

9 + 1 Towers

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Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in
partial fulfillment of the requirements for the degree of

Master of Architecture

September 29th, 2017
Blacksburg, Virginia

Kay Edge, Committee Chair

Frank Weiner

David Dugas

Keywords: architecture, tower, hyperreality

To my first architecture teacher, my dad.



ABSTRACT

There is a beauty to the absurdity of the moment at which there is almost no line between the real and the unreal. In such realm, an illusion, and yet the possibility, of a tower acts as a protagonist with which one can begin to let his imagination approve of the absurd, the too ambitious, the unlikely. The first nine towers are the outcome of my attempt to intertwine two arenas of photography and architecture. They investigate the possibility of compressing the reality of a place into a hyperreal image consisting of a photograph of the place, which acts as the site, and a fantastical addition. They also aim to document and express my memories of the places that I visited during my more than 15,000 miles of traveling over the past year. Each tower is an homage to the memory of its respective place.

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The Beginning

a study on form and space

I began my thesis year at Virginia Tech's Steger Center for International Scholarship in Riva San Vitale, Switzerland where, along with studio and theory courses, I had the opportunity to travel to Switzerland, Italy, and parts of France, Germany and, Netherlands. Being overwhelmed by many outstanding cities and buildings, I started my thesis with a question:

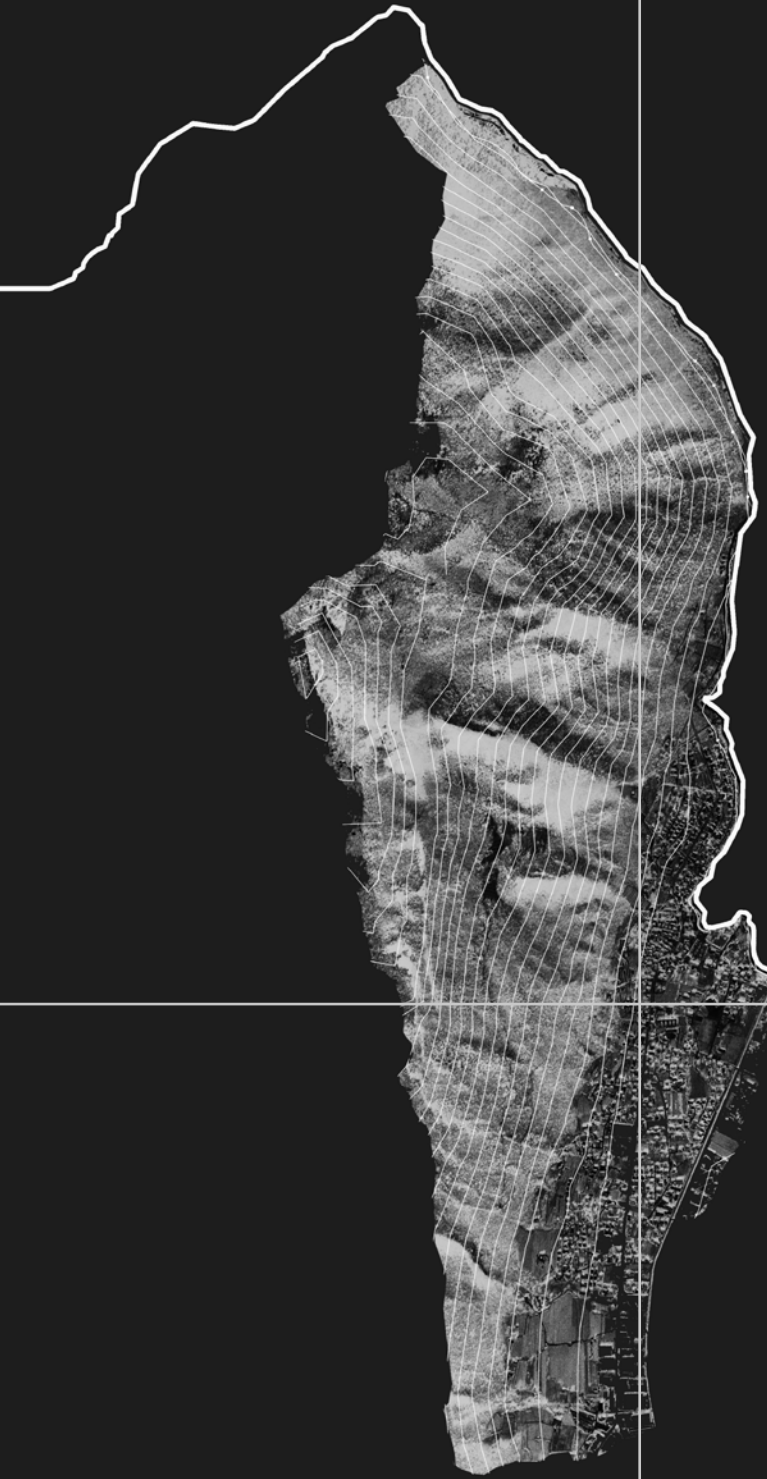
How can a study of a building be generative?

I wondered if I could develop an approach to study buildings, that would go beyond the typical research techniques such as reading, sketching, taking photographs and inhabiting the space. Therefore, I examined the possibility of **generating new forms and spaces inspired by the buildings that I studied**. Since I needed a framework for this series of studies, I decided to use the constraints of a cube as a volume within which the new forms would be created. Throughout this study, which I refer to as the **Cube Project** in this book, sketching and making physical models were crucial parts of the design process. The outcome of the project was twelve forms, of which six were employed in the first three towers.

This study is thanks to the following pieces of architecture:

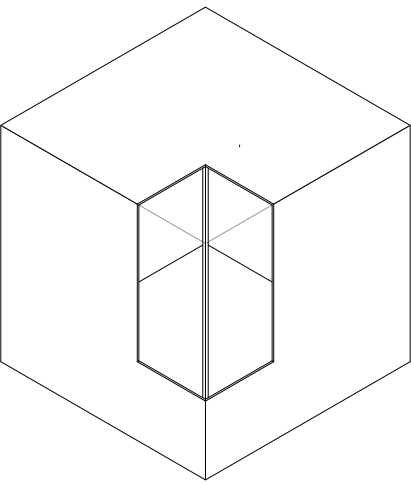
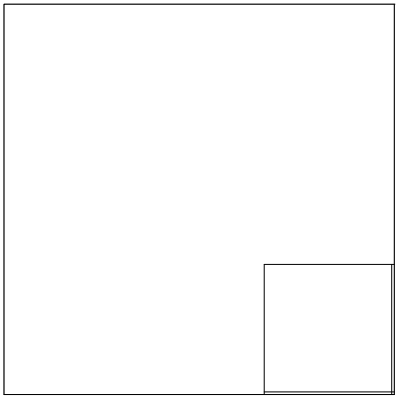
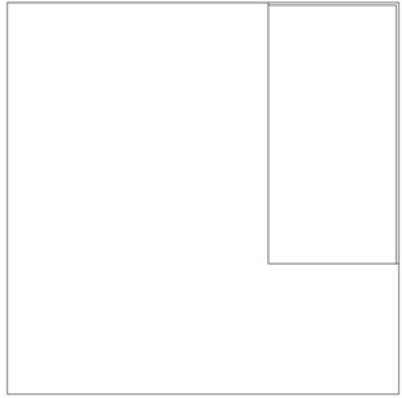
Heide Weber Museum by Le Corbusier
Convent of La Tourette by Le Corbusier
Villa Savoye by Le Corbusier (not visited in person)
Monte Carasso Elementary School by Luigi Snozzi
Monte Carasso Housing and Public Center by Livio Vachini and Luigi Snozzi
Kalmann House by Luigi Snozzi (not visited in person)
Brion Cemetery by Carlo Scarpa
The new wing of Canova Museum by Carlo Scarpa (not visited in person)



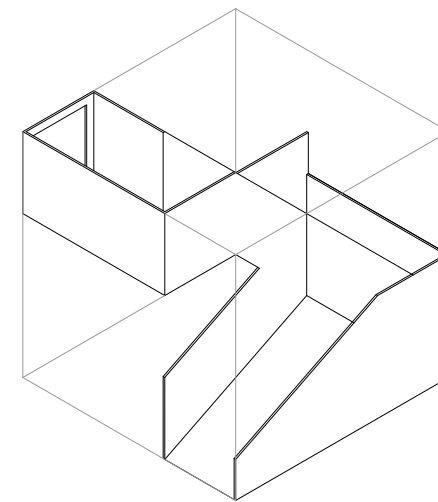
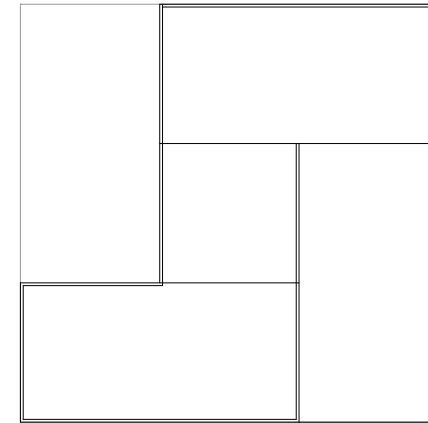
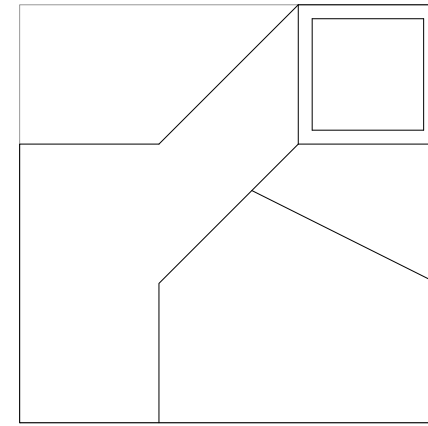


45°54'11.81" N 8°58'12.14" E
NOVEMBER 6, 2016 4:59 PM

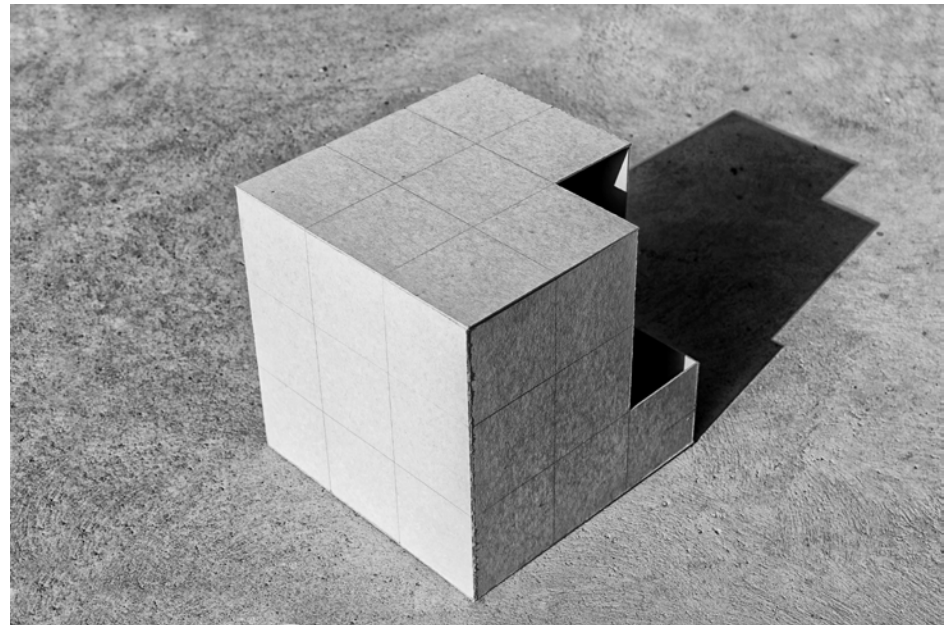
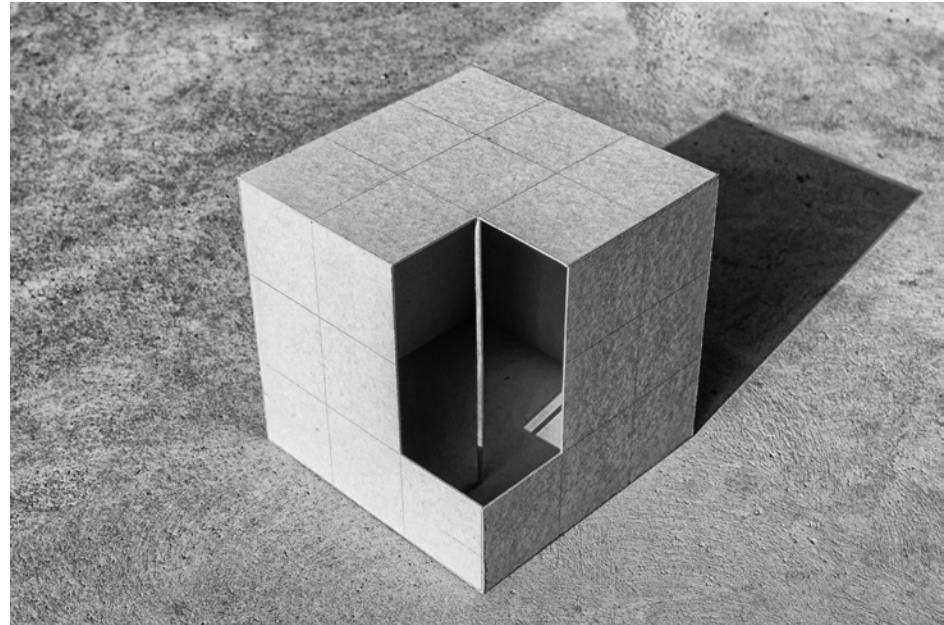




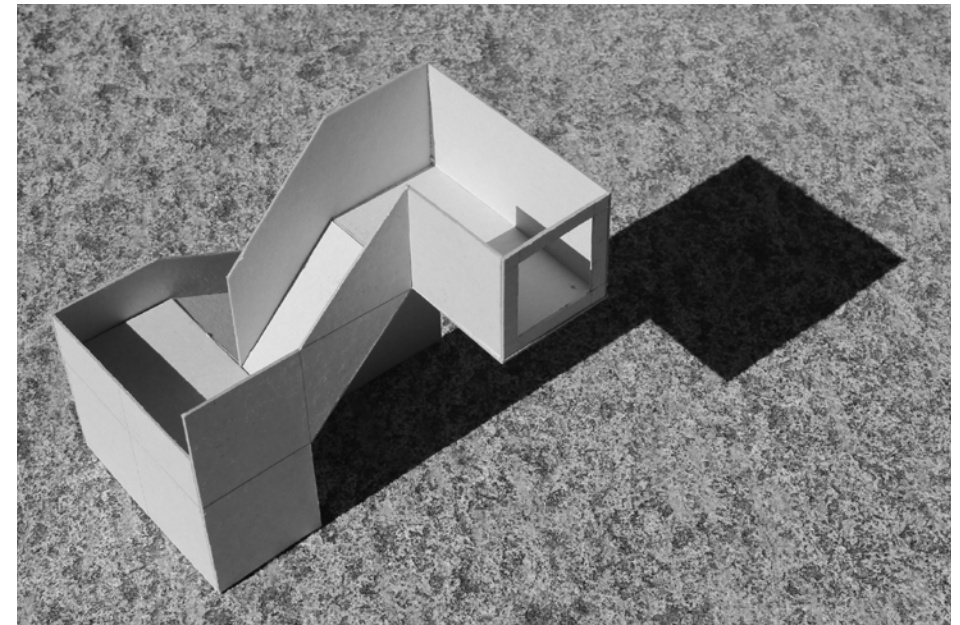
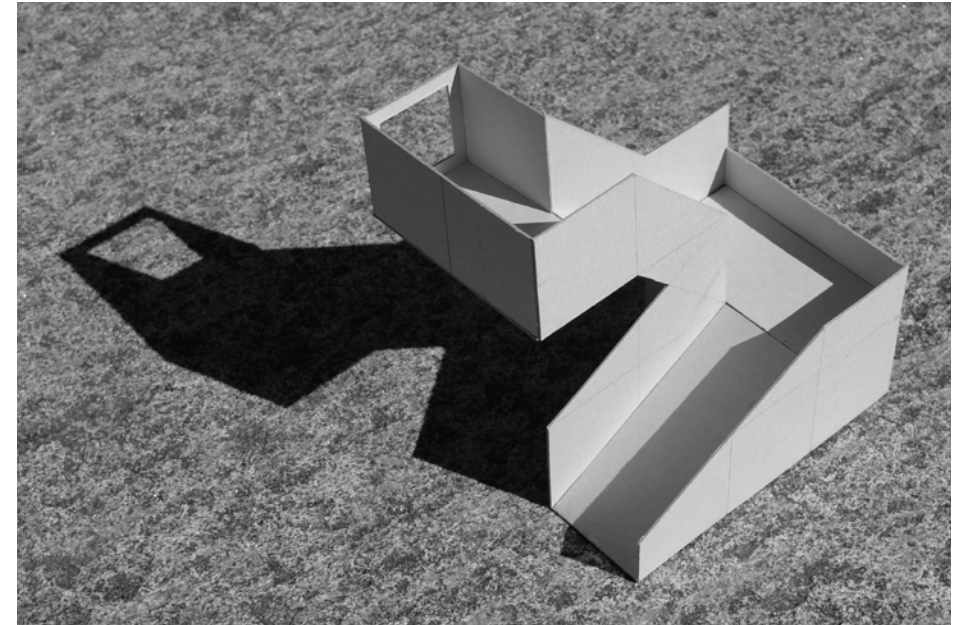
From top: schematic elevation, plan, and axonometric of Cube 01



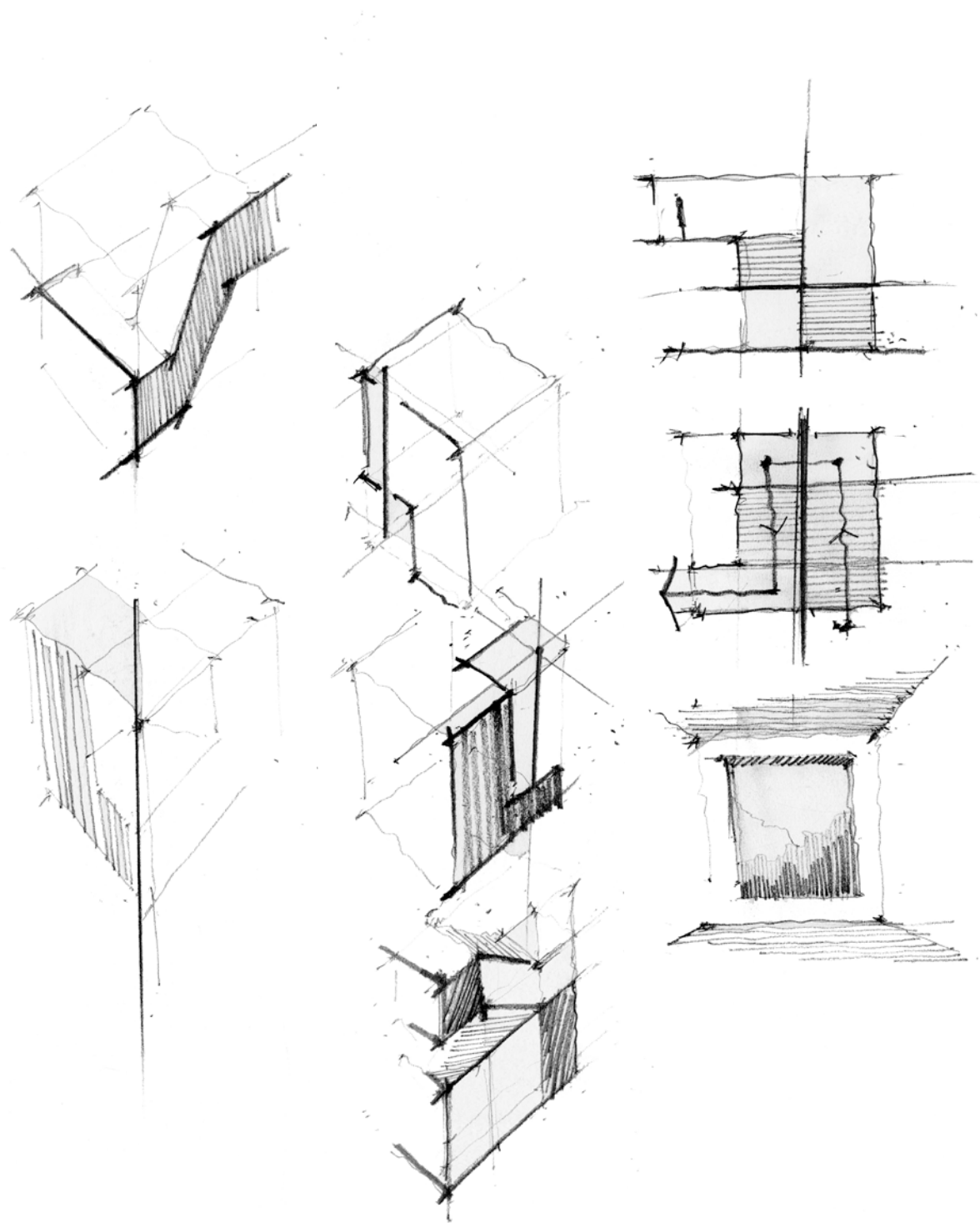
From top: Schematic elevation, plan, and axonometric of Cube 02



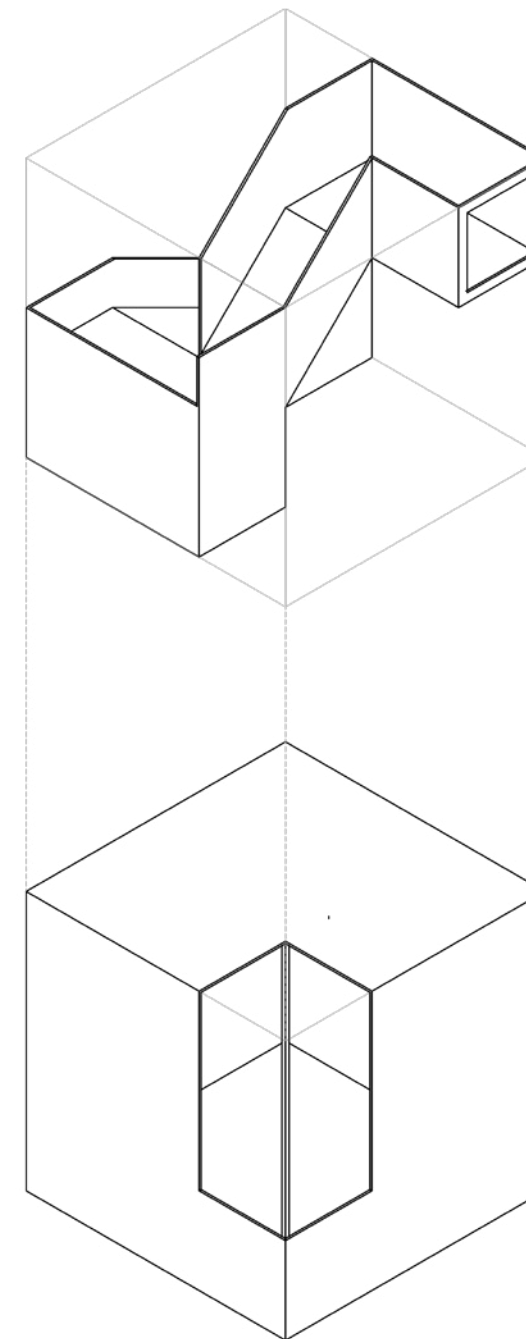
Physical model of Cube 01



Physical model of Cube 02



Form begins to explore the possibility of becoming a building with the aid of pencil sketches that imagine the form and the space as an observer and an occupant



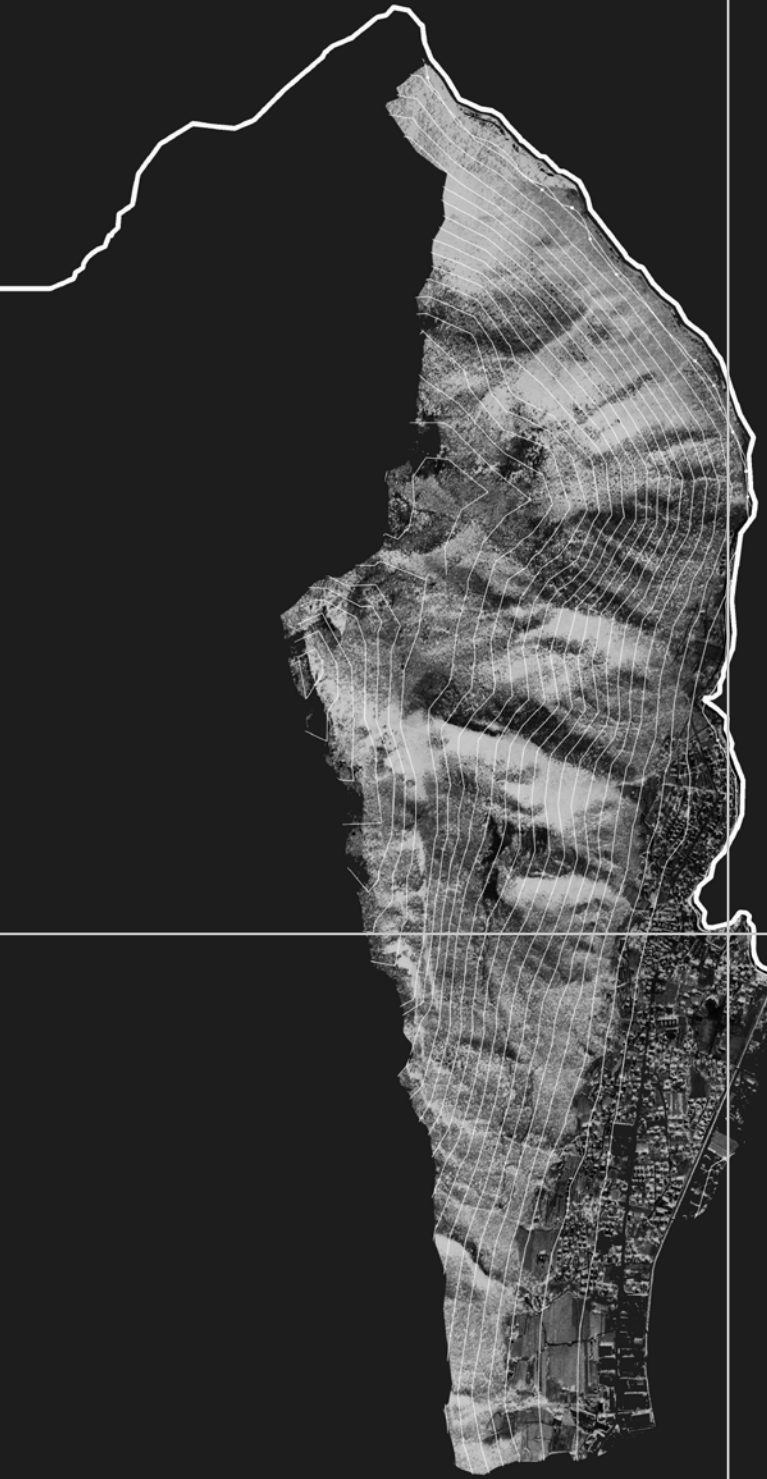
Cube 01 and Cube 02 stacked on each other to generate the form of the first tower



Site: Near Villa Maderni in Riva San Vitale, Switzerland

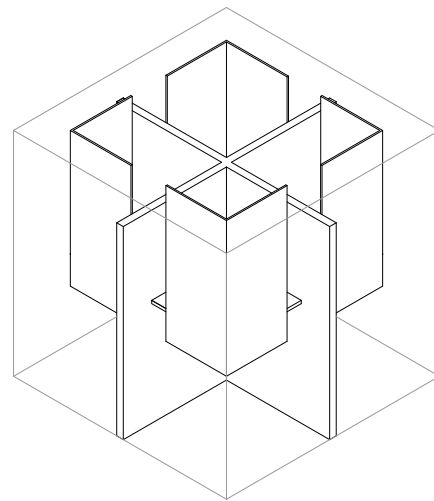
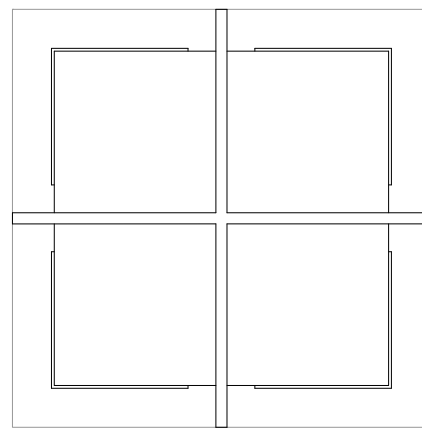
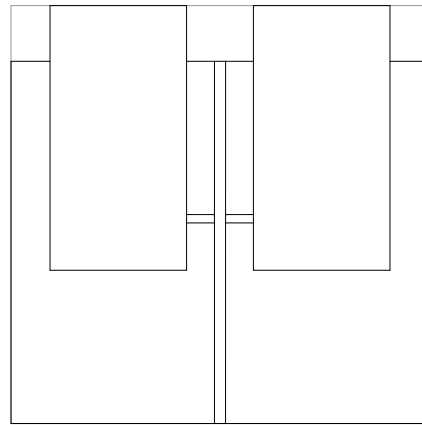


Collage of the first tower

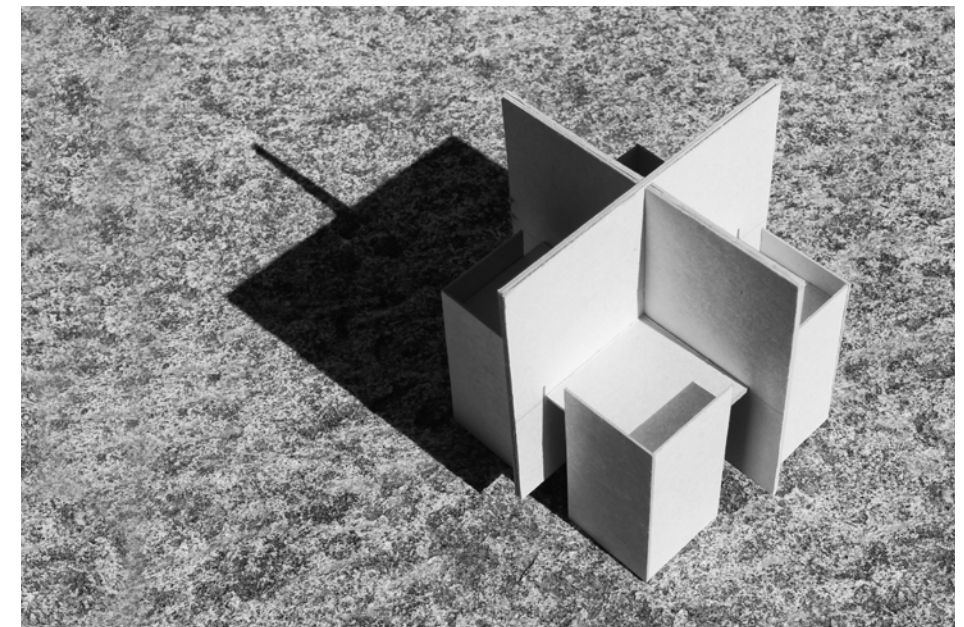
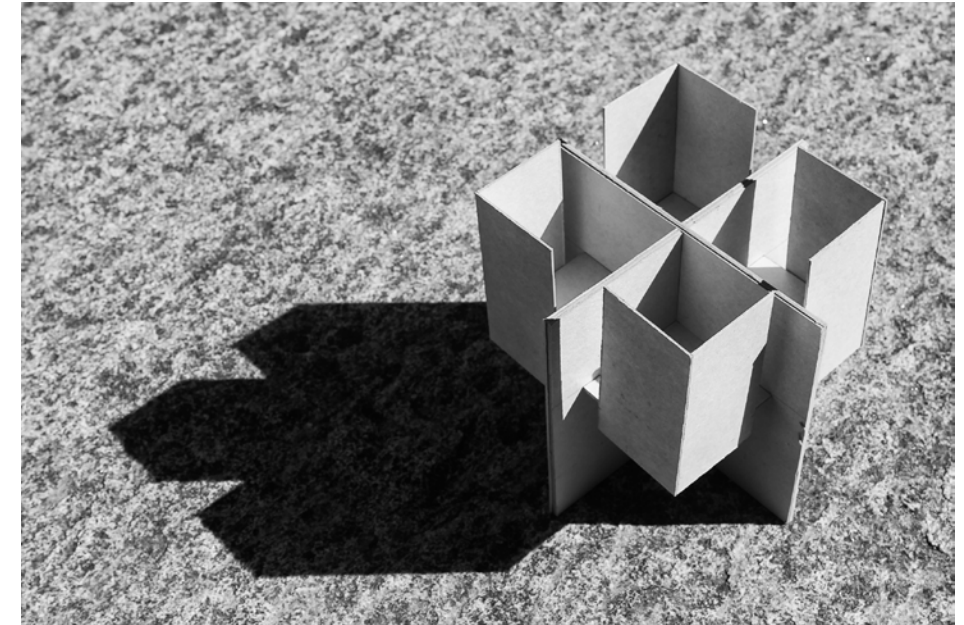


45°54'24.20" N 8°58'25.60" E
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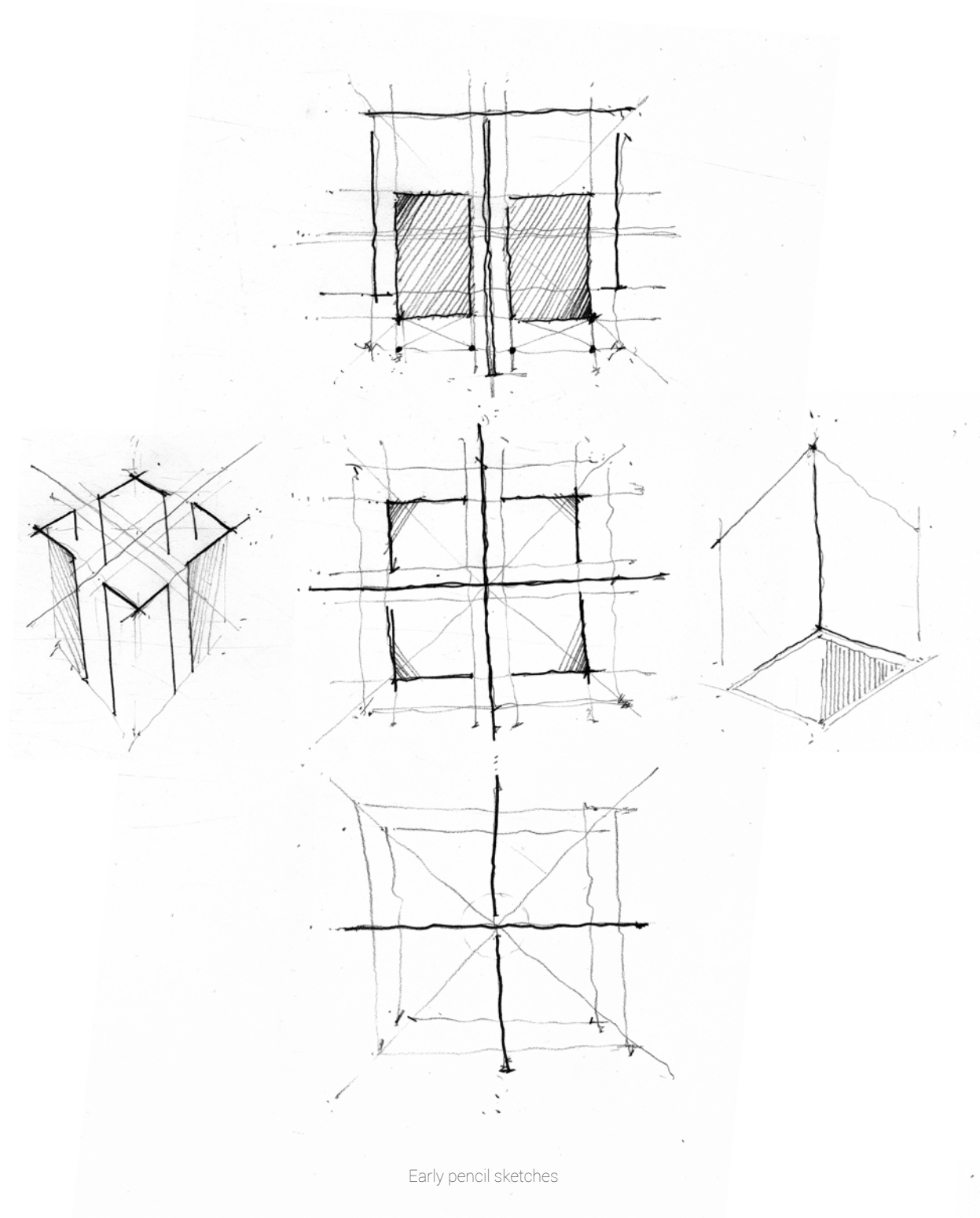




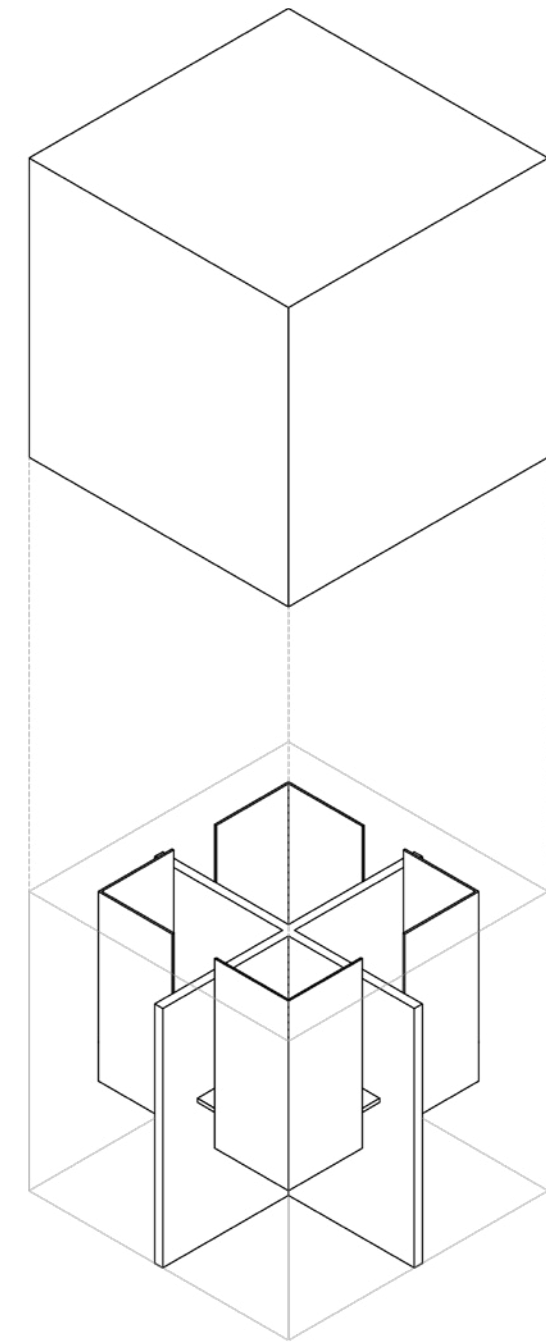
From top: Schematic elevation, plan, and axonometric of Cube 03



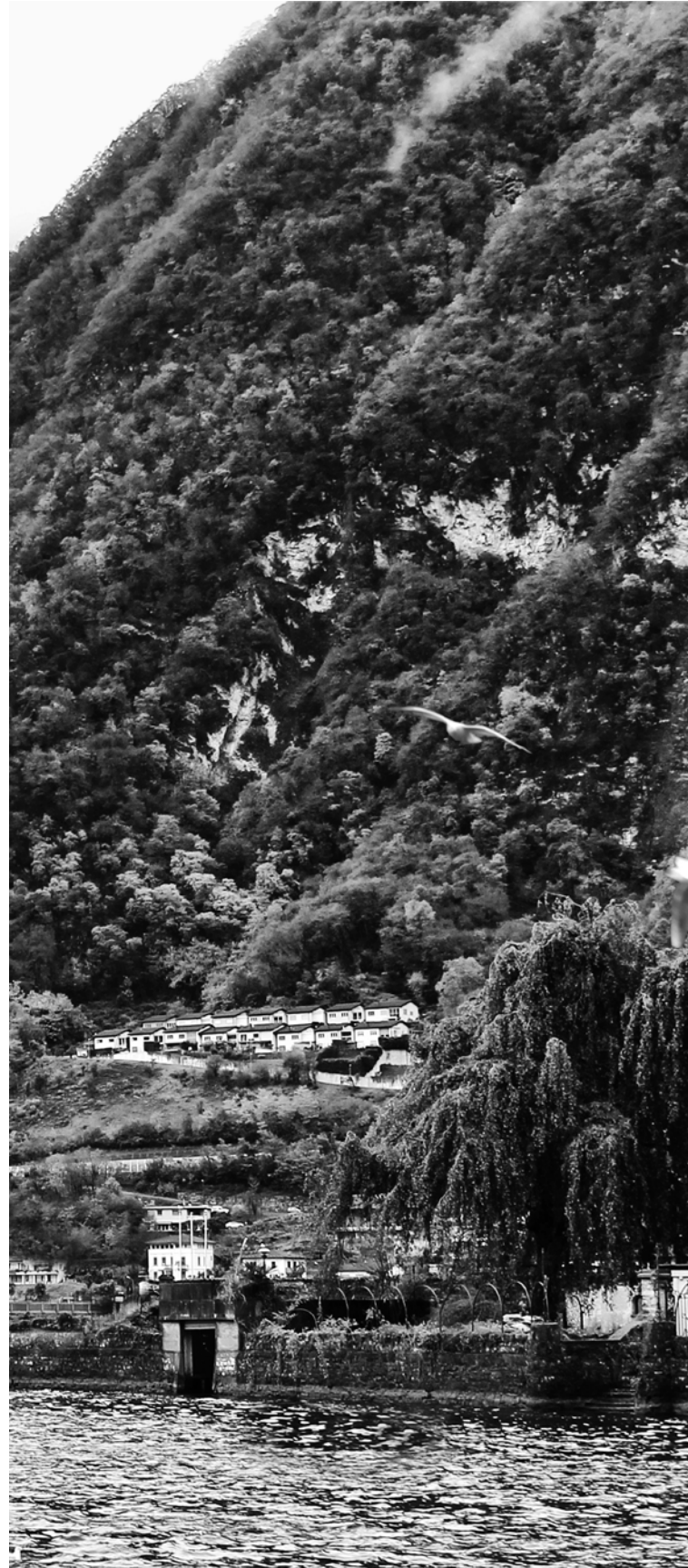
Physical model of Cube 03



Early pencil sketches



Cube 00 and Cube 03 stacked on each other to generate the form of the second tower

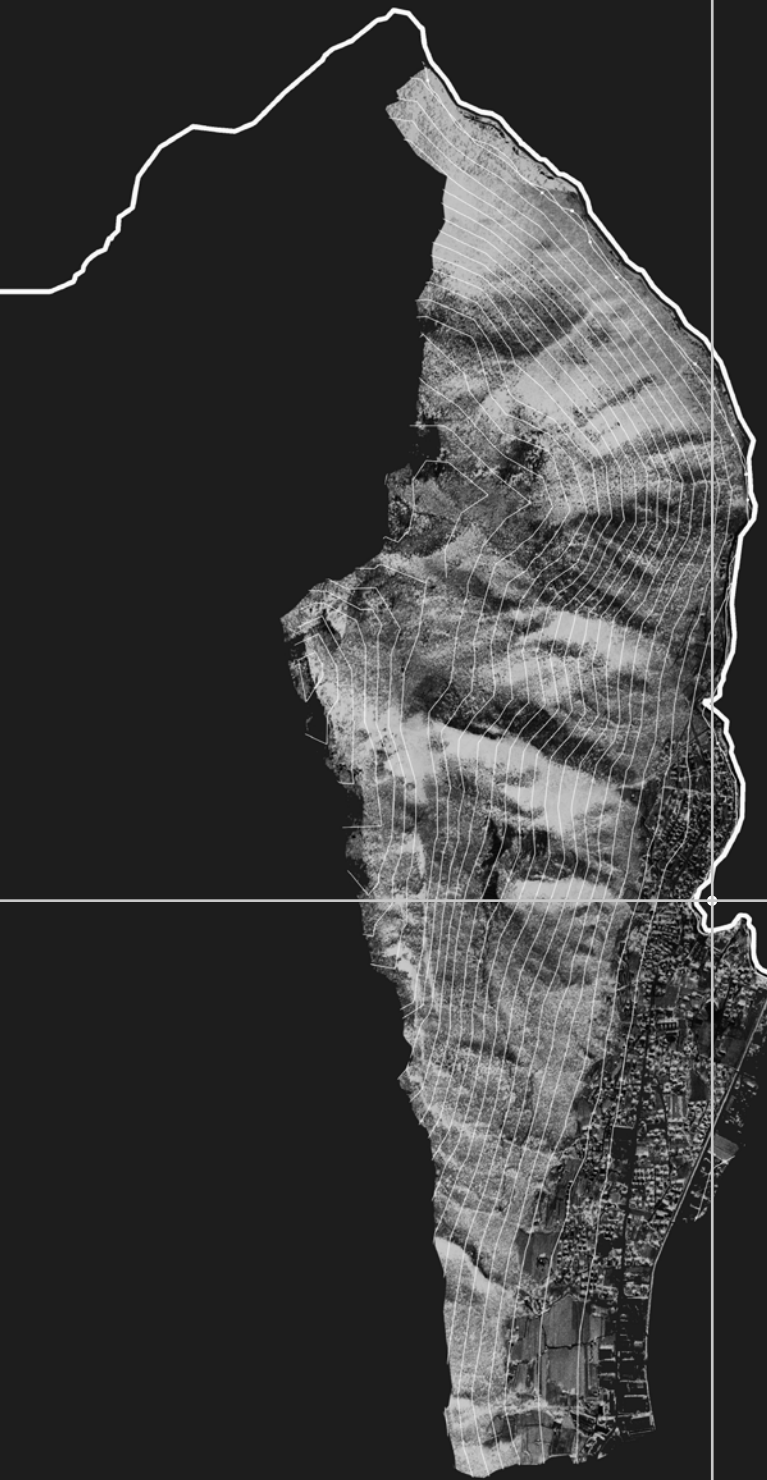


Site: Lake Lugano in Riva San Vitale, Switzerland



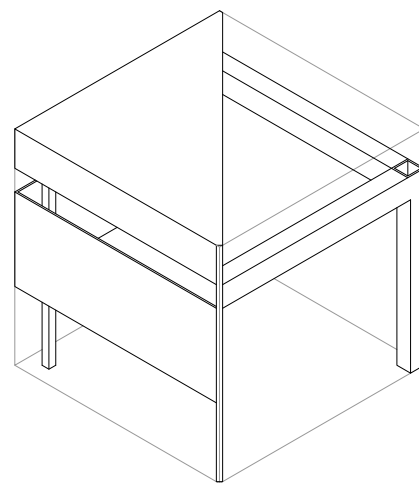
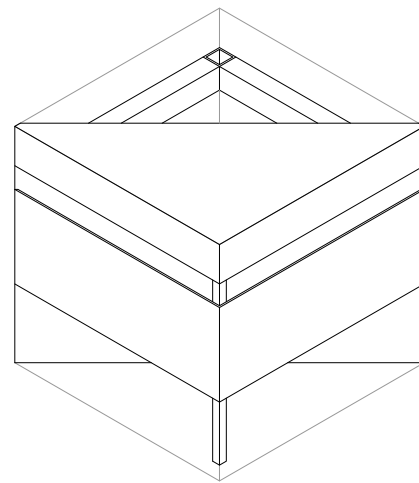
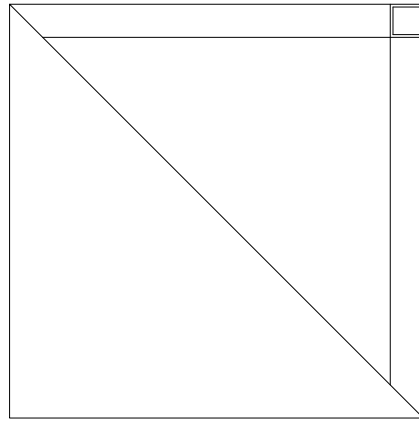
Collage of the second tower



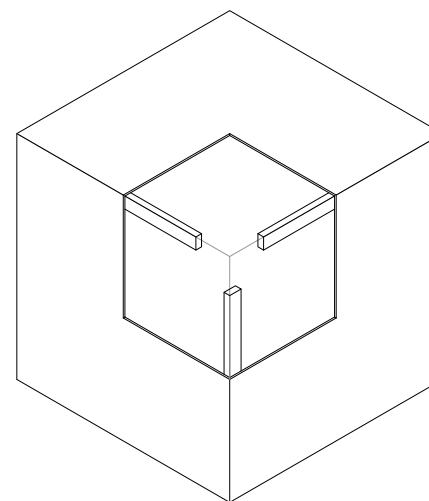
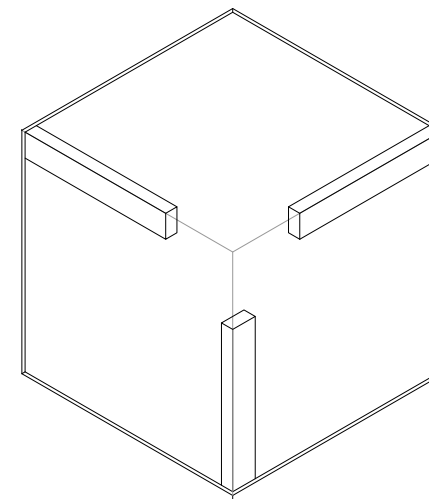
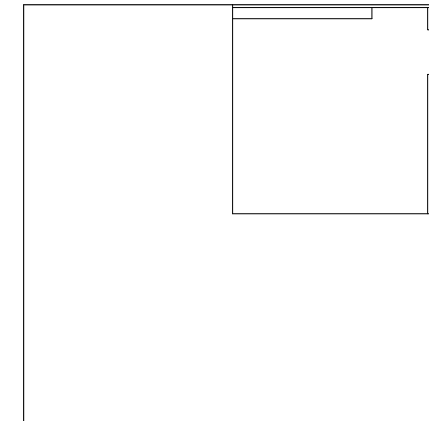


45°54'26.30"N 8°58'19.00"E
NOVEMBER 14, 2016 4:52 PM

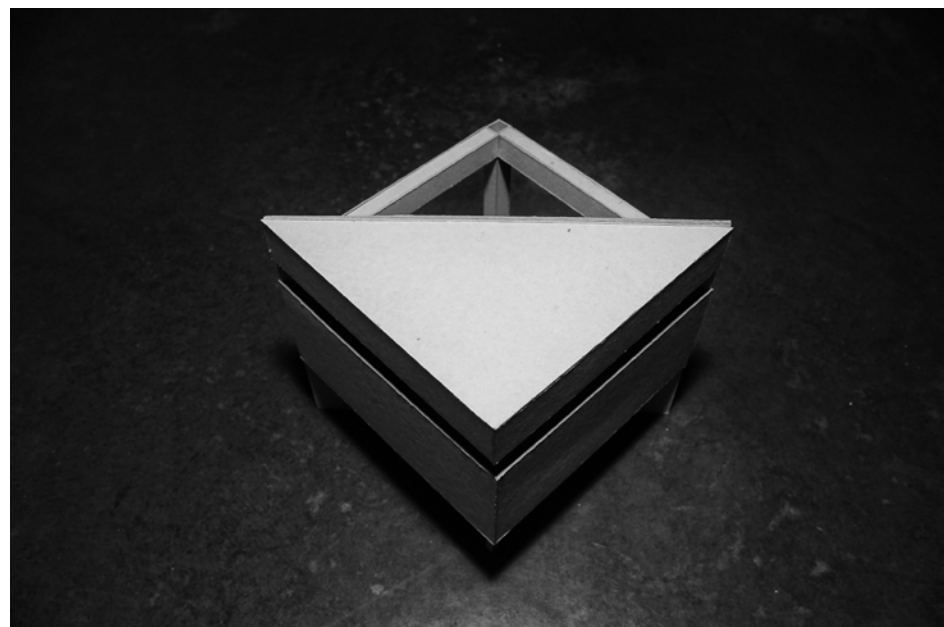
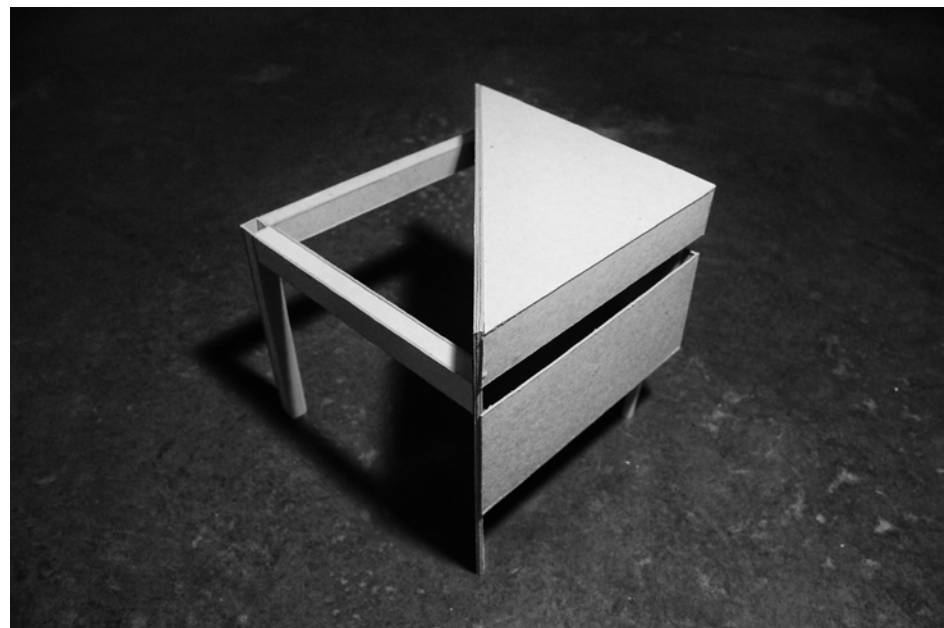




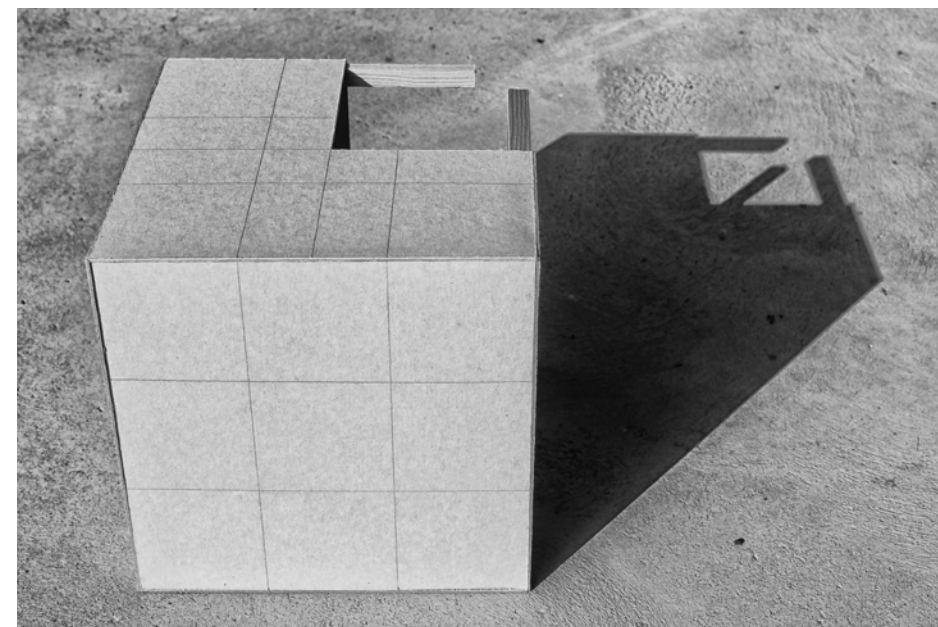
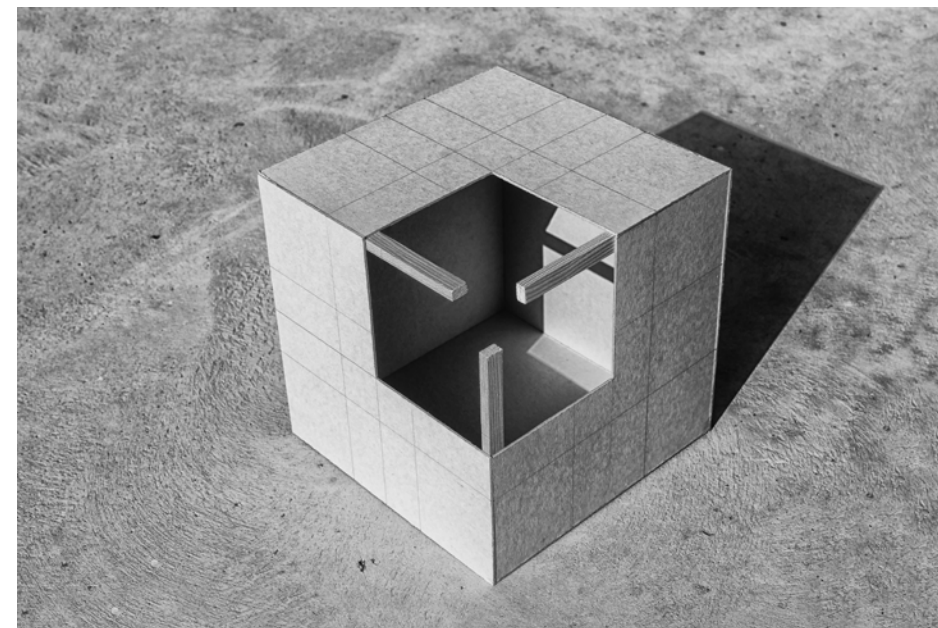
From top: schematic elevation, plan, and axonometric of Cube 04



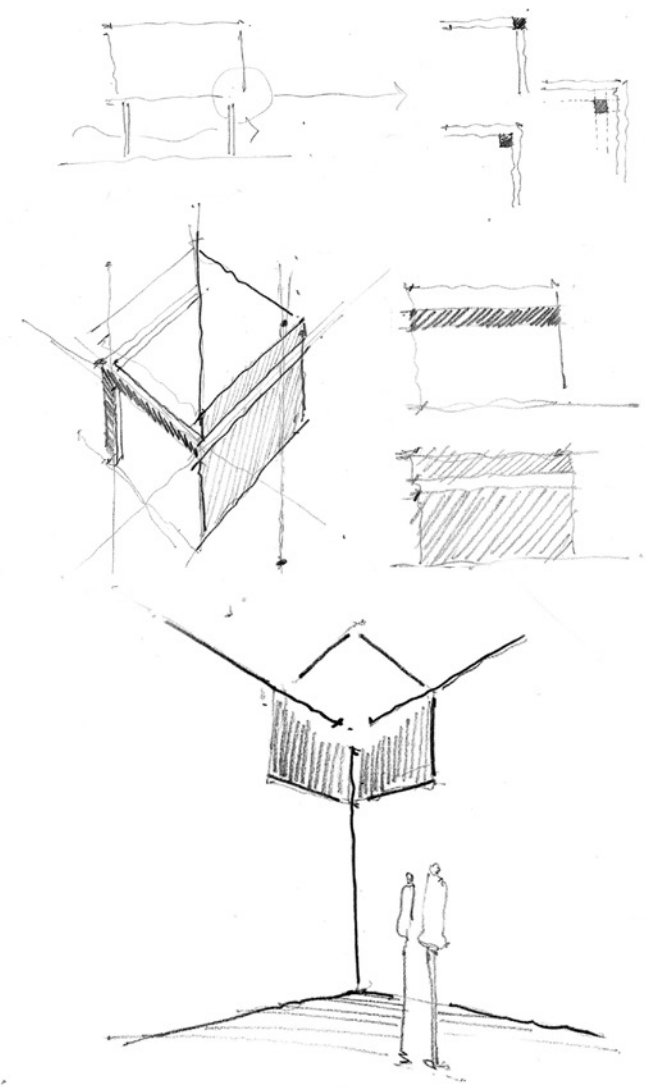
From top: schematic elevation, plan, and axonometric of Cube 05



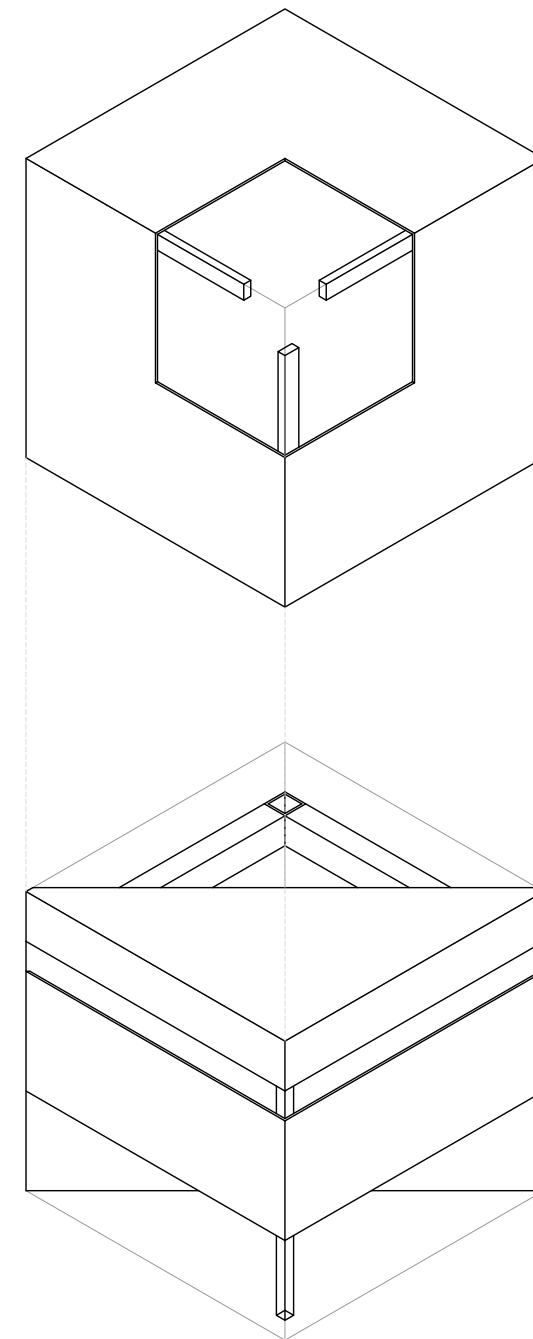
Physical model of Cube 04



Physical model of Cube 05



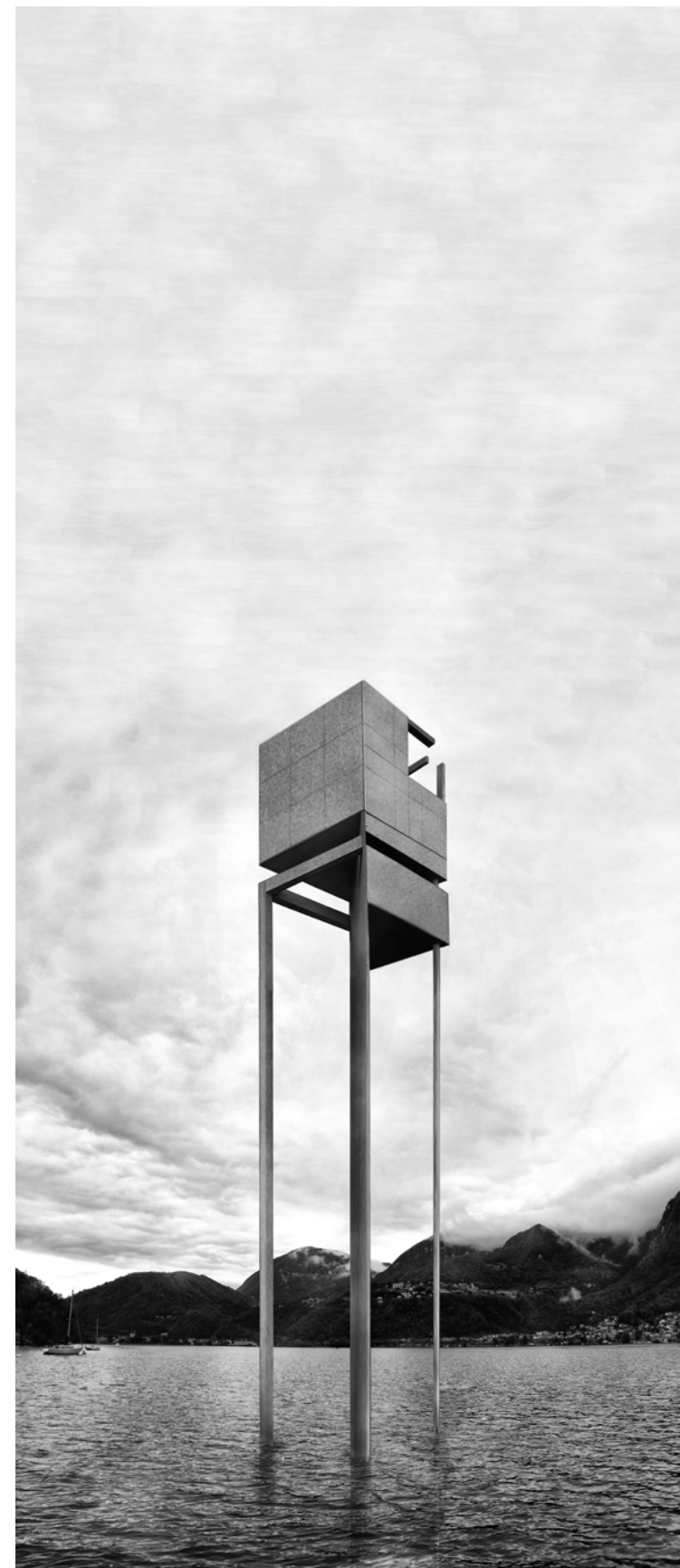
Early sketches of the third tower



Cube 04 and Cube 05 stacked on each other to generate the form of the third tower



Site: Lake Lugano in Riva San Vitale, Switzerland



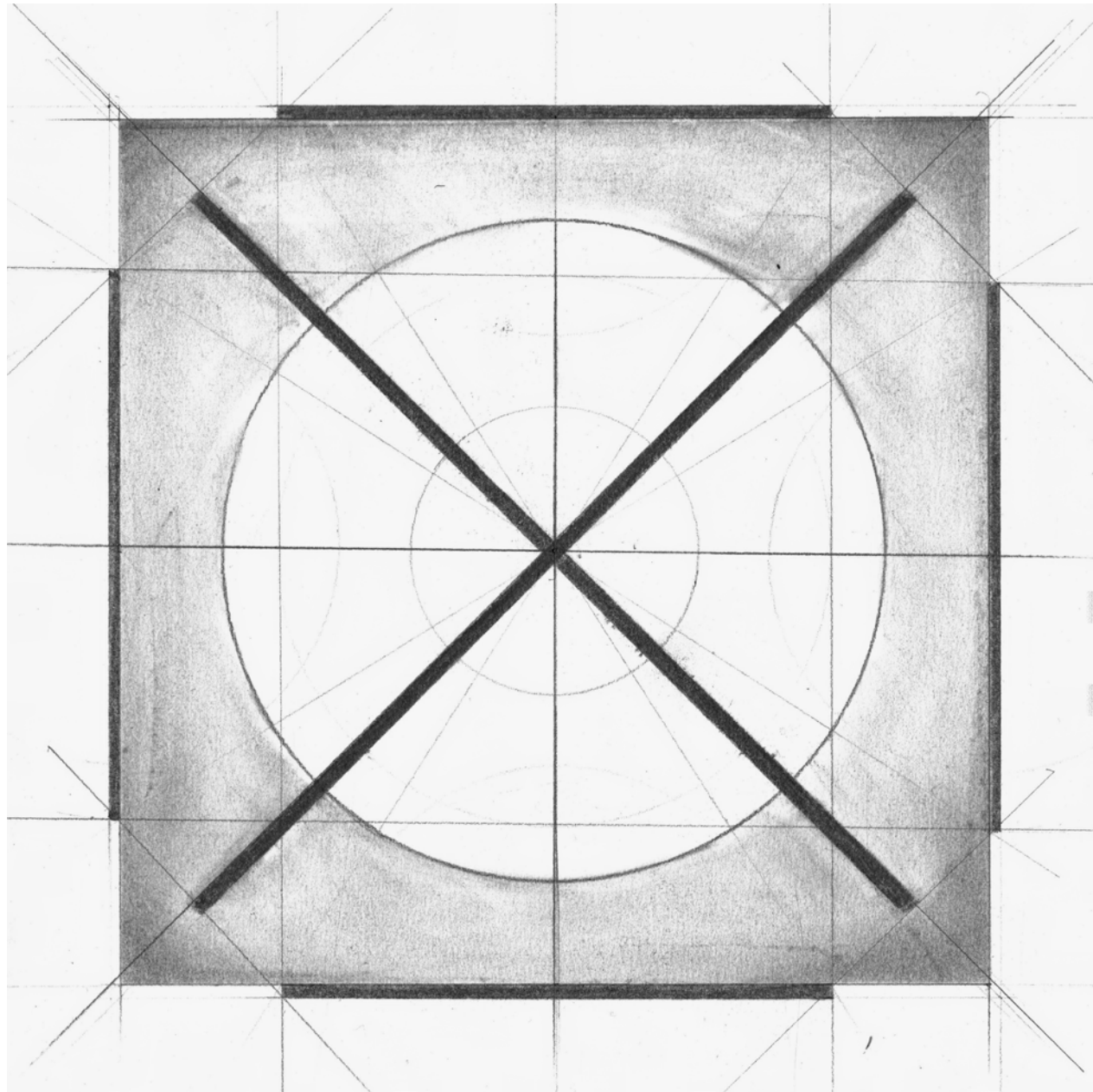
Collage of the third tower



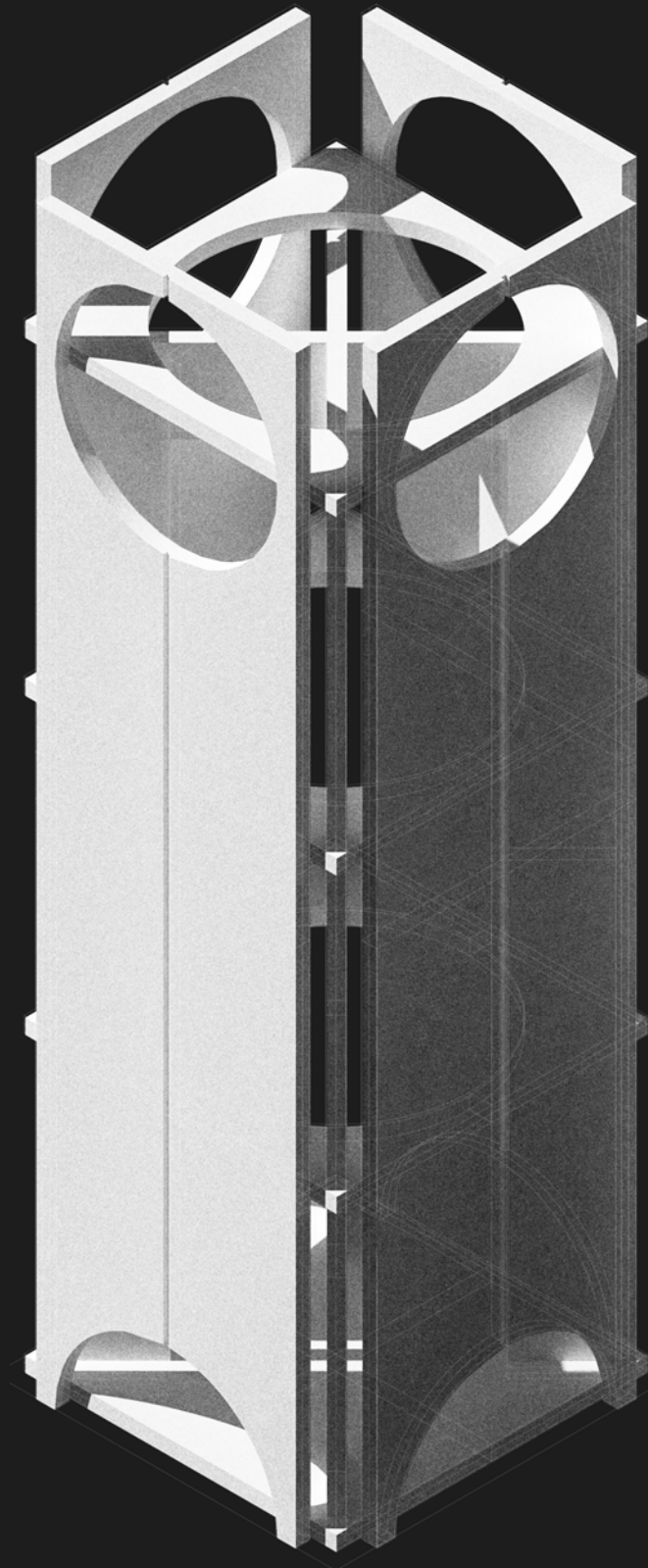
The next six towers are virtually marking six sites in the United States. I came across these places as I crossed the country during a road trip from Virginia to California in early summer 2017. As opposed to searching for a place for a previously designed tower, the U.S. towers were generated by their respective sites. The process starts with taking a photograph of the site, which will be later employed in the collage. Throughout the process, hand sketches and their translations into digital models played an important role to create the form and explore its relationship with the surrounding landscape.



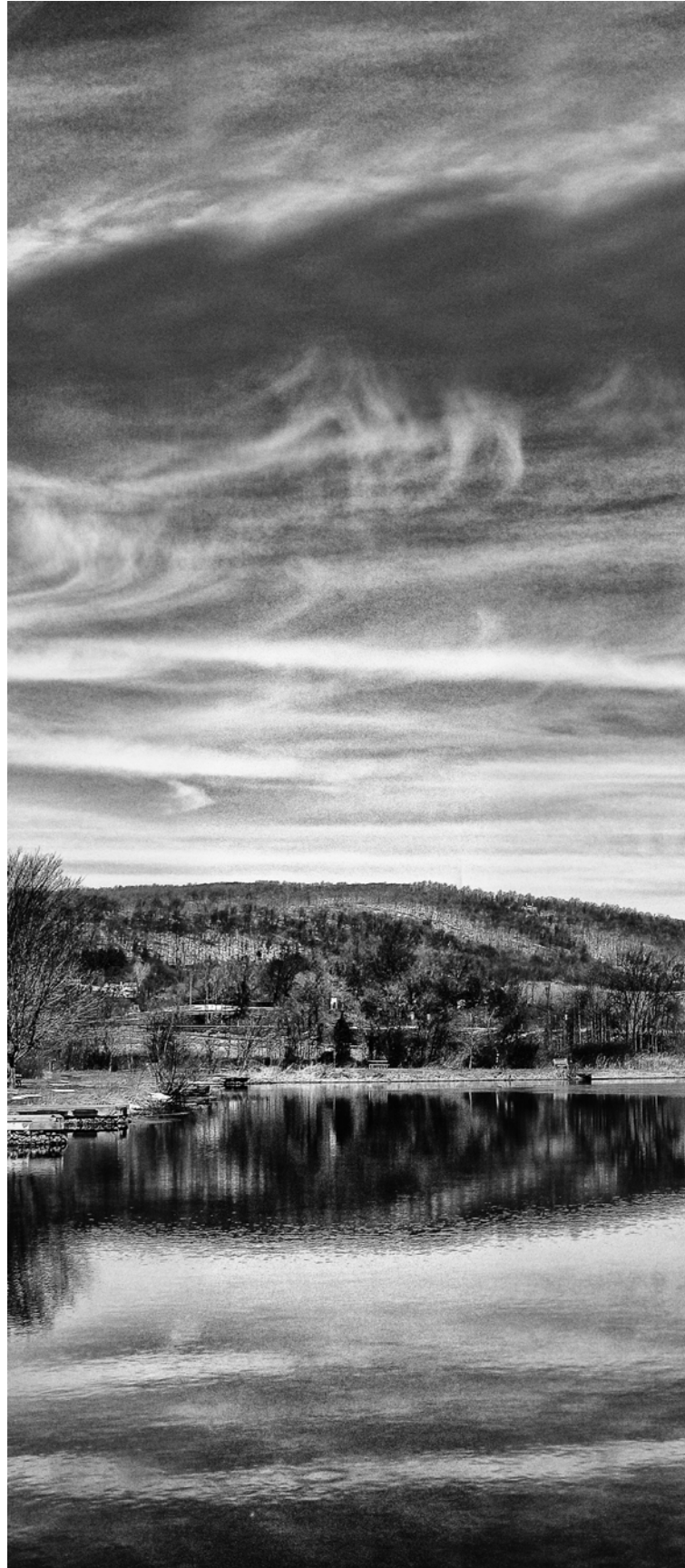
38°59'38.6" N 77°57'00.90" W
MARCH 17, 2017 12:30 PM



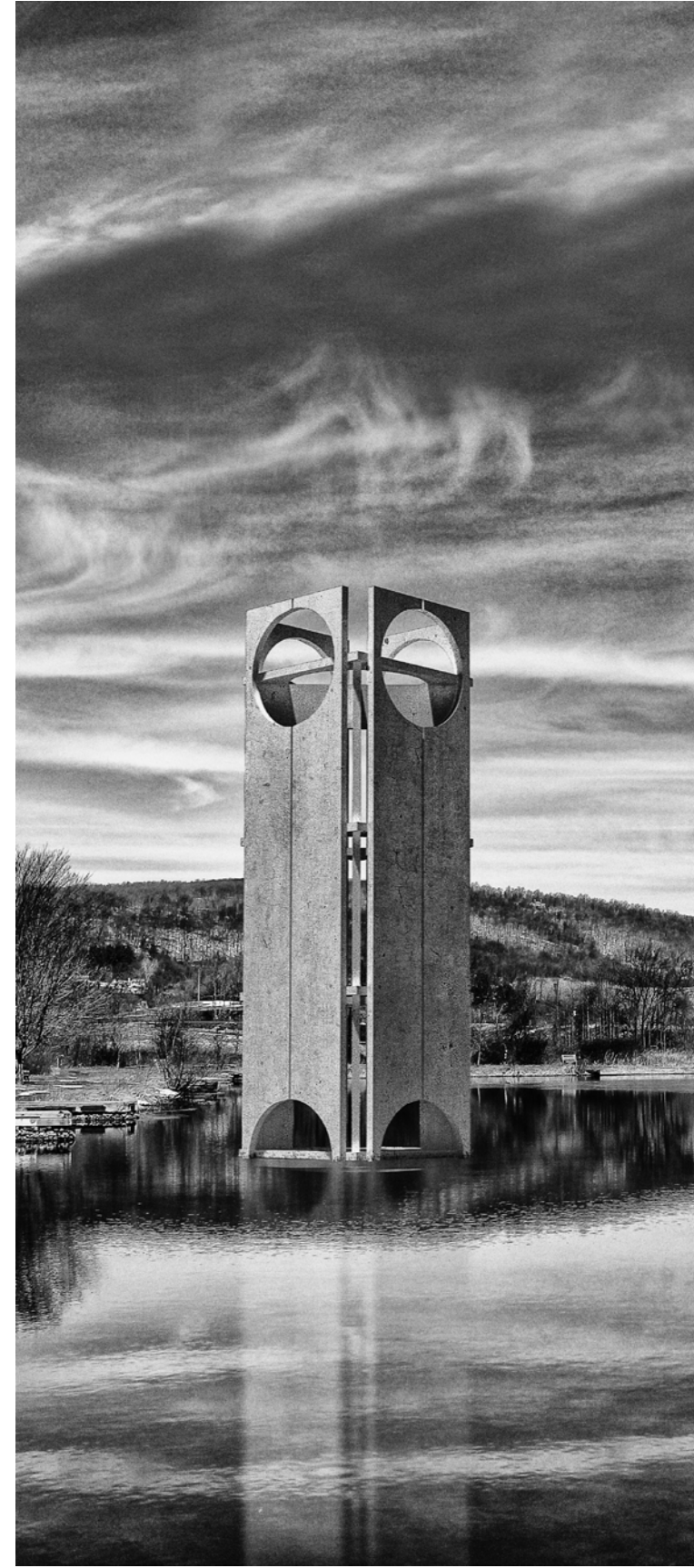
Conceptual charcoal drawing of the forth tower



See-through axonometric of the forth tower



Site: Turner Pond near Marshall, VA

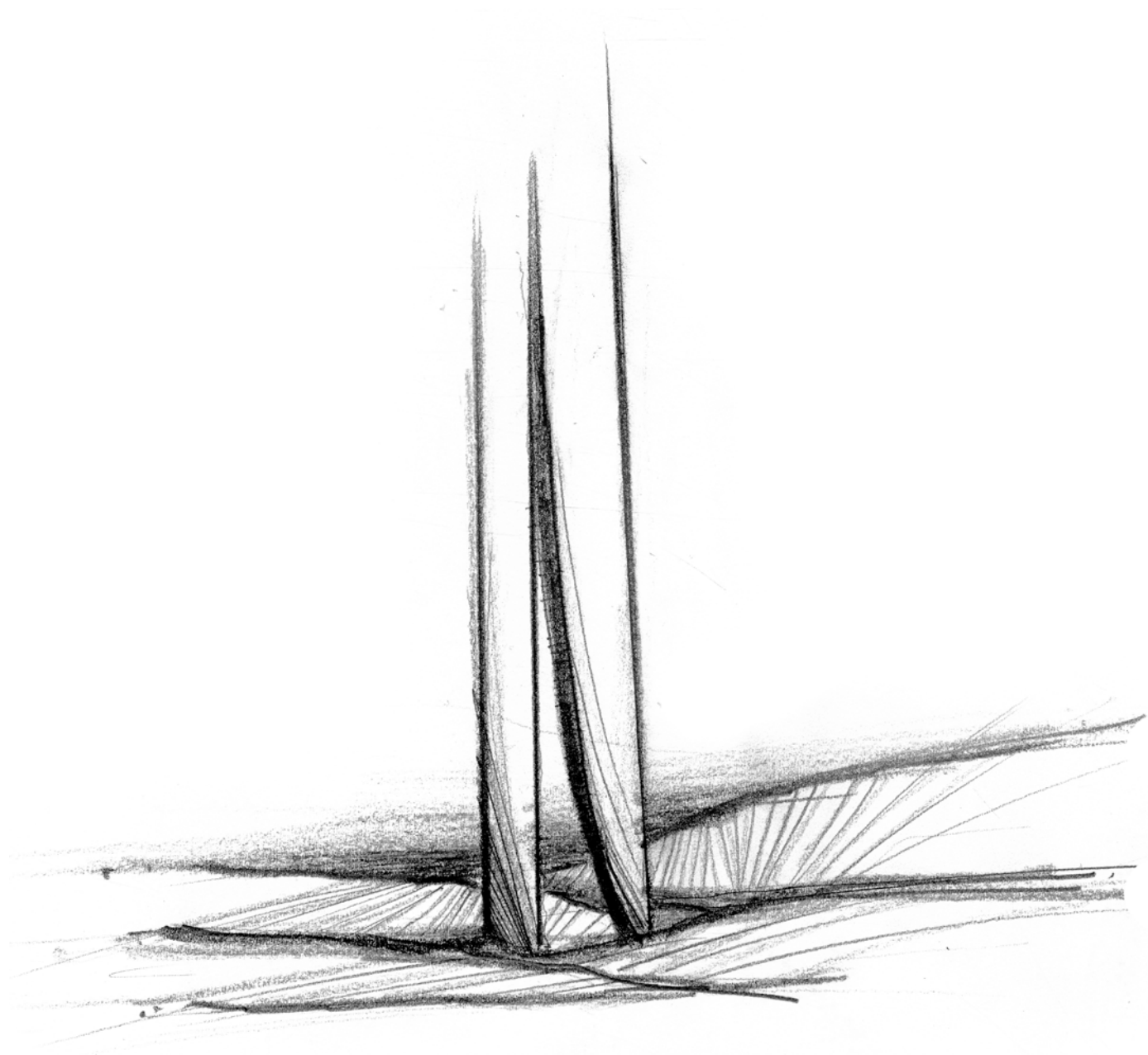


Collage of the forth tower

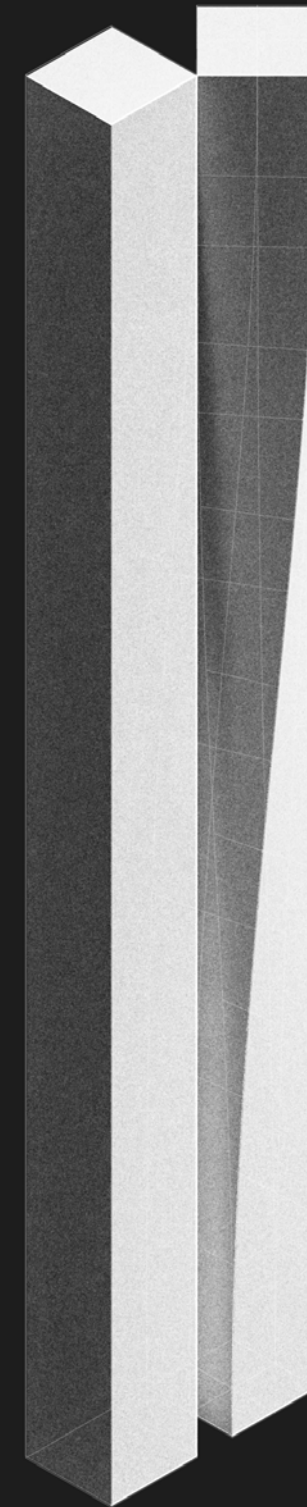




37°46'29.1" N 105°36'49.3" W
JUNE 10, 2017 07:46 PM



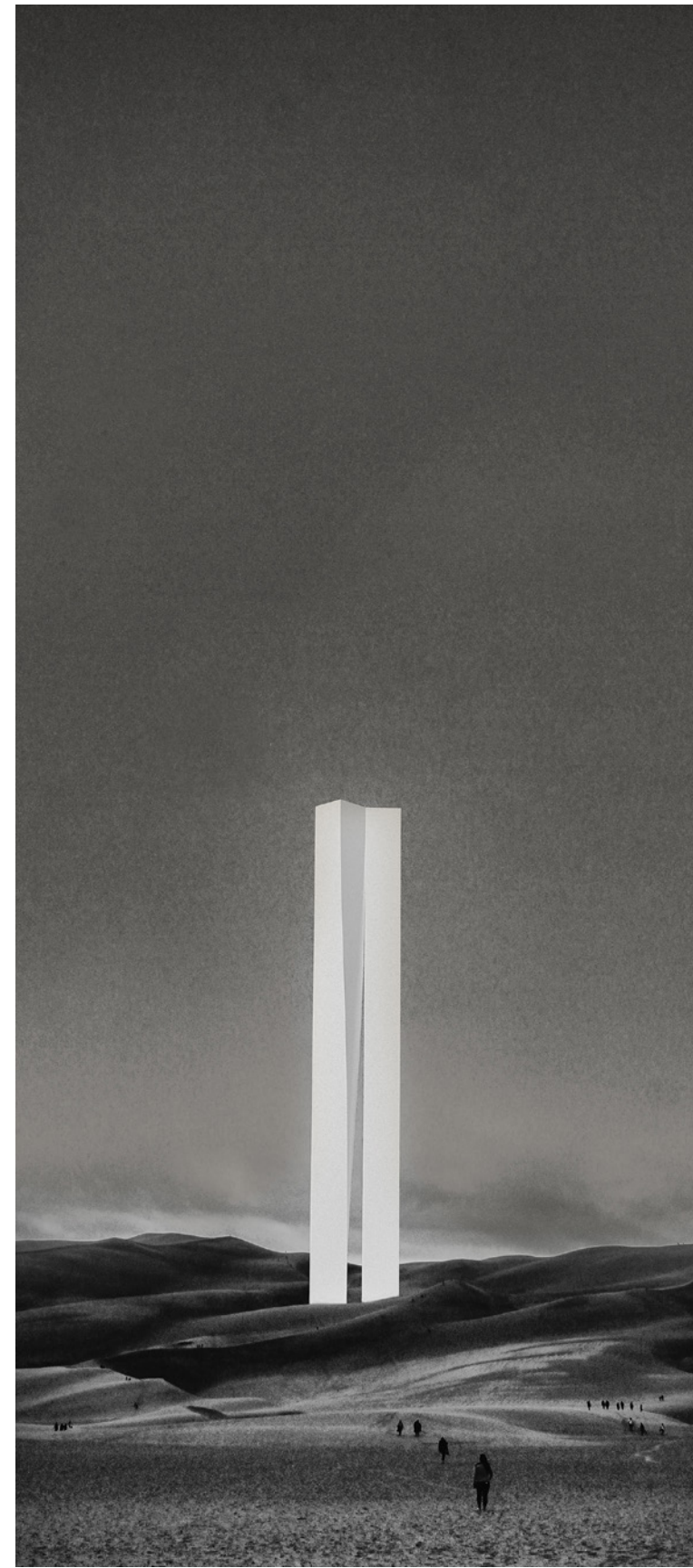
Conceptual pencil and charcoal sketch of the fifth tower



Axonometric of the fifth tower



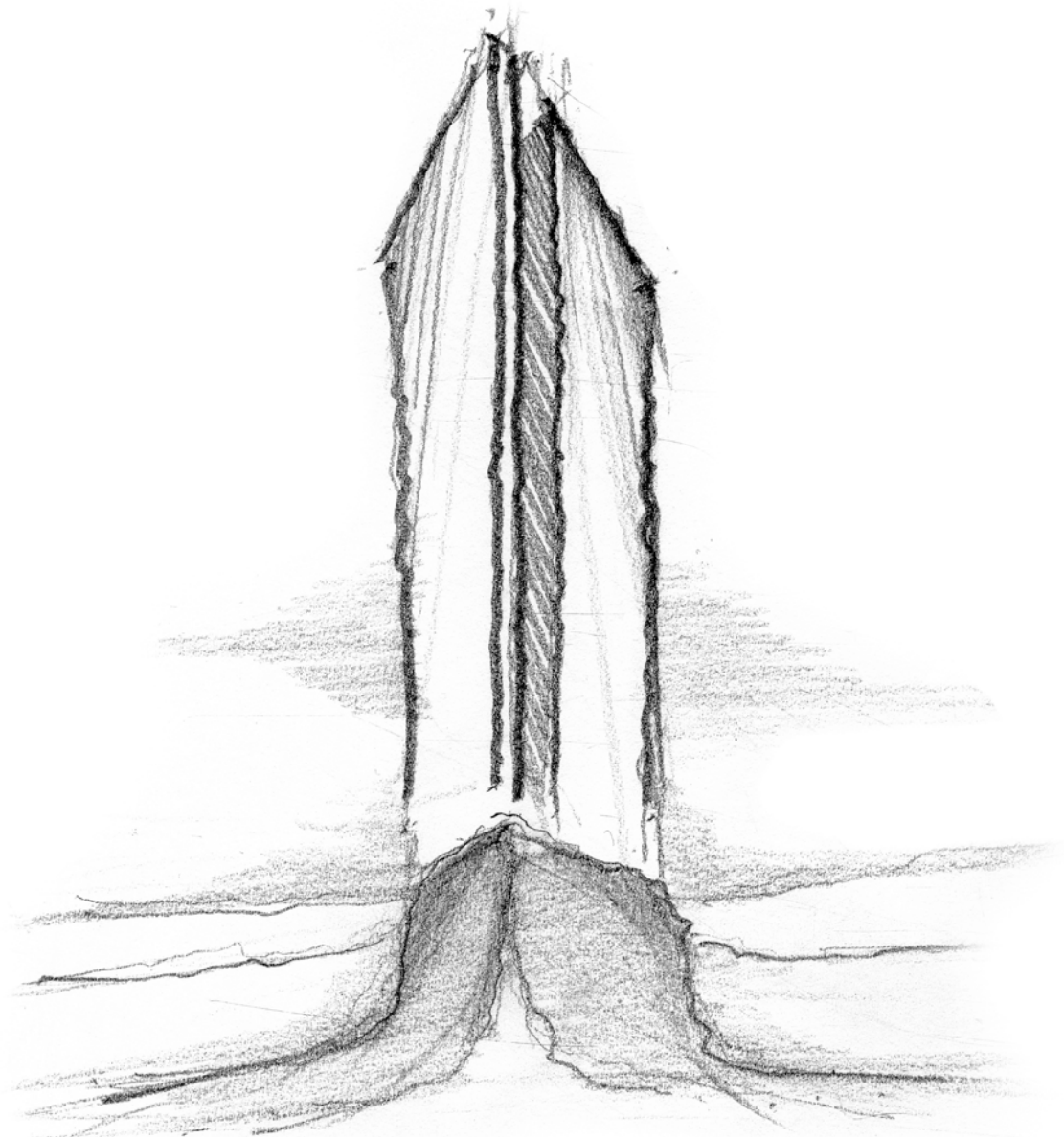
Site: Great Sand Dunes National Park, Colorado



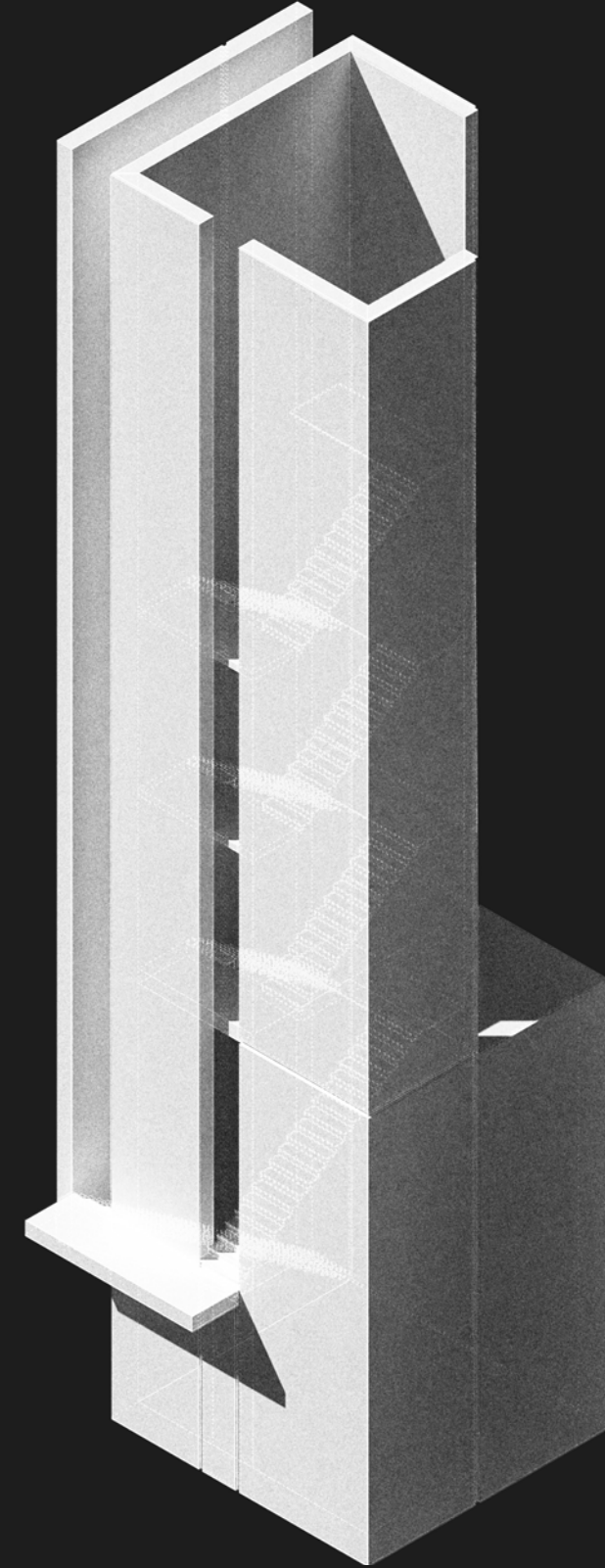
Collage of the fifth tower



38°38'13.6" N 109°35'59.7" W
JUNE 11, 2017 12:29 PM



Conceptual pencil drawing of the sixth tower



See-through axonometric of the sixth tower



Site: Arches Entrance Road, Moab, UT

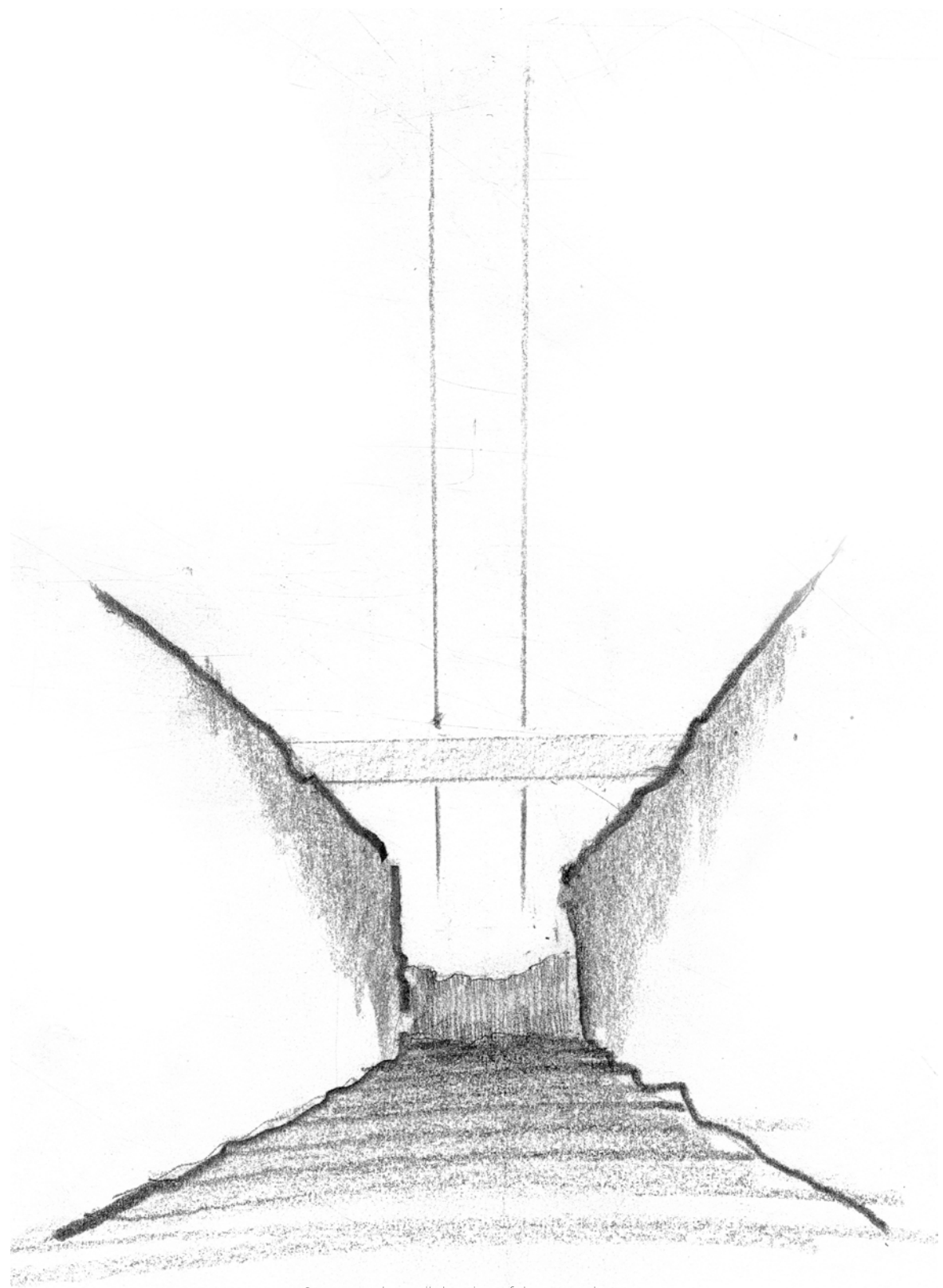


Collage of the sixth tower

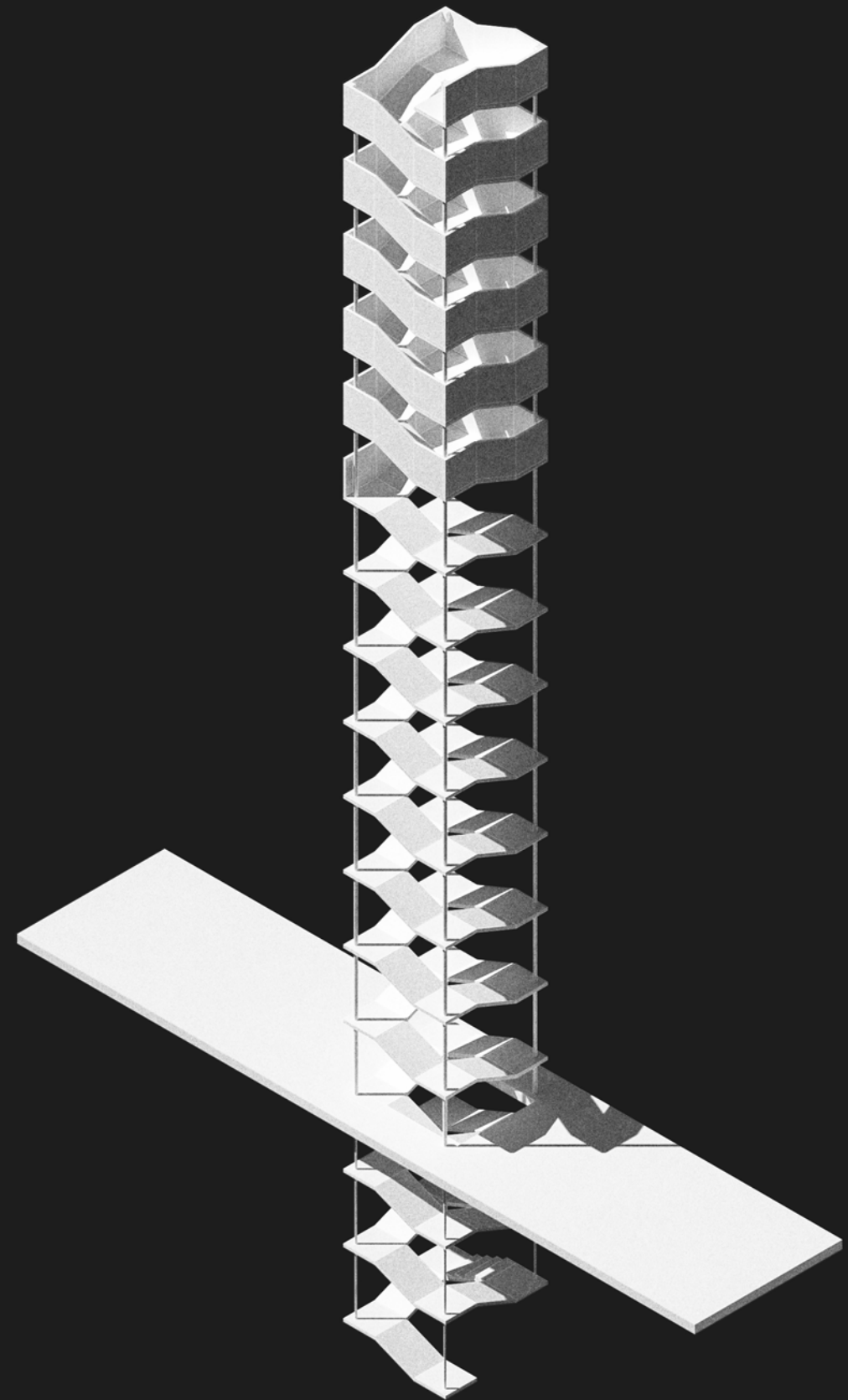


36°37'01.4" N 114°20'40.8" W
JUNE 13, 2017 11:36 AM

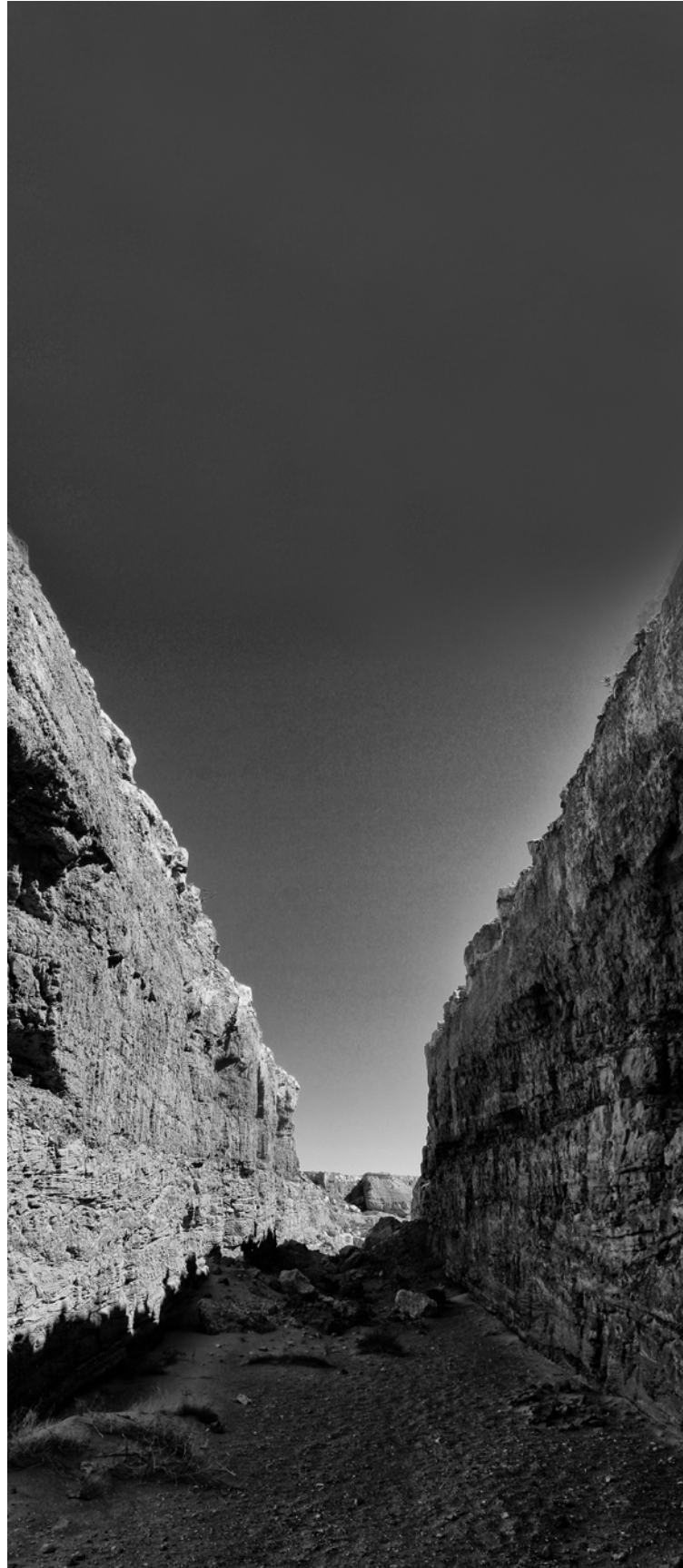




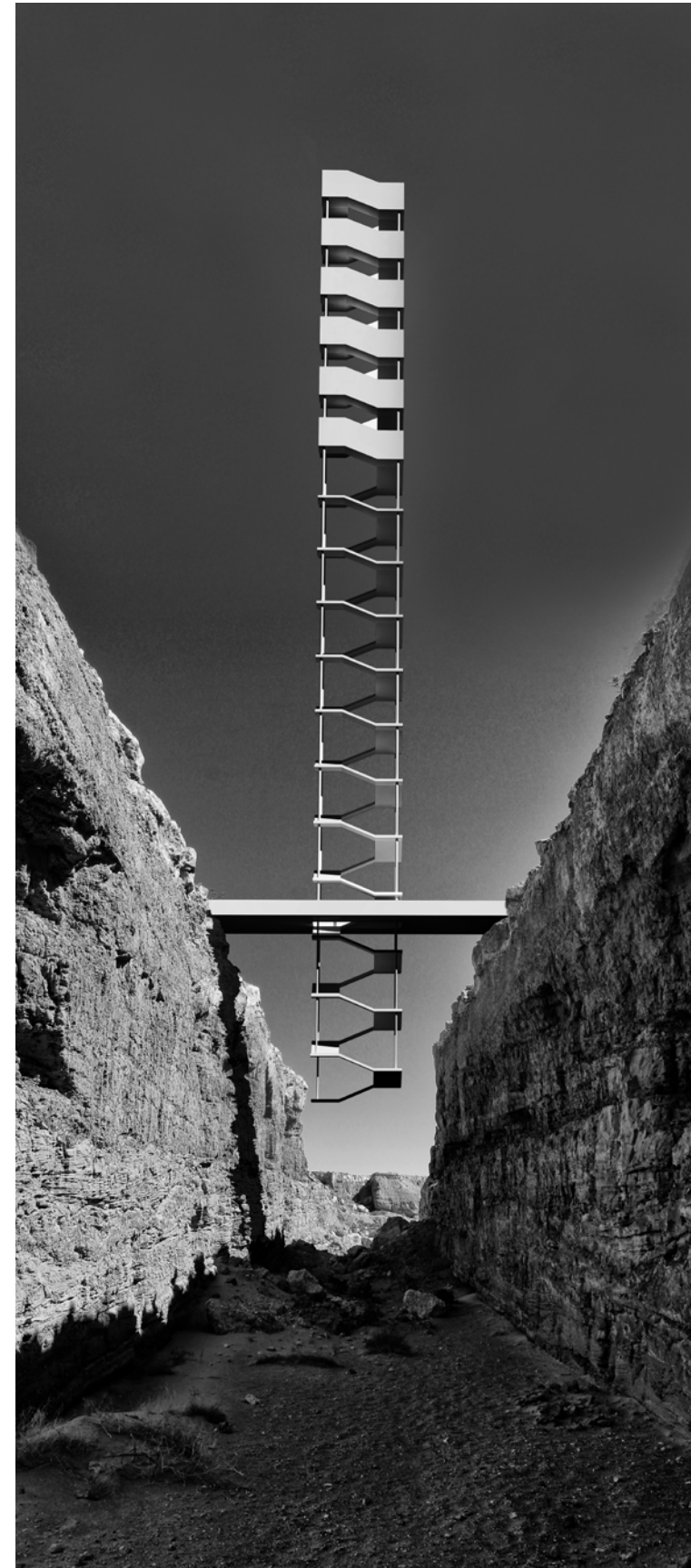
Conceptual pencil drawing of the seventh tower



Axonometric of the seventh tower



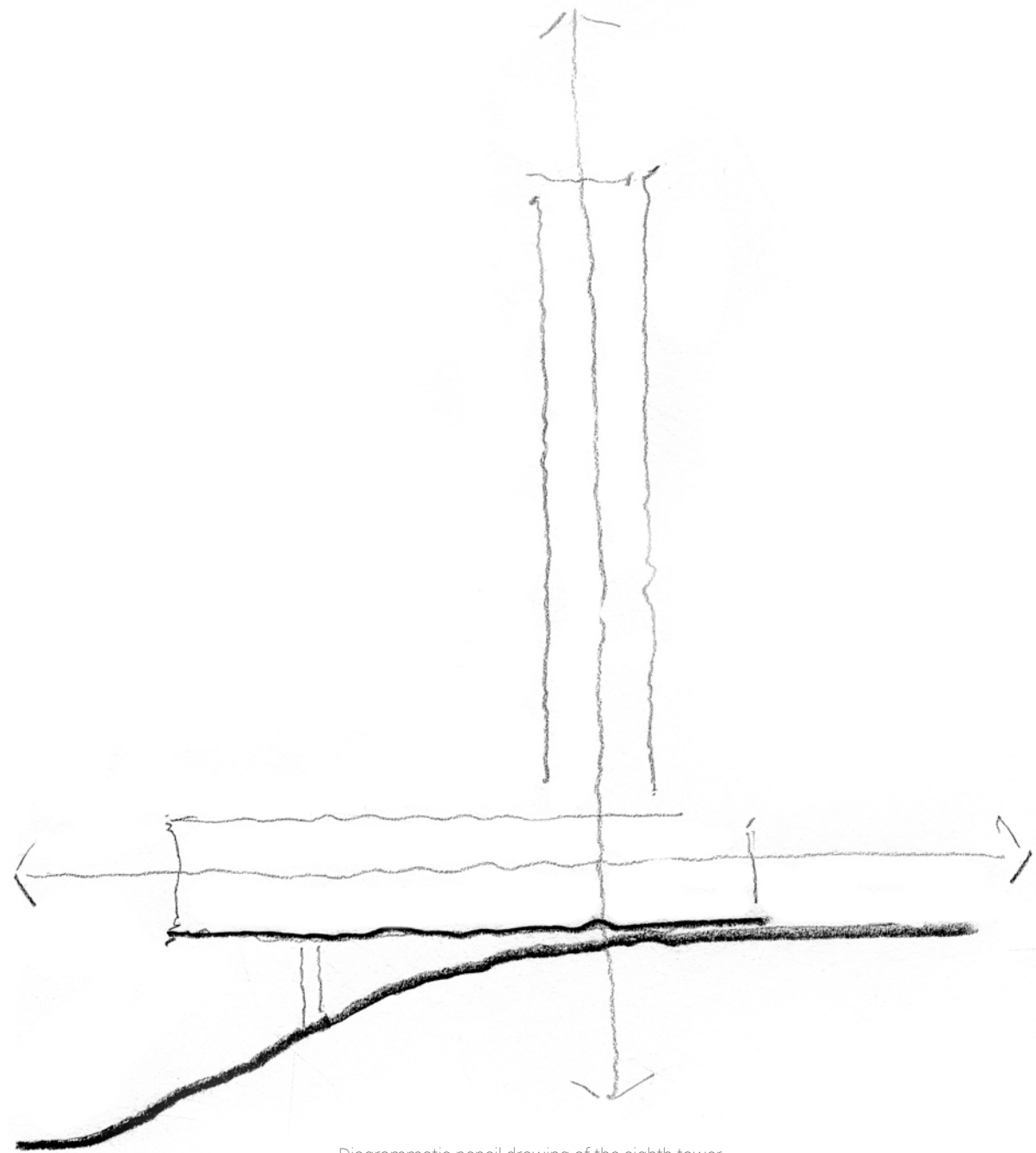
Site: Michael Heizer's Double Negative, Nevada



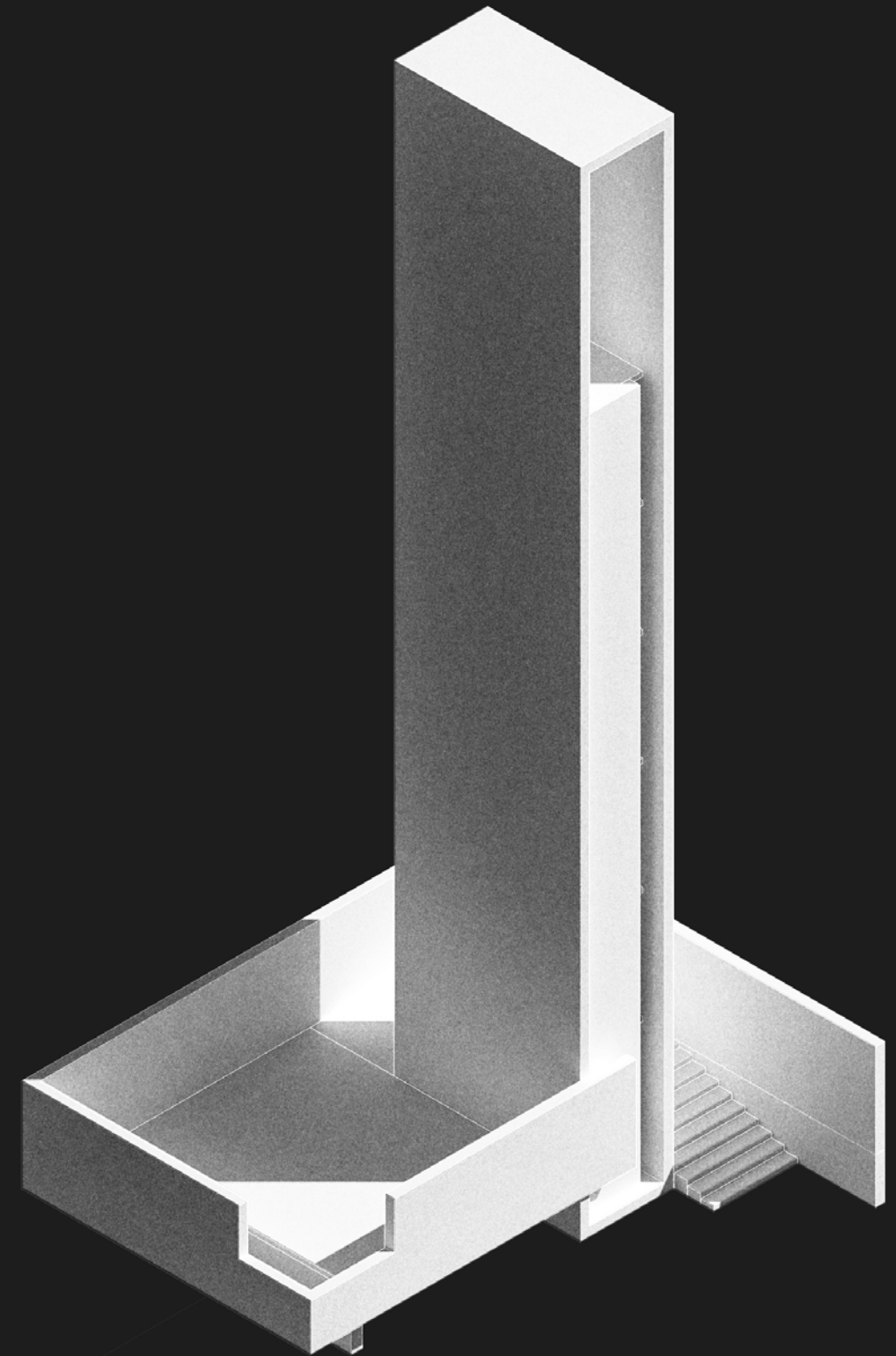
Collage of the seventh tower



41°13'16.6" N 124°06'33.3" W
JUNE 17, 2017 06:03 PM



Diagrammatic pencil drawing of the eighth tower



Axonometric of the eighth tower



Site: Humboldt Lagoons State Park, Trinidad, CA

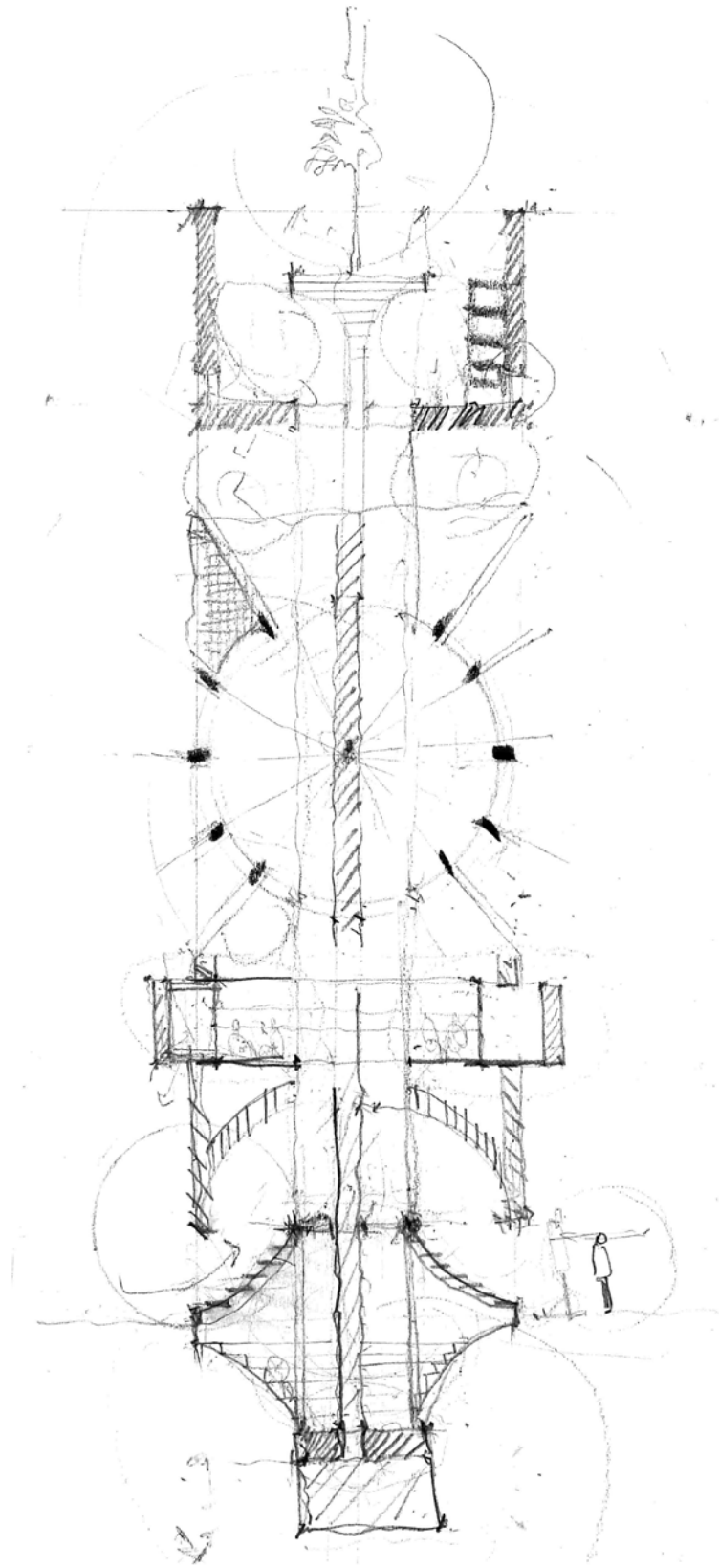


Collage of the eighth tower

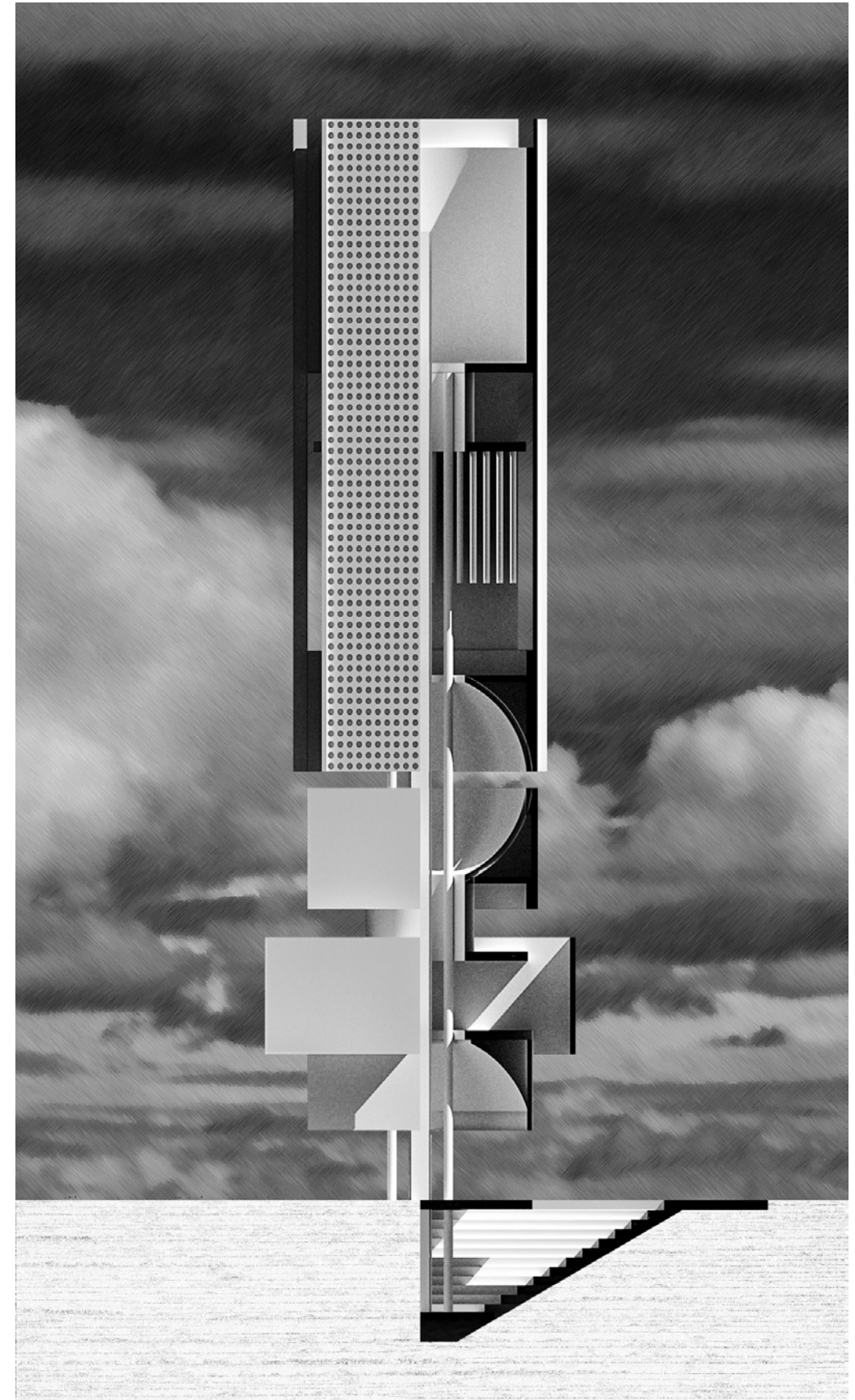


41°12'30.7"N 124°06'53.0"W
JUNE 17, 2017 06:12 PM

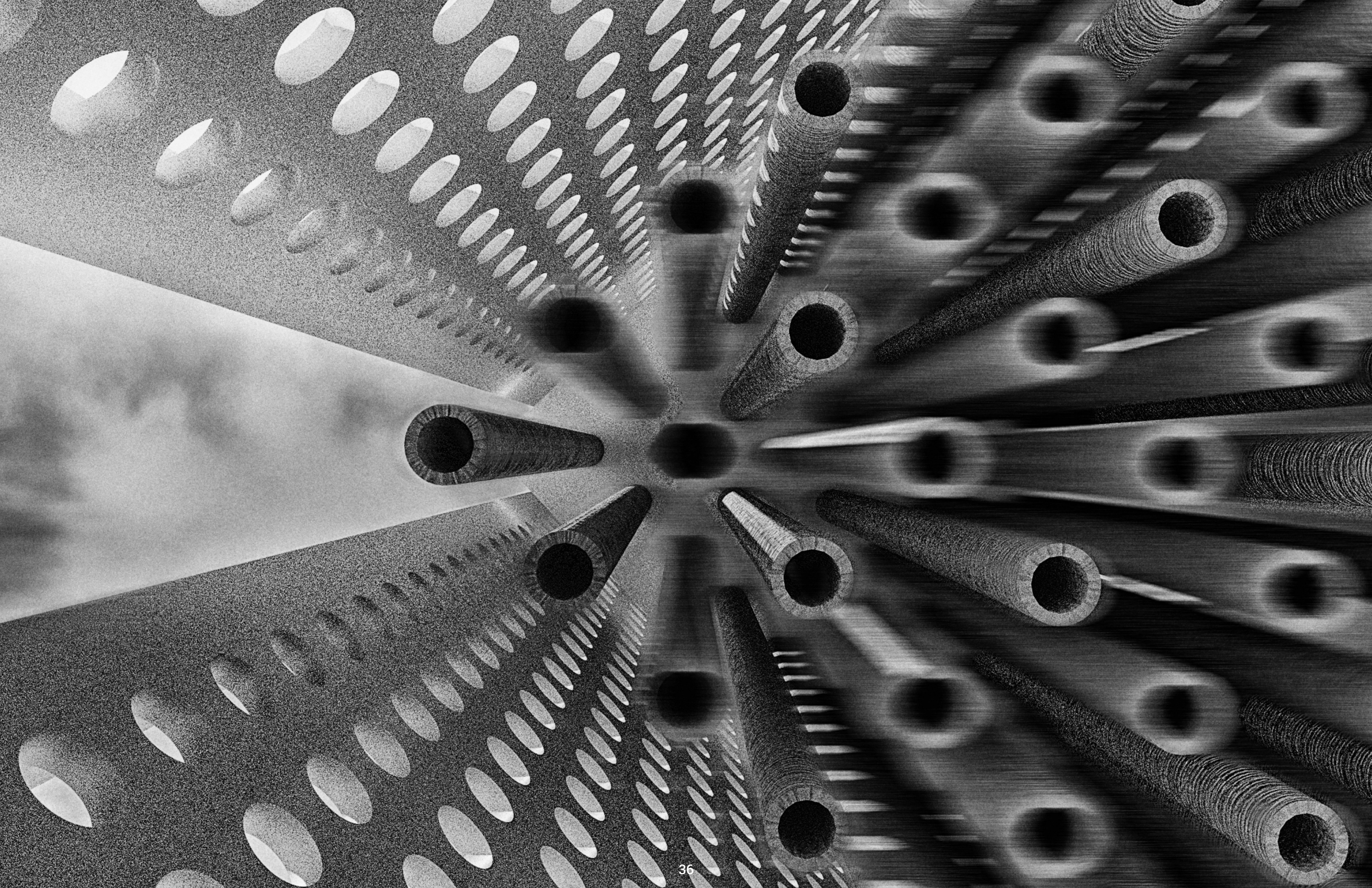


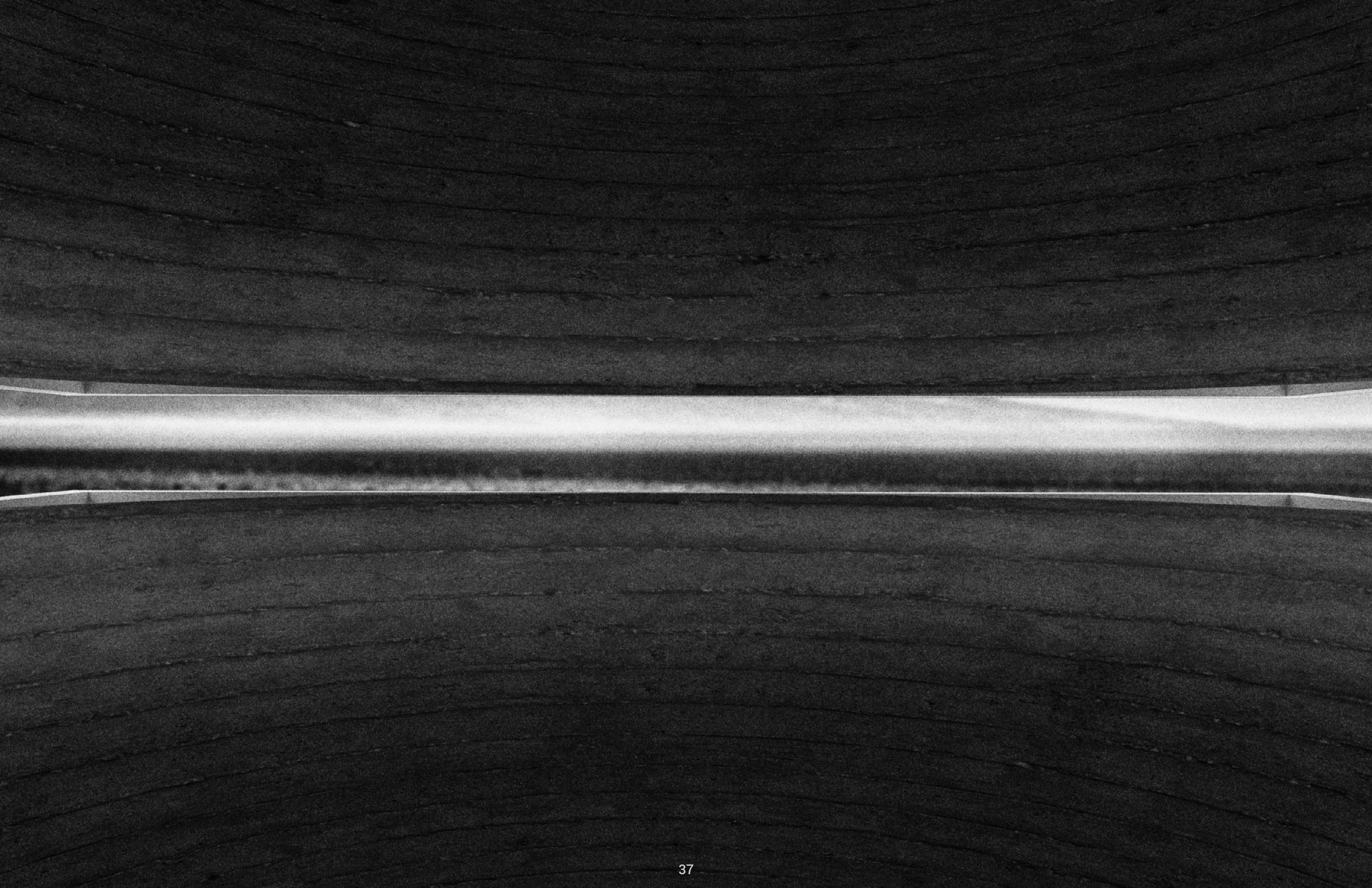


Early sketch of the ninth tower



Section elevation drawing of the ninth tower







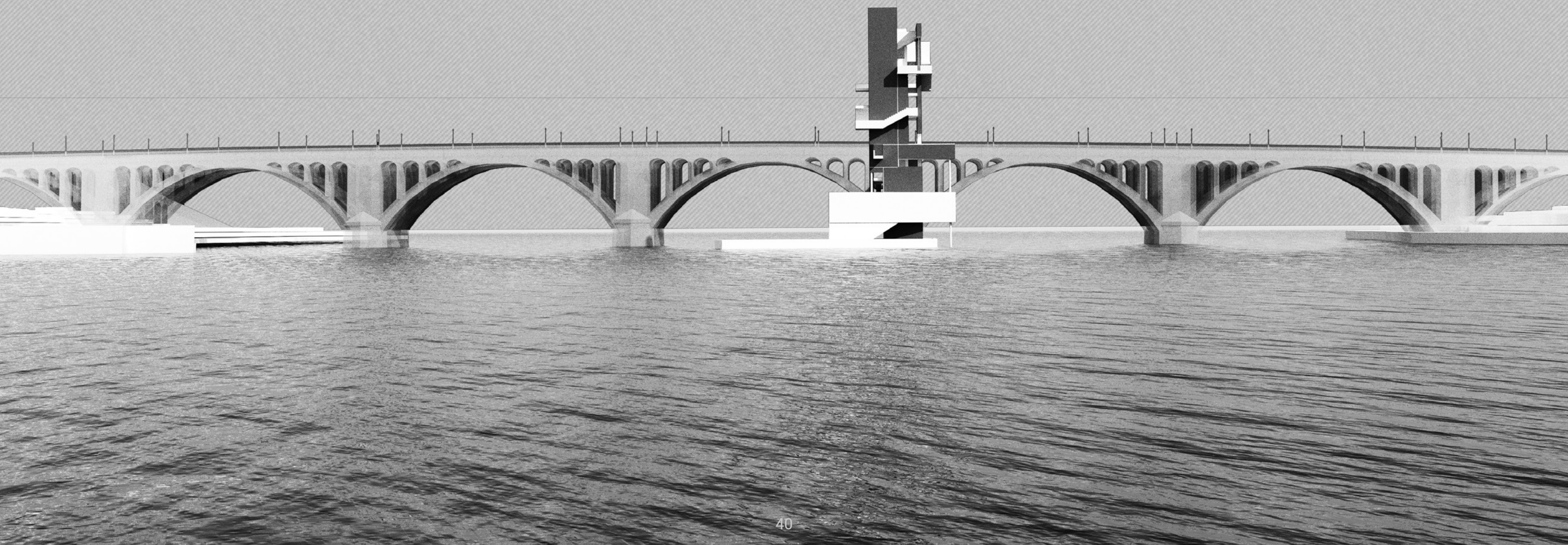


Site: Humboldt Lagoons State Park, Trinidad, CA



Collage of the ninth tower

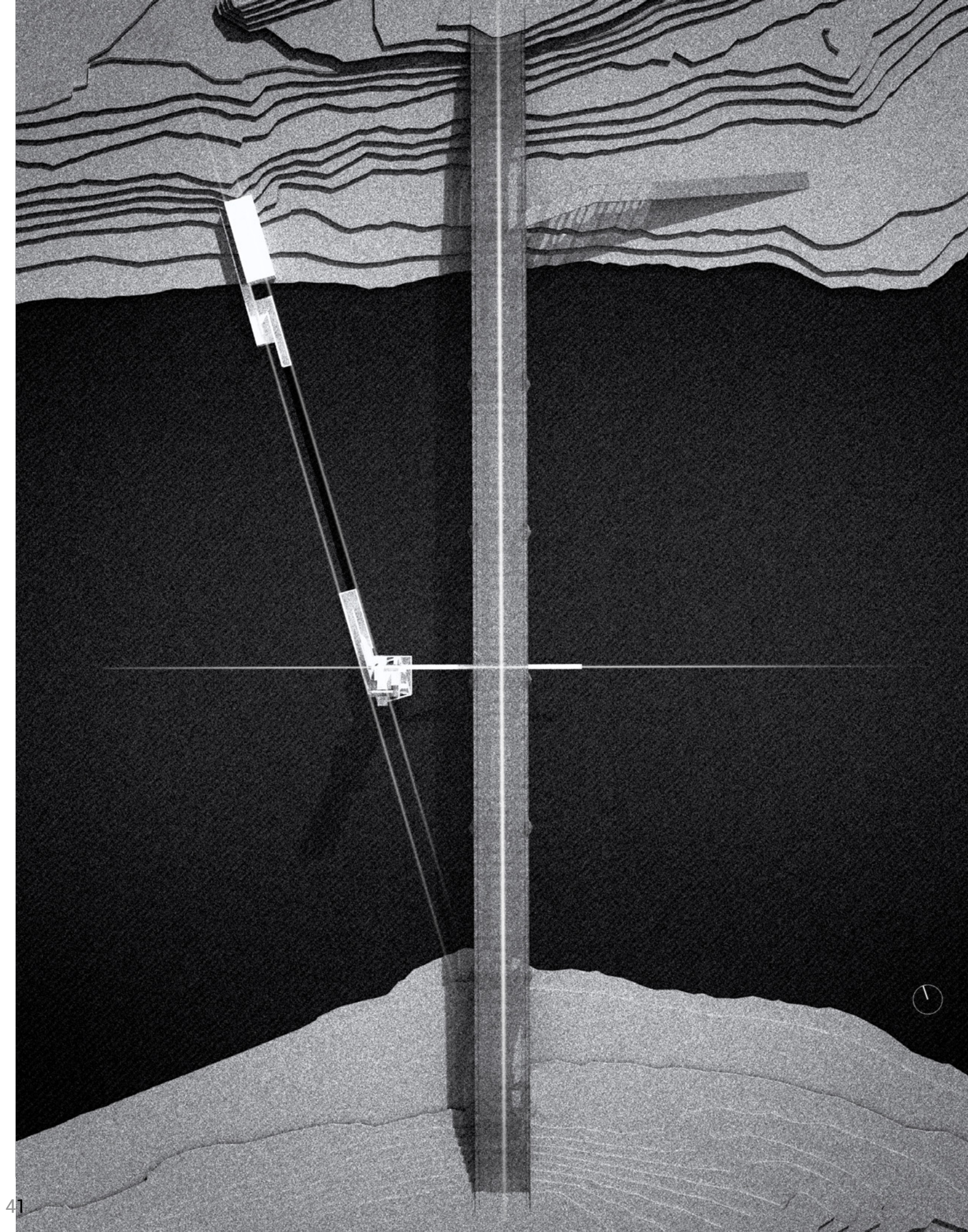
The **10th Tower**
a dialogue between
horizontality and verticality

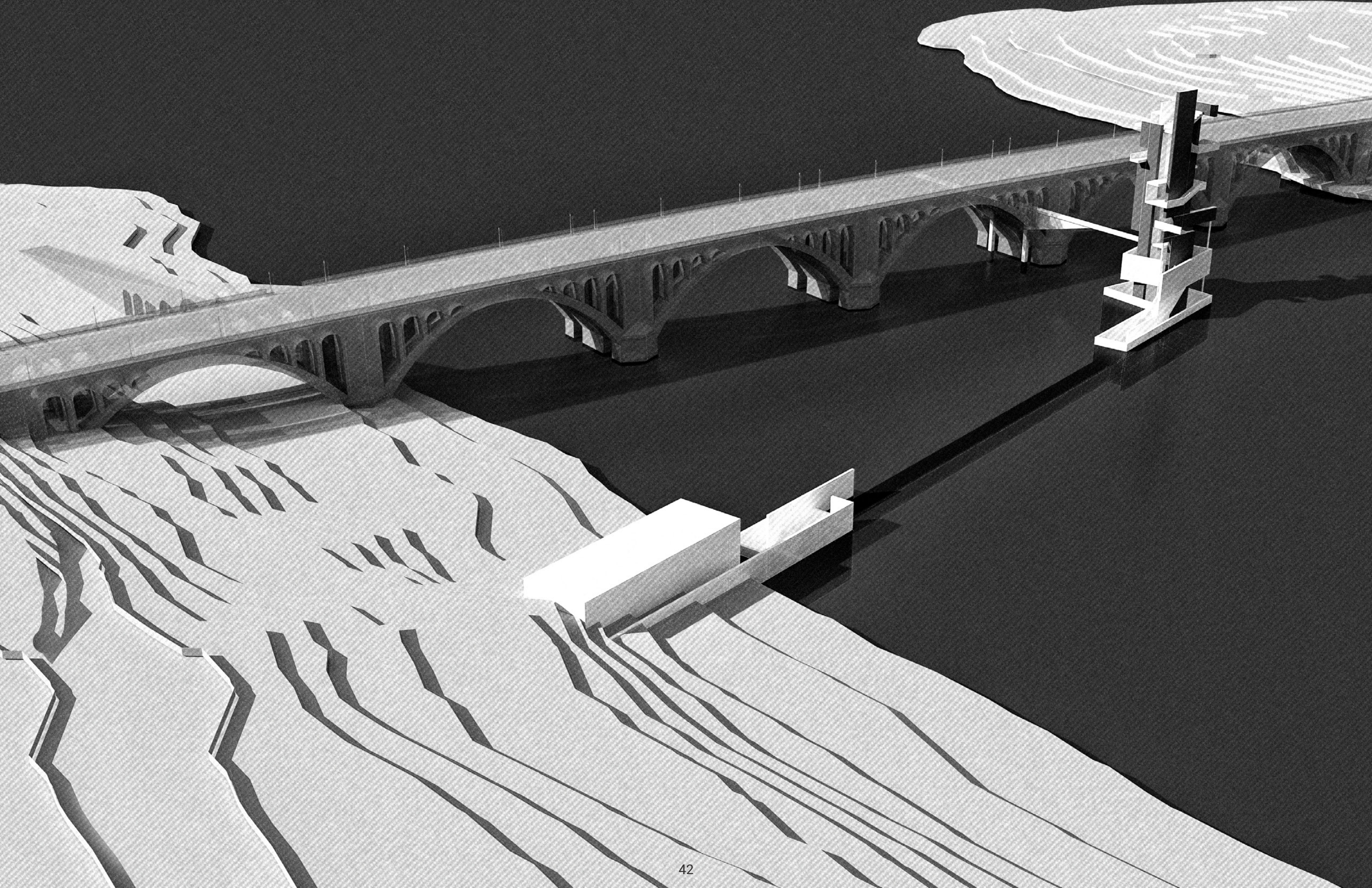


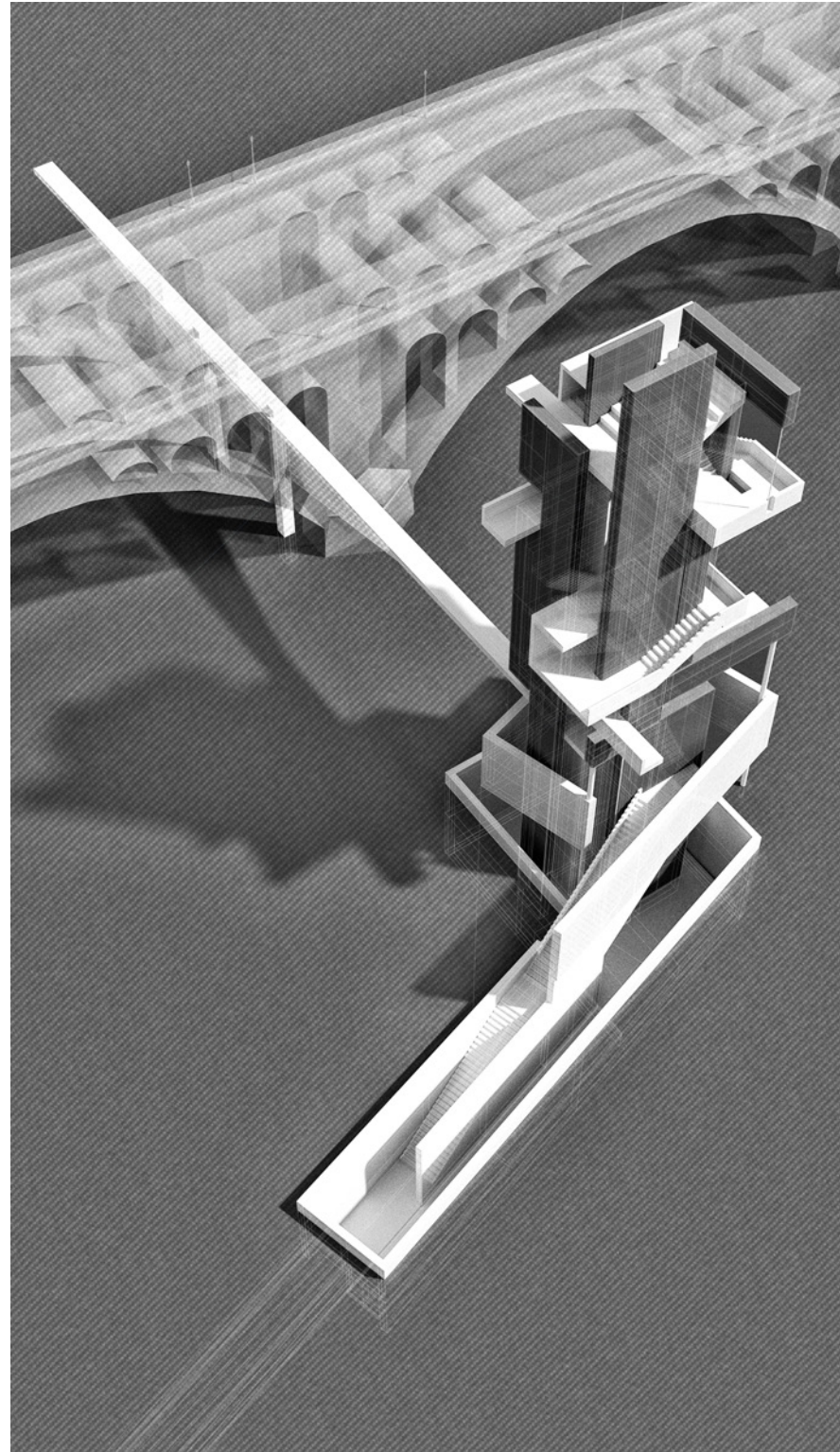


The final tower, as an independent project, was generated by a unique site condition that I came across during my visit to Washington D.C. . Walking along the Potomac river in the vicinity of Georgetown Waterfront park, I came across the ruins of Aqueduct Bridge which connected Georgetown to then-Alexandria until it was replaced by the Key Bridge in 1923. The coexistence of the two bridges did not last long as the old bridge was demolished right after the completion of the new one. The extension of the bridges creates two strong axes in the site. The tenth tower seeks to mediate such condition not by compromising but by introducing a mediator as an element which identifies itself as a strong addition to the site. Its extreme verticality competes with the imposing presence of an enormous horizontal form; the new bridge.

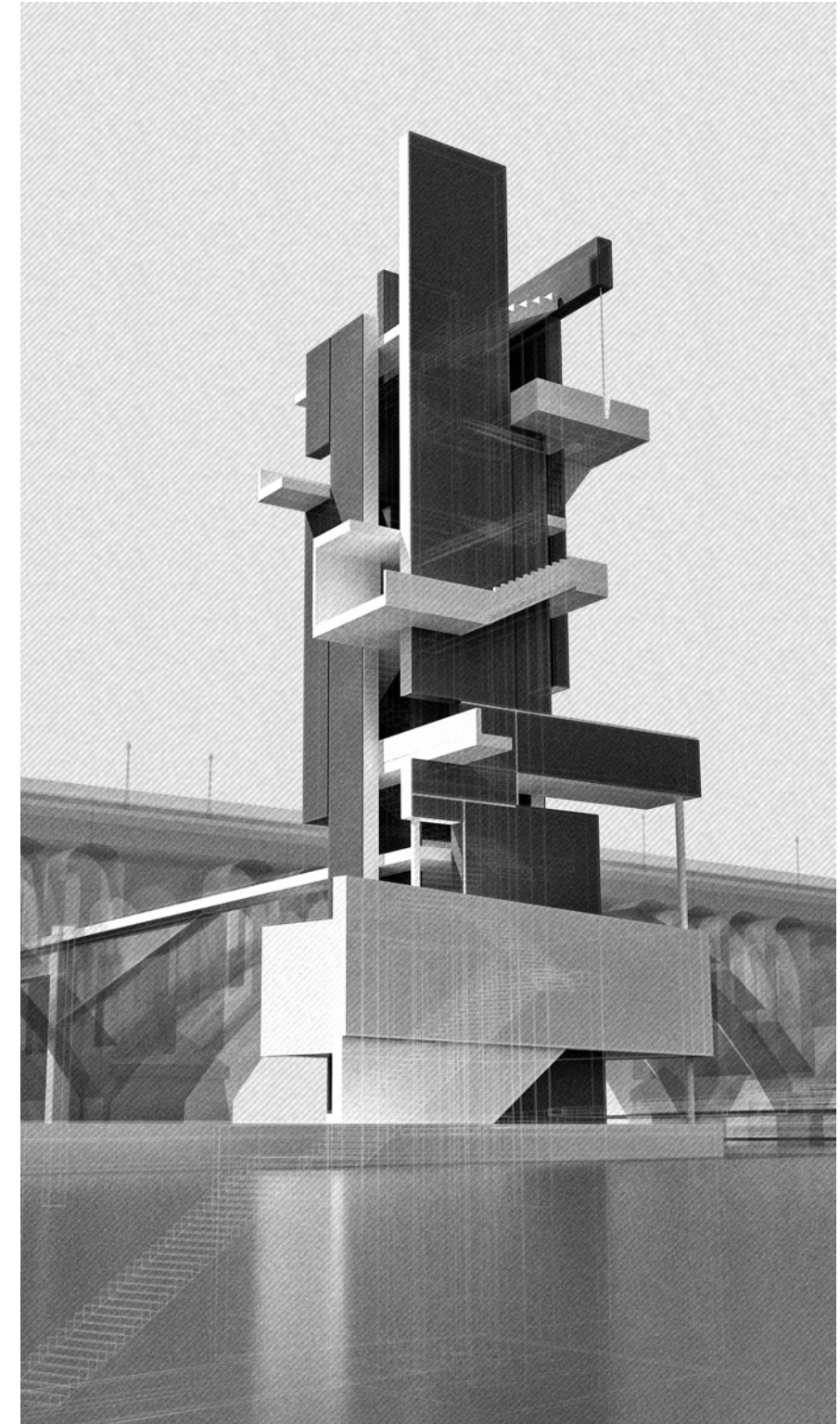
The project consists of a tower, an arrival situated on the Georgetown side of the river, and a tunnel which connects the two. The arrival, located along the ruins of the old bridge, embraces the only remainder of the old structure. The tunnel reconstructs the axis of Aqueduct Bridge, and the tower rises from the footsteps of it to commemorate what used to be a crucial connection between the two banks of the Potomac River.



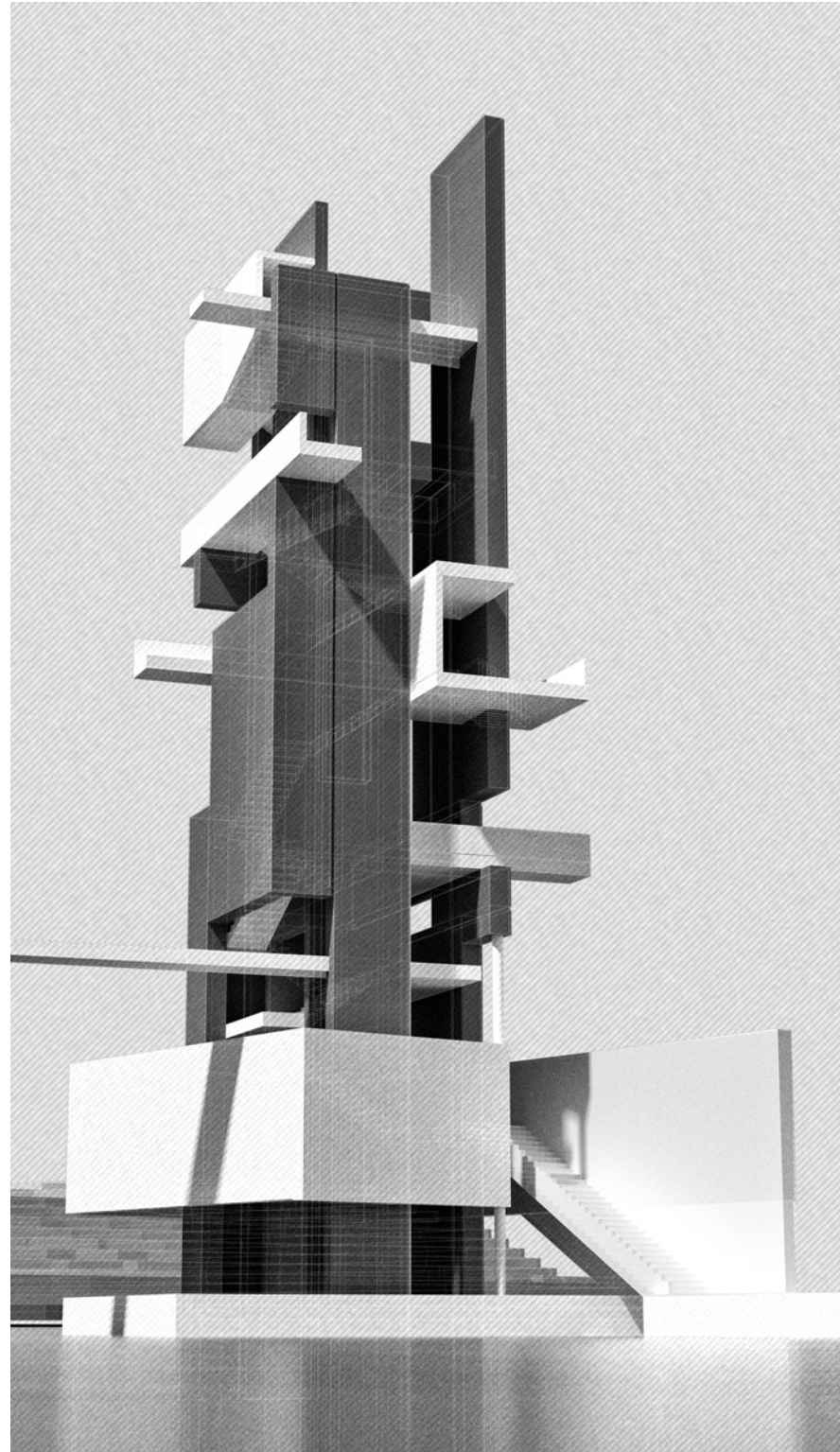




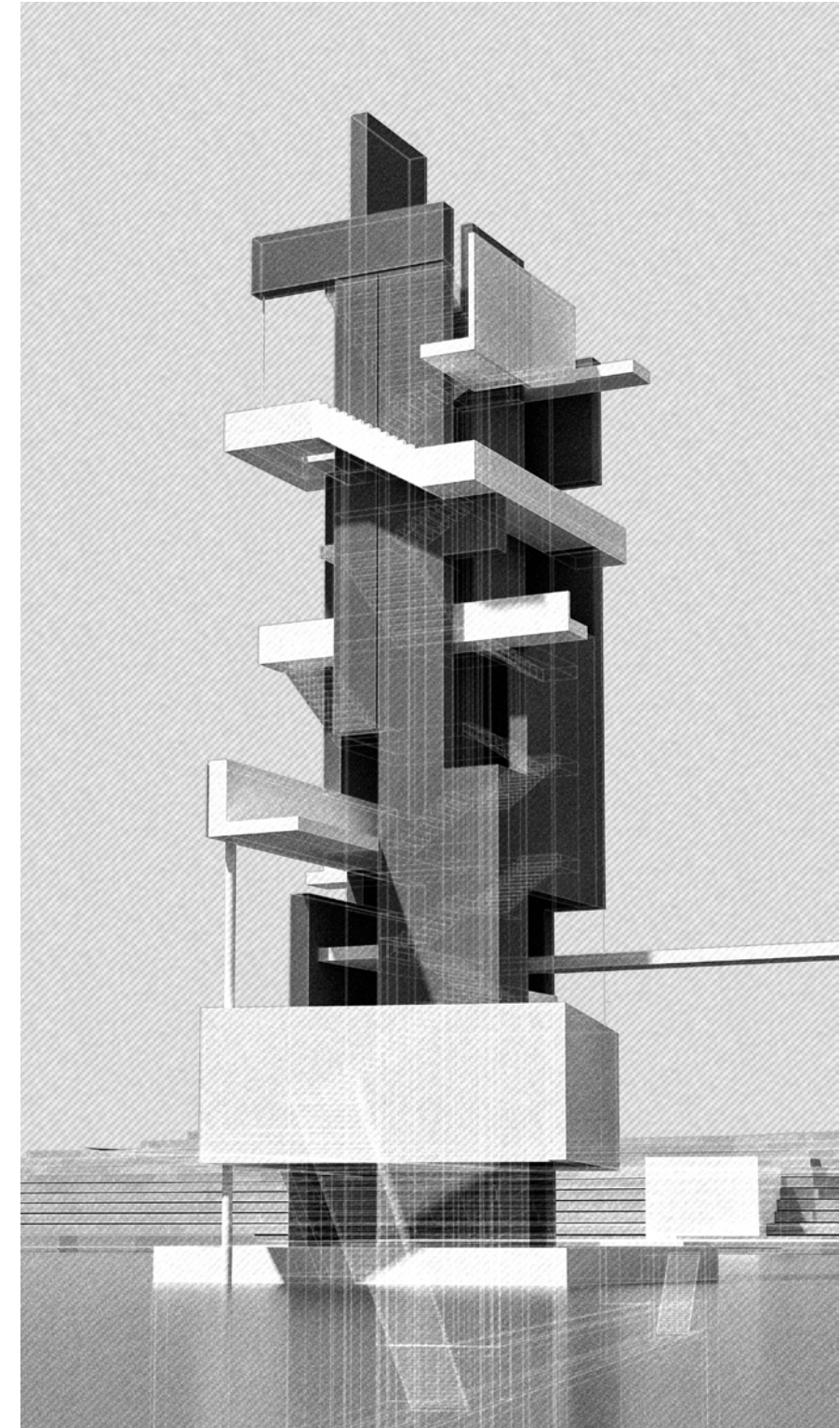
Bird's eye perspective of the final tower adjacent to the Key Bridge



Exterior perspective of the final tower looking from the Potomac River



Exterior perspective of the tenth tower looking from the Potomac River

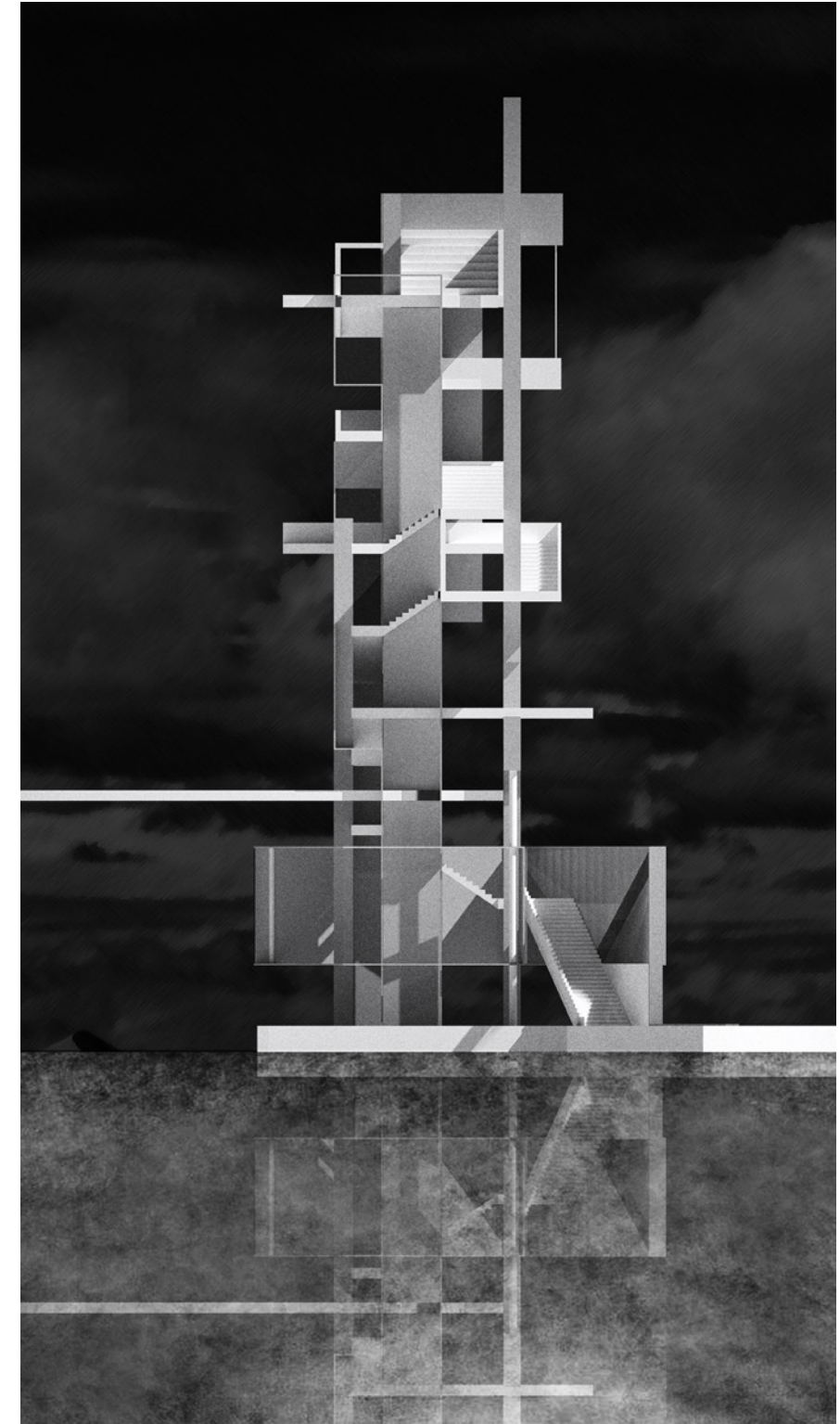


Exterior perspective of the tenth tower looking from the Potomac River

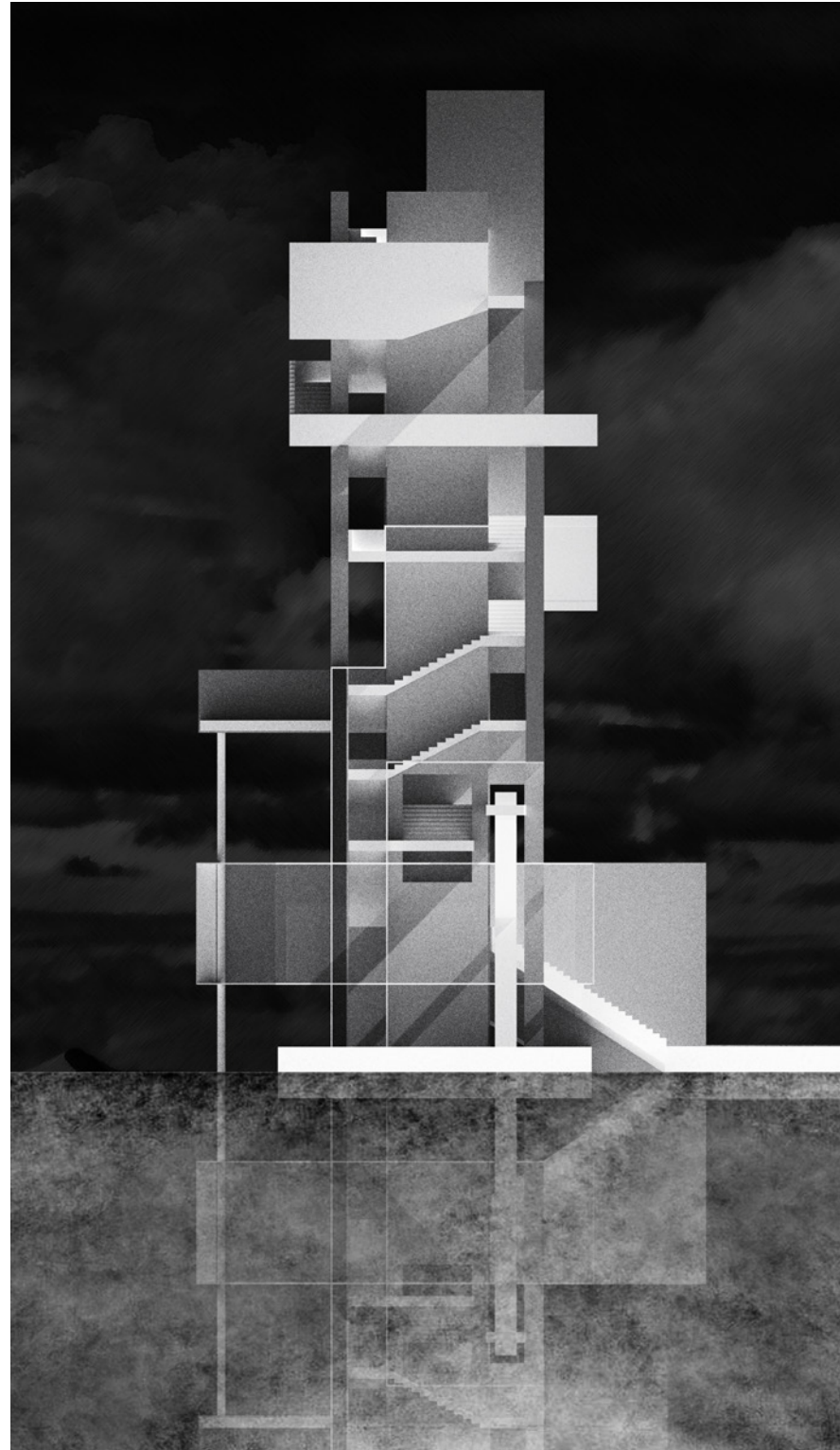




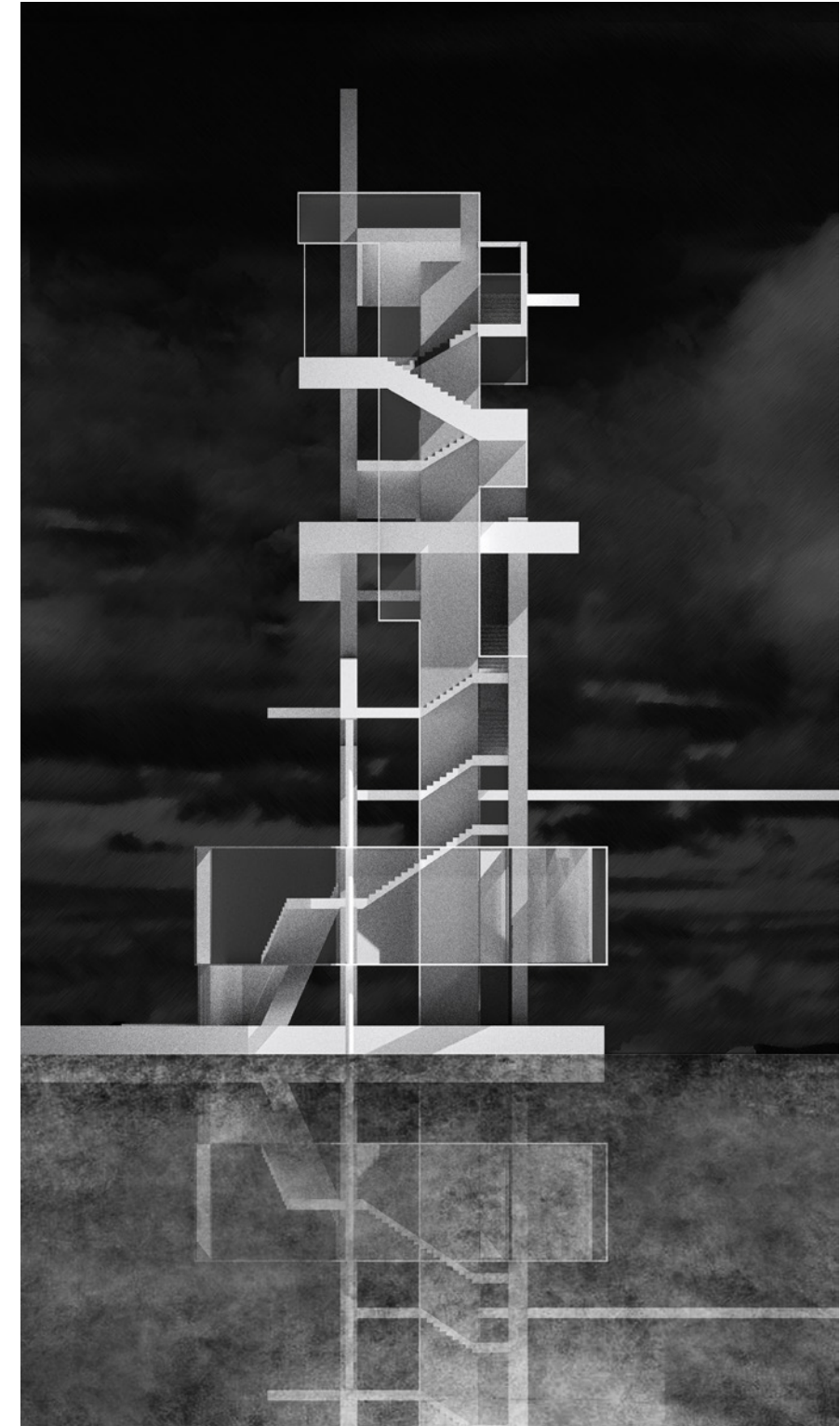
See-through elevation of the tenth tower



See-through elevation of the tenth tower

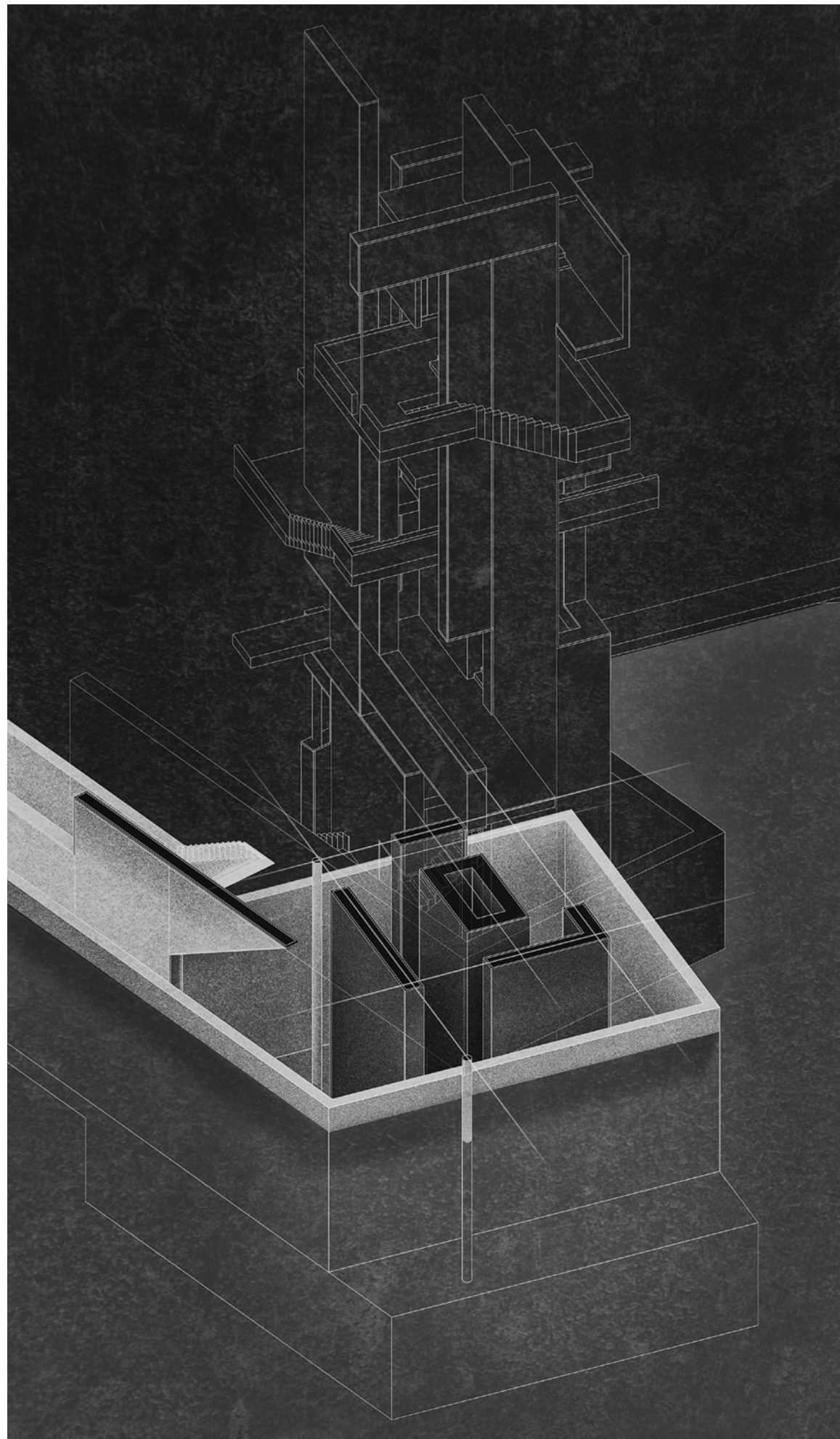


See-through elevation of the tenth tower

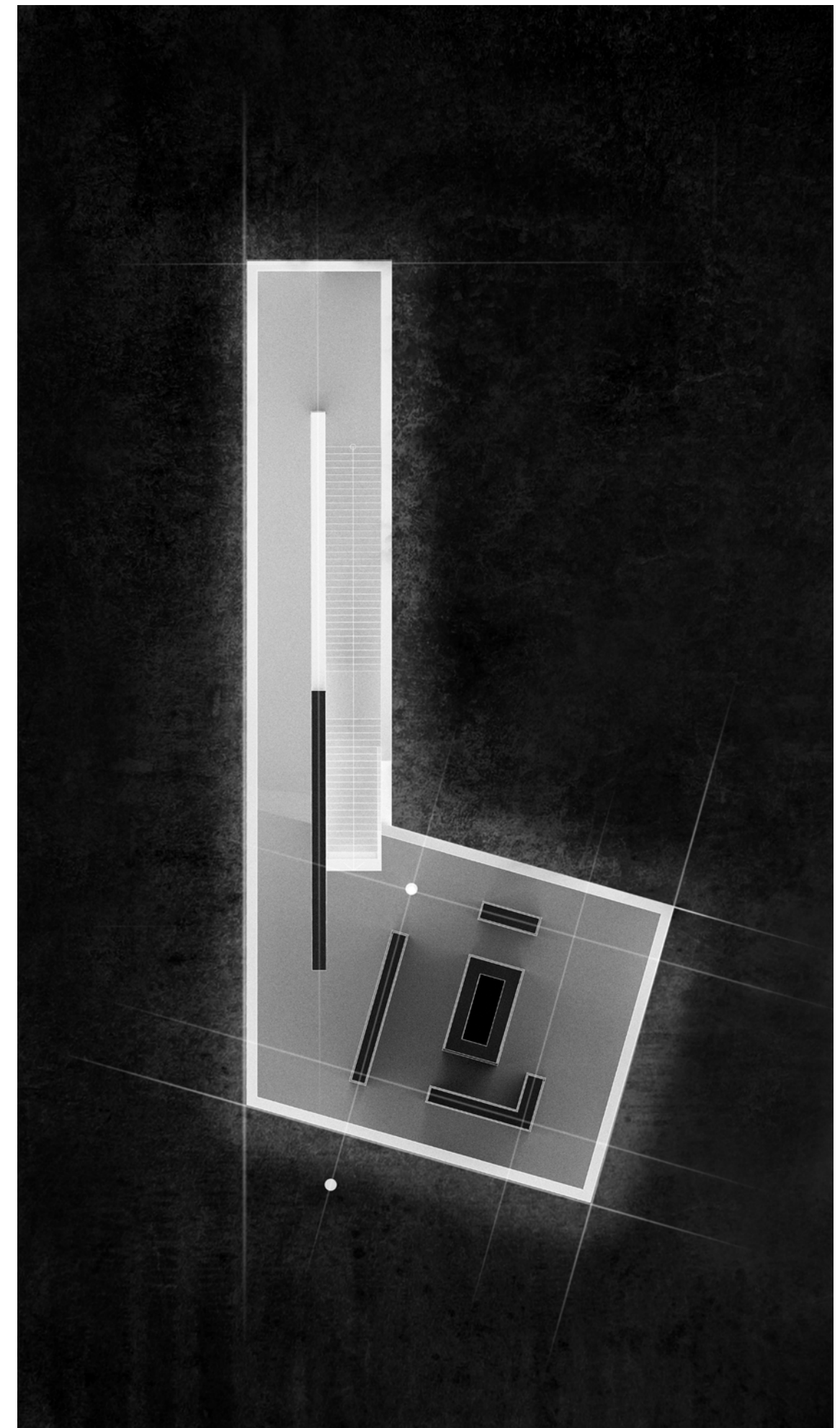


See-through elevation of the tenth tower

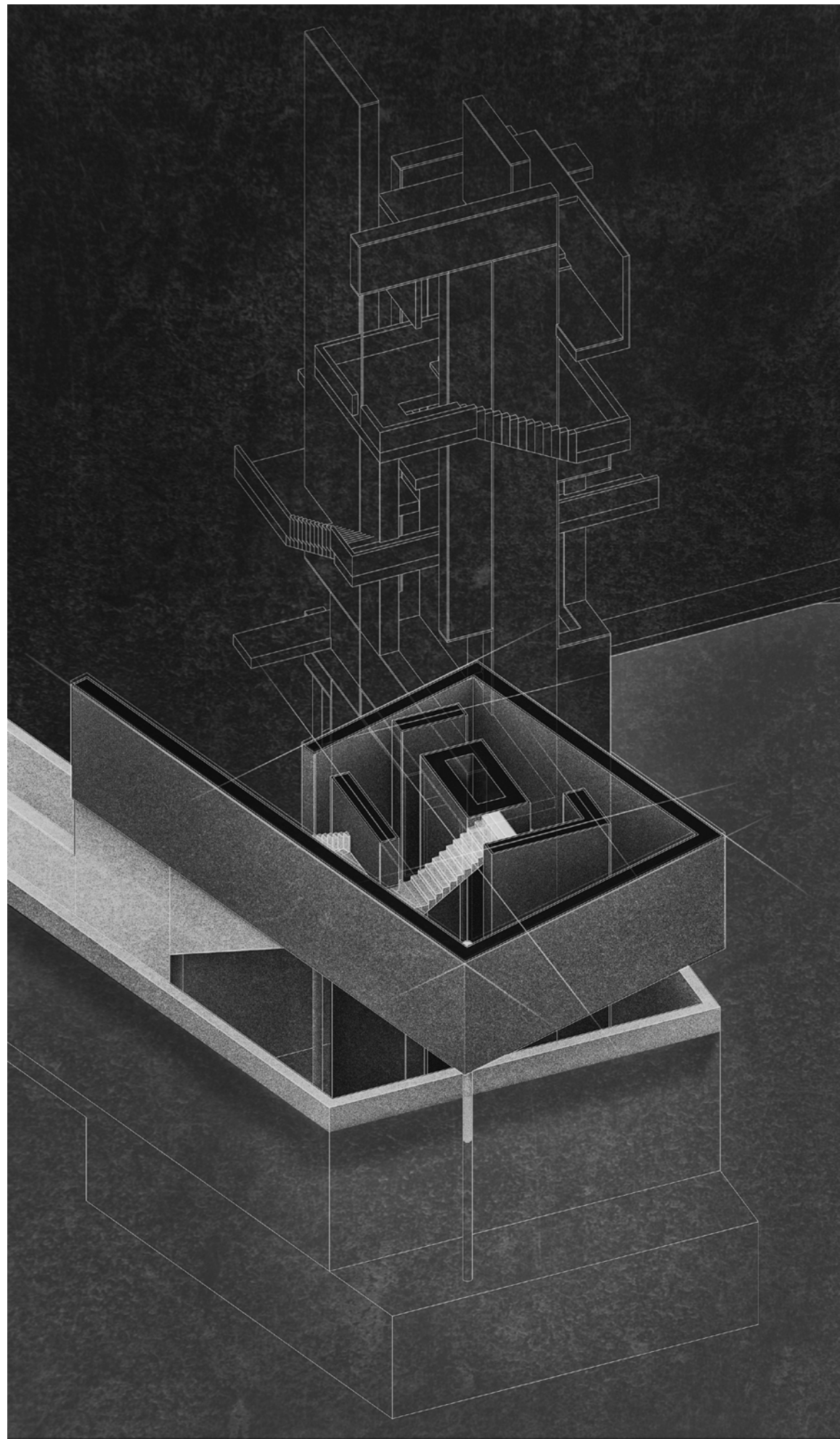




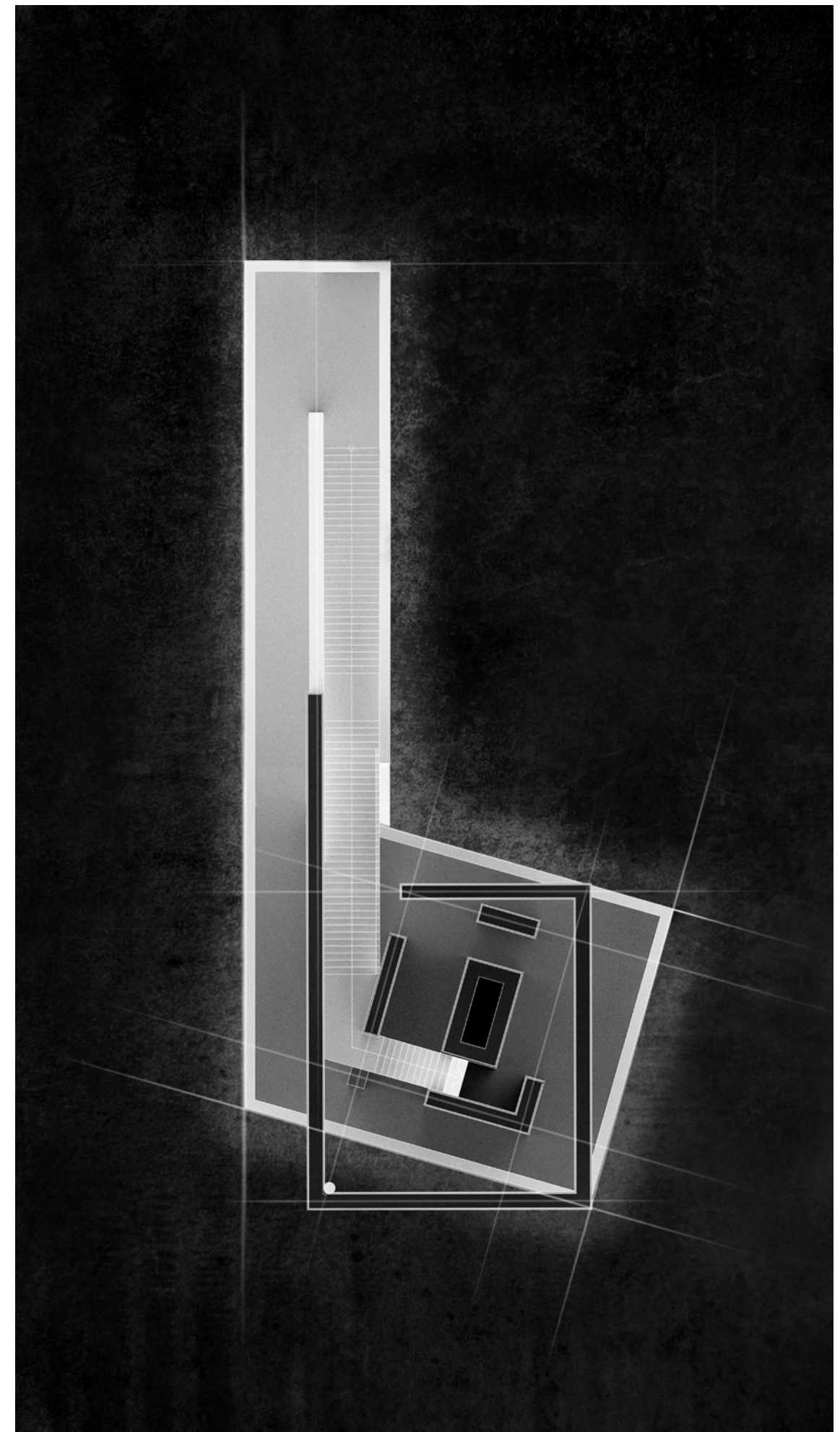
Sectioned axonometric of the tenth tower - Level 01



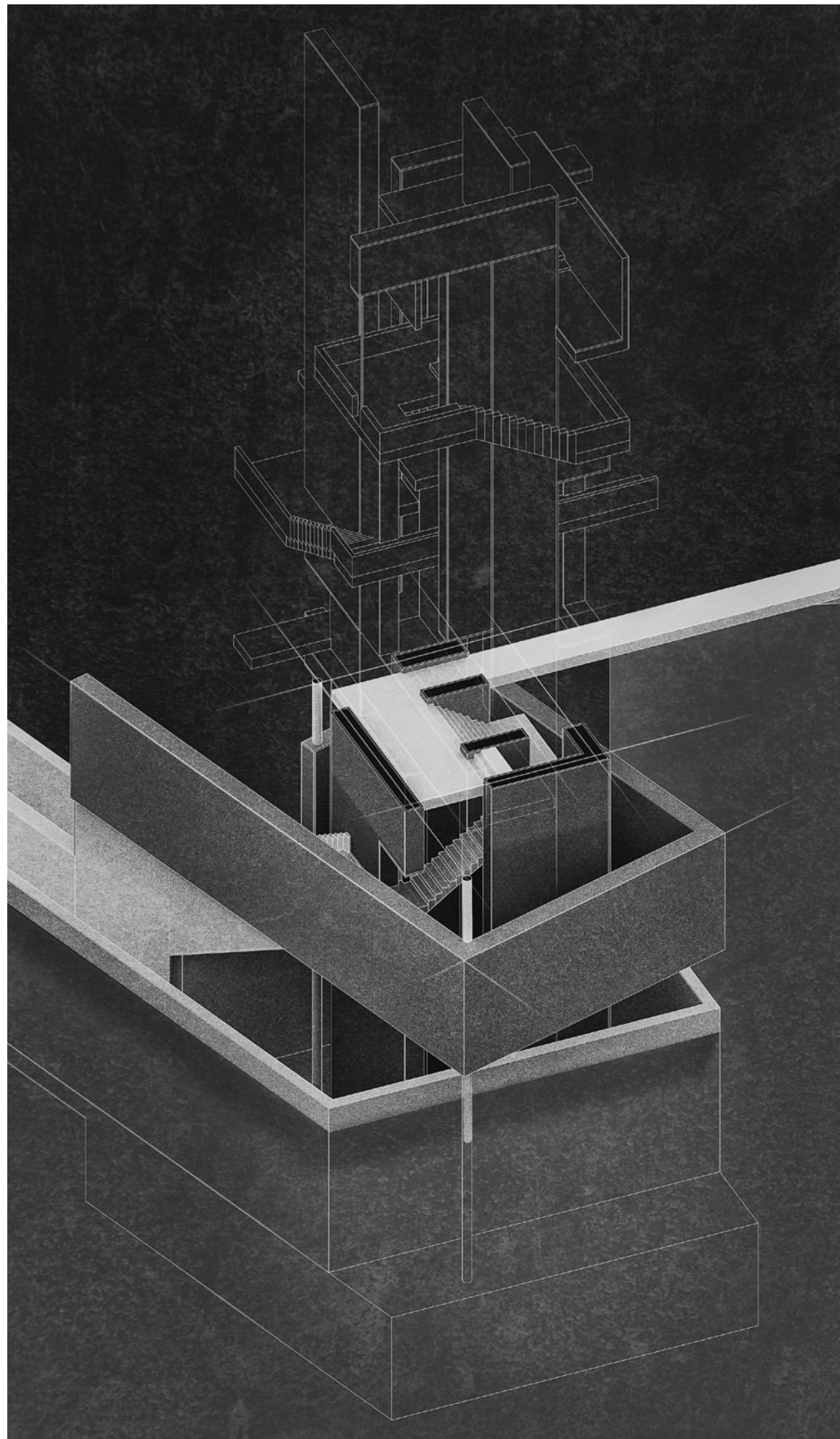
Floor plan of the tenth tower - Level 01



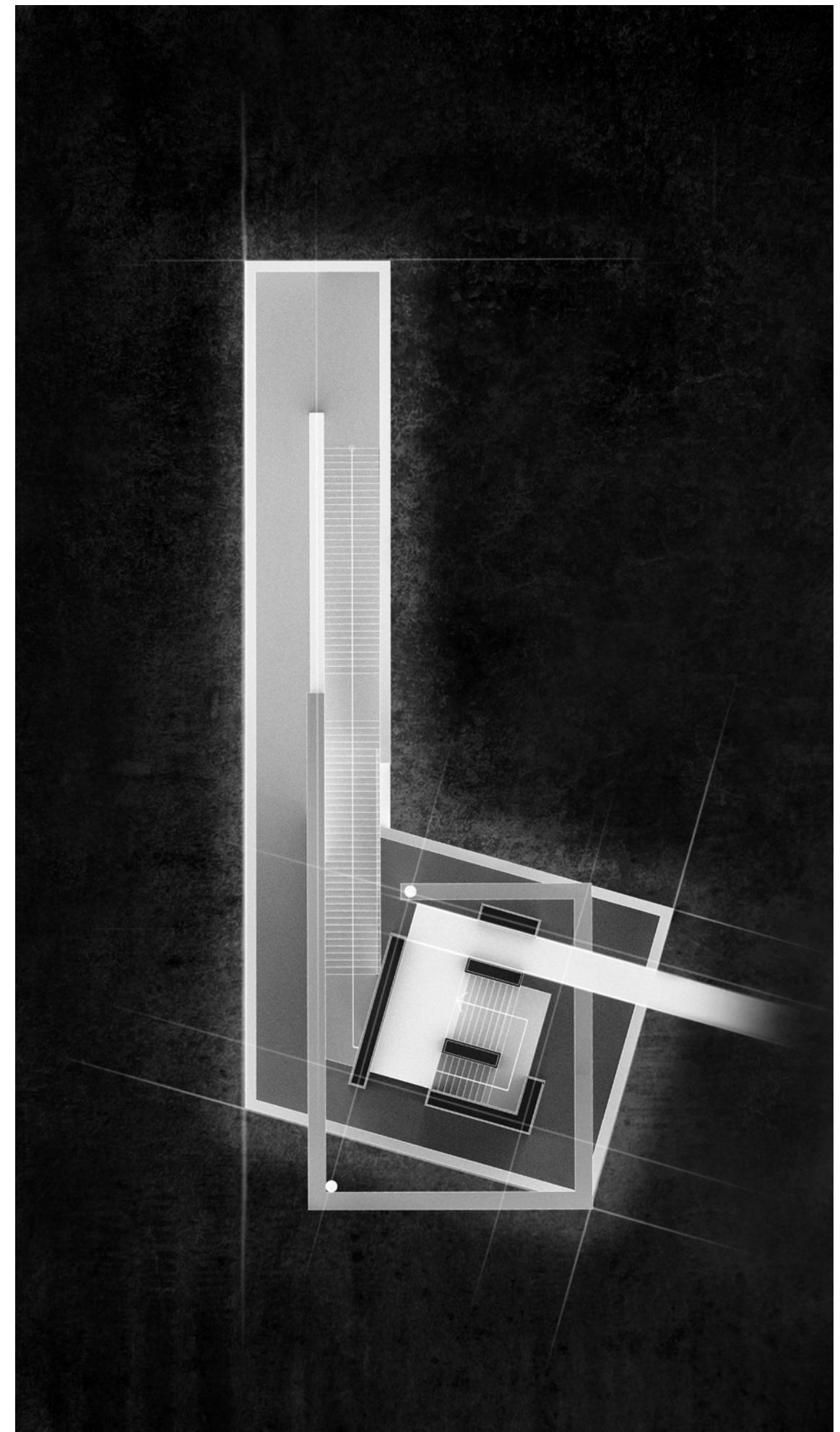
Sectioned axonometric of the tenth tower - Level 02



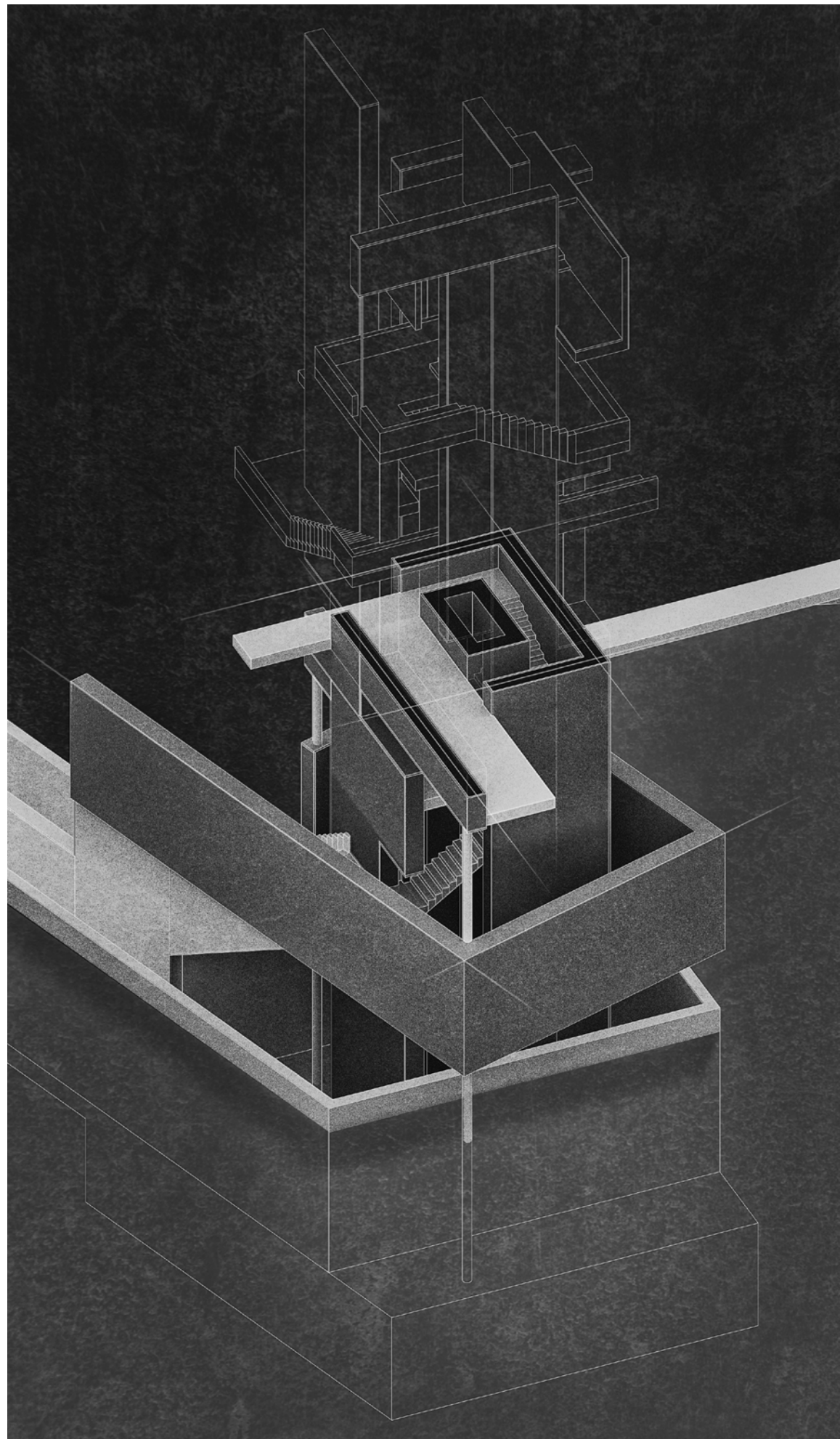
Floor plan of the tenth tower - Level 02



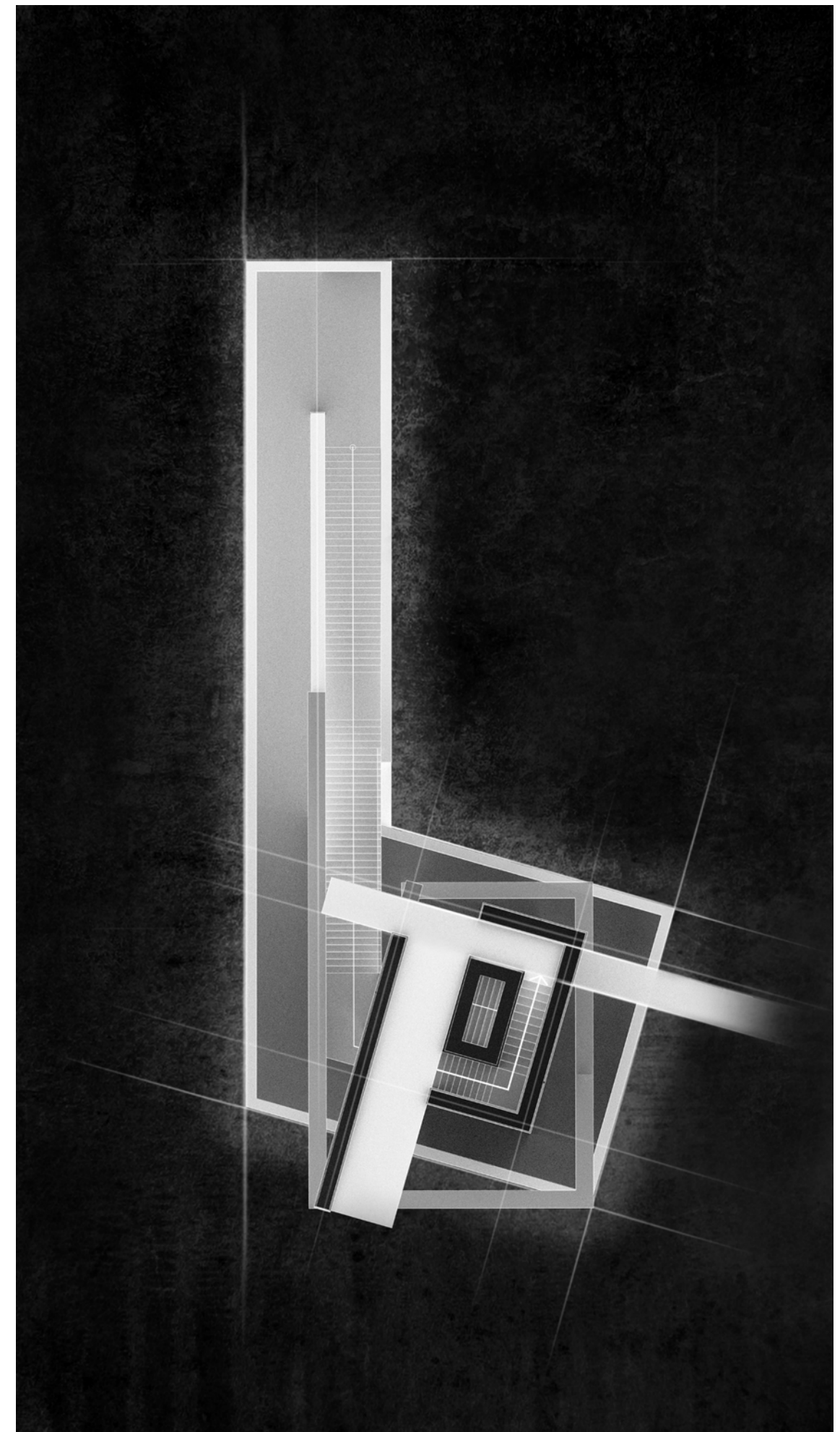
Sectioned axonometric of the tenth tower - Level 03



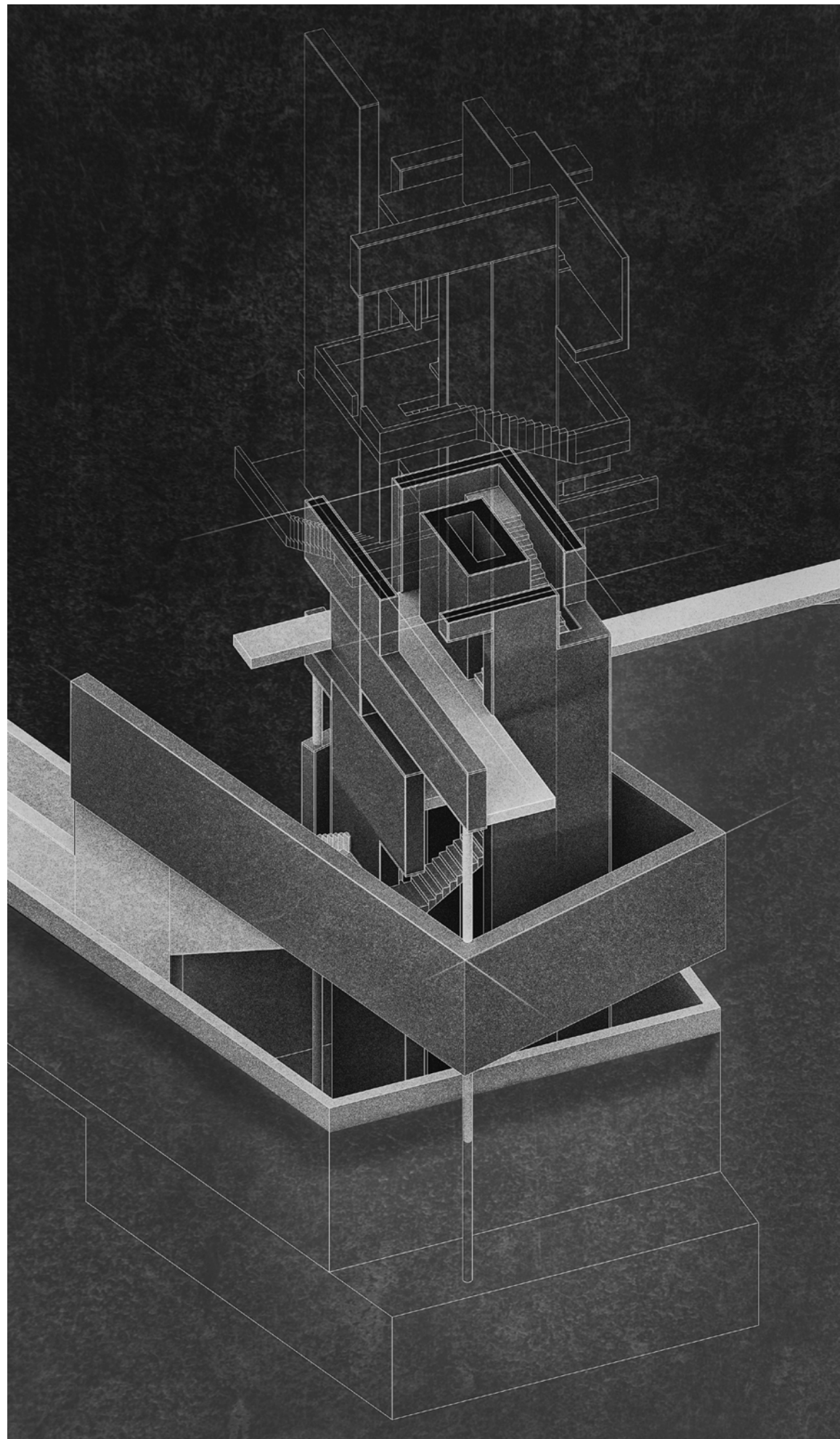
Floor plan of the tenth tower - Level 03



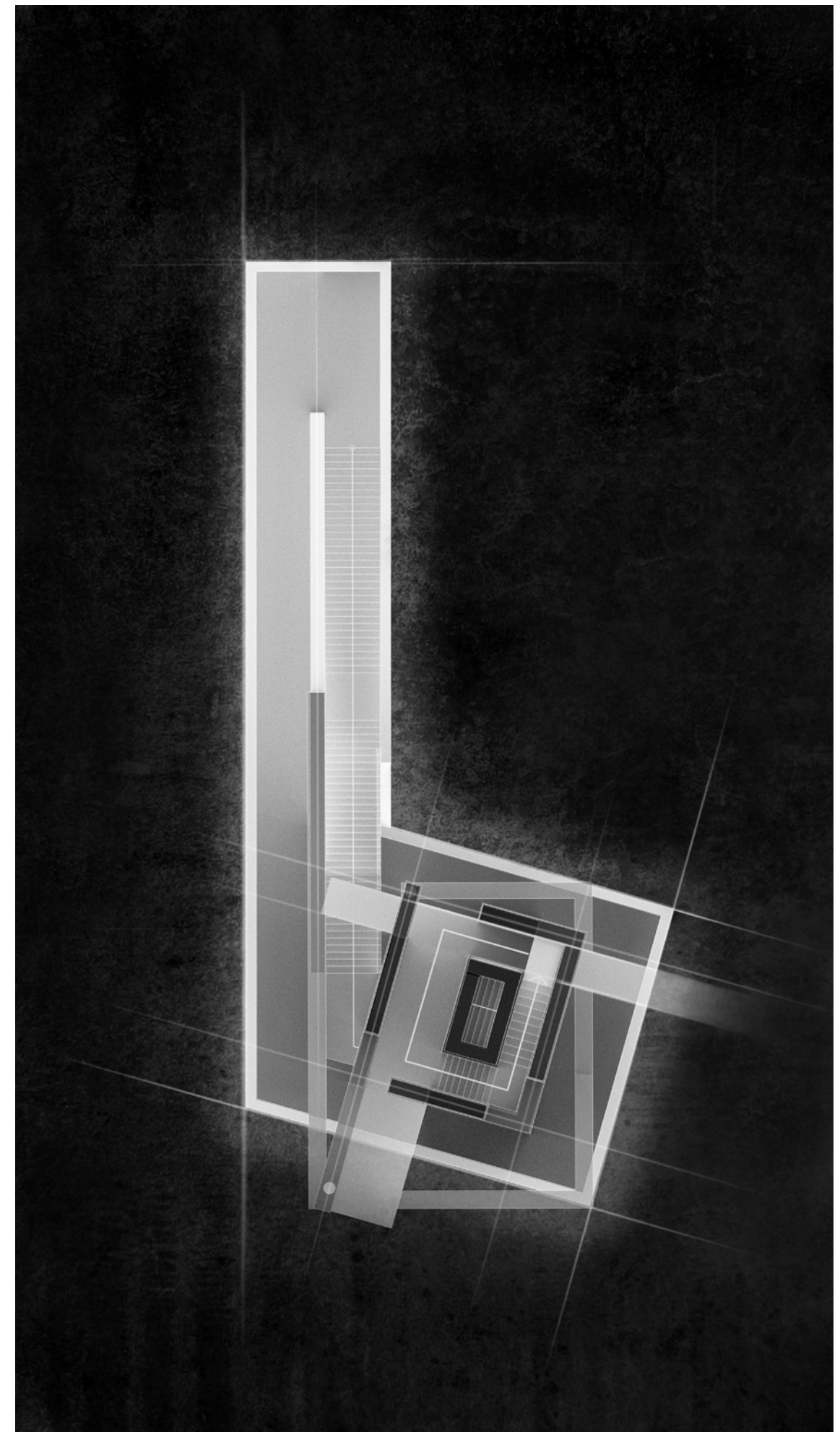
Sectioned axonometric of the tenth tower - Level 04



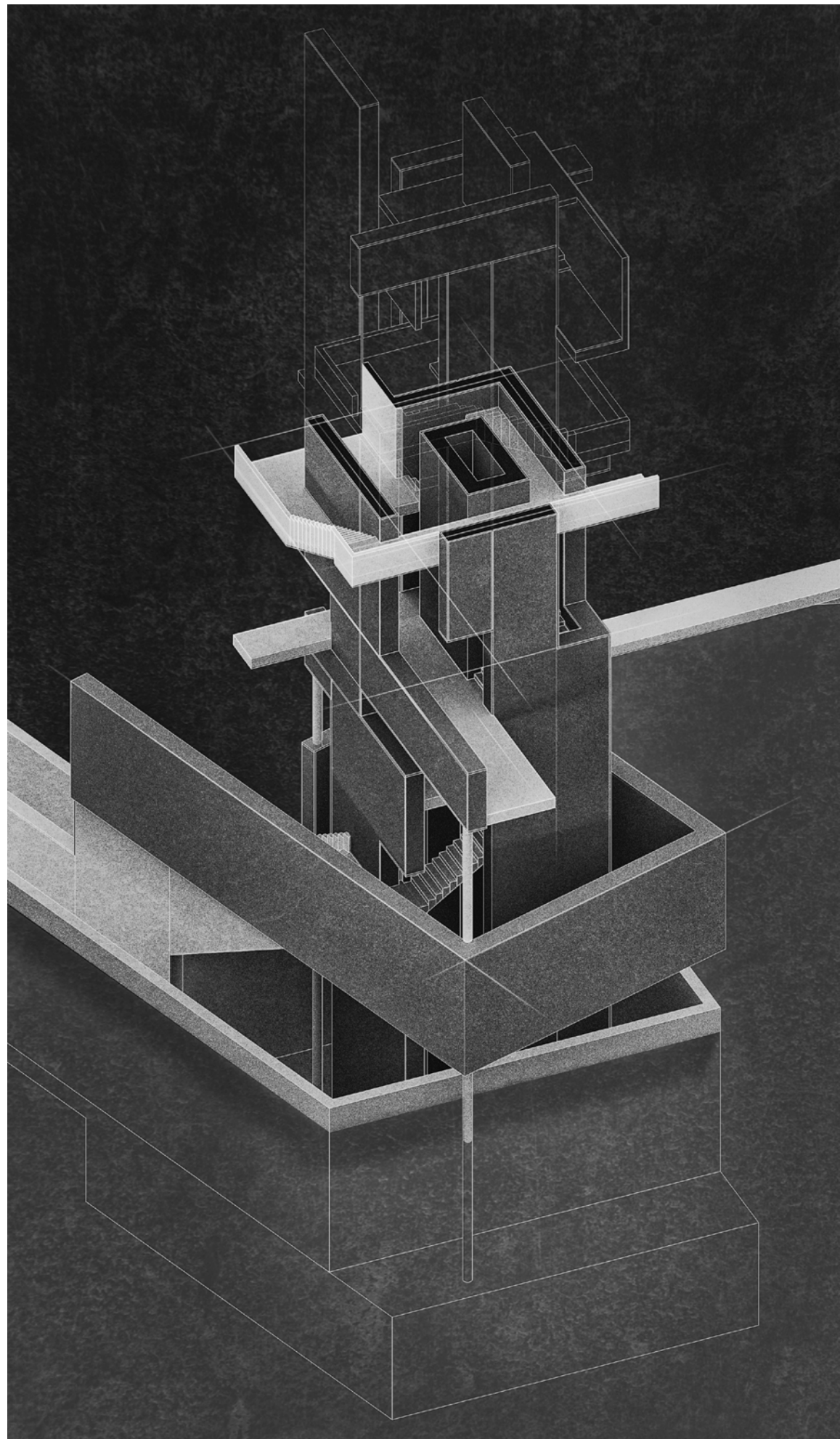
Floor plan of the tenth tower - Level 04



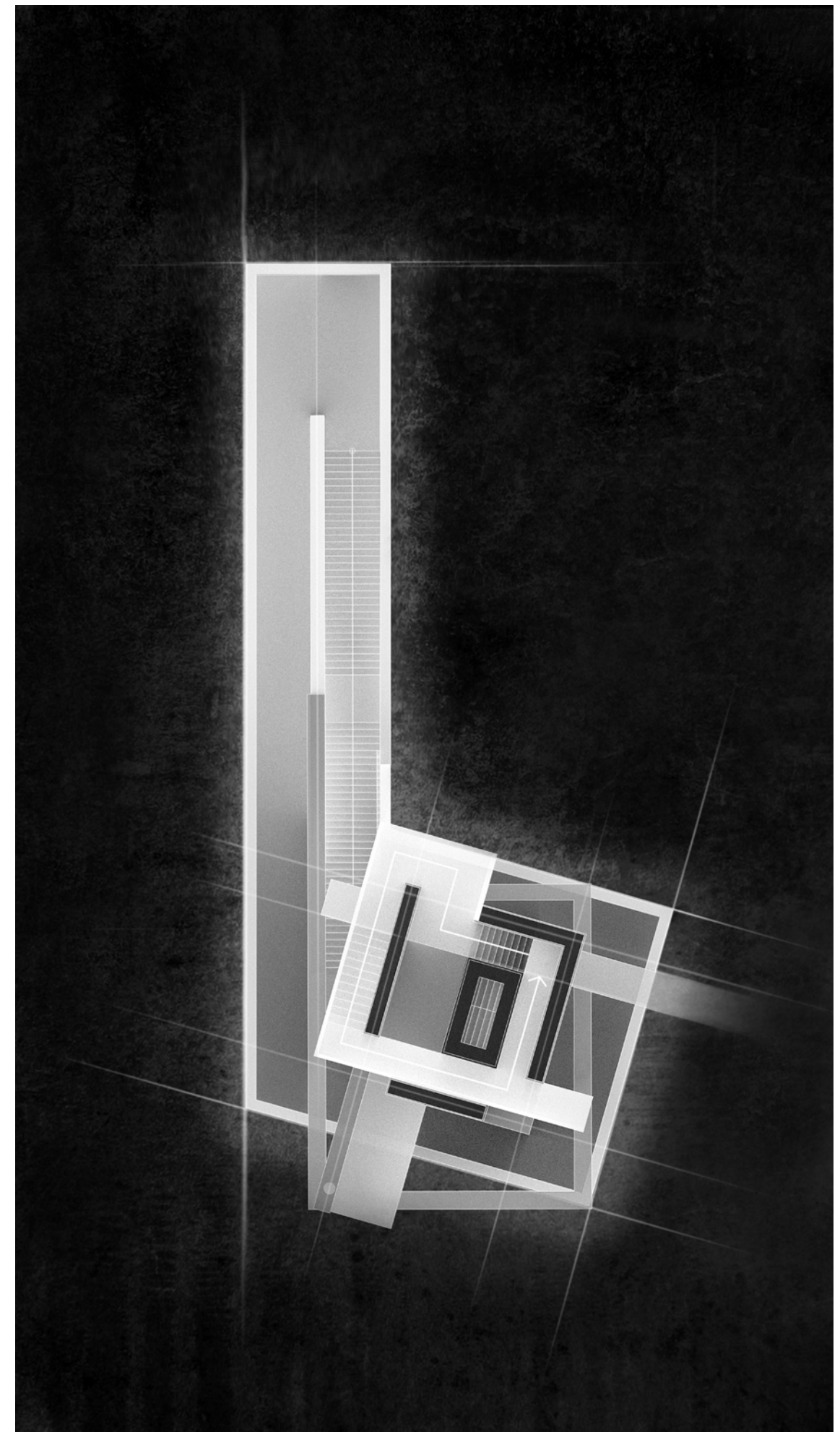
Sectioned axonometric of the tenth tower - Level 05



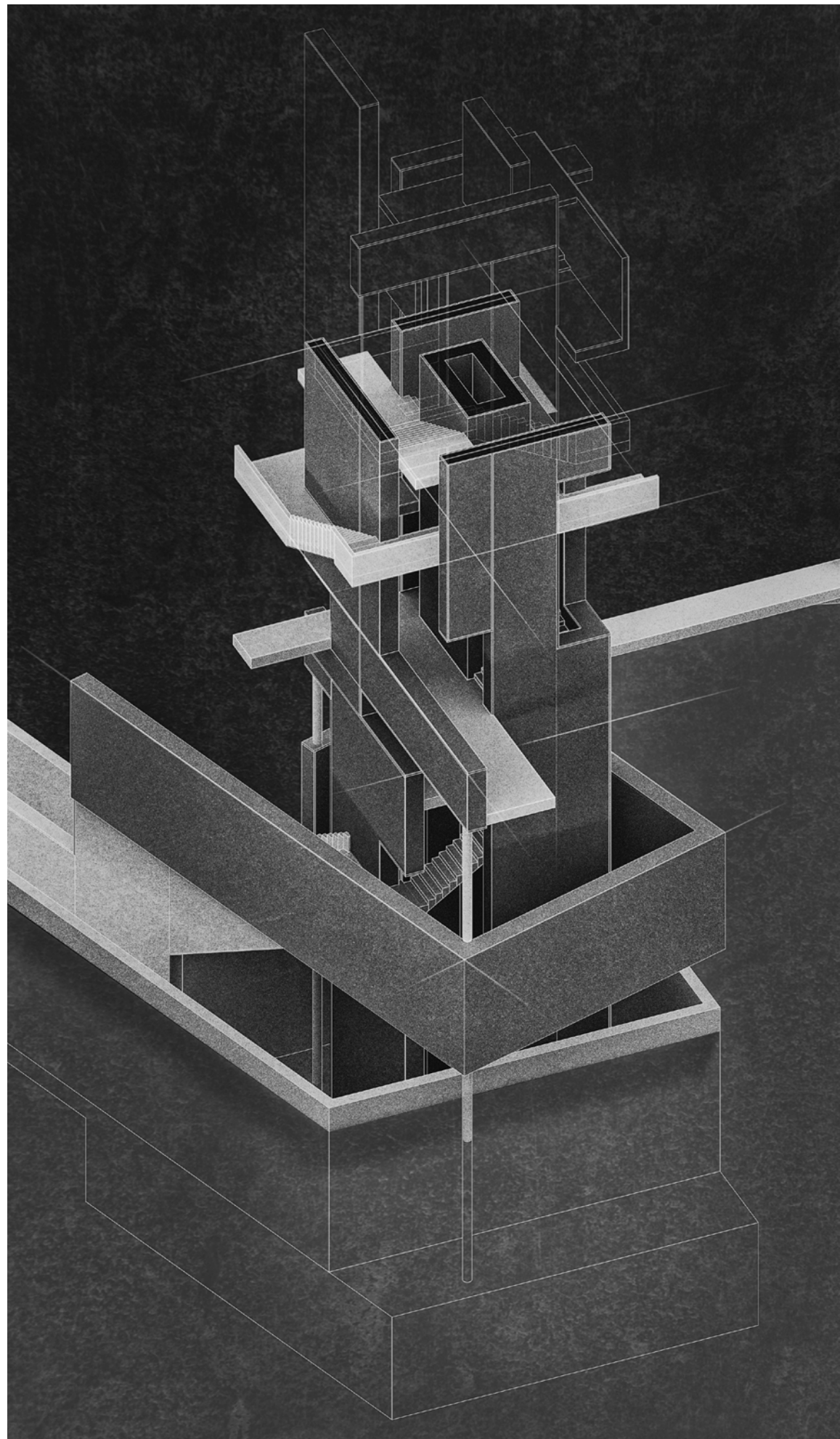
Floor plan of the tenth tower - Level 05



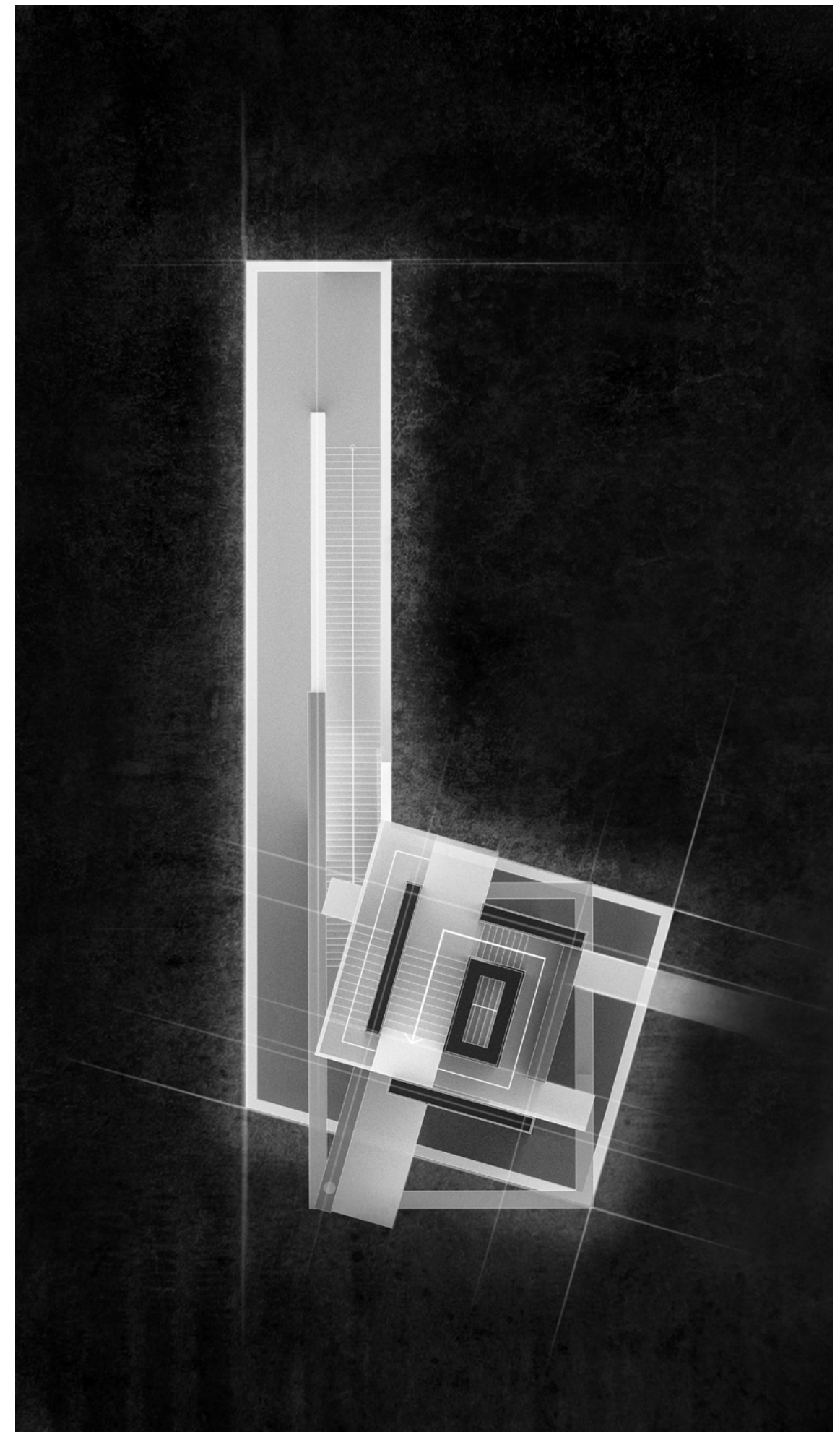
Sectioned axonometric of the tenth tower - Level 06



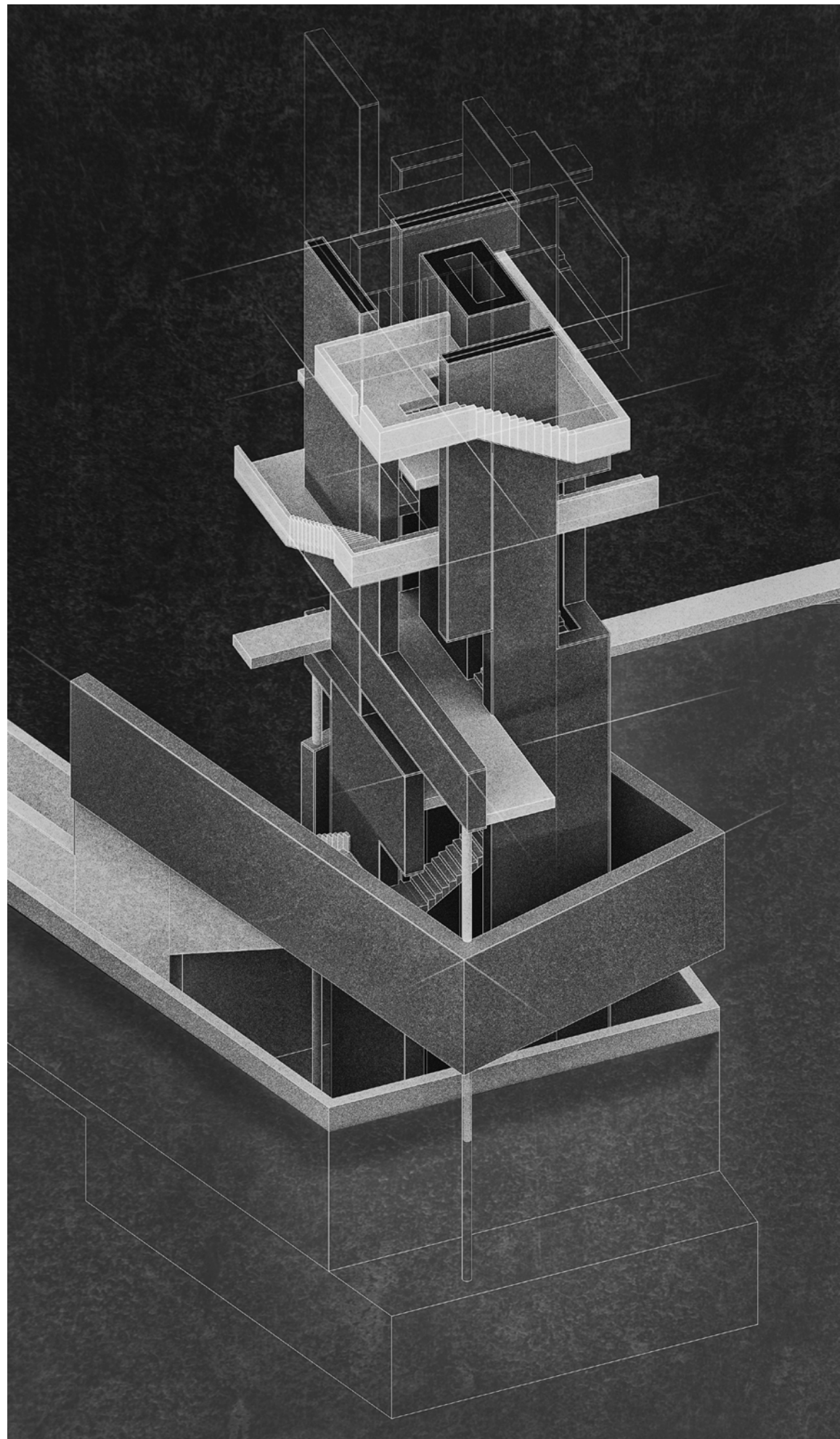
Floor plan of the tenth tower - Level 06



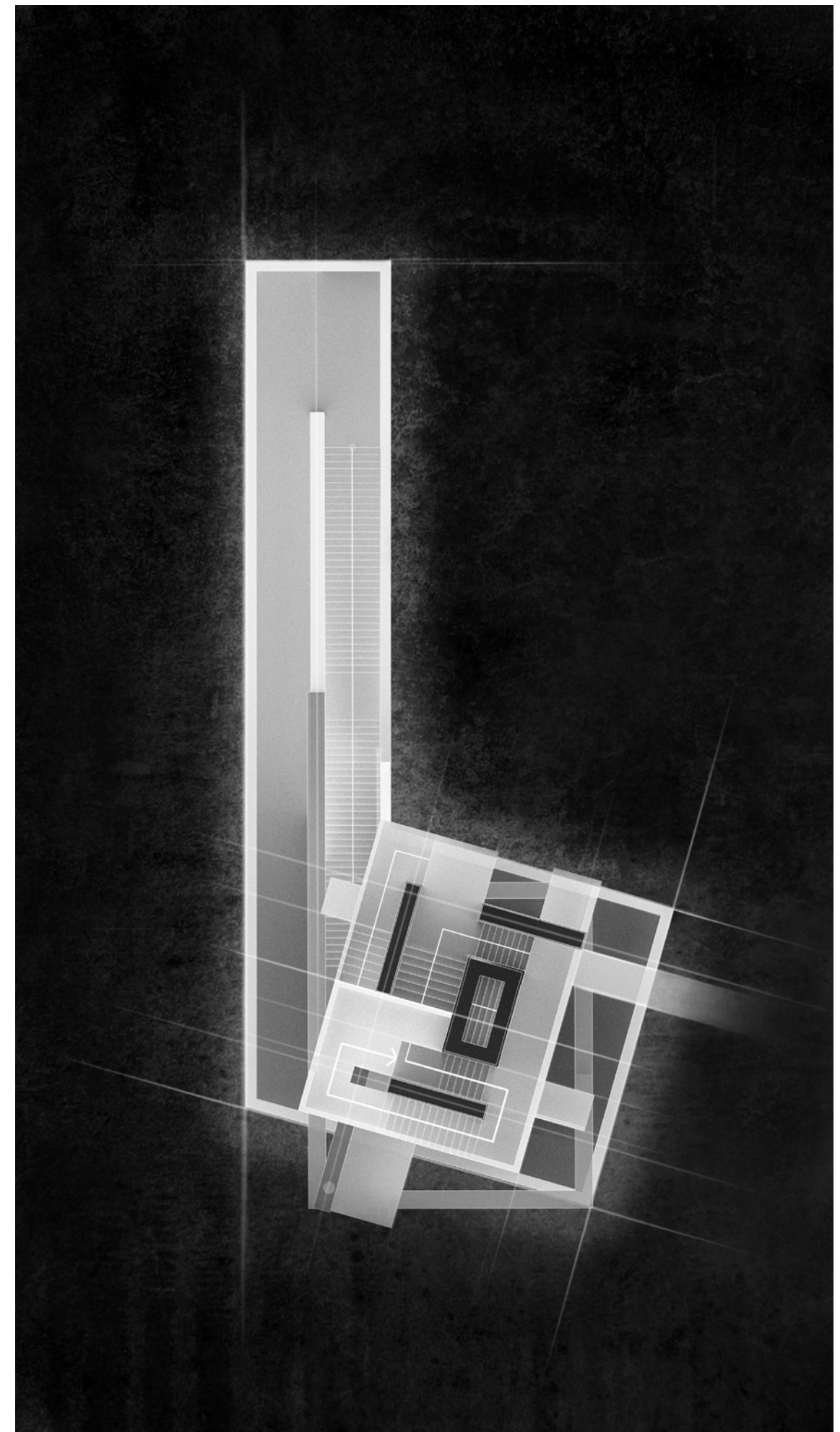
Sectioned axonometric of the tenth tower - Level 07



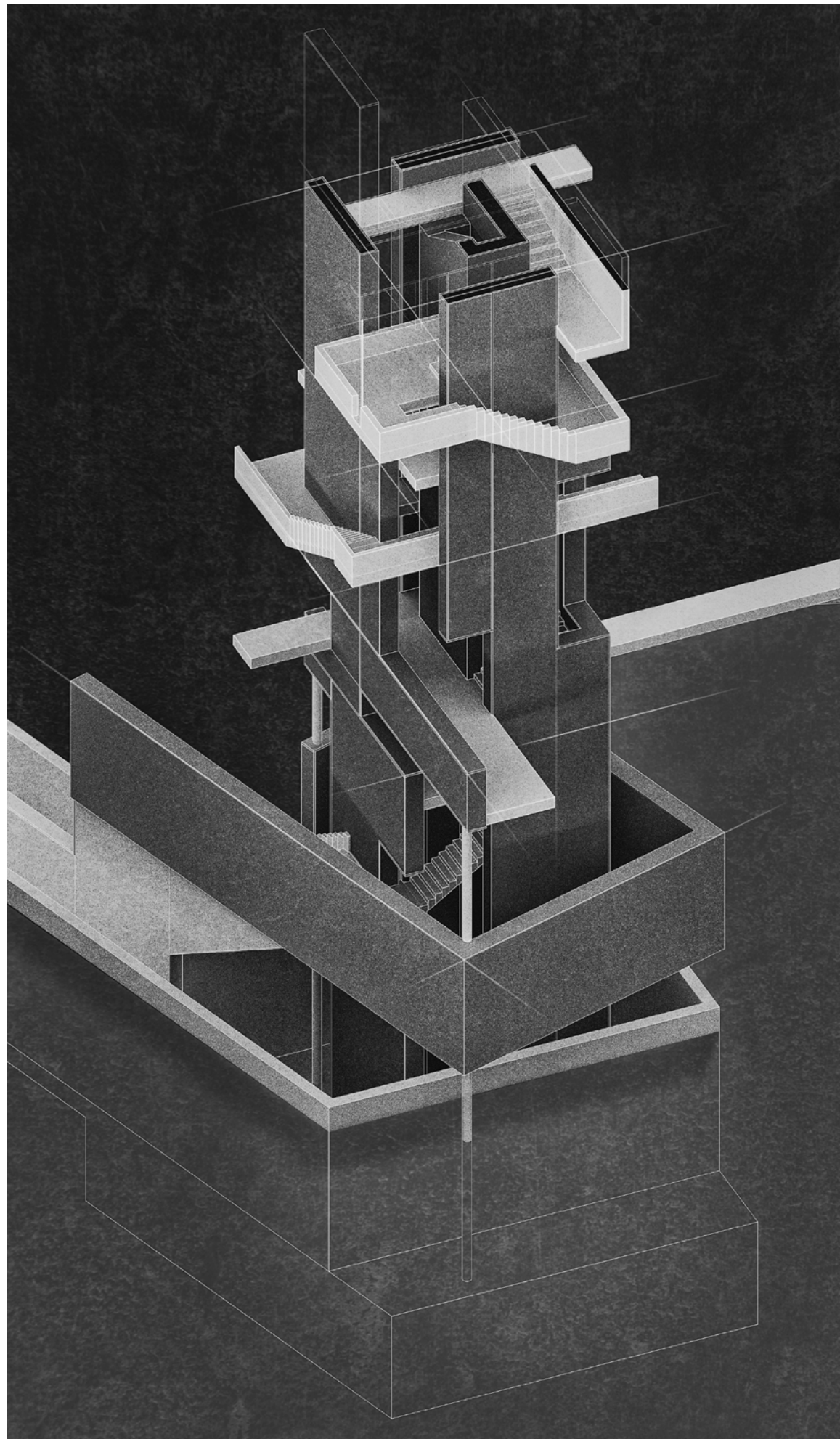
Floor plan of the tenth tower - Level 07



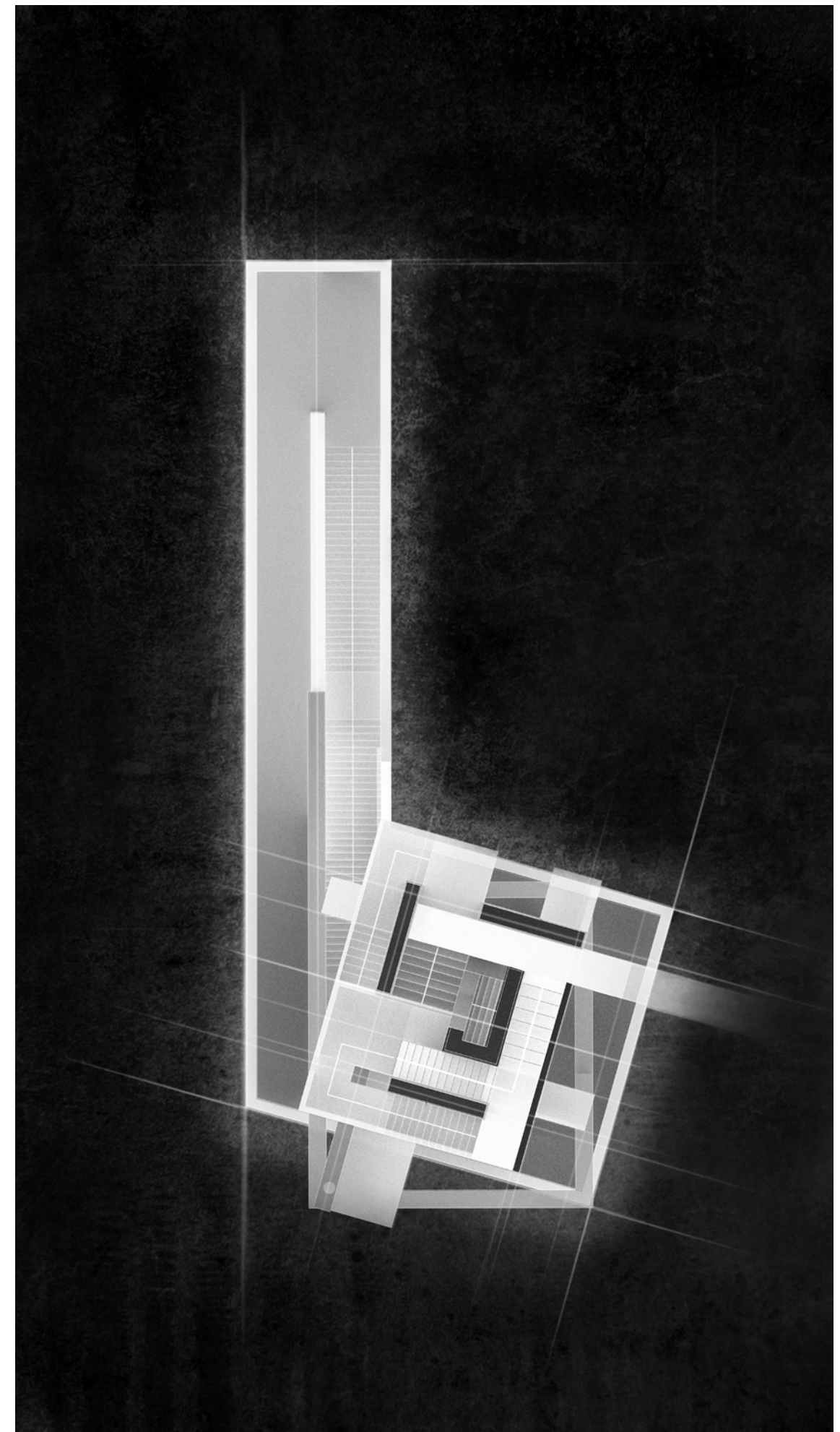
Sectioned axonometric of the tenth tower - Level 08



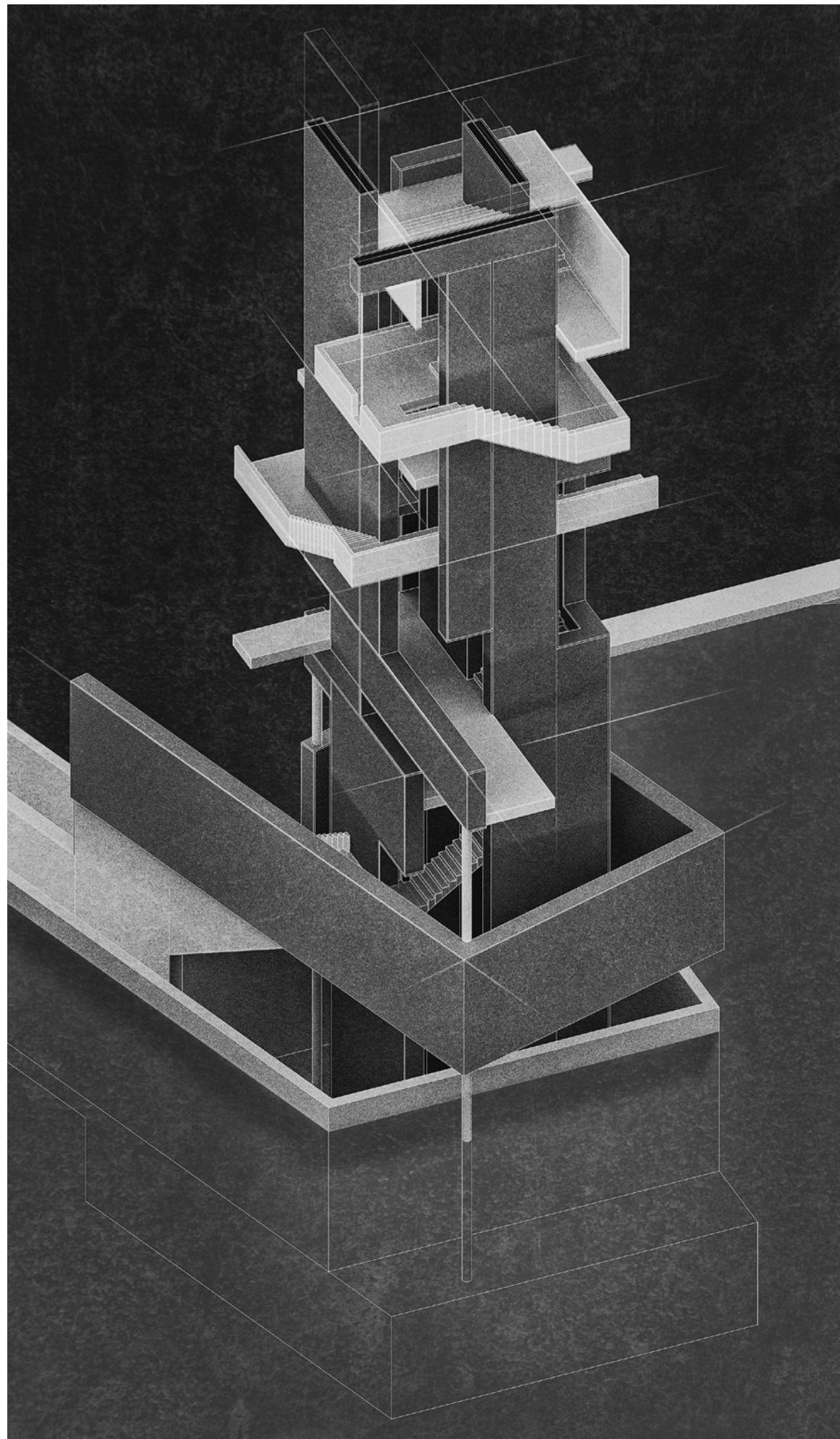
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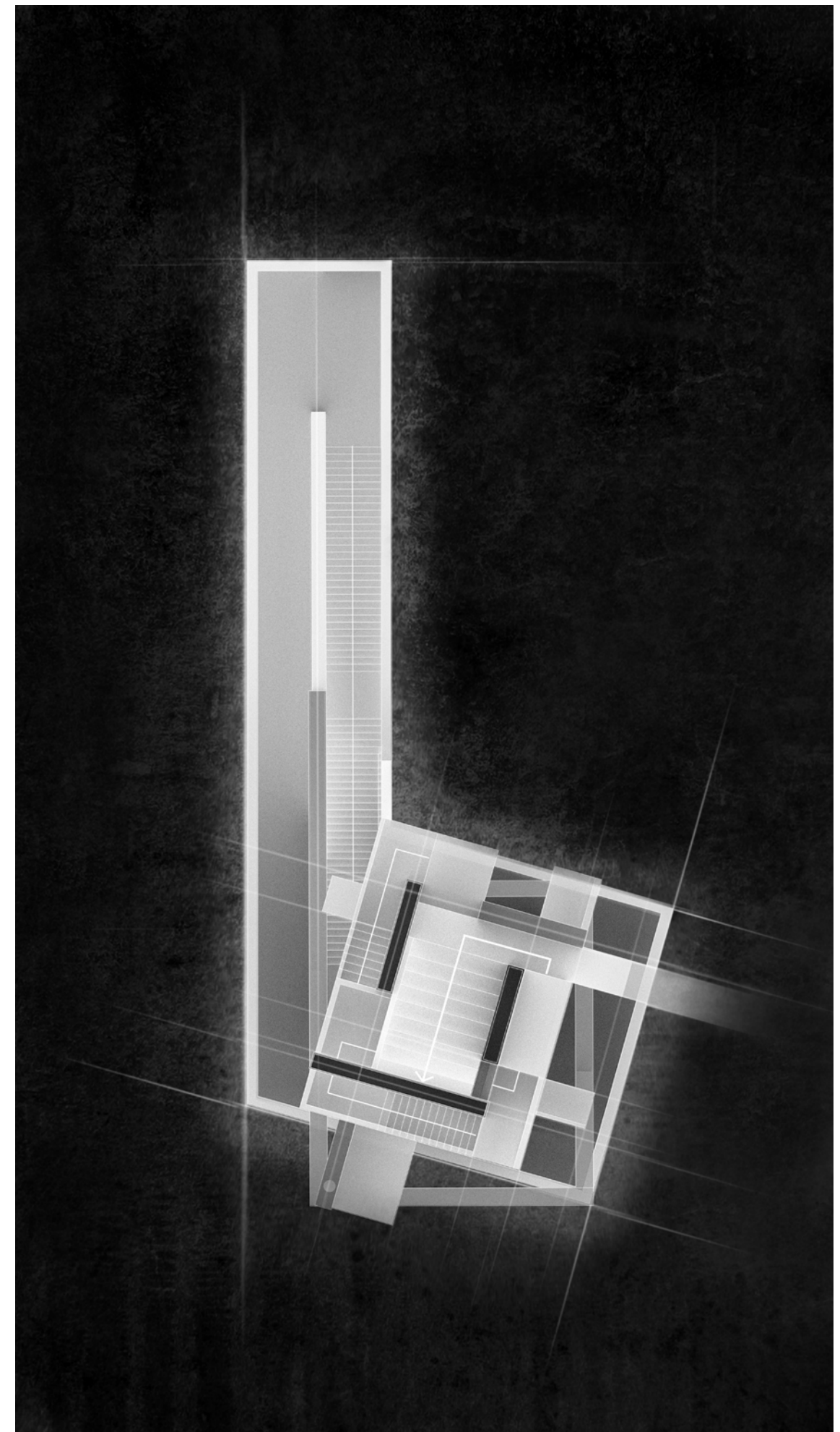
Sectioned axonometric of the tenth tower - Level 09



Floor plan of the tenth tower - Level 09



Sectioned axonometric of the tenth tower - Level 10



Floor plan of the tenth tower - Level 10



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