

# Q FIT FOR A QUEEN

## CELINE DION'S NEW PERFORMANCE VENUE AT CAESAR'S PALACE IS A COLOSSAL ACHIEVEMENT

BY BILLEN LAMPERT-GRIFFAUX

**I**F all roads in Rome lead to the Coliseum, all roads in Las Vegas might soon lead to the Colosseum at Caesar's Palace, the colossal new venue where international singing star Céline Dion is taking up residence this month, and plans to stay for the next few years. Anyone who has driven down the Strip lately has been sure to notice the large round structure going up at Caesar's Palace, on the same side of the hotel as the Forum Shops.

Designed by Scéno Plus of Montreal, working in conjunction with Park Place Entertainment and CDA (Céline Dion Angelil), the Colosseum must be the largest theatre in Las Vegas at just over 4,000 seats (4,143 to be exact). To get an idea of just how large it is, the venue has a volume of 1.2 million cu. ft. in the auditorium alone (an average auditorium might be 400,000 cu. ft.).

Scéno Plus served as both design architect and theatre designer, with two highly successful theatres for Cirque du Soleil in Las Vegas (one at Treasure Island and one at Bellagio) already to their credit. "Park Place Entertainment asked us to build their theatre," says Patrick Bergé, president of Scéno Plus. "Céline Dion liked the O theatre."

Bergé found the site to be interesting but challenging. "Not only is there a large culvert on the site, but we also had to keep the access road and the casino operational during the entire construction process."

While the shape of a coliseum certainly fits with the overall theme of Caesar's Palace, the form of the theatre was designed from the inside out. "Céline wanted to be

as close to her audience as possible," says Bergé. "The round shape was the best, and also the best shape to fit the site. This is a freestanding theatre that says something as a building. It also makes a statement when lit at night."

The venue was built with the opening production very much a part of the scenario. Franco Dragone, highly acclaimed for the productions he directed for Cirque du Soleil, has directed this show, working with frequent collaborators scenic designer Michel Crête and Dominique Lemieux, as well as lighting designer Yves Aucoin, and sound designer Denis Savage. Says Bergé, "Franco Dragone wanted to immerse the audience in the show."

### WIDESCREEN FORMAT

Extremely wide, the proscenium arch measures 120' across, 44' high, and 2'8" thick. This gives the stage the look of Cinemascope, very long and wide, which fits the concept of the decor designed by Crête (all information about the actual performance was still under wraps at the time this article was written). The high grid sits 90'4" above the stage, with a lower grid at 67'9".

There are also two levels of catwalks, at 51'10" and 68'9" above the stage, as well as on stage right and stage left. Another two catwalks above the audience sit at 68'9" as well. The catwalks serve primarily as lighting positions.

The roundness of the building means that the backstage wall is round, following the exterior contours. "We also had to ask what the stage will look like when Céline is not there," notes Bergé. "It is hard to have to design a set on a curved stage without



The elegant entrance to the Colosseum at Caesar's Palace links the casino (above) to the new 4,143-seat theatre designed by Scéno Plus for Céline Dion's new show directed by Franco Dragone. At night, the round freestanding theatre (opposite page) is dramatically lit to make a statement on the Las Vegas Strip.

wings." With this in mind, the proscenium opening can be closed fully, leaving a 40'-wide by 20'-deep area in front of the proscenium arch for smaller shows or solo acts.

Gala Theatrical Equipment of Montreal installed the rigging in the theatre with battens 150' wide to clear the proscenium opening. "A counterweight system was not possible with a round back wall, and the proscenium is so wide there is no way to have a rectangular frame," explains Claude-André Roy, the principal theatre designer who served as project manager for Scéno Plus. "There are dead-haul winches instead." Each of the 52 line sets (48 straight and four curved) holds up to 3,000lb and can move at 5' per second.

"This is not a complicated theatre in terms of stage machinery," avers Roy. "The challenge was the sheer size of over 4,000 people. It's a question of scale. The original idea was to have Céline surrounded by the audience with a sensible scale." As a star like Dion can only do one show per evening, the venue needed to be as large as possible. "It's difficult to have an intimate feeling in such a large theatre, yet it depends on the number of people in the volume, so this theatre has an intimate feeling in spite of its size."

To help enforce the feeling of intimacy, the red upholstered seats are closer together than at the Bellagio theatre, for example. Here there is 39" row-to-row (back of seat to back of seat) on the main level and just 36" in the balcony where the backs of seats are straighter. "The closer the seats are, the more intimate the experience is," says Roy. "People react more as a group." The seats are by Irwin Seating Company in Grand Rapids, MI, and were supplied by Sierra School Equipment in Bakersfield, CA.

In the Colosseum, the downstairs center seats seem very close to the stage, thanks to the round configuration. "The technical challenge is not to lose the original idea to stay circular, with the audience around Céline, and near her. No compromises were made throughout the entire process."

The concrete stage floor is built with what Roy calls "a depression, with a stick structure." This is in fact an area of the stage floor with steel beams and a light concrete slab that can be cut away. "You can cut the concrete and put in a lift where you want, by taking away the beams and columns inside a rectangular space on the stage,"

explains Roy. "You can put the slabs back eventually." Certain openings were left for the traps required by the Céline Dion production. The scenic lifts for the show are also by Gala.

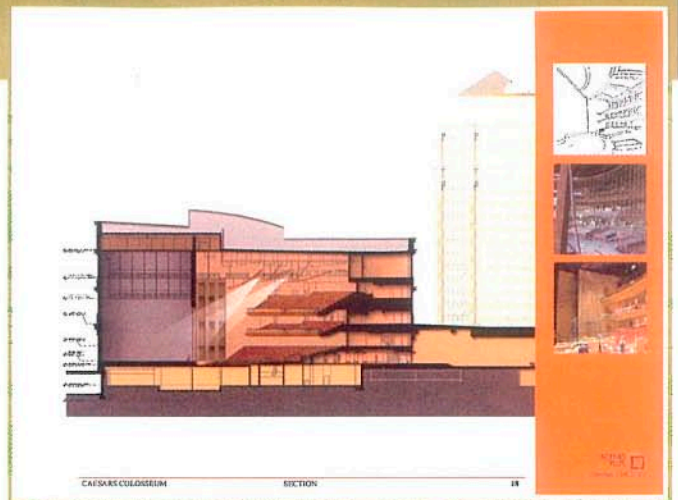
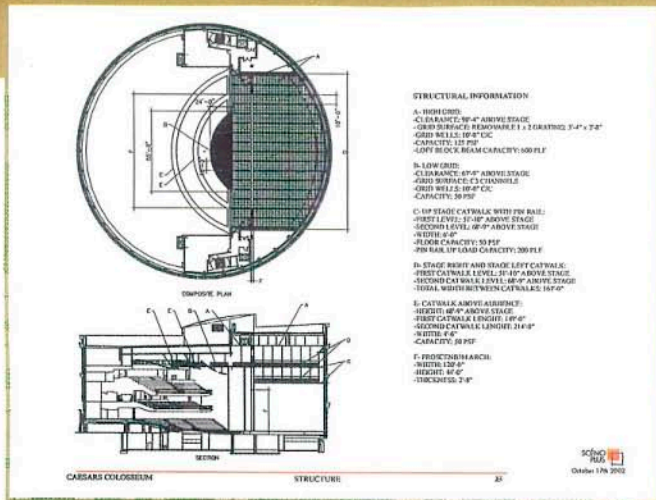
The stage is 8' above street level because of the slope of the land. Stairs lead from the casino into the theatre. The loading dock is one level lower, 18' below the stage, with a large scenic elevator by Protech of Las Vegas to bring the scenery to the stage level. The loading dock is designed to hold two large trucks and one smaller one at the same time.

#### THAT CELINE SOUND

One of the biggest challenges in such a large space was the acoustics, also undertaken by Scéno Plus with the collaboration of its long-standing acoustician Jean-Pierre Legault. "The performance is high-energy, like a pop concert," says Roy. "We worked very closely with Céline's sound designer, Denis Savage, who identified potential problems for her in such a large room. It could have sounded too loud in the low frequencies and needed sound absorption materials." These include fiberglass acoustical pillows on the ceiling that measure 4'x8' and are 1' thick. "Very low frequencies that

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PATRICK BERGÉ



would not dissipate will die in those pillows," says Roy. "The ceiling is like a large sound muffler suspended, not attached, to absorb better." This is a new Scéno Plus design concept.

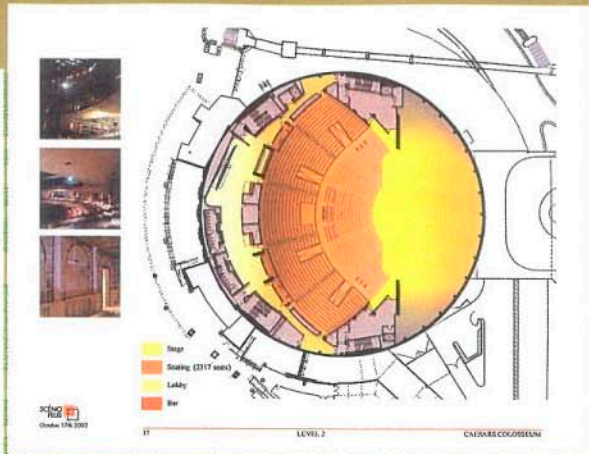
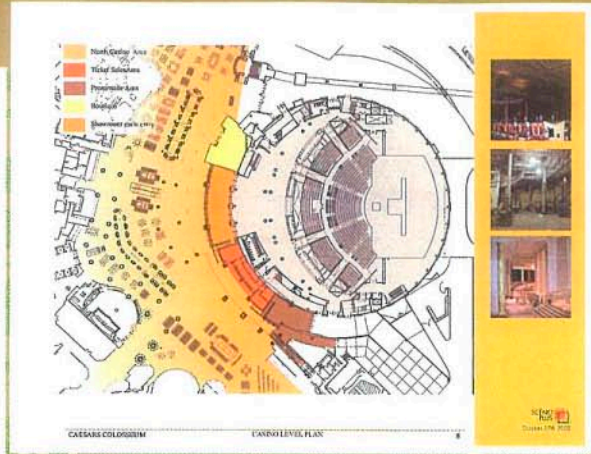
The sound equipment, specified by Denis Savage and François Desjardins of CDA Productions and coordinated by Scéno Plus, was supplied and installed as a joint venture between Solotech of Montreal and Audio Analysts of Colorado Springs, CO. The main PA consists of 16 Meyer Sound M3D full range line array loudspeakers, 12

Meyer Sound M3D-Sub directional subwoofers, 16 Meyer Sound M2D compact curvilinear array loudspeakers, four Meyer Sound SB-2 parabolic wide-range sound beams with two Meyer Sound CQ-1 wide coverage loudspeakers and eight Meyer Sound USW compact subwoofers for front fill.

Rounding out the space are a total of 72 Meyer Sound UPM series ultra-compact loudspeakers concealed in the second and third balcony ceilings to provide delay fill and surround effects, and nine Meyer Sound UPA series compact loudspeakers for

The large auditorium (this photo) is wrapped around the stage, adding intimacy to a large space. Diagrams reveal the curved backstage wall (above left), lighting positions on catwalks above the audience (above right), and the extremely wide 120' proscenium opening (opposite page right). A site plan (opposite page left) indicates that the round shape was appropriate architecturally as well as thematically.





additional sound effects reinforcement in the main seating bowl. The complete speaker system is monitored by Meyer Sound's Remote Monitoring System providing complete status of all the speakers at the FOH mix position.

The main FOH console is a Solid State Logic MT Production board. The monitor mix is provided by a fully configured Yamaha PM1D with 16 stereo channels of Sennheiser in-ear monitoring and a full complement of dynamics and effects processors. The speaker drive is provided by custom programmed BSS Sound Web units. Bob Barbagallo of Solotech served as the prime project manager for the sound equipment installation with support from Audio Analysts' Ron Howard and Will Lewis. Barbagallo recalls, "One of the major challenges we faced was having most of the electronics in Montreal for the band rehearsals prior to the installation. From the time we received the audio equipment in Las Vegas we had 12 days to complete the installation and be ready for rehearsals, a challenge we accomplished on time."

Another challenge in the theatre is what Roy refers to as "Vegas throat," a condition that affects singers in the desert climate. "Singers need extra humidity. The desert is too dry for vocal chords. But if you put humidity in the building you'd also need to put in vapor barriers, so we didn't add humidity."

Instead, Scéno Plus created a microclimate around the zone on the stage where Céline Dion sings. "There are vents around her feet to allow humid air to enter her environment, like a bubble around her, to protect her voice," says Roy. "You can control the temperature up to 100°F, and you can have up to 80% humidity, to keep it warm and humid. This is a unique solution."

Along the back wall of the stage is a large, curved LED screen by Mitsubishi (with images via a Sony video suite), 120' wide by 40' high, with catwalks every 8' to allow performers to walk through doors in the screen. "This may be the largest LED screen in the world," says Roy. "The image is the most beautiful I have ever seen." Additional projection equipment includes Lightning 28sx three-chip DLP projectors by Digital Projection mounted on the catwalks, and EYTC Audiovisual Pigi projectors in the projection booth at the back of the lower-level seating.

Lighting systems include both theatrical and architectural (Elwyn Gee in San Francisco executed the architectural lighting that uses an ETC Unison control system). Scéno Plus, working closely with Yves Aucoin, Céline Dion's lighting designer, coordinated the theatrical lighting package. The conventional lighting package was supplied by Fourth Phase Las Vegas and installed by Bombard Electric of Las Vegas.

Melissa Wilreker was the project manager for Fourth Phase, with Jim Holladay as on-site manager for Fourth Phase, along with Randy Kee, working for Fourth Phase as field technician. Mike Gurule was the project foreman for Bombard Electric. Adam Steyh of Fourth Phase served as liaison to Scéno Plus, and Sharon Fitzgerald, director of sales for the western region for Fourth Phase, served as managing director for this project.

The theatrical lighting package includes 14 racks of ETC Sensor dimmers, two Compulite Sabre consoles, over 250 Lekos and 180 fresnels from Strand Lighting, 90 Robert Juliat 2kW profile zooms, 500 PARs (ETC and Altman), 132 Strand cyclights, 90 Compulite color scrollers, and five Robert Juliat followspots (four Aramis and one Ivanhoe). There are also seven MDG fog and haze generators (three Max5000 fog generators and four Atmosphere haze generators). This part of the lighting package belongs to the venue.

The automated lighting package, provided by CDA, includes: 20 Vari\*Lite® VL2202™ automated spot luminaires, 60 Clay Paky Stage Zoom Profile Pluses, 80 Vari\*Lite VL2416™ automated wash luminaires, 15 Syncrolite SX3K 3kW xenon luminaires, three Syncrolite SX7K 7kW xenon luminaires, and 20 Vari\*Lite VL1000AS™ automated ellipsoidals.

The theatrical lighting system and the Unison architectural control system tie into the ETC network. "The key is the ETC Net2 Ethernet system with a fully redundant fiber-optic backbone and Cat5 distribution," explains Holladay. "If a fiber cable went down, there is an alternate way to route the Ethernet data."

"There are routers and switchers that receive data and know which specific device

to send it to, rather than standard 'dumb' hubs," Holladay adds. "It makes it a more complicated system but also more reliable, while maintaining the bandwidth for the Ethernet."

Doug Truttup served as ETC project manager at the factory in Wisconsin, making sure the system was built properly, with ETC's Las Vegas field service technician David Tramontina on-site to troubleshoot the high-tech electronics. "The challenge was to deliver a functioning theatre and at the same time meet the needs for the production," says Holladay. There is no doubt that when the production opens it will be one of the hottest tickets in town. ED

The Kimmel Center for the Performing Arts  
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*Photo: Roman J. Phibbs*

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