GEORGIA
DEPARTMENT OF NATURAL RESOURCES

NASCIO 2015 State IT Recognition Awards

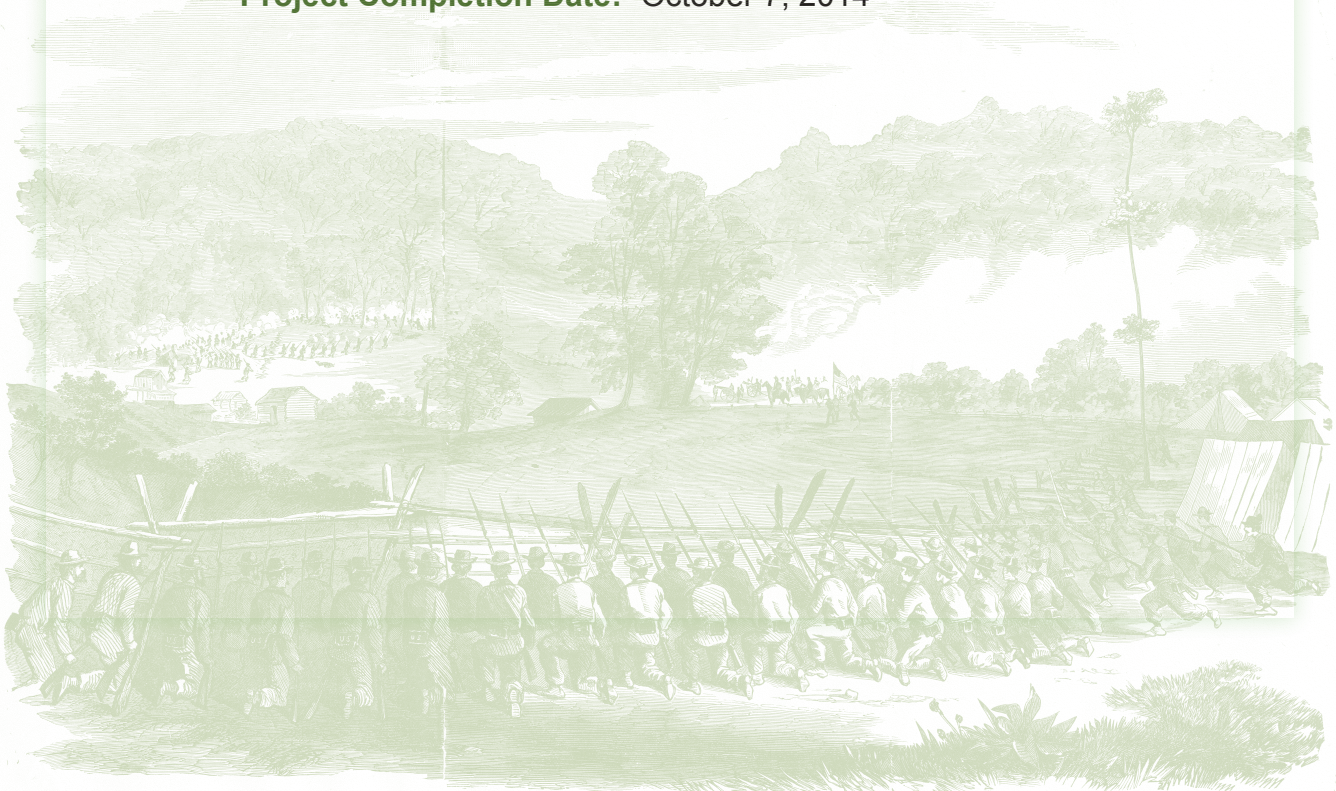**Title:** Camp Lawton Augmented Reality

Category: Digital Government – Government to Citizen

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State: Georgia

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An aging constituency is one of the critical challenges facing historical sites and museums in Georgia. Younger visitors expect an interactive experience, as opposed to a passive experience. Officials at the Georgia Department of Natural Resources (DNR) faced an intriguing question: How do we engage and encourage younger, more technology savvy citizens to visit historical sites? The answer, it turns out, lies in the innovative use of technology.

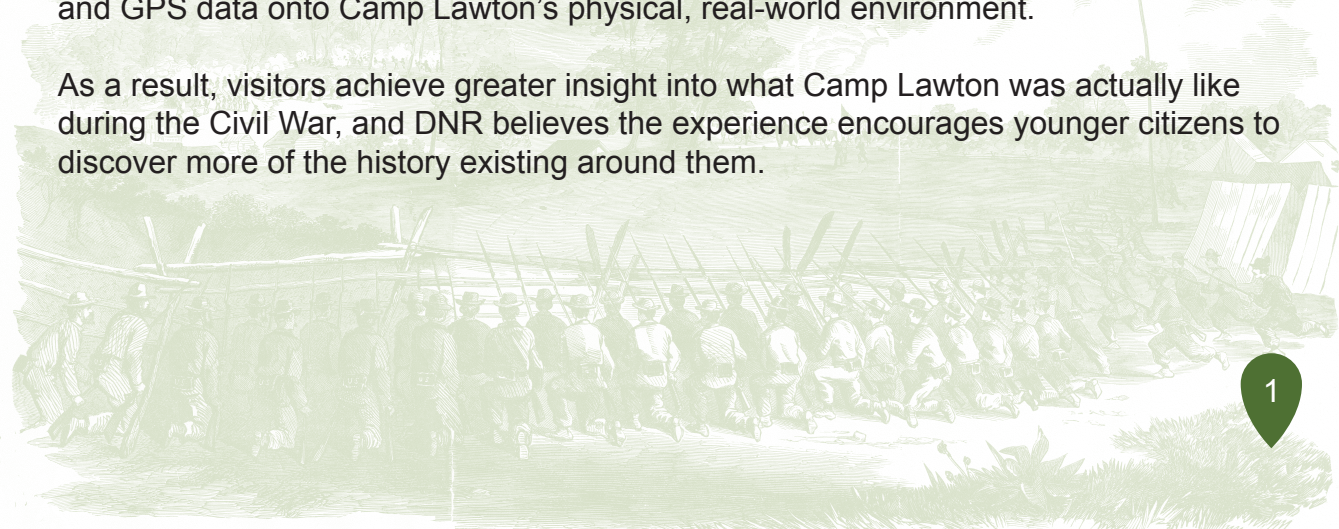> ...the experience encourages younger citizens to discover more of the history existing around them.

DNR is deploying Augmented Reality in order to provide an enhanced, and ultimately, more compelling connection to the state's cultural and historical heritage. It's the kind of experience that can excite people of all ages, but it's especially appealing to younger visitors.

During the American Civil War, Camp Lawton (a Confederate military prison) was constructed in east Georgia, between Savannah and Augusta. From October to November 1864, Camp Lawton housed more than 10,000 Union prisoners. In 2010, archaeologists from Georgia Southern University discovered artifacts at the site of Camp Lawton.

Today, visitors to the Camp Lawton History Center, located in Magnolia Springs State Park, can view an exhibit of Civil War artifacts using Quick Response (QR) codes to access information beyond the scope of the displays, including media, interactive tables and links. The QR codes are posted at 25 points of interest. With smartphones and tablet computers, visitors can also take advantage of Augmented Reality to view a three-dimensional reconstruction of the prison stockade. Through Augmented Reality, DNR is able to layer historical drawings, archival photographs, sound, video, graphics and GPS data onto Camp Lawton's physical, real-world environment.

As a result, visitors achieve greater insight into what Camp Lawton was actually like during the Civil War, and DNR believes the experience encourages younger citizens to discover more of the history existing around them.

One of the critical challenges facing historical sites and museums in Georgia is an aging constituency. Younger visitors are particularly drawn to interactions mediated through technology. How does the Georgia Department of Natural Resources (DNR) engage and encourage younger, more technology savvy citizens to discover a significant historical event in a format that not only maintains their attention, but engenders excitement to discover more of the history existing around them every day?

> One of the critical challenges facing historical sites and museums in Georgia is an aging constituency.

DNR's Historic Preservation Division works to provide access and outreach education, so citizens can learn about and appreciate Georgia's cultural and historic heritage. In 2010, the walls of Camp Lawton (http://class.georgiasouthern.edu/camp-lawton) were discovered inside the confines of DNR's Magnolia Springs State Park (http://gastateparks.org/MagnoliaSprings).

An archeological team from the Historic Preservation Division and Georgia Southern University began exploring the site. Camp Lawton was constructed in 1864 by the Confederate Army to relieve overcrowding at Georgia's notorious Andersonville Prison. Camp Lawton housed more than 10,000 Union soldiers during October and November 1864, before being evacuated as the Union Army approached during General William T. Sherman's March to the Sea. Despite its designation as "the world's largest prison," Camp Lawton was only in full operation for about six weeks.

Thanks to a grant from the Department of Natural Resources Foundation, visitors now have the opportunity to visit the Camp Lawton History Center, located adjacent to the state park office. The history center features an exhibit of Confederate artifacts discovered by archaeology students from Georgia State University and a computerized database of Union prisoners. In addition, an Augmented Reality program allows visitors to access more information on the lives of the soldiers in and around the prison.

While viewing exhibits at the Camp Lawton history center, visitors encounter QR codes. Using a smartphone or tablet computer with a QR reader, visitors access information beyond the scope of the museum displays. This additional information includes media, interactive tables and links to primary and secondary sources.

In areas of the park adjacent to the museum, visitors can continue their enhanced experience. Using the camera on a smartphone and a tablet computer, visitors can view an "augmented world"—a 3D reconstruction of a corner of the Camp Lawton prison stockade situated in the real world. iPads—available to check out from the state park office—are programmed for this digital experience. Or, as an alternative, visitors can use their own digital devices and download the Layar app, which enables them to scan the QR codes in the history center.

A mobile network was established at the Camp Lawton history center, and it includes 10 indoor and 15 external points of interest. Content is accessed through QR codes at each point of interest, and standalone apps were developed for both iOS and Android devices.

Through Augmented Reality, DNR is also able to layer historical drawings by Robert Sneden, a prisoner of war at Camp Lawton, along with archival photographs and other items. Before leaving Camp Lawton, visitors are given a virtual souvenir—a card printed with a special code to access or share the historic information after visiting the park.

SIGNIFICANCE

The use of Augmented Reality enriches a visitor's experience, by providing a live, direct and indirect view of Camp Lawton's physical, real-world environment—enhanced by computer-generated sensory input, including sound, video, graphics and GPS data.

The past comes to life more vividly, and visitors achieve greater insight into what Camp Lawton was actually like during the Civil War. Augmented Reality provides more meaningful and relevant information, while enabling visitors to tour the site at their own pace and without the need for an interpretive ranger.

BENEFITS OF THE PROJECT

Augmented Reality has three enormous advantages over the physical reconstruction of a past landscape:

1. It can be completed at a fraction of the cost.

2. It's flexible, and content can be easily updated as archaeological and historical research proceeds.

3. It's interactive rather than passive and thus appeals particularly to younger visitors.

Source: http://class.georgiasouthern.edu/camp-lawton

The project at Camp Lawton provides an opportunity to pilot the use of Augmented Reality for possible application at other DNR properties. Augmented Reality could be an especially effective interpretive tool for sites related to Native Americans. For example, it would enable DNR to incorporate contemporary tribal members from Oklahoma into Augmented Reality environments, at sites such as Etowah (http://www.gastateparks.org/EtowahMounds), Kolomoki (http://gastateparks.org/KolomokiMounds) and the Chief Vann House (http://gastateparks.org/ChiefVannHouse).

DHR believes Augmented Reality will help engage younger citizens in other areas of the state. It's part of DNR's commitment to providing citizens with innovative ways to access existing information and resources.