is in August when the average sea temperature is 18°C (64°F).





DESIGN STRATEGIES

- + The wall at the base of the building, in addition to creating a micro topography, helps to block the prevailing northwest winter wind.
- + The façade and the roof are made of the transparent plastic corrugated sheets, allowing light in for the plants, and heating the space during colder months, extending the usability of the space.
- + Sliding panels in the façade and roof open to facilitate air movement through the structure during the summer and warmer parts of the day.
- + The tea platform sits up into the building, keeping it in the warm air created by the skin during the colder months, and in a cross ventilated area during the warm summer months.
- + The openness of the façade allows the building to incorporate the surrounding natural environment into the interior climate, but can also be closed off to create a buffer between the two.
- + The funnel-shaped roof harvests rain water and snow melt. The collected water is delivered to tanks that are then used to irrigate the plants in the concrete wall.
- + The shape signifies the building's ability to bring nature in the form of air, water and light into the Nest.

POSSIBLE IMPROVEMENT

- + Double Skin facade can be added to create a buffer zone for heat transfer.
- + Adding some closers (eg. panels sliding down from the walls to the ground) to reduce heat loss during the cold weather.
- + Opening with closer feature can be introduced to the wall at the base of the building as to allow the internal gains (produced by cooking and gathering) to ventilate and flow out.