

DANISH RADIO CONCERT HALL

COPENHAGEN, DENMARK
2009

**NAGATA
ACOUSTICS**

Acoustic Consultant:	Nagata Acoustics
Architect:	Jean Nouvel (Ateliers Jean Nouvel, Paris, France)
Owner:	Danish Radio
User:	Danish National Radio Symphony Orchestra
Construction Cost:	1.4 billion Danish Kroner (190 million EUR, 250 million USD)

Danish Radio (Danish Broadcasting Corporation) decided to build a new concert hall when Danish Radio moved its headquarters and all other facilities to a new campus. The concert hall was built as a part of their new home. The new hall has audience seating for approximately 1,800 persons and has been designed as a concert hall for classical music. The Danish National Radio Symphony Orchestra is the resident orchestra of the new hall.

The competition for the design team (architect-acoustician) for the new concert hall was conducted by the client, Danish Radio, from the end of 2001 to the beginning of 2002. The team of French architectural firm Ateliers Jean Nouvel, with Nagata Acoustics as the acoustical consultant, was chosen.

BUILDING DETAILS AND ACOUSTICS DATA

Address Emil Holms Kanal 20
0999 København C

Seating Capacity 1,800

Room Volume 28,000 CM

Reverberation Time (500Hz Oct. Band, Variable Acoustics: Reflective/Absorptive)

Unoccupied 2.0 sec (Reflective) 1.6 sec (Absorptive)

Occupied (Calculated) 1.8 sec (Reflective) 1.5 sec (Absorptive)

Finish Materials

Ceiling and Canopy: Microshaped veneer + Multiple layered gypsum boards
(Mass 100 kg/m²)

Balcony and Stage walls: Microshaped multiplex board + Multiple layered gypsum boards (Mass 100 kg/m²)

Wave wall: Multiple layered gypsum boards (Mass 36 kg/m²)

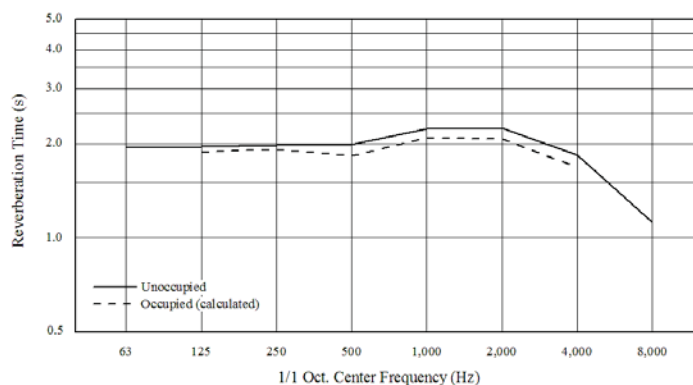
Rear wall: Perforated gypsum board + Mineral wool 50 mm + Air space

Audience floor: Wooden parquet + Multiple layered gypsum boards

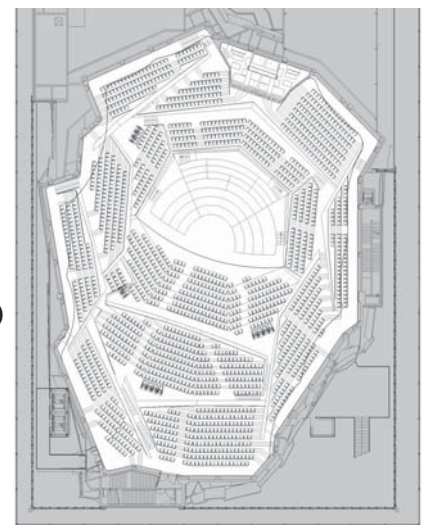
Stage floor: Port Orford Cedar 50 mm supported with wooden joists and sleepers

Seat: Upholstered

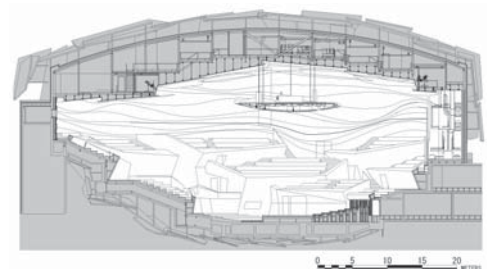
Pipe Organ: J. L. van den Heuvel Orgelbouw bv



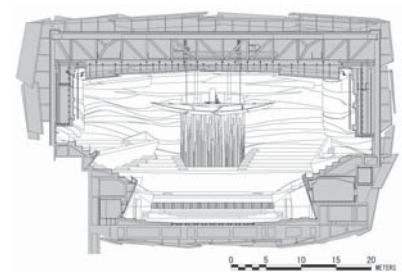
REVERBERATION TIME
(Variable Acoustics: Reflective)



PLAN



LONGITUDINAL SECTION

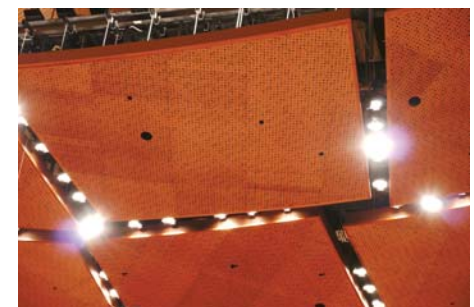


TRANSVERSE SECTION

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NAGATA
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HALL INTERIOR

WAVE WALL, MICROSHAPING



HALL WITH CURTAINS DEPLOYED



BUILDING EXTERIOR