

ART TOWER MITO, ACM Theatre

MITO, JAPAN

NAGATA
ACOUSTICS

ACOUSTICS CONSULTANT:	Nagata Acoustics, Inc.
AUDIO SYSTEMS / SOUND & COMMUNICATIONS:	Nagata Acoustics, Inc.
OWNER:	City of Mito
ARCHITECT:	Arata Isozaki & Associates
THEATER CONSULTANT:	Stage Technical : Prof. Hiroyuki Shimizu Stage lighting : Juko Sato
CONSTRUCTION COST:	9,711 Million JPY
COMPLETION DATE:	1990

Art Tower Mito (ATM), opened in March 1990, was proposed by Mito City in commemoration of the 100th anniversary of the founding of the municipal government in the center of Mito City. It is located about 120-kilometers from Tokyo. The building has a concert hall, a drama theatre, and a modern art gallery. ACM (Acting Company Mito) Theatre is an amphitheatre, like the Globe Theatre for Shakespeare's drama, and has 472 to 636 seats.

The theatre has a circular configuration with balcony seats in three tiers. Whereas the first and the second balconies surround a thrust stage in the shape of a letter "C", the third balcony and the gallery above it—called the "technical gallery", where acoustical and lighting engineers work—are arranged in the shape of a ring, completely surrounding the thrust stage.

From the acoustical viewpoint, the rear wall of the audience area was designed with a sound absorption

structure, using an openwork design of bricks in order to prevent sound focusing because of the theatre's circular configuration. Also, the ceiling of the technical gallery adopted a sound absorption structure, with the intention of presenting the image of a courtyard—that is, the impression of a sound escaping upward.

The sound system aims for the substantial reproduction of sound effects so that it can respond to various types of performances. A mixing console has been especially developed and manufactured for this theatre and employs a digital system that can memorize and reproduce up to 1,000 mixing parameters.

CRITICAL DATA

Seating Capacity 472~636

Room Volume 7,300m³

Reverberation Time (Mid-Frequency)

Unoccupied 1.4 sec

Occupied (636) 1.2 sec

Noise Level NC-25

Finishing Materials

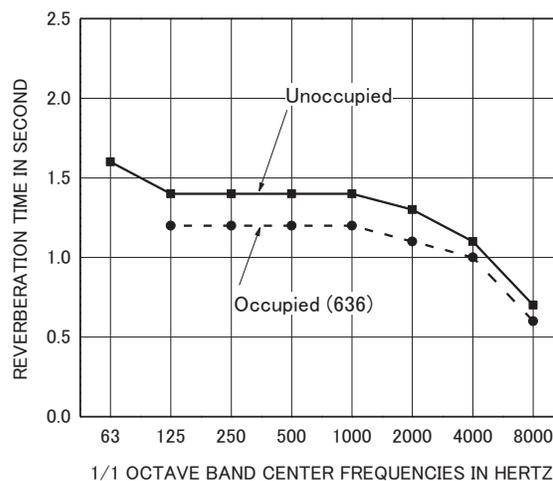
Ceiling (Tech. gallery) 25mm glass fiber

Lower Wall: Brick openwork masonry

Upper Wall: Brick masonry

Floor: flooring block

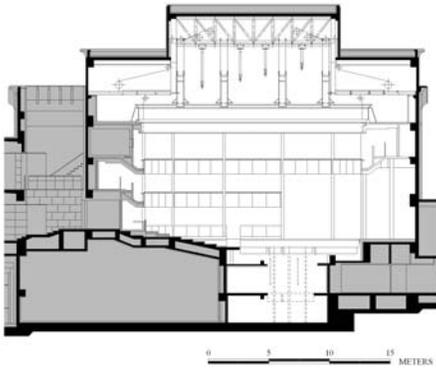
Seat: Upholstered



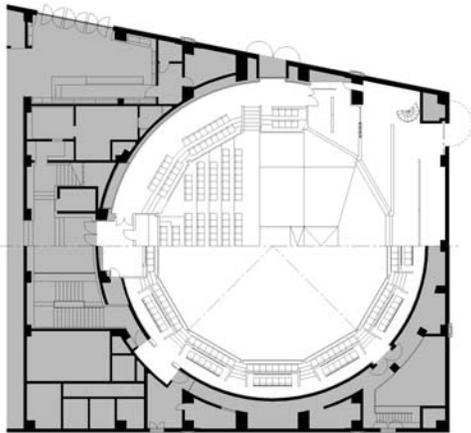
REVERBERATION TIME

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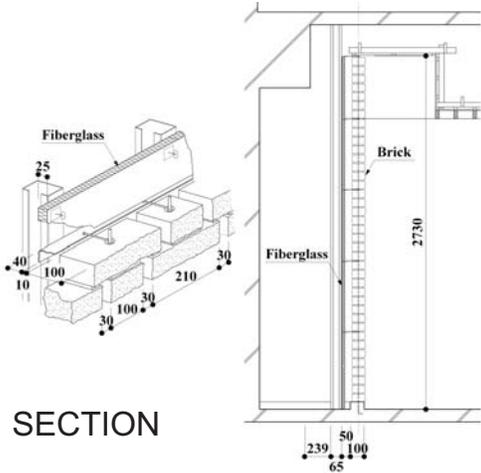
MITO, JAPAN



SECTION



PLAN



SECTION

DETAIL OF REAR WALL



(photographer: Yasuhiro Ishimoto)