Self-Tucker Designs Green Center at T.O. Fuller

By Amos Maki

T.O. Fuller State Park in Southwest Memphis was the first state park opened for African Americans east of the Mississippi River and just the second park of its type across the country.

The 1,138-acre park, originally built to house African Americans during the Great Depression, was designated Shelby County Negro Park in 1938. The name was changed to T.O. Fuller State Park in 1942 in honor of Dr. Thomas O. Fuller, a prominent African American educator who spent most of his life empowering and educating black Americans during the era of racial segregation by law.

The park's history provided a meaningful backdrop for Self-Tucker Architects as the firm designed a new environmentally friendly interpretive center now taking shape at T.O Fuller. African Americans Juan Self and Jimmie Tucker founded Memphis-based Self-Tucker Architects.

"It is humbling in one sense and profound in another," said Self about the firm's involvement in designing the new center. "It's very interesting history."

While the new center is relatively small – it has an area of only 2,700 square feet – it will serve as a local example of sustainable design.

"It's a small project but it has a large impact design-wise," said Self. "It's a model of sustainability and hopefully more people will visit the park because of it."

The center, which features indoor and outdoor education areas, is replacing the old golf cart storage building at T.O. Fuller. In 2011, the state closed the park's 18-hole golf course and launched a long-term effort to remake T.O. Fuller into a natural area.

The plan includes transforming parts of the old course into wetlands, turning old golf cart paths into walking trails and allowing native vegetation and wildlife to reclaim the park.

Self-Tucker Architects used some of the concrete from the old golf cart building to shore up the site for the new center and the rest is being recycled for use in the building's foundation.

"We're reusing everything that was taken from the site and the new facility will feature building materials that are renewable and/or have recycled content," Self said.

Renderings of the new interpretive center at T.O. Fuller State Park, which was designed by Self-Tucker Architects and has

The building's orientation and an overhang limit the amount of direct sunlight that can enter it during hot summer months, which will cut down on necessary air conditioning. Conversely, because of the low angle of the sun in winter, the orientation will allow sunlight to penetrate it during the cold months, providing natural warmth. A high thermal mass concrete wall will capture and retain heat from the sunlight that does enter the building, providing a natural means of heating the space.

The firm is making use of insulated concrete form systems for exterior walls to provide extra insulation. Structural insulated panels, which consist of insulating foam sandwiched between two structural facings, will be used on the building's roof system.

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Renderings of the new interpretive center at T.O. Fuller State Park, which was designed by Self-Tucker Architects and has various sustainable features built into its orientation and design. (Submitted)

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The project also includes technology controls; on bright, sunny days lights in the building will dim automatically and on darker days the lights will rise.

During the design phase, Self-Tucker Architects also paid close attention to the conservation of water, using systems and practices that conserve as much water as possible.

"Water has always been an important resource and when you hear about the drought in California it highlights how we should conserve our resources," Self said. "There's really not an unlimited supply of potable water so we have to be judicious in the way we use it."

The firm included an above-ground cistern to capture rainwater that will be reused later for irrigation and other purposes. The project also includes low-flow water fixtures and toilets.

"On-demand" point-of-use water heaters will be used to warm water at sinks instead of a traditional water heater, reducing the amount of wasted water, piping and energy. In this design, the individual heating units are located directly under the sinks, providing almost instantaneous hot water and reducing the amount of water that is usually wasted as people wait for it to warm.

"When you have a water tank it is heating water all the time, whether you are using it or not," said Self. "This way it not only saves the water you would normally waste but it also saves money on the piping needed to get the warm water to the sink."

Self hopes the building conveys the urgent necessity of conservation.

"The importance of this project is not simply about saving our resources, it's about saving our future."