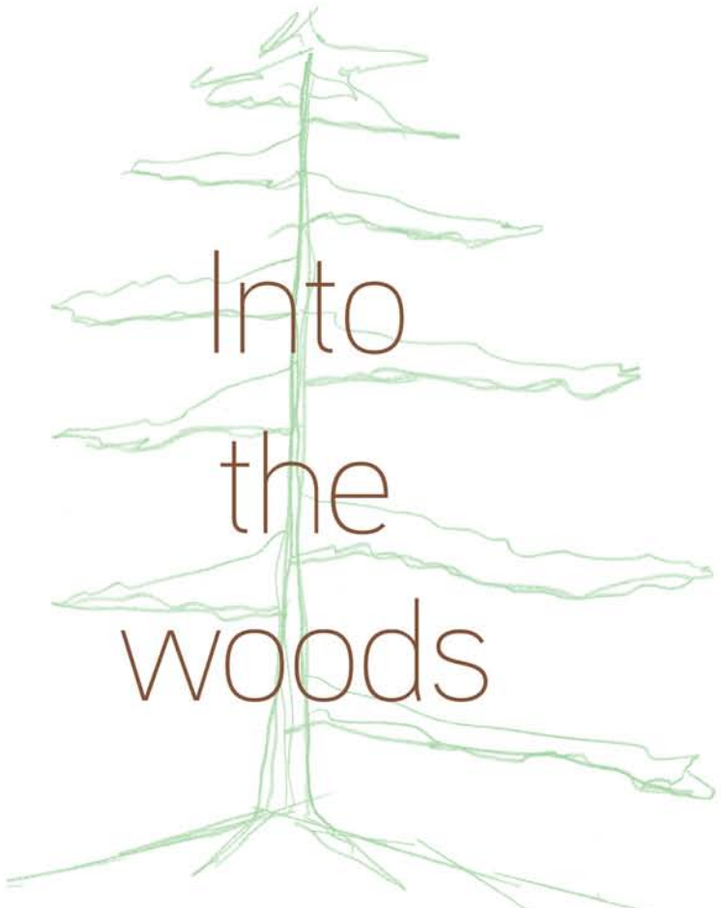

Into the woods

A case study in cottage country

The mission of Toronto-based Mafco House is to build affordable modern homes in Northern Ontario that respect, reflect and connect with their often-rugged sites. By Kelly Rude Photos by Joseph Franke

Getting away from it all takes on new meaning when one travels with Dan Molenaar. The Toronto menswear retailer recently established Mafco House, a design and project management firm, to experiment with principles of structural engineering and adaptable materials to produce low cost, environmentally responsible recreational homes.

His first project, Bare Rock, is located north of Haliburton, Ont., above Drag Lake, on an isolated stretch of the Canadian Shield. The open plan Douglas fir post and beam construction was conceived by Molenaar as an alternative to what is currently available in Northern Ontario vacation properties. While his experience as owner for 20 years, with his wife Diane Younge-Molenaar, of Boomer, their Queen West high end menswear boutique, has not provided much construction opportunity, Molenaar's background also includes five years as journeyman carpenter at Ontario Hydro, supplemented with architectural drawing and drafting courses from Ryerson Polytechnic University and personal studies of the Usonian houses by the legendary American modern architect Frank Lloyd Wright.

Although few Usonian houses were built due to escalating costs, Molenaar is drawn to what Wright developed from the mid 1930s to 1950s because of his use of a grid system that established regular, modular dimensions for the wooden house. This grid allowed for maximum design flexibility and the repetition of standard details reduced costs, as did the elimination of other items like visible roofs.

Molenaar drew on Wright's experiences, plus the findings of another American modernist master, Richard Neutra whose premise about flat roofs was that "without ridges and intersections, flat roofs are easy to build, easy to cover and much less of a maintenance headache. A flat roof with a slight pitch will naturally drain the water in only one direction into one gutter or scupper. A good roof skin may artificially hold water on top of it so as to service as an effective heat insulator as well."

Molenaar cites the Case Study Houses program of the mid-1940s initiated by John Entenza's Arts and Architecture magazine as another source of inspiration. Experimental prototypes of modestly scaled modern resi-

Previous page: Top left_The site for Bare Rock is six acres of Canadian Shield fronted by eight hundred and fifty feet of shoreline on the east side of Drag Lake, north of Haliburton. Top right_The south elevation of the 15-foot x 60-foot, three-season home shows its rugged site reflected in the glazing reclaimed from an office tower in downtown Toronto. Bottom_East and south views from the living room through custom Douglas fir framed windows. Barcelona chairs, an antique Japanese table, and a covered foam bench that doubles as extra sleeping space, sit on a simple sisal rug. A wooden bowl centered on a bench made from a Douglas fir beam left from the building's construction completes the minimal, elegant decoration. *This spread:* Below_Upon entering the east side through a set of sliding doors, one is greeted by a custom dining table and benches flanking the kitchen island; and when the west set of double doors are opened to the deck, a breezeway is created with views to the lake and the setting of the sun. Right_The stainless steel clad kitchen is positioned in front of an internal box containing the bathroom and storage; the open bedroom is beyond the box. Tongue and groove fir planks make up the ceiling, and the floor is a dark stained fir ply. Bottom right_At night the interior becomes a veritable lantern, lit essentially by candlelight rendering the dwelling near transparent.

dences, constructed of inexpensive materials, these case studies brought new thinking, techniques and materials to post war California house building from the likes of Eames, Saarinen and Craig Ellwood.

Prefabrication, the current yet largely untested buzzword for modest, modern residential construction, is perhaps a 21st century development of the Usonian and Case Study ideals. There is definitely a new generation of homebuyers that are looking for a modern aesthetic that is financially attainable. But Molenaar contends that "prefab is presently promoting this realization as a simple task. Remote building locations on lakes that have not been overdeveloped are accessible by small seasonal roads or boats – large trucks and cranes would not have access to these sites." Prefab is essentially trucked in on eighteen wheels and craned onto the site.

"Offsite prefabrication also eliminates field labour and allows construction to be facilitated in climate controlled environments (factory production)," Molenaar continues. "A combination of field labour and off-site production will be the future of Mafco House." The modular post and beam framing system or superstructure would be prefabricated, taken down, then shipped to the site and re-erected by field labour. Prefabricated standardized exterior wall panels and/or glazing systems of a manageable size would also be brought to the site to provide the structure's skin.

Bare Rock is accessible only by boat or in the winter along frozen ice, so the building materials were barged across the lake, and then hauled by hand up a steep incline to the site. The glazing, serendipitously, came from a downtown Toronto office tower and Molenaar is constantly on the look out to source other reclaimed materials for future projects.

Incorporating the best of the Usonian and Case Study Houses program and through rigor and sheer tenacity, calculating ways to keep construction costs under control, Molenaar built a quiet and elegant flat-roofed horizontal home on concrete piers secured to the bedrock, and clad in reflective glass, all for a cost of under $200,000.

His finished house is discretely positioned parallel to the shore 70 feet above the water and camouflaged by the forest canopy. The 15-foot by 60-foot three-season dwelling, its dimensions determined by the size of the reclaimed glass panels, affords unobstructed views west to the lake and east to the rock face and beyond, particularly when the massive double sliding breezeway doors on each side are fully opened. The bronze tinted glazing reflects the surrounding white pine, birch and balsam as well as the rust coloured pine needles on the forest floor; reflections on the interior glass surfaces bring even more of the outside in. Visitors feel that the simple edifice, with its reflective surfaces, is floating; this is due in part to the sheer strength of the pier system and its strategic placement on the contour of the site, where the east

elevation hugs the landscape at grade, and the west side, which at its tallest is 16 feet above the forest floor.

The flat roof is sealed with a 60 gauge EPDM rubber membrane; siding and soffit are a dark bronzed aluminum composite panel. Post and beam joints were plunge cut and pinned through an internal kerf plate so as not to expose the connectors. Adjustable steel crossbracing on the north and south interior end bays provides lateral support.

Douglas fir tongue and groove planks, usually specified for flooring, were an elegant choice for the ceiling, while dark stained fir ply was used for the floors. The kitchen island, dining table and benches were fabricated from padauk, and as a counterpoint to the dark African hardwood, stainless steel was used for the kitchen sink backsplash, refrigerator and cabinet cladding. Refrigerator, stove and hot water heater are fueled by propane, the main source of light is from candles (close to 50 small ones are standard fare while the sun is setting); a small generator acts as a back-up power source and is used mostly to pipe water from the lake to a 65 - gallon pressurized tank. The building has been wired for AC power but Molenaar is still researching the most appropriate and cost effective renewable energy system. Meanwhile, the home currently boasts an outhouse, which in time will be replaced by a self-composting toilet.

A second project on a nearby site and a third, in Muskoka, are indications that the Mafco mission of providing high design, yet affordable site-specific dwellings for a clientele seeking an alternative to the cottage life of power boats and jet skis is gaining momentum. And Boomer now does double duty as an impromptu showcase for Mafco House that has already become more of a lifestyle concept than a building type. Build it and they will come. www.mafcohouse.com CI