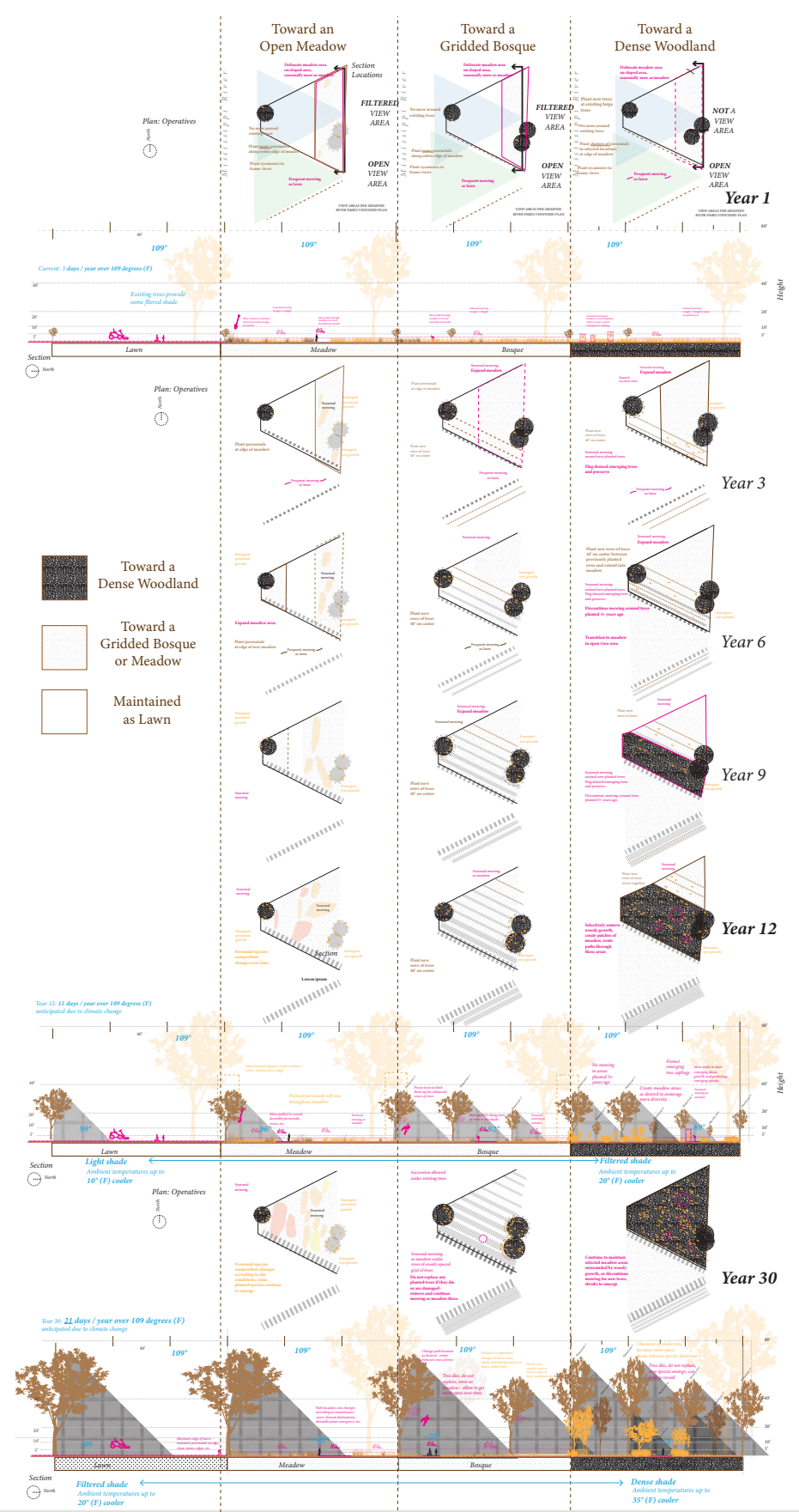
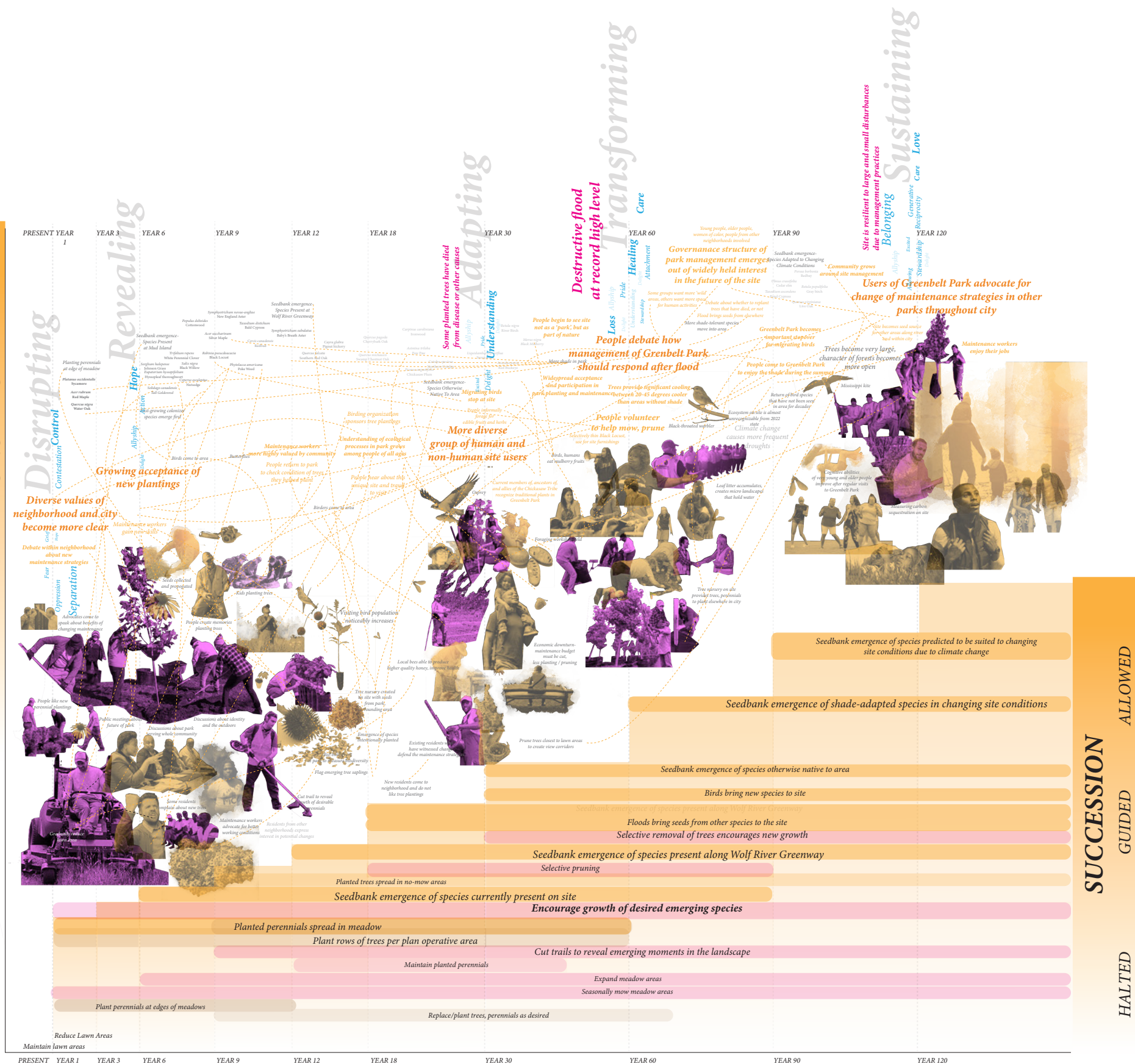




*In anticipation  
using the tools of landscape for situated repair*

This collection of student work builds on the Cornell University Department of Landscape Architecture's long-standing commitment to buildable design and the situated, material world. Students approach design as an iterative, relational practice grounded in technical acuity, ecological processes, social complexity and material experimentation. Recent projects confront climate uncertainty, land degradation and uneven access to public space through layered strategies that integrate maintenance, succession, infrastructural adaptation and speculative prototyping. The work presented here reflects a sustained commitment to landscape as a site of co-production, where climate adaptation and eco-social renewal are pursued through fieldwork and critically reflective practice. This ethos aligns with broader disciplinary shifts toward regenerative and reparative frameworks and the embrace of hands-on management and care as design tools, while affirming the value of site histories (and futures!) held in material form and the potential of modest interventions to catalyze meaningful change over time.

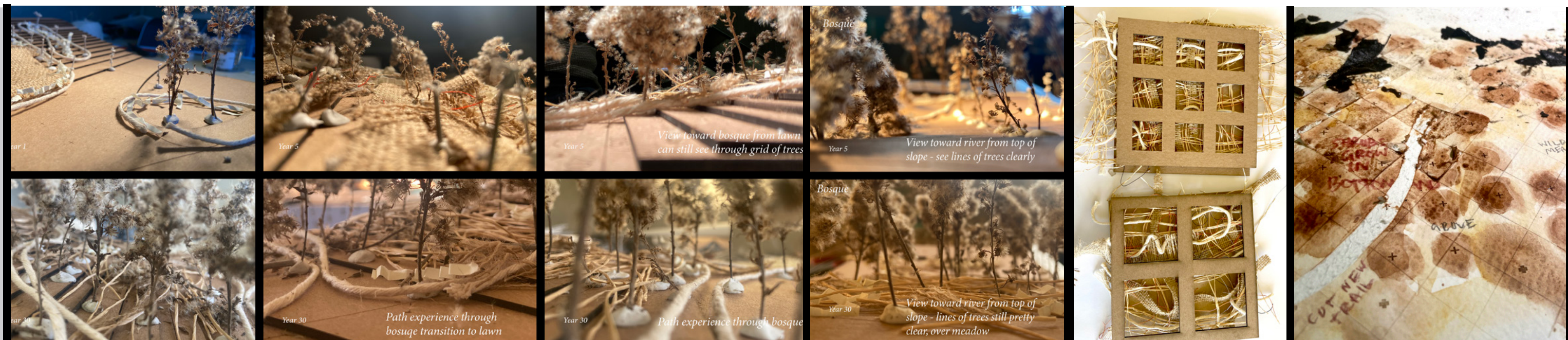




Country/City  
United States, Ithaca  
University / School  
Cornell University  
Academic year  
2022 - 2023  
Title of the project  
Maintenance / Emergence  
Authors  
Kate Chesebrough



Title of the project	Maintenance / Emergence
Authors	Kate Chesebrough
Title of the course	LA6010 Integrating Theory and Practice I
Academic year	2022 - 2023
Teaching Staff	Jamie Vanucchi, Associate Professor
Department / Section / Program of belonging	Department of Landscape Architecture, Masters Program
University / School	Cornell University



Written statement, short description of the project in English, no more than 250 words

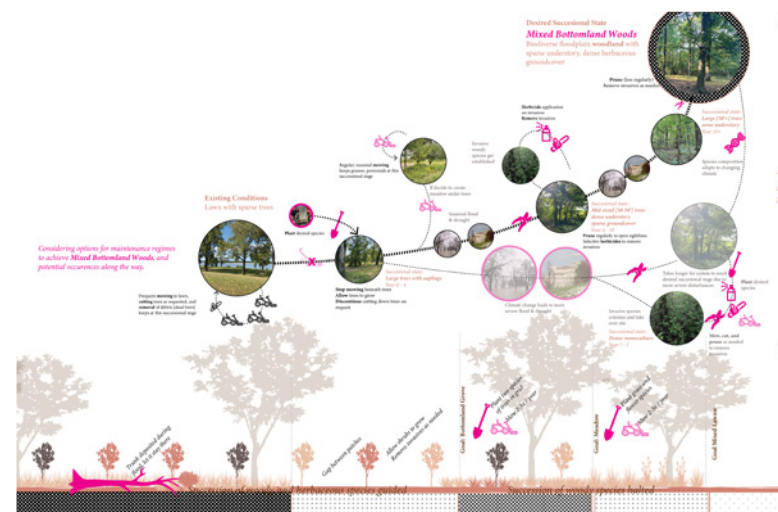
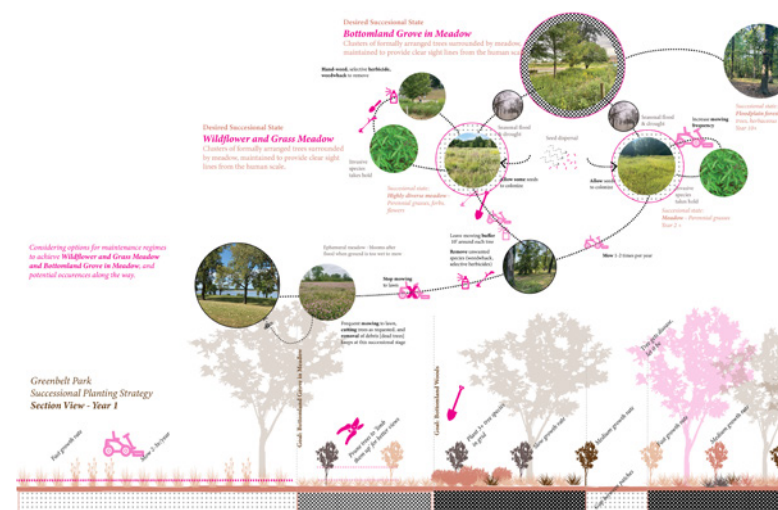
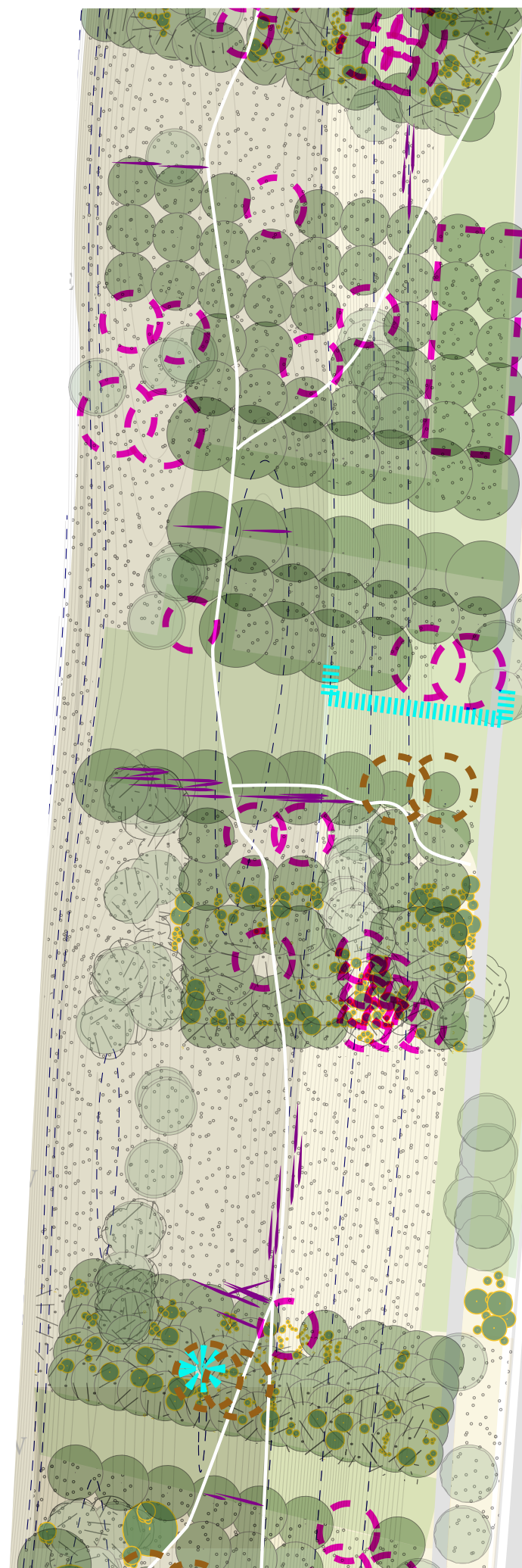
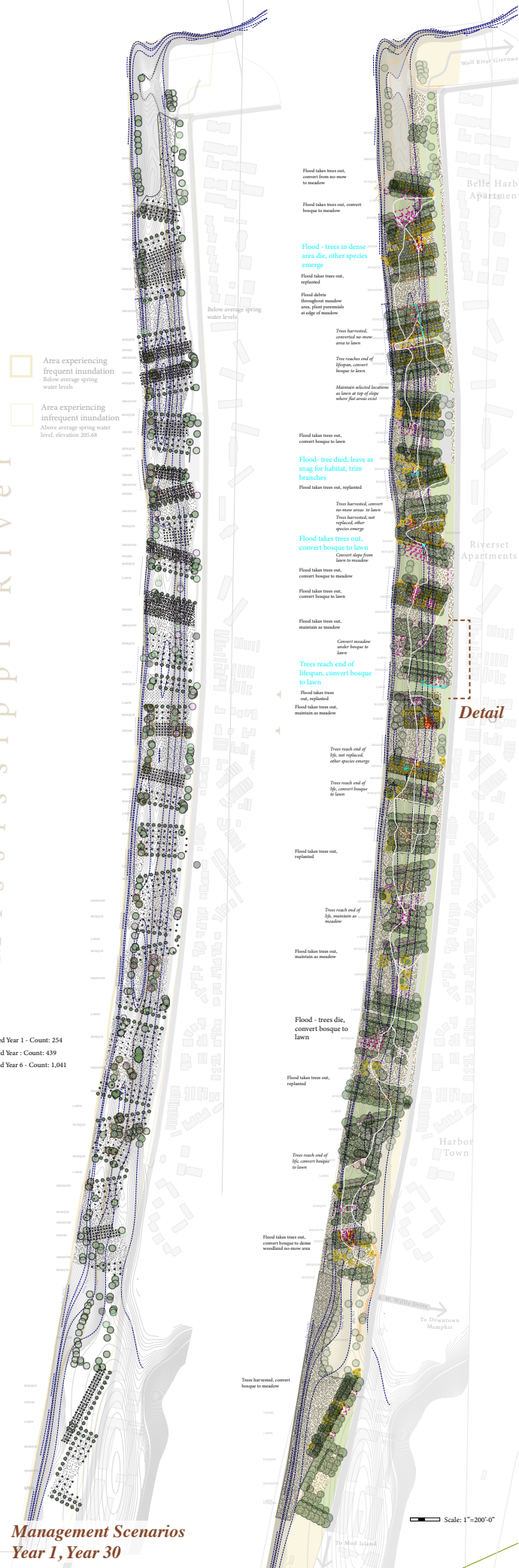
This project asserts the role of maintenance to re-shape relationships within Mud Island Park in Memphis, TN. While the site is immediately adjacent to the dynamic Mississippi River and as urban heat becomes increasingly dangerous, frequent mowing suppresses floodplain ecologies and large shade trees are imperiled by dominant neighborhood groups. The site appears inaccessible, serving a fraction of potential users despite public ownership. The proposal conceptualizes a series of decisions which incrementally shift relationships. Processes of contestation and disruption can lead to important community-wide conversations by revealing diverse values and hopes for the site. Guiding ecological succession shapes spatial compositions of plant communities. Strategies include a variety of mowing, pruning, thinning, protection, and planting methods to diversify the densities, textures, and heights of woody and herbaceous plants. This transforms the site into a patchwork of ecological and programmatic assemblages that frame river views, bloom ephemerally, create microclimatic shade, and provide a network of spaces for gathering, circulation, and recreation. Process-based diagrams, drawings, and physical models capture the experimental, fluid nature of the site, illustrating trajectory scenarios of the open-ended nature of the proposal and engaging with the physicality of water and sediment. Maintenance invites community caretaking and continual re-evaluation of values demonstrated through public space. Emergent expressions of Mud Island Park can build resilience amid community divisions, loss of native habitat, and erasure of floodplain identity. Community and ecological relationships are powerful agents of design over time, enacted through practical gestures of maintenance and yielding multiple potential futures.

Barcelona International Landscape Biennial

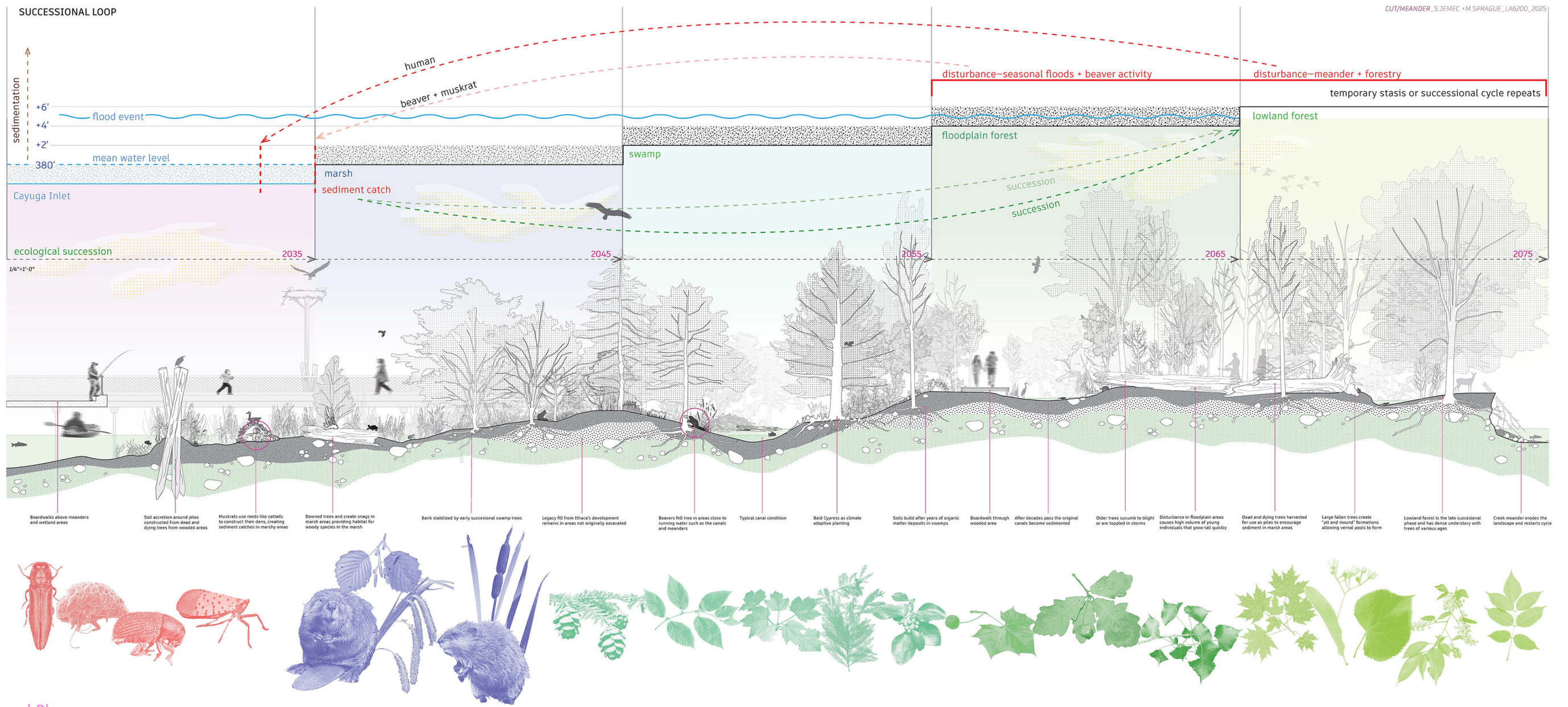
Contact via email:  
biennialadm@coac.net

Venue:  
COAC - Col·legi Oficial d'Arquitectes de Catalunya  
Carrer Arcs 1-3, 08002 Barcelona - Spain









## Successional Phases



Country/City  
United States, Ithaca

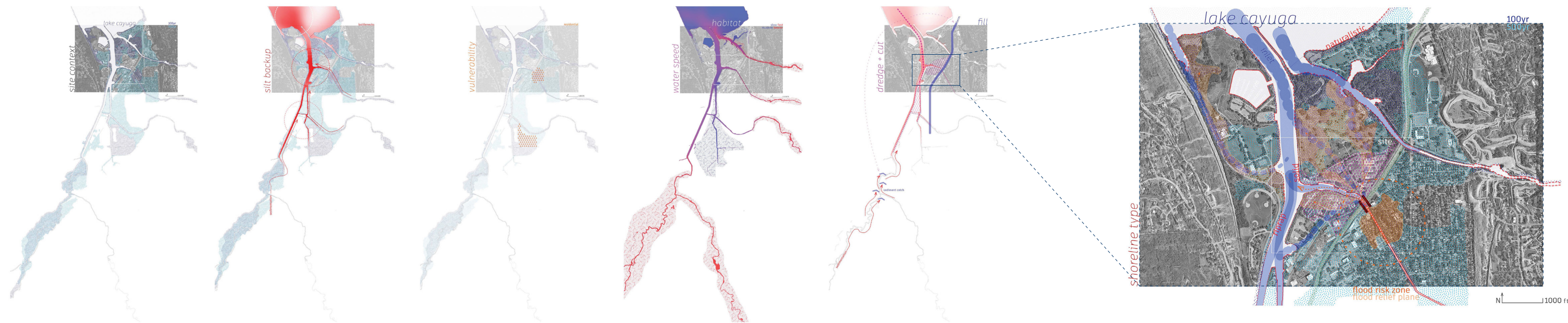
University / School  
Cornell University

Academic year  
2024-2025

Title of the project  
Cut/Meander

Authors  
Sebastijan Jemec and Matthew Sprague





Written statement, short description of the project in English, no more than 250 words

Cut/Meander embraces the agency of the waterbody in visioning of a multi-valenced and just public space in Ithaca, NY. Drawing from Cayuga Inlet’s historical predilection to meander, this project embraces this process and the various agents that simultaneously influence, and are influenced by these flows to propose a space where ecologies, infrastructures, and civic engagement coexist and become entangled. To alleviate flood risk in Ithaca’s Fall Creek neighborhood, a series of stepped areas are established as a gradient of ecotones that correspond to the successional phases of floodplain zones. While the initial organizational system of interventions (cuts) take their form from the projected city grid, this rectilinearity will blur (meander) as the inlet erodes the landscape in some places and deposits sediment in others. Underserving space like the golf course is de/re-claimed, while critical civic infrastructure like Ithaca’s municipal waterworks and Farmer’s Market are embedded in these floodable zones and connect people to the water, but are protected from destructive effects of floods via strategic microtopography. This project is influenced by the ecological processes in wetlands and floodplains, particularly the workings of beavers and muskrats that significantly alter the landscapes. It embraces the dynamic complexity and uncertainty inherent in a changing climate by utilizing these cycles of disruption and succession, and proposes a series of native and experimental forest and wetland types where various plant communities act as anti-fragility land labs. Cut/Meander is a vision for publicness in Ithaca that enables expanded relationalities on the Cayuga Inlet.

Barcelona International Landscape Biennial

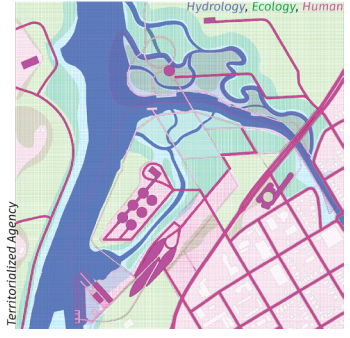
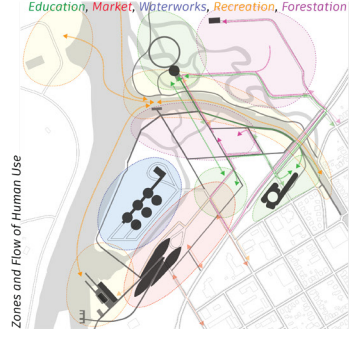
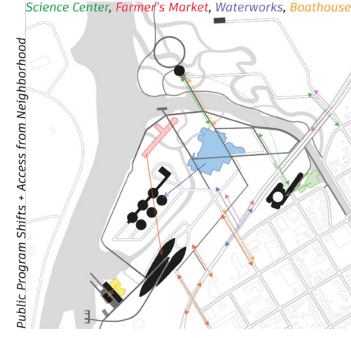
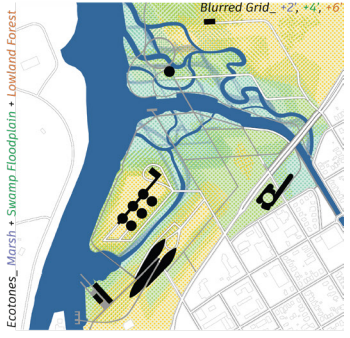
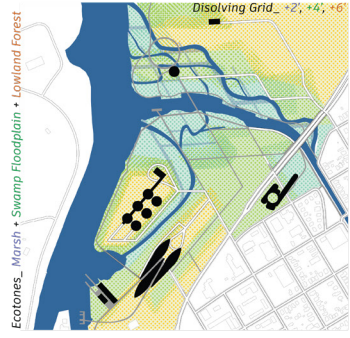
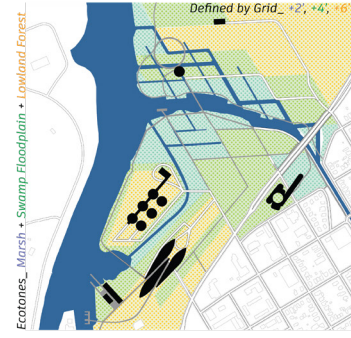
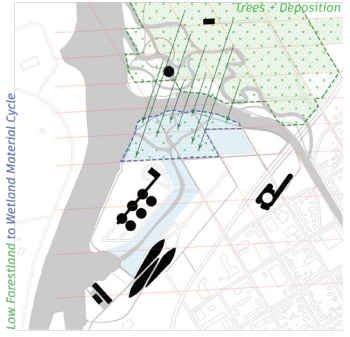
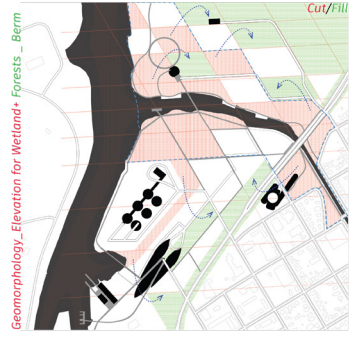
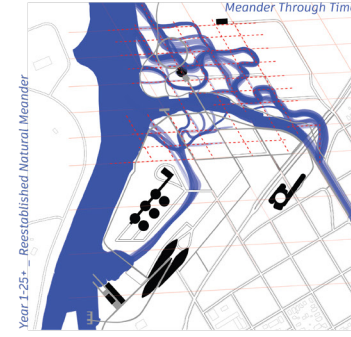
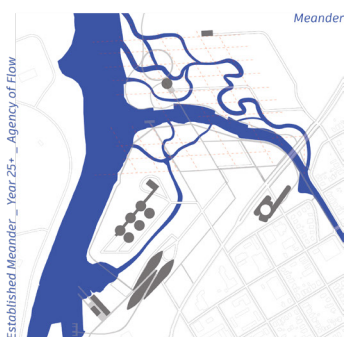
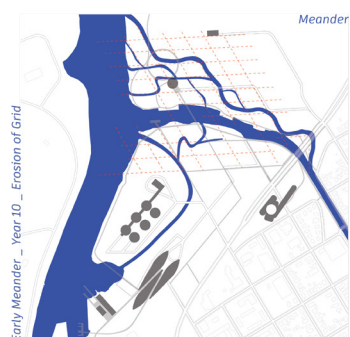
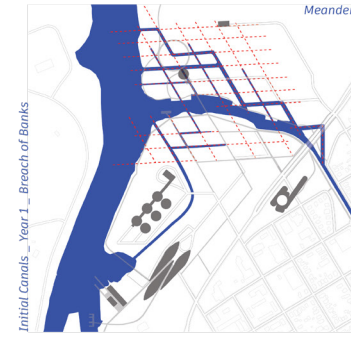
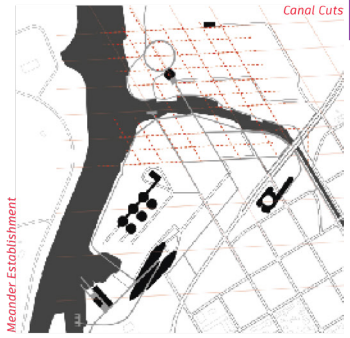
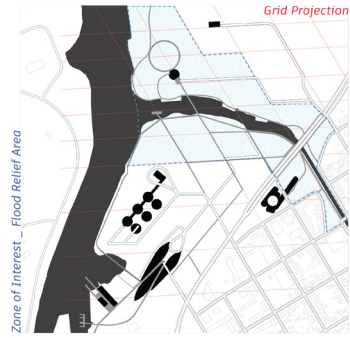
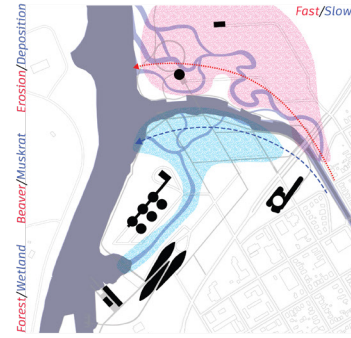
Contact via email:  
biennaladm@coac.net

Venue:  
COAC - Col·legi Oficial d'Arquitectes de Catalunya  
Carrer Arcs 1-3, 08002 Barcelona - Spain

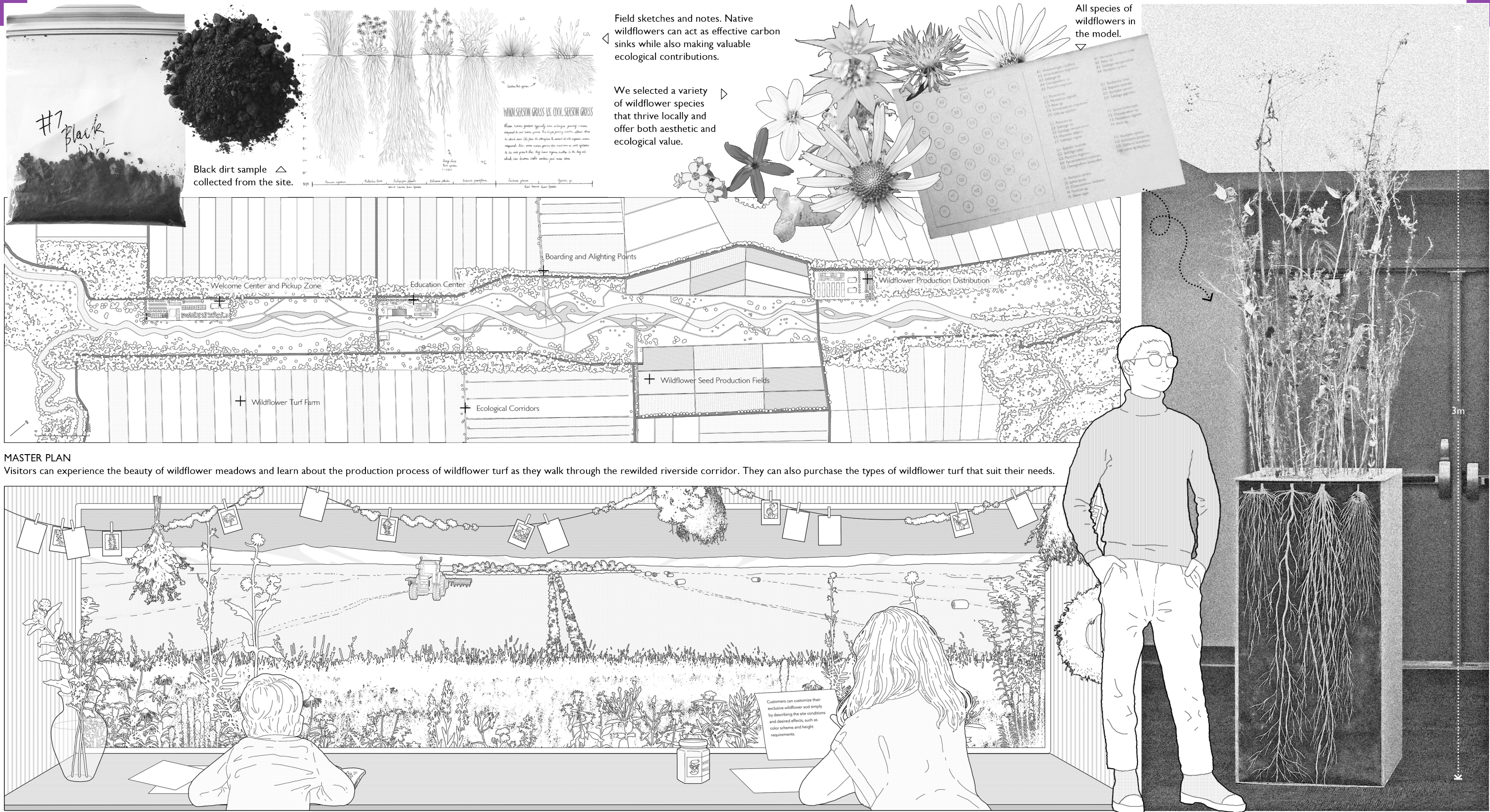




- |  |                                   |                              |                                    |                                      |                         |  |
|--|-----------------------------------|------------------------------|------------------------------------|--------------------------------------|-------------------------|--|
| 1 Coss Park                            | 7 Science Center Teaching Wetland | 13 Cayuga Shores Boardwalk   | 19 Berm Terrace                    | 25 Experimental Forest Lab Plots     | P Park(ing)             | CM Cattail Marsh                                 |
| 2 Natural Swimming Pool                | 8 Nature Center Field Station     | 14 Beaver Lodge Nature Trail | 20 Market Dock                     | 26 Experimental Forest Field Station | RR Bio-Riprap           | MS Maple-Hemlock Swamp                           |
| 3 Coss Dock                            | 9 Canopy Loop                     | 15 Pedestrian • Bike Bridge  | 21 Boat House                      | 27 Swale Allée                       | B Flood Berm            | SC Sycamore-Cottonwood Floodplain Forest         |
| 4 Cascadilla Creek Blue Trail Launch N | 10 Nature Center Field Camp       | 16 Cayuga Waterworks         | 22 Boat Launch                     | 28 Wildflower Meadow                 | VF Seasonal Vernal Pool | CT Cypress-Tupelo Experimental Floodplain Forest |
| 5 Cascadilla Creek Blue Trail Launch S | 11 Field Camp Dock                | 17 Farmer's Market           | 23 Community Gardens               | 29 Demonstration Garden              | H Historic Bulkheads    | OS Oak-Sweetgum Floodplain Forest                |
| 6 Science and Nature Center            | 12 Cascadilla Creek Blue Trail    | 18 Cayuga Plaza              | 24 Experimental Wetlands Lab Plots | 30 Giant Squirrel                    |                         | ABM Ash-Baswood-Maple Lowland Forest             |
|  |                                   |                              |                                    |                                      |                         | AE Ash-Elm Experimental Dying Forest             |
|  |                                   |                              |                                    |                                      |                         | EH Eastern Hemlock Experimental Dying Forest     |







MASTER PLAN

Visitors can experience the beauty of wildflower meadows and learn about the production process of wildflower turf as they walk through the rewilded riverside corridor. They can also purchase the types of wildflower turf that suit their needs.

VIEW FROM THE EDUCATION CENTER

From the education center, visitors can comfortably enjoy the view of the rewilded floodplain, where wildflower meadows are integrated with productive grassland. This highlights the project's role in combining ecological restoration with agricultural use.

A TRUE-TO-SCALE MODEL OF THE WILDFLOWER TURF

Made from dried stems of actual native New York wildflowers. It illustrates the impressive depth that their root systems can reach once the meadow matures.

Country/City

United States, Ithaca

University / School

Cornell University

Academic year

2023

Title of the project

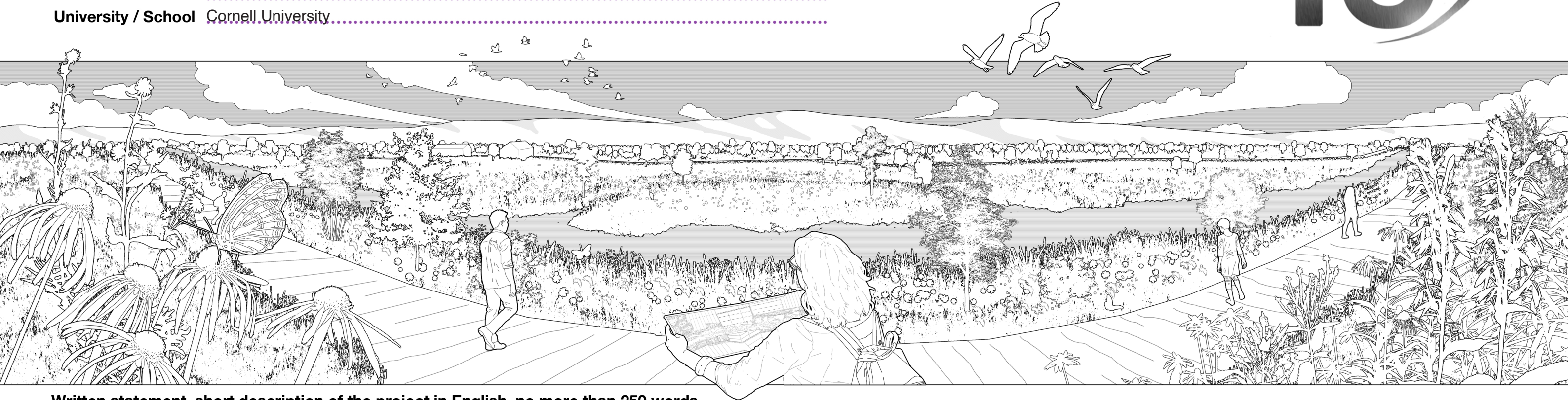
Black Dirt Renaissance: Blooming Future

Authors

Andrew Ziyuan Zhang, Huanran Li



Title of the project	Black Dirt Renaissance: Blooming Future
Authors	Andrew Ziyuan Zhang, Huanran Li
Title of the course	LA7010 Urban Design and Planning
Academic year	2023
Teaching Staff	Anne Loftin Weber, Assistant Professor
Department / Section / Program of belonging	Department of Landscape Architecture, Masters Program
University / School	Cornell University



Written statement, short description of the project in English, no more than 250 words

Located in the Black Dirt Region of the upper-middle reaches of the Wallkill River Basin, this project addresses a landscape shaped by glacial activity and long-standing wetland processes. The region’s rich organic soils, the remnants of ancient swamps, once supported diverse native habitats, but decades of agricultural intensification have led to fragmentation and ecological decline. After extensive research, study, and design, the proposal puts forward three interwoven strategies to balance ecological regeneration with local economic benefit. Promote wildflower turf production to reintroduce perennial root systems that act as carbon sinks, while providing a resilient and diversified agricultural product that mitigates supply-demand imbalances. Create pastoral complex in regularly flooded zones to avoid excessive carbon release from soil disturbance, while offering new grazing-based land uses that function as flood buffers. Reactivate green spine by gently reshaping the straightened river channel using low-cost interventions, restoring the site’s flood-storage capacity, accessibility, and aesthetic value. Together, these strategies aim to deliver a low-carbon, ecologically vibrant, and economically viable future for the Wallkill landscape. Together, these strategies foster a low-carbon, ecologically vibrant, and economically viable future for the Wallkill landscape. By linking production with restoration, the project enables customers to actively support biodiversity and carbon capture, while offering a scalable model for regenerative land use across the region.

Barcelona International Landscape Biennial

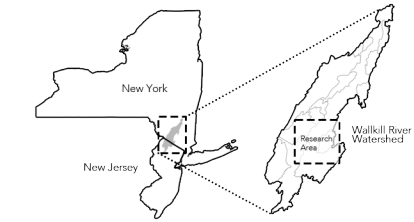
Contact via email:  
biennialadm@coac.net

Venue:  
COAC - Col·legi Oficial d’Arquitectes de Catalunya  
Carrer Arcs 1-3, 08002 Barcelona - Spain

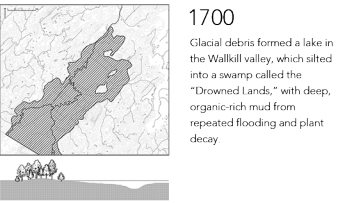


BLACK DIRT RENAISSANCE: BLOOMING FUTURE

MASTER PLAN

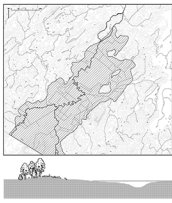


The research area of this project is located in the black dirt region of the upper-middle reaches of the Walkill River basin. This area has organic deposits resulting from glacial activities and was once a swamp that has now been drained for agricultural use. However, human activities have introduced a series of impacts on this region, including the fragmentation and disappearance of native biological communities, a sudden increase in carbon emissions, and the subsequent issue of flooding.



1700

Glacial debris formed a lake in the Walkill valley, which silted into a swamp called the "Drowned Lands," with deep, organic-rich mud from repeated flooding and plant decay.



1750

European settlers drained the Drowned Lands by digging a canal and clearing obstacles, converting the swamp into farmland by removing trees and wetlands, though summer floods still overwhelmed the canal.



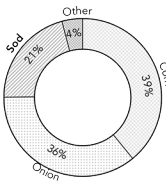
1930

The canal reduced river flow, hurting mill owners who built dams to flood farmland, farmers fought back by destroying the dams. This "Muskrat and Beaver Wars" ended with farmers' victory and improved drainage through more channels.



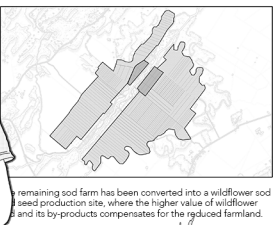
2023

The black dirt region, now fertile farmland for corn, onions, and turf, loses millennia-old carbon as greenhouse gases due to drainage and farming, causing soil subsidence, worsening climate impacts, and increasing flood risks.



Sod is the third largest crop in the black dirt region.

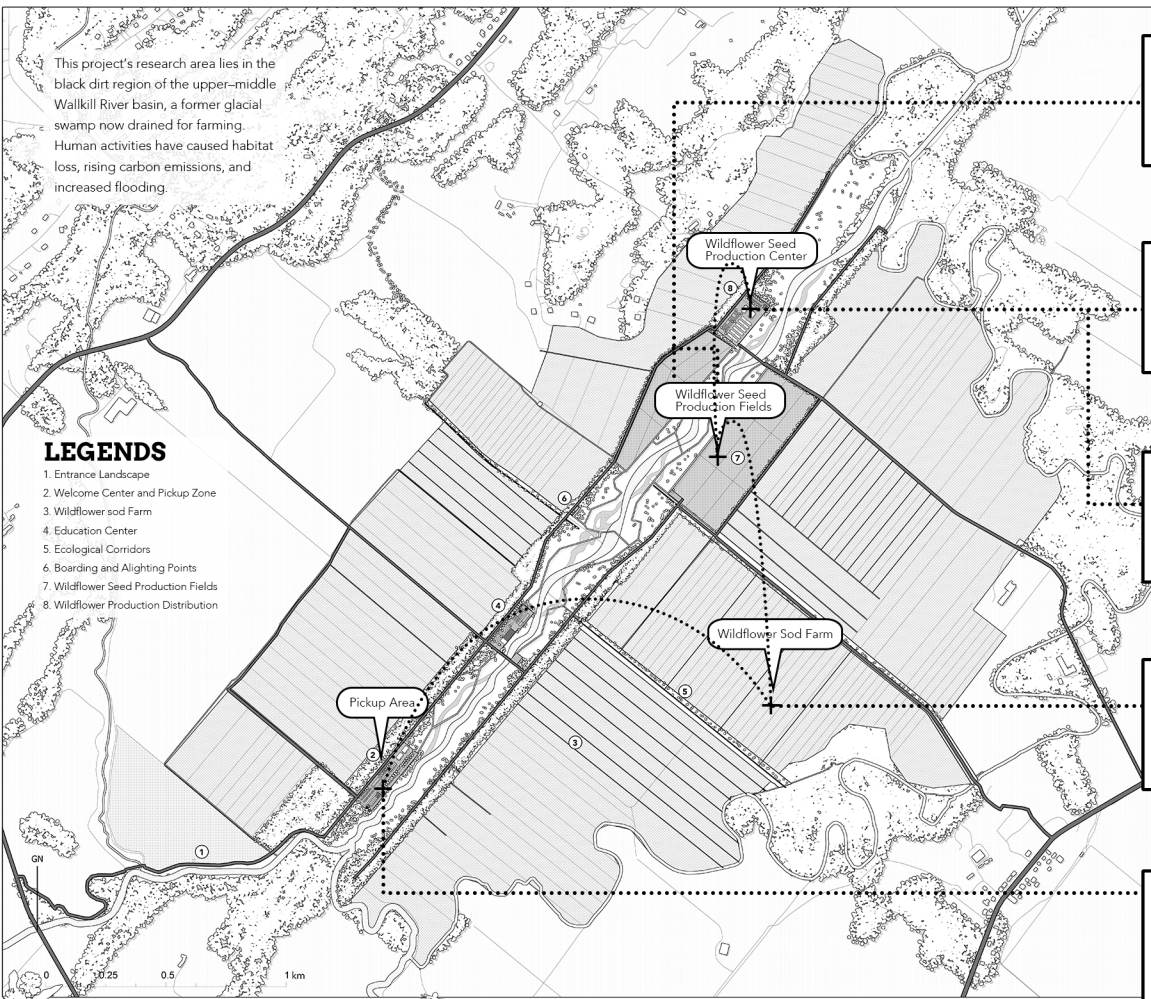
The flat terrain and Walkill River floods have severely damaged agriculture. Efforts like stabilizing banks and restoring floodplain trees show our commitment to the environment, but we also value the economy and seek a balance between both...



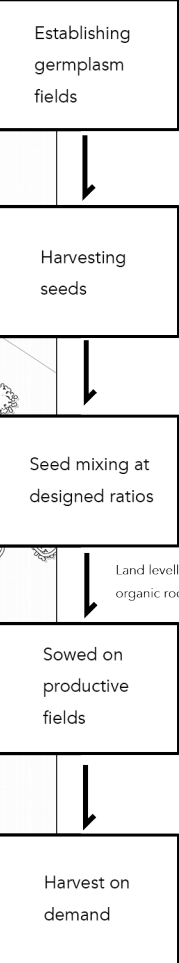
remaining sod farm has been converted into a wildflower sod seed production site, where the higher value of wildflower and its by-products compensates for the reduced farmland.

LEGENDS

- 1. Entrance Landscape
- 2. Welcome Center and Pickup Zone
- 3. Wildflower sod Farm
- 4. Education Center
- 5. Ecological Corridors
- 6. Boarding and Alighting Points
- 7. Wildflower Seed Production Fields
- 8. Wildflower Production Distribution



WILDFLOWER PRODUCTION WORK FLOW



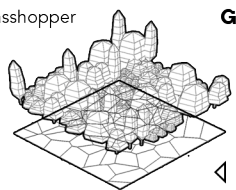
WORK FLOW

Organic waste composting

By-Products

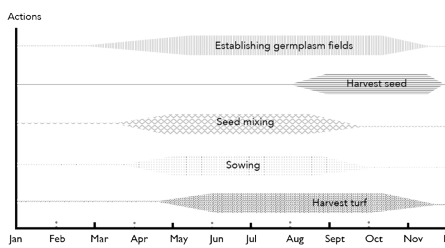


Grasshopper



GRASSHOPPER-ASSISTED PLANT DESIGN

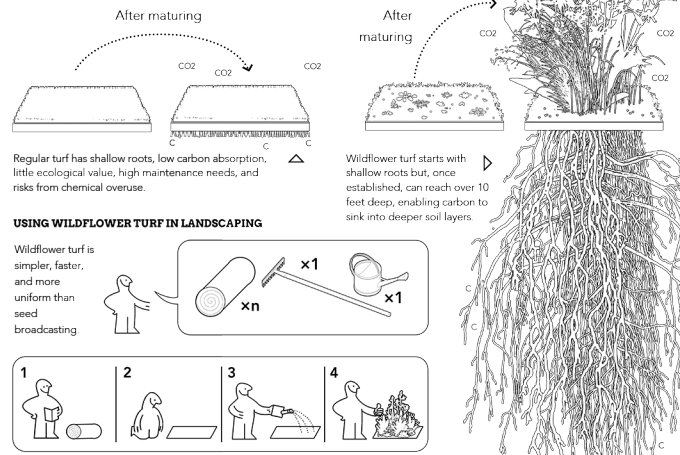
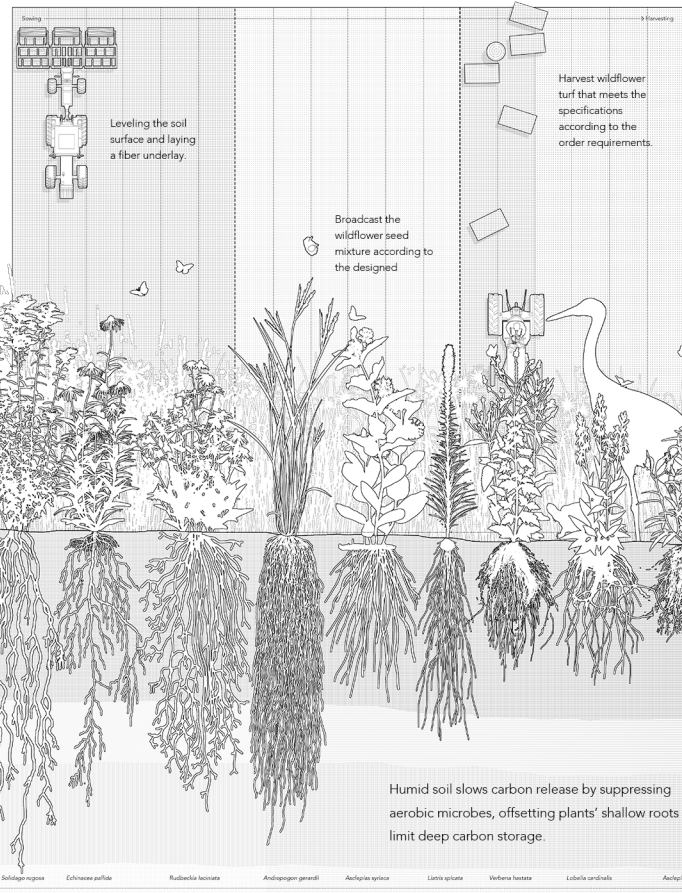
Using Grasshopper, planting patches can be automatically generated from a chosen plant list to simulate the wildflower meadow, while also calculating each plant's proportion to estimate the required seed quantities.



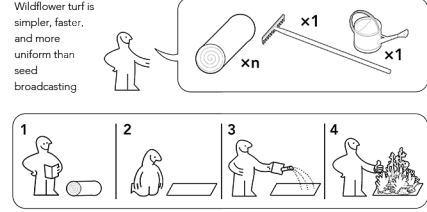
Production is seasonal, with some cold-resistant wildflowers sown in autumn and harvested in spring, as they survive winter outdoors.

WILDFLOWER TURF PRODUCTION

Wildflower turf and regular turf share similar production methods, however, the difference lies in the fact that wildflower turf requires an additional layer of fiber as a support. This is to prevent the root blanket from dispersing or penetrating too deeply into the soil.



USING WILDFLOWER TURF IN LANDSCAPING



Flora Charm



Carefree Wild



EasyCare Dwarf



Butterfly Paradise



Hydro Harmony



Sculpture Ensemble

CARBON TRANSFER

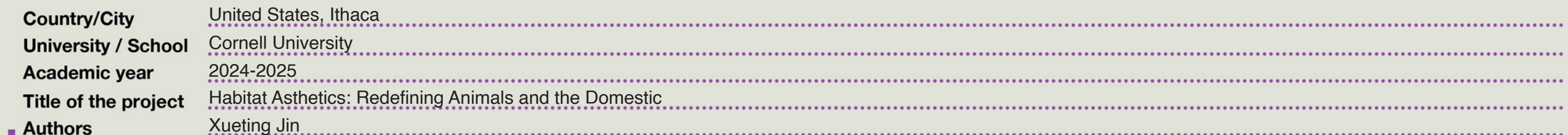
As with conventional turf, the production of wildflower turf still releases carbon from black dirt. During harvesting and transportation, a certain amount of carbon emissions is generated. When wildflower turfs are successfully established in the landscape, they become a carbon sink.

POTENTIAL COMBINATIONS

Blending seeds creates diverse wildflower turf mixes for different landscapes.



**For Human...**  
**For Opossum...**  
**For Insects...**





**Title of the project** ..... Habitat Aesthetics: Redefining Animals and the Domestic

**Authors** ..... Xueting Jin

**Title of the course** ..... LA 7020 Advanced Design Studio

**Academic year** ..... 2024-2025

**Teaching Staff** ..... Jennifer Birkeland, Associate Professor

**Department / Section / Program of belonging** ..... Department of Landscape Architecture, Masters Program

**University / School** ..... Cornell University



**Written statement, short description of the project in English, no more than 250 words**

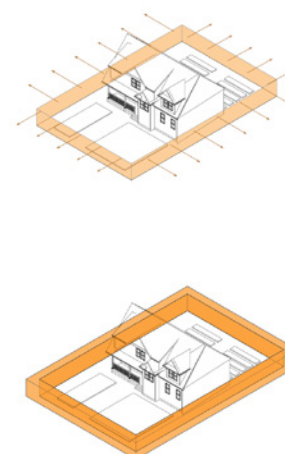
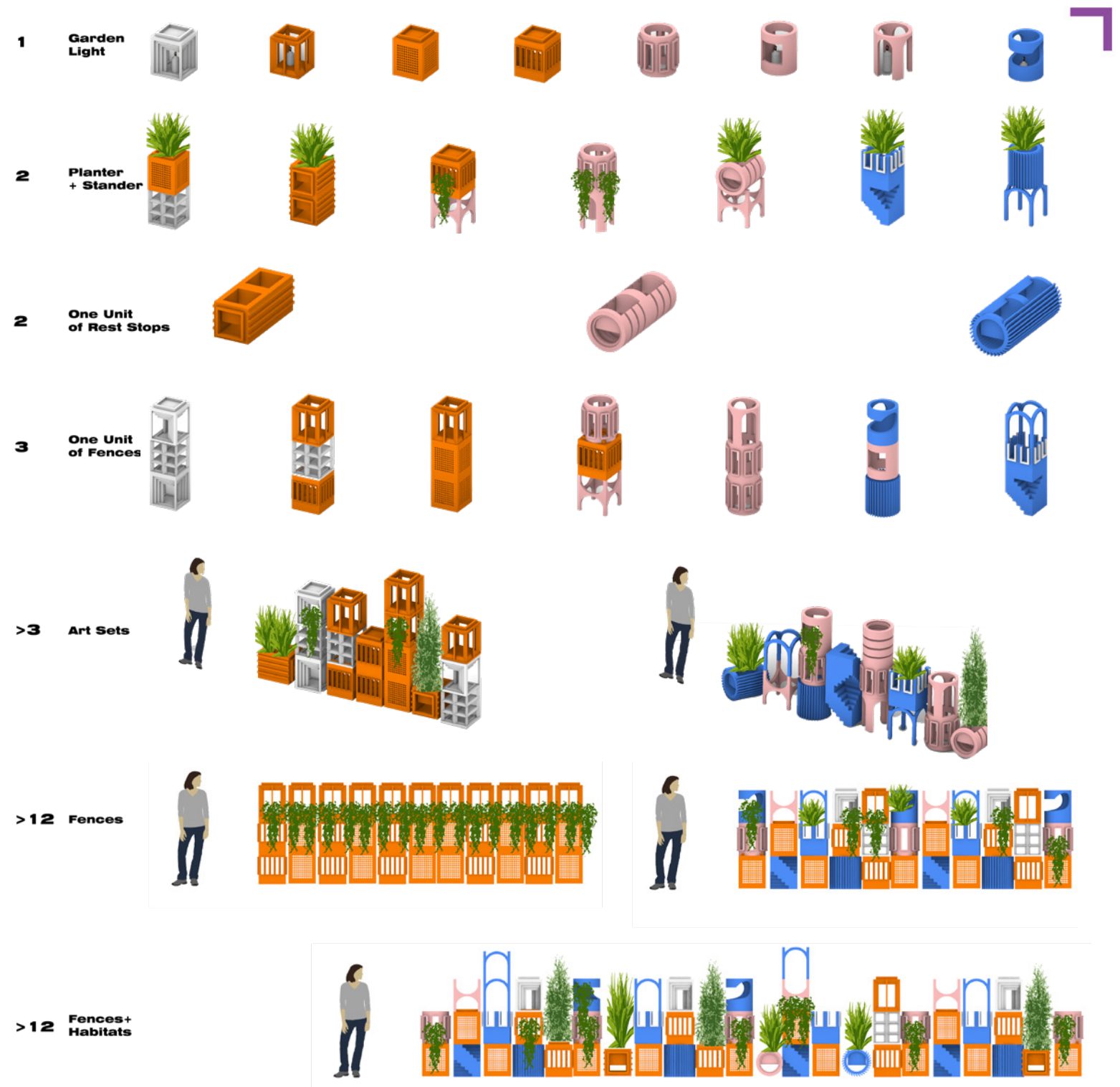
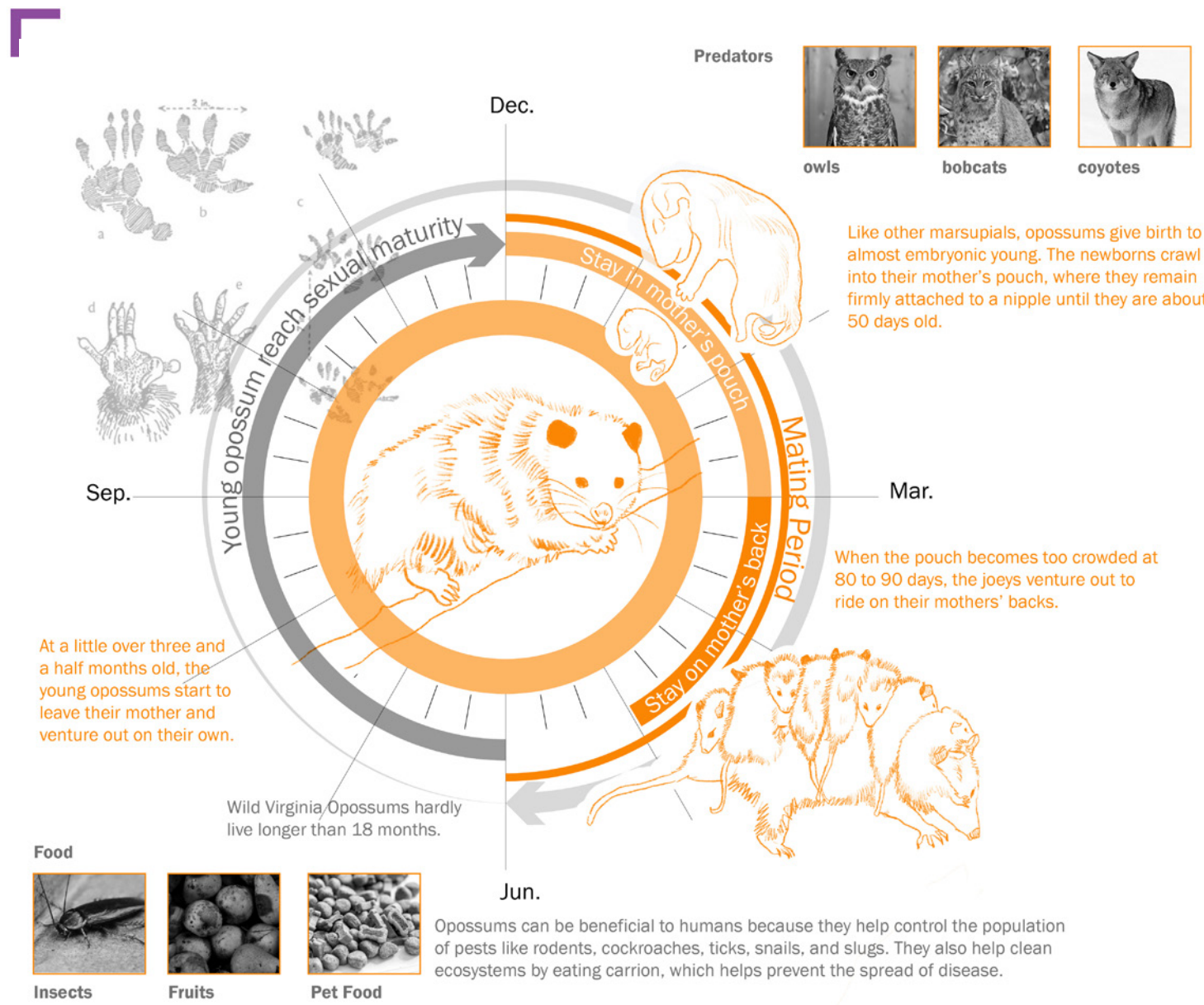
This project aims to attempt a dialogue for both animals and humans with the domestic realm. Utilizing the Virginia Opossum as the highlighted species, the concept was to challenge the performance of the suburban fence. Identifying the perimeter between parcels as a conduit for small animals, the fence defines a new corridors to connect larger ecological patches. The prototype, which suits the requirements of the opossum's habitat and nesting, provides a basic function as a planted fence with embedded burrow. Expanding on the project in terms of it's aesthetics and marketing, style and color were explored as formal drivers to expand the products reach. Borrowing from famous architects' works as a cultural cornerstone, the modules would be made out of cheap and durable materials for production and accessibility. The project tries to merge urbanism, ecology, industrial design, contemporary consumer culture, and design to challenge new ways of our built environment.

**Barcelona International Landscape Biennial**

Contact via email:  
biennaladm@coac.net

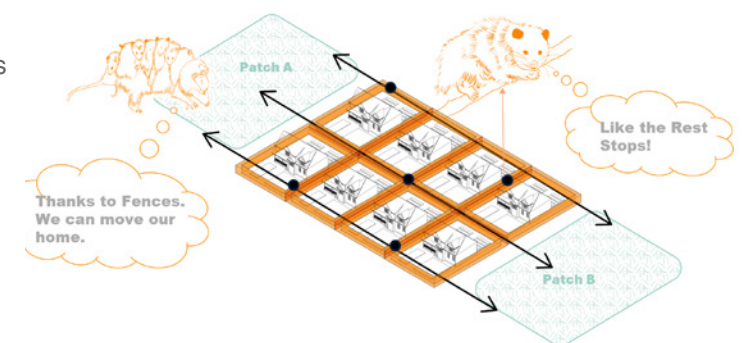
Venue:  
COAC - Col·legi Oficial d'Arquitectes de Catalunya  
Carrer Arcs 1-3, 08002 Barcelona - Spain





The traditional fences are liner, the boundaries are fixed, isolating home from surrounding environment.

However, the boundaries can be expanded, since human don't use these spaces, why not leave the fence spaces back to others?





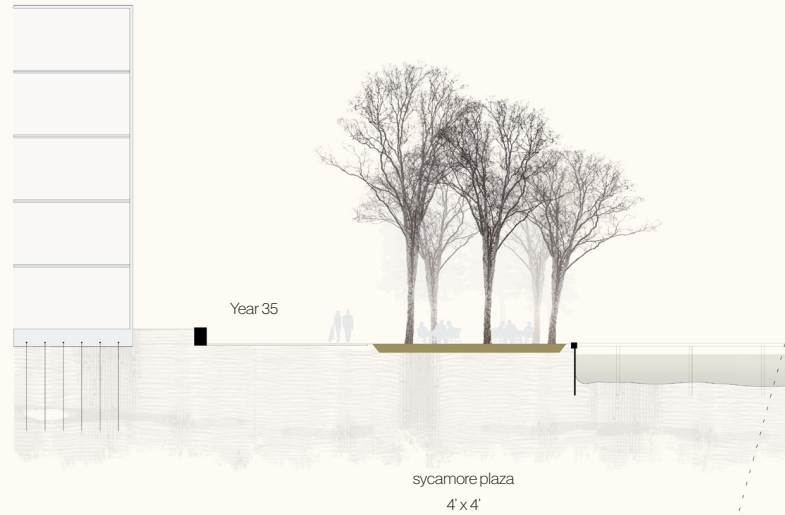
Year 1



Year 8



Year 35

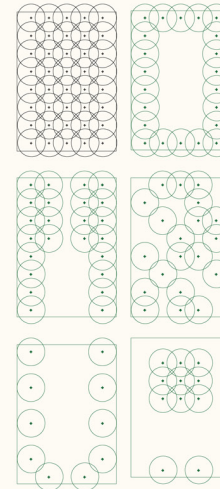


## Blocks and ladders on Cascadilla Creek

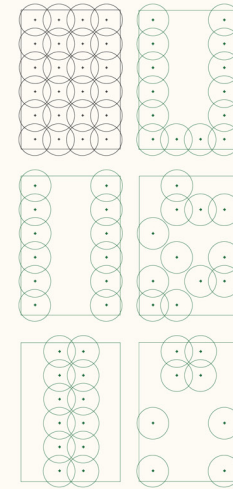
A sequence of textures, shadows, bark colors, and leaf shapes unfolds along a re-imagined waterfront. The existing bulkhead and docks are accessible by paths, each of which offers a unique transit between microforest types. Tree block width varies, depending on dock access, but length is uniform at 35 feet, creating a pattern of densely clustered footprints echoing the early 20th century boathouses that occupied this shore. Each planting block contains a specific test of tree spacing and/or species combination, elaborating a plant grammar found throughout the city-wide project.

The possibilities for managing these blocks are as diverse as the species combinations themselves, and as growth and change direct tree outcomes, human management responses shape opportunities for gathering, dining, reading, relaxing—or replanting and succession.

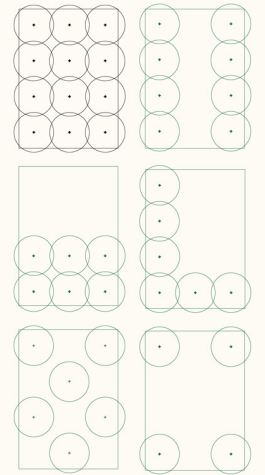
4.5 x 4.5 ft



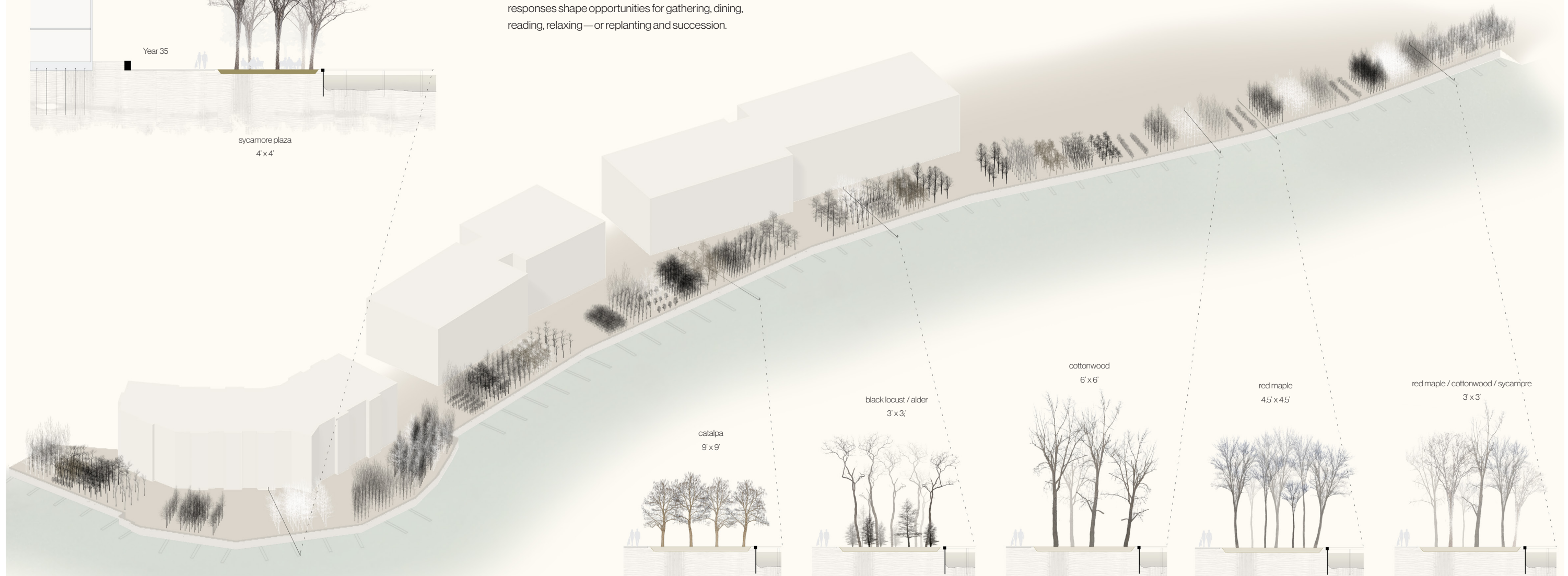
6 x 6 ft



9 x 9 ft



Different initial densities can be thinned to create rooms of varying dimensions, with qualities of openness and enclosure corresponding to mature tree form.



Country/City

United States, Ithaca, NY

University / School

Cornell University

Academic year

2022-2023

Title of the project

Landscape Arborism

Authors

Dan Meyer



Title of the project	Landscape Arborism
Authors	Dan Meyer
Title of the course	LA8900 Master's Thesis in Landscape Architecture
Academic year	2022-2023
Teaching Staff	Maria Goula, Professor, and Jamie Vanucchi, Associate Professor
Department / Section / Program of belonging	Department of Landscape Architecture, Master's Program
University / School	Cornell University



**Written statement, short description of the project in English, no more than 250 words**

Drawing on fieldwork conducted in designed forests and urban treescapes in Europe, this thesis translates the legacy of planted forest parks into design tests based in Ithaca, New York. Ithaca is a city of channelized creeks and infilled wetlands where increasingly intense rainfall events reveal the present-day inadequacy of historical planning decisions. Twentieth-century water control infrastructure was built at the expense of an existing tree vernacular where quick-growing species adapted to wet or challenging soil conditions found pride of place along pedestrian-friendly watersides. Landscape Arborism reclaims Ithaca's tree identity and mobilizes it to create climate conscious and experientially diverse public space.

Pairing one key design move—planting densely, in a grid—with principles of creative management allows for experimentation and discovery while guiding trees toward desired future forms. Trees are more than instruments we task with absorbing carbon and providing shade; their capacity to structure space and foster sense of place combines occupiable infrastructure with civic good. Assembling a new urban tree lexicon establishes the conditions for an endless series of relations and negotiated actions between people and trees in close proximity to each other. Ultimately, this approach suggests a new development paradigm wherein trees drive landscape change alongside planners and designers.

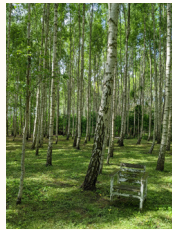
By offering a range of planting strategies rooted in site history and foregrounding the role of human management through time, Landscape Arborism articulates a new power for trees as spatial coagents of the continually unfinished future city.

**Barcelona International Landscape Biennial**

Contact via email:  
biennaladm@coac.net

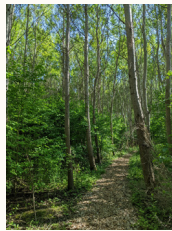
Venue:  
COAC - Col·legi Oficial d'Arquitectes de Catalunya  
Carrer Arcs 1-3, 08002 Barcelona - Spain





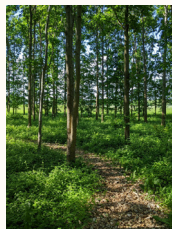
barren monoculture  
Betula pendula

moist understory



open monoculture  
Populus tremula x tremuloides

conifer understory

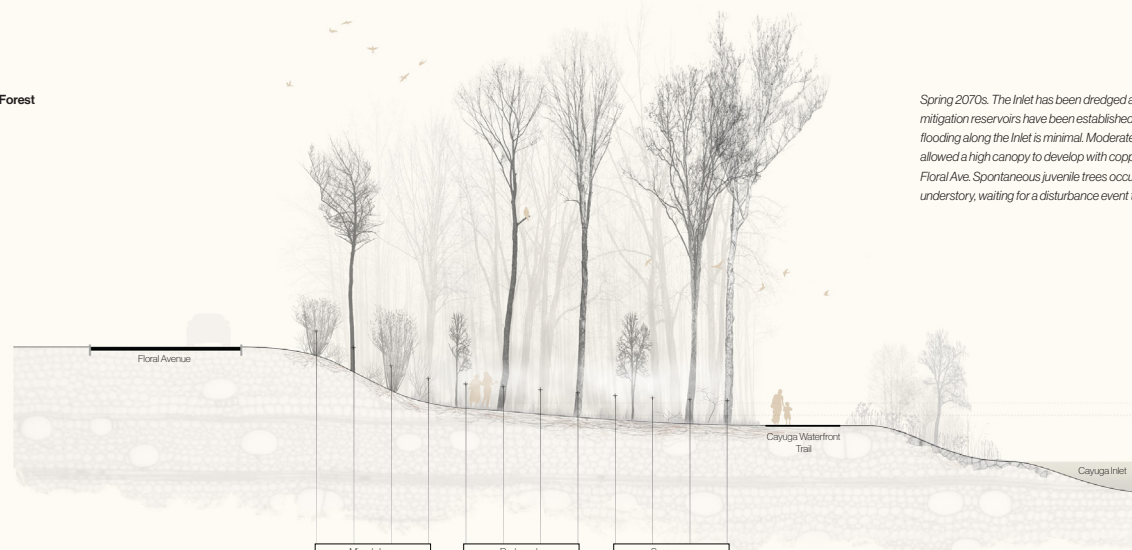


oak monoculture  
Quercus patula

laminar understory



#### The Mesic Forest



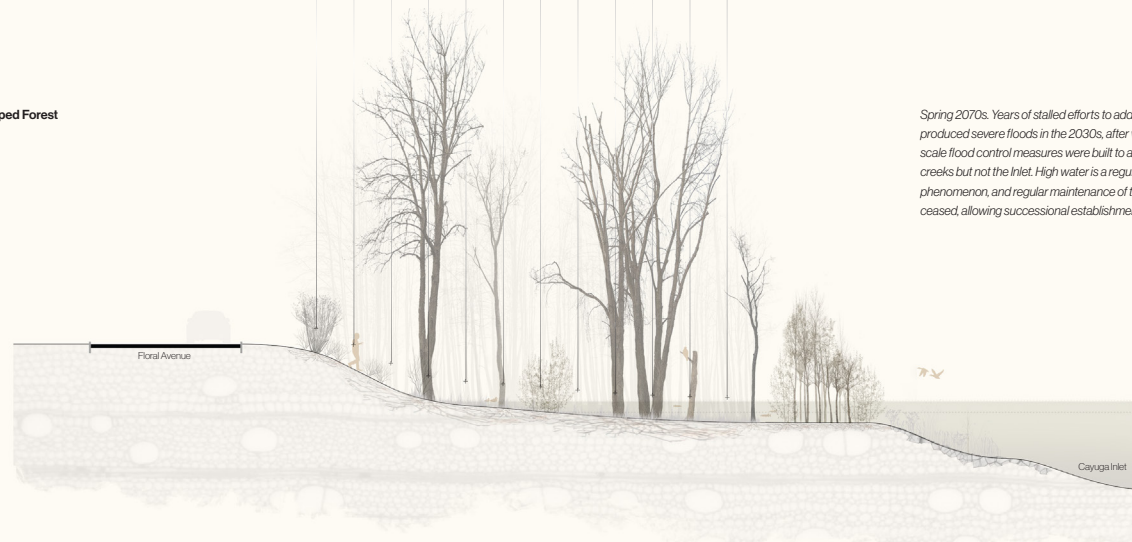
Mixed slope

Red maple

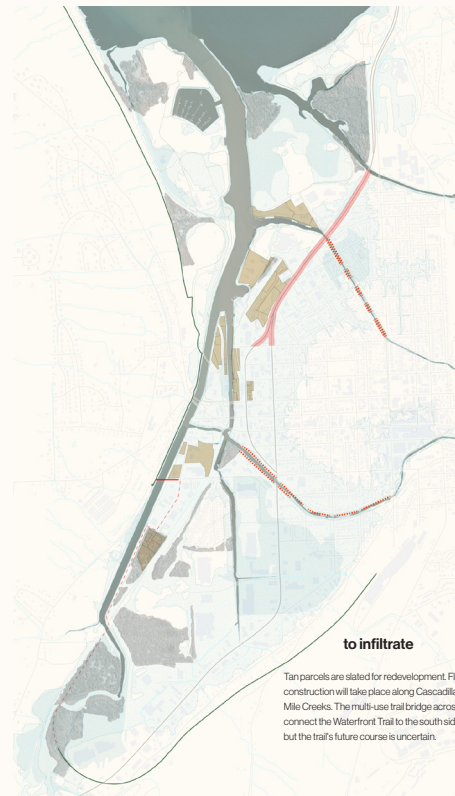
Sycamore

Spring 2070s. The Inlet has been dredged and flood mitigation reservoirs have been established upstream; flooding along the Inlet is minimal. Moderate thinning allowed a high canopy to develop with copices screening Floral Ave. Spontaneous juvenile trees occupy the understory, waiting for a disturbance event to release them.

#### The Swamped Forest

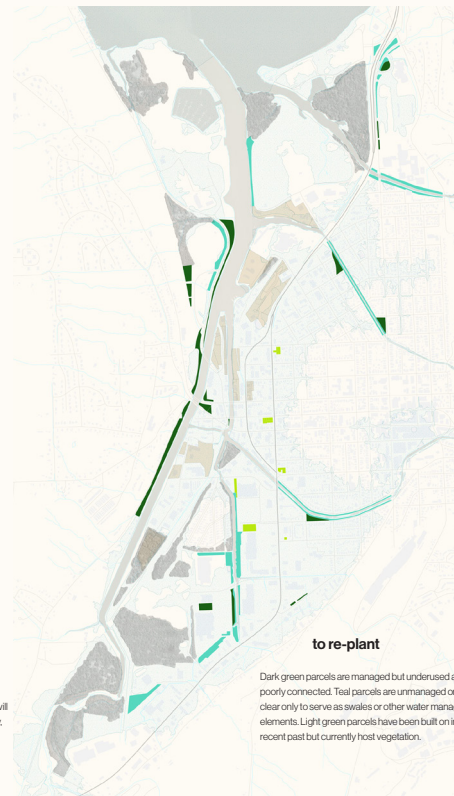


Spring 2070s. Years of stalled efforts to address dredging produced severe floods in the 2030s, after which smaller-scale flood control measures were built to address the creeks but not the Inlet. High water is a regular seasonal phenomenon, and regular maintenance of the trail has ceased, allowing successional establishment.



#### to infiltrate

Tan parcels are slated for redevelopment. Flood wall construction will take place along Cascadia and Six Mile Creeks. The multi-use trail bridge across the Inlet will connect the Waterfront Trail to the south side of the city, but the trail's future course is uncertain.



#### to re-plant

Dark green parcels are managed but underused and poorly connected. Teal parcels are unmanaged or kept clear only to serve as swales or other water management elements. Light green parcels have been built on in the recent past but currently host vegetation.



#### to crack open

Dark brown parcels are paved or gravel lots used for storage or kept vacant. Light brown parcels along Route 13 show stretches of the right of way or sections of street parking that could be converted to tree pedestrian ways. Yellow parcels are currently occupied but might transition to trees in the future.

