



POLINA STEPANOVA
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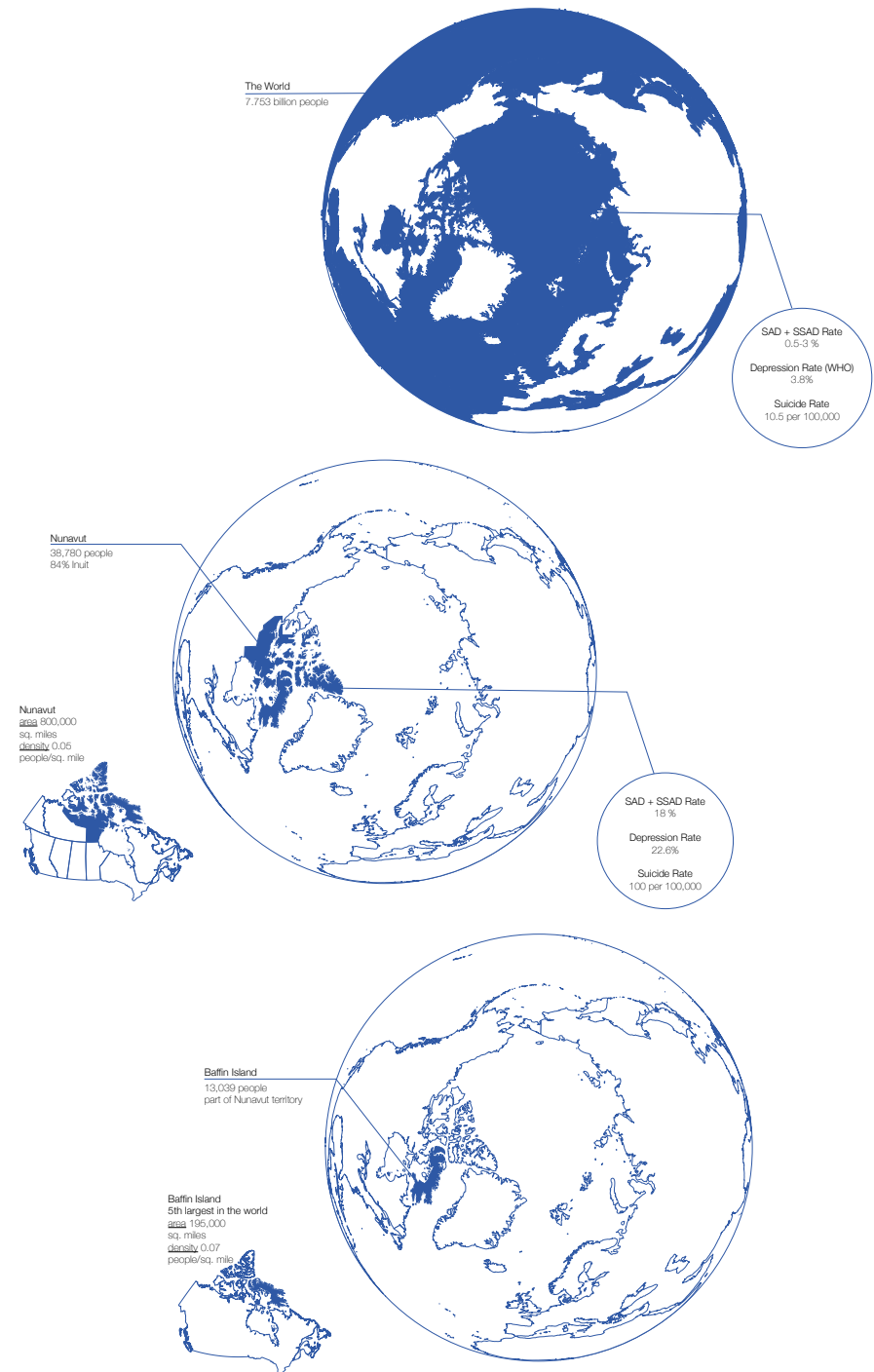


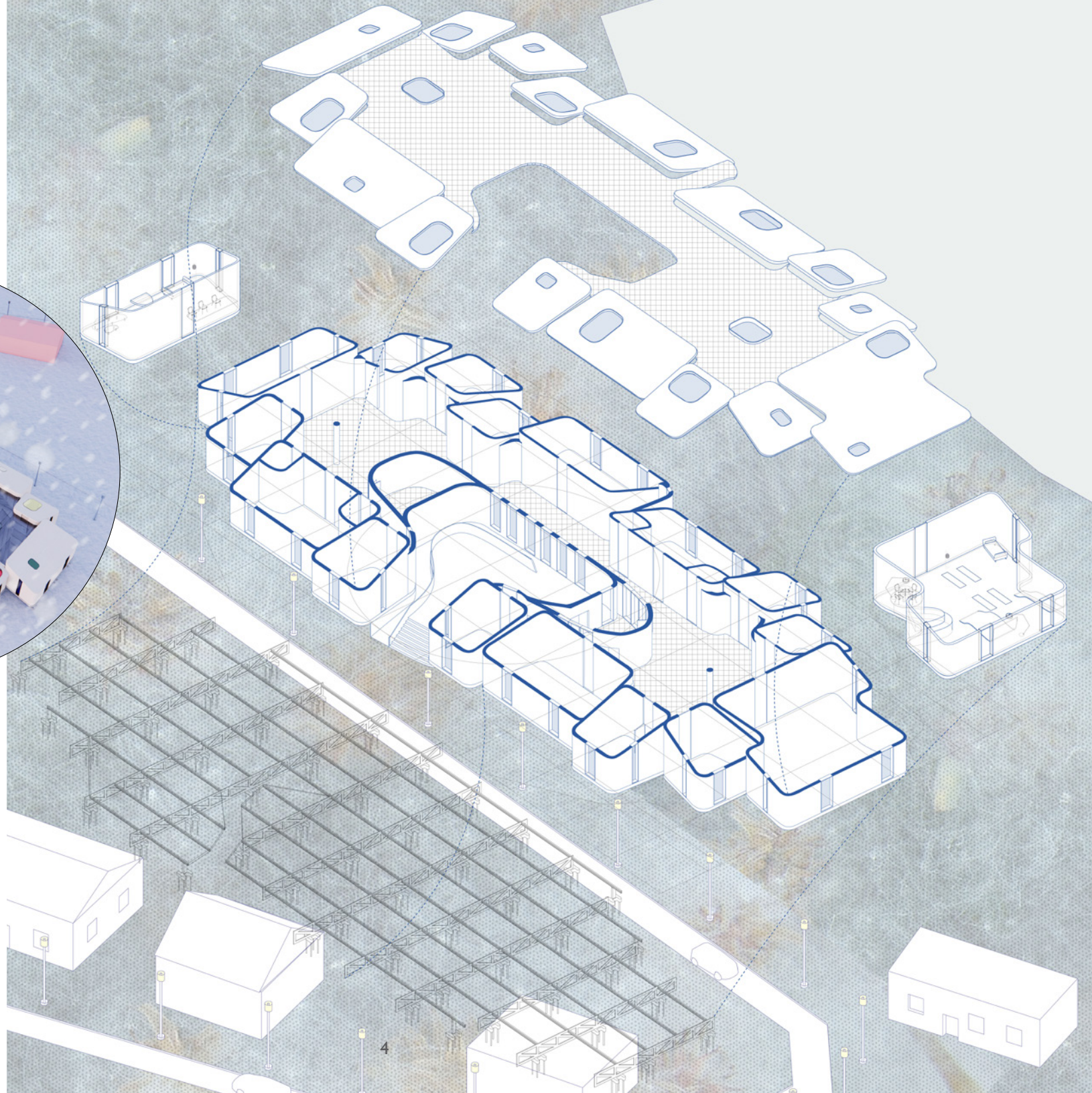
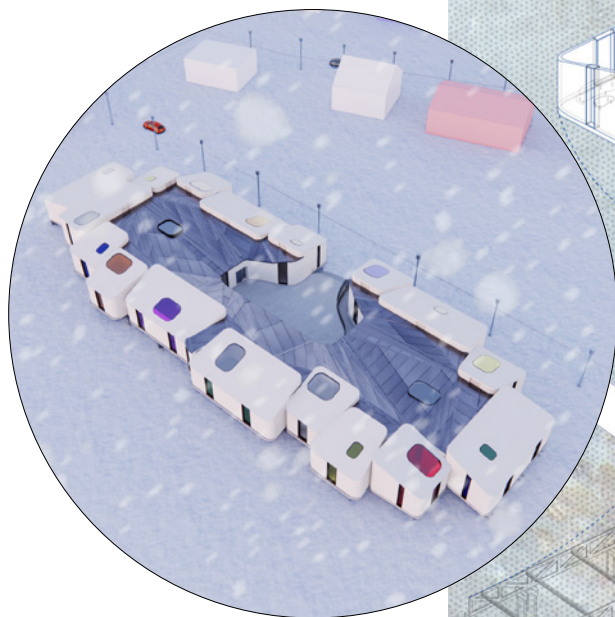
This polar research station was an individual project completed in “Are Icebergs Free?” studio at [Columbia University GSAPP](#) during Fall 2022.

I started my design process by analyzing behavior of light through devising a shadowbox, and then I decided to focus on a territory with extreme climate conditions which has the highest suicide rate in the entire world – Nunavut in Canada.

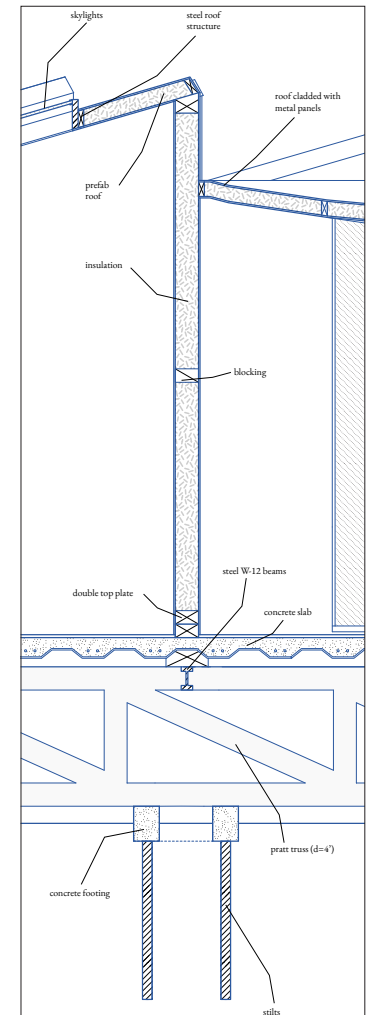
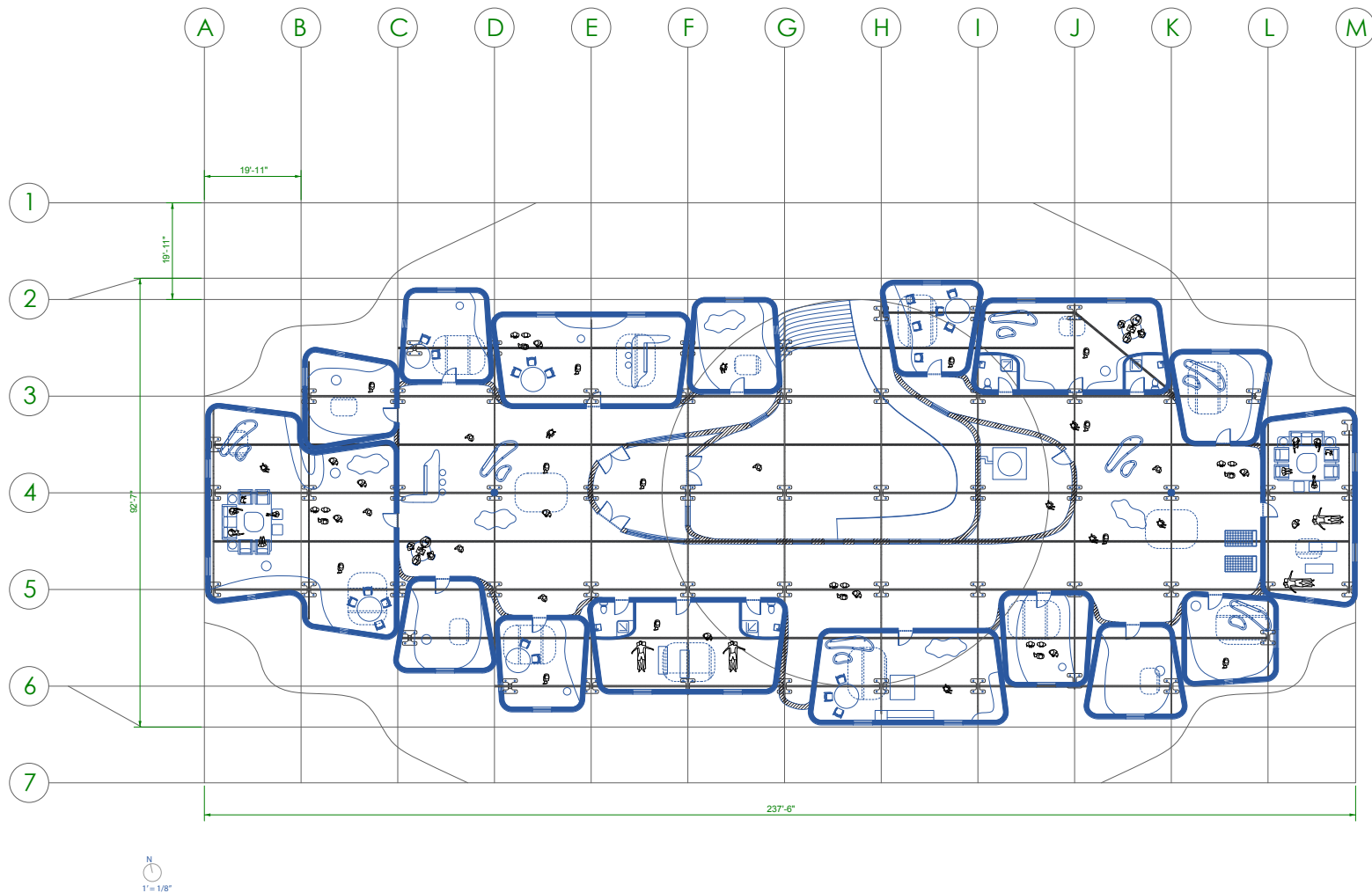
Nunavut is very sparsely populated even though it has a large territory of 800,000 square miles. 84% of the population is Inuit, and the biggest city is Iqaluit, located on Baffin Island.

Considering the extreme climate conditions of the Arctic region, I decided to look into the connection between the light conditions and the local human psychology patterns. I wanted to investigate how properties of light can relieve or exacerbate psychological conditions.









The project also involved analysis of construction methods in the Arctic to ensure proper thermal insulation alongside financial reasonability and employment of raised foundation with concrete footings, stilts, and steel trusses. The windows of the units faced in all different directions to create various light conditions. The prefabricated units are sized with the intent of repurposing them later into residential units once the research center renders itself obsolete. The Life Cycle Analysis would allow the units to turn into studios, 1 and 2-bedroom apartments.



PROJECT II

HOSPITAL OF THE FUTURE

KPIs TARGETED

Increase access to public spaces that incorporate inclusive design measures

Increase access to preventive care at public spaces

Increase incorporation of climate adaptive and sustainable design strategies in design of public infrastructure

Increase flexibility in the design

BUS STOP + CLINIC

SAGE

"Sometimes I am out of breath and need to sit down to relax and don't put pressure on my heart! I am glad I can sit down, enjoy the shades and cool off on hot days at bus stops."

incorporation of nature

multifunctional bus stop

pervious pavement

zen garden

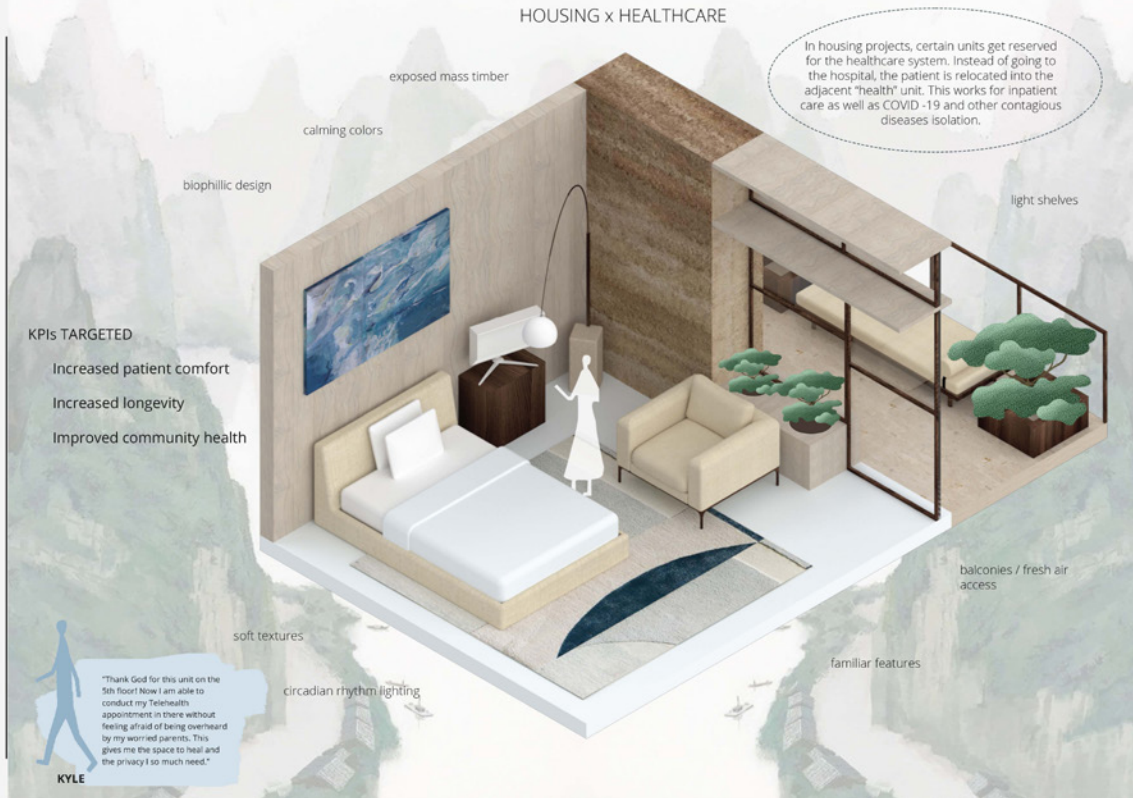
miniature clinic

reused container

functional shading

reflective roof

Gas stations are adapted in a similar strategic manner.

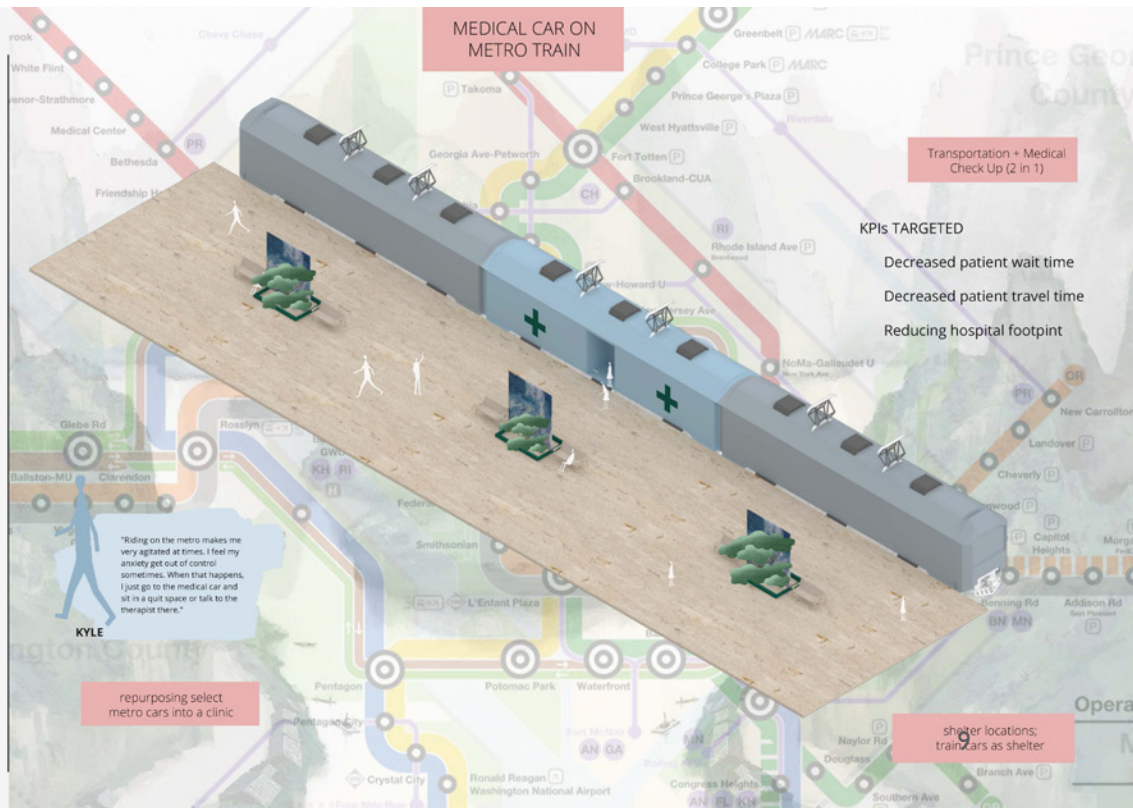


Hospital of the Future project emerged during the 2022 summer fellowshipship at [Gensler](#).

The healthcare practice area team worked on developing this research-based futuristic narrative, and the faculty leading the team included Bonny Slater, Matt Leonard, and Serene Lau.

The team itself comprised of 4 fellows: Maria Cadena, Kimia Erfani, Sokaina Asar, and me.

We spent the fellowship term focusing on the future of the healthcare industry considering the obsolescence of monolithic hospitals and imagining the diffusion of the existing healthcare functions.

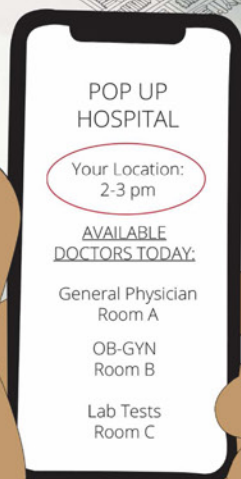


on-demand solution available as well as an alternative model of pop-up hospital

POP-UP HOSPITAL



robot system that aids the Pop-Up Hospital: pharmacy on wheels (Amazon Scout Prototype)



POP UP HOSPITAL

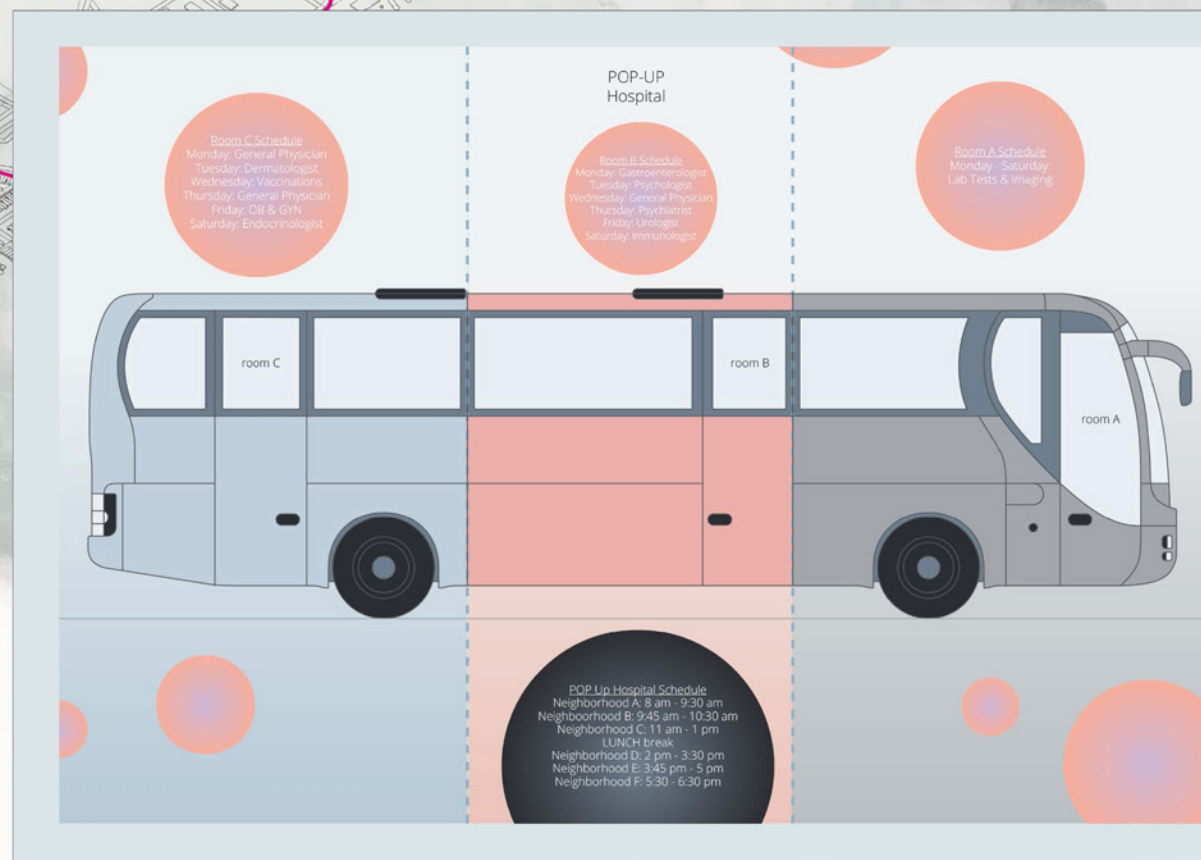
Your Location:
2-3 pm

AVAILABLE DOCTORS TODAY:

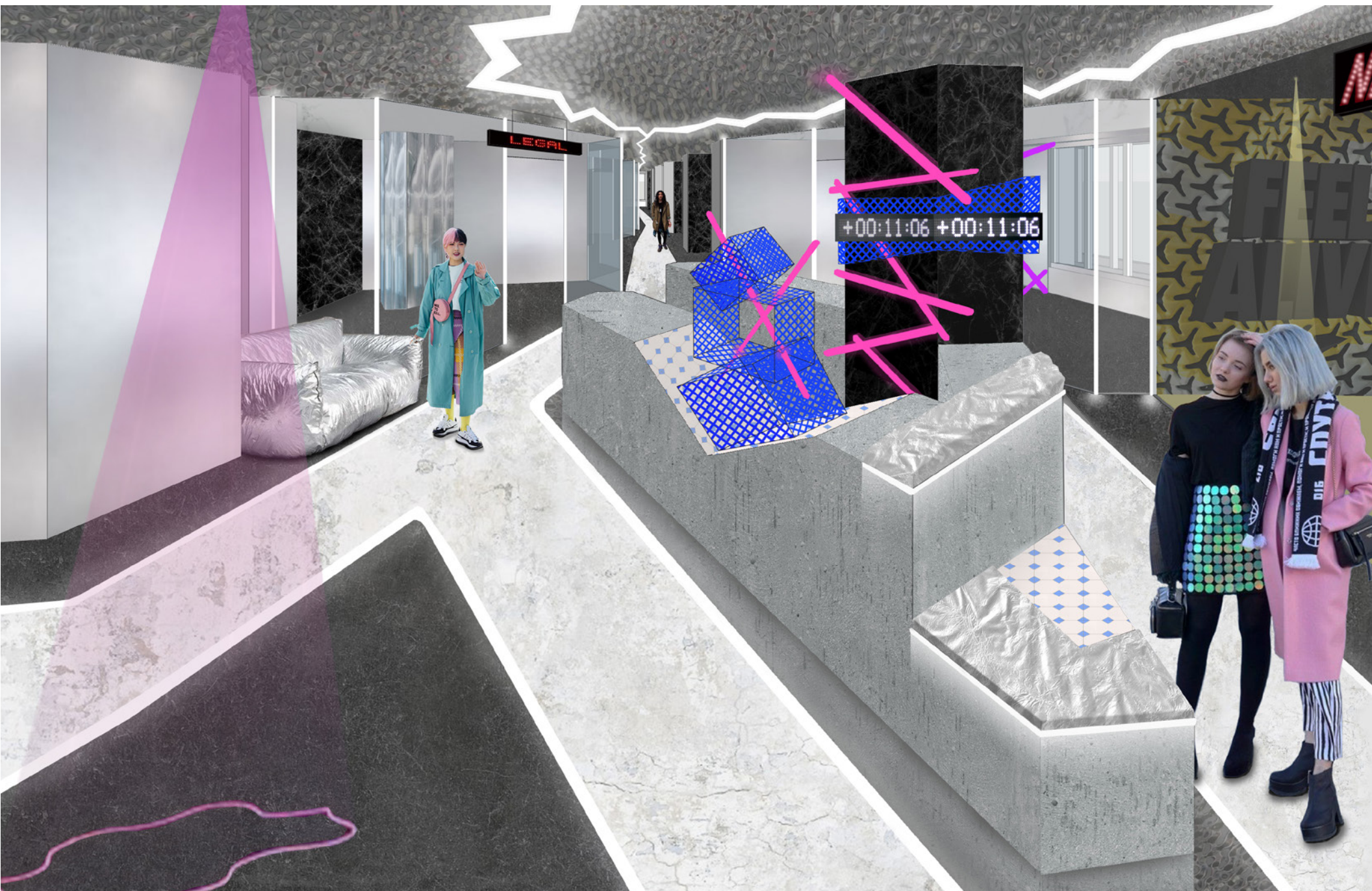
General Physician
Room A

OB-GYN
Room B

Lab Tests
Room C



*Tesla Cybertruck model is used in this vignette



original "Izvestiya" building



"Izvestiya" building is a landmark of soviet constructivism built in the center of Moscow in 1925-1927. For a long time it served the purpose of hosting the publishing house of "Izvestiya" newspaper, but now needs remodeling.

During my time at award-winning BuroeArchitecture & Design studio in Moscow, we worked on a commercial proposal for two stories of "Izvestiya". I started with analyzing the existing building, conducting site visits, and taking note of the historical design elements.

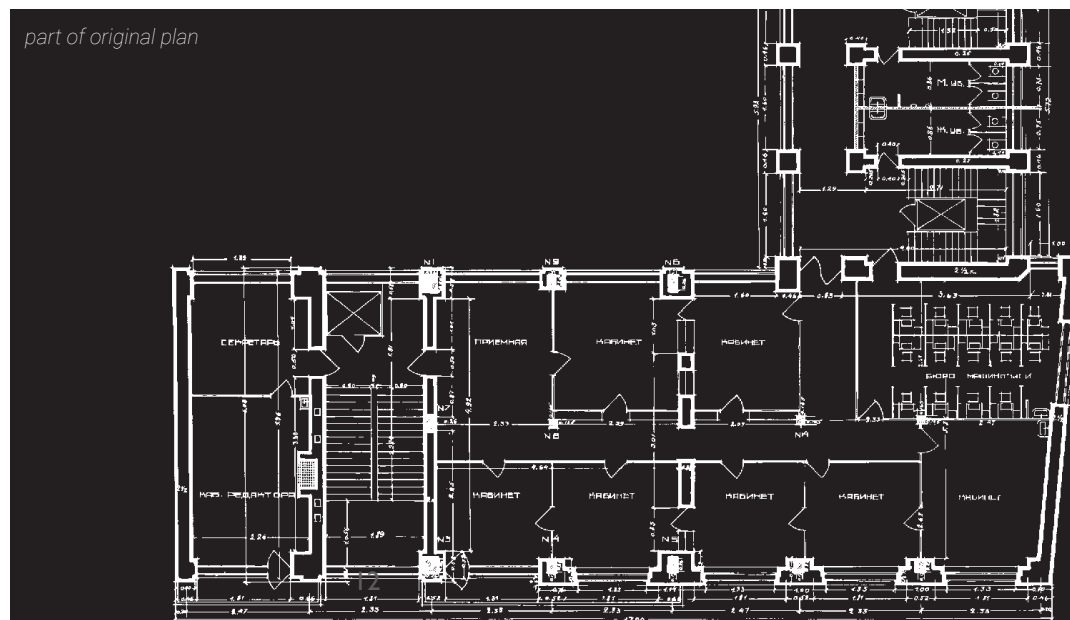
At Buroe, we worked as a team, but my contribution to this project included conducting historical research, assembling an ideas' moodboard, assisting in the floor plan design, and crafting the perspective collages.

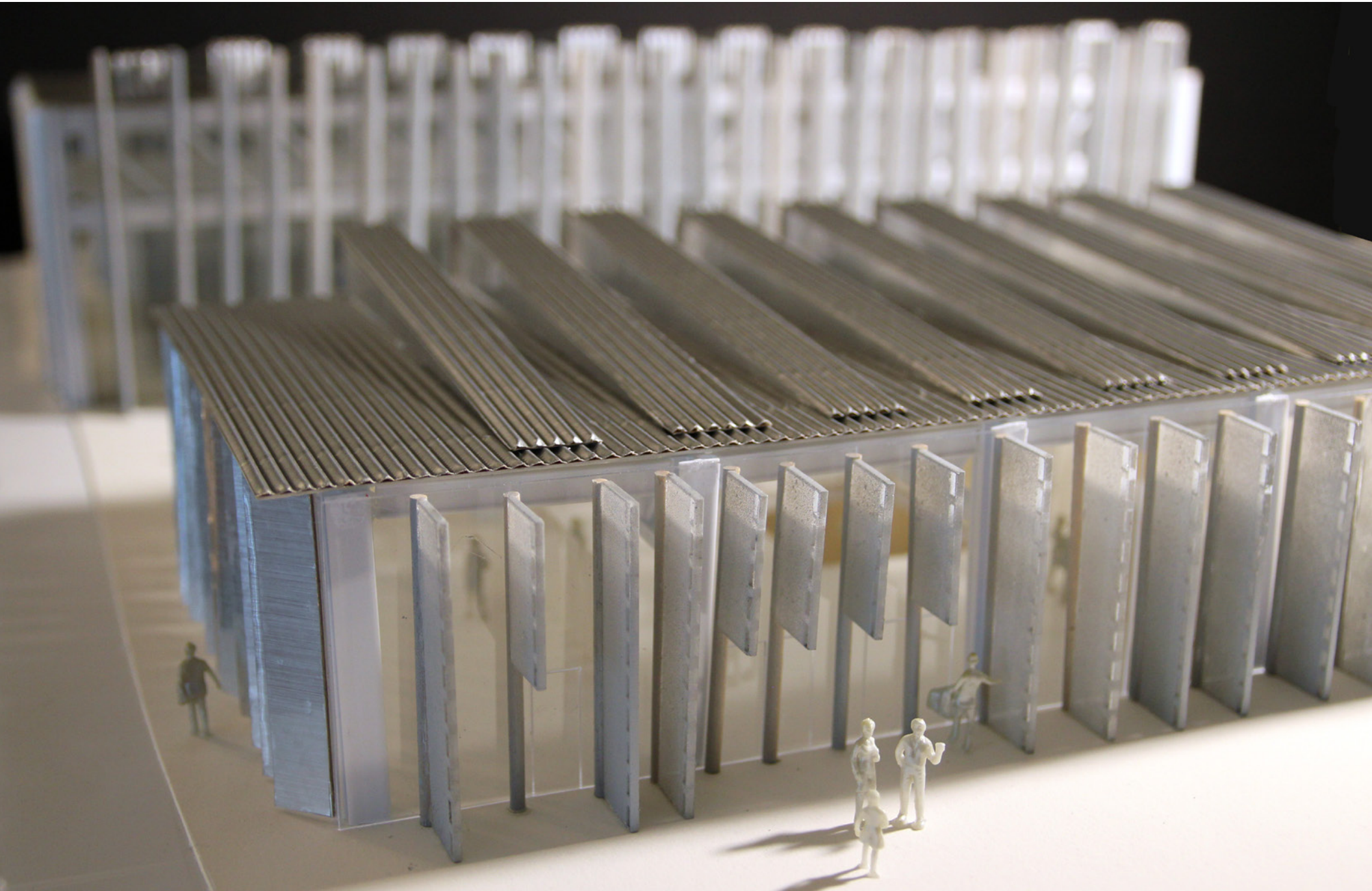
Buroe
design&architecture

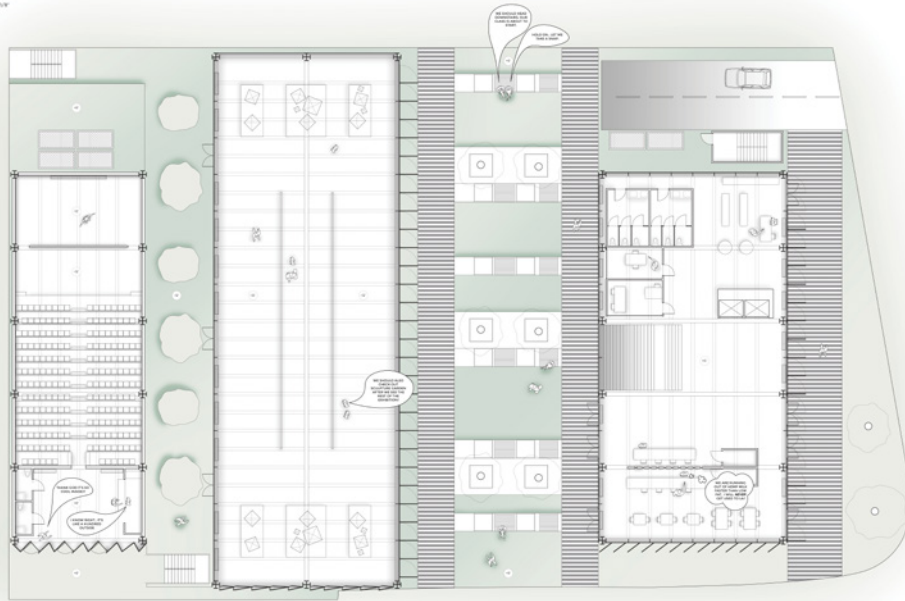


interior collage

part of original plan

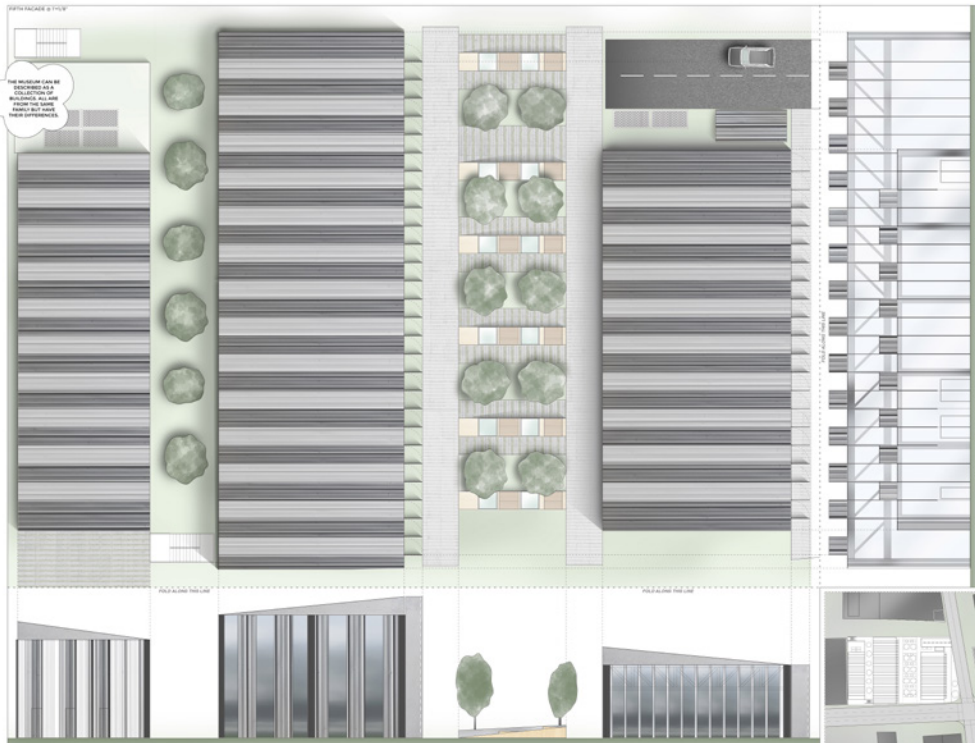






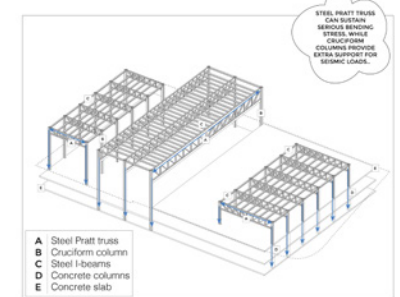
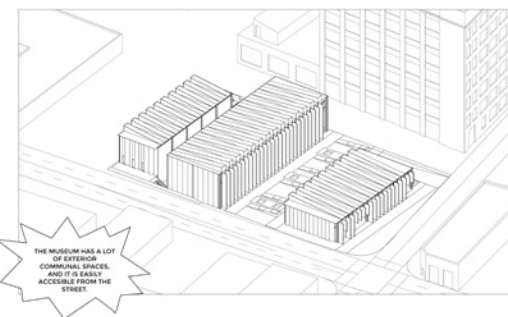
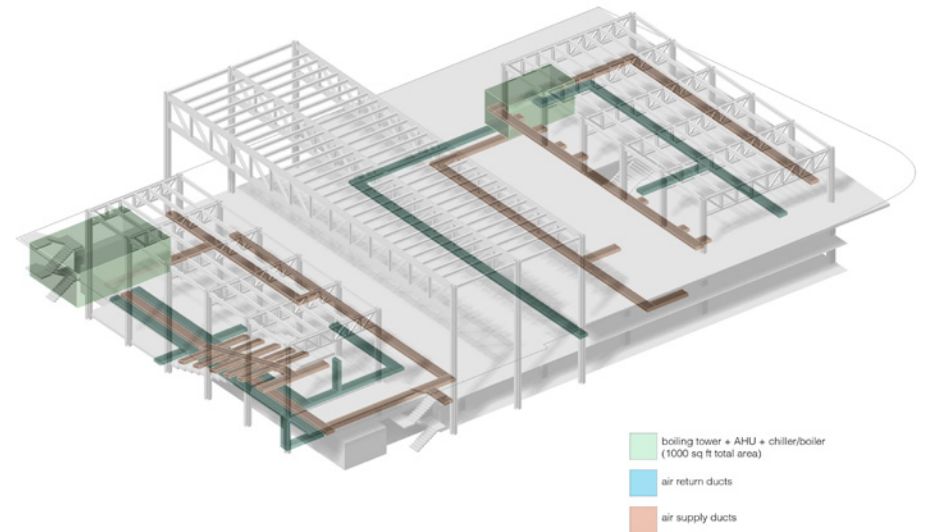
THE HIDDEN VOLUMES

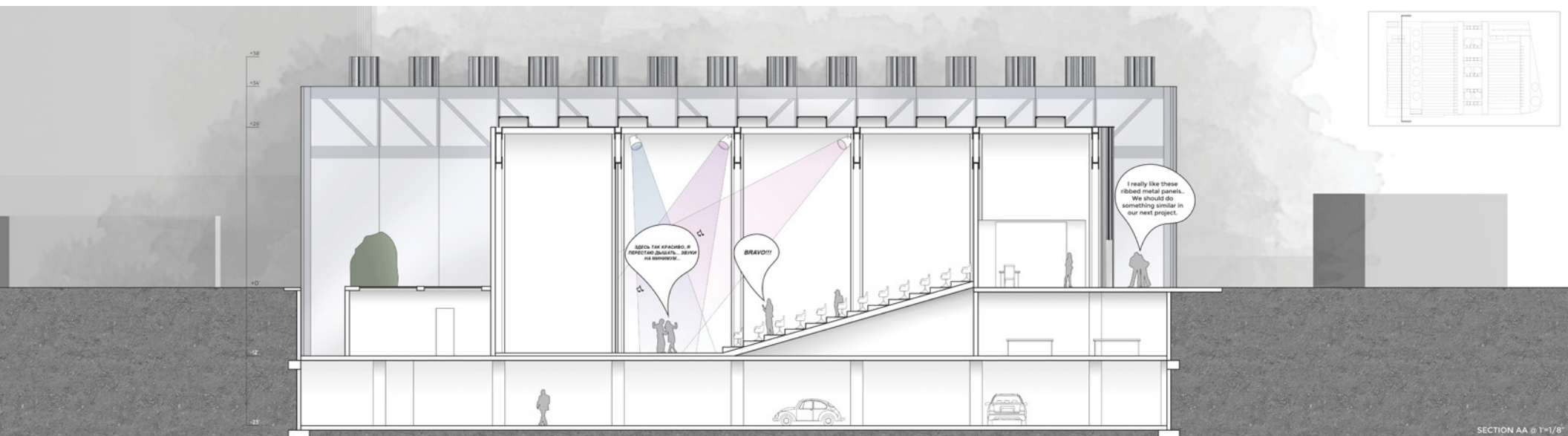
MUSEUM OF ARCHITECTURE, ARTS DISTRICT, LOS ANGELES
STRUCTURAL SYSTEM: PRATT TRUSS



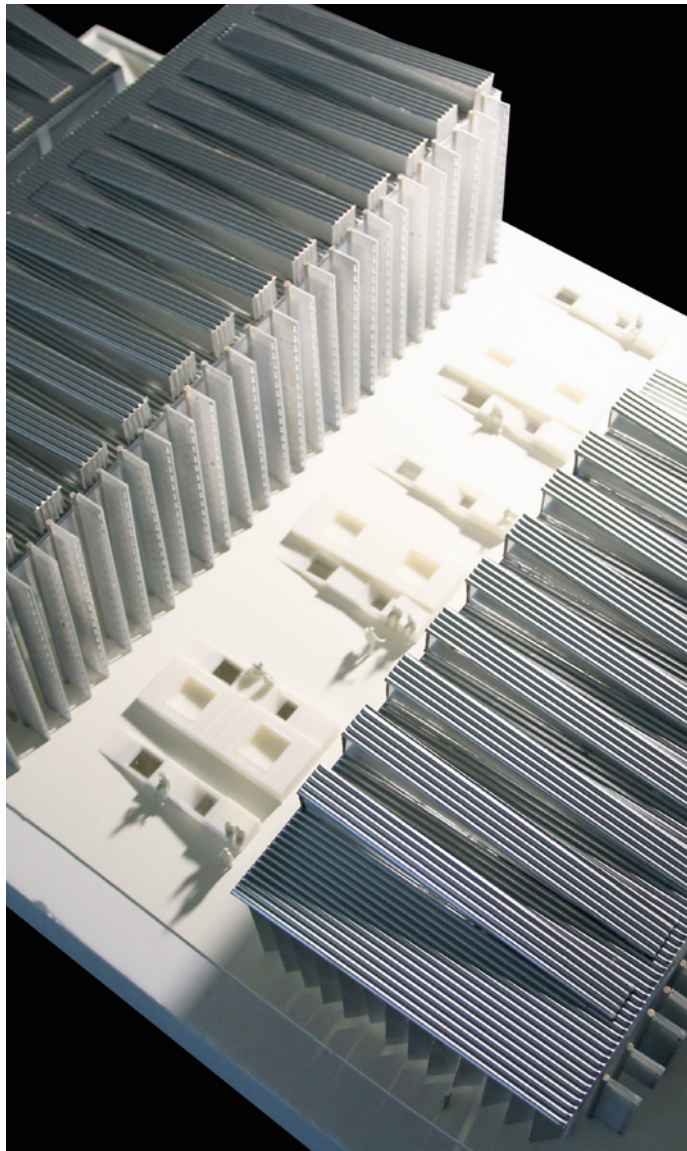
Hidden Volumes project features an architecture museum located in the Arts District of Downtown Los Angeles.

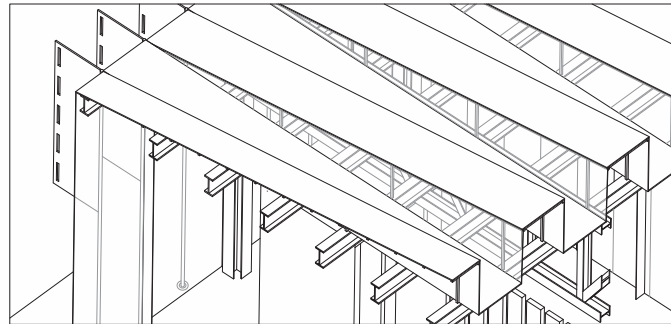
This was an individual comprehensive studio project completed at the School of Architecture at the University of Southern California. The studio focused on the exploration of steel construction systems – in my project, one of the main structural elements is Pratt truss.



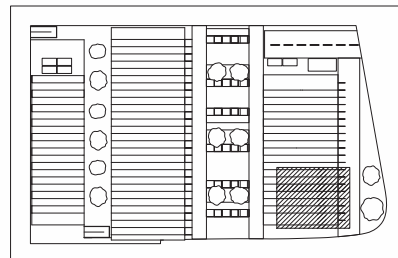
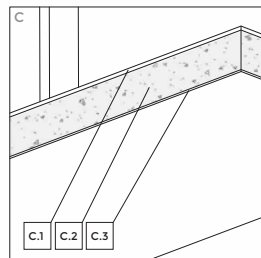
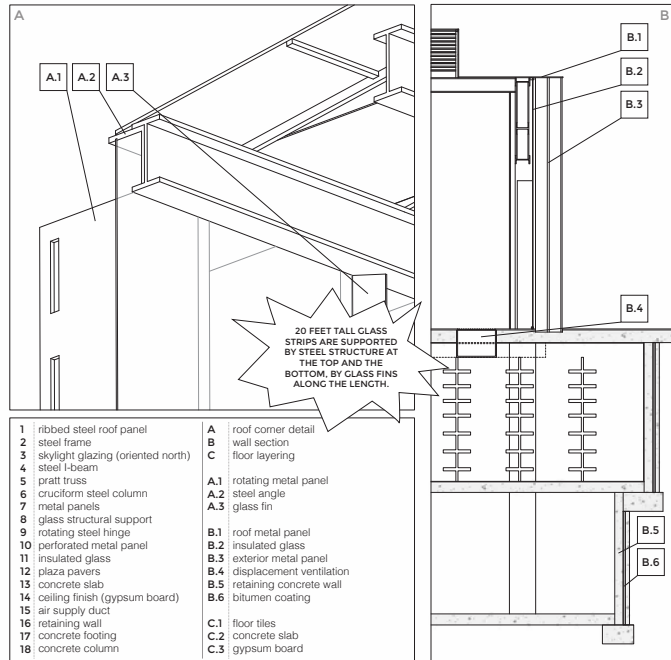


sections

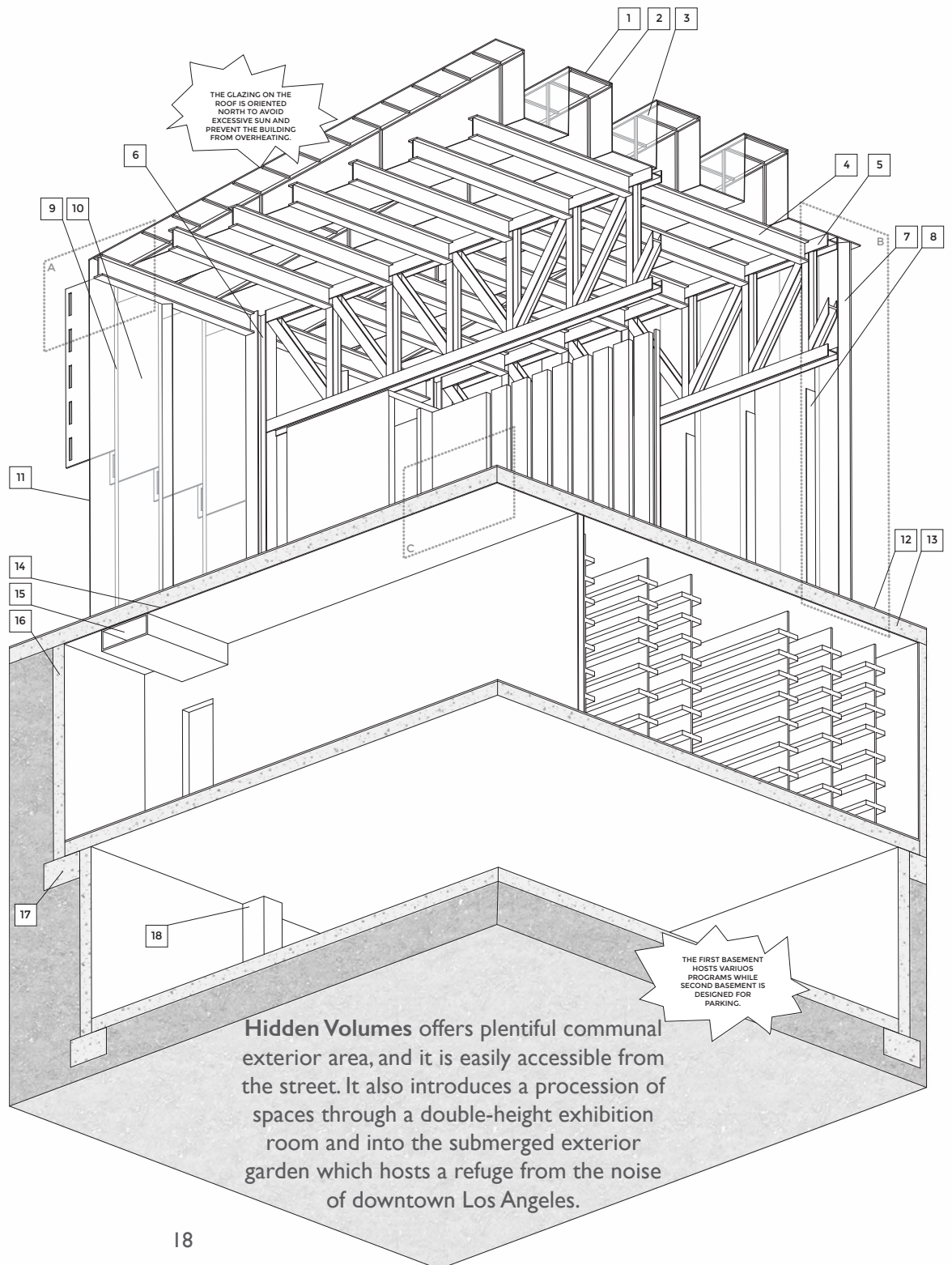




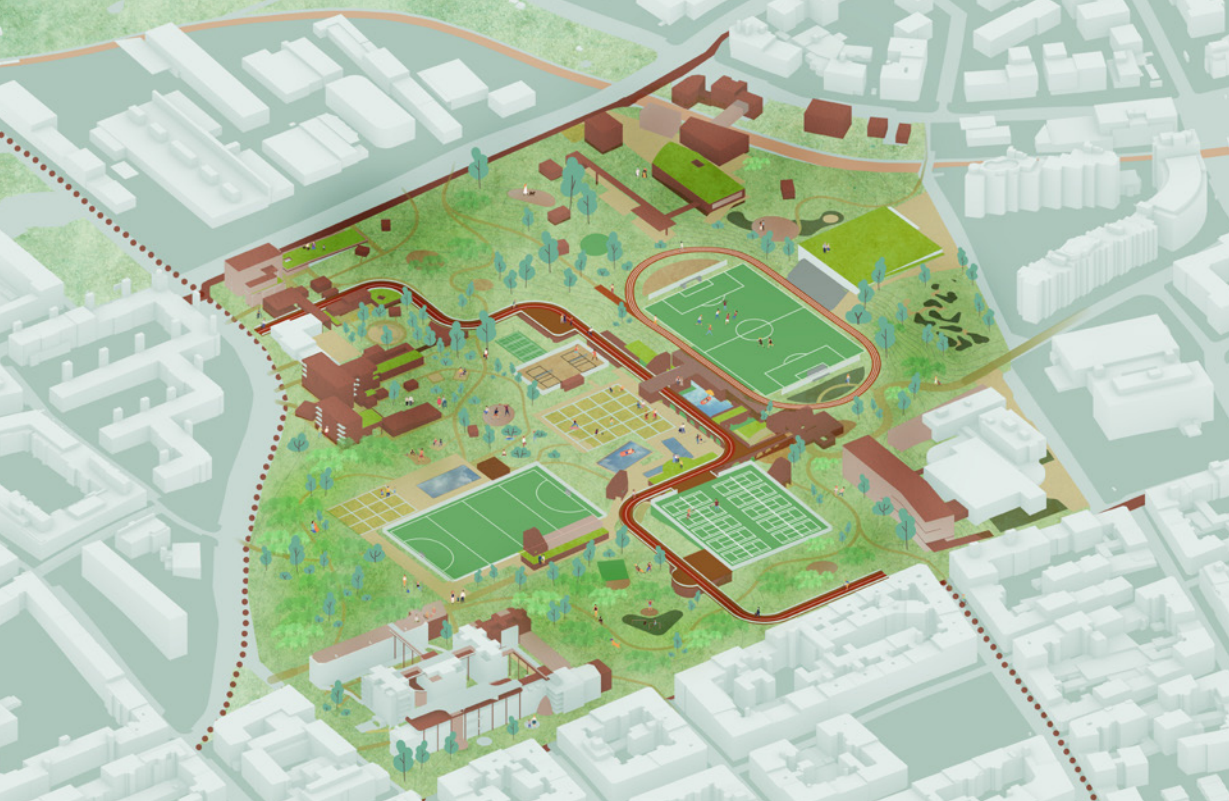
roof view



key plan



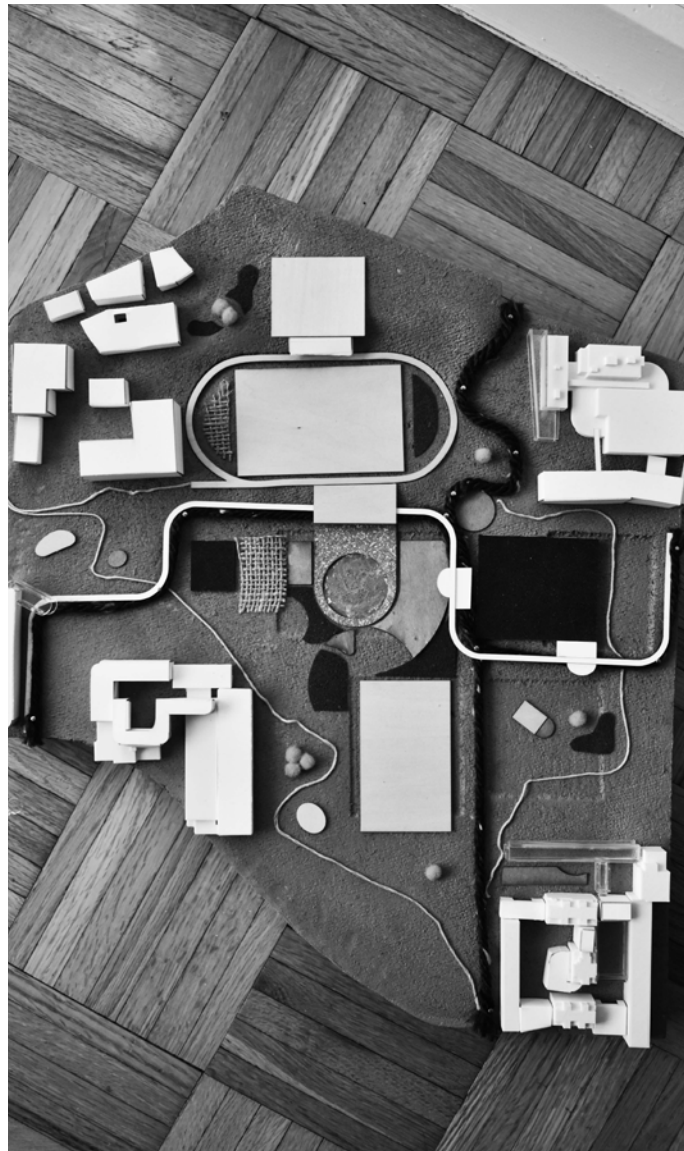




The Tactile Experience project was completed in “Disabling Modernities” studio led by David Gissen in Spring 2023. Half of the project was accomplished collectively (project contributors: Yiyi Gao, Candice Ji, Yang Fei, and Polina Stepanova), while the second half was done on an individual basis but still located on the shared site.



The studio narrative revolved around the topics of inclusive design, urban accessibility, and large city scale multigenerational compositions. The project team was assigned to Postsportsplatz site located in Vienna, Austria, and the team’s goal was to reimagine the site in an inclusive environment instead of catering to just those involved in high-impact sports. The question of circulation and clear wayfinding provided a clear direction for the project, and the studio explored methods of architectural representation through sound and tactile models to prevent over-relying on vision.



the tactile site model

The individual part of the project focused on adapting an existing housing corner to the needs of aging community and on improving connectivity within the southeast corner of Postsportsplatz. Sky connectors, winter gardens, and community center created new spaces for the residents of the site. Introduction of public rooftop also extended an invitation for the larger neighborhood to gather and enjoy the unobstructed view of Vienna's historic center.

The Tactile Experience ultimately represented coming in touch with one's senses and relating to other people and their perception, often different from our own.

