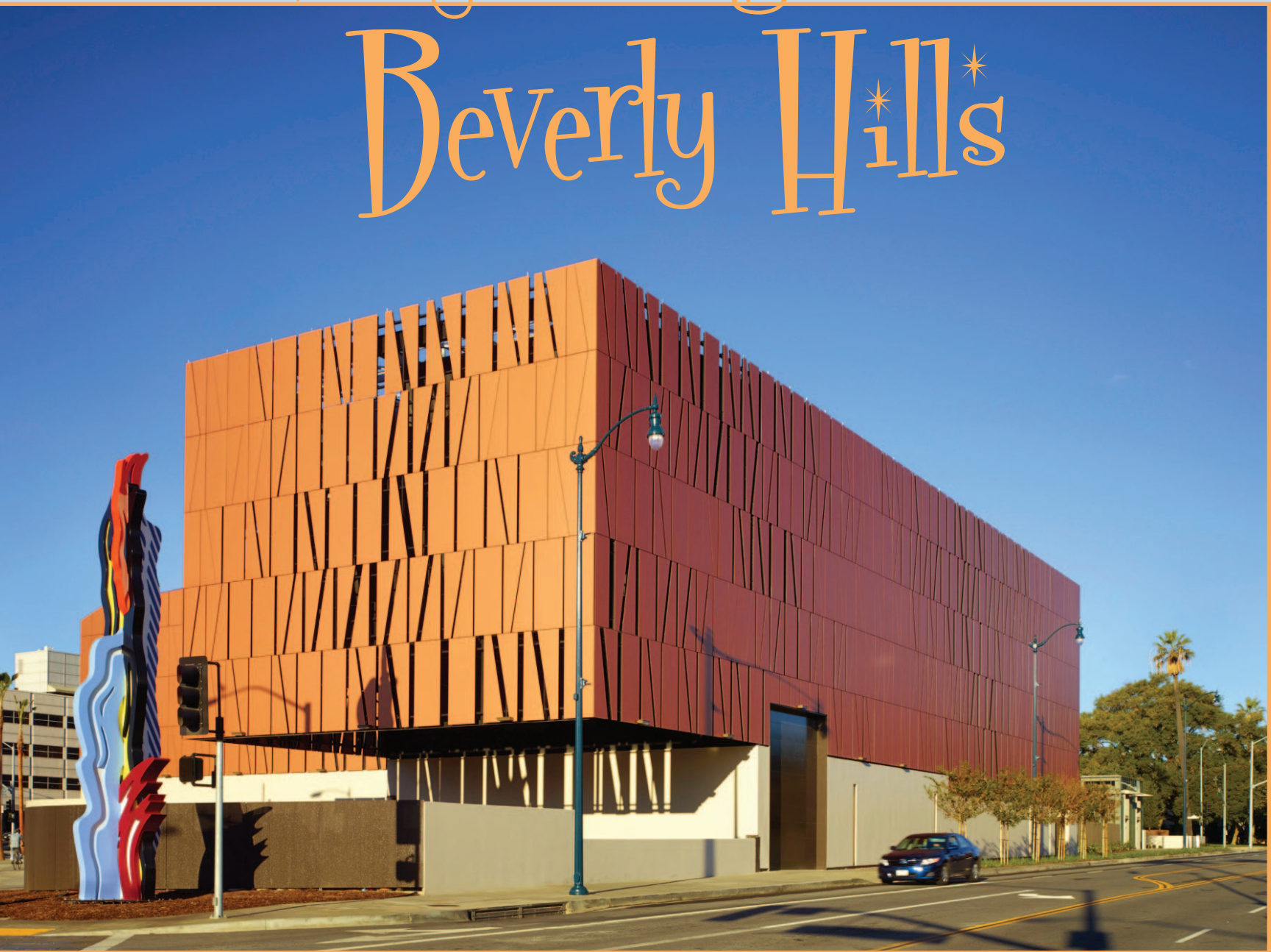


Now Starring in Beverly Hills



The Wallis Annenberg Center for the Performing Arts brings live entertainment to the center of the film/TV industry

By: Mel Lambert

Given the community's large number of gifted and well-heeled residents, it is perhaps surprising that until recently Beverly Hills lacked a performing arts center. For those habitués famous for supporting the cinematic and related arts, music and theatre required a new cultural destination. Such a need has now been filled by the Wallis Annenberg Center for the Performing Arts—"The Wallis"—which officially opened in October 2013 with a dedication and a series of galas. The new venue has transformed a city block facing Santa Monica Boulevard, between Crescent and Canon Drives, into two distinct buildings: the historic 1933 Italianate-style Beverly Hills Post Office—now known as the Paula Kent Meehan Historic Building, containing the 150-seat Lovelace Studio Theater and a theatre school for young people—and the adjacent 500-seat Bram Goldsmith Theater.

Recent theatrical, dance, cabaret, and music events in the Goldsmith include Kneehigh Theatre's production of Noël Coward's *Brief Encounter*, Oregon Shakespeare Festival's production of *Into the Woods*, and Compagnie Les Voisins' *The Queen of Colors*; upcoming shows include The National Theatre of Scotland and Royal Shakespeare Company's production of *Dunsinane*, and *Igor Levit: An Evening of Beethoven Sonatas*.

Constructed in 1933, Beverly Hills Post Office was a Work Projects Administration (WPA) building erected on the site of a former Pacific Electric railway station designed by Ralph C. Flewelling, who worked in concert with Allison & Allison Architects. Eight Depression-era fresco murals by California artist Charles Kessler—one of only two remaining sets of WPA frescos in the California Federal Building system—grace the vaulted ceilings of the Italian Renaissance Revival-style building, which also complements the adjacent Beverly Hills City Hall. Six murals depict laborers and artisans working on WPA projects, and are flanked by frescos representing the history and future of the postal service, the Pony Express, and airmail.

"Together, these two structures embrace the city's history and future, creating a new cultural landmark," states James D'Asaro, the venue's interim producing director. "As the first performing arts center to be built in Beverly Hills, The Wallis is now a home for artists from around the world and audiences of all ages." Patti Wolff serves as interim artistic director and Tania Camargo as managing director. In addition, there are a number of outdoor spaces, highlighted by the Jamie Tisch Sculpture Garden.

The \$75-million complex was designed by Studio Pali Fekete architects, under the direction of Zoltan E. Pali. JaffeHolden principal Mark Holden and project manager Jonathan Hopkins oversaw acoustic design, while Schuler Shook Theatre Planners served as theatrical consultants,

with partner-in-charge Todd Hensley heading its project crew, assisted by design partner Duane Schuler, project manager Joshua Grossman, and lighting designer John Jacobsen. Electrosonic designed and installed the AV systems, with Dan Laspa as project manager and Steve Coe as senior design consultant. David Cocke, from Structural Focus, oversaw the structural engineering, while Hisham Barakat, from ARC Engineering, handled MEP, with Roland Rothman, from Rothman Engineering, serving as civil engineer. The Wallis Annenberg Center's permanent crew comprises technical director R. Christopher Stokes, lighting supervisor Brandon Gauthier, sound/AV supervisor Tom Jones, production supervisor Calvin Legassie, and stage supervisor Aaron Wong.

"The new Bram Goldsmith Theater takes its inspiration from the movement of performers," D'Asaro continues. "With a state-of-the-art stage and sculptural American Walnut wood interior, the theatre's intimate setting allows for an unprecedented patron experience, with spacious seating, adaptable acoustics, cutting-edge lighting, and excellent sightlines." The interior walls are lined with wood panels whose size, shape, and spacing have been calculated for the best possible balance for music. "Some panels are sound reflectors that add clarity and spaciousness, and some are sound-transparent, allowing sound to travel through to the top rows of seating, to create a warm reverberation and extended resonance."

"The Lovelace Studio Theater is a flexible space with multiple stage and seating configurations," says Hensley. "With its high ceilings and adaptability, this second stage is perfectly suited for new work, small productions, cabaret, workshops, student performances, rehearsals, and special events. Circulation around the Lovelace was designed to allow performers a means to arrive anywhere in the flexible space out of view of the audience."

Schuler Shook was hired after the project had completed an initial schematic design, Hensley recalls: "We contributed many changes to that design during planning and construction, including seating and sightlines, stage equipment systems—excluding audio/video—plus lighting design and backstage planning. We created more than 20 different seating layouts for the Goldsmith before arriving at the final constructed version, with all seats optimized for the best intimacy and connection to the performers onstage, whether they are actors, dancers, or musicians."

To avoid visually threatening the neighborhood and the adjacent city hall, Schuler Shook collaborated on designs to minimize the height of the new Goldsmith Theater. "In fact, the stage is approximately 25' below street level," Hensley continues. "Trucks with heavy show gear and scenery literally drive across the top of the loading elevator, which is embedded in the driveway; the elevator rises up to the truck beds for loading and transporting sets



The courtyard separating the two theatres.

and props [and then lowers them 30'] underground to the stage.” Working within these existing height restrictions, Schuler Shook custom-designed the features of a full fly loft above the Goldsmith stage, with a rigging system, installed by L.A. Propoint, that allows stagehands to quickly hoist components such as curtains, lights, and scenery into the large opening above the stage.

“The proscenium opening is sized to accept major productions, but may also be reduced to embrace more intimate work,” Hensley says. “The orchestra area employs a mechanized lift to set this area at stage level, seating level, or pit level. Stage lighting is integrated into the Goldsmith Theater’s architectural design, in coordination with our architectural lighting design, which uses layers of light for visual interest and public enjoyment. Upper side walls are translucent and allow for dynamic lighting effects behind their slatted wood.”

Acoustic design and implementation

“The Goldsmith Theater is used primarily as a multi-purpose facility for musical theatre, drama, dance, orchestral and choral performances,” says Holden. “Many

of these events will use sound reinforcement; however, the room is acoustically designed so that it could be used without sound reinforcement. The room’s natural acoustics are designed for unamplified orchestral music; primarily chamber orchestra and classical soloists.

“To support orchestra performances, a volume per seat





An aerial view shows the contrast between the two buildings.

of between 375 and 425 cu. ft./person was desired in the Goldsmith auditorium. With a seating capacity of 500, and up to 70 musicians on stage, an audience chamber volume of approximately 213,750 to 242,250 cu. ft.—including the orchestra shell volume—was required to achieve that targeted volume per seat ratio. The width of the theatre is nearly 70' at the orchestra level to provide acoustical intimacy, which is largely determined by the initial time delay gap, or the difference between the arrival of the direct sound and that of the first reflected sounds. Additionally, the throat walls at the proscenium were shaped at a $\pm 7^\circ$ slope in the front third of the room to distribute early reflections to the audience members.

“Architecturally, the hall hides the adjustable acoustic systems—in this case, electrically operated velour drapes [designed by Schuler Shook and installed by L.A. Propoint]—that cover the upper side walls and cross the ceiling on linear tracks. Wood slats lining the walls and ceiling are acoustically transparent and slightly diffusive at high frequencies, and are backed with a fabric scrim—also tested to be sound transparent—that visually masks the drapes, lighting positions, and other technical systems. Acoustic shaping for diffusion and early C80 reflections also reside behind the wood slats that feature LED accent lighting in swooping curves. The white velour drapes over white-colored side walls allow the space behind the wood slats to glow with LEDs, regardless of whether the acoustic drape is deployed or retracted horizontally. We also tested the LED drivers to make sure they were acoustically quiet.” The resultant RT60 varies between 1.2S with all drapes deployed and

1.6S for the bare auditorium.

The steep rise in the orchestra level seating results from the City of Beverly Hills requirement that the stage house be buried 25' below street level so the roof would not tower over the adjacent post office building. “The rise is excellent for drama and dance acoustics as well as for superb sightlines,” Holden says, “but is less than ideal for classical-music acoustics. However, the hall is bright, very intimate, with excellent clarity and envelopment, which works very well with the program.”

A custom modified Wenger Diva full-stage acoustical orchestra shell was designed in collaboration with Schuler Shook, with 24' rolling wall towers that store in special niches at the stage rear wall; ceiling panels are rigged to fly into the fly loft when not in use. “We selected a dark wood veneer for a rich finish to the towers and ceiling, and designed them to break apart into compact sections that would fit on the stage loading elevator,” Holden says. “This [configuration] allows the wraparound shell to be totally



The Beverly Hills Post Office exterior.

removed if required for a large production.”

Acoustic soundproofing for the Wallis Annenberg Center also presented its own unique problems. “The site is located on a busy intersection near fire and police stations, and under the path of frequent private and film-studio helicopters,” Holden explains. “Budget constraints also forced the noisy packaged HVAC systems to be mounted on the rooftops over the lobby. To achieve our NC-15 criteria, the walls and roof were formed of thick, 12" – 18" reinforced concrete, plus a 4"-thick floating concrete slab added to the audience seating area roof to thoroughly block any extraneous sound, and achieves isolation in excess of STC 70.”



Interior of the Bram Goldsmith Theater.

Flown loudspeaker system on motorized winch

Electrosonic's design consulting team joined the project in 2008 "to provide design services for both theatres and their supporting dressing rooms, greenroom, workshops, and control rooms," Coe states. "The Bram Goldsmith Theater features an L-Acoustics ARCS Wide/Focus line-source array. Initially, we specified another system from L-Acoustics but, as construction progressed, the manufacturer introduced the new ARCS system that proved to be even better suited to the space. Because the client didn't want to see any speakers in the theatre, they needed to be hidden in recesses and architecturally integrated within the space. So when L-Acoustics unveiled its ARCS Wide/Focus system, we decided that its smaller size would work better from an integration point of view. It is very unobtrusive and has a subtle 'warmth' that's ideal for a theatrical environment."

The main cluster is a four-box array that flies out on a two-line motorized winch and can be raised above the ceiling reflector when not being used. System low-end

performance is enhanced by a quartet of individually flown L-Acoustics SB18i subwoofers. A pair of L-Acoustics 12XT coaxial loudspeakers flanks the proscenium, with two more 12XTs for upper balcony proscenium fill; for surround sound and fills, fourteen 8XTi cabinets have been recessed into the side walls. Four 5XT loudspeakers provide surround sound for the upper balcony. "The ARCS system is probably the best we could have installed," offers Electrosonic project manager Dan Laspa. "This new speaker line is small and perfect for the space."

"Having personally tested the Goldsmith's new system with a string quartet, classical pianist, jazz band, and rock band," Coe recalls, "I feel that it achieves such a level of purity and clarity—as well as lovely warmth—that many other manufacturers seem to lack. I've always loved L-Acoustics in a theatrical setting; this project absolutely confirms that."

A Yamaha PM5D digital console housed in a separate AV/lighting control room handles mixing duties for the Goldsmith; reportedly, it was selected for its popularity among theatrical professionals who are familiar with its

user features. Electrosonic also furnished Clear-Com wired and wireless intercom systems, and a QSC Q-Sys DSP system with ceiling-mounted speakers in the lobby, back of house, dressing rooms, tech rooms, and shops.

The Lovelace Studio Theater is a multi-purpose, flexible performance space with a flat floor and retractable seating for 150. It will host public performances and children's programming, and serves as the heart of the theatre school for young people. "Since the Lovelace is a completely flexible space, there is little permanent equipment installed there," Coe adds. A control booth houses a small Yamaha LS9-16 digital console with AV connector panels in the lighting grid and side walls; QSC K12 speakers can either be hung from the grid or used floor-standing while



The Bram Goldsmith lobby during a performance.



Rear view of the Bram Goldsmith Theater, showing lighting rigs and acoustic treatment on side walls.

ARCHITECTURE

QSC subwoofers are floor-standing.

Electrosonic also designed AV signal distribution for the two theatres, which includes a custom 96-way Whirlwind microphone splitter with Jensen transformers; digital AV tie lines connect the Goldsmith and Lovelace. Other audio equipment includes AKG, Audix, Beyer, Countryman, Earthworks, Neumann, Sennheiser, and Shure microphones, plus Radial Engineering DI boxes. Video gear includes a Strong/MDI 38' x 20' cinema screen on Lineset 13, Barco DP2K-23B 2048 x 1800, 24.5K-lumen projector, a QSC DCP-200 cinema surround decoder, and Doremi ShowVault server. A Matrox MicroQuad HD-SDI-to-HDMI switcher and two Samsung UN22F5000 1080P displays are part of the facility's floating backstage inventory. Also available are an Ogden Technology ONYX video switcher, with two additional Onyx Links.



The Jim and Eleanor Randall Grand Hall, site of the original Beverly Hills Post Office.

“The L-Acoustics system has been very well-suited to most of the events at The Wallis,” states sound supervisor Jones. “In the first year, we had an impressive variety of plays, musicals, concerts, movie screenings, and lectures, virtually all of which used our in-house systems. Everyone who has listened to the system has been very pleased with the sound and surprised at how much power there is—since the only visible speaker system is the center cluster [of four L-Acoustics ARCS cabinets]. Periodically, the house system has been augmented for some designs that wanted a larger stereo image, and for certain movie screenings that required speakers be positioned optimally behind the acoustically transparent movie screen rather than using the house system's live-performance oriented arrangement.

“The L-Acoustics ARCS Wide/Focus center array is ideally suited for the space, as it sits well visually within the theatre. The coverage is spot-on, with the three Focus boxes and one Wide box comprising the cluster. The left/right, surround, and fill systems are designed to hide within the architecture in the walls and catwalks, while retaining the highest possible sound quality.” In addition to the various L-Acoustics subwoofers, and fill and delay speakers, four Renkus-Heinz CFX42 cabinets provide additional orchestra-level front fill when the pit is lowered, or audience floor-level coverage within the auditorium.

The central ARCS constant curvature array “is a very low-profile sound system with discreet placement of elements, but with a high degree of flexibility for multi-use applications,” says Dan Palmer, L-Acoustics' national manager of installation projects. “At the request of the venue, the rest of the sound system is practically invisible. The compact array can fly from stage level to show trim at the top of proscenium, and can also fly out of sight above ceiling reflectors at the catwalk level.” The ARCS Wide and Focus cabinets, which are acoustically and mechanically compatible, both feature 12" drivers with symmetric directivity of 90° in one plane and a choice of 15°/137dB for Focus or 30°/135dB for Wide in the other plane.

“For cinematic events,” Palmer says, “a full 7.1 surround system was built around our smaller XT Series products: Eight 8XTi enclosures are mounted in acoustically treated wall recesses along each side of the room at orchestra level and covered with removable acoustic panels—plus two more 8XTi boxes at balcony level for surround sides, and a pair at orchestra level—while four tiny 5XT enclosures are similarly hidden along the back wall of the balcony for rear-balcony coverage.” Two L-Acoustics LA8 and eight LA4 amplified controllers, housed in a custom amplifier rack, power the entire system; LA Network Manager handles system configuration.



Interior of the 150-seat Lovelace Studio Theater.

Flexible lighting and control array

According to lighting supervisor Gauthier, “Our ETC dimmer package is controlled from an Ion 4000 desk, with a Ion 2000 as backup, and has been most useful in adapting to nearly every production’s needs without cause to rent in extra power and distribution systems. With a total of 190, 20A circuits over the stage, at the stage floor and on the apron, as well as 10 circuits located under the stage in the trap room, we never run short of dimmers; in the front-of-house positions, we have just as ample power available with 114 dimmable circuits. There are also 50A dimmers to let us run larger incandescent fixtures with ease. To supplement the 20A and 50A dimming circuits, we also have a mixture of 20A/120V and /208V relays scattered everywhere in the space for moving light, special effects, and other hard-power needs.

“Everything is DMX-controlled, which makes shutting the rig down remotely every night as simple as triggering a macro from the Ion 4000. The DMX data distribution is also very easy to configure. Since we are running ETC Net3 and have a lighting network tie-in at all key locations—42 networks within the Bram Goldsmith Theater alone—I can add Net3 DMX gateways anywhere we need and configure my DMX universes for the show at hand. Having our entire system on a network also lets us set up any of our ETC RVI units throughout the facility, and even connect both performance spaces together for a larger, more cohesive show experience and from one central control location.”

The facility’s lighting inventory includes 200 ETC Source

Fours with varying beam spreads between 10° and 50°, 70 ETC Source Four PARs, 12 ETC Selador Vivid 42" cyc lights, and two Lycian Super Arc 400 followspots. Architectural lighting LEDs mounted in the auditorium walls comprise approximately 400' of Philips Color Kinetics iColor Cove MX Powercore fixtures.

“Integration between the theatrical and architectural systems is flawless via our ETC Paradigm Architectural Control System,” Gauthier says. “I can pull up a theatrical look specific to the current show and then record it into Paradigm for later playback during facility tours and other events—all without having to turn on the Ion.”

The venue’s rigging and hanging positions were well-planned during the construction process, Gauthier says. “I’ve found that our single-purchase fly system has been more than sufficient for hanging overhead fixtures, including a variety of moving lights that we often see come in for shows. Our ‘torm ladders,’ as we call them, are located off-stage left and right of the apron; they were installed to allow flexibility in creating dynamic lighting looks downstage of the proscenium, which would have otherwise been a challenge. The two FOH catwalks are easily accessible and allow for simple hanging of our conventionals; the additional supports that allow us to rig extra pipes for moving lights are very convenient.

“Out in the house is the curved balcony rail position that is home to many of our curtain warmer and drape specials, and is a great location to hang projectors and other special effects. Lastly, the curved box boom positions at mid-house left and right feature nine 4' rungs with 2' spacing vertically to allow even the largest of fixtures to be hung.”

“Design and outfitting of The Wallis has been a very cooperative experience,” D’Asaro concludes. “On our second night, with Natalie Cole and a full orchestra, we knew that the Bram Goldsmith Theater’s in-house sound system was the right choice for us. It doesn’t feel like it has to ‘pierce’ before it has real presence and power, but is well-balanced in a way that allows it to become virtually invisible. Every artist we have hosted has commented on the excellent acoustics. The amplified sound system is robust and versatile, and powerful enough for the wide range of programming and musical productions we plan to stage here. We couldn’t be more pleased with the end result.” 🎧

Mel Lambert has been intimately involved with production industries on both sides of the Atlantic for more years than he cares to remember. He is principal of Content Creators, a Los Angeles-based copywriting and editorial service, and can be reached at mel.lambert@content-creators.com; 818.558-3924. He is also a 30-year member of the UK’s National Union of Journalists.