

3-D imaging to help protect American heritage sites from hurricanes and natural disasters

October 18 2017



The Castillo de San Marcos is located in St. Augustine, Florida. Researchers from the University of South Florida in Tampa are working with the National Park Service in using 3-D imaging to preserve the historic site. Credit: National Park Service

Natural disasters such as Hurricane Irma are putting the nation at risk of losing parts of our American heritage. The monster storm hit St.

Augustine with flooding and surge, creating grave concerns for the national monuments Castillo de San Marcos and Fort Matanzas. Made from coquina, a fragile sedimentary rock comprised of mostly shell, these masonry forts face ongoing threats from erosion and storm damage.

Dr. Lori Collins and Dr. Travis Doering and their team of researchers from the Digital Heritage and Humanities Collections with the USF Libraries are working with the National Park Service to preserve the sites using 3D imaging and photogrammetry techniques that will allow for more robust management, interpretation and research into construction and conservation aspects for these sites into the future. This critical project will also assist in documenting the forts' histories and use by the British, Spanish, Native Americans, Colonial African Americans and other cultural influences.

The pair will also lead a team from USF that will work alongside the National Park Service Southeast Archeological Center, to document sites in the Florida Everglades, near Irma's landfall. They'll use their high-tech surveying technologies to record and assess imperiled historic and prehistoric sites in Everglades National Park.

"Florida is home to a number of significant heritage resources that face threats from storms, vandalism, and even development and encroachment," Collins says. "Our 3D tools are helping solve real world problems, and strengthen the capacities of our Federal, State, and government agencies."

Provided by University of South Florida

Citation: 3-D imaging to help protect American heritage sites from hurricanes and natural disasters (2017, October 18) retrieved 20 April 2024 from <https://phys.org/news/2017-10-d->

[imagining-american-heritage-sites.html](https://www.phys.org/imagining-american-heritage-sites.html)

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.