

AUDITORIUM PAGANINI

1997-2001 Parma, Italy

Parma's new auditorium, named after the great violinist Niccolò Paganini, fits like a delicate crystal box inside the massive masonry of the former Eridania sugar refinery, stimulating a general operation of recovery and redevelopment of an industrial site built in the late 19th century, not far from the city's historic center and lying derelict for some time. The complex included the Barilla pasta factory, public abattoir, agricultural consortium, tram station and a gasometer.

The massive walls and forceful volume of the old factory represented the elements to be preserved and valorized in the design of the new auditorium. The idea behind the project was to verify whether the huge masonry box could be adapted as a "boite à musique". The verification of the proportions confirmed this choice: the linear stereometry of the building made it possible to create a unique environment with an acoustically correct functioning. It was therefore decided to dig new foundations and restore the damaged parts of the walls with reinforced concrete inserts forming a comb-shaped pattern. The roof, which reflects the form of the original one, was totally rebuilt to replace the old materials that are no longer suitable in either mechanical-structural or acoustic terms.

The transversal walls of the main body have also been completely removed, replaced by three large acoustic windows, to ensure total transparency along the longitudinal axis of the building.

The main body of the building contains all the functions essential to the audience and performances: the foyer, the slightly sloping 780-seat auditorium, and a stage capable of hosting a symphony orchestra and a chorus. The outbuildings surrounding the main structure have been demolished, except one that has been renovated to create a rehearsal room, dressing rooms, services and the management office. The public entrance is on the south side, open towards the park. In succession, along the longitudinal axis of the building, there is a first open space, protected by the roof, and a "covered square", which mediates the passage from exterior to interior, overlooked by the foyer and the ticket office.

The stage is set at the north end of the building, near the transversal glass wall that closes it off. It measures 17 meters wide and 14 meters long, for a total of 238 square meters, so that it can accommodate large orchestras. A system of acoustic paneling in cherrywood, suspended from trusses over the stage, completes the spatial organization of the main body of the building. These panels are used to break the direct sound waves and convey the sound pressure back to the auditorium. Other sound control elements are the glass deflectors placed in the transparent ends of the building and the



wooden slat panels placed behind the orchestra. The latter also have the function of preventing the public from being reflected in the glazed wall.

The window niches, part of the original structure, also have an acoustic function. They favor the uniformity of the sound by continually modifying the angles of reflection.

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