

FEATURED PROJECT

National Arts Centre
Ottawa, Ontario, Canada

Architect:

Diamond Schmitt Architects

Lighting Design: Lightemotion

Transparent LED Digital Screens:
ClearLED

Façade Consultant:

Buro Happold Consulting
Engineers P.C.

Content for Tower and Fins:

Moment Factory

Photos:

Doublespace Photography

Text: Vilma Barr

The Challenge:

The directors of the Centre had two choices to change the physical image of the nearly 50-year-old, Brutalist-style building that housed performance spaces and public areas. They could demolish the structure and start over. Or, they could undertake a top-to-bottom, front-to-back renovation and promotional repurposing to attract a broader market and give the country's capital city a world-class entertainment venue.

The Solution:

The vote was for a thorough renovation to create interior-exterior relationships and become a new visual beacon on the Ottawa cityscape. Funding totaling approximately \$226 million was provided by the Government of Canada in two nearly equal amounts—one for architectural and building systems upgrades, and the second for performance hall and support space upgrades. LED lighting was integrated with the major architectural elements, including the interior geometry of the ceiling of the new lobby.



When the National Arts Centre first opened in the center of Ottawa nearly 50 years ago, the critic's reviews were not encouraging. They didn't criticize the artistic quality of the performances that were staged inside; the negative comments were directed at the design of the building itself.

It was to have opened in 1967 in Canada's capital city, as part of the country's centennial year. When it finally made its formal debut, the National Arts Centre was two years

late and \$10 million over budget. Critics slung their strongest barbs toward the structure's hard-edged, Brutalist-style profile and blank expanses of exterior surfaces. At the project's inception in the early 1960s, the planners held to the belief that the preferred mode of transportation for attendees was the automobile. Pedestrian access was not considered for other market-sector audiences. Not required, they felt, were brightly lit marquees inviting the public to

enjoy theater, music, art shows, and public events, all familiar sights on entertainment districts in major urban centers worldwide. The National Arts Centre wasn't interested in broadcasting its place in Ottawa society to the community at large. Then, in 2014, with the Sesquicentennial on its calendar in three years, the National Arts Centre management voted to put in place a plan to replace their facility's dated appearance and inward-oriented focus.

Ottawa's NAC Gets Top Billing



▲ DRAMATIC TRANSFORMATION

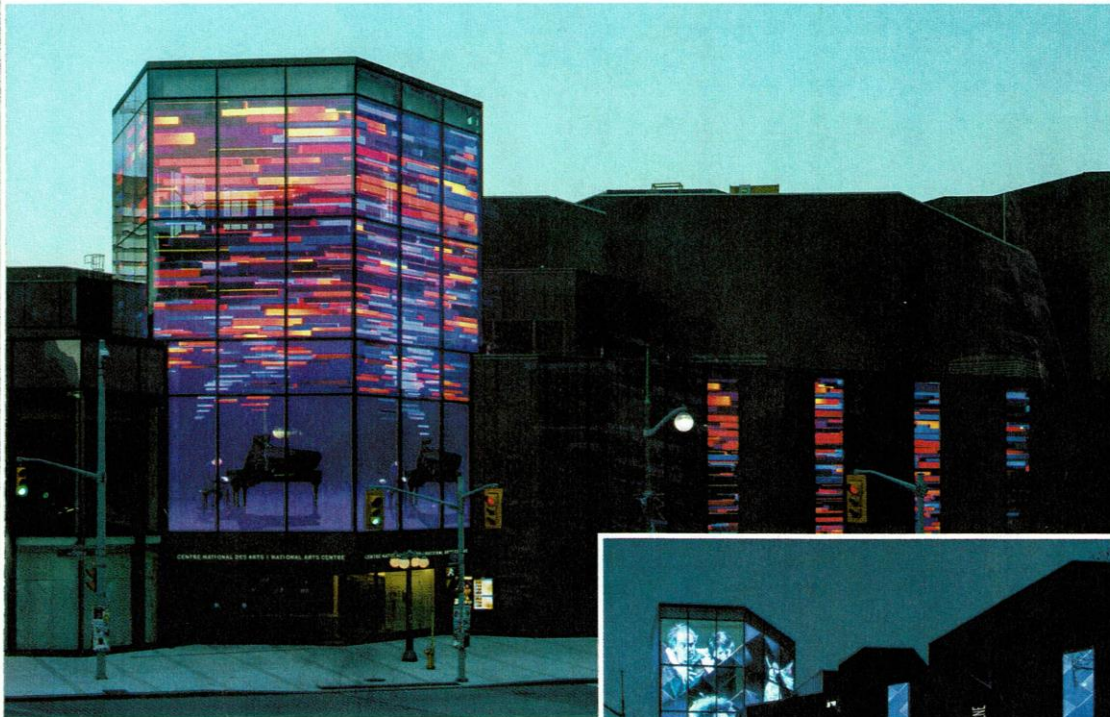
A multi-disciplinary team transformed the exterior and interior of the former lackluster box-shaped building into a lively center for the performing arts.

With Ottawa now home to 1.25 million residents, and serving as host to international visitors year-round, the Government of Canada established a \$110.5 million architectural renewal fund, followed two years later with a second fund of \$114.9 million to upgrade the performance halls in the original one million-sq.-ft. building.

A multi-disciplinary team from across Canada was coordinated by NAC's CEO Peter Herndorf. "Our objective is to transform the former

somber building we inherited into an inviting, lively and transparent icon that fully engages with the city," Herndorf said at the groundbreaking ceremonies for the project. Architect for the renovation and expansion is Diamond Schmitt Architects, Toronto, led by principal Donald Schmitt. Lightemotion, Montreal and Toronto, headed by president and design director François Roupinian, created the exterior and interior lighting. Moment Factory, also based in Montreal,

was responsible for the content for the four sides of the 68-ft.-tall, glass Kipnes Lantern tower above the new Elgin Street entrance. ClearLED, Vancouver, provided the transparent LED digital screens for the Lantern's viewable surface. Vertical fin screens highlight the new Elgin Street façade, working in tandem with the video images appearing on the Kipnes Lantern. The Kipnes Lantern was named for the \$5 million gift by the Kipnes family of Edmonton. ▶



It appears clear during the day and becomes an informational content sight in a darkened evening environment. Its sharp image definition has been called a "Fifth Stage" by NAC's Herndorf. It extends its reach to those who elect to view the content of performances occurring inside the Centre and in other venues in Canada through a nationwide hookup.

Three new connected wings totaling 60,000-sq.-ft. wrap around the façade of the original structure. Another 18,000-sq.-ft. includes that occupied by the Fourth Stage.

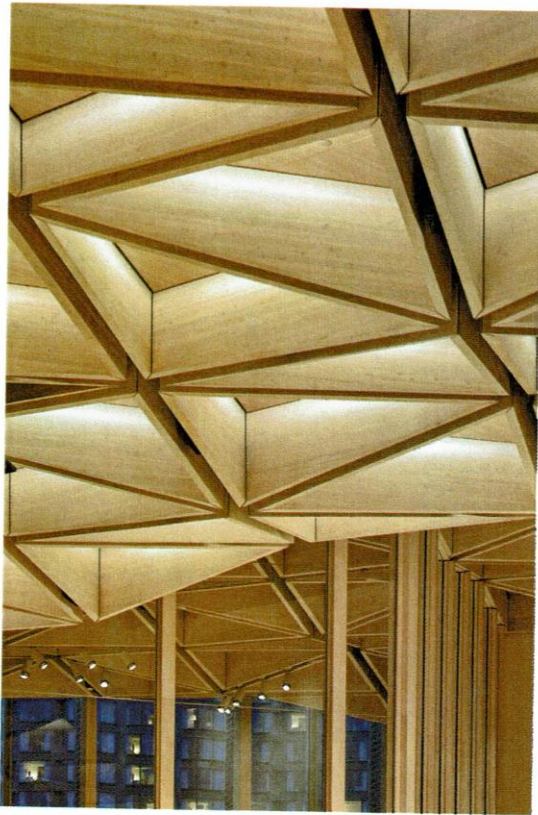
For the ceiling in the new wing, Roupinian affirms that he and his Lightemotion team participated from the start of the planning process to fully integrate the lighting design with the architecture.

Exterior lighting incorporates soft grazing elements were accomplished with Lumenpulse Lumen Façade fixtures. LED Linear Venus lines of light provide visual vertical elements that blend with the video presentations incorporated in the façade. "We chose 3000K color temperature and a very soft diffused lighting approach," Roupinian says.

"The main goal was to establish a lantern effect from inside while creating a welcoming scene from the outside," he indicates.

For the interior, Roupinian specified iGuzzini Laser Blade for all general illumination. In the new lobby, the distinctive ceiling pattern adds depth and dimension to the space where full-height windows introduce generous daylighting. Hexagonal-shape prefabricated Douglas fir coffers incorporate the Laser Blade position out of sight by placing them in each section's gap.

TRANSPARENT
DIGITAL SCREENS
CAN PROJECT IMAGES
OF PERFORMANCES
OCCURRING IN THE
CENTRE AND AT OTHER
CANADIAN VENUES.



"To create focal points, at the center of each coffer is an iGuzzini Radial Trick," Roupinian describes. "They produce an indirect soft glow to illuminate the geometry of the wood ceiling and add drama to the ceiling's overall effect."

Because the space will be used for a variety of events, the Tricks are all equipped with EldoLED DMX drivers that are independently controllable.

"Soft animation sequences are programmed for the evening to subtly animate the ceiling with waves of light," Roupinian says.

As viewed from the outside looking in, the lobby lighting system becomes a unifying attraction in partnership with the theatrical dynamics of the exterior. "The visual statement made by the combined technology of the illuminated coffer ceiling and the transparency of the exterior screen and the glass curtain wall brings the NAC to the forefront of the city's attractions," says architect Schmitt.

"It has become a municipal asset to showcase the many and varied talents of the local performing arts community and to feature visiting

entertainers and groups from around the world."

As part of the encompassing renovation, the main auditorium, Southern Hall, was reshaped with upgraded acoustics as one of the new installed systems. A new orchestra shell and production facilities will be undertaken as part of the next renewal stage. ■

▲ ILLUMINATED GEOMETRY

LEDs installed in the gaps between each section of the hexagonal wood ceiling produce a soft glow in the lobby.