Text
Florian Heilmeyer

Photos
Vito Stallone

‘We fought for every inch’

In the design for a house in Dielsdorf, L3P Architekten exploited planning regulations to the max.

→ A small stairway connects the garden to the kitchen. Both the strip of windows beneath it and the one in the gravel provide the basement-level nursery with natural light.

Dielsdorf is a small Swiss town northwest of Zurich. The area is dominated by agriculture and by mountains whose foothills continue all the way to the shores of Lake Zurich. Although a rural community, Dielsdorf is at the heart of Europe: by car, the centre of Zurich is less than 20 minutes away and the airport even closer. No wonder that Dielsdorf has hardly any building land left. People are willing to pay a small fortune for the few remaining plots on which construction is still allowed.

One small, steep plot had been vacant and for sale for years, however. Despite its idyllic situation as part of a former vineyard facing south, after complying with all the planning regulations, a buyer would be left with only 5 x 9 m on which to build. A house erected there would have a floor area of 83 m² at best: a space that made construction financially unattractive. In short, the parcel was considered unfit for building. In an attempt to sell it anyway, the owner turned to L3P Architekten, a firm in nearby Regensberg. He figured the chances of selling the land would improve if there was already a house on it. And he was right. The current residents bought the house – and the land – almost immediately after its completion.

Together with structural engineer Urs Oberli, the architects tailored their design to the brief of the original landowner. They excavated part of the mountain slope, inserted a carport and entrance area into the cavity, and opted for an efficient and highly compact skeleton: all choices that resulted in the greatest amount of living space possible. Inspired by the surrounding vineyards, architects and engineer developed a structure of black-painted reinforced concrete; its configuration evokes a grapevine. In this architect-propagated imagery, the trunk of the vine is the solid load-bearing wall at the centre of the frame, from which floors grow like branches and leaves. Sections of the glazed façade project from exterior walls like thick, ripe grapes.

Step by step, the rooms of this remarkable dwelling revolve around the central wall, forming a spiral of interior space that covers an area of 129 m². The arrangement is not like that of a conventional house, divided into separate floors. As they climb the stairs, the occupants can pretend to be Jack on his way up the beanstalk. Their beanstalk doesn't reach high in the sky, though: its apex is just under 12 m.

Boris Egli, one of L3P's four partners, talks about how they developed the design. →

← A landing between kitchen and living room is furnished as a lounge.

→ A concrete bookcase provides the central wall with horizontal bracing.

‘WINDOW FRAMES HANG ON THE SKELETON LIKE BALLAST OR, METAPHORICALLY, LIKE GRAPES ON A VINE’

← **You mention using a grapevine as inspiration for the skeleton. Can you be more explicit?**

BORIS EGLI: Our point of departure wasn’t *literally* a grapevine, of course. We used it as a metaphor for the way we designed and built the house. Exterior walls offer no structural support at all. Window frames actually hang on the skeleton like ballast or, metaphorically, like grapes on a vine. Floors ‘grow’ from the central wall, which serves as a trunk that holds the branches. By staggering the floors, we made the entire skeleton rigid. The basement anchors the structure to the ground, as it were, like the roots of a vine.

How close was your collaboration with Urs Oberli?

All parts of the project were inextricably intertwined: architecture, structural design, spatial arrangement, mechanical systems. Ours wasn’t an ordinary collaboration, with one after the other making a contribution. The entire skeleton is visible. It defines the space – there’s no intermediate layer – and it holds all mechanical systems, including underfloor heating.

It’s a joint effort that must have required some unusual ideas.

Absolutely. Take the bookcase, for example: it doesn’t stem from the need for a bookcase, but from a structural problem. It’s made of concrete, and besides storing books it also provides the central wall with horizontal bracing. Without those shelves, the central wall would have had to be a lot thicker. The basement was a confined space at first, but when the engineer needed to make a connection to the outer wall, we solved that problem with the insertion of a large nursery partitioned by a central bearing wall. The underside of that wall is beneath the floor, where it works as an anchor or a counterweight. The architectural concept clarified the structural challenges, and vice versa.

Why has all the concrete been painted black?

For different reasons. It makes for nicer views of the surroundings; on a fair day, people inside the house see the sun as a kind of spotlight. Black reduces reflection on the glazing and, by day, makes it harder for passers-by to see what’s going on in the house. Concrete also absorbs and accumulates the heat of the sun better than lighter colours. All in all, I think black is quite soothing.

The materials are interesting, but so is the form of the building. Can you explain all those corners, kinks and projections on the exterior walls?

The shape of the building emerges wholly from a maximum utilization of the volume as defined by local planning regulations. We had to comply with yet other regulations for those oriel-like projections. We fought tooth and nail for every inch. Windows show how rooms revolve around the central wall. Ceiling heights vary from 2 to 5.5 m, except in the atrium, which is 7.26 m high. Besides assuming a structural function, the staggered floors separate the continuous living space into individual zones. It’s an exciting arrangement, made even more so by the views: how will such a building function as a dwelling?

There are no balconies or decks. Why not?

Planning regulations didn’t allow any more protrusions. We fully exploited the possibilities. We omitted two originally planned loggias to increase indoor living space and to optimize costs.

How does the building fit into its environment? What do neighbours and passers-by think of it?

The locals react as people invariably do when seeing something new: they’re either fascinated or indignant. The place next door is a ‘solar house’ with a double-height window that faces south. Thirty years ago, it polarized the neighbourhood, but no one has anything to say about it any more. Passers-by often stop to look at our house, including young people who want to discuss the architecture.

The couple living in the house have two small children. They’ve had to get used to an extremely vertically organized dwelling.

Individual steps are not perceived as a staircase, and you quickly become accustomed to walking up and down. The kids think it’s fun – to them it’s a treehouse – and their parents knew what they were letting themselves in for. The woman of the house was heard comparing it to a free fitness programme. The relatively limited closet and storage space has a positive side effect: there’s no room to accumulate useless stuff, so the family is forced to dispose of things sooner rather than later.

Are they pleased with their grapevine?

They couldn’t be happier! ←

l3p.ch

A fuchsia kitchen adds colour to the interior.

‘YOU QUICKLY BECOME ACCUSTOMED TO WALKING UP AND DOWN’

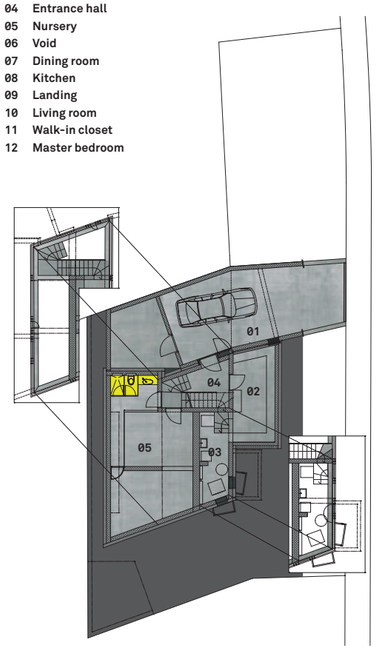
← The bath is in the master bedroom.

→ Tucked inside a dark-blue unit are a toilet, shower and dressing room.

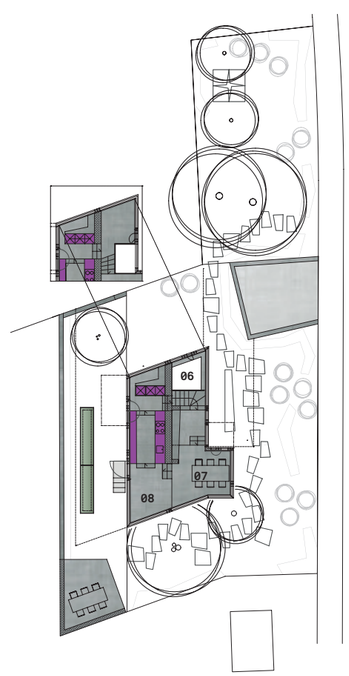
Cross Section

- 1

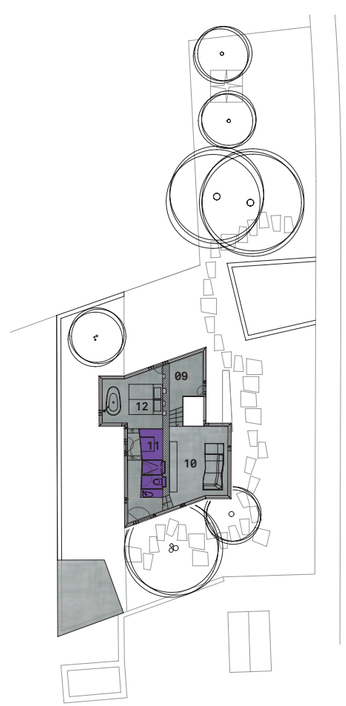
01 Carport
02 Storage
03 Mechanical systems
04 Entrance hall
05 Nursery
06 Void
07 Dining room
08 Kitchen
09 Landing
10 Living room
11 Walk-in closet
12 Master bedroom



0



+ 1



Long Section → L3P

House → Dielsdorf | Switzerland