

2025 SECOND PRIZE

Yat Chi Darren Sun

UNIVERSITY OF PENNSYLVANIA

FACULTY ADVISOR — BRIAN PHILLIPS

LYCEUM

A traveling fellowship in Architecture

SITE ANALYSIS

Agriculture in Barbados has traditionally centered around sugarcane cultivation, but the island also grows diverse crops like sweet potatoes, cassava, vegetables, and tropical fruits such as mangoes and bananas. Barbados faces significant challenges, notably limited arable land, high dependence on imported foods (approximately 80% of consumption), and vulnerability to climate change—including droughts, hurricanes, and rising sea levels—which threaten crop productivity and sustainability.

1960: 70 000 acres of arable land

Long-term sugarcane farming and mono-cropping have led to soil erosion and nutrient depletion, negatively impacting productivity.

Soil condition >



Barbados relies heavily on food imports making it vulnerable to international price fluctuations and supply disruptions.

< Port Bridgetown

Port St. Charles

Bridgetown Port

Bridgetown

The aging demographic has profound implications for Barbados's economy and agriculture. A reduced labor force may lead to decreased productivity and innovation, particularly in labor-intensive sectors like agriculture. This trend is compounded by net out-migration and a fertility rate below the replacement level

St. George

Consett Bay

Barbados population pyramid 2023



Farming inputs (fertilizers, equipment, labor, energy) are expensive, making local production less competitive compared to imported foods.

Approx. 50 000 acres of arable land present

Younger generations often avoid farming, resulting in an aging agricultural workforce, reducing innovation and modernization.

< Farmland after storm



Extreme weather events such as hurricanes, droughts, flooding, and rising sea levels due to climate change threaten crop yields and sustainability.

- + Site
- Farms/Plantation
- Fishing activity

3 mile





SITE INTERVENTION

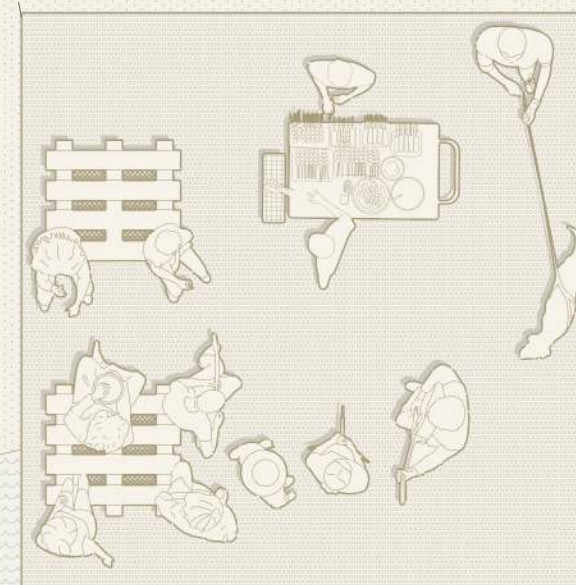
This intervention reimagines the carpark as a vital threshold that connects the beach, the buildings, and the broader farm-to-table ecosystem in Barbados. By transforming the space into a layered platform for cultivation, gathering, and exchange, the strategy turns a formerly utilitarian zone into a vibrant, productive, and social landscape. It invites experimentation in agriculture, celebrates community through food and performance, and strengthens the link between local producers and urban life.



Site plan 1" = 80' N



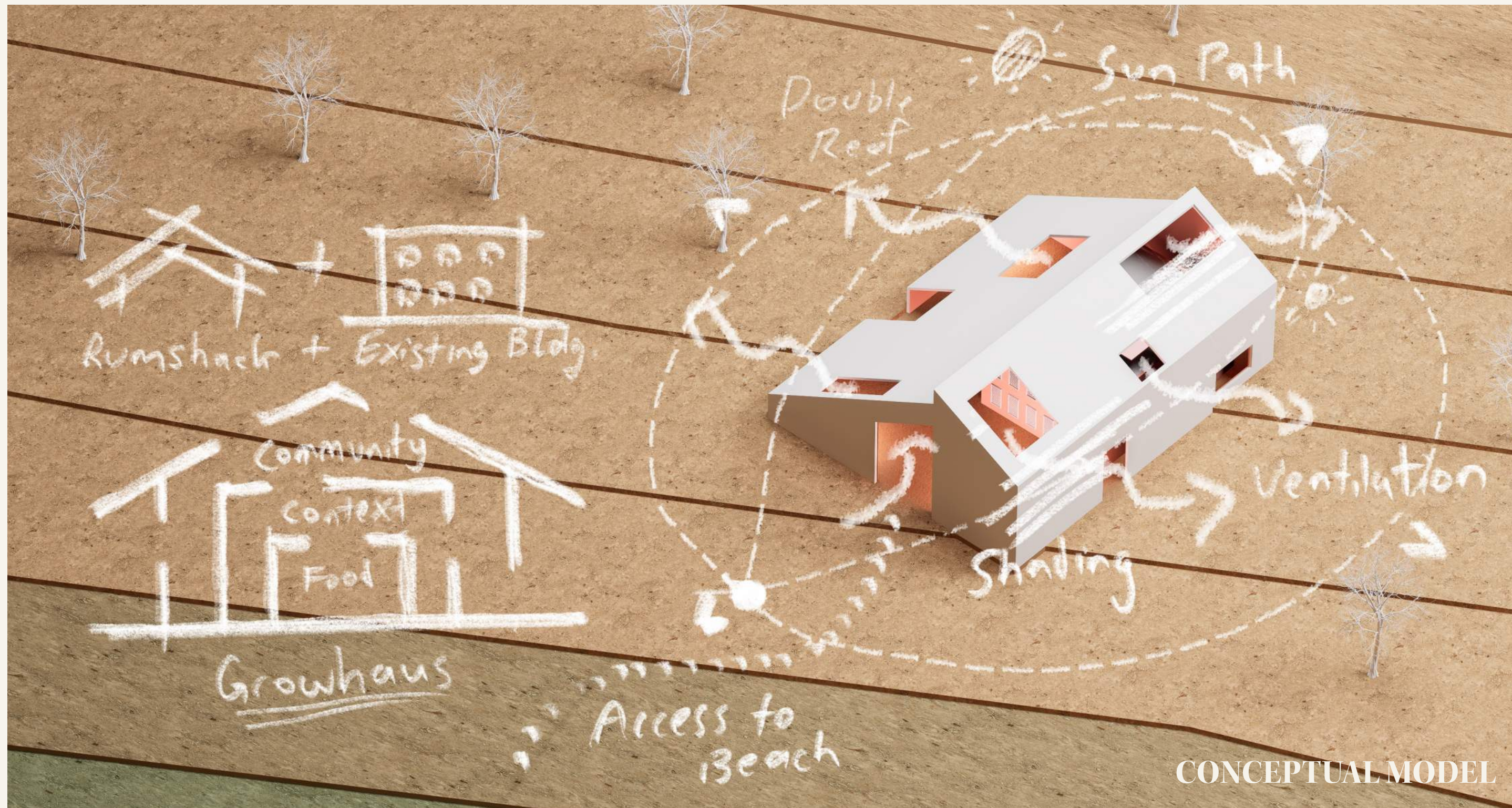
A portion of the carpark is reclaimed for experimental farming, where innovative growing techniques supply fresh produce directly to the kitchens on site.



The central zone is activated as a public gathering space for events, food vending, and performances that celebrate Barbados' culinary and cultural identity.



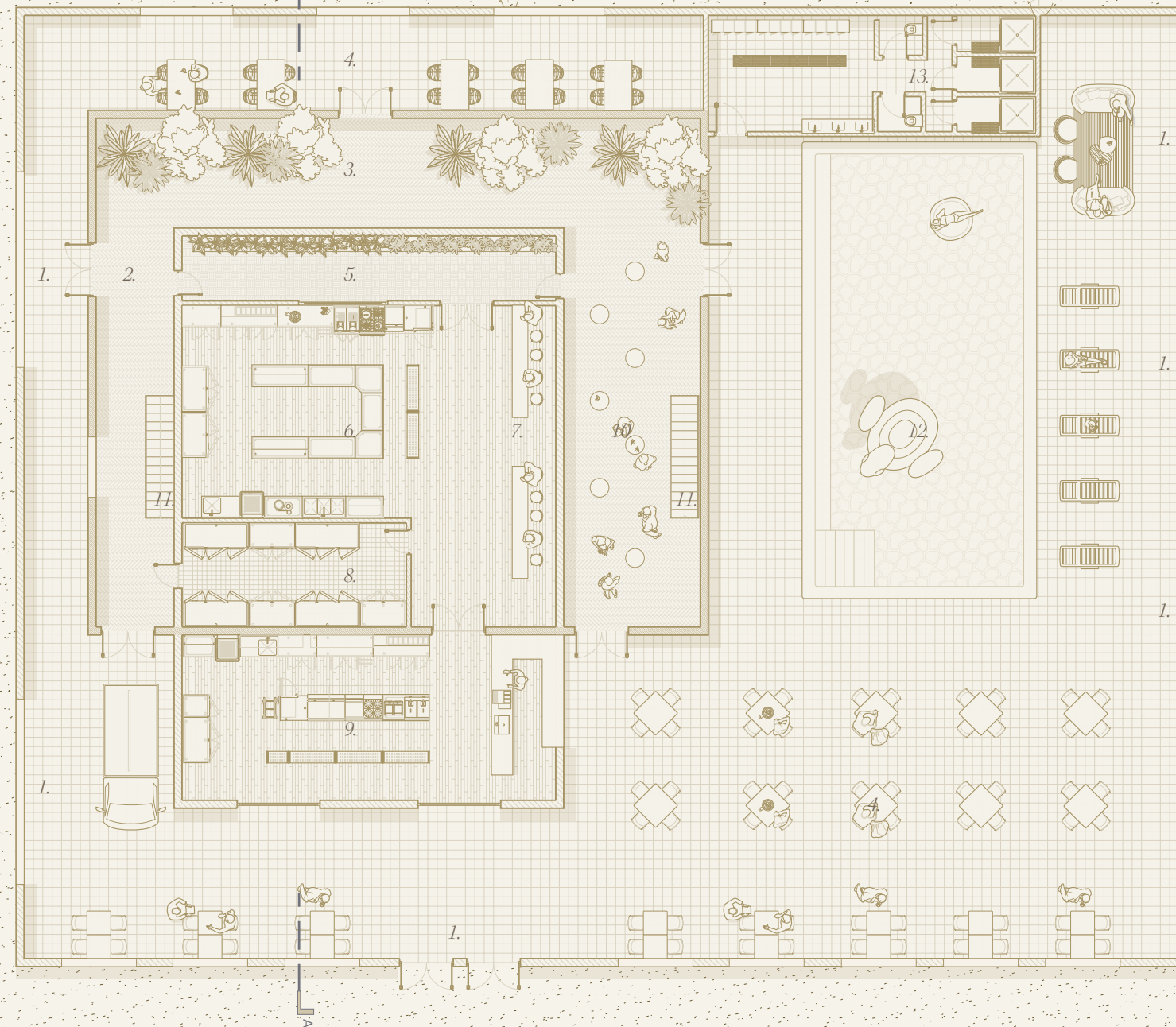
A large open area is reserved for a recurring farmers' market, bringing together island-wide growers to deliver fresh harvests to local residents and chefs.



CONCEPTUAL MODEL

RESTARAUNT PLAN

Inspired by the modular, open nature of Barbados' traditional chattel houses, the floor plan reimagines these iconic structures as a flexible, community-centered culinary space. Rather than isolating the kitchen, the design places it at the very heart of the adaptive reuse project—much like the hearth in older village homes—creating a shared core around which daily life unfolds. The original chattel house form is preserved and extended with open verandas and movable walls, allowing spaces to shift between intimate gatherings and public events. Centered beneath a large skylight, the kitchen becomes both a performance zone and a gathering point, drawing people in from all directions. This central placement blurs the boundaries between cook and guest, turning the act of preparing food into a communal ritual. Around the kitchen, flexible rooms radiate outward—part living, part learning, part storytelling—framing the kitchen not just as a place to cook, but as the social and spatial heart of the project.

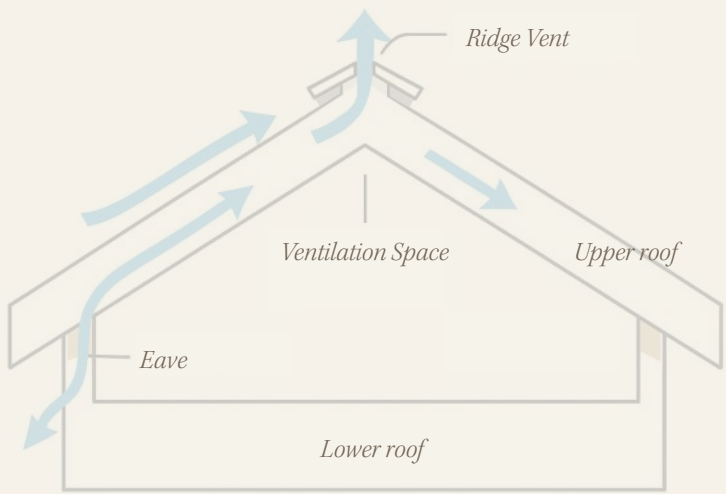
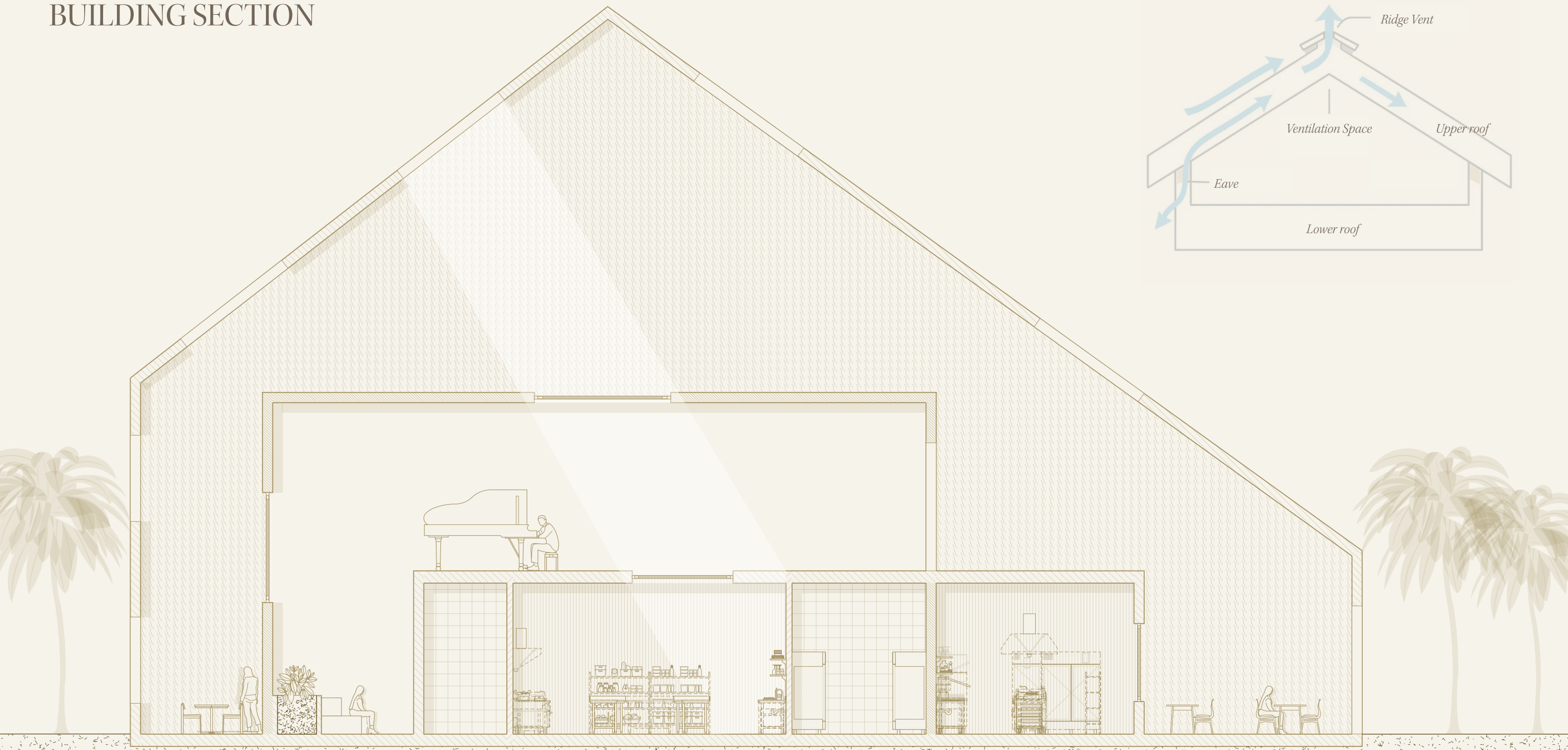


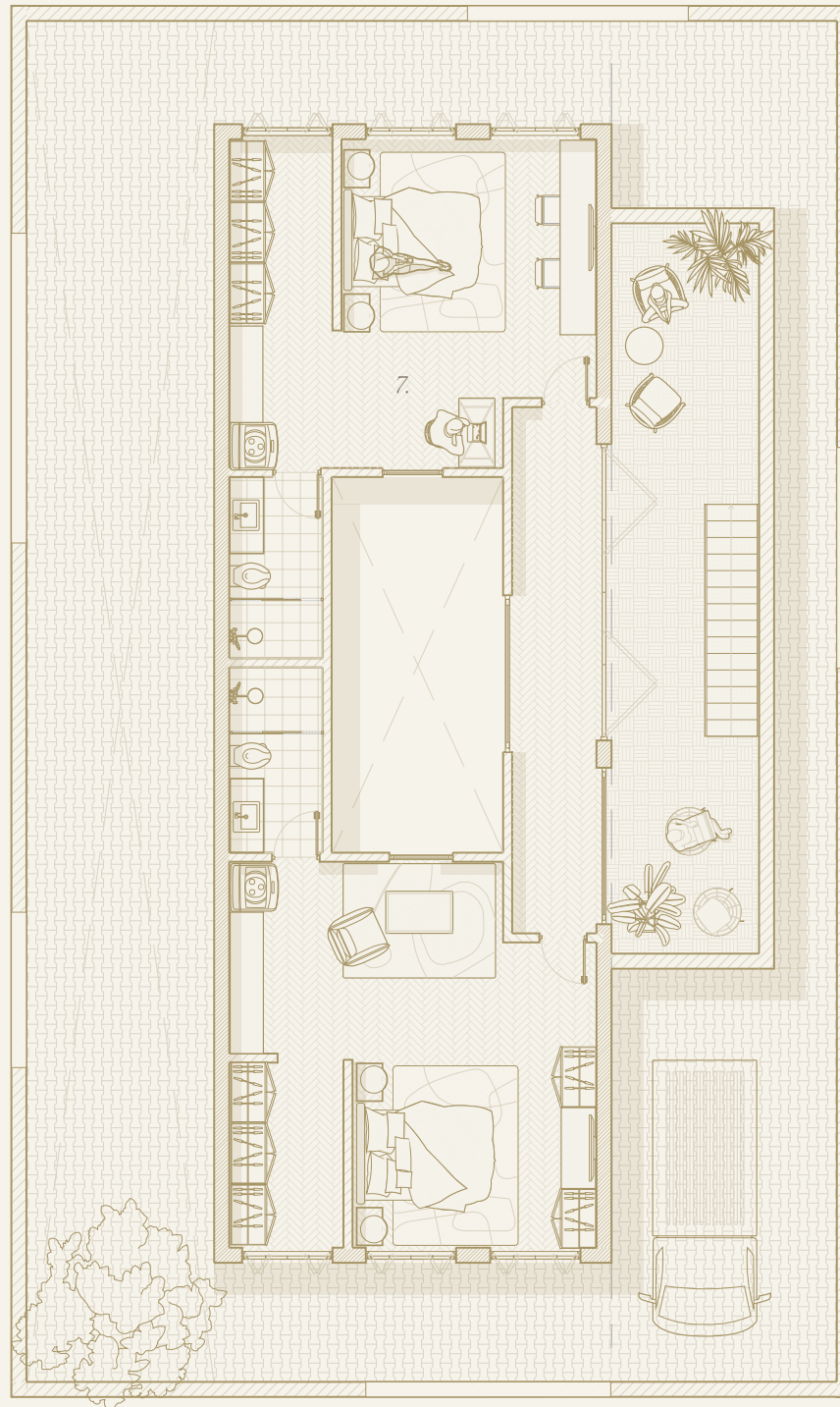
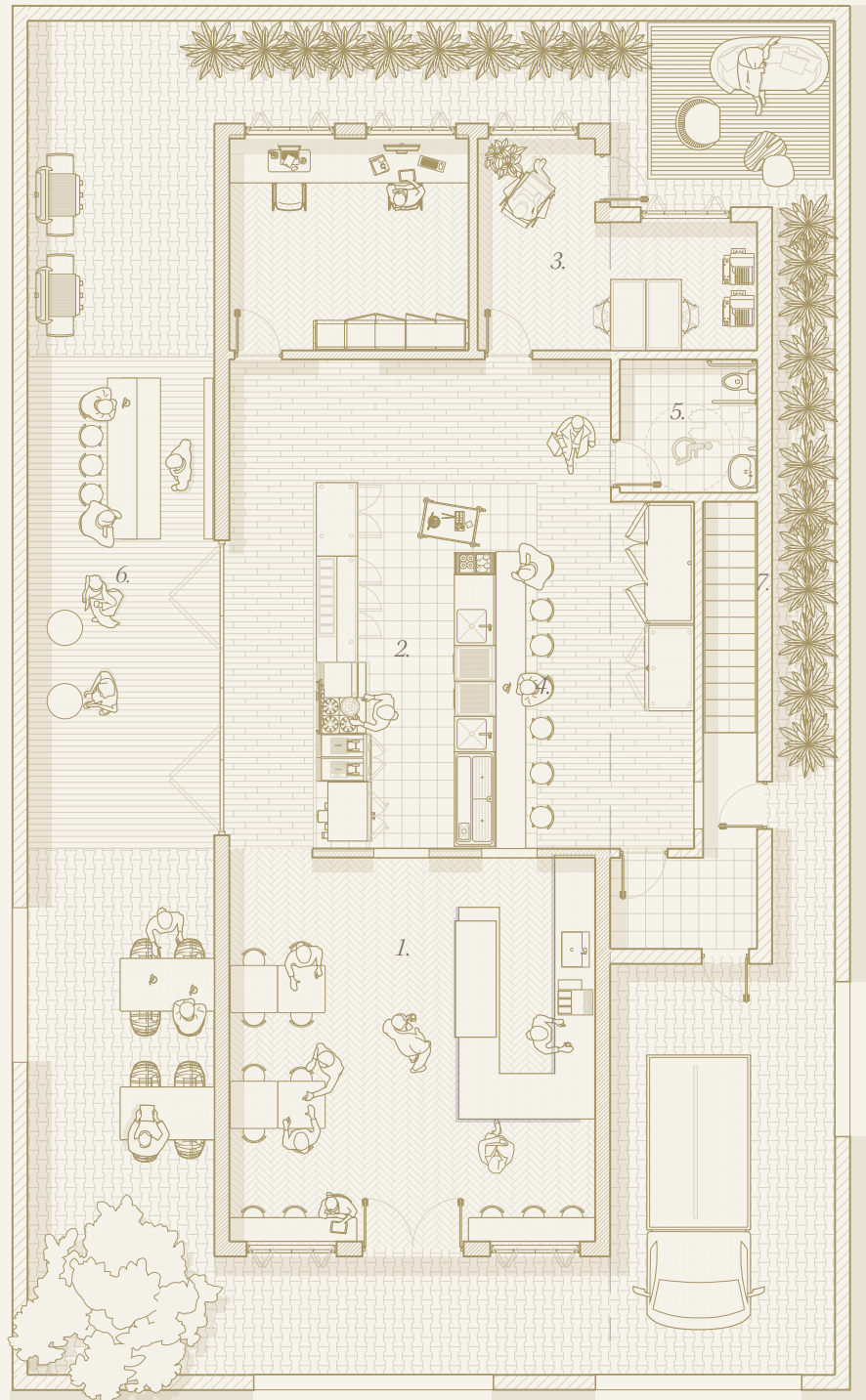
Ground plan 1/16' = 1"



1. Entry Points to Semi-open space for public restaurant
2. Enclosed Kitchen Area
3. Agricultural research space
4. Dining Areas
5. Self grown spice area
6. Food Reasearch Kitchen
7. Food Prep and Photography
8. Storage
9. Restaurant Kitchen
10. Flexible Event Space
11. Access to 2nd floor event space
12. Pool
13. Changing Room
14. Outdoor Beach zone

BUILDING SECTION

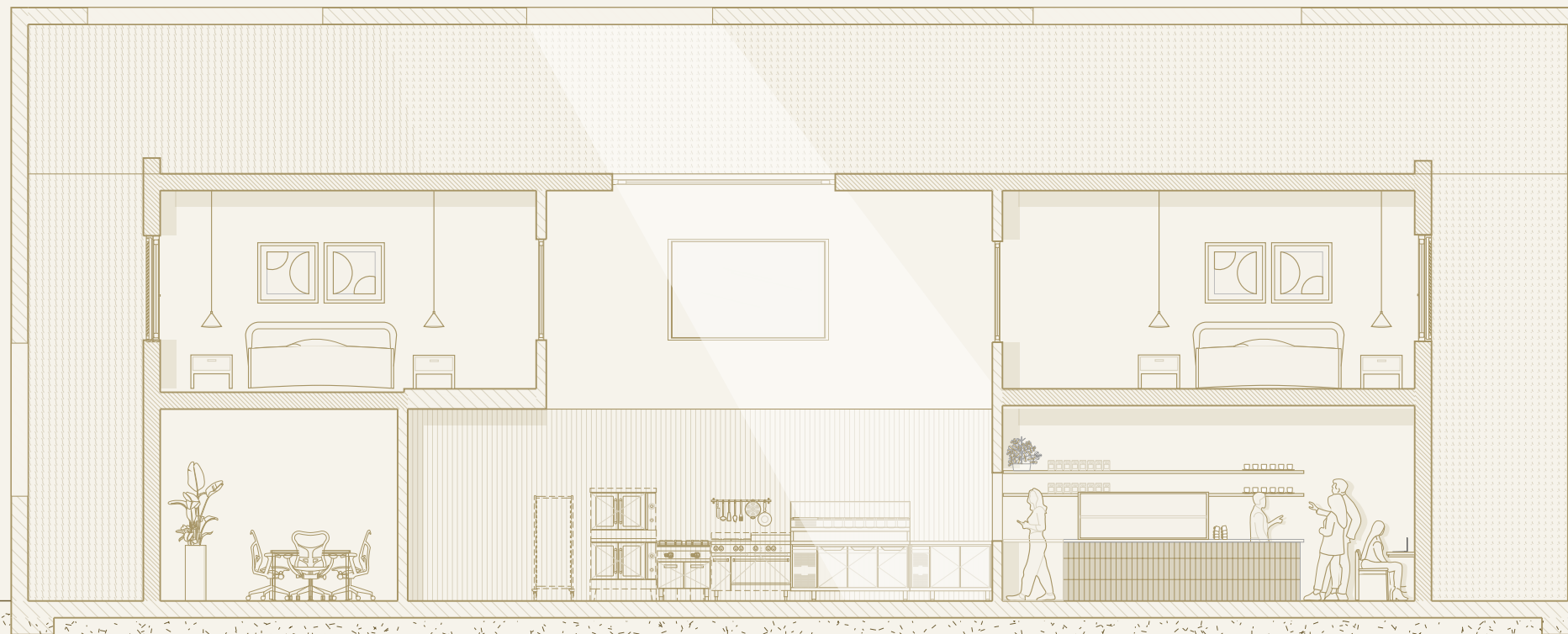




1. *Café*
2. *Open Kitchen Area*
3. *Working/research space*
4. *Dining Areas*
5. *Bathroom*
6. *Outdoor Bar/Dining*
7. *Bedroom*

BUILDING SECTION

In the chef's residence, the kitchen is the heart of the space—a place of creation, experimentation, and gathering. Positioned centrally, it anchors the layout both functionally and symbolically, inviting interaction between the chef and visitors. A large skylight above the kitchen floods the area with natural light, drawing focus and establishing it as the core of the home. This vertical opening not only enhances the spatial experience but subtly delineates the boundary between public and private realms. While the kitchen remains open and welcoming, the surrounding living and sleeping quarters are tucked beyond its perimeter, offering retreat and privacy. The skylight becomes both a beacon and a threshold—celebrating the act of cooking while structuring the spatial rhythm of the residence.





Food gathers hearts—warmth passed from hand to hand, a quiet language spoken in shared plates and stories.

Homes hold us close—spaces where laughter echoes and walls cradle, not divide, the spirit of community.

And may this building grow, gently and surely, like the island's own crops—rooted in care, reaching outward— nourishing not just those within, but blossoming into the lives of the neighborhood, one shared moment at a time.



COURTYARDS AND COMMON LIFE

2025 Lyceum Travel Proposal

LF-12185

1- 3 month, adjusted upon fellowship

For my Lyceum Travel Fellowship, I propose a three-month architectural exploration through Barcelona, Amsterdam, and Vienna, investigating urban environments that prioritize communal living and pedestrian-oriented design. Each city offers distinct yet interconnected examples of courtyard housing typologies and public space strategies that cultivate vibrant community life. This travel project will document how these European cities have successfully integrated communal spaces within dense urban settings, generating insights applicable to other global contexts.

Beginning in Barcelona, I will immerse myself in the innovative Superblock initiative, which dramatically transforms the urban grid by reclaiming streets from vehicles and returning them to pedestrians and cyclists. Living within a Superblock neighborhood, I intend to document the daily life unfolding in these newly pedestrianized spaces, observing how community activities and social interactions naturally emerge once traffic barriers are removed. Additionally, I plan to explore cooperative housing projects like La Borda in the Sants neighborhood, where residents collectively own and manage spaces built around communal courtyards and facilities. Another essential case study will be Ricardo Bofill’s Walden 7, a seminal architectural experiment in vertical community living, showcasing interconnected towers and shared courtyards designed explicitly to enhance neighborly interactions.

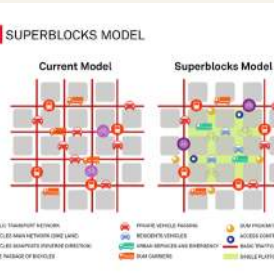
In Amsterdam, my research will highlight the city’s historical and contemporary approaches to communal courtyard living. I will first delve into Amsterdam’s iconic hofjes, historic communal housing developments characterized by small dwellings surrounding shared central gardens. By documenting life within spaces like the Begijnhof and Jordaan district hofjes, I will gain



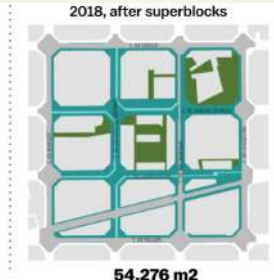
insights into how these centuries-old designs sustain vibrant community relationships and tranquil retreats within bustling urban centers. Additionally, I will examine contemporary car-free neighborhoods such as the GWL Terrein, which prioritizes pedestrian access and fosters community engagement through abundant shared green spaces and facilities. Comparing historical and modern examples will enable me to document Amsterdam’s evolving yet enduring commitment to pedestrian-focused communal living.

Finally, in Vienna, I aim to explore the city’s renowned communal housing tradition through a study of its extensive social housing blocks—Gemeindebauten—such as the iconic Karl-Marx-Hof. These complexes historically integrated expansive communal courtyards, public amenities, and pedestrian-friendly layouts that still actively facilitate social cohesion among residents. Contrasting these historical projects with newer co-housing initiatives like Wohnprojekt Wien and the ambitious car-reduced district Aspern Seestadt will highlight Vienna’s continued innovation in fostering community-centric urban environments.

This comparative research will generate critical insights and actionable knowledge applicable globally. Cities worldwide grapple with social isolation, housing affordability, and sustainability; studying these European precedents provides tangible, adaptable strategies to create more socially vibrant and environmentally sustainable urban developments elsewhere. Through comprehensive documentation—including photographs, sketches, and analytical diagrams—I aim to articulate clear design principles and spatial strategies, enriching architectural discourse and inspiring planners, architects, and community developers across diverse urban contexts to envision and implement similar communal living models.



Superblock



Superblock



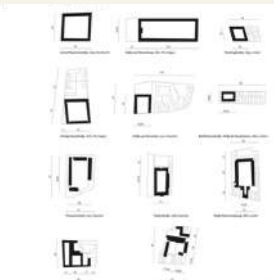
Aerial Superblock



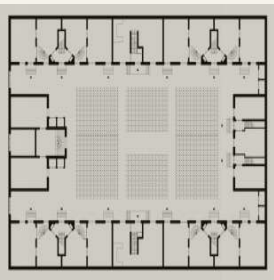
La Borda



Walden 7



Historic Hofjes



Historic Hofjes



Historic Hofjes



De Warren



GWL Terrein



Aspern Seestadt



Karl-Marx-Hof



Reumannhof



Sargfabrik



Wohnprojekt Wien

Category	Estimated Cost (USD)	Notes	Time Period	Location	Focus Areas & Activities
International Airfare	\$2,000	Flights: U.S. → Barcelona → Amsterdam → Vienna → U.S.	Month 1	Barcelona	- Superblocks (e.g., Sant Antoni) - Courtyard Gardens in Eixample - Cooperative Housing: La Borda - Walden 7 by Ricardo Bofill
Local Transportation	\$600	City transit passes, bike rentals, short trips			
Lodging (Airbnb)	\$6,000	~\$2,000 per city for 1 month stays in research-relevant areas			
Meals & Daily Expenses	\$4,500	~\$50/day for food and basic daily costs	Month 2	Amsterdam	- Historic Hofjes (e.g., Begijnhof, Jordaan Hofjes) - GWL Terrein (car-free community) - Contemporary Co-Housing: De Warren (IJburg) - Citywide pedestrian & cycling infrastructure
Research & Documentation	\$500	Museum entries, sketchbooks, data, printing, SIM cards	Month 3	Vienna	- Historical Gemeindebauten (e.g., Karl-Marx-Hof, Reumannhof) - Modern Co-Housing: Sargfabrik, Wohnprojekt Wien - Aspern Seestadt (car-reduced urban district)
Contingency	\$1,400	Emergency, price variation, or unexpected research opportunities			
Total	\$15,000				