

**Category of Submission: Design**

*Breezecatcher House; 1,000 square foot house addition + 600 square foot renovation*

Context: Expanding My Parents' Summer Cottage

Each May my parents bundled three dogs, a cat, my siblings and me into the family station wagon and drove 10 hours from our home in the low mountains of Pennsylvania to the gently rolling, wide-open landscape of Michigan. We lived there every summer, on an inland lake, in a modest 600 square foot cottage. In the evenings, my father read to us on the screened porch he built, with a background chorus of crickets and croaking bullfrogs, the occasional wet slap of a hungry fish carrying across the still water.

The opportunity to design (and soon, to build) an addition to their cottage, after all these years, invites reflection on a wealth of visceral impressions.

**Project Description:**

Immediately to the east of the renovated cottage--which houses enlarged bedrooms, a new utility room and a full bathroom--the addition contains a new kitchen & pantry, dining room, half-bath, living room, and screened porch. In contrast to the conventionally framed existing house, an open structural frame defines the addition, with large expanses of glass infill providing views of the water.

The addition's openness and its sloping, articulated roof form take advantage of the prevailing southwesterly breeze, generated by cool air over Lake Michigan 15 miles to the west. Moving air flows through the house to varying degrees by opening sets of windows and doors. The roof form enhances natural ventilation, operating a bit like an airplane wing, its low upward tilt creating a pocket of low pressure that helps draw air out through the north facade.

**Conceptual Parameters:**

Several ideas and goals for the project tailor the design uniquely to its site. First is an interest in responding straightforwardly to the north-facing lake exposure and prevailing southwesterly breeze, as mentioned above. Additionally, to provide a sense of rootedness and shelter, a series of protective, concentric, surrounding elements anchor and frame the main living spaces. Book shelves line the interior with color and texture, providing the promise of knowledge and thoughtful escape--a comfortable, protected place to spend the afternoon curled up with a book. The dining room table, made from the same wood as the book shelving, transitions smoothly into a built-in couch at the edge of the living room and again into casework along the low north edge.

The roof form, with its gently tilted inflections to the north and east, admits morning light above the kitchen, opens to views down the lake on the northeast corner above the porch, and gathers sunset-tinted light from the western sky late in the day.

The addition is clad with custom, press-formed metal shingles, modular in nature, nailed to furring strips on sixteen inch centers. The shingles not only subtly recall the roof geometry, they lap to create a complex geometric surface reminiscent of fish scales, wind-driven waves, the patterns cast by sunlight passing through shallow water, and the surrounding wind-swept, undulating landscape.