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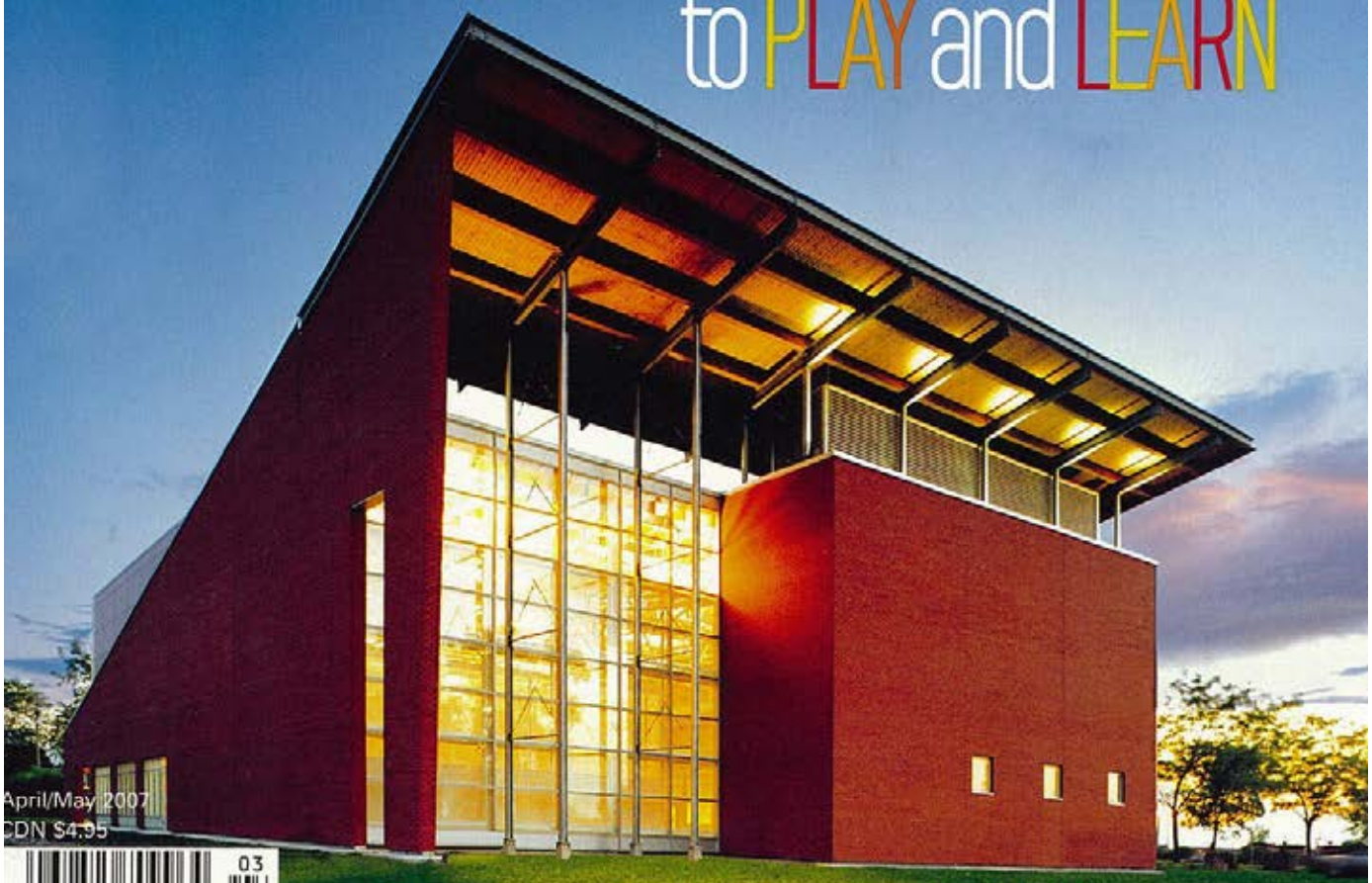

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The raw, primal beauty of the Bruce Peninsula is a key inspiration for the dramatic form of a new Visitor Centre by Toronto-based Shore Tilbe Irwin and Partners. But the project also seeks to be didactic in its attention to sustainable building technology.

By Peter Sobchak

Two hours west of Toronto, the Niagara Escarpment knifes 725 kilometres through southern Ontario from Lake Erie north, forming a stiletto of land jutting into Georgian Bay known as the Bruce Peninsula. Along its rocky edges are preposterously pretty villages, the time warp of Amish and Mennonite country, scenery that changes with almost every bend of the road, and all the natural beauty you'd expect from a UNESCO World Biosphere Reserve.

On the tip of the peninsula, the village of Tobermory is renowned for the Bruce Peninsula National Park's off-road trails (where the 800-kilometre Bruce Trail that crisscrosses through southern Ontario begins), postcard-perfect harbours and approximately two dozen sunken shipwrecks in an area of clear water known as Fathom Five National Marine Park, Canada's only underwater national park. These wrecks have made Tobermory one of the best scuba diving locations in Canada, and the town sees heavy seasonal tourist traffic, from bronzed divers exploring the underwater graveyard to hikers strolling through the highest concentration of wild orchids in North America.

Identifying visitors' need for an essential orientation and amenity point, as well as the opportunity to educate and enlighten these hoards, Parks Canada commissioned Shore Tilbe Irwin to build an unobtrusive structure that integrates informative exhibits with green building technologies.

Due to Parks Canada's strict environmental regulations, the new centre had to be built away from the craggy coastline, so a densely wooded piece of rocky ground a five-minute walk in along the Bruce Trail from the village harbour was chosen for what is essentially a 16,145-sq.-ft. porch that enables this delicate yet rugged environment speak for itself.

The project's footprint accommodates parking for 110 cars, a picnic shelter, a 78-ft. tall observation tower and the Visitor Centre, whose compact, heavy timber structure shelters a large public lobby, gift shop, offices for Parks Canada staff, a 100-seat theatre, and a 4,200-sq.-ft. exhibit hall that interprets the Park biosphere, the region's cultural and historical background, as well as conveys a message of environmental stewardship that is in part illustrated using the building itself.

Ascending the observation tower, visitors are given a sweeping panoramic view that includes the coast and islands of Georgian Bay as well as the visitor centre, floating in a "sea of trees." From this perch, visitors can inspect the building's rooftop medley of design features, including a computer-automated ventilation system, photovoltaics and solar hot water array. This lively roofscape bears witness to the architects' desire to create a new model for sustainable park architecture. Other fruits of this philosophy include an on-site peat bio-filter sewage treatment system (also visible from the tower), the use of air-source heat pumps and the reduction of electrical load through daylight harvesting and motion sensors. The building materials themselves, including reclaimed timber decking from a local 19th-century mill and the incorporation of Bruce Peninsula limestone, highlight conservation techniques and blend unobtrusively with their surroundings.

The exposed beams of the airy, long front porch give the structure a dramatic public face, and draw the eye outward, orienting visitors and coaxing them to explore the surrounding geography. But there's science even in this simple space: the south-facing porch and a forecourt off the main entry create suntrap microclimates sheltered from prevailing north winds. These help to mitigate winter heat loss from the areas where more glazing is desired, such as the offices and the lobby.

"Compositionally, the design expresses the primary sectional characteristic of the Bruce Peninsula through its bold roof line which features low southern eaves, and which rises up to the north before dropping sharply to create a cliff-like façade at the exhibition hall on the building's north face," explains project architect Andrew Frontini. "This building section echoes and amplifies the site's primary topographical feature - a rocky ridge and a 12-foot drop which the building straddles."

The net effect of Shore Tilbe Irwin's work is a simple yet sublime gateway that embodies and advocates an ethos of responsible stewardship for a landscape whose austerity belies its fragility - an apt description and philosophy for the environment as a whole. B

Left, below and right: The forecourt and porch, approach to the main entry from the forest trail, and roofscape as seen from the observation tower of the Bruce Peninsula / Fathom Five National Park Visitor Centre. The compact building volume allows it to embrace fundamental aspects of sustainable design, for example minimizing the built surface area lowers the embedded energy cost of the building and reduces heat gain and loss though the building envelope.

Photos by Ben Rahn/A-Frame

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