XTENDED REALI-TREE

CSUN | CALIFORNIA STATE UNIVERSITY NORTHRIDGE

INTRO

The students of CTVA 463 Capstone have collaborated with the CSUN Institute for Sustainability to develop the Xtended RealiTrees Zine. This project combines Augmented Reality experiences with a print booklet to teach students about CSUN's trees and bring a digital medium into physical form. We believe that our fellow students often take trees and the environment for granted, and hope to raise awareness of the many benefits that trees provide to us.

Special thanks to the Office of Community, Nat Zappia and Jessie Woltal at the Institute for Sustainability, and Nancy Aguilar in CTVA.

TUTORIAL

STEP 1

Scan this QR code

STEP 2

Click "Launch" on the 8th Wall Project site.

STEP 3

Select the project corresponding to the page you are on the zine.

STEP 4

Grant permission for camera & microphone

STEP 5

Once the camera launches, scan the pages with the AR icon.

STEP 6

Enjoy & Explore

TREES AT CSUN

NATIVE

CSUN's campus is home to a diverse urban forest which includes both native and non-native species.

California State University, Northridge (CSUN) is home to a variety of trees from all over the world, creating a unique and beautiful campus environment.

Some of the trees native to California include the California Sycamore and Coast Redwood. The California Sycamore, or Platanus racemosa, is a drought tolerant tree found near California wetland-reiparian settings. While the Coast Redwoods, Sequoia sempervirens, are found throughout coastal mountain ranges of Northern & Central California. These trees are also the one of the tallest in the world.

NON-NATIVE

Redwoods & Sycamores are not the only native trees on campus, the vast majority of trees originate from outside of California. Non-native trees include the Canary Island Date Palm and the Valencia Orange.

Although the palm trees are the poster children of Southern California, they are not a native species to California. The Phoenix canariensis, originates from the Canary Islands and grows fronds up to six-feet in length.

Another non-native tree is the Valencia Orange. scientifically known as Citrus x sinesis. This hybrid citrus tree has been bred over generations as it has travelled from South Asia to the Americas.
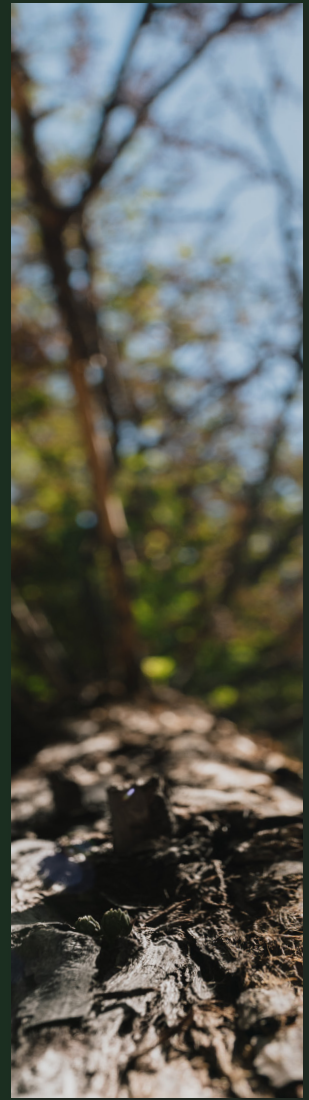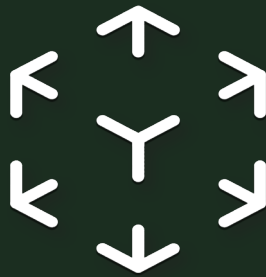
CANARY
ISLAND
DATE PALM

CALIFORNIA
SYCAMORE

VALENCIA
ORANGE

COAST
REDWOOD

EXPLORE OUR TREES IN
AUGMENTED REALITY
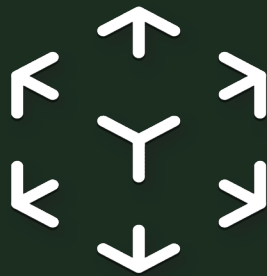
CARBON SEQUESTRATION

Carbon sequestration is the process of capturing and storing carbon dioxide (CO_2) from the atmosphere. Trees and plants do this through photosynthesis, a process that converts CO_2 and water into oxygen and energy.

The amount of carbon sequestered by trees and plants depends on a variety of factors, including the species of tree or plant, its age, and its size. A tree sequesters the most carbon during its mid-to-late life stage, when it has the most mass. However, this process does not last forever, trees eventually stop sequestering carbon as they age and stop growing.

It is estimated that the total amount of trees on CSUN's campus removes around 154 tonnes of CO_2 from the atmosphere every year. This is a significant amount of carbon, but it is still not enough to offset the carbon emissions produced by the campus community. The average commuting student produces around 1 tonne of CO_2 per year, so CSUN needs to plant more trees to help reduce its carbon footprint.

Carbon sequestration is a process that has the potential to make a significant contribution to the fight against climate change. By removing carbon dioxide from the atmosphere, carbon sequestration can help to reduce greenhouse gas emissions, improve air quality, protect water resources, prevent soil erosion, restore ecosystems, create jobs, boost the economy, and reduce poverty.

Planting and caring for trees is an important strategy for creating a more sustainable future. We also must consider how we can reduce the amount of carbon in need of sequestration.

CARBON SEQUESTRATION
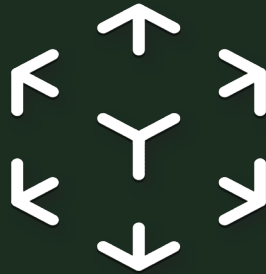## DEMONSTRATED IN AUGMENTED REALITY

MICRO-FOREST

A campus initiative of creating a micro-forest has been started to further increase the amount of trees in order to combat climate change.

A micro-forest is a method of planting a small ultra dense forest in an urban environment. The method CSUN will use to create its micro-forest will follow the framework created by Doctor Akira Miyawaki. CSUN Institute of Sustainability has begun the early stages of creating this forest on campus. It will provide massive benefits to the campus population and the surrounding environment. To be faithful to the local environment, the micro-forest will consist of native California tree species as well as other non-native plant species.

Microforests are a valuable tool for improving the environment. They are a cost-effective way to reduce air pollution, improve air quality, reduce noise pollution, improve water quality, reduce stormwater runoff, mitigate the urban heat island effect, increase biodiversity, and improve human health and well-being.
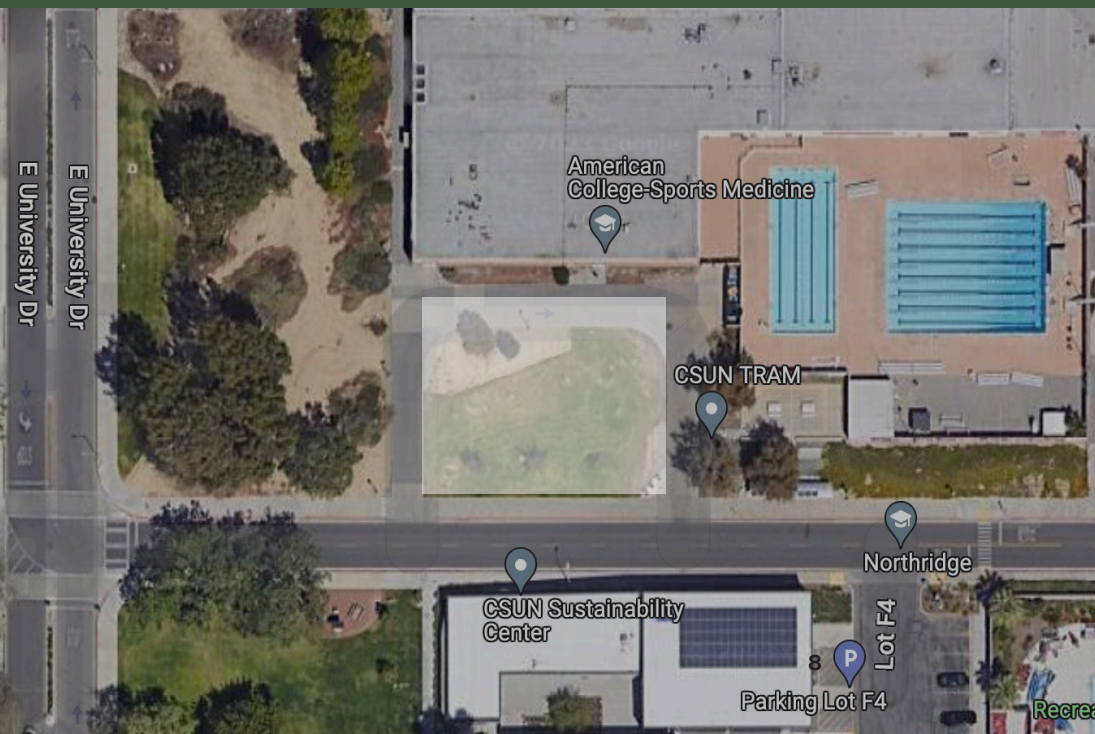
PROPOSED LOCATION AT CSUN.

MICRO-FOREST
DEMONSTRATED IN AUGMENTED
REALITY

CSUN'S COMMITMENT TO SUSTAINABILITY

"A university campus devoid of trees would be unimaginable. Trees provide us with so much aesthetic beauty, a shady respite to take a break from the stresses of life, coupled with fragrant aromas in the air. In addition, they are responsible for numerous ecological benefits, such as providing oxygen, filtering the air and the soil of pollutants, providing food and shelter for countless animals, insects and birds, reducing storm-water run-off and soil erosion, and sequestering carbon dioxide. The trees you will experience on the campus of California State University, Northridge are primarily ornamental and not native to this region. They are, however, representative of trees commonly found in the California urban landscape and their presence on campus provides us an opportunity to explore a diversity of species in close proximity".

THANK YOU FOR VIEWING

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OTHER PROJECTS

VISIT OUR WEBSITE TO VIEW OUR OTHER INTERACTIVE PROJECTS