

| Acoustics Consultant: | NAGATA ACOUSTICS, Inc. |
|-------------------------|------------------------------|
| Architect: | Yasui Architects |
| Owner: | Suntory Limited |
| Sound & Communications: | NAGATA ACOUSTICS, Inc. |
| Construction Cost: | ¥6,000 Million JPY (approx.) |

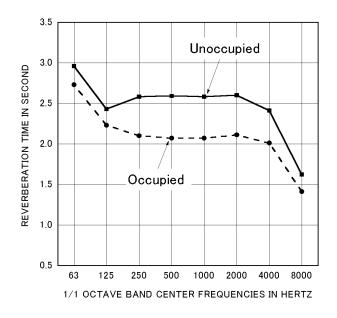
Suntory Hall, opened in 1986, was Tokyo's first large concert hall planned especially to accommodate large symphonic ensembles. Suntory Hall was established as a premier concert hall in Tokyo in commemoration of the 60th anniversary of whisky production and the 20th anniversary of beer sales by Suntory Limited.

The focus of the design was to achieve a sense of oneness between musicians and audience. The seating area was arranged around the stage and divided into small blocks in a configuration similar to Berlin Philharmonic Hall, called "vineyard steps." Nine visually-transparent plexiglass panels were suspended above the stage, and the orchestra risers are divided into 21 blocks. A 74-stop pipe organ from Rieger Orgelbau of Austria was installed at the front.

This hall has been very well received by local and visiting musicians, promoters, and audiences. At present, the hall is used as the home for Tokyo's six professional orchestras. It has served as the site for more than 365 performances per year and is considered Tokyo's premier hall for classical music. Maestro Herbert von Karajan, when he visited in 1987 with the Berlin Philharmonic, expressed his views in the following manner: "I was deeply moved by the outstanding sounds of the hall. It is truly a jewel box of sound."

BUILDING DETAILS AND ACOUSTICS DATA

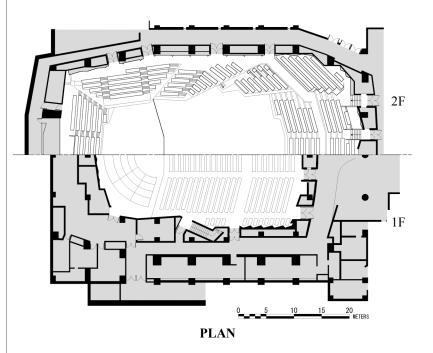
| BUILDING DETAILS AND ACOUSTICS DATA | | |
|---|--|--|
| Location | 1-13-1 Akasaka, Minato-ku | |
| | Tokyo 107-0052, Japan | |
| Tel | 03-3505-1001 | |
| Seating Capacity | 2,006 | |
| Room Volume | 21,000 m ³ | |
| Surface Area | 6,700 m ² | |
| Stage Area | 235 m ² | |
| Reverberation Ti | me (Mid-Frequency) | |
| Unoccupied | 2.6 sec | |
| Occupied | 2.1 sec | |
| Finishing Materi | als | |
| Ceiling | : 2 layers of gypsum board (12 mm x 2) | |
| Frontal Wall | : Wooden surfaced gypsum board on | |
| | concrete | |
| Side Wall | : Wooden surfaced gypsum board + | |
| | 1-2 layers of woodchip board (50 mm x 2) | |
| Floor | : 50 mm wooden board on concrete | |
| Seat : Upholstered | | |
| Miscellaneous : Suspended ensemble reflectors with plaxiglass | | |
| Pipe Organ | : 74 stops (Rieger Orgelbau, Austria) | |
| Noise Level | | |
| Other Facilities | : Recital Hall (384 seats) | |
| Total Cost : ¥6,000 Million JPY (approx.) | | |
| Total Floor Area | | |
| | | |



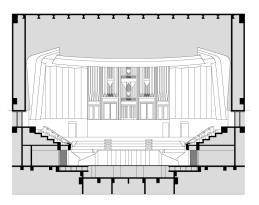
REVERBERATION TIME

SUNTORY HALL TOKYO, JAPAN 1986

LONGITUDINAL SECTION







TRANSVERSE SECTION







N A G A T A ACOUSTICS