

Coloured shadows

Festival hall in Amriswil/CH

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Photos: Thomas Enz, St. Gallen/CH

The paved square in Amriswil, a small town in Switzerland located between Lake Constance and St. Gallen, celebrates its new festival hall in all the colours of the rainbow and all nuances of shadow. This does not mean to say that the installation is bright, gaudy or visually noisy. One might even say it is typically Swiss: well defined, well-controlled and of very high quality. Light art and an artificial lighting scheme blend to illuminate the square, turning the space into an attractive nighttime meeting place that plays a significant role in drawing visitors to the festival hall.



Above: the inner part of the square is structured by means of permanently installed street furniture in the form of solid benches and oak supports plus a series of islands filled with gravel, which are integrated into the art concept for the paving on the square. Artists Monica Germann and Daniel Lorenzi have drawn lines across the square that lead right into the building: two symbolic threads painted in street marker yellow that meander across the square and disappear into the festival hall lobby.

Left: the glass diffuser on the inground light channel consists of several layers of glass. A black template inserted between the layers of glass generates the shadow images. Pieces of coloured glass create additional colour effects.

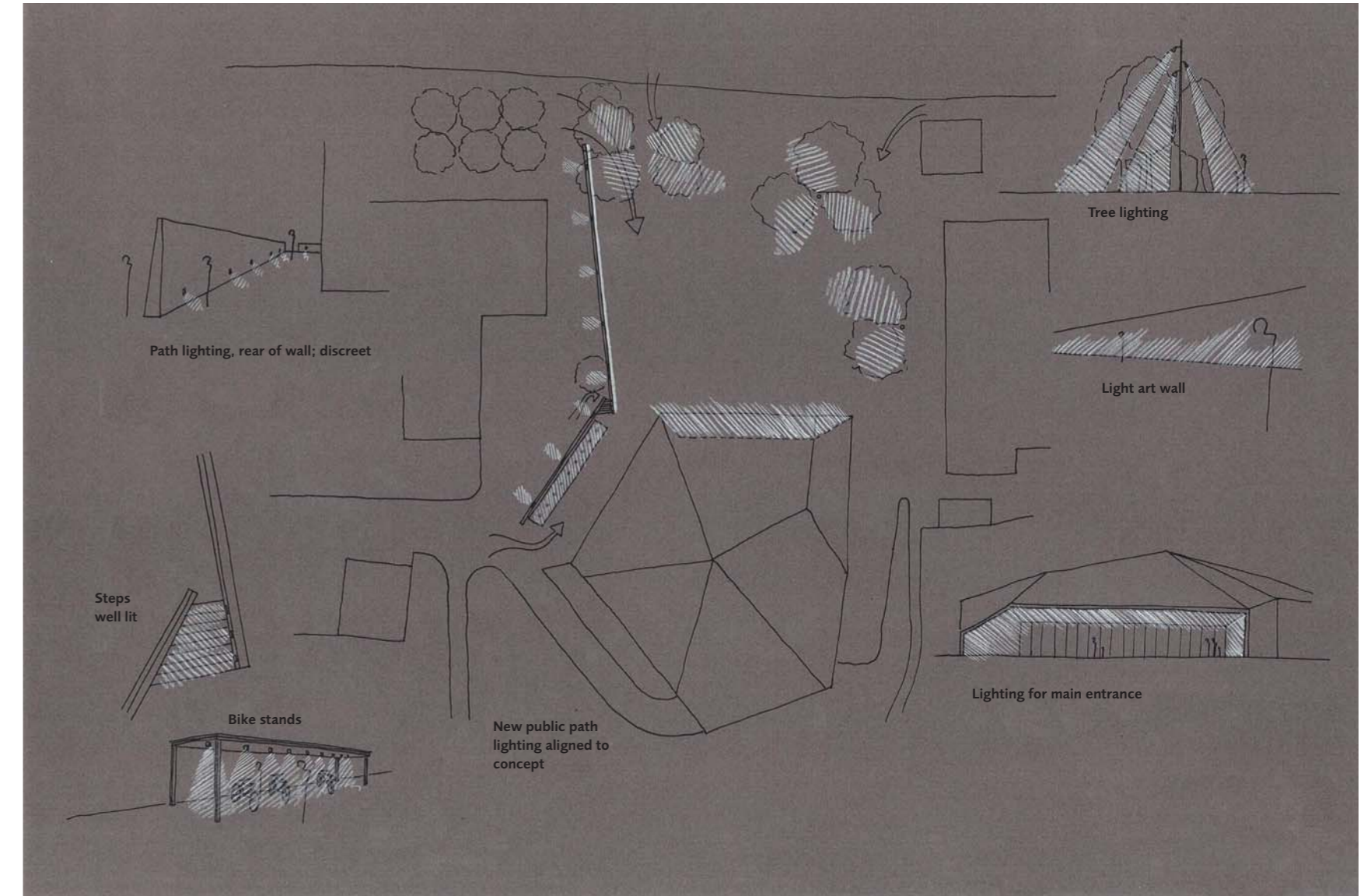
When the 100-year-old festival hall in Amriswil was demolished the plot of land across the road from the market square not only offered the opportunity to build a new venue, but also the chance to redesign the urban space around it to the benefit of the 11,000 inhabitants. A competition was held and architects Pascal Müller and Peter Sigrist from Müller Sigrist Architects in Zurich came up with the winning design, which has now been realised and fulfils the brief to a T. Thanks to its pentagonal footprint the building quickly earned the name "Pentorama". It provides the backdrop on the side of the new square facing away from the road and thus creates a quiet, inviting exterior public space.

Visitors approaching via the main road from St. Gallen access the square diagonally opposite the market square and enjoy an immediate vista of the new festival hall. Once in the square, which is closed on three sides, visitors feel safe and removed from the bustle of the main road, which automatically encourages them to linger and enjoy the space. An inclined wall located on the right-hand side guides people towards the impressive entrance to the festival hall. A row of sycamore trees makes for a natural penetrable interface between the square and the road.

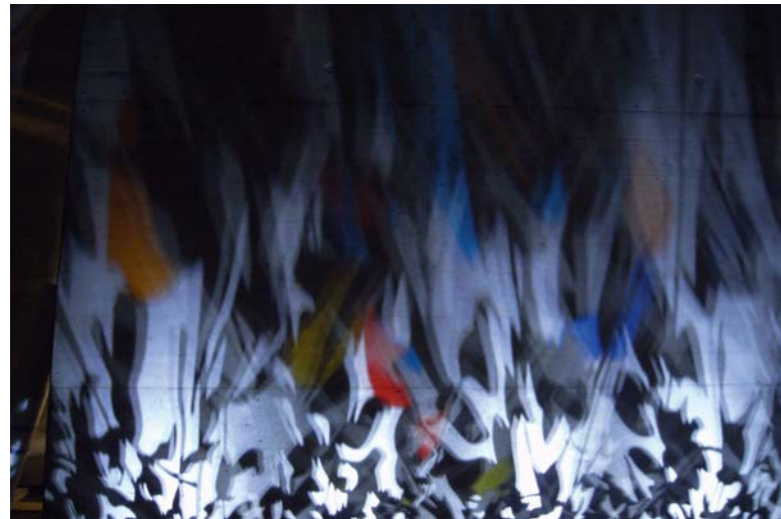
The square that has developed through this project is not a space solely for people making their way to the festival hall. It is a pleasant public space for people to use anytime, both local inhabitants and visitors from round about or further field. Since the majority of events in the festival hall, including regional exhibitions, festivities and

concerts with international artists, take place after dark, the exterior lighting required special attention. The square is a recreational outdoor space, an attractive place to meet and spend time with friends, and an exciting prelude to an evening in the festival hall. The lighting designed by Adrian Hostettler and Patricia Golling from Hellraum, a lighting design practice based in St. Gallen, supports all the above-mentioned functions of the space. The lighting design concept subtly addresses the landscape design developed by Lorenz Eugster from Zurich, but makes a self-confident statement in the form of a projection of coloured light and shadows along the inclined side wall. This deliberate design statement fulfils two functions: one an architectural lighting solution since the lighting provided makes for the ambient light in the square, and the other an artistic contribution to the overall scenario.

The lighting is intended as an aid to orientation, and follows the principle of concealed luminaires that guarantee discreet but adequate illumination of the pedestrian area. The light is provided by a series of well shielded recessed wall luminaires with asymmetrical reflectors mounted on the rear side of the wall and on the wall up the steps and directed downwards. The position and spacing of these luminaires varies depending on where they are located. In the pedestrian areas they are mounted at knee height, or just below knee height, whereas by the bike stands they are mounted at a height of 1.35 metres to ensure there is sufficient light over the area of parked bikes.

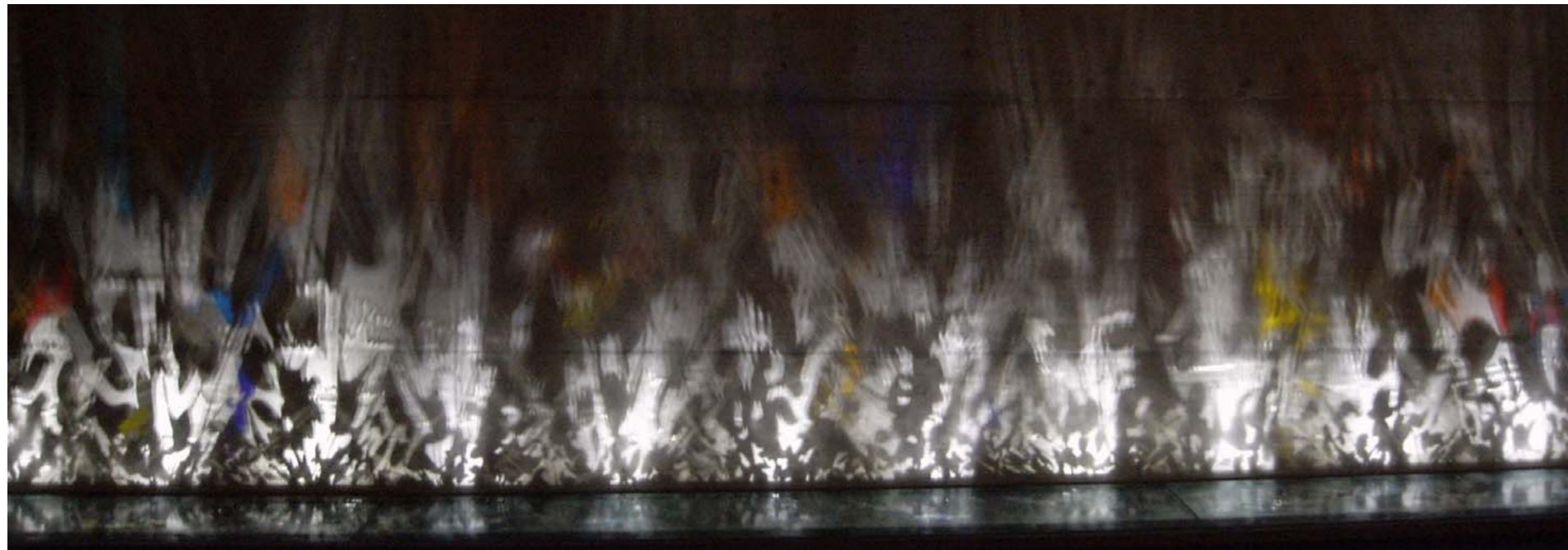


Left: Square showing the festival hall from the front: in spite of the fact that the hall can accommodate up to 2500 people, the building remains reticent in volume, its dimensions blending in with the scale of the existing environment. The festival hall itself is closed on three sides, which supports its marquis character. The festival hall façade opens up in the form of a huge portal, drawing visitors in through the funnel-like entrance. This effect is further enhanced after dark by the lighting, which outlines the almost archaic portal on three sides in harsh white light.



The entrance to the festival hall is illuminated so that people can find their way into the building easily, and at the same time makes for a symbolic detail. The brightly lit portal draws the visitors in. Basically the correct decision and a good idea. Unfortunately, the light surrounding the portal is very intensive, the luminance fading fast as the light washes over the sloping top and side walls that frame the entrance. That said, the lighting design does attain a certain basic harmony thanks to the use of LEDs of the same luminous colour as on the square and the long wall.

The lighting projection on the long screen-like wall that lines one side of the square accompanies and fascinates visitors on their way to the festival hall. The dynamic light and shadow installation follows the movement of people walking by. An organic play of shadows flutters over the entire length of the wall, as if generated by light filtering through foliage. The fact that the light comes from below and thus appears to be somewhat unnatural generates a certain mysticism, especially since many of the shadows have very sharp contours, which we normally associate with the shadows produced by sunlight, whereas others are blurred and overlap. The way the light changes colour as it passes through the dichroic glass elements, together with the slow dynamic programmed change, gives rise to fascinating effects. People on the square tend to perceive the subtle interweaving of coloured light and shadows subconsciously: the dynamic movement could almost be derived from the wind. The installation is especially beautiful when it rains. The drops of water on the luminaires, or rain falling onto them, gives rise to multiple reflections. Mystical figures appear to be dancing along the wall: hobgoblins enjoying the inclement weather.

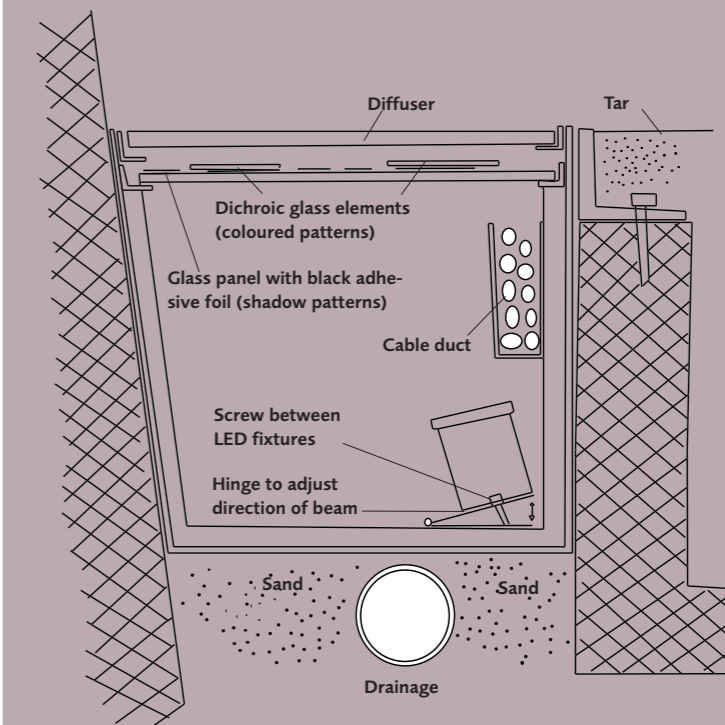


Slowly changing motifs accompany visitors on their way to the festival hall or provide those encouraged to linger with an enchanting mystical spectacle. The gradual flow of coloured light and shadow images on the wall dance, blur and refocus – a backdrop of wonder for an urban space.

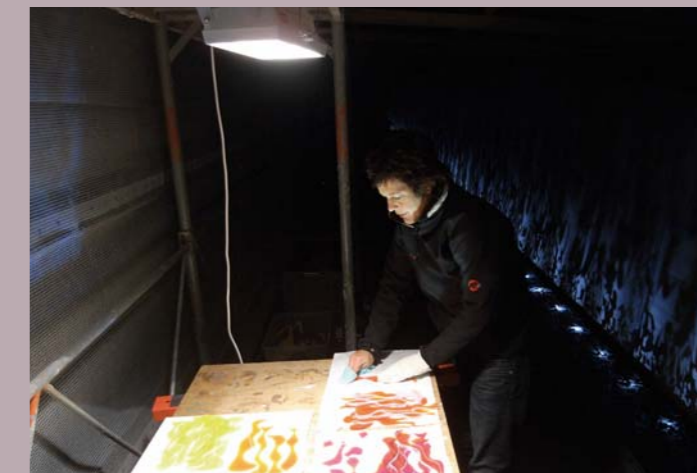
Technically speaking, the installation comprises a 44 metre long by approximately 50 centimetre wide glass-covered channel set in the ground in front of the wall and equipped throughout with 25 linear LED luminaires of different lengths. The glass diffuser consists of several layers of glass. A black template inserted between the layers of glass resembling an elongated linear gobo generates the shadow images. The lighting designers created a number of different templates with leaf motifs expressly for this project and lined them up along the wall. A second layer is equipped with amorphous dichroic glass elements that project coloured light onto the wall after dark, reflecting sunlight in a complementary colour during the daytime. The dichroic glass elements are also custom designed to align with the figures worked into the template. Since the light channel also has a function during daylight hours it also had to look good during the daytime.

Another natural reference to match the organic shadow shapes moving over the wall is the attractive play of light and shadow around the trees that shield the square from the road. At night, the trees are illuminated by projectors mounted eight metres above the ground on poles. They are directed to radiate light down through the foliage, creating leaf shadows on the ground. This aligns with the leaf motifs on the long wall, but is discreet enough so as not to compete with the wall installation. The light sources chosen again support this idea: 50 watt tungsten halogen lamps. This lighting component is totally in line with the overall concept with regard to lighting levels and luminous colour: people sitting on the benches in the square are not pinpointed like exhibits against a dark background. The shadows of the leaves on the ground also move gently in the breeze, creating a second layer of dynamic light and shadows. The concept for the trees bears in mind that the trees will continue to grow and envisages that the light sources currently in the projectors will be replaced by metal halide lamps. Filters will then be used to correct the colour of the lamps. At the present moment in time, however, even a lower watt lamp would be too much in spite of the use of colour filters.

The integration of natural elements such as sunlight, water and wind into the lighting design in both the projection wall installation and for the trees, together with the dynamic lighting solution, make for an exciting scenario that arouses interest without being overwhelming. The overall project features well designed architectural lighting and the successful juxtaposition of reticent design and gentle drama.



Vertical section through the linear inground luminaire. The 25 LED battens each comprise two, three or four LED modules, each of which is equipped with four individually controllable LEDs. Brightness, dimming time and a chase effect can be controlled via a four-channel dimmer. The lighting is programmed to change very gradually, as if instigated by the wind. The total power consumption for the entire wall is just 300 watts.



Project team:

Lighting design: Hellraum Lichtgestaltung/ Innenarchitektur, St. Gallen/CH,
Adrian Hostettler and Patricia Golling
Technical support/light wall: SE Lichtmanagement, Spreitenbach/CH, Markus Müller

Products applied:

Projection wall: battens equipped with Osram Dragon 2 LEDs, beam angle 20°, 5400 Kelvin, 4-channel dimmer, SE Lichtmanagement
Trees: Bega 8315, 50 watt QT12, 23 with glare shields, two projectors mounted at eight metres on Bega 836 poles with traverse brackets
Bike stands and path lighting: Bega 2106 recessed wall luminaires, PL 10 watts, 830
Portal: LEDs with plastic diffuser, wide beam (designed by the architects)