





# Anthropolgy



# Community Studies



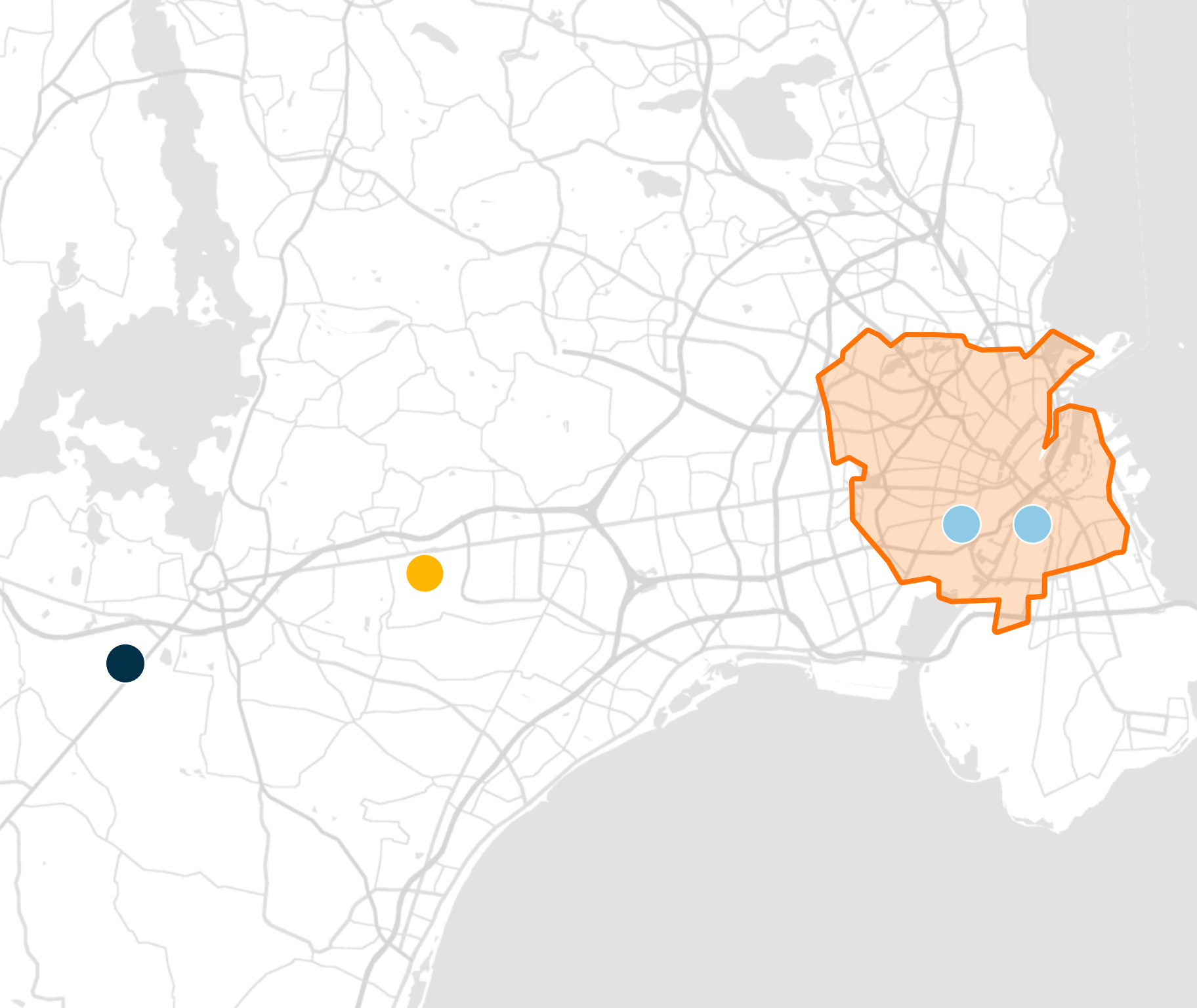
*Students / Copenhagen Village and Tietgen*



*Families / Skråningen*



*Seniors / Bovieran*





## ASSESSMENT



## ANALYSIS



# Interviews

While in Copenhagen, we spoke with people in the Siljangade neighborhood and conducted interviews with members of three demographic groups to gain insight on their living situations, daily patterns, their preferences and aversions. The communities we visited and conducted interviews included the Bovieran Senior Living development, Copenhagen Village Student Living and Tietgan Student Housing, and the Eco Village Community where we met and spoke with families.

Our visits helped us understand the spatial organization of their homes and neighborhoods, and to observe how these places are inhabited. Our on-site and on-line interviews after our visits were used to develop deeper conversations about their lived experiences in these places, and a chance to collect data for our gap analysis.

In this qualitative portion of our investigation, we were able to connect with people actively living in shared housing models and ascertain what would encourage or discourage them to continue living in these shared environments.

"Our little front yard is so important **a childs interaction with the outdoors is a crucial part of their upbringing.** A majority of Danes I would say find this to be the case."

- Charlie, 30, Family of 3, Siljangade Site Area

I am a very private person. So I like to have my own kitchen and bathroom and if so, **sharing that, that's not for me.** But I know that some people will."

- Henry 70, Lives alone, Siljangade Site Area

"I use my own private kitchen I would say.. 90 percent of the time, but I used the club room like last week when hosting friends in town, so its great for big groups... These shared everyday spaces, like **our shared porch here make it easy to know your neighbors.**"

- Anton, 22, Copenhagen Village Student Living



"It could probably be interesting to live with all kinds of different demographics. **But I think at this age people are more willingly trying to meet new people and kind of get out there.** And also, because it's for students, we get a lot of exchange students here. So that's also really interesting."

- Kasper 26, Copenhagen Village Student Living

"We spend most of our time in our apartment, getting used to having the communal outdoor space. **Everyone knows everyone** with the amount of people we have **but I would add more social area,** all the people can't fit in the social area we have."

- Per 68, Family of 2, Bovieran Shared Living

I have good neighbors, I'm not particularly close with any but we help each other out when needed. Danes don't make many new friends, they're a bit reserved, **so that feels like community to me."**

- Martin 36, Family of 2, Siljangade Site Area

"So we're actually going to buy a house I think at some point, because with the baby, we don't really have a garden. **So I think the main thing is like we don't have our own outdoor [space].** Yeah. I think if there was a big yard connected to the apartment, like a **big common yard,** yeah, maybe we would say **that would be enough."**

- Andreas 35, Sophie 32 & baby 9 months,  
Siljangade Site Area

# "What community do you live in?"



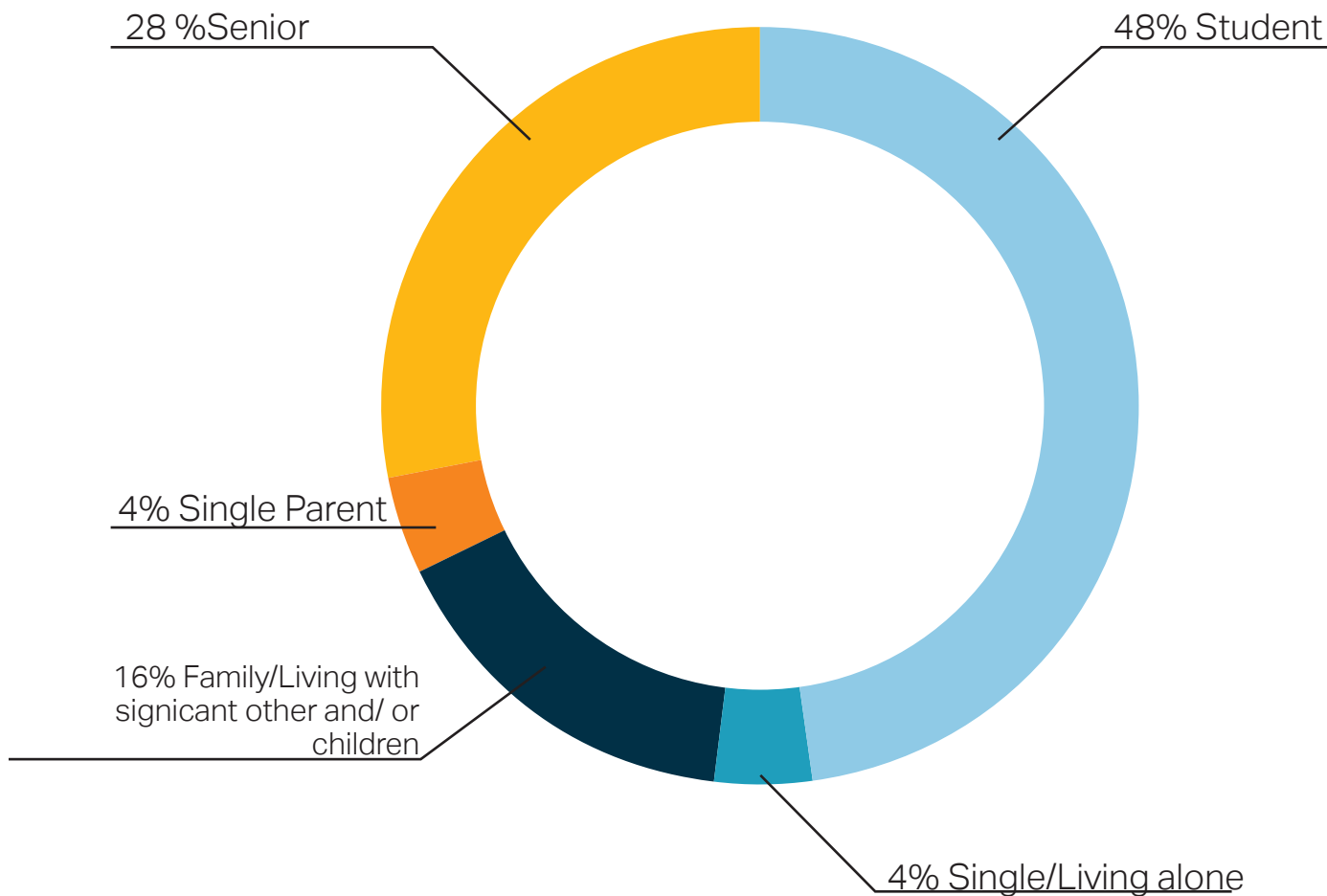
CPH Village / Tietgen

Bovieran

Eco-Village

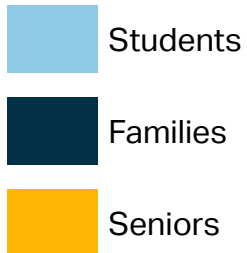
- Students
- Families
- Seniors

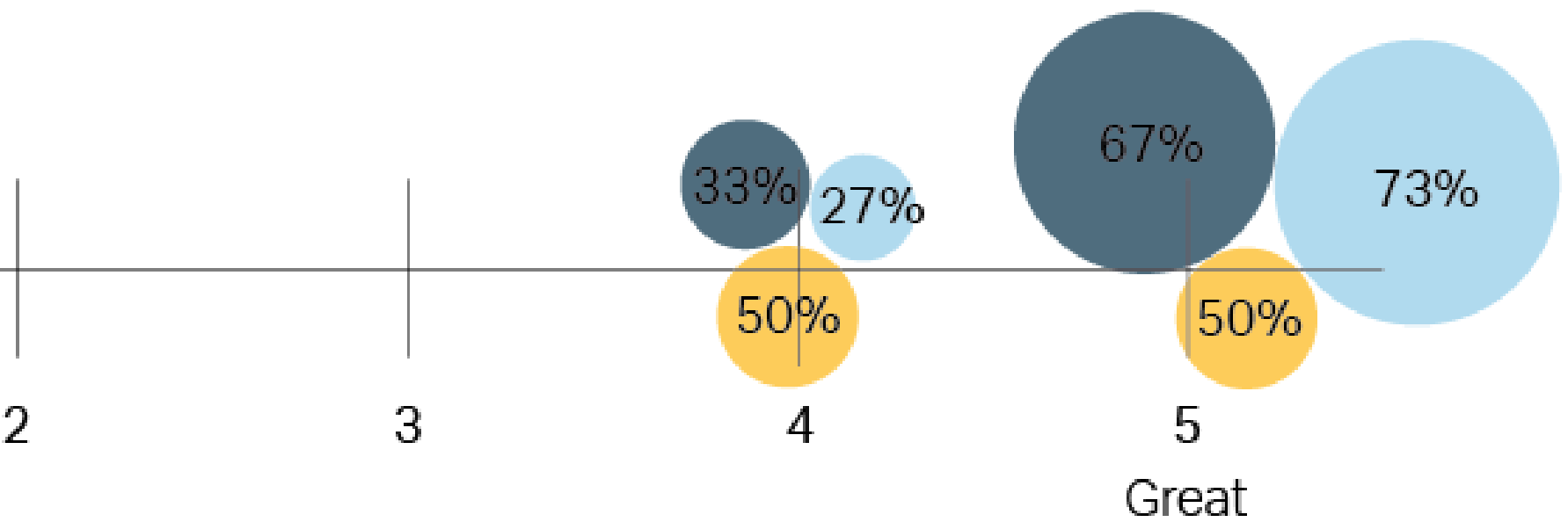
# "What demographic do you most closely associate with?"





# How would you rank your general housing experience?

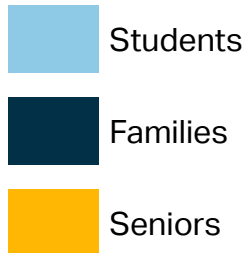
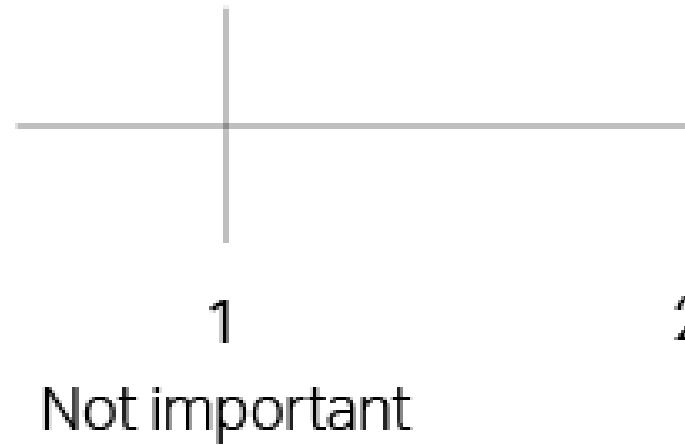




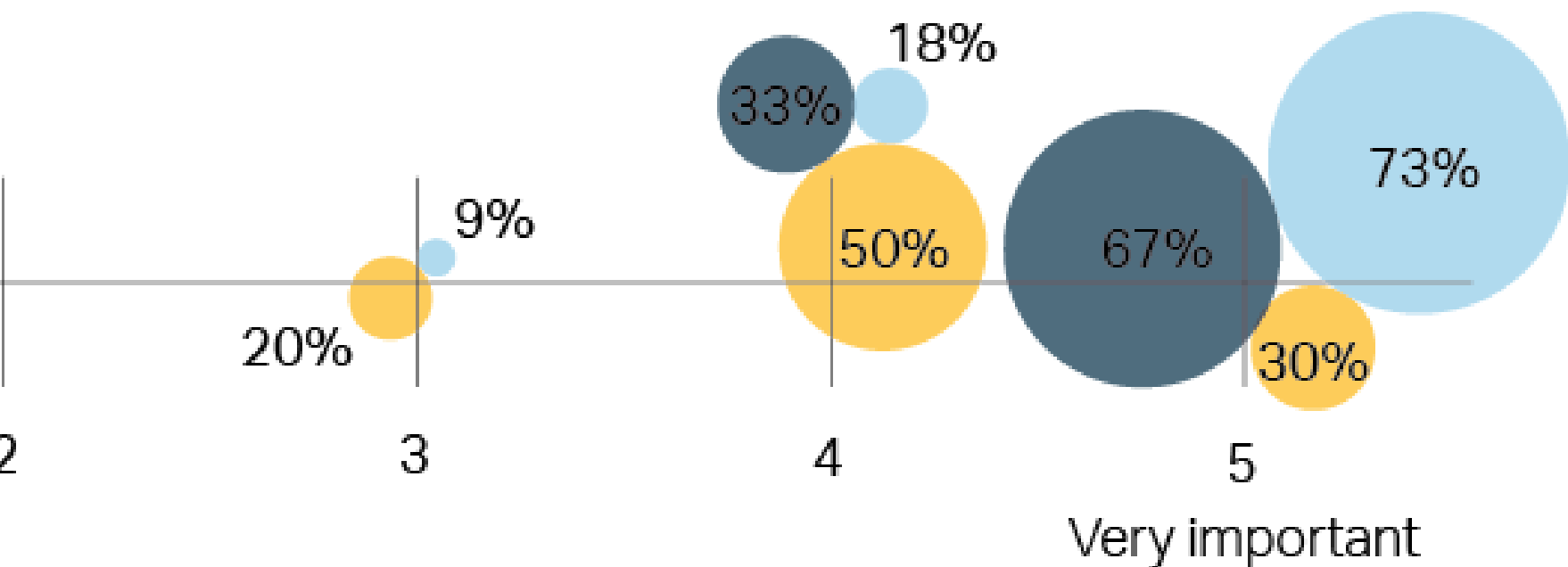
## Take Aways

- Most people have a good experience in their co-housing communities

# How important is being part of a co-housing community to you?



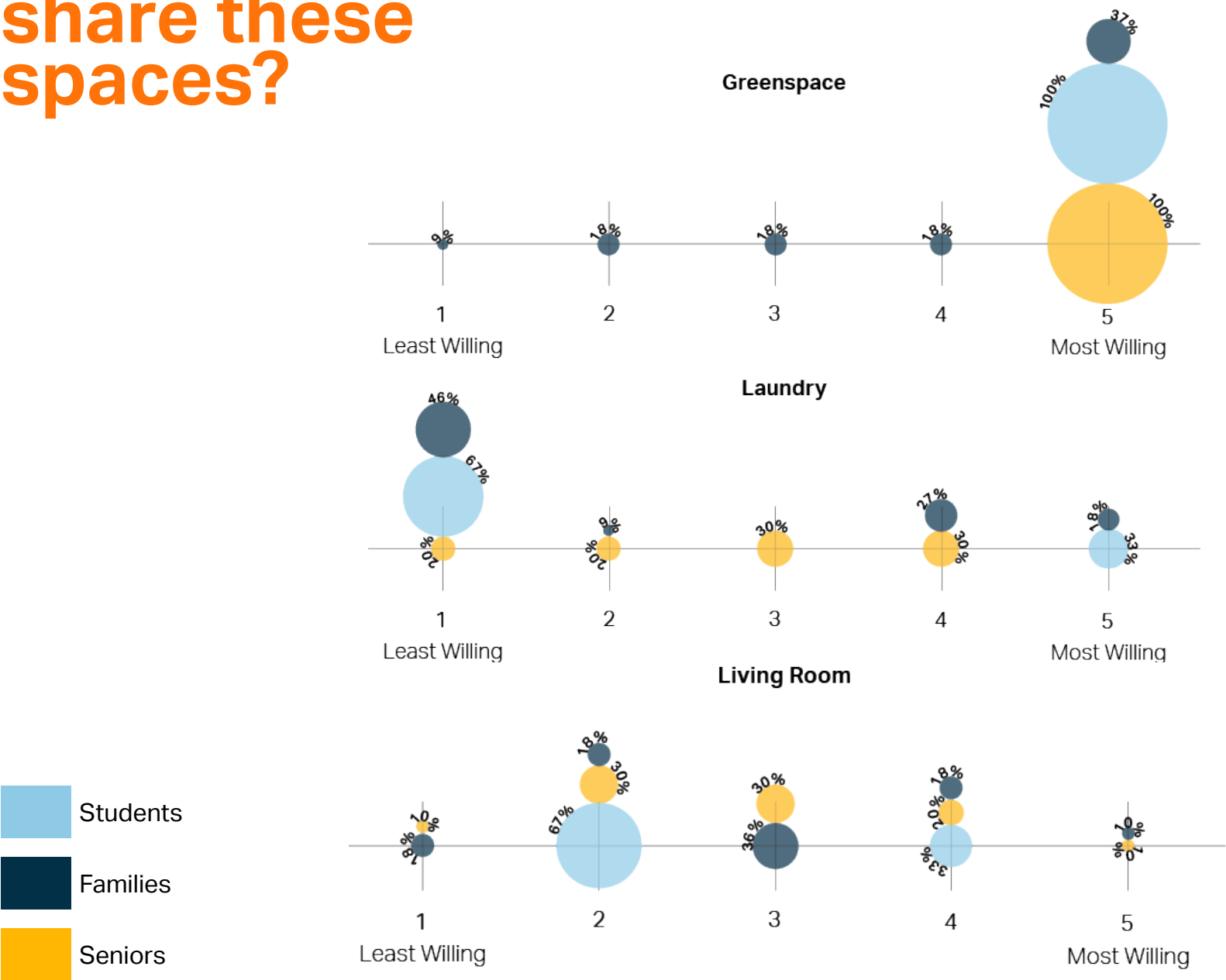


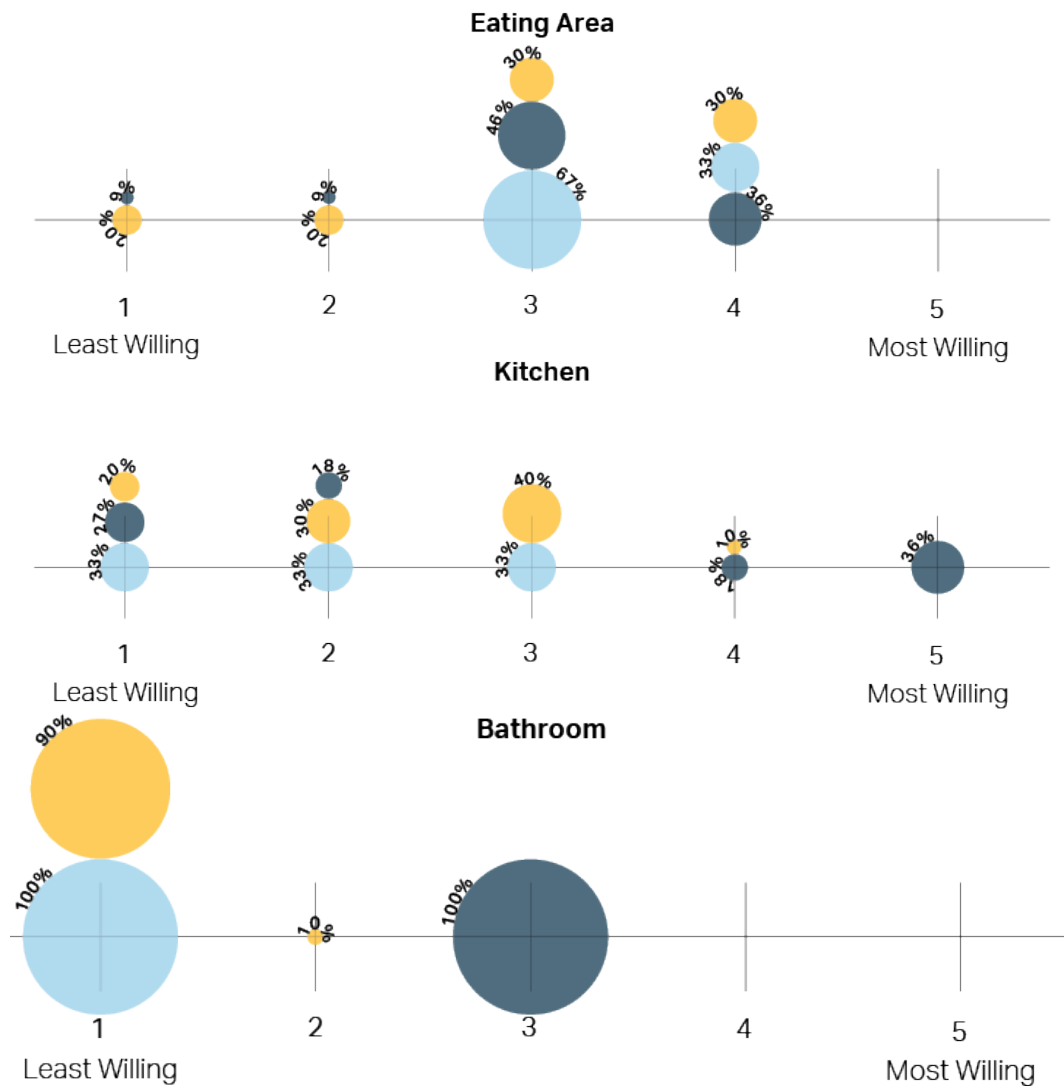


### Take Aways

- Co-housing is important to most people living in these communities
- Design spaces that allow residents to foster a successful co-housing community experience

# What is your willingness to share these spaces?



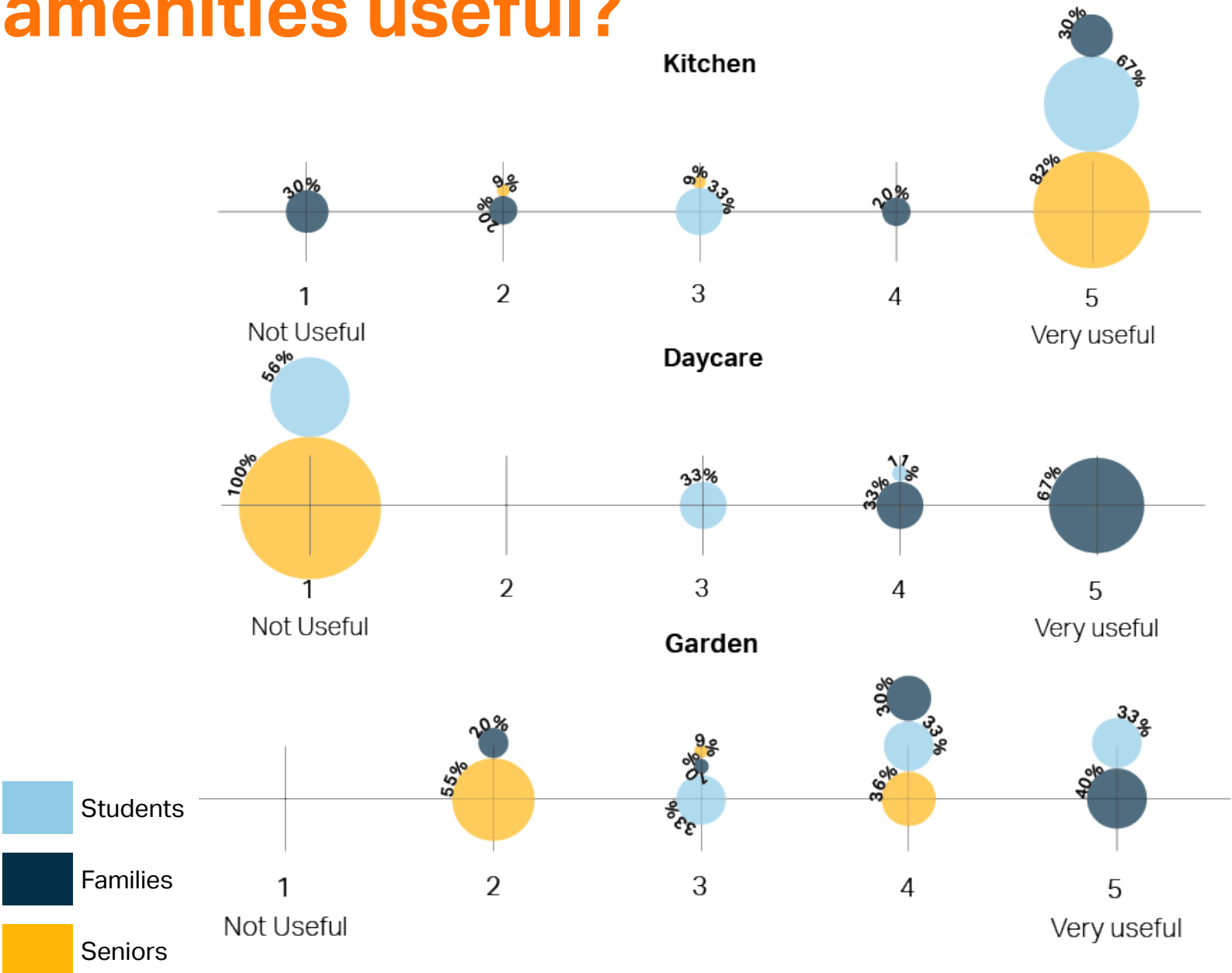


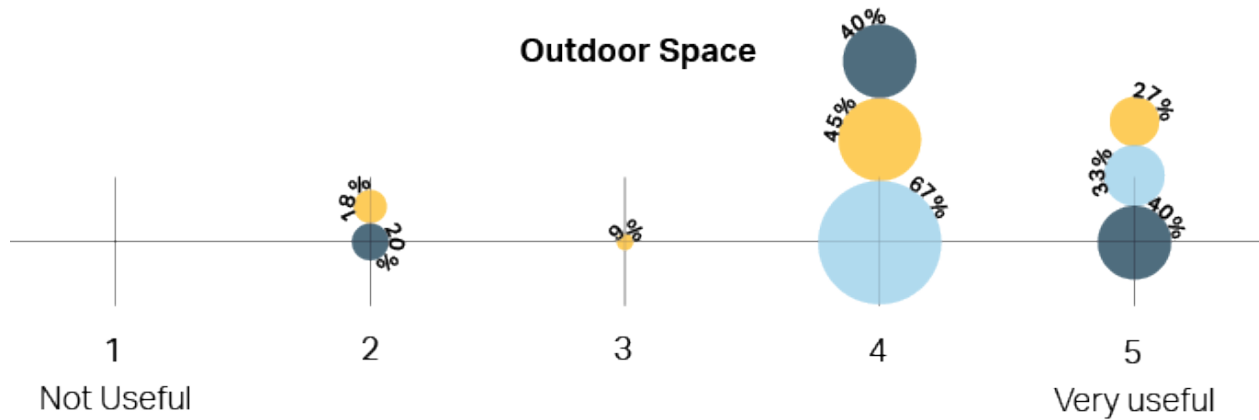
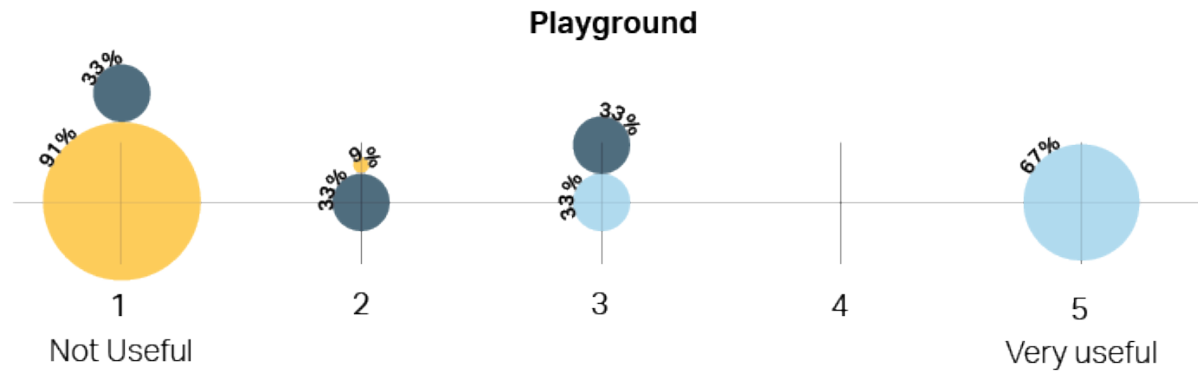
## Take Aways

- Community kitchens are an amenity that people are most willing to share other than outdoor space
- Families and students are more willing to share space



# Would you find these following community amenities useful?

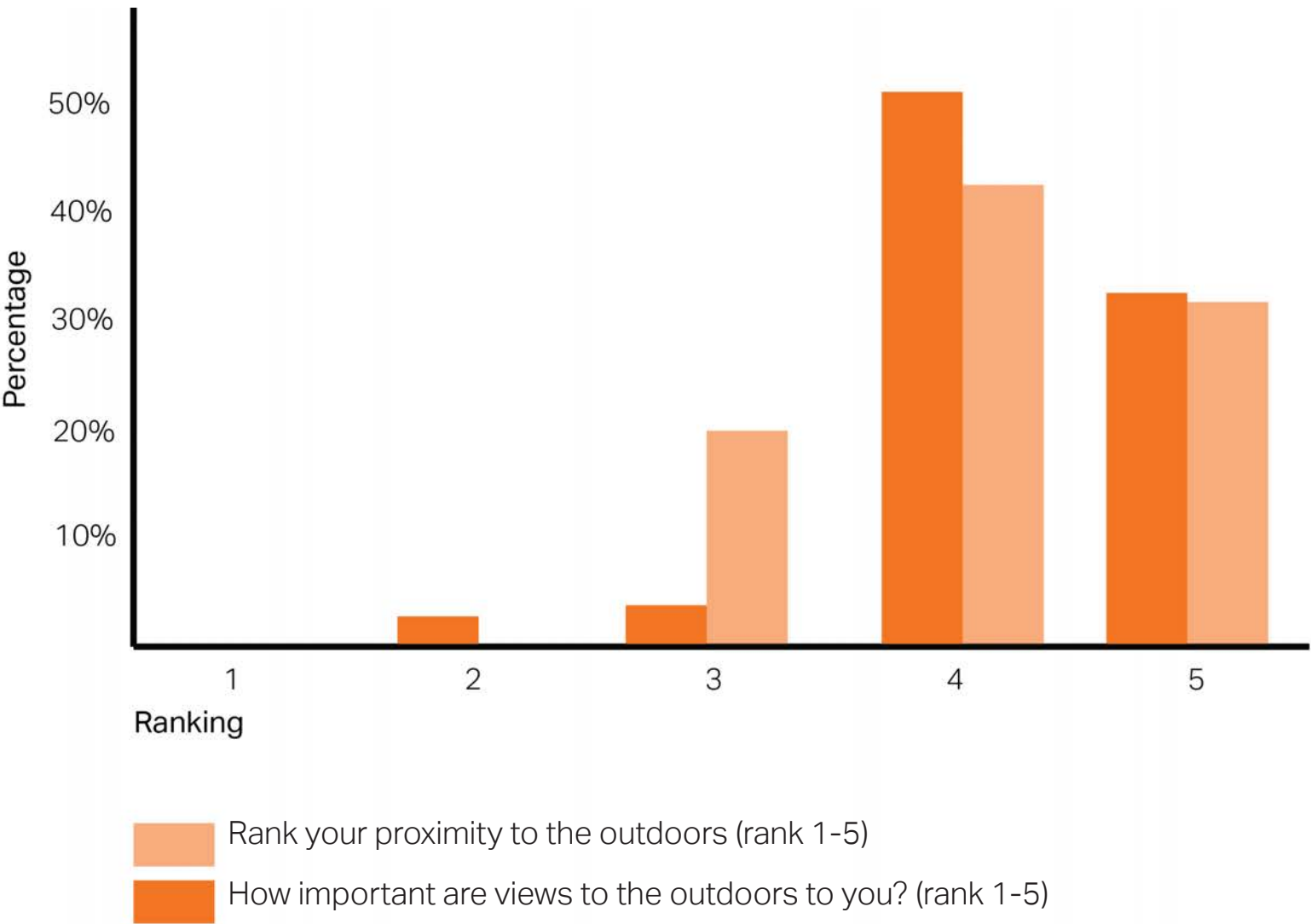




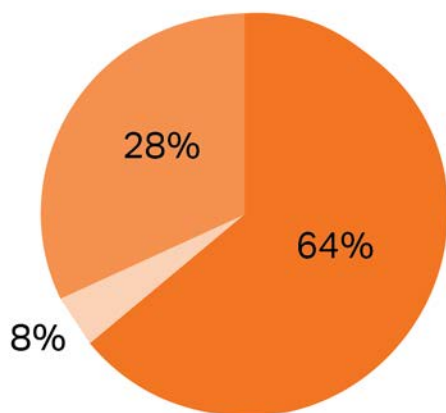
## Take Aways

- Shared amenities should be given to all groups based on the needs of each group

# "How would you rate your proximity to the outdoors?"



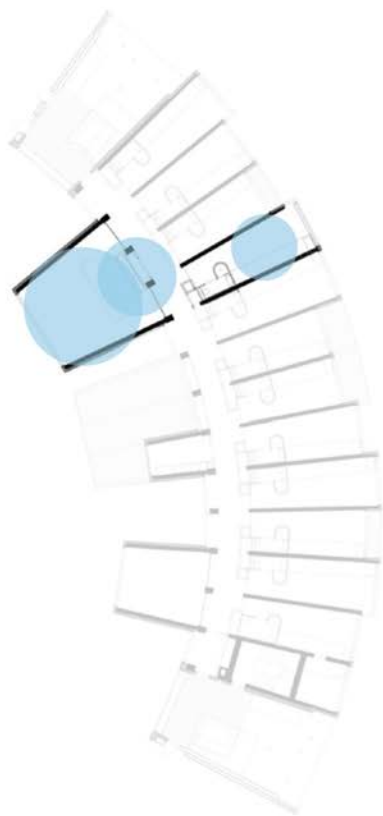
# "Does proximity to the outdoors influence where you live?"



## Take Aways

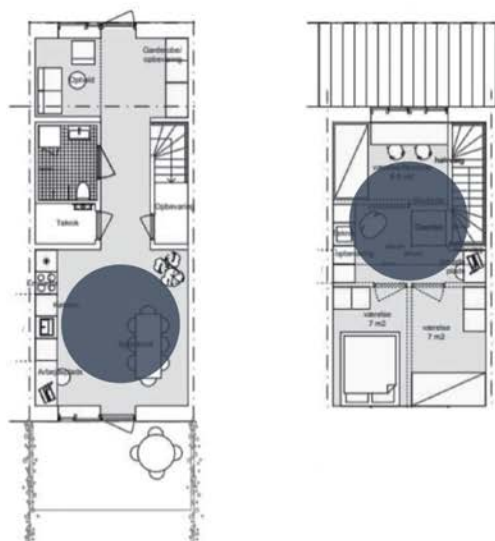
- Proximity to outdoor space is very important for residents.
- Views to nature and person/private outdoor space should be prioritized

## Students



Living	54%
Kitchen	27%
Bedroom	19%

## Families



Living	66%
Kitchen	34%

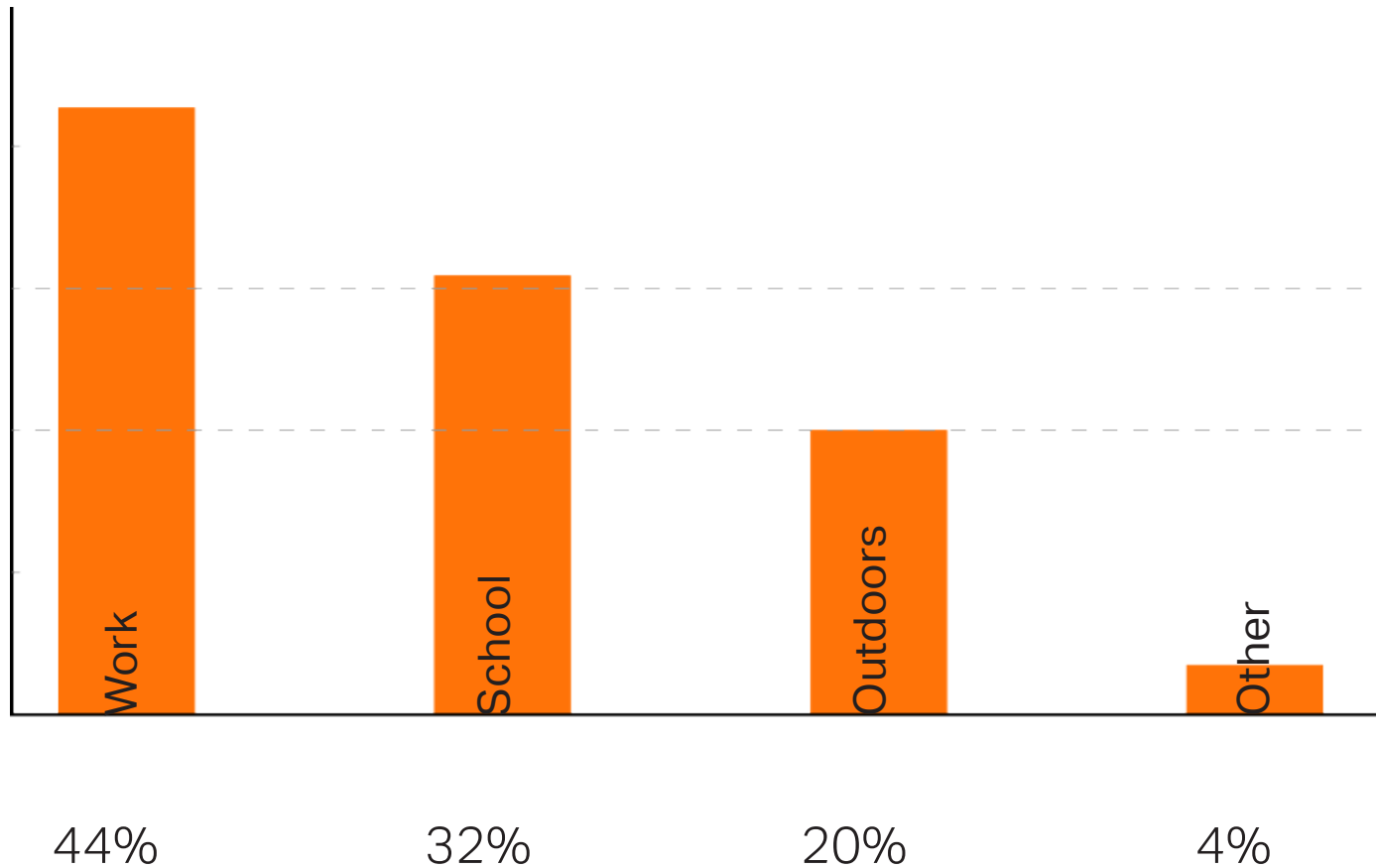
## Seniors



- Residents spend most of their time in their living areas and kitchens
- Bedrooms can be made smaller and most of the area in the home should be dedicated to gathering space or entertaining space



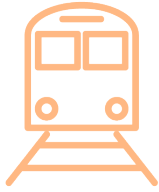
**"Where do you spend the most time outside of your home?"**



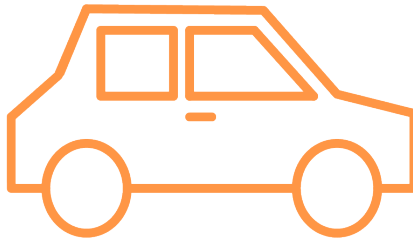
# What is your primary mode of transportation?



12%



12%



24%

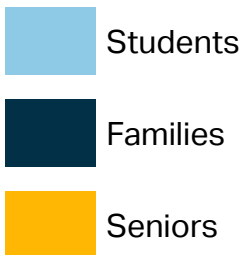
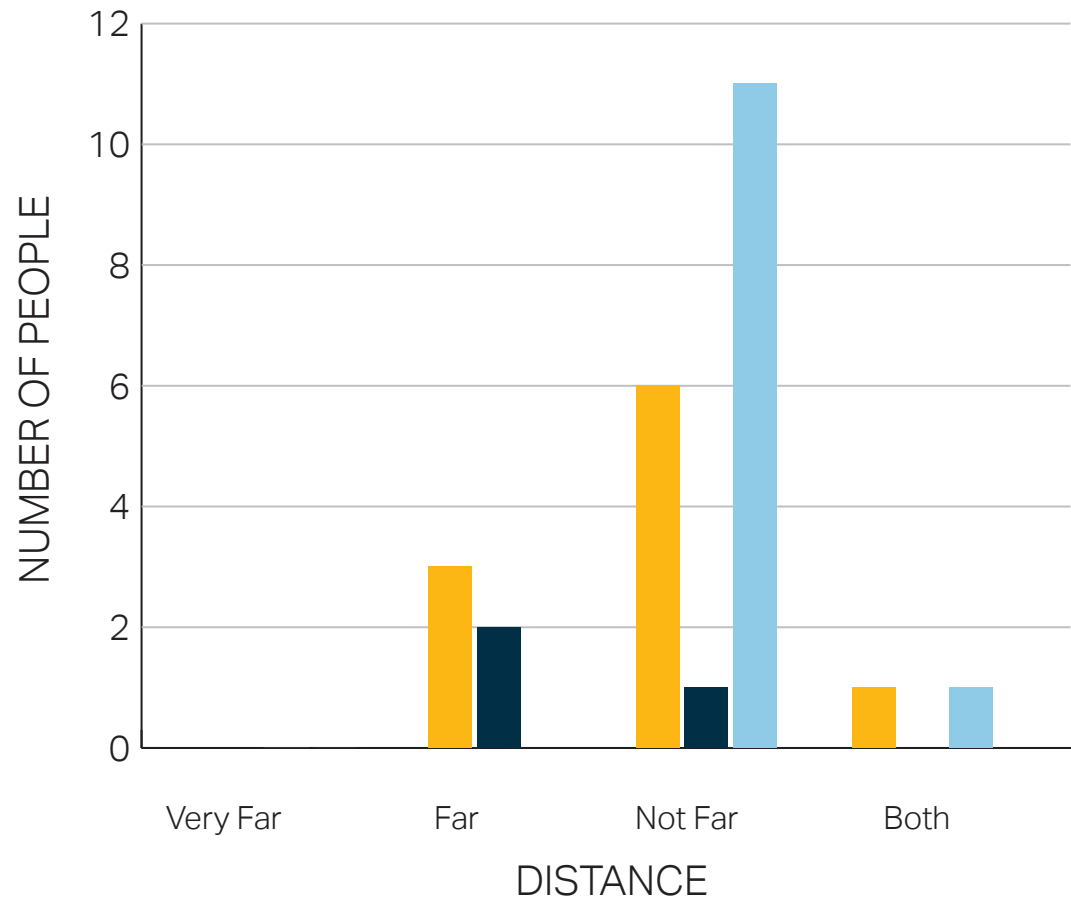


52%

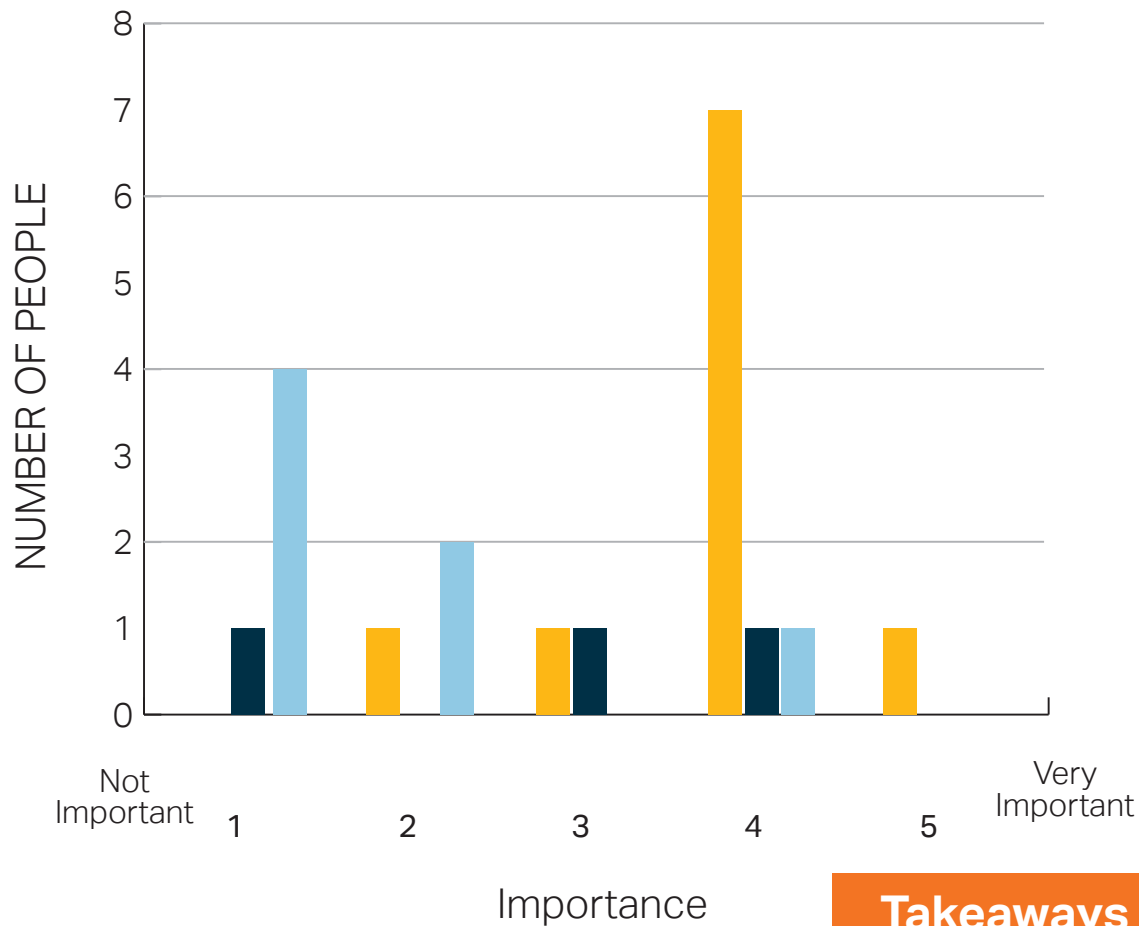
## Takeaways

- People primarily spend their time at work
- The primary mode of transportation is the bike

# "How far do you travel to work / leisure?"



# "How important is it to you that you are within walking distance of where you need to go?"



## Takeaways

- Distance to work and leisure from the home is not a problem. Private and public transportation is sufficient.

# What is your favorite part of the community you live in?

movie nights  
shared spaces  
common goals  
**People**  
socializing  
kitchen  
eating area  
party  
social life  
community  
space

friends  
common  
space  
**Community**  
green space

close to  
nature  
**Garden**  
activities  
atrium  
parties  
themed

- Students
- Families
- Seniors



## Takeaways

- Most residents enjoy the community environment of their current co-housing situations
- Gardens, kitchens, outdoor spaces and shared common spaces are the most popular



# If you could, what would you change about the community you live in?





## Takeaways

- Most people wouldn't change anything about their co-housing communities
- Most people want more outdoor space, more space for gathering, and more opportunities for shared interaction



Udvalg af  
**Welcome**



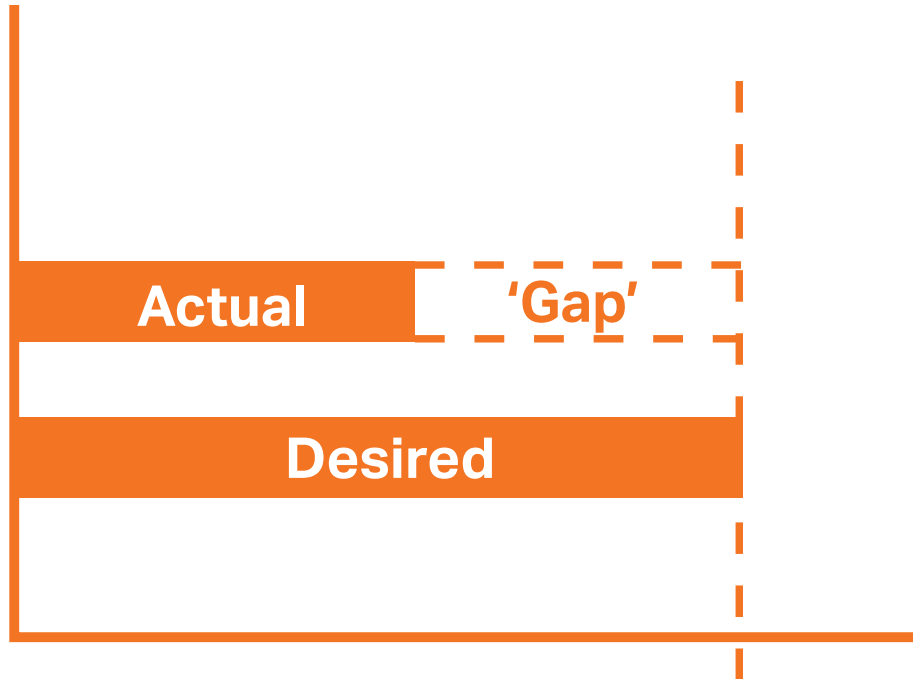
No smoking  
please



# Gap Analysis

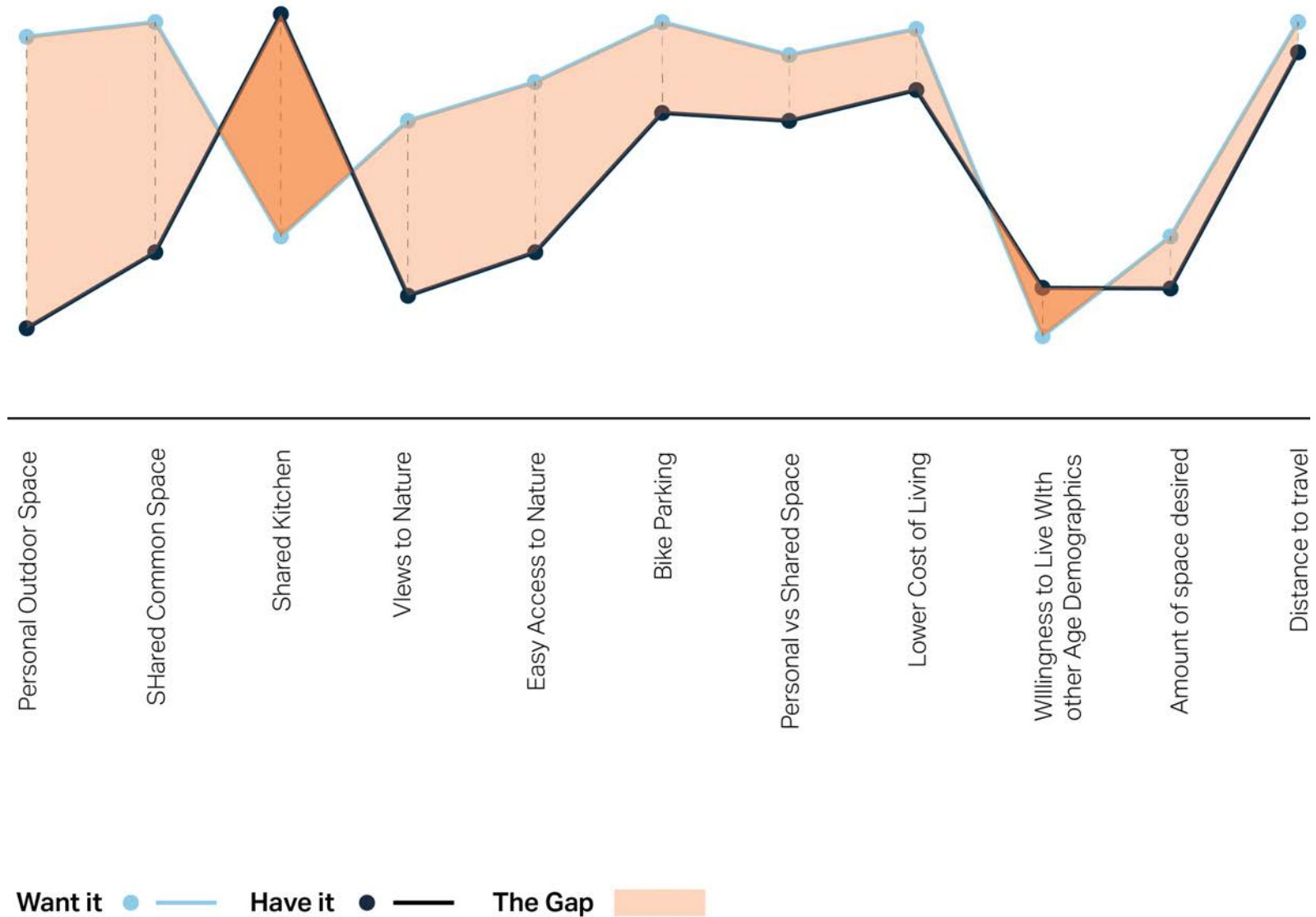
# Gap Analysis

A gap analysis looks at two questions: **'Where are we?'** to establish a baseline data set for a given situation, and **'Where do we want to be?'** to determine the desired outcome from the situation. The gap in between these two data points can help designers answer the question of **'How do we get there?'**





# Gap Analysis Findings



## GAP ANALYSIS | COST OF LIVING

### Average rent in Copenhagen

1 room in multi-room apartment = 5,000 DKK avg

1-2 rooms + kitchen = 9,000 DKK avg

2-3 rooms + kitchen = 14,000 DKK avg

4-6 rooms + kitchen = 16,000 DKK avg +

Rent Per Month:	Seattle	Copenhagen
1 bdrm apartment in the city center:	\$1,588	11,996 kr
1 bdrm apartment outside of center:	\$1,186	8.956 kr
3 bdrm apartment in the city center:	\$2,436	18,400 kr
3 bdrm apartment outside of center:	\$1,864	14,077 kr

● Gammelhorn Og Nyhavn

● Amagerbro Øst

● Ørestad Syd

Rent is approximately  
**35% cheaper**  
in Copenhagen, Denmark than  
Seattle, Washington.

SKRÅNINGEN I  
IN LEJRE

133 DKK/m2

3(2) bdrm  
177m2  
42.000 DKK

1 rm in 2 bdrm  
12m2  
6,00 DKK

1 rm  
7.





## How do we make rent more affordable?

**1 rm in 2 bdrm**  
20m<sup>2</sup>  
8.000 DKK

Smaller square meters

Modular construction

**1 rm in 3 bdrm**  
11.5m<sup>2</sup>  
5.000 DKK

Material reuse and materials on site

Shared spaces-compact private spaces

**1(studio) bdrm**  
48m<sup>2</sup>  
10.250 DKK

Rectilinear/simple structure grids

Not wasting materials

**3(2) bdrm**  
177m<sup>2</sup>  
14.500 DKK

Leave what's there, there

## GAP ANALYSIS | COMMUNAL SPACE RATIO

### Bovieran:

55 Units

Kitchen: .62m<sup>2</sup>/unit

Gather: 4.95m<sup>2</sup>/unit

Laundry: 0m<sup>2</sup>/unit (in-unit)

Green Space: 15.23m<sup>2</sup>/unit

### Tietgan:

360 Units

Kitchen: 3.8m<sup>2</sup>/unit

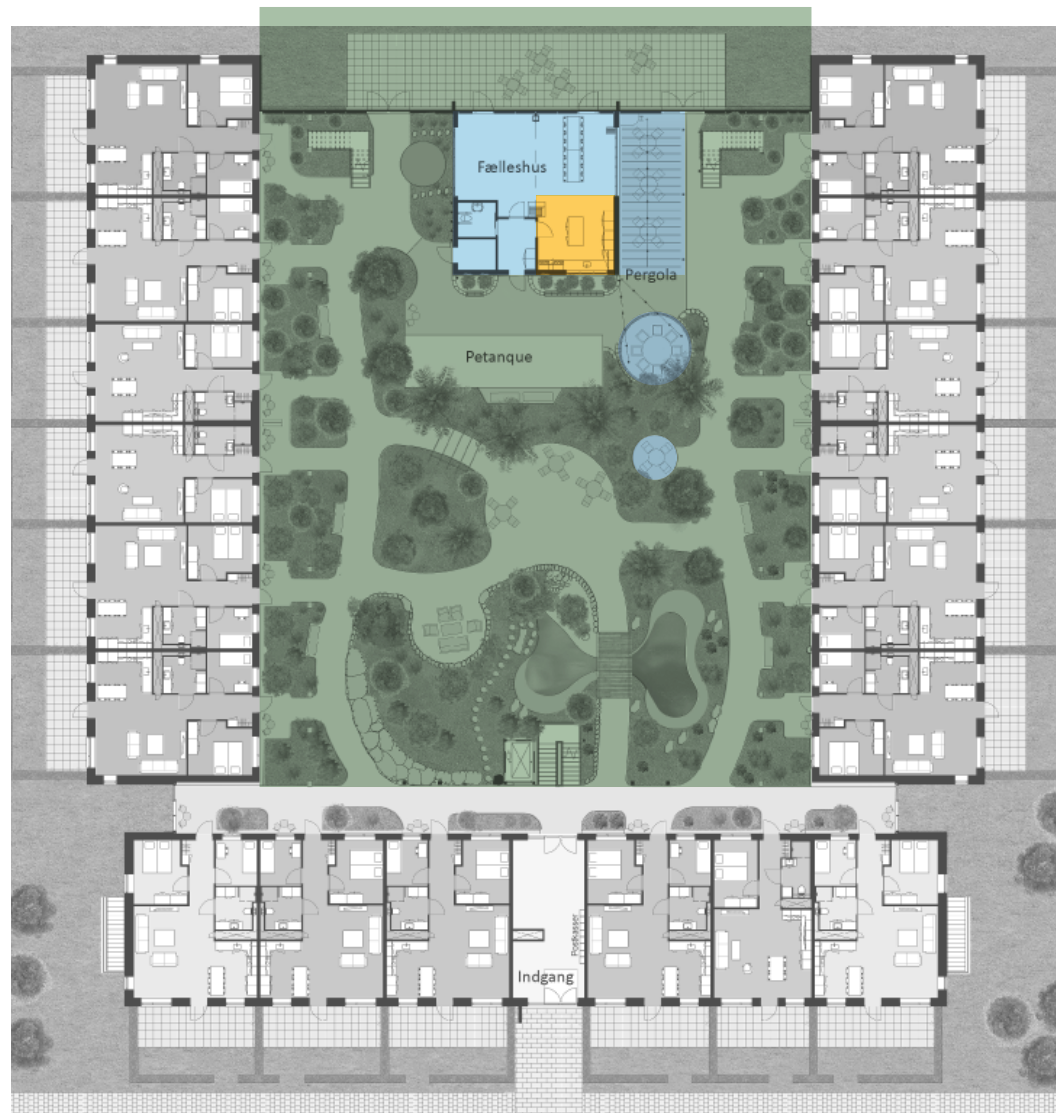
Gather: 3.23m<sup>2</sup>/unit

Laundry: 0.47m<sup>2</sup>/unit

Green Space: 9.1m<sup>2</sup>/unit

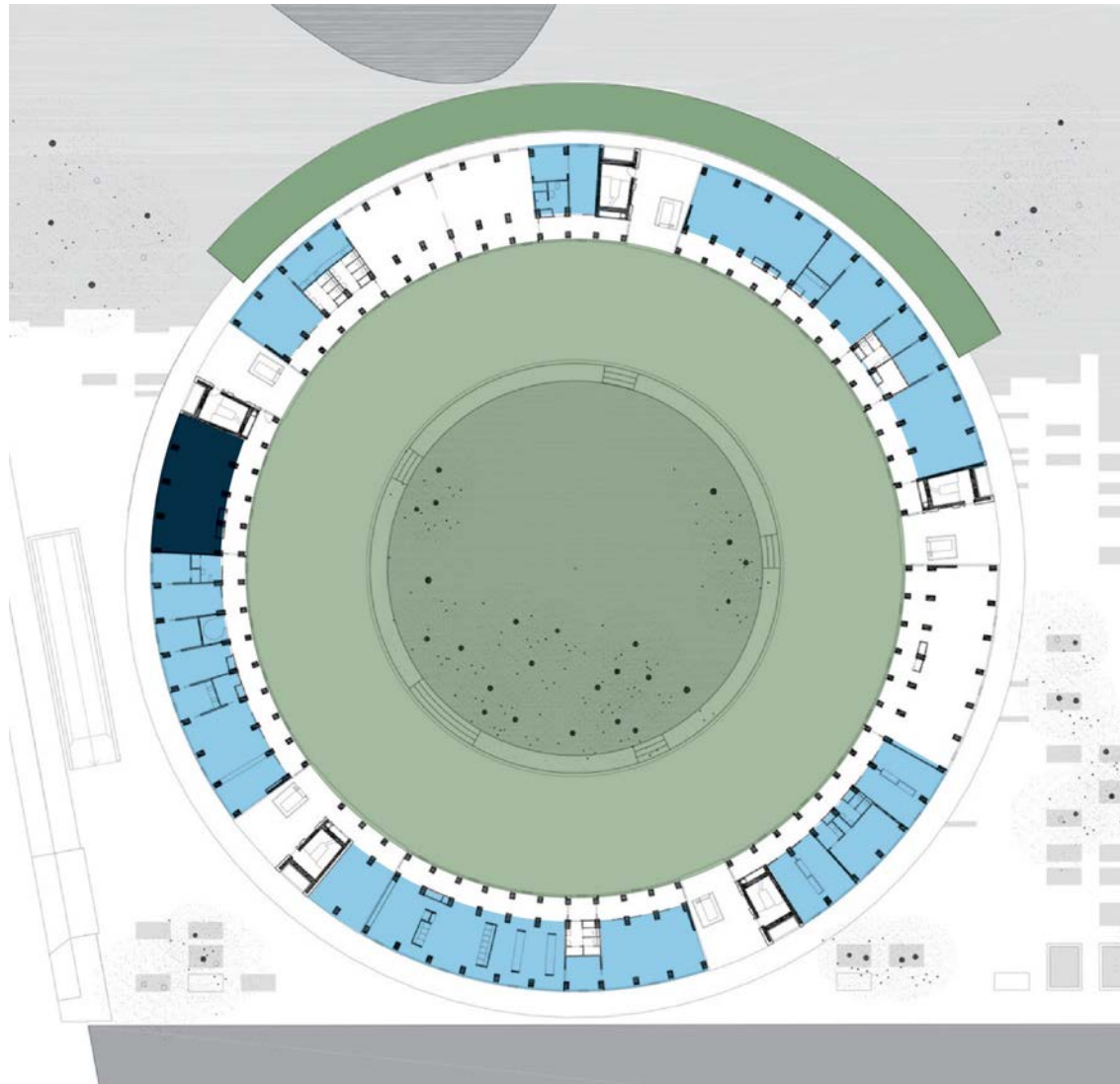
The Communal Space Ratio (CSR) has been developed to provide a better understanding of the parameters surrounding communal space in the gap analysis. Through the study of two of the case study sites, we began to determine how to strike a balance between shared and private space, and determine how to maximize communal space. The numbers above can serve as a guideline in tandem with the anthropological studies to find when spatial allotments create a gap in what residents have and what residents want.

Kitchen space has been noted as a primary source of disagreement. Bovieran residents wished for more, while Tietgan found they were satisfied with their kitchen space. When we compare the CSR, we see that the Tietgan residents have much more communal kitchen space per unit, which we surmise to be a more appropriate amount of space than Bovieran.



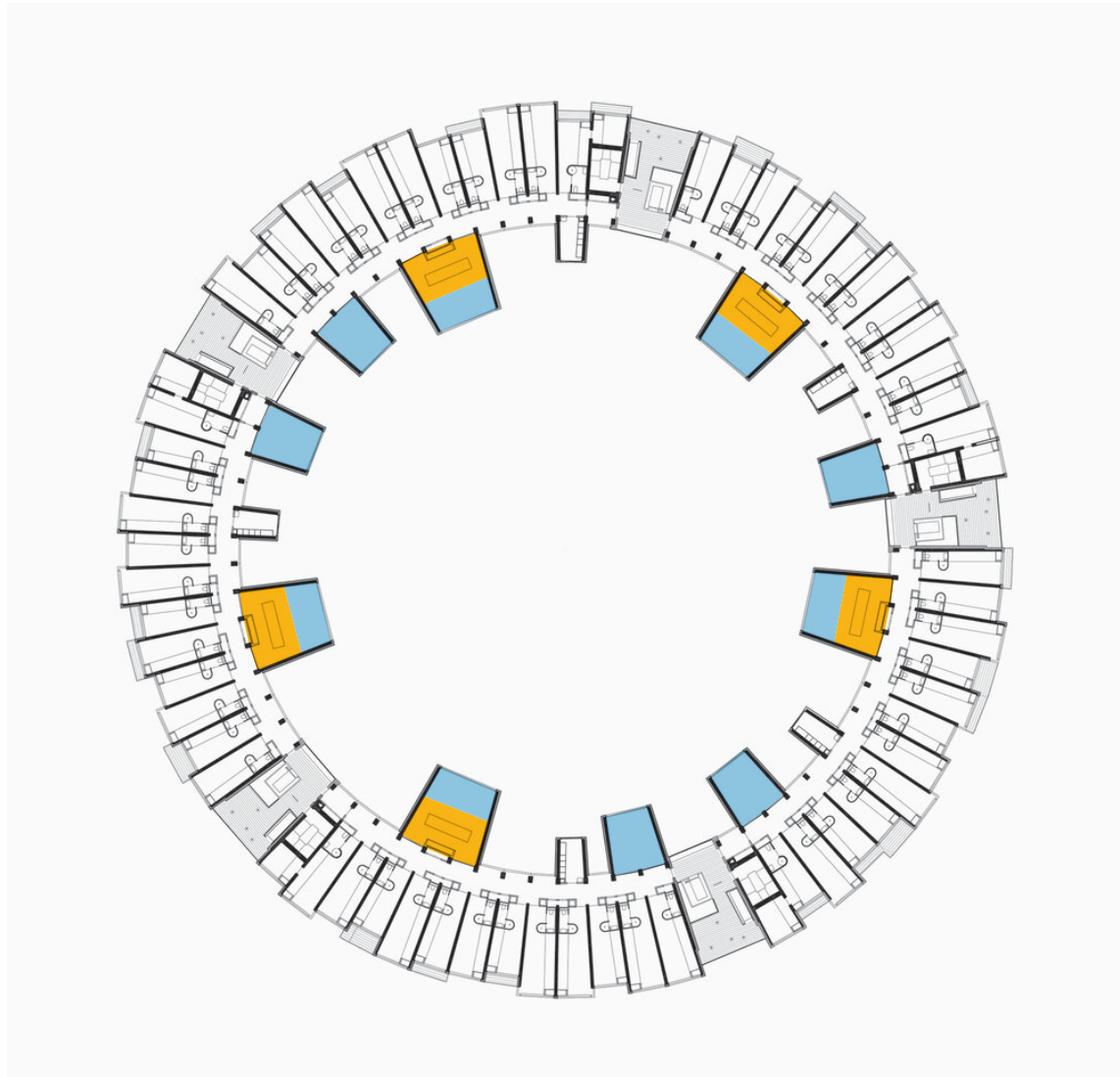
- GATHERING
- GREEN/OUTDOOR SPACE
- KITCHEN
- LAUNDRY

Bovieran



- GATHERING
- GREEN/OUTDOOR SPACE
- KITCHEN
- LAUNDRY

Tietgan Ground



Tietgan Residential



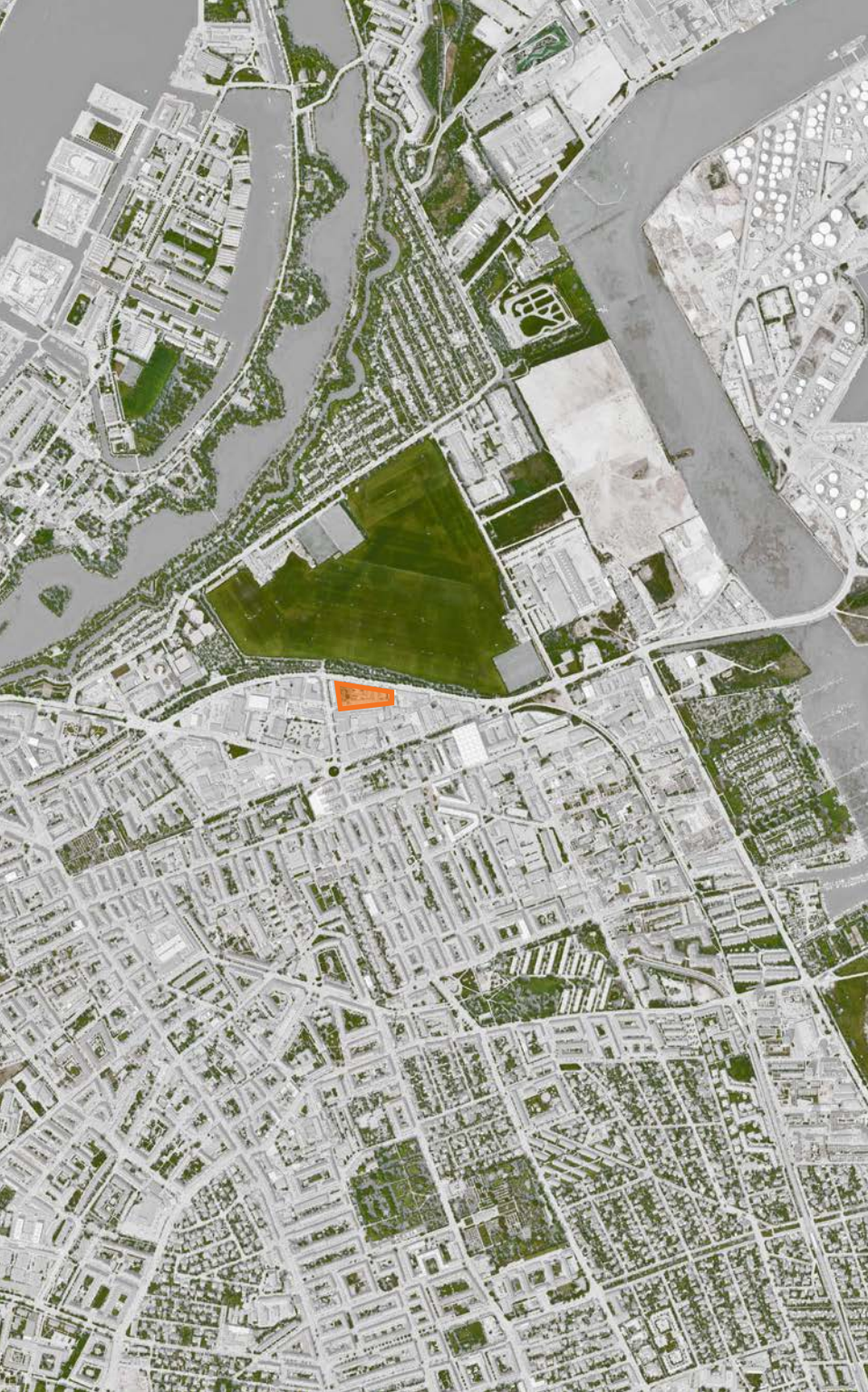
## GAP ANALYSIS | Flexible Living

Changes in life can trigger the need for a new living condition, such as a marriage, birth of a new child, adopting a pet or a starting a new occupation. The COVID-19 pandemic was a life changing event for many, as we found ourselves working, teaching and studying from home. While those living in single family homes found the programmatic shift in their homes easier to manage due to space flexibility and availability of private spaces, those confined to smaller homes or apartments were relegated to makeshift workspaces in their bedrooms, closets and kitchen.

The difficulty of adapting spaces in multifamily projects to changing needs suggests a design challenge ripe for a solution. During our interviews we heard several stories of people ‘growing out’ of their home, the unfortunate reality that they would need to leave their familiar homes to accommodate the changes in their life circumstances. We also heard insights from people about creative ways to make more effective use of space within the confines of a home such as ways to create multi-purpose spaces that are adaptable to different activities at different times during the day.







## GAP ANALYSIS | Access to Nature

Many residents expressed their desire to live with close access or views to nature. From places for children to play or adults to recreate, the integration of indoor life with the outdoors is crucial to a healthy and sustainable living condition. The map shown on the left illustrates green spaces in proximity to the project site.

Supporting opportunities that foster interaction with the surrounding environment or implementing strategies that promote integration with natural systems and outdoor living are important elements of a people and planet positive living condition.







# Community Studies

# CPH Village

Project Location: Vesterbro, Copenhagen

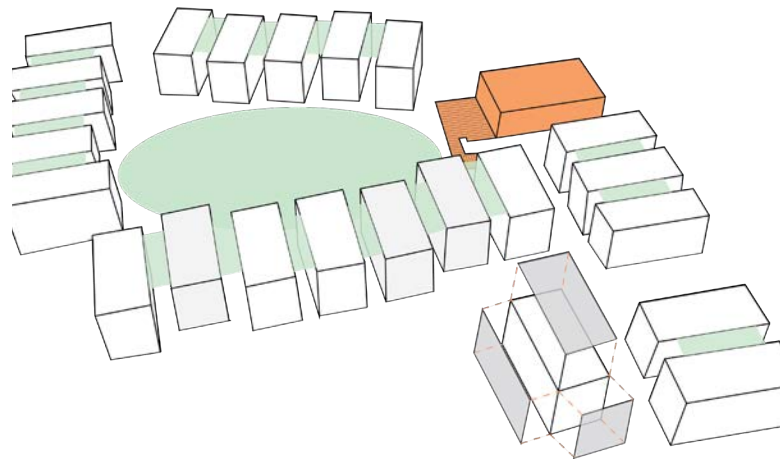
Project Type: Student Housing

Architect: Arcgency

Completion Date: 2020

Copenhagen Village located at the edge of the future Jernbanebyen development in Vesterbro is the second of five proposed student housing developments aimed at promoting sustainable living that addresses the **social, economic** and **environmental** dimensions of housing.

Micro living, modular architecture, and design for disassembly are some of the methods used to achieve the project's triple bottom line goals of **profit, people** and the **planet**. There are a total of 92 wooden modules made from steel and sustainably sourced wood housing 185 residents. They each have a small kitchenette and open space connected to a second unit with a shared bathroom. The units have individual outdoor space in addition to a large, shared courtyard the provides a connection to nature, along with a communal kitchen and living space. One issue identified by residents was the challenge of keeping common areas clean, but residents were generally satisfied with life at the CPH Village.











The living space, outfitted as an office in this example.



The kitchenette found in each unit.







Shared entryway between units creates spaces for social connection and a chance encounter.

Shared community room includes a large club kitchen, long tables, and study spaces for residents.



# Tietgenkollegiet

Project Location: Copenhagen.

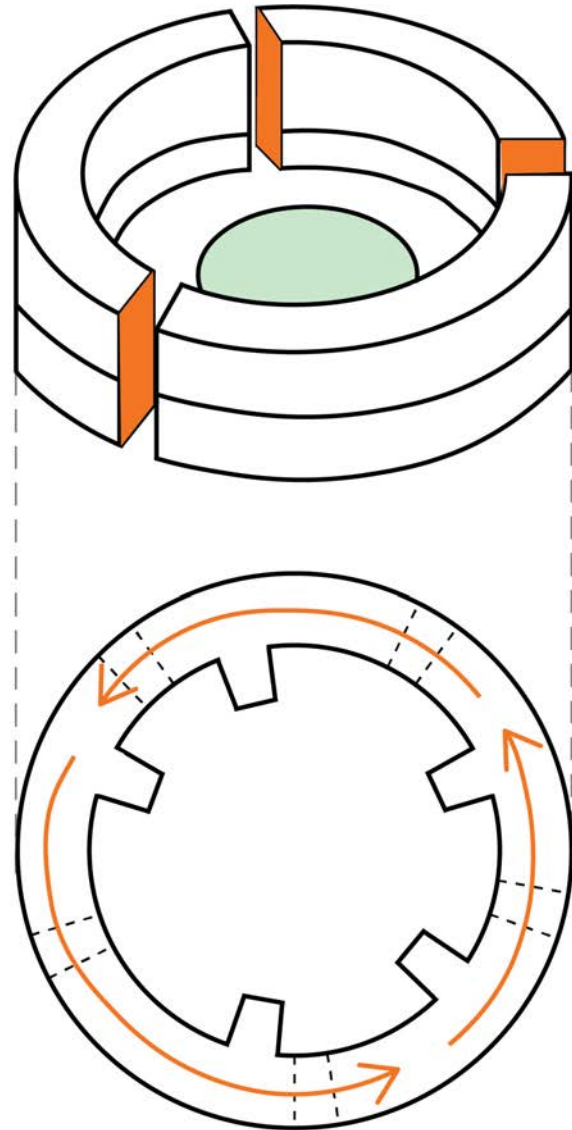
Project Type: Student Housing

Architect: Lundgaard & Tranberg Architects

Completion Date: 2005

Tietgan is a **student residential hall** located in the Orestad district of Copenhagen. The bottom floor of the building houses flexible community spaces that include bike storage, study rooms, laundry, and administrative offices. The six upper floors are where the students' apartments are located which include a range of 26-33 square meter single or couple rooms. They are separated into "kitchens" where groups of students share communal spaces. There are a total of 30 kitchens, each accommodating 12 students sharing a **communal kitchen and living area**.

The building encircles an outdoor courtyard which is shared by all residents. Additional outdoor spaces include several large outdoor terraces on each floor, open breezeways that pass through the building at circulation nodes, and individual balconies on the outside of the ring.

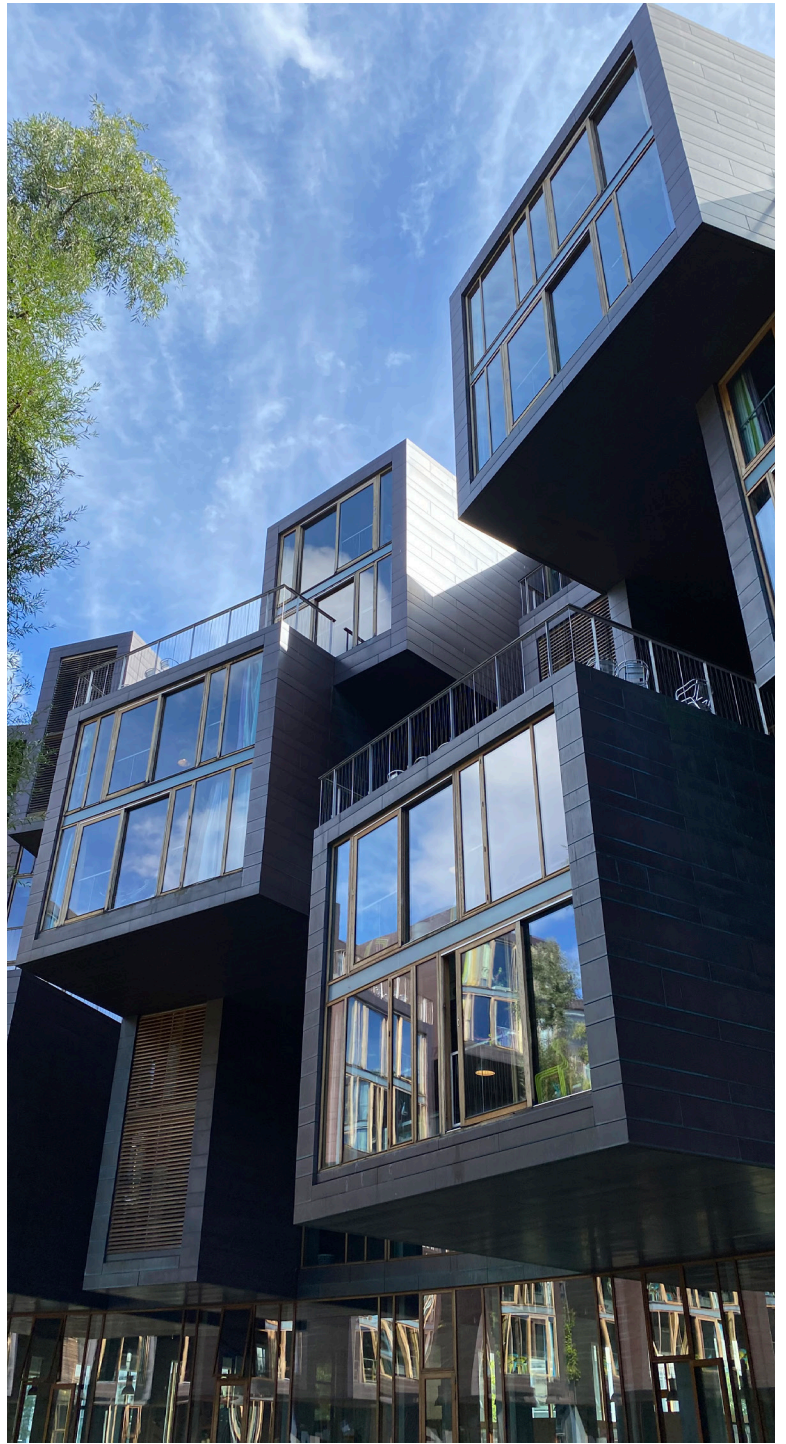












# Skråningen

Project Location: Lejre

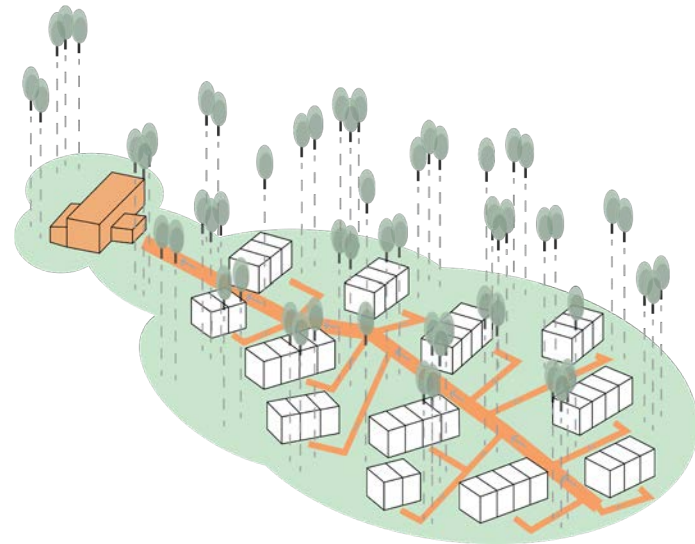
Project Type: Adult & Family Housing

Architect: Vandkunsten

Completion Date: 2019

This “Eco Village” located in Lejre, is a cooperative housing village made with prefabricated clustered housing units. The units vary in size to accommodate both young and growing families and independent adults of all ages. They are 7.5 meters deep to ensure generous daylighting, fresh air and views of nature. The project contains 12% communal spaces which includes a kitchen, dining room, living room, teen room, and a flexible indoor/outdoor recreation space.

Each member is required to contribute to communal meals, either in time or money, and assist in keeping all communal areas clean. The village also hosts ‘town hall’ meetings run by a board of residents. The village was designed for an intimate connection to nature, providing everyone access to a greenspace that serves as a gathering and play space as well as a stormwater bioswale.



The rules that govern the community are intentionally a work-in-progress that will grow organically to address issues as they arise. For instance, they are experimenting with ways to resolve disputes over open space by designating an equal amount of outdoor space to each household. Residents we met enjoy living here and appreciate the access to nature and the flexibility of communal and private spaces.













The threshold between indoor and outdoor communal space.



A portion of the communal living space.



A residents in-unit living space.

An example of a residents personal outdoor space in use.

# Bovieran

Project Location: Hedehusene, Denmark

Project Type: Senior Co-living

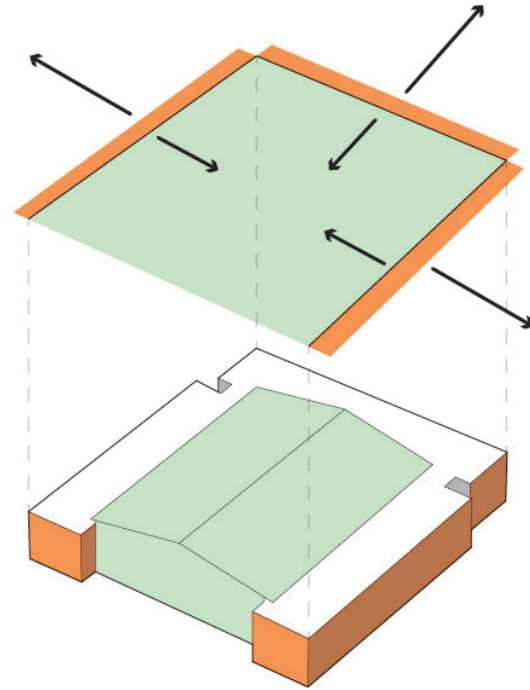
Architect: Sjølsø Management

Completion Date: 2020

Bovieran is a senior living community located in Ishøj, about 45 minutes by train from the center of Copenhagen. This community functions like a cooperative, where people over the age of 55 can purchase a dwelling unit to “**age in place.**” When they depart, their purchase price is refunded, less monthly services fees, and their unit is re-sold.

The building is shaped like a “U” with 54 units on three levels. The Interior courtyard is enclosed by a glass greenhouse style gable roof that tempers the space, allowing a **tropical Asian garden** to thrive within the commons. Each apartment has a balcony or patio on the exterior side and a small entry “porch” on the interior side which residents personalize with furnishings and artifacts. There’s also a guest unit that is rentable by anyone in the community for family or friends.

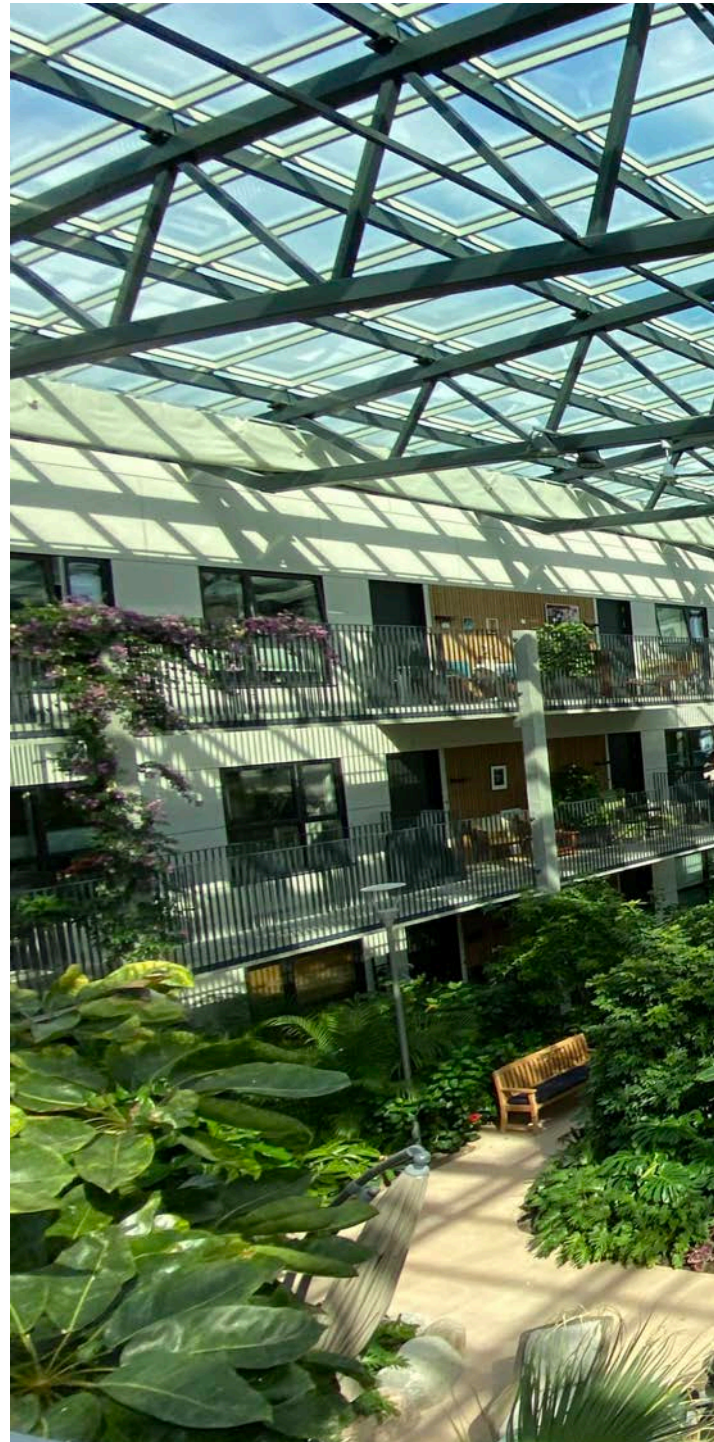
Residents of Bovieran were uniformly enthusiastic about living here and expressed that it's an ideal environment to age in place with a community of peers.



















ORIGINAL  
EZUP  
BIKES

G13  
Bicycle Design  
Product Engineering  
Advanced Construction



# 08

## Our Site



# Velkommen til Copenhagen

Copenhagen is emblematic of so much of what makes living in a city special. Its focus on humane urban living, bike transport, artistic expression, outdoor social life, and access to nature has made it a unique haven of modern metropolitan life.

The capital of Denmark spans some 112 sq. km. and is inhabited by 645,000 residents in its urban core. Copenhagen is marked by its long and sunny summer days, long and rainy winter nights, rolling landscape, and a close relationship with the water. Its ten districts are filled with parks, colorful houses, and thoughtful modern architecture.





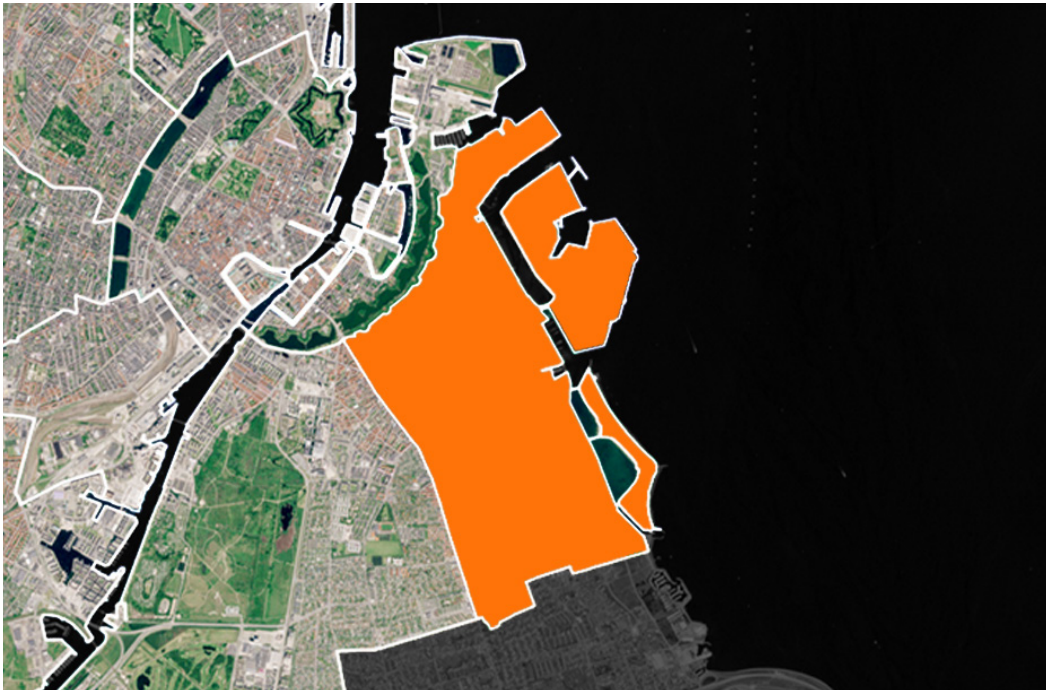




# This is Amager Øst

Amager Øst occupies the southeastern district of Copenhagen city. Within the district is the busy Amagerbro shopping and transit area between Amager Øst and Amager Vest.

Amagerbro was once a run-down industrial area which has in recent years seen a large influx of development and construction as the city expands and densifies. This has caused concern among the creative community who call North central Amager Øst home. To its Eastern edges, Amager Øst is lined by new construction and waterfront activity. This diverse neighborhood will be the focus of our studio.



# Amager Øst Demographics



**Population:** 61,100

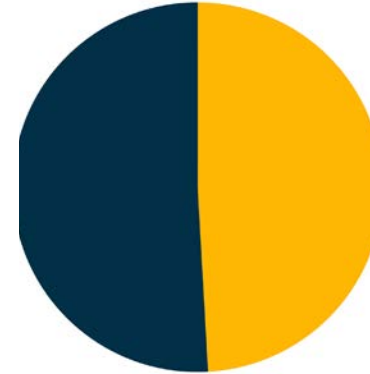


**Area:** 9.779kmsq

**Density:** 6,257kmsq

**Gender**

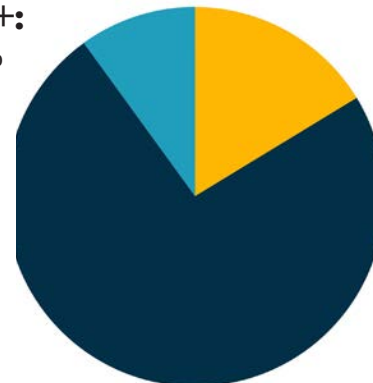
**Male:**  
49.1%



**Female:**  
50.9%

**Age Demographics**

**65+:**  
10%



**0-17:**  
16.3%

**18-64:**  
73.7%





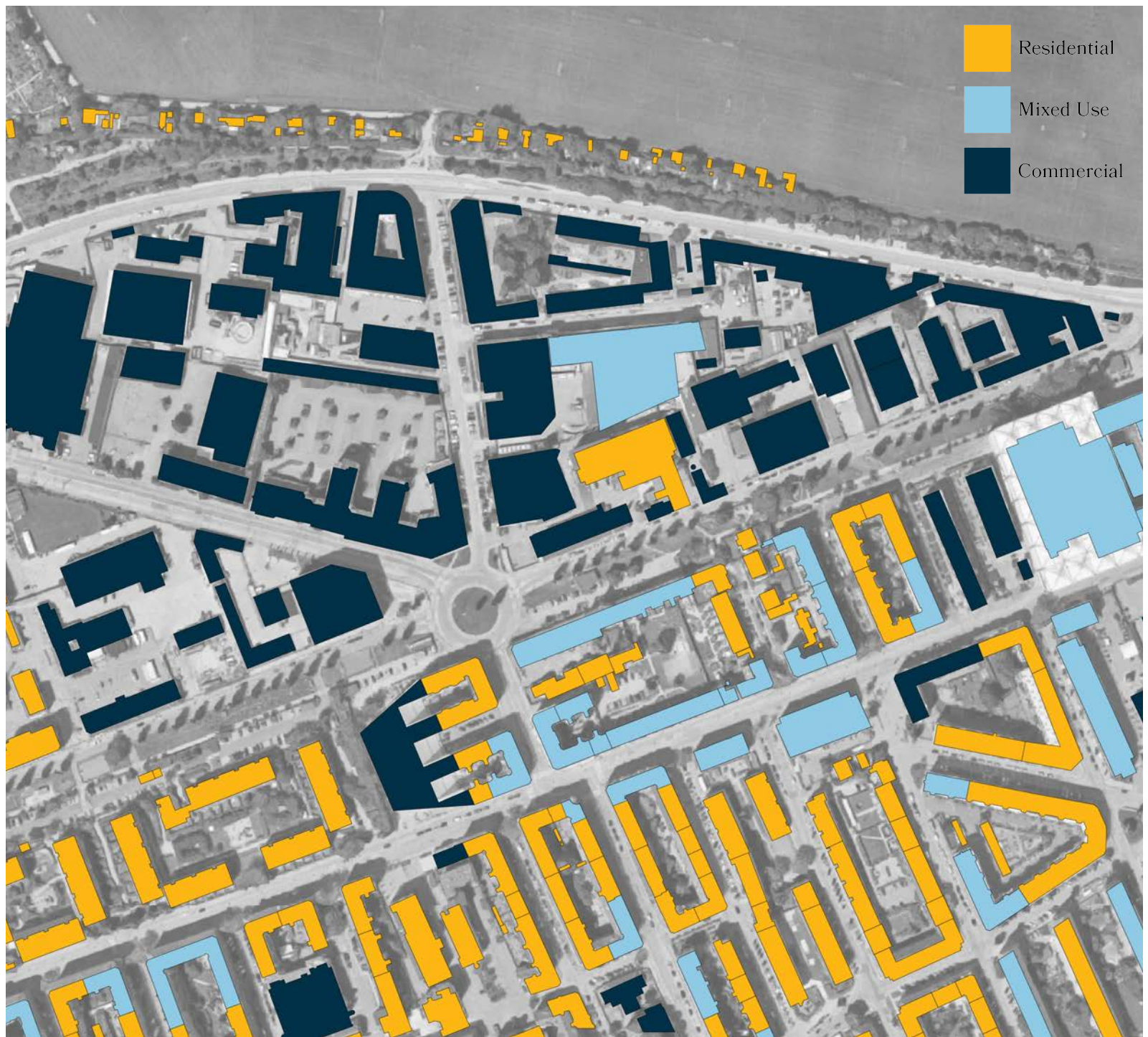
# Our Site: Siljangaden 1

Amager Øst is the most southeastern district of Copenhagen city. Within the district is the busy Amagerbro shopping and transit area between Amager Øst and Amager Vest.

Our site is located near the northern end of the district in the Siljangaden neighborhood.







# Resources

This map illustrates the current resources that are within a 10 minute walking distance from the site. This provides information about the context and additional assets in the neighborhood to inform program development.

- Restaurant ●
- Bike Shop ●
- Coffee ●
- Grocery ●
- Art Gallery ●
- Day Care ●
- Fitness ●











① City soccer fields



② Kløverengen Municipal Gardens



③ Christiana



④ Holman Dirt Jump n Pump Track



⑤ Hundestranden



⑥ Amager Beach Park



⑦ Lergravsparken



⑧ Vor Frelser Kirkegård



⑨ Amager Vest







4

3

1

2

5

8

7

6

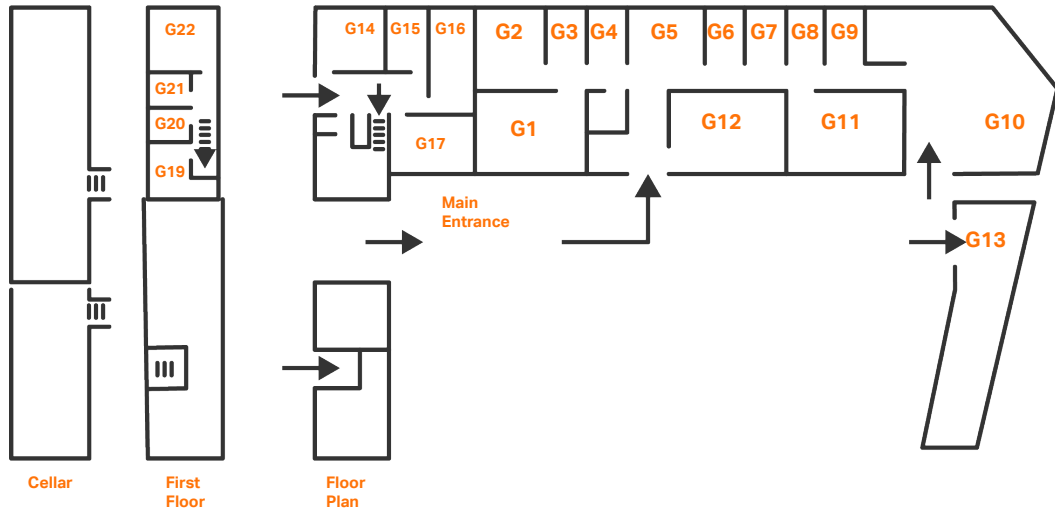
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# Current residents

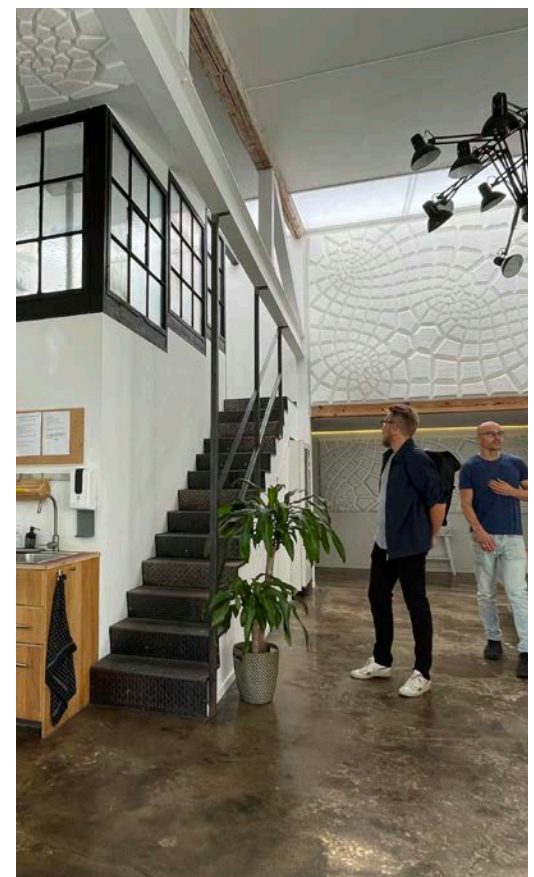
Siljangaden 1 is currently home to a coworking space for a variety of creatives and professionals. We toured the campus to get a sense of what makes this area special. The surrounding neighborhood has largely escaped gentrification and high-end housing development, and still offers affordable workspaces with communal kitchens and lounges. On the west end of the site there is a kindergarten in temporary structures. Both current uses of the site support the nearby neighborhoods of Amagerbro and encourage a vibrant social life.

- Photographers
- Filmmakers + Producers
- Graphic Designers
- Architects
- Furniture Makers
- Anthropologists
- Behavioral Health Experts
- App Developers
- Service Providers
- Writers



- |   |   |   |                                |                              |
|---|---|---|--------------------------------|------------------------------|
| <b>G1</b> Kristine Funch, Emilia Therese, Sune Czajkowski | <b>G5</b> MoveToGrow                    | <b>G10</b> Christian Vlum Studio  | <b>G14</b> Larslyd & Colorbach | <b>G22</b> 05 arkitekter ApS |
| <b>G2</b> Kamikaze Film                                   | <b>G6</b> Hydesomihejd Film             | <b>G11</b> Nabogo   | <b>G15</b> Van Horn            |                              |
| <b>G3</b> Studio Kolofon                                  | <b>G7</b> Studio Christian Prener       | <b>G12</b> Paper Studio   | <b>G16</b> Juul-Jensen         |                              |
| <b>G4</b> Atlas Flytteservice                             | <b>G8</b> Christian Vlum Studio         | <b>G13</b> Antonio Scaffidi, Clinton Stewart, Jesper Junge, Mogens Holm | <b>G19</b> Tideland Studio     |                              |
|   | <b>G9</b> Schaudman Nordgren Architects |   | <b>G21</b> Bonde Medis         |                              |





The Spaces are refinished to be bright and comfortable. Here Lasse is admiring the way the new stair is tied into the existing steel truss.

The interior of the old paper factory has been stripped and the structure revealed. A skylight that runs along the spine of the north wing pours light into the communal lounge.



# Co-Working spaces for local artists













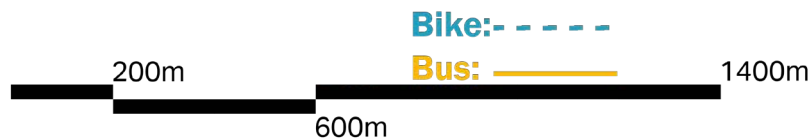




# Travel

Since the site is outside of central Copenhagen, paths of travel are very important to the success of this new project. This map illustrates all of the designated bike paths and bus routes around the site.

At a glance it's clear that public transportation is a central feature of Copenhagen's infrastructure. We came with an appreciation that buses can help a city be more open and accessible to its inhabitants, but this map illustrates that Copenhagen offers far more options for multi-modal travel than we have in Seattle. The future of development in Seattle should be informed by the interconnecting elements of Copenhagen's transportation networks that make it easy and efficient to travel across this city. The economic and public health benefits of these systems are great.









# Context and Arteries

Illustrated in this map are the primary, secondary, and tertiary roadways in the neighborhood around our site. Notice that our site is on one of the more heavily trafficked roadways in the neighborhood. This roadway also serves as a buffer to the neighborhood's inner corridors.

How should this project relate to the busy, faster moving thoroughfare on the north, and the smaller, slower neighborhood streets on the south and west? Can this project connect more meaningfully to the large green space across the street to the north? Can it support more people without disrupting the current movement of people on their feet and bikes or in cars and busses?

Primary



Secondary



Tertiary



Bike



Site

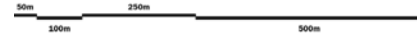






# Walking Distance

Average Walking Distance





# Biking Distance

Average Biking Distance





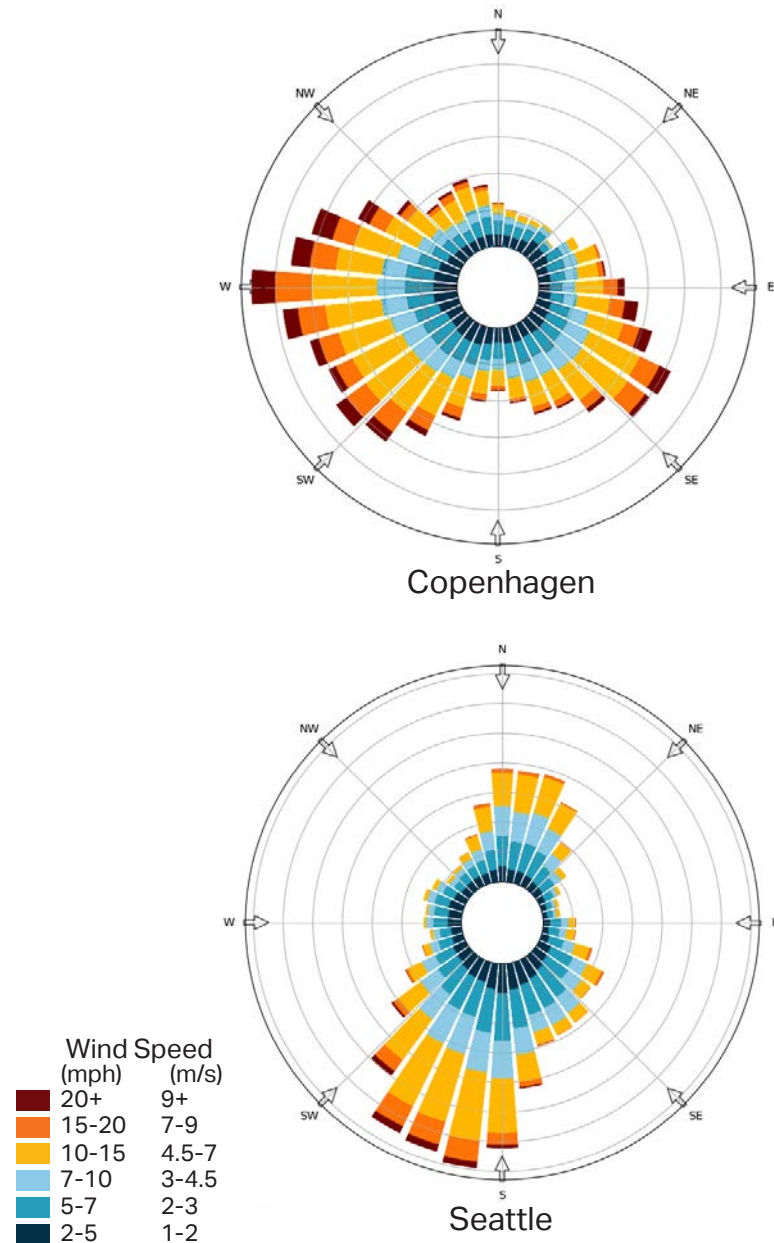
# Climate Analysis Comparison

Copenhagen (55.6°N, 12.5°E) is in the oceanic climate zone with a mild, temperate climate. Summers in Copenhagen are comfortable and partly cloudy, while winters are relatively cold and breezy, mostly cloudy, with rain and light snowfall.

A comparison of Copenhagen to Seattle's climate is presented here as a way for us to better understand the climate design conditions.

The climate of Seattle (47.6°N, 122.3°E) is also temperate and classified in the Mediterranean zone. In the summer, Seattle is warm, dry, and partly cloudy. Winters are relatively cold, wet, and mostly cloudy.

## Annual Wind Rose



# 2 Hour Temperature Chart

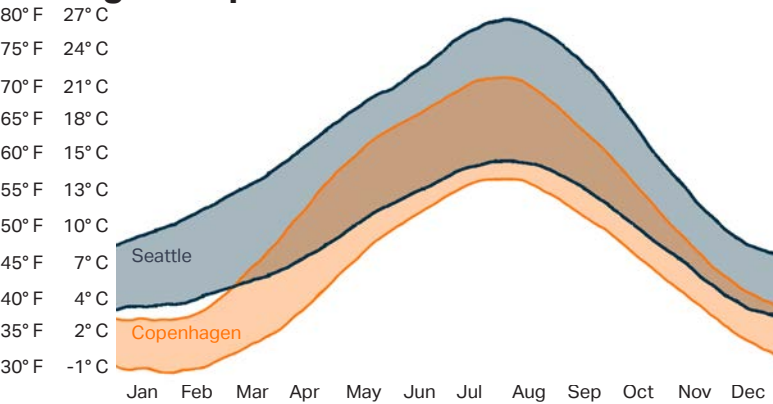
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
12 am	32	32	34	41	48	54	59	58	53	46	40	34
2 am	31	31	33	40	47	53	58	57	52	45	39	33
4 am	30	30	33	39	46	52	57	56	51	45	38	32
6 am	30	30	32	38	45	51	56	55	50	44	38	32
8 am	31	31	33	39	47	53	58	57	51	45	39	33
10 am	34	34	38	46	54	59	64	63	57	49	42	36
12 pm	36	36	41	49	58	63	68	67	60	52	44	38
2 pm	37	37	42	51	60	65	70	69	62	53	45	39
4 pm	36	36	41	50	59	64	69	68	61	52	44	38
6 pm	35	35	39	47	55	61	66	65	58	50	43	37
8 pm	33	33	36	44	52	57	62	61	55	48	41	35
10 pm	32	32	35	42	50	55	60	59	54	47	40	34

Copenhagen

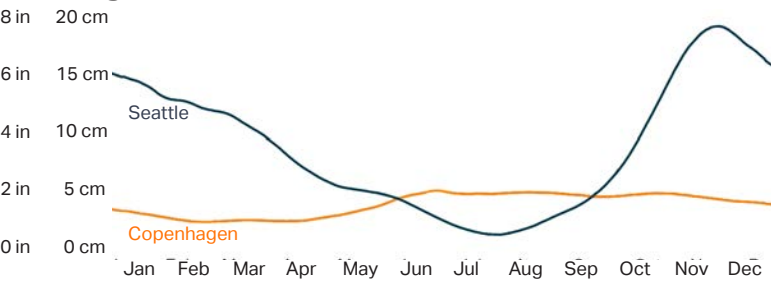
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
12 am	37	40	42	45	50	56	60	60	56	49	42	38
2 am	37	39	40	43	49	54	58	58	54	48	42	37
4 am	36	38	39	42	47	53	56	57	53	47	41	36
6 am	35	37	39	41	46	52	55	56	52	46	40	36
8 am	36	39	40	43	48	54	57	58	54	47	41	37
10 am	41	44	47	51	57	62	67	67	62	54	46	41
12 pm	44	48	51	55	61	67	72	72	67	58	49	44
2 pm	45	50	53	57	64	70	75	75	69	60	51	45
4 pm	44	48	52	56	62	68	74	74	68	59	50	44
6 pm	42	46	48	52	59	64	69	69	64	55	47	42
8 pm	40	43	45	48	54	60	64	64	60	52	45	40
10 pm	38	41	43	46	52	57	61	62	57	50	43	39

Seattle

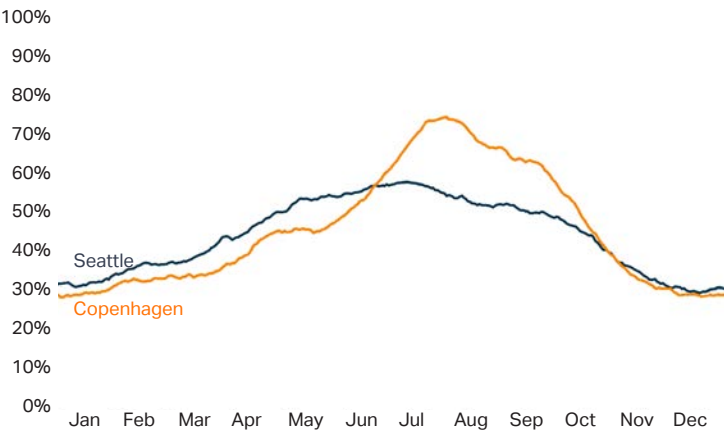
## Average Temperature



## Average Rainfall



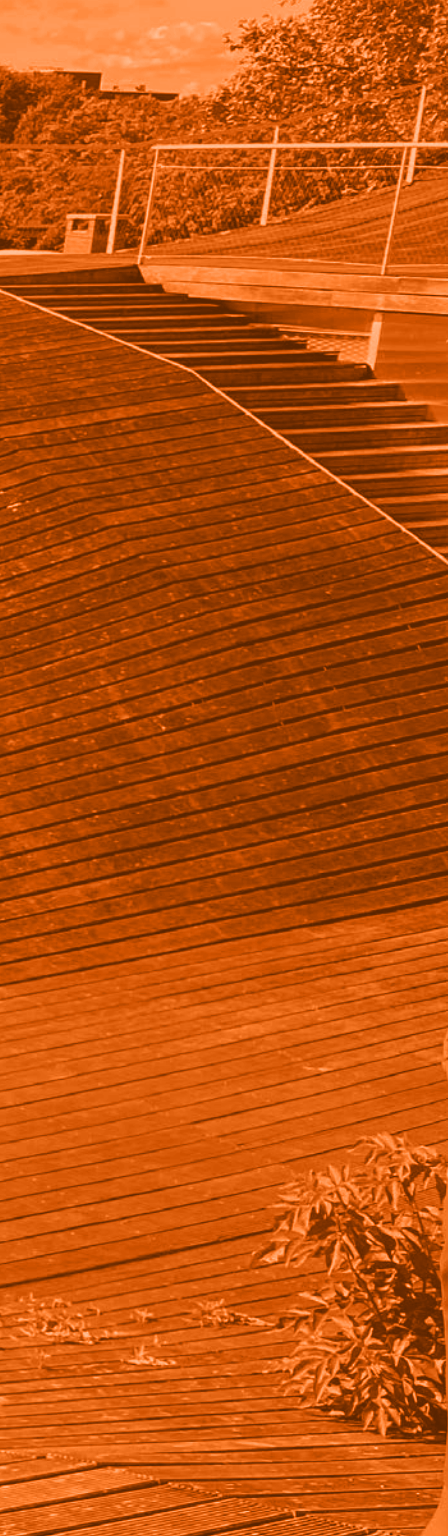
## Average Clear Sky











# Student Projects