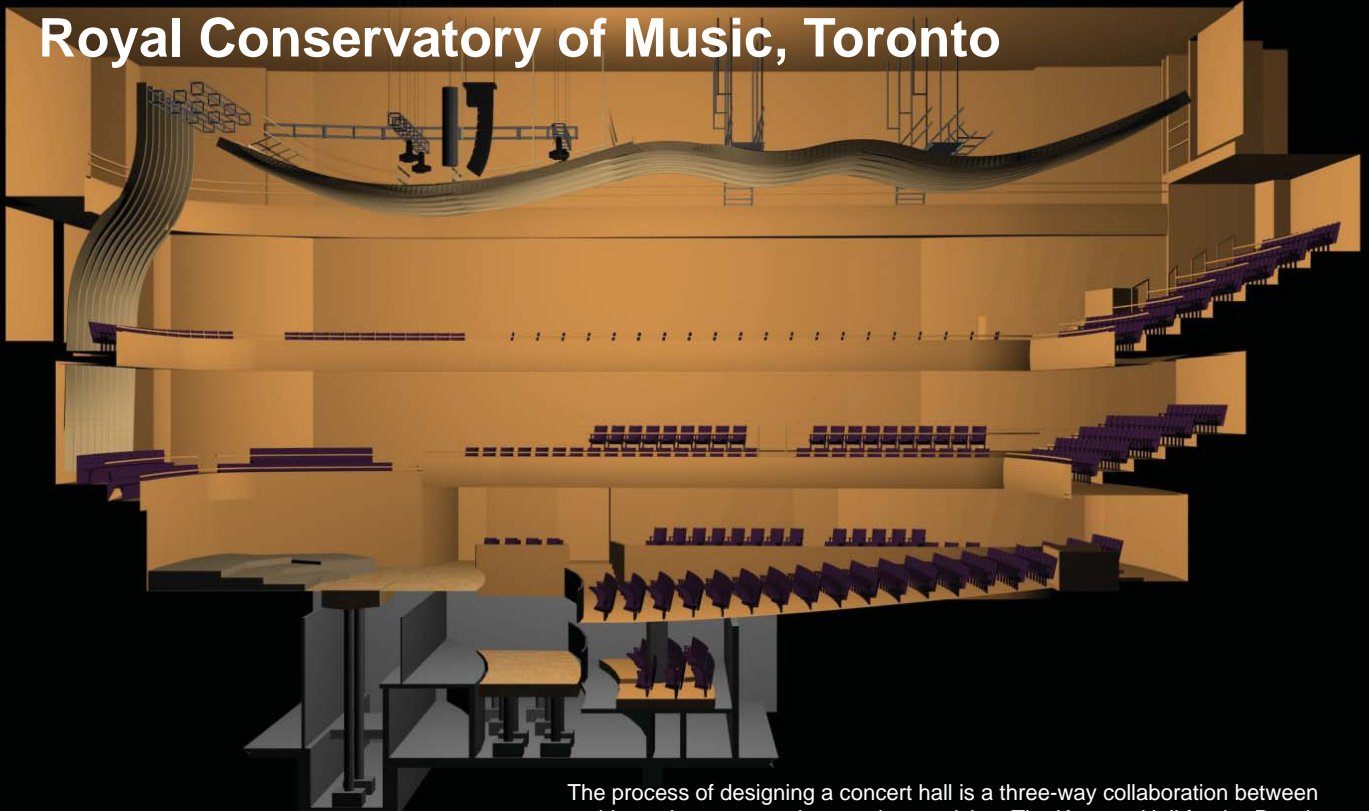


# Koerner Hall

## Royal Conservatory of Music, Toronto



The process of designing a concert hall is a three-way collaboration between architect, theatre consultant and acoustician. The Koerner Hall for the Royal Conservatory of Music (RCM) is a product of the interwoven skills of architect Kuwabara Payne McKenna Blumberg (KPMB), concert hall designer Anne Minors Performance Consultants (AMPC) and acoustician Sound Space Design (SSD).

*The Koerner Hall will be one of the most intimate concert halls for its seat count, and will offer a unique experience for the performers, ensuring a place in their hearts and their return in the future.*

The vision for the RCM was one of focussing its many activities with a major performing venue that would inspire and accelerate the performing standard of the students, together with an orchestral rehearsal room/ recital room that would cater for the innovative 'Learning through the Arts' program and new teaching studios. In addition the RCM wished to become a downtown hub for professional artists.

The challenges of the project were many – a tight site, existing building levels to tie into, a phased development, a limited budget and a broad range of music types to be accommodated including opera and chamber music. Yet the high aspirations of the clients throughout the project ensured that the key elements to the functional design remained.

AMPC took a holistic approach, working with the site constraints to deliver as much backstage accommodation as possible and produced a compact three dimensional form for a 1000 seat concert hall, raised up to link with the levels of the McMaster Hall. This freed up the backstage level for performers and AMPC created alternative ways onto the stage from the delivery area beneath to future-proof the technical efficiency.

Peter Simon, President of the RCM, was looking for “a different and immediately distinguishable hall; with the sound of a narrow and long hall with technology hidden, and with distinctive materials and rich surfaces”

AMPC responded by wrapping the focus of the room - the stage - with the balconies and optimising the height of the chorus in relation to it, stepping down the first balcony at the sides of the stage. Anne Minors continues, “The audience view and proximity to the stage is important to achieve intimacy, and is enhanced by the conviviality between the audience as a group and the performers, especially if they have eye to eye contact and can feel the air move from the players.”

“The stalls level is narrow and relatively close to the stage with a gentle rake from the main foyer circulation level down to the front of the stage. The stalls



contains a critical mass of people within the performers' eyeline. The slight reverse fan shape enables the people at the sides of the hall to see the stage in a more comfortable way. Towards the back of the room, the balcony fans out slightly, like a fish tail and the balcony geometry expands in successive balconies."

In deciding on a two-balconied room wrapping around the stage, and in drawing the relative overhang of each balcony to create a shorter room, Anne Minors integrated the acoustic and sightline requirements to locate the people in space, thus setting the stage for the development of the wall geometry by the acoustician, SSD and the architect, KPMB.

AMPC set about determining a stage geometry that would showcase soloists; be intimate for recitals and chamber quartets and be expansive for the RCM Orchestra and visiting orchestras and choirs. AMPC provided the technical infrastructure for these arrangements and for the Koerner Hall to change its character for pop and jazz concerts. These were demonstrated to the design team, the RCM and their future partners in a series of 3-D computer renderings and stage layouts so that they could understand and plan their use of the hall before opening.

AMPC worked closely with KPMB to realise their vision for the ceiling veil and provide all the technical wizardry for the broad range of performances anticipated in Koerner Hall, without infringing the visual clarity of the architecture.

The fixed acoustic canopy is a finely tuned element that not only reflects sound to the performers on stage but also contains stage lighting, house lighting and rigging systems for a variety of uses designed and commissioned by Ray Carter of AMPC and integrated with the veil geometry. The central speaker cluster and the speech reinforcement speaker can be lowered into view when needed, as can the moving lights for amplified shows and more dramatic events, while classical concerts will have a clean appearance on stage with performance lighting from the fixed elements within the hall.

AMPC collaborated with KPMB to integrate the lighting functionality on the canopy and front of house catwalks with the sinuous timber ribbons of the veil. As part of our complete service and follow through, Steve Roberts of AMPC provided the RCM with a house plot as a basic lighting design for events.

Other equally important adjustments for performance are the ability to extend the stage with an electrically operated lift; the creation of an orchestra pit for semi-staged opera; stage risers for choral groups and chamber concerts with the possibility of some audience on the stage.

From a brief of 1000 seats, AMPC increased the seat count to 1140 within the same footprint and capital cost, offering a greater income stream to the RCM. Not only are the majority of seats close enough to the stage to read the features of the performers, but also seats at the sides and behind the stage will offer different perspectives on the music-making.

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