

SEED: Designing for Tennessee's State Parks

TED SHELTON

University of Tennessee

Introduction

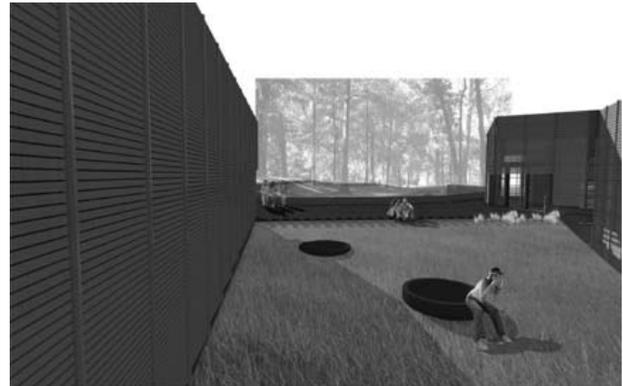
Project SEED is an ongoing relationship between the University of Tennessee College of Architecture and Design and the Tennessee State Parks. Under this umbrella a variety of projects have been undertaken. These range from the use of upcoming park projects as studio assignments to full fledged design|build efforts. With each collaboration teams and goals are reformed to address the particular challenges presented. Yet, the projects are united by certain visions and beliefs – that to design and build in the most environmentally progressive manner possible is both a responsibility and a potential source of poetry; that public buildings, with their stewardship of public funds, natural resources, and cultural resources provide a powerful statement about the culture to which we aspire; and that when architectural ideals confront pragmatic concerns students are presented with intense learning opportunities.

USS *Undine* Museum and Center for Civil War Research (fall 2008)

The gunboat *USS Undine* was built in 1863 and used by the Union up and down the Mississippi and Tennessee Rivers. After an ambush on October 30, 1863 the *Undine* was surrendered to Confederate General Nathan Bedford Forrest and his men. Three days later the *Undine* was intentionally set on fire and sunk to prevent its recapture by the Union. In the 1970's, Civil War enthusiasts located the wreck of the *Undine* in the Tennessee River.

Subsequently, interest in raising, preserving, and displaying the gunboat has mounted. Johnsonville State Historic Park in west Tennessee will soon

quite possibly become home to a restored *Undine* and will require a new facility for its preservation and display. An upper level architecture studio and technology seminar addressed the project this fall, providing the park with valuable insights into the site planning, programmatic, and technical issues associated with such a sensitive and unusual project.

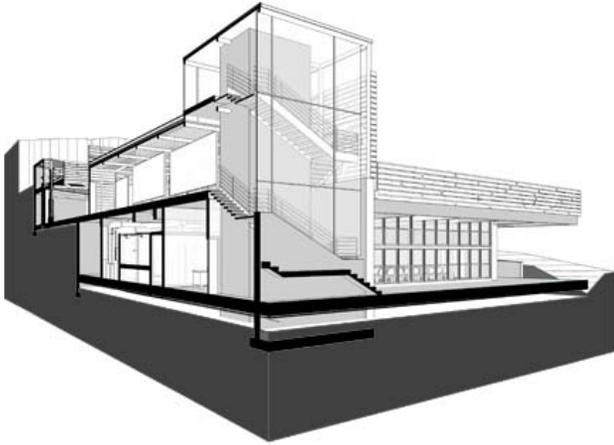


Daniel Luster- *USS Undine* Museum and Center for Civil War Research

Archaeological Museum and Interpretive Center (fall 2006)

Dunbar Cave is located in Clarksville, Tennessee. Comprised of eight miles of passageways, the cave has been inhabited for around 10,000 years and commercialized for public visitation for 150 years. Some of the more interesting episodes in its history include saltpeter mining in the 19th century and a weekly dance and live music radio broadcast from the mouth of the cave in the 1940's and 1950's when the cave was owned by country music legend Roy Acuff.

Recent research by Dr. Jan Simek has revealed the presence of extensive Mississippian era (circa 1450) cave art. These discoveries have led to renewed interest in excavating the cave's mouth, which has been protected by a concrete lid for several decades. An exploratory dig by the State Archaeologist in the 1970's yielded artifacts from the Mississippian, Woodland, Archaic, and Paleo-Indian civilizations.



Dianna Morelock – Archaeological Museum and Interpretive Center

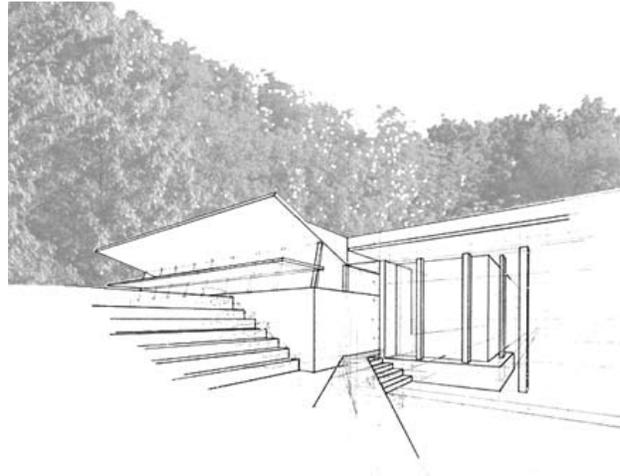
In anticipation of increased visitation prompted by the discovery of the cave art, SEED used a studio to explore the possibility of adding an archaeological museum and interpretive center to the physically constrained mouth of the cave. Students visited the site to gather detailed information on the mouth of the cave and view the Mississippian art along with the Dr. Simek. The studio generated multiple schemes addressing the physical, archaeological, and ecological challenges of the site. Passive responses such as natural ventilation and day lighting were emphasized, along with the possibility of high efficiency active systems such as the use of a nearby lake as a heat sink.

Environmental Education Center (spring 2006)

Panther Creek State Park is adjacent to the Cherokee Reservoir in Morristown, Tennessee. The Park Manager, John LeCroy, has aggressive green building goals intended to directly augment the park's mission of environmental education. SEED is working with the park on several projects to develop

a vision of how these goals might be implemented. The first of these was an Environmental Education Center. The center had for several years been a part of the park's long term planning, but this was the first serious consideration given to the program or design.

While open to all park visitors, the Environmental Education Center caters to school age children with a variety of programs that use the park as both a classroom and a laboratory.



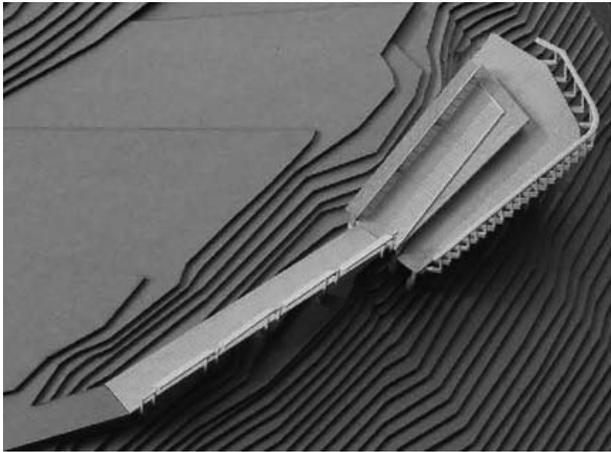
David Baker – Environmental Education Center

The studio work sought to embed an ethos of environmental responsibility in the design of the building allowing it to become a teaching tool. Following the studio, SEED produced a booklet documenting each project to assist the park in future planning and fundraising for the center.

Bill Catron Overlook (spring 2006 – summer 2008)

SEED's first foray into design|build, the Bill Catron Overlook creates an opportunity for park visitors to observe the Cherokee Reservoir below and the distinctive ridges of east Tennessee beyond. A path and bridge provide wheelchair access and incorporate interpretive panels with information on the park's flora, fauna, geology, and history. Built off site, the overlook's panelized design allowed it to be transported to the park and lifted by boom into place on the foundations. Landscaping that uses native grasses and wildflowers as a buffer between the platform and the road will eventually complete the composition.

**Visitor Center and Comfort Station (fall 2008
– summer 2009)**



Daniel Luster – Model of Bill Catron Overlook



Image of Bill Catron Overlook showing railing and interpretive panels.



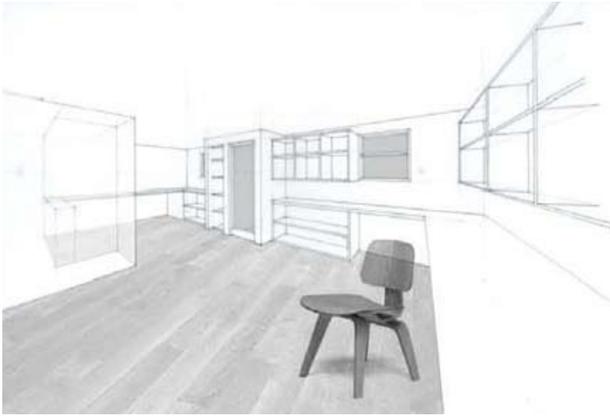
Image of Bill Catron Overlook showing bench and railing.



Students and volunteers lifting prefabricated panels into place with a boom truck.

The visitor center and comfort station at Panther Creek State Park is SEED's current design|build project. Still in the early stages of development, the project will engage seminar, studio, and construction courses to research, design, and build a new public restroom facility and expand the visitor center's interpretive display. Students and faculty are working alongside park employees and volunteers to develop grant proposals to help fund some of the environmentally progressive aspects of the design. The project is targeting a LEED™ gold rating through strategies such as composting toilets, a rainwater irrigation system, and siding milled from trees in the park.

Though small, the project will serve as a demonstration of green design principles in state building projects.



Joe Watson – Rendering of new office space in the re-modeled visitor center.

Acknowledgements

Other faculty from the University of Tennessee College of Architecture and Design who have led and are actively leading SEED projects are Assistant Professors Robert French and Tricia Stuth. Sarah Lowe, an Associate Professor of graphic design from the College of Arts and Sciences, is a continuing and valuable collaborator. Steve Chandler, director of the college's woodshop has offered much needed technical assistance and occasional volunteer labor. John LeCroy, Park Manager at Panther Creek State Park, and the Friends of Panther Creek have been incredible "clients". Jan Simek, Interim Chancellor and Distinguished Professor of Science provided the impetus for and insight into the Dunbar Cave project. State Architect Mike Fitz supplied information that sparked the *Undine* project. I look forward to our fledgling relationship with Associate Professor John Ma and his students in the College of Engineering adding a new facet to the work of SEED. Dianna Morelock's work was essential to compiling the collaborative practice application. Finally, the students, too numerous to name here, who have worked on these projects have been smart, talented, dedicated, and a joy to teach.