

VELUX®

AN ATTIC FULL OF LIGHT
Apartment in Graz, Austria



A FAMILY AFFAIR

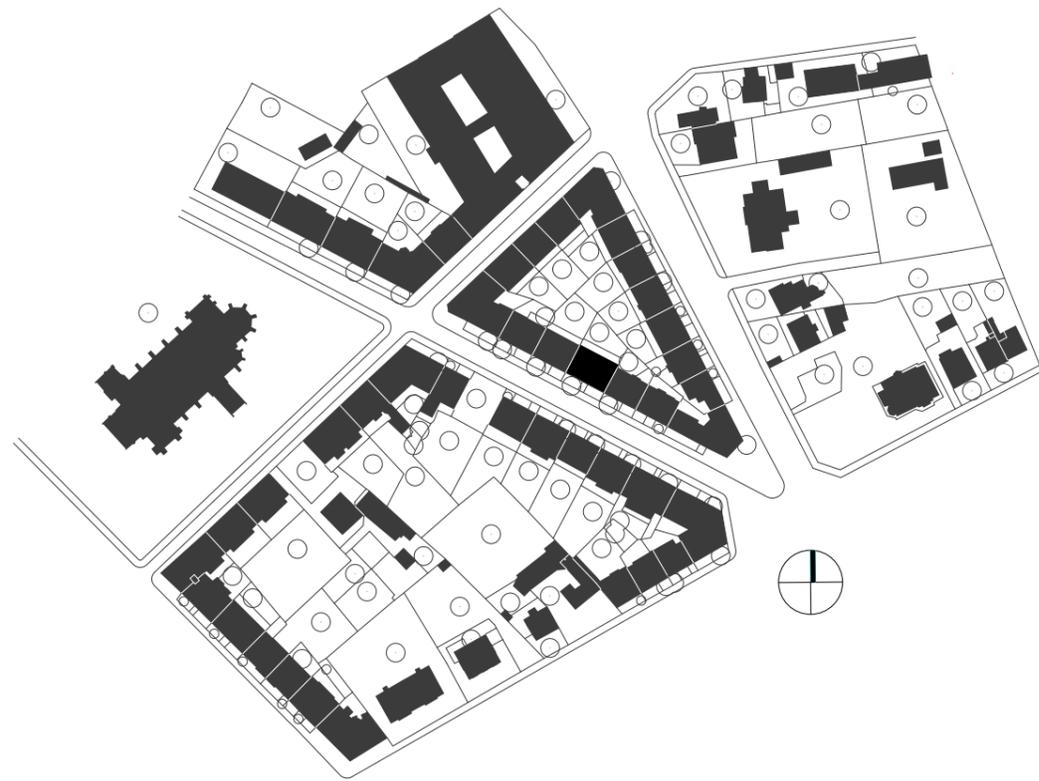
Strobl Architektur is a family architecture office in Graz run by a duo of father and son, Martin Strobl senior and junior, while Ms. Strobl is taking care of the back office. They have usually around four employees.

The house on Schillerstrasse belongs to the family, with the office on the second floor. Martin Strobl jr was interested in the roofs and attics of old houses already during his studies, and made the block on Schillerstrasse the topic of his diploma.

The history of the house is an interesting one - hit by a bomb during WW2, was rebuild with lower unsymmetrical new roof, not fitting the clear roofline of the neighbours. In 2008 a need for renovation of the old substance inspired the father and son duo to turn the student research into a project.

A new, symmetrical roof was planned to match the gables left and right, which also - by introducing a longitudinal glazing along all facade - gave the possibility of raising the ceiling in the apartments below.

Being an architect and investor at the same time was a blessing to this project. Full freedom to experiment and implement new ideas resulted in a harmonious, beautiful project showing solutions for a common problem: how to create more apartments in city blocks from the nineteenth century, widespread in all Europe, and design them as modern, healthy living spaces.





PLAN LIGHT, BUILD FAST

Some ideas ripened through years, but the planning and construction phase took each only half a year. In October 2015 Martin Strobl jr. moved in the apartment with his family.

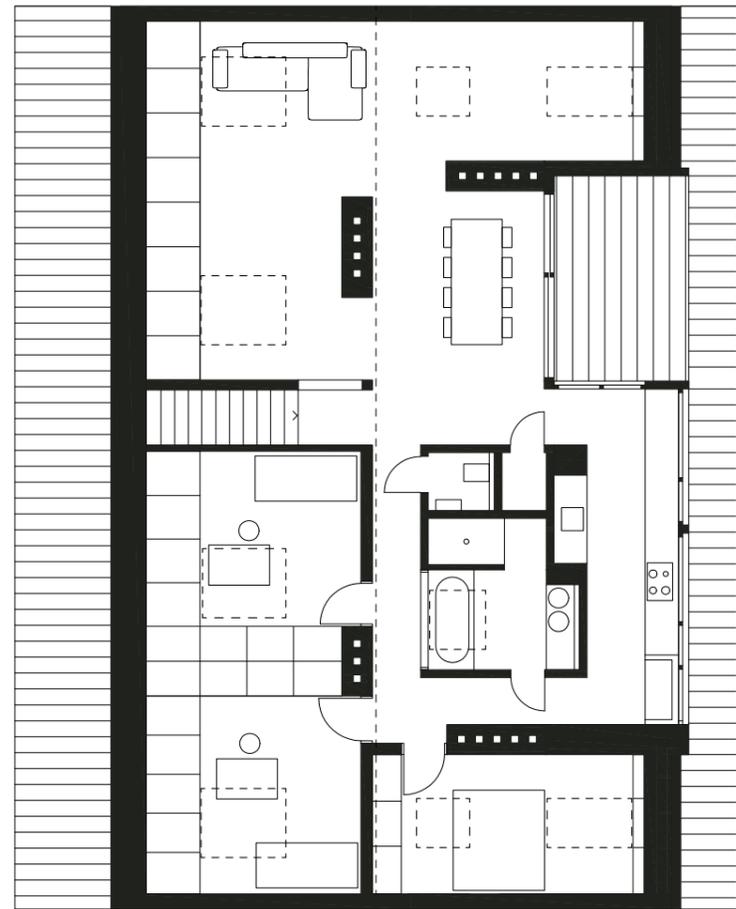
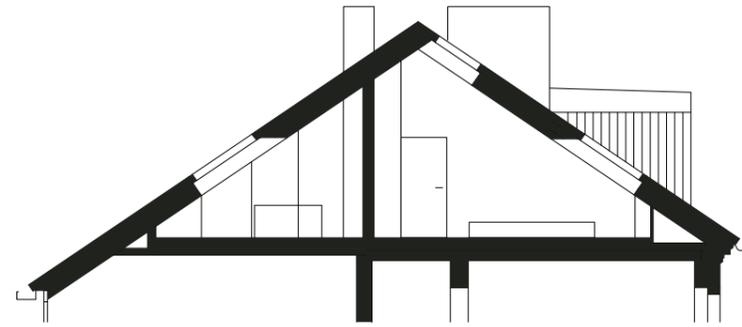
Building up on top of an existing house means a lot of restraints, especially through structure and cores. The ventilation shafts have to go up, and the extension has to stand on existing load-bearing walls. As the site is in the middle of the city, an efficient, prefabricated construction that could be assembled in minimal time was a must. Strobl decided to use also in this project cross-laminated timber. The material is ecological, the plates are cut to size in the factory and screwed together on site. CLT is light, which is another essential aspect in roof extensions of historic fabric.

Creating light-flooded rooms is not easy in a protected area, where dormers cannot be longer than 50% of the length of the house. Luckily a correct daylight distribution was taken under consideration very early in the design process. Martin Strobl jr. describes how it happened:

"A Velux representative was visiting the office to talk about another project. The first plans of the Schillerstrasse were lying on the table, we discussed them too. A 3D model inserted in the Daylight Visualizer tool showed that the corners as well as the ceiling were underlit."

all quotes Martin Strobl Jr., Strobl Architektur





Section and groundfloor of the refurbished attic. The row of windows close to the roof ridge ensures an even light distribution on the ceiling. The corridor is brightened up through a VELUX window in the bathroom and a vertical glazing in the dividing wall.





"For me, light stands in the centre of each design; there is nothing more important than this. It's daylight that makes apartments homely and friendly. One of my professors at the university used to say that the architect shall follow minimal daylight norms not to land in jail, but if he wants design good spaces he'll need much more than what is required."

MODERN REINTERPRETATION OF AN OLD TYPOLOGY

A new, private staircase leads up to the light, to the spacious attic apartment. Due to roof form regulations in the old town only kitchen has a vertical wall and connection to the balcony. All other rooms are lit and ventilated from above.

The functions were located around the existing shafts and pipes, which resulted in an interesting typology of rooms. The bedrooms are traditional; their proportions remind of the apartments below. In the middle there is a light-flooded bathroom, lightning up the corridor through a transom window. The corridor and walk-through kitchen connect to the open living and dining area, divided into two zones by shafts, reminding of the classic room proportions.

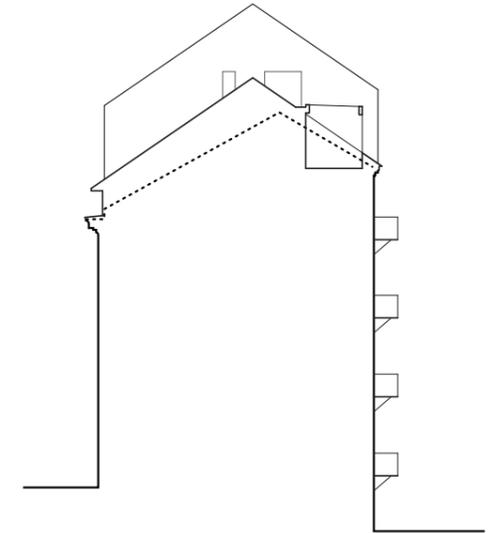
The spruce plywood construction, glazed in translucent white, is visible inside, its delicate pattern replacing other wall decoration.

"There is not much wall space for hanging paintings in an attic apartment, anyway" - laughs Strobl - "and both me and my wife like the wood pattern."

HEALTHY CLIMATE THROUGH ALL THE SEASONS

Thick insulation and triple window glazing protect the inhabitants both from the heat and cold. As there is no other heating option than electricity in the house, carefully located infrared heaters switch on when temperature drops. This option turned out to be the cheapest way of heating, with cost as low as 60EU per month.

Section through the building, showing the old roof (dashed line) and the extension, restoring original symmetry of the house. The new roof was lifted, which allowed for an additional glazing in the apartments on the last floor below the attic. A terrace was cut in the roof on the side of the courtyard: the inhabitants enjoy being outside. On the lower floors, old balconies were replaced by larger ones.





"We live in the middle of the city and in nature at the same time" - says Strobl - "I think it's important to feel the changing seasons, with them experience different temperatures also inside the apartment. Perhaps we need to rethink our habits for a sustainable future. And we must not forget how to use houses. Although all our windows are equipped with intelligent software allowing for automatic ventilation, it's important to me to open the windows consciously, together with my 8-year-old daughter. She should understand that to cross-air the apartment, we need to open a window in her room and kitchen at the same time."

SHARING KNOW-HOW AND INSPIRATION

"Velux is a long-time partner of our office. Sure, the products are great, but what I really appreciate is a partner to talk to when in doubt about daylight planning - we added the highlights thanks to Velux's analysis."

Martin Strobl jr. regularly attends conferences on daylight organized by Velux. "I learn a lot of theory, which is something I would have never done in everyday office work, and get to see a lot of work by others."



He adds: "I love my job, although sometimes it's tough and it is draining all energy out of you. On those days, I like to brighten up my mood by looking at and reading about inspiring projects, often in Velux publications - it's nice to be part of it."





PROJECT DATA

Project: Attic refurbishment
Location: Graz, Austria
Design: Architektur STROBL ZT GmbH
Time: 2015
Photos: Patrizia Weiskirchner
Oliver Wolf (pages 5, 15, 17)



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