

Rehearsal Building for the Bavarian State Opera in Munich



The lighting installation "Bühnenfenster" or "Window on the Stage" from the Danish artist Olafur Eliasson has become a striking eye catcher at the rehearsal building of the Bavarian State Opera in Munich.



SCHOTT
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Photo © Michael Heinrich, München

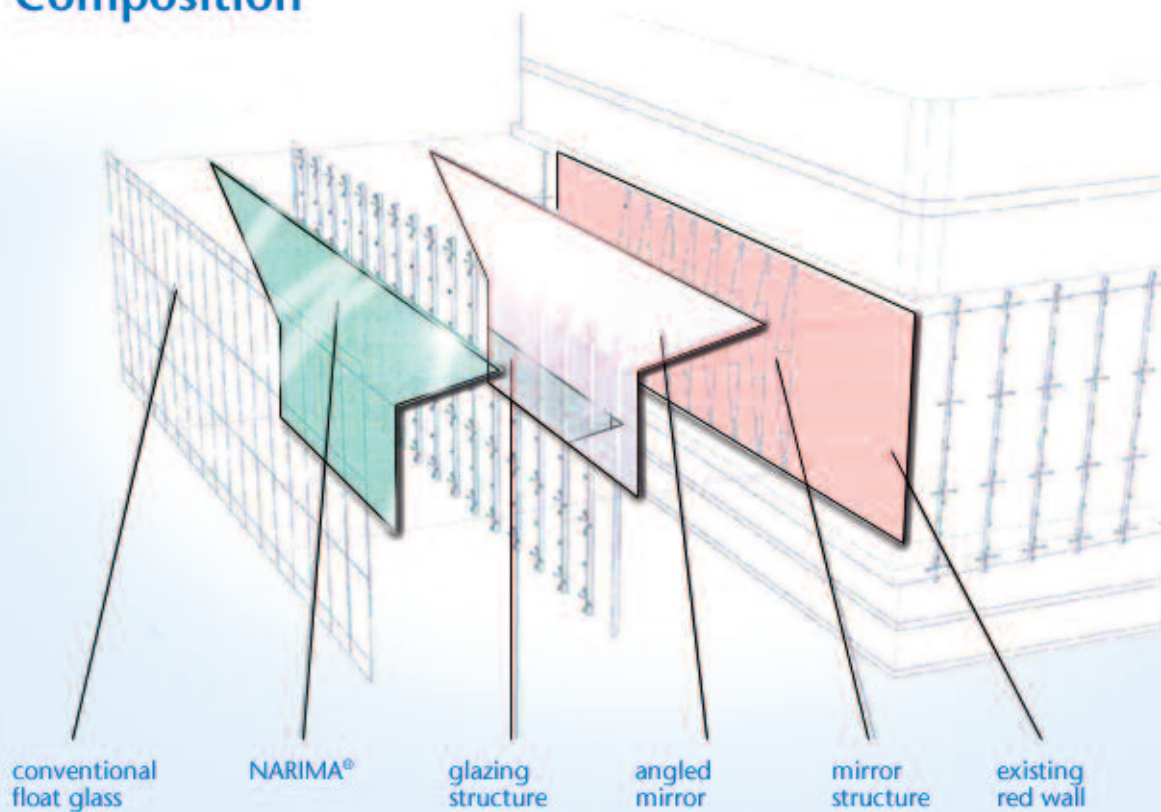
The lighting installation from Olafur Eliasson connects the rehearsal building with publicly used space.

Following its destruction during the World War II, Marstallplatz located in the center of Munich was left vacant for decades. However, now that the area has been redesigned and a new building has been built, this has resulted in a lively center located near the Old City. The cultural plaza on Maximilianstrasse located close to the Bavarian State Opera, the Bavarian State Playhouse and Residence integrates three separate buildings into a harmonious ensemble that allows for old and new to gently merge together.

The project developed by the renowned architectural firm Gewers Kühn + Kühn from Berlin consists of a cube made of glass at "Maximilianhof" with its historical portico at the center, the "Bürklein Building" with its grandly reconstructed facade and the rehearsal building for the Bavarian State Opera.

The rehearsal stage facing Marstallplatz presents itself with a continuous glass facade. This front experienced a visual upgrade with the integration of an artistic installation even shortly before the ensemble was completed in the summer of 2003. The colorful shimmering light installation "Bühnenfenster" was inaugurated some two years later. The work of the internationally renowned Danish artist Olafur Eliasson has transformed the facade of this building into a public theater stage that consists of glass and mirrors.

Composition



Technical Data

Lighting installation "Bühnenfenster" at the rehearsal building for the Bavarian State Opera in Munich

- SURFACE** ▶ 300 m² of outside surface created by the color effect glass NARIMA®, as well as 175 m² of mirror surface
- GLASSES** ▶ laminated safety glass, consisting of a 12 mm thick outer float glass pane as toughened safety glass and a 1.52 mm thick PVB foil and NARIMA® in 4 mm thickness
- SIZE** ▶ 3800 mm x 1900 mm

**The “Bühnenfenster”
permits the strict
boundaries of
reality and illusion to
become blurred.**

Photo: © Michael Heinrich, München



Quite often, Olafur Eliasson deals with the theatrical themes reality and illusion in his works and intentionally challenges our normal patterns of perception. While planning the rehearsal building for the Bavarian State Opera, he developed the idea of realizing a facade that permits both transparent viewing, as well as reflections. For this reason, “Bühnenfenster” consists of an outside sur-

face made of a total of 300 square meters of dichroic color effect glass, as well as a 175 square meter mirror surface located directly behind it.

The combination of both elements allows for an artistically staged platform to be created that reflects life in the city and sets the people on the square in relation. At the same time, an integrated color display is used to do away with the separation between indoors and out by converting the activities inside the building into a playful moving pattern consisting of refracted light impulses. These impressions are amplified by the optical interference effects of the color effect glass that allow for an artistic rainbow effect to be created.

Photo: © Michael Heinrich, München



The installation from Olafur Eliasson turns everything that is happening at Marstallplatz into a live play.

The direction in which the color effect glass is facing and the mirror surface behind it, but also the iridescent color of the glasses that alternates between red and green, intentionally evoke the association with a central perspective effect of the stage arrangement. Thanks to this trick, Marstallplatz has been converted into an auditorium from which one can view the integrated color display on the one hand that is reflected by the colored mirrors and

glasses on the facade at the same time. In this manner, the people on the square become not only spectators, but also actors completely unexpectedly at the same time.

The image reflected by the mirrors consists of two elements. The lower mirror reflects what is going on at Marstallplatz, while the upper mirror reflects the sky above it. Thanks to the differences in lighting conditions, artificial light in the evening or the different perspectives of pedestrians, subtle or dramatic "stage images" are cast onto the facade. This can be looked at as a "live play", in which the people on the plaza are the actors.

Photo: © Florian Holzherr, München

To achieve the desired appearance of the facade, Olafur Eliasson decided to rely on the SOL GEL dip-coated, dichroic color effect glass NARIMA® from SCHOTT. All of the elements were developed to meet the artist's exact color specifications.

Laminated safety glass, consisting of a 12 mm thick pane of float glass on the outside executed as toughened safety glass, a 1.52 mm thick PVB



film and NARIMA® in a thickness of 4 mm were selected to be the glass construction for the middle section of the facade. Here, several panes of NARIMA® were laminated together

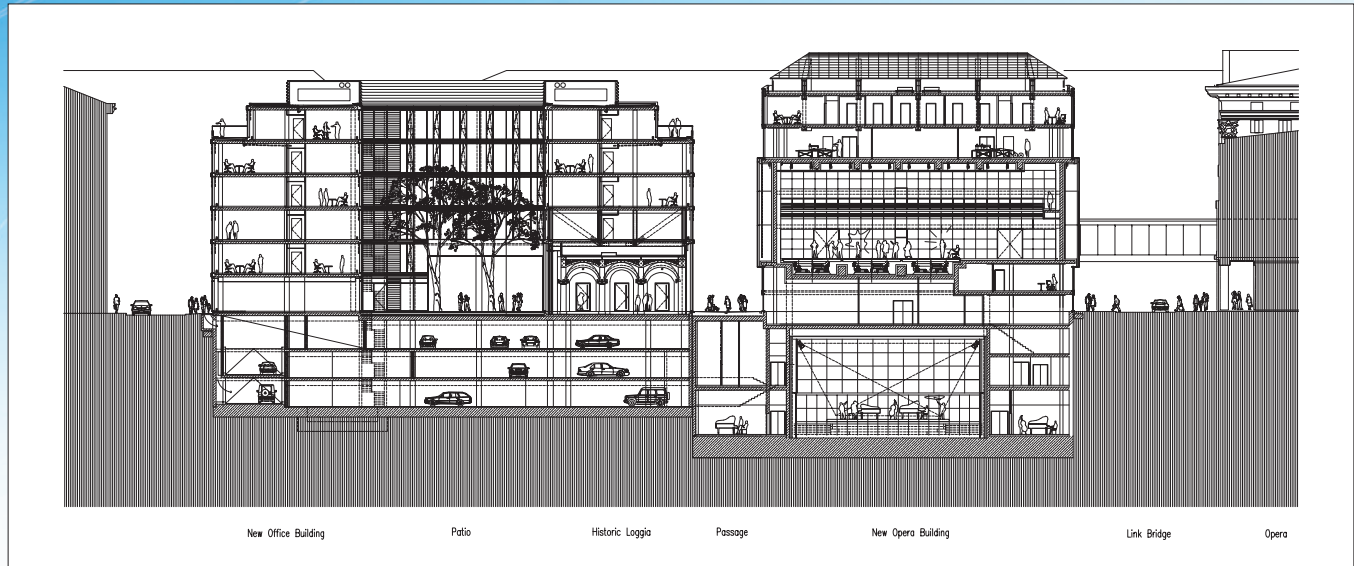
In order to achieve accurate execution of the installation, the color requirements had to be met very closely.

edge to edge with a larger pane of float glass as a base glass pane.

Then Götz Metallbau, the company responsible, installed the panes on site in three rows on top of each other that contain 17 elements each. Here, the large size of 3800 mm x 1900 mm ensures that the individual modules fit in with the elegantly detailed facade pattern of the new building.

The thicknesses of the glasses that vary between 12 mm and 17 mm posed a special challenge and meant that several of the existing profiles had to be modified. The underlying mirror installation took place while this was being done.

Illustration © Gewers Kühn + Kühn, Berlin



Project Data

PROJECT	▶ Rehearsal building for the Bavarian State Opera, Munich
BUILDING OWNER	▶ Palos Immobilien- und Projektentwicklung GmbH, Munich
ARCHITECTS	▶ Gewers Kühn + Kühn, Berlin
BEGINNING OF CONSTRUCTION	▶ August 2001
COMPLETION	▶ August 2003
SIZE OF LOT	▶ 13,062 m ²
FLOOR AREA	▶ 30,000 m ²
CONSTRUCTION PRICE	▶ 51 million Euros
PROJECT DEVELOPMENT	▶ DBKM Dreyer Brettel & Kollegen Management GmbH, Munich
PLANNING OF STRUCTURAL FRAMEWORK	▶ Hartwich/Mertens/Ingenieure, Berlin
BUILDING AUTOMATION	▶ HL-Technik AG, Munich
FACADE PLANNING	▶ Albrecht Memmert & Partner GbR, Neuss
FACADE EXECUTION	▶ Götz Metallbau, Kirchberg/Murr
USER OF THE REHEARSAL BUILDING	▶ Bavarian State Opera
COMPETITION FOR THE LIGHTING INSTALLATION	▶ 2005
PLANNING OF THE LIGHTING INSTALLATION	▶ Olafur Eliasson, employee: Sebastian Behmann
GLASS MANUFACTURER	▶ SCHOTT AG

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