

Acoustics Consultant:	NAGATA ACOUSTICS, Inc.
Architect:	Kunio Maekawa & Associates
Owners:	Kumamoto Prefecture Government
Theater Consultant:	Professor Kyonosuke Kotani (Nihon University)
Sound & Communications:	NAGATA ACOUSTICS, Inc.
Construction Cost:	¥ 7, 273 Million JPY

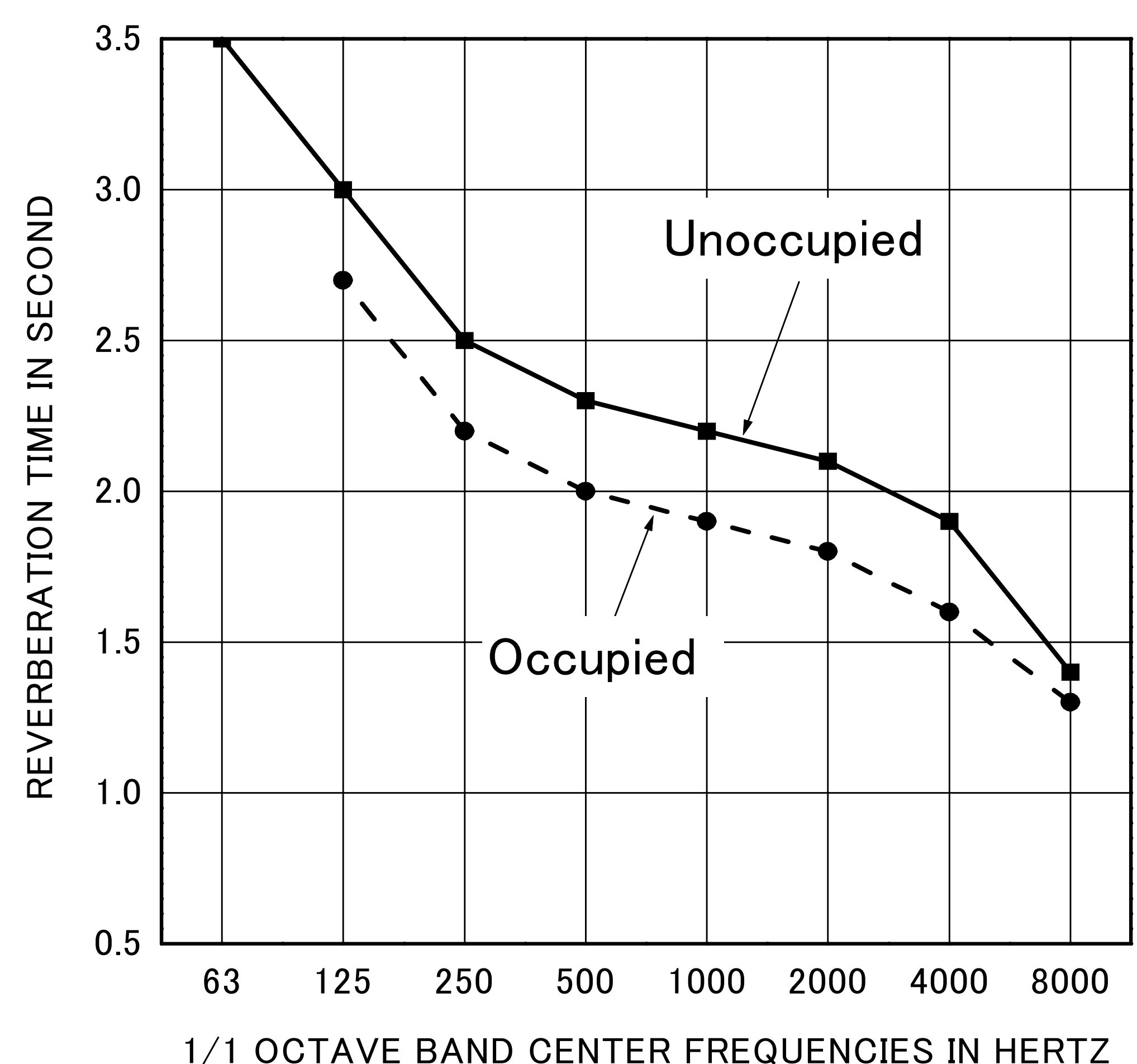
The Kumamoto Prefectural Theater was the first public cultural complex facility in Japan and was constructed in Kumamoto City located in northwest part of Kyusyu. The building is composed of a concert hall with 1,813 seats, a drama theater with 1,183 seats, a rehearsal room and a music practice room. The concert hall has a sloped floor with two ranks of balconies.

The main issues of the acoustical design were:

- (1) In order to achieve a reverberation time of around two seconds, room volume of 10 cubic meters per seat was proposed at the planning stage of the building.
- (2) In order to obtain effective early reflections in such large space, a width of 20m on the main floor was achieved by the sagging wall of the side wings.
- (3) In order to obtain early reflections in the audience area, the side walls of the main floor were tilted about eight degrees inwards.
- (4) This concert hall was mainly planned for traditional classical music, however for lectures, meeting and other performances, five loudspeaker clusters were mounted on the sidewall and the ceiling near the stage. Three large loud speaker clusters mounted on the ceiling are movable, so that it is possible to set a suitable height for musical performances and the audience is unaware of the existence of the loudspeaker clusters during classical music concerts.

BUILDING DETAILS AND ACOUSTICS DATA

Location	2-7-1 Oe, Kumamoto City 940-2101, Japan
Tel	096-363-2233
Seating Capacity	1,813
Room Volume	19,410 CM
Surface Area	6,410 SM
Stage Area	372 SM
Reverberation Time (Mid-Frequency)	
Unoccupied	2.3 sec
Occupied	2.0 sec
Finishing Materials	
Ceiling	: 2 layers of gypsum board (9mm x 2)
Wall	: fair-faced concrete
Floor	: vinyl tile
Seat	: upholstered
Noise Level	: NC - 20
Other Facilities	: Theater (1,172 seats)
Total Cost	: ¥ 7, 273 Million JPY
Total Floor Area	: 23,658 SM



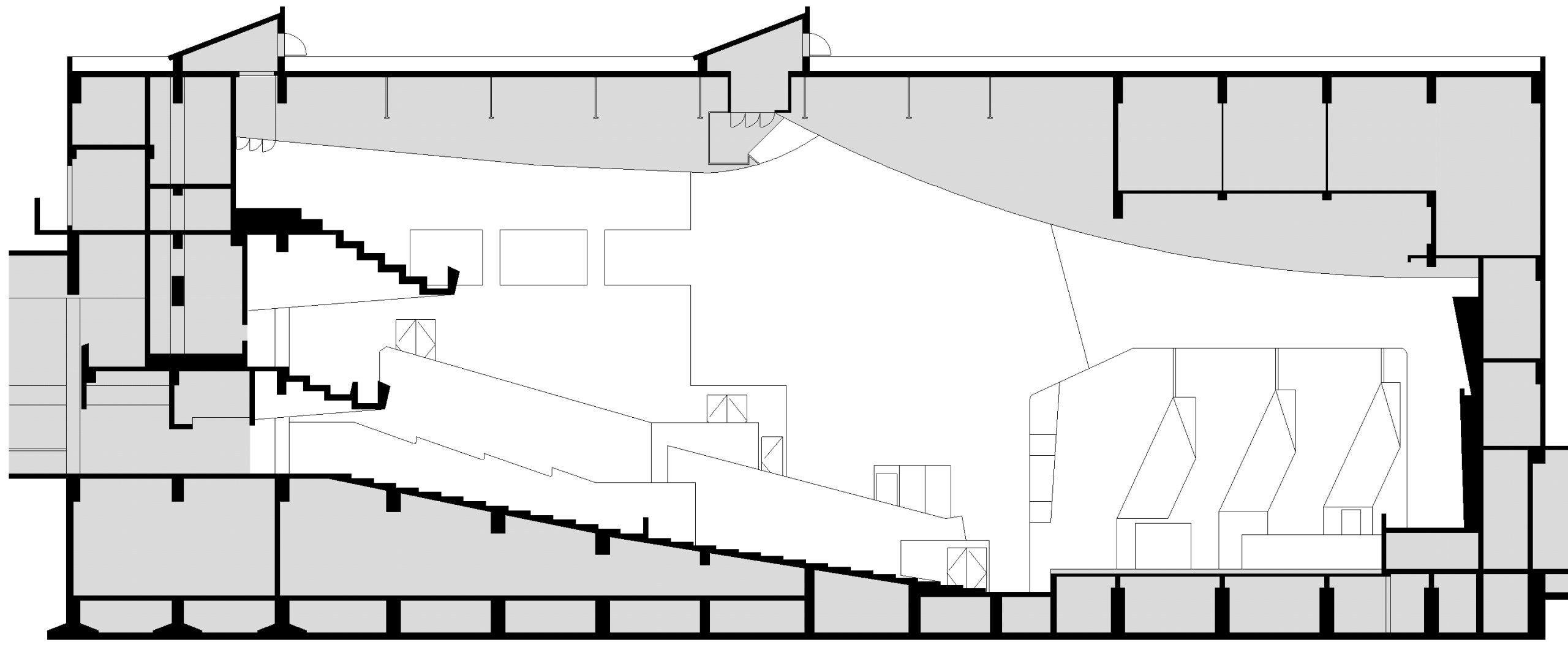
REVERBERATION TIME

KUMAMOTO PREFECTURAL THEATER

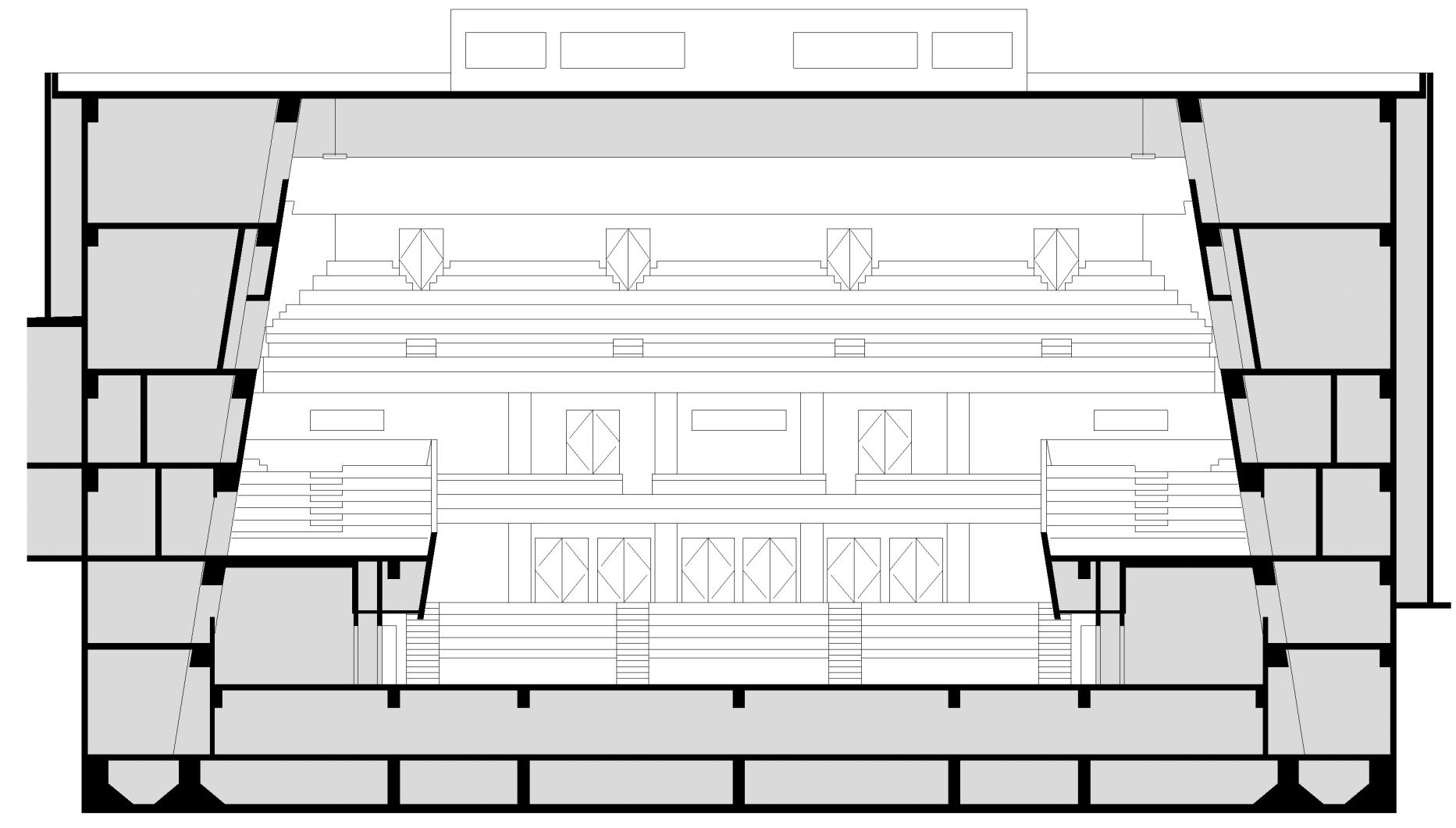
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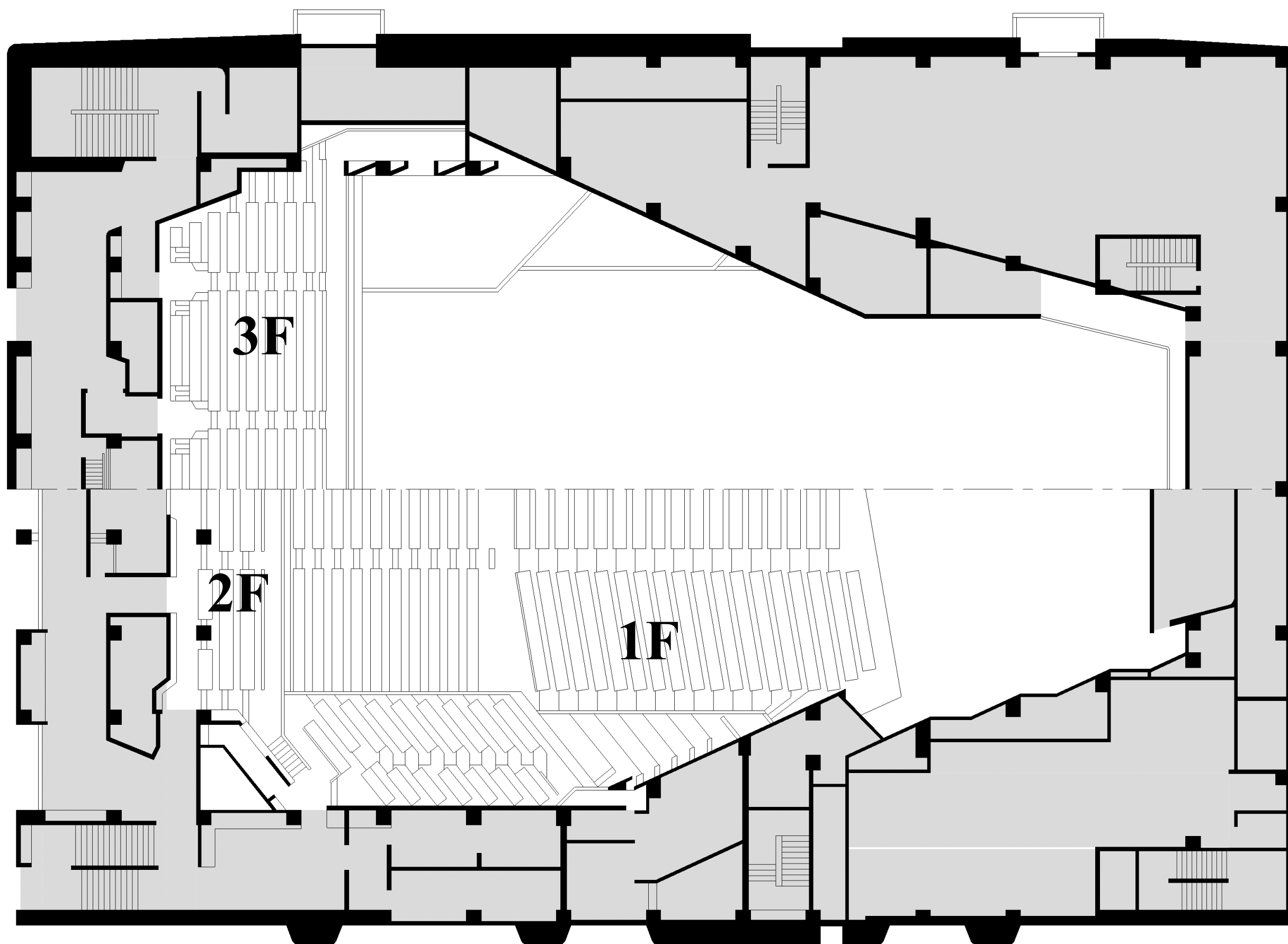
NAGATA
ACOUSTICS



LONGITUDINAL SECTION



TRANSVERS SECTION



0 5 10 15 20 METERS

PLAN

