Case Study: Schweingruber Zulauf Landschaftsarchitekten



# Schweingruber Zulauf Landschaftsarchitekten:

Founded in 2005 by Lukas Schweingruber and Rainer Zulauf, this landscape architecture firm of 25 employees is based in Zürich, Switzerland. It is a melting pot of talents from throughout Western Europe, including German, Danish, French, and, of course, Swiss landscape architects, architects, and designers. Along with physical 3D models, the firm has used CAD since its inception to help bring its notable landscapes to life.





### We Are Explorers

Known for its contemporary and innovative landscape design, the firm's work, seen throughout Switzerland and Germany, often defies categorization. In short, it is varied, paradoxical, and different every time. The firm has a creative approach to design. "We are explorers who always want to create new and different things. This gives us the power to investigate what could happen in different places and to try new things," notes Schweingruber. "We are probably more conceptual and therefore not as focused on producing an image. Our clients are always quite surprised with the solution we bring them because we don't have a specific language. We're known for being able to create very different designs—this differentiates us from other offices. We are always surprised at the results!"

There is no project too large or too small for the firm's architects, landscape architects, and designers. Though most of their work centers on city and public planning, they also create residential gardens. Schweingruber says, "The interesting thing is you can actually test things on a big scale and then within this big scale, you are able to build really small things. We cover a lot of open space with big thinking and small detailing."

Both founders studied landscape architecture at the HS Rapperswil HTL, the only local school offering this field of study. For Schweingruber, the career choice was perhaps a natural one since his father was a botanist.

The beauty of the updated green space at a small, adjoining park is one reason why this landscape design won the coveted Golden Hase Award in 2011.

"Maybe I have some kind of natural background, but the rest I think is just coincidental," he says. "I always wanted to go into some kind of creative work that you can touch, as with an architect or landscape architect. . . . I think the whole story is a developing story." The junior Schweingruber later studied under prominent Swiss Landscape Architect Dieter Kienast, then joined firms Kossel and later Gabi Kiefer in Berlin, where he honed his craft.

After HS Rapperswil, Zulauf took a different path from his partner, leaving Europe to continue his education at the San Francisco Art Institute in California. He later worked at Stern & Partners and several other firms before founding Feed + Partners in 1986. Schweingruber and Zulauf formed Zulauf Seippel Schweingruber Landschaftsarchitekten, now Schweingruber Zulauf, in 2005. Both men have served as lecturers at the Hochschule Rapperswil.

# "We cover a lot of open space with big thinking and small detailing."

-Lukas Schweingruber, Co-founder and Partner, Schweingruber Zulauf Landschaftsarchitekten, Zürich, Switzerland



The partnership of Schweingruber and Zulauf has been a successful one. Schweingruber Zulauf has garnered a number of significant awards throughout the years, including Switzerland's most prestigious landscape architecture award, the Golden Hase (several times), the Silver Hase, the afZO Building Award from the Architectural Forum in Zürich, the Weser-Ems Prize from the state of North Rhine-Westphalia, a Good Buildings Prize from the City of Zürich, a Good Buildings Prize from the Canton of Lucerne, and the Priisnagel Award.

# The Lettenviadukt: Where Reptiles and Walkers Relax

One of the firm's unique projects was to design a promenade that runs through an old viaduct in Switzerland called The Lettenviadukt. The design won them great acclaim, and the story behind how they went about solving this design challenge is just as captivating as the final design plan.

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An old railway track snaked about two kilometers through the center of Zürich in the Industrial Quarter. It was a quiet piece of abandoned history, fading away until the Municipality of Zürich held a competition in 2004 and Schweingruber Zulauf hoped to reclaim it with a simple promenade and several shops nestled into a viaduct. Their partnership with the Zürich architectural firm EM2N won the work. Inspired by the track's natural path through the forest, they restored it to its former charm.



Above Left: A "before" look at the old viaduct prior to its redesign. Above Right: Concrete benches placed along The Lettenviadukt's new promenade function as logical resting places for walkers.

One twist? There were many new passengers—the space had become a haven for lizards. In a town famous for small lizards, this was a component that could not be ignored. So how could people and lizards coexist peacefully? Simple—they each got their own path. Schweingruber says, tongue-in-cheek, "it's a joint venture of people moving and lizard moving and the context is very clear." This is a walkway for both.

Using concrete lamps and old-fashioned steel banisters to recall the railway of old, Schweingruber says, "When we're up here on the promenade, we feel like a train." They scaled the size of the concrete lamps down in order to make room for the lounging lizards and placed concrete benches periodically for lounging people, as well. For the promenade, they included large, modern graphic slabs with smaller gravel in between for the lizards to use. In this way, the lizards are protected—free to sun on the stones or hide in the gravel in the shade of the viaduct. Below the walkway, the tall fir trees cast shadows that mirror the long, straight lines of the stones above.

All in all, the firm focused on three basic materials to reflect the look and feel of the railroad—concrete, stainless steel, and gravel. "I think it's quite a rough space; there's really no design," says Schweingruber. The effect is enchanting—nostalgic charm tempered by a museumlike elegance and the beauty of green space. This charm is one of the reasons why this landscape design won the coveted Golden Hase Award in 2011.



Working with the housing cooperative PWG, EM2N designed the viaduct and the small shops it houses in its archways, including a market hall, kindergarten, and church, as well as some other relevant buildings. The promenade is near a live railway track above, so the two firms coordinated closely with the train line. They also had to work with an adjacent waste transfer station and several other pieces of infrastructure.

The project was not without its twists and turns. Two groups initially resisted the plans and made coordinating the designs a matter of consolidating public and political opinion. The activist neighborhood fought the proposal to rehabilitate a small adjoining park, as well as the entire viaduct, as they were fearful that this would lead to gentrification. In reality, Zürich is protected from this issue by its plentiful supply of society-owned buildings that ensure every level of income is represented. Additionally, the Amt für Denkmalpflege's (The Natural History Society's) concerns about maintaining historical accuracy were another hurdle for both firms to overcome. They were able to do so by communicating closely with the neighborhood and Natural History Society. Using physical mockups of the concrete, steel, and gravel components, Schweingruber Zulauf was able to show how it planned to honor the historical elements of the railway tradition. "[The Natural History Society] didn't want plans; they wanted to see the things," explains Schweingruber. After multiple presentations, the firm got the green light.

Once the project was complete, the citizens and the Society were thrilled with the results. Schweingruber Zulauf architect and urban designer Dominik Bueckers marvels, "It definitely makes a change within



Top: At night, the small shops are lit, providing a warm glow to the historic archways. Bottom: During the day, visitors enjoy all that the viaduct has to offer—a market hall, church, kindergarten, and other relevant buildings.

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–Dominik Bueckers, Architect and Urban Designer, Schweingruber Zulauf Landschaftsarchitekten, Zürich, Switzerland

the area. You can see how well the promenade works—from an original idea to connect places using this old train connection—to a place for people and lizards. People don't just use it to get to and from work, but they use it during their leisure time, as well. It's a nice park to promenade along on a Sunday afternoon."

There's more work to do, however, to continue to foster this rebirth amid Zürich's Industrial Quarter, an area that is transitioning from an old industrial base to a more residential and mixed-use environment. The promenade is one of the first steps, introduced as a catalyst for change, to link existing green public spaces and form a central gathering spot. This portion of the project, Phase I, was started in 2008 and finished in 2010. The landscape piece cost approximately \$2 million Swiss francs. Phase II will continue the promenade on top of the railway bridges that cross the Limmat River, and the firm anticipates continuing the rhythmic railroad language in its landscaping there.

# Rebuilding the Railroad with CAD

Achieving this result and completing the project required several tools. For the landscape architects and designers at Schweingruber Zulauf, those tools include working with foam 3D models and then moving the information into Vectorworks® software to refine it in 2D as they further develop the physical models and other design sketches. When the plans are ready for presentation, they often move them into other programs since their employees come from different backgrounds and are familiar with different software. The core files, however, remain Vectorworks files. Using Vectorworks software allows the firm to collaborate well with all of the most popular file formats and software programs.



The firm relied on Vectorworks software to map out and perfect the plan for the restoration of The Lettenviadukt.

Bueckers says, "From the time the 2D plans are in Vectorworks until construction, all the projects are fully in Vectorworks. We're lucky here that Zürich is Vectorworks World. Most of the architects that we work with also speak Vectorworks, so communication is very easy." The firm also coordinates with architects that use other CAD software programs and finds the transitions smooth since the Vectorworks software allows for ease of interoperability and exchange.

To map out the span of The Lettenviadukt, Schweingruber Zulauf used a CAD module file. The modular unit was then replicated along the length



of the route, backed by geometric information on location/rotation. It was spread across the length of two kilometers to see the adjustments to topography and the slight level changes between those concrete slabs. "You adjust one millimeter on one end and you have to recalculate the whole length, so that was quite interesting," Bueckers notes. They also incorporated documents from Swiss train company SBB since they were working alongside the live train. Bueckers estimates that using CAD helped the firm save time and money since they could easily plan in high detail and use the modules to stretch out the design. Using Vectorworks software to interface with EM2N also saved time and money since importing and exporting were very streamlined between the two firms. Referring to the software, Bueckers notes, "It is simple to use and in some ways it's more natural-with a white background versus black with colors. It makes it more instinctive in a way to work in Vectorworks. Once you've set up the layers and classes, it is quite helpful."

What's next for Schweingruber Zulauf? The beauty is in the not knowing. The only guarantee from one Schweingruber Zulauf project to the next is that there is no guarantee—each is unique and interesting in its own right. The new promenade offers a path for walking commuters, as well as those looking to enjoy a leisurely weekend stroll while bulging skylights for stores located below provide visual intrigue for the eyes.

# Acknowledgements

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**Images**: P1 – Rene Rötheli; P2 – SZL; P3 left – SZL; P3 right – Rene Rötheli; P4 top – Roger Frei; P4 bottom – SZL; P5 – SZL; P6 – Rene Rötheli.

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Case Study CH3: Schweingruber Zulauf