

# New Organs

## Casa Organaria Mascioni, Azzio (VA), Italy The new organ for the Catholic Cathedral in Tokyo, Japan

The cathedral church, the work of well-known architect Kenzo Tanga, was built in 1964 and is acknowledged for its cross-shaped floor and its lively concrete structure. Noteworthy are the windows, rising vertically from the ends of the cross arms and continuing as bright bands that mark the top corners of the roof. The size of the building, seating 1,500, and the slanting walls determine the acoustic, which has a different degree and volume depending on the listener's position. While the church was being built, an electronic organ was placed in a second gallery above the main entrance. This placement was too high to allow the organ good sound diffusion, and furthermore it prevented the light to spread through the large glass window behind it.

The request of the client was for a new mechanical-action instrument placed closer to the assembly and designed to fit and respect the architectural features of the cathedral. The new location of the organ in the lower gallery found an impediment in the tribune; this upper gallery was necessary to the structure of the building itself and could not be removed. In order to solve this problem, we decided to divide the organ in three parts; each was placed as follows: the Positiv (Rück) in the foreground in an 8' case, the Great right behind in a 16' case, with the Recitativo on the top, slightly in the back. Two large openings were made in the upper gallery in order to place the Pedal section in the rear.

The casework follows the architectural lines of the church with great vertical structures, which are divided in the upper part to allow better light. Rods in polished brass, placed on both sides of the casework, follow the inclination of the walls and create a special "sail effect." The weight of this instrument, at least 12 tons, required the gallery to be strengthened by adding a further steel support structure to the existing floor.

The tonal design, meant to combine both liturgical and artistic needs, was developed by Lorenzo Ghielmi. The organ of the Cathedral of Tokyo is one of the few instruments in Japan on which music can be played in a different environment than in a concert hall; here the sounds are clear and transparent, meant to reverberate in this church. The Japanese customer expressly requested Italian characteristics for some stops of the Positiv, modeled after the family Antegnati (Italian organbuilders, XVIth century). They wanted a modern, versatile instrument on which an extensive repertoire could be played as well as one suited for liturgical requirements.

The lightness of the action, in spite of the large dimensions of the instrument, allows the organist a perfect control of the touch. The slightly unequal temperament (five pure fifths, five fifths 1/6 of a comma narrow, two fifths 1/12 of a comma narrow) gives beauty to the overall sound, allowing the use of all keys. In order to settle the extended temperature and humidity fluctuations, typical of the Japanese weather conditions and known to adversely affect the wooden structures, a self-adjusting system for the mechanical action was applied to prevent unwanted movement of the keys.

A special free-system was employed to literally "hang" the organ onto a steel rod running from one side to another of the church walls in order to leave the organ free to shake during earthquakes but prevent collapsing.

Lorenzo Ghielmi played the inaugural concert for an audience of 1,200, including representatives of the Italian Embassy of Japan, the Apostolic Nuncio, and the archbishop of the city of Tokyo. Japanese National Television (NHK) recorded a program that showed the work in progress. On three different occasions, a team of four engineers was filmed



Detail of keyboards

building the instrument in Italy, while the assembly and installation were filmed in Japan. This led to a two-hour documentary, broadcast prime-time on NHK.

When the instrument was set up in our assembly hall, we held a weekend open house. This event, published on our website and in local newspapers, was hugely successful, as we were visited by an unexpectedly large number of interested parties.

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### Mascioni Organi Tokyo Cathedral

#### Manual I – Positiv (Rück)

- 8' Bordone
- 8' Principale
- 2 $\frac{2}{2}$ ' Sesquialtera II
- 2' Ripieno III
- 8' Cromorno
- Italian stops (Antegnati)*
- 8' Principale Italiano
- 4' Ottava
- 2' Decimaquinta
- 1 $\frac{1}{2}$ ' Decimanona
- 4' Flauto in VIII°
- 8' Voce Umana (dal C3)
- Tremolo

#### Manual II – Great

- 16' Principale
- 8' Principale
- 4' Ottava
- 2 $\frac{2}{2}$ ' Quinta
- 2' Ottava
- 2' Mistura V
- $\frac{3}{2}$ ' Cimbalo III
- 8' Flauto a camino
- 4' Flauto a cuspid
- 2 $\frac{2}{2}$ ' Nazardo
- 1 $\frac{1}{2}$ ' Terza
- 8' Tromba

#### Manual III – Recitativo (enclosed)

- 16' Bordone
- 8' Bordone
- 8' Viola da Gamba
- 4' Principale
- 4' Flauto
- 2' Flauto
- 8' Cornetto III-V
- 2' Ripieno IV
- 16' Dulziana
- 8' Tromba
- 8' Oboe
- 4' Clarone

#### Pedal

- 32' Subbasso
- 16' Contrabasso
- 16' Violone
- 16' Subbasso
- 8' Basso
- 8' Bordone
- 4' Principale
- 2 $\frac{2}{2}$ ' Mistura IV
- 16' Tromboni
- 8' Tromba
- 4' Tromba

Mechanical couplers  
III/II  
I/II  
III/Ped  
II/Ped

Manual/pedal compass 58/30



Mascioni Organi, Tokyo Cathedral



Keydesk



Tokyo Cathedral