

ARCHITECTURE PORTFOLIO

AARON SEDLAK

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RIGHT: Superimposed drawing of the section, perspective, and site plan for the Uffizi in Florence, Italy.



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RIVERBEND TRAIN STATION

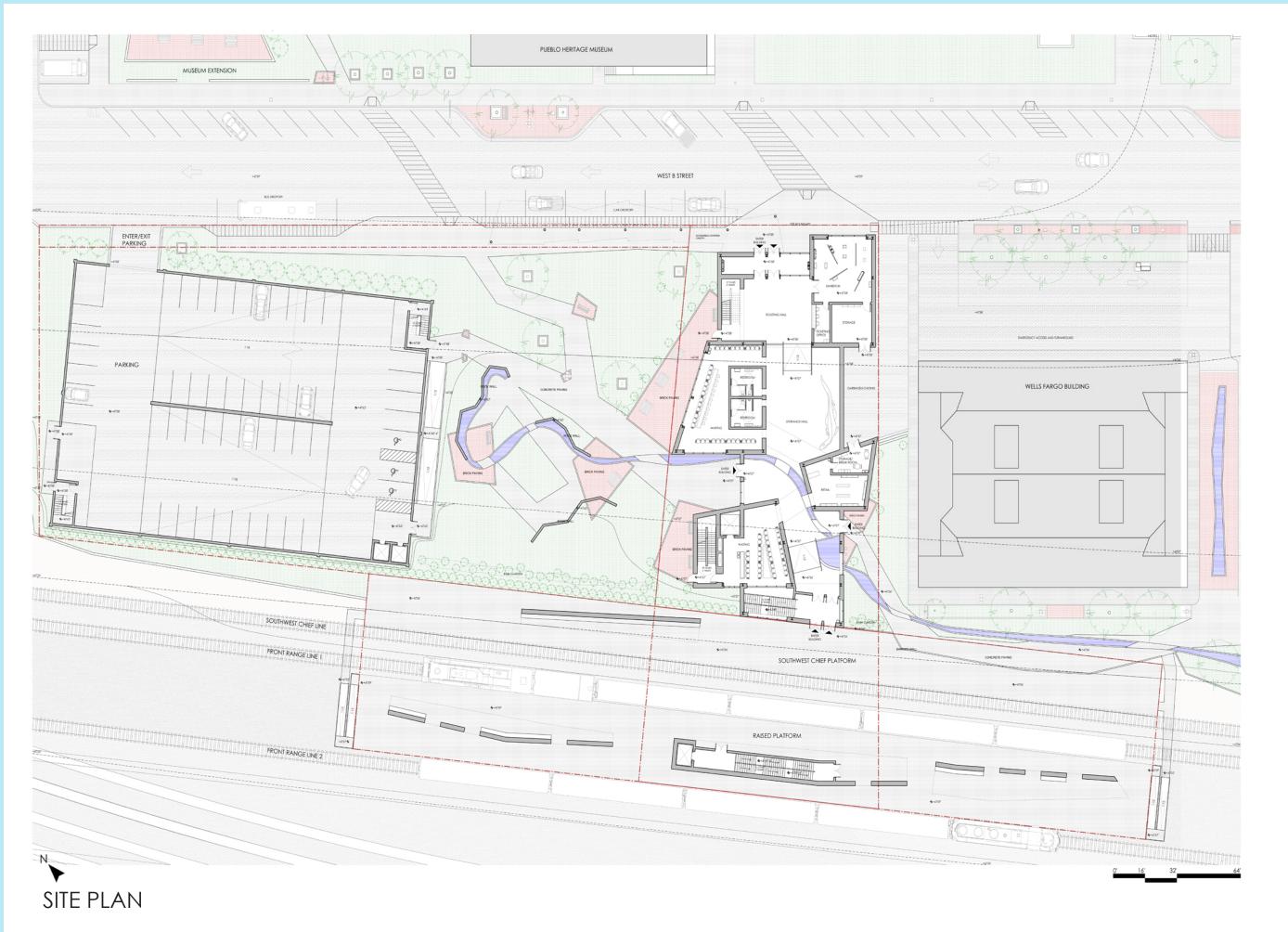
TYPE: Transporation Facility, Exhibition, Cafe Bar, Retail

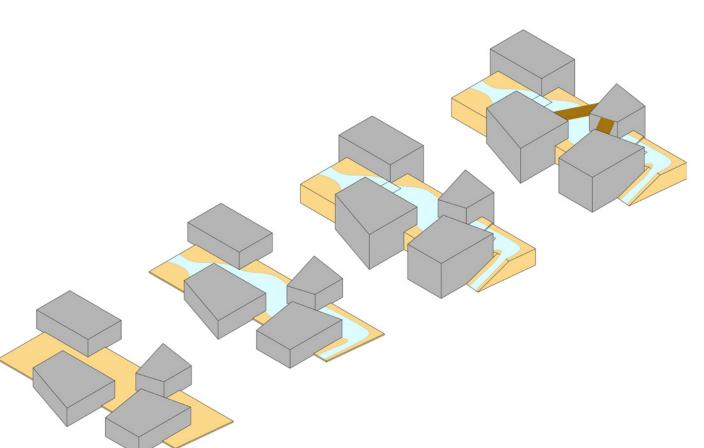
LOCATION: Pueblo, Colorado

The Great Pueblo Flood of 1921 brought disaster upon the people of Pueblo, Colorado, where the economic effects can still be felt today. Inadequare water retention strategies failed to withold the rising levels of the Arkansas River and Fountain Creek, which meet within the city limits. Riverbend Train Station serves as a memorial to the tragedy and a reminder of a river's power, just as capable of shaping its landscape as its landscape is of shaping it.

Riverbend Train Station embodies a river carving across and into its landscape. The river curves between four "rocks", each of which holds its own spaces, positioned around the building, while terraced levels are reminiscent of a river carving into the landscape. Two rocks contain waiting spaces, one holds retail and "On the Rocks" Bar and Coffee, and one holds exhibtion, storage/mechanical, and office space. A stream runs across the site and through the building, providing evaporative cooling and representing the Fountain Creek meeting with the Arkansas River. A gray brick veneer on the "rocks" of the building complements adjacent brick structures, while maintaining a unique appearance. A raised platform connects to the station via a basement, where mechanical and additional waiting is also located.

RIGHT: View in the entrance hall looking up into the bridges.





ABOVE: A stream cuts across the site before cutting across the building, and continuing along the tracks.

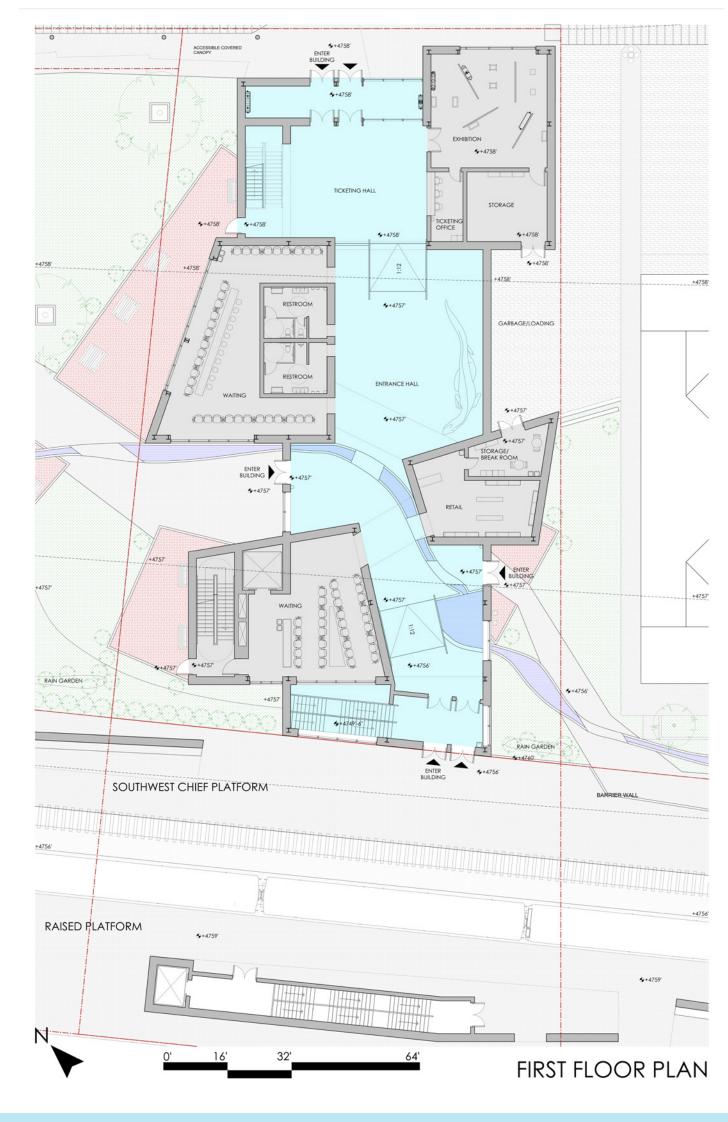
LEFT: Diagram of a landscape over time:

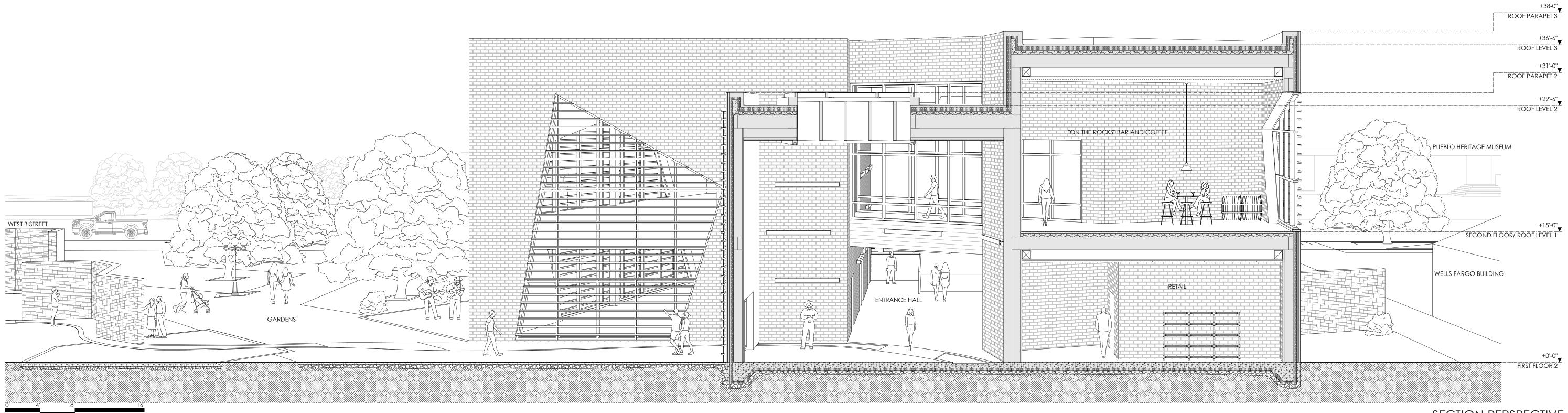
- 1. Rocks sit in a landscape
- 2. A river carves across the landscape
- 3. A rive carves into the landscape
- 4. Humans build bridges to cross river



RIGHT: The first floor's entrance hall flows between rock cores of the building.

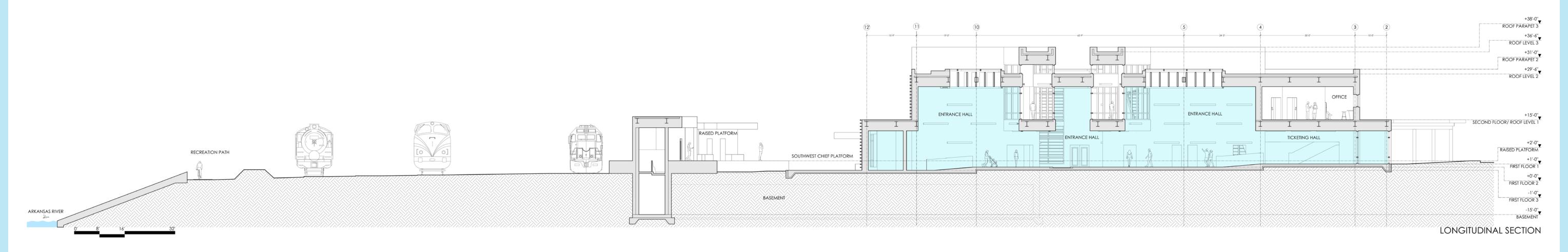
LEFT: The second floor consists of public spaces connected by bridges over the entrance hall.





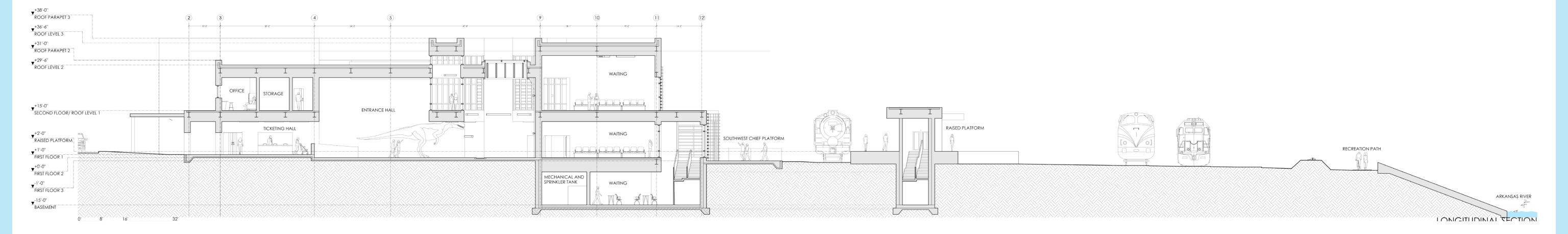
ABOVE: Section perspective cutting across public spaces and designed site.

SECTION PERSPECTIVE



ABOVE: Section facing west. The compress and release of ceiling heights is illustrative of a river with changing depths.

BELOW: Section facing east. The drawing extends to the Arkansas River to show the relation between the two.

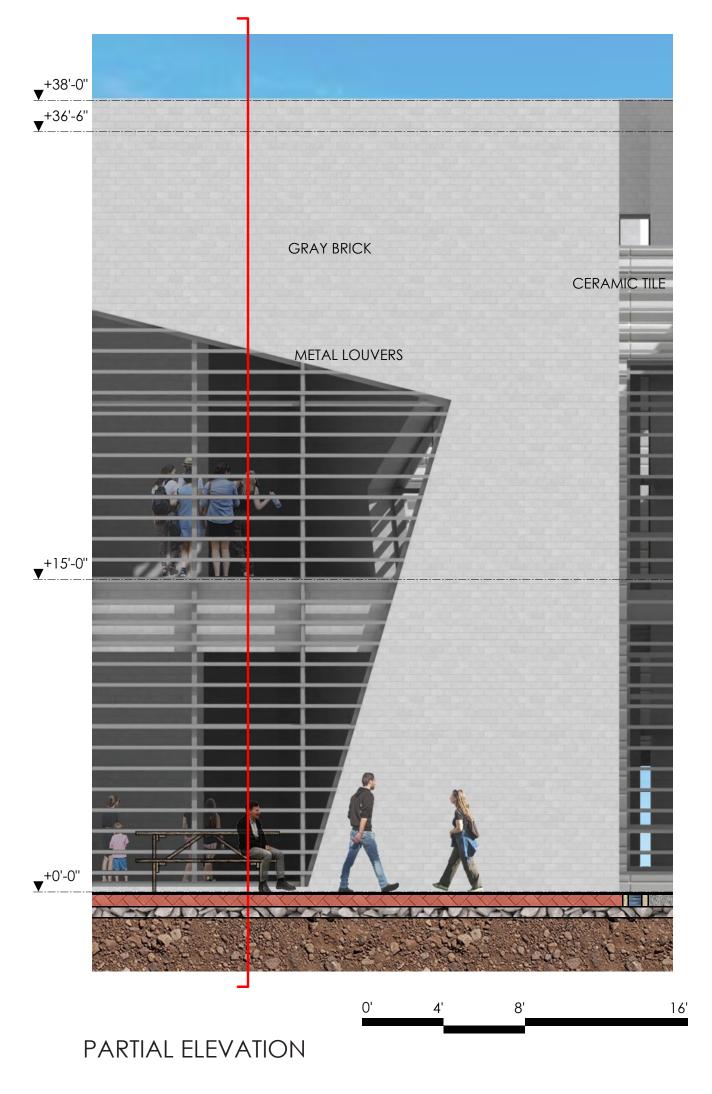






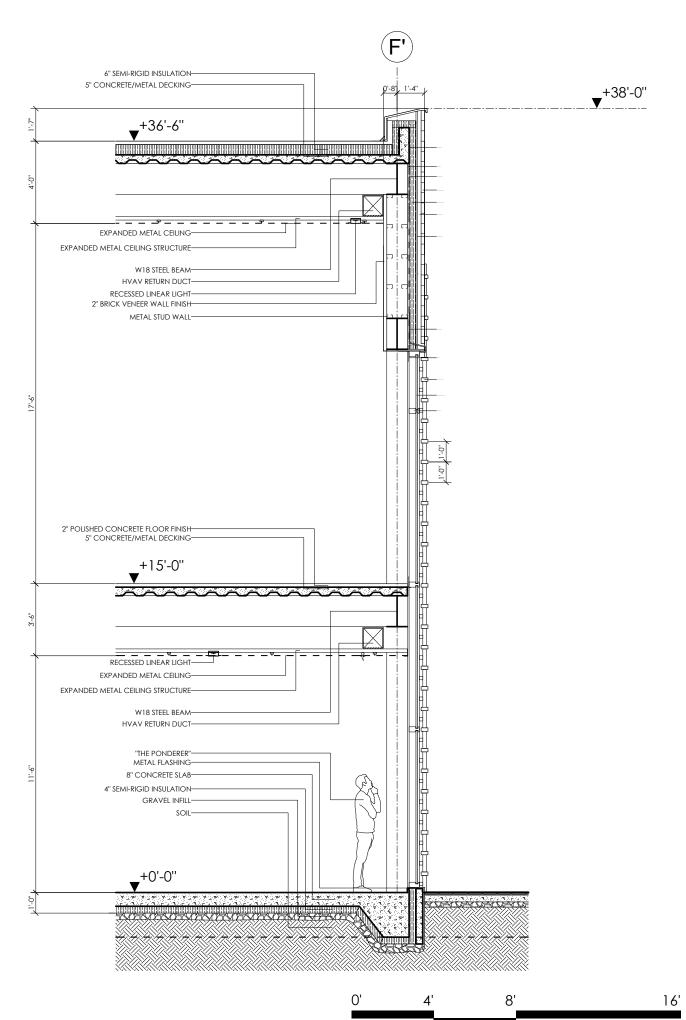
ABOVE: View of "On the Rocks" Bar and Coffee shows the lighting effects..

LEFT: View across the entrance hall from the track side.

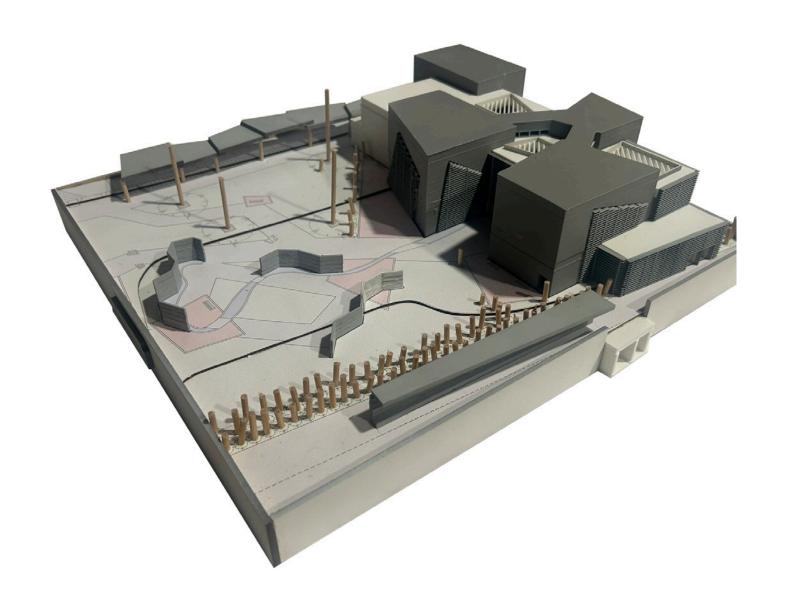


RIGHT: Detail cutting through partial elevation facade showing wall and roof buildup.

LEFT: Partial elevation on west facade. Metal louvers over windows help continue the illusion of solid rock core.



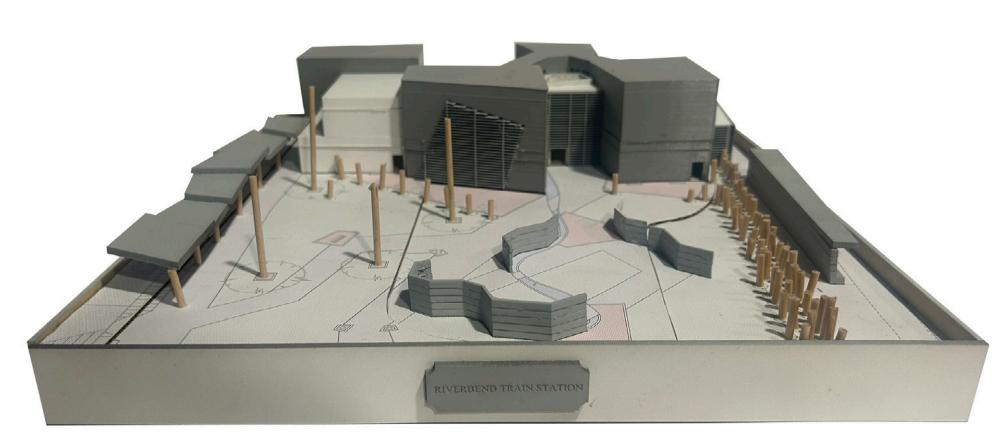
FACADE DETAIL



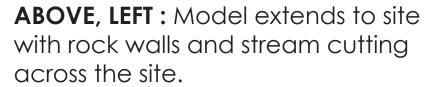




SITE MODEL - ABOVE



SITE MODEL - WEST ELEVATION



ABOVE: Plan view of model shows the metal louvers of the skylight.

BELOW, LEFT: Gray represents rock cores, while white represents ceramic tile.



SECTION MODEL - LIGHTING EFFECTS

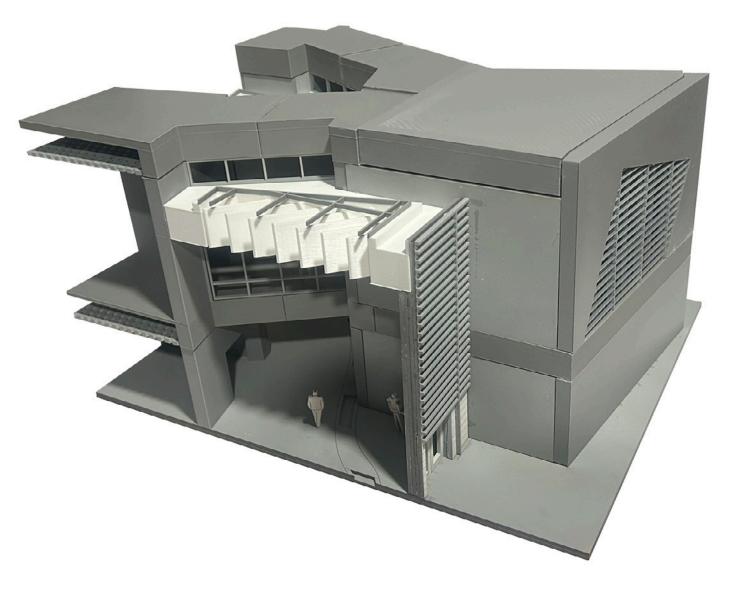
ABOVE: A view walking through the entrance hall beneath bridges connecting the rocks.

ABOVE, RIGHT: Model cuts through rock spaces and sky lights to show parts of buildup.

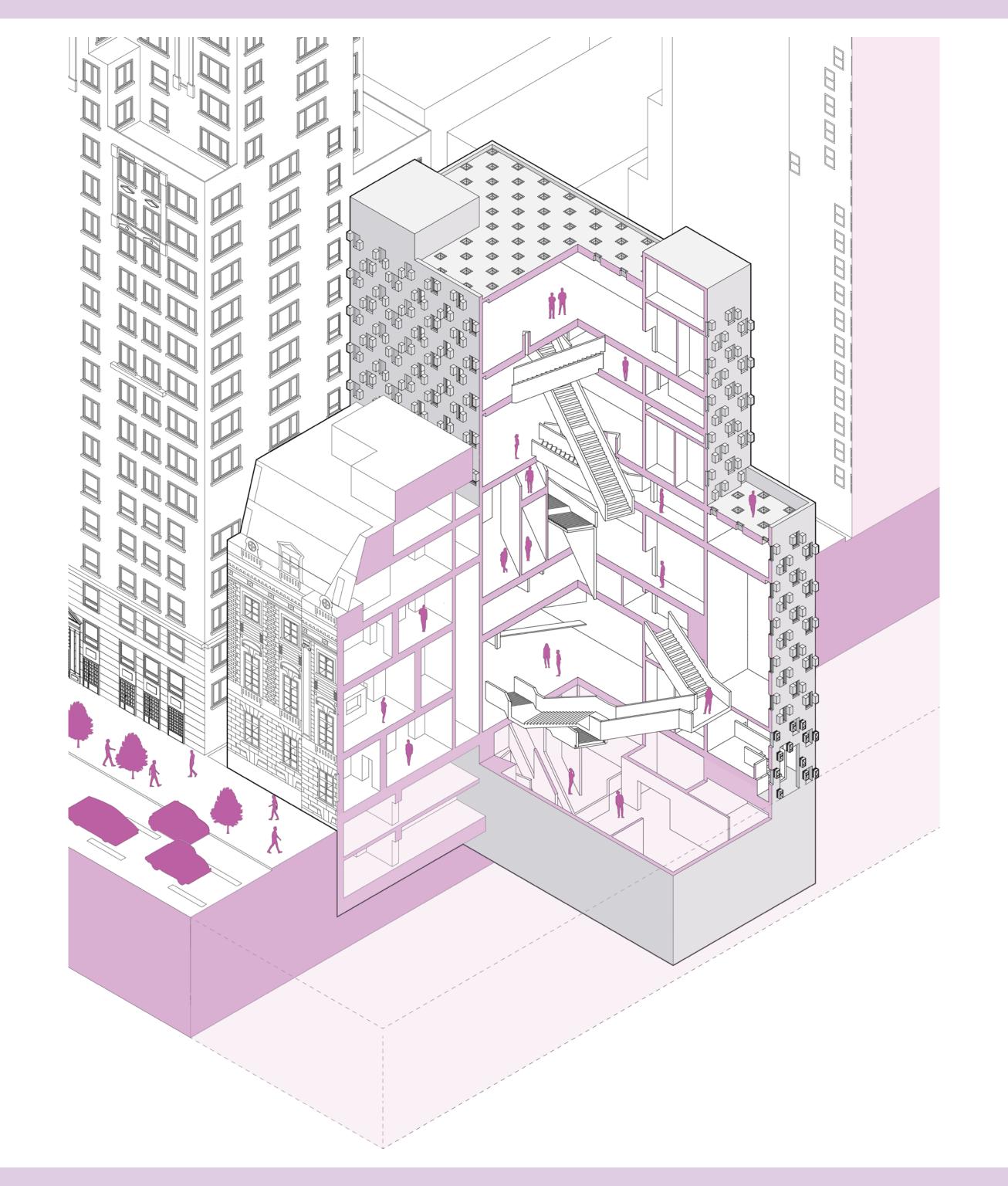
BELOW, RIGHT: Part of the east facade shows facade materiality.



SECTION MODEL - CUT-THROUGH ROCKS



SECTION MODEL - FACADE AND CUT-THROUGH SKYLIGHT



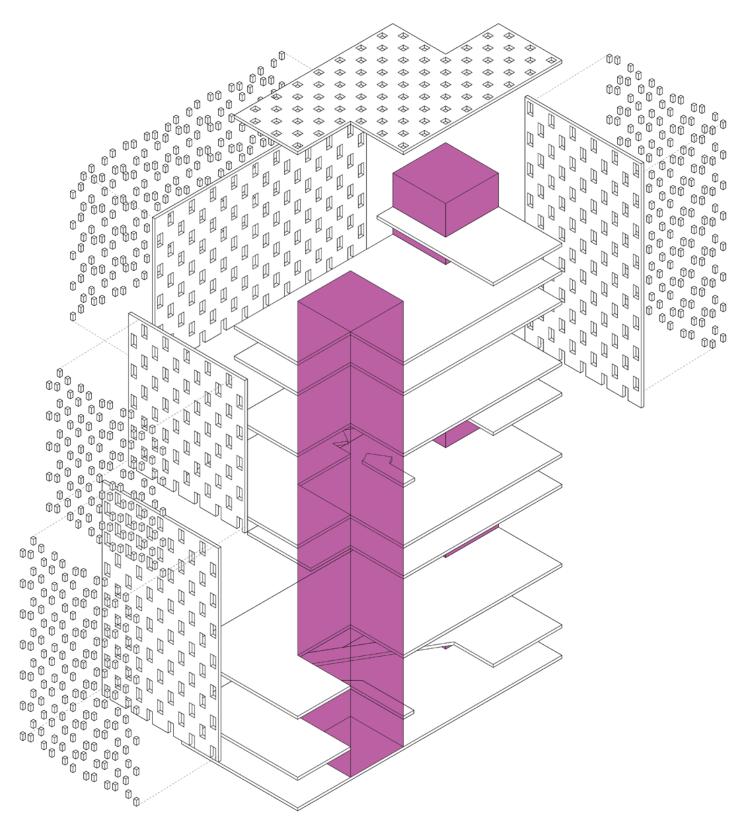
MONUMENTALLY DIMINISHING

TYPE: Exhibtion, Dining, Assembly Hall LOCATION: New York, New York

The program concentrated on designing an extension to the Neue Galerie in New York City. Featured spaces include galleries, indoor and outdoor event spaces, storage, and workshops.

This NCMA-honored design focused around two structural cores running through the entire building. Carved into the cores are gallery and circulation spaces. The facade screen takes inspiration from museum artifacts adapted to connect with the urban setting. The window placement allows the building to change the human scale and appear more monumental. Designed blocks extruded from the facade create shading effects from the sunlight. Feature staircases connect each floor, influencing floor circulation and paving patterns. A purple color scheme was influenced by artifacts and associates its history with this symbol of power and grandness.

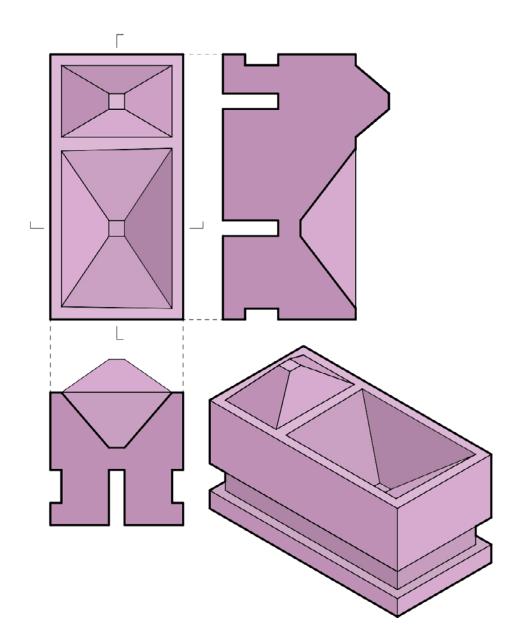
LEFT: An exploded isometric of the Neue Galerie with feature staircase.



LEFT: The cores run through each floor, while the screen is pulled away from the interior. The extruded blocks, with a pattern based on artifacts and a sine/cosine wave, are pulled off the screen.

PARTI DIAGRAM

RIGHT: Design block playing with light and shadows placed among extruded blocks on facade.



BLOCK DESIGN DIAGRAMS

LEFT: Longitu the museum from the win

LONGITUDINAL SECTION

RIGHT: Section runs through the Neue Galerie and designed extension. Lighting effects from the windows are shown.

LEFT: Longitudinal section runs through the museum extension. Lighting effects from the windows are shown.



TRANSVERSE SECTION



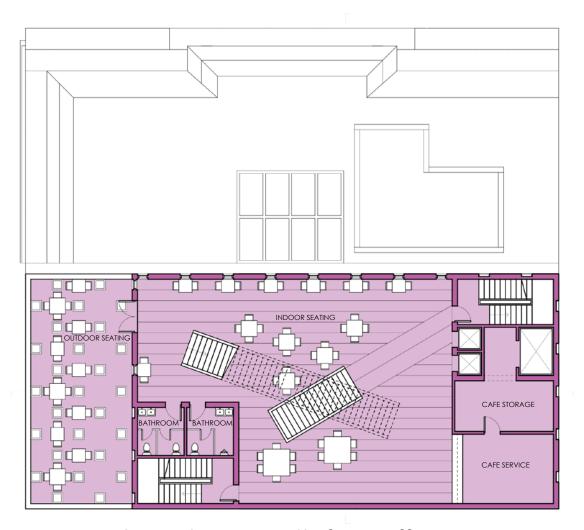
ABOVE: The tenth floor features a mezzanine over the ballroom space.



ABOVE: The ninth floor acts as an event space for large gatherings and supporting spaces.



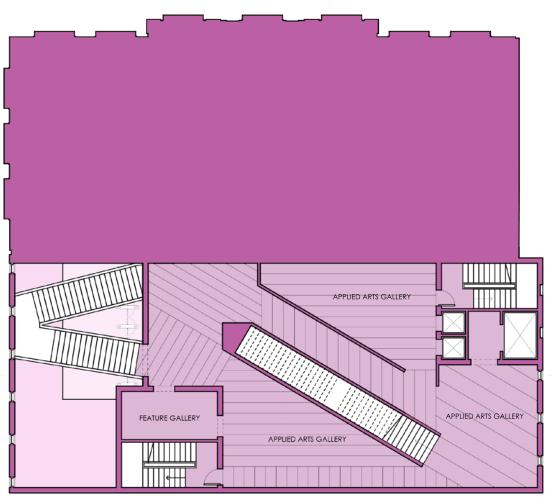
ABOVE: The eighth floor has multiple spees for events. An outdoor space can be used in warmer months.



ABOVE: The seventh floor offers a cafe for museum patrons with indoor and outdoor seating.



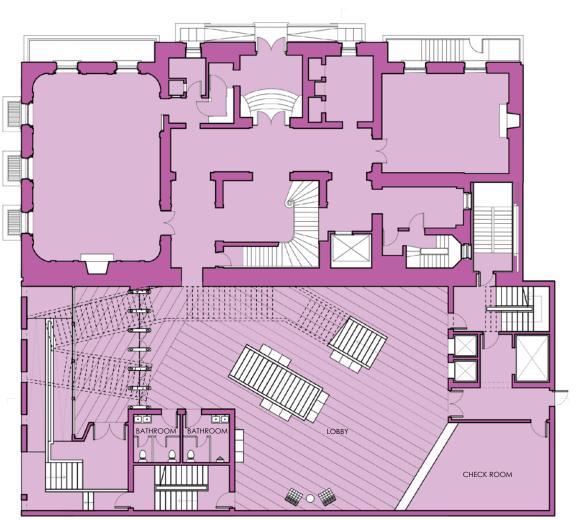
ABOVE: The sixth floor is the upper level of the applied arts gallery.



ABOVE: The fifth floor houses applied arts artifacts.



ABOVE: The fourth floor is workshop and storage space.



ABOVE: The third floor is at ground level and holds supporting spaces for lobby.



ABOVE: The second floor features fine arts pieces from Germany.



ABOVE: The first floor features fine arts pieces from Austria. *Portrait of Adele Bloch-Bauer 1* (1907) can be found in a featured space.

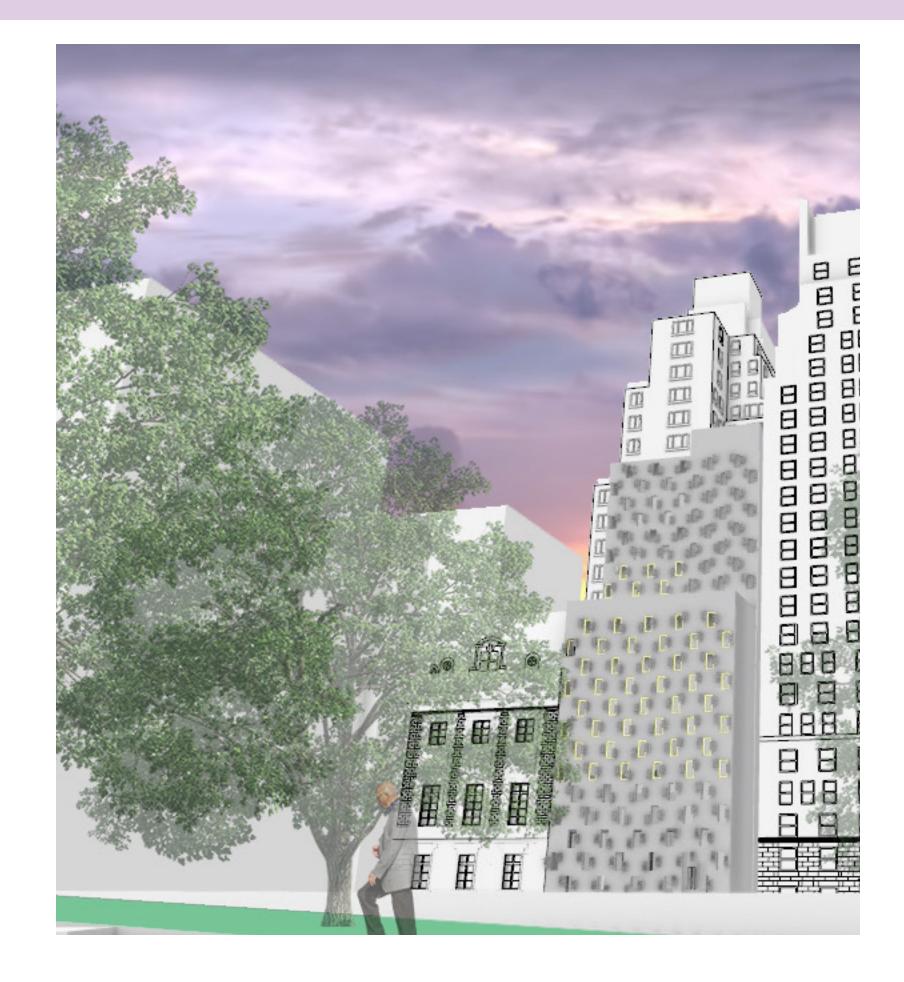


INTERIOR VIEW



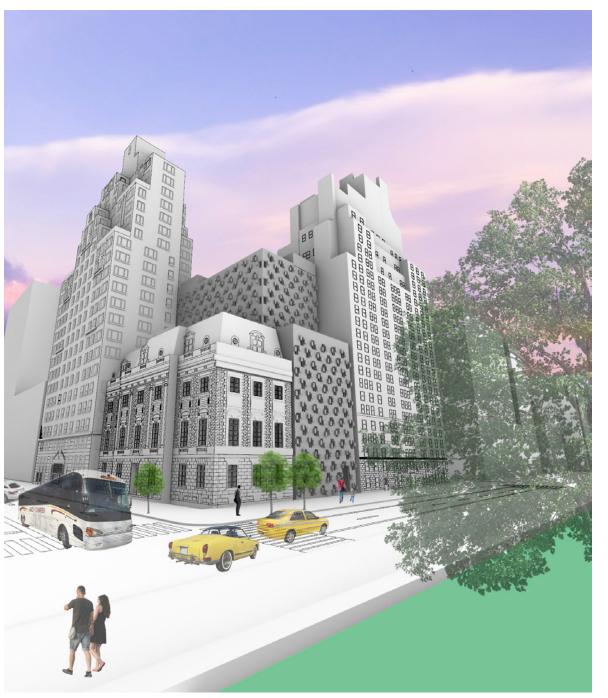
ABOVE: Rendering of the lobby. Lightly colored finishes and gold mullions relate to the *Portrait of Adele Bloch-Bauer 1* (1907).

LEFT: Rendering of the fine arts gallery space.



RIGHT: Rendering of the exterior approaching from Central Park.

LEFT: Rendering of the exterior straight-on from Central Park.



EXTERIOR VIEW



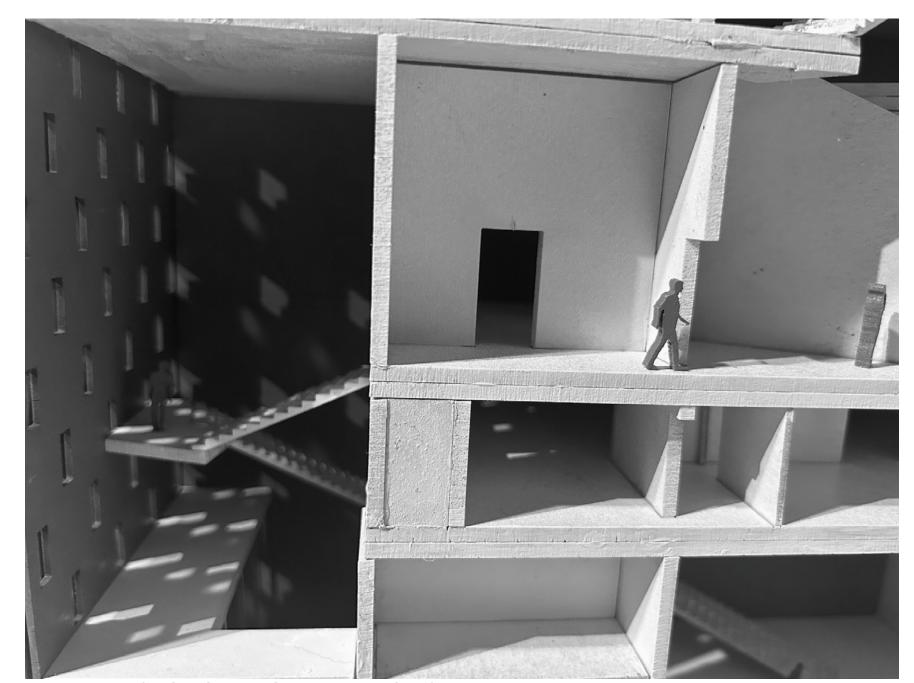
LEFT: Model from point in Central Park.

FULL SECTION MODEL IN SITE

RIGHT: Model from point along 5th Avenue Sidewalk.



FULL SECTION MODEL IN SITE



PARTIAL SECTION MODEL- LARGE SIDE

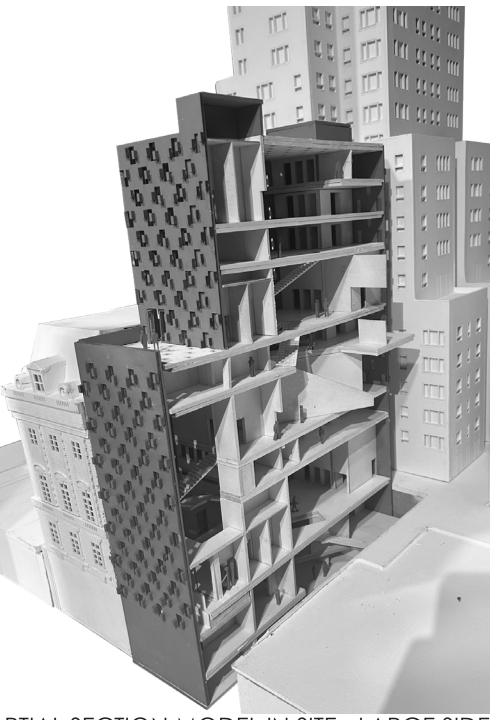
ABOVE: Lighting conditions for a feature staircase are visible.

ABOVE, RIGHT: Model and its surrounding context.

RIGHT: Sectional model showing all floors of the building within site context.



FULL SECTION MODEL IN SITE



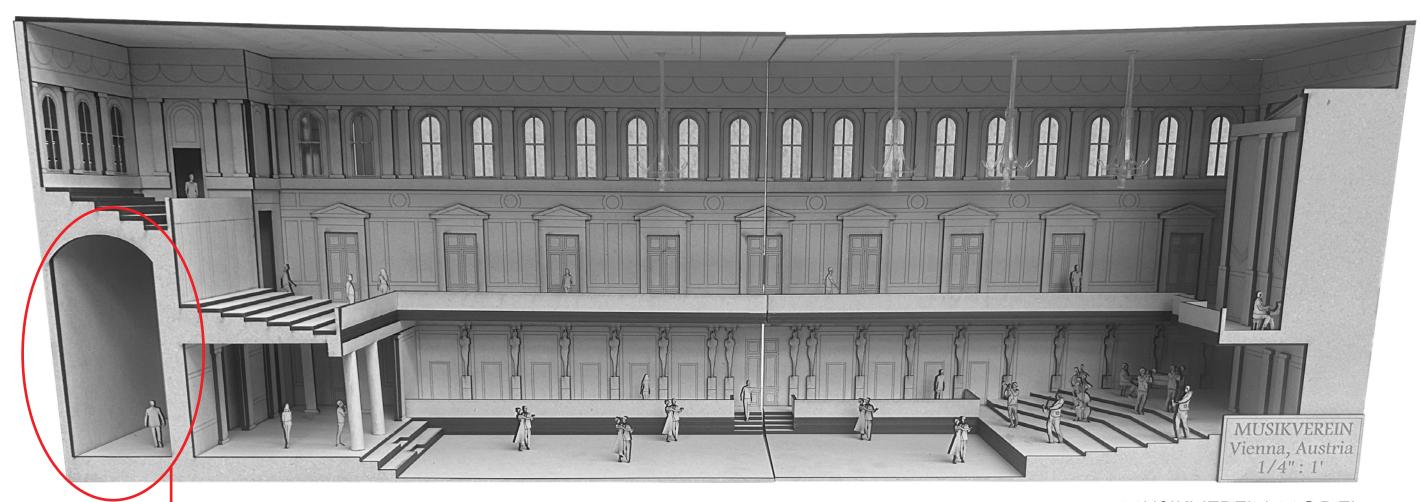
PARTIAL SECTION MODEL IN SITE - LARGE SIDE

MODEL MAKING

TYPE: Physical models

Models are an essential for providing a physical representation of an idea in architecture. Some models were done as precedent analysis to study the sections and spaces of existing buildings by other architects. Some were done as part of the studio design process for projects not shown in this portfolio.

RIGHT: Partial section model of Musikverein, using acrlyic to mirror music hall to emphasize symmetry.



MUSIKVEREIN MODEL



MUSIKVEREIN MODEL VIEW

ABOVE: Partial section model of Musikverein's Golden Hall in Vienna, Austria.

LEFT: View inside Musikverein partial section model.

RIGHT: Model of designed firehouse in Bellefonte, PA.

BELOW, RIGHT: Model featuring designed playground in Penn State's Arboretum.

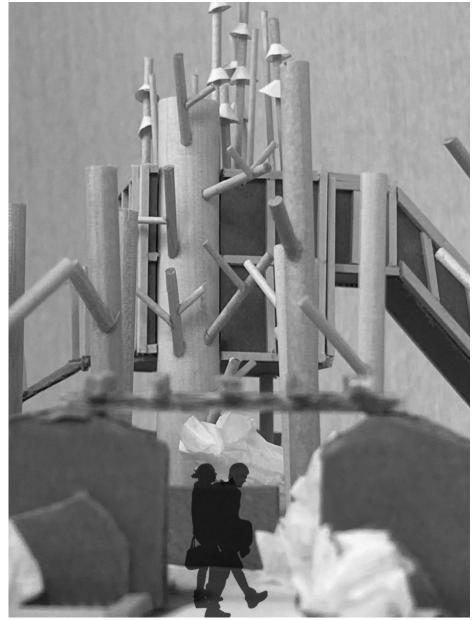
BELOW: Partial section model, studying structure and facade of the National Museum of African American History and Culture in Washington, D.C.



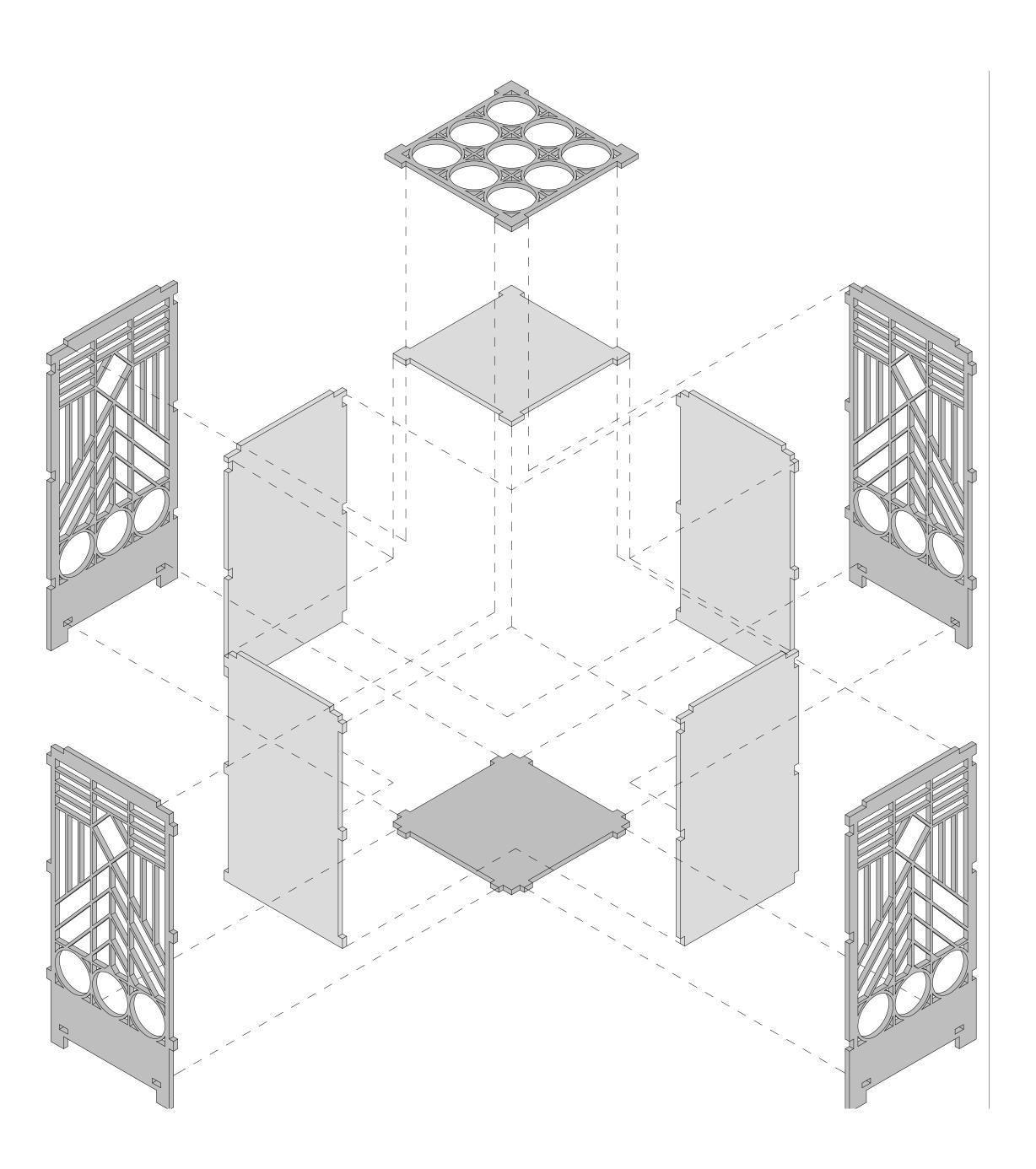
ARBORETUM PLAYGROUND MODEL VIEW



FIREHOUSE MODEL



NMAAHC MODEL



LIGHT IN LINES

TYPE: Light tower lamps

Using a Frank Lloyd Wright lamp as inspiration, the designs for these lamps draw inspiration from real life and Wright's stained-glass windows. After initially studying consisitent patterns and shapes found in his stained glass, these forms were then reflected into new designs.

The lamps use lines to create shapes in the lamp. The outer layer of the lamps is constructed of MDF, with a frosted acrylic interior helping to diffuse the light from a light source in the middle. The lamps vary in scale and pattern.

LEFT: Diagram depicting basic assemblage rules of lamps.





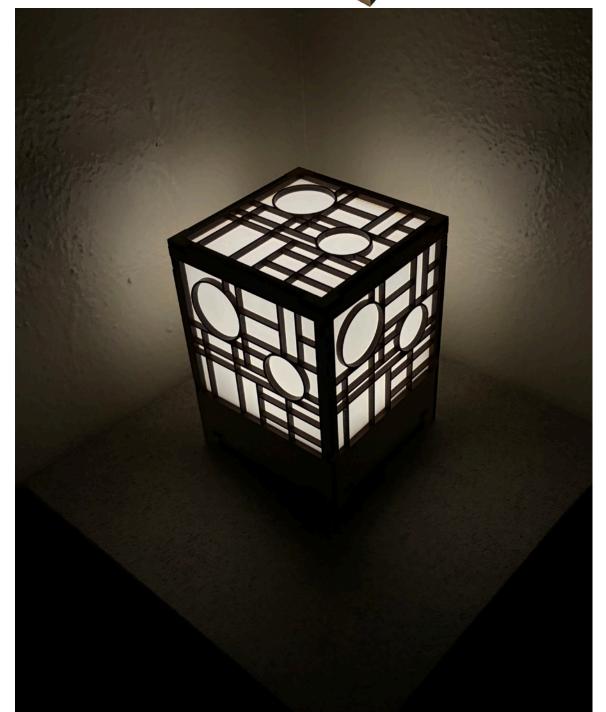


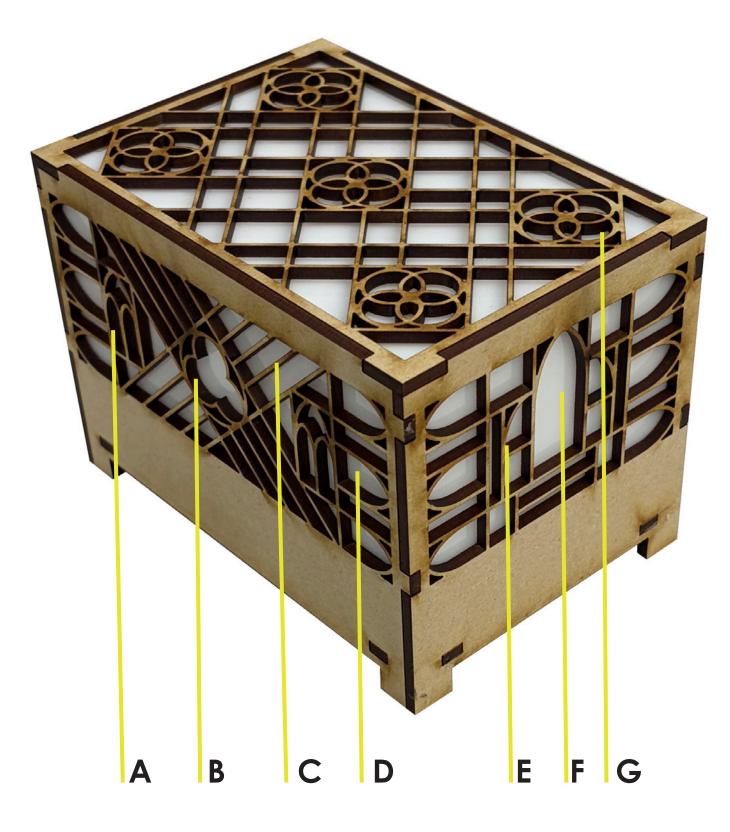


ABOVE: Lamp uses Christian iconography starting with a cross surrounded by halo ring that is used to inform the rest of design.

LEFT: Lamp design as it appears when lit up.







ABOVE, LEFT: Lamp draws inspiration from Wright's stained glass windows in which circles overlap orthogonal windows and patterns.

ABOVE: Lamp aims to abstract a Gothic cathedral through various features: A) Pointed arch windows, B) Trefoil icons, C) Colonettes, D) Three arched entrances, E) Flying buttresses, F) Large vaulted sanctuary, G) Rose window/ quatrefoil icons

LEFT: Lamp design as it appears when lit up.

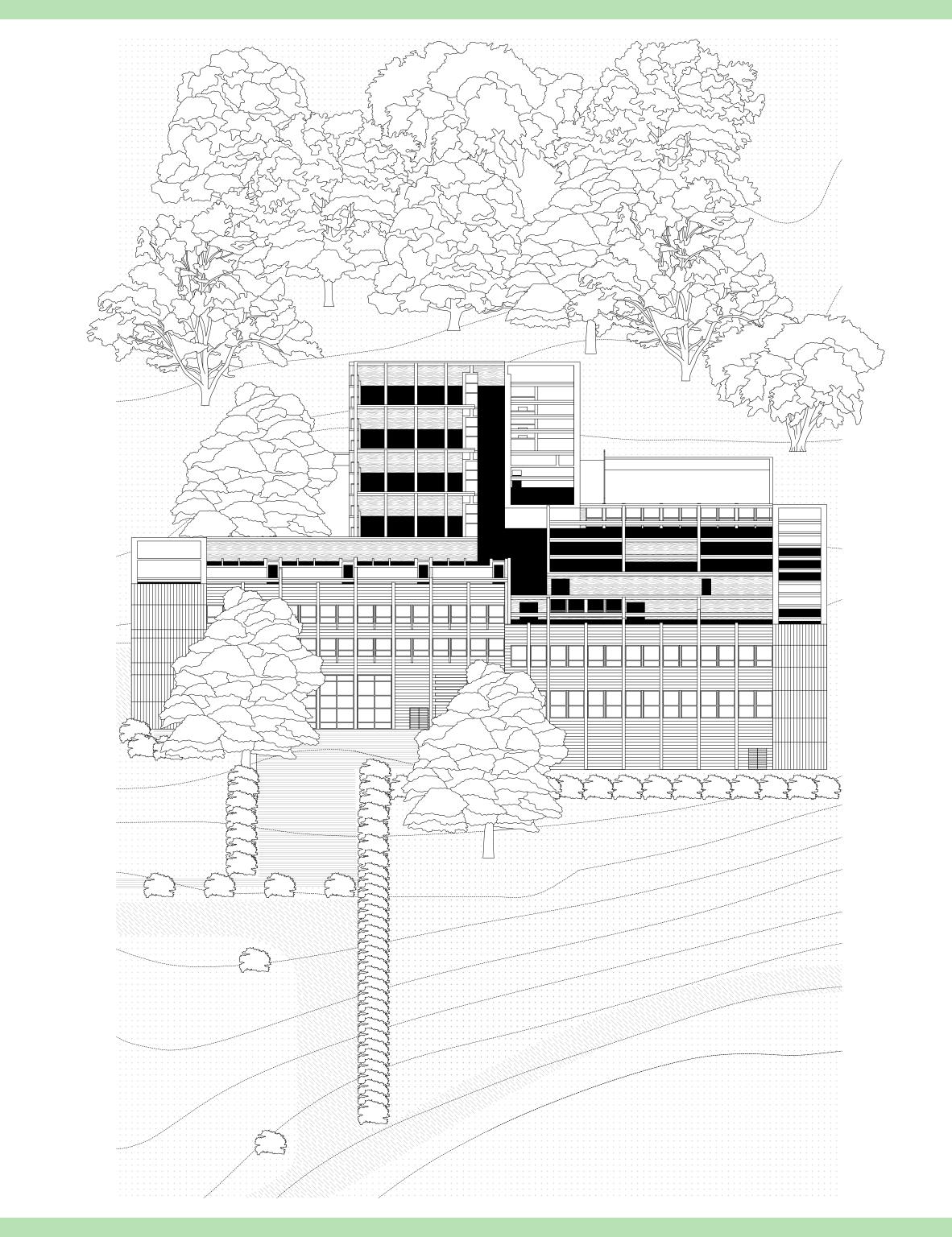
CONNECTING THE ENVIRONMENT

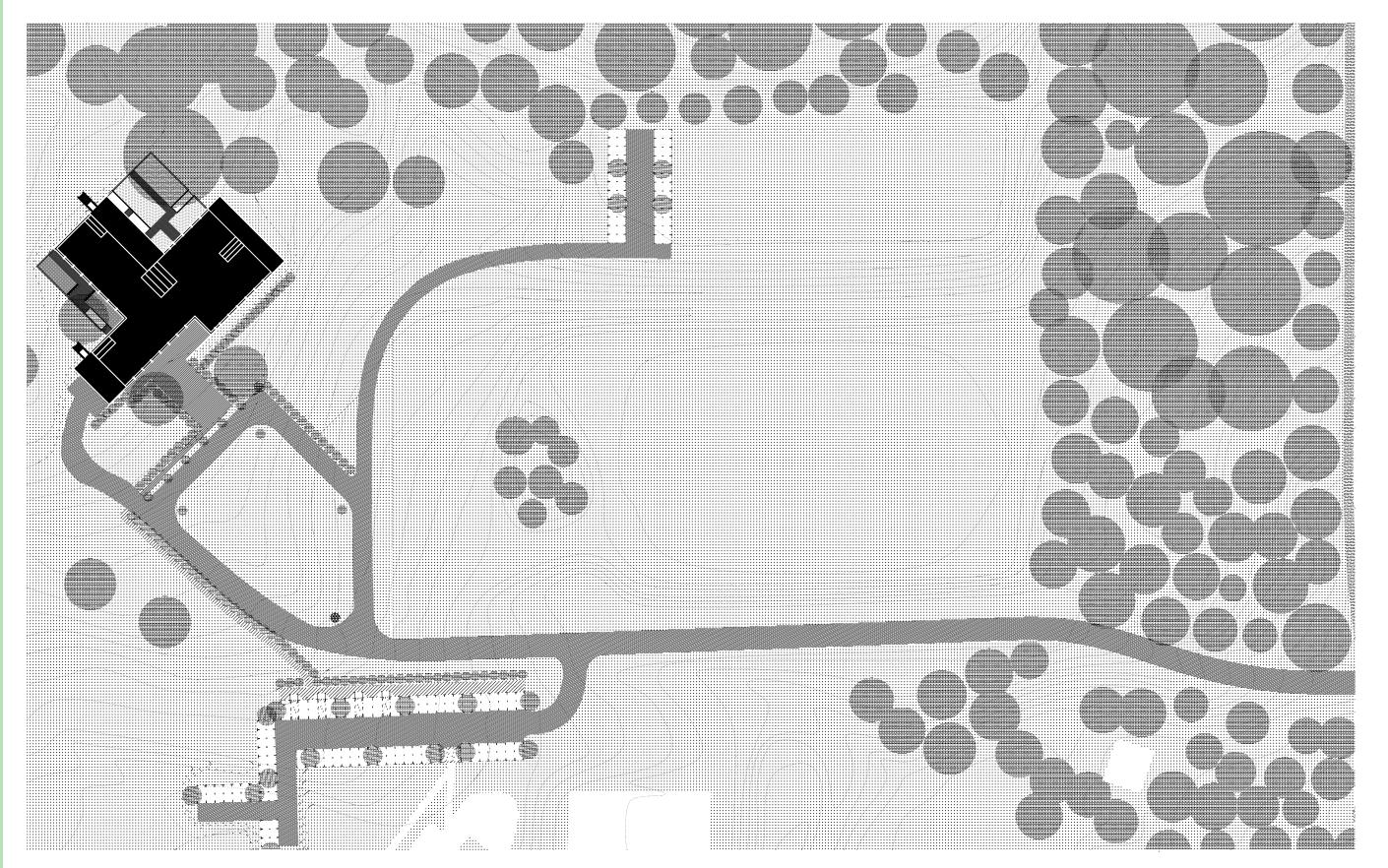
TYPE: Educational Facility, Gymnasium, Dining, Library **LOCATION:** State College, Pennsylvania

Designed as an extension for the nearby Park Forest Middle School, the site sits on a slope of a nearby park. Sixth, seventh, and eighth graders have designated classrooms with an additional flex space for each grade. The school also includes a library, cafeteria, and gym for large gatherings. Specialty classrooms, administrative offices, and locker rooms are situated around the building.

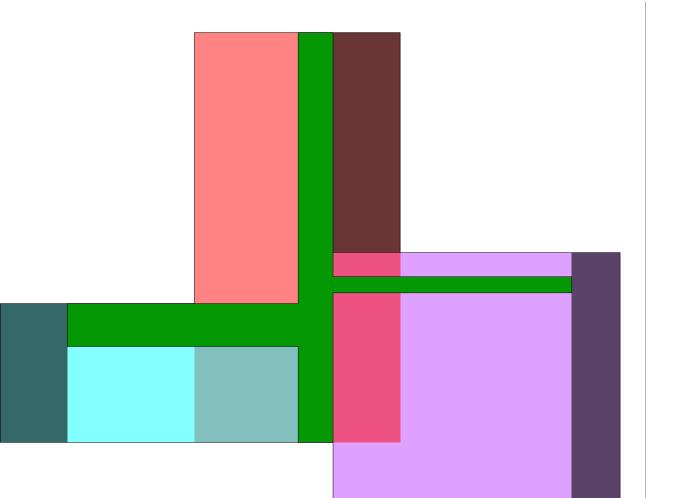
The design was focused around shaping the environment both socially and as a reflection of the surrounding site. South and east facing windows allow natural light into classrooms and assembly spaces and provide views down the slope. Concrete cores situated around the building add thermal mass and contain the private spaces. To optimize interaction spaces, each classroom has niches in the wall with seating and lockers. Due to a difference in social skills, the sixth graders are separated from the seventh and eighth graders by a floor. Each flex space is converted to special education classrooms. The 8th grade flex space extends to include a life skills space. Exterior terraces extend from the building, creating spaces for outside assembly. Vertical elements on the façade provide structure and mimic the surrounding trees.

RIGHT: An exterior image of the building combining elevation and axonometric drawing.



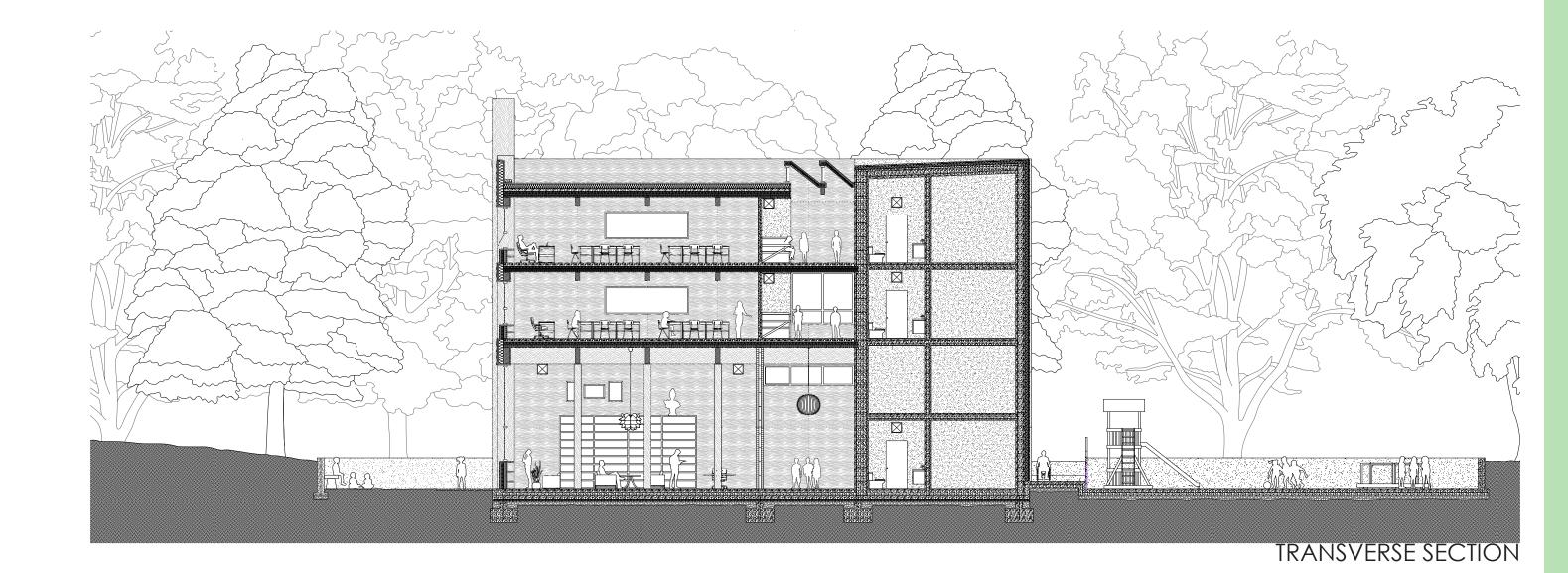


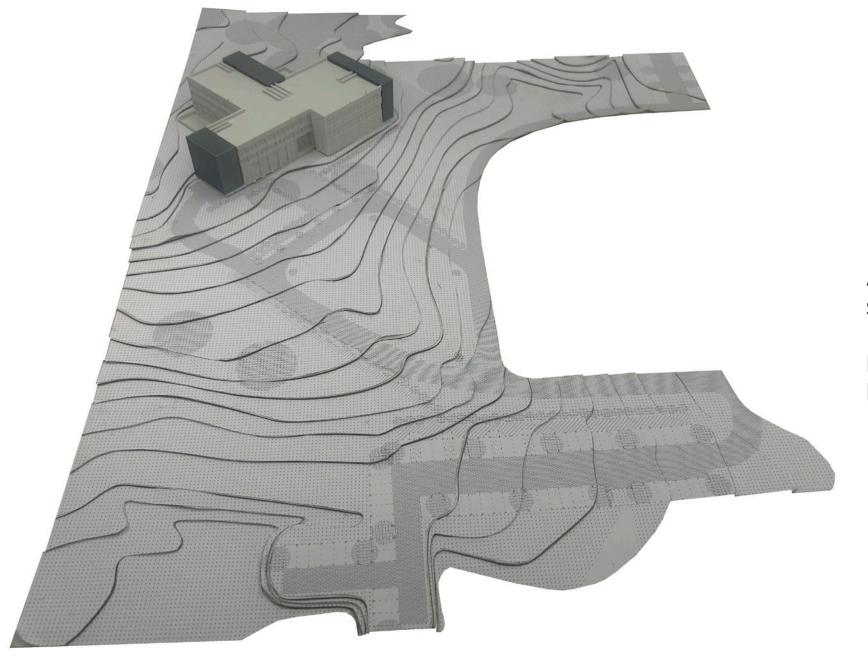




ABOVE: Site plan of building within its park context.

LEFT: Diagram showing the initial three volumes, informing the core placement and circulation that meets at various points.

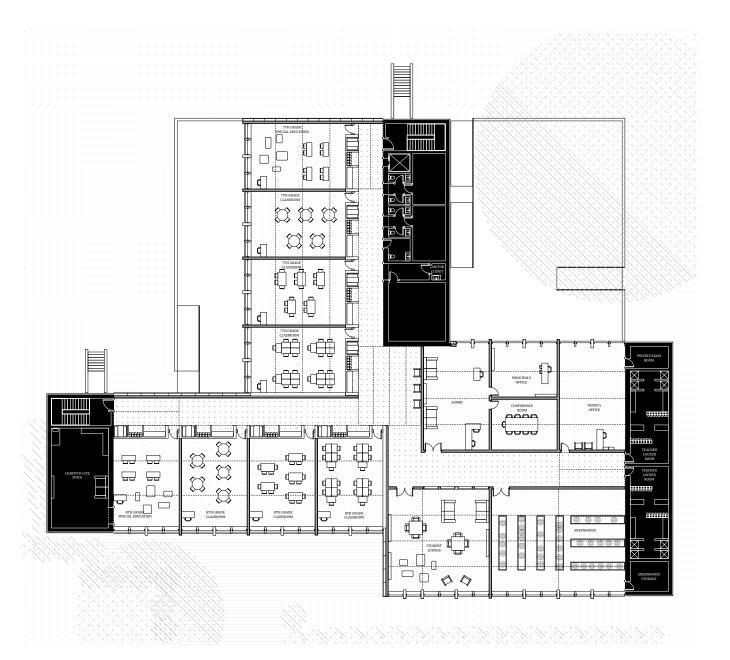


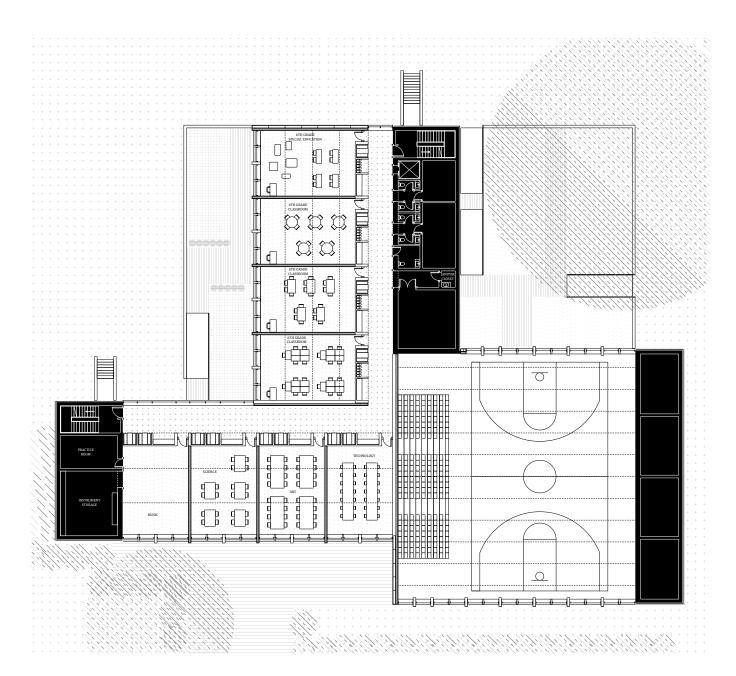


ABOVE: A section cutting through public spaces and a core.

LEFT: Site model emphasizes how the building connects within its environment.

SITE MASSING MODEL

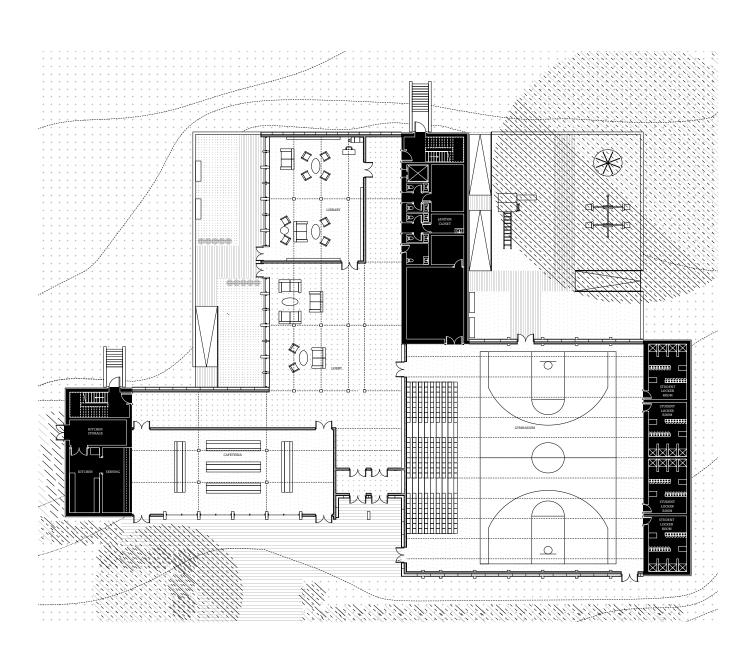


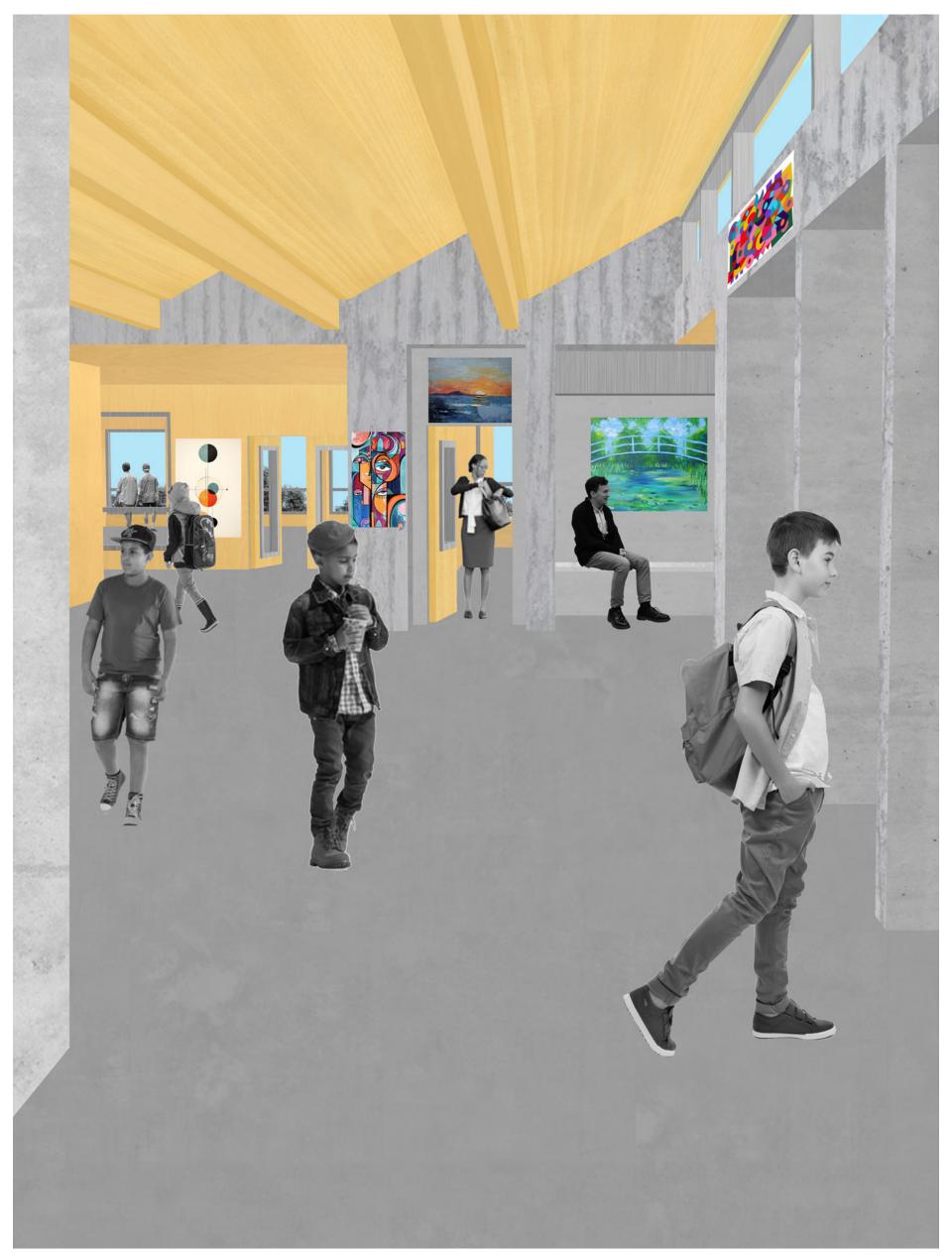


ABOVE: The third floor of the building includes the seventh and eighth grade classrooms, admin, and supporting spaces.

ABOVE, **RIGHT**: The second floor consists of the sixth grade classrooms and the specialty classrooms.

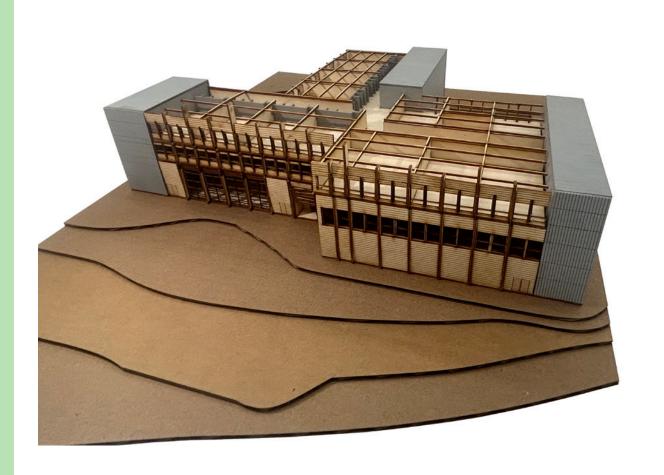
RIGHT: The first floor contains large spaces for public gatherings. Some spaces open onto terraces that access the site directly.





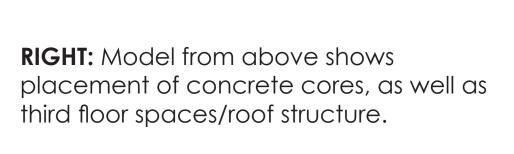
ABOVE: A view from the central intersection on the third floor.

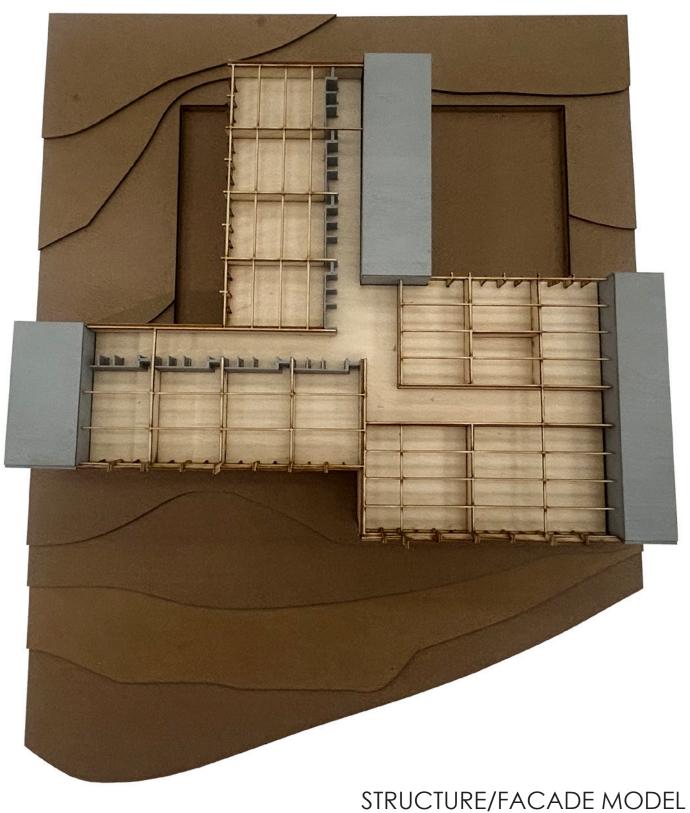
INTERIOR VIEW



LEFT: Model shows east facade and removes the roof to reveal third floor spaces.

STRUCTURE/FACADE MODEL





SECTION MODEL - LIGHTING EFFECTS



ABOVE: Skylights at the end of building's hallways bring natural light in and encourage circulation.

ABOVE, **RIGHT**: The section model shows both façade features and a section of the building.

RIGHT: The section model is engraved with all layers of the structure onto the model.



SECTION MODEL

