something for someone, somewhere

design  people  places

Eleanor Lucas Birle
Columbia University GSAPP
Master of Science in Architecture
2020 - 2023
Studio:

03-22    The Echo: Deconstructing the Nonexistent Brooklyn Museum    Advanced VI    2023
23-40    Public Library/Cooling Center    Advanced V    2022
41-54    Transforming Seasonal Grounds    Advanced IV    2022
55-72    Collective Domesticity    Core III    2021
73-88    Reconstituted P.S. 64    Core II    2021
89-98    Navigable Schoolyard    Core I    2020

Electives:

99-102    Residential Curtain Wall    Tech V    2022
103-112    Twist    Transitional Geometries    2022
113-116    Work from Home    ADR II    2021
117-124    Responsive Facades    Tech III/IV    2021
125-132    Avery SPOT    The Outside In Project    2021
The *unfinished fragment* of the Brooklyn Museum is completed and de-monumentalized by spatializing interactions between the *humans, art, and nature* of *Brooklyn, New York.*
design proposal sectional collage
east-west section from theater to amphitheater
A public library branch uses biomaterials and thermal mass to mitigate rising temperatures in the heat-vulnerable community of East Flatbush, Brooklyn.
### Thermal Performance

- **Lime Plaster Coating**
  - r value = 0.4 / inch

- **Wood Frame and Sill**
  - r value = 1.25 / inch

- **Rammed Earth**
  - r value = 1.25 / inch

- **CLT Wall (1x)**
  - r value = 1.25 / inch

- **Wood Tray**
  - r value = 0.5 / inch

- **Soil**
  - r value = 0.5 / inch
  - r value = 1.7 / inch

- **Hempcrete Insulation**
  - r value = 1.7 / inch

- **CLT Flooring (2x)**
  - r value = 1.25 / inch

- **Stone Pavers**

### Thermal Mass

- **Summer - High Sun Angle**
- **Winter - Low Sun Angle**
- **Year-Round - Thermal Mass**

### Cross Ventilation

- **Summer - Evaporative Cooling**

### Building Details

- **Type Roof / Ceiling Detail**
- **Roof to Rammed Earth Perimeter Wall**
- **Typ. Roof / Ceiling Detail**

### Facilities

- **Entry + Book Drop**
- **Meeting Support**
- **Study + Reading**
- **Fiction + Nonfiction Stacks**
- **Youth + Teen Stacks**
- **Courtyard + Outdoor Classroom**
- **Community Meeting Room**
- **Library Community Study**
first floor plan
study models

research, passive strategies
north-south section through courtyard

- Lime Plaster Coating
- Wood Frame and Sill
- Rammed Earth
  - r value = .4 / inch
  - r value = 1.25 / inch
  - r value = 1.25 / inch
- CLT Wall (1x)
  - r value = 1.25 / inch
- CLT Wall (1x)
  - r value = 1.25 / inch
- Wood Tray
  - r value = .5 / inch
- Soil
  - r value = .5 / inch
  - r value = 1.7 / inch
- Hempcrete Insulation
  - r value = 1.7 / inch
- CLT Flooring (2x)
  - r value = 1.25 / inch
- CLT Flooring (2x)
- Stone Pavers
Underused summer campgrounds are transformed into a year-round *productive landscape and prayer grounds* for *interfaith neighbors* in *Northwest New York*.
research, campground cycles

research, religious charity networks
seasonal taxonomies

program proposal
seasonal site plans

Spring

Winter

Autumn

proposal and harvesting cycles
Multi-generational housing and community space designed to facilitate collective domesticity in the South Bronx, NY.
Bronx Documentary Center

east-west section through bronx documentary center
1 Bedroom Apartment
515 sqft

Senior Couple

ADA Apartment
880 sqft

Single Senior + Aid

Adult Couple + Two Kids + Pet

2 Bedroom Apartment
885 sqft

Four Roommates

3 Bedroom Apartment
885 sqft

Four Roommates
perspective, social stair

perspective, street
An abandoned historic masonry building dissolves into a public elementary school and community campus in the East Village, NY.
P.S. 64 Elementary School

site plan

through tomkins square park
community meeting, bicycle repair, black box, and dance studio

section through p.s.64 and gymnasium
Multiple windows are broken and have not been boarded up. 
June 2006

A portion of the fence on 9th street fell and hit my dog around 4am today. 
August 2008

The 9th street sidewalk outside the abandoned school is very dirty. 
September 2008

Vandalism and graffiti has begun again. 
October 2015

Commercial signs are being posted on the construction fencing. 
September 2008

The scaffolding has been here for four years with no work done. Now it is becoming a homeless encampment. 
June 2008

Snow and ice on the sidewalk under the scaffolding have not been removed. 
February 2011

On top of the building cement blocks are not connected and look like they will fall. 
November 2020

The underside lighting system on the sidewalk shed is malfunctioning, so the lights are not turned on. 
November 2015
least fungible

primary beams + columns

secondary beams + metal decking

ground slab

load-bearing masonry walls

most fungible
A *subterranean playscape* invites *public schoolchildren* to explore the steep terrain in *Morningside Park, NY.*
A typical four-way residential *curtain wall* intersection is explored through methods of *drawing* and physical *model making*.

Residential Curtain Wall
Tech V, Spring 2022
Professor Nicole Dosso
in collaboration with Paige Hasket, Joachym Joab, and Yerin Won
Rebar installed in place.

Stone Sill on 1/2" Marine Plywood

Shaft Wall, 3/4" Base Board, 3/4" thick Cement Board, 1 Hour Rated Components: (2) Layers of 5/8"

Interior finishes applied.

Slab recess filled with concrete.

Components: Vision Curtain Wall

Units, Vertical Air Seal Gasket, Components: WS-G02 Boot Joint

Lower unitized curtain walls.

Boot gasket installed on top of Spandrel Curtain Wall Unit, Gasket, Exterior Seal Gasket, Components: Vertical Air Seal units is sealed with gaskets.

Second lower unitized curtain wall

Anti-lifting clips and screws. Attached to anchor plate with washer.

Extruded aluminum anchor

Nelson Stud, Bolt

1'-0" x 2" recess.

Steel embeded angle. Assembly Bolt and Nelson stud welded to assembly diagram

Group A1: Eleanor Birle, Joachym Joab, Yerin Won, Paige Haskett

RESIDENTIAL FOUR-WAY CURTAIN WALL

Unitized Curtain Wall Assembly

Isometric Chunk Model: Back

Isometric Chunk Model: Front

A. Anchor Hook
B. Anchor Assembly
C. Vertical Mullion
D. Horizontal Mullion
E. Insulbar
F. Insulbar
G. Insulbar
H. Insulbar
I. Clear Heat
J. Clear Heat
K. Clear Fully Tempered Heat Soaked Glass
L. Nuetral/Platin Glass
M. Heat Soaked Glass
N. Strengthened Ipasol
Tiles constructed of cast concrete and wax become tools for exploring multi-scalar spatial relationships.
Twist

Eleanor Birke & Kim Langat
Transitional Geometries
Fall 2022
Analysis of the simultaneous nature of *shared virtual* and *individual physical* spaces.

Work from Home
Architecture Drawing and Representation II, Spring 2021
Professor Violet Whitney
in collaboration with Kelly Lee
A custom stone and glass facade for a renovated public school and daycare in the East Village, New York

Responsive Facades
Tech III/IV, Fall 2021
Professor Tom Reiner, Gaby Brainard, and Berardo Matalucci
in collaboration with Megan Dang, Anya Ray, Sam Velasquez, and Phoenix Yang
exterior perspective, bridge
daylighting studies, bridge
A design-build pavilion activates a public plaza and facilitates safe outdoor gathering for students at Columbia University.

Avery Spot
The Outside in Project, Spring 2021
Professors Laurie Hawkinson and Galia Solomonoff
20 student design and construction team
photographs by Josh Jordan, Sirin Samman, and me
construction photos

platform design iterations