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A JOURNEY OF SOUND

By JAMES BRADSHAW

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With just over 40 days and nights until the opening of Koerner Hall, the first in a series of moments of truths for Toronto's Royal Conservatory of Music has passed: the notes of a piano, ricocheting off the new hall's oak-panelled walls.

"This is a morning that has filled us with great anticipation and excitement and a little bit of fear," Mervon Mehta, the RCM's performing arts director, said Wednesday after a few musicians played for a small group of acousticians and architects. "And we're all still smiling."

But before the Conservatory tests the public for its reaction, the hall faces a month of sporadic "tuning" sessions, tests that are more subjective than scientific and are designed to tune the musicians as much as the hall.

Computer programs have modelled how sound would travel in the hall. But the lone technical confirmation of those projections will come a week before opening, when devices will measure the sound from a private concert, and also from a Dodecahedron, a 12-sided loudspeaker that emits sounds from the stage at all different frequencies. The acousticians will record the time of arrival of sound waves, where they reflect from (strong sound from the sides is desirable) and the volume in various parts of the hall.

The test schedule

Stage 1: Aug. 12-14

Small ensembles, soloists and singers were invited to play the first music in the hall. Conservatory staff, the project's chief acousticians and its architects tested the sound from every vantage point, relying only on their ears.

Quote: "Tuning of the room is [to get] the players and the room to feel together and play together, to get the players to play the room as extensions of their instruments." - *Bob Essert, director, Sound Space Design acousticians*

Stage 2: Sept. 4

A rehearsal by the Conservatory's resident orchestra. The 1,135-seat hall, ideally suited for chamber and smaller ensembles, has to also accommodate the greater sound generated by an orchestra.

Quote "We can tune the back surface [behind the stage] and open some panels and extend some fabric fairly discreetly to tactically adapt the acoustics behind the brass players, behind the percussion players." - *Essert*

Stage 3: Sept. 17

The construction workers, architects and engineers involved in the hall's construction sit in on a free concert. It marks the first full complement of bodies in the hall, which changes the way sound travels in the space. It is also the acousticians' lone chance to scientifically measure the way sound travels and reflects.

Quote "These technologies are great, but there's a limitation to them. Like musical notation ... it only goes so far." - *John O'Keefe, principal, Aercoustics Engineering Limited*

Stage 4: Sept. 25

The ultimate test: the hall's first public audience. Among those performing at the concert: the RCM Orchestra, the ARC Ensemble (Artists of the Royal Conservatory), pianist Anton Kuerti, and French-Canadian conductor Jean-Philippe Tremblay.

Quote: "Our first full-fledged concert. With all the bells and whistles." - *Mervon Mehta, executive director of performing arts at the RCM*