

DESIGN

HGA ARCHITECTS AND ENGINEERS

The history of Los Angeles' San Fernando Valley (the Valley) is one of optimism, resilience and tenacity. As recently as 1935, a new mountain pass spurred development among rural farms and orange groves. After World War II, the Valley became the nation's fastest-growing region. Today, almost two million people and half the land area of Los Angeles are within the Valley.

The story of the Valley Performing Arts Center (VPAC) at California State University Northridge (CSUN) shares these same qualities – for more than 30 years Valley residents dreamed of having a major performing arts venue. Persevering through the 6.7-magnitude Northridge earthquake in 1994 and statewide budget cuts in 2008, the venue opened in January 2011.

In 2002, HGA Architects and Engineers, along with acoustician McKay Conant Hoover, and theatre consultant Auerbach Pollock Friedlander, developed a feasibility study and project brief for CSUN. Design work began several years later. "HGA immediately recognised the challenge of designing the first large performance venue in the Valley," says Jamie Milne Rojek, project manager for HGA. "With inevitable comparisons to the Kodak Theatre and Disney Concert Hall, the VPAC would be an important venue in Los Angeles. But it needed to exceed expectations and respect the Valley context."

The stunning new VPAC is a five-level, U-shaped building with central courtyard designed as an integrated facility supporting academic and cultural programmes, regional, national and international performers, and entertainment including the film industry. The VPAC includes space for the Theatre Department – a 178-seat experimental theatre with dressing rooms, light lab, costume shop, design studio, and scenery/props shop. It also houses a 230-seat lecture hall, rehearsal and events spaces, and KCSN Radio. Throughout the facility, the architectural and engineering systems are designed to meet the most stringent acoustic and technical requirements for learning, teaching, performance and live broadcast.

At the heart of VPAC is the 1,700-seat Great Hall – a multipurpose performance hall for



Valley of dreams

It's been a long-time coming, but the Valley Performing Arts Center in California was certainly worth the wait





Photos: Tom Bonner Photography



Valley Performing Arts Center (clockwise from top left): VPAC central courtyard; Great Hall rehearsal and events room; grand lobby; lobby view from west

orchestra, opera, contemporary music and dance, film, and the spoken word. Few halls are programmed for everything from classical music to cinema with the expectation of great acoustics, but VPAC has achieved that goal without compromise to acoustics, ambiance or aesthetics of the space.

The concert hall features sinuous wood ribbons wrapping the front of auditorium walls and balconies, while a ripple effect is created at the ceiling. These unique design elements are carefully integrated to accommodate acoustic, audio, lighting and technical adjustments to successfully host a wide range of performances. Stainless steel mesh panels line the side and back walls and conceal the acoustic absorption when deployed in the room. Through this innovative design, the hall accommodates fine-tuning, yet retains its dramatic appearance regardless of acoustical transformations, allowing for an acoustic environment that is second-to-none in Southern California.

Acoustic levels

Before opening night, the acousticians tested the limits of tuning during several beta-test performances including orchestra, jazz, strings, piano, chorus and solo voice. This resulted in nine primary variable-acoustic settings for the owner to start with. Deploying all absorption creates a low 1.25-second reverberation time for film and other heavily amplified works. When all absorption is stored, the reverb time becomes 1.8 seconds with a full audience, like many of the world's finest concert halls. This tuning capacity is garnering high marks from top sound mixers, performers and music critics. The digitally controlled sound-reinforcement system has three loudspeaker line arrays, eight subwoofers, surround sound speakers and an entirely unobtrusive system to facilitate addressing the audience during unamplified concerts.

The VPAC can support any touring productions. Moveable screen-wall gates hide the trash and loading dock space for two





semi-trucks. The stage, 35m-wide and 15m-deep, has an adjustable proscenium frame and 60 manually controlled line sets for stage scenery, draperies and lighting. An easily accessible grid iron is 23m above the stage and the sprung wood floor has a 4 x 8m modular structurally framed trap. The 636 theatrical lighting circuits can be individually controlled by computer or remote touchscreen panels.

A custom orchestra shell complements the audience chamber and provides the necessary acoustic performance, while the 8m modular tower units along with ceiling reflector panels can be set up in less than an hour. The orchestra pit lift can be raised for audience seating or to create a stage extension. The house 'sound-mix' lift allows the console to be lowered into a storage area under the auditorium and replaced by removable seats. Pre-opening testing was also conducted by the theatre consultants to ensure success on opening day.

Architecturally, a compelling aesthetic composition was created by marrying the modern aesthetic sensibilities of the campus and community with a contemporary sculpting of space. Prominent placement on the south campus edge presented a new public face for the university. From the drop off, a curved stone wall and a reflecting pool wrap the entry. Glazed lobby spaces with their stepped balconies

Great Hall view from Parterre towards stage with orchestra shell in place – sinuous wood ribbons wrap the audience; (bottom) Great Hall with orchestra shell towers spaced apart



make the audience the stars, while offering crowdpleasing views of the surrounding mountain ranges. A roof terrace also allows for spectacular views.

Patrons in the lobbies, art gallery and founders' room can view the VPAC central courtyard below, where the theatre rehearsal studio can spill out by raising a glass panel door. The large rehearsal and events room, meanwhile, overlooks one of the last remaining orange groves in the Valley.

KCSN Radio surveys the site's 170 new trees, and the campus mall from its prow on the arts walk, which connects to parking via a botanical garden. The thoughtful convergence of plazas, balconies, and stairs weaving in and out of the building create unique gathering spaces and surprising vantage points.

How green is my Valley?

When setting sustainability goals, the university was not motivated by certification possibilities but rather by doing the right thing. HGA architects' and engineers' commitment to sustainability resulted in an environmentally sensitive and resource-efficient building and site, and ultimately LEED Gold. On top of that Los Angeles now has a new icon in the Valley. ■

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