



LA/CA

2013

# JACOB HAMMAN

DESIGN PORTFOLIO

TABLE OF CONTENTS

USC B.Arch

HYBRID  
ROOFTOP  
DESIGN



4-5

INTERFAITH  
CENTER AND  
CREMATORIUM



6-7

NATURE  
INTERPRETIVE  
CENTER



8-9

LUMA  
FOUNDATION  
BUILDING



11-12

MIXED USE  
LONDON



13

ART MUSEUM  
CHINA



14

NATIONAL ART  
MUSEUM OF  
CHINA



15-16

MUSEUM OF  
ANDORRA



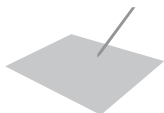
17

GP TOOLBOX



18

HAND  
SKETCHES



20-21

SUNGLASSES



22

STANDING  
DESK



23

2006 - 2007

LA/CA

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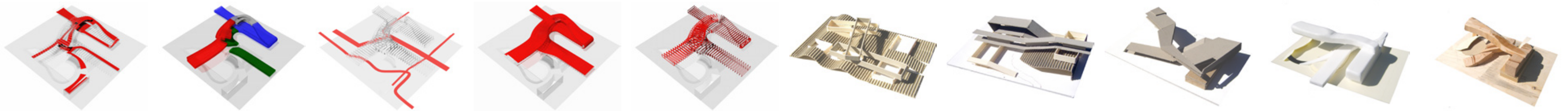
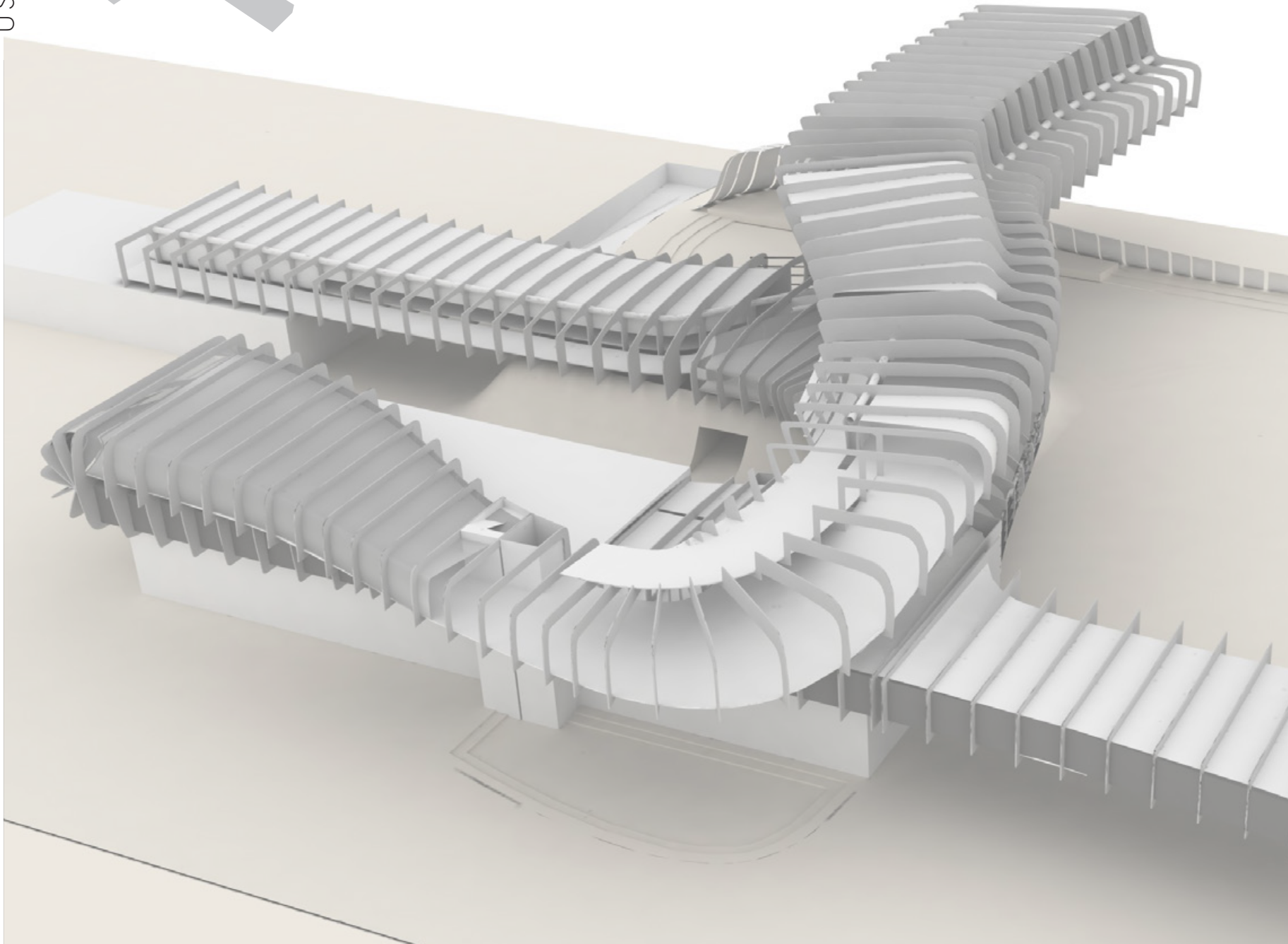
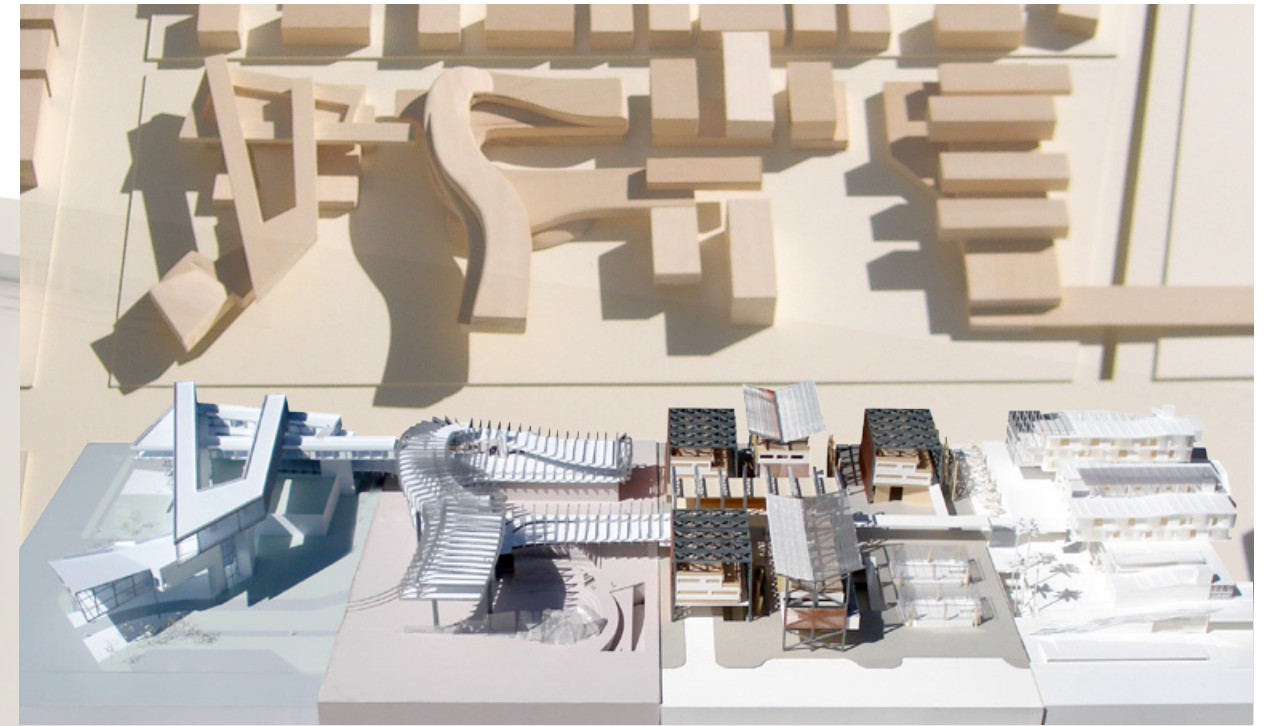
SELECTED WORKS



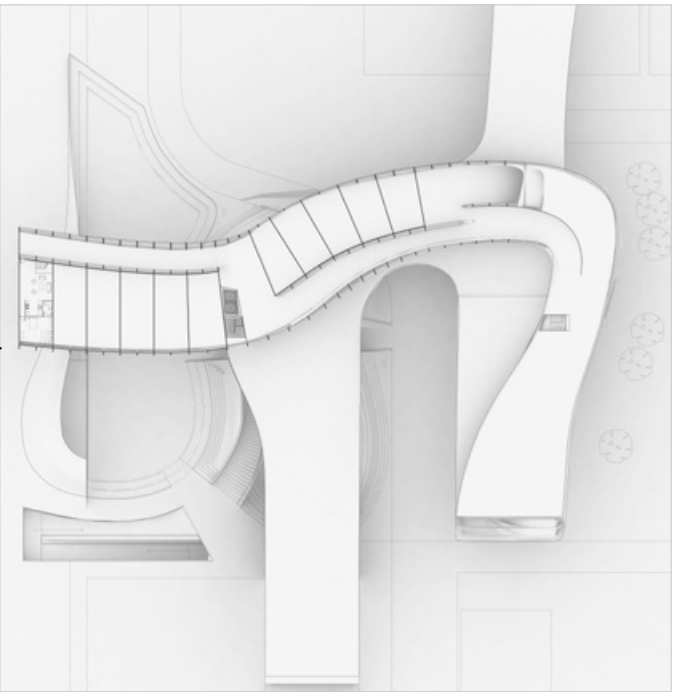
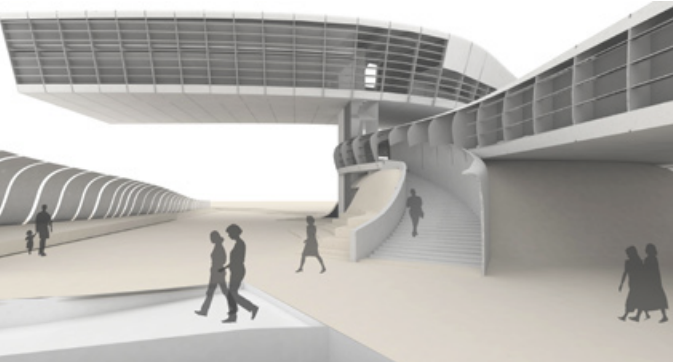
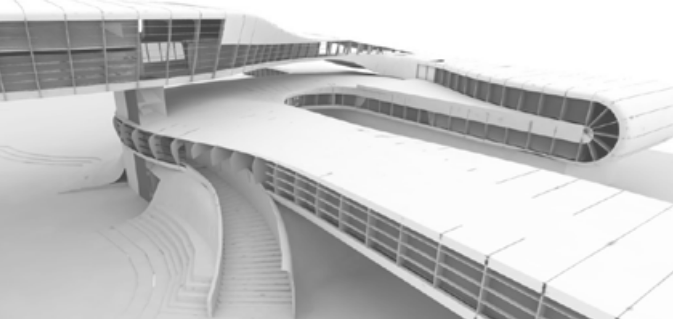
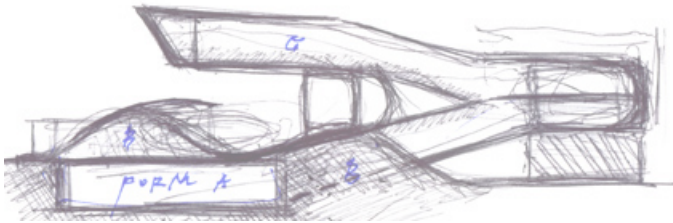
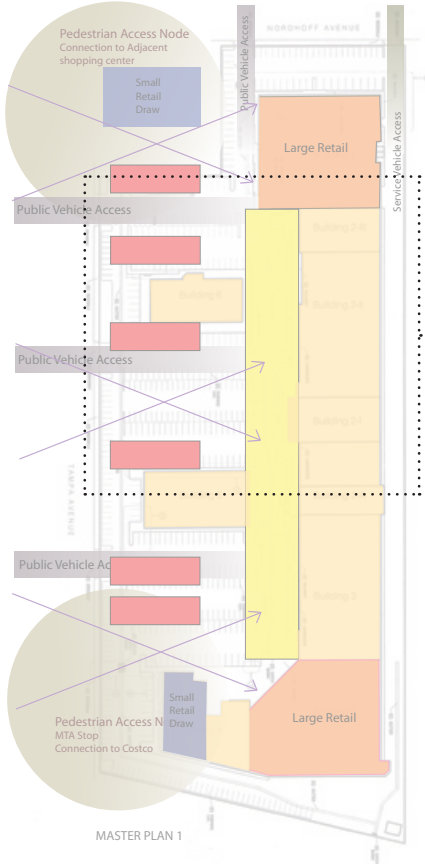
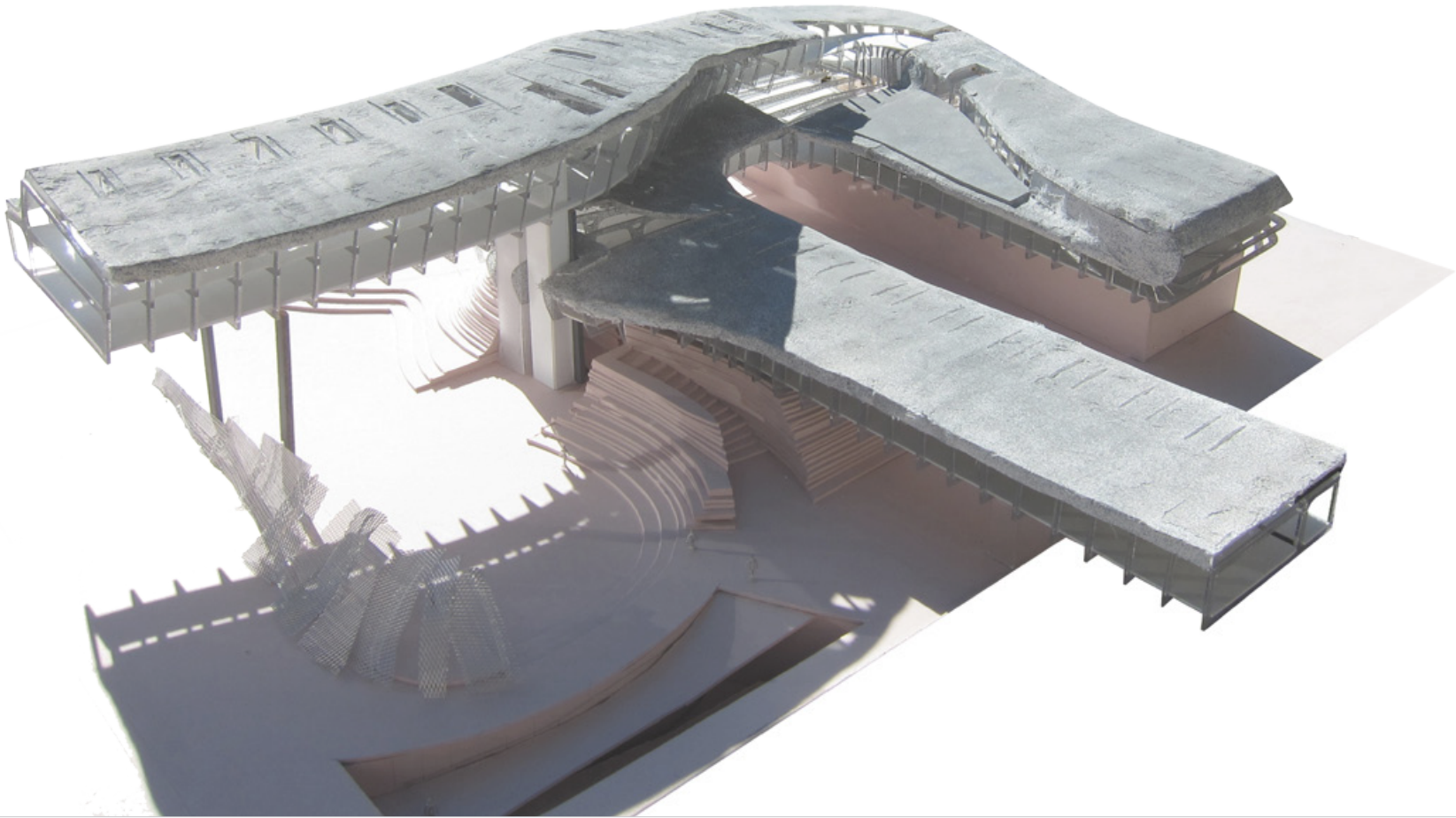
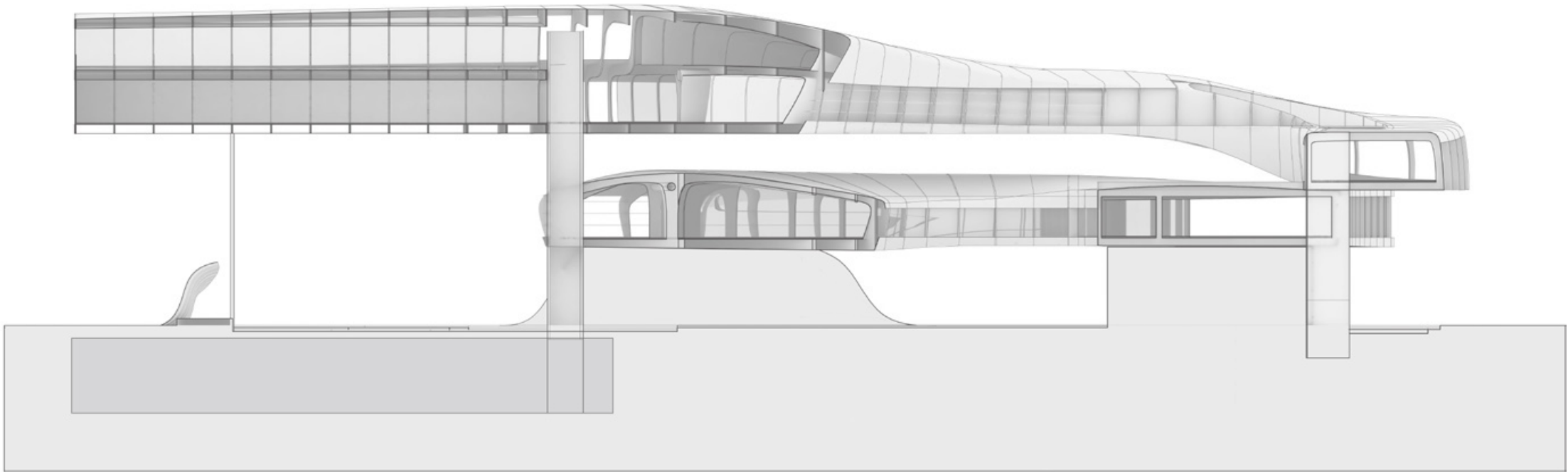
## HYBRID ROOFTOP DESIGN

Professor Janek Dombrowa

This design project involved the collaborative creation of a master plan for a site that contained existing retail spanning four adjacent lots. Each project was designed on and around the rooftop of this retail with considerations given to public path layout, target connections, activity nodes, and open space requirements. My lot design explored the concept of a continuous spatial connection formed by taking a linear band of program and applying the constraints of the master plan.





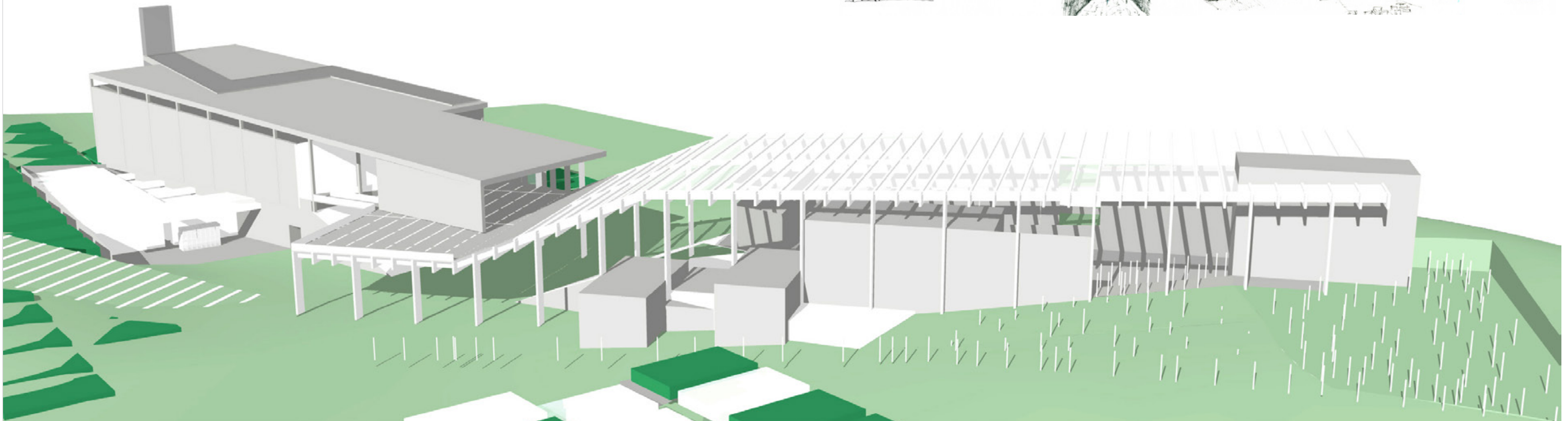
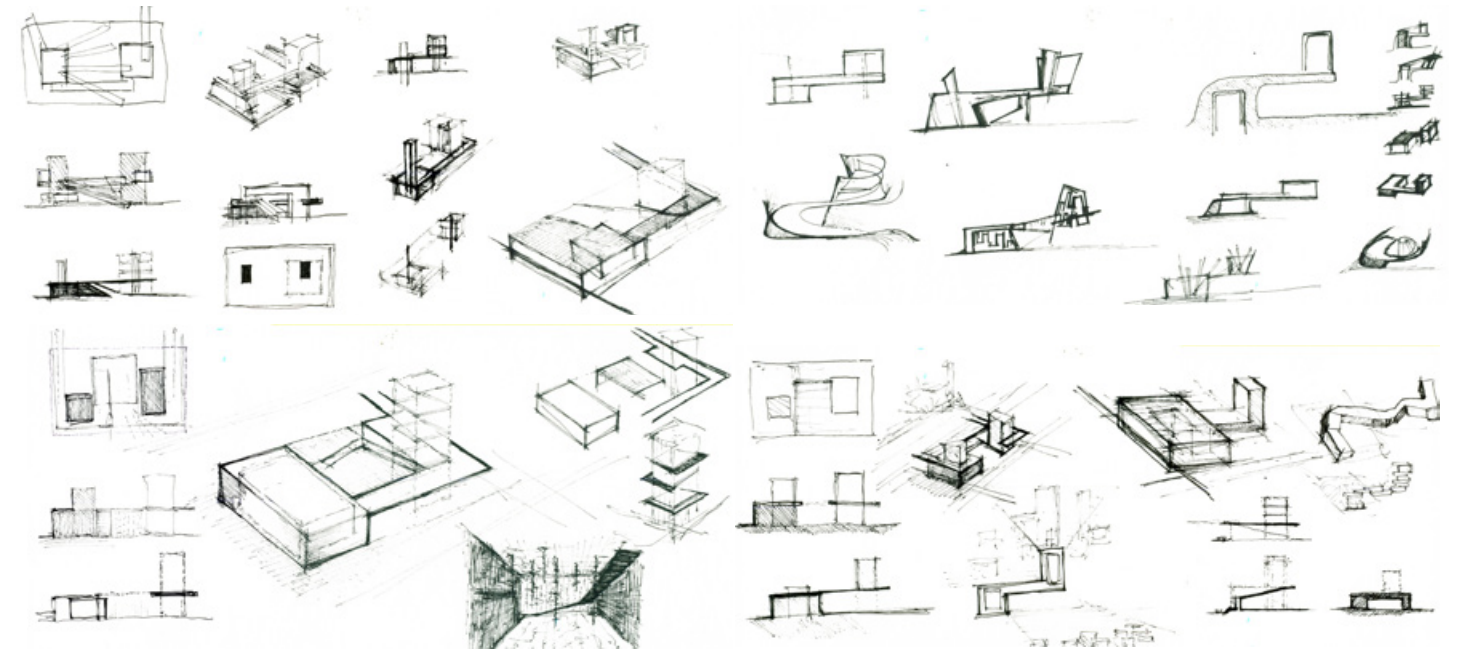
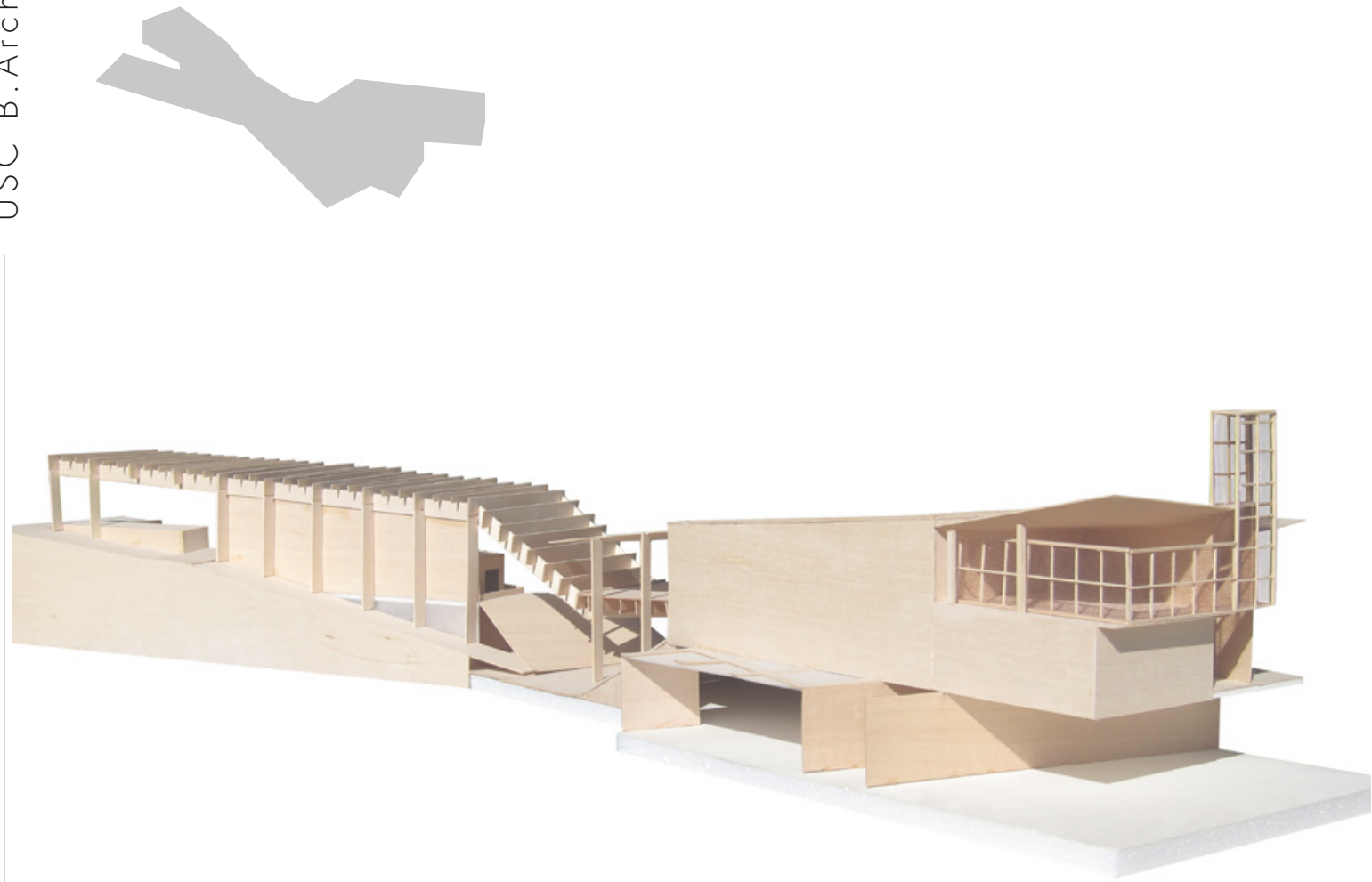




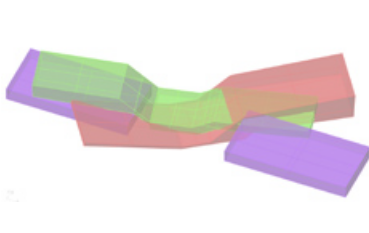
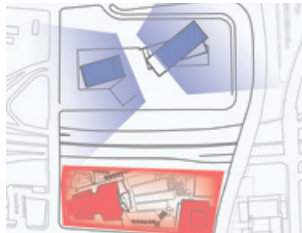
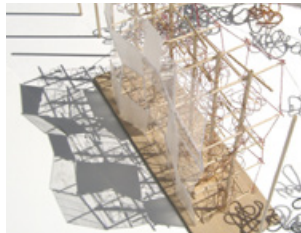
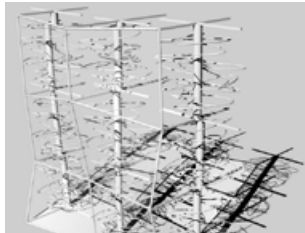
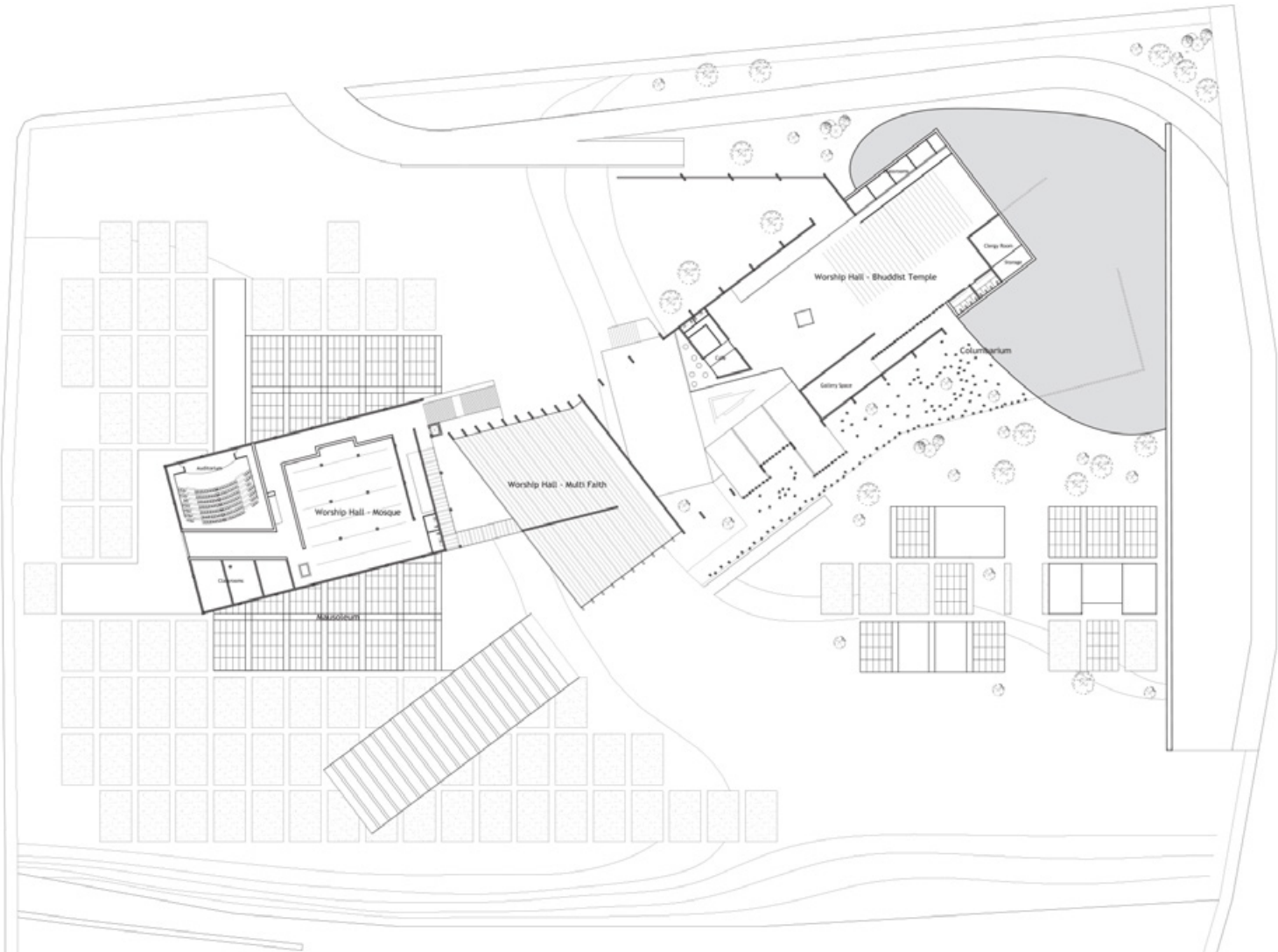
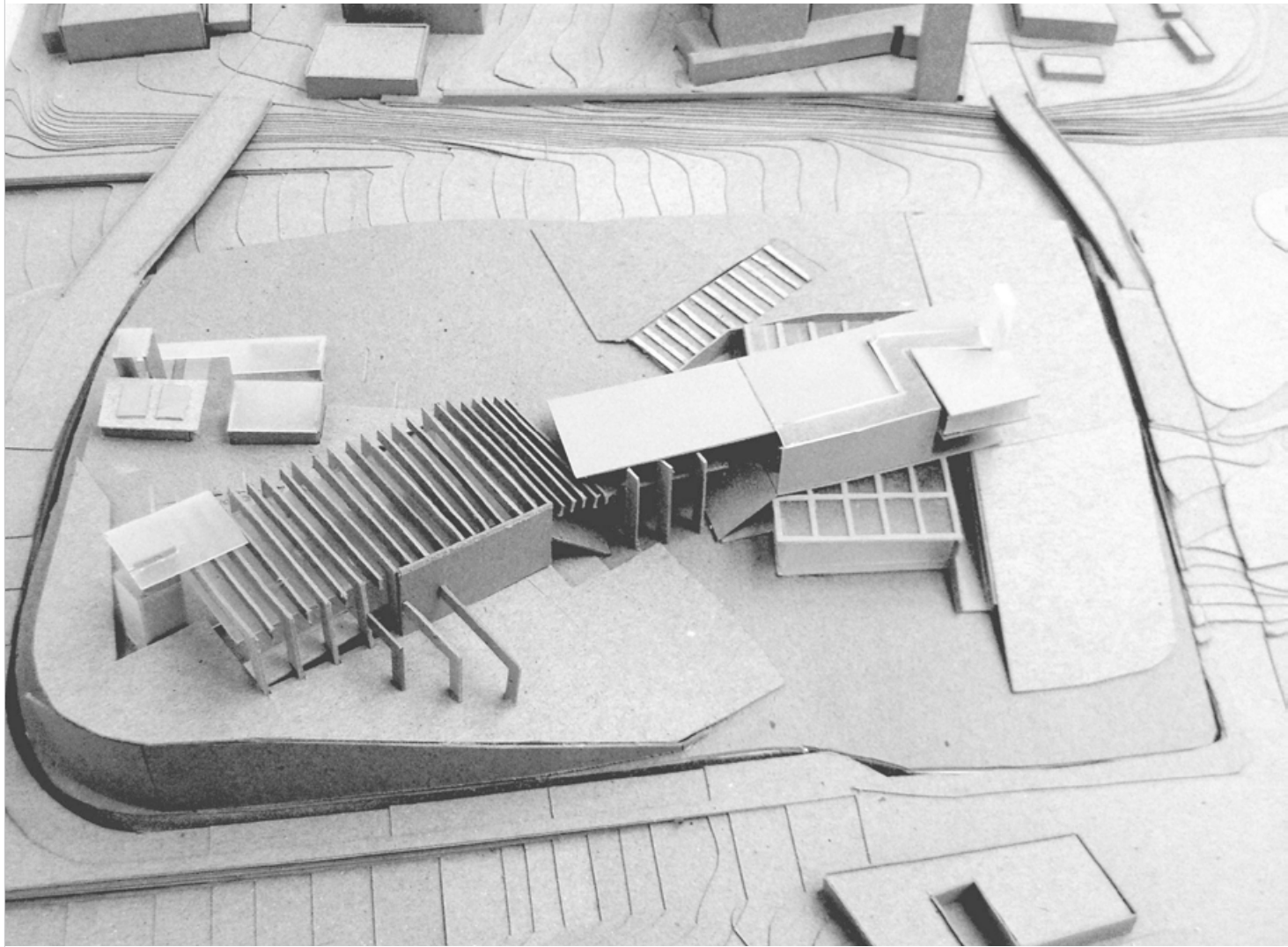
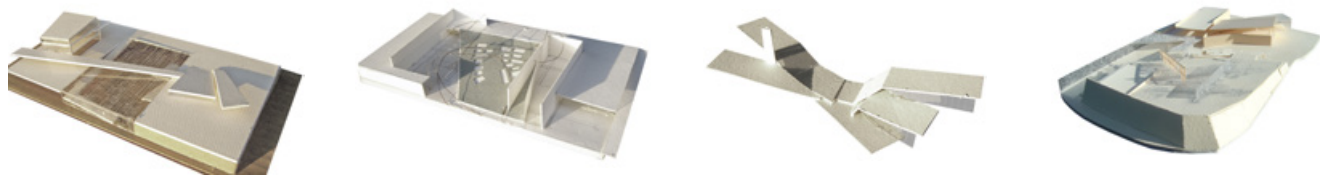
**INTERFAITH CENTER/CREMATORIUM**

Professor Eui-Sung Yi

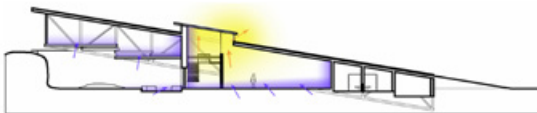
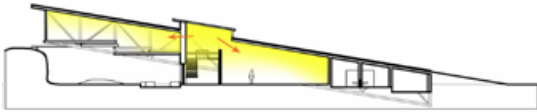
This faith campus combines three places of worship on one site with the goal of creating permeable urban fabric in downtown L.A. A monumental mosque element oriented towards Mecca balances the delicate framework of a Buddhist temple that engages the landscape. The intersection of these two is marked by a floating multi-faith hall. This project also incorporates the design of a conceptual urn that is realized as a sculptural curve connecting significant points in a person's life over time.







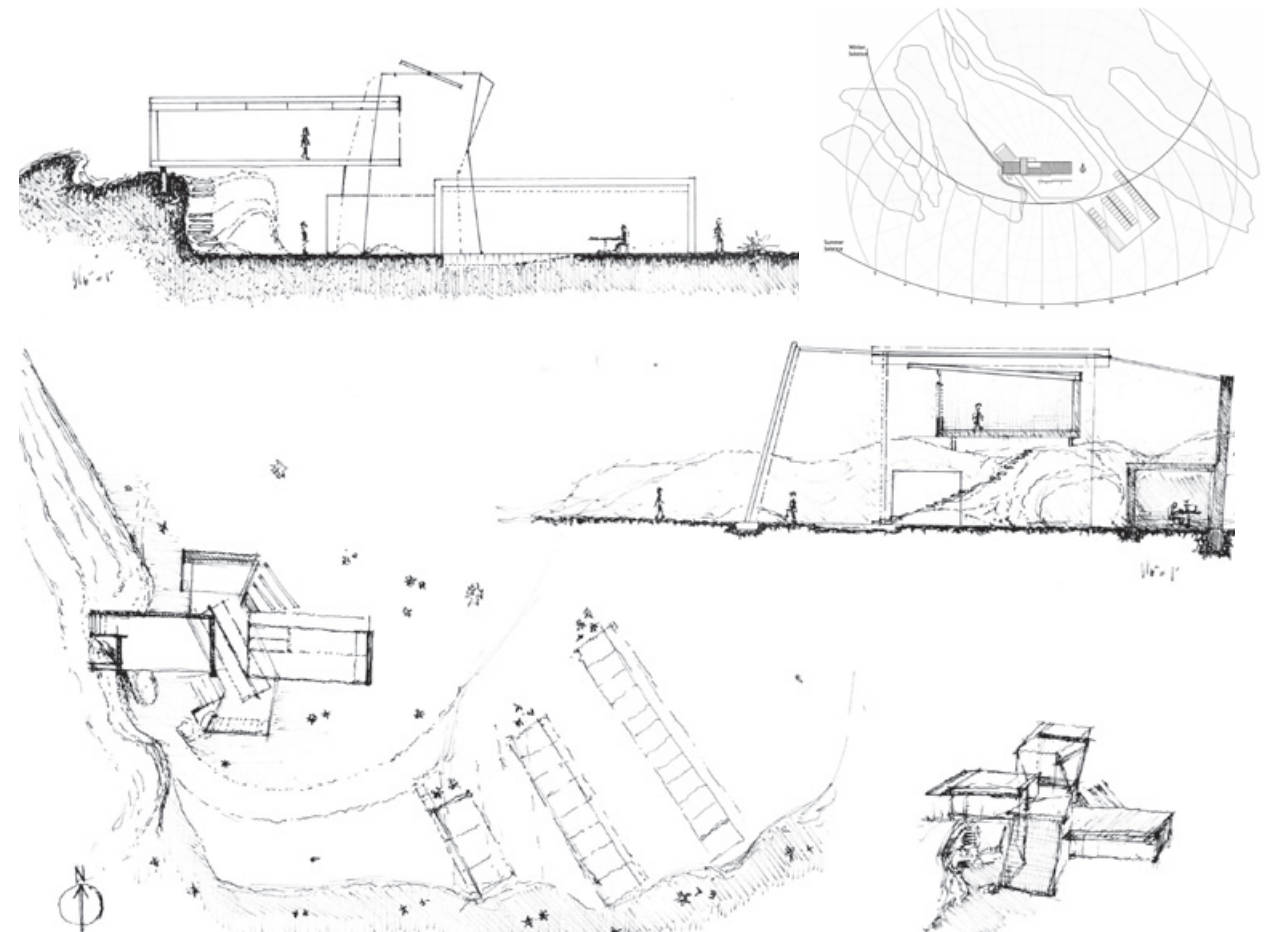




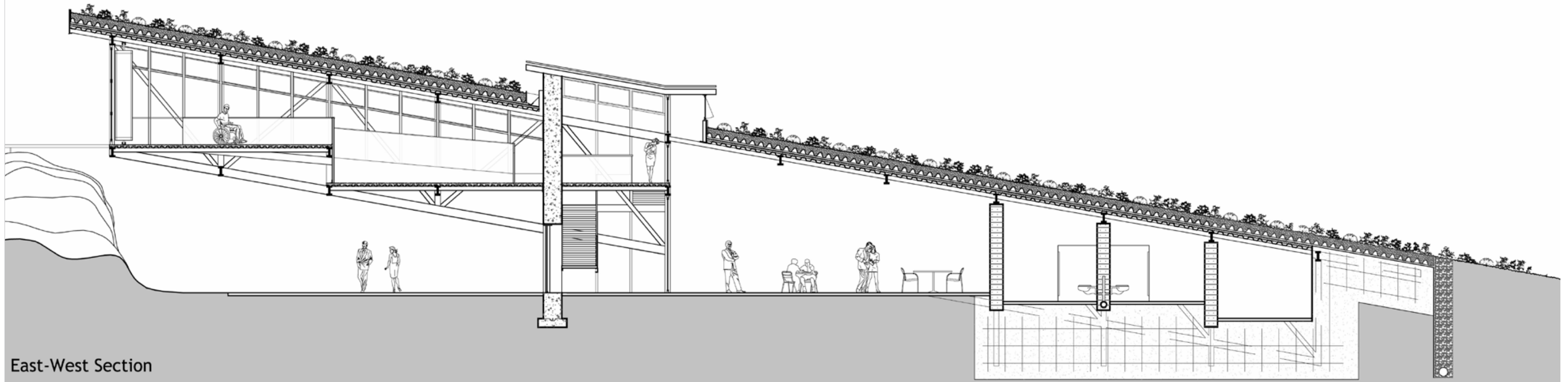
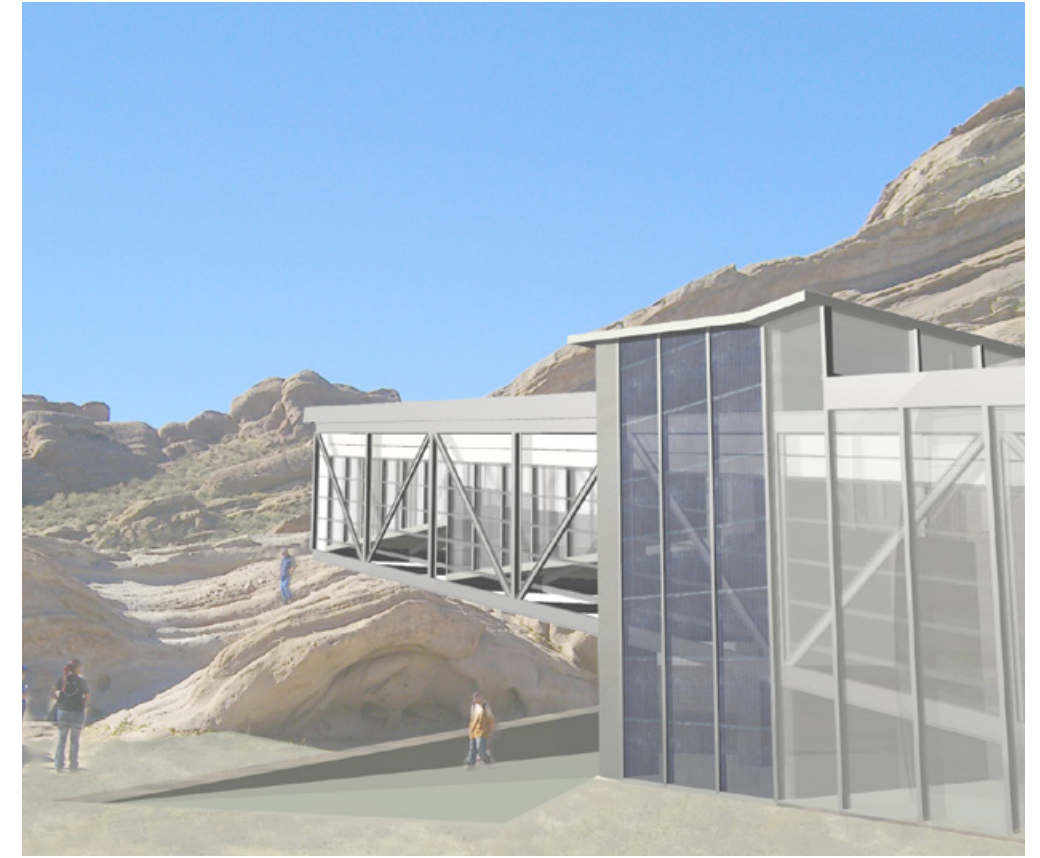
## NATURE INTERPRETIVE CENTER

Professor Randall Stout

This project is sited at the Vasquez Rocks Park in northern Los Angeles which features dramatic jutting sandstone formations. My design is inspired by this unique geology and a structural truss system is utilized to elevate the building and minimize impact to the landscape. Sustainable design elements include a green roof, photovoltaic glazing, shading louvers, and a thermal chimney.







East-West Section



2007 - 2013

LA/CA

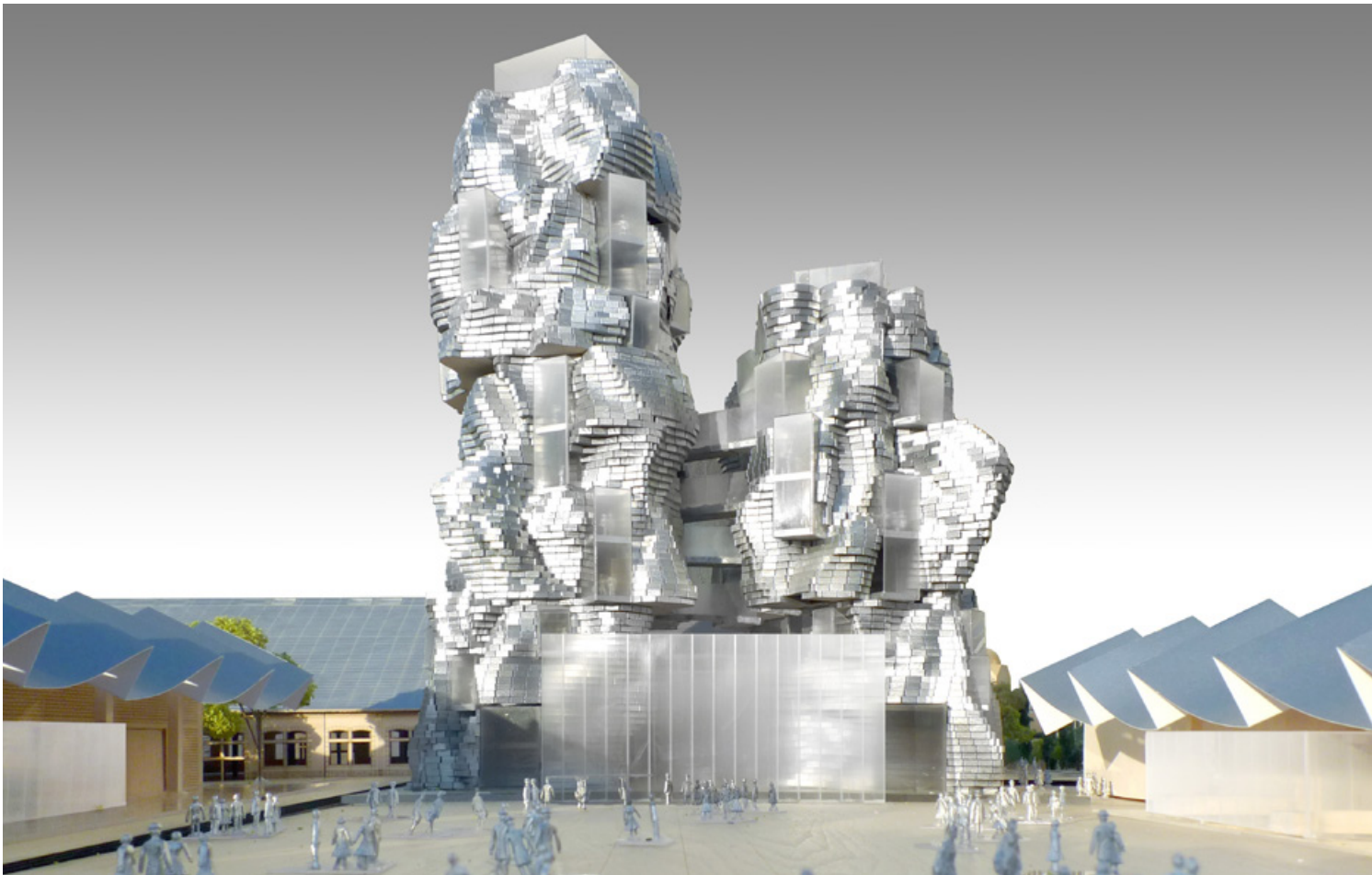
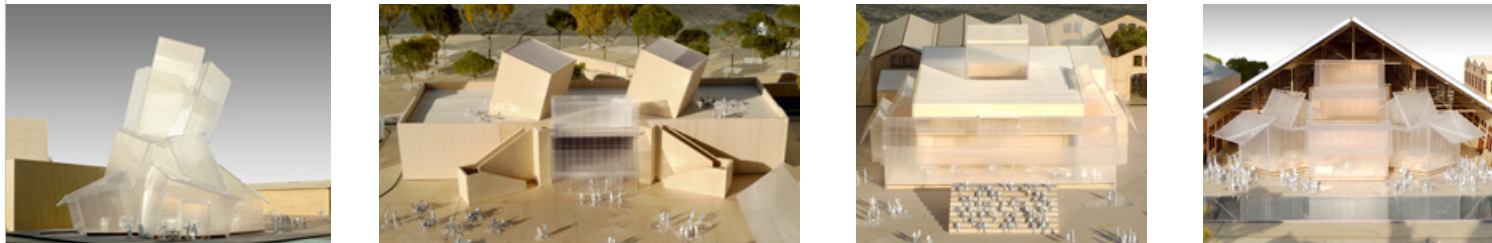
# GEHRY PARTNERS

SELECTED WORKS

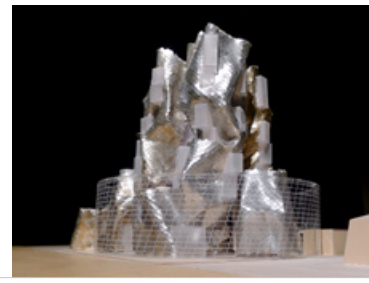


LUMA FOUNDATION BUILDING

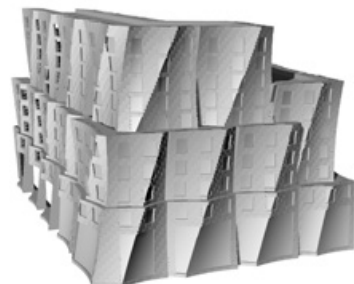
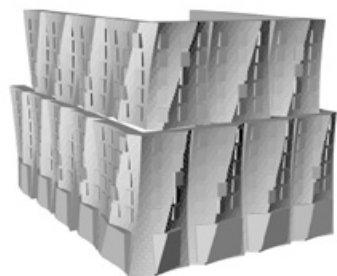
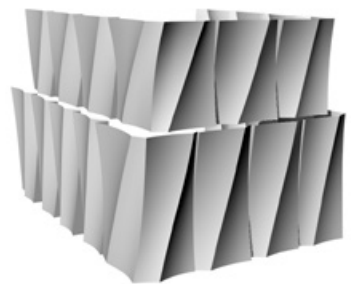
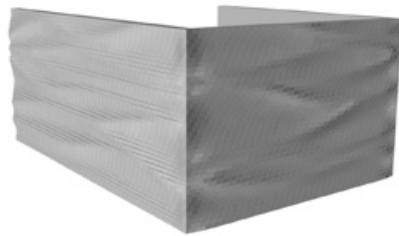
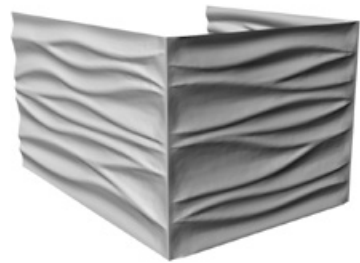
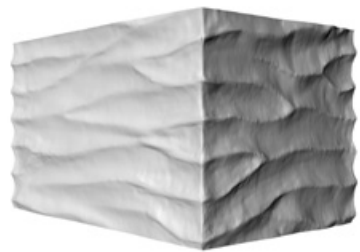
This project is located in Arles, France and will serve as a cultural hub and office for the LUMA Foundation, which supports the activities of independent contemporary artists. Program includes exhibition space, bookstore, seminar rooms, library, artist studios, office, and restaurant. I have worked on this project for the past four years and my responsibilities include creating program block schemes, managing physical model production, digitizing/scanning models, digital modeling, and model photography.





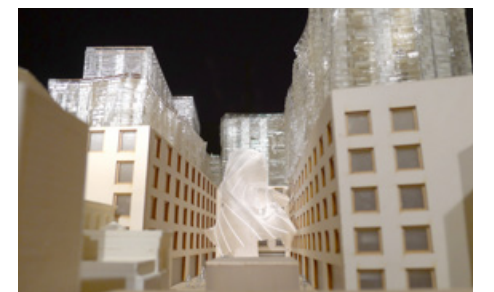
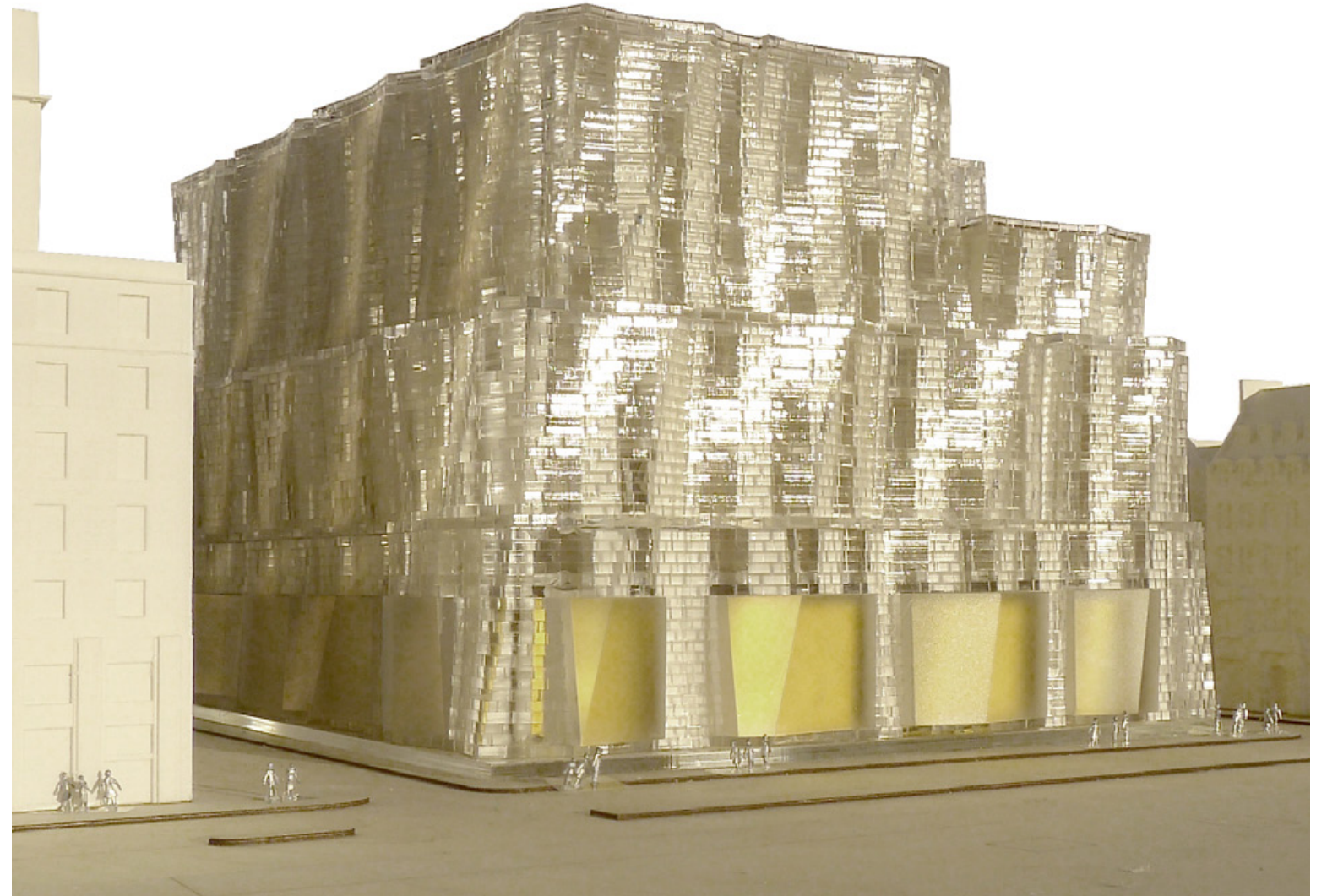






## MIXED USE DEVELOPMENT IN LONDON

This proposed development includes retail, apartments, and hotel. My participation on this project includes generating 3D facade design studies and building the working digital design model. I developed a Grasshopper script to array a block pattern, orient window punches to the design surface, and create lasercut layout. I also created 3d printed model components, worked on the physical model, and photographed.

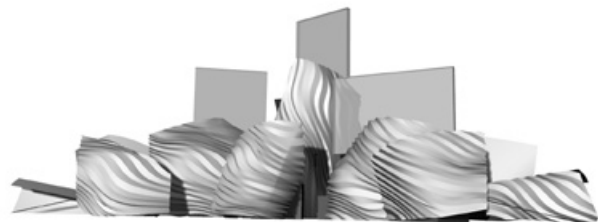
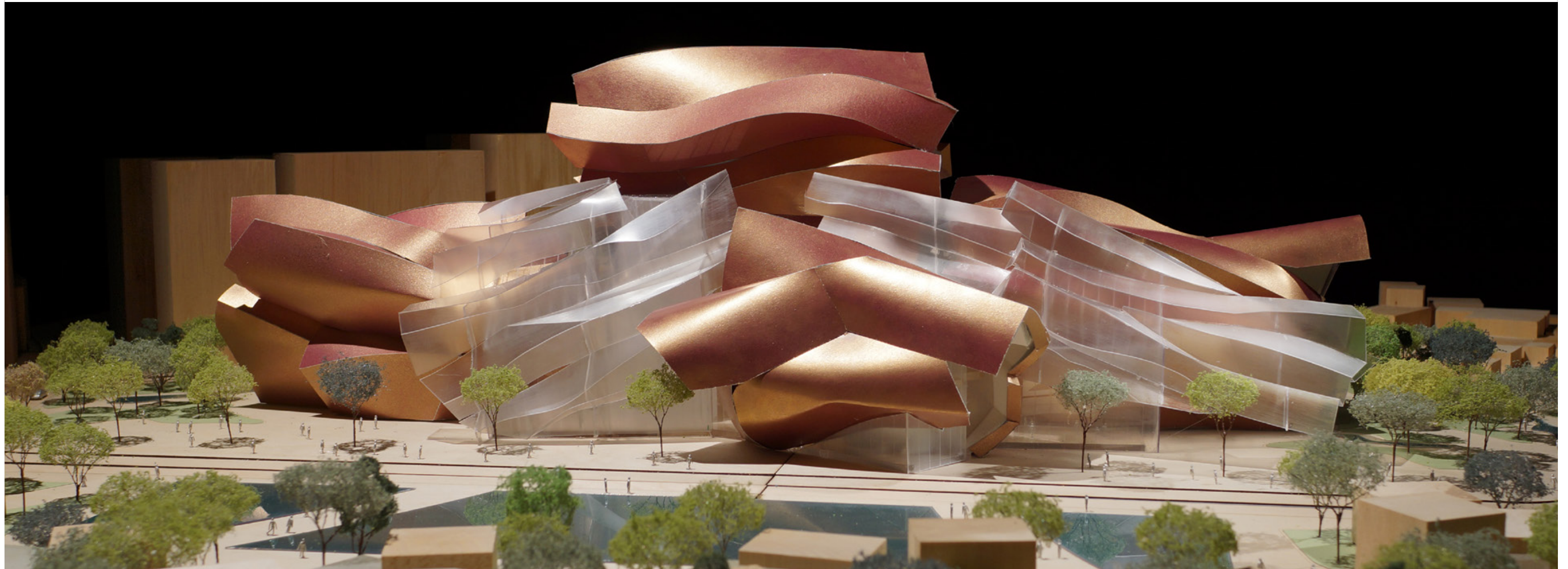




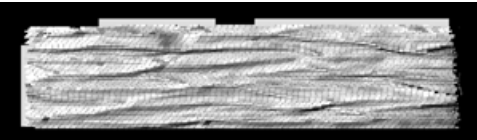
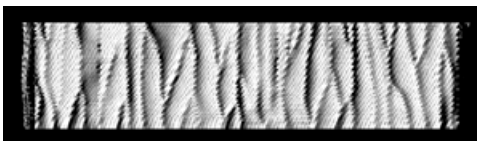
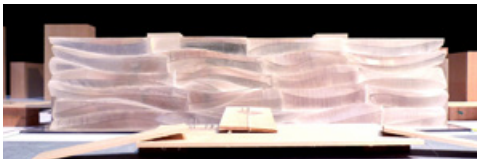


## Art Museum in China

This project is a proposed art museum in China. My role on this project centered around 3D scanning the physical design model and creating a mesh design surface. I then prepared this mesh to create the first in-house 3D printed design model. I also performed digital model studies and created a Grasshopper script to generate a corrugated pattern on the design surface.

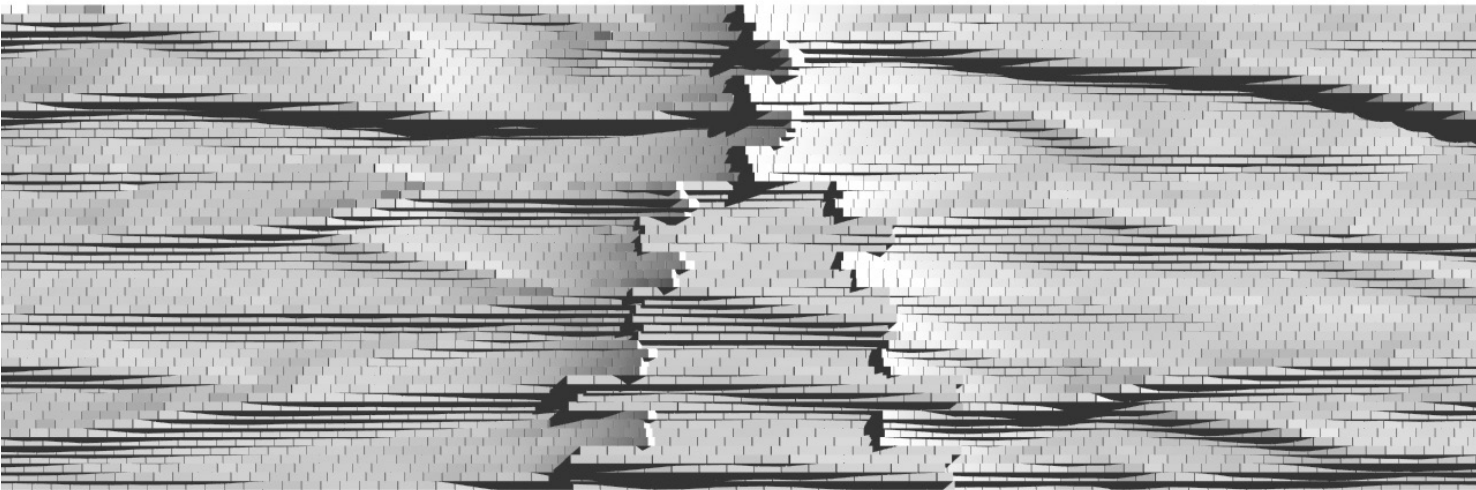






NATIONAL ART MUSEUM OF CHINA

The program for the museum is organized around a series of large public spaces inspired by pagoda and temple forms. The facade design attempts to express movement by using translucent glass block which evokes an image of rippling water. The final design process involved creating physical studies with cloth that was 3d scanned and then sculpted in Geomagic mesh editing software. My role on this project included physical model studies, 3d scanning, mesh editing, finish model production and photography.





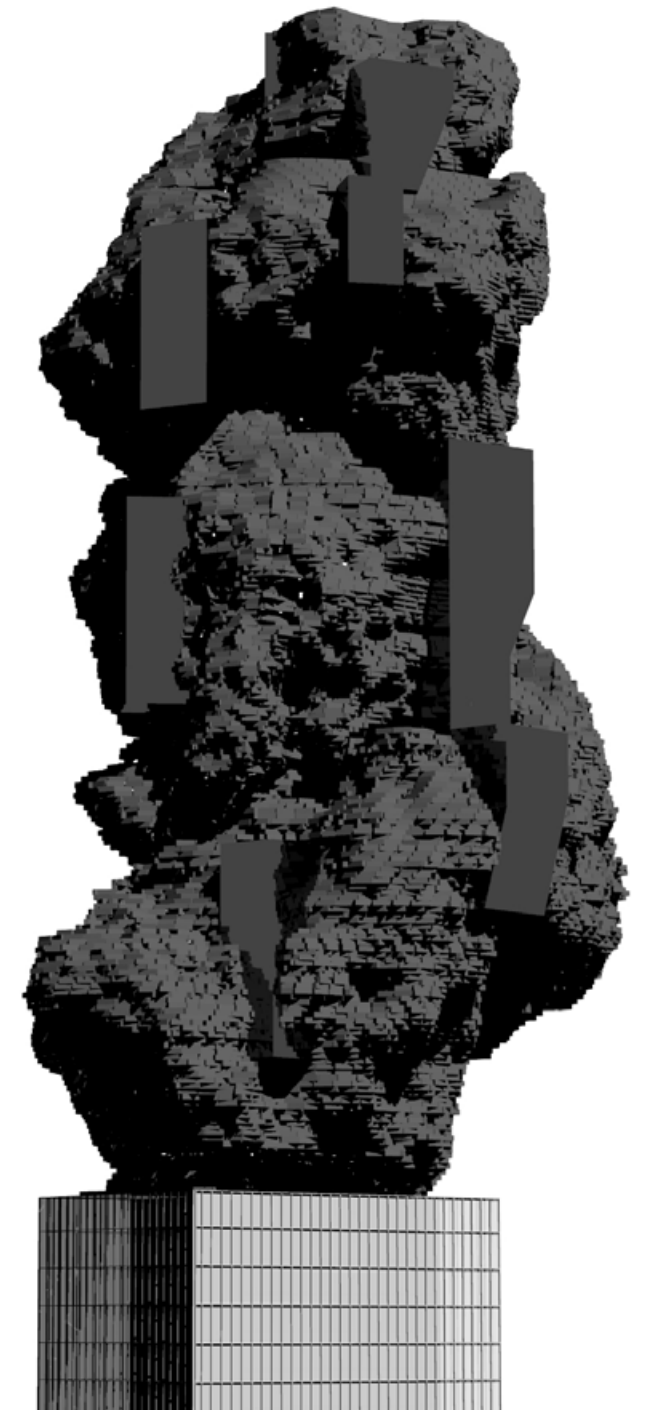






## MUSEUM OF ANDORRA

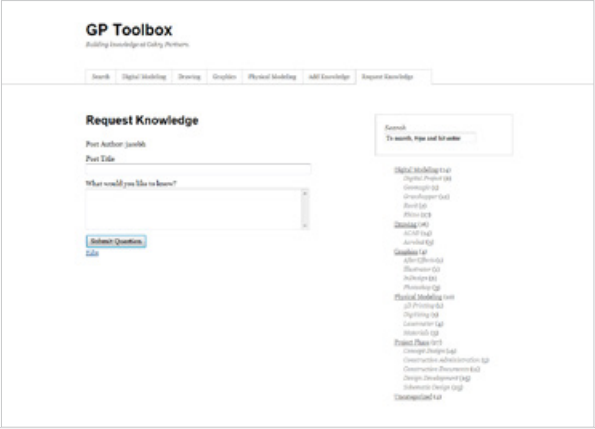
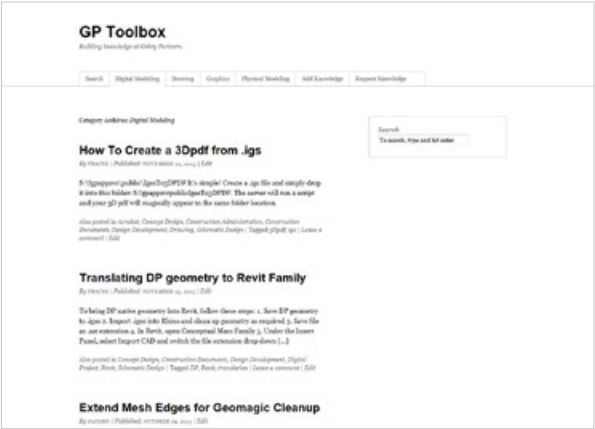
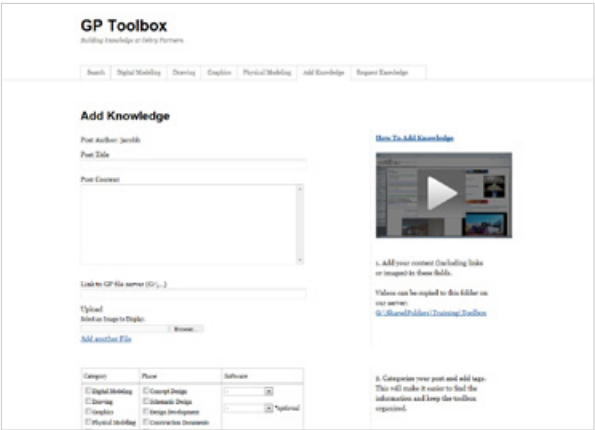
The program for the National Museum of Andorra includes 9167 square meters of museum, library, children's library + gallery, and event + education. Inspiration is drawn from the mountainous landscape and topography of the Andorran Pyrenees. My role on the project involved creating program block design schemes, physical model production, digital modeling, and model photography.





GP TOOLBOX

An internal knowledge base and collaboration tool conceived and built by myself and another colleague. The GP toolbox allows employees to store and share tips, techniques, and files. Among my contributions to the toolbox are tutorial videos for using the 3d scanner and basics of Geomagic mesh editing software.



GP Toolbox

Building knowledge at Gehry Partners.

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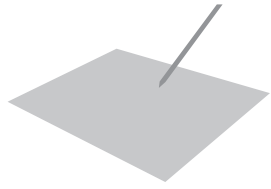
Digital Modeling  
Drawing  
Graphics  
Physical Modeling  
Project Phase

LA/CA

2005 - 2013

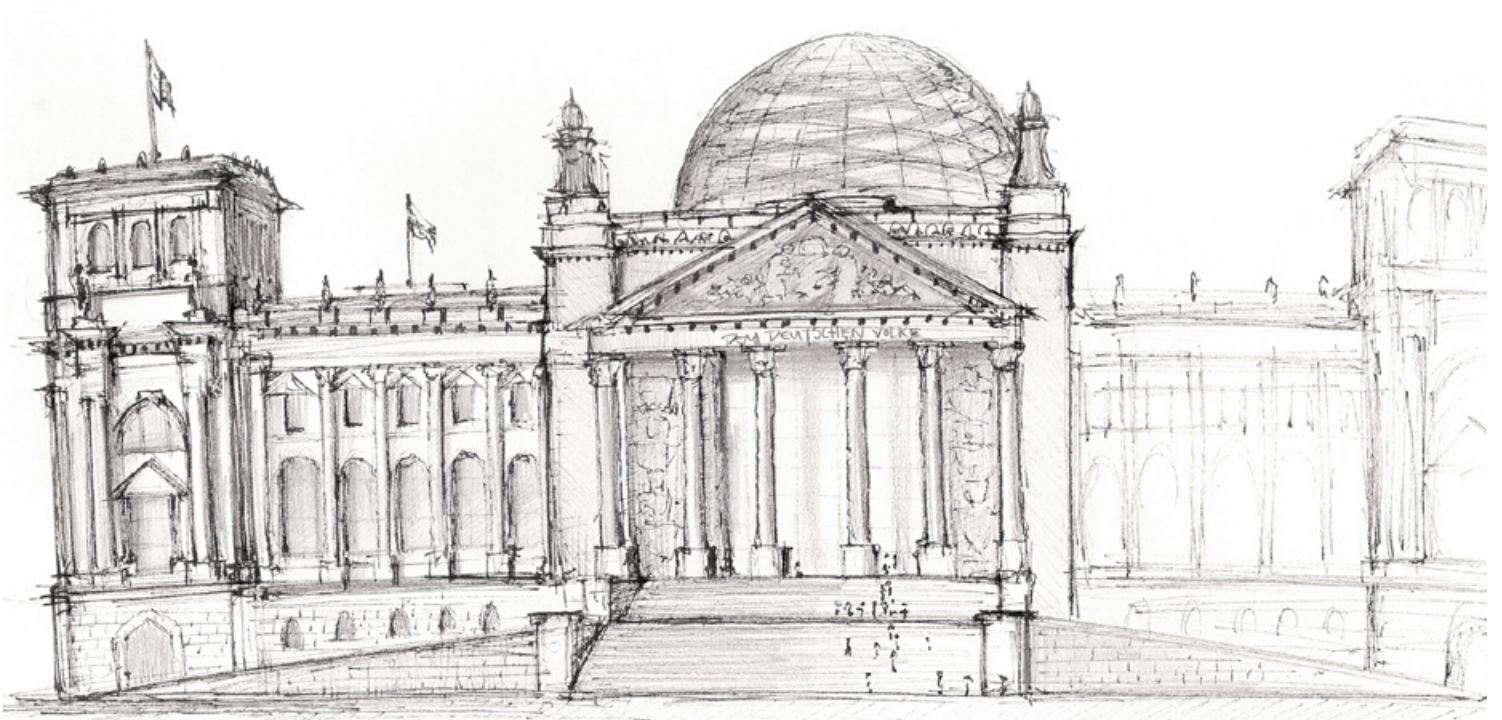
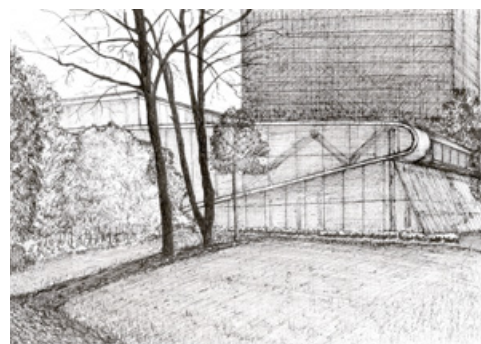
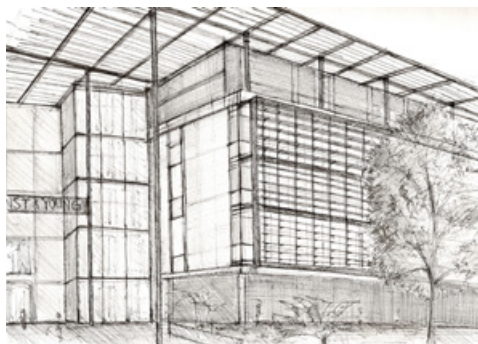
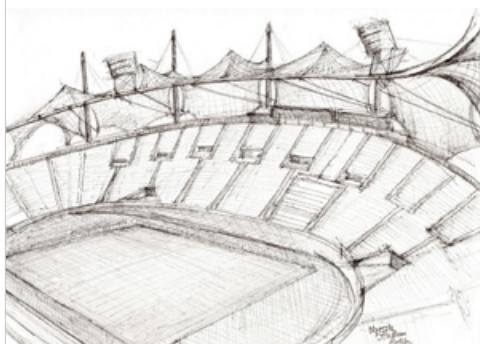
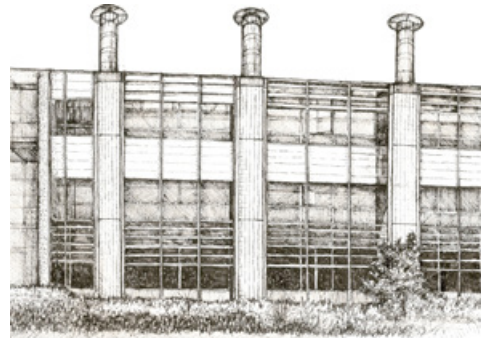
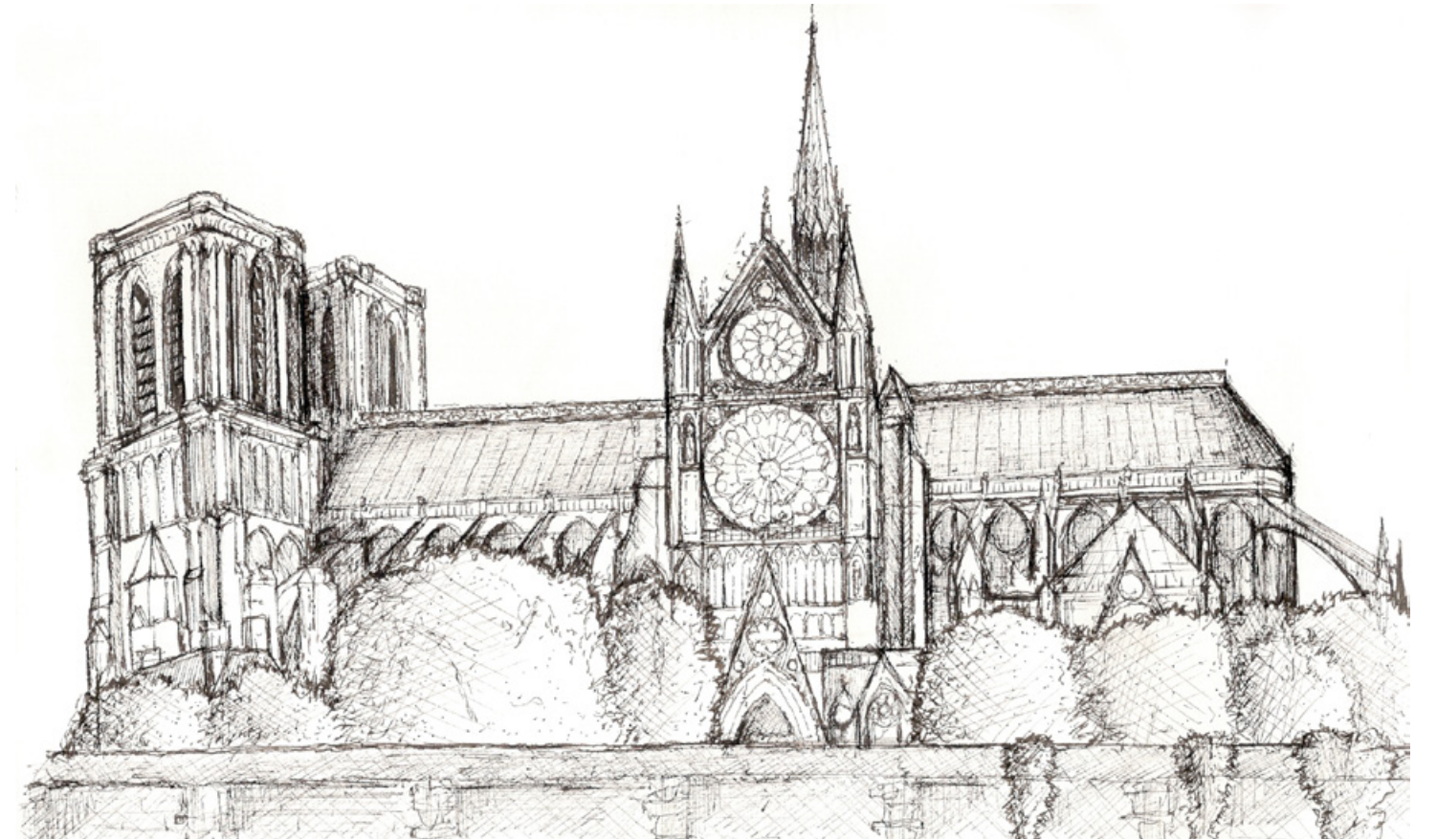
# PERSONAL WORK



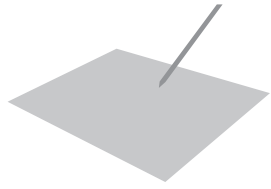


## HAND SKETCHES

These sketches are selected from time spent studying abroad in Western Europe through the Avi Gesundheit traveling fellowship, awarded to a 3rd year student at USC.

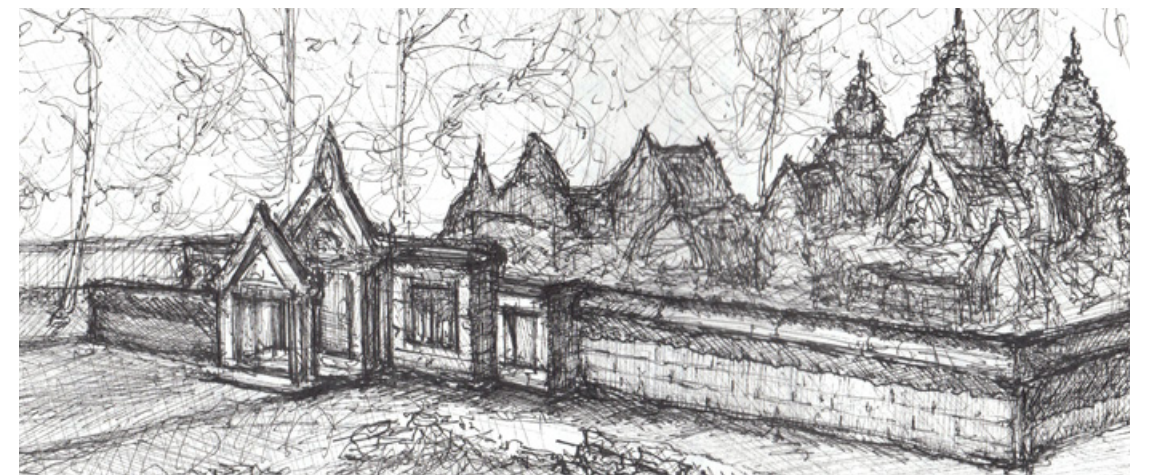
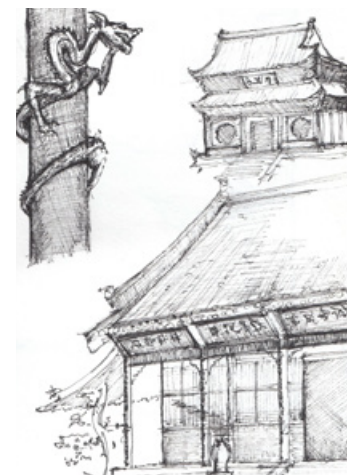
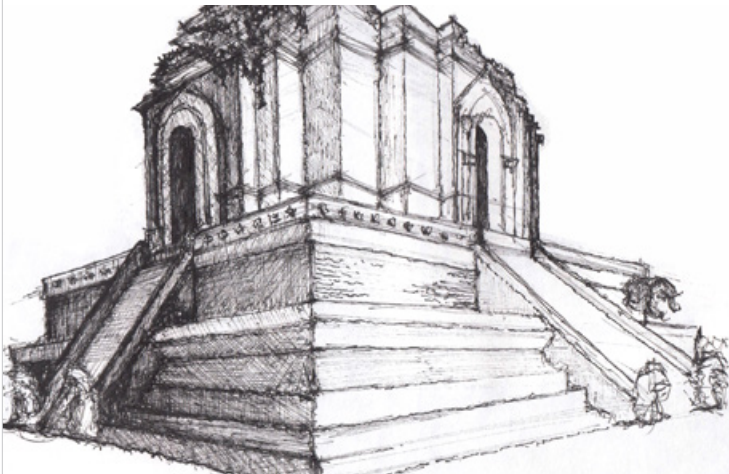
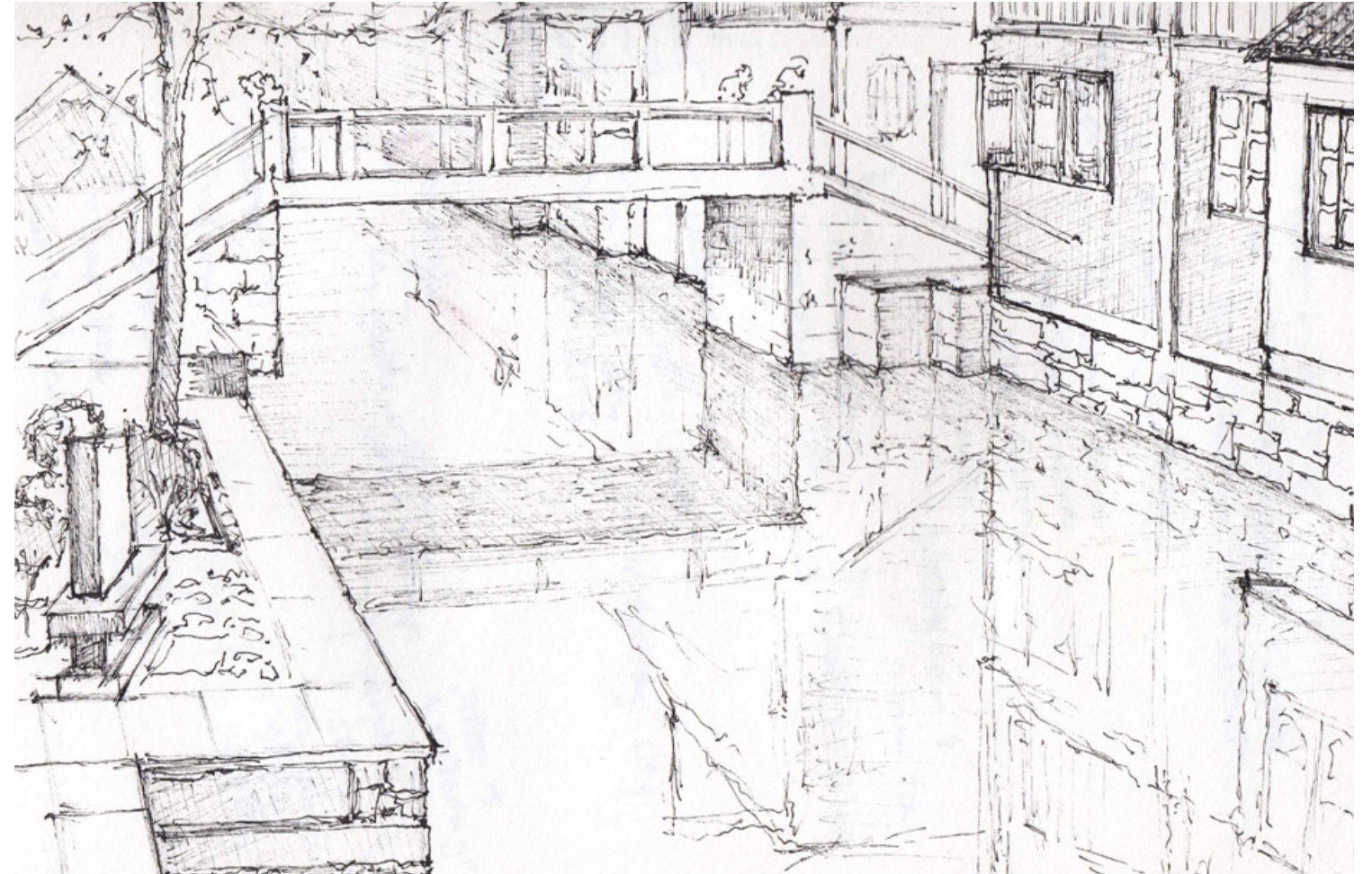
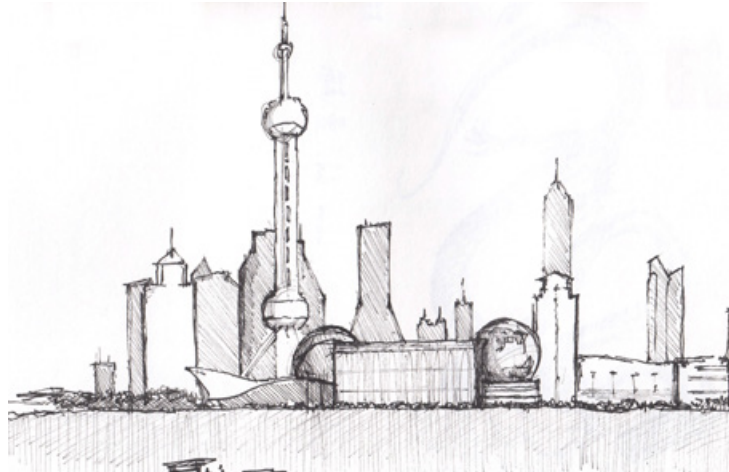
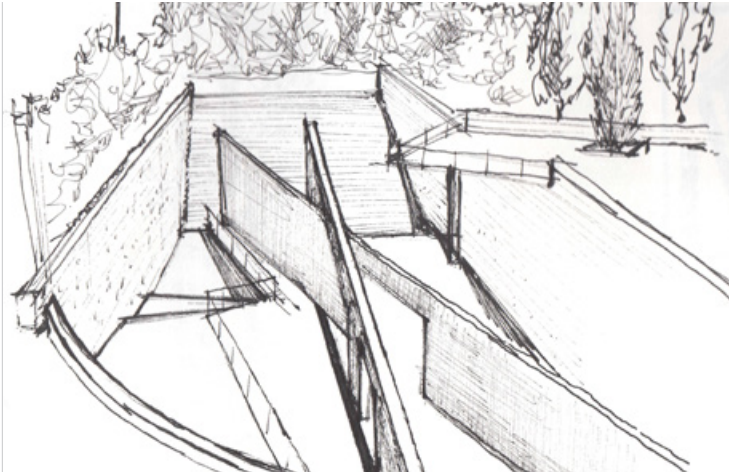






## HAND SKETCHES

These sketches are selected from time spent studying abroad in Southeast Asia as a part of the USC School of Architecture Asia study program.





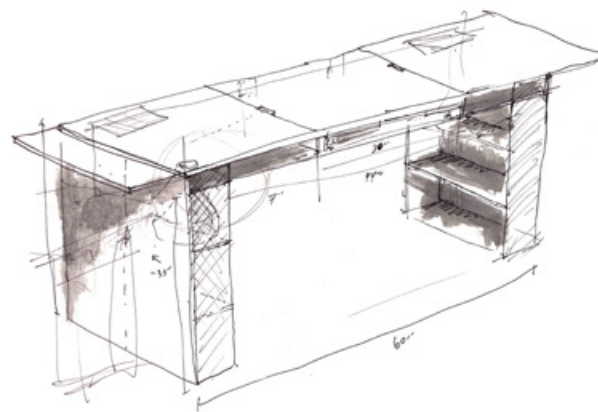
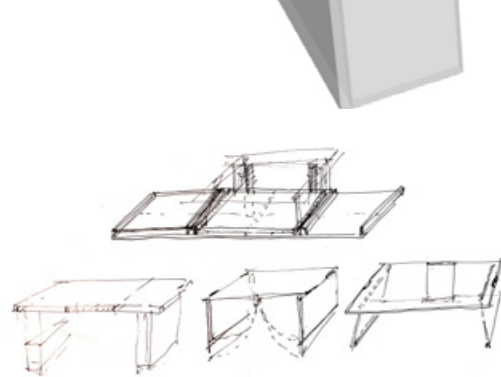
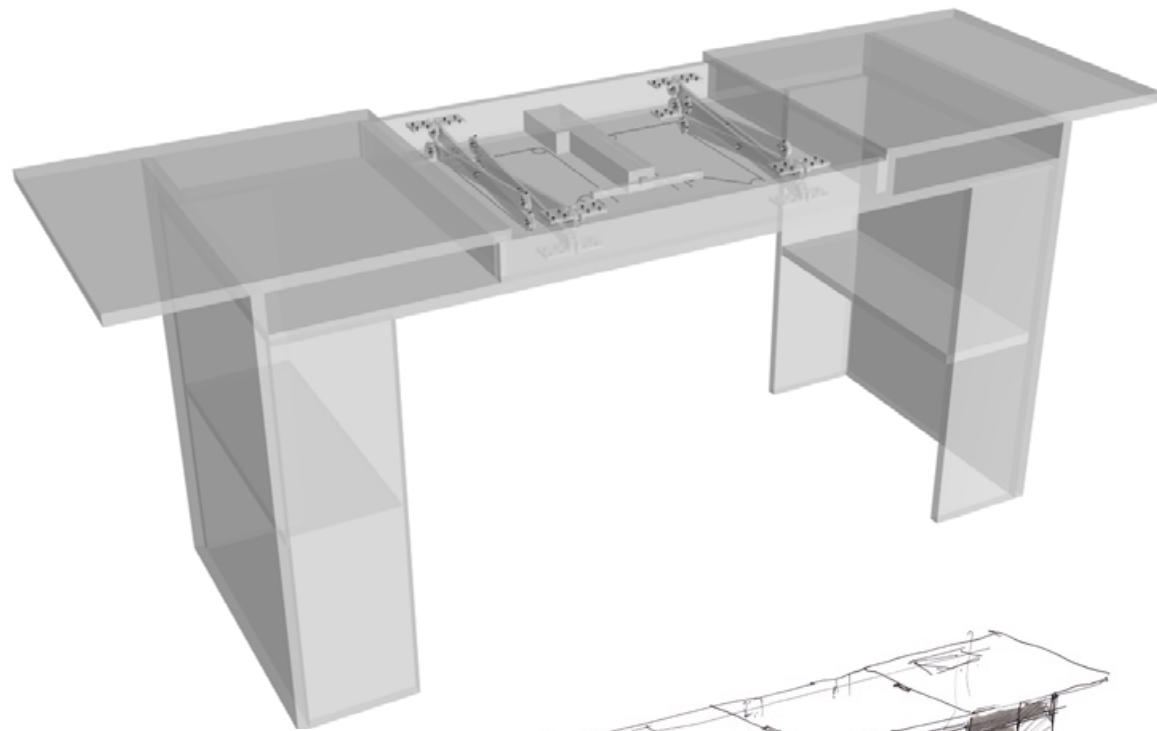


SUNGLASSES

These sunglass designs were 3D modeled then produced with digital fabrication techniques. One of the frames was 3D printed and the other frames are created from laser cut micro-plywood laminated together.







## STANDING DESK

This desk was built with the goal of creating a flexible workspace that allowed for both sitting and standing positions. The first version features a middle section that can be lifted into place while the second version utilizes a linear actuator and pulley system to mechanically raise the middle section. I also explored a design for an exercise ball seat with lumbar support.

