

# Close encounter

The Performing Arts Center and Wangari Maathai Hall on Soka University of America's Southern California campus have been fine-tuned to host a variety of performances in a highly intimate setting. One could compare its 1,200-seat multi-purpose hall, the centrepiece of the project, as a meticulously crafted instrument, with precise natural acoustics and sightlines designed to deliver an excellent audio and visual experience for performers and audiences alike.

The new complex – located on a sloping site on the private, non-profit university's campus – features the multi-purpose hall, a 180-seat Black Box Theatre, support spaces and classrooms. Envisioned in the school's campus masterplan and representing the institution's first addition since the campus was largely completed eight years ago, the project marks the first real performing arts spaces for Soka – an educational facility founded on the Buddhist principles of peace, human rights and the sanctity of life.

The university, in planning for a performing arts and teaching facility, wanted to create an exciting, innovative environment for both the campus and the broader community.

"The goal was to design a world-class space that from exceptional acoustics to architectural finishes would serve emerging and preeminent artists and the campus community, create highly memorable experiences for audiences, and complement the understated elegance of the campus", explains Archibald Asawa, the university's CFO as well as vice president for finance and administration.

The new performing arts complex at the Soka University of America has been attuned for acoustic perfection and functional versatility in an intimate setting

Two adjoining buildings comprise the Performing Arts Center and Wangari Maathai Hall: an L-shaped academic building and a multi-purpose hall. The academic building's top three levels feature classrooms and offices that wrap around the Black Box Theatre. The first level is back-of-house space, including dance studios, which provides support for performers.

The centre has been designed to blend in with the school's ensemble of buildings, yet simultaneously stand out as a unique structure. Like other campus buildings, the Performing Arts Center is clad in tan plaster stucco and features travertine marble accents and a red terracotta roof. However, the lobby of the hall – the more public of the project's two buildings – is surrounded by glass, permitting natural light to flood the space.

"We wanted to make sure the centre was a good neighbour and extended the architectural language of the campus, but also that it made its own statement," explains Doss Mabe, design partner with ZGF Architects.

The notion of intimacy is a hallmark of the multi-purpose hall. The project team and client approached the design from the inside-out, with sightlines and acoustics taking centre stage.

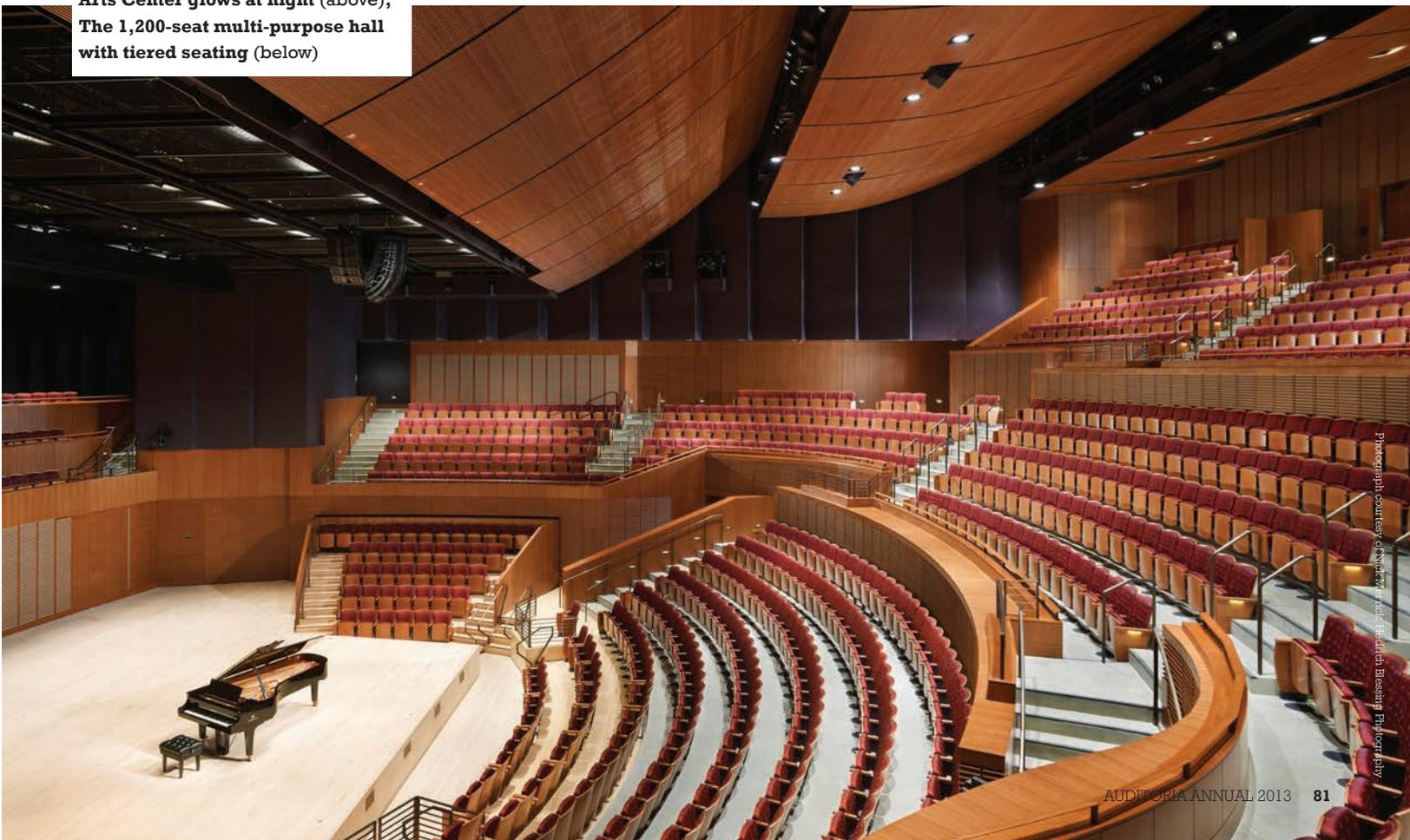
"We started with the audience experience, and the bond between the performers and audience, because this is what makes performances enjoyable and memorable," adds Mabe. The decision to create seating 'in-the-round', with the audience encircling the stage, evolved as the project team investigated ways to optimise natural acoustics without reliance upon amplified sound. In effect, similar to an outdoor venue carved into a hillside, the multi-purpose



Photographs courtesy of Nick Merrick, Heinrich Blessing Photography



**The glass-walled Soka Performing Arts Center glows at night (above);  
The 1,200-seat multi-purpose hall with tiered seating (below)**





**Dual-level rigging and lighting grid over the stage in the main hall**

hall's stage is located at the bottom of a 'hill', with the majority of seats on terraces that rise to the lobby. The site's natural slope supported such a layout well.

"The acoustics and the sightlines are the core of this project," continues Mabe. "The public spaces – the lobbies and support spaces – are a threshold between the campus and the experience of the hall's inner core."

Although in-the-round, tiered seating was favoured due to the variety of performances to be held at the hall. The space is designed to be flexible, with reconfigurable stage and seating made possible by hydraulic lifts and seating 'garages'. These features ensure intimacy, ease of circulation, optimum sightlines, and strong audience-performer relationships for music, theatrical performances and convocation needs.

**Tuning the hall**

Renowned acoustician Yasuhisa Toyota, president of Nagata Acoustics America (who provided acoustic services for the Walt Disney Concert Hall in Los Angeles and many other worldwide projects), said the Soka hall's layout ensures audience members see and hear performances at the same time that they see each other's faces, enhancing both acoustic and visual intimacy. Toyota, in close collaboration with Soka, ZGF and Auerbach Pollock Friedlander, fine-tuned the venue's materials, dimensions and shape – elements central to both acoustic performance and architectural aesthetics. Specially designed walls placed after every seven rows of seats, for example, reflect sound back into their respective seating tier.

Weight and density also play a key role in acoustics. The outer walls of the hall are layered with conventional building materials – such as concrete, gypsum board, plaster and cherry wood – to provide isolation from outside sounds, while reflecting sounds inside. Slatted wood, meanwhile, was used for the interior wall design to cover the acoustically geometric shapes behind. A heavy ceiling, designed to reflect sound, is stepped up and features two elements.

"Conventional materials have been tuned to perform almost like a musical instrument, with the help of state-of-the-art technology," Mabe explains. A good example is the dual-level rigging and lighting grid over the stage, which represents a unique application of theatrical architectural structures conceived by Auerbach Pollock Friedlander. The lower grid is a tension-wire lighting grid that provides safe access and flexibility for lighting positions; the upper grid is a heavy, load-bearing grating gridiron that provides safe access and flexibility for hanging scenic, lighting and sound systems over the stage. Motorised pipe battens allow rapid set-up and striking of overhead elements – a necessity for a hall designed for music and drama performances.

**High performance strategies**

Sustainability was a central component of the earliest discussions about the project, which has now received LEED-Gold certification through the US Green Building Council. "We wanted to make a real statement about sustainability," Asawa says. "To have a big dream and then see it come to fruition is amazing."

The performing arts complex is expected to consume about 25% less energy than if it had been built to conventional building codes. Photovoltaic panels on top of the centre will generate an estimated 7.5% of the facility's energy use, while fixed sunshades on the centre's exterior are designed to reduce heat in the main lobby, while retaining visibility. Meanwhile, vegetated green roofs on top of both the Performing Arts Center and the Black Box Theatre portion of Wangari Maathai Hall help to manage and treat stormwater runoff. ■