

Augmented and Virtual Reality for EWN Applications – LA River

Background

The Los Angeles (LA) River is one of the most well-known engineered channels in the United States. In a desire to protect the city of Los Angeles form damaging floods, the natural habitat was largely converted to a concrete channel. This greatly reduced the river's ability to support any ecology or serve the community beyond flood protection. There now exist a great interest in restoring some of the LA River to a more nature form. However, with so many conflicting interest a new method to review designs and quickly iterate through possible ideas is needed.

The need for expedite communication and review lends itself to AR/VR technology. This technology is commonplace in other industries such as architecture or manufacturing but has been broadly adopted in ecology or hydraulic engineering.

Objectives

The objective of this project is to demonstrate how augment or virtual reality can be used to expand the adaptation of EWN goals and projects. By creating a common interactive platform, multidisciplinary teams can communicate more quickly and effectively.



https://www.sciencedirect.com/science/article/ abs/pii/S0010465517300784

Approach

This project will couple ERDC capabilities with the University of Southern California. USC is a leader in both AR/VR technologies, landscape architecture and engineering. By working together these two organizations intend to demonstrate how AR/VR technologies in conjunction with more traditional communication methods can accelerate the restoration of the LA River.

Outcomes

The success of this project will open a new platform of communication and design evolution, enabling a future with many more EWN successes that meet the social, economic, and environmental benefits.



modifications to the Rough River physical model located in Vicksburg, Mississippi, with sponsors from Louisville District, U.S. Army Corps of Engineers.

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