

# SAPPORO CONCERT HALL "KITARA"

SAPPORO, JAPAN  
1997

NAGATA  
ACOUSTICS

Acoustics Consultant:	NAGATA ACOUSTICS, Inc.
Architect:	Hokkaido Engineering Consultant Co., Ltd.
Owners:	City of Sapporo
Sound & Communications:	NAGATA ACOUSTICS, Inc.
Construction Cost:	¥ 16,500 Million JPY

The Sapporo Concert Hall, whose nickname is "KITARA", has 2008 seats and was opened on July 4, 1997. The hall was built as a classical music concert hall and as home of the Sapporo Symphony Orchestra and the Pacific Music Festival that was established by Leonard Bernstein as an international and educational music festival. The hall was designed with the surrounded stage style and "vineyard steps" seating arrangement like the Philharmonic Hall in Berlin and the Suntory Hall in Tokyo.

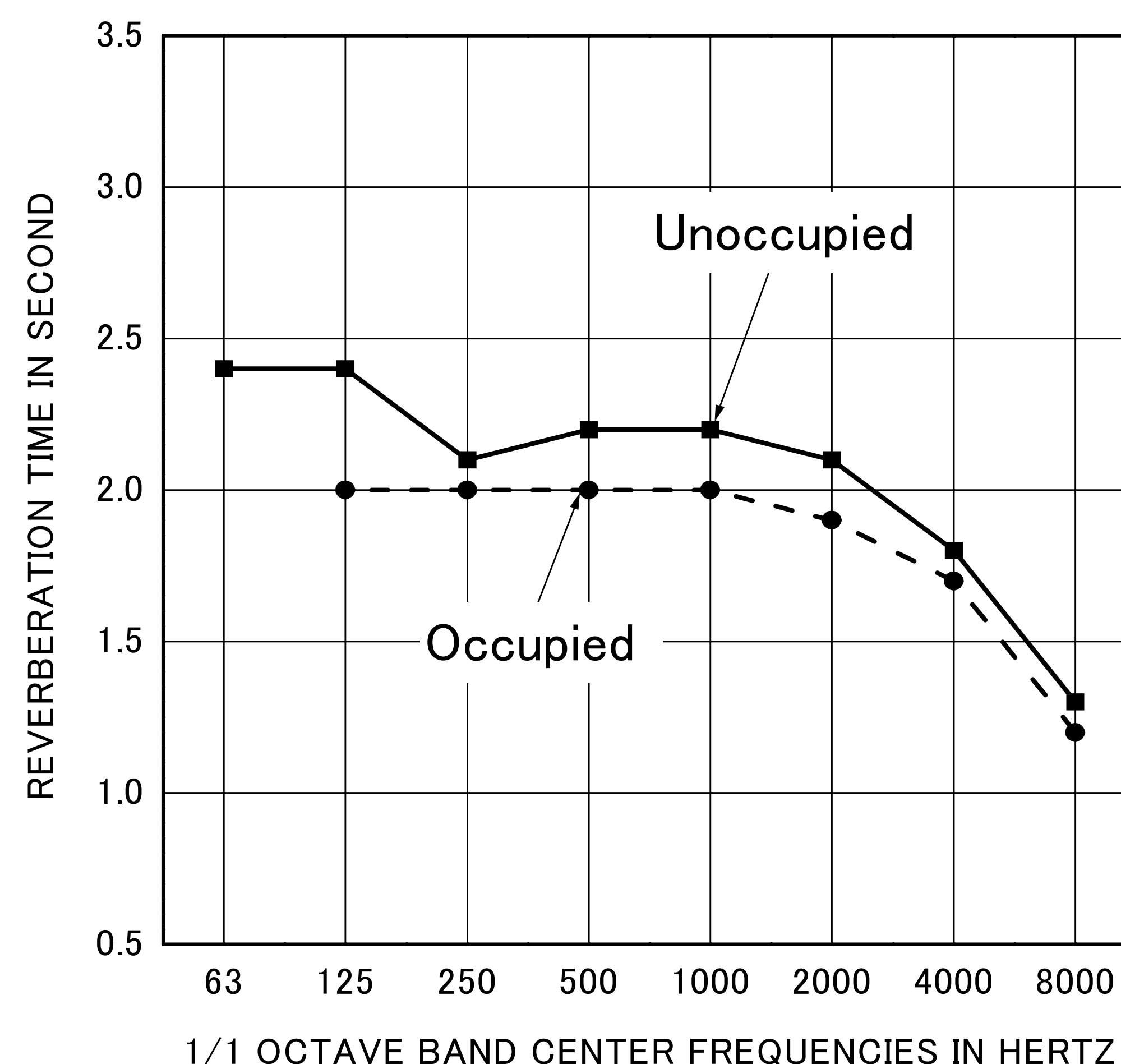
The emphasized points in the room acoustical design were as follows;

1. Use of the "vineyard steps" walls introduced into audience area to provide effective early reflections.
2. Large sound reflectors suspended above the stage area provide effective early reflections to the stage musicians and the audience around the stage.
3. Massive ceiling with 150 millimeters thick concrete to support the response in the low frequencies.

Sir Simon Rattle, visited with the City of Birmingham Symphony Orchestra in May 1998, left his comment "The best modern concert hall in the world!!".

## BUILDING DETAILS AND ACOUSTICS DATA

Location	1-15 Nakajimakoen, Chuo-ku Sapporo City 064-0931, Japan
Tel	011-520-2000
Seating Capacity	2,008
Room Volume	28,800 CM
Surface Area	8,200 SM
Stage Area	237 SM
Reverberation Time (Mid-Frequency)	
Unoccupied	2.2 sec
Occupied	2.0 sec
Finishing Materials	
Ceiling	: 200 mm precast concrete
Wall	: 2 layers of gypsum board (12 mm x 2)
Floor	: 50 mm wooden board on concrete
Seat	: upholstered
Miscellaneous	: suspended ensemble reflectors with 4 layers of fiberglass reinforced gypsum board (12 mm x 4)
Organ	: 68 stops (Alfred Kern & Fils Manufacture D'Orgues, France)
Noise Level	: NC - 15
Other Facilities	: Chamber Hall (453 seats)
Total Cost	: ¥ 16,500 Million JPY
Total Floor Area	: 20,746 SM



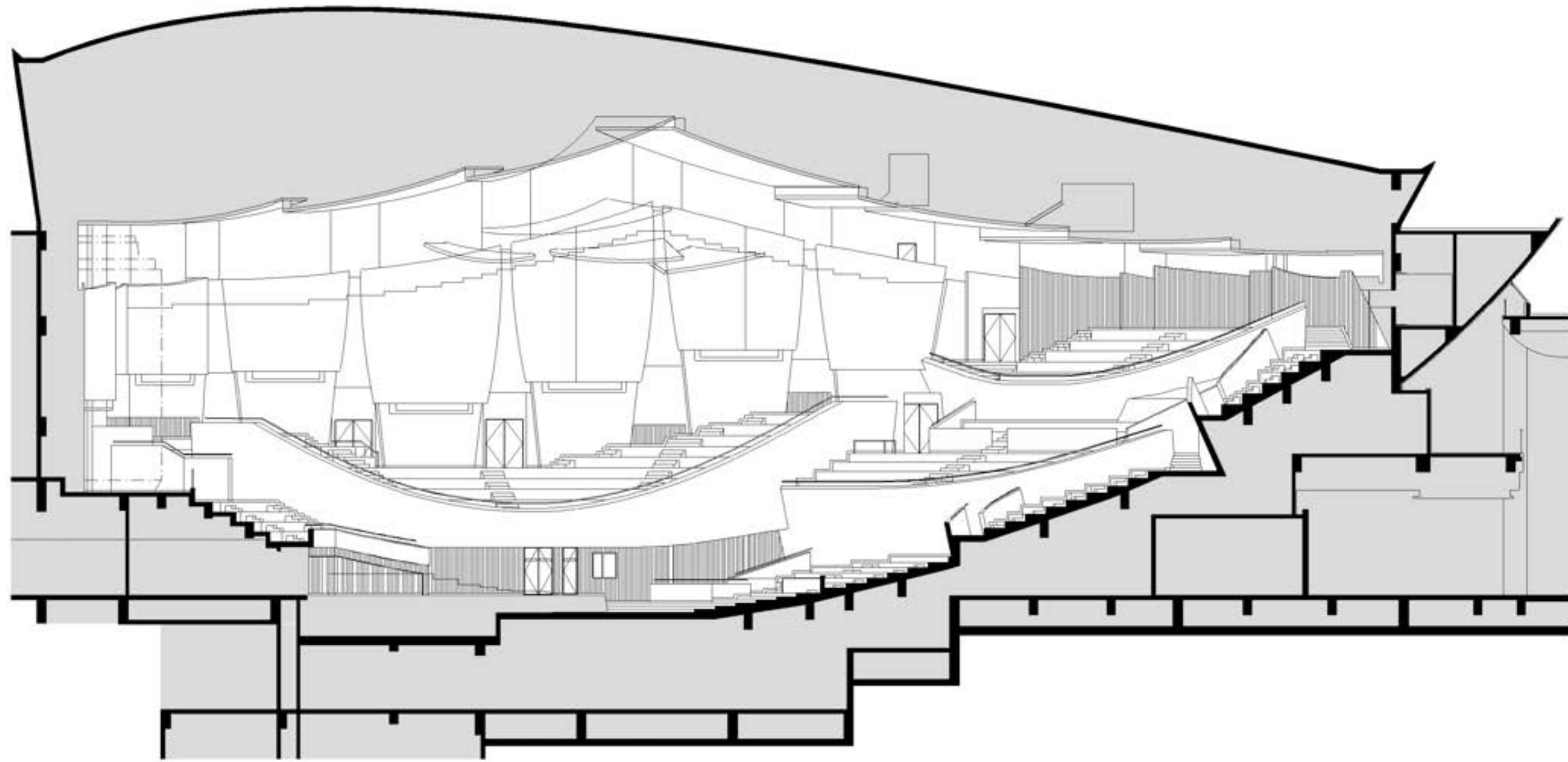
**REVERBERATION TIME**

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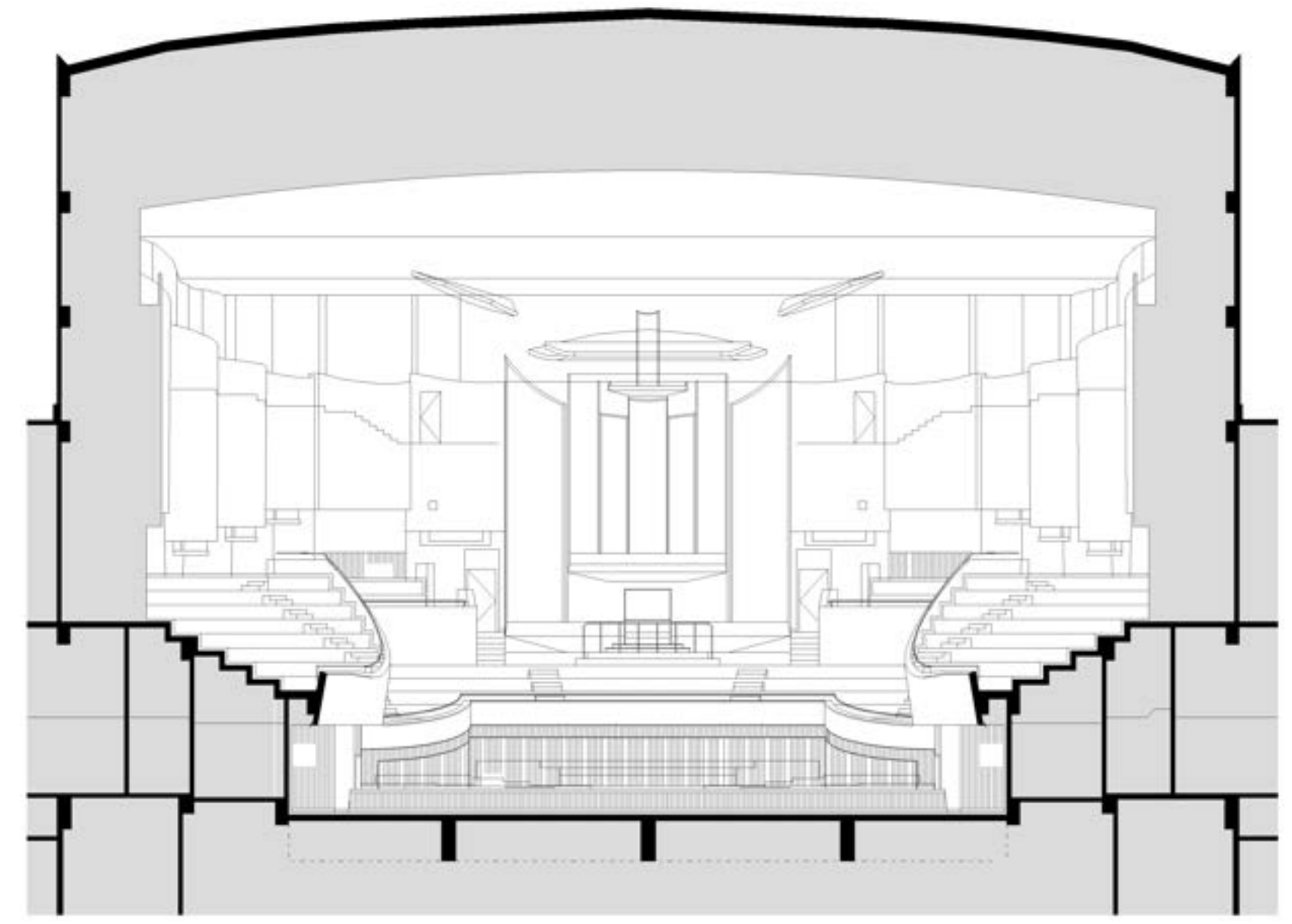
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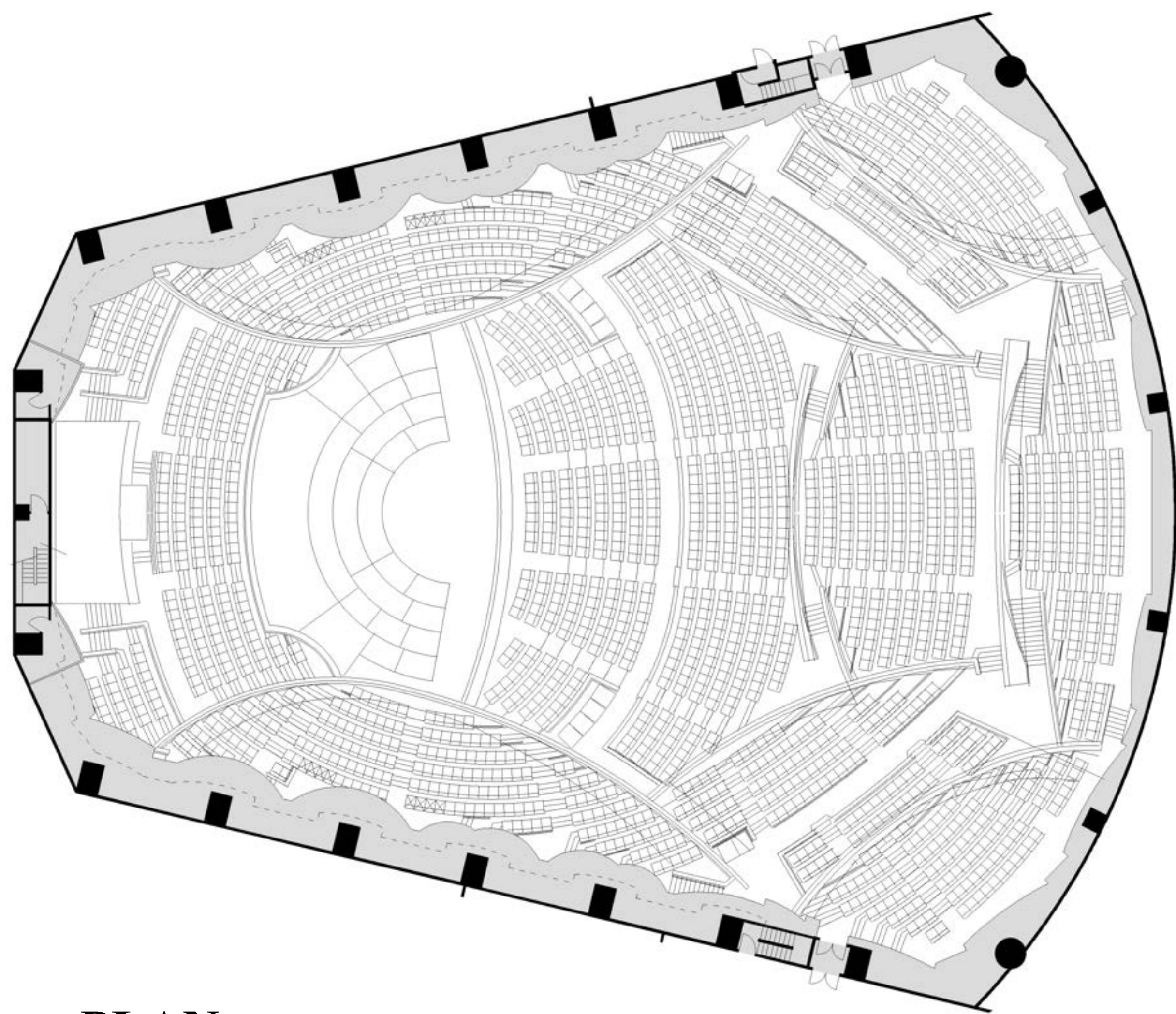
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LONGITUDINAL SECTION



TRANSVERS SECTION



PLAN

0 5 10 15 20 METERS

