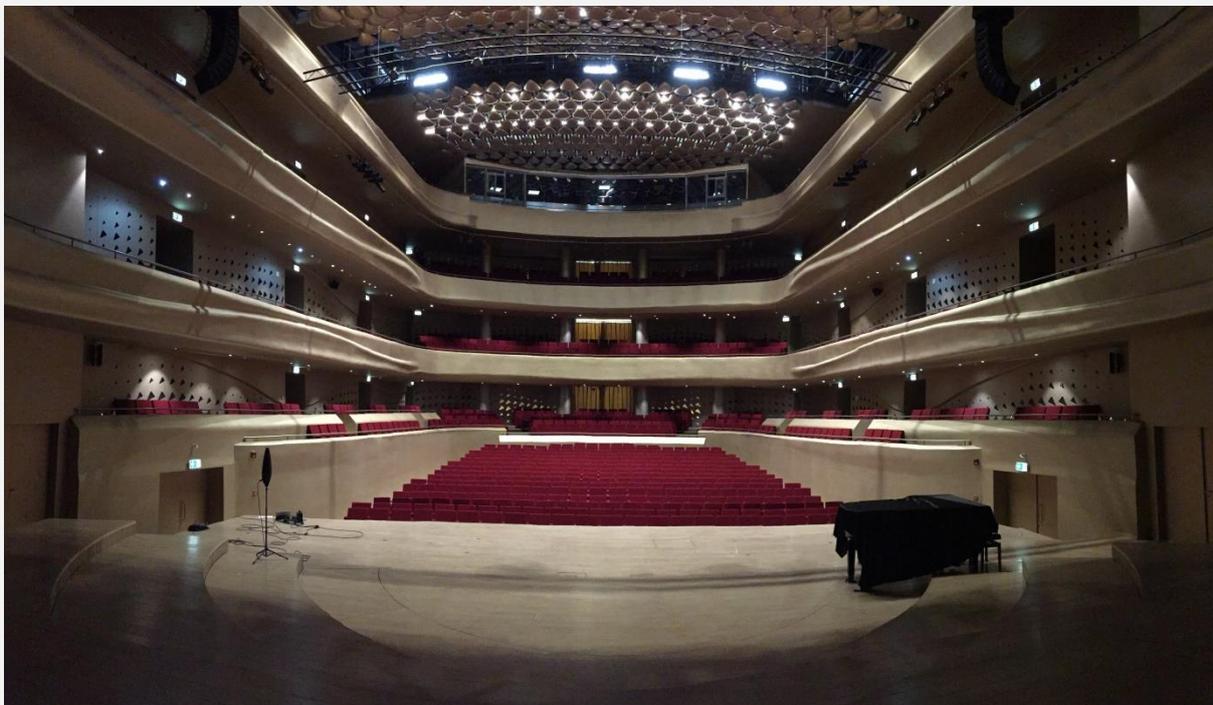


Sheikh Jaber Al Ahmad Cultural Centre

Complete	Area	Client	Architect
2016	Middle East	Amiri Diwan	SHH International

Sheikh Jaber Al Ahmad Cultural Centre is made up of four connected buildings that together create a home to showcase the performing arts in Kuwait. It forms the focal point of Kuwait's new national cultural district.

Featuring a theatre centre, music centre, conference centre and a national library, the development includes a 2,000 seat theatre, 1,000 seat concert hall, 350 seat recital hall, multi-purpose function room and a 400 seat cinema. In addition to the main theatre, there is also a 600 seat theatre, a studio theatre and many rehearsal and support facilities.



Services provided

Sandy Brown has provided the acoustic design input from concept to completion across each of the four buildings. Within the design, issues of importance included

- room acoustics
- sound insulation
- environmental noise ingress
- building services noise and vibration.

Special acoustic features

Developing an appropriate strategy for such a large and culturally significant development included addressing a number of complexities within the design.

The general structural solution proposed throughout was the use of concrete frames to assist the sound insulation performance and minimise low frequency sound absorption from resonance lightweight panels.

The concert hall is primarily designed for un-amplified orchestral performance but incorporates variable acoustic finishes in the form of banners, drapes and inflatable bass absorber baffles to allow use for amplified music such as jazz. The form of the room is a traditional shoebox with two shallow audience balconies.

The form of the stage and surrounding reflectors has been designed to optimise acoustical support for orchestra musicians. The auditorium has been designed to provide a balanced proportion of early lateral sound reflections to provide acoustic width and envelopment.

Considerations in the design included sound strength to help ensure the transfer of sound to the rear of the auditorium is not overly attenuated, sound clarity to ensure that strong early sound reflections are received and music detail can be heard, early lateral energy to help the audience feel enveloped by the music from the stage, support for orchestral musicians to help ensure the musicians can hear one another and warmth to ensure a balanced reverberation and that sounds do not appear unduly harsh.

Variable sound absorbent treatment is included in the 2,000 seat theatre to enable the room acoustics to be adapted for drama, musicals, ballet and opera. This is achieved with hidden double layered variable banners and drapes.

