In the ever-evolving era of sustainable building, architectural firms must find ways to align sustainability with a structure's function and affordability. Through building to LEED-prescribed levels and employing visionary architects and designers, the companies on the following pages are paving the way toward attractive sustainable design.

**STUDIO ST ARCHITECTS**

*Revealing innovative, existing spaces through sustainable-design techniques*

BY JENNIFER HOGELAND

**SUSTAINABLE DESIGN ISN'T A NEW CONCEPT; SOME cultures have been considering environmental factors for decades. Born and raised in Israel, Esther Sperber explains that, in the early 1990s, her architectural program at Technion was already exploring the impact of passive energies—climate, structure positioning, and solar power.**

Sperber came to New York in 1997 to attend graduate school at Columbia University. The curriculum identified ways for Sperber to change the focus of her design, but it didn't take sustainability into account. After working at Pei Partnership Architects for five years, Sperber felt she was destined to create sustainable structures. In 2003, she established Studio ST Architects, a firm based on innovative and responsible design.

Studio ST Architects has developed a palette of sustainable-design techniques. Its structures were inspired to use less energy and make smart use of materials. "That is where we have a lot to contribute," Sperber says. "Our design abilities are really crucial in shaping the way the buildings will be used in the next century."

Studio ST Architects has a strong residential portfolio. Among the most recognized projects are an apartment building in Brooklyn, a set of duplexes in Manhattan, and a handful of single-family homes scattered throughout New York and New Jersey. Passive energy plays a major factor in Studio ST Architects' residential design. "I believe the first step is doing no harm, which is on the passive-energy side," Sperber suggests. "The next step is to add extras like solar panels and greywater systems."

One residential design worth mentioning is the Swell house, a 900-square-foot home in New Jersey. While a
complete demolition was considered, Studio ST Architects searched for a sustainable alternative. The firm kept the shell of the home intact; an addition was wrapped around the old skin to dramatically reduce waste and expose an energy-efficient structure. Architectural Record selected the Swell home as one of the "Best Unbuilt Houses" in 2008.

"I think, in some ways, it is easier to start with a clean slate, but other options need to be explored because so much of our environment is already filled. We try to work with existing buildings and find ways that they can become more energy efficient," Sperber says.

Over the years, Studio ST Architects has grown its number of institutional projects. Sperber says that the architectural firm recently completed the first phase of renovation for the 14th Street YMHA, a 60,000-square-foot Jewish community center in Manhattan.

While energy-efficient equipment is critical, Sperber also utilized a "less-is-more" strategy. The ceiling was exposed, the pipes were painted, and the flooring was removed to reveal a concrete floor. "We concentrated on doing less rather than more. Through our interpretation of sustainability, we didn’t want to introduce additional materials," she explains.
Kesher Synagogue in Englewood, New Jersey, is another of the firm's noteworthy projects, though it is still in a schematic-design phase. Committed to creating a sustainable building, the 18,000-square-foot, $4.5 million new building will be incorporated to surround the existing structures. A series of ramps connect the indoors and outdoors, and draws in as much daylight as possible. A series of green roofs will provide additional outdoor space and considerably lower the energy consumption of the synagogue.

Sperber implies that most of the company's clients are receptive to sustainable design, although they aren't willing to sacrifice the structure's beauty, function, or affordability. Studio ST Architects' challenge is to find ways to merge all those features in one building.

"I think it is possible to do responsible building that is as well designed and at the same budget as another design," Sperber says. "Studio ST Architects is passionate about finding innovative solutions to create sustainable spaces."

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