



Components

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How to play?

In this game, players assume the role of two stakeholder types constructing a trail system to connect and collect biophilic recreational assets. The two teams will compete and negotiate with each other to fulfill their winning factor: Hiker/biker to close the trail loop while Landowner to upgrade all the biophilic assets of the corresponding landmark well!

Set-up Phase:

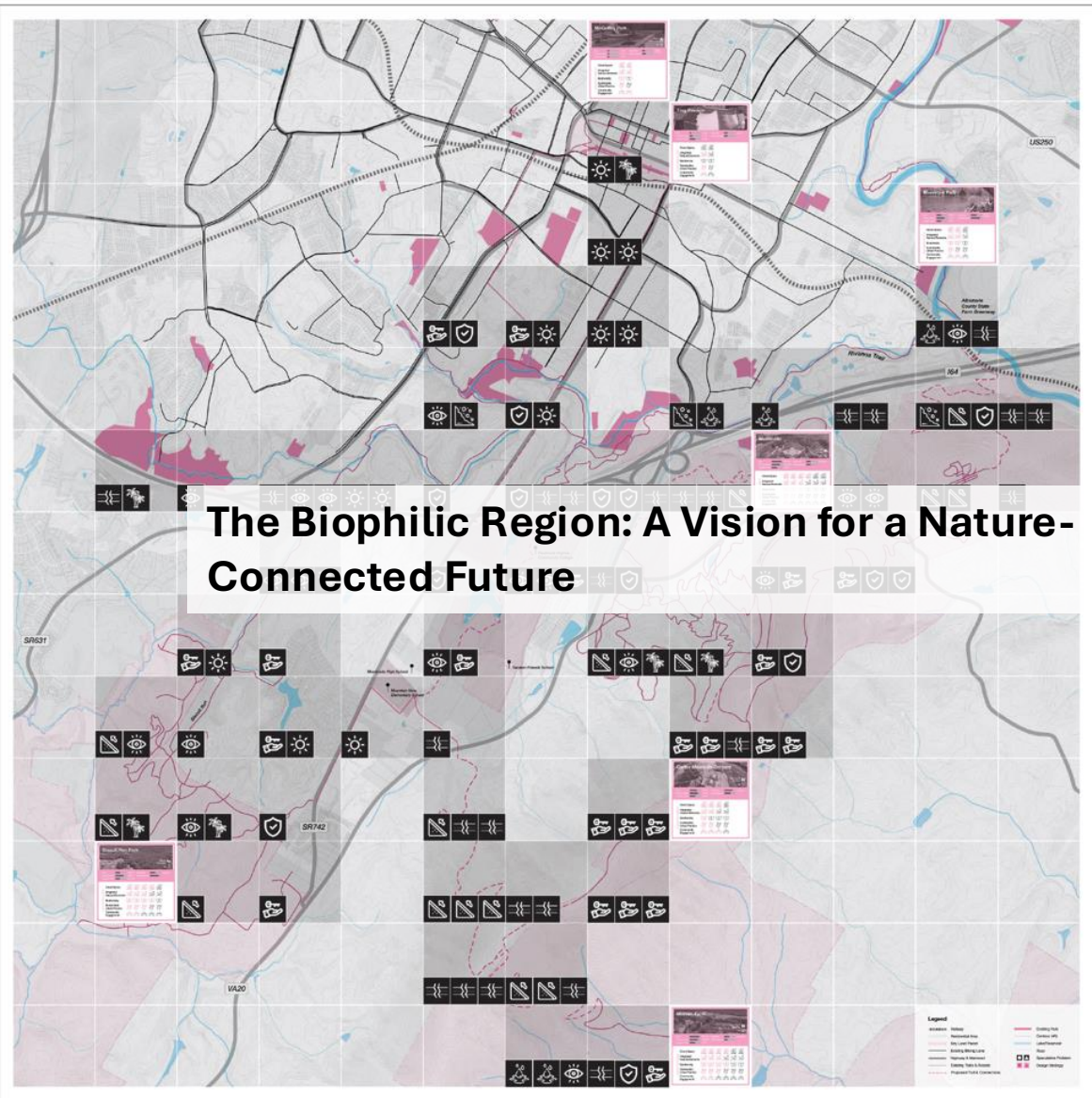
Players are separated into two teams - hiker/biker and landowners. Each player chooses a player token and places it at the downtown starting point for hiker/biker and at the corresponding landmark for landowners. Shuffle the intervention cards and deal 5 cards to each player.

Action Phase:

Each player takes turn to move or play a card, depending on the roles, the player will take different actions: hiker/biker can choose to move to one connecting grid or play an intervention card. The player can only move to another grid when all the problems of the occupying grid are solved; landowner can choose to upgrade the landmark to the connecting grids or upgrade one asset of the biophilic capacity of their landmark. The player can only play the intervention card if they have enough money tokens to fulfill the cost of the card. One soft programming card which can bring more income can only be obtained when all problems of the occupying grid are solved.

Example

A green pedestrian crossing can improve mobility of the trail. More active plans to clear-to-creating a more biophilic environment.



The Biophilic Region: A Vision for a Nature-Connected Future



Agnes To, Joyce Fong, Sarah Cheang, Stanie Zhang

Boardgame - The Loop

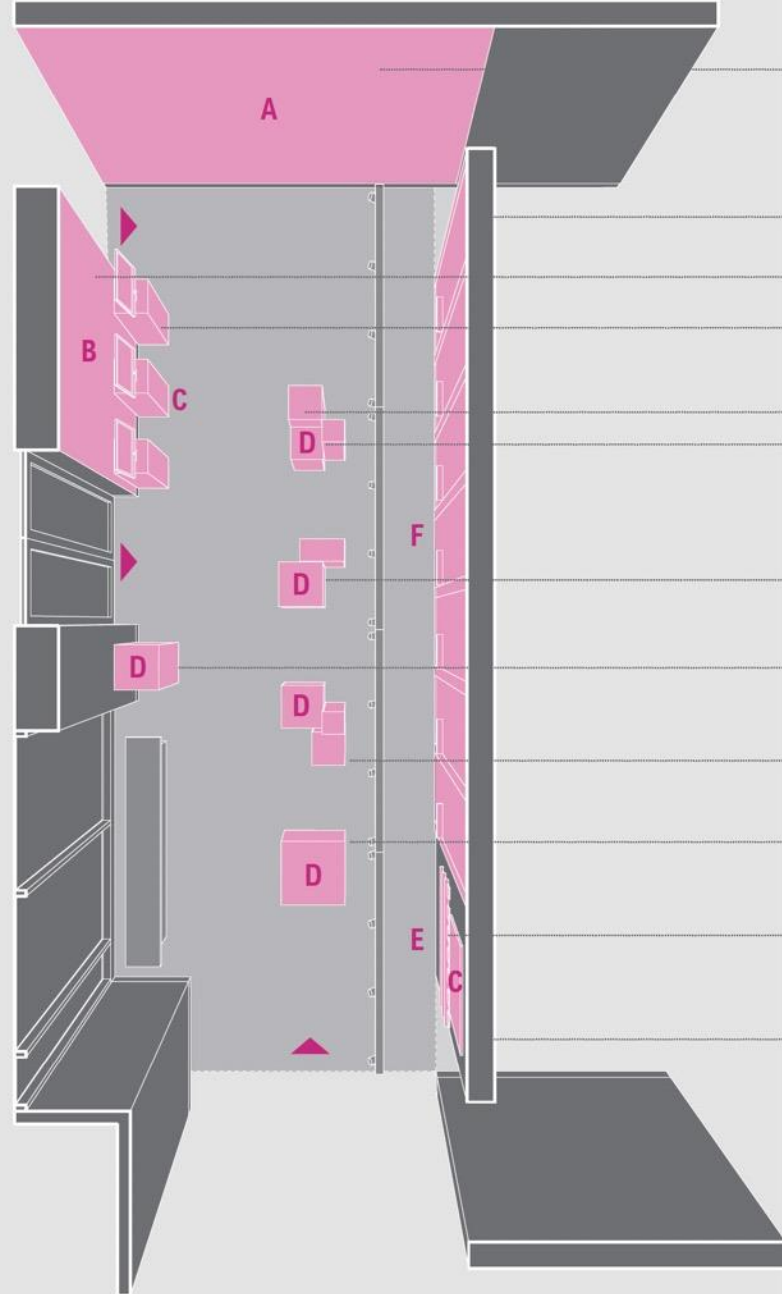
From Urban Strategies, Fall 2024

A boardgame designed by the group Biophilic x Recreation for design idea generation as well as community engagement to create a more biophilic future in our region.

The Land Aggregation Game: Urbanization in our target region fragmented wildlife corridors and ecosystems. Private land holdings also caused fragmented recreational landscapes and trail systems. What if we could repair this fragmentation and address multiple-specie benefits. This game strategy offers an opportunity to work together to repair our landscapes. Goal: Facilitate for a nature path and wildlife corridor from the city center to the edge of our region? (role of the nominee: seminar Instructors and exhibition design. This student project was edited for the exhibition and developed for employment), student credits: Joyce Fong, Agnes To, Sarah Cheang, Stanie Zhang, Fall 2024



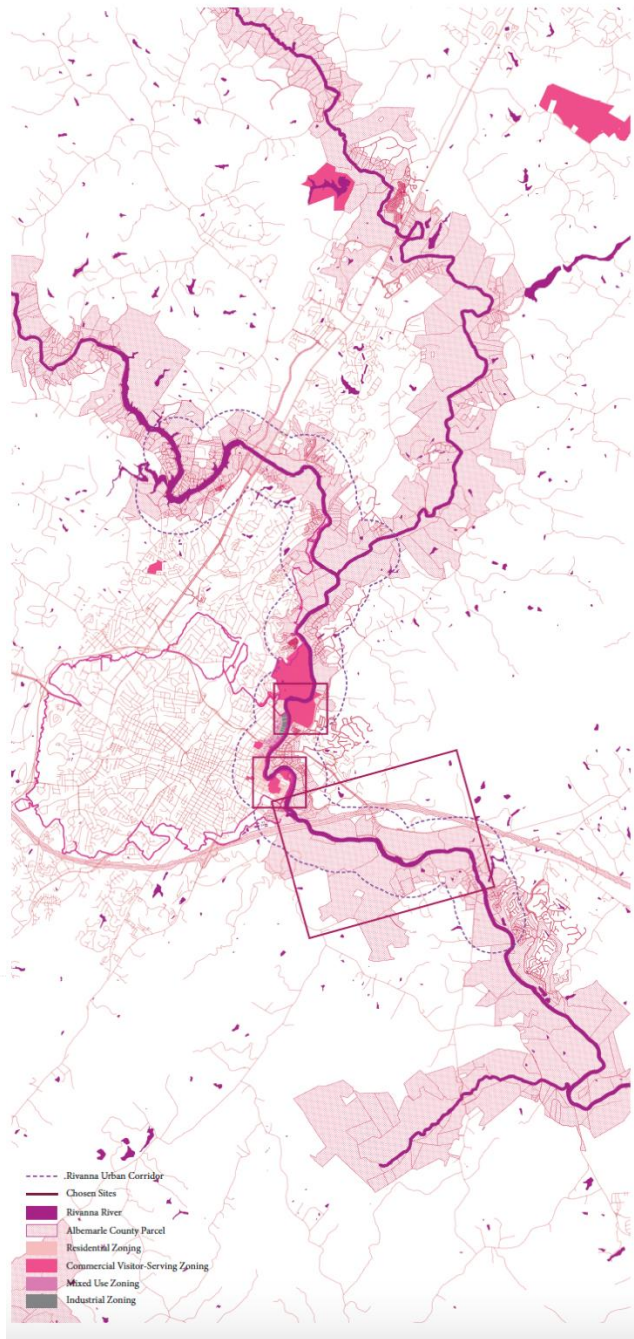
- A - Back Wall (Exhibition Introduction)
- B - Lara Gastinger Work
- C - Screens
- D - Pedestals
- E - Postcard Shelves
- F - Topic Posters Wall
- ▶ - Exhibition Entrances



Biophilic Region Exhibition, 2025; (role of nominee: Production of original work featured Wall F asset analysis, model on Pedestal D, Game on Pedestal D, Exhibition Design and Curators), This work was produced with the help of 3 SRA, who were paid by a grant (PI nominee) during summer 2025 Image Copyright: Tom Daly



Images feature the first and second stakeholder workshop in fall 2024 with students from seminar class. In these sessions students were provided with feedback to their asset analysis. Stakeholders represented different local expertise from: wildlife management, biodiversity, cultural heritage, water management, park management, sustainable agriculture, urban development, tree management, and beyond. 10 Stakeholders participated on a voluntary basis to support the learning objectives of the seminar, which included inter-disciplinary collaboration, community engagement, multi-species and multi-scalar asset analysis for a regional approach. Images upper left and right feature the outcome of a city initiated working session dedicated to biophilia. The seminar class involved 21 students from architecture, landscape architecture, and planning. (role of the nominee: seminar instructor, workshop organizer, and advisory collaborators)



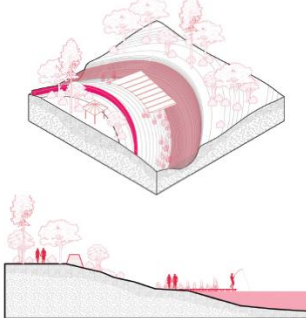
PARK: Darden Towe Park & Pen Park



Resilience: Riverbank Erosion & Flood Protection

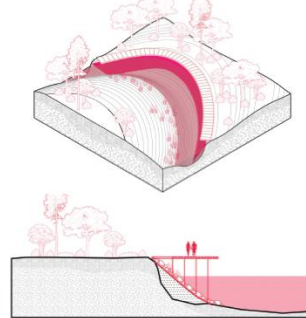
Fluvial Plain Public Space

Stabilizing river plain with plant roots and reducing surface runoff. Cultivate the rooted aquatic plants near the point bar of the river bank. Build flood wall near constructed areas.



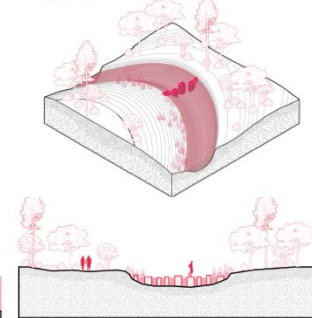
Riprap & Trail

Re-fill and build Riprap in the scoured side of the river bank to protect soil from erosion. Build waterfront trail on top of the riprap.



Rock Vanes as Bridge

Build Rock vanes or riffles to reduce flow velocity of the stream. The structure can also become pathway for pedestrians to create connection between the two sites of Darden Towe Park and Pen Park.



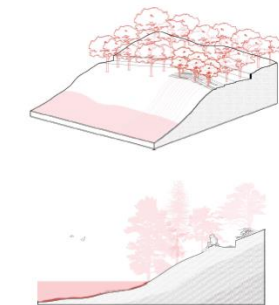
NEIGHBORHOOD: Woolen Mills



Gradient of Connection to River

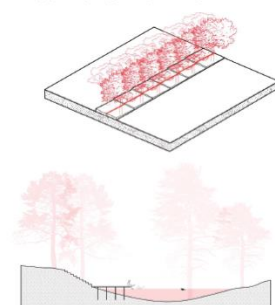
Terraced Seating

This design places terraced seating along a slope closer to the river, creating an inviting space for people to enjoy the view from the water. The trees surrounding the seating area filter sunlight, producing calming dappled light that enhances the outdoor atmosphere.



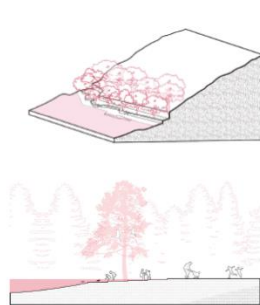
Vertical Water Connection

This design integrates a corridor along a shallow, creating a continuous water feature that guides movement from the higher neighborhood elevation down to the river. Reducing the impervious surface, the runoff not only visually connects users with water but also enhances sensory experience by offering the calming sounds of flowing water.



Stepped Water Access

This design offers direct access to the water through steps along the water's edge, creating a gradual transition between land and water. This design encourages physical interaction with the water, enhancing sensory engagement and fostering a closer connection to natural elements.



Indirect

Direct

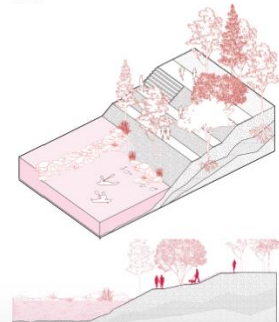
New Trail: Woolen Mills to Milton Landing



Biophilic Water Access

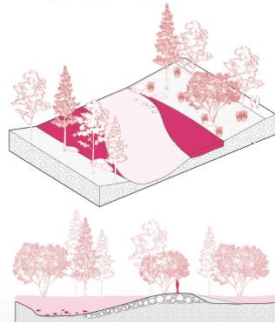
Cascades and Riparian Buffer

At Woolen Mills, cascades and riffles enhance flow control and habitats, while vegetation stabilizes banks and ramps allow safe boat access.



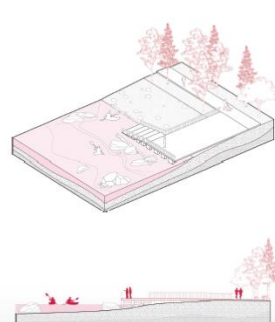
Stone Riffle

Stone Riffles create flow diversity and alternating depths, improving habitats and providing safe wading areas, while stabilizing banks and enhancing recreation.

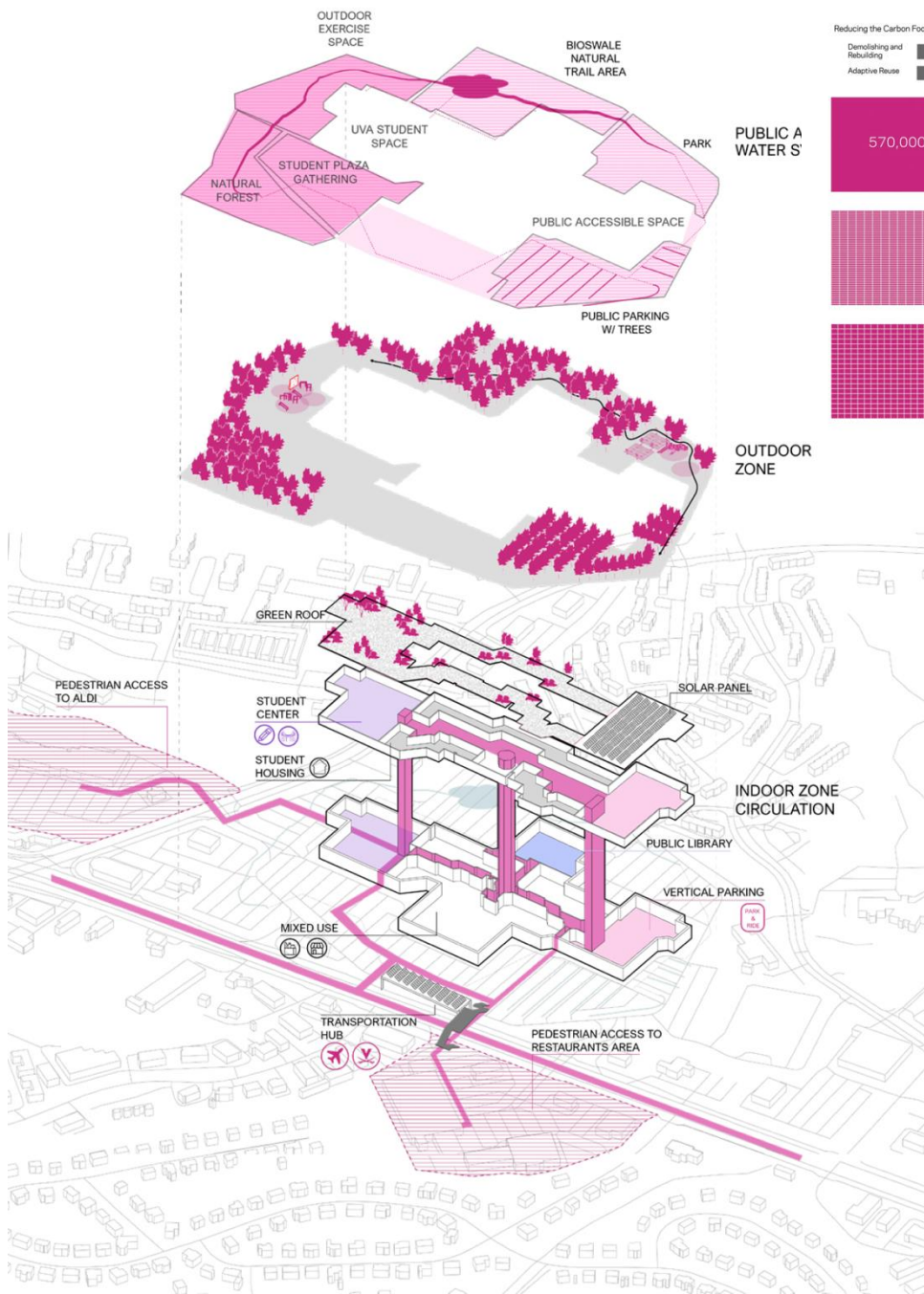


Pool and Habitat Shelters

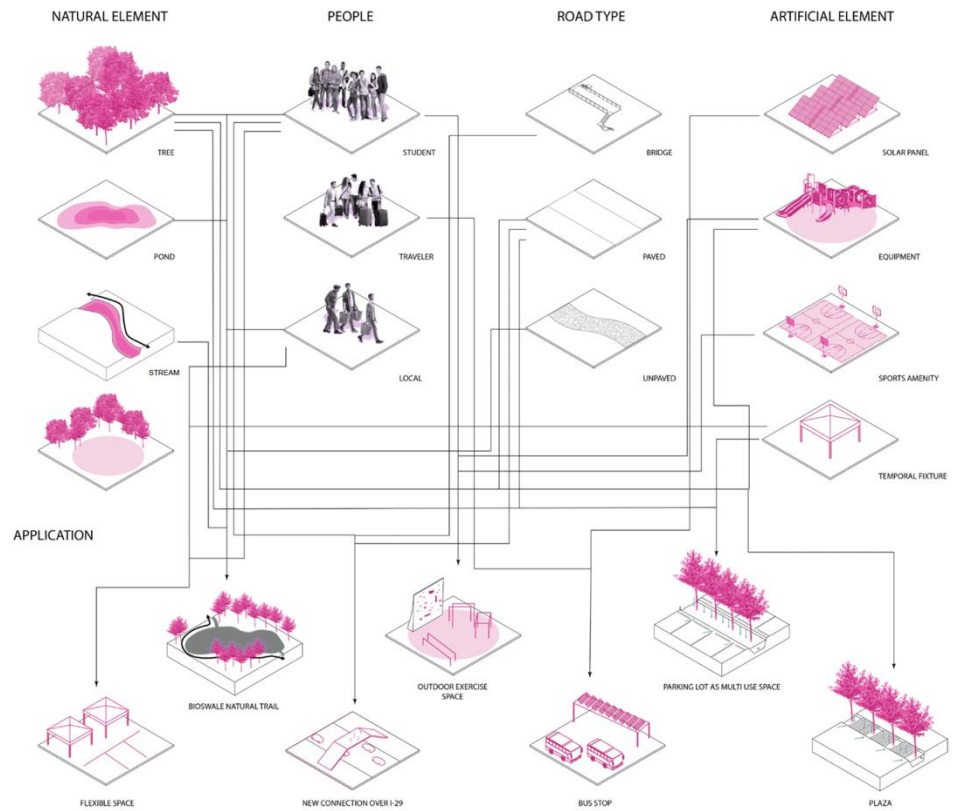
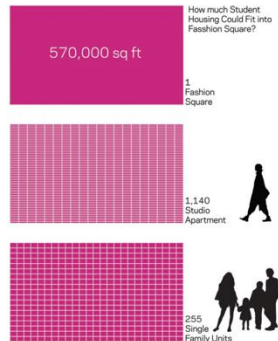
At Milton Landing, a pool design and boulders slow water for boat launch and habitat, with a shaded rest area for visitor comfort.



Slide features sample work produced in the seminar by multiple students in Architecture, Landscape Architecture and Planning. Learning objectives: synthesize knowledge extracted from asset analysis and collaborate in interdisciplinary teams (A1) Identify gaps and address these through design strategies (A2) to improve biophilic performance of the region. Listen, learn and translate feedback and knowledge from community stakeholders and city officials during workshops. Work is intentionally featured in low res and small scale to keep location anonymous (role of the nominee: seminar Instructors and exhibition design), fall 2024

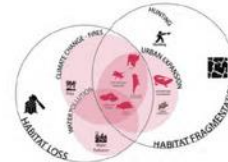
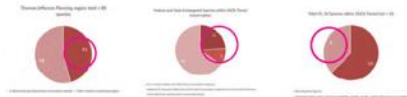


Reducing the Carbon Footprint in Development

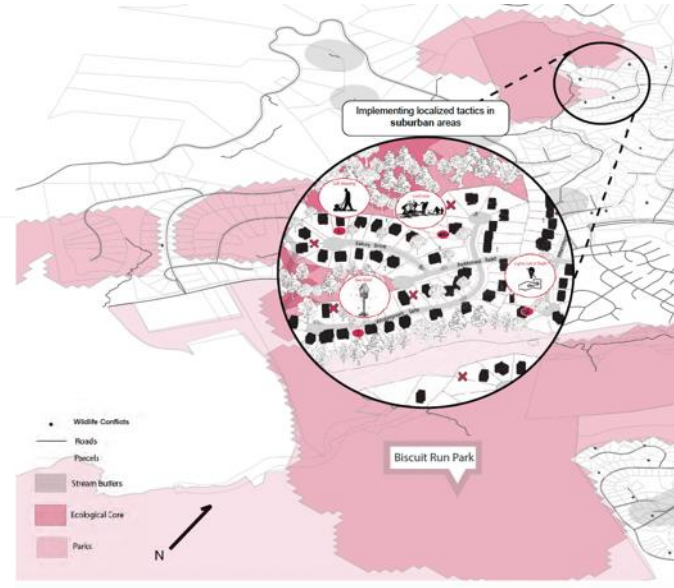
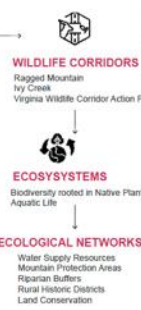
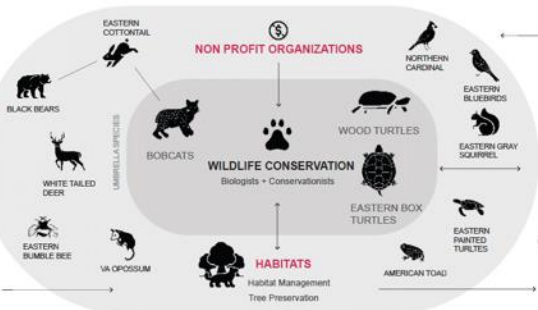
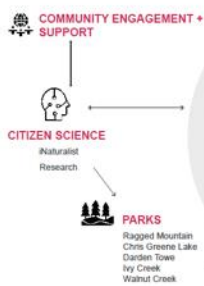
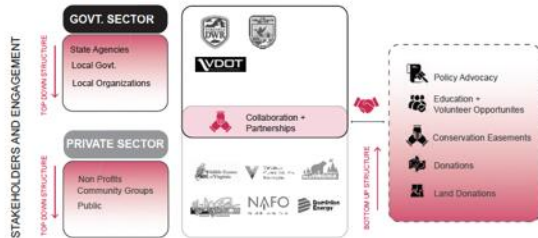
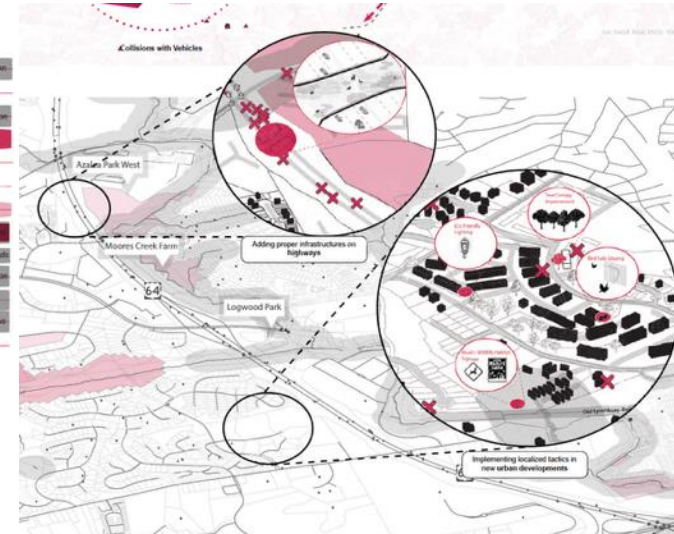
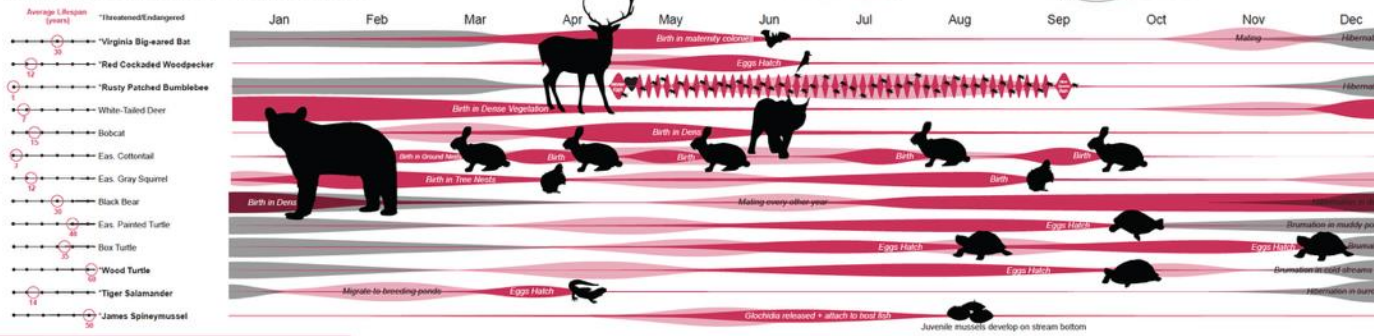


Based on a 10-year data base received from the local wildlife center and police reports these maps feature wildlife road-kill data points (location, species, time) to identification the need for wildlife crossings in the region. (role of the nominee: seminar instructor), Student credits: Students: Aziza Longi, Joohyun Shin, Aileen Frazier, Fall 2024

Selecting Focus Species



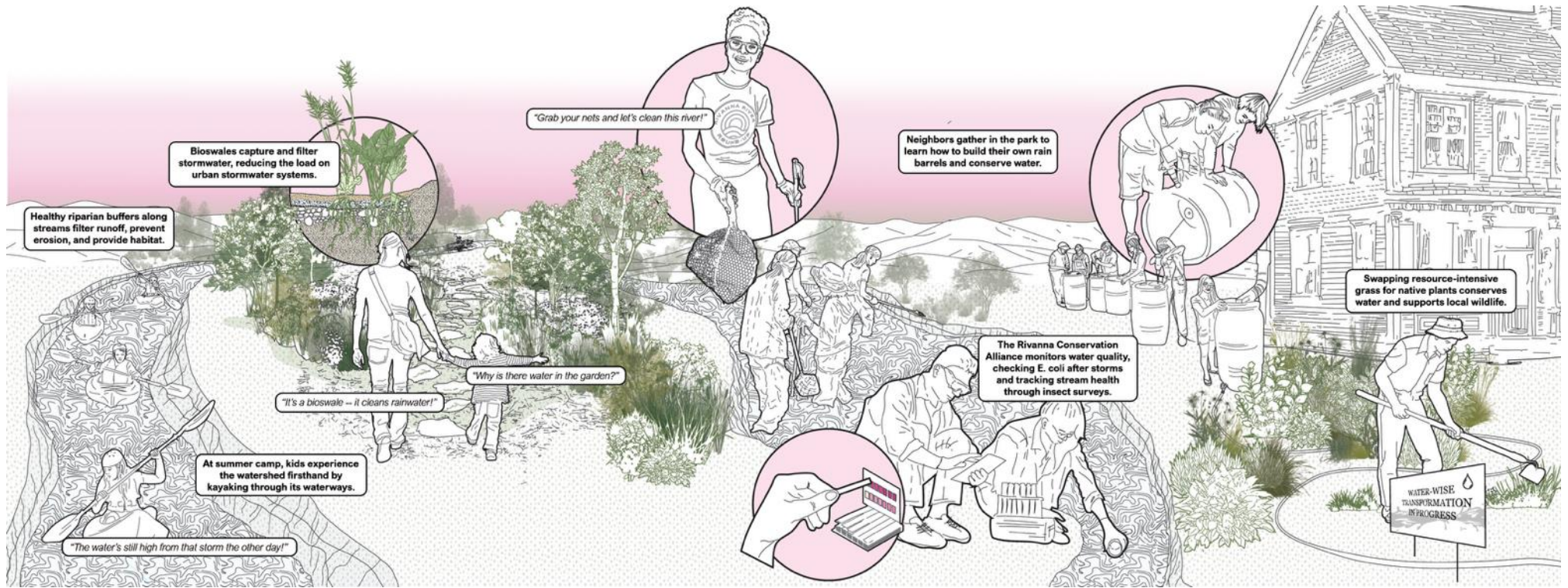
A Year in the Life: Seasonal Activity of 13 Keystone Species



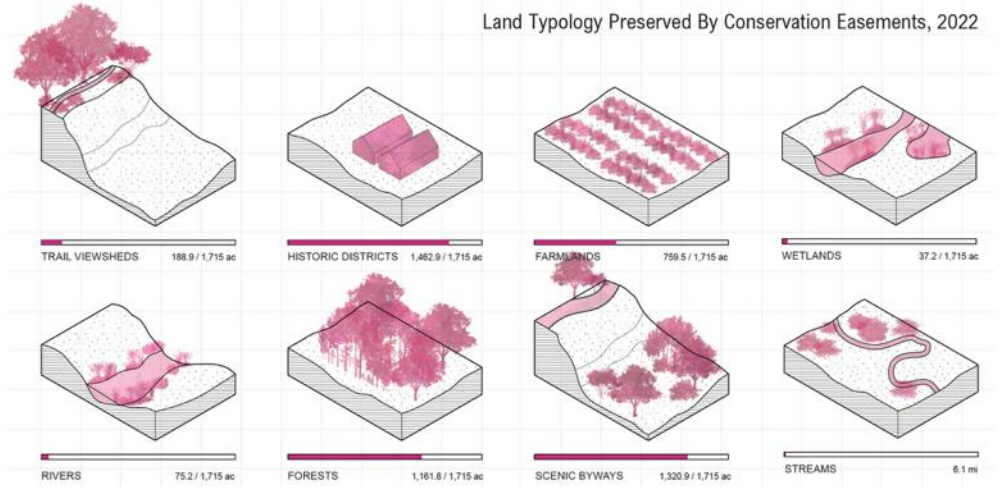
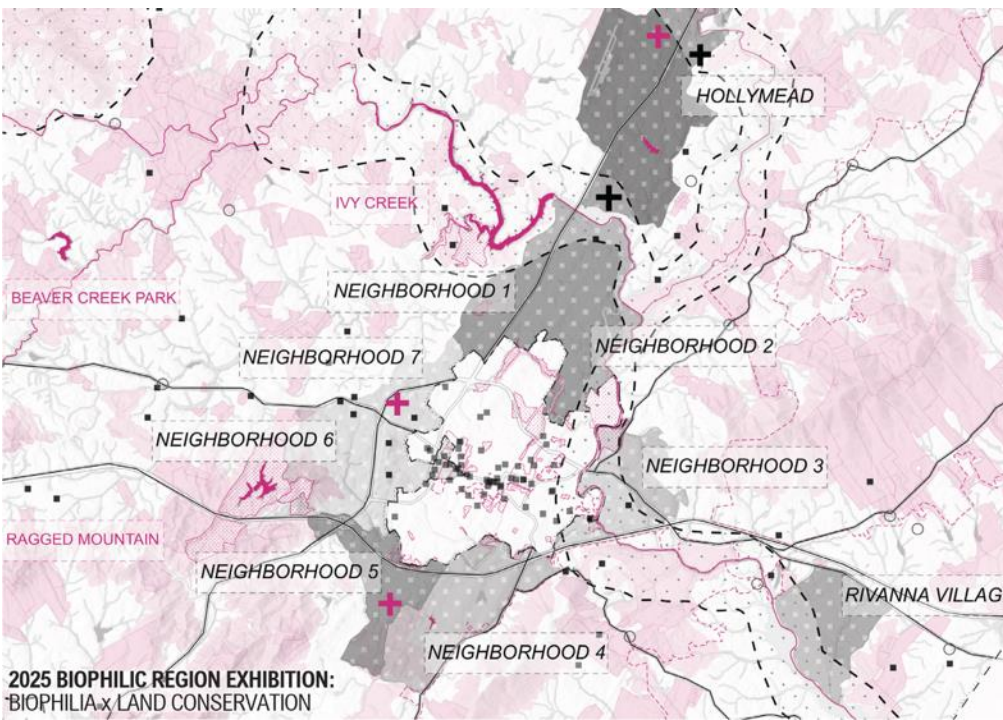
Identification of design strategies from the design of wildlife corridors to tactical educational strategies to allow communities to help with the reduction of roadkill. (role of the nominee: seminar instructor), Student credits: Students: Vasudha Chakravarty / Shiza Chaudhary / Julia MacNelly, Fall 2024



Biophilic Region Exhibition, 2025 (role of nominees: Production of original work featured Wall F asset analysis, model on Pedestal D, Game on Pedestal D, Exhibition Design, Curation, organization of panels, and moderation of lunch lectures), This work was produced with the help of 3 SRA, who were paid by a grant (PI nominee) during summer 2025, Image Copyright: Corbett Smithson



This slide features two of seven annotated narrative drawings that illustrate bottom-up strategies for citizen engagement in biophilic stewardship. Each analytical lens was paired with a corresponding narrative drawing. (role of the nominees: seminar instructor, exhibition design and curation), 3 SRAs were paid by a grant to edit the work during summer 2025, Student credits: Julia MacNelly



2025 BIOPHILIC REGION EXHIBITION:
BIOPHILIA x LAND CONSERVATION



Biophilic Building Blocks

Biophilic Region Exhibition 09/12 - 10/12/ 2025 | Virtual Discussion
Wednesday, October 15, 2025 @ 6:00 PM | CAM 302 and on Zoom

While land conservation efforts had been successfully integrated over many years current expansions of the city (featured in the model in black) into the rural county create friction and potentially unsustainable development. The asset analysis called for the development of biophilic building blocks and a typological catalogue (role of the nominees: seminar Instructor, exhibition design, curation, and organization of biophilic panel). This student project was edited for the exhibition and developed for employment, student credits: Katherine Shi, Fall 2024

Components

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How to play?

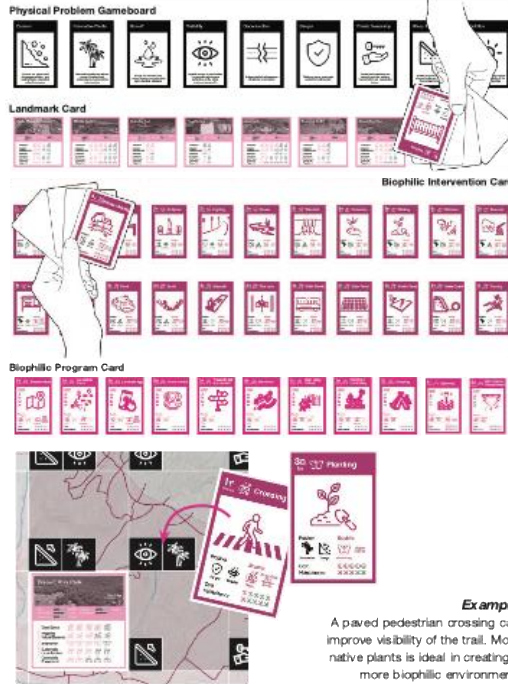
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Each asset analysis was accompanied by call out sites that were either a call for action to address gaps or an accomplishment. The exhibition featured 7x4 call out sites (role of the nominees: seminar Instructor, exhibition design, curation, and organization of biophilic panel). This student project was edited for the exhibition and developed for employment), 3 SRAs were hired for post- production and paid by the grant during summer 2025



GREETINGS FROM THE BIOPHILIC REGION!



Images of the Biophilic Region Exhibition, 2025; (role of nominees: seminar instructor, exhibition design and curation, production of postcard series, featuring design work produced in the seminar and images of the region, Images slideshow: Woody Wingfield, Image Exhibition Copyright: Tom Daly

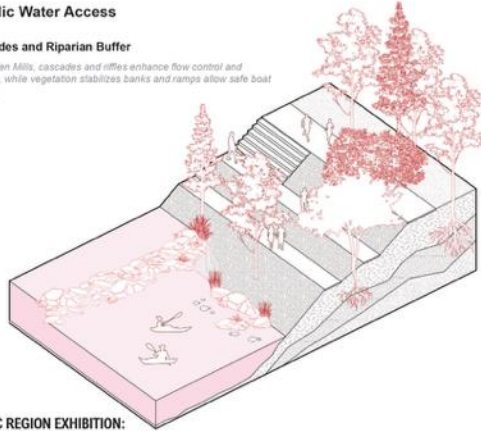


2025 BIOPHILIC REGION EXHIBITION:
BIOPHILIA x LAND CONSERVATION

Biophilic Water Access

Cascades and Riparian Buffer

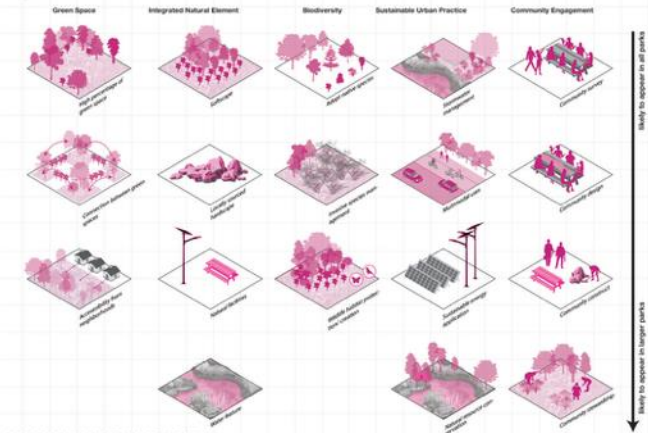
At Woolen Mills, cascades and riffles enhance flow control and habitat, while vegetation stabilizes banks and ramps allow safe boat access.



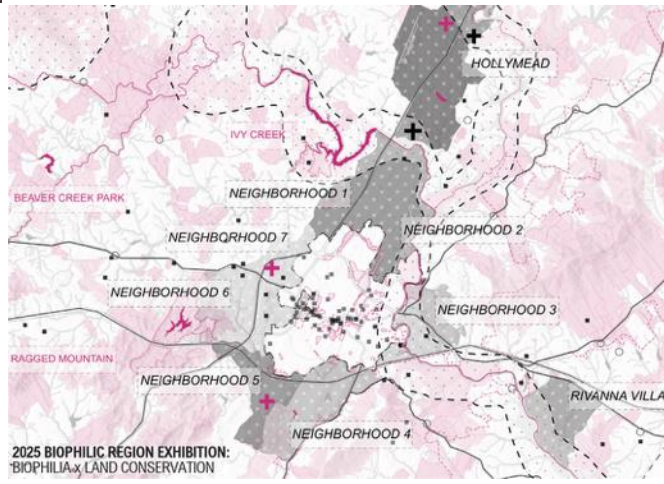
2025 BIOPHILIC REGION EXHIBITION:
BIOPHILIA x WATER MANAGEMENT



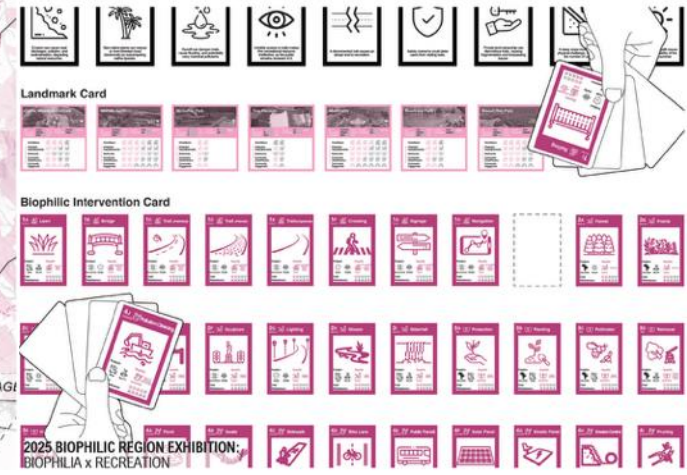
BIOPHILIA X LAND CONSERVATION



2025 BIOPHILIC REGION EXHIBITION:
BIOPHILIA x RECREATION



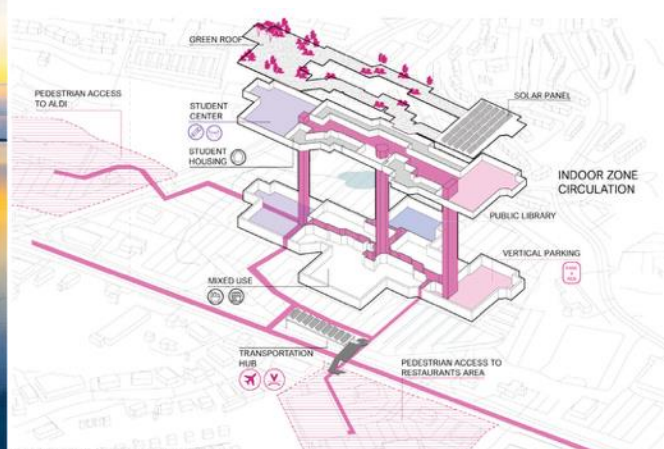
2025 BIOPHILIC REGION EXHIBITION:
BIOPHILIA x LAND CONSERVATION



2025 BIOPHILIC REGION EXHIBITION:
BIOPHILIA x RECREATION



BIOPHILIA X WILDLIFE



2025 BIOPHILIC REGION EXHIBITION:
BIOPHILIA x SUSTAINABLE DEVELOPMENT

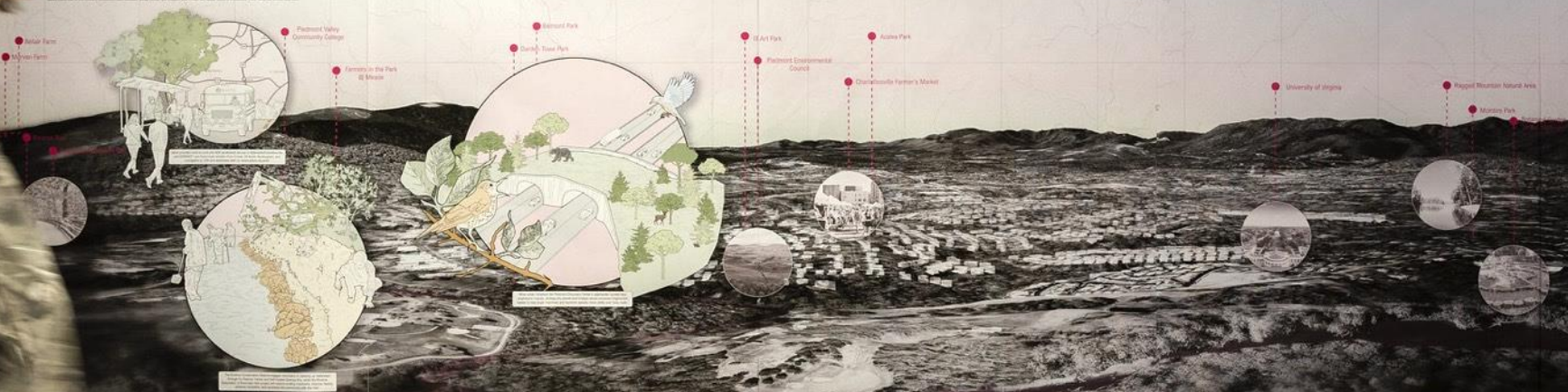


BIOPHILIA X AGRICULTURE

Samples of the postcard series, 2025; (role of nominees: seminar instructor, exhibition design and curation, production of postcard series, featuring a total of 21 motives) Design work produced in the seminar was edited by 3 SRAs that were paid by a grant in summer 2025, Photography of Our Biophilic Region: Woody Wing field

The concept of Biophilia, introduced by biologist Edward O. Wilson in 1984, describes humanity's innate affinity with nature. Wilson, on the one hand, the Biophilic Cities Network (BCN) was founded in 2012 at the University of Virginia by Professor Young Rhee to extend nature into urban life in various and equitable ways. Biophilic design is a concept that integrates nature and urban design to create a more sustainable and resilient urban environment. It is a design approach that seeks to connect people with nature in a way that is both meaningful and practical. It is a design approach that seeks to connect people with nature in a way that is both meaningful and practical.

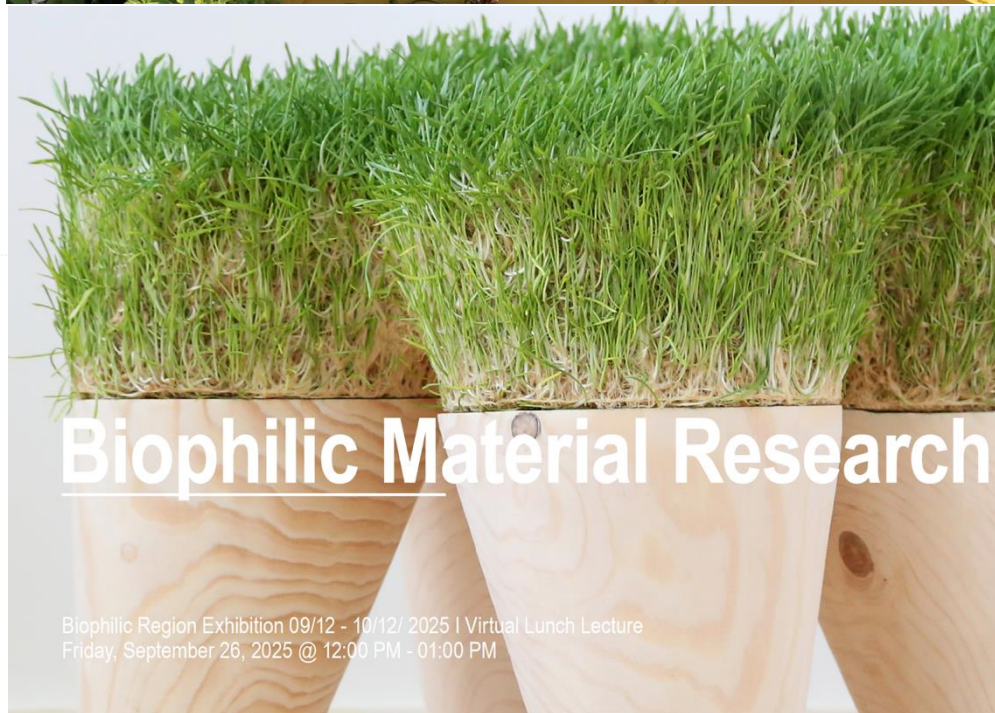
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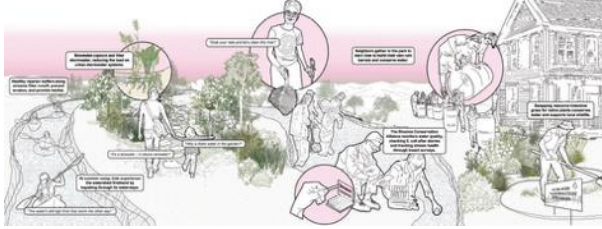
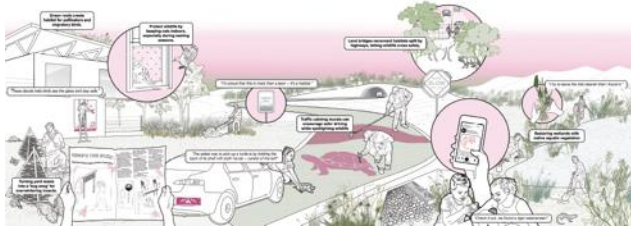
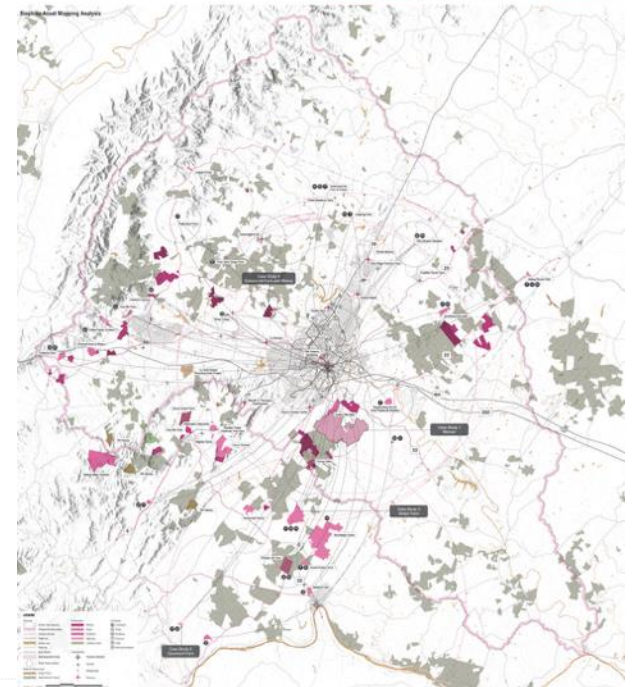
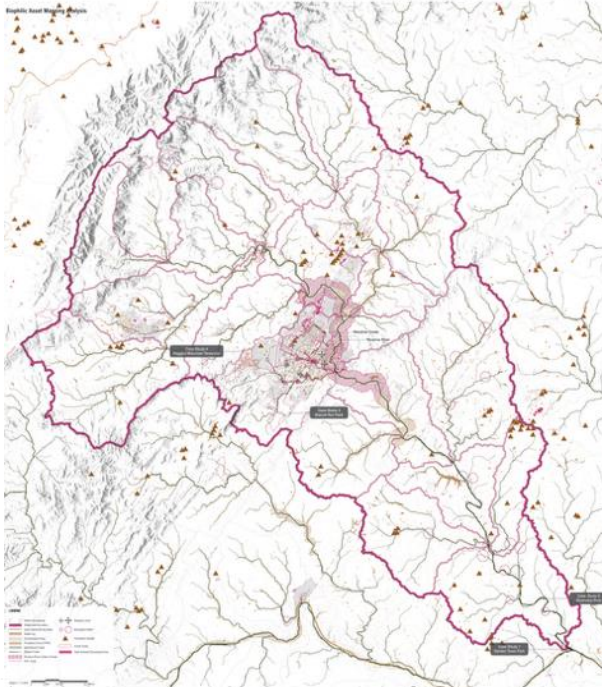
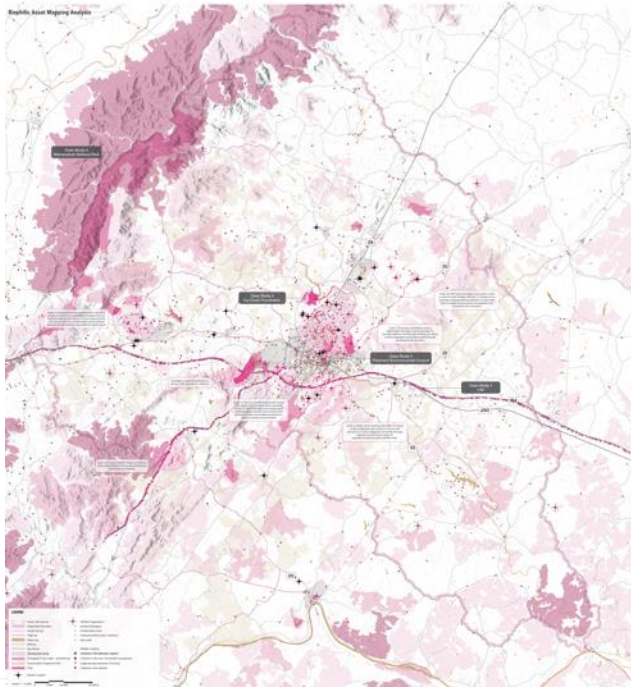
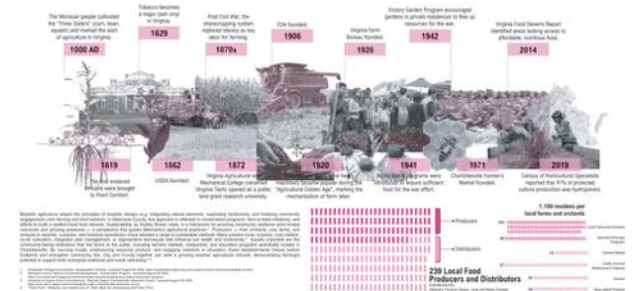
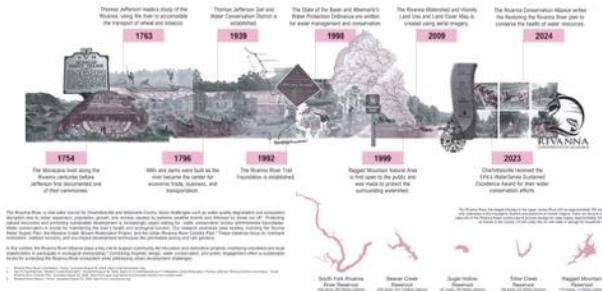
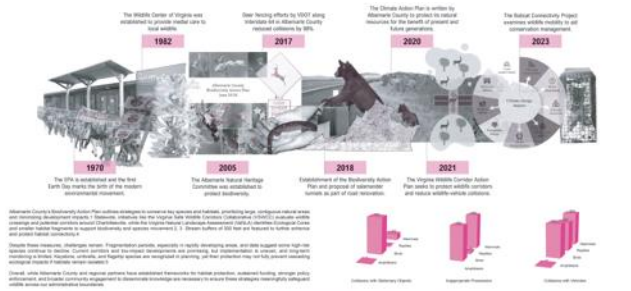
Biophilic Region Exhibition 2025, Work featured in projection: Landscape Architecture Studio Slideshow and media terminals presenting the research of planning faculty in the school addressing biophilic research from green infrastructure, heat island effects, and sustainable neighborhood development, (role of nominee: curator of exhibition focusing on multi-scalar approach to biophilic design and research), graphic of back wall conducted by 3 SRAs that were paid by a grant in summer 2025, Image Copyright: Tom Daly



Biophilic Region Exhibition 2025, (role of nominee: seminar instructor, curator of exhibition focusing on multi-scalar approach to biophilic design and research), editing of original work was conducted in summer 2025 with the help of 3 SRAs that were paid by a grant, Image Copyright: Tom Daly and Corbett Smithson



Biophilic Region Exhibition 2025, (role of nominee: seminar instructor, curator of exhibition focusing on multi-scalar approach to biophilic design and research), editing of original work was conducted in summer 2025 with the help of 3 SRAs that were paid by a grant, Image Copyright: Tom Daly and Corbett Smithson



Three Sample posters featuring the asset analysis addressing the seven criteria of a biophilic region. Each lens was presented by a timeline, an infographic, a cartography, design strategies, and annotated narrative drawings. (role of nominees: seminar instructor, curator of exhibition focusing on multi-scalar approach to biophilic design and research), the original work of this analysis was produced in the seminar and then edited for the exhibition by 3 SRAs that were paid by a grant in summer 2025



Biophilic Region Exhibition 2025, Work featured in these images: Living Column, 2025, Ehsan Baharlou, (role of nominee: curator of exhibition focusing on multi-scalar approach to biophilic design and research, organization and moderation of panel Biophilic Material Research), Image Copyright: Tom Daly and Corbett Smithson



Biophilic Region Exhibition 2025, Work featured in these images: Parklet No. 2 (Chair), 2025, Leads: Katie MacDonald, Kyle Schumann, Crinkle Cuts (Model), 2024, Leads: Katie MacDonald, Kyle Schumann, Tangential Timber (Model), 2024-2025, Leads: Katie MacDonald, Kyle Schumann, (role of nominee: curator of exhibition focusing on multi-scalar approach to biophilic design and research, organization and moderation of panel Biophilic Material Research), Image Copyright: Tom Daly and Corbett Smithson