

Copenhagen's New Concert Hall Opens

By Dr. Yasuhisa Toyota

Denmark's Copenhagen ushered in the opening of a new concert hall on January 17, 2009 with a gala inauguration concert. The hall is part of the new headquarters of the Danish Broadcasting Corporation (Danish Radio) and was built in conjunction with the larger project's goal to house all Danish Radio offices and studios in a single location. Like Denmark, Japan also has a national broadcasting corporation, "NHK," and Tokyo has an NHK Hall. But while Japan's NHK hall is built as a multipurpose facility, Copenhagen's new Danish Radio Hall has the distinction of being designed specifically as a concert hall.

Danish Radio Concert Hall will be the home base of the Danish National Symphony Orchestra, which is closely affiliated with the broadcast network. The opening of Danish Radio Concert Hall marks Nagata Acoustics' completion of our first hall project in Western Europe.

The Project Architect and Acoustical Consultant Team

The new hall's conceptual planning began with the architectural design competition held in 2001-2002. In 2001, the Danish Radio committee responsible for key decisions about the new hall traveled worldwide to experience other concert halls and prepare themselves for selecting the concert hall's architect. Then, in the autumn of 2001, the committee held a design competition, completing the selection process in early 2002 when it named the French firm of Ateliers Jean Nouvel as the project architect.

During this early planning phase, the committee also decided how to select the project's acoustical consultant and how to involve or associate this selection with the selection of the project architect. Throughout the world, each time the planning of a major concert hall begins, the decision makers typically reconsider the various approaches to selecting and forming the architect and acoustical consultant team. I wrote about the process adopted for Danish Radio Concert Hall in the April 2002 issue of this newsletter. A key aspect of the Danish Radio Concert Hall selection process was to have each short-listed architect select a short-listed acoustical consultant and, together, to have the architect and acoustical consultant jointly prepare and submit a proposal to the design competition. By the way, when I wrote about the design competition in 2002, I mentioned a target completion date of 2006. The actual completion date was two years later, in the autumn of 2008.

Danish Radio Concert Hall's Unique Architectural Design

Architect Jean Nouvel's design for Danish Radio Concert Hall has a notably unique exterior and interior. The exterior is enveloped in a thin blue fabric skin that functions as a projection screen. During the daytime, the building has a somewhat unusual appearance and almost resembles a structure still under construction that has

been temporarily wrapped in cloth. When the dark hours of nighttime arrive, which happens before concerts begin, strong projectors installed outside the building send real and abstract images onto the building's skin, creating the illusion of fascinating landscapes and scenery.

The exterior design of this concert hall was surely conceived with the nighttime hours in mind. Fundamentally, a concert hall functions in the evening when most performances are held. If we combine this piece of information with the fact that the prime concert season is the winter months when the Nordic countries especially experience long hours of darkness, we can understand how Jean Nouvel's inspired design truly hits the mark for this concert hall in the city of Copenhagen.

Danish Radio Concert Hall Interior

The Danish Radio Concert Hall interior has audience seating for 1,800 persons arranged in a vineyard configuration. Even though the so-called "shoebox," rectangular hall configuration has a reputation for good acoustics, the Danish Radio decision makers specifically selected the vineyard configuration, prioritizing the enhanced sense of intimacy and sense of presence that this configuration creates both visually and acoustically. At Danish Radio Concert hall, the audience can see the faces of other audience members seated in other seating blocks that rise above the stage on all sides.

The design of the hall interior took as its starting point the vineyard configuration of Berlin Philharmonic Hall and evolved to have a unique appearance. An abundant use of wood covers the sidewalls around the blocks of audience seating and the hall ceiling, and the sidewalls form beautifully flowing concave and convex curves. Overall, the interior color scheme uses light, reddish tones, creating a warm and welcoming feeling in the hall.

Timing of the Project's Completion and Opening Night

This project encountered delays and completed just before the January 2009 date of the gala opening. Orchestras and other performers need time to acclimate themselves to the acoustics of a new hall. From the date of the completion of construction until the opening date of a hall, at least three months of preparation time are required, and from the acoustical consultant's standpoint, the longer the



Figure 1: Exterior



Figure 2: Interior

period for fine tuning the hall the better.

Prior to the opening of Danish Radio Concert Hall, the orchestra had almost no time to rehearse in the hall. However, the Danish National Symphony Orchestra admirably adapted extremely quickly to its new home and I can gladly report that they performed the opening gala with barely a hint of being in a new environment.

The Opening Gala and Highlights of the Opening Season

Below is the list of 10 composers represented in Danish Radio Concert Hall's gala opening concert program:

1. Andy Pape (1955- , Denmark)
2. C.F.E. Hornemann (1840-1906, Denmark)
3. Henri Tomasi (1901-1971, France)
4. Ambroise Thomas (1811-1896, France)
5. Camille Saint-Saens (1835-1924, France)
6. Rued Langgaard (1893-1952, Denmark)
7. Charles-Marie Widor (1844-1937, France)
8. Carl Nielsen (1865-1931, Denmark)
9. Jules Massenet (1842-1912, France)
10. Maurice Ravel (1875-1937, France)

As the reader can see, the program featured the works of four Danish and six French composers. With the two exceptions of Saint-Saens' "The Swan" and Ravel's "Bolero," the entire program was filled with minor compositions that I, for one, was hearing for the first time. The program was recondite fare for a gala opening concert and the audience became energized by the "Bolero" finale. The Danish National Symphony Orchestra's first season calendar included large-scale works such as Mahler's Symphony No. 2 ("Resurrection"), Beethoven's Symphony No. 9 ("Chorale"), and Stravinsky's big three ballets, any of which would have been appropriate for an inaugural concert, the gala opening seemed even more somber by comparison.

Of the major works on this season's calendar, I had the opportunity to attend a performance of Mahler's "Resurrection." When I listened to the alto softly begin to sing the fourth movement and, later, in the fifth movement, when the chorus began to sing, the acoustics so moved me that I felt my skin tingle with goose bumps as I experienced these tone fill the air. This was when I knew for sure that the Danish Radio Concert Hall project was a success.

Due to the project's construction delays, our final acoustical measuring in the completed hall was moved to after the hall's opening and is still a pending activity. We expect to complete this task soon and obtain quantitative physical acoustics data. When we have the measurements, I look forward to sharing them with our newsletter readers.

For photos and other information, visit <https://drkoncerthuset.dk/dr-koncerthuset-english/>