

# Lighting Colonial Treasures

Marking the founding of Jamestown, VA, new museum lighting highlights history.

Courtesy of Jamestown-Yorktown Foundation

Museum staff does lighting system maintenance, including relamping, so fixtures and lamps must be easy to reach safely and easy to replace.

The 1607 founding of Jamestown, VA, America's first permanent English colony, sparked a series of cultural encounters that shaped the nation and the world. To mark the 400th anniversary of the settlement, Her Majesty, Queen Elizabeth II and His Royal Highness, The Duke of Edinburgh, visited the United States and toured the site of the original settlement.

The Jamestown Settlement museum is operated by the Jamestown-Yorktown Foundation, Williamsburg, VA, an educational institution of the Commonwealth of Virginia. The Foundation administers two living-history museums, including the Settlement, which interprets the cultures of 17th century colonial Jamestown and the Powhatan Indians.

New permanent galleries recently opened, bringing to life the events and environment of 17th century Virginia. Designed by Gallagher and Associates, Bethesda, MD, in conjunction with the Foundation, the galleries were lit by Steven Rosen, IALD, Founding Principal, and Matt Zelkowitz, Associate IALD, Principal, Available Light Inc., Salem, MA.

The designers applied theatrical light-

ing techniques to traditionally non-theatrical environments. The new galleries combine three-dimensional structures, small theaters, and interactive displays.

"All maintenance, including relamping, is done by museum staff, so the Foundation requires that staff members can reach all of the lamps safely and that the fixtures themselves are easy to relamp," said Zelkowitz.

It was also a prerequisite that the lighting system be all-metal construction. Rhonda Tyson, exhibit and design manager at the Foundation, explained, "The museum has a bid process, but we don't necessarily go for the lowest priced products. I've experienced the disappointment of seeing plastic parts melt on a low-bid system, so I now specify all metal parts." Throughout the museum, the lighting systems are supplied by Lighting Services Inc. (LSI), Stony Point, NY. This allows total flexibility as fixtures are interchangeable between exhibits.

For the Settlement galleries, Available Light primarily used LSI's 238 and 236 lines of fixtures. Zelkowitz explains, "As well as being great fixtures, they have many positive benefits

for the Foundation. Each fixture has an integral dimmer, so we are able to control the light level of each lamp, while also exponentially increasing the rated lamp life. We can also lock the focus on each one, to avoid them having to be refocused each time the lamp is changed. By employing a system of integral dimmers on every fixture, the lighting designer is given ultimate flexibility to 'paint' with light. Creating perfectly balanced compositions becomes a joy with onboard fixture dimming."

Zelkowitz continued, "The galleries have a large number of dioramas and three-dimensional scenery, such as a Powhatan village, a three-quarter-scale re-creation of an English street from 1607, and a cut-through model of one of the settler's three ships, the *Susan Constant*, giving visitors some idea of what the journey across the Atlantic must have been like. Among a number of considerations, good lighting, for me, means that visitors shouldn't encounter glare, and these varied exhibits in the Settlement galleries gave us lots of different elements to consider. Here, the integral hood and cross baffle of LSI's 236 and 238 fixtures are great, because we don't

A series of low-voltage and metal-halide fixtures, powered by a 277-V, track-mounted system throughout the exhibition spaces, facilitates lighting changes as new artifacts continue to be discovered and added.



Lighting design at the Jamestown Settlement museum uses theatrical lighting techniques in traditionally non-theatrical environments. The galleries combine three-dimensional structures, small theaters, and interactive displays.

have to add a louver for glare control."

"The galleries are 30,000 sq. ft., and there's a lot to take in, so the other challenge is to use the lighting to help the visitors on their journey. We build our lighting composition in both layers and 'pauses.' Our goal is direct focus to areas where guests can experience something a bit different, such as one of the many interactive features. In the spotlights, we employ glass directional diffusion lenses to shape the light. For us, the 200 series linear lens orientation locking feature is a critical component of the LSI line. When a non-lighting-trained maintenance person goes to change a lamp, the lens orientation will be undisturbed. With confidence, we can tell our client that when we leave, everything will be locked, nothing will move out of focus or out of alignment," said Zelkowitz.

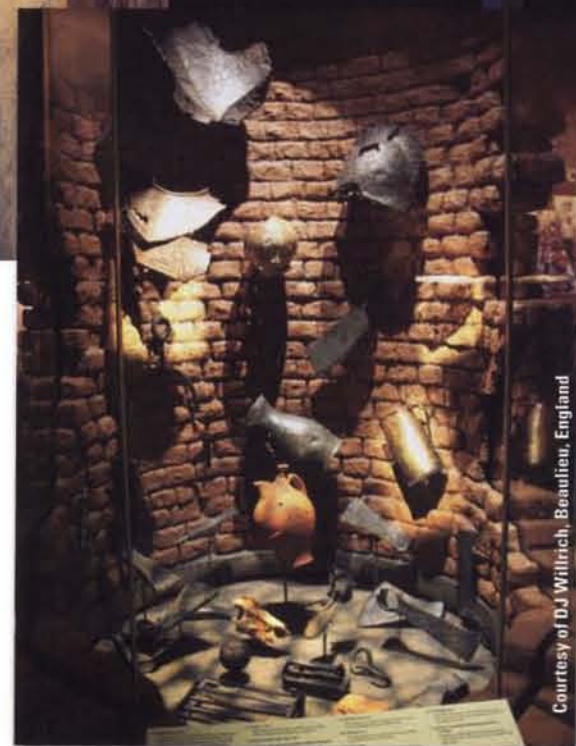
Another favorite fixture of Zelkowitz's is LSI's BP75, a state-of-the-art unit designed primarily for projecting high-resolution imagery patterns and shaping the beam of light with four onboard framing shutters. This luminaire provides precise control of the light beam to create

unlimited variations of geometric shapes.

The second exhibition is *The World of 1607*, a 4,300-sq.-ft. exhibit that portrays many aspects of world cultures and decorative arts during the period of the founding of the colony. Objects from more than 40 institutions and private collections in 10 countries are scheduled for exhibition.

Rhonda Tyson, using fixtures from LSI, designed lighting for the exhibit. "The museum already owned the fixtures that I used for this exhibit. This flexibility is one of the things I really like about the LSI fixtures. We can take a changing gallery down and re-use the fixtures for another exhibit. The only thing that we bought new for (the exhibit) was the fiber optics used in the display cases. Conservation is a particularly important issue with this exhibit, so fiber optics are ideal for the cabinet lighting," said Tyson.

Historic Jamestowne is an archaeological site run by the Association for the Preservation of Virginia Antiquities, Richmond, VA, in conjunction with the National Park Service, Washington. The site is dedicated primarily to the showcasing of the archaeological findings of the first permanent settlement. Visitors to the 7,500-sq.-ft. Archaearium are visually transported back 400 years through exhibits developed by Haley Sharpe Design, Leicester, England. The use of showcased exhibits, along with high-tech virtual viewers, allows visitors to experience



The archaeological museum uses showcased exhibits and high-tech virtual viewers to allow visitors to experience the surrounding landscape as it was when settlers first arrived.

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Creating the lighting effects required to showcase the artifacts was the task of lighting designers DJW, Beaulieu, England. They specified a series of low voltage and metal-halide fixtures powered by a 277-V, track-mounted system located throughout the exhibition spaces. A range of fixtures from LSI, including 260, 261, TP36, BP75, and M2901 series, were track-mounted for flexibility, as the exhibition space will change as new artifacts continue to be unearthed. ▲

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