

Andy Mund

PORTFOLIO

2025

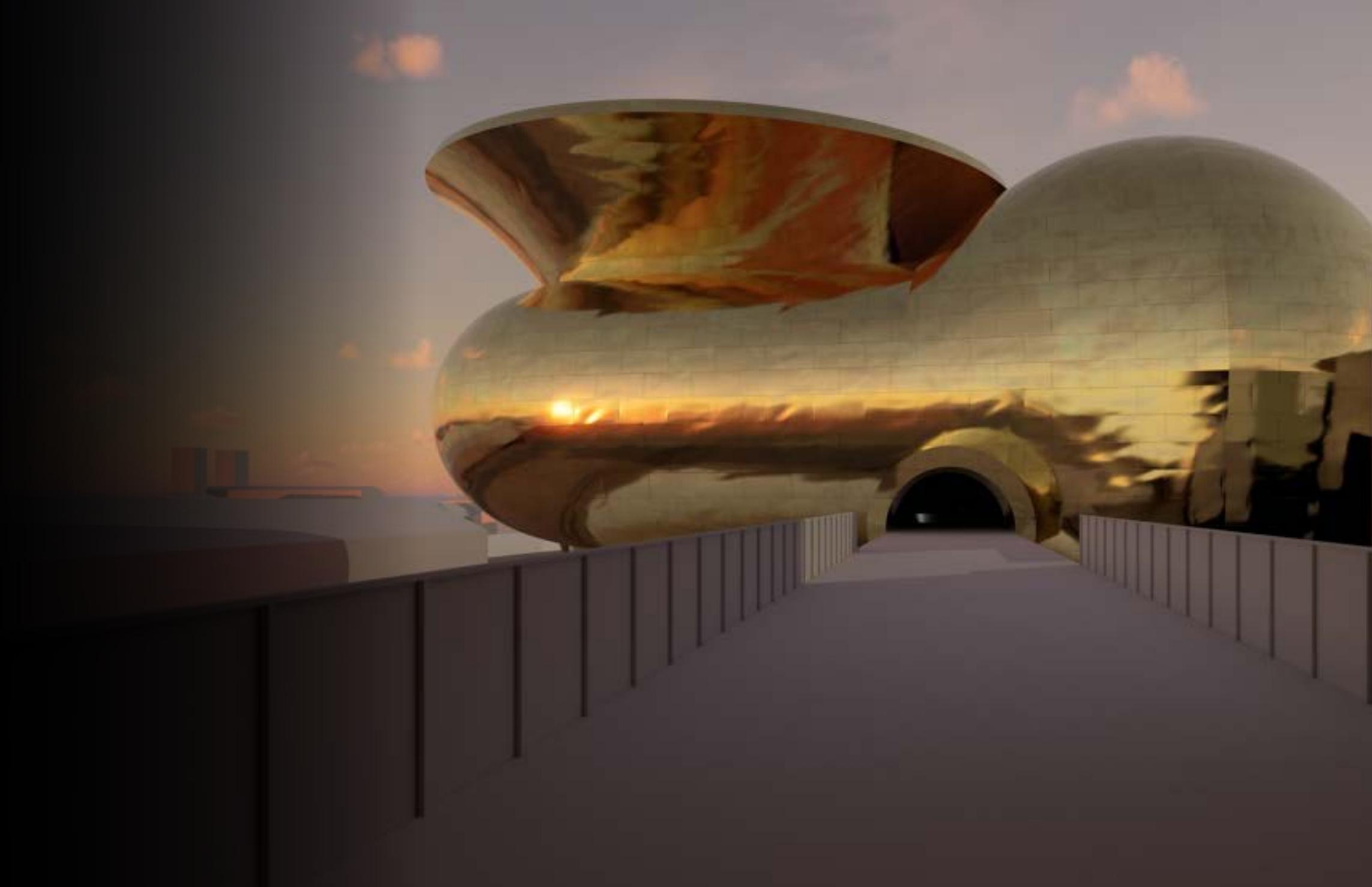
Projects

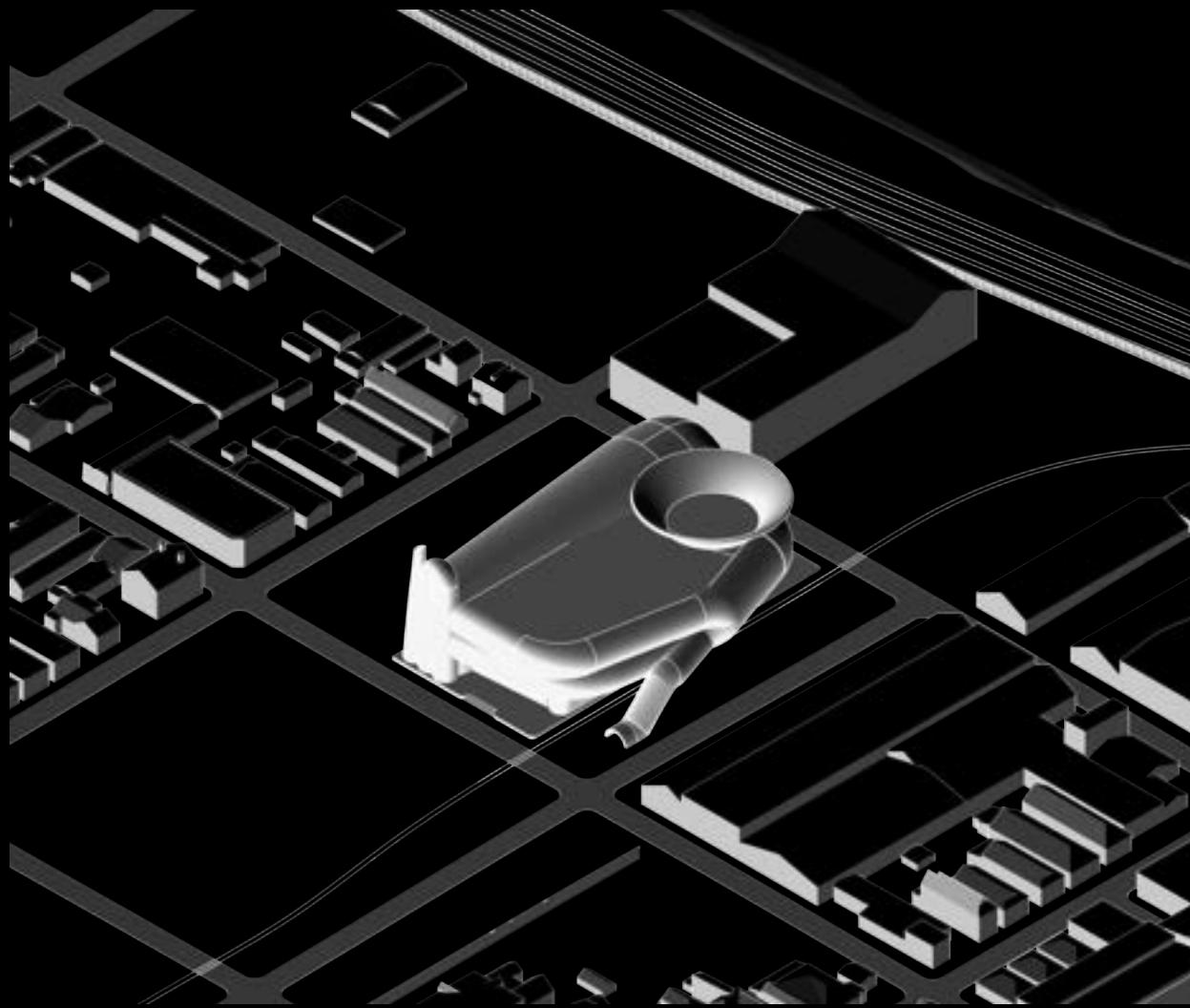
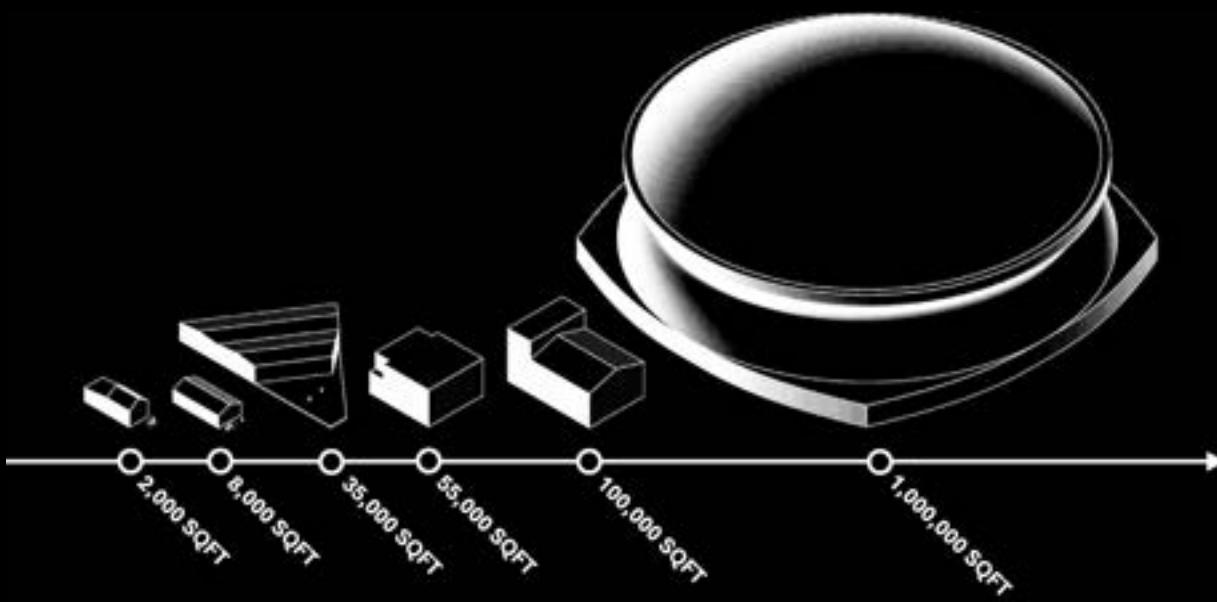
Bywater PAC
Spaces for Connective Encounters
Remnant Ecosystem
Panoramic Vision
Kit (Houses) of Parts
Scaffolding
[Fill-in-the-Blank] Foundation
Light Space Matter Modulator
Arts Square
Deep Decoration

Precedents

MIT Chapel
West Village Dining Commons
Gulf Coast Building Supply & Hardware

a performance hub intended to stimulate urban development, allowing NOLA to attract and retain talent within a burgeoning professional arts community in Bywater





SPACES FOR CONNECTIVE ENCOUNTERS

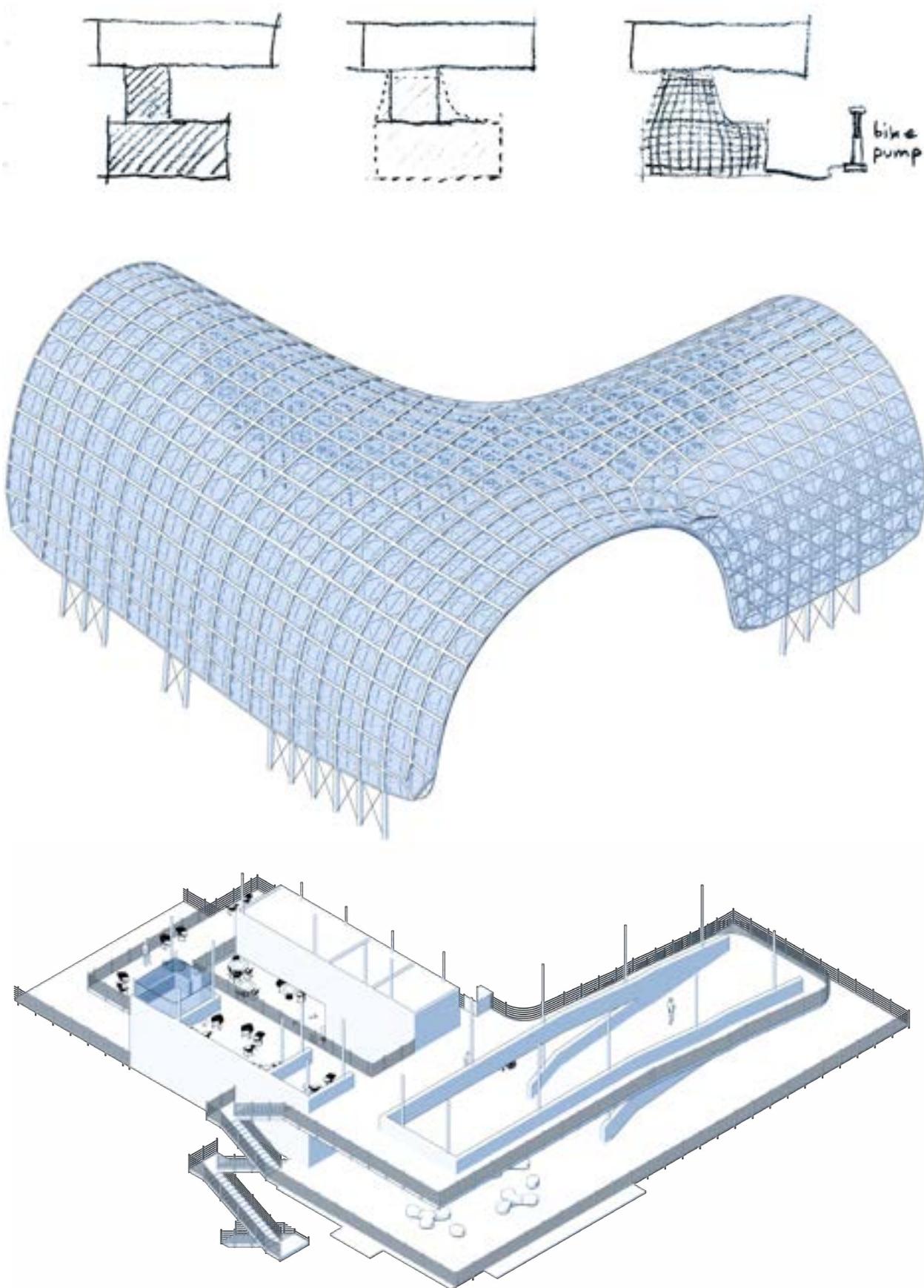
9

a public multi-use space which encourages human interaction through visual stimuli

DETAILS

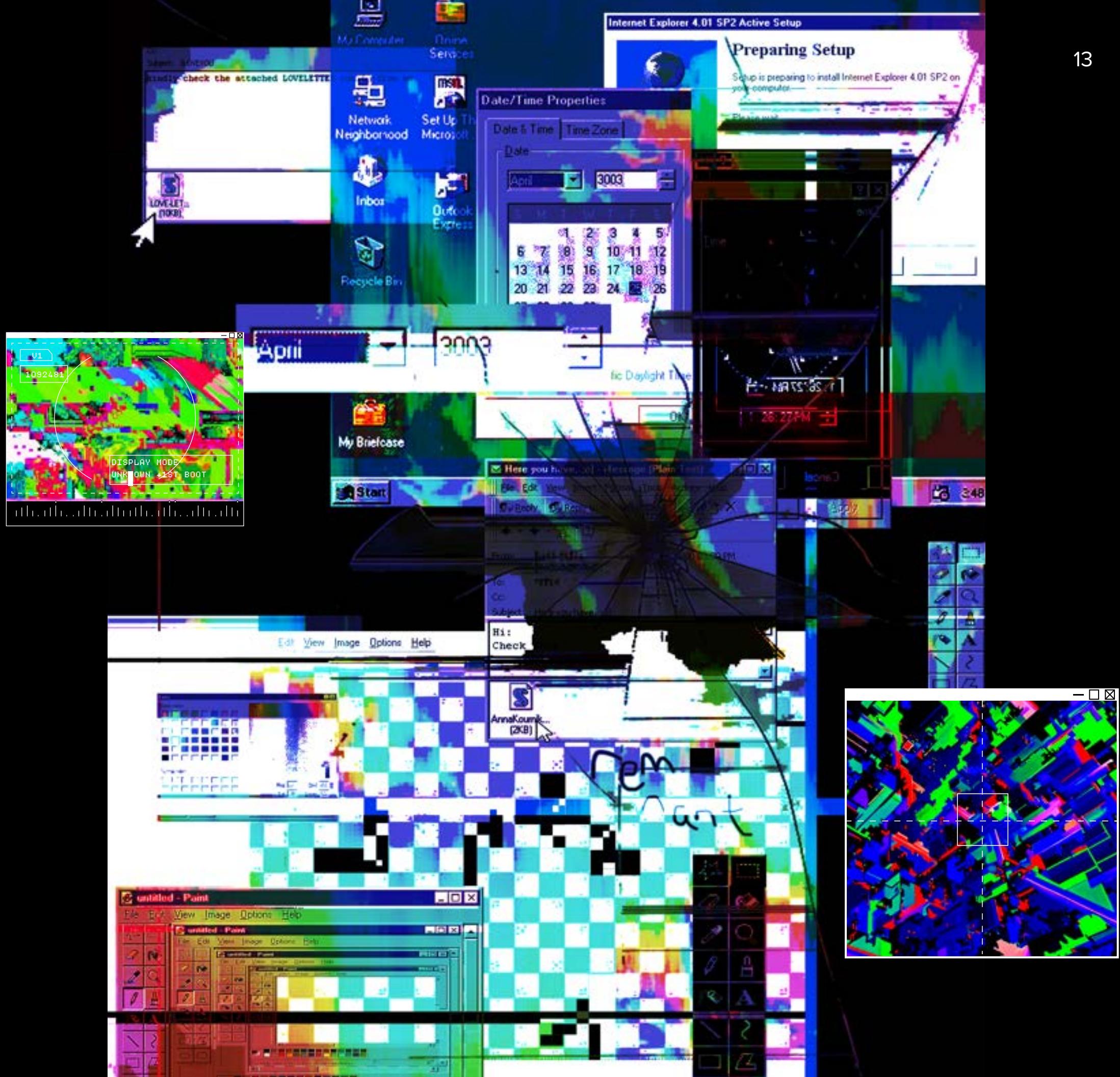
FALL 2023
ADVANCED ARCHITECTURAL STUDIO 1
CRITIC: HARRIS DIMITROPOULOS





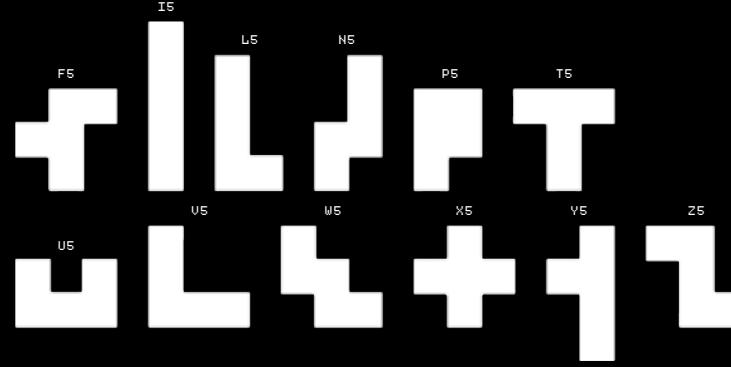
REMNANT ECOSYSTEM

a study of poche through a virtual game with defined pieces which interact based on a set of rules on a digital game board



```
<remnantEcosystem>
```

// The joining of planar, equal squares at their edges results in what are mathematically referred to as "polyominoes." A prefix denotes the number of squares comprising each polyomino: those created from exactly 5 squares are called "pentominoes," of which there exist 12 possible unique configurations (excluding rotation and reflection). From those using just 10 squares, there exist 4,655.



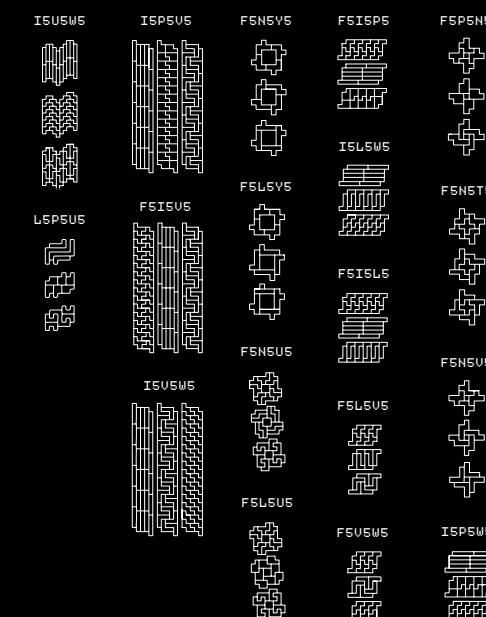
```
for (int i = 0; i < 1000; i++) {
    for (int j = 0; j < 1000; j++) {
        if (pentomino.isPentomino(i, j)) {
            System.out.print("P");
        } else {
            System.out.print(".");
        }
    }
    System.out.println();
}
```

```
pentomino.define(complexity)
```

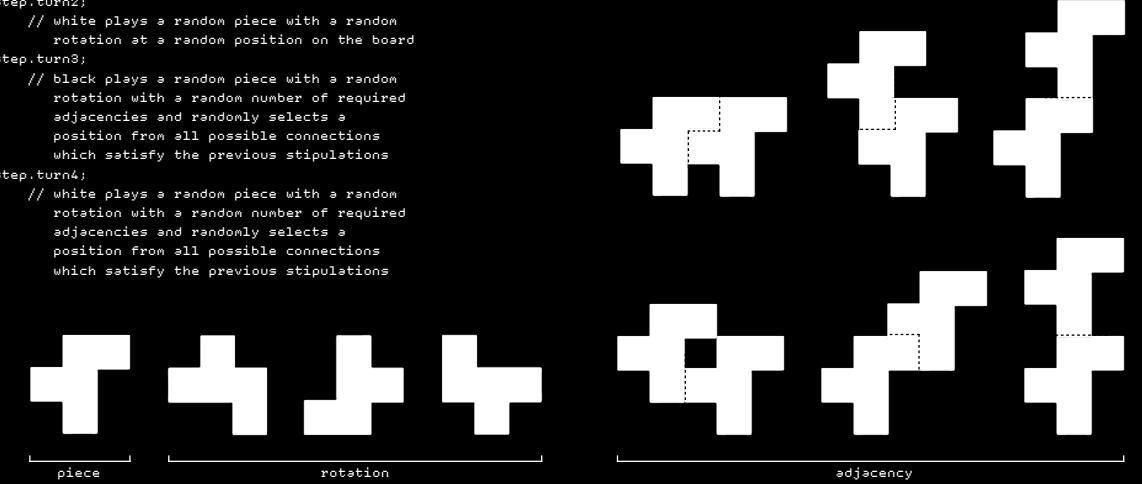
```
pentomino.triples
    == (pentomino.i^n + pentomino.j^n + pentomino.k^n)
```

// Livio Zucca along with a number of other puzzle enthusiasts have tasked themselves with designing various "triple pentominoes," defined as 3 identical groupings which each utilize a different pentomino, respectively. There exist 220 different combinations of 3 different pentominoes with each combination having nearly infinite possible solutions, but only one with the smallest surface area.

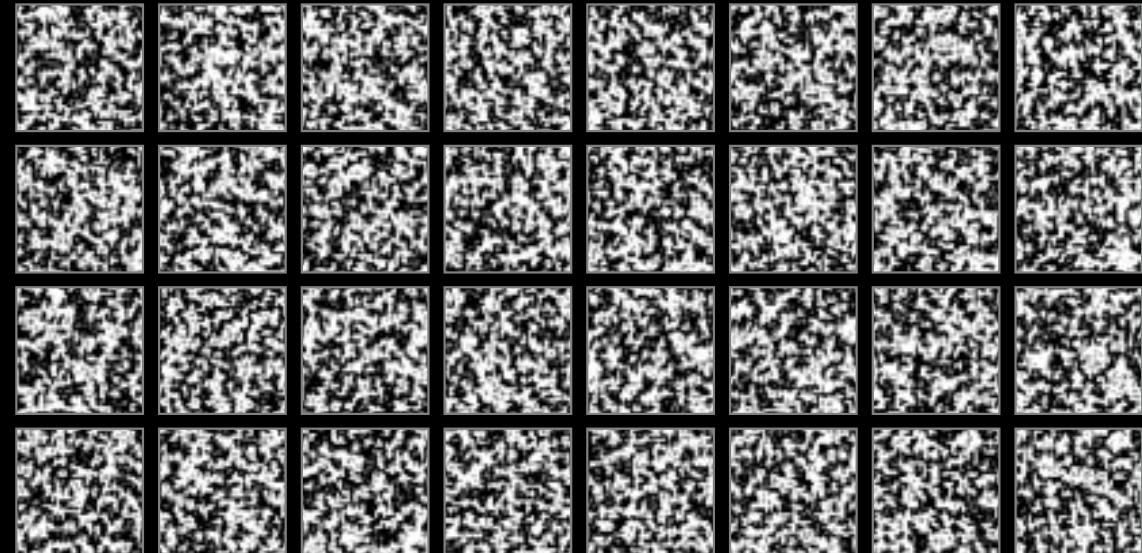
```
for (int i = 0; i < 1000; i++) {
    for (int j = 0; j < 1000; j++) {
        if (pentomino.isTriplePentomino(i, j)) {
            System.out.print("P");
        } else {
            System.out.print(".");
        }
    }
    System.out.println();
}
```



```
pentomino.define(randomizedGame).rules
while (game!=play) {
    step.turn1;
    // black plays a random piece with a random
    // rotation at a random position on the board
    step.turn2;
    // white plays a random piece with a random
    // rotation at a random position on the board
    step.turn3;
    // black plays a random piece with a random
    // rotation with a random number of required
    // adjacencies and randomly selects a
    // position from all possible connections
    // which satisfy the previous stipulations
    step.turn4;
    // white plays a random piece with a random
    // rotation with a random number of required
    // adjacencies and randomly selects a
    // position from all possible connections
    // which satisfy the previous stipulations
}
```

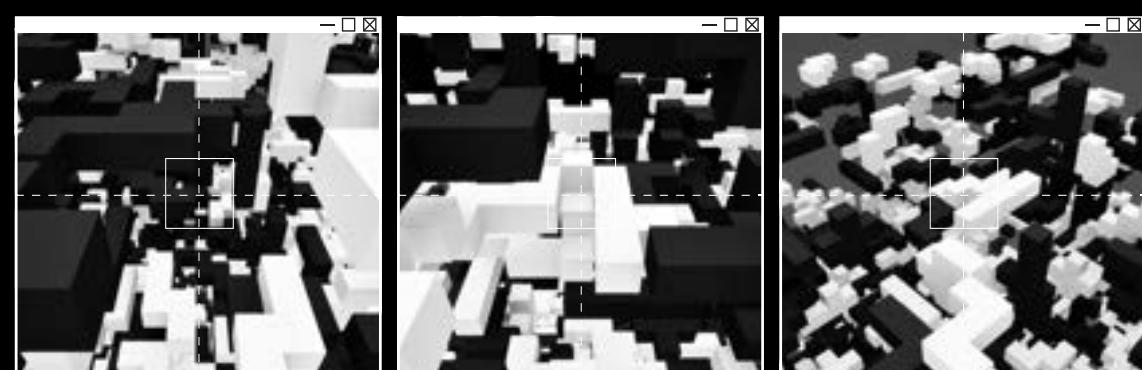


```
randomizedGame.finalBoardState.variations(n=32)
```

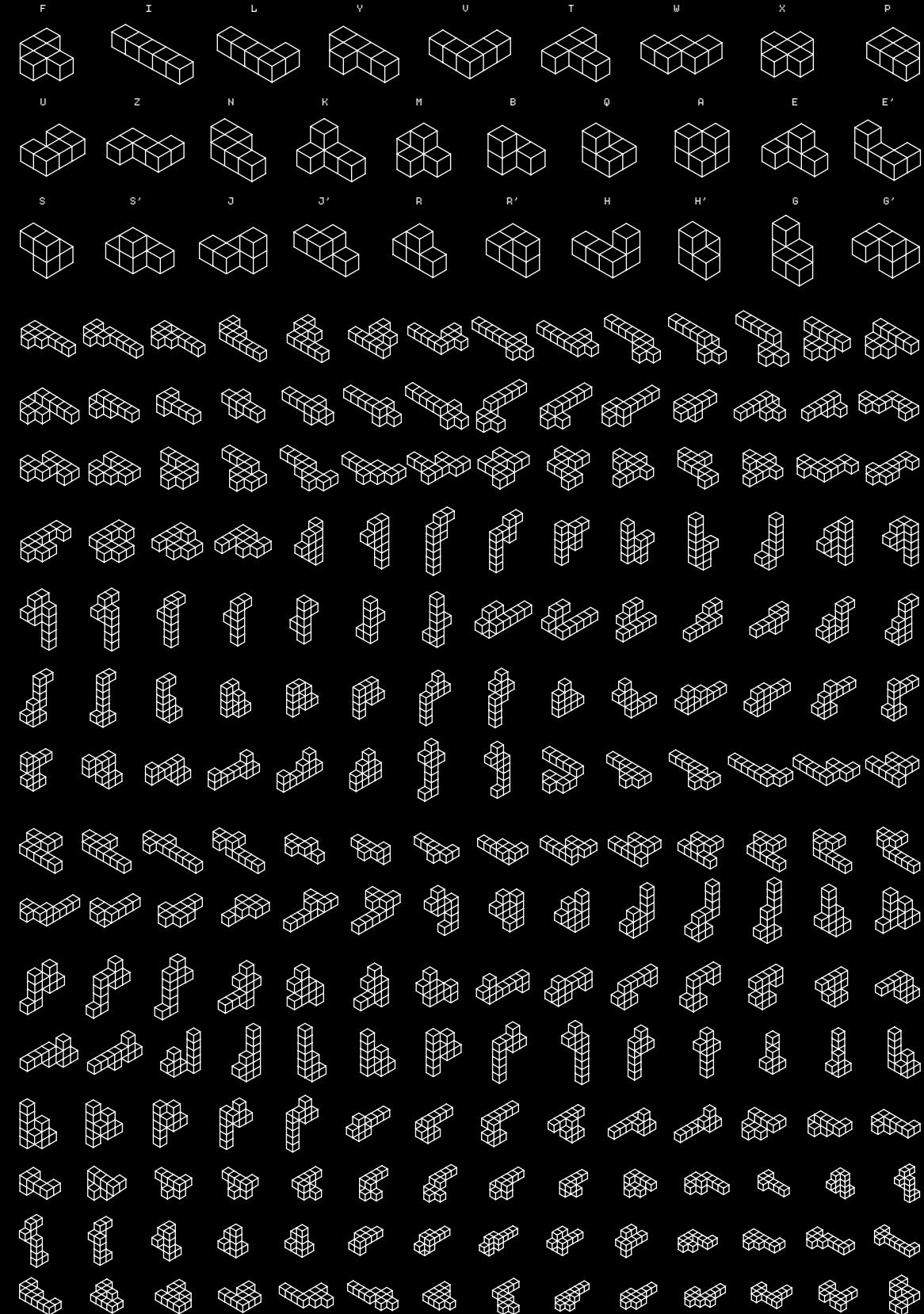


```
randomizedGame3D.finalBoardState.inGame
```

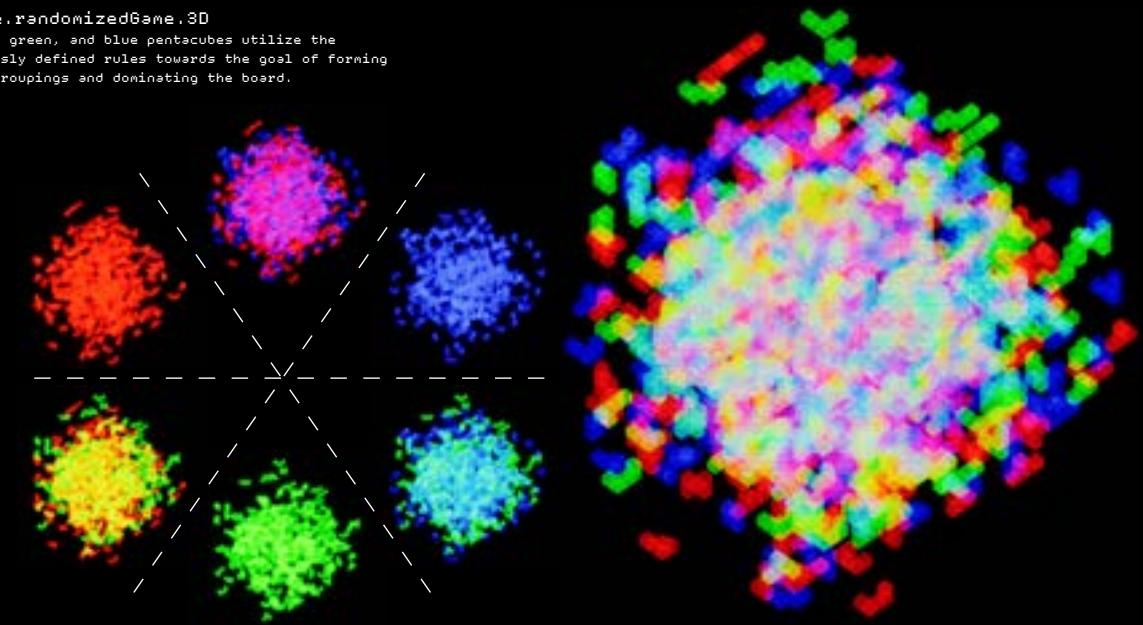
// A mockup 3D environment was created to visualize the game generation, in which the player can travel throughout the interior of the board to observe groupings and piece-piece interactions up close.



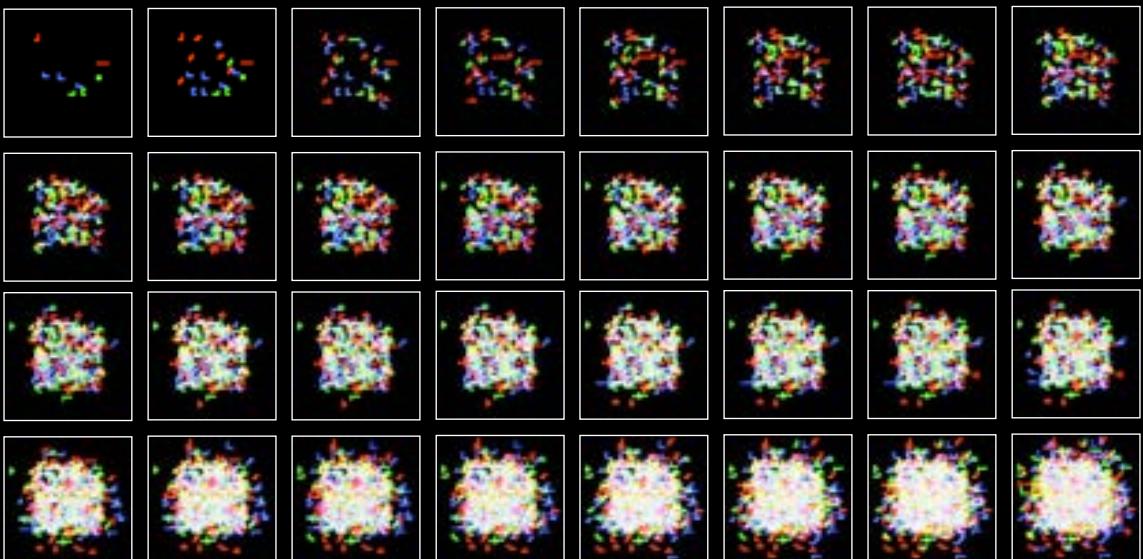
```
define(pentacube)
  // Just as with the pentominoes, the joining of
  // equal sized cubes at their edges results in what
  // are mathematically referred to as "polycubes."
  // Those created from exactly 5 cubes are called
  // "pentacubes," of which there exist 29 possible unique
  // configurations (excluding chiral pairs).
```



```
pentacube.randomizedGame.3D
  // Red, green, and blue pentacubes utilize the
  // previously defined rules towards the goal of forming
  // large groupings and dominating the board.
```



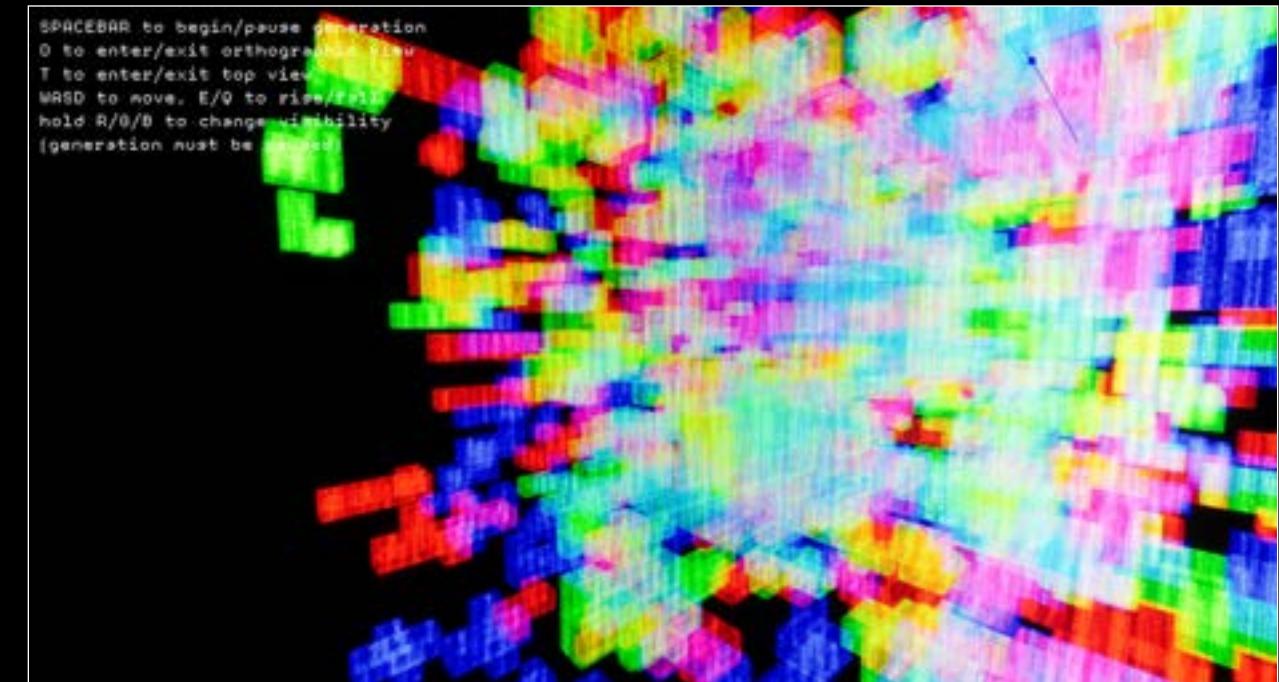
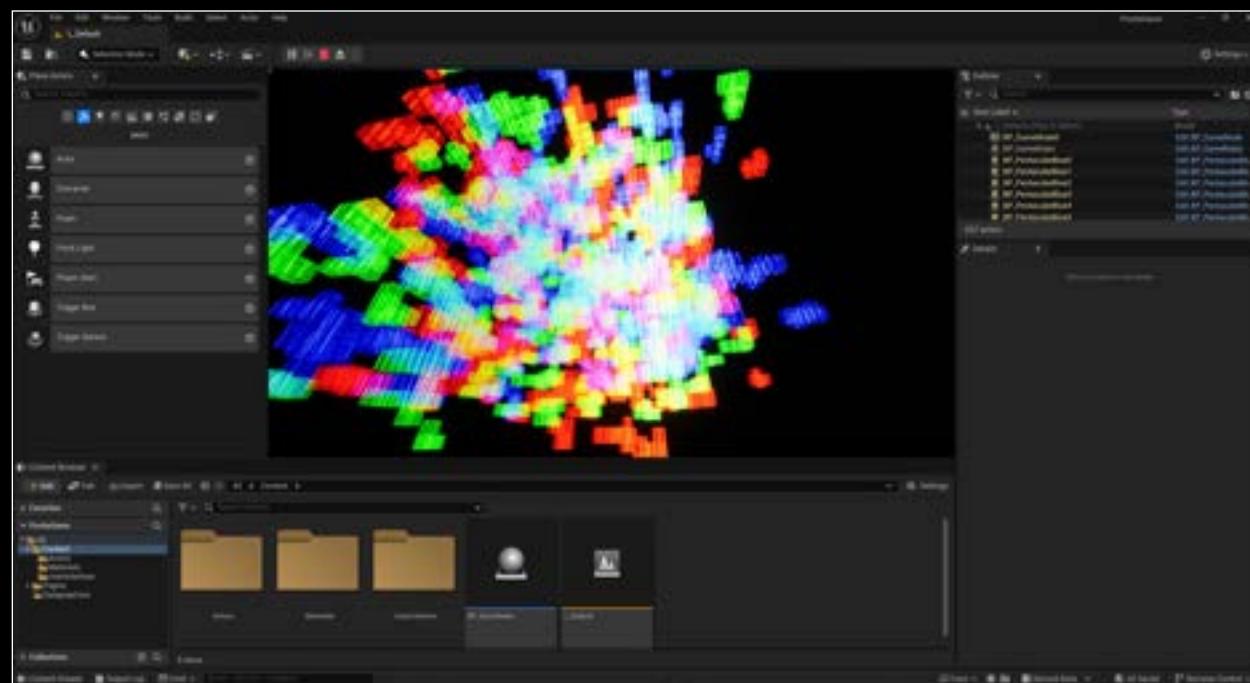
randomizedGame3D.step[1...{8}...256]



randomizedGame3D.finalBoardState.inGame

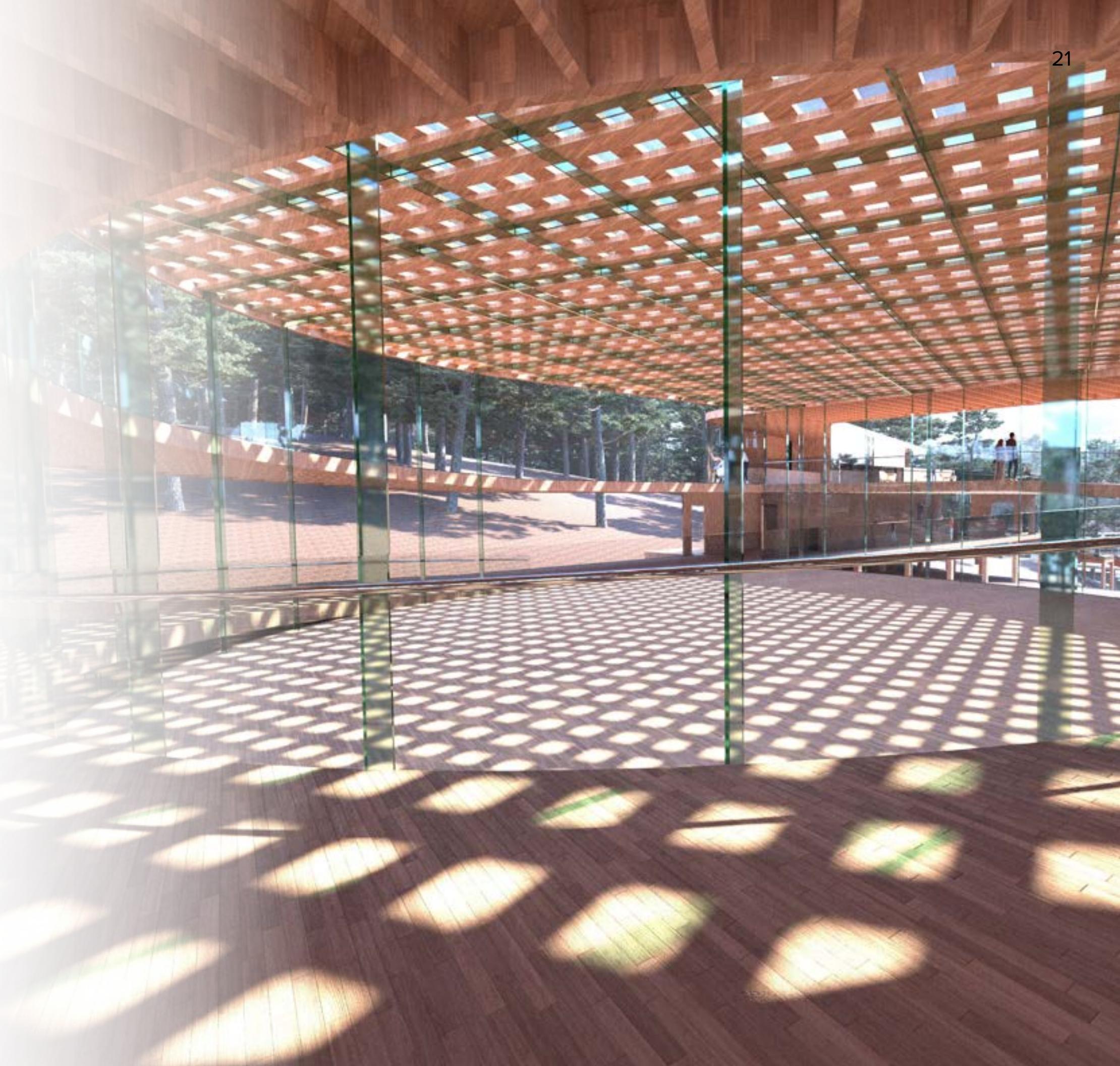
```
// A full 3D game environment was created to
// visualize the game generation, in which the player
// can travel throughout the interior of the board to
// observe groupings and piece-piece interactions up
// close. Additionally, the player can utilize keyboard
// inputs to affect the visibility of certain color
// groupings in the camera viewport.
```

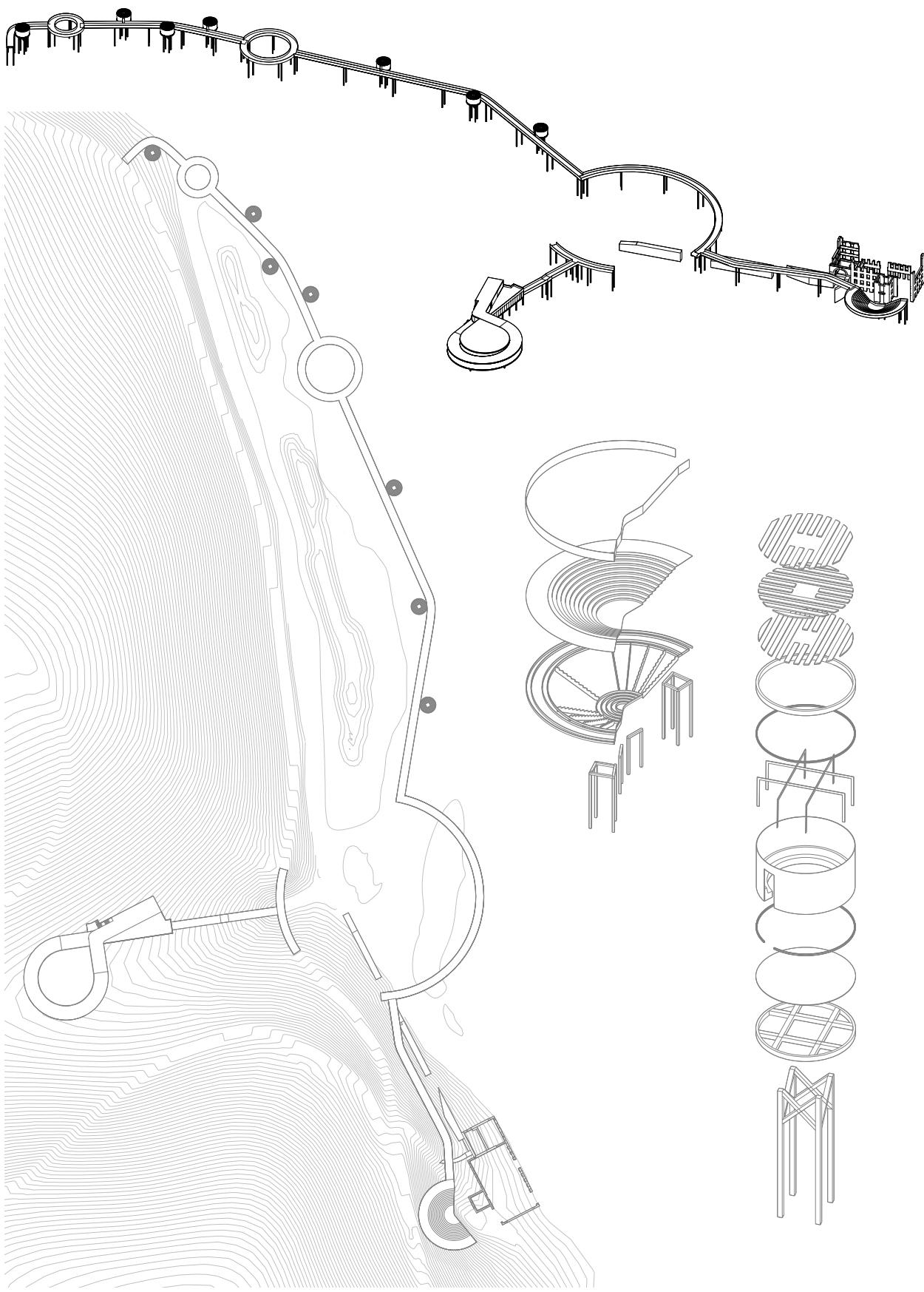




PANORAMIC VISION

provoking an engagement between user and site through the framing of wide angle views

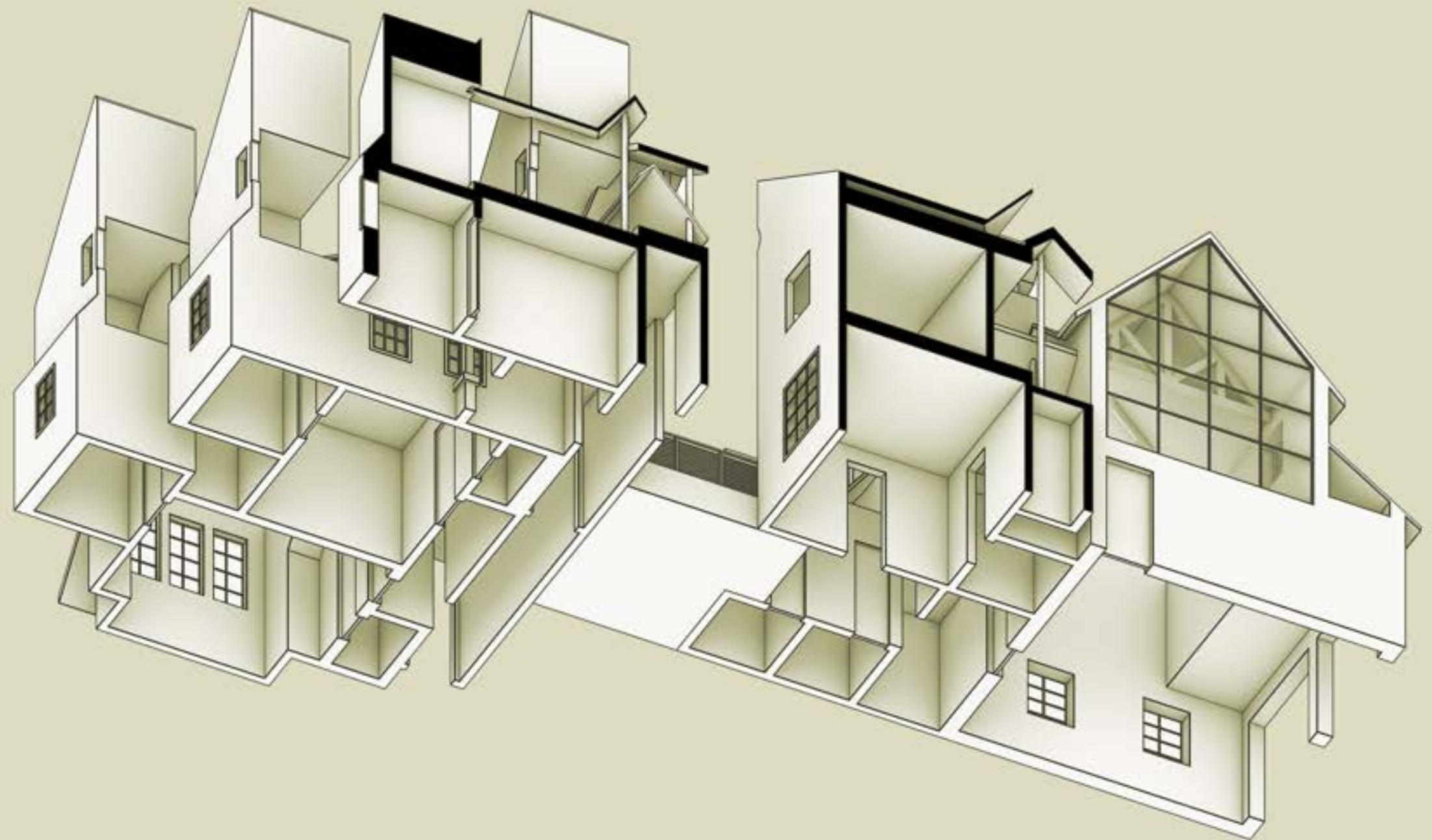


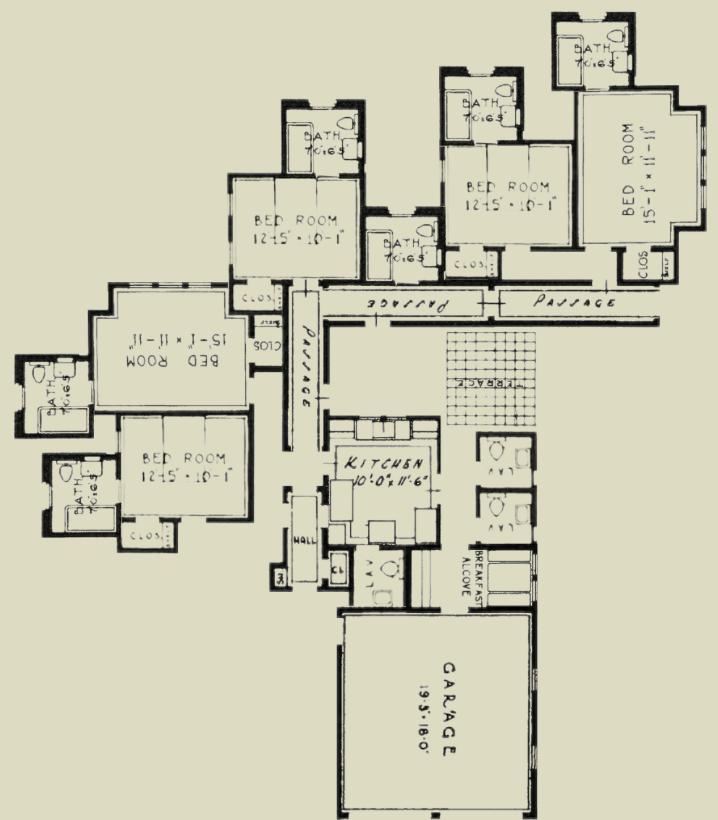


PANORAMIC VISION

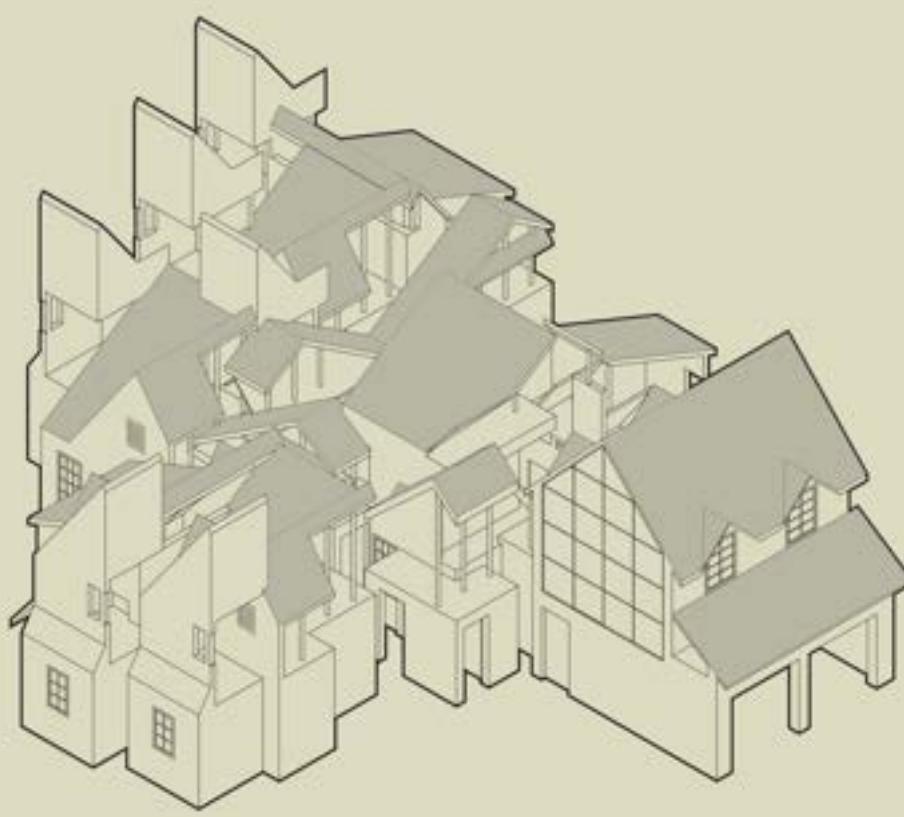
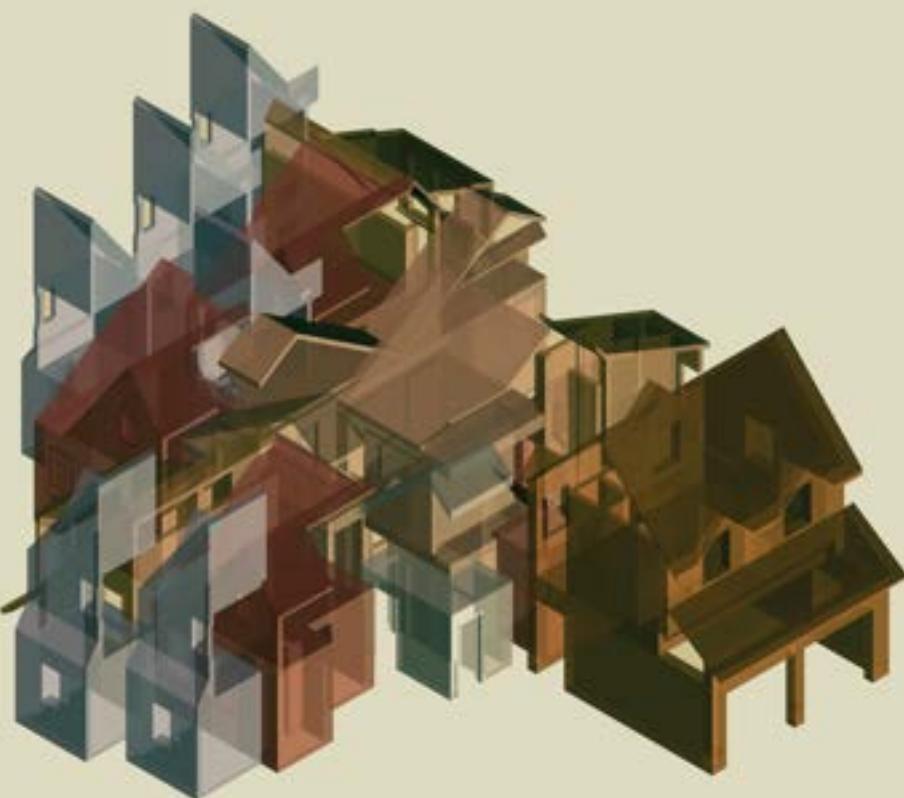
KIT (HOUSES) OF PARTS

reassembling sections of houses from
the Sears Modern Homes catalog



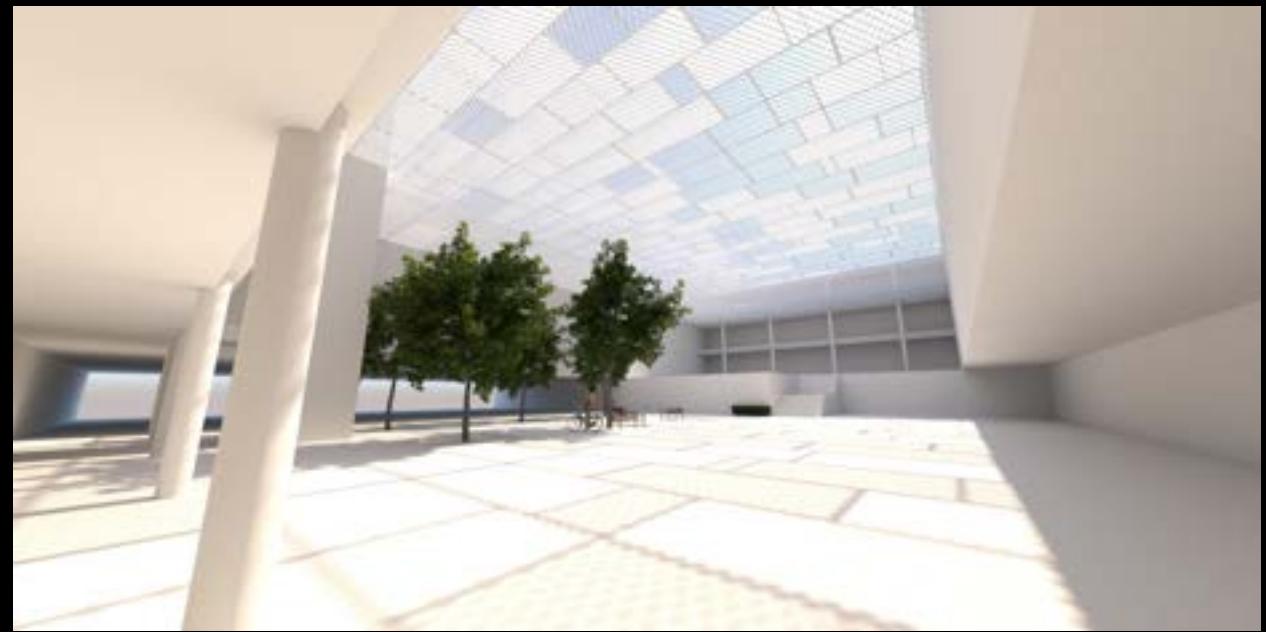


Torrington
Strathmore
Corning
Lynnhaven
Wexford
Colchester



SCAFFOLDING

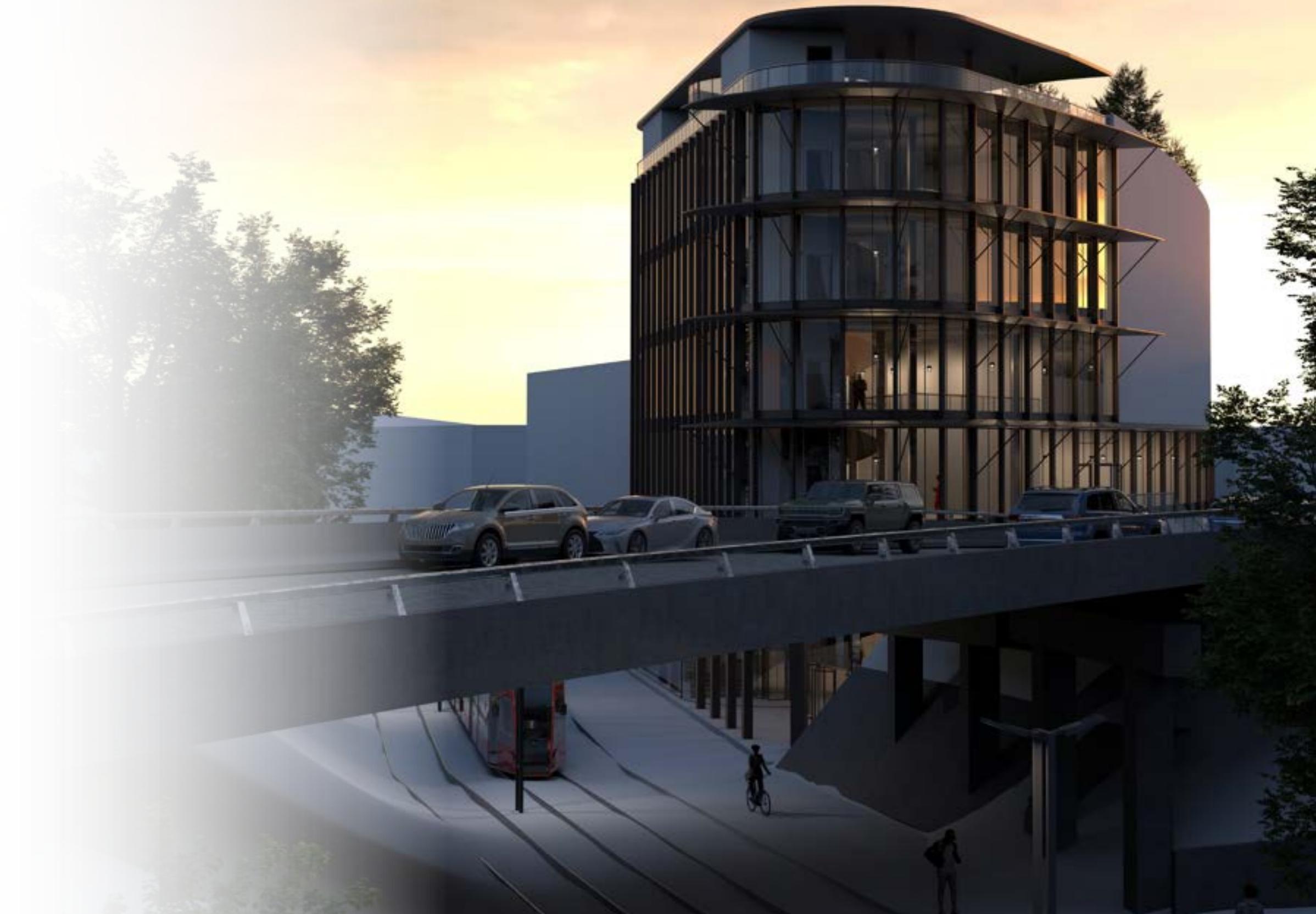
studies utilizing steel scaffolding
and inflated ETFE

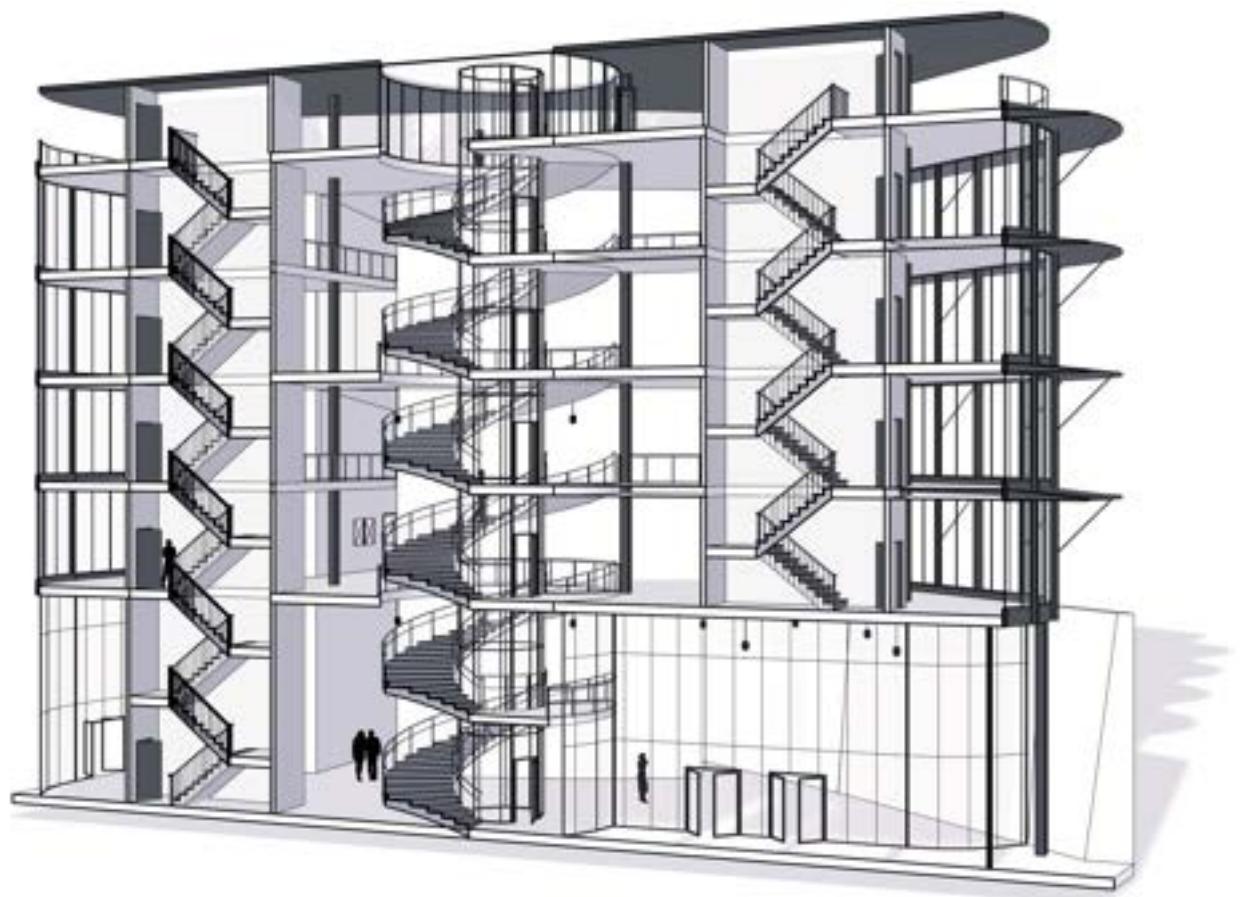
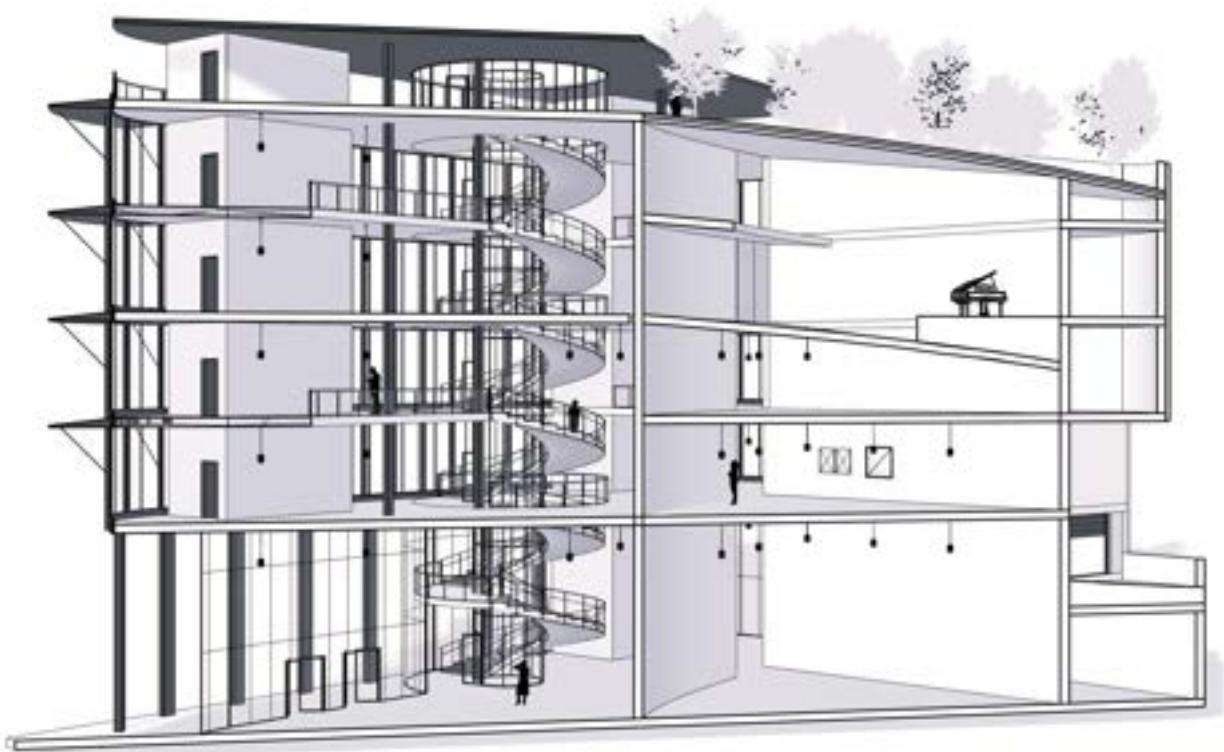
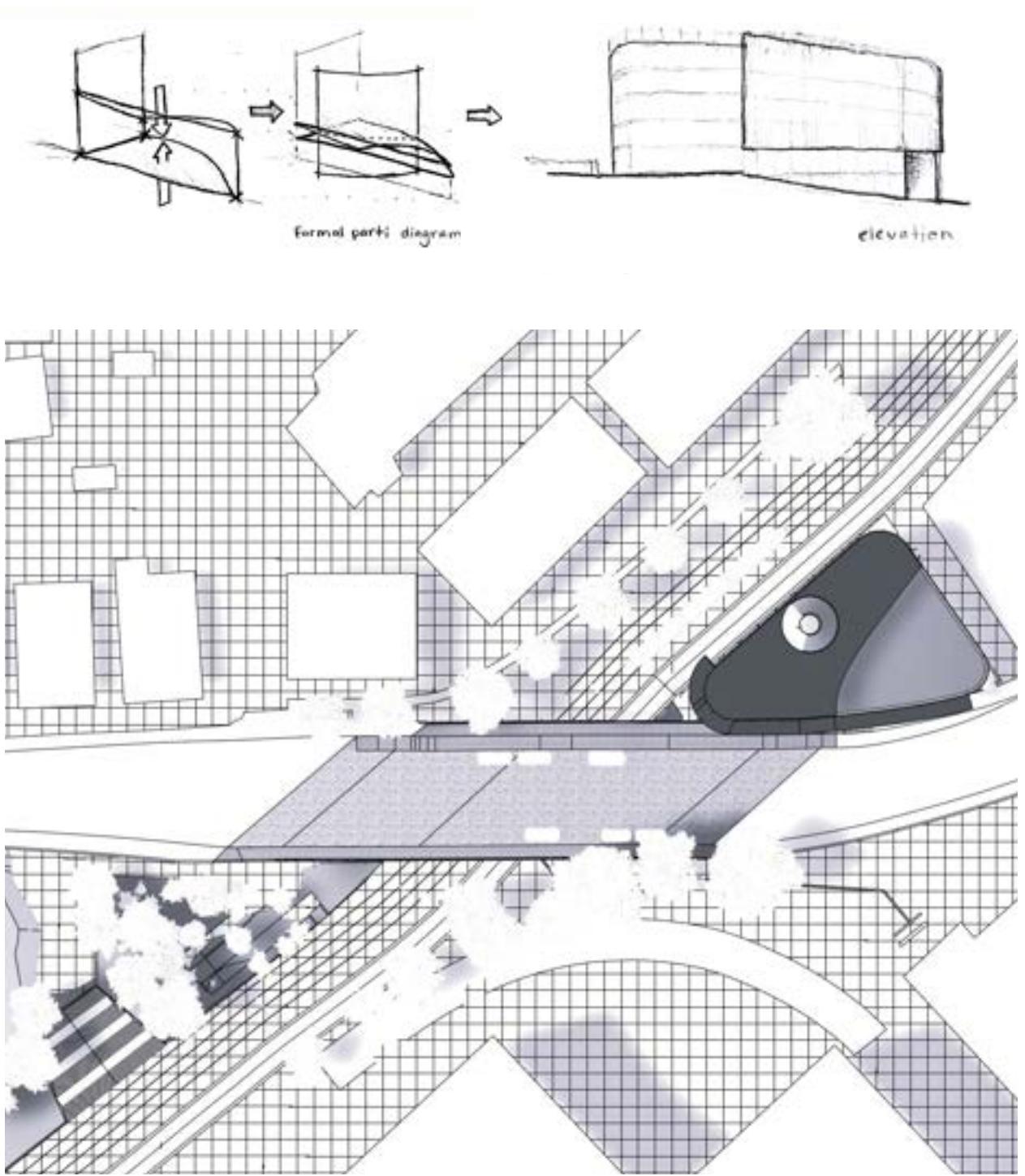


SCAFFOLDING

[FILL-IN-THE-BLANK] FOUNDATION

a collection of multi-use galleries and
small performance space



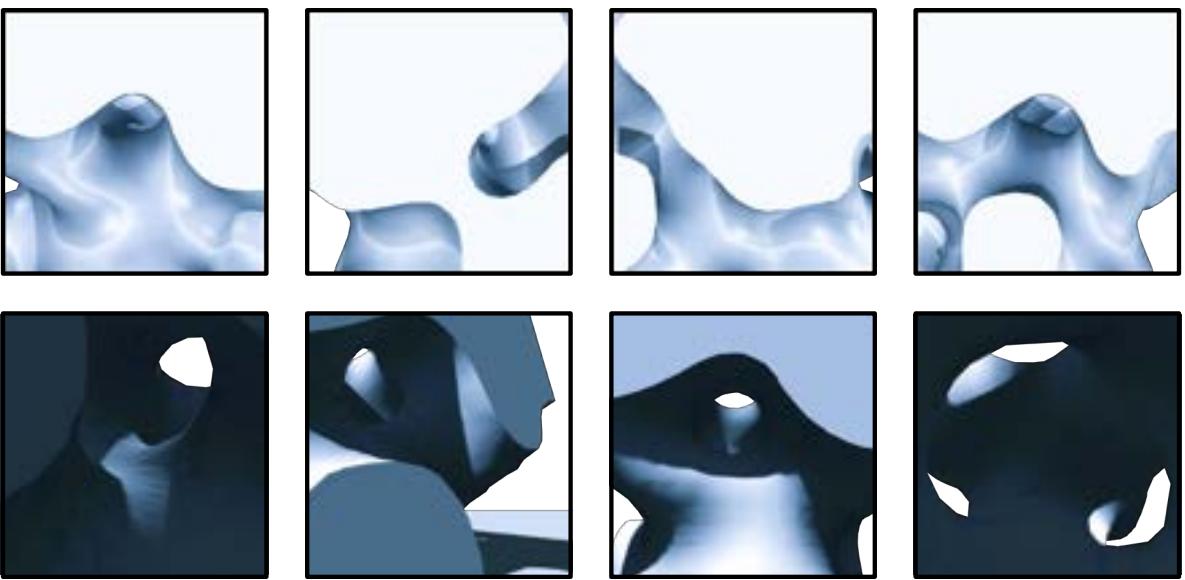
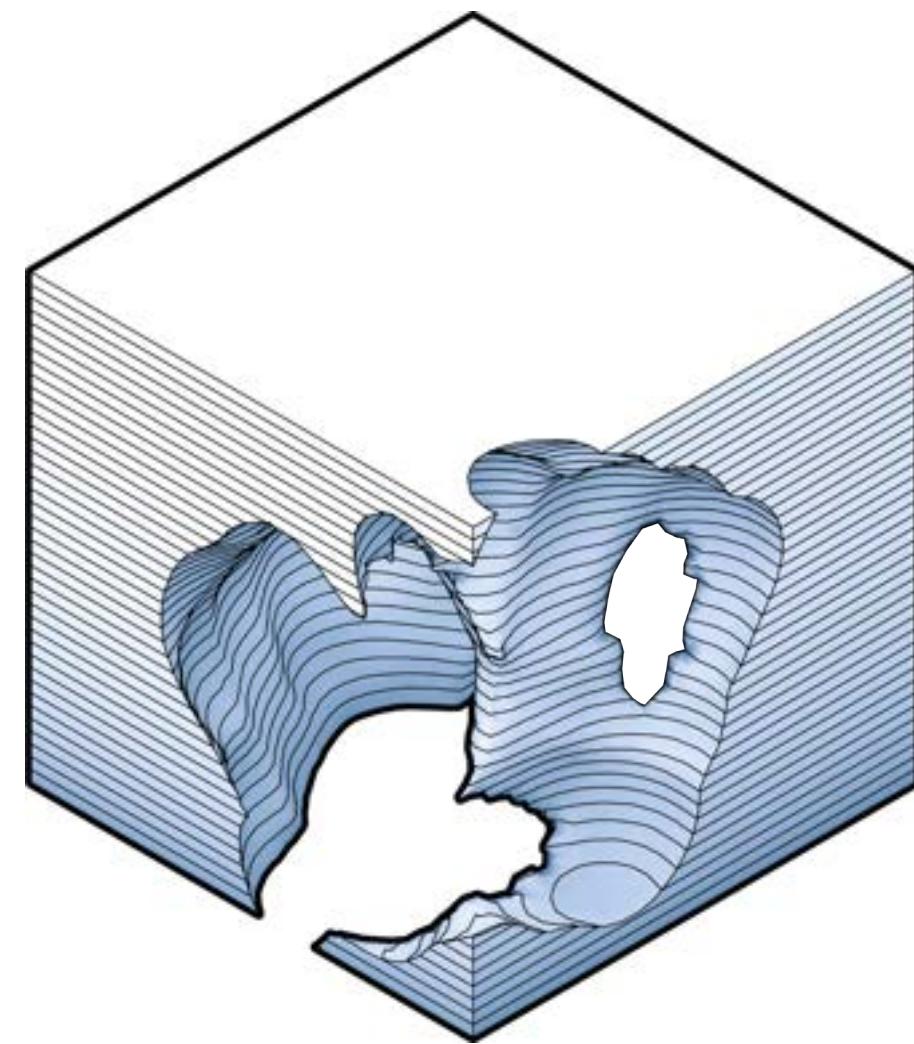
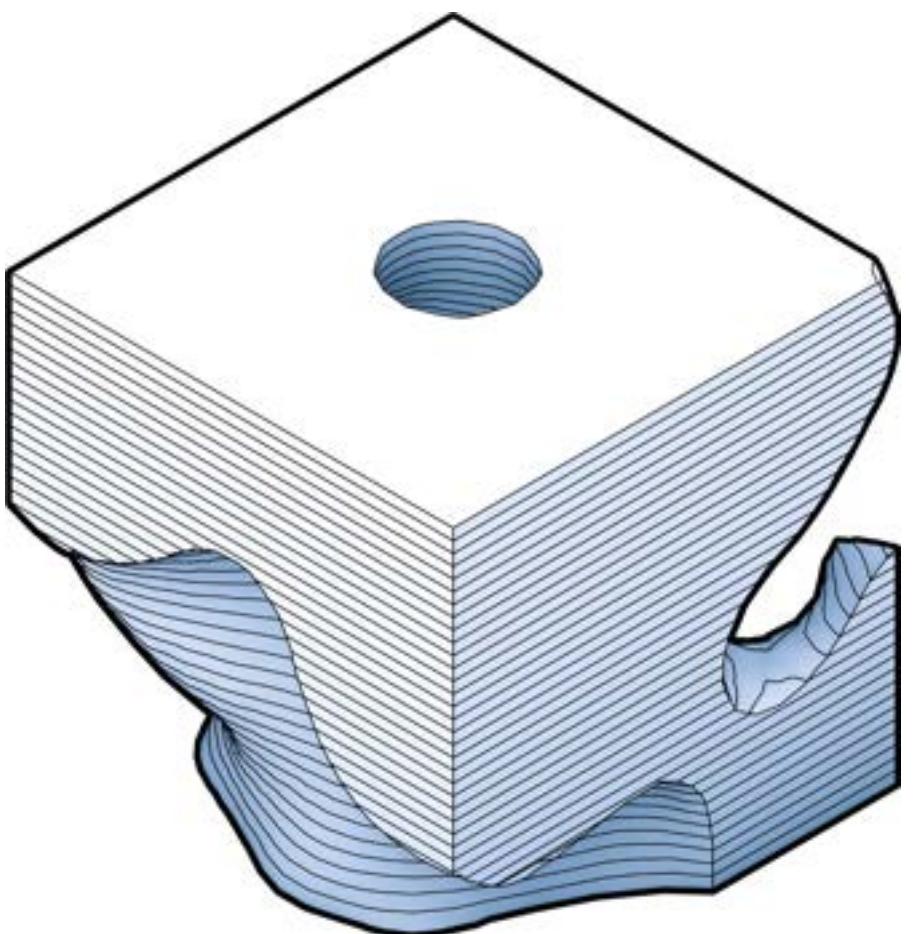


[FILL-IN-THE-BLANK] FOUNDATION

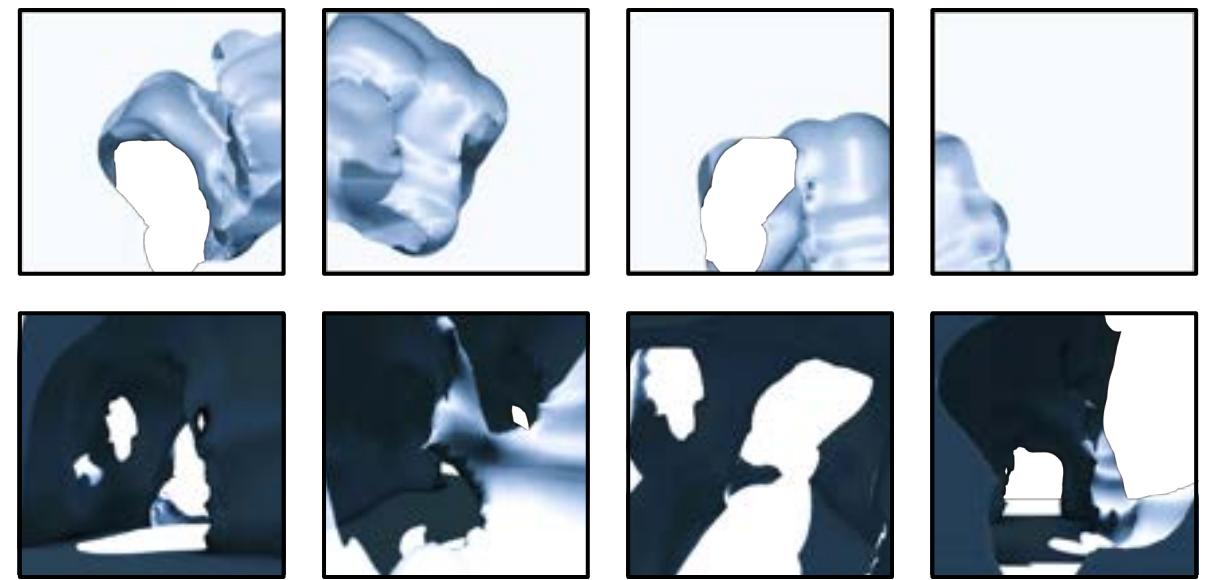
LIGHT-SPACE-MATTER MODULATOR

a dialogue between generative processes and descriptive systems utilizing both physical and digital modeling





BRANCHING GROWTH



HILBERT CURVE

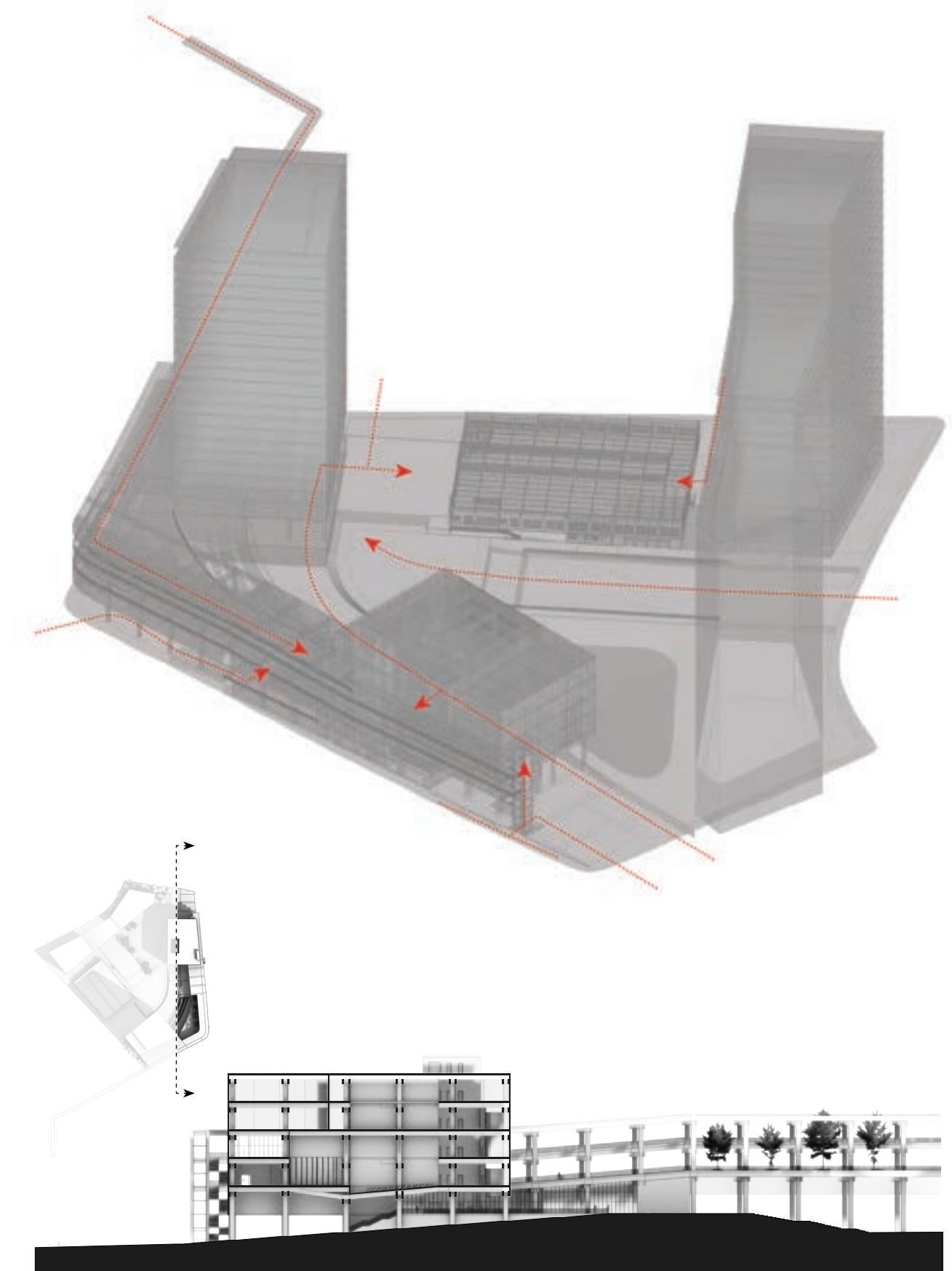


ARTS SQUARE

43

an urban expansion to Georgia Tech
focused on the arts





ARTS SQUARE

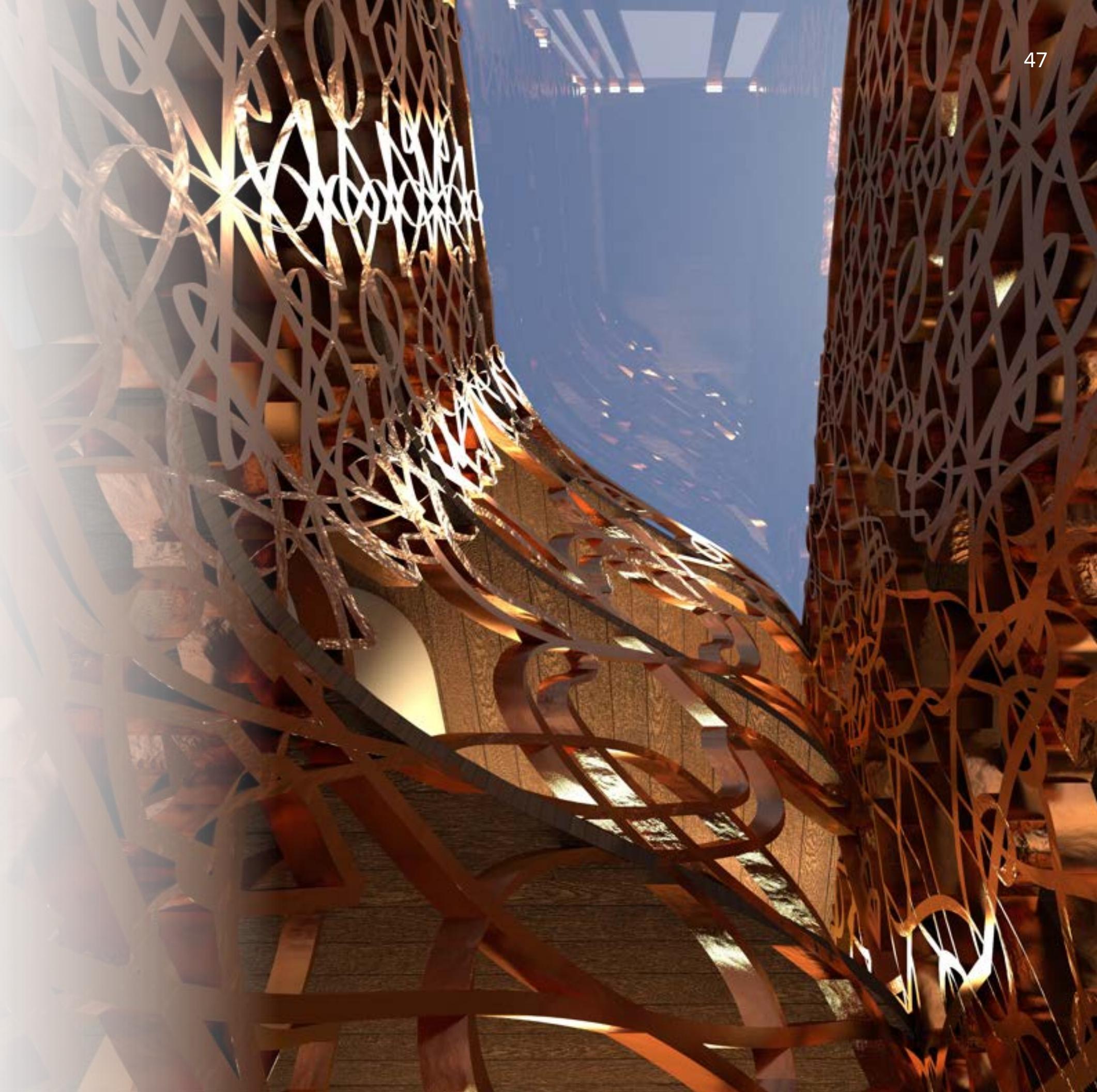
DEEP DECORATION

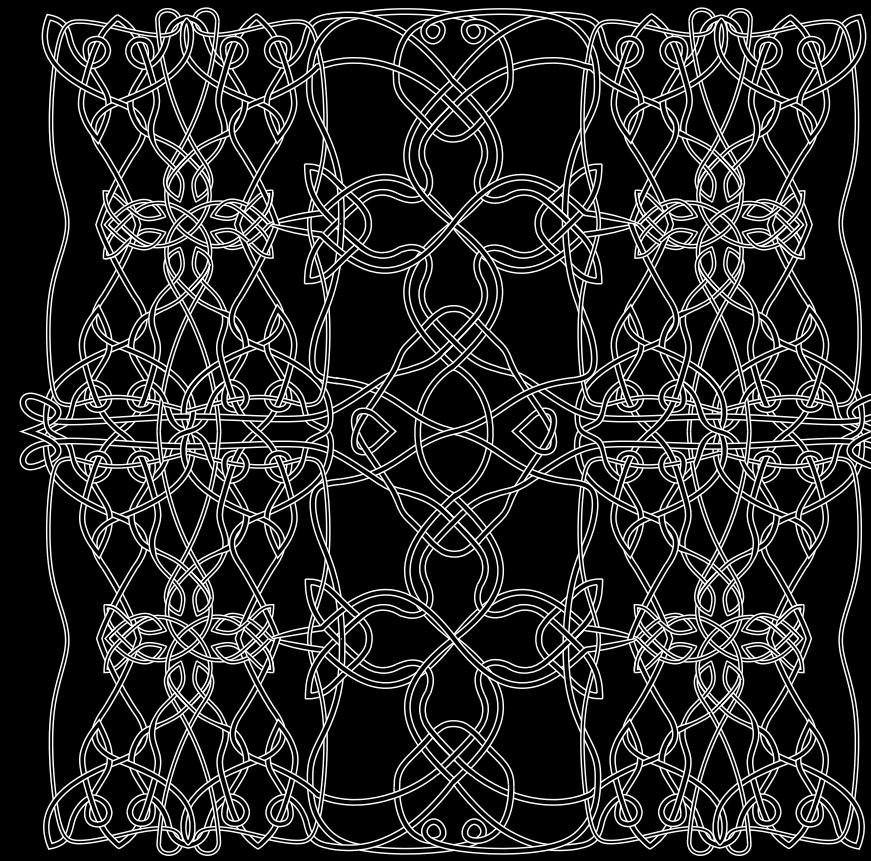
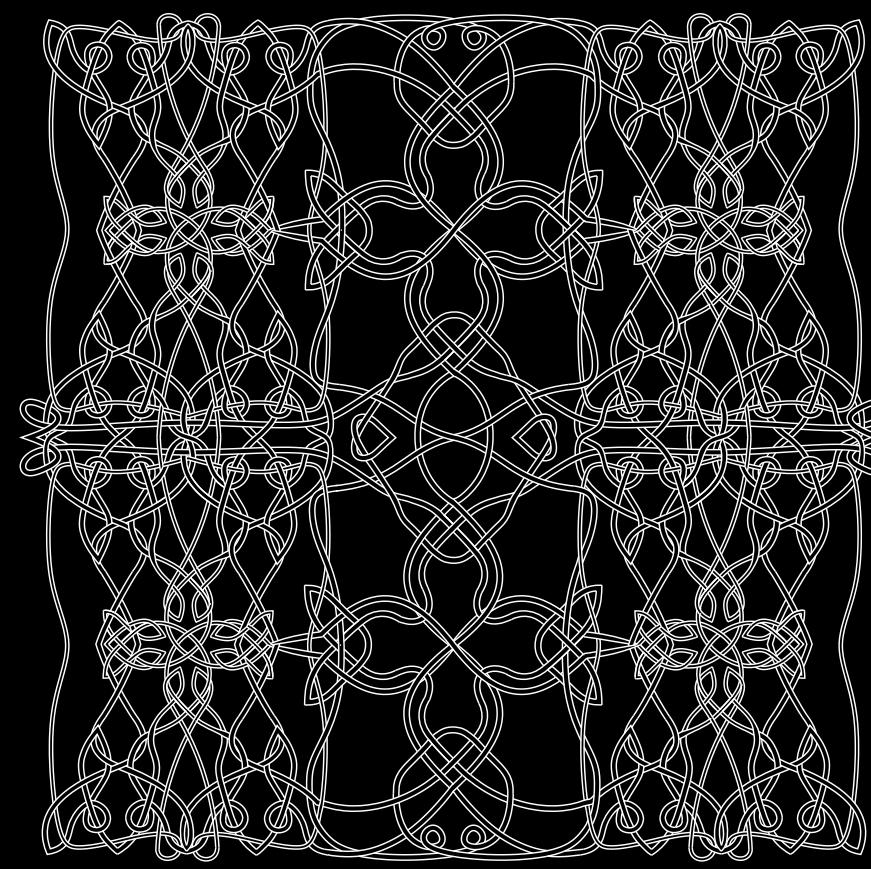
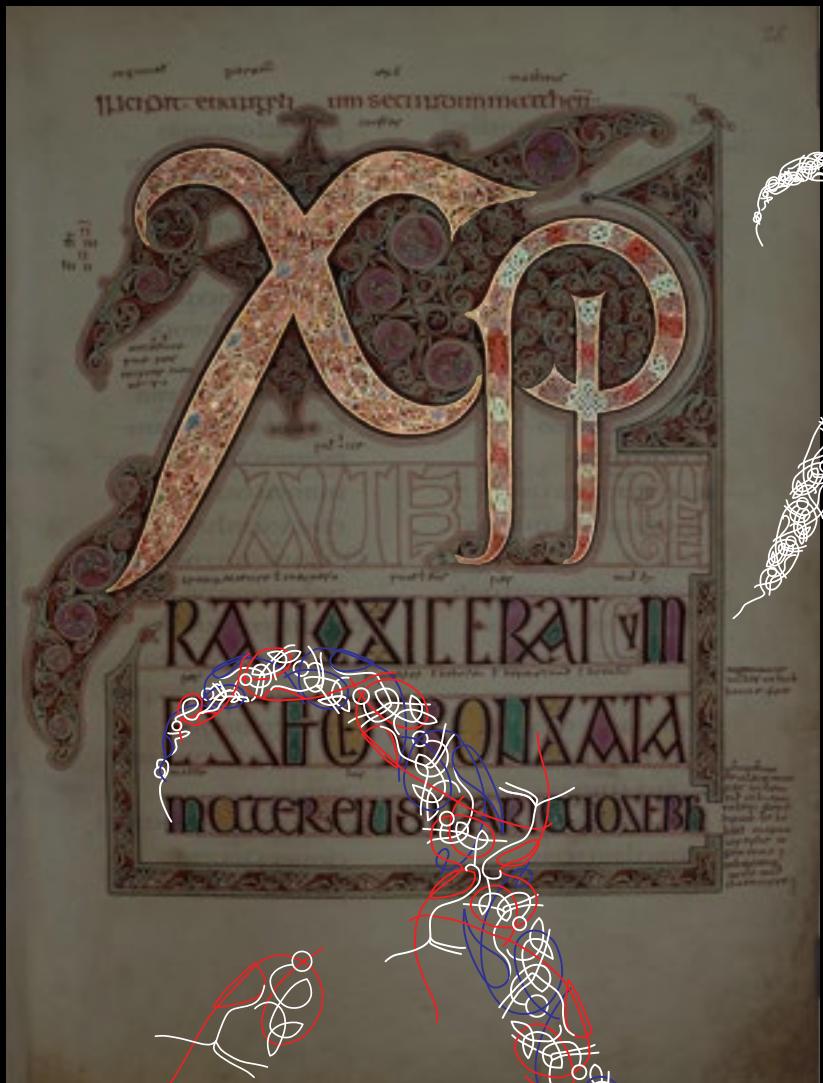
47

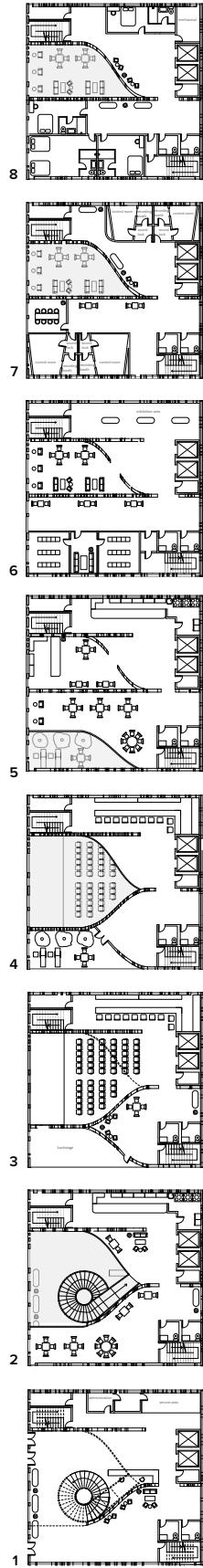
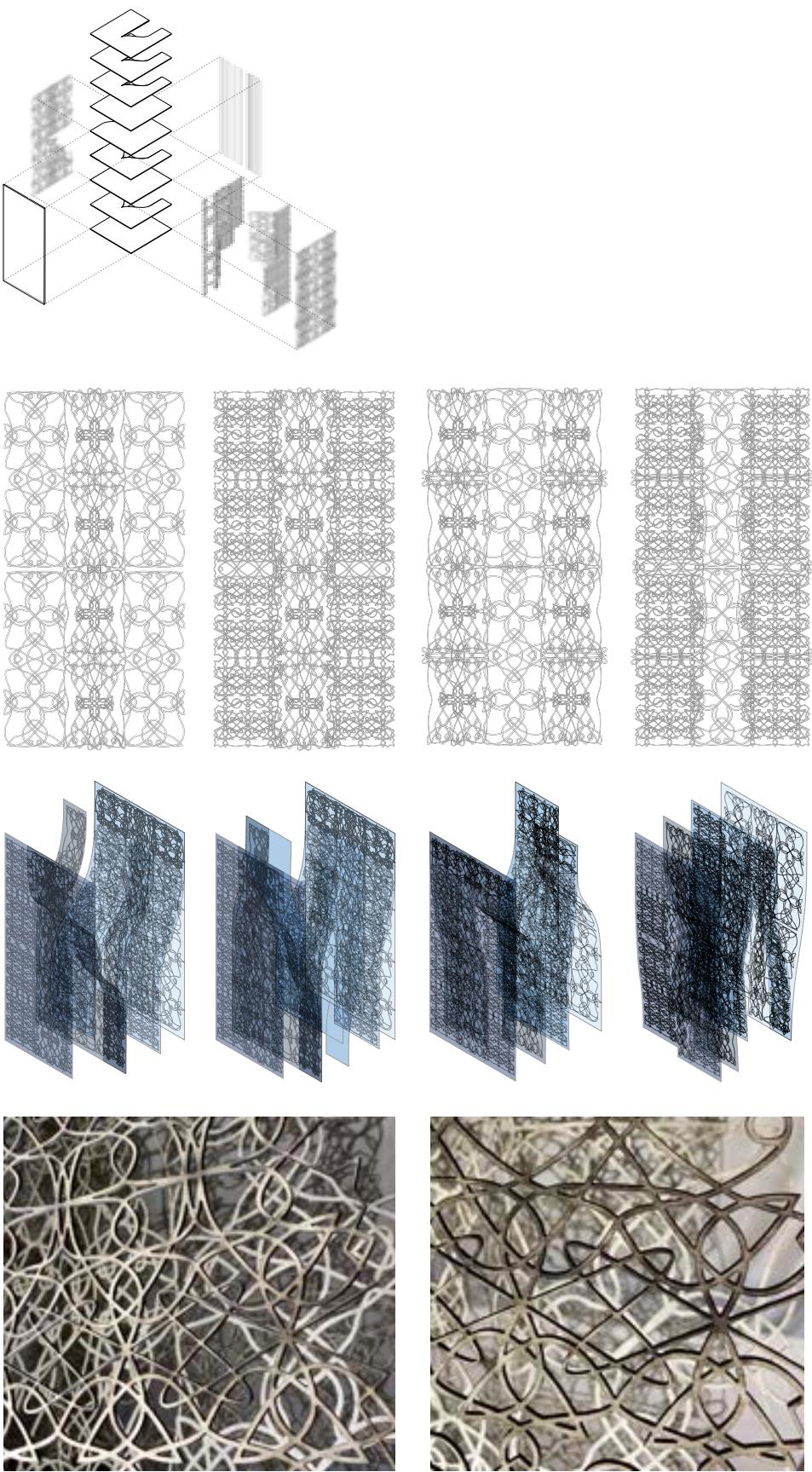
a synthesis of a formal pattern
language based on historic examples
of ornamentation

DETAILS

FALL 2020
ARCHITECTURE DESIGN STUDIO 2
CRITIC: LARS SPUYBROEK
COLLABORATORS: ALEX ZHENG





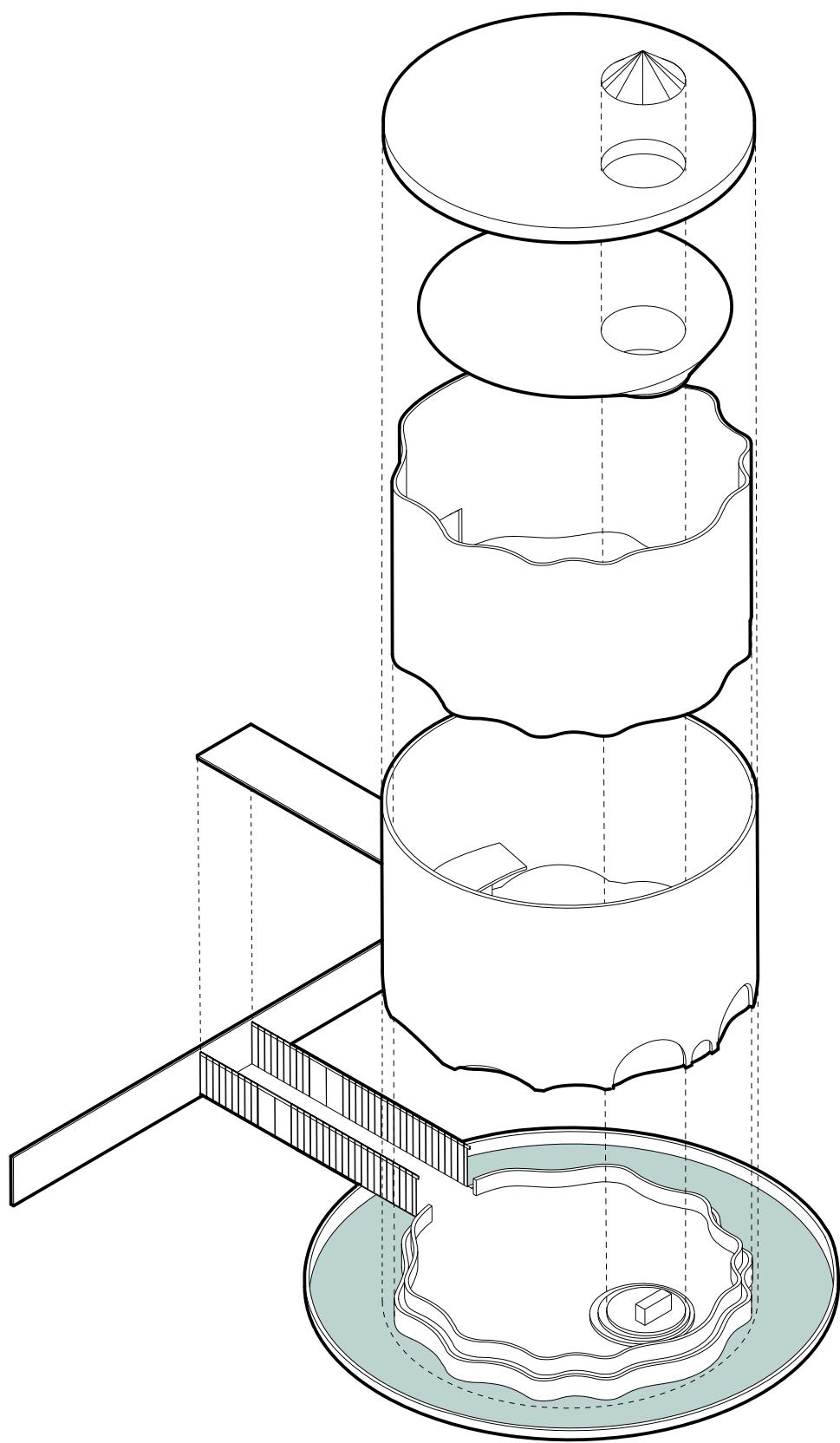
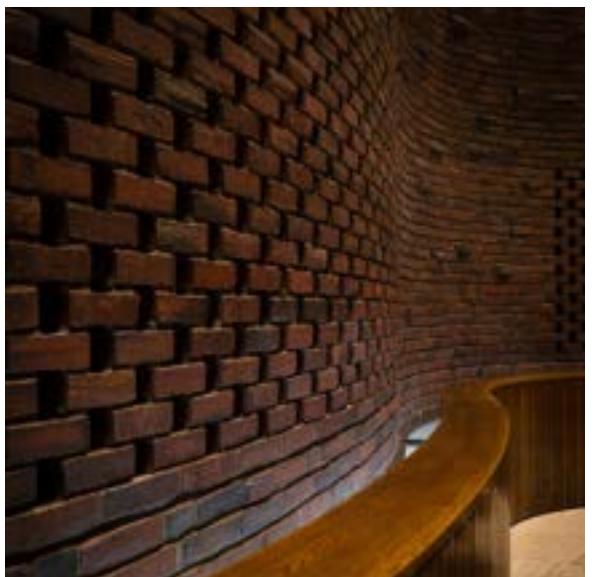
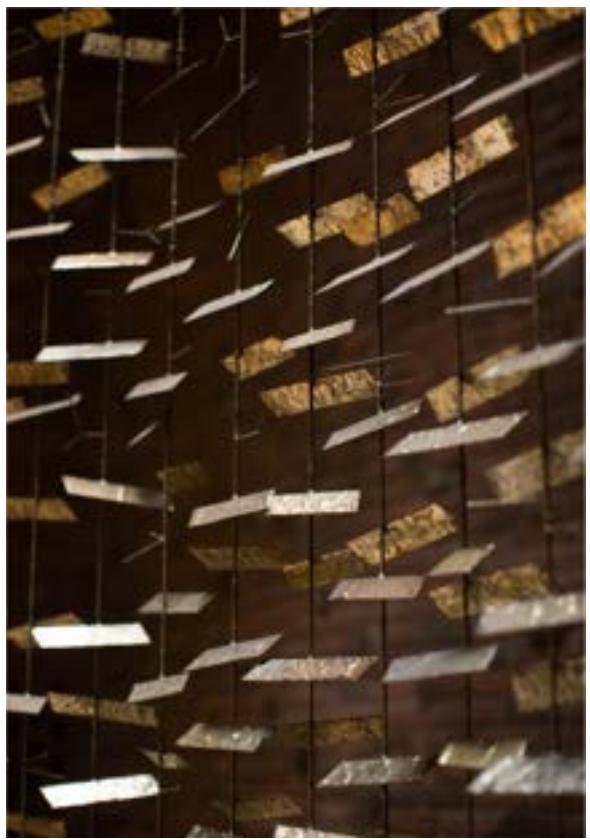


MIT CHAPEL

53

Windowless interior walls are undulating brick. A sculpture by Harry Bertoia glitters from the circular skylight down to a small, unadorned marble altar. Natural light filters upward from shallow slits in the walls catching rippling reflected light from the moat.





WEST VILLAGE DINING COMMONS

BIM modeling and steel frame construction tectonics

DETAILS

SPRING 2024

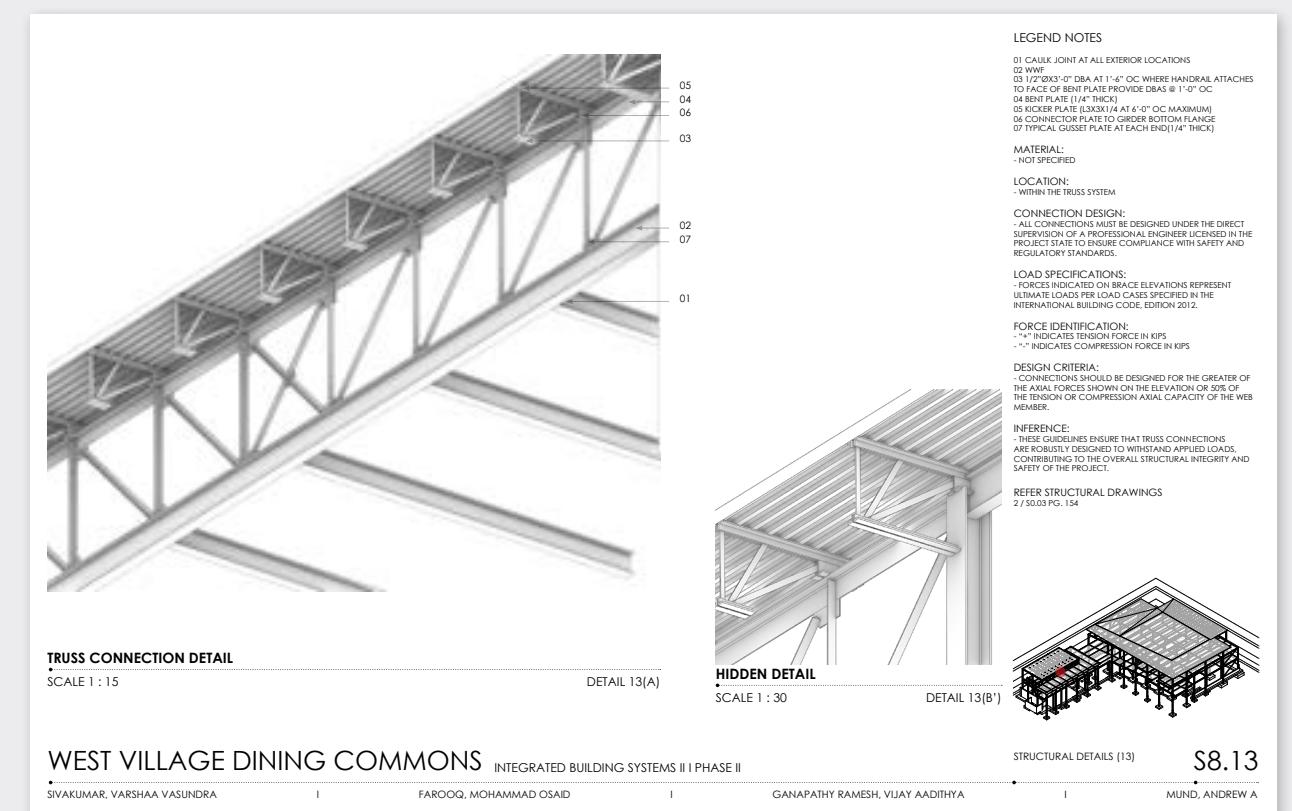
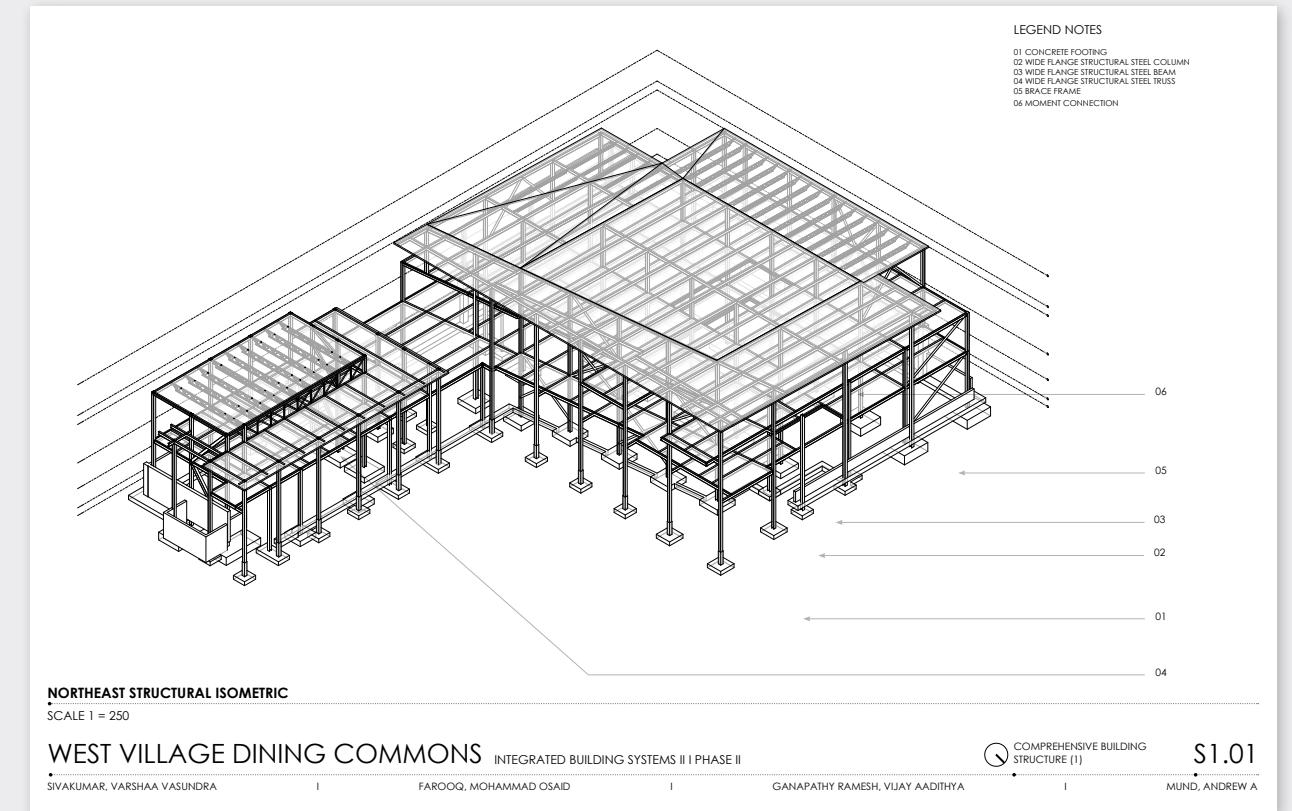
INTEGRATED BUILDING SYSTEMS 2

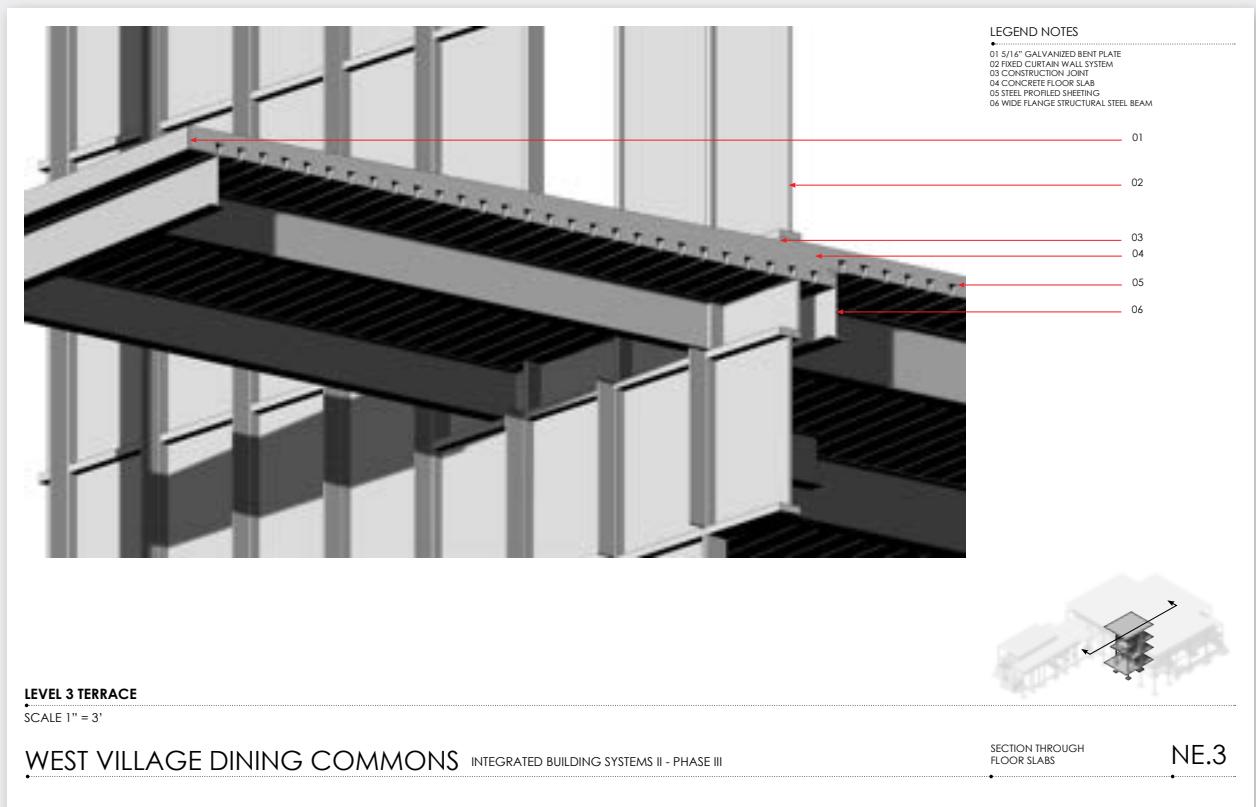
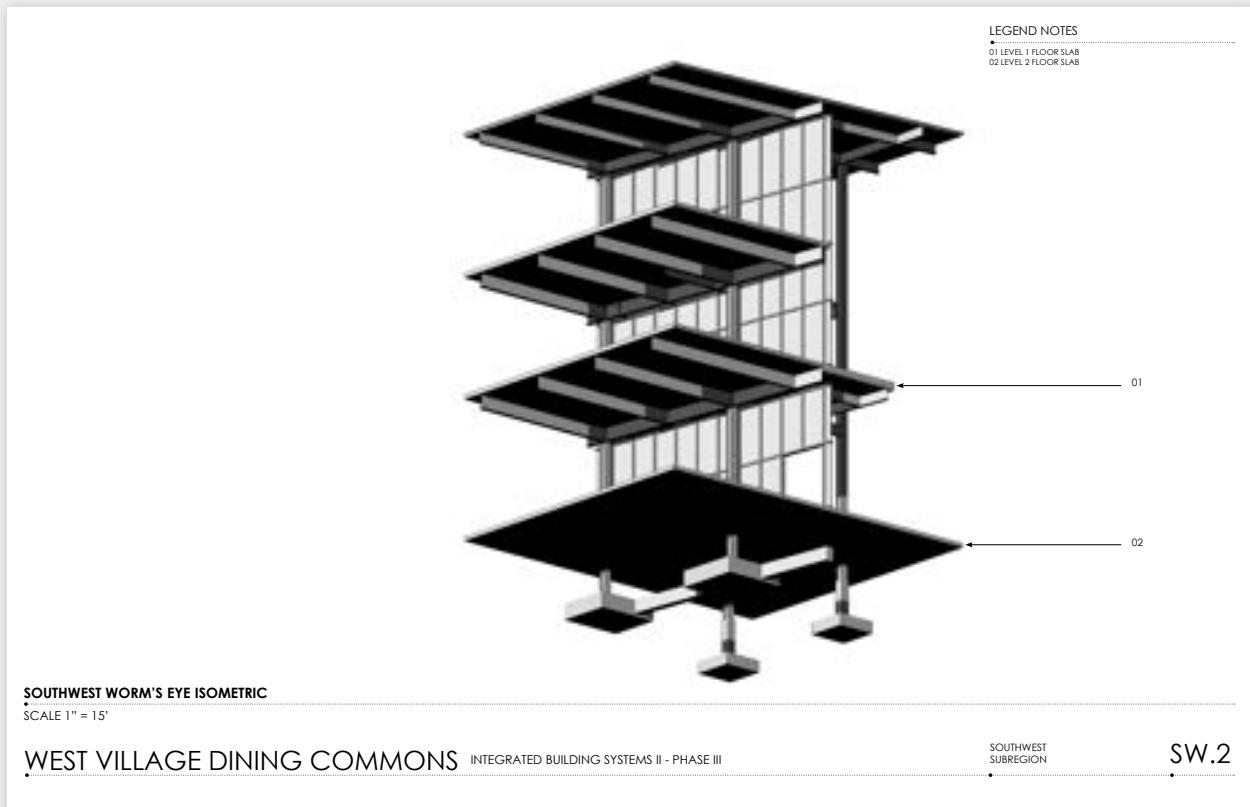
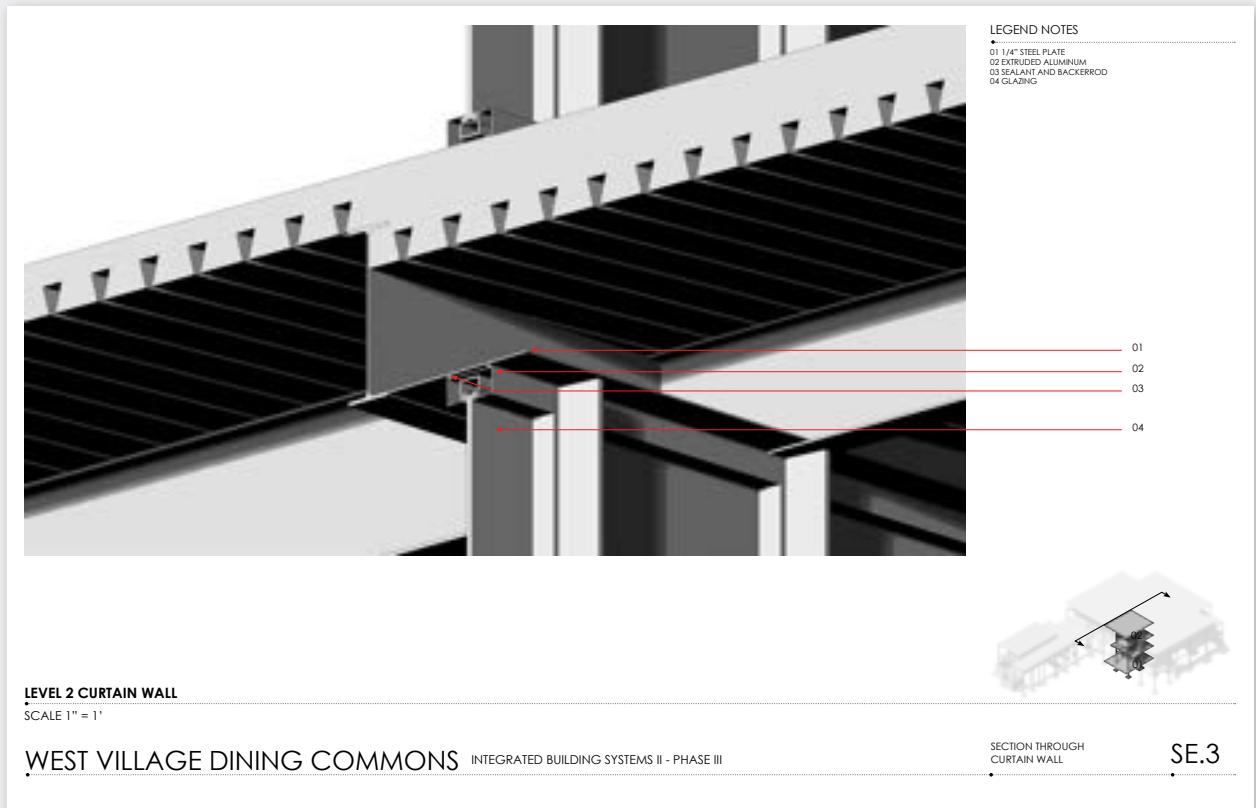
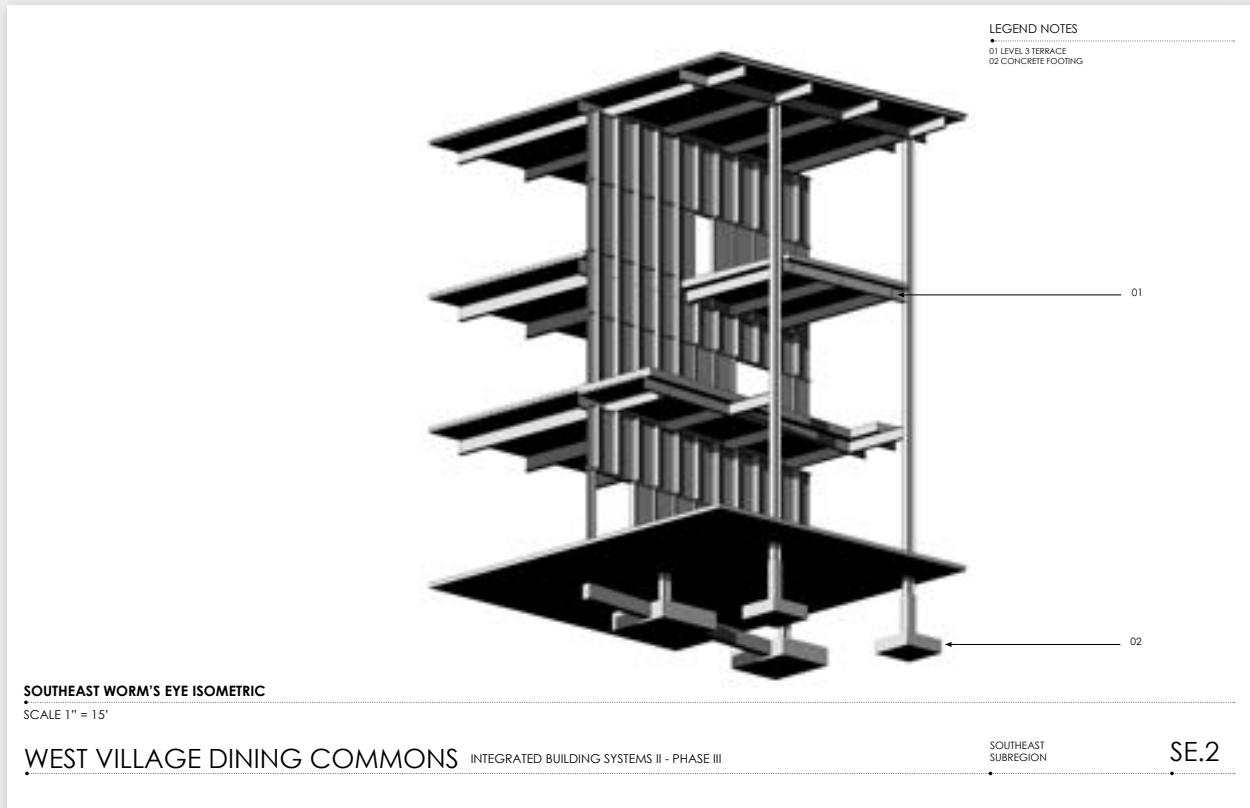
INSTRUCTOR: KAREN JENKINS,

JIM CASE, RUSSELL GENTRY

COLLABORATORS: VARSHAA SIVAKUMAR,

OSAID FAROOQ, VIJAY AADITHYA





GULF COAST BUILDING SUPPLY & HARDWARE

61

a site and inventory survey utilizing
LiDAR imaging in preparation for a
warehouse expansion



