

Acoustic revivals

Auditorium renovation projects in the United States and Hong Kong showcase the stunning visual and aural impact of new full-stage acoustic shells

When it opened in 1928, the historic Carpenter Theatre in Richmond, Virginia, USA featured interior architecture in a Spanish baroque style. After renovation and restoration, the Carpenter reopened in 2009. While the auditorium's physical dimensions were kept, with nearly 1,800 seats, the Carpenter's vaudeville-era stage house was replaced: its depth and width were almost doubled, and the grid was raised to over 21m. Other updates included an enlarged orchestra pit, new 80-line manual counterweight rigging system and Wenger acoustical shell provided as part of a complete stage equipment package supplied by Texas Scenic Company.

"We wanted a memorable acoustic shell," recalls Bruce Herrmann, AIA, director at Wilson Butler Architects of Boston, Massachusetts. "We had worked with acoustic equipment specialist Wenger on other unusual shells over the past 10 years and knew they would get into the spirit of what we were trying to accomplish. They roll up their sleeves and offer solutions – even when we're asking for something new."

The Carpenter's interior sidewalls resemble building façades, complete with balconies, statues and inset niches glowing blue from the 'twilight' lighting behind them. To continue the feeling of a skyline's depth, Wenger sandwiched together two of its Diva full-stage acoustic shell wall panels. The 'blue sky' Diva panel at the back recedes behind the 'city wall' Diva panel in front.

Wenger constructed niche boxes, or insets, in six of the 11 Diva wall towers, inspired by the niches in the auditorium's walls and

featuring hidden lights to create a bluish, twilight glow. One of Wenger's biggest manufacturing challenges was cutting these niches in the wall towers and unusual 'skyline' shapes along the shell's top edges.

Herrmann and Wenger worked together to create the Diva's unusual shapes and angles. "If Wenger couldn't cut the exact shape or angle that I was looking for, they would send me a sample approximating it," he recalls. "Wenger was great to work with and the result turned out really well."

"All the interior architectural elements are intended to enhance the temporary suspension of disbelief – imagine you are in a plaza under the evening sky," says Herrmann. This visual treatment was also carried through to the acoustic shell, which features a vibrant colour scheme painted on by EverGreene Architectural Arts; they also painted the theatre's interior. The theatre design consultant was Theatre Projects; the acoustic consultant was JaffeHolden.

Herrmann believes that if orchestra shells are really done well, the audience members feel like they're in the same room with the orchestra. Aurally, shells strive to join the stage house and audience chamber into one acoustic space, for the benefit of both audience and performers.

"The Diva shell helps us create the best acoustic environment for the musicians," says Laura Bordner Adams, director of orchestral operations with the Richmond Symphony Orchestra. "Musicians are now able to hear each other, which enables them to play together as a much more unified group."

Technical director Steve Sweet says the Carpenter's crew can deploy the shell in less than



The main stage at the
Carpenter Theatre



Sha Tin Town Hall's new Diva Shell comprises 12 wall towers and three ceiling panels

two hours and strike it in under one. For storage, he likes how the Diva towers nest together and stack fairly tight.

The Carpenter Theatre beautifully blends the new and old – recalling a golden past while adding the Diva shell and other enhancements for the future. “Some people who saw shows here as kids are now bringing their grandchildren,” says Herrmann. “Memorable buildings have the potential to be enjoyed by generations who haven’t even been born yet. What a great legacy to leave behind.”

Sha Tin Town Hall, Hong Kong

Halfway around the world in Asia, the tremendous growth in performing arts facilities is laying the foundation for new traditions of excellence. Recognised as one of the Hong Kong’s finest performing arts centres, Sha Tin Town Hall features a wide range of performance and exhibition venues. Its centrepiece is a 1,372-seat auditorium for dance, drama and music.

To improve this venue’s acoustics and flexibility for different musical performances, Wenger recently installed a Diva acoustic shell, replacing an older shell. The inaugural performance in February 2010 was in conjunction with the Chinese New Year; the facility opened in 1987.

This new shell is comprised of 12 wall towers and three rows of ceiling panels with 66 built-in lights and a fire-retardant painted finish.

Wenger’s distributor partner in Hong Kong, Claridge House, negotiated and communicated all the project details; Francis Fok is sales

manager. Wenger provided two different shell configuration options to accommodate various performing groups or solo performers. Wenger installers marked the stage accordingly, allowing the technical staff to easily move the towers into the correct position.

Facilitating this movement is an Air Transporter, which supports a majority of the tower weight on a cushion of air. The custom-made wooden stage floor of the Sha Tin Town Hall, designed to provide resilience for dance performances, had been damaged by the previous shell so the Diva shell’s improved mobility and setup were key advantages. Diva towers also feature soft rear casters to help minimise floor damage and adjustable front levellers to align adjacent wall towers over any floor irregularities.

“This Diva shell’s lightweight aluminium structure and honeycomb panels weigh significantly less than the steel-and-wood construction of the previous shell,” explains Nancy Wagner, director, international sales at Wenger. “It gives a new, more trendy face to the auditorium,” adds Andy Tsui, the resident technical manager in the Culture Services Office (New Territories East) of Sha Tin Town Hall. “It is pleasant-looking, well-lit and much brighter.”

Along with acoustic shells, Wenger outfits performing arts facilities around the world with a wide range of support equipment including staging platforms, choral risers, music stands, music posture chairs and storage cabinets. ■