

# noma

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Remarkably aesthetic: Report  
on the Andelfingen training center  
where first responders practice  
coping with emergencies



## 8 Aesthetics for emergencies

Before firefighters and rescue teams get to work, they have to train. That's why the Andelfingen training center was built. This raised a question: Does a training facility have to have appealing looks? Yes, our author affirms. For good reasons.

*Text: Stephanie Rebonati | Photos: Kuster Frey*

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In reality, our author Max Küng is a musical person. But for a self-experiment, he escaped the realm of sound in the anechoic chamber of an ETH research center. The insight: Silence is terrible.

*Text: Max Küng | Photos: Kuster Frey*

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*Interview: Christian Ankowitsch | Photos: Serge Hoeltschi*

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*Text: Christian Seiler | Photos: Kuster Frey*

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# Acid test for aesthetics

*In this exposed concrete village, rescue teams practice coping with disasters. The new training center in Andelfingen fulfills its purpose – and is attractive. Why aesthetics is absolutely justified there.*

Text: Stephanie Rebonati | Photos: Kuster Frey

Potemkin village, debris village, surreal village. When it reopened in September 2014, the Ausbildungszentrum Andelfingen, AZA for short, gained widespread coverage in the media, mainly in an angry and insulting tone. Switzerland builds exorbitantly! It doesn't take an architect to build a firewall! Meanwhile, Erich Wipf, the facility's supervisor, is no longer fazed. He is 58, a father of four, a long-standing fire department and civil defense team member. After we meet, he says: "Here in the facility, we're on a first-name basis." He also lets me know that he likes to use abbreviations: ADL, TLF, and PTF (turntable ladder, tanker truck, and personnel carrier). He is wearing a short-sleeved shirt and a high-tech watch that measures steps, heart rate, and temperature. He laughs a lot, cracks jokes ... a good-natured guy.

As the supervisor of the military and civil defense department, he makes no bones about how he feels with regards to the modern architecture of his AZA training center. He notes: "Yes, it's attractive, but so what? The main thing is that it works, right? Whether the façade needs dimples, well ... it's solidly built and robust." He reveals that he's no friend of aesthetics, at least not in this case, and that he sometimes felt like sending the architect packing during the five-year construction process, but the result now is truly outstanding. Erich Wipf is the only protagonist in

this story who never once said "but please don't mention that in your report."

The Andelfingen training center is located in the heart of the Zürich wine region, south of the Thur River between Schaffhausen and Winterthur. Originally built in 1972 as a training ground for the civil defense organization and the army's then anti-aircraft troops, it was rehabilitated two years ago for 21 million francs. It was enlarged and updated to a state-of-the-art status. The property insurance agency of the canton of Zürich footed 60 percent of the bill. The remainder was paid by the canton. The new AZA is the most up-to-date training facility of its kind in Switzerland. For instance, it is equipped with a smoke filtration system based on the technology of a crematory: thoroughly compliant with environmental protection standards. The new AZA works fine. In 2015, it trained 12,459 first responders from the cantons of Zürich, Schaffhausen, Thurgau, Aargau and Basel-Stadt – totaling 27,400 participant days.

**View from the "fire house" of the training center. Here, ideal real-world conditions meet first-class design.**



It is a realistic infrastructure in which members of the civil defense organization, firefighters, police officers, and military personnel can simulate emergency situations. No people live here. The AZA is purely utilitarian. Here, on behalf of the population, they practice, learn, train – again and again – how a fire can be extinguished quickly and correctly, how casualties can be prevented in kidnappings, how tracking dogs can locate injured persons in a smoke-filled underground parking garage, how rescuers can rappel down tall walls, how they know what to do if something happens that should never happen.

Wipf, the supervisor on site, demonstrates such a situation. He is in a two-room apartment on 8 Römerstrasse. The view from the small balcony reveals the large basin where the extinguishing water is collected and cleaned. Shouts can be heard in the distance. During this cool morning, youth firefighters sprint along the streets of the sham village, wearing full gear. With helmets, hoses, heavy jackets and thick trousers. The fire is real, too. Just like the one in the bedroom of the small apartment where Wipf, in a short-sleeved shirt and a casual functional-fabric jacket, is pressing two buttons. Within seconds, the conjugal bed is ablaze. The room is filled with smoke. The yellow-red flames flare ever higher, smoke now spreads in the living room as well. He notes: “Soon, it will fill the staircase and even though you came up here just a few minutes ago, you will have problems in a situation like this to find your way out.” The heat becomes unbearable, panic sets in, even though it is obvious that this is an exercise, a little demonstration for an article about “the hottest night you will ever experience,” Wipf chuckles. He means well, wants to loosen up the tense mood that somehow materialized. Just getting out of here is the main concern. Out, even though the conjugal bed is merely a makeshift metal frame that works like a gas grill. Out, to let the thin film of perspiration that has formed on neck and forehead evaporate in the fresh air.

Out into the sunshine, out into the real world, out into this fabricated world designed by four architectural firms and cast in exposed concrete. There are buildings, alleys, streets, a town square, a gas station including a pump and a convenience store. Everything looks real, the proportions, the heights, depths, and widths. Asymmetry is nowhere to be found. City dwellers know urban settings like this, this arrangement of houses and spaces. They feel at ease, are familiar with the prevailing aesthetics – strong and formal. At ease because this place conforms with Swiss traditions.

And yes, this ensemble of concrete buildings does have an impact. There’s something to it. It’s sleek, cool, contemporary. The buildings are not identical, but they are related by material. Then again,

how can something be beautiful that is purely utilitarian? Something that is assaulted with flame throwers, rubber bullets, tear gas, and water? Do the search and rescue teams who practice real-world missions even notice the beautifully cast concrete with its prominent dimples and attractive grooves?

“Yes,” affirms Cyrill Denzler of moos giuliani herrmann architekten, the architectural firm entrusted with overseeing the entire project. “Because the buildings were individually designed and the common-denominator material is unifying, they project quite a credible image of reality.” That was, after all, the firm’s assignment: to emulate, in an obviously unreal space, a real-world context that offers a largely genuine environment for simulations. Christoph Keller, from the Architectural Engineering Bureau of the canton of Zürich, emphasizes this point as well: “The idea was to think in terms of urban design and to implement what is typical today, including the commonplace density and township structure of urban centers with which the responders are familiar.” At the same time, the cantonal project supervisor admits: “It would have been possible to work without structures and thus eliminate the need for differentiated façades. But that didn’t happen.”

Precisely that is the crux: Beautiful buildings were made on purpose. Why? Architect Denzler’s answer meanders: “We put a lot of thought into what material would be best suited and finally picked exposed concrete because of its functionality, solidity, and steadfast substance. A substance that summarizes the interior and exterior of this training facility.” Robust rooms were needed inside to cope with the many real fires; the same applies to the outside. That’s why a Hollywood-like backdrop made of cardboard (which was even originally considered) made little sense. And because concrete is cast, it can be formed. So Denzler says: “The concrete could also have been cast without proportions. But why would one do that, given the opportunity to design something that looks good?” Architects want to build aesthetic structures, and there’s nothing wrong with that except if it is a public building with a public mandate and a lot of taxpayer money.

The project leaders of the new AZA justified its aesthetics with authenticity. After all, a realistic setting is needed to prepare for worst-case scenarios. Psychology can confirm that. So is this the rationale: real equals attractive – and attractive means expensive?

Laurent Stalder, professor for Architectural History and Theory at the ETH Zürich says: “This train of thought is based on a superficial understanding of beauty. Beauty has nothing to do with financial issues. It’s a misinterpretation.” And he adds: “Beauty is not always expensive and expensive is not always beautiful.”









**In the foreground: the industrial fire extinguishing practice facility. Here, several teams can train to master eleven different fire sources that are centrally remote-controlled by hand. In the background: the façades of the "row houses."**





Ideally, at this point, one could mention a sum that would quantify the cost of an unattractive version of the new AZA. But of course, no such number exists. The issue is whether the new AZA can claim to be both functional and beautiful. The ETH professor says: “Architecture is more than a utilitarian object, it is also an expression of our society. As far as public buildings are concerned, it should be self-understood that they are not only useful objects but also art objects.”

In Andelfingen, Erich Wipf heads for the canteen. It’s just before lunchtime. The teenage firefighters are resting in the corridors. Some of them are snoozing, others are gazing into the distance, listening to what their headphones are playing. Most of them have taken off their heavy boots. “Are you a vegetarian?” Wipf asks, negotiating two tablets with flatware toward the food counter. The specials of the day are puff pastry filled with corn, meatballs, and peas, with a side of beetroot salad and a small bowl of curry soup. At the table, Wipf peers through the window. It surprises him to see a locomotive passing at the far end of the meadow. Thick white smoke carves a line into the blue sky. He recounts the many accidents that he experienced in his firefighter days. He stopped counting after 14 corpses. He talks about his four children and the garden that requires plenty of work. Although he doesn’t want to keep talking about aesthetics and architecture, he agrees to take a last question, grinning, arms folded across his chest. Do the new structures created for the Andelfingen training center, built with a budget of 21 million francs, look beautiful because they reflect quality and Swiss craftsmanship? The right angles are right, the façades are symmetric, the concrete is professionally poured, and no irregularities can be detected. Wipf wrinkles his nose, shrugs his shoulders, and takes a deep breath. “I can only say that the result is outstanding. But I had to keep reminding everyone that it doesn’t merely have to look good, it also has to work.”

And work it does. The numbers confirm it. It’s obvious to those who come here. The facility is without a doubt high-tech. Walls of flame and billowing smoke can be created with pushbutton ease. Everything is temperature-monitored. The fire cells in the walls are evacuated by suction and disposed of to the highest ecological standards. All buildings are interconnected below ground and this so-called media tunnel can even be flooded. ADL, TLF, PTF, containers, wrecked cars and dummies are available to instructors for creating lifelike practice scenarios. Without a doubt: the quest for functionality was successful here.







The make-believe gas station annexed to the commercial building is used to train firefighters. But police forces also simulate holdups and kidnappings here.

But why is aesthetics justified here, even important? Because the AZA is more than a training facility for disaster control. It is also a training facility for aesthetic perfection. Swiss architecture takes that liberty. That's what it stands for. Because its ambition is to build rugged structures for perpetuity. Swiss craftsmanship and Swiss quality are world-famous for a reason. Carefully executed craftsmanship that reflects quality can create a sense of aesthetics. That happens automatically to those who walk along the fictional Römerstrasse. So architect Cyrill Denzler notes, justifiably so: "Even though not everyone likes the modern concrete edifices, they still do something to you." He's right. The concrete edifices are built solidly and steadfastly, precisely, without cracks and cavities. The eye can perceive precision. Swiss know-how practices what it preaches: the concept is thought through, it's smart. Sandra Kaufmann, co-director of the Industrial Design course at the Zürich University of the Arts, uses the word "smart" when she discusses functionality and beauty. She says: "Aesthetics and function are complementary. An object can be perceived as beautiful because it is refined, because it is surprising, or because it is functionally perfect – in English, you would say smart." She also notes that aesthetics is not just beauty and therefore meaningless: it has a function, an emotional one, to be precise. Positive perceptions make sure that people feel comfortable and at ease in the respective context. That feeling can even occur in a make-believe debris village in the heart of Zürich's winegrowing region.

So: the Andelfingen training center is smart. It fulfills its purpose. It is socially relevant and works flawlessly. At the same time, it served as a training facility for four aspiring architectural firms that each contributed to the achievement of a common goal. That's exactly what makes the new AZA a public-sector construction project in a role-model spirit. This is a success story. It was a single large and cumbersome exercise if all of the off-the-record statements were allowed to tell the story. Erich Wipf wasn't the only one who felt like sending the architects packing. Everyone wanted to send them packing. Everyone wanted to grab everyone by the throat. But today, they all agree, unanimously: we're happy, it works, we like it. Or, as Erich Wipf phrases it: "The result is outstanding."

The only really strange anecdote about the Andelfingen training center is that in the industrial fire extinguishing facility, of all places, a couple exchanged vows. But that's stuff for a next story: the aesthetics of wedding vows.

## NOLAX AND PURPOSE

Does it take an architect to build a firewall? Isn't functionality sufficient, without a special format? When and where does aesthetics come into the equation?

The story about the Andelfingen training center is a story about headstrong decisions. Criticism rather than applause is harvested by those who break the mold and circumvent expectations. It is commonplace at nolax that our ideas are initially not understood. We place great emphasis on the pioneering spirit and always seek the surprising and unorthodox solution.

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