

Richard B. Fisher Center for the Performing Arts Opens at Bard College (New York)

By Dr. Yasuhisa Toyota

On April 25, 2003, Bard College, in Annandale-on-Hudson, New York, held a gala opening for the 900-seat, medium-scale, multipurpose hall that is the key performance facility in the school's new Richard B. Fisher Center for the Performing Arts. The opening marked the completion of Nagata Acoustics first hall project in the United States.

Bard College is located about 150 km (90 miles) north of Manhattan on the east bank of the Hudson River in the small, college town of Annandale-on-Hudson in the picturesque Hudson Valley. Founded in 1860, Bard College has a long tradition as a small, progressive liberal arts college and continues to uphold a strong dedication to the humanities and arts.

The Annual Bard Music Festival



Figure 1: Fisher Center at Bard College - Exterior

Since 1990, the Bard College campus has been host to an annual summer music festival that is now in its 14th year. Prior to this year, the festival was held in a temporary tent facility set up for the festival, and the festival's programming focused on orchestral music, solos and chamber music, with about 10 to 12 concerts and a number of lectures being the main festival offerings.

Starting with this year, the festival occupies its newly built, permanent home for the first time. With the change to the new venue, the festival's programming already demonstrates a broader range of performance genres, expanding in scope to include operas and dance

performances as well as its usual range of music concerts.

Considering the size of the nearby college town and the small size of Bard College, the annual Music Festival's international renown may seem disproportionately large by comparison. But this music festival's strong reputation stretches worldwide, due in large part to its unique programming formula. Each year, the festival dedicates its entire programming to a focus on a single composer, not only exclusively putting the composer's music in its concert programming, but also using lectures, film and other ways to delve deeply into the composer's life and the historical circumstances in which the composer lived. This academically inclined approach has found much favor and acclaim among erudite New Yorkers, who also appreciate the opportunity to enjoy the Hudson Valley's cool

respite from the hot New York City summer weather.

College President Leon Botstein's Vision

At the helm of the annual Bard Music Festival is Mr. Leon Botstein, president of Bard College. Mr. Botstein also serves as Music Director and Principal Conductor of the American Symphony Orchestra, which performs its main subscription seasons at Lincoln Center's Avery Fisher Hall.

The new performing arts center is the brainchild of Mr. Botstein. It creates for the college both a venue for performing arts instruction and performances, and, through the annual Music Festival, aims to increase Bard's ability to draw students and visitors to Bard and the Hudson Valley region. In the words of Bard College's website, "the arrival of this extraordinary building marks a transforming event in the cultural life of the college and the region—a moment in which theater, dance, music, and opera have found a stunning new showcase in New York's historic Hudson Valley."

To implement Mr. Botstein's vision, the center's construction project was supported by a budget of \$62 million, including about \$5 million of funding invested by New York State. Under Mr. Botstein's direction, the center's 900-seat Sosnoff Theater was planned and designed as a multipurpose hall for both concert and opera performances.

Master Architect Frank O. Gehry

Master Architect Frank O. Gehry designed the Richard B. Fisher Center for the Performing Arts. Mr. Gehry is also the architect with whom Nagata Acoustics is working on the Disney Concert Hall in downtown Los Angeles. The earlier opening of the Richard B. Fisher Center for the Performing Arts makes it a harbinger for the Disney Concert Hall project that is still in progress.

Acoustical Characteristics of this Multipurpose Hall: A Focus on the Acoustic Shell

Even though the new hall at Bard needed to be a multipurpose hall, this did not mean that there was any willingness to compromise on the hall's acoustical characteristics, which aimed for world-class concert hall acoustics. To this end, from the start of the acoustical design work, we focused on the highly significant stage area and, in particular, on the design of the stage's removable acoustic shell.

To enable performances by large orchestras, we defined a stage with a large area and we also made sure that the ceiling above the stage would have adequate height. Our approach was to design the orchestra pit so that it can be raised to stage height for concert use. As a result, so that the stage used for concert performances protrudes as much



Figure 2: Hall Interior

as possible towards the audience seating area and has a higher stage ceiling height than was formerly possible in a multipurpose hall.

In addition, to obtain effective sound reflections for the entire range of low-to-high frequency sound, a key aim of the design was to maximize the mass of the acoustic shell. But we were also working under an obligation to contain construction costs, and a compromise plan was implemented regarding the time and labor necessary for the acoustic shell's set-up and storage. Setting up the acoustic shell requires five or six people and five-to-six hours of work.

The Hall's Acoustical Characteristics

The hall's reverberation time (at 500 Hz) is:

- Concert hall configuration: 1.9 seconds (unoccupied hall) and 1.7 seconds (fully occupied, estimated calculation based on the unoccupied hall's measured value).
- Opera configuration: 1.3 seconds (unoccupied) and 1.1 seconds (fully occupied, estimated calculation based on the unoccupied hall's measured value).

The hall's HVAC system noise level is controlled to lower than NC-15 throughout the audience seating area.

Preparing for Mahler as the Opening Concert

The hall's opening concert program featured Mahler's Third Symphony, a composition that requires a large orchestra of about 100 members. From the perspective of the hall's seating capacity (about 800 seats for the concert hall configuration), a chamber orchestra-sized ensemble could fairly be considered the ideal size performance group for such a space. Mr. Botstein's decision to push the limits of the hall's capabilities for the inaugural concert was in keeping with his character as music director. (In the words of the hall's website: "The Frank Gehry-designed center ... inspires risk-taking and provocative programs.") At the same time, this presented a large challenge to us at Nagata Acoustics.

In the post-construction period, through the acoustical tuning sessions that involved various sizes and kinds of ensembles, followed by the opening concert rehearsals and the opening performance, our stress levels stayed unabatedly high. Thankfully, the result was a Mahler symphony of unequivocal and resounding success. Even the moments of large volume fortissimo that were our greatest concern did not take the sound to the point of acoustical saturation; the sound of each of the instruments on stage could be heard with distinct clarity. The delicate pianissimos also reached every seat in the hall.

Solo and chamber music concerts followed the opening concert, and each demonstrated the new hall's acoustical capacity and versatility. The hall received rave reviews from the New York Times and other respected publications.

Bard Summer Scape 2003

On July 25th, as part of this year's Bard Music Festival, Sosnoff Theater will have another gala opening with its opera-configuration performance. This year, the festival highlights Czechoslovakian composer Leos Janacek, and his opera "Osud" (Fate) will be performed. Of particular note for the opera configuration is the stage design, which was designed by master architect Frank Gehry.