



Yggdrasil

The Art of Eidonomy in Mechanism

As one of the latest federal garden biennale in Europe, Bundesgartenschau (BUGA) showcases joys and pleasures from the beauty of artificial landscapes in a vast stretch of green belt in the Spinelli Park, Mannheim. Not only is this major event to share ideas of natural harmony by craftsmanship, but it also be a forum to issue visions of sustainable development with aesthetics upon the age of interchange between post-industrialization and artificial intelligence. What is the definition of natural beauty? Is it possible to draw natural beauty from innovation of technology? How to sustainably adopt new methods into a creation? Yggdrasil is our answers in reply.

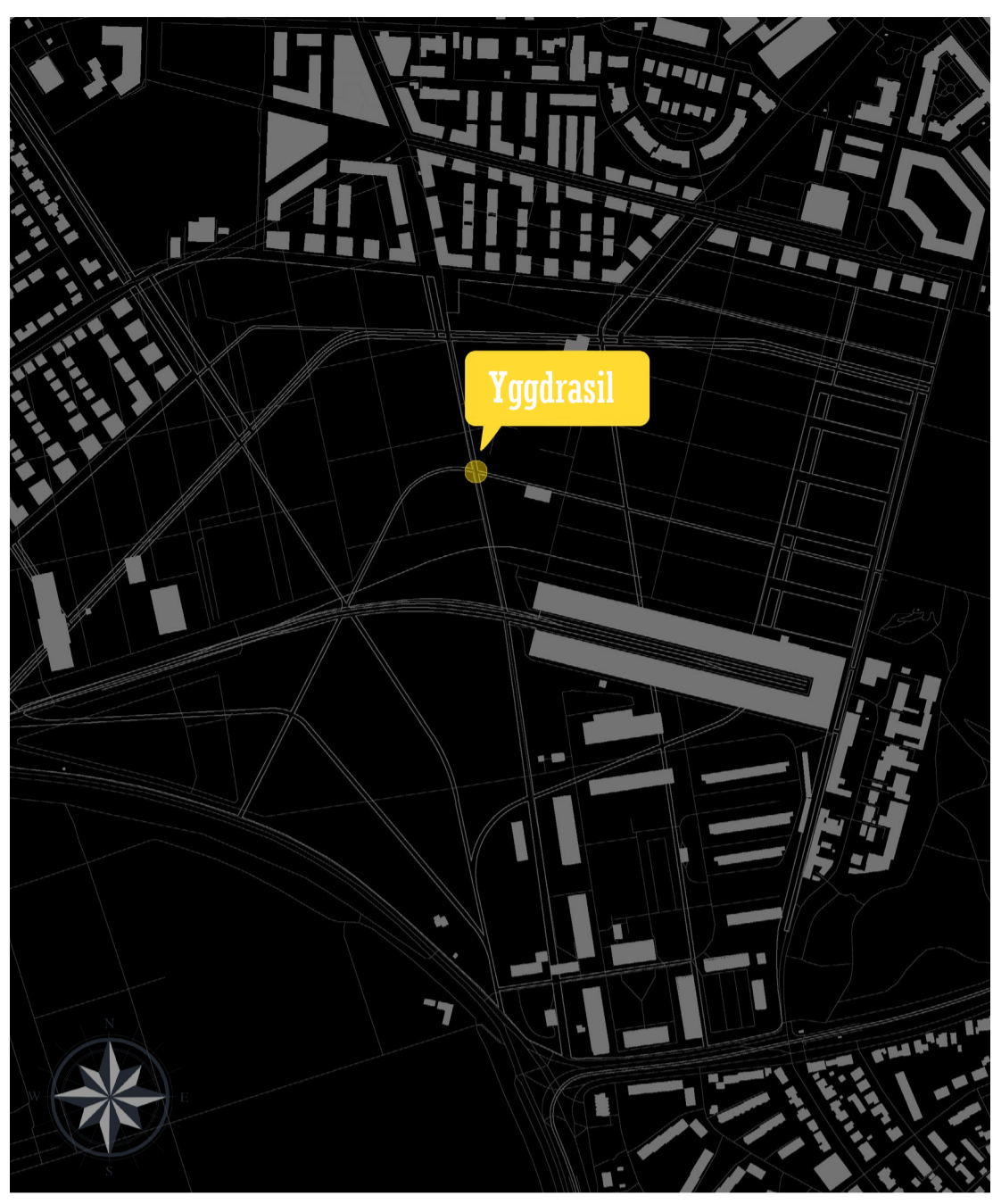
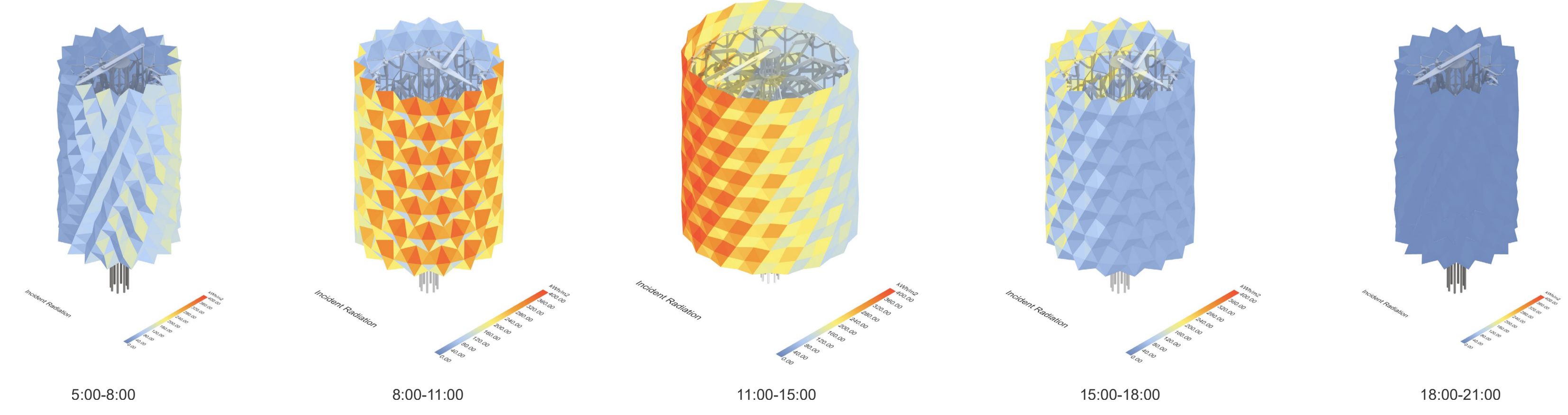


Yggdrasil, titled from a name of an immense sacred tree in Germanic mythology, is an installation, with a function of clock tower, settling at the centre of the venue, in order to celebrate a new era of post-mechanical productions, and to present new interpretation of renewable energy technologies. The form is inspired from plants' anatomy and morphology that we use morphological variations of plant lifecycle as a concept to perform flow of time within a day. In accordance with the design principle, the outlook will gradually be expanded and shrunk from day to night, by domination of an integrated mechanical system at the core, as similar as a stem. The envelope will be enclosed by a number of triangular photo-voltaic (PV) modules, as petals, to shape the form of Yggdrasil.

Apart from solar energy, electro-magnetic technology is also adopted into the proposal of Yggdrasil. A circular square with a diameter of 20 metres will be fully covered by the triangular floor tiles with electro-magnetic generators in the bottom. The downward force from pedestrians' footsteps will activate machine to generate electricity at the result. The energy from both electro-magnetisms and photovoltaics are not only for self-sufficiency for manual operation of the installation, but the outputs can also benefit to the electrical demand in the surrounding.

With the mission of supporting United Nations Sustainable Development Goals issued in 2015, Yggdrasil is proposed for joys and pleasures formed by the performance of human ingenuities. Besides, more importantly, it summarises our intent of sharing and equality within the concept of the design.

Solar Radiation Analysis



Clock towers were first erected at fairs during the industrial age in the late 19th century. On the battlefields of rivalries between nations, clock-making once was a symbol of artistic and horological excellence. Therefore, the clock itself has an important significance in human history.

The history of clocks inspires us to contemplate the design of Yggdrasil by examining how it functions. Alteration of the form thus has a particular meaning to express wonder of craftsmanship in the new age of interchange between post-industrialization and artificial intelligence

