Work that I couldn't have done without my friends I came here with.
Pilot Flying J is one of the marquee travel center companies in the US. Their client base is not only industrial logistics partners, but also typical civilian travel creating an beautiful opportunity to design around these different flows. Pairing this with the environmental regulations of today and the immediate future, adding electric vehicles into the mix only creates a richer opportunity to design for the immediate change in the vehicle landscape. This leads us to believe the temporal nature of travel centers and fueling stations have a longer use period per stop, meaning opportunities to beyond just refueling exist and we began to study those and learn what works best and why should Pilot Flying J have it.

Pilot Flying J has 786 stops around the country with different identities because it’s never been truly updated and upgraded following different mergers. The question we asked ourselves was, how can we create an updated unified brand that takes into account the technological and sustainable changes that meet the needs of the Pilot Flying J users and employees through a mass and easily deployable product?

PILOT FLYING J BRANDING STUDY

Battle Mountain, Nevada.

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Studio Critic: Michael Bell
Partner: Joachym Joab
Spring 2023 - ADV 6
Diagrams: Six Pilot Flying J’s across Nevada being analyzed.

Map: The 9 total Pilot Flying J’s in Nevada. Site in red.
Floor plans: Different modules and the respective floor plans to match.

Diagram: Different program masses and types.

Pilot Flying J Brand Study Advanced Studio VI
Floorplan: Grocery Store module

Rendering: Entry into the Pilot Flying J between the grocery module and welcome center.
Section: Cut through the Welcome Center module.
Floorplan: Pilot Flying J’s Building Plan at Battle Mountain.

Rendering: The vehicular approach to the new Pilot Flying J.
Building Section: Cutting Through Welcome Center and Grocery Modules.
Rendering: Man jogging into the Pilot Flying J from park connection.

Site Plan: The Synthesis of Building Form and Site - designed for efficiency.
Building Section - Cutting Through Restaurant, Park, and Playground Modules.
33 Thomas, formerly known as the AT&T Long Lines Building has a very prominent place in the history of high-rises in New York City. Along with it’s architectural successes of being a monolithic, iconic, and extremely functional architecture, it’s equally scrutinized. The rumors that spiral around this architecture are just as impressive.

Through research about John Carl Warnecke and his drawings, we’ve come to learn about who funded the project, and what it’s intentions were. An atomic bomb proof, windowless high-rise, that’s has incredibly low occupancy, and use in the twenty-first century. What can we do with it?

Our interventions looks for solutions to keeping the iconic elements of 33 Thomas there, and integrating housing and other mixed use programs into the podium and the tower.

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Partner: Min-Soo Jean

33 THOMAS
Tribeca, New York City, New York.

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Studio Critic: Wonne Ickx
Partner: Min-Soo Jean
Diagram: Mapping of Tribeca

Diagram: Material Indexing

Diagram: Rendering: The Atrium condition created via the cut.

Diagram: Steel Volume Diagram
Diagram: Terracotta Mass Diagram
Diagram: Precast Concrete Panel Diagram
Diagram: CMU Volume Diagram
Diagram: Granite Slab Height Diagram
Diagram: Granite Slab Diagram
Diagram: Steel Slab Diagram
Diagram: Glass Slab Diagram

33 Thomas
Rendering: Looking across Atrium into the racquetball court.

Diagram: Simple form explanation

Existing

Cut

Connect

Advanced Studio V
Floor Plan: Top level of the podium before it transitions to residential.

Floor Plan: Vent level of the Podium.
Rendering - Canadian users' front yard.

Diagram: The program distribution on the residential level.
Rendering: The shared neighborhood park.

Rendering: Theatre condition in the basement of the podium.
Chunk Axon: Showing the transition from the lower podium to the upper Residential levels.

Rendering: Kids playing by the pool on the vent level of the podium.
Rendering: Inside a residence at 33 Thomas.
Mod:Liv is a project that looked to redefine how project delivery methods and partnerships in the process could enable modular homes to have more meaning and deliver better housing at a lower cost.

Utilizing a joint venture with Project Manager, and Manufacturing we were able to lower project vacancy and hard costs of assembly. Designing a modular project meant that we could do a lot of the construction offsite. The modules were designed so they would fit nicely on a twin twenty-seven foot trailer, bringing two modules to the site at a time. With the Project Manager and our design features, we aimed to enable flexibility in the modules and how they could be staged. This meant that the modules were able to flex into more or less bedrooms per need of the user, therefore they would never leave the development because of availability. They would only move down the hall or next door.

Balancing modularity and repetitiveness with operation pieces and site specific architecture really begins to give Modular Housing a new meaning and added afford-ability. This is Mod Liv.

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Brandon, New York City, New York.

Studio Critic: Michael Caton
Partner: Samuel Bager
Fall 2021 - Core 3
Floor Plan: Single Module of a typical Studio apartment.

Axon: Studio Apartment being flexed into a two bedroom configuration.

Modular Living
Diagram: The flow in which a user would interact with a project manager to find the best solution to their dynamic family needs.

Module: Living

Unit Types:
- Studio (1 Module)
- 1 Bedroom (2 Modules)
- 2 Bedroom (3 Modules)

Unit Configurations:
- Phase 1 - 2BR (1 Module)
- Phase 2 - 1BR extended living (3 Modules)

Users
- Family
- Bachelor
- Property Manager

Core Architecture Studio III

Exploded Axon: The different components needed to assemble a singular unit.
Core Architecture Studio III

Model Photography: View from inside of the living space of the module.

Mod(ular):Liv(ing)

Model Photography: How two prefabricated modules of a one bedroom configuration begin to aggregate.
Floor Plan: Typical upper level floor plan showing the different units.

Diagram: Addressing site needs versus maximum capacity of the site for our modules.
Rendering: The shared outdoor space created when removing a singular module.

Core Architecture Studio III

Diagram: Different unit types within the same overall module dimensions.

Mod(ular):Liv(ing)
Axon Diagrams: Form articulation diagrams.

Pedestrian Circulation

Vertical Circulation

Primary Street Axis

Some Core

Building Through Parks

Some space

Model Photography: Model on site.
Rendering: A living space of a one bedroom module facing inward to the courtyard.

Core Architecture Studio III

Modular Living
Two part drawing showing the repetitive structural module and the site specific architecture below.
Building Scale Explored Axon. Showing the major components of the three separate modules and how they relate to each other on the site.
Rendering: Path through the tie at night.
Being placed in a site removed for the urban condition left us in a position to generate a philosophy about nature and context, and what it means to design a center focused about it. Monuments To Nature aims to distill the elements, and their sensory experiences.

There are three monuments, the tower which focuses on air, utilizing vision. Here you can bird watch in the environment of the bird, at the tree canopy level. The second monument is the land element. Here you have your surroundings blocked off so you’re focused only on what is inside, and what you’re allowed to see outside. It’s designed around an ancient rock, which you can only see, not touch from above. There are opportunities to look out, but you can only see the ground in front of your feet, forcing you to experience the dynamism of the simple things in front of you. The third and final monument is the water monument. Here the water flows onto it and you can interact with the water of the Hudson River upstream. There is also a water wall in which it flows over and cascades down into the lower level.

The monuments are permanent and meant to last forever and eventually be overgrown by nature, whilst the only “architecture” on the site is made from Timber and Polycarbonate. These materials are more temporary and will eventually wear away leaving a slab. The symbolic geometries of the concrete left over will encapsulate the signification of the monuments and their relationships to one another.

MONUMENTS TO NATURE

Annandale-on-Hudson, New York.

Studio Critic: Robert Marino
Partner: Samuel Bager
Spring 2022 - ADV 4
Advanced Studio IV: Mapping: Annandale-on-Hudson in focus of our site.

Monuments to Nature: Northeast regional map highlighting the site.
Mapping: Where the four structures fall on the site.

Section: Air Monument

Monuments to Nature
Rendering: Bird watching from Air Monument.

Monuments to Nature
Plan: Land Monument Plan

Rendering: Viewing the Land Monument from the outside.
Rendering: View of the ancient stone monument from above.

Section: Land Monument Section.
Plan: The Water Monument.

Rendering: Andy Mather.

Monuments to Nature
Rendering: Water washing up onto the Water Monument.

Section: How people can occupy and interact with the Water Monument.
Model Photography: Air Monument.

Monuments to Nature

Advanced Studio IV
Diagram: All the monuments together in tandem.
The project fosters an environment of sharing and connectivity through play and education. Children come from different backgrounds and the ability to share is very important to their growth and development. Play is free, genuine, and important keeping them alert.

Creating space in which they aren’t inhibited by the lack of open space in the city and creating opportunities within the program is key. The geometries of space balance the adjacency and circulation experience of the occupants leading them to destinations where they are able to break the boundaries of what is a classroom and interact freely and share with one another. In the Neighborhood of the East Village, PS 64 has a prominent history and through interconnectedness, returns to its original glory with additional services that are needed in the future classroom.
Diagram: The interventions with the existing form.

- South Facade Removal
- Circulatory Experience
- Mid Section Floor Plate Removal
- Split & South facade addition
- South Facade Removal
- Circulatory Experience
- Blinds / Low glare Glazing
- Ring Experience

Axon: The proposed interventions
Diagram: Connectivity and integration via touch.

Material Experiments: Concrete Castings (porosity).

Interconnectivity
Rendering: Interconnectivity outside the concrete mass.

Floor Plan: Typical Educational level.
Floor Plan: How you'd circulate through the area of play.

Rendering: How the concrete mass creates space for play.
Core Architecture Studio II

Rendering: Areas of calmness in tension between circulation.
Interconnectivity
Astor Place Ambiance proposes an elevated architecture that acts as a viewing platform for the community. Tying into The Public Theater’s repertoire of venues, this is a completely outdoor venue that would operate in the evenings with specific musicians or performers scheduled. On other days the structure allows for spaces above and below for moments of community and gathering. The platform provides a variety of seating focused around Astor Place as a centripetal stage, along with a multiplicity of spaces for different people to congregate. Utilizing vendors and the local restaurants, the platform also allows events to take place on the top, including art installations, or food events.

The form aims to have very little impact and contact on the surface level and the existing context. Astor Place Ambiance hopes to avoid obstructing existing pedestrian flows, vehicular traffic flows, and experience within the square, but amplify the possibilities and experiences of the previous condition. On a similar note, the platform aims to utilize the windows of the existing context as a means of viewing, expanding the ideas of spectator-ship to include viewers from work or home for example.

Astor Place, New York City, New York.

Amina Blacksher
Studio Critic, Astor Place Ambiance

Astor Place, New York City, New York.

Amina Blacksher
Studio Critic, Astor Place Ambiance

Astor Place Ambiance

Astor Place, New York City, New York.
Section: Slicing through the elevated viewing platform.

Floor Plan: Viewing Platform section.

Plan Oblique: The elevated structure above Astor Plaza.

Plan: The elevated viewing platform over Astor Plaza.

Astor Place Ambiance

Floor Plan: Viewing Platform section.

Plan Oblique: The elevated structure above Astor Plaza.

Plan: The elevated viewing platform over Astor Plaza.
Positive Negative is a project focused on the making of a repetitive geometry in the class of Translational Geometries. In this class we took a 2D idea and turned it into a repetitive tile that can fit together or relate in multiple ways via one form. Here I designed a detailed form with many different surface details to create formal relationships but also textural ones that can be appreciated from close and far visually but tacitly.

Studio Critic: Joshua Jordan
Fall 2022 - Transitional Geometries
Transitional Geometries

Photograph: Closeup of the inverting surface patterns.

Positive Negative

Photo Collage: Giving it scale.
Miscellaneous visualizations that have been produced from year one to year three at Columbia GSAPP. Visual story-telling perspective.

VARIOUS VISUALS

Miscellaneous visualizations that have been produced from year one to year three at Columbia GSAPP. Visual story-telling perspective.
Animation: Movement of Knowledge.

Rendering: The power of the light.
The Journey

Team: Samuel Bugge & Jonathan Juhl

Rendering: The approach to the tower.

The Journey

Rendering: Inside the tower.

Techniques of the Unreal - Philipp Crupi (S-22)
GSAPP Worm

The Outside Project - Laurie Hawkinson & Galia Solomonoff (S-23)