Project

Signal Box, Zurich

The building stands on the edge of the train tracks near the Gottlieb Duttweiler Bridge, at the transition between urban housing and outlying industrial districts.

The structure accommodates functions related to supervising rail traffic in the area preceding Zurich's main station. Of its three storeys, just the top floor is used for offices and workspaces. The lower floors contain only technical equipment, such as relay processors, transformers, power equipment for the rail system, backup power and ventilation facilities.

Certain areas of the lower floors house individual pieces of equipment which give off large amounts of heat. Other rooms on these floors, however, require a balanced climate meaning that they need to be heated and cooled. To meet these requirements it was necessary to construct a climatic envelope that could both store heat and at the same time be able to sufficiently release the excess heat to the environment. The double layered concrete construction provides the mass needed to store heat. It is insulated to a greater or lesser degree as dictated by the respective area of the interior. The concrete reinforcing bars form a Faraday-like cage in order to protect the sensitive electronics inside the building from exterior disturbances.

The patina-like discolouration caused by the dust produced by the train's brakes is common to all of the objects and buildings near the tracks. This characteristic motivated the decision to integrate the small building into this family of rust-red and brown objects from the beginning. The concrete is coloured with brownish-red iron oxide pigments that have the same chemical basis as the dust from the train's brakes - oxidised particles of iron.

The colours chosen by the artist Harald F. Müller for the built-in wooden elements in the employee spaces are those that he found in the switching station's immediate environs. They are immediately recognisable upon looking out of the window: strong blue, bright red, yellow and, once again, dark brown.

The windows of the control room and workspaces on the top floor provide both supervision and a view over the tracks. The lighting at the computer work stations in the control room is regulated by horizontal blinds and protective glazing. The panes are metallically coated and reflect exterior light and heat.

On the one hand, the brown iron oxide in the concrete integrates, indeed almost camouflages, the building in its iron particle coloured environs. On the other hand, the reddish-gold reflective metal coating on the windows contrasts with the matt quality of the dark concrete. Lit from inside at night and highly reflective during the day, the windows symbolise the function of the building at all times - to monitor the tracks.

G/G, July 2010
Credits

Project: Signal Box, Zurich, Switzerland

Address: Hohlstrasse 358
        CH - 8004 Zurich
        Switzerland

Spatial Programme: Offices and workspaces, technical equipment such as relays, computers, rotary converters, power equipment for the rail system, a generator room and ventilation facilities

Competition: November 1996, 1st Prize

Planning/Execution: July 1997 – March 1999

Client: Schweizerische Bundesbahnen SBB

Architecture: Annette Gigon / Mike Guyer, Architects, Zurich

Collaborators:
  Competition: David Leuthold
  Planning/Construction:
  Philippe Vaucher (Project and Construction Manager), Markus Lüscher

Structural Engineer: Conzett, Bronzini, Gartmann AG, Chur

Colours: Harald F. Müller, Öhningen, Germany

Photography: Heinrich Helfenstein
             Harald F. Müller, Öhningen, Germany