YUHANG CULTURAL ARTS CENTRE
HANGZHOU, CHINA

Situated 150km from Shanghai, Yuhang District in Hangzhou City is an important historical and cultural region for China, and is now one of the most prosperous cities in the country. The project to deliver the proposed Yuhang Cultural Arts Centre will see the creation of an exceptional performance and arts facility to mirror Hangzhou’s iconic history.

BuroHappold Engineering has been commissioned to deliver the grand theatre building, which will be at the heart of the new centre. Comprising performance and rehearsal spaces as well as a large entrance lobby, the theatre demands complex structural transfers and long spans to enable the extensive open volumes. The main lobby will be a visually impressive, open plan area housed under a 70m roof supported by composite concrete reinforced cantilever walls. In order to coordinate the structure, services and architecture design for such complicated spaces, our experts have produced building information models to share with the rest of the project team.

With both the comfort of the visitor and a need to reduce energy consumption in mind, our building services engineers are exploring several methods to heat and cool the arts centre. The main source of energy consumption will be the air conditioning required in the internal spaces, so our team reviewed ways to minimise the size of the plant required. Additionally, a demand controlled ventilation system will be utilised. CO² sensors in each of the spaces will regulate the amount of fresh air supplied, ensuring that the air conditioning will only operate in areas that are occupied. This innovative approach will reduce energy consumption by as much as 30% in comparison to a conventional system.

Set to be a cultural highlight for Hangzhou City, the Yuhang Cultural Arts Centre will provide outstanding, state of the art facilities that will encompass the dynamism of the city and its stunning surroundings.

CLIENT
Yuhang Government

ARCHITECT
Henning Larsen Architects (HLA)

PROJECT VALUE
RMB 630 million

SERVICES PROVIDED BY
BuroHappold
Building services engineering (MEP), structural engineering