

CANADIAN
ARCHITECT





RURAL RETREAT

STRINGENT SUSTAINABILITY STANDARDS ARE ACHIEVED IN THIS 21ST-CENTURY IDYLL IN QUEBEC'S ROUGE RIVER VALLEY.

PROJECT House in Four Fields, La Conception, Quebec
 ARCHITECT L'OEUF s.e.n.c.
 TEXT David Theodore
 PHOTOS L'OEUF s.e.n.c. unless otherwise noted

Architect Danny Pearl of L'OEUF Architects took me to see the House in Four Fields in the winter. With project manager Simon Jones at the wheel, we turned off the highway about two hours north of Montreal near the resort town of Mont Tremblant. The famous ski hills were veiled behind clouds; the namesake fields were deep in snow that also burdened the trees lining the lazy oxbows of the Rivière Rouge. The house came slowly into view as a scrim of colours suspended in the landscape: the grey of recuperated cedar boards used as vertical cladding, recalling the weath-

ered planks of an old barn; the variegated blues and browns of a low wall made from *mer de Champlain* stone; the Payne's grey of the sky; the blues and greens shaping stands of conifers. Out front near the visitors' parking, a young orchard hid under scratchy burlap protection, as if a final burst of colour sat coiled waiting for spring. Isn't this exactly what a modern house in the country is supposed to look like?

Pearl designed this 3,720-square-foot house for Stephen and Claudine Bronfman. It is a holiday home, but it is also a rural villa. Stephen Bron-



STRUCTURAL DIAGRAM



ABOVE LEFT Reclaimed timbers and local stone clad the elegant house, located in the Quebec countryside within sight of Mont Tremblant.
 ABOVE RIGHT An existing north-south fence served as a primary axis for situating the house, which is oriented to maximize passive solar gain.

fmán is a foodie and an environmental activist, so the house surveys a small domain dedicated to organic agriculture. The land forms an unusual scale of rural living, bigger than a garden plot but not quite a full-fledged farm. The same emphasis on local products that defines contemporary approaches to food characterizes the architecture of the house. The house is thus not rustic, nor perhaps, in the end, Modernist, for it neither frames views—the cinematic picture box—nor does it offer a *promenade architecturale*. All the same, the design aspires to the merging of inside and out we admire in classic houses such as Fallingwater, the Gropius House in Massachusetts, and the Farnsworth House, a juxtaposition continued in recent Canadian examples from the likes of Pierre Thibault, FIRAC and Brian MacKay-Lyons, FRAIC. It is a stunning reminder that Modernist design can work better in the countryside than in the city.

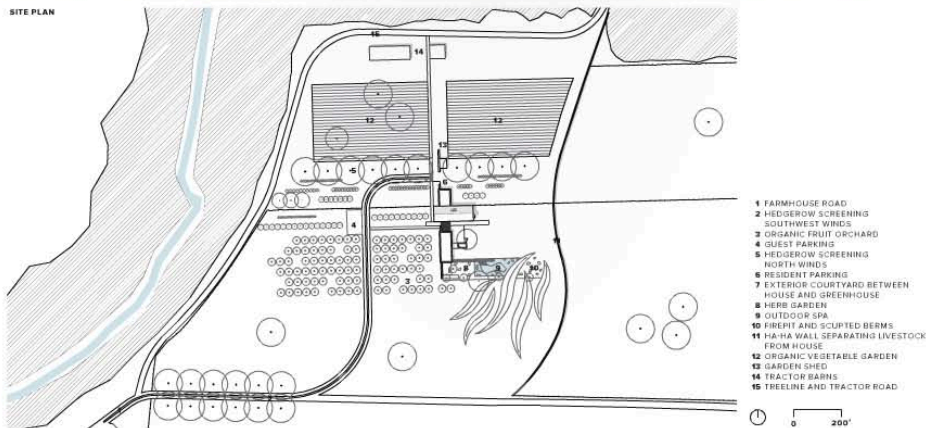
The house showcases ecological design. Low-tech passive strategies combine with high-tech engineering and products in a “complex” mix—

Pearl's term—mastered by a calm, light-filled interior. The design features reclaimed building materials and is built targeting the Passivhaus standard, which focuses on energy efficiency. The idea is to make the house so airtight (0.5 ACH at 50 pa) that very little air gets in or out except through the air exchange system. The prefabricated walls and roof are superinsulated, and careful construction details eliminate all thermal bridges. The architects also incorporated triple-glazed windows manufactured in Germany and programmable blinds. The extra capital cost of components and systems should be offset by energy savings. The principal exception to the Passivhaus standard occurs because of the kitchen fan, which Pearl decided to vent to the exterior. “Stephen and Claudine entertain and cook a lot,” says Pearl, “So we preferred to skip the certification and give the clients a house that suits them.”

On the outside, the house has the simplicity of a child's drawing, featuring a gable, pitched zinc roof, and square windows. Architects from

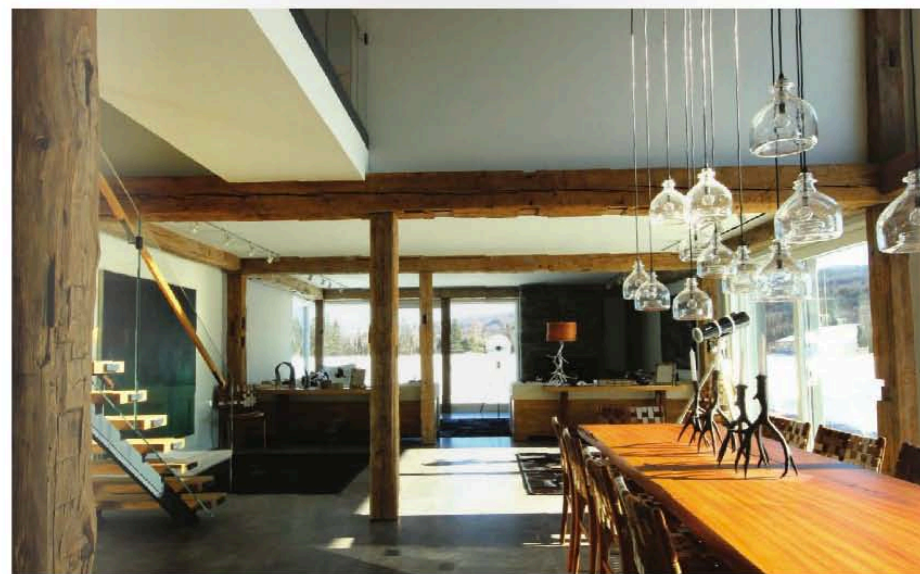


SITE PLAN



L'OEUF, including Pearl, Jones, Matthieu Schless and Morgan Carter worked with engineer Frédéric G n st to conceive minimal, near-invisible construction details such as a concealed gutter and thin metal window surrounds. One reason for this simplicity is that the Passivhaus program asks designers to use software to achieve a low surface-area-to-volume configuration and to assure optimal passive ventilation and solar gain throughout the four seasons. The house's shape also derives, however,

from careful observation of the nearby rural vernacular of barns and sheds. The architects designed two minimal sheds as well, one for gardening and one for a photogenic herd of longhaired Highland cattle. The animals are kept from the house by a stone ha-ha designed by landscape architects NIP paysage. Due to budget cuts, there is no swimming pool—although the scheme that won a 2012 *Canadian Architect* Award of Excellence featured one. In its place, there is a hot tub that holds twelve,

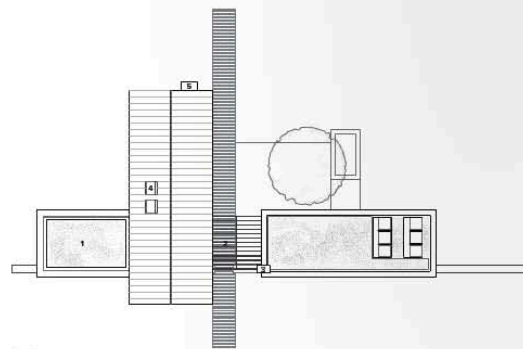


OPPOSITE The house includes a carport to the west and a greenhouse to the east. ABOVE, CLOCKWISE FROM TOP The interior features a post-and-beam structure made from reclaimed timbers; a view of the greenhouse and stone wall; a sheltered courtyard faces out towards the fields.

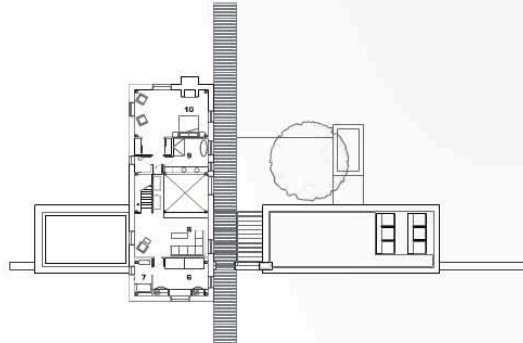
A stone wall anchors the house's efficient and open interior floor plan. The northern edge of the house aligns with an existing post-and-wire fence. A new wooden breezeway marks the southern edge. The wall cuts across them both, designating a public entrance on one side, and on the other providing an edge for a series of activities inside and out. There's a carport (the client agreed to dispense with a garage), the family entrance and a mudroom, and a chef's kitchen. A series of sliding doors leads

across the breezeway to a screened porch and a greenhouse.

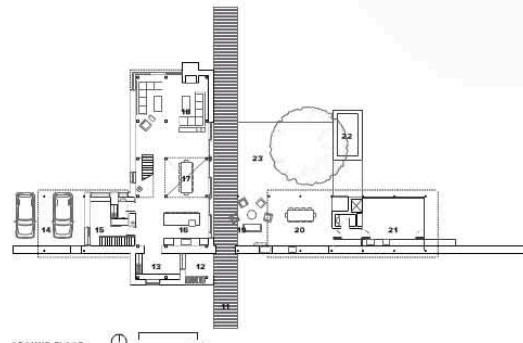
The ground floor also contains a living room and a double-height dining area. The basement hides laundry machines and extra refrigerators (they do like to entertain!) as well as the mechanical room. Upstairs, reached by a glass, steel and wood stair, the pitched roof shelters a family room, a master bedroom and bath, and the children's bedroom and bath. The family enjoys wood fires, so a chimney stack joins a high-efficiency



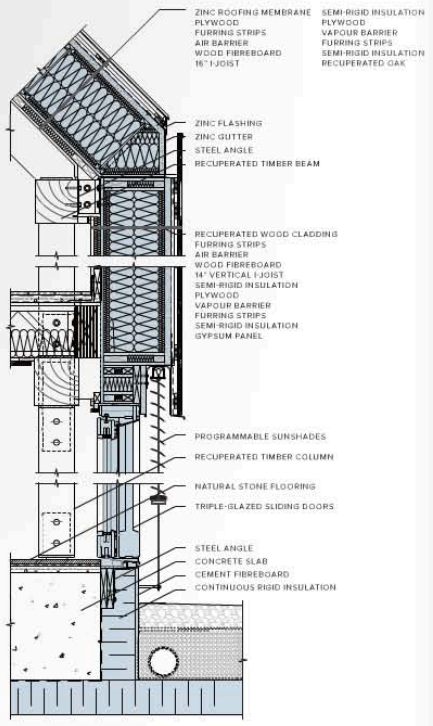
ROOF



SECOND FLOOR



GROUND FLOOR



WALL SECTION

- 1 GREEN ROOF
- 2 BRISE-SOLEIL
- 3 CHIMNEY FOR OUTDOOR FIREPLACE
- 4 SKYLIGHTS
- 5 CHIMNEY FOR INDOOR FIREPLACE
- 6 BEDROOM
- 7 BATHROOM
- 8 MEZZANINE
- 9 MASTER BATHROOM
- 10 MASTER BEDROOM
- 11 WOODEN WALKWAY
- 12 COVERED PORCH AND WOOD STORAGE
- 13 FRONT ENTRANCE AND VESTIBULE
- 14 PARKING
- 15 BACK ENTRANCE AND MUDROOM
- 16 KITCHEN
- 17 DINING ROOM
- 18 LIVING ROOM
- 19 COVERED SEATING AND OUTDOOR FIREPLACE
- 20 COVERED DINING AND OUTDOOR KITCHEN
- 21 GREENHOUSE
- 22 OUTDOOR SPA
- 23 STONE TERRACE



ABOVE, LEFT TO RIGHT An exterior walkway separates the main house from the greenhouse and leads out towards the pasture; a cowshed on the property was also designed by L'OEUF, in an economical vernacular style.



living-room fireplace with a second one in the master bedroom. Carter worked with the Bronfman's interior designer Cynthia Adelson of Adelson Design to create furniture and built-in millwork made from reclaimed red oak throughout.

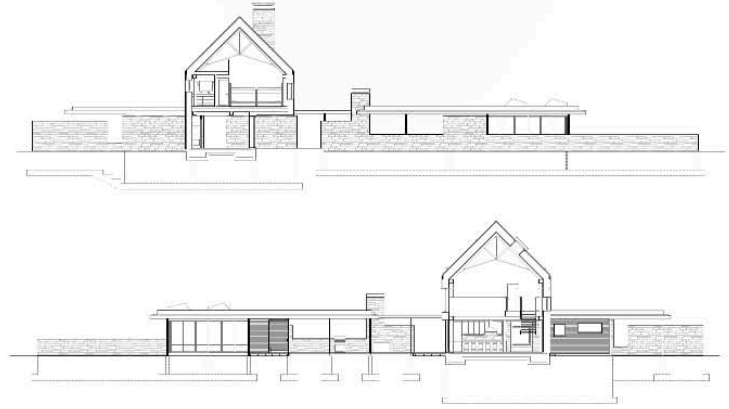
A post-and-beam structure designed with consultants Jan Vrana and Jean-Marc Weill holds up the house. The timber pieces share the same profile: about six inches square. The profiles are nominal, however, because the structure is made from pitted and cracked reclaimed wood full of holes, cuts, dents, dowels, notches, hatchet marks and nails. The posts are kept inches away from the thick walls, which means that—unusually for Quebec—it is a domestic environment filled with columns. Many people in Quebec live in post-and-beam loft buildings; however, the posts are usually embedded in structural walls. The reclaimed wood eloquently speaks of the fragility of age, letting the architecture tell a story. The effect is most pronounced on the east façade, where a sleek glass corner reveals a pitted and cracked red oak post.

It is difficult to understand exactly how the Bronfmans will live here

over long periods of time. This is definitely not a suburban house. For instance, they have four children who here must share one bedroom filled with bunk beds and ladders. In addition, the family will have to learn small but important new routines, as the building's "complex" environmental systems, while robust, are affected by the casual actions of everyday life: opening windows, closing blinds, or using a fireplace. Pearl's team has installed a set of sensors that will collect data on the house's operation over the next year or so, allowing them to fine-tune the equipment.

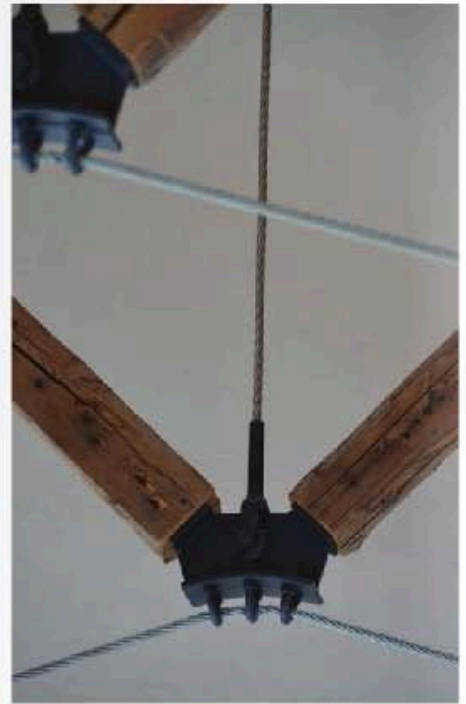
So far, it seems to work well. As Jones explains, the problem this winter has been how to cool down the house, not how to heat it. Pearl, however, has his eye on a bigger prize. He argues that low energy consumption can be a goal for all kinds of housing. A project like this gives his firm tools that can be used in broader environmental and social movements. To that end, L'OEUF has several projects that move towards Passivhaus standards, including subsidized urban community housing.

Overall, the House in Four Fields presents a new kind of commission, neither vacation home nor second house. The house is an unusual, 21st-



SECTIONS

0 40'



ABOVE, CLOCKWISE FROM TOP LEFT The house and landscape were designed in tandem; window frames and the roof gutter are carefully recessed; a detail of the roof trusses; an upper mezzanine accesses the bedrooms; a detail of the steel, glass and wood stair.

century hybrid retreat for entertaining and farming. I wonder if the Bronfmans could be persuaded to rent out the home to the combination of foodie and design addict that the house is meant to inspire? Or another thought: since Stephen Bronfman is a serious collector of contemporary art, could the house be deployed as a stunning venue for themed exhibitions? Idle speculation, perhaps, but the closest parallels to the project are the rental retreats commissioned by Alain de Botton in Britain under the Living Architecture program. The aim in both cases is the same. This is good architecture built with good intentions. ▲▲

David Theodore, MRAIC, is Assistant Professor at the McGill University School of Architecture.

CLIENT STEPHEN AND CLAUDINE BRONFMAN | **ARCHITECT TEAM** DANNY PEARL, SIMON JONES, MORGAN CARTER, MATTHIEU SCHLEISS, DIETER TOEWS, BERNARD OLIVIER, JESSICA DAN, NATHALIE HEROUX, HUGUES DALY, SUDHIR SURI, ARADHANA GUPTA, RENE CHEVALIER, JEAN-FRANÇOIS ST. ONGE, CECILIA CHEN, IVAN SYLVA | **LANDSCAPE** NIP PAYSAGE | **STRUCTURAL** JAN VRANA AND JEAN-MARC WEILL | **MECHANICAL/ELECTRICAL** PAGEAU MOREL ET ASSOCIÉS INC. | **INTERIORS** ADELSON DESIGN | **ORGANIC FARMING** RUNAWAY CREEK FARM | **PROJECT MANAGER/CONTRACTOR** OMNIA TECHNOLOGIES INC. | **PASSIVHAUS** MALCOLM ISAACS | **POST-AND-BEAM STRUCTURE** JIM IREDALE | **ROOFING AND METALWORK** VERDUN ROOFING | **LIGHTING** LIGHTEMOTION | **CIVIL** MARCHAND HOULE ET ASSOCIÉS | **AREA** 3,720 FT² | **BUDGET** WITHHELD | **COMPLETION** JULY 2014