

ART & DESIGN

Art and 3-D Magic in a German Subway

By CHARLY WILDER FEB. 19, 2016

DÜSSELDORF, Germany — An escalator descends into a dense soundscape of birdsongs. Windows appear to open onto outer space. An overhead LED screen converts human movements into colorful geometric animations.

Yes, they are aesthetic experiences. But they are also part of Germany's newest subway line, an effort to transform commuter drudgery into art appreciation. The two-mile line, known as the Wehrhahn, is to open here on Saturday, the result of a 15-year, \$950 million collaboration among artists, architects, civil engineers and the city government.

“Normally with public art, you have a wall with some kind of painting,” said Ulla Lux of the Düsseldorf culture office. “And we thought, no, it can't be that. We have to take the next step.”

The line replaces several aboveground tram lines in the city's transit network and creates a transportation hub. As a bonus for passengers, the city stipulated that the new line would be free of advertising.

“The first target is the artistic and architectural quality, and advertisements would have been in conflict,” said Oliver Witan of Netzwerkarchitekten, an architectural firm in Darmstadt that, along with the artist Heike Klussmann, won a European Union-wide competition in 2001 to oversee the design and construction of the Wehrhahn.

The Wehrhahn is not the first to integrate art into a large-scale

infrastructure project. Its most obvious (if unlikely) progenitor is the Moscow metro, which opened in 1935. Created under Stalin, its grand arched hallways, cinematic lighting and exquisite mosaics also amounted to an immersive art experience — albeit to more propagandistic ends. In 1950, Stockholm debuted its own art-filled metro system, often referred to as the “world’s longest art gallery.”

The Wehrhahn’s digital and interactive elements are reminiscent of more recent public-art projects, like Rafael Lozano-Hemmer’s 2005 work “Under Scan” in Trafalgar Square in London, which used a system of surveillance and projection devices to transmit video images onto the shadows of pedestrians.

Rather than conceiving the subway as a chain of individual stations, Ms. Klussmann and Netzwerkarchitekten designed a “subterranean continuum.” The station walls are a matrix of geometrically complex concrete components that appear to be an extension of the tunnel itself.

The Wehrhahn’s six stations were planned as “incisions” in the continuum, with each reflecting the vision of an artist. Five artists were selected to design the stations, with Ms. Klussmann designing the sixth.

At Pempelforter Strasse, Ms. Klussmann’s work features white bands threading geometrically across the walls, ceilings and floors.

“I wanted to open the space up visually,” said Ms. Klussmann, a Berlin-based artist who also teaches at the Art Center College of Design in Pasadena, Calif. “The bands float into the station, defined by the geometry, and break at the corners like a billiard ball would break.”

Thomas Stricker, a Swiss sculptor and electrician by training, designed the Benrather Strasse stop to have the feel of a space station. The steel-clad walls are interspersed with large panoramic “windows” — multimedia screens that show slow-moving 3-D animations of outer space.

“Maybe you know this feeling when you’re on a train, and you look out the

window and think you are moving, but really it's the train next to you," said Mr. Stricker, who sought to create a similar sensation at Benrather Strasse.

At the Heinrich-Heine-Allee stop, Ralf Brög transformed the three entrances into audiovisual performance spaces that will host sound-based works. The station currently features a piece by the German theater director Kevin Rittberger, which fittingly evokes the myth of Orpheus, who descended to the underworld to rescue his captive wife, Eurydice, with divine music. At another entrance, recordings of birds are manipulated with software so the sounds seem to dip and swirl around passengers as they ride the escalators.

"What I quite liked is that the audience is in motion," Mr. Brög said. "And you have this given speed of the escalator, which can work as a metronome. So you know in theory how much time the ear will need to get from here to there."

Movement was also integral to the design of the Schadowstrasse station, where the sculptor and cyber artist Ursula Damm installed an LED screen that depicts the comings and goings of pedestrians on the street above, using a differentiation filter to generate colorful geometric renderings that then recur in the blue glass of the station walls.

"It stands for the people," said Ms. Damm, who has created similar interactive and generative artworks since the 1990s. "You can see how they are behaving in relation to the architecture, which spaces they prefer to inhabit. At the same time, they can see what the software is doing with their information. Nothing is hidden."

All the stations were designed to allow in as much natural light as possible. In most of them, the upper and lower levels are separated by cut glass panels, creating broad sightlines and a sense of spaciousness.

The design incorporates systems like fire-resistant glass and barriers that deploy to protect passengers from smoke. Even the tunnel itself is illuminated so riders are never looking into darkness.

“We wanted to design it so that there is good orientation and you feel secure,” said Markus Schwieger of Netzwerkarchitekten. “You can see people coming in front of you very early.”

Such a holistic approach required continuous coordination among the architects, artists, city planners and engineers, unusual in the realm of large public infrastructure projects.

“Normally the technicians first come in and produce the station, and then the artist is asked to do some work when the station is already done,” Mr. Witan said. “The novelty of our system here is that we involved the artists from the very beginning.”

The entire project cost 843.6 million euros, about \$940 million, financed by the city of Düsseldorf, the state of North Rhine-Westphalia and the federal government.

Hans-Georg Lohe, Düsseldorf’s head of cultural affairs, who was instrumental in pushing forward the project, said that a traditional metro line on a similar scale would have been only slightly cheaper.

“It was about 3 million more euros on expenses for the art,” Mr. Lohe said. “So it’s just a bit more money, but it has a completely different look and feel.”

Mr. Lohe said the new line was about more than just convenience and improved mass transit. “It will be,” he said, “a living art experience for everyone who uses the metro.”

A version of this article appears in print on February 20, 2016, on page C1 of the New York edition with the headline: Art and 3-D Magic in a German Subway.