Sustainable Architecture and the Campus Masterplan
UNCC Faculty Council • October 27, 2022

Brook Muller
Dean, College of Arts + Architecture
University of North Carolina at Charlotte
Will Bruder
Burton Barr Central Library, Phoenix, AZ
Behnisch & Partner Architects and Michael Singer Art Studio

Dutch Institute for Forestry and Nature Research

European Pilot Project for Environmentally Friendly Building, Wageningen, The Netherlands
The building grows between the gardens

Rainwater harvested from roofs
Water stored in cisterns and used to water plants in atria
Evaporation of plants cools space
There is no AC

Dutch Institute for Forestry and Nature Research
An energy diagram coincides with a sociability diagram.
“The Formal Elaboration of the Landscape Should Stand in the Foreground”
Blackbird Architects and Michael Singer Art Studio
Ecotarium/New England Science Center, Worcester, MA
Master plan and expansion of environmental sciences museum
Ecotarium/New England Science Center
Midcentury modernist architect Edward Durrell Stone’s simple building nested within a rock ledge
And yet largely windowless
Design as a process of removal
New 60’x40’ façade brings woodland indoors
Hyphae Design Lab Keeling Apartments UCSD
moving dollars from utilities to the landscape
“form follows chemistry”

Palomar Medical Center in Escondido, CA
Natural Organic Recycling Machine • Hassalo on Eighth
GBD Architects • Place Landscape Architects
Biohabitats • Puttman Infrastructure
1. wastewater to anoxic reactor to

2. trickling filters

3. tidal wetland

4. woodchip wetland

5. denitrification reactor

6. polishing tidal wetland

7. to filtration and disinfection & on to clean water reuse tank
Pollinator Corridor

Green Zebra and American Assets Trust have teamed up with City Repair and the Lloyd EcoDistrict to "adopt" and create a "pollinator corridor" on NE Multnomah St between NE 7th and 9th Ave.

MACRO URBAN POLLINATION

ECO CROSS POLLINATION

- Transfer of pollen by wind, insects, etc.
- Intertwined supportive root structure
- Multiple plants

URBAN CROSS POLLINATION

- Transfer of ideas & relationships driven by public spaces, various transportation networks, mixed-use locations, social activities, etc.
- Highly connected urban framework, transportation networks, public spaces, etc.
- At the city scale there exists the potential for a plethora of city elements within many themes that could come together as a vibrant and diverse community
Dusty Gedge
“the green roof guy of London”
“Annual global spending on ecosystem protection (including acquisition) is just over $3 billion (the price of two B-2 bombers).”
- Stephen M. Meyer, “The End of the Wild”
Urban Ecotones

Transitional Spaces for Commerce and Culture

PRESENT

2025

2040

GREEN HOME CENTER PROGRAM

Simplified Method Summary

TOTAL IMPERVIOUS AREA MAIRED = $12,370,000

SITE 2040

ECOTONE A: COMPOST - NURSERY - HCA

ECOTONE B: HCA - DEMONSTRATION GARDEN - GREENHOUSE

GreenWorks+
Placemaking in the Interstitial Spaces

Performative Landscapes

Storrs West Expansion

Arts Quad

Remembrance Memorial: 10 X 10 and Hypersonic

Colvward Passage

Meditation Space