4.0 + 5.0 ARID PERFORMATIVE

LAND 484: Landscape Architecture Design III

project intro

As urban development continues to infringe on the ecosystem services, sensitive and appropriate measures must be considered for maintaining the performance and resiliency of our living and built environments. The ecosystem services from healthy natural hydrology systems provide a rich riparian experience in the Mojave Desert. The Las Vegas water network of washes serve as a foundation point to explore best practices of performative landscapes in the arid regions of the United States.

Through the investigation of healthy environmental systems for productive ecological services, the studio aims to blend the environmental infrastructure with the urban fabric to serve as a performative landscape and a socially equitable experience along the existing Las Vegas water network. The environmental scenarios discovered through the previous exercise will serve as a framework for design proposals that include accessible and educational opportunities to the immediate and surroundings communities within designated sub-watersheds.

approach

You will work individually by choosing a designated sub-watershed along the Flamingo Wash network to develop a detailed proposal for landscape performance implementation that includes site analysis, programming, conceptualization, and design strategies.

While maintaining your parametric model of environmental performance, you will be able to design responsive strategies and solutions based off modeling outputs of data. This closed loop system of analytical output and responsive prototyping will generate different outcomes of performance benefits dependent on their strategy for addressing water resources. In order to evaluate the effectiveness of their design proposal, performance metrics will be applied to generate environmental, social, and economic benefits.

objectives

_apply the outcomes from your analytical model to generate responsive design potential as evidence-based design

_measure the performative benefits derived from your design proposal that revolve around environmental, social, and/or economic opportunities

_communicate and represent comprehensive evidence-based design through the use of dynamic visualization, fabrication, and parametric modeling methods

narrative deliverables

_master plan and typology analysis

     WASH__profile condition, material, and characteristics

     ENV__runoff volume from 0.25, 0.50, 1.00 inch rain events

     SOC__landuse types and classification

     SOC__pedestrian accessibility within 1/4 mile of wash

     ENV (optional)__tree inventory of canopy health and size

     ENV (optional)__outdoor air temperature in summer and winter

     ENV (optional)__erodibility and deposition

_responsive green infrastructure (g.i.) strategies & benefits

     ENV__runoff volume reduction from green infrastructure

     ECO__g.i. construction, maintenance, and life cycle cost comparison

     ECO__g.i. and tree cost savings

     ENV/SOC (optional)__tree benefits for air quality

     ENV/SOC (optional)__outdoor comfort

   *ENV (optional)__soil stabilization*

_design foci

     SITE SCALE__wash and adjacent access conditions

     WASH SCALE__overview of wash design detail

     WASH SCALE__profile(s) demonstrating performative benefits

     WASH SCALE__demonstrate the reduction, infiltration, conveyance,

           and filtration cycle

     WASH SCALE__immersive wash experiences

_sectional detail model (visualization and fabrication)

     WASH FOCUS__designated plaster section model of developed

           performance concept

     WASH FOCUS__section drawing image transfer
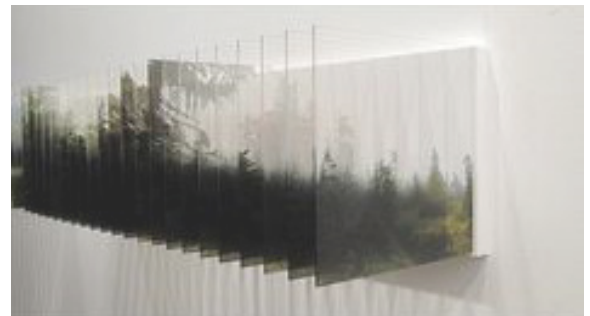
_all of these narrative deliverables must be composed into a professional storyboard communicating your intended purpose through the conception and development of performative design. This storyboard must fit onto a presentation board with a minimum width of 36" and height of 60"

MODULE 3 \\ Exercise 4.1

With the start of exercise 4.0 (Master Plan Analysis, Responsive Strategies, & Design Foci) the conceptualization and revision methodology should be primarily driven through the iterative process of sketching and precedent study. This will allow for rapid development of ideas and critique behind the cyclical feedback loop of responsive and performative design. It will be expected to have at the start of each class period the required materials (trace paper, pen, study models, print samples) in order to fulfill the final assignment of the studio course.

Through this rigor, you will then translate your final revisions into a professional and comprehensive digital and printed storyboard. This may include digital models, conventional drawings, videos, and fabricated models.

REQUIRED deliverables for 11.01
_your wash profile drawing (large sketches on trace)
      __context and content from provided rhino file
      __runoff volume from 0.25, 0.50, 1.00 inch rain events based off of
        GreenValues National Stormwater Runoff Calculator
        http://greenvalues.cnt.org/national/calculator.php
      (optional)_ responsive green infrastructure concepts based off of
      GreenValues National Stormwater Runoff Calculator

_chipboard or cardboard study model (wash segment)
      __accurate representation of wash profile (angle, depth, edge)
      __profile and edge manipulation (kinetic sand)

_graphic style precedents & examples
      __master plan analysis
      __master plan design concept
      __perspective renderings
      __diagrams
      __site plan
      __infographics

_design objective & action plan*
      __mission statement
      __site photographs
      __noted observations
      __proposals & proof of concept
this work will be continuously developed throughout the duration of the assignment thus will be continuously in flux and therefor answered accordingly.