The Powerhouse is divided into three segments that host key facilities such as the swimming pool, the snaking running track and the field house. | Photo source Studio Gang

POWER PLANT IN WISCONSIN UPCYCLED INTO STUDENT UNION

ARCHITECTURE & DESIGN

Studio Gang's €32.33 million project for Beloit College features a fitness centre with a three-lane suspended running track and an eight-lane swimming pool

Spotted: The US firm Studio Gang has upcycled a coal-firing power plant into a fitness-focused student union for Beloit College in Wisconsin. Renamed “The Powerhouse”, the union hopes to serve as a physical resource to nurture and inspire students as they meet an intimidating, and perhaps disheartening, geopolitical and environmentally unknown future.

The building, located between the campus of the liberal arts college and Rock River in Beloit, now includes a fitness centre containing a three-lane suspended running track and an eight-lane swimming pool.

Originally called Blackhawk Generating Station, the 100-year-old plant was first built in 1913 and decommissioned eleven years ago, with construction beginning in February of 2018.

Throughout the project, the plant was approached as a historical structure, retaining its iconic architectural features and original industrial equipment. Updates included the addition of a new 17,000-square-foot space made from translucent polycarbonate walls and steel framing.

The Powerhouse is divided into three segments that host key facilities such as the swimming pool, the snaking running track and the field house. In addition to the sports facilities, the building also presents various recreational spaces for students, such as a caffeine station, lounges, a conference centre, a theatre and a 164-seat lecture hall.

When it came to energy efficiency, transforming the 100-year old structure was challenging, the firm told Architizer. For most of the heating and cooling needs, the house uses water-supplied radiant panels which uses energy from the Rock River water. “Buildings usually use air for heating and cooling; however, water, which is much denser, is actually more efficient,” the Studio Gang reported.

New insulation regulates heat flow in the historical portions of the building, while the polycarbonate façade provides thermal insulation as well as lots of natural sunlight.

In total, the reuse project cost roughly €32.33 million which was paid for by donations from alumni, community members and government sources.

Written By: Katrina Lane

Explore more: Sustainability | Agriculture and Energy

17th September 2021
Website: studiogang.com/
Contact: studiogang.com/contact

Takeaway:

There is an inclination to brush our fossil fuel history under the carpet as we see the devastating impact that our energy consumption behaviour has had on the planet. But Studio Gang demonstrates how we can embrace our architectural heritage, and the negative connotations attached to it, as a positive impetus for change. The project is an example of how something that once contributed to atmospheric pollution, and caused great harm to the planet's health, can become a place for wellness and nurture for the next generation. Moreover, it is certainly metaphoric: a former coal-fired power plant used to fuel the youth as they face a hot and possibly burning future.