

## ENVIRONMENTALLY FRIENDLY CONSTRUCTION

# New Discovery Museum going green

By Becky Krystal  
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WINCHESTER — When it's built, the new Shenandoah Valley Discovery Museum won't be seeing green merely because of its location in Jim Barnett Park.

The project's architects and other contractors are working with "green" advisors to brainstorm ways the museum will not only integrate itself into the park's environment but even improve it.

Also important is ensuring that the structure's construction and subsequent operation are energy-efficient.

During a review of the project last week by those involved in its development, several of the participants explained the concepts behind green building and some of the features of the new museum that will both conserve and educate.

Marcus Sheffer, with the 7group, an organization that helps clients with the process of green construction, said a common misperception is that green building will be more expensive.

"If we're going to transform the market, you've got to be doing these things without adding cost," Sheffer explained.

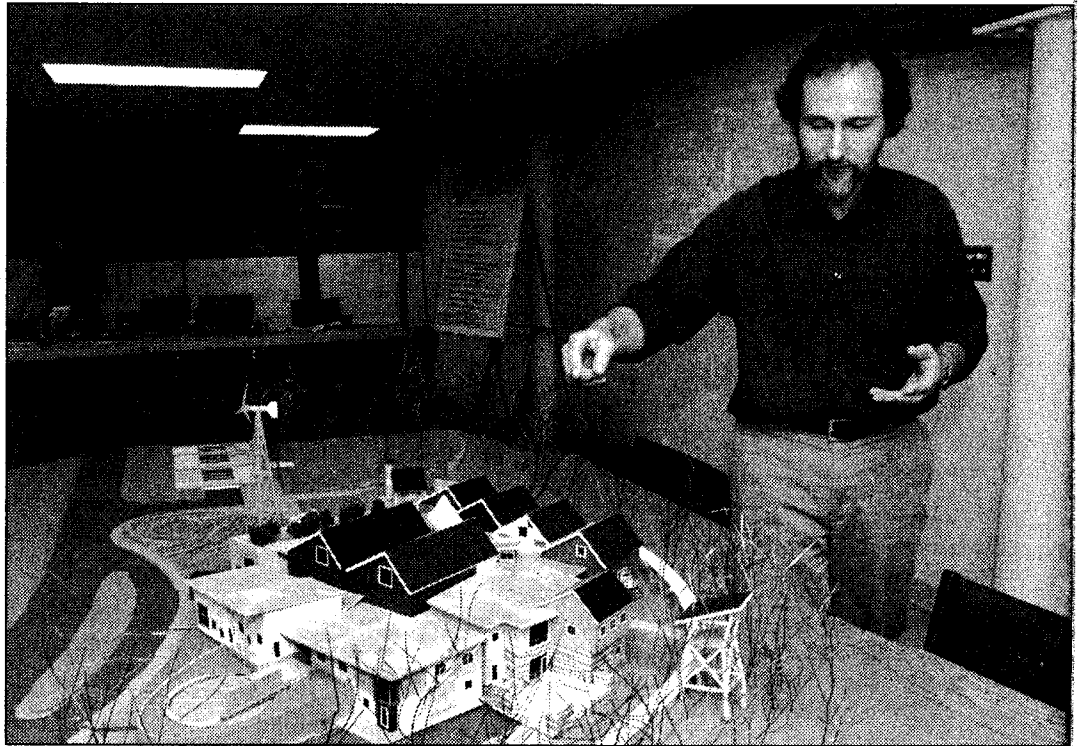
Sheffer said the process of green building currently has about a "5 percent market penetration."

He said simple energy-efficient measures such as good lighting and high-quality windows are components of a green structure.

One possible feature of the museum is a trombe wall, which is a dark-colored masonry wall placed in front of a glass panel so that it absorbs sunlight to keep a room from heating excessively or to radiate warmth at night. Sheffer said a climbing wall may be placed on the back so children can feel it warming up.

Another consideration is handling storm water, particularly because the museum will sit on top of a hill in the park.

"One of the goals might be to



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**Chuck Swartz, of Reader and Swartz Architects in Winchester, talks about his model for the future home of the Shenandoah Valley Discovery Museum to be built in Jim Barnett Park in Winchester. Architects and contractors working on the new facility are looking at ways to make the museum environmentally friendly.**

**"ONE OF THE GOALS MIGHT BE TO MAKE THE WATER CLEANER WHEN IT LEAVES THE TOP OF THE HILL THAN WHEN IT GOT THERE."** — MARCUS SHEFFER, WITH THE 7GROUP,

AN ORGANIZATION THAT HELPS CLIENTS WITH THE PROCESS OF GREEN CONSTRUCTION

make the water cleaner when it leaves the top of the hill than when it got there," Sheffer said.

Pete O'Shea, a landscape architect with the Charlottesville-based Siteworks, said part of improving or eliminating runoff water will be the building's green roof, which will have vegetation to absorb rainwater and eventually return it to the atmosphere.

Water runoff can also be managed by the "parking quilt," or a parking lot made of patches of different materials to represent the quilting tradition to children. The lot will slow water runoff and will be surrounded by a biofiltration garden to clean it, O'Shea said.

In addition to the plant life, the museum's roof will have photovoltaic cells facing south to produce solar energy, said architect Chuck Swartz of Reader & Swartz Architects of Winchester.

Such design elements will reduce energy costs for the building and reduce the impact

it will have on the environment.

"We're trying to build opportunities into the project to benefit the park," O'Shea said.

"We're trying to actively make this area of the park better," Swartz said.

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