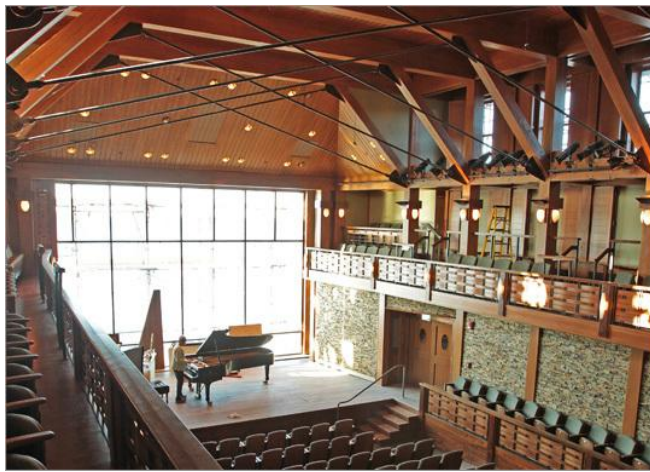


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“Building a space for sound: Acoustician lends his ears to Rockport’s new music hall”

Geoff Edgers



On a brilliant spring afternoon, a guy in a New York Giants T-shirt and sunglasses parks his Harley Road King in front of a concert hall and starts to rev. Vvvvvrrroooooom. The rumble can be felt inside the new home of Rockport Music.

A policeman stands nearby, but he doesn't budge. This isn't a violation of the local noise ordinance. It's a test.

Inside the hall, Larry Kirkegaard, a slight man with thick gray eyebrows, raises his finger to his lips to hush anyone nearby.

“Everyone quiet,” he says.

Quickly, Kirkegaard puts his ear to the wall. Is he trying to pick up an errant conversation in the next room? No, he's listening to the different levels of motorcycle noise leaking into the room.

During his decades as an acoustician, Kirkegaard has had helicopters and jets fly over a new hall for testing.

“We've never done this with a motorcycle,” he whispers.

Kirkegaard asked the Harley's owner, a carpenter named Brian Donovan, to help because of the special location of Rockport Music's 330-seat Shalin Liu Performance Center. The new venue is set to open June 10 with the start of the Rockport Chamber Music Festival — Rockport Music's namesake before 2008, when the board of directors decided to expand its offerings to include jazz, popular music, and other types of events.

The lot of the new building is small, with the stage bordering the ocean and the front doors of the venue sitting on Main Street. That means that inevitably, at some point during a particularly delicate section of a chamber concert, a Hog is bound to drive by and rev freely. Kirkegaard wants to make sure the motorcycle is heard as little as possible.

After darting outside to thank Donovan (“Now, don’t ever do that during performances,” he jokes), Kirkegaard huddles with a group of construction workers to show them what needs to be done. He shows where insulation needs to be stuffed into cracks and where to install a rubber barrier around a door lock.

“The simple way to do this would have been to build a concrete block wall and seal it up tight,” explains Kirkegaard about the back of the hall, which includes three glass doors, some sound-absorbing wall panels, and wood. “But you want it to look nice and, as an audience member, you want to see the church steeple and check out the tower. At that point, you have to work hard to keep the noise out.”

Sound matters. Just ask the experts who have roundly criticized Avery Fisher Hall, built in 1962 as the home of the New York Philharmonic and considered a poor-sounding space despite several renovations to fix acoustical problems. On the flip side, Boston’s Symphony Hall is considered one of the world’s best soundproofed halls.

And Chicago-based Kirkegaard’s firm has been hired to do the acoustics on halls around the world, including Ozawa Hall at the Tanglewood Music Center. He’s also been hired as a fix-up man at the Barbican in London, his work there earning raves.

“For concert hall acoustics, there are only a handful of acousticians who have the experience and skill,” said Alan Joslin, whose Cambridge firm, Epstein Joslin Architects, designed the \$20 million building. “Others were a little more mysterious and they prefer everybody leave the room. Larry’s accessible. He’s very willing to explain the concepts and is interested in the dialogue between architecture and acoustics.”

In Rockport, Kirkegaard and Epstein Joslin followed a few basic principles of sound engineering. The hall itself is shaped like a shoe box, following the Symphony Hall model. There are few right angles where walls meet, and some of those walls slope. The surfaces are made of rectangular chunks of stone in different sizes so none is flat.

“You want the hall to hold the reverberation as long as possible,” said Deborah Epstein, the principal for interior design and finishes. “One thing you don’t want is echo. You get echo from parallel surfaces.”

Compromises did have to be made. Rockport Music needed space for galas, weddings, and other functions. That meant creating a space on the top floor and making the ceiling in the performance space lower than Kirkegaard would have preferred. And not every detail is settled. In the weeks leading up to opening night, the acoustician was still debating whether, in a year or two, Rockport Music might want to have a sealant applied to the stone covering the inside walls. He wasn’t sure if the slate, which is porous, would take away too much brilliance from the strings.

But all of this, Kirkegaard conceded, was fine-tuning.

On the day of the motorcycle revving, he spends the afternoon walking up and down stairs, riding a construction platform to pick up sound coming from the hall to the outside world, and he puts down his sound meter to rely on his ear.

“What I can do in 20 seconds would take you two hours with a meter, and it wouldn’t do very much,” says Kirkegaard. “It’d be like sending perfume to a chemist to be analyzed when all you really want to do is smell it.”

The acoustician says the real test for the hall came the morning of April 25. That’s when artistic director David Deveau played Chopin on the organization’s new Steinway Concert Model D piano for a group of board members. That morning, Kirkegaard knew the hall would work.

“If there was a dry eye in the group,” he remembers, “I didn’t see it.” © Copyright 2010 Globe Newspaper Company.