GreenMobile® Design
MSU director of architecture school has nationwide reputation for ecological design

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Michael A. Berk is the director Mississippi State University School of Architecture. He is considered a leading expert in the area of ecological design. His speaking engagements have included a presentation for the Department of Energy’s “Building Technologies of the 21st Century” series at the National Building Museum in Washington, DC.

When most people think of factory-built manufactured housing, they likely aren’t also thinking about the potential for this to be the most affordable way to build green, energy-efficient and sustainable housing. One person who is thinking about that is Michael A. Berk, the director Mississippi State University (MSU) School of Architecture. He has been invited a number of prestigious conferences to talk about his GreenMobile design for factory-built housing that uses the best ideas for sustainable architecture.

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“The future of housing is in pre-fabrication,” said Berk, the F.L. Crane Endowed Professor at MSU. “It just is. You should get better quality from prefab built in a controlled environment which is out of the weather and designed to meet precise tolerances. It is no different than making a car or boat on an assembly line. You will get better quality. It is a better way to approach construction.”

The GreenMobile uses ecological principals maximizing sunlight for both heating and daylight purposes so there is no need to use electricity to light buildings in the day. The design and orientation encourage natural ventilation. Materials are lightweight, durable and have minimum outgassing of pollutants that could be harmful to occupants. The home is heavily insulated to minimize energy use.

The GreenMobile is a modular design. The architecture term is open building systems. The home can be configured in a number of different ways, and added on to as needed.

Berk said it is based on the existing single-wide mobile home model with a metal frame spine that has “plug and play” parts on top. Once on site, rooms are bolted onto it to expand the space.

“They are like pods,” Berk said. “I call them saddle backs. There are also lots of porches. And if the homeowner buys a solar unit, the roof designed to run the unit.”

Berk developed the GreenMobile with a grant from the U.S. Department of Housing and Urban Development. It has won an award called the Lifetime Building Challenge from EPA and American Institute of Architecture. The university has sold the licensing rights to the intellecction property for the GreenMobile. The company that bought that is in the process of trying to get a prototype built.

Chase Kasper, associate director of the MSU Office of Entrepreneurship and Technology Transfer, said industry response been somewhat tepid because the burst of the housing bubble.

“But people in various parts of the country think it is an absolutely wonderful design, especially in places like California where land prices are so high,” Kasper said. “Michael’s model is very thoroughly researched and he uses a lot of best practices. He has been received many accolades for the GreenMobile design by many of his peers nationally. His design is often looked at as a possibility...
for disaster recovery housing, and we are now talking with people about it being used for housing in foreign countries.”

Kasper said the accolades from Berk’s peers are well earned.

“MSU is lucky to have a gentleman of that caliber on its faculty,” Kasper said.

And Berk considers himself lucky to be director of the School of Architecture.

“The school started in 1973, and as we enter a second decade of 21st Century, I also realize the school is beginning its third generation of faculty,” Berk said. “We are rethinking what it means to be a practicing architect in this new century. It is very different from when it started in 1973. It is daunting and exciting. The architecture professors we have on board have superior credentials including educational and professional backgrounds. It is exciting to be a part of building this program.”

Enrollment in the architecture program is holding steady, and Berk has been pleased at the high quality of the incoming students. The goal of having a diverse group of students has been achieved, and the college is working towards also building diversity among the staff.

Berk said the architecture faculty is committed to providing students with an experience and a framework that approximates a Renaissance education.

“The world is on the brink of a new era,” Berk said. “The School of Architecture is engaged in the issues of our time and has positioned itself with a diverse faculty including practicing architects, engineers, artists, researchers, and theoreticians. All faculty are deeply committed to the challenges of teaching 21st century architects. The faculty have maintained the School’s long tradition of engaging in the authentic nature of place, region, culture, and habitation. Above all, we understand design to be a deeply considered artistic endeavor. The school emphasizes the delight of architecture and the search for the indefinable spark that enlivens the things we make.”

Prior to the downturn in the economy, students were getting multiple offers before they even graduated. Since that time, it has been more difficult.

“Our most talented students with strong portfolios and previous work experience have taken longer, but are being successful in landing jobs,” Berk said. “In the past year or so, what I’ve heard from former students has been quite good. It is starting to slowly pick up. State government construction is starting to improve a bit. The private sector is still pretty slow.

“Our economy in Mississippi was not like a rocket ship going up during the boom. It was more steady. When the economy went down, it wasn’t as drastic here as seen in other parts of the county. Even though people want to see economy growing faster, the more steady trend is better able to weather the bumps in the economy. People don’t want to hear that, but I think that has been fortunate in this state.”

The School of Architecture has been prominently featured in two of the leading architectural professional journals of North America. In 2009 Architecture Magazine identified the school as one of three schools leading the nation in the area of community design. It was also identified as one of six schools leading the nation in the area of social justice in the built environment. The October 2008 issue of Architectural Record featured the Gulf Coast Community Design Studio (the school’s research center in Biloxi) on the cover along with an in-depth multi-page article inside.

Berk and his wife, Trish, live and continue to restore a 1890s farmhouse in Oktoc about 10 miles south of the university. Trish Berk homeschooled their two sons, who both became National Merit Scholars. Their oldest son, Jamen, is finishing his master’s degree at MSU in molecular biology. Matthew is a sophomore major in aerospace engineering at MSU, where he is a Distinguished Scholar.