

GRAND DESIGNS



DREAM HOMES FOR THE REAL WORLD / JANUARY 2008 / £3.40

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CONCRETE
GOOD, BAD
OR UGLY?

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FOR FESTIVE TABLES

PLUS KEVIN McCLOUD DESIGNS HIS UTOPIA / MUST-HAVE KITCHEN GADGETS / GRAND DESIGNS AWARDS

HOME Grand guide Concrete

who Michel and Josyane Roduit
what The renovation of a rural farmhouse into a contemporary and environmentally friendly home
where The outskirts of the mountain town of Chamoson in the Swiss canton of Valais
how long Two years, including a year of very detailed planning
high point 'Enjoying the amount of natural light that enters the house, and living in a very energy-efficient home'
low point 'I honestly can't think of one'
tip 'Try not to get upset if you go over budget. Your project should be a passion if you are worrying about money then it's probably not worth doing'

BOLD MOUNTAIN

WORDS CATHY STRONGMAN
PHOTOGRAPHY CHRIS TUBBS

FORGET CHOCOLATE, SWISS CONCRETE IS FAR MORE EXCITING - NEW TECHNOLOGY TRANSFORMED THIS OLD BUILDING INTO A THRILLING ECO HOME

Concrete has been used in place of the original timber cladding, and looks striking next to the rough limestone walls.

HOME

Grand guide

Concrete

The mountains of Switzerland are scattered with picture-perfect chalets with prettily carved wooden balconies and quaint pitched roofs. Among this rural landscape, concrete is a rarity. Older buildings are constructed from stone and timber and modern additions often employ a similar material palette. But a house on the edge of the town of Chamoson completely breaks this mould.

With the help of architect Laurent Savioz, Josyane and Michel Roduit have transformed a dilapidated farm building into a dynamic, yet contextual modern home. The house combines the existing traditional stone walls with a bold use of concrete. The result is a crisp, contemporary building that provides a modern twist on Swiss vernacular architecture.

The house stands proudly within a setting of soaring mountains, on the outskirts of the town in the south of Switzerland. The rural farm building was first constructed in 1814 but by 2003, when the Roduits acquired the house, it had slipped into

a sad state of repair. Its sturdy limestone walls had survived relatively intact, but only part of the building was habitable. The roof leaked, and the timber cladding was weather-beaten beyond repair. 'It was in a very, very poor state,' says Michel. Luckily the Roduits, who lived in a neighbouring property, recognised the potential of the 380sqm building and bought it when Henri, the previous elderly owner, passed away.

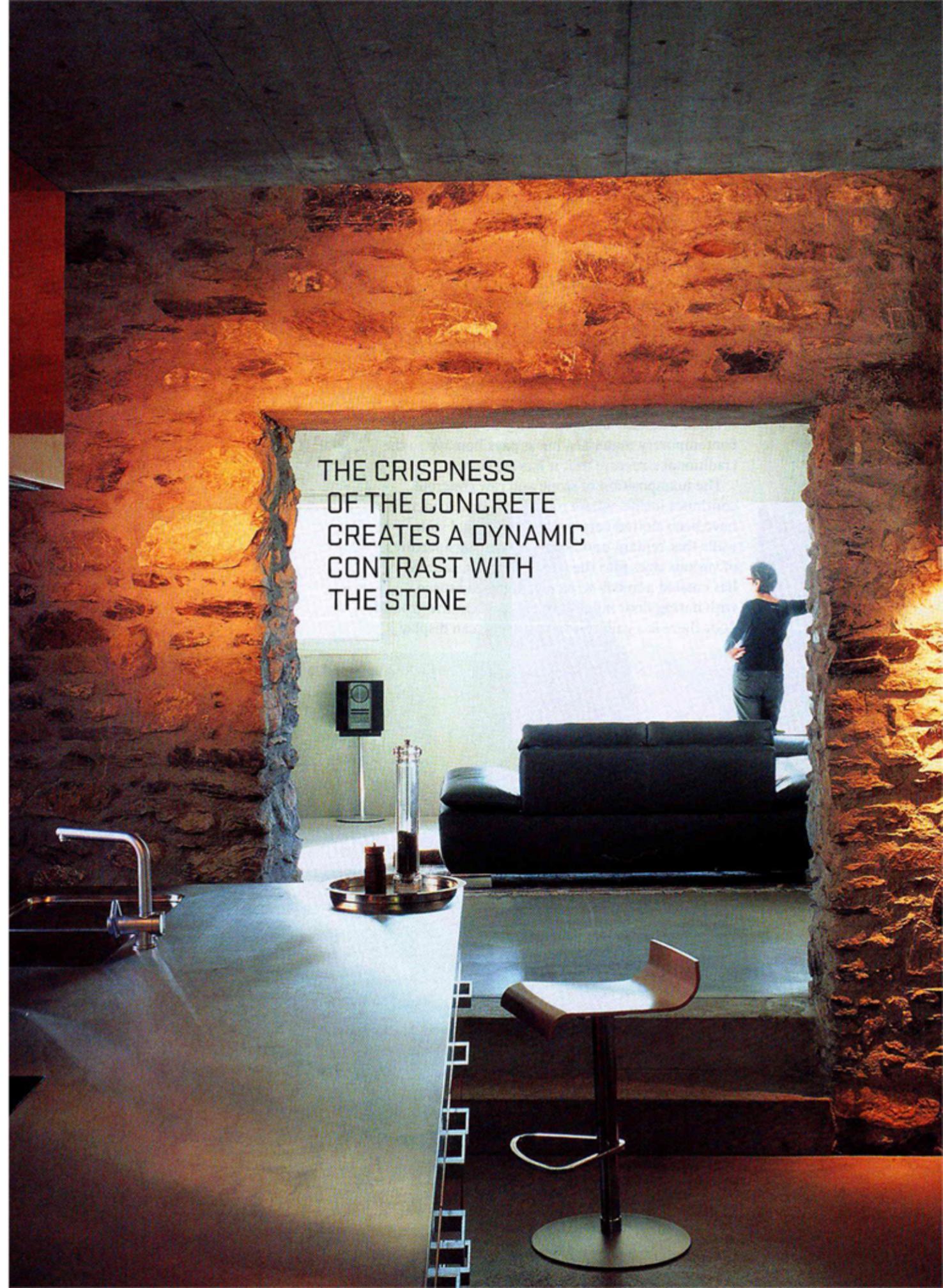
Josyane and Michel are an active couple who like to ski in Verbier and hike and cycle in the surrounding Swiss countryside. With their children now grown up, but often wanting to visit, they decided to keep their old house for guests and transform the farm building into a home designed precisely for their needs. Josyane is an artist and wanted a bright and naturally lit studio and exhibition gallery, while both she and Michel craved a modern, energy-efficient building that would signal a radical departure from their previous, traditional chalet home.

They tracked down young Swiss architect, Laurent Savioz having been impressed by a house that he had converted in the nearby village of Fully. Over the following year they had weekly meetings with Laurent, during which they formalised the design. 'We were very demanding on Laurent's time, we wanted to know about all the technical details,' says Michel. 'With a complex project like this, it's important to choose an architect who is available on a daily basis and who will spend time discussing every single aspect of your home.'

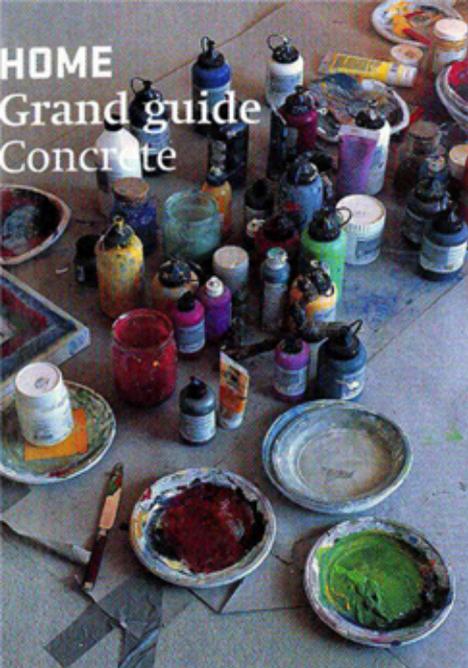
Laurent's creative hands were slightly tied by the strict planning restrictions imposed on the site.____



below The orange cabinets in the kitchen are a splash of colour in the otherwise muted home below right and opposite The concrete was cast in moulds made of wood planks, so even though they are smooth in comparison to the rustic stone, they evoke local buildings



THE CRISPNESS
OF THE CONCRETE
CREATES A DYNAMIC
CONTRAST WITH
THE STONE



The original walls had to be maintained and only three new large openings could be cut into the existing facade. The architect's solution was to insert a concrete frame within the stone carcass of the building – to support the original structure but also allowing for reconfiguration of the interior.

For the most part the concrete remains hidden from view, except on the east- and west-facing sides of the building where it has been left exposed in place of the original timber cladding. Its crisp appearance at the deep window and door reveals creates a dynamic contrast with the worn and irregular limestone boulders. Here, as with the rest of the building, the attention to detail is impressive. By casting these exposed sections of concrete in moulds made from rough planks of wood, Laurent has evoked the appearance and the texture of the original timber. The exterior may now incorporate contemporary materials, but it pays homage to the traditional structure that it has replaced.

The juxtaposition of stone and raw concrete continues inside, where rooms cast from concrete have been slotted between three internal stone walls that remain untouched. By cutting apertures of various sizes into the partition walls, Laurent has created a free-flowing and energetic space, with daring floor heights and angles. On the ground floor there is a gallery where Josyane can display

top and above
Starting from scratch with the layout meant the couple could design their home around their lifestyle and hobbies right and opposite Josyane's studio is a light-filled space thanks to the picture window that dominates one wall, making the most of the inspiring views



THE ARCHITECT
HAS CREATED A
FREE-FLOWING,
ENERGETIC SPACE

'WE'VE HAD A REALLY POSITIVE REACTION TO THE HOUSE FROM FRIENDS AND FAMILY'



FOAM PARTY

Misapor concrete (misapor.ch) is made with a recycled foaming glass aggregate, providing a use for old bottles, window panes and other waste glass. Foaming glass is manufactured by passing a gas through glass at very high temperatures, the gas then expands, producing a dense honeycomb structure, which traps air within the concrete. This means that despite being as strong and durable as conventional concrete, it is a much lighter material. The air pockets also improve its insulating properties, and it can be used for roofs and walls with no additional insulation. It can be cast on site or used for prefab panels, it's suitable for interior and exterior surfaces, and can be polished smooth, left exposed or rendered and painted.

her artwork, as well as a sauna, wine cellar and utility room. From here, a concrete staircase leads to the first floor kitchen, bathroom, living/dining room and Josyane's studio. Finally, the mezzanine level provides space for a bedroom and an en-suite bathroom. 'Josyane spends most of her time in her studio, but I like to wander throughout the house,' says Michel. The concrete floors, walls and ceilings have been left exposed adorned only with the odd painting and bright orange cabinets in the kitchen and bedroom. 'We both love concrete,' says Michel. 'It's very versatile and we've been able to keep all of our old furniture, except for the sofa and a table.'

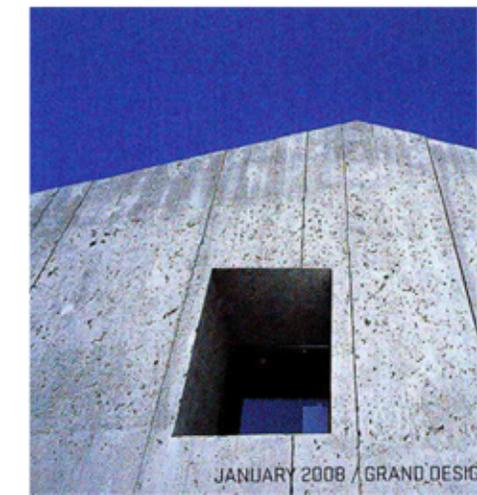
The Roduits are so pleased with the house, that there is absolutely nothing that they would change given the chance to start again. This is not only a tribute to the building's appearance, but also to its performance as an energy-efficient and comfortable home. The house is built to the Swiss Minergie standard for sustainable construction, which is not a compulsory standard, but is widely accepted as a mark of ecologically responsible design. To reach this standard Laurent had to ensure that the building was efficiently insulated and airtight.



The use of concrete was an essential strategy in achieving these aims. But instead of standard concrete, Laurent specified Misapor insulating concrete for the roof and the walls (see box, left). By adding a 30cm layer to the existing 60cm exterior walls he could dispense with any additional insulation material, while in the roof he added a 26cm layer of glass wool. His choice of Misapor concrete allowed him to build an incredibly well-insulated house with the use of minimal materials.

While all the windows have airtight aluminium frames and double-glazed panes, the larger openings are fitted with glass that reflects 80 per cent of solar radiation. This limits the amount of heat absorbed by the concrete interiors during the summer months, when temperatures could become uncomfortable, but allows in sufficient heat during the winter to help warm the home. 'It's great for Michel. The house is really comfortable all year round.' Additional eco credentials include a heat recovery system, which naturally ventilates the house, two wood-burning stoves and 23sqm of solar panels on the roof that provide 35 per cent of the house's energy needs.

But how has this very contemporary addition been received? 'We've had a really positive reaction to the house from family and friends, and we want to start another conversion,' says Michel. This building demonstrates how concrete can be used honestly and respectfully to not only save, but also to improve historic homes.★



this picture and right The mezzanine level gave the couple a peaceful place to relax, their bedroom and en-suite bathroom have minimal decoration but luxurious fittings far right The windows have double-glazed panes and airtight frames