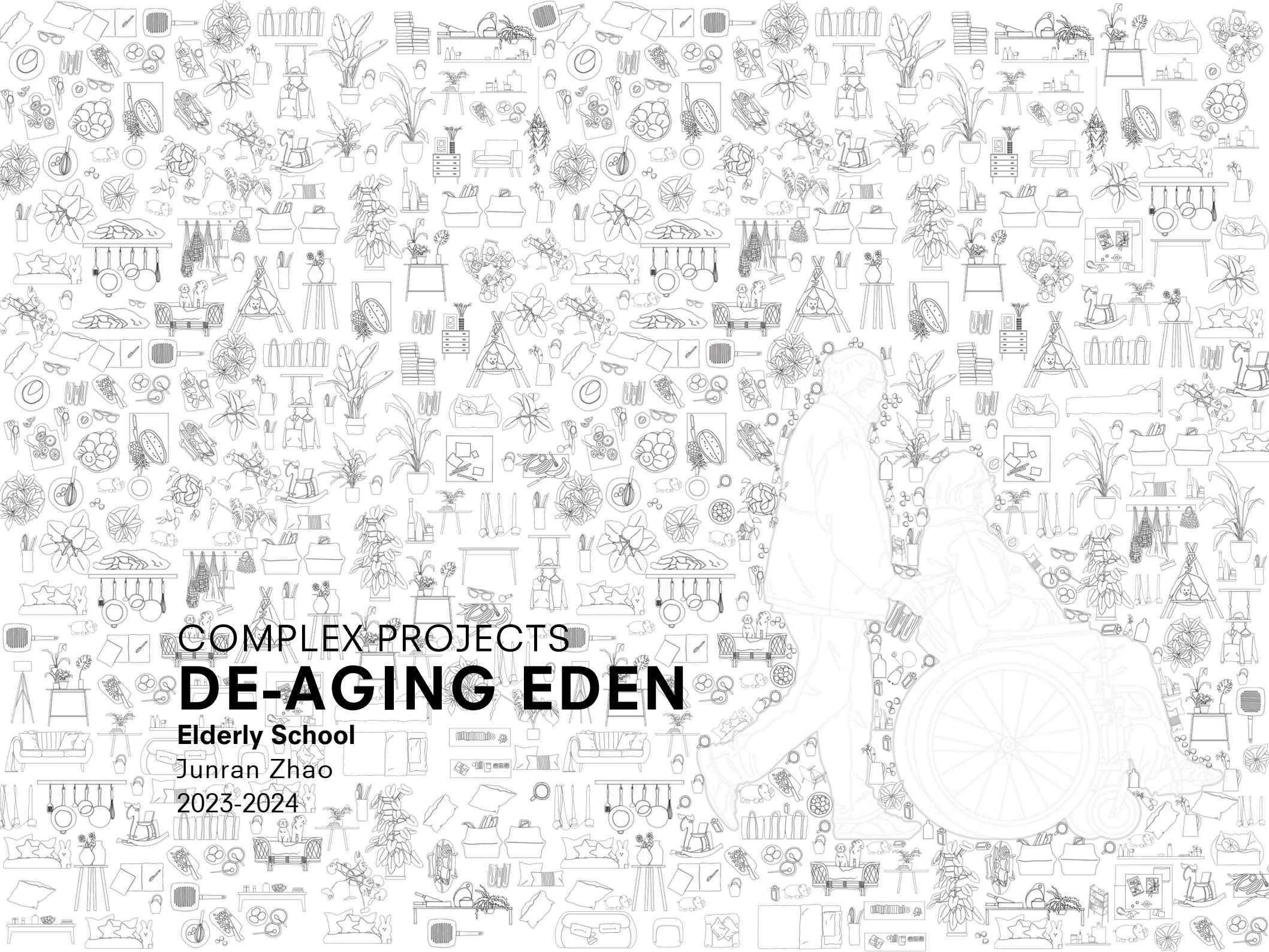


COMPLEX PROJECTS

DE-AGING EDEN

Elderly School

Junran Zhao

2023-2024

RESEARCH



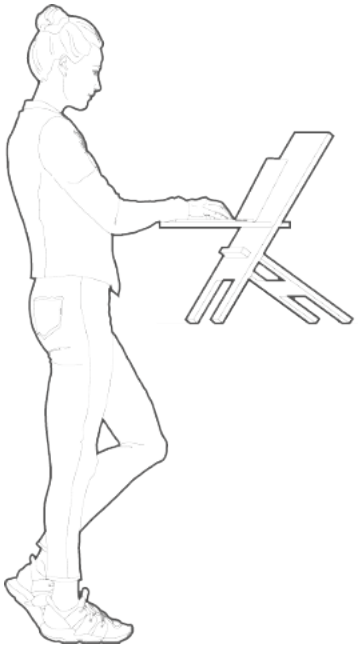
What do we talk about when we talk about

GOING TO SCHOOL?

DEFINITION



Children?



Young People?

DEFINITION

School

where children learn

· *the process of learning in a school; the time during your life when you go to a school*

· *the time during the day when children are working in a school*

for particular skill

· *a place where people go to learn a particular subject or skill*

college/university

· a place where people go to learn a particular subject or skill

· *a college or university; the time that you spend there*

of writers/artists

· *a group of writers, artists, etc. whose style of work or opinions have been influenced by the same person or ideas*

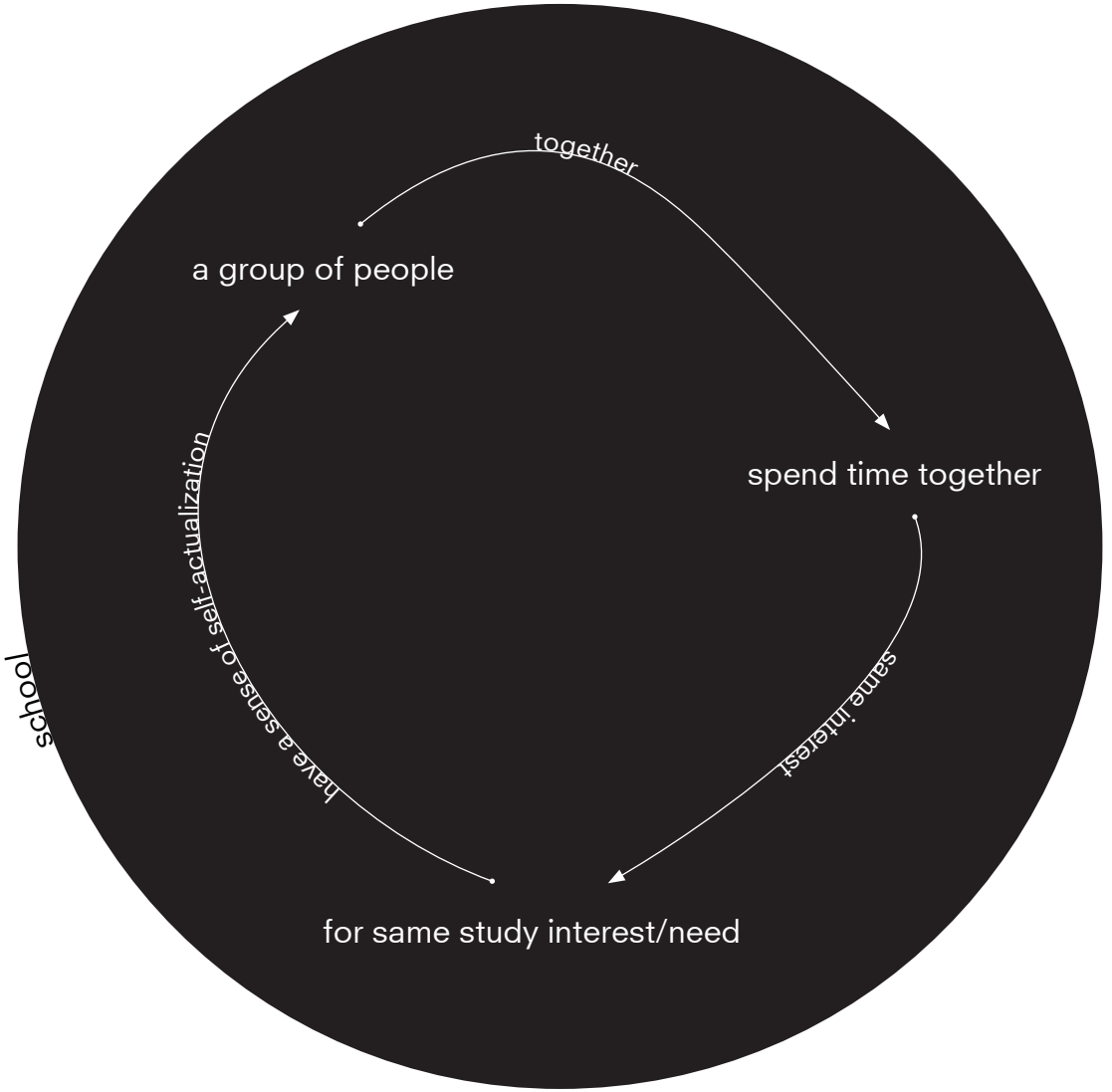
of fish

· *a large number of fish or other sea animals, swimming together*

https://www.oxfordlearnersdictionaries.com/definition/english/school_1#:~:text=%5Bcountable%5D%20a%20place%20where%20children%20go%20to%20be%20educated

DEFINITION

School is not only for children and young people...

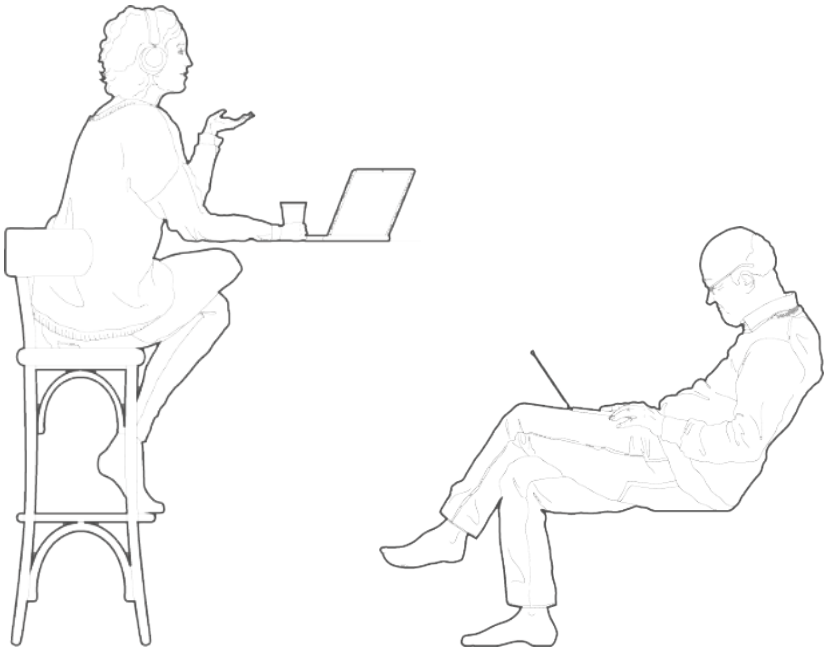


DEFINITION

Elderly could also be the protagonist of the school.



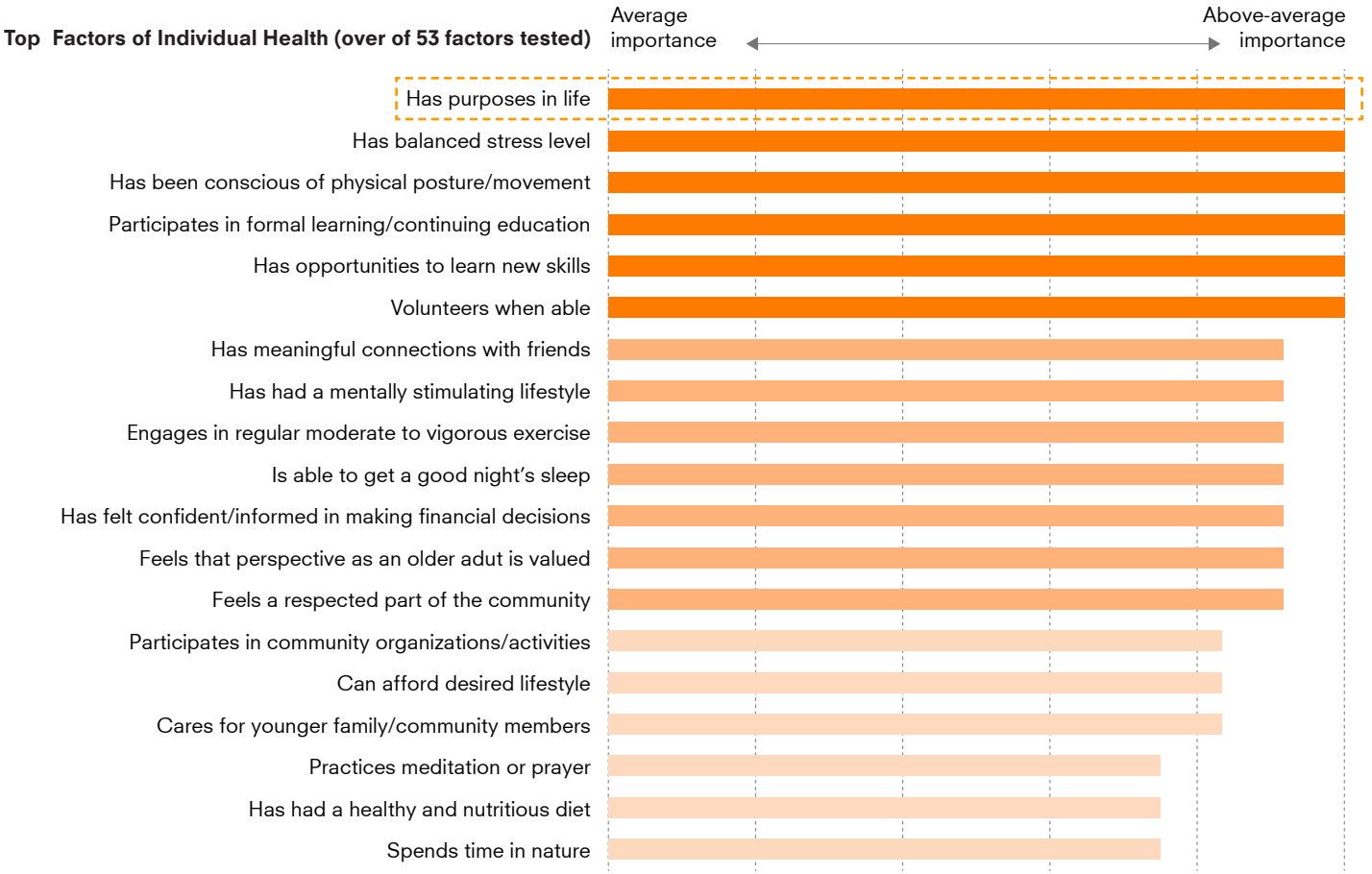
Elderly as Teachers



Elderly as Students

SELF-ACTUALIZATION

Teaching and learning in schools can help the elderly have a sense of self-actualization, which matters most to elderly's health.



Data Source: https://www.mckinsey.com/mhi/our-insights/age-is-just-a-number-how-older-adults-view-healthy-aging

DEFINITION

Elderly School **For Old People**

where elderly stay

· *intergenerational program*

· *the time during the day when elderly could teach their interest and knowledge and learn new things from others*

for spending meaningful days

· *Let people not feel that they are getting old and become abandoned by society*

self-actualization + interest class + medical treatment

· *a place where old people provide public welfare within their ability*

· *a place where old people go to enjoy their life and become healthier*

of elderly

· *groups of people who have same interests and lifestyles*

together

· *a large number of old people and young people spend time together, so they don't feel lonely*

School means

SELF-ACTUALIZATION

to the elderly.

What is the situation of

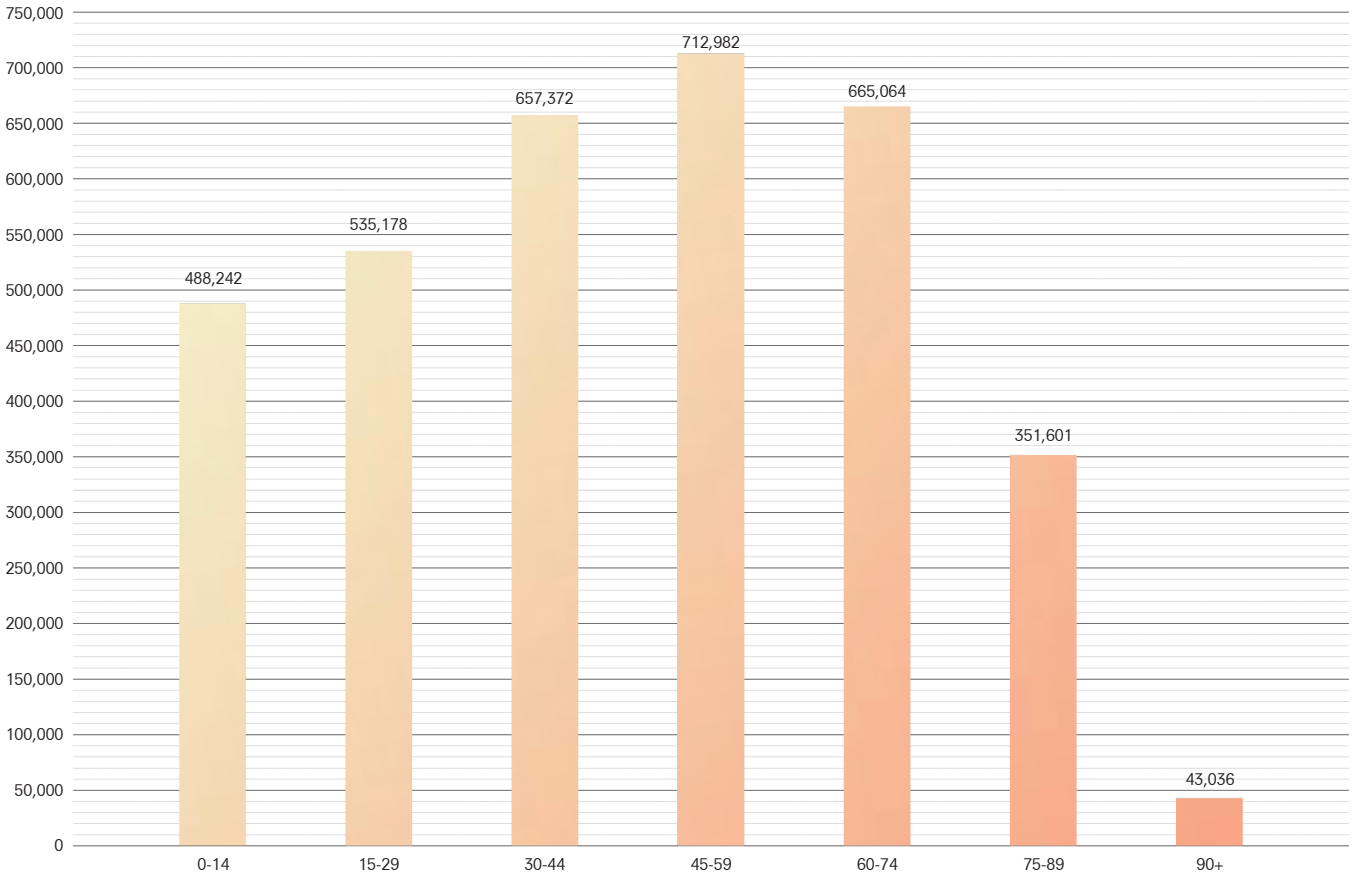
THE ELDERLY IN BERLIN?

ELDERLY IN BERLIN



AGING POPULATION

Berlin is facing an aging population.

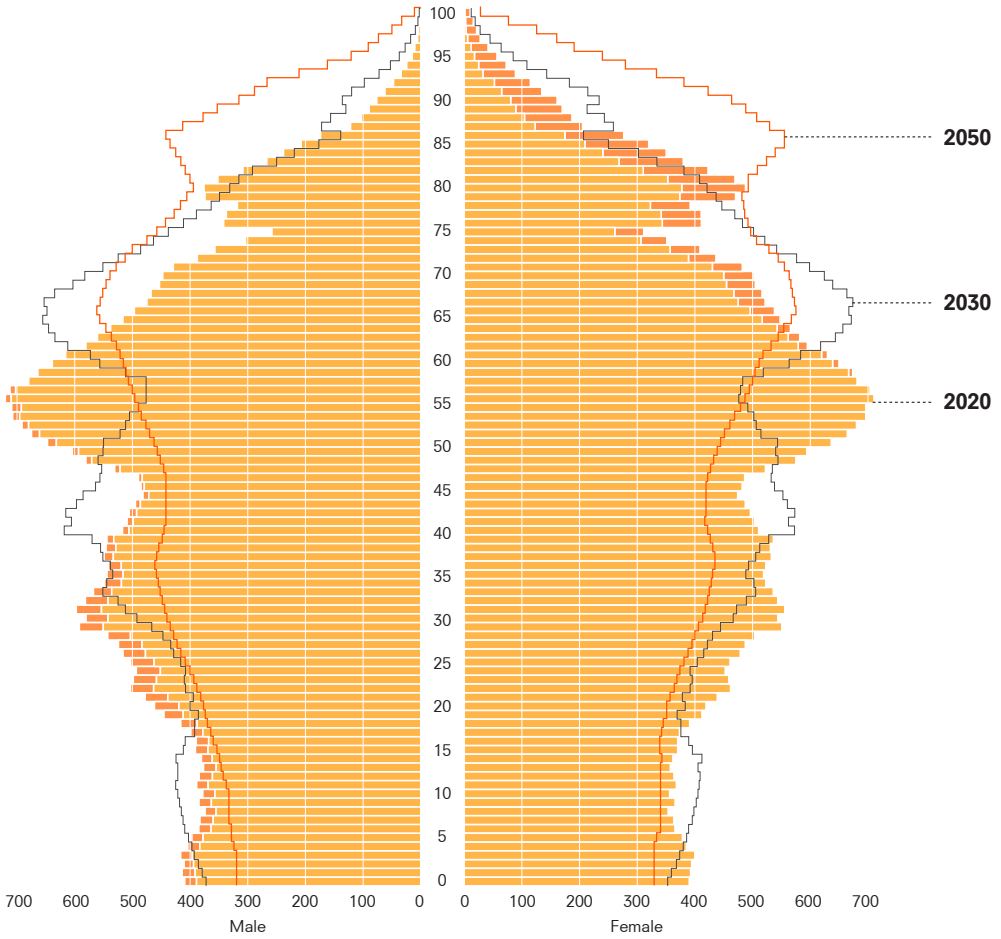


Berlin Population Data, 2023

Data Source: https://zh.zhujiworld.com/de/1580917-berlin/

AGING POPULATION

There will be more elderly in the future.

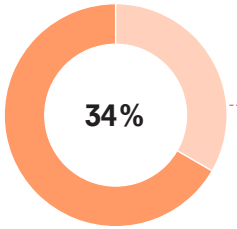


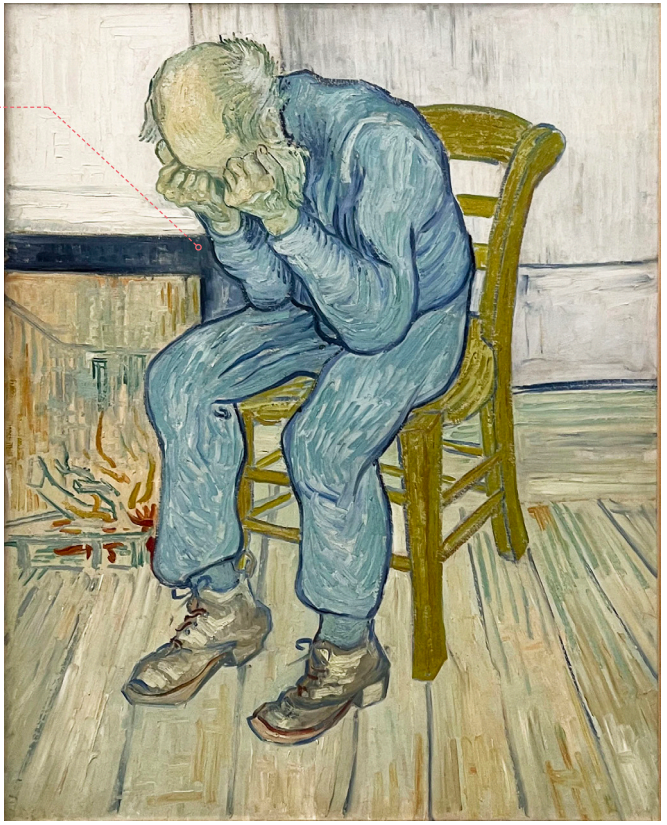
German population development

Data Source: https://www.businessinsider.de/wirtschaft/forscher-zeigen-an-7-beispielen-wie-radikal-sich-deutschland-in-den-naechsten-10-jahren-veraendern-wird/, https://www.researchgate.net/figure/Population-structure-of-Germany-2050-constructed-using-Bayesian-population-projection_fig5_330592416

ELDERLY LIVING ALONE

In Germany, approximately 5.9 million people aged 65 or older live alone, accounting for one-third (34%) of the population in this age group



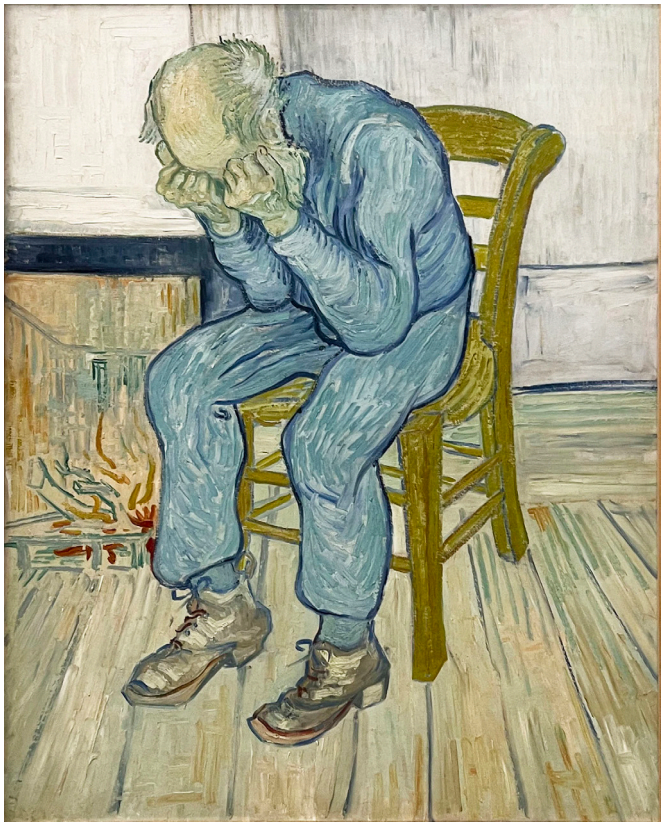


Sorrowing Old Man, At Eternity's Gate. Vincent Van Gogh, 1890

Photographed in Kröller-Müller Museum
Data Source: https://www.destatis.de/EN/Press/2021/09/PE21_N057_12411.html

ELDERLY LIVING ALONE

Elderly people living alone are more likely to suffer from anxiety and depression. They may feel abandoned by society.





Sorrowing Old Man, At Eternity's Gate. Vincent Van Gogh, 1890

THE GERMAN MODE AND TREND OF ELDERLY CARE

Home care for the elderly



Residential care for the elderly



Co-living with young people



Institutionalized elderly care



Familiar Environment

Entertainment

Medical Treatment

Get Close To Nature

Mixed-Age Friends

Connect to Community

Health-Intelligence

Living in a Familiar Environment

Living with Friends

Hobby

Professional Medical Treatment

Nursing

Elderly-Friendly Environment

Learning New Things

Mixed-Age Friends

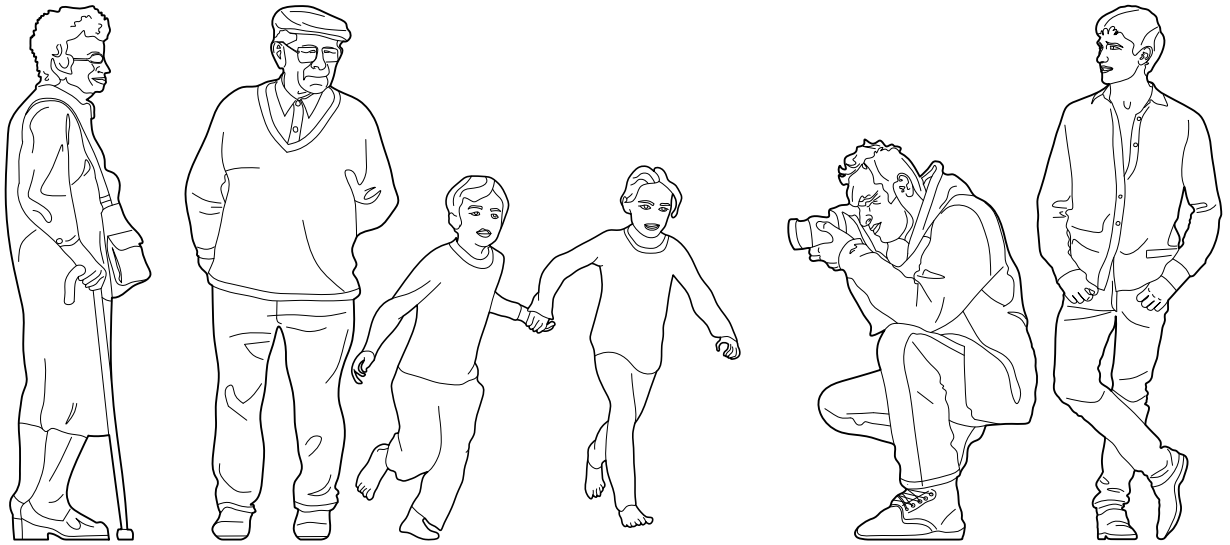
Self-Actualization

Healthcare-Intelligence

Data Source: https://zhuanlan.zhihu.com/p/436582901; https://zhuanlan.zhihu.com/p/27308656

MIXED-AGE CO-LIVING

Mixed-age co-living, as a new mode, is getting more and more popular.

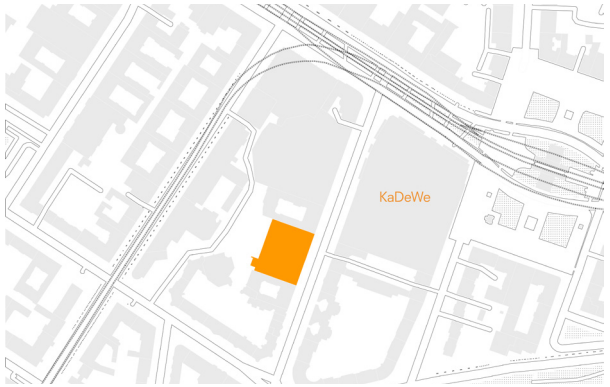


FIELD TRIP


TERTIANUM
Nº1
PASSAUER
Excellent
Office & Retail-
Space to rent
letting@signa.de
+49 30 726 131 180
Durchfahrt zur Tauent
gesperrt!
Nº1
PASSAUER
CE FT 220

TERTIANUM RESIDENZ BERLIN





Basic Infomation

Building type: Assisted living facility
Location: Passauer Str. 5-7, 10789 Berlin, Germany
Accessibility: Wheelchair-accessible car park
Website: tertianum-premiumresidences.de/berlin/
Tel: +4930219920



Lobby/Concert Hall



Dining Room + Kitchen



Gym



Garden



Nursing Room



Swimming Pool + Spa + Therapy



Reading Room



Apartment

Nursing and Apartment Picture Source: https://tertianum-premiumresidences.de/berlin/wohnen/

INTERVIEW

Garden

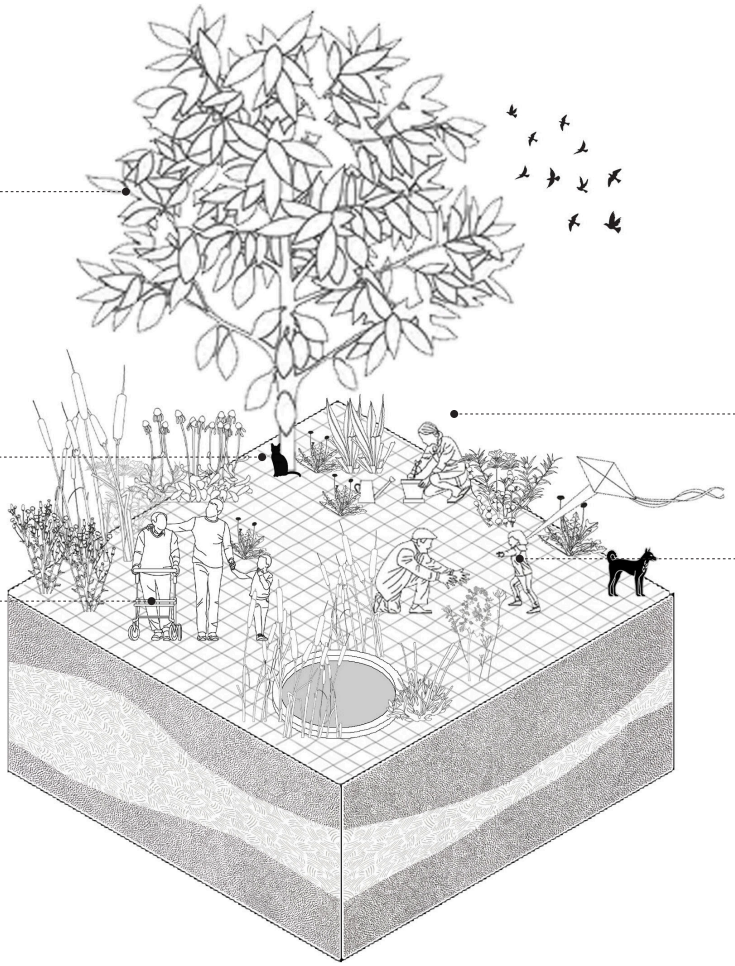
"The landscaped environment is crucial to the health of the elderly. Greenery is arranged on each floor of the building, and there are also gardens on the top floor of the building and outdoors."

Pet

"Elderly people regard pets as a companion. There are several elderly people in the building who have dogs and walk them every day."

Family Visit

"The company of family members is also very much needed by the elderly. The elderly who live here are very happy when they meet their families."



Hobby & Study

"Elderly people have various hobbies: attending concerts, reading newspapers, watching football matches, or going shopping."

Intergenerational Program

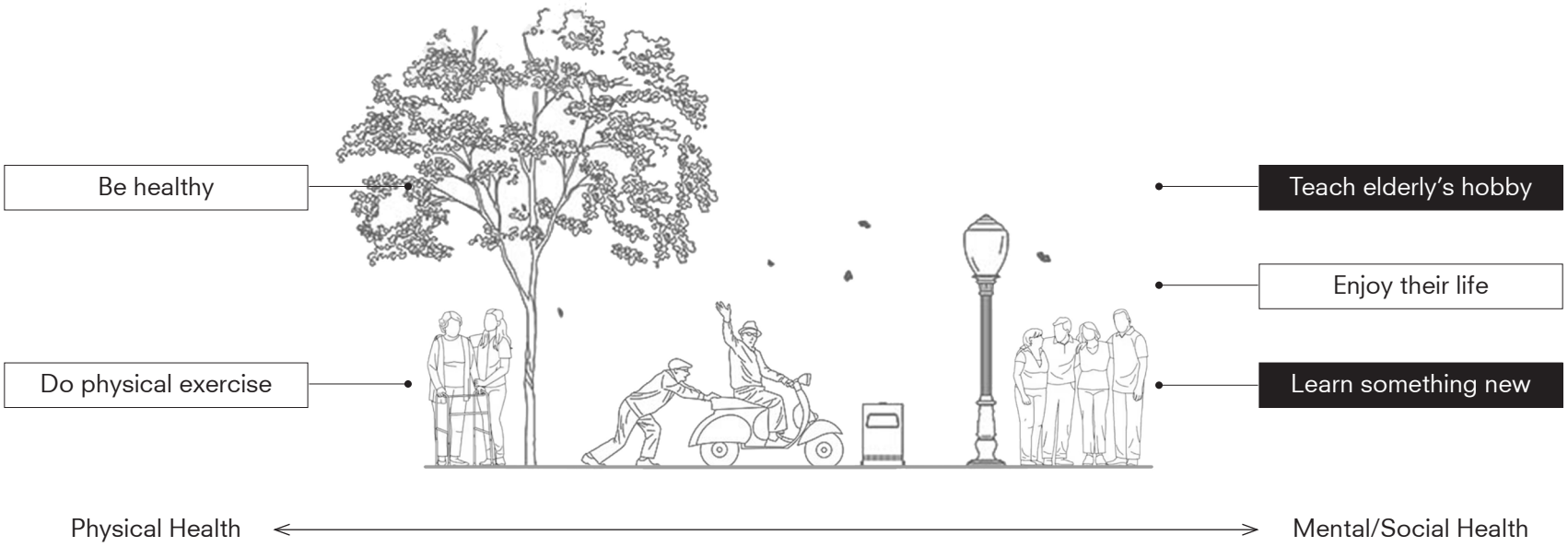
"Here are various programs to support intergenerational communication: from concerts in schools to programs in student dormitories. Young people have the opportunity to spend time with older people and mingle.."

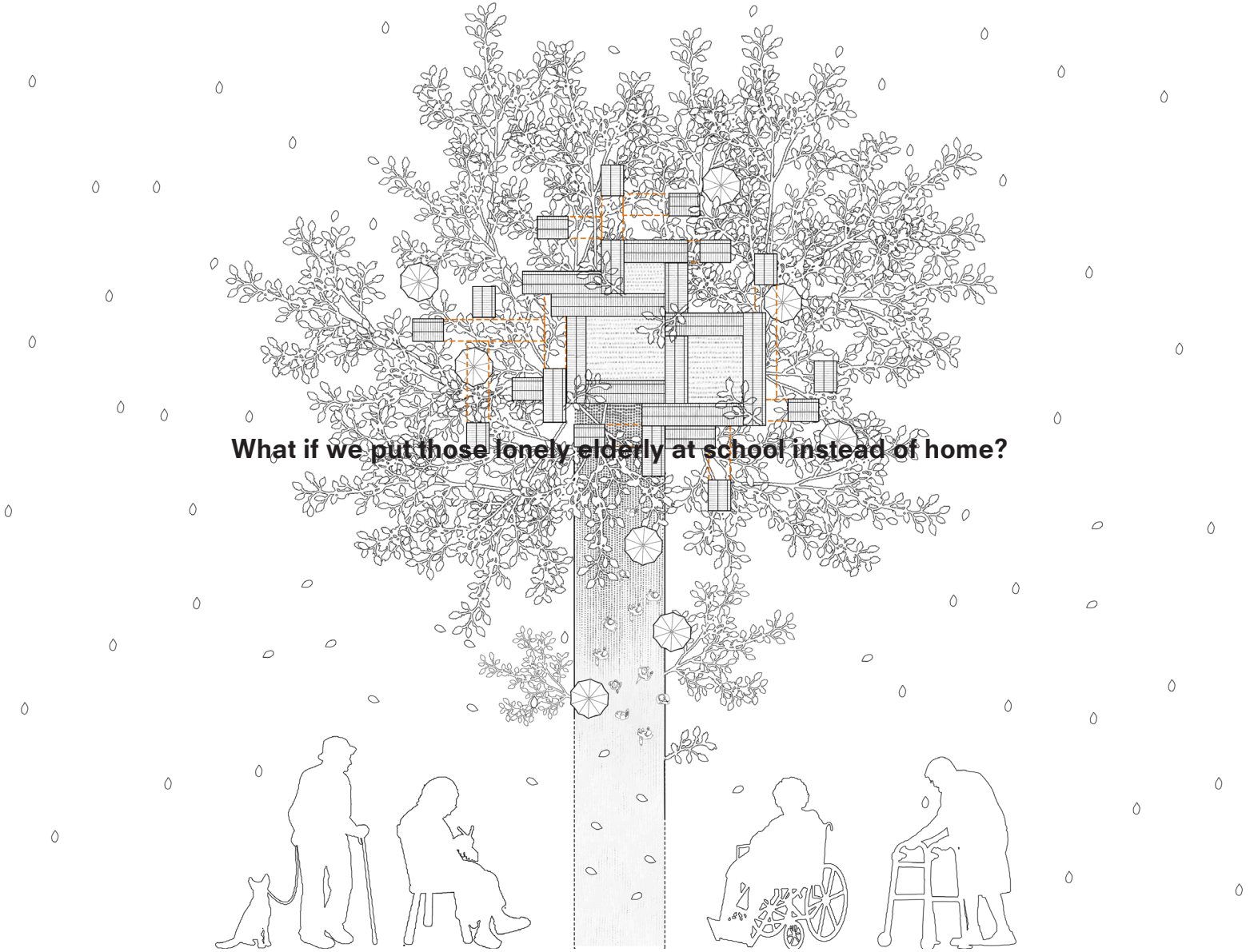
INTERGENERATIONAL COMMUNICATION

would boost all aspects of health for the elderly in Berlin.

ELDERLY SCHOOL

Intergenerational Communication





What if we put those lonely elderly at school instead of home?



To solve the loneliness, maybe school is a better place for the elderly to have a sense of self-actualization.

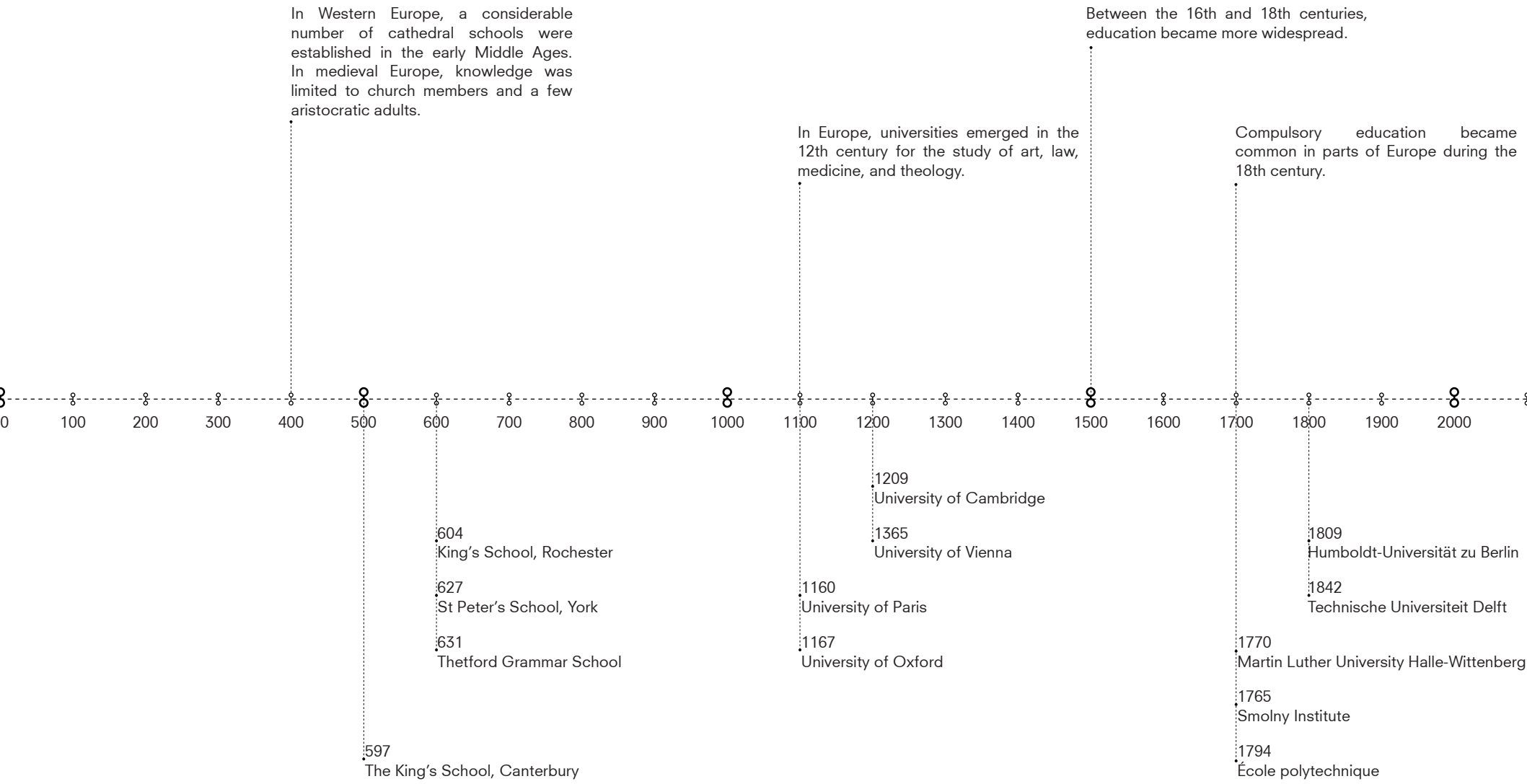
RESEARCH QUESTION

Can intergenerational-knowledge-sharing space help the elderly achieve self-actualization?



HISTORY OF SCHOOL

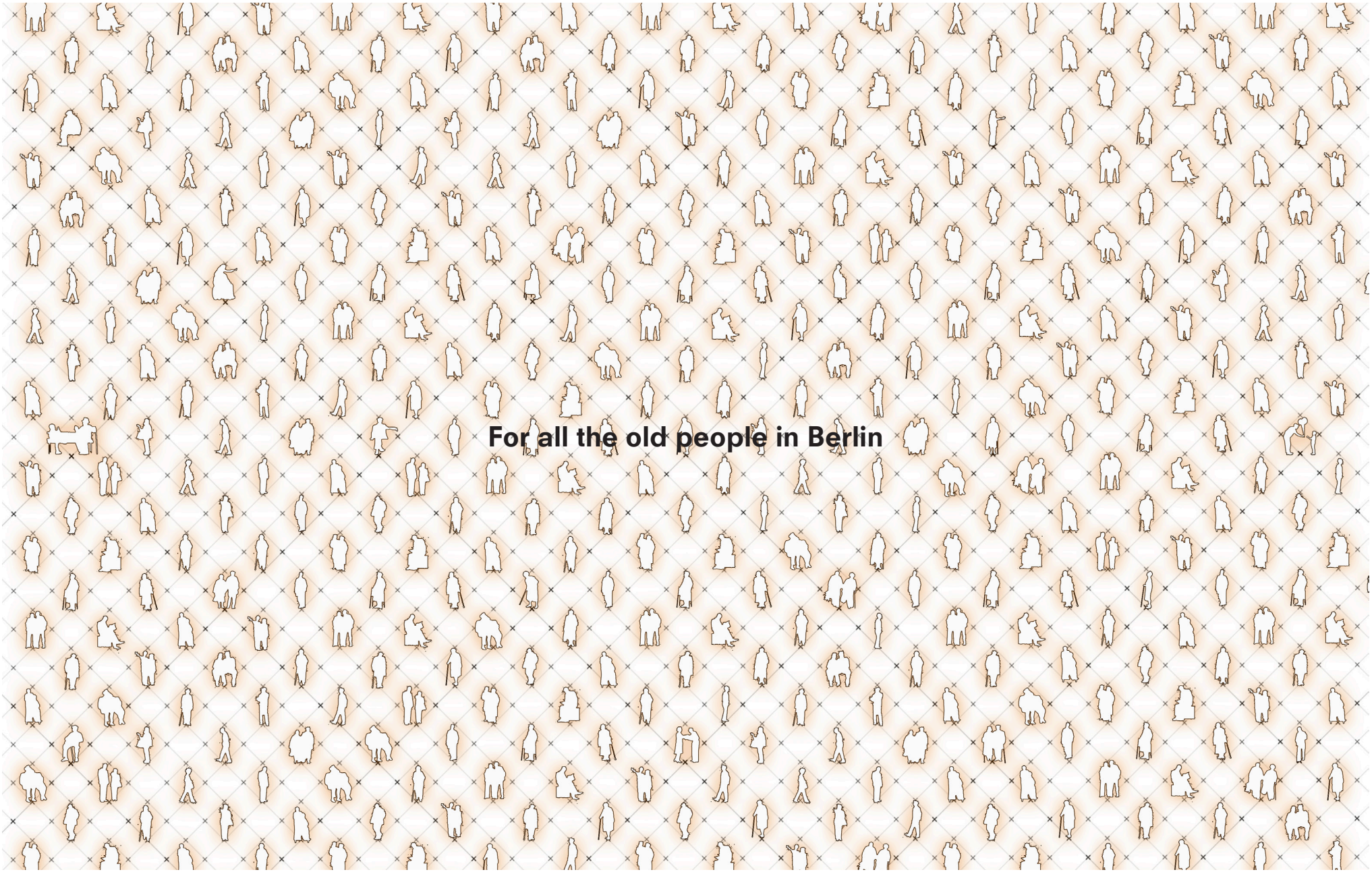
Educational teaching content is becoming more diversified and the audience is broader.



USER



USER



CLIENT

Federal Ministry / Pension Insurance and Medical Institutions

Federal Ministry of Health

Federal Ministry for Family Affairs, Senior Citizens, Women and Youth

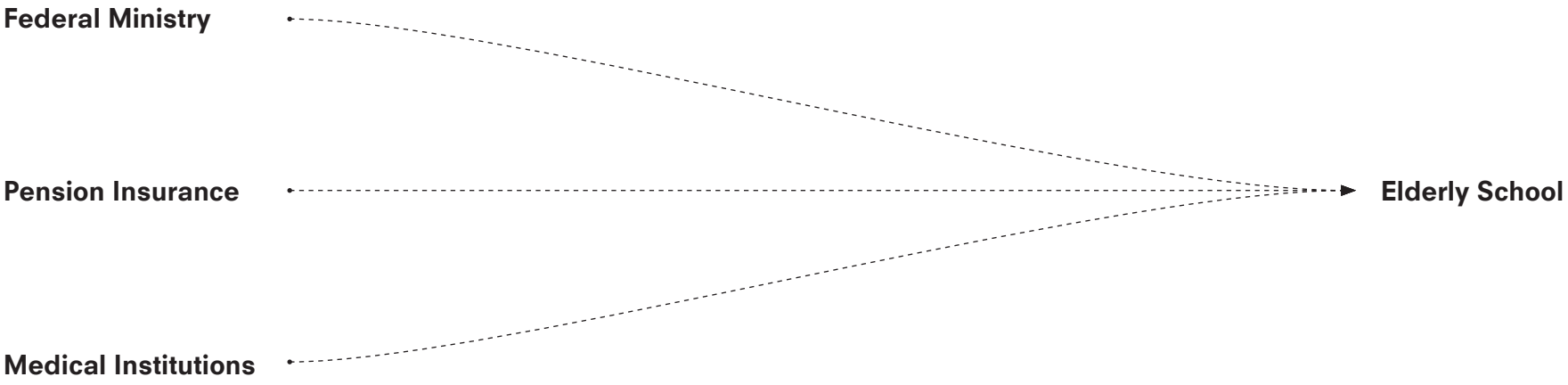
Federal Ministry of Education and Research

Federal Ministry / **Pension Insurance and Medical Institutions**

Deutsche Rentenversicherung

ROBERT KOCH INSTITUT

CHARITÉ UNIVERSITÄTSMEDIZIN BERLIN



STAKEHOLDERS

Federal Ministry / Pension Insurance and Medical Institutions / Partner schools / Volunteer Organizations

Federal Ministry of Health

Federal Ministry for Family Affairs, Senior Citizens, Women and Youth

Federal Ministry of Education and Research

Federal Ministry / **Pension Insurance and Medical Institutions** / Partner schools / Volunteer Organizations

Deutsche Rentenversicherung

ROBERT KOCH INSTITUT

CHARITÉ UNIVERSITÄTSMEDIZIN BERLIN

Federal Ministry / Pension Insurance and Medical Institutions / **Partner schools** / Volunteer Organizations

vhs die Berliner Volkshochschulen

Universität der Künste Berlin

weißensee

SONNENUHR-SCHULE

Schule am Roederplatz

KiGäNo Kindergärten NordOst Alles andere ist nur Kindergarten.

Federal Ministry / Pension Insurance and Medical Institutions / Partner schools / **Volunteer Organizations**

GuteTat Jede*r kann helfen.

GIVE SOMETHING BACK TO BERLIN

voskel.de

**When people are getting old,
they may face ...**

DECLINE IN HEALTH



Data Source: https://www.ncbi.nlm.nih.gov/pmc/articles, https://www.krebsdaten.de/Krebs/EN/Home/homepage_node.html, https://www.dw.com/en/alzheimers-deaths-in-aging-germany-more-than-doubled-since-2000/a-63186536

DECLINE IN HEALTH



Physical Health / Mental Health / Social Health

- **The function of the sensory organs is reduced, and the ability to perceive the outside world is reduced.**



Physical Health / **Mental Health** / Social Health

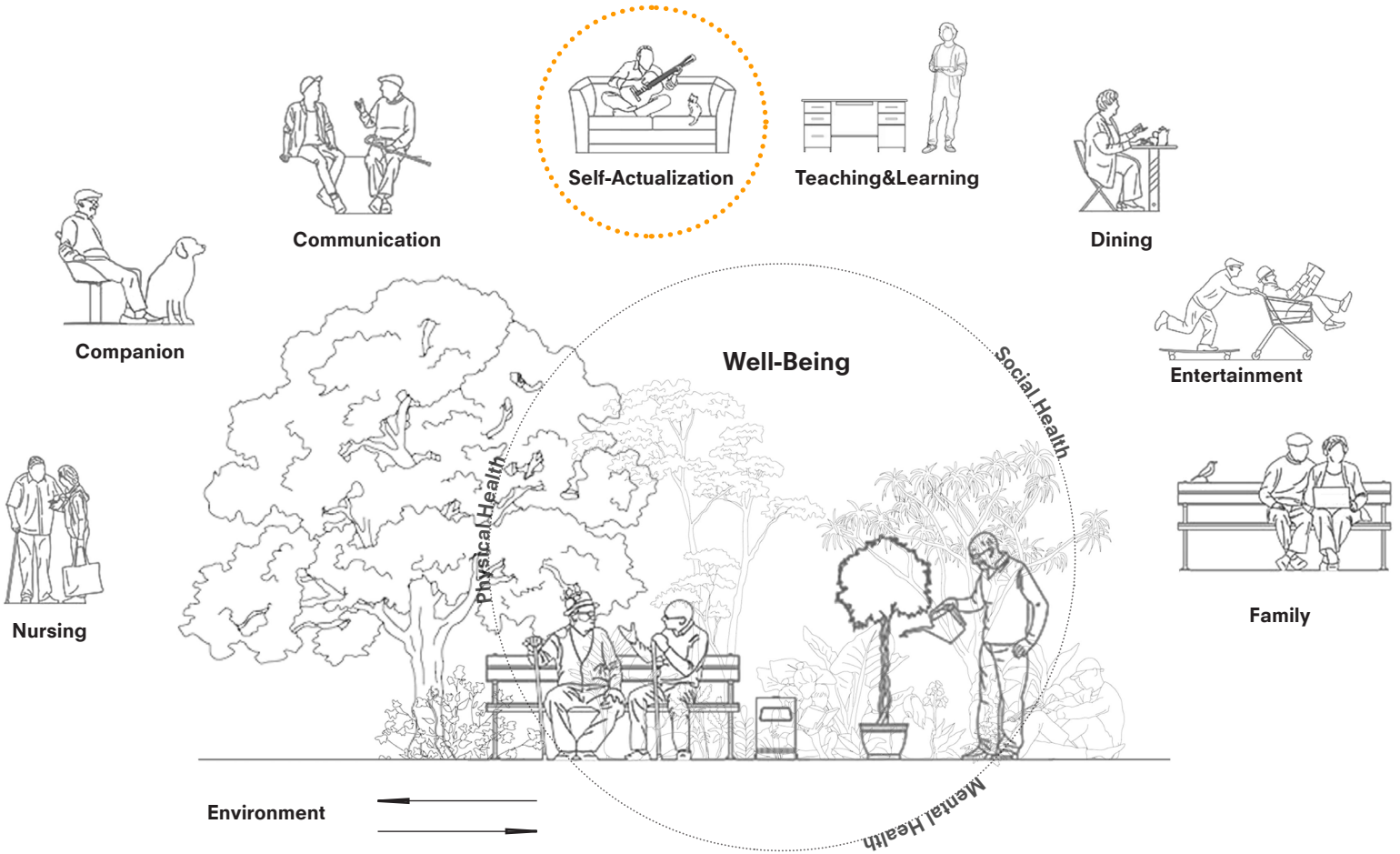
- **The mental makeup becomes more sensitive and what is acceptable is more limited.**



Physical Health / Mental Health / **Social Health**

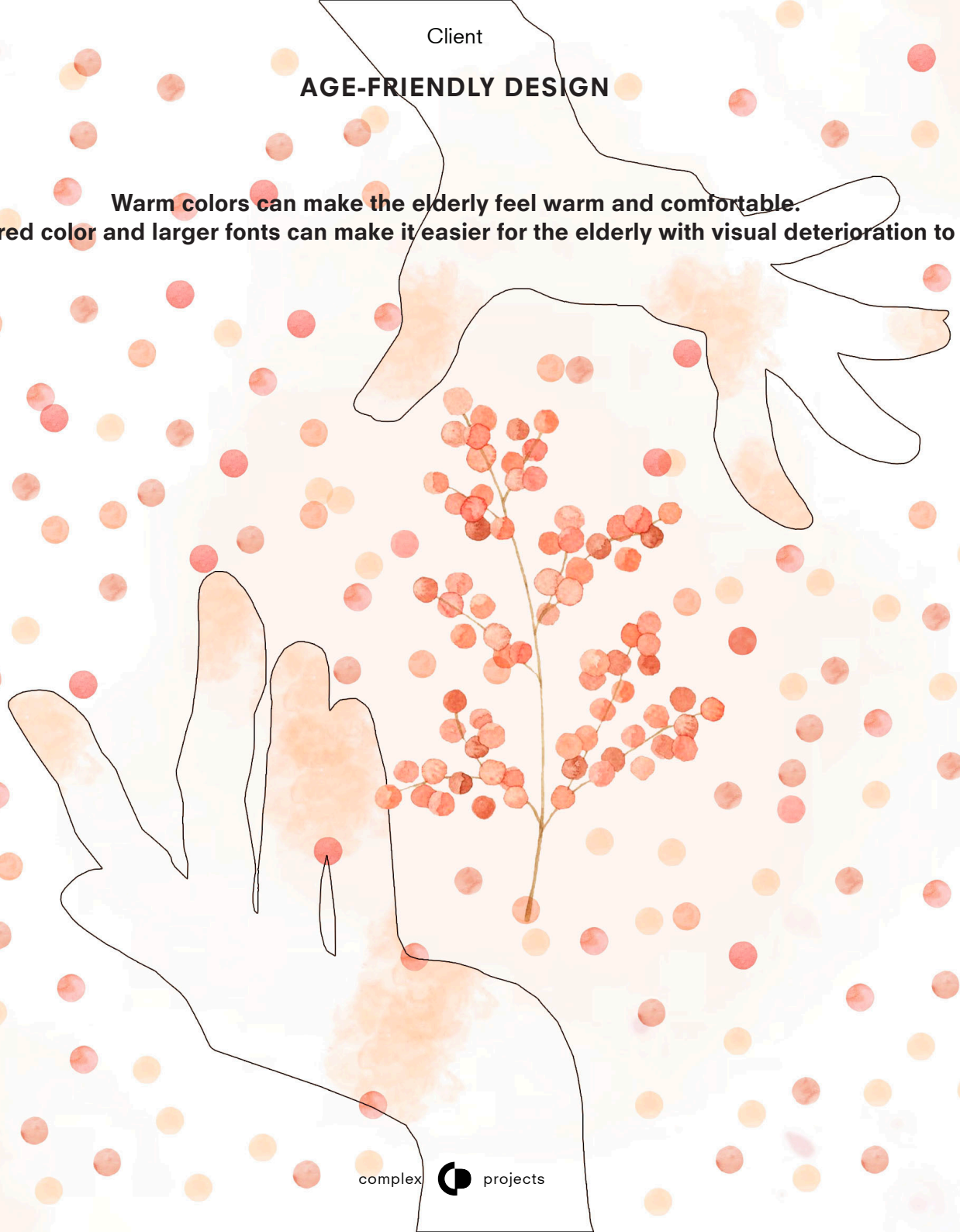
- **The ability to understand new things decreases and they become disconnected from society.**

USER AMBITION



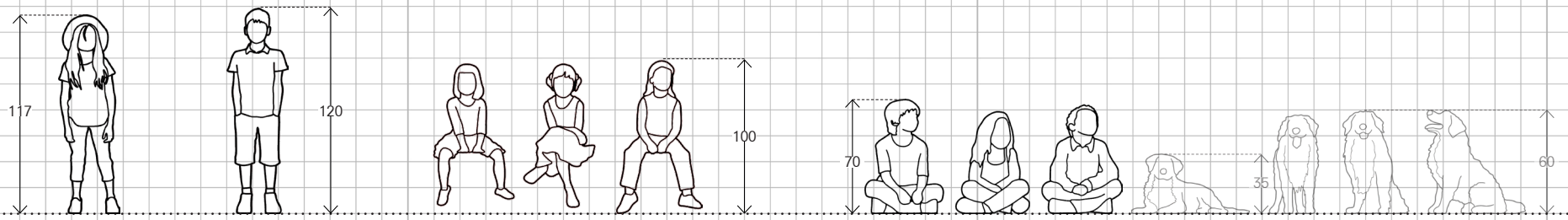
AGE-FRIENDLY DESIGN

Warm colors can make the elderly feel warm and comfortable.
The orange-red color and larger fonts can make it easier for the elderly with visual deterioration to identify.

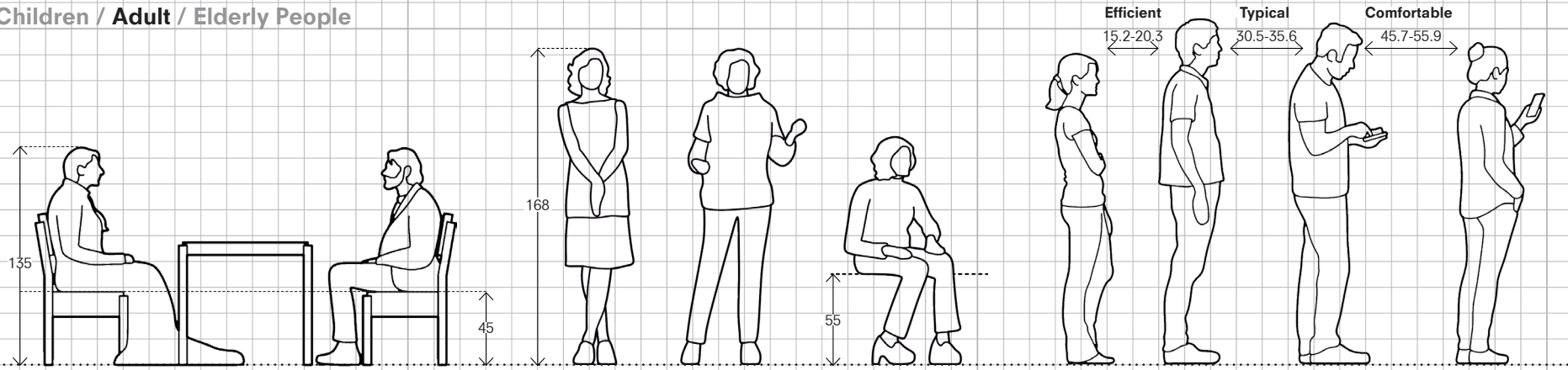


HUMAN SCALE

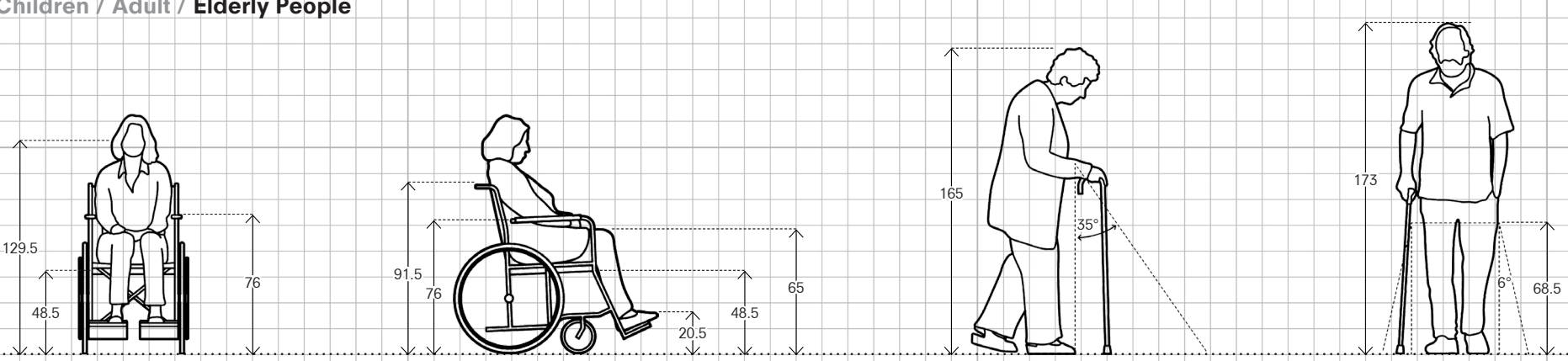
· **Children** / Adult / Elderly People



· Children / **Adult** / Elderly People



· Children / Adult / **Elderly People**

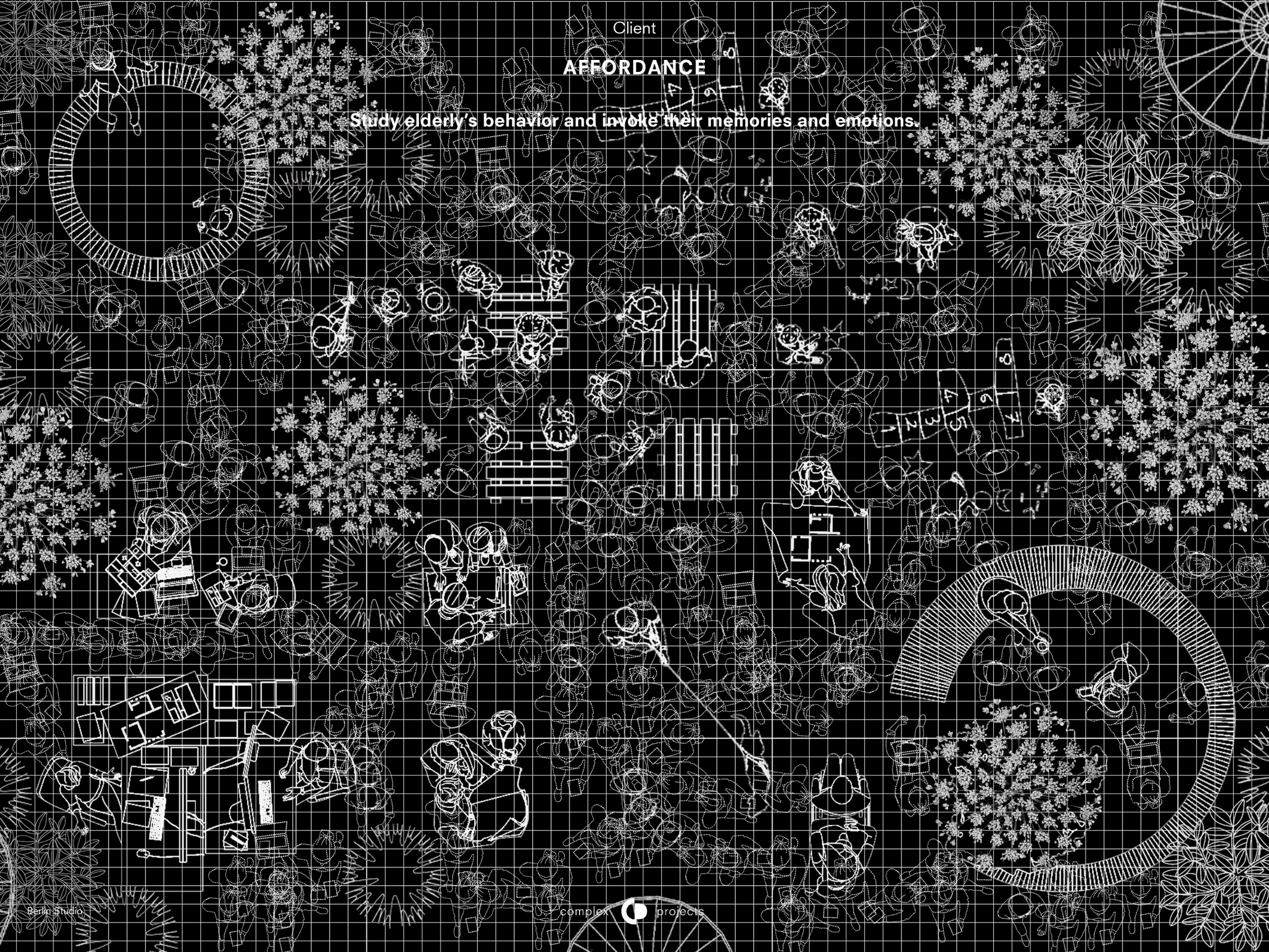


Data and Picture Source: https://www.dimensions.com/

Client

AFFORDANCE

Study elderly's behavior and invoke their memories and emotions.



INTERGENERATIONAL PROGRAM



Teach

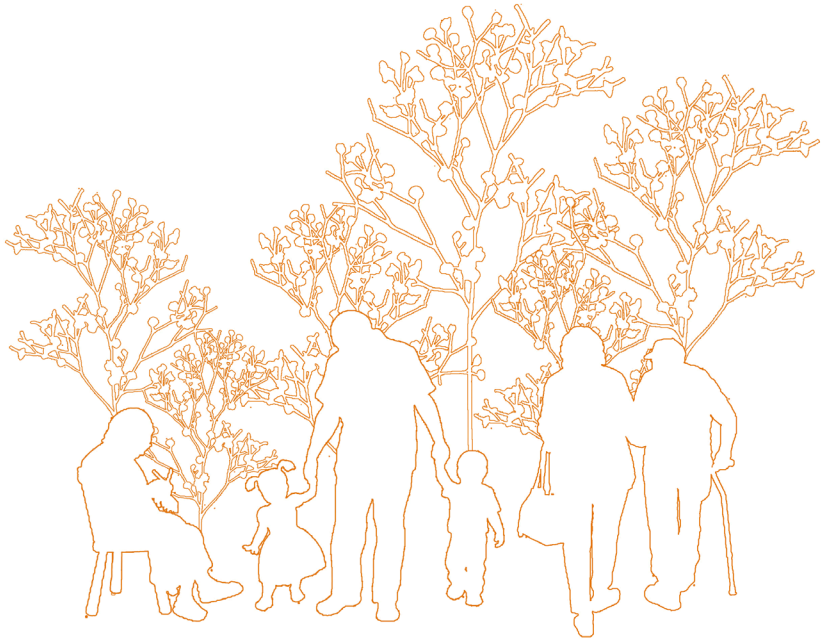
Teach

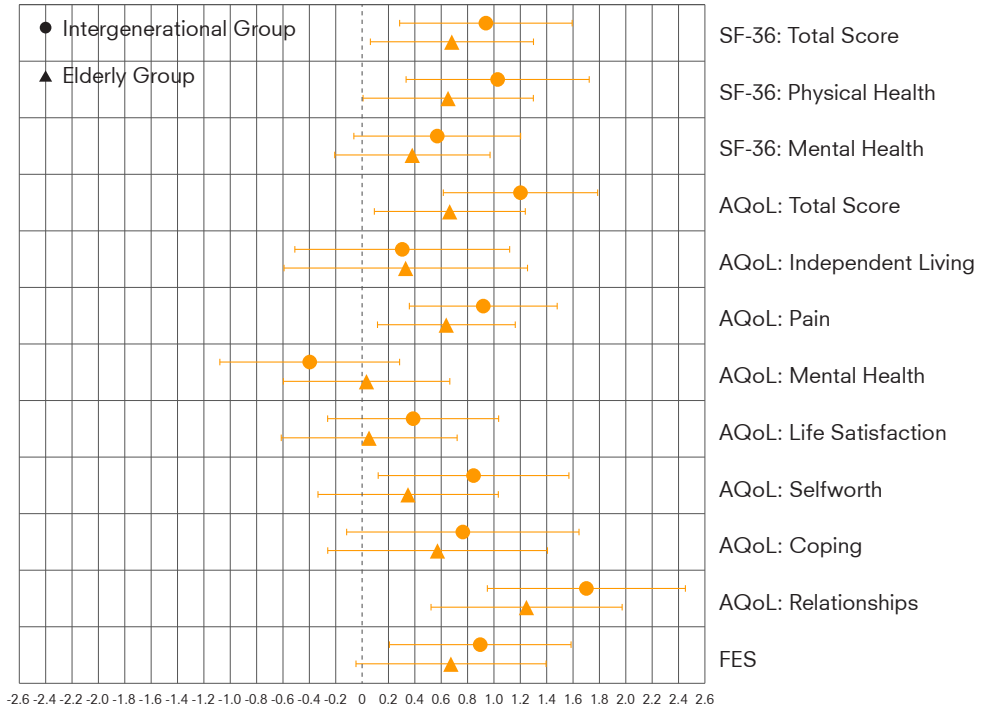


Old People **Intergenerational Communication** **Young People**

INTERGENERATIONAL PROGRAM

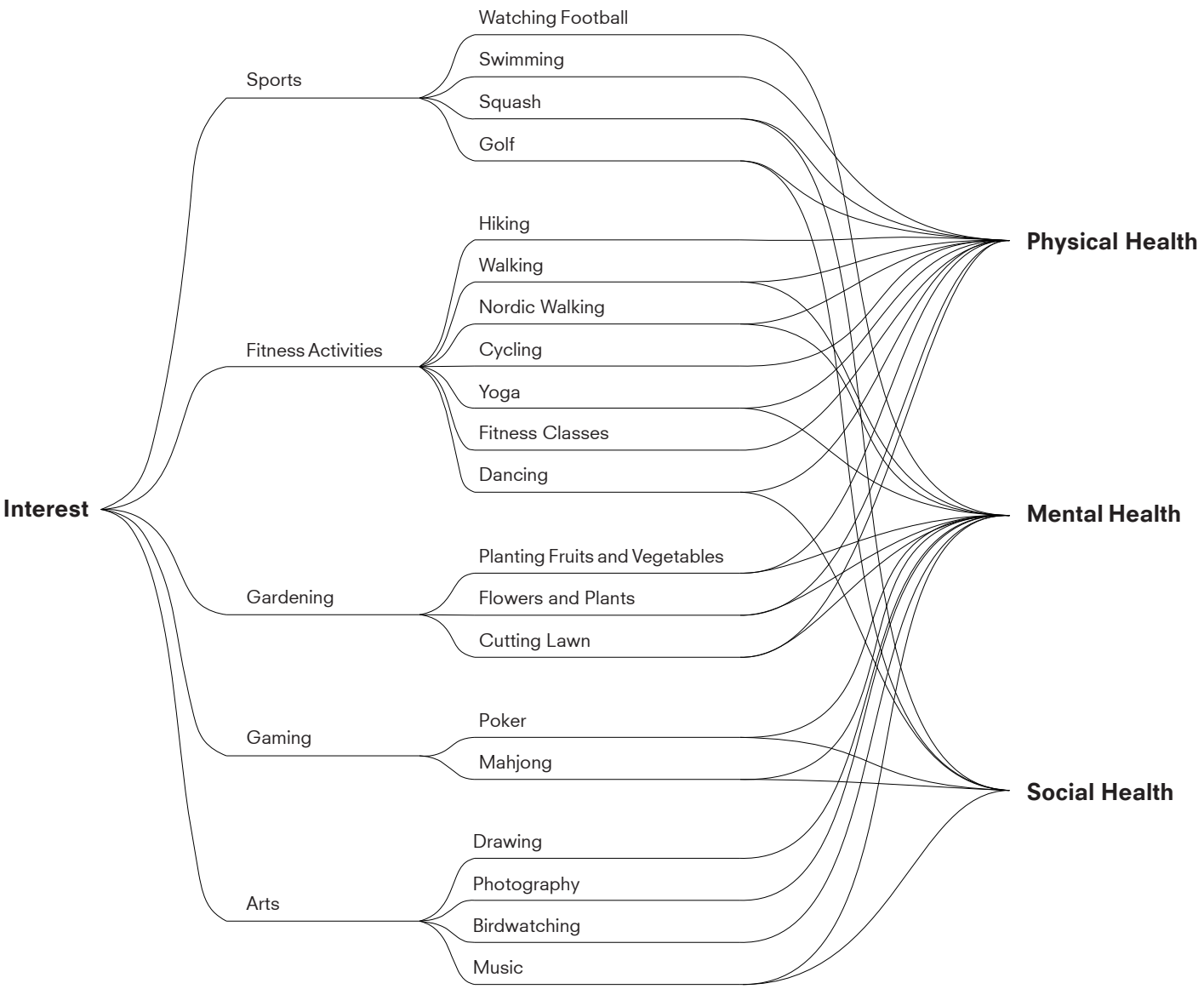
Experimental data proves that the elderly group who communicate across age groups have better performance in various tests.



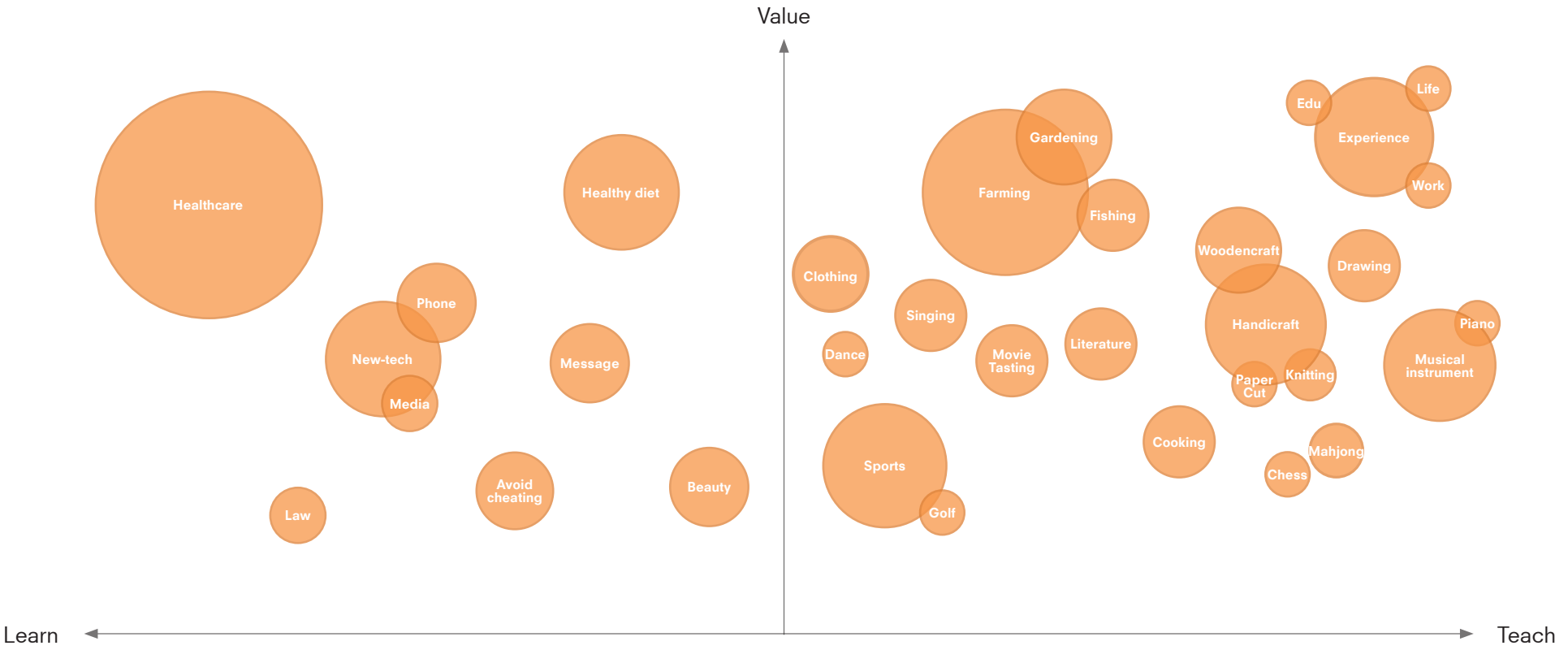


Data Source: https://peerj.com/articles/11292/

HOBBIES & INTERESTS



INTERGENERATIONAL CLASS

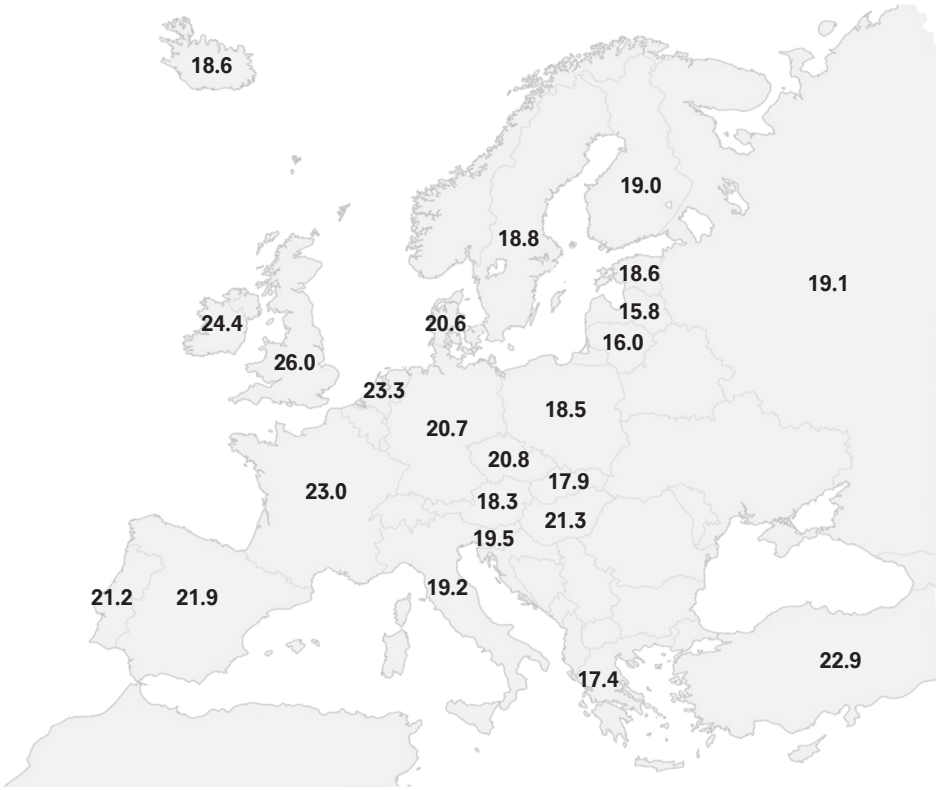


SCHEDULE

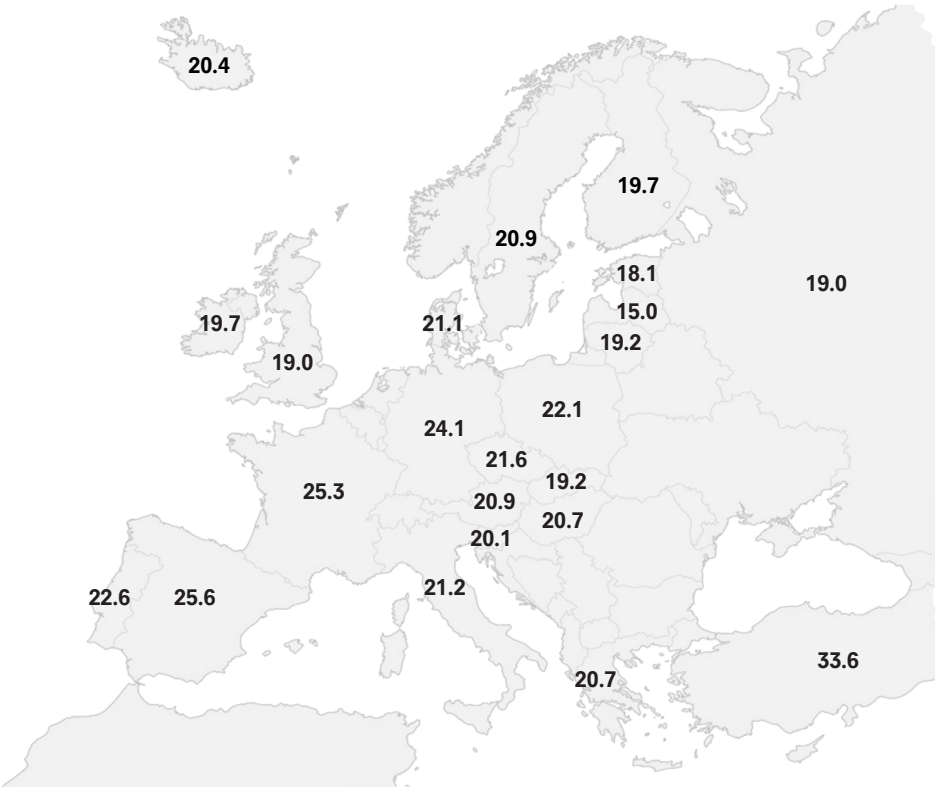
Space	Function	Class	Old People		Young People		Value
			Teacher	Student	Teacher	Student	"Have purpose in life"
Outdoor Area	Sensory Garden	Gardening Class	●	●	○	●	Prevent cognitive impairment
		Music/Dance Class	●	●	●	●	Interact with mixed-age people
		Fishing Class	●	●	○	●	Balance stress level
	Healthcare Farm	Farming Class	●	○	○	●	Provide physical exercise
Indoor Area	Workshop	Handicraft Class	●	●	●	●	Share hobbies
		Woodencraft Class	●	○	○	●	Interact with mixed-age people
		Knitting Class	●	○	○	●	Prevent cognitive impairment
	Gym	Sports Class	●	●	●	●	Provide physical exercise
		Yoga Class	●	●	●	○	Meditate
	Dining Hall	Cooking Class	●	○	○	●	Interact with mixed-age people
		Healthy-diet Class	○	●	●	●	Have health quality of diet
	Classroom	Drawing Class	●	○	○	●	Balance stress level
		Literature Class	●	○	○	●	Share knowledge
		Health Knowledge Class	○	●	●	●	Gain knowledge of healthcare
		New-media Class	○	●	●	○	Learn something new
		Parenting Class	●	○	○	●	Share educating experience
	Café	Life-experience Sharing	●	○	○	●	Share living experience
	Healthcare Center	Physical examination	○	○	○	○	Ensure a healthy body

CLASS SIZE

Average Class Size in Primary Education



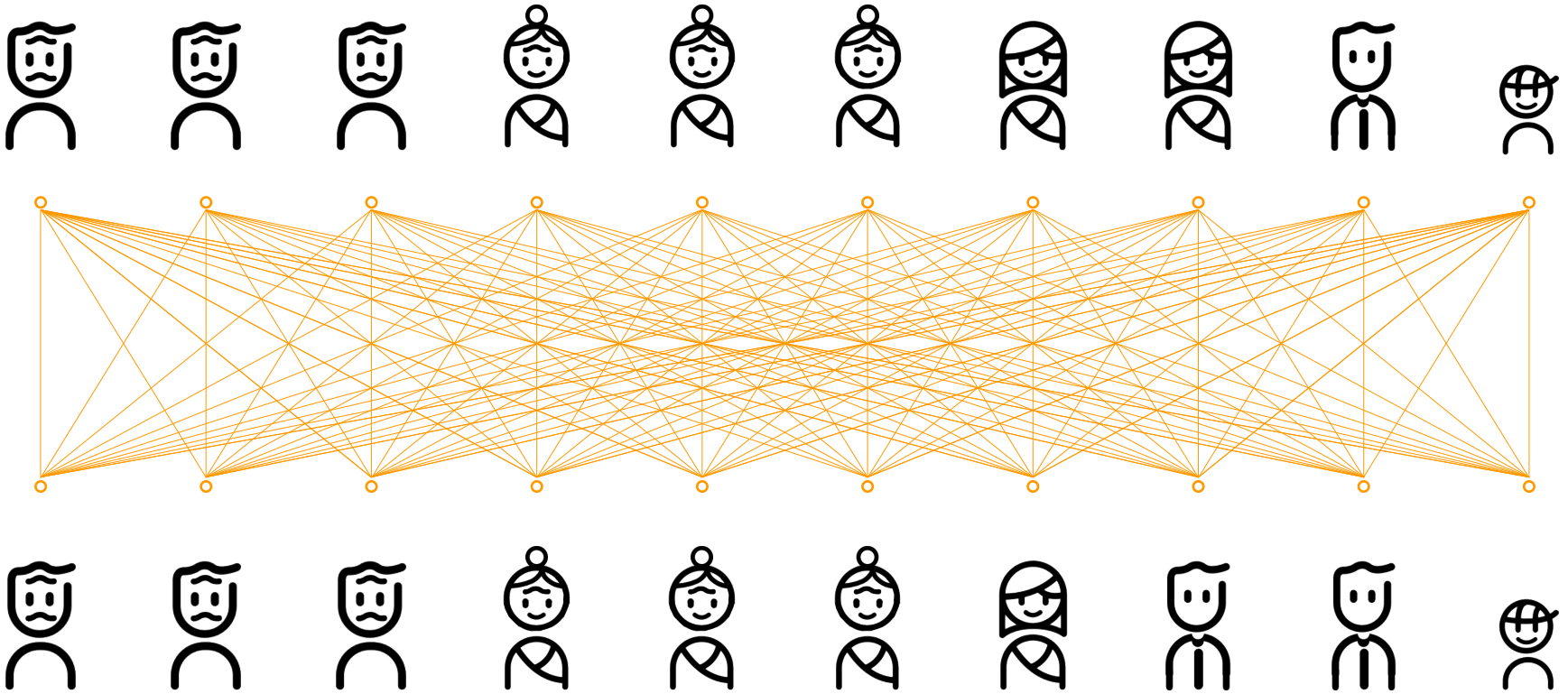
Average Class Size in Secondary Education



https://www.sucaisucai.com/sucai/11327329.html, https://jakubmarian.com/wp-content/uploads/2017/12/class-size-oecd-primary.jpg, https://jakubmarian.com/wp-content/uploads/2017/12/class-size-oecd-secondary.jpg

CLASS SIZE

Class Size: 10-20 people



Eldely people (Mainly) + Young people + Children

PEOPLE INVOLVED



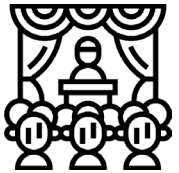
Student
1200



Teacher
100



Staff
50



Administration
20



Volunteer
300+

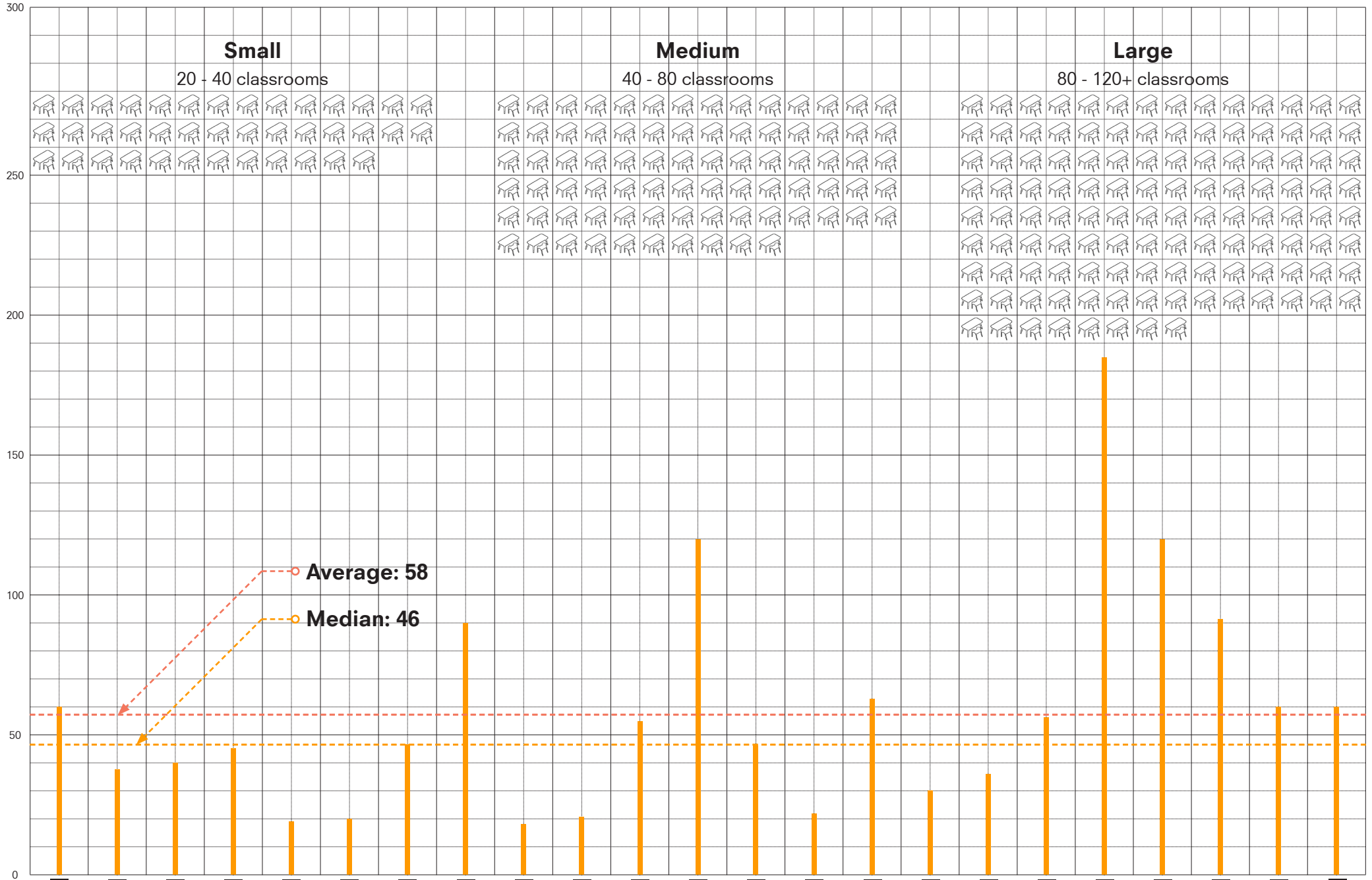


Resident
300+

CAPACITY

	Schools in Germany	Area	Classroom	Floor	Year	Location	Architect
1	Pears Jewish Campus	8000 m²	60	6	2023	Berlin	Tchoban Voss Architekten
2	Robert Koch High School	23740 m²	38	4	2023	Berlin	SSP Rüthnick Architekten
3	Berlin Metropolitan School	3650 m²	40	5	2020	Berlin	Sauerbruch Hutton
4	Integrated Secondary School	9360 m²	45	3	2019	Berlin	NKBAK
5	Erika Mann Elementary School	N/A	19	3	2007	Berlin	Die Baupiloten
6	Marianum School Annex	2350 m²	20	2	2021	Allensbach	LRO GmbH & Co. KG
7	Hessenwald School	9541 m²	46	3	2016	Weiterstad	Wulf Architekten
8	Hanhoopsfeld School Campus	16590 m²	90	3	2019	Hamburg	AllesWirdGut
9	European School in Frankfurt	3380 m²	18	3	2015	Frankfurt	NKBAK
10	Bergen-Enkheim Kindergarten	1800 m²	21	2	2022	Frankfurt	Bolles + Wilson
11	Reinoldi Comprehensive School	5300 m²	55	3	2020	Dortmund	SSP SchürmannSpannel
12	School Center North	32168 m²	120	4	2015	Stuttgart	Wulf Architekten
13	Jungfernsee Elementary School	8461 m²	46	2	2020	Potsdam	Sehw Architektur
14	Inclusive School Centre	3770 m²	22	3	2021	Döbern	Sehw Architektur
15	Martin Luther School	N/A	63	3	2015	Rimbach	GMP
16	Albert Schweizer School	5737 m²	30	2	2021	Wiesbaden	AFF architekten
17	Laupheim School Extension	5347 m²	36	3	2012	Laupheim	Herrmann + Bosch Architekten
18	Elementary and Comprehensive School	2701 m²	56	3	2020	Hausach	Schatzler Architekten
19	Grammar School Frankfurt	18725 m²	185	5	2013	Frankfurt	A+R Architekten
20	Gustav Heinemann School	18610 m²	120	4	2021	Essen	Sehw Architektur
21	Learning Centre Biberach	15363 m²	91	4	2013	Biberach	Lanz Schwager Architekten
22	Dessau Bauhaus	N/A	60	6	1926	Dessau	Walter Gropius
23	BAN Educational Landscape	12900 m²	60	4	2021	Köln	Gernot Schulz : Architektur

CAPACITY


Small
20 - 40 classrooms
Medium
40 - 80 classrooms
Large
80 - 120+ classrooms
Average: 58
Median: 46
300
250
200
150
100
50
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

CAPACITY


Drawing Classroom 1


Drawing Classroom 2


Chess Classroom 1


Chess Classroom 2


Majhong Classroom 1


Majhong Classroom 2


Card-Game Classroom 1


Card-Game Classroom 2


Table-Game Classroom 1


Table-Game Classroom 2


New-Media Classroom 1


New-Media Classroom 2


Music Classroom 1


Music Classroom 2


Pet Classroom 1


Pet Classroom 2


Urban-History Classroom 1


Urban-History Classroom 2


Literature Classroom 1


Literature Classroom 2


Calligraphy Classroom 1


Calligraphy Classroom 2


Piano Classroom 1


Piano Classroom 2


Opera Classroom 1


Opera Classroom 2


Farming Classroom 1


Farming Classroom 2


Photography Classroom 1


Photography Classroom 2


Parenting Classroom 1


Parenting Classroom 2


Fashion-Management Classroom 1


Fashion-Management Classroom 1


Health-Care Classroom 1


Health-Care Classroom 2


Social-Knowledge Classroom 1


Social-Knowledge Classroom 2


Fishing Classroom 1


Fishing Classroom 2

55 Classrooms + 15 Workshops + 5 Labs

Cooking Classroom 1

Cooking Classroom 2

Cooking Classroom 3

Cooking Classroom 4

Cooking Classroom 5

Yoga Classroom 1

Yoga Classroom 2

Dancing Classroom 1

Dancing Classroom 2

Fitness Classroom 1

Fitness Classroom 2

Therapy Classroom 1

Therapy Classroom 2

Meditation Classroom 1

Meditation Classroom 2

Papercut Workshop 1

Papercut Workshop 2

Papercut Workshop 3

Knitting Workshop 1

Knitting Workshop 2

Knitting Workshop 3

Handicraft Workshop 1

Handicraft Workshop 2

Handicraft Workshop 3

Woodencraft Workshop 1

Woodencraft Workshop 2

Woodencraft Workshop 3

Origami Workshop 1

Origami Workshop 2

Origami Workshop 3

Lab 1

Lab 2

Lab 3

Lab 4

Lab 5

CASE STUDY

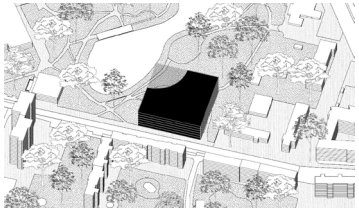
Elderly School



Fengxian Senior-Citizen University



Guangxi Senior School



De-aging Eden

Daycare Center



Long House with an Engawa Senior Daycare Center



De Julio Senior Day Center



La Vorada Center for Seniors

Other Types of School



Jacques Chirac School



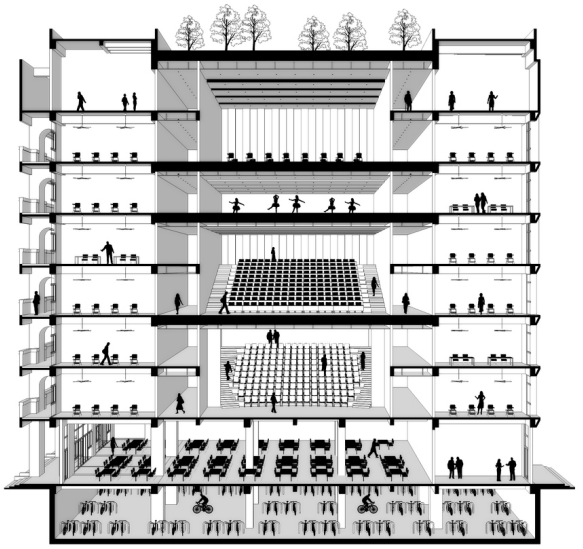
Anne Frank Middle School Rennovation



Kuwasawa Design School

FENGXIAN SENIOR-CITIZEN UNIVERSITY

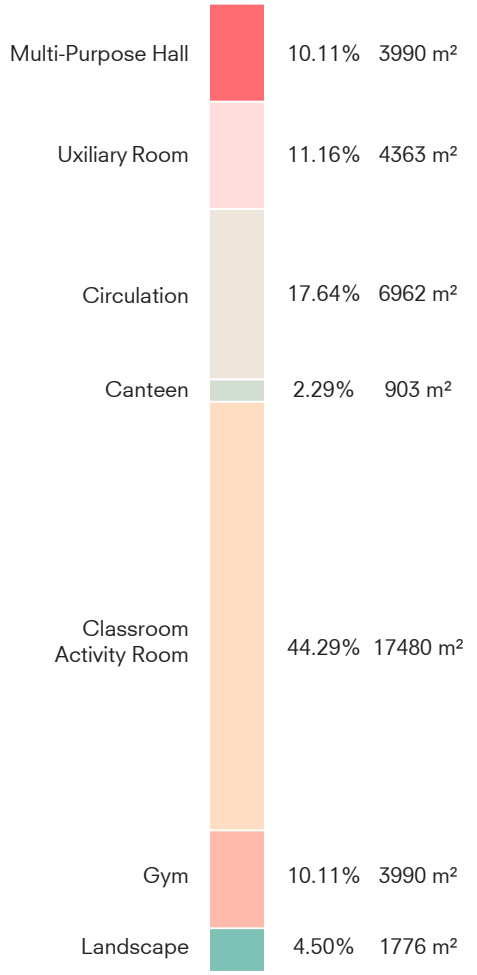




Fengxian Senior-Citizen University

Basic Information

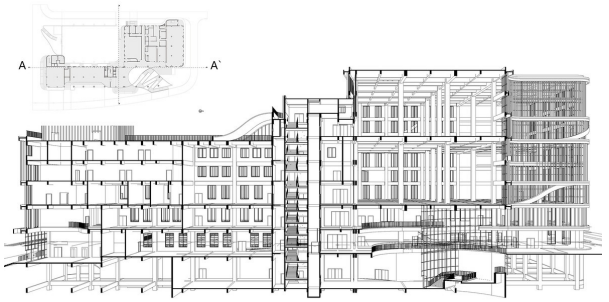
Client:	Elderly
Programme:	School
Location:	Shanghai, China
Area:	39458 m²
Floor:	9
Architect:	Atelier GOM



https://www.archdaily.cn/cn/902021/shang-hai-feng-xian-qu-lao-nian-da-xue-gao-mu-jian-zhu-she-ji?ad_medium=gallery

GUANGXI SENIOR SCHOOL



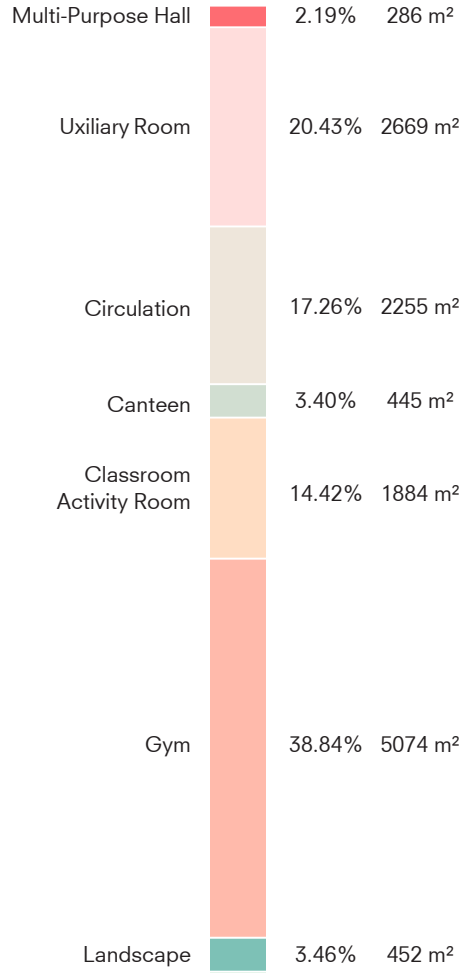


Section A-A`

Guangxi Senior School

Basic Information

Client:	Elderly
Programme:	School
Location:	Guangxi, China
Area:	13064 m²
Floor:	8
Architect:	Atelier Alter Architects



YACHIYO DAYCARE CENTER

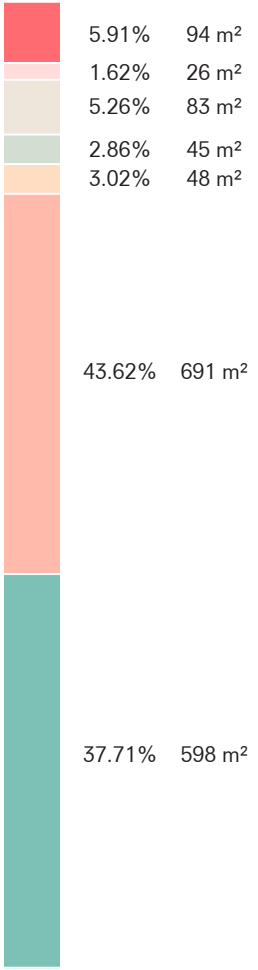




Yachiyo Daycare Center

Basic Information

Client:	Elderly + Children
Programme:	Daycare Center
Location:	Yachiyo, Chiba, Japan
Area:	1585 m²
Floor:	1
Architect:	Yamazaki Kentaro Design



Public Space	5.91%	94 m²
Uxiliary Room	1.62%	26 m²
Circulation	5.26%	83 m²
Cafe	2.86%	45 m²
Activity Room	3.02%	48 m²
Sports	43.62%	691 m²
Landscape	37.71%	598 m²

https://www.archdaily.com/1004693/long-house-with-an-engawa-senior-daycare-center-yamazaki-kentaro-design-workshop?ad_source=search&ad_medium=projects_tab

DE JULIO SENIOR DAY CENTER

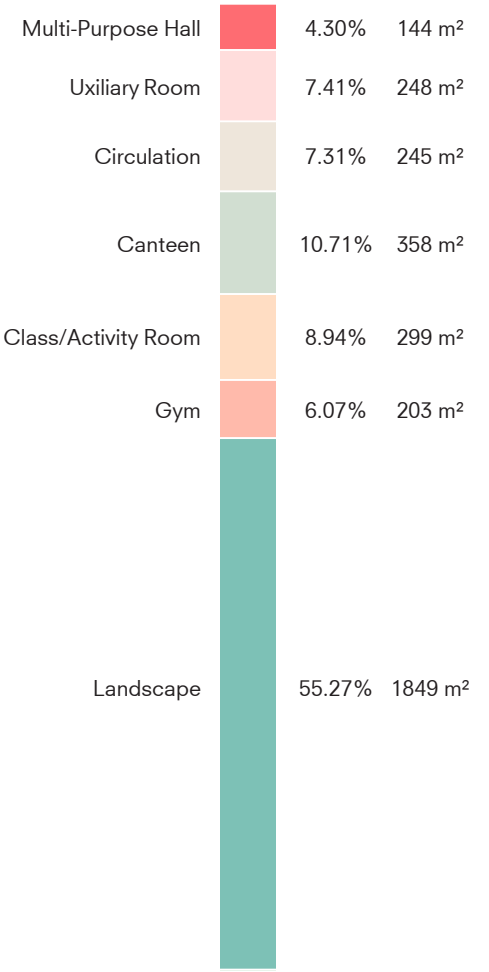




De Julio Senior Day Center

Basic Information

Client:	Elderly
Programme:	Day Center
Location:	Columbia
Area:	3346 m²
Floor:	1
Architect:	Niro Arquitectura + OAU



https://www.archdaily.com/986423/senior-day-center-niro-arquitectura-plus-oau-oficina-de-arquitectura-y-urbanismo?ad_medium=gallery

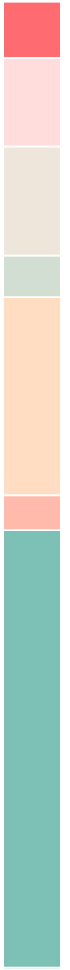
LA VORADA CENTER FOR SENIORS





La Vorada Center for Seniors

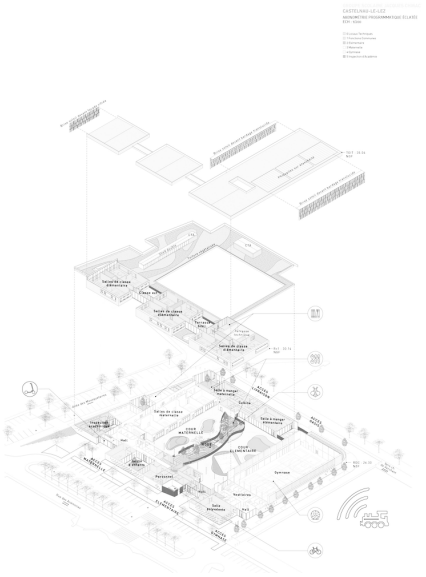
Basic Information	
Client:	Elderly
Programme:	Day Center
Location:	Spain
Area:	1288 m²
Floor:	2
Architect:	Taller 9s Arquitectes



Multi-Purpose Hall	5.81%	75 m²
Uxiliary Room	9.15%	118 m²
Circulation	11.30%	146 m²
Canteen	4.33%	56 m²
Classroom Activity Room	20.52%	264 m²
Gym	3.62%	47 m²
Landscape	45.27%	583 m²

JACQUES CHIRAC SCHOOL

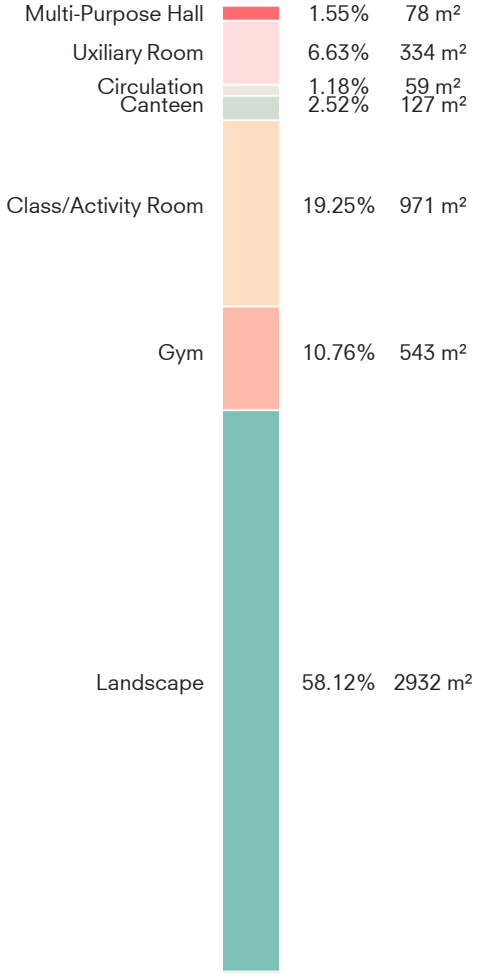




Jacques Chirac School

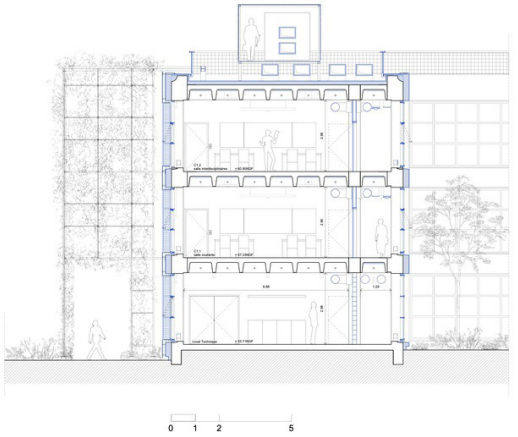
Basic Information

Client:	Children
Programme:	Kindergarten
Location:	France
Area:	5045 m²
Floor:	2
Architect:	BPA Architecture



ANNE FRANK MIDDLE SCHOOL

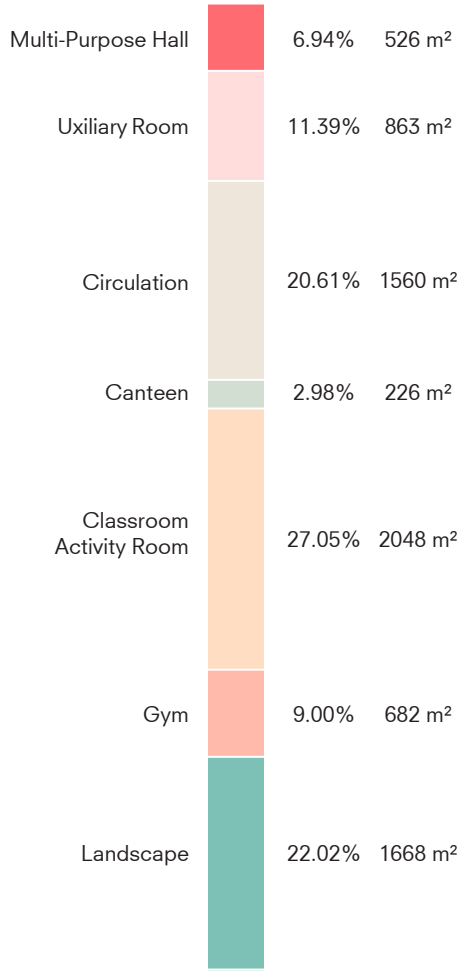




Anne Frank Middle School Rennovation

Basic Information

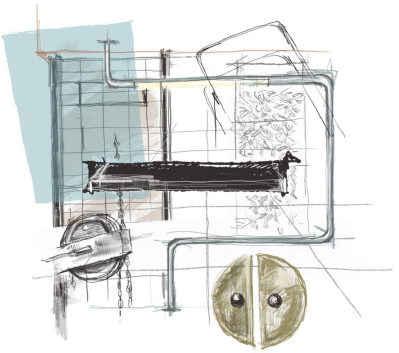
Client:	Teenagers
Programme:	Middle School
Location:	Antony, France
Area:	7572 m²
Floor:	3
Architect:	MARS Architectes



https://www.archdaily.com/1008578/anne-frank-middle-school-renovation-mars-architectes?ad_source=search&ad_medium=projects_tab

KUWASAWA DESIGN SCHOOL

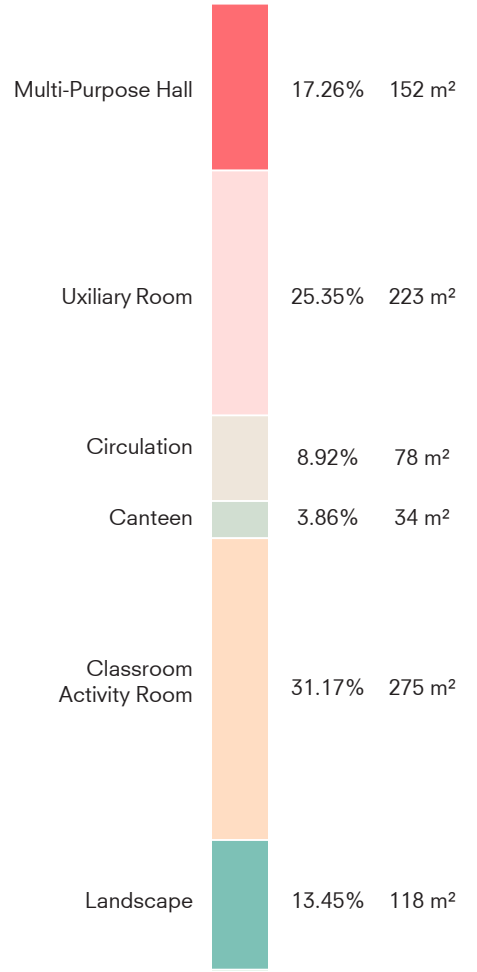




Kuwasawa Design School

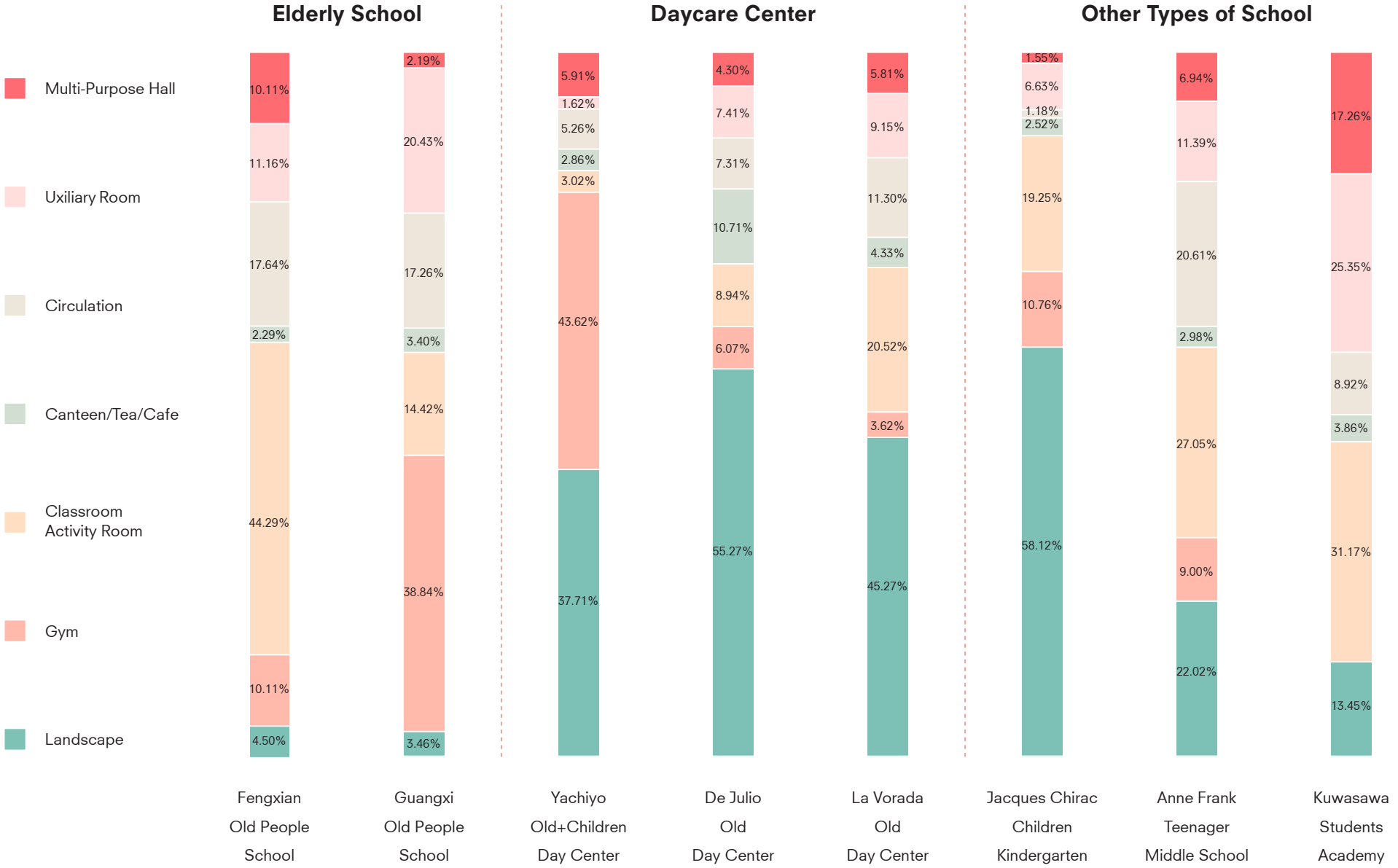
Basic Information

Client:	Collage Students
Programme:	Academy
Location:	Shibuya, Japan
Area:	881 m²
Floor:	4
Architect:	Moss



https://www.archdaily.com/1001271/kuwasawa-design-school-moss?ad_source=search&ad_medium=projects_tab

PROPORTION


Elderly School
Daycare Center
Other Types of School
Multi-Purpose Hall
Uxiliary Room
Circulation
Canteen/Tea/Cafe
Classroom Activity Room
Gym
Landscape
10.11%
11.16%
17.64%
2.29%
44.29%
10.11%
4.50%
2.19%
20.43%
17.26%
3.40%
14.42%
38.84%
3.46%
5.91%
1.62%
5.26%
2.86%
3.02%
43.62%
37.71%
4.30%
7.41%
7.31%
10.71%
8.94%
6.07%
55.27%
5.81%
9.15%
11.30%
4.33%
20.52%
3.62%
45.27%
1.55%
6.63%
1.18%
2.52%
19.25%
10.76%
58.12%
6.94%
11.39%
20.61%
2.98%
27.05%
9.00%
22.02%
17.26%
25.35%
8.92%
3.86%
31.17%
13.45%
Fengxian Old People School
Guangxi Old People School
Yachiyo Old+Children Day Center
De Julio Old Day Center
La Vorada Old Day Center
Jacques Chirac Children Kindergarten
Anne Frank Teenager Middle School
Kuwasawa Students Academy

CONCLUSION

1. Classrooms, landscape and sports hall are three important spatial elements in the design of an elderly school.

2. Compared with other school types and elderly building types, the existing elderly schools have a lower proportion of landscape, which is a direction for improvement.

3. Existing schools for the elderly provide more activities and educational space than daycare centres.

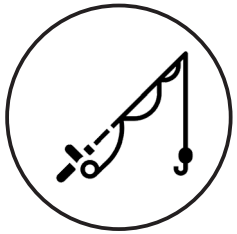
4. Elderly building types have a higher proportion of athletic space than schools serving other age groups.

5. Elderly people have limited mobility, so buildings suitable for the elderly should have as few floors as possible. If the building has more floor amount, a higher proportion of traffic space is required.

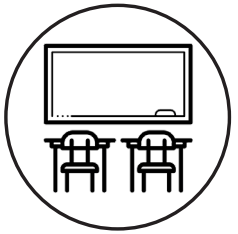


Landscape

↓



Sensory Garden
Fishing Pond



Classroom/Activityroom

↓



Intergenerational
Classroom/Workshop



Gym

↓



Intergenerational
Gym

CONCLUSION

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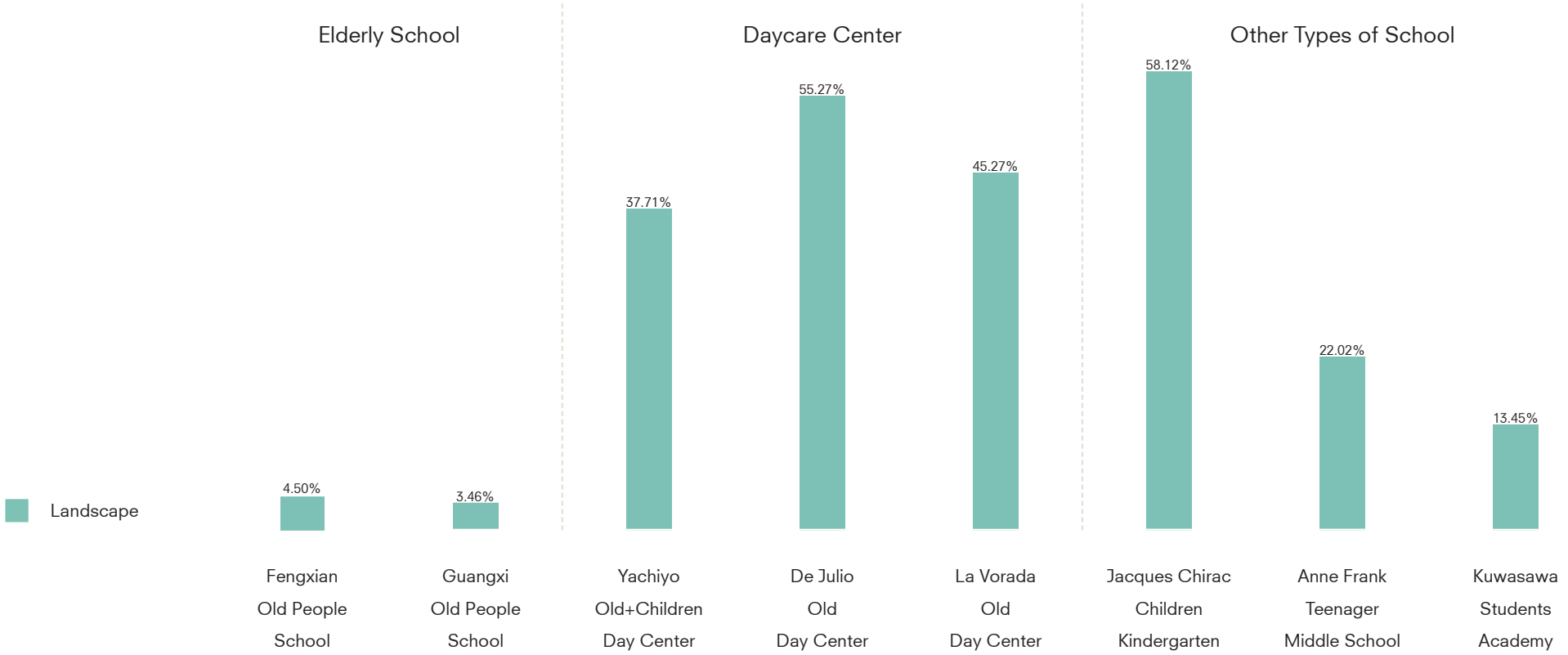

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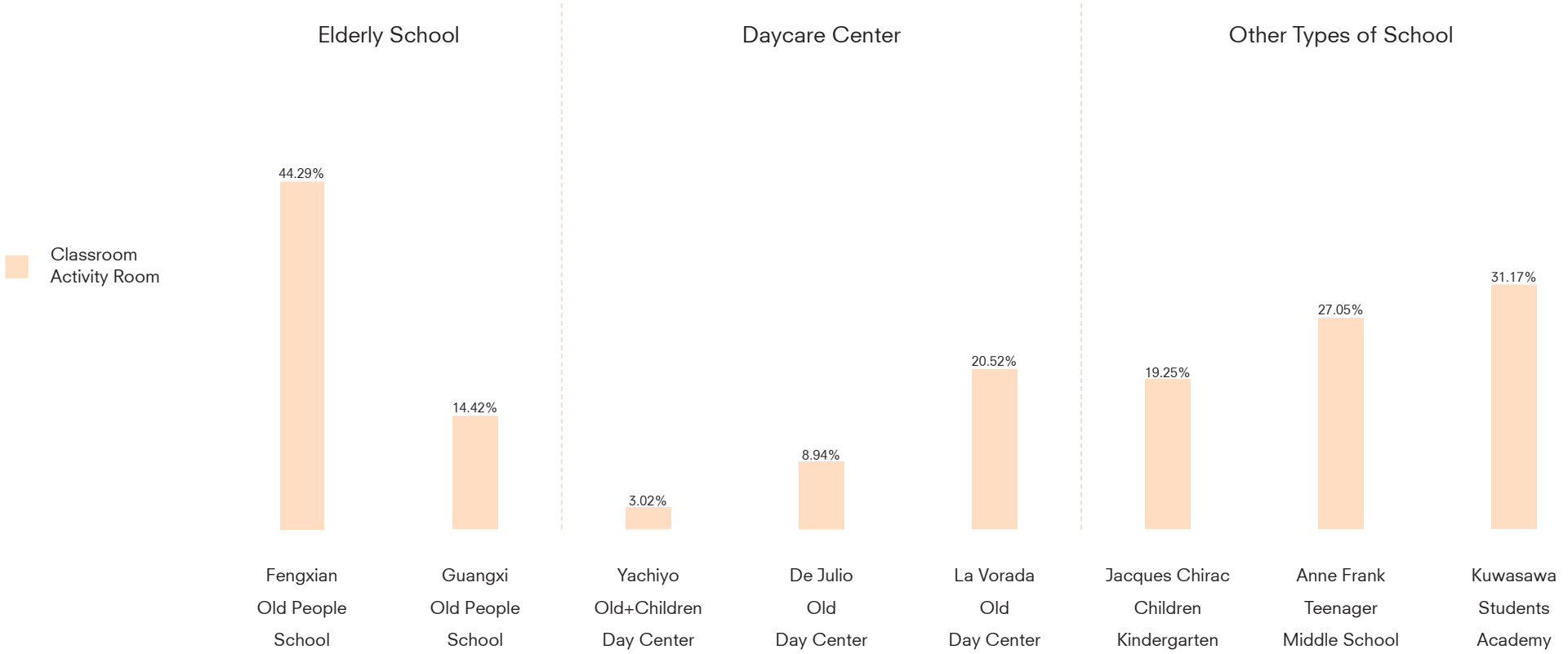

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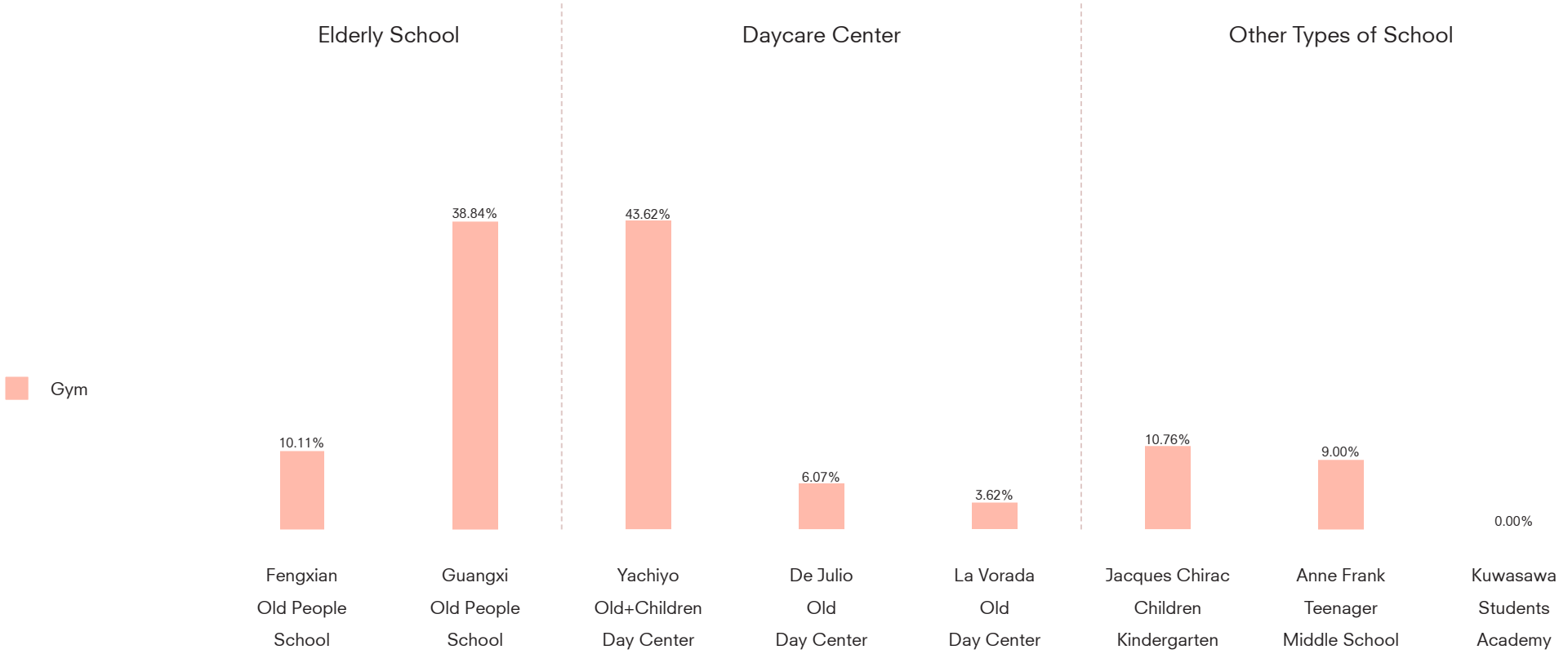

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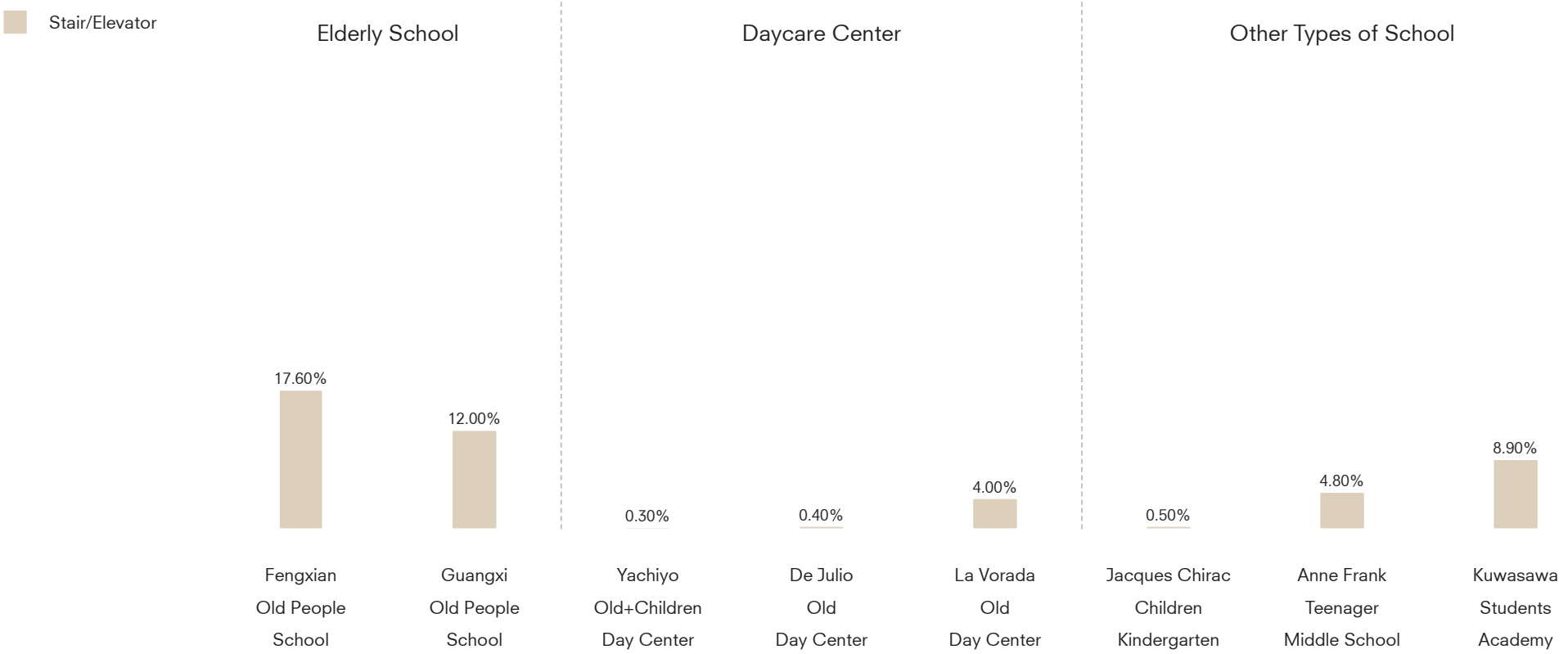


PROGRAM AMBITION



Circulation / Canteen / Classroom / Gym / Landscape / Clinic

- **Increase elevators and aisle width for the elderly.**



Circulation / **Canteen** / Classroom / Gym / Landscape / Clinic

- **Increase space for the elderly to communicate with the public.**



Circulation / Canteen / **Classroom** / Gym / Landscape / Clinic

- **Increase diversity in cross-age curriculum.**



Circulation / Canteen / Classroom / **Gym** / Landscape / Clinic

- **Reduce strenuous exercise and increase more gentle physical education classes and contact with nature.**



Circulation / Canteen / Classroom / Gym / **Landscape** / Clinic

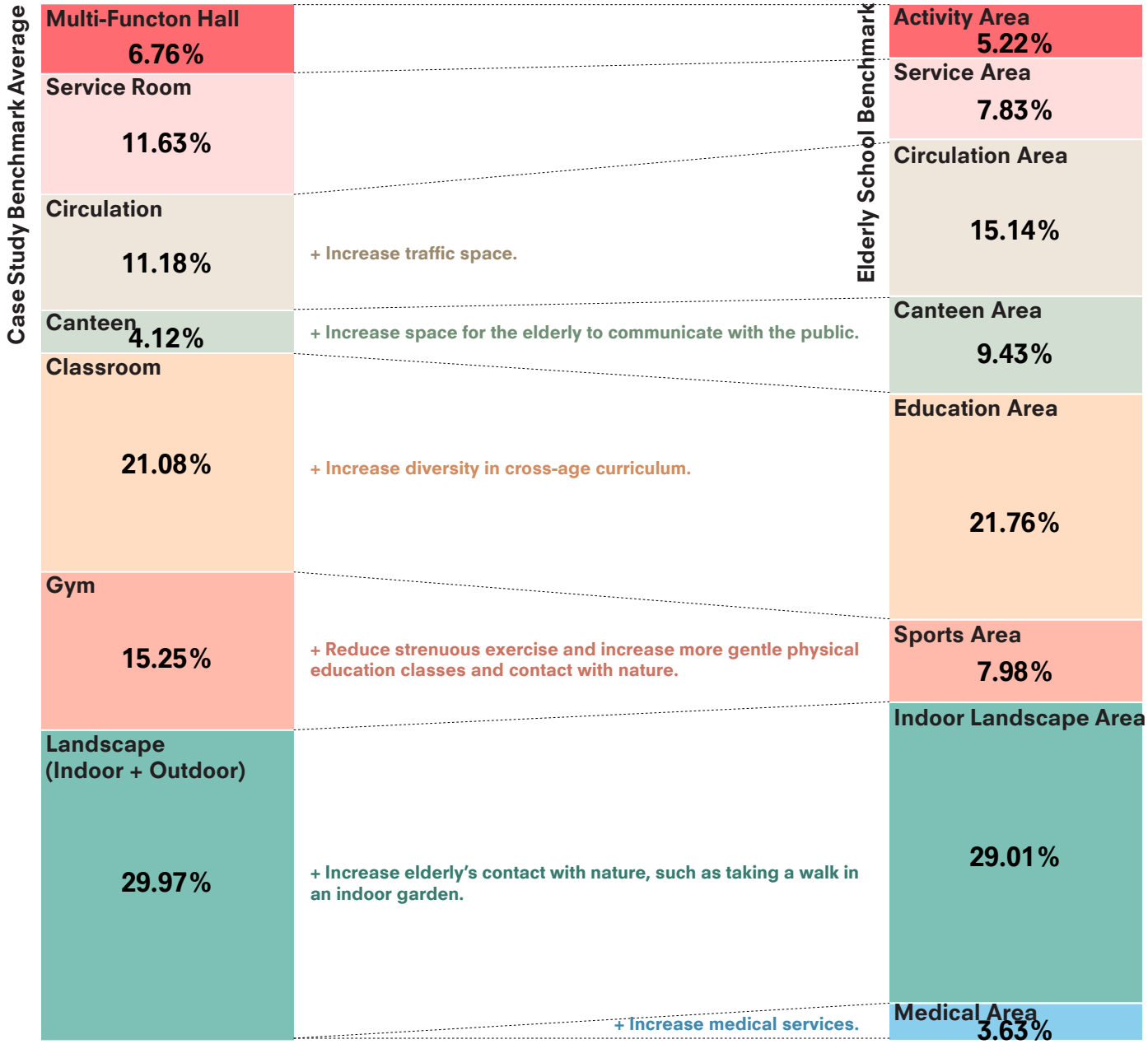
- **Increase elderly’s contact with nature, such as taking a walk in an indoor garden.**



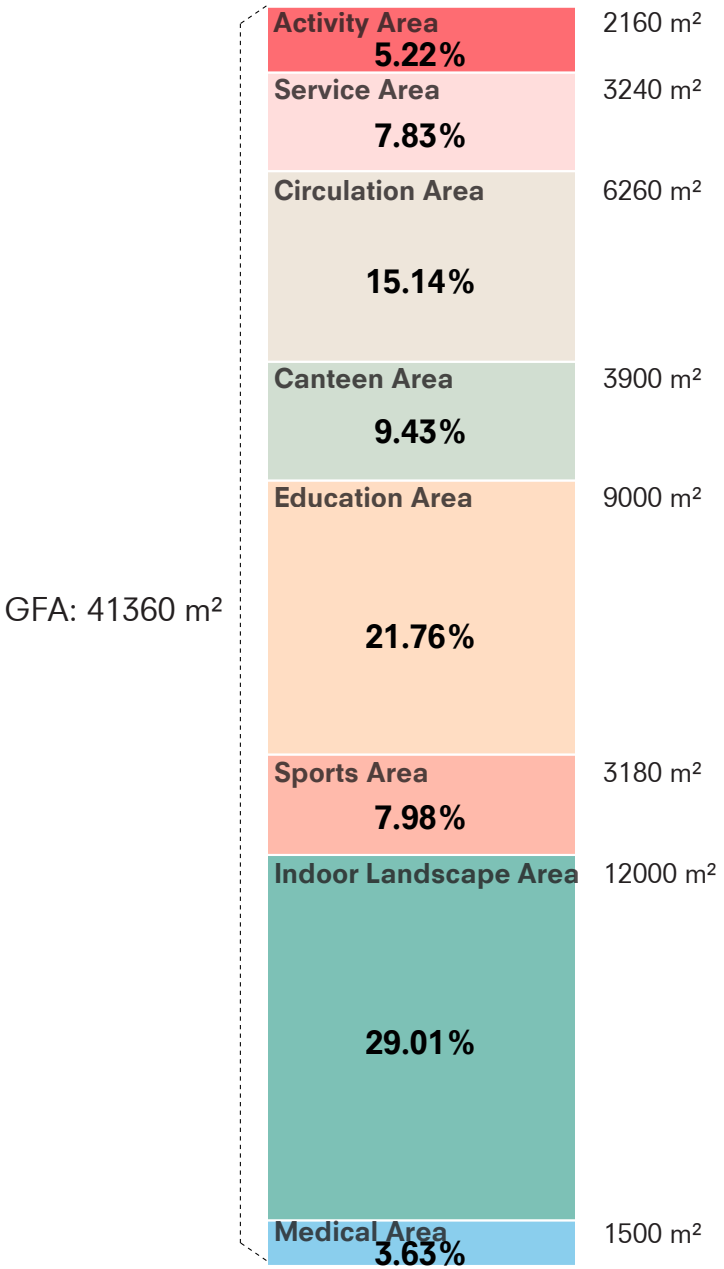
Circulation / Canteen / Classroom / Gym / Landscape / **Clinic**

- **Increase medical services.**

REDEFINING


Case Study Benchmark Average
Multi-Functon Hall
6.76%
Service Room
11.63%
Circulation
11.18%
Canteen
4.12%
Classroom
21.08%
Gym
15.25%
Landscape
(Indoor + Outdoor)
29.97%
+ Increase traffic space.
+ Increase space for the elderly to communicate with the public.
+ Increase diversity in cross-age curriculum.
+ Reduce strenuous exercise and increase more gentle physical education classes and contact with nature.
+ Increase elderly's contact with nature, such as taking a walk in an indoor garden.
+ Increase medical services.
Elderly School Benchmark
Activity Area
5.22%
Service Area
7.83%
Circulation Area
15.14%
Canteen Area
9.43%
Education Area
21.76%
Sports Area
7.98%
Indoor Landscape Area
29.01%
Medical Area
3.63%

PROGRAMME BAR



PROGRAMME BAR



ACTIVITY AREA



SERVICE AREA

Service Area **3240 m²** **7.83%**	**Office** **900 m²** **27.78%**	**Office 1**	90
		Office 2	90
		Office 3	90
		Office 4	90
		Office 5	90
		Office 6	90
		Office 7	90
		Office 8	90
		Office 9	90
		Office 10	90
	Service Rooms **720 m²** **22.22%**	**Receiption**	90
		Information	90
		Repair	90
		Souvenir	90
		Print	90
		Storage	180
		Cleaning	90
	Meeting Rooms **540 m²** **16.67%**	**Meeting Room 1**	180
		Meeting Room 2	180
		Meeting Room 3	180
	Toilets **1080 m²** **33.33%**	**Toilets**	1080

CIRCULATION AREA

Circulation Area
6260 m²
15.14%

Horizontal Circulation
5360 m²
85.62%

Corridor	5000
Lobby	360

Vertical Circulation
900 m²
14.38%

Stair/Elevation	900

CANTEEN AREA

Canteen Area
3900 m²
9.43%

Kitchen
900 m²
23.08%

Kitchen	900

Dining Rooms
2100 m²
53.85%

Cafe	450
Bar	450
Restaurant	1200

Cooking Classrooms
900 m²
23.08%

Cooking 1	180
Cooking 2	180
Cooking 3	180
Cooking 4	180
Cooking 5	180

EDUCATION AREA

Education Area
9000 m²
21.76%

Classrooms
6000 m²
66.67%

Drawing 1	150
Drawing 2	150
Chess 1	150
Chess 2	150
Majhong 1	150
Majhong 2	150
Card Game 1	150
Card Game 2	150
Table Game 1	150
Table Game 2	150
New Media 1	150
New Media 2	150
Music 1	150
Music 2	150
Pet 1	150
Pet 2	150
Urban History 1	150
Urban History 2	150
Literature 1	150
Literature 2	150
Calligraphy 1	150
Calligraphy 2	150
Piano 1	150
Piano 2	150
Opera 1	150
Opera 2	150
Farming 1	150
Farming 2	150
Photography 1	150
Photography 2	150
Parenting 1	150
Parenting 2	150
Fashion 1	150
Fashion 2	150
Healthcare 1	150
Healthcare 2	150
Social Knowledge 1	150
Social Knowledge 2	150
Fishing 1	150
Fishing 2	150

Workshops
2250 m²
25.00%

Papercut 1	150
Papercut 2	150
Papercut 3	150
Knitting 1	150
Knitting 2	150
Knitting 3	150
Handicraft 1	150
Handicraft 2	150
Handicraft 3	150
Woodencraft 1	150
Woodencraft 2	150
Woodencraft 3	150
Origami 1	150
Origami 2	150
Origami 3	150

Labs
750 m²
8.33%

Lab 1	150
Lab 2	150
Lab 3	150
Lab 4	150
Lab 5	150

SPORTS AREA

Sports Area
3300 m²
7.98%

Sports Classrooms
1500 m²
45.45%

Yoga 1	150
Yoga 2	150
Meditation 1	150
Meditation 2	150
Dancing 1	150
Dancing 2	150
Therapy 1	150
Therapy 2	150
Fitness 1	150
Fitness 2	150

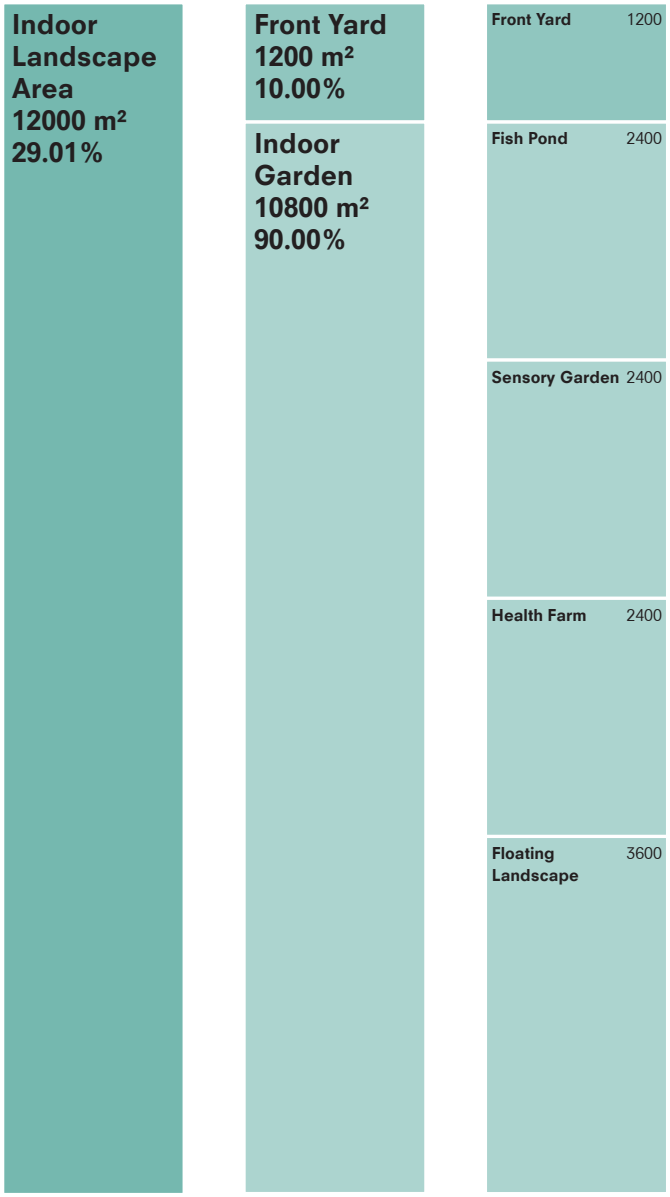
Swimming Pool
900 m²
27.27%

Swimming Pool	900

Sports Field
900 m²
27.27%

Sports Field	900

INDOOR LANDSCAPE AREA



MEDICAL AREA

Medical Area
1500 m²
3.63%

Information
150 m²
10.00%

Clinic
1350 m²
90.00%

Health Infromation Center	150
Clinic Room 1	150
Clinic Room 2	150
Clinic Room 3	150
Clinic Room 4	150
Clinic Room 5	150
Clinic Room 6	150
Clinic Room 7	150
Clinic Room 8	150
Clinic Room 9	150

AREA COMPARISON

GFA: 41360 m²

Activity Area

Multi-Functional Hall 360
Library 360
Exhibition Hall 360
Archive Hall 360
Lecture Hall 360
Lounge 360

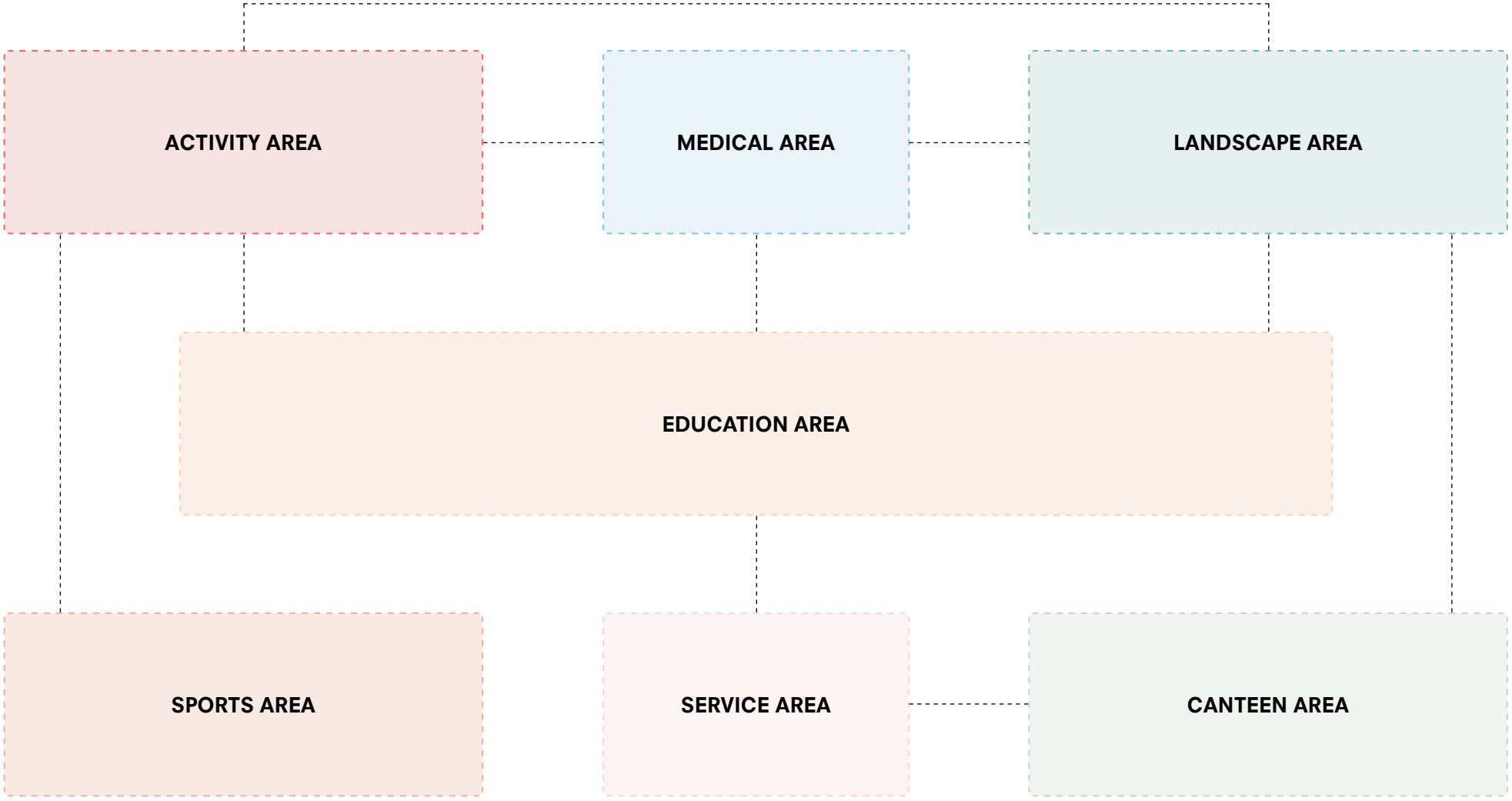
Circulation Area

Lobby 360
Stair/Elevator 900
Corridor 5000

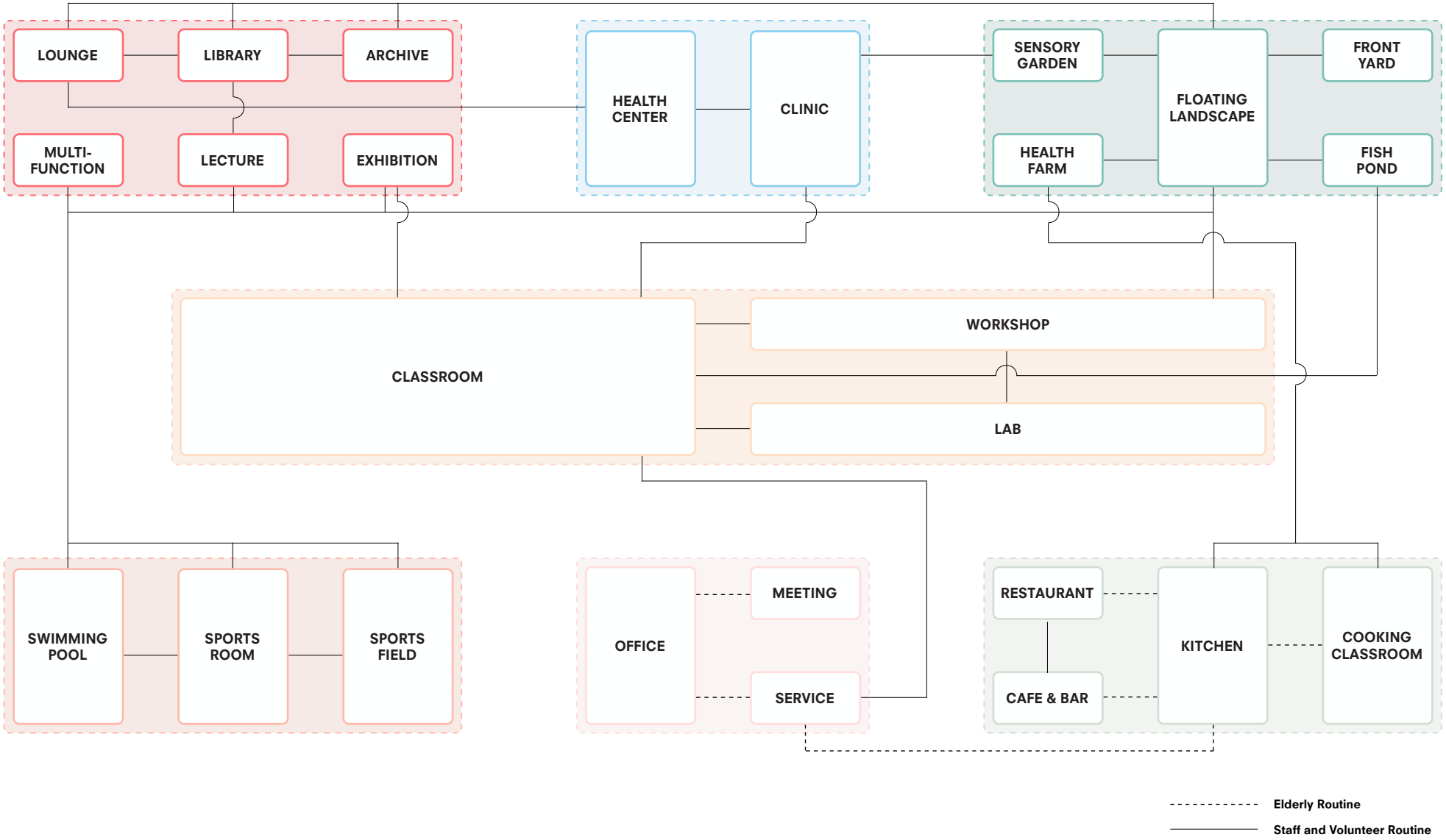
Education Area

Classroom*40 150 150 150

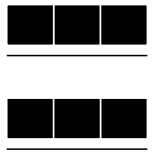
PROGRAM RELATION SCHEME



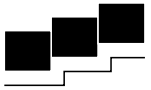
PROGRAM RELATION SCHEME



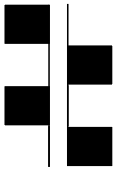
CLASSROOM ARRANGEMENT



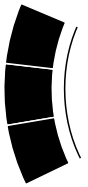
Floor Distribution



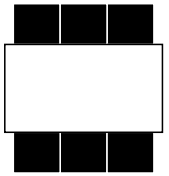
Dislocation Distribution



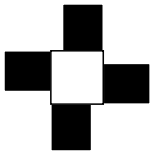
Aisle Distribution



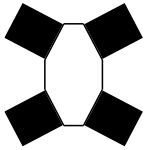
Arc Distribution



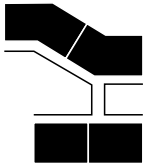
Courtyard Distribution



Rotating Distribution

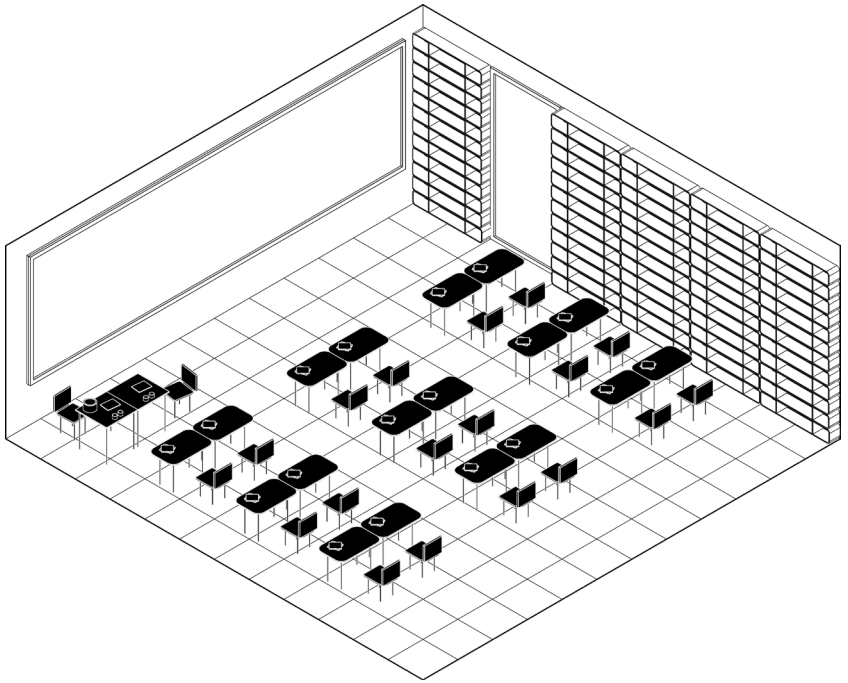


Radial Distribution



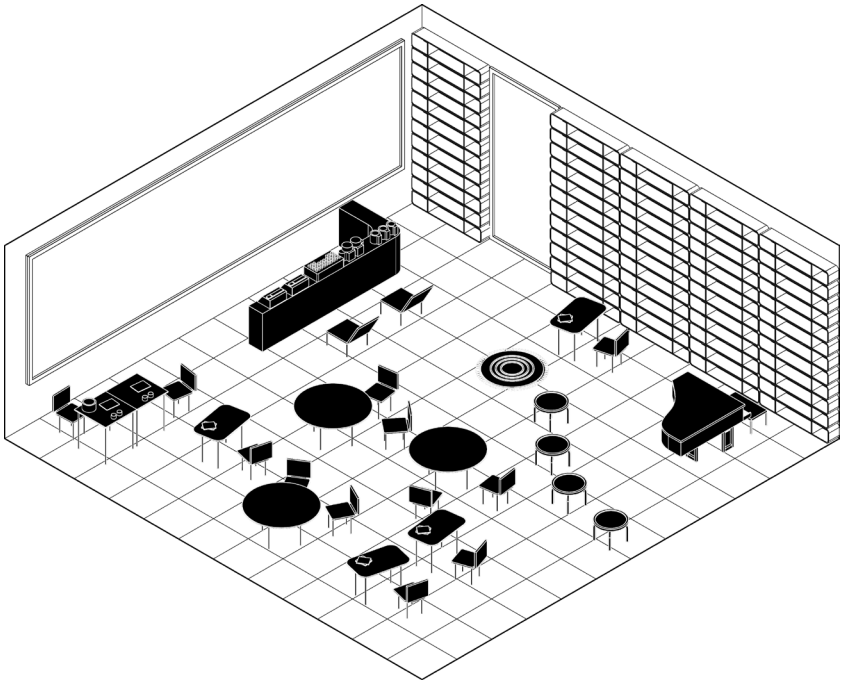
Irregular Distribution

KEY SPACE: CLASSROOM



Orderly Arrangement

Or

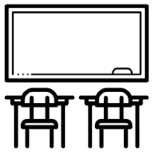


Random Arrangement

SPACE REQUIREMENT



Natural Light



Cozy Classroom



Human Scale



Visual Design



Landscape



Exhibitions



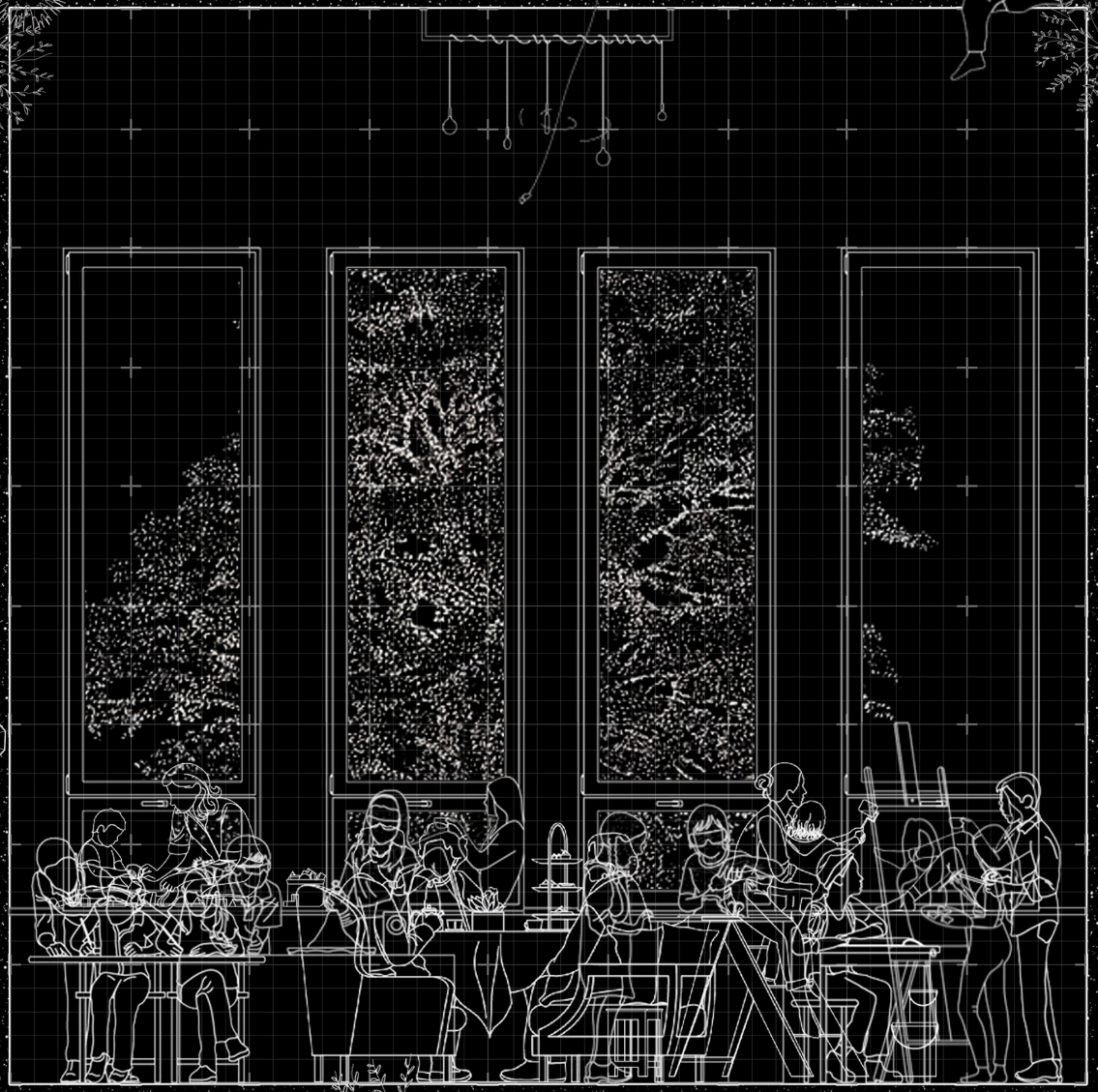
Public Space



Creative Activitities

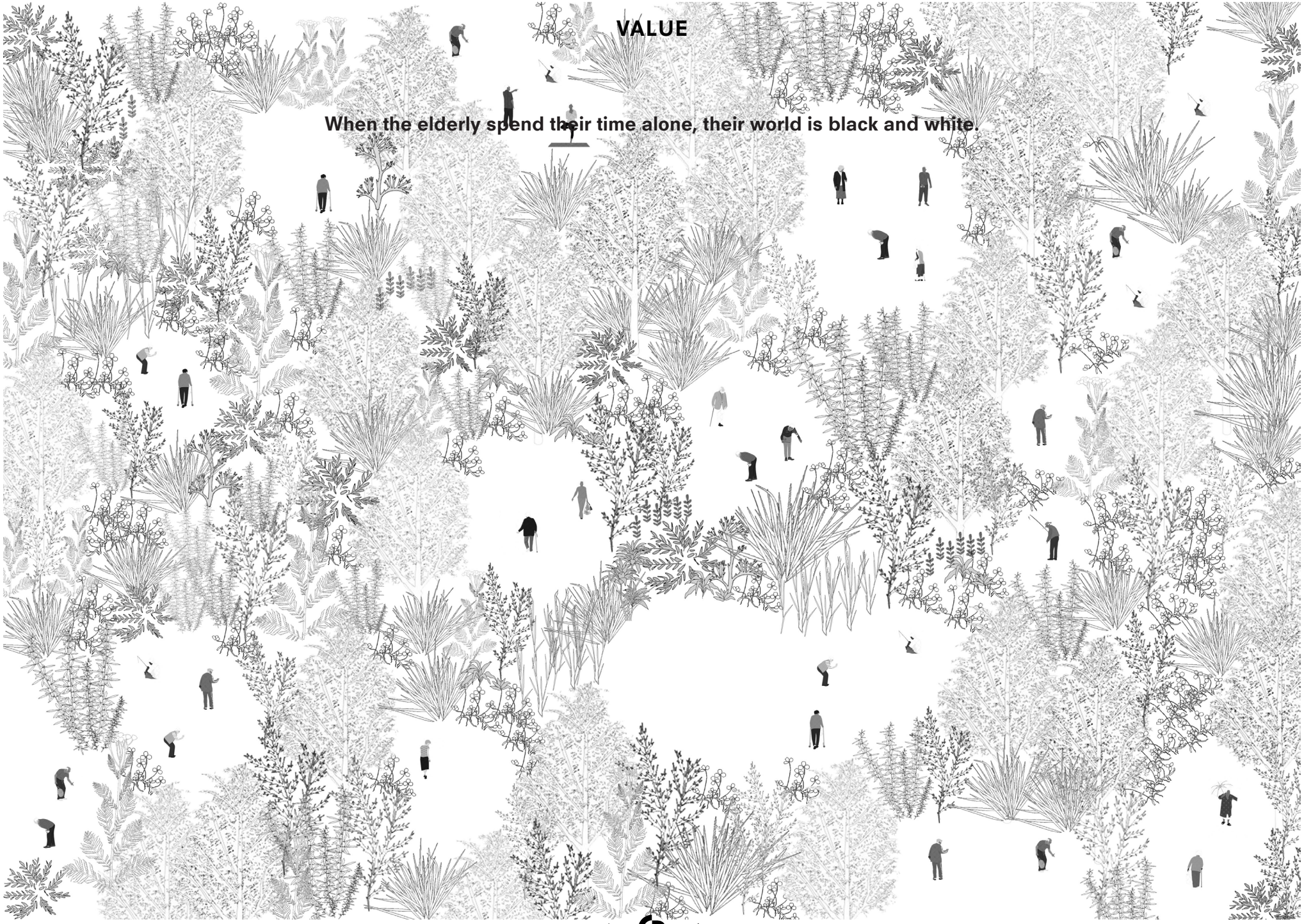
PARTICIPATORY CLASSROOM

Intergenerational classrooms boost intergenerational knowledge sharing and elderly self-actualization.



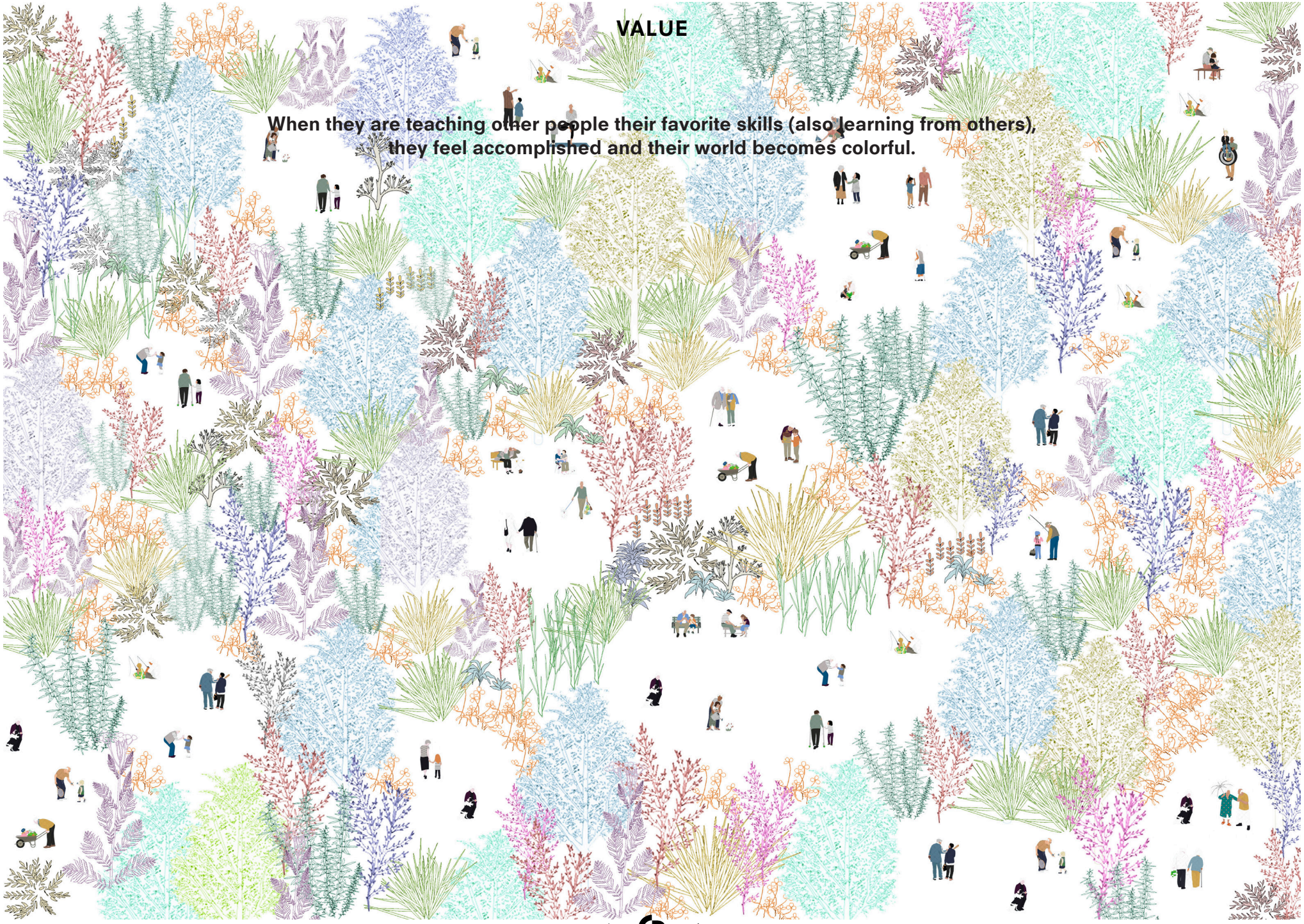
VALUE

When the elderly spend their time alone, their world is black and white.



VALUE

When they are teaching other people their favorite skills (also learning from others), they feel accomplished and their world becomes colorful.



VALUE

Everything for the elderly, elderly for everyone.



“老吾老以及人之老，幼吾幼以及人之幼。”

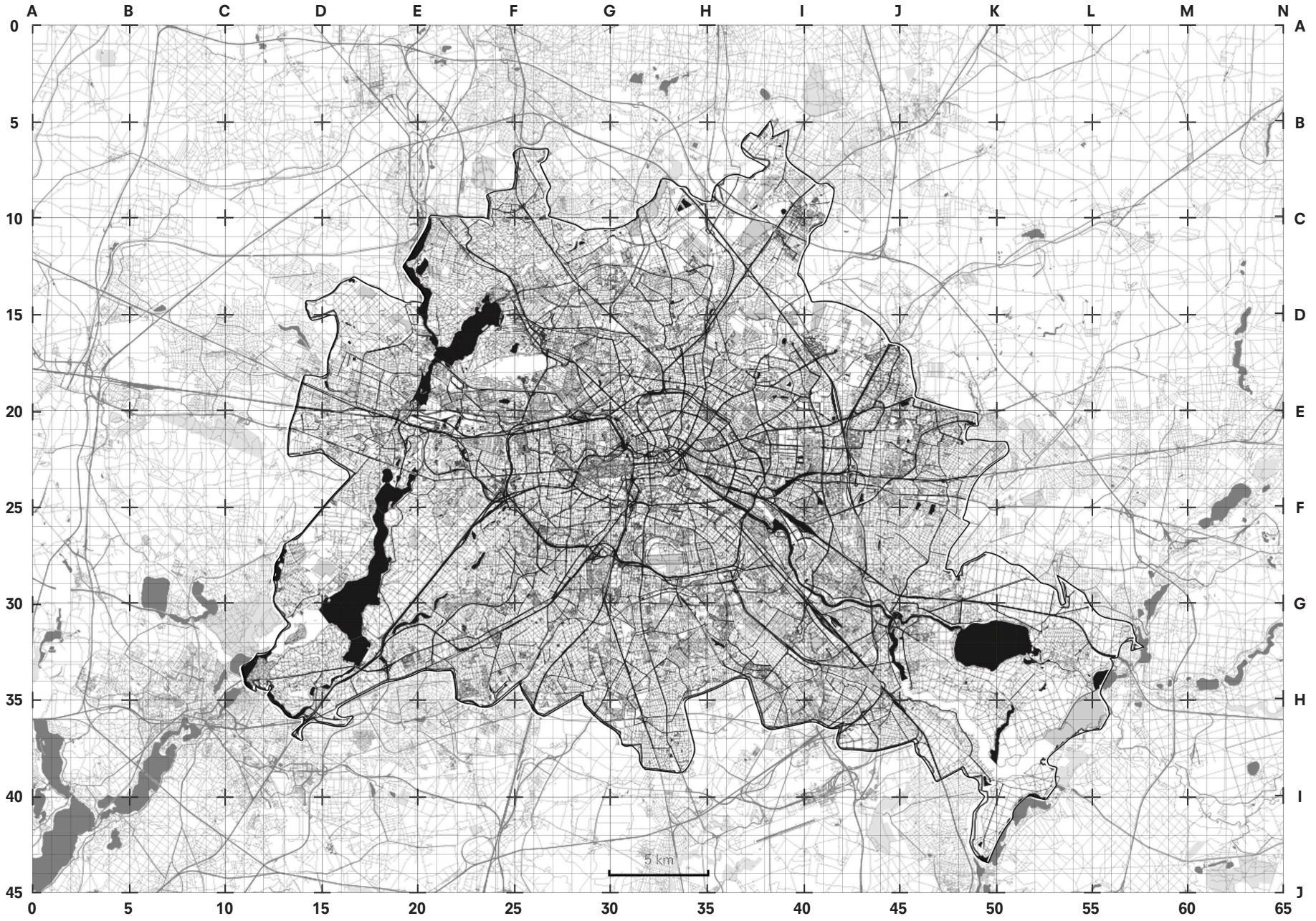
--《梁惠王上》（孟子，公元前320年）

“Honor old people as we do our own aged parents, and care for other’s children as our own.”

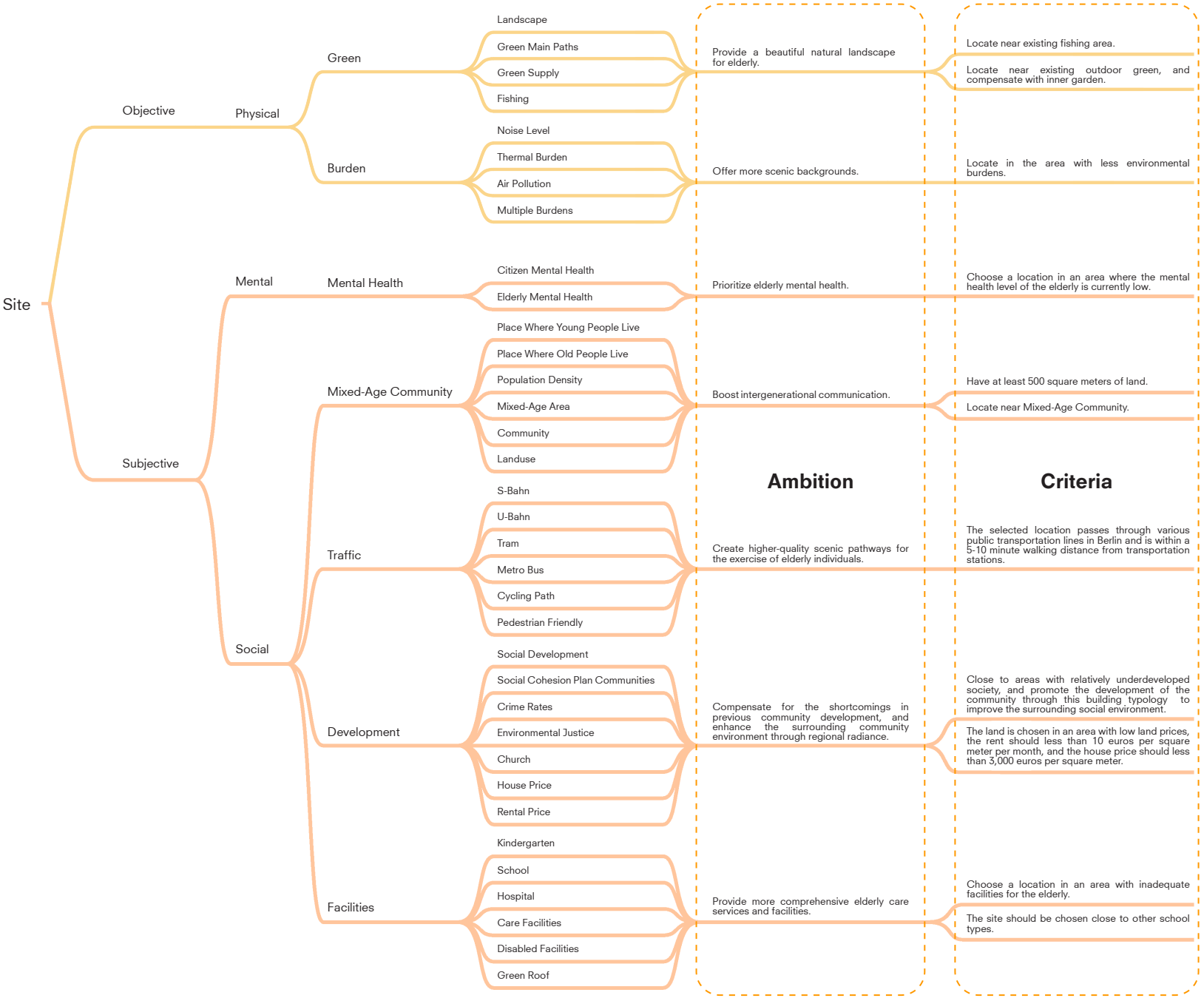
-- *Liang Hui Wang I* (Mencius, 320 B.C.)

Picture Source: https://www.culturalkeys.cn/2021/09/17/chinese-stories-mencius/

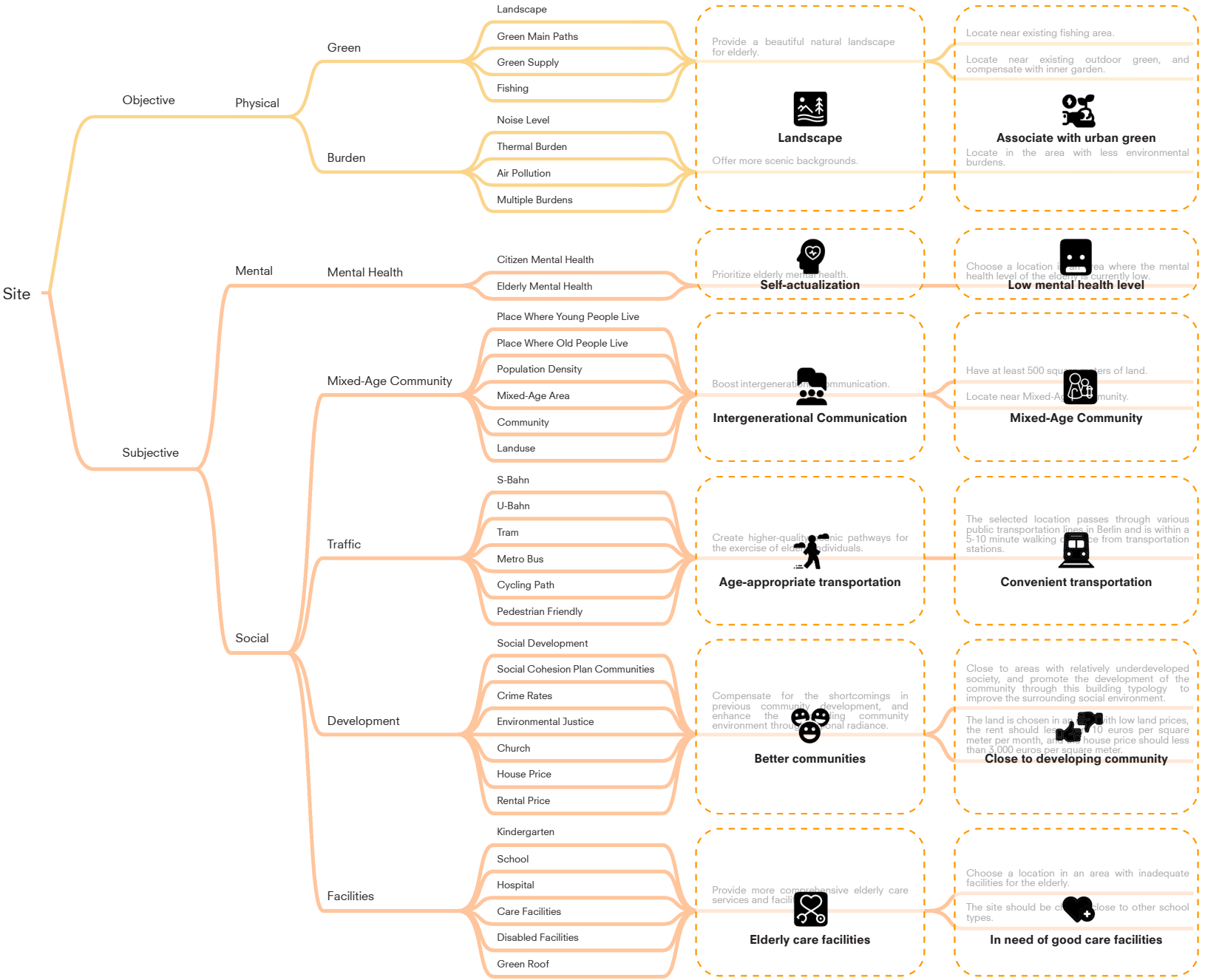
URBAN SCALE: BERLIN



SITE EVALUATION



SITE EVALUATION



SITE AMBITION

Physical



1. Landscape

Provide a beautiful indoor and outdoor natural landscape for elderly. Offer more scenic backgrounds. Reach a balance of stimuli.

Mental



2. Self-actualization

Prioritize elderly mental health. Pay attention to the mental health of the elderly in the selected area so that they no longer feel lonely and forgotten.

Social



3. Age-appropriate transportation

Create an age-appropriate mode of transportation including walking and public transportation.

Social



4. Intergenerational communication

Boost intergenerational communication in nearby communities. Promote communication between seniors and other age groups.

Social



5. Better communities

Compensate for the shortcomings in previous community development, and enhance the surrounding community environment through regional radiance.

Social



6. Elderly care facilities

Provide more comprehensive elderly care services and facilities.

SITE CRITERIA

Physical



1. Associate with urban green

Locate the building near existing outdoor green parks, and compensate with inner garden. Also, try to locate the building near existing fishing area because of fishing class.

Mental



2. Low mental health level

Choose a location in an area where the mental health level of the elderly is currently low.

Social



3. Convenient transportation

The selected location passes through various public transportation lines in Berlin and is within a 5-10 minute walking distance from transportation stations.

Social



4. Mixed-Age community

Choose a location near Mixed-Age Community. Also, the site should be chosen close to other school types.

Social



5. Close to developing community

Close to areas with relatively underdeveloped society with low house price, and promote the development of the community through this building typology to improve the surrounding social environment.

Social



6. In need of good care facilities

Choose a location in an area with inadequate care facilities for the elderly.

MIXED-AGE COMMUNITY

Physical



1. Associate with urban green

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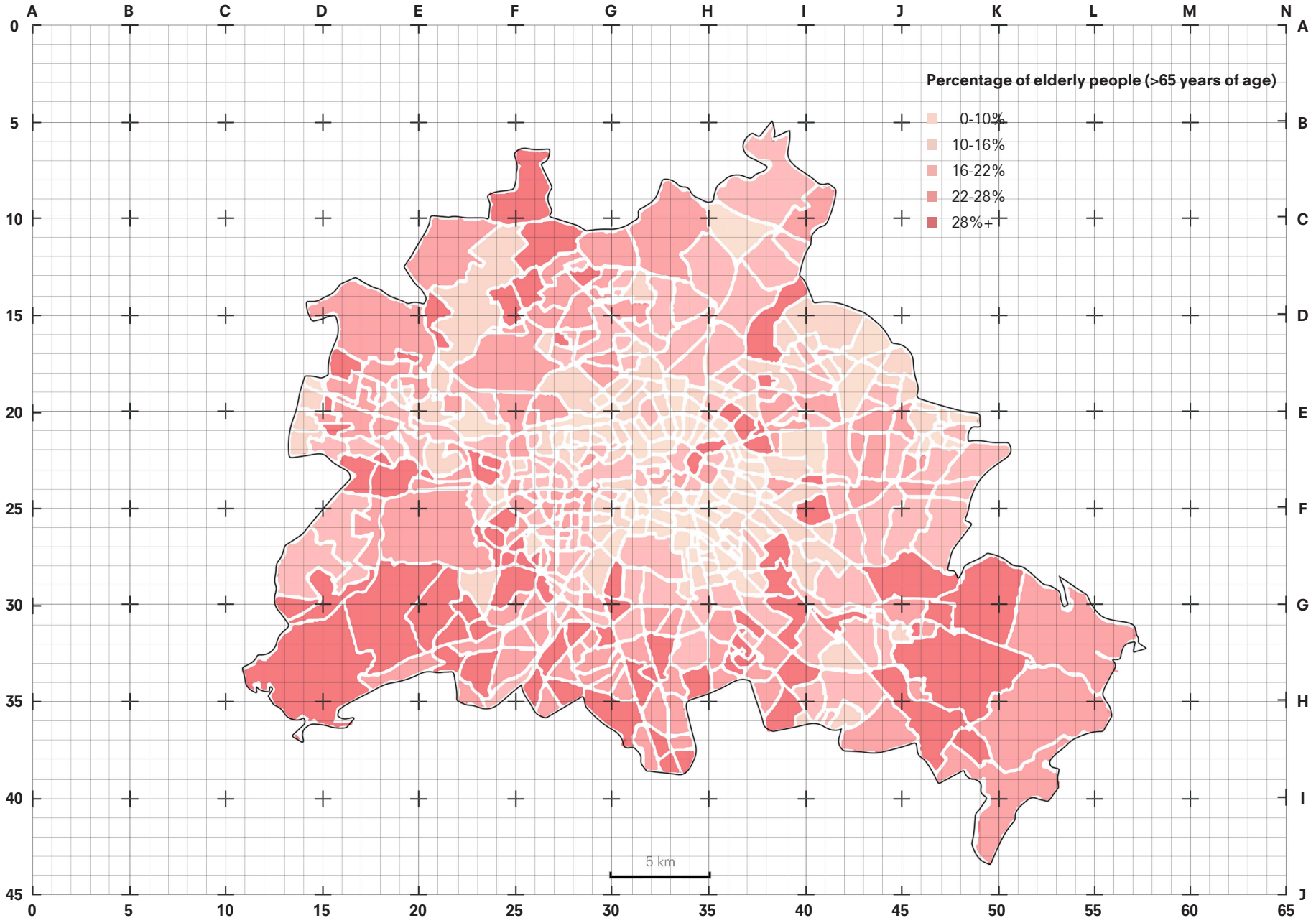
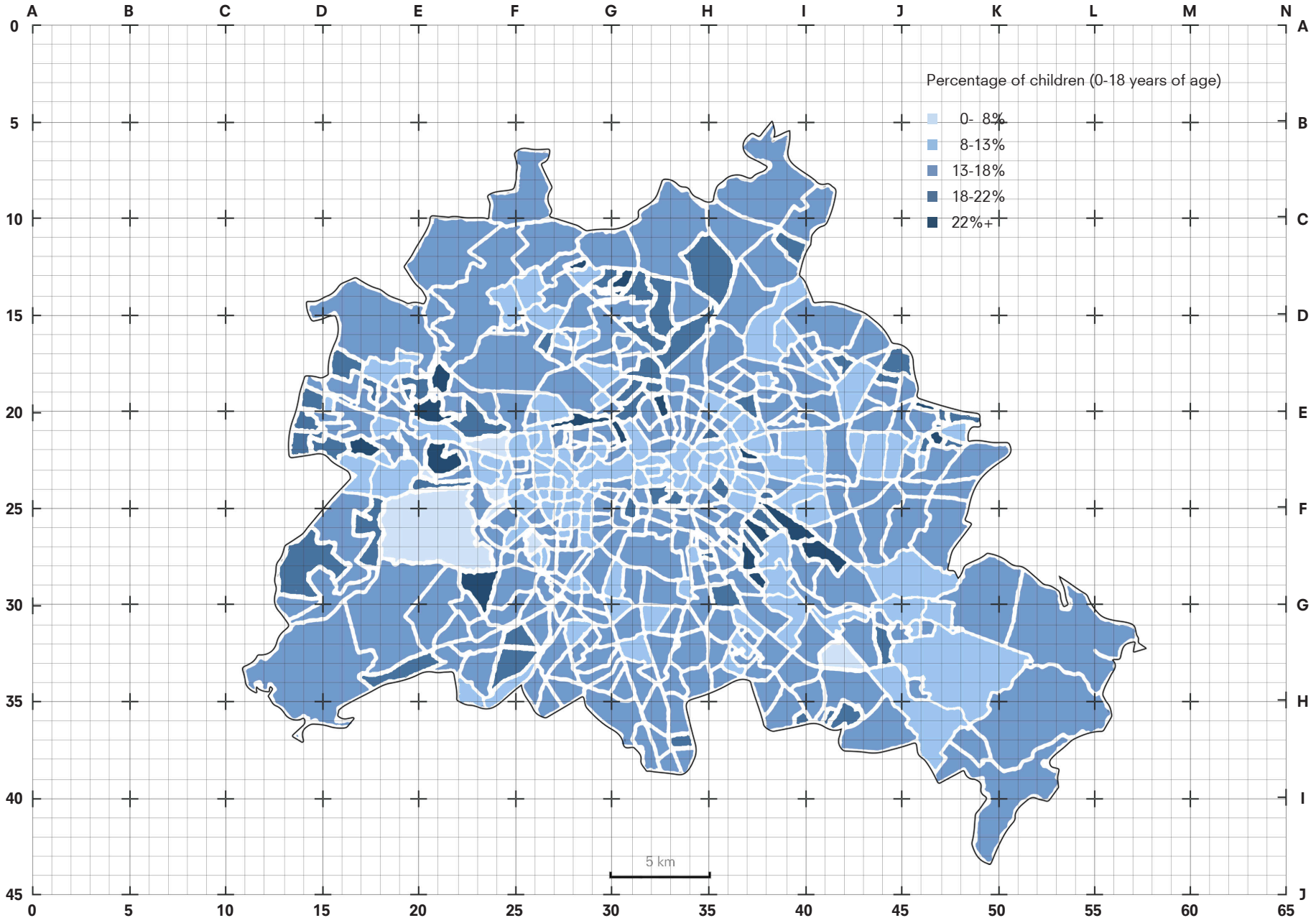
PLACE WHERE OLD PEOPLE LIVE



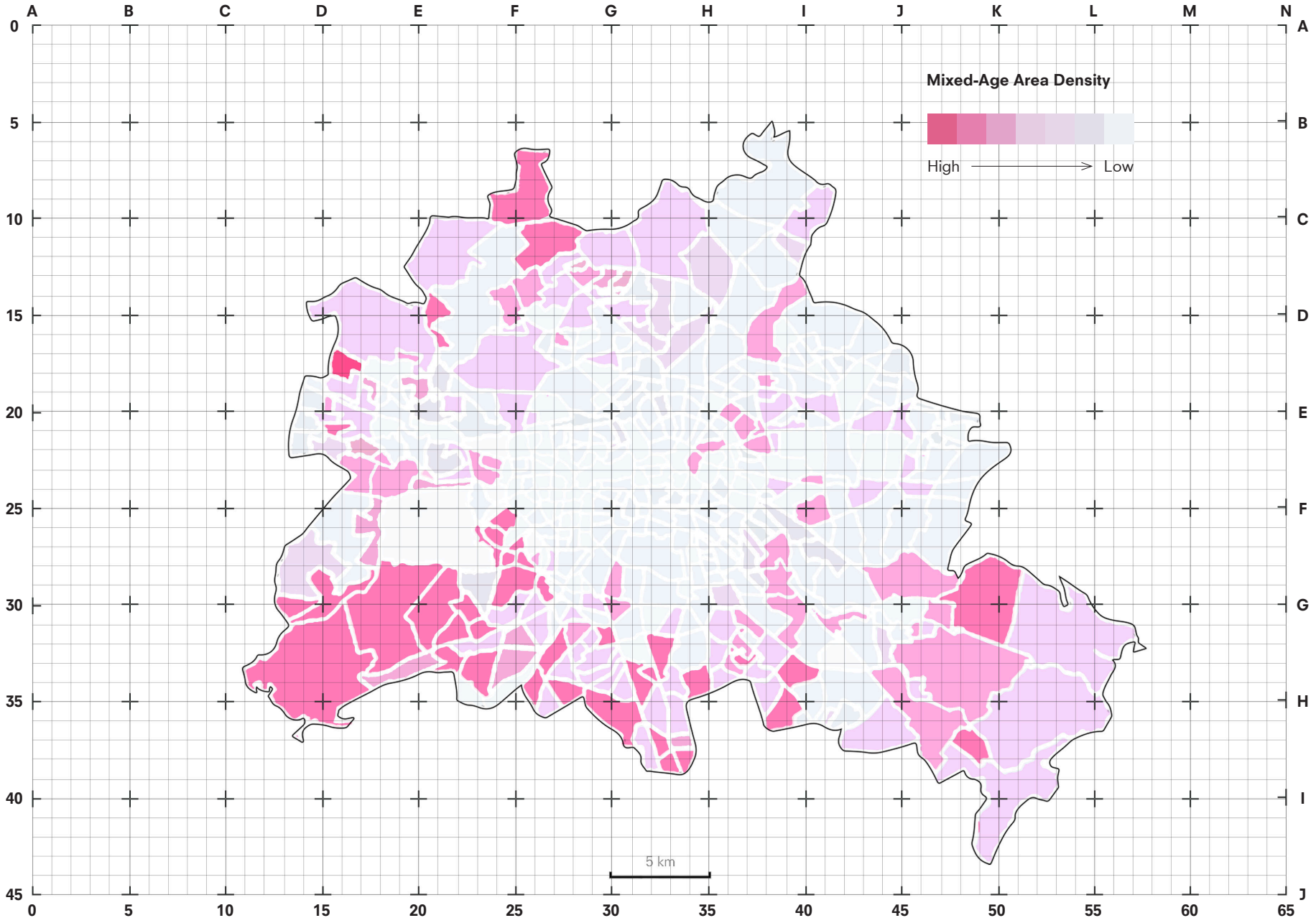
Data Source: https://www.researchgate.net/figure/Population-density-and-per-capita-green-space-in-the-sub-districts-of-Berlin-2012-Land_fig1_319419926

PLACE WHERE YOUNG PEOPLE LIVE

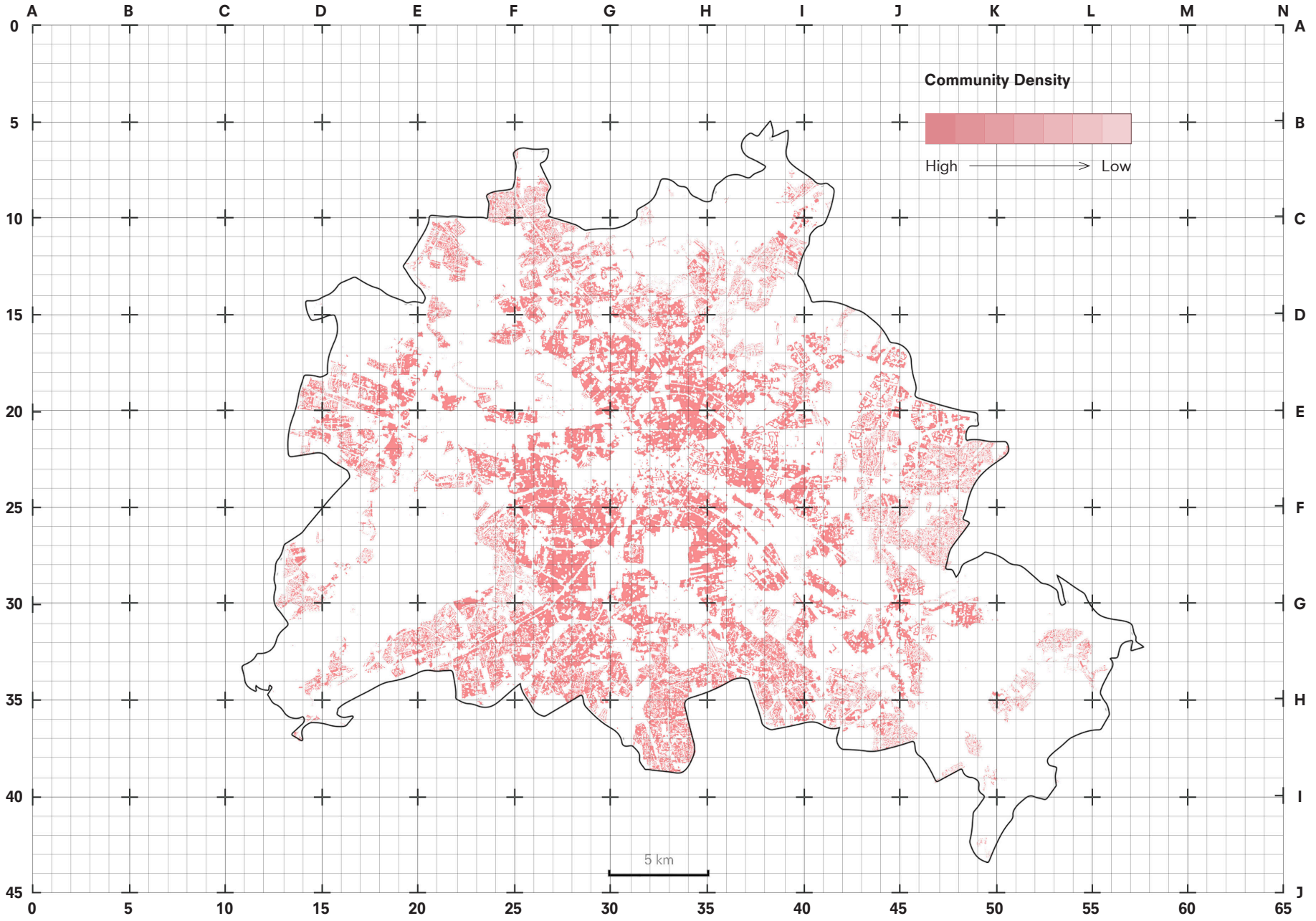


Data Source: https://www.researchgate.net/figure/Population-density-and-per-capita-green-space-in-the-sub-districts-of-Berlin-2012-Land_fig1_319419926

MIXED-AGE AREA

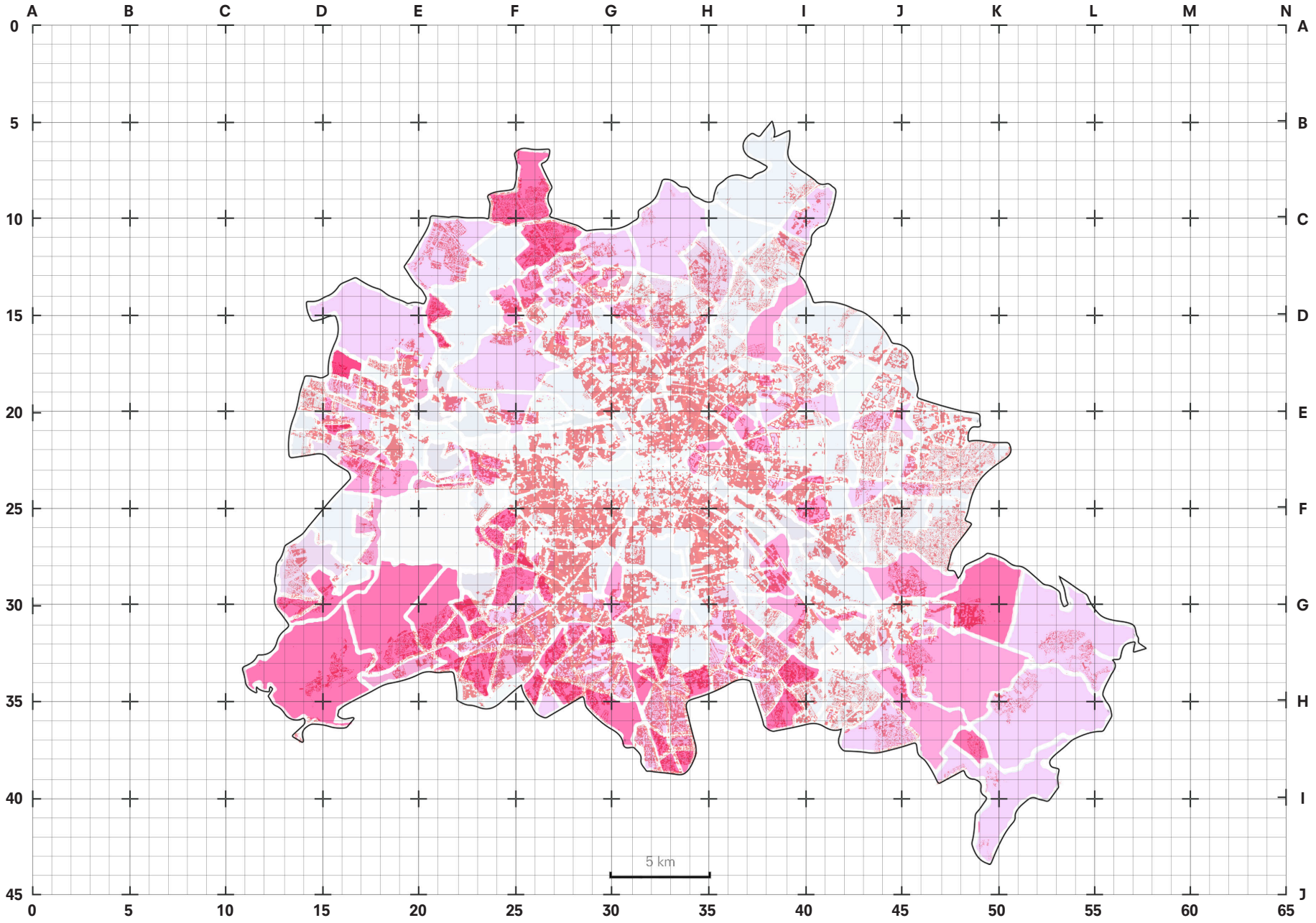


COMMUNITY DENSITY

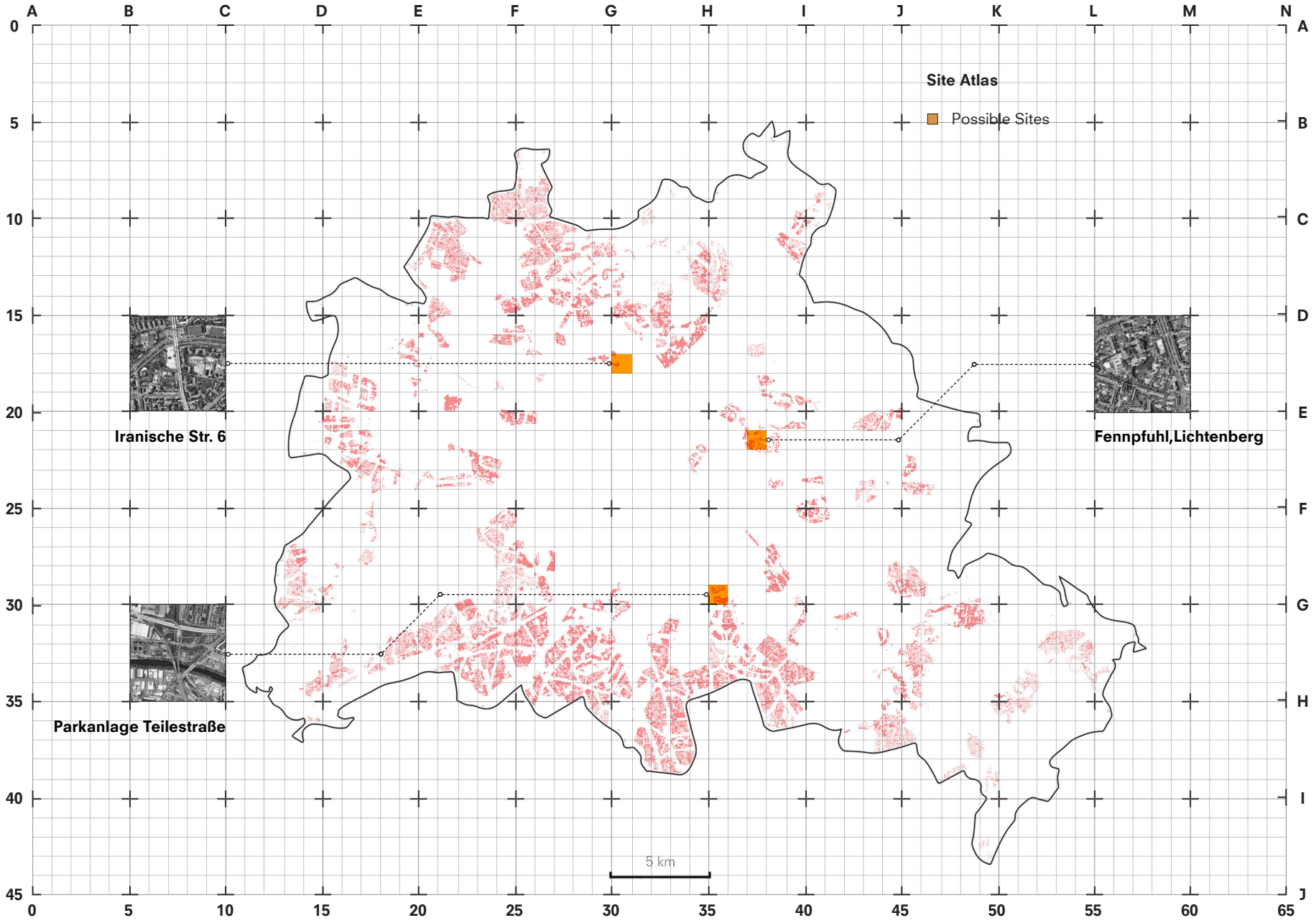


Data Source: https://twitter.com/seb_meier/status/1329692038422523904/photo/1

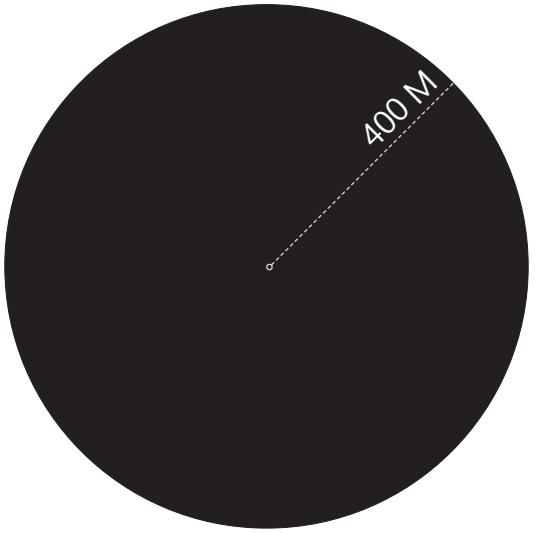
MIXED-AGE AREA + COMMUNITY



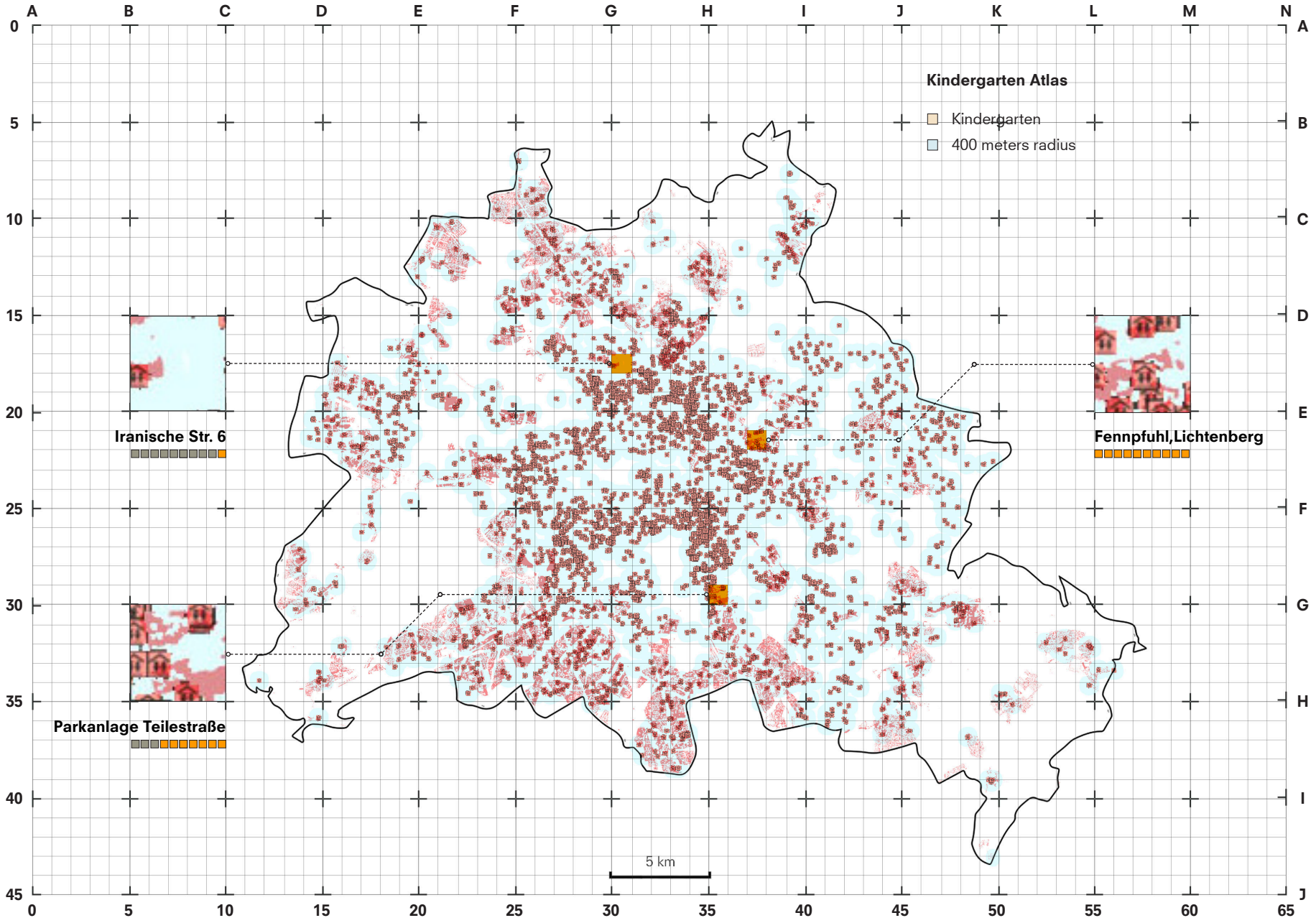
MIXED-AGE COMMUNITY



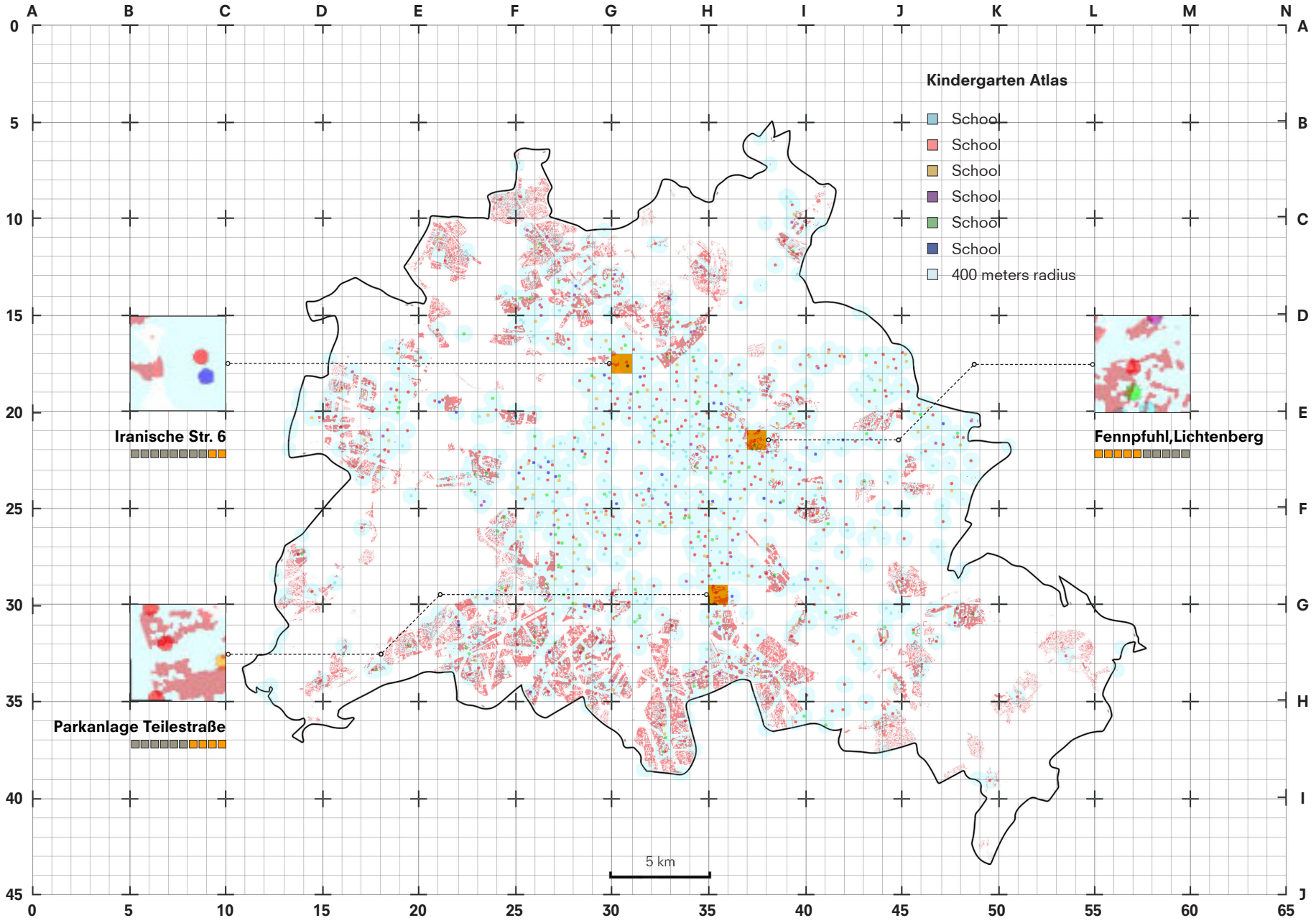
5-MIN WALK



KINDERGARTEN



SCHOOL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0 5 10 15 20 25 30 35 40 45
A B C D E F G H I J
0 5 10 15 20 25 30 35 40 45 50 55 60 65
Kindergarten Atlas
School
School
School
School
School
School
400 meters radius
Iranische Str. 6
Parkanlage Teilestraße
Fennpfuhl,Lichtenberg
5 km

ASSOCIATE WITH URBAN GREEN

Physical



1. Associate with urban green

Locate the building near existing outdoor green parks, and compensate with inner garden. Also, try to locate the building near existing fishing area because of fishing class.

Mental



2. Low mental health level

Choose a location in an area where the mental health level of the elderly is currently low.

Social



3. Convenient transportation

The selected location passes through various public transportation lines in Berlin and is within a 5-10 minute walking distance from transportation stations.

Social



4. Mixed-Age community

Choose a location near Mixed-Age Community. Also, the site should be chosen close to other school types.

Social



5. Close to developing community

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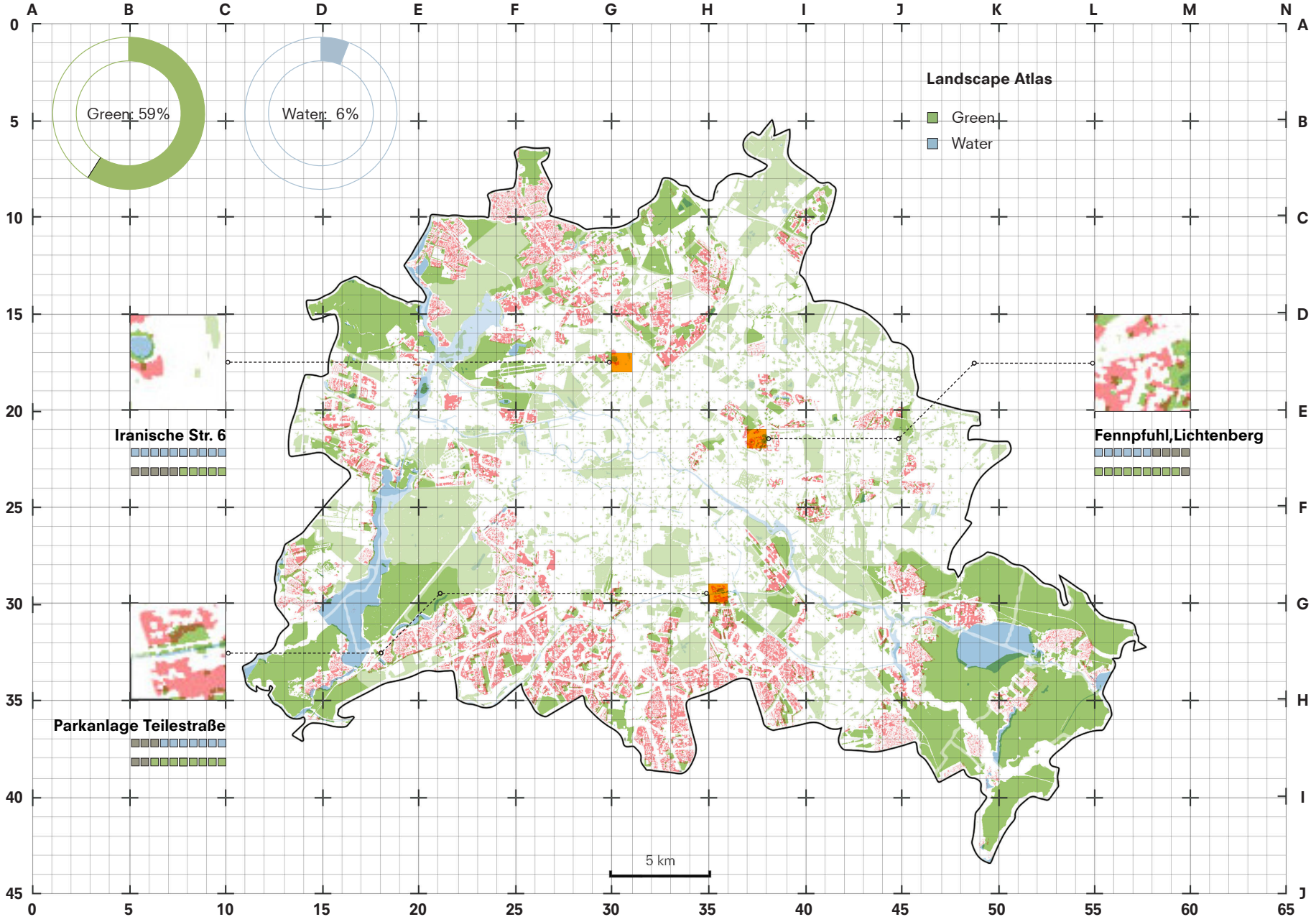
Social



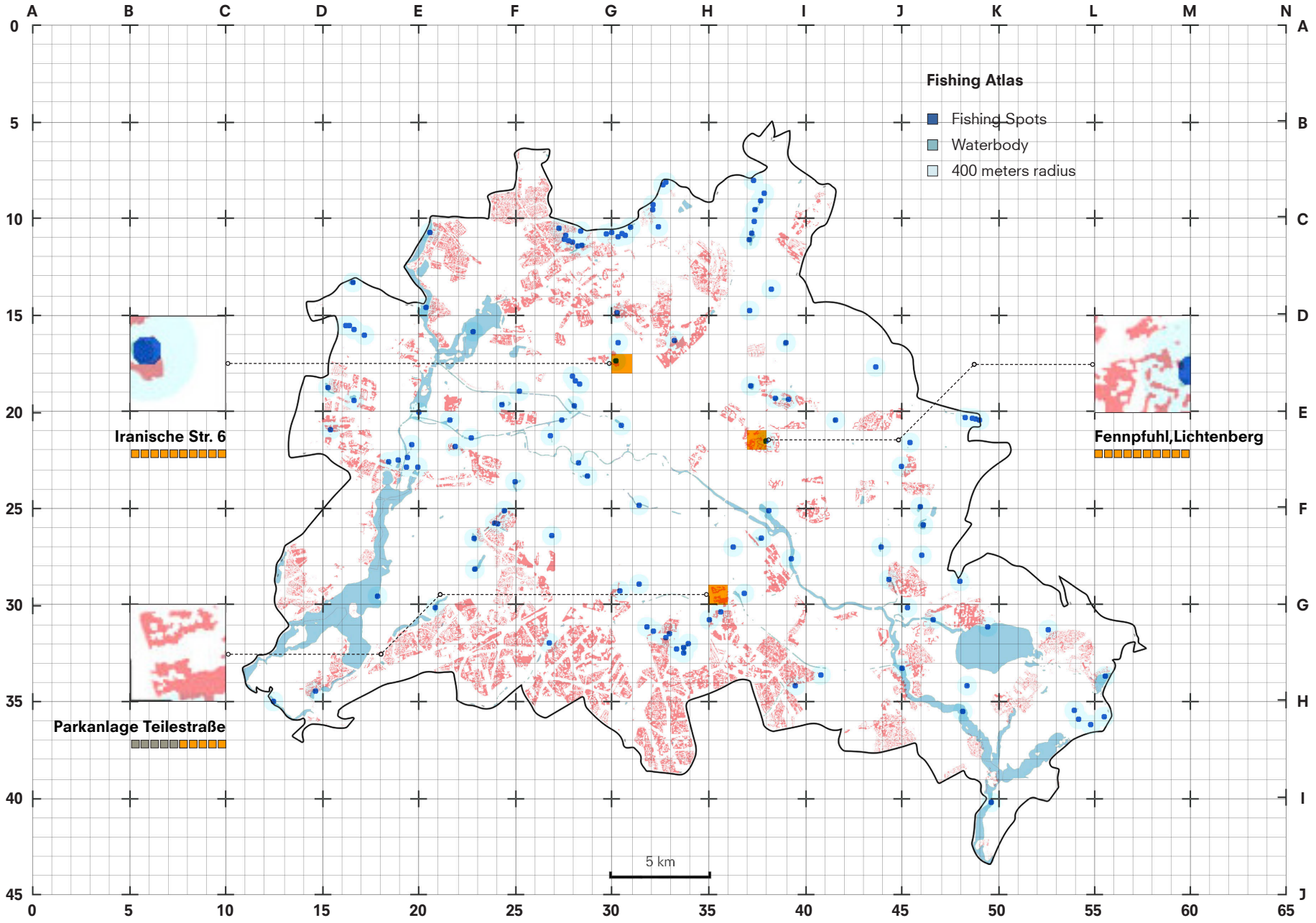
6. In need of good care facilities

Choose a location in an area with inadequate care facilities for the elderly.

LANDSCAPE


Green: 59%
Water: 6%
Landscape Atlas
Green
Water
Iranische Str. 6
Fennpfuhl,Lichtenberg
Parkanlage Teilestraße
5 km

FISHING SPOTS



LOW MENTAL HEALTH LEVEL

Physical



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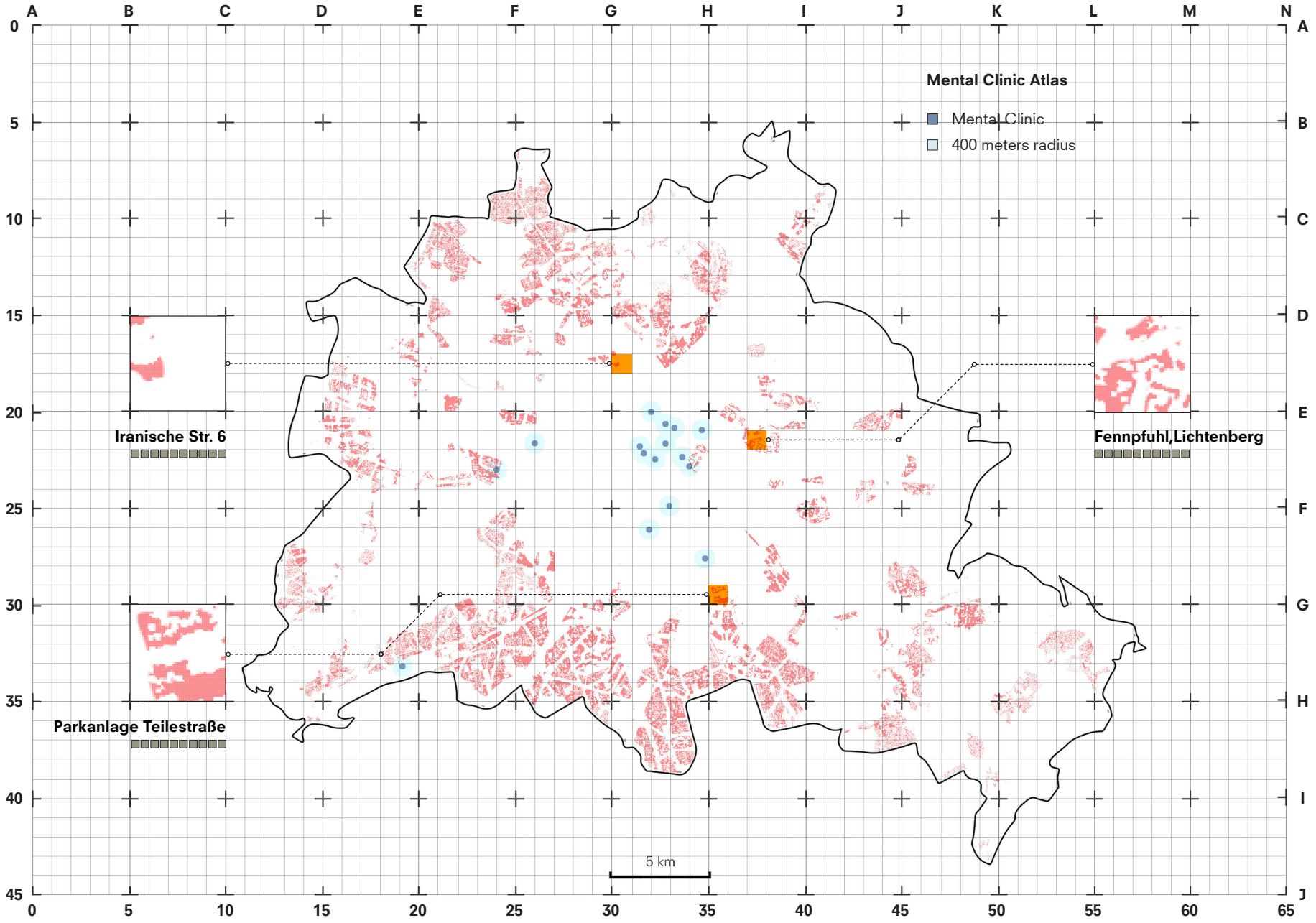
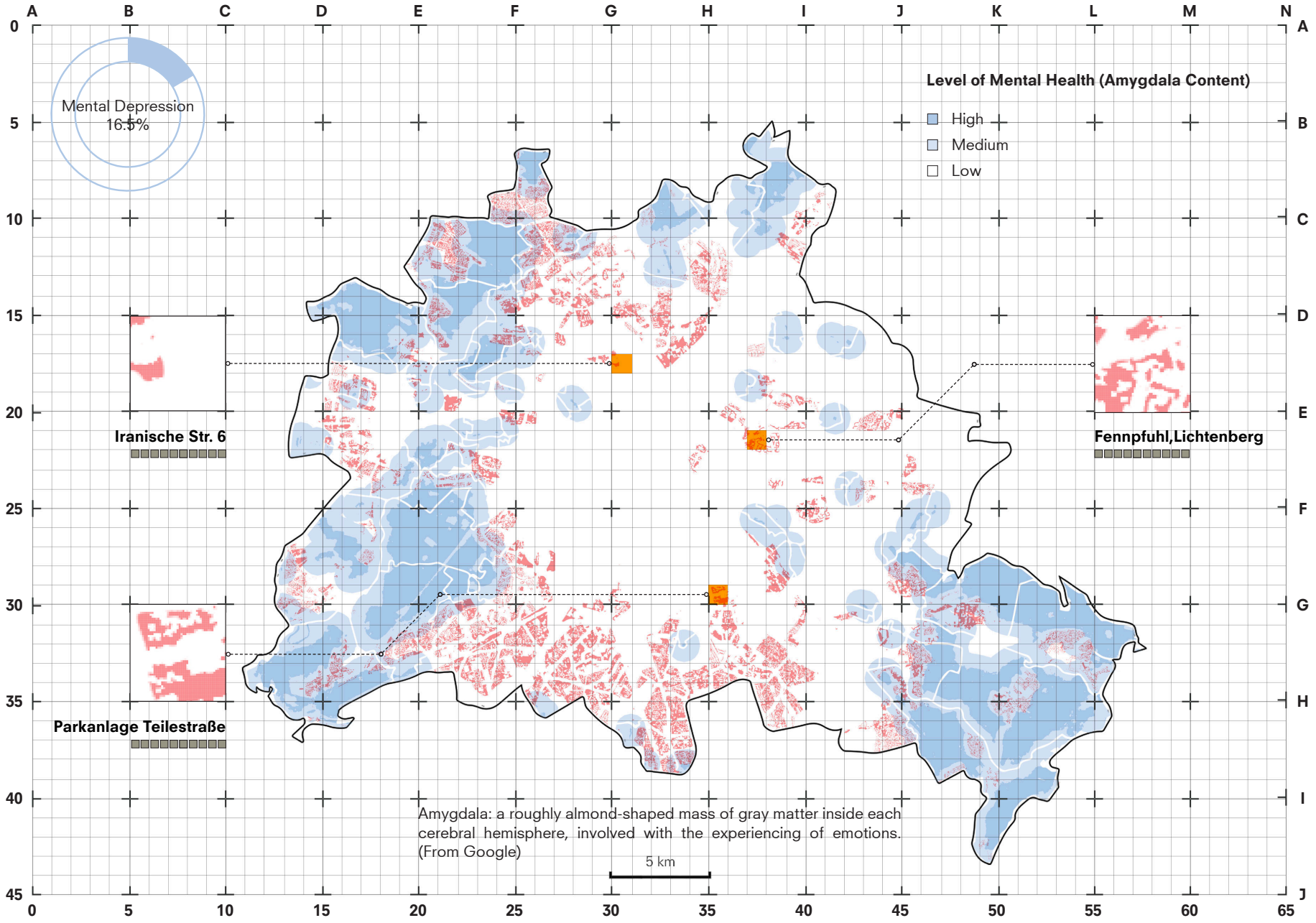
MENTAL CLINIC



ELDERLY MENTAL HEALTH



https://www.weforum.org/agenda/2017/10/living-near-forests-is-good-for-your-brain/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1414664/

CONVENIENT TRANSPORTATION

Physical



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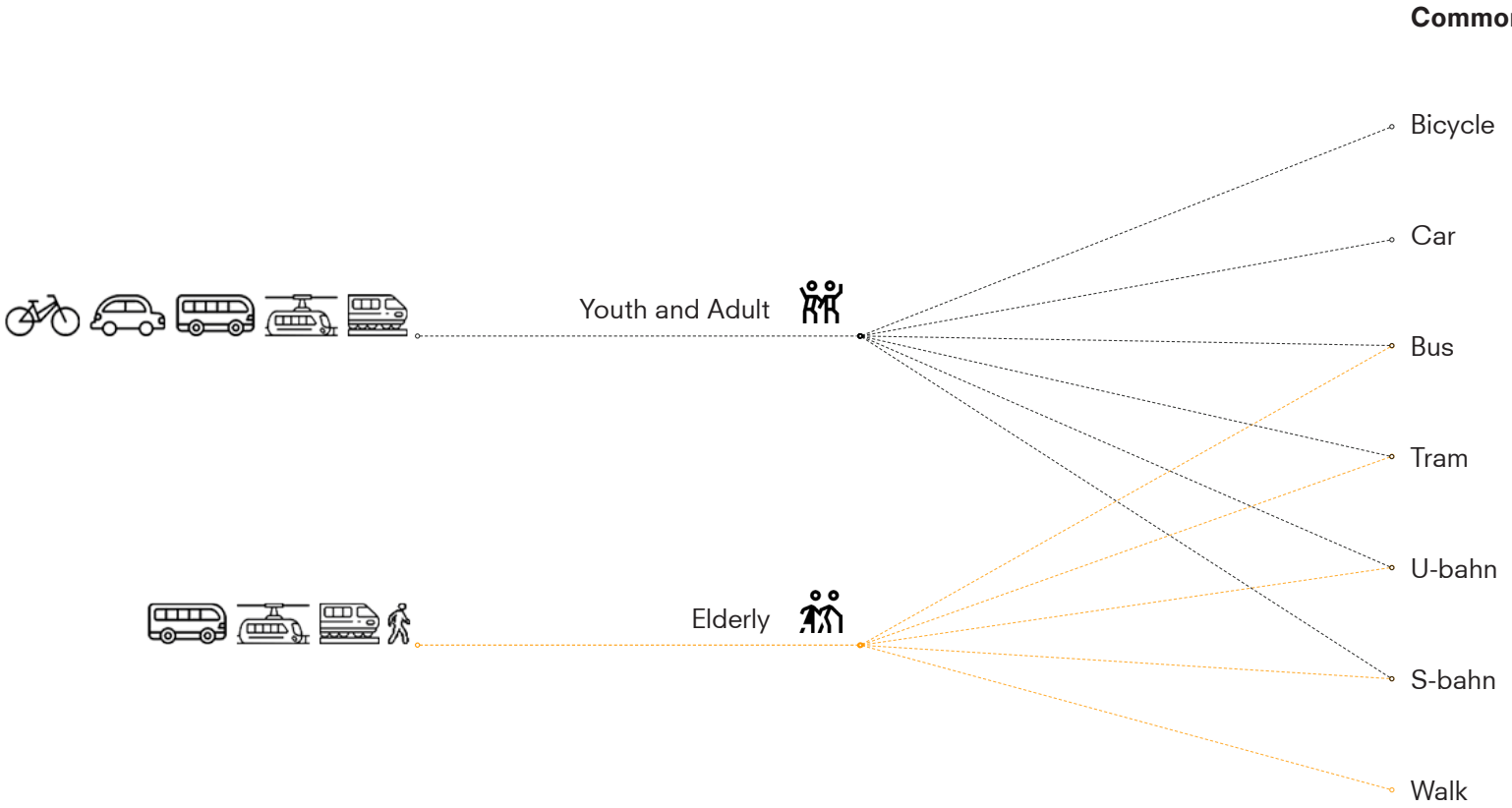
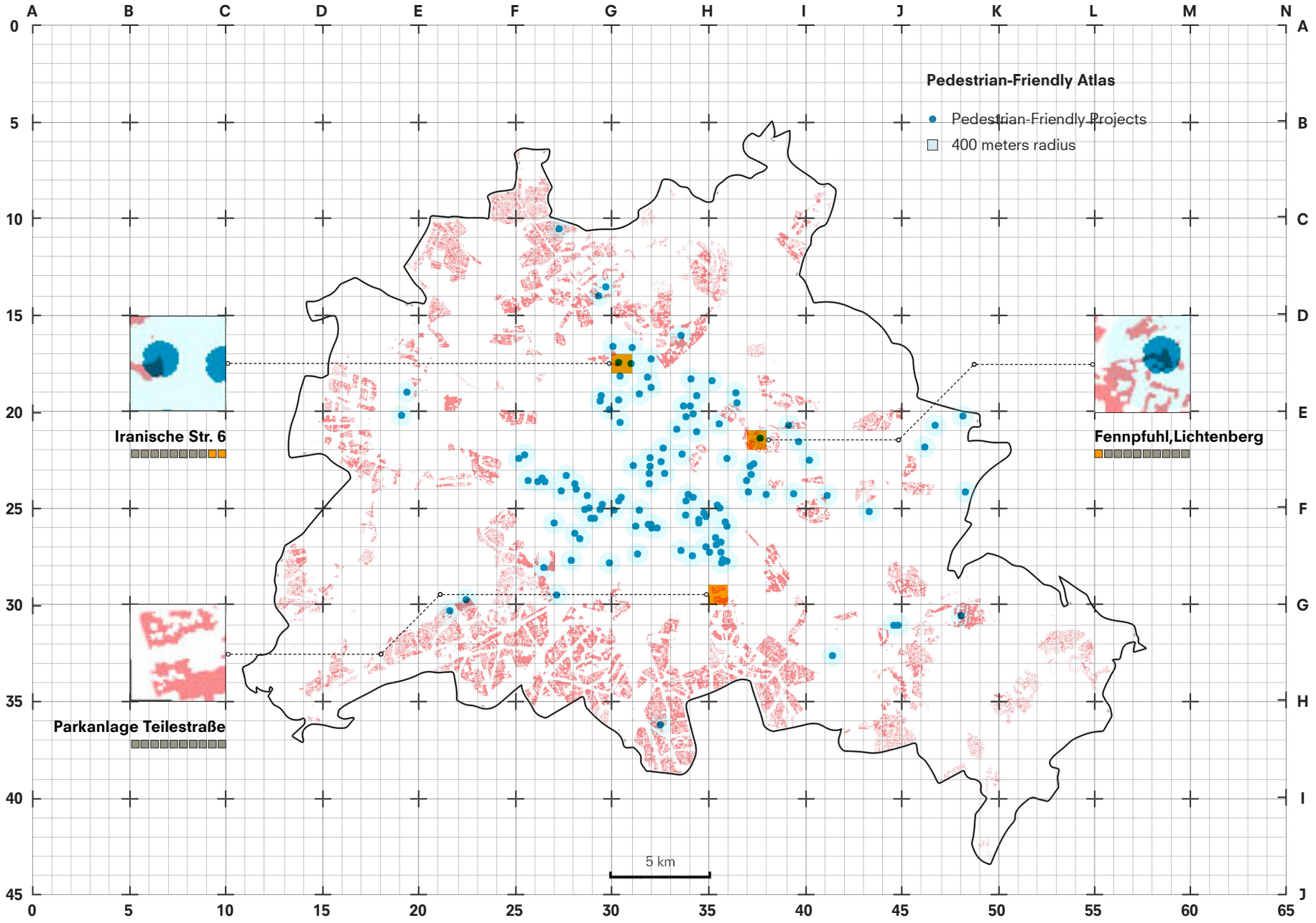
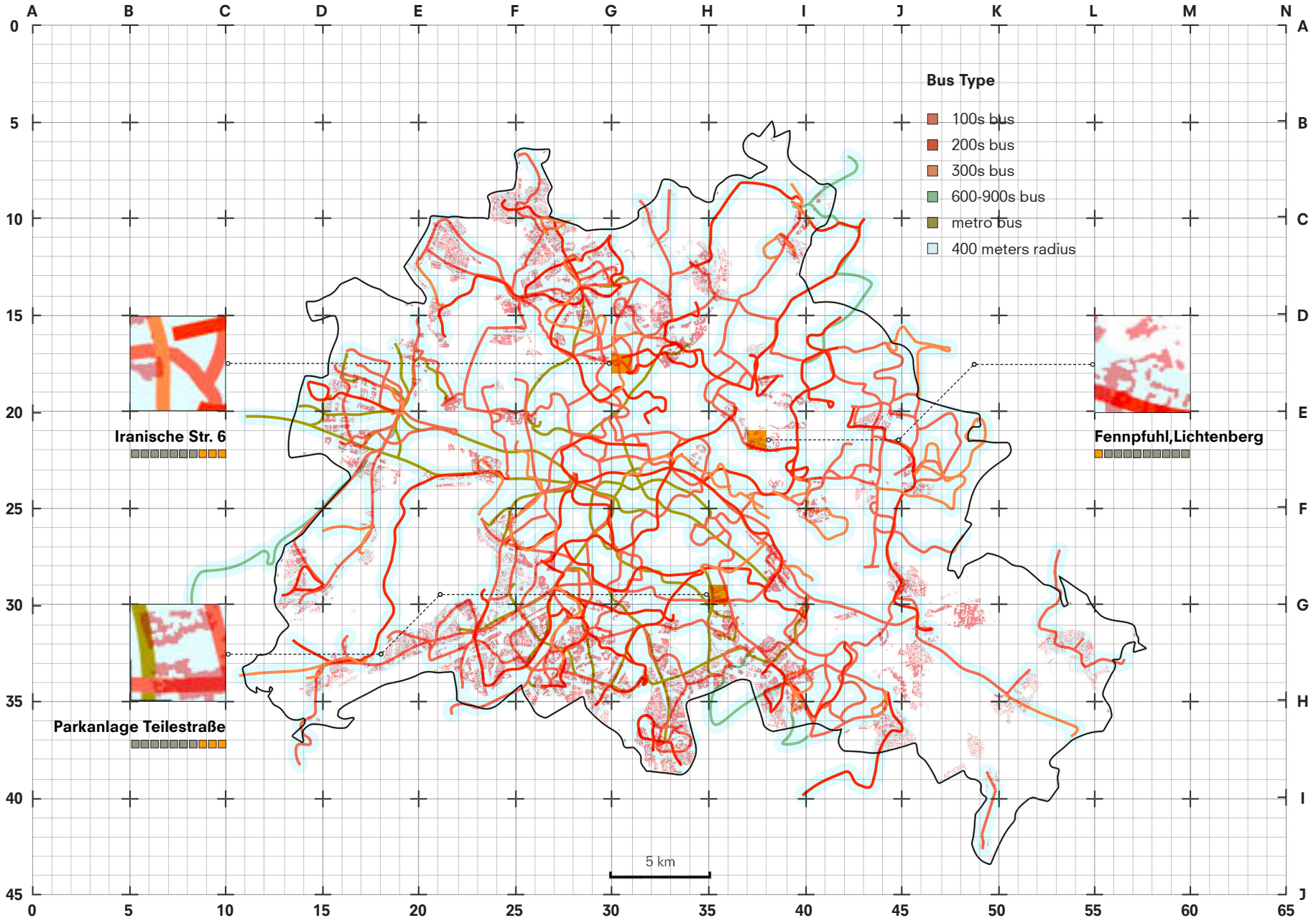
AGE & TRANSPORTATION



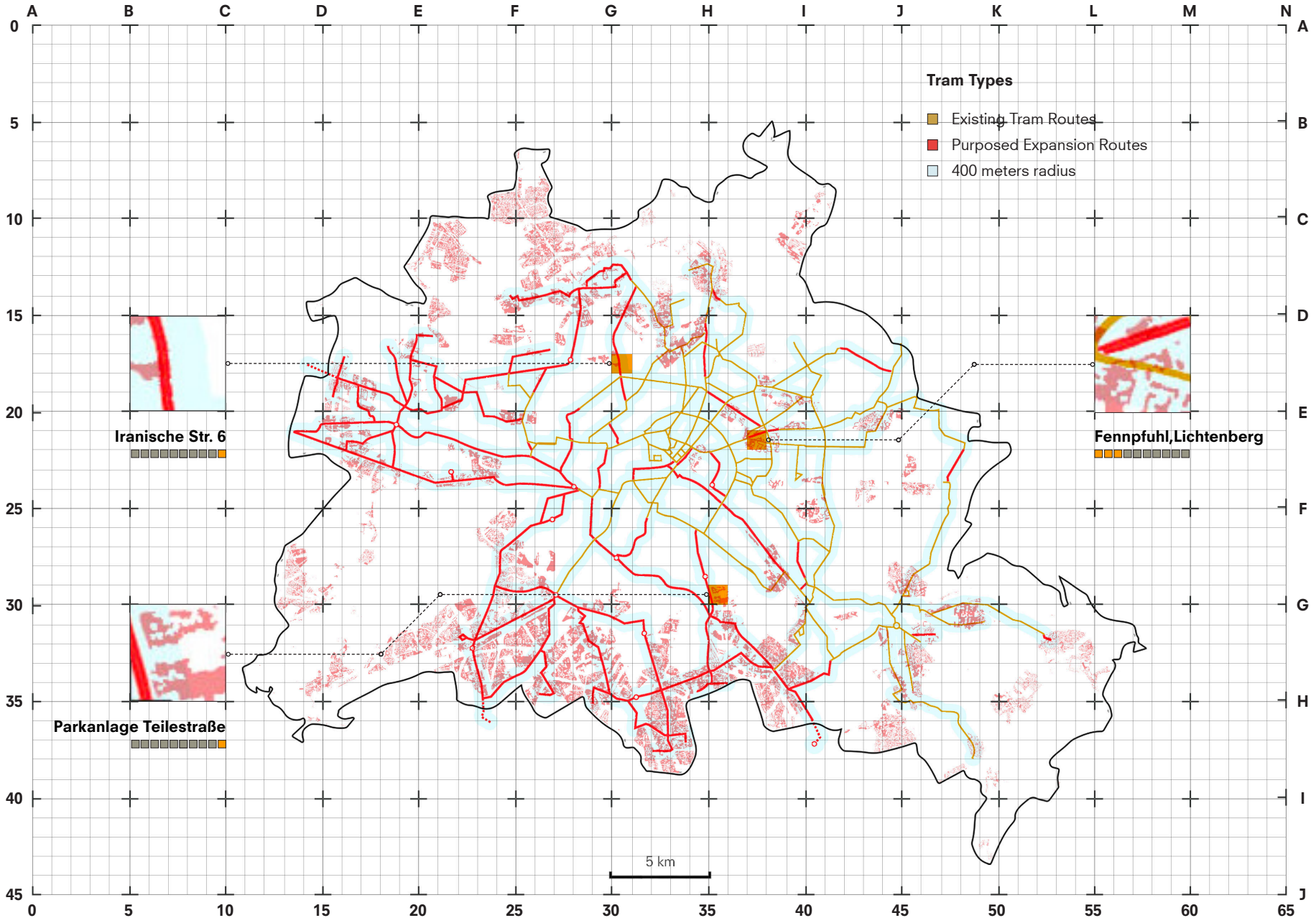
PEDESTRIAN FRIENDLY



BUS

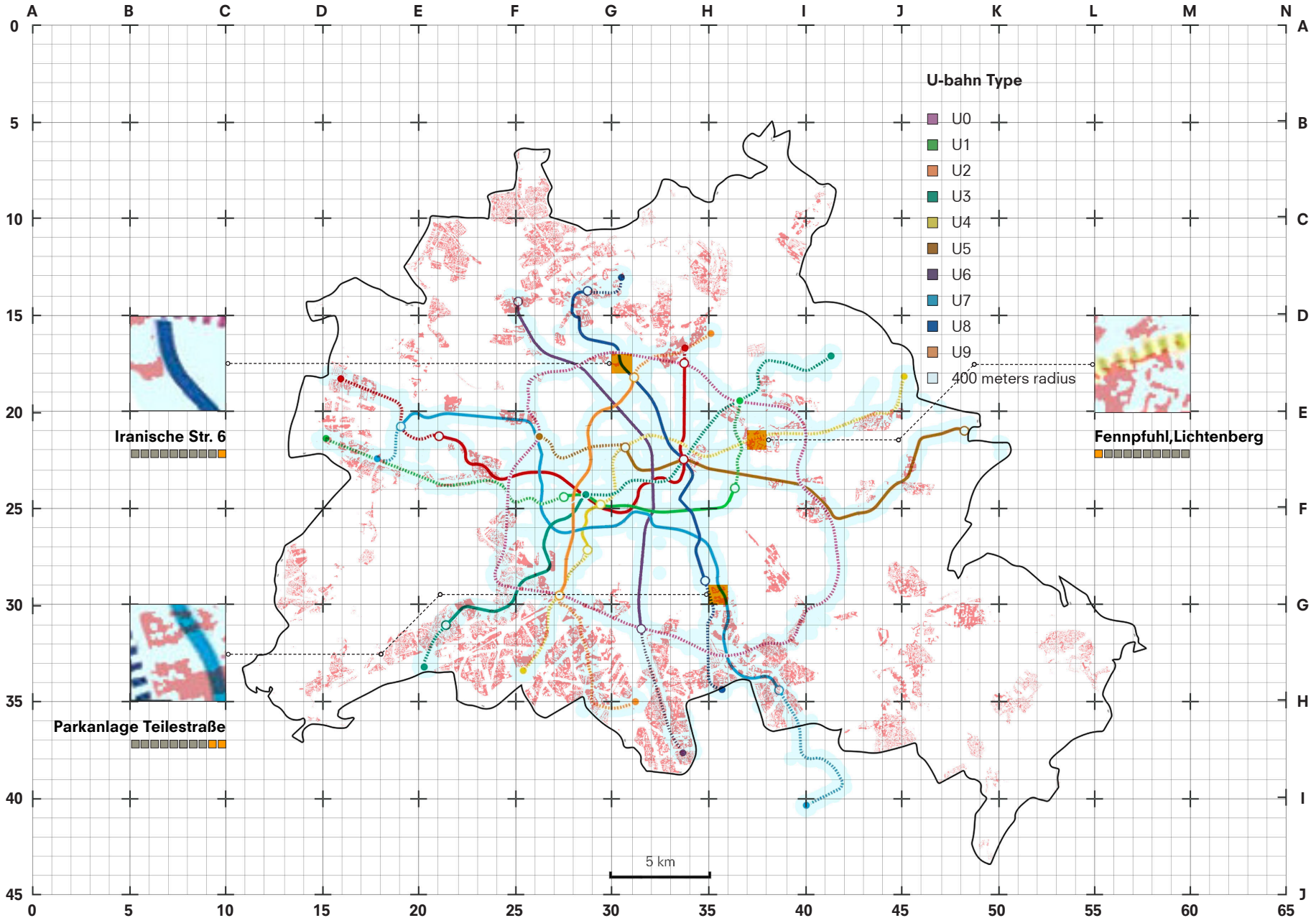

A B C D E F G H I J K L M N
0 5 10 15 20 25 30 35 40 45
A B C D E F G H I J
0 5 10 15 20 25 30 35 40 45 50 55 60 65
Bus Type
100s bus
200s bus
300s bus
600-900s bus
metro bus
400 meters radius
Iranische Str. 6
Parkanlage Teilestraße
Fennpfuhl,Lichtenberg
5 km

TRAM

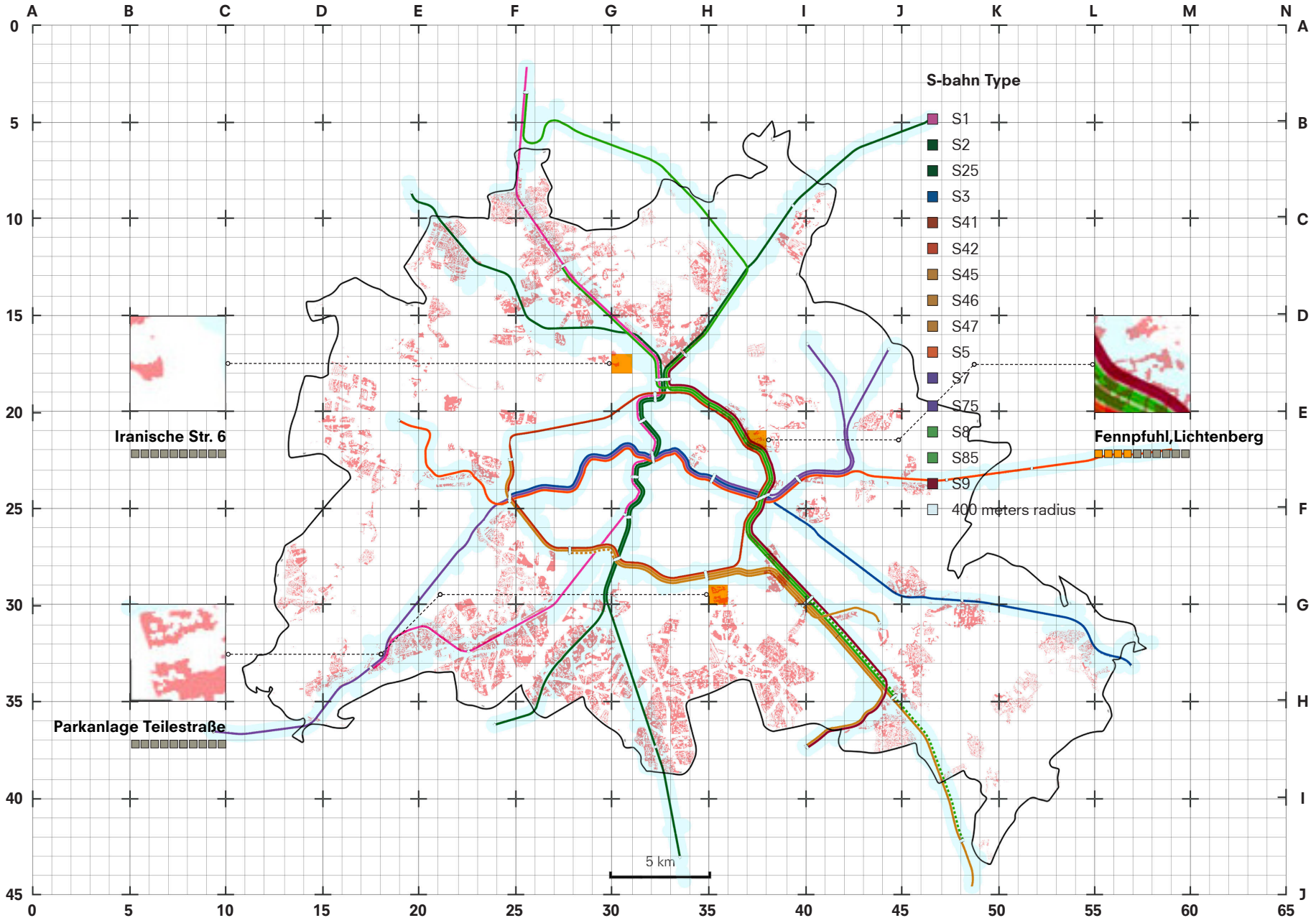


https://www.reddit.com/r/transit/comments/y21u81/map_of_the_planned_extensions_of_the_berlin_tram/

U-BAHN


A B C D E F G H I J K L M N
0 5 10 15 20 25 30 35 40 45
A B C D E F G H I J
0 5 10 15 20 25 30 35 40 45 50 55 60 65
U-bahn Type
U0
U1
U2
U3
U4
U5
U6
U7
U8
U9
400 meters radius
Iranische Str. 6
Parkanlage Teilestraße
Fennpfuhl,Lichtenberg
5 km

S-BAHN



Data Source: https://upload.wikimedia.org/wikipedia/commons/e/e2/Topographischer_Netzplan_der_S-Bahn_Berlin.png

CLOSE TO DEVELOPING COMMUNITY

Physical



1. Associate with urban green

Locate the building near existing outdoor green parks, and compensate with inner garden. Also, try to locate the building near existing fishing area because of fishing class.

Mental



2. Low mental health level

Choose a location in an area where the mental health level of the elderly is currently low.

Social



3. Convenient transportation

The selected location passes through various public transportation lines in Berlin and is within a 5-10 minute walking distance from transportation stations.

Social



4. Mixed-Age community

Choose a location near Mixed-Age Community. Also, the site should be chosen close to other school types.

Social



5. Close to developing community

Close to areas with relatively underdeveloped society with low house price, and promote the development of the community through this building typology to improve the surrounding social environment.

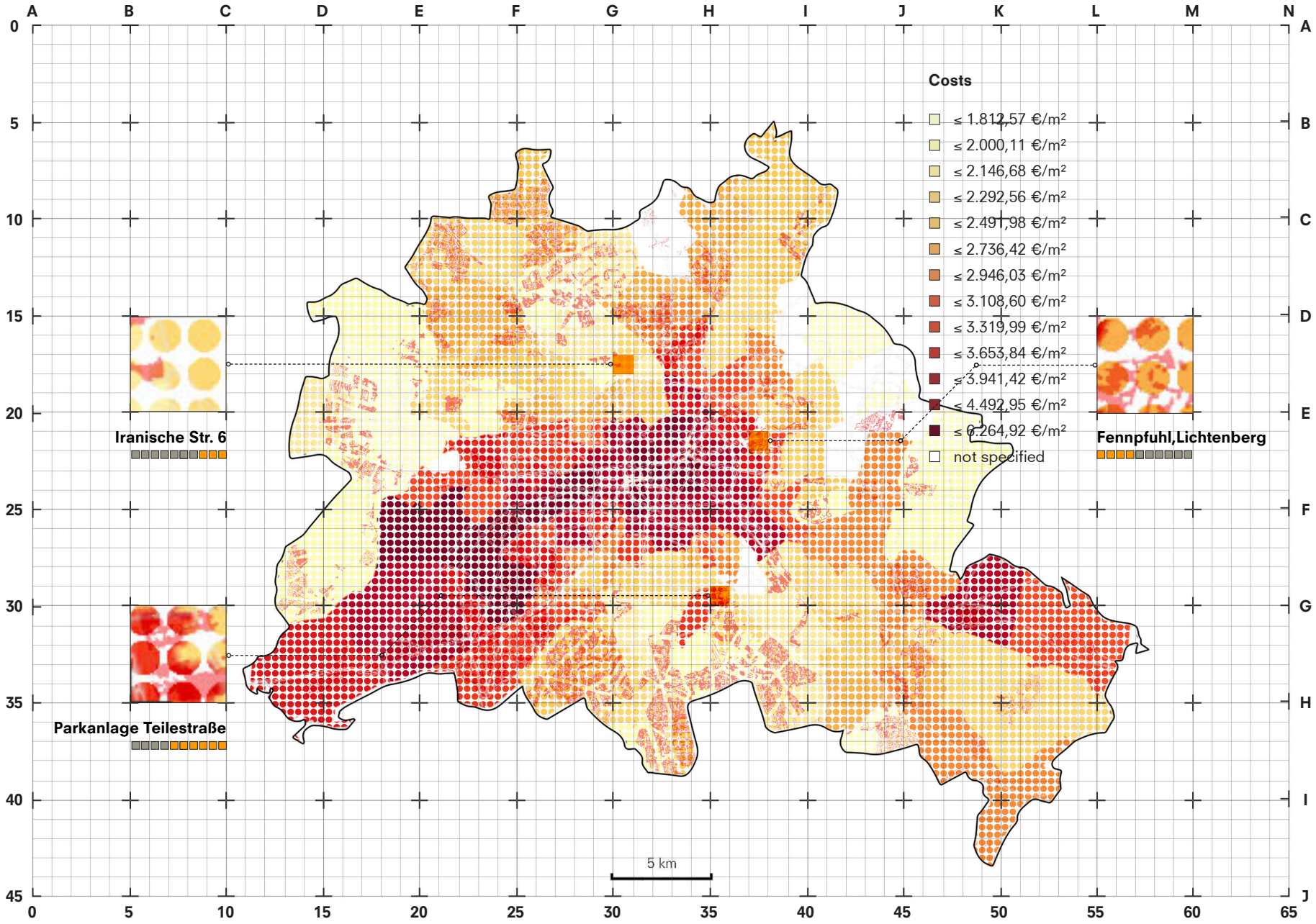
Social



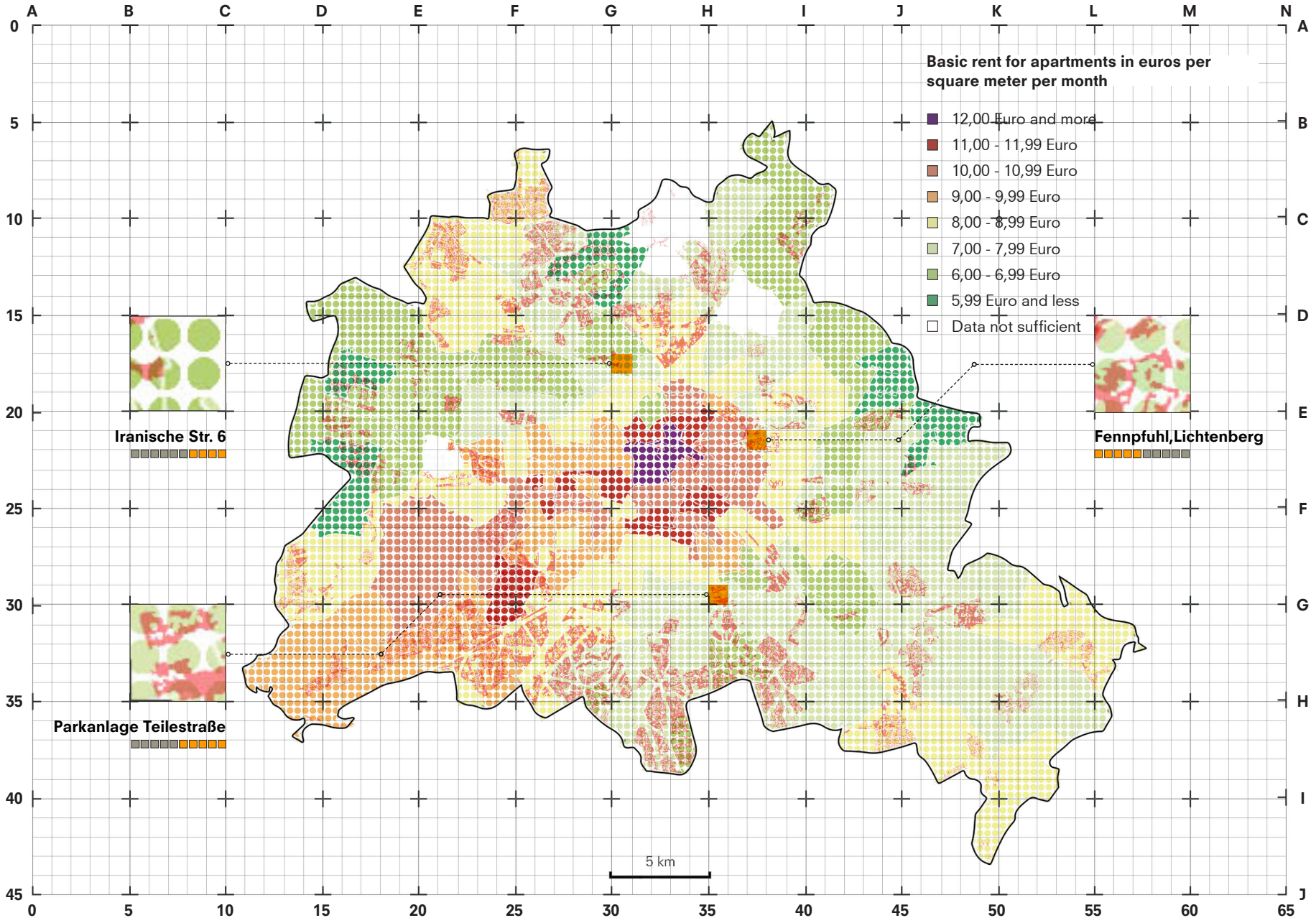
6. In need of good care facilities

Choose a location in an area with inadequate care facilities for the elderly.

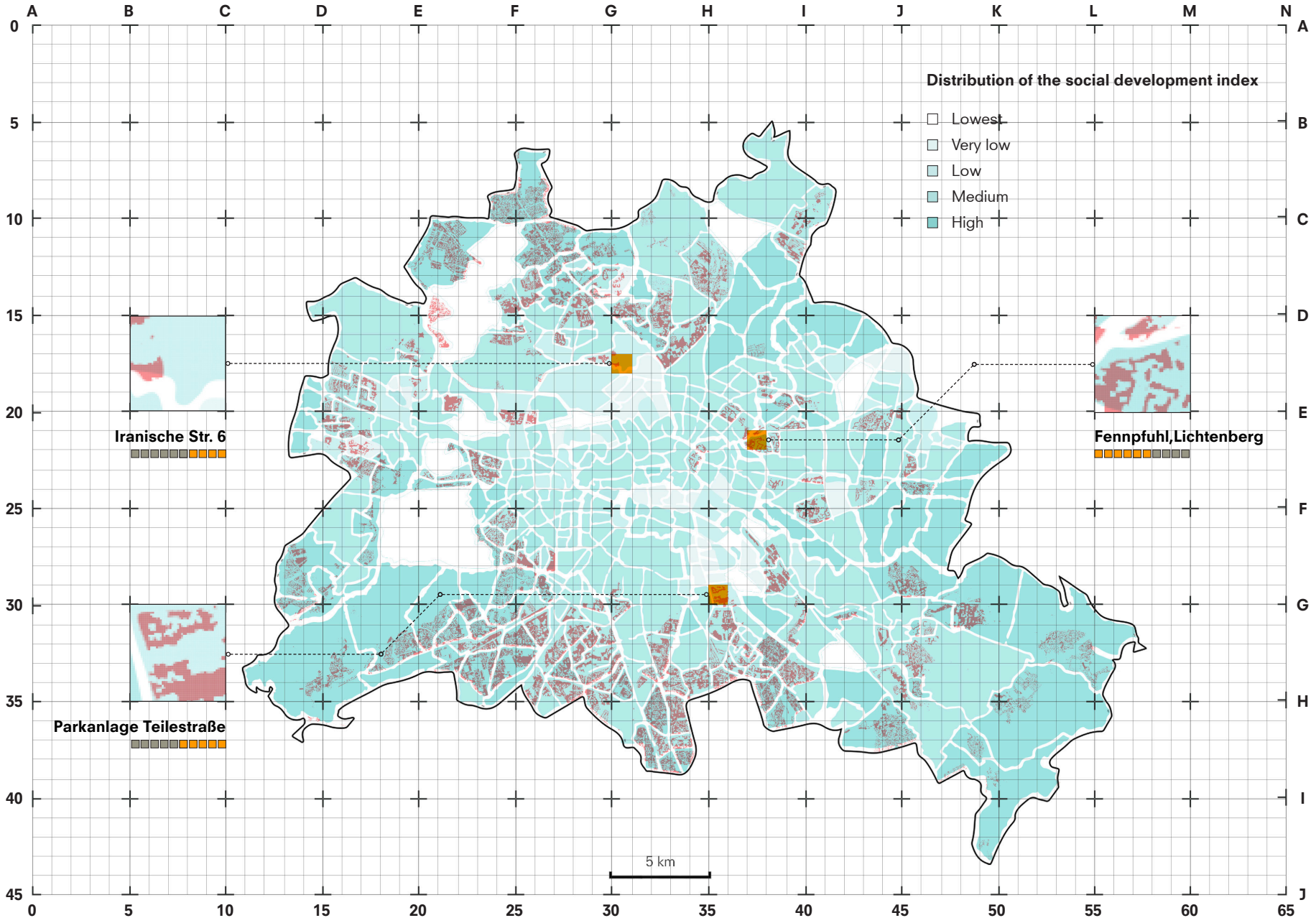
HOUSE PRICE


A B C D E F G H I J K L M N
0 5 10 15 20 25 30 35 40 45
A B C D E F G H I J
0 5 10 15 20 25 30 35 40 45 50 55 60 65
Costs
≤ 1.812,57 €/m²
≤ 2.000,11 €/m²
≤ 2.146,68 €/m²
≤ 2.292,56 €/m²
≤ 2.491,98 €/m²
≤ 2.736,42 €/m²
≤ 2.946,03 €/m²
≤ 3.108,60 €/m²
≤ 3.319,99 €/m²
≤ 3.653,84 €/m²
≤ 3.941,42 €/m²
≤ 4.492,95 €/m²
≤ 6.264,92 €/m²
not specified
Iranische Str. 6
Fennpfuhl,Lichtenberg
Parkanlage Teilestraße
5 km

RENTAL PRICE

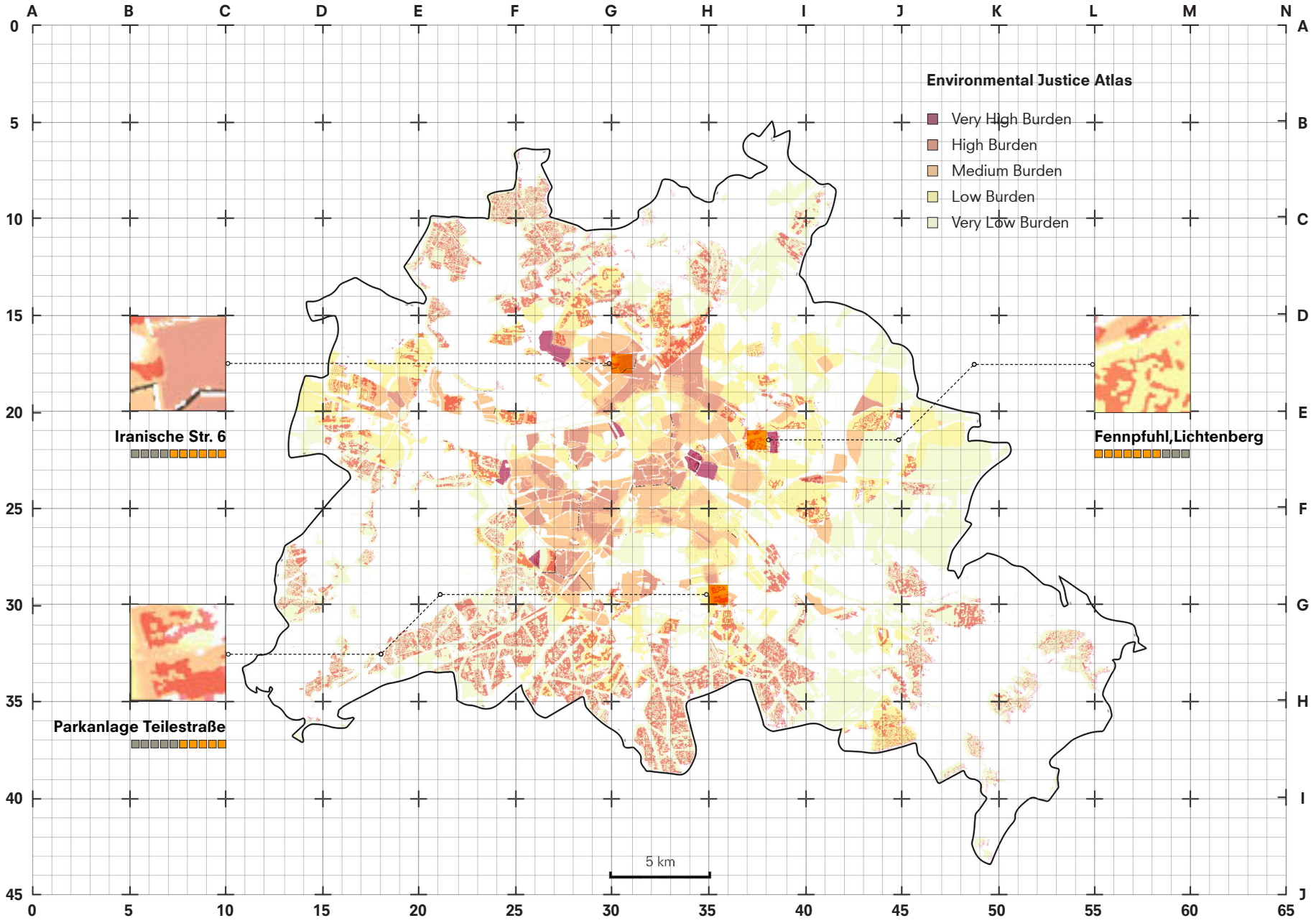


SOCIAL DEVELOPMENT



Data Source: https://www.researchgate.net/figure/Distribution-of-the-social-development-index-in-Berlin_fig3_236889313

ENVIRONMENTAL JUSTICE



IN NEED OF GOOD CARE FACILITIES

Physical



1. Associate with urban green

Locate the building near existing outdoor green parks, and compensate with inner garden. Also, try to locate the building near existing fishing area because of fishing class.

Mental



2. Low mental health level

Choose a location in an area where the mental health level of the elderly is currently low.

Social



3. Convenient transportation

The selected location passes through various public transportation lines in Berlin and is within a 5-10 minute walking distance from transportation stations.

Social



4. Mixed-Age community

Choose a location near Mixed-Age Community. Also, the site should be chosen close to other school types.

Social



5. Close to developing community

Close to areas with relatively underdeveloped society with low house price, and promote the development of the community through this building typology to improve the surrounding social environment.

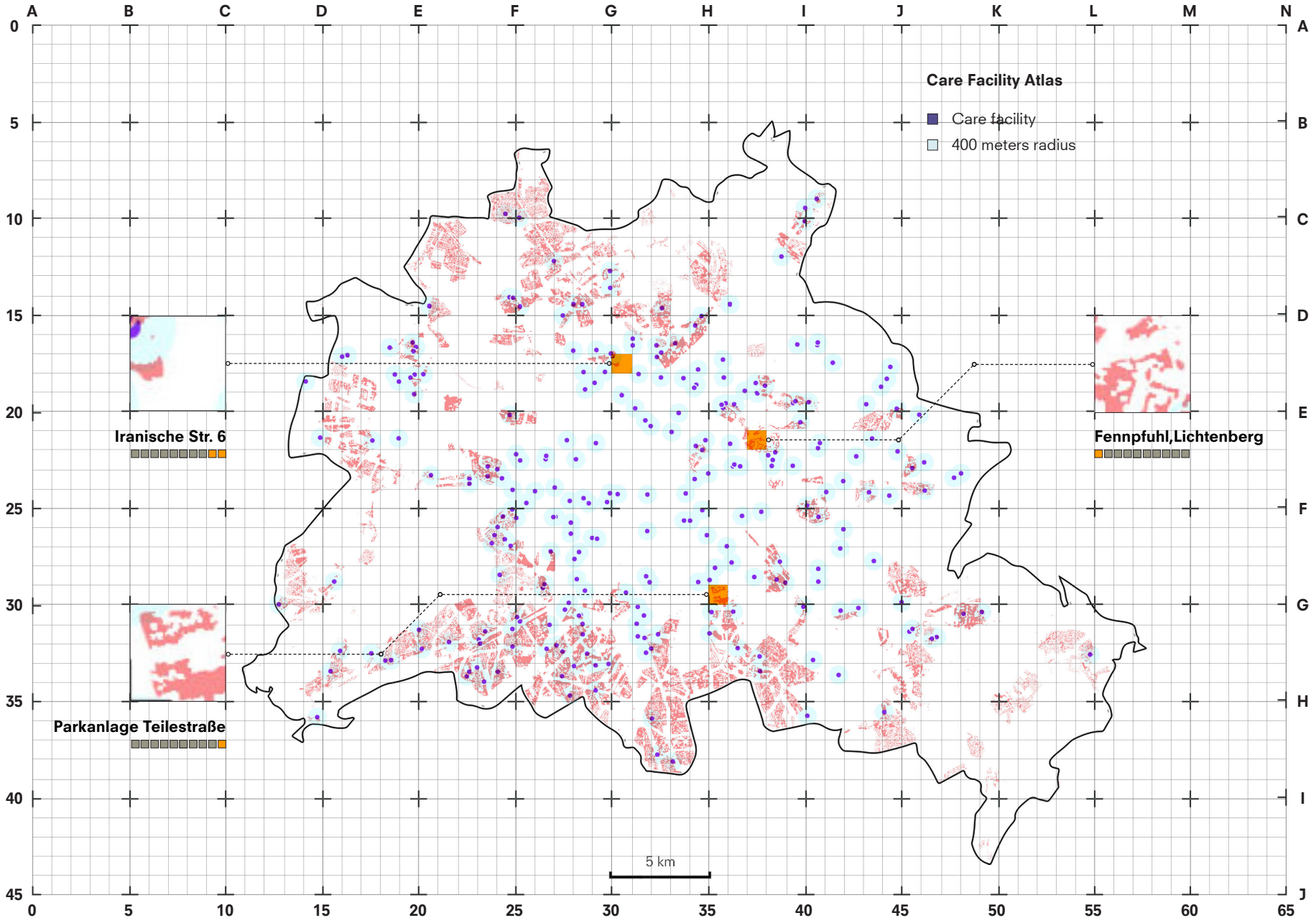
Social



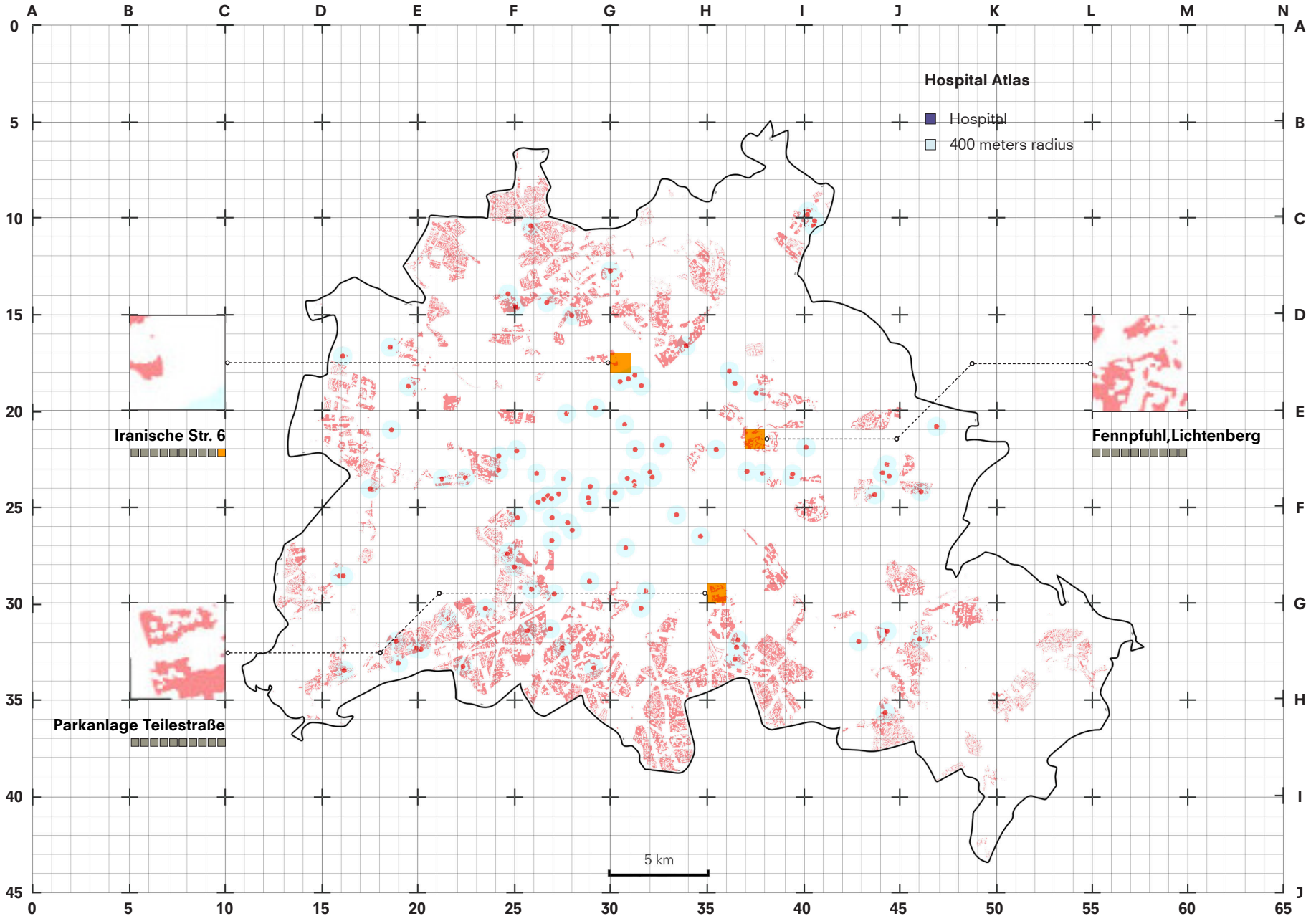
6. In need of good care facilities

Choose a location in an area with inadequate care facilities for the elderly.

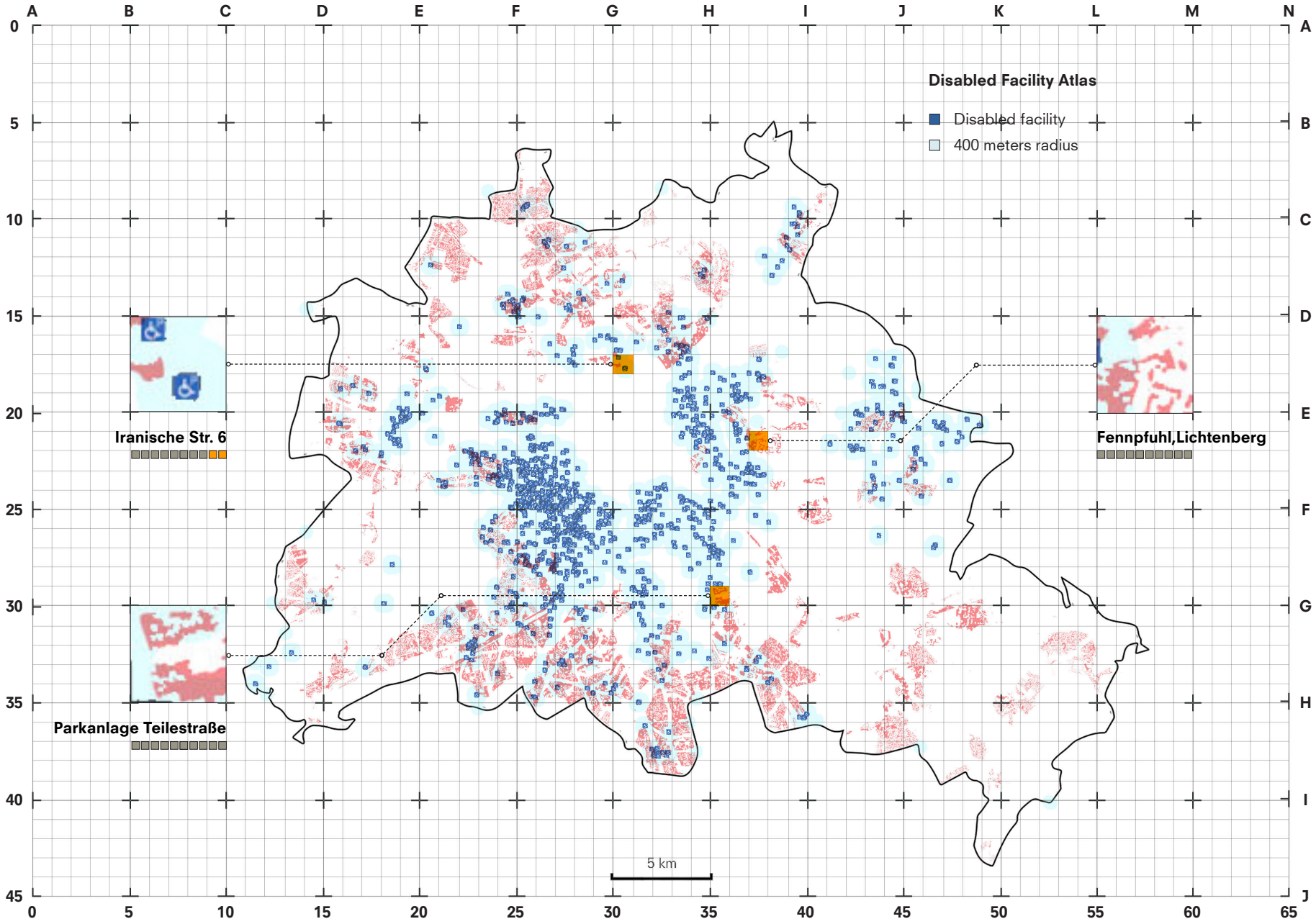
CARE FACILITY



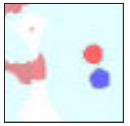
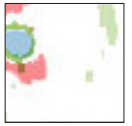
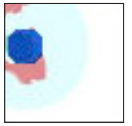
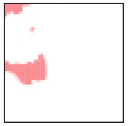
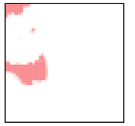
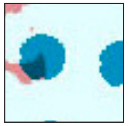
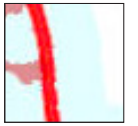
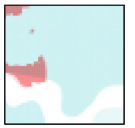
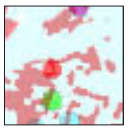
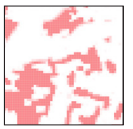
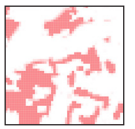
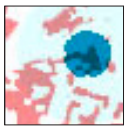
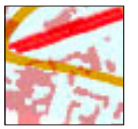
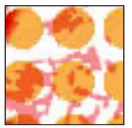
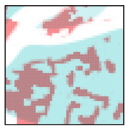
HOSPITAL


A B C D E F G H I J K L M N
0 5 10 15 20 25 30 35 40 45
A B C D E F G H I J
0 5 10 15 20 25 30 35 40 45 50 55 60 65
Hospital Atlas
Hospital
400 meters radius
Iranische Str. 6
Fennpfuhl,Lichtenberg
Parkanlage Teilestraße
5 km

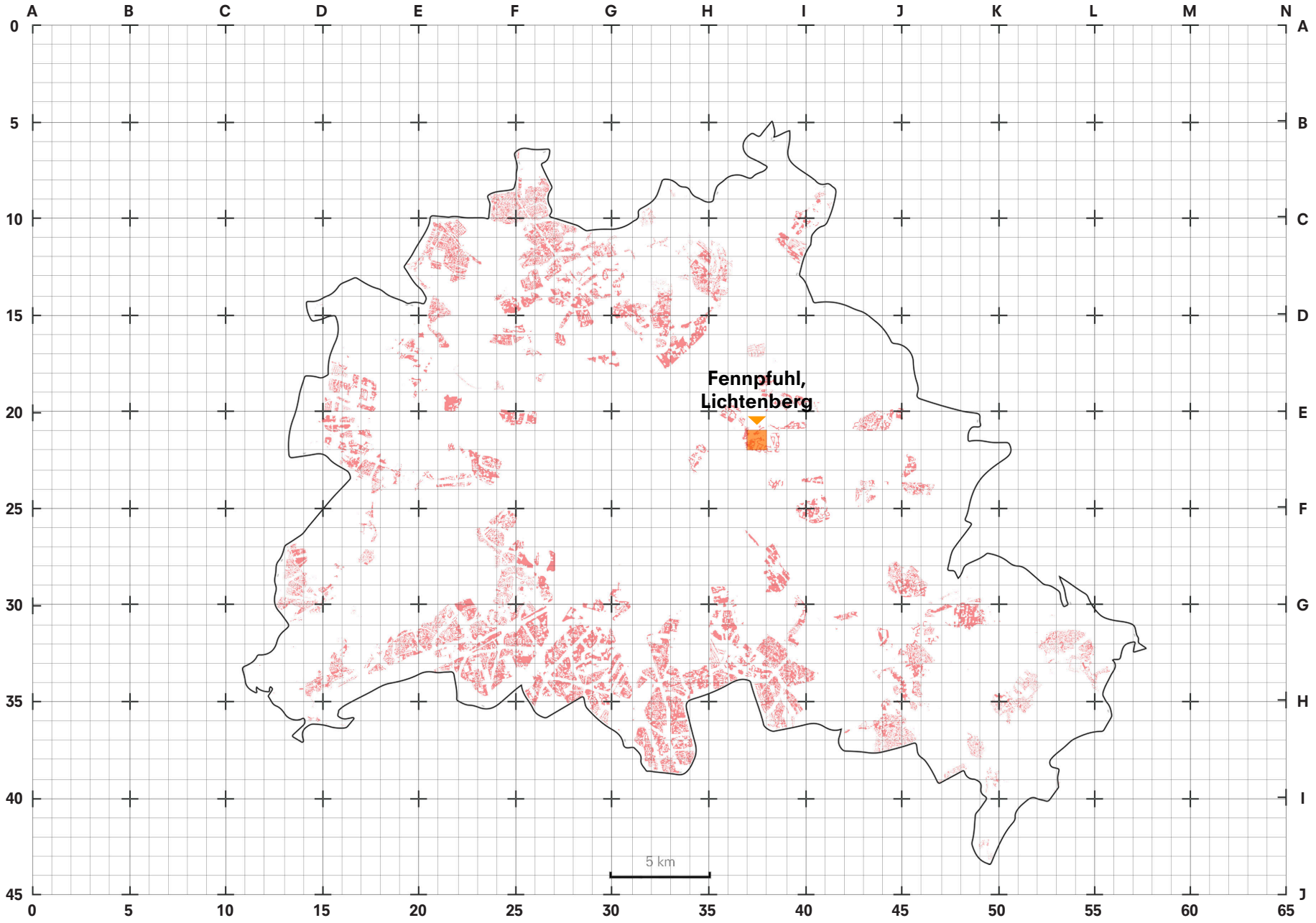
DISABLED FACILITY



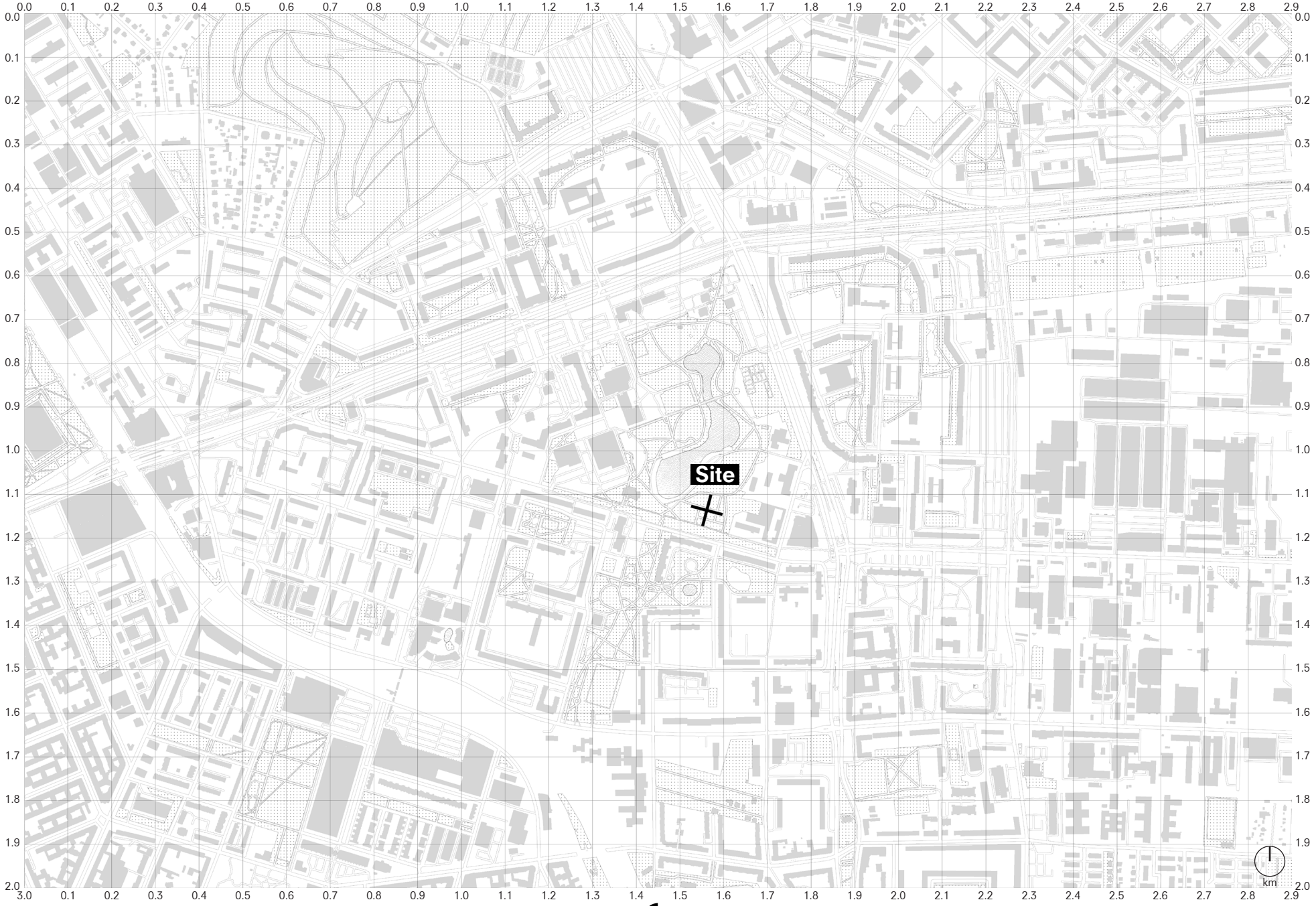
SITE EVALUATION

Iranische Str. 6	Kindergarten	School	Landscape	Fishing	Mental Clinic	Elderly Mental Health	Pedestrian Friendly	Bus	Tram
									
U-bahn	S-bahn	Cycling Path	House Price	Rental Price	Environmental Justice	Social Development	Care Facilities	Hospital	Disabled Facility
									
Fennpfuhl	Kindergarten	School	Landscape	Fishing	Mental Clinic	Elderly Mental Health	Pedestrian Friendly	Bus	Tram
									
U-bahn	S-bahn	Cycling Path	House Price	Rental Price	Environmental Justice	Social Development	Care Facilities	Hospital	Disabled Facility
									
Teilestraße	Kindergarten	School	Landscape	Fishing	Mental Clinic	Elderly Mental Health	Pedestrian Friendly	Bus	Tram
U-bahn	S-bahn	Cycling Path	House Price	Rental Price	Environmental Justice	Social Development	Care Facilities	Hospital	Disabled Facility

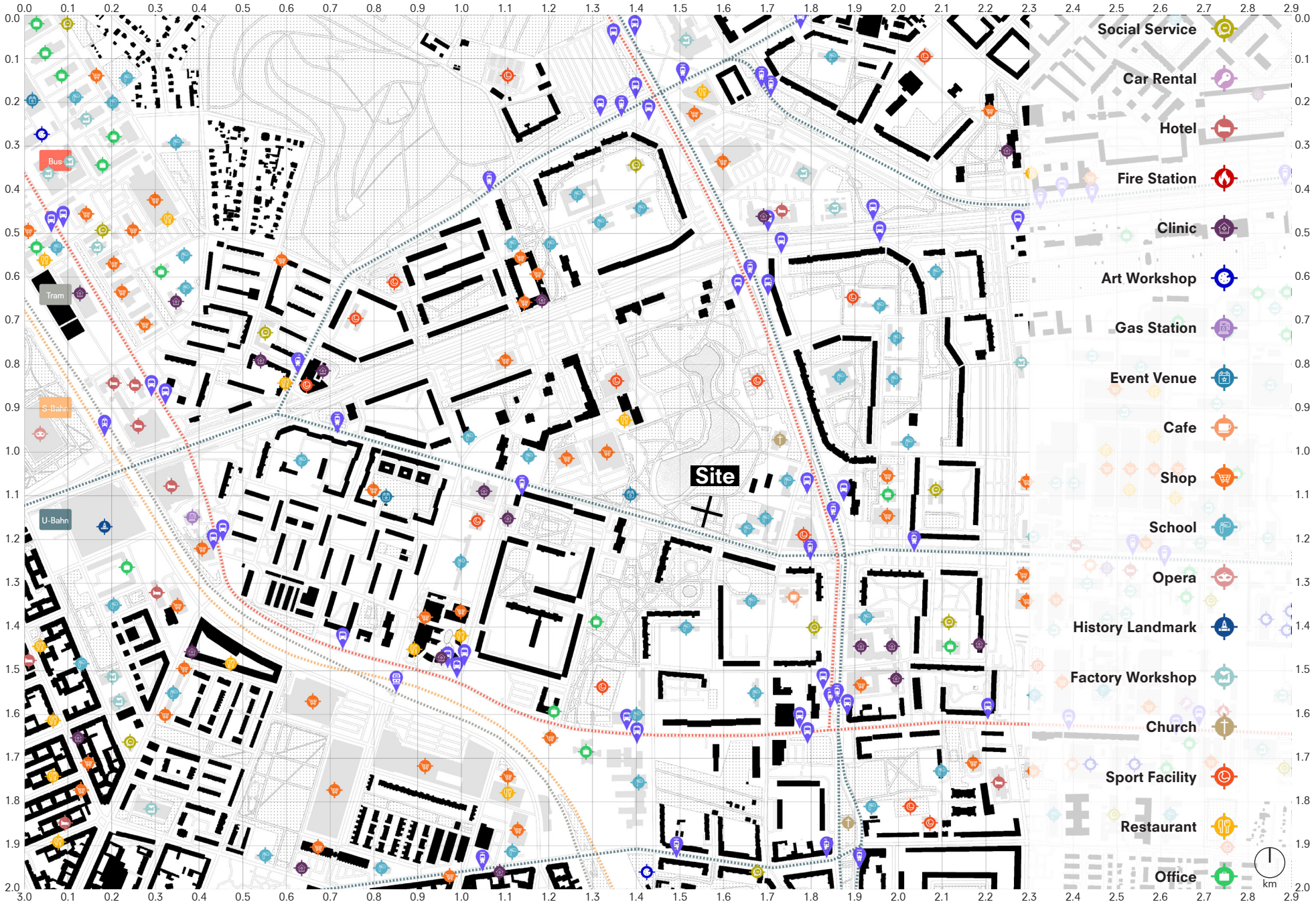
SITE


A B C D E F G H I J K L M N
0 5 10 15 20 25 30 35 40 45
A B C D E F G H I J
0 5 10 15 20 25 30 35 40 45 50 55 60 65
Fennpfuhl,
Lichtenberg
5 km

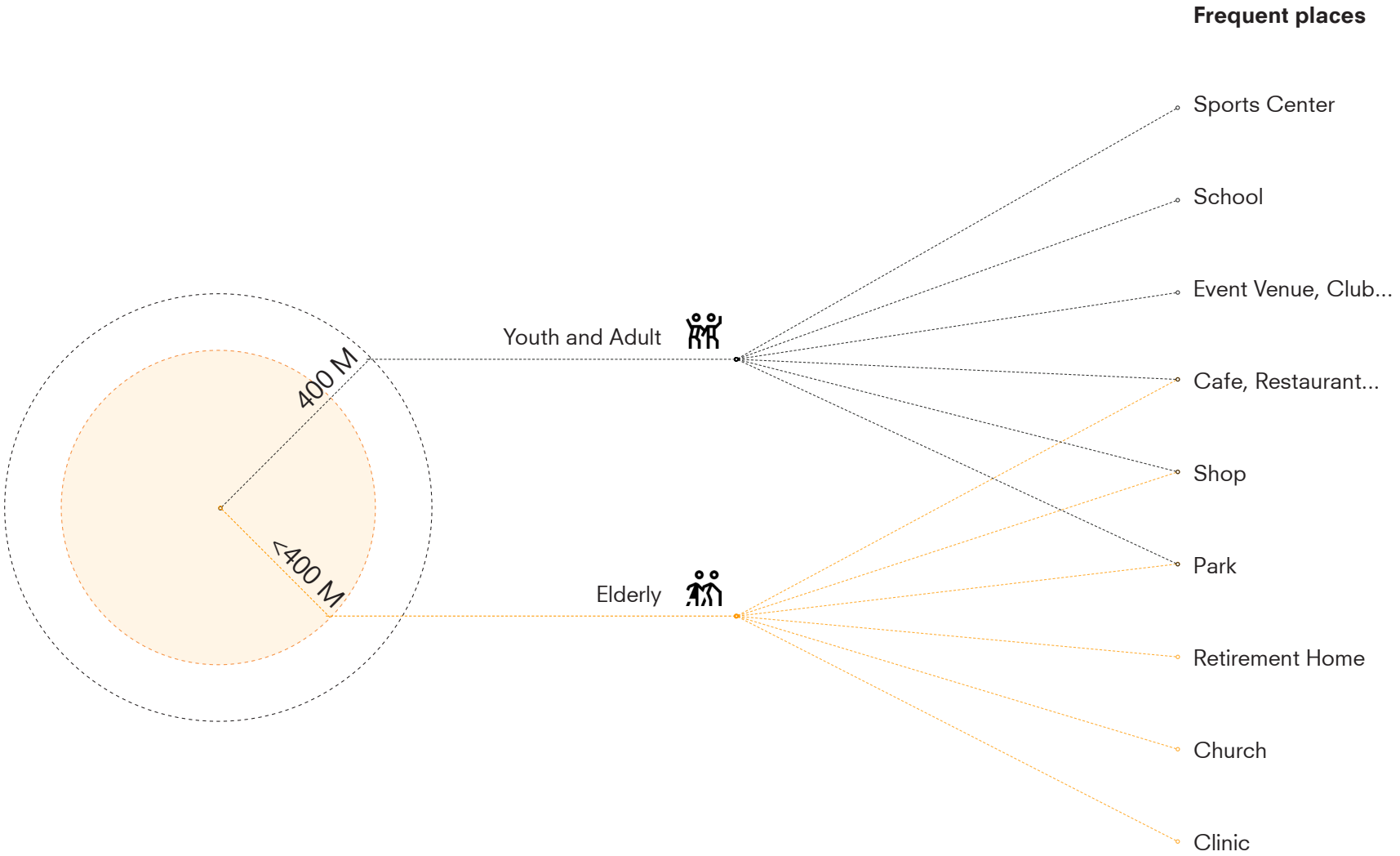
BLOCK SCALE: LICHTENBERG



MAPPING


Bus
Tram
S-Bahn
U-Bahn
Site
Social Service
Car Rental
Hotel
Fire Station
Clinic
Art Workshop
Gas Station
Event Venue
Cafe
Shop
School
Opera
History Landmark
Factory Workshop
Church
Sport Facility
Restaurant
Office
km

5-MIN WALK


Frequent places
Sports Center
School
Event Venue, Club...
Cafe, Restaurant...
Shop
Park
Retirement Home
Church
Clinic
Youth and Adult
Elderly
400 M
<400 M

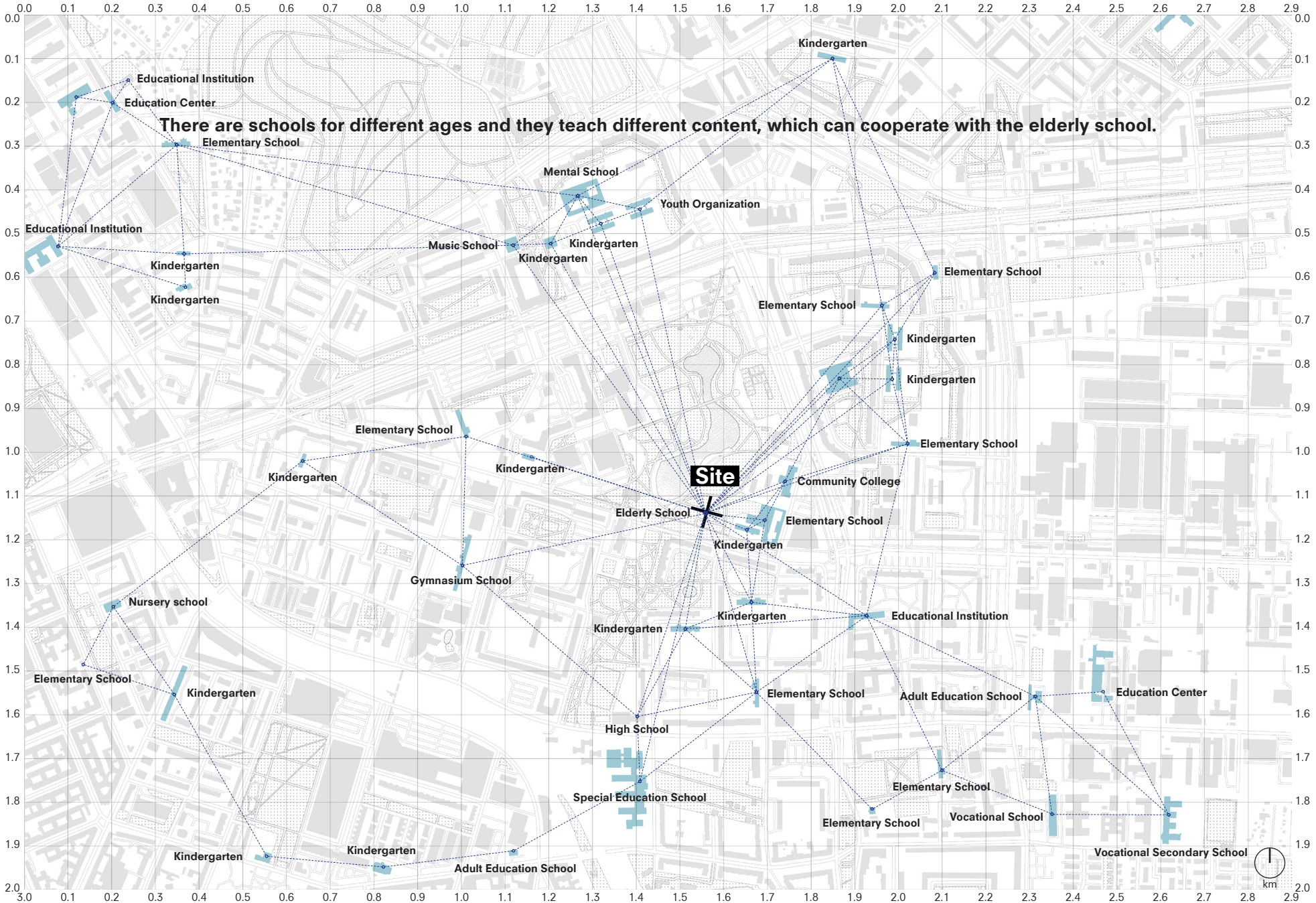
RESIDENTIAL AREA

“The buildings in the area around Lake Fennpfuhl belong to the oldest large prefabricated housing estate in East Berlin.”



Text Source: https://www.berlin.de/tourismus/seen/4861420-4299185-fennpfuhl.html

SCHOOL

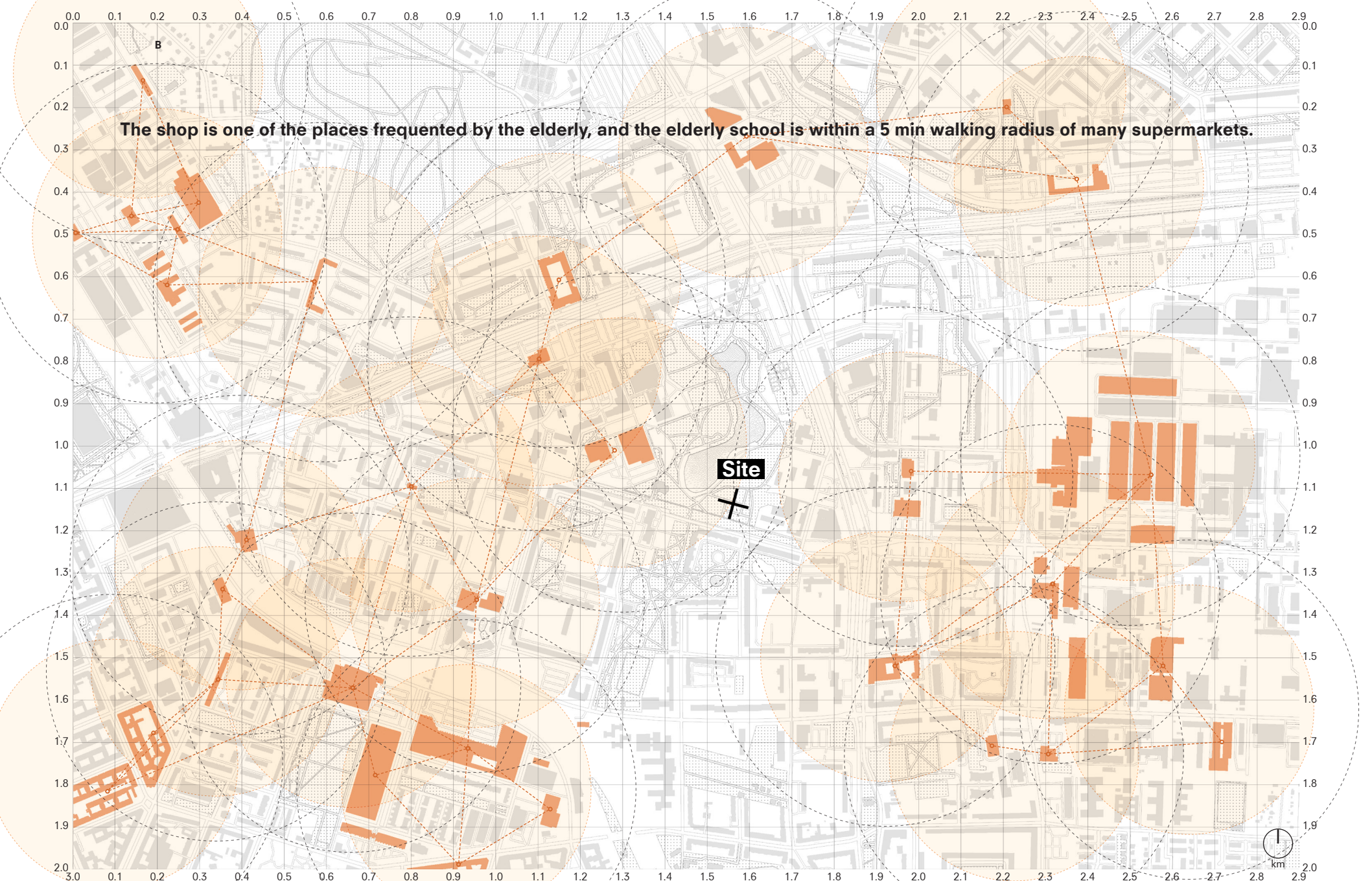

There are schools for different ages and they teach different content, which can cooperate with the elderly school.
Site
Kindergarten
Educational Institution
Education Center
Elementary School
Mental School
Youth Organization
Educational Institution
Music School
Kindergarten
Kindergarten
Kindergarten
Kindergarten
Elementary School
Elementary School
Kindergarten
Kindergarten
Elementary School
Elementary School
Kindergarten
Community College
Elderly School
Elementary School
Kindergarten
Gymnasium School
Nursery school
Kindergarten
Kindergarten
Educational Institution
Elementary School
Kindergarten
Elementary School
Adult Education School
Education Center
High School
Special Education School
Elementary School
Elementary School
Vocational School
Vocational Secondary School
Kindergarten
Kindergarten
Adult Education School
km

SPORTS CENTER

The sports center provides a large young population to the elderly school which is within a 400-meter service radius of several sports centers.

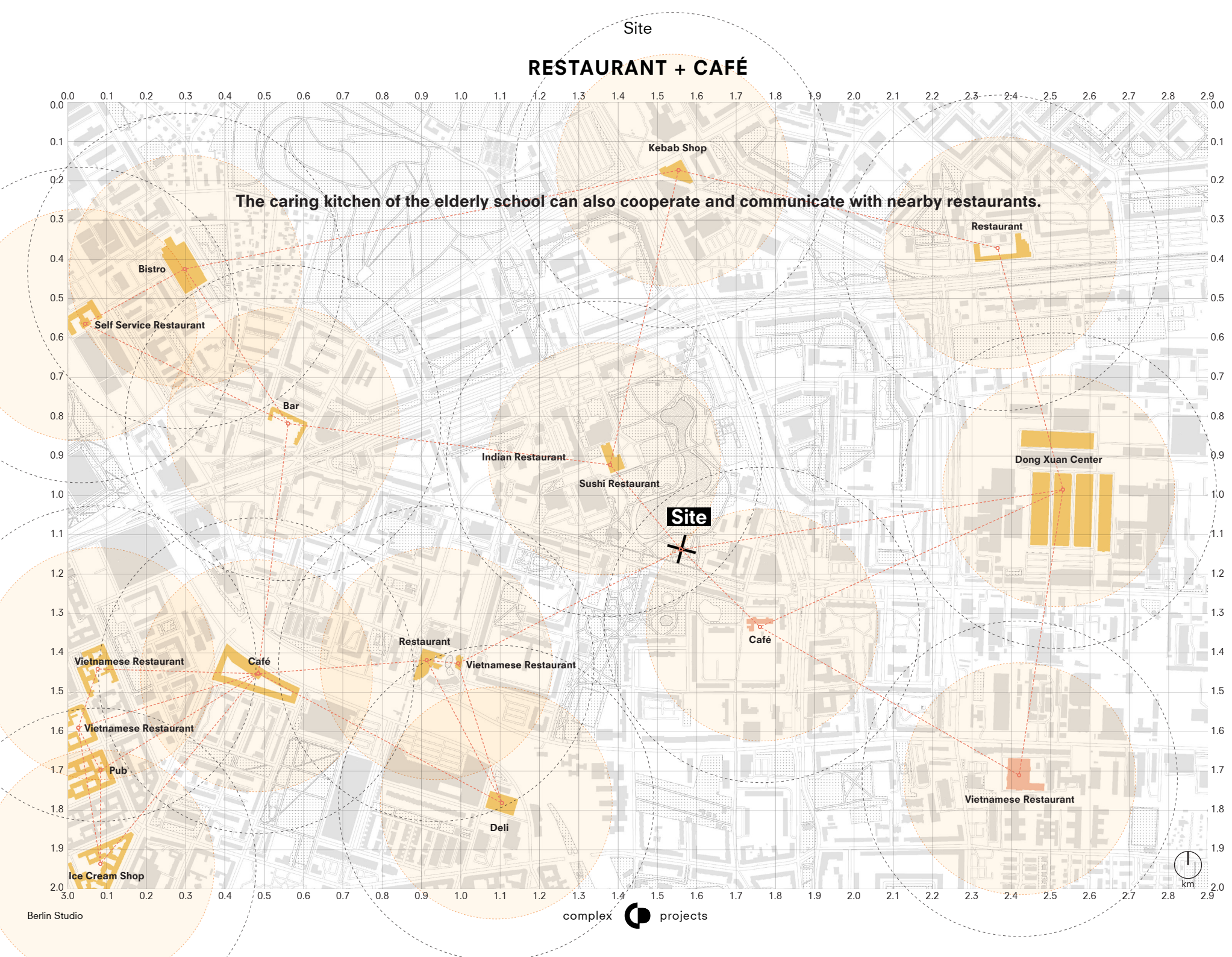


SHOP


The shop is one of the places frequented by the elderly, and the elderly school is within a 5 min walking radius of many supermarkets.
Site
B
km

Site

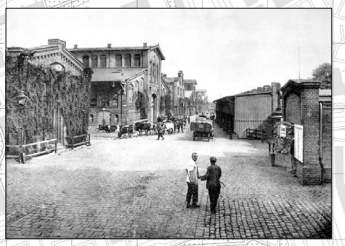
RESTAURANT + CAFÉ



HISTORICAL LANDMARK

The historical landmarks bring vistors to the elderly school.







The building consists of 4 historic halls. The largest hall, located next to the Ringbahn, is the sales hall for foreign pigs. Next to the historic hall is the pig slaughterhouse of a large company. Next to the historic hall is the small business pig slaughterhouse. Finally, the smallest historical hall next to Berlin's Stadtplatz housed a pigsty at the time.

Site

Schweineschlachthaus für Großbetrieb







Dong Xuan Center

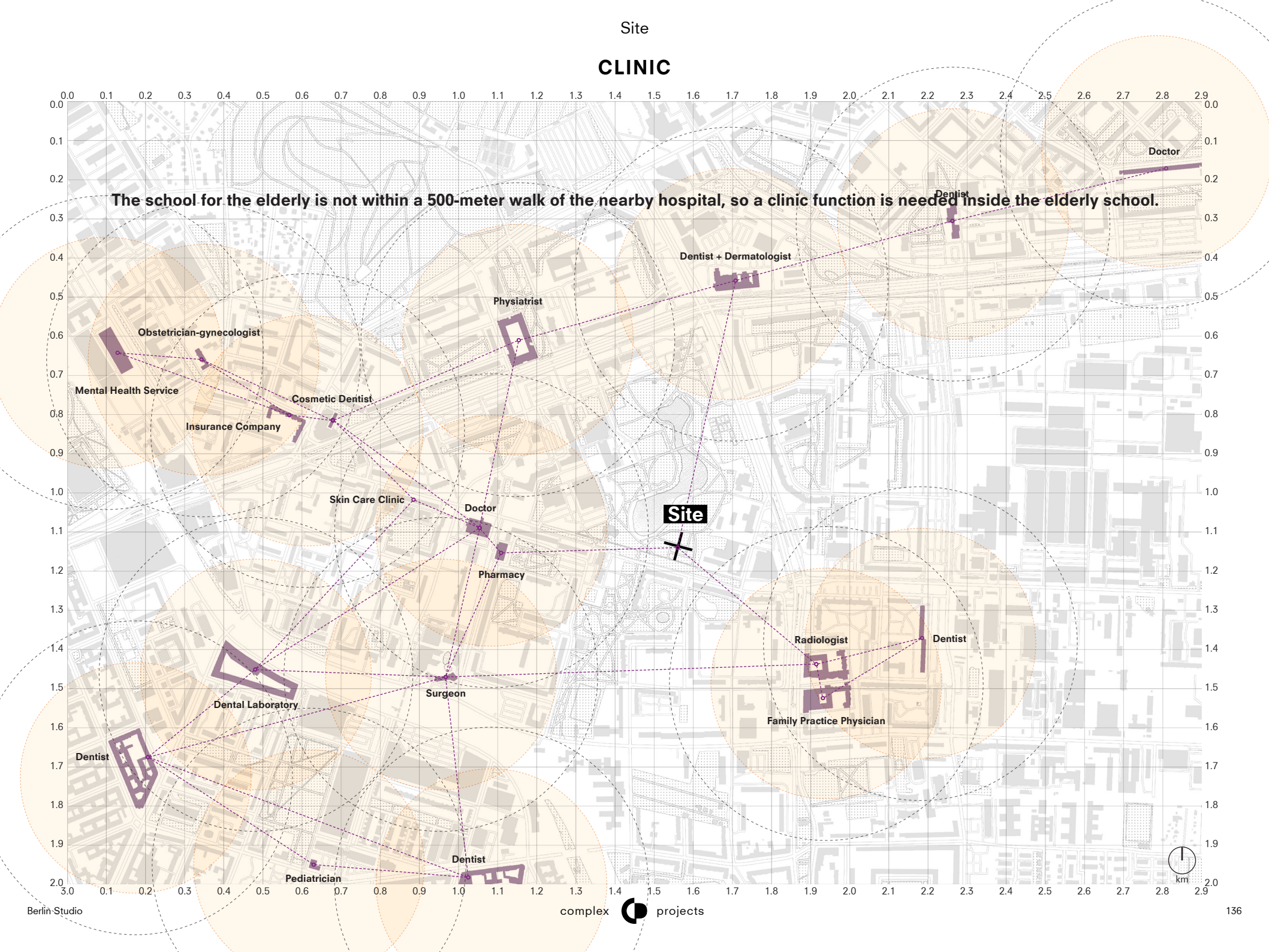
After German reunification, many Vietnamese contractors started their own businesses as businessmen, including Nguyen Van Hien, founder of the Dong Xuan Center. In order to bypass the long road to Polish wholesale companies, he thought of setting up a wholesale market in Berlin: Dong Xuan Center. Dong Xuan Center is modeled after Vietnam's Dong Xuan Market, the oldest and largest market in Hanoi, offering a variety of products. Today, the market is a center for traders from all over Germany and its neighboring countries.

km

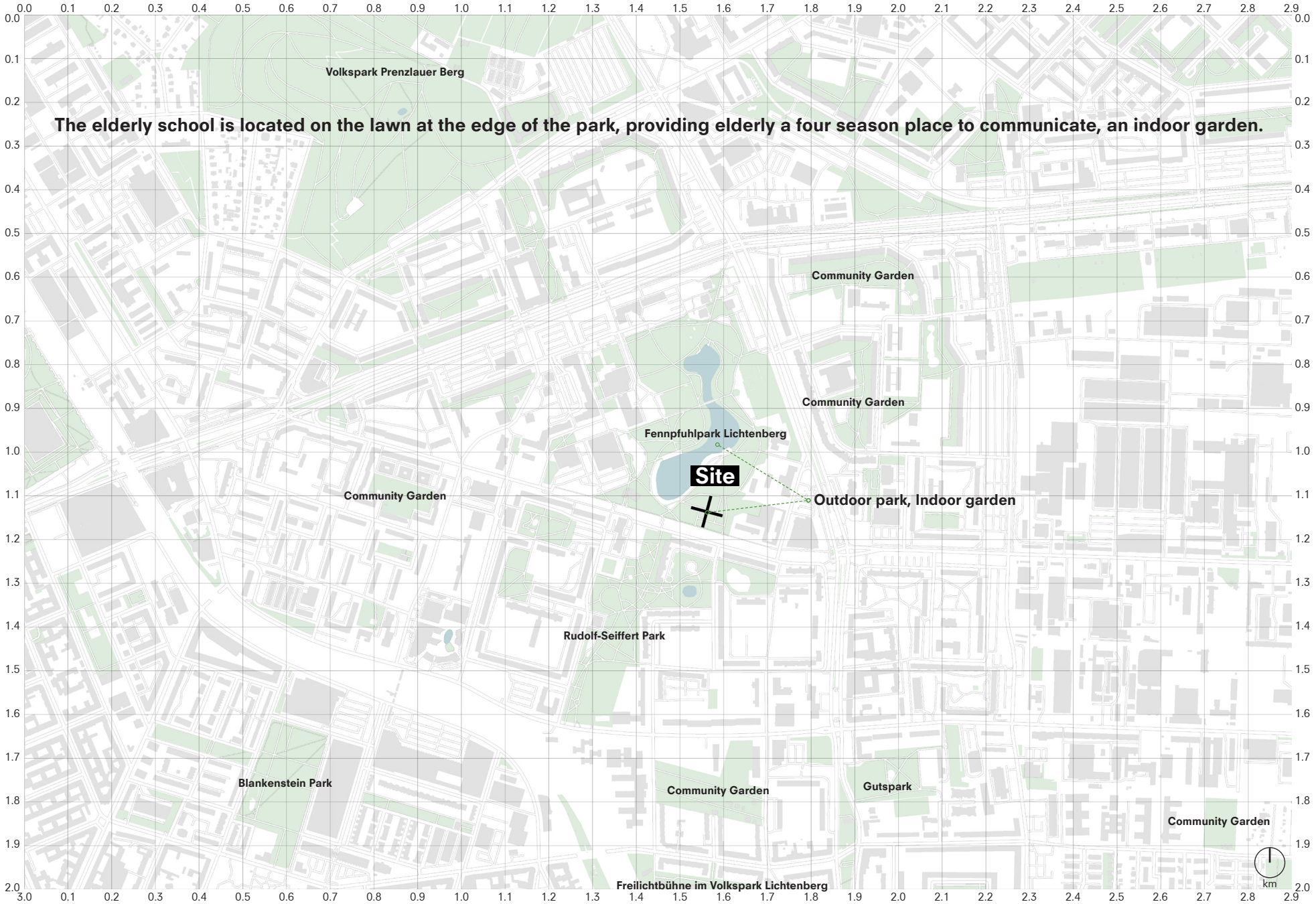
SOCIAL SERVICE ORGANIZATION



CLINIC


The school for the elderly is not within a 500-meter walk of the nearby hospital, so a clinic function is needed inside the elderly school.
Site
Doctor
Dentist
Dentist + Dermatologist
Physiatrist
Obstetrician-gynecologist
Mental Health Service
Cosmetic Dentist
Insurance Company
Skin Care Clinic
Doctor
Pharmacy
Radiologist
Dentist
Family Practice Physician
Dental Laboratory
Surgeon
Dentist
Pediatrician
Dentist
km

LANDSCAPE

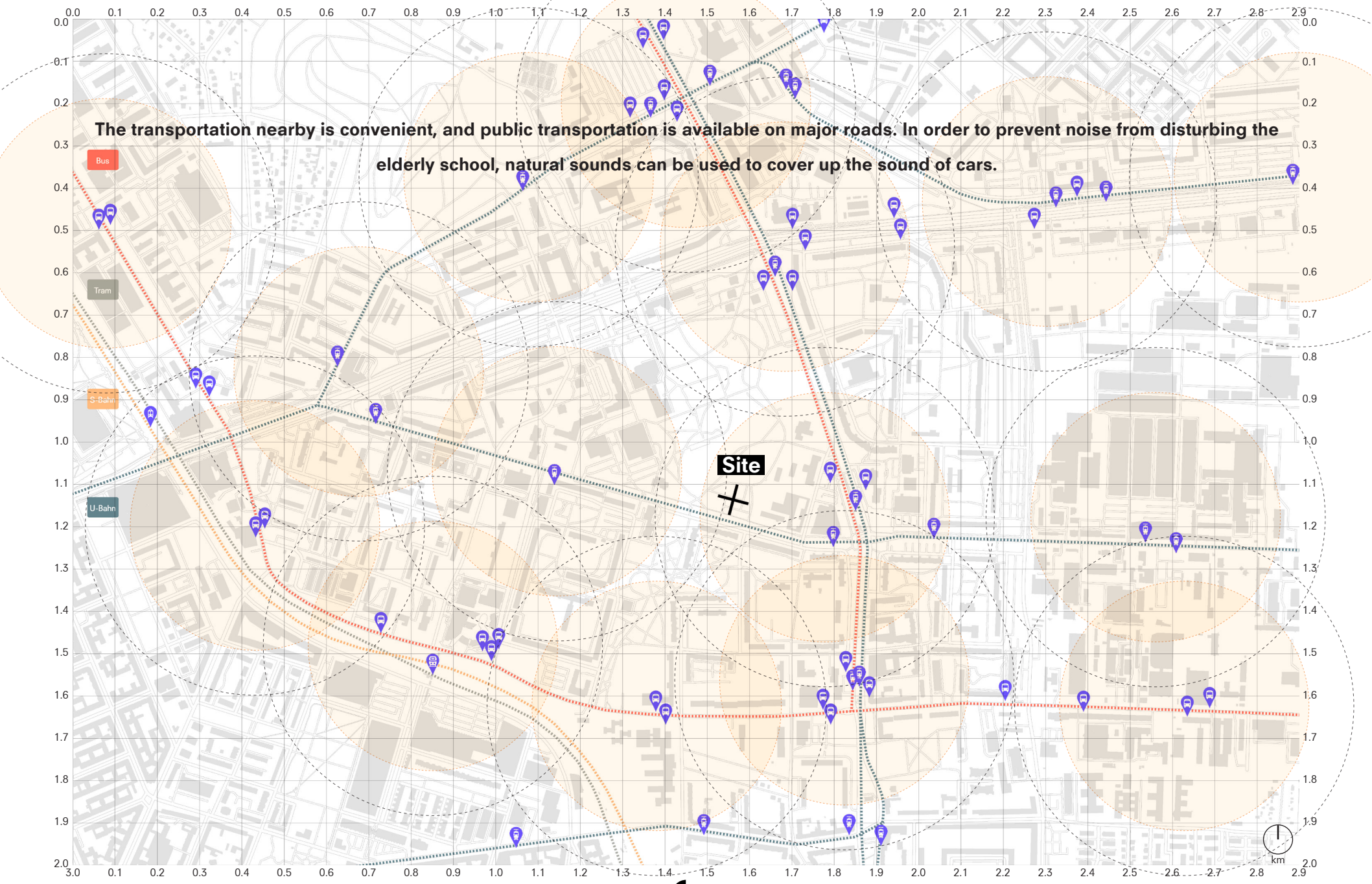

The elderly school is located on the lawn at the edge of the park, providing elderly a four season place to communicate, an indoor garden.
Volkspark Prenzlauer Berg
Community Garden
Community Garden
Fennpfuhlpark Lichtenberg
Site
Outdoor park, Indoor garden
Community Garden
Rudolf-Seiffert Park
Blankenstein Park
Community Garden
Gutspark
Community Garden
Freilichtbühne im Volkspark Lichtenberg
km

SATELLITE MAP

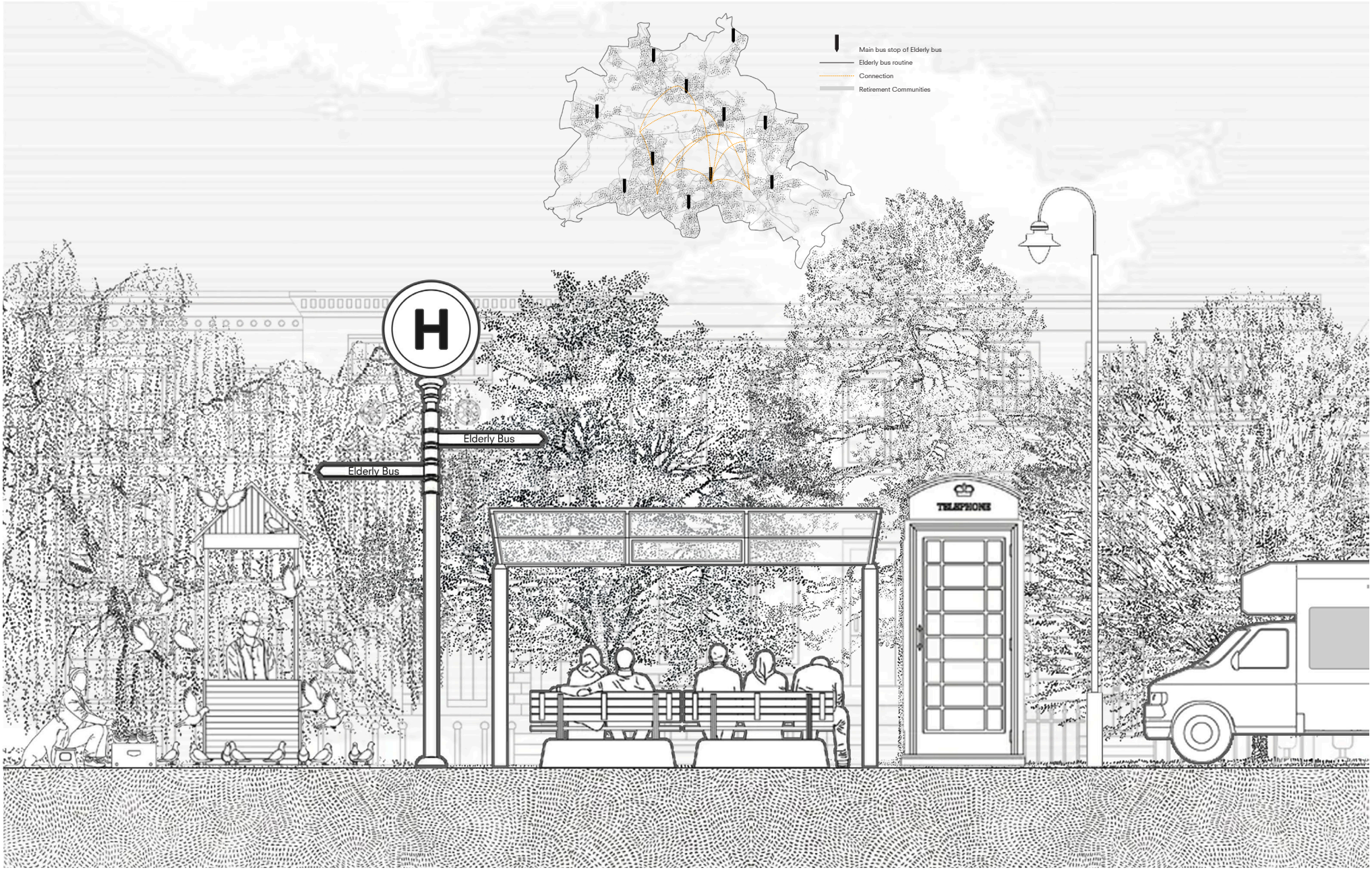


PUBLIC TRANSPORTATION

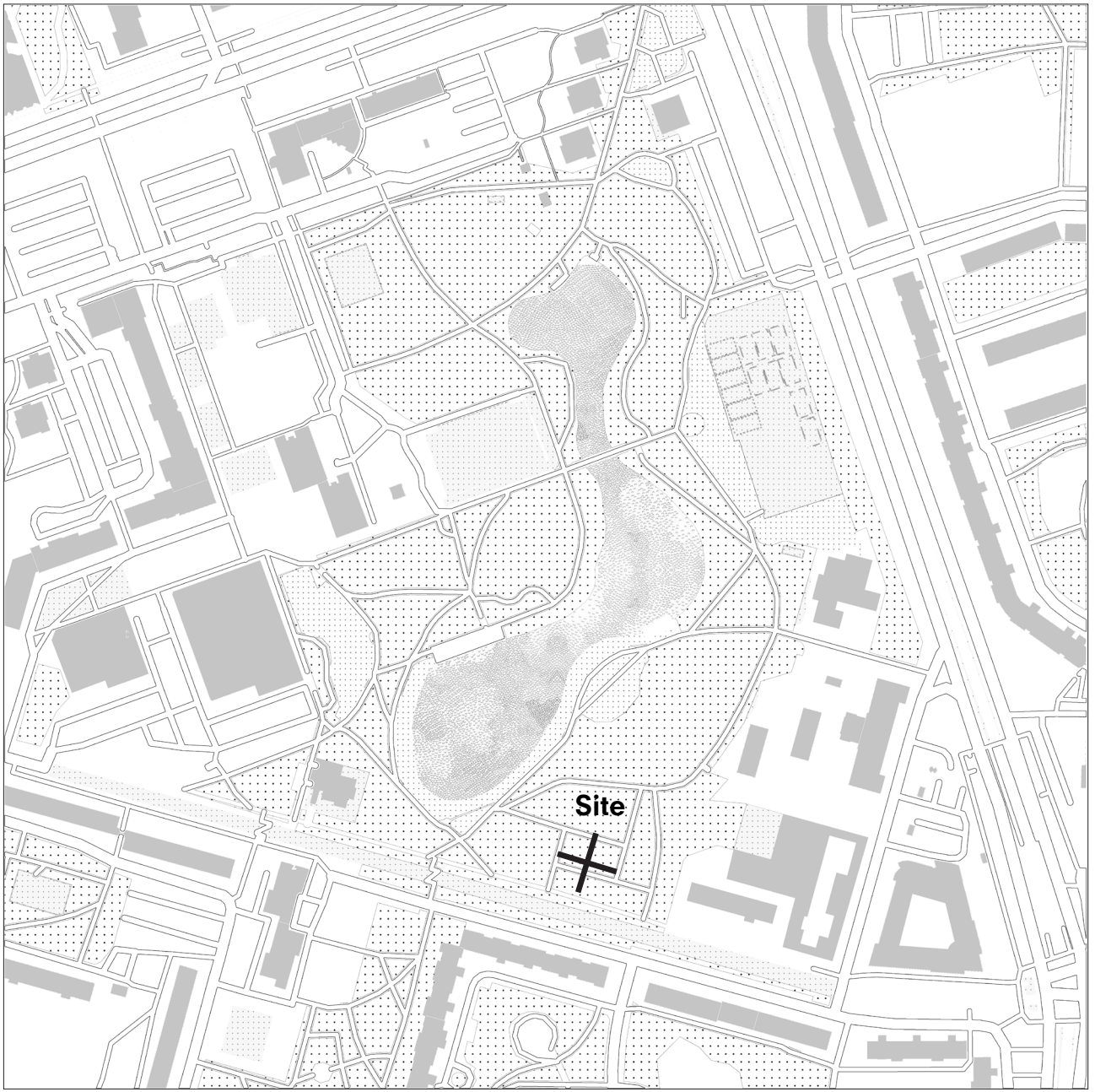
The transportation nearby is convenient, and public transportation is available on major roads. In order to prevent noise from disturbing the elderly school, natural sounds can be used to cover up the sound of cars.

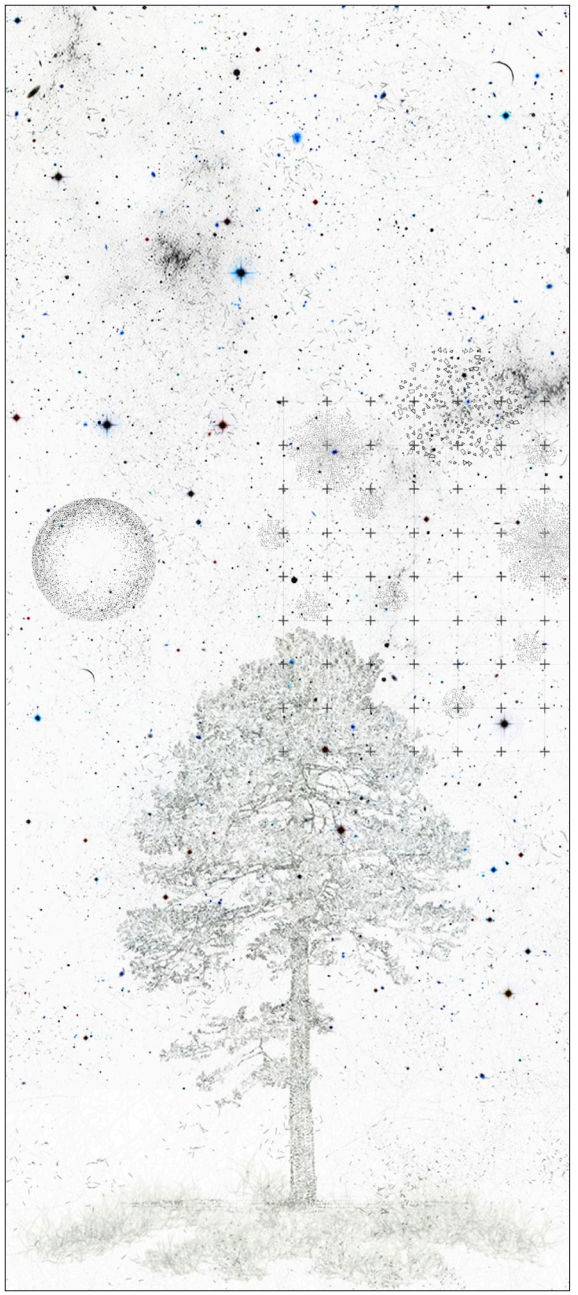


ELDERLY BUS


Main bus stop of Elderly bus
Elderly bus routine
Connection
Retirement Communities
H
Elderly Bus
Elderly Bus
TELEPHONE

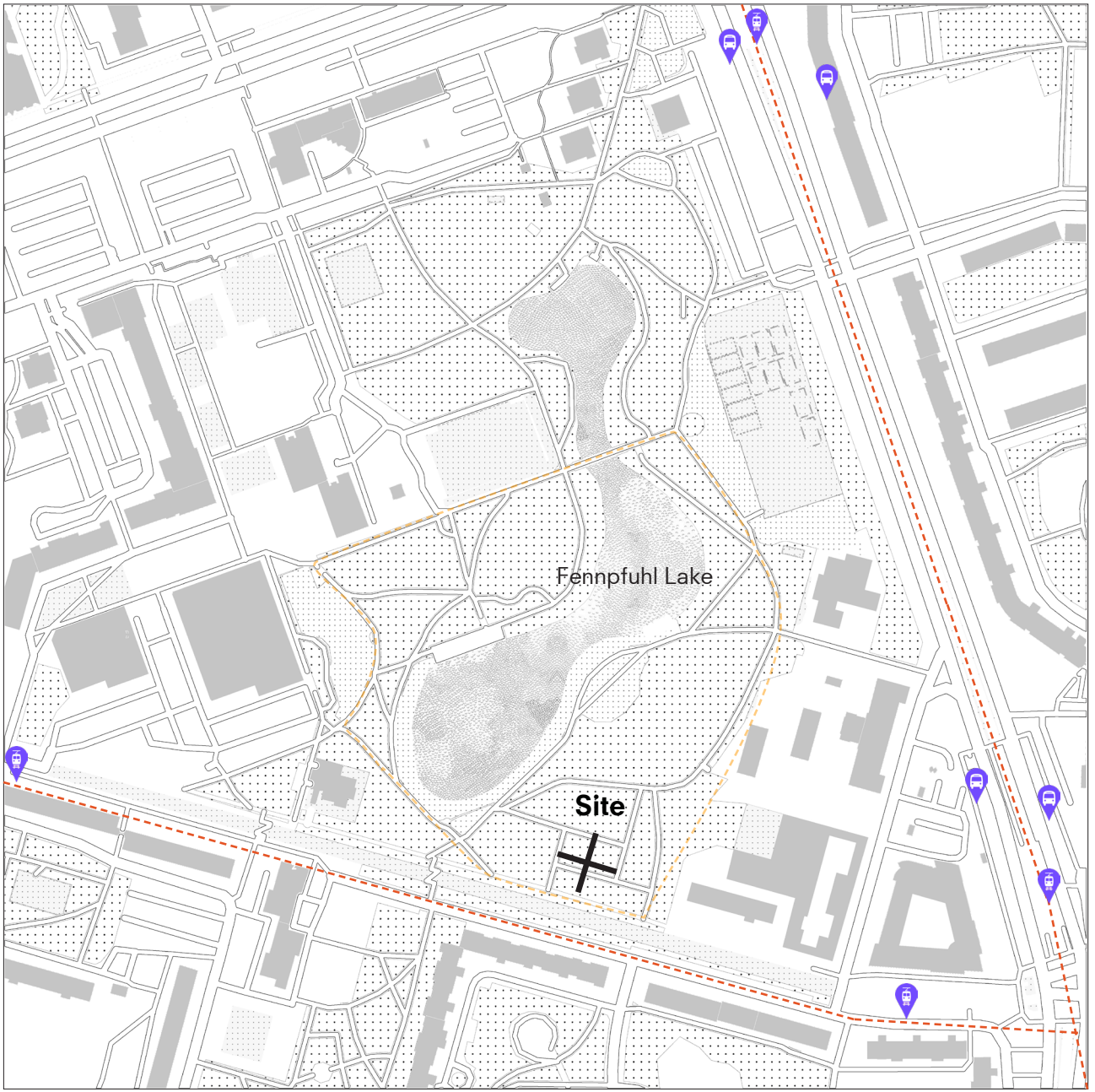
NEIGHBOR SCALE: FENNPFUHL, LICHTENBERG





Site Impression Collage

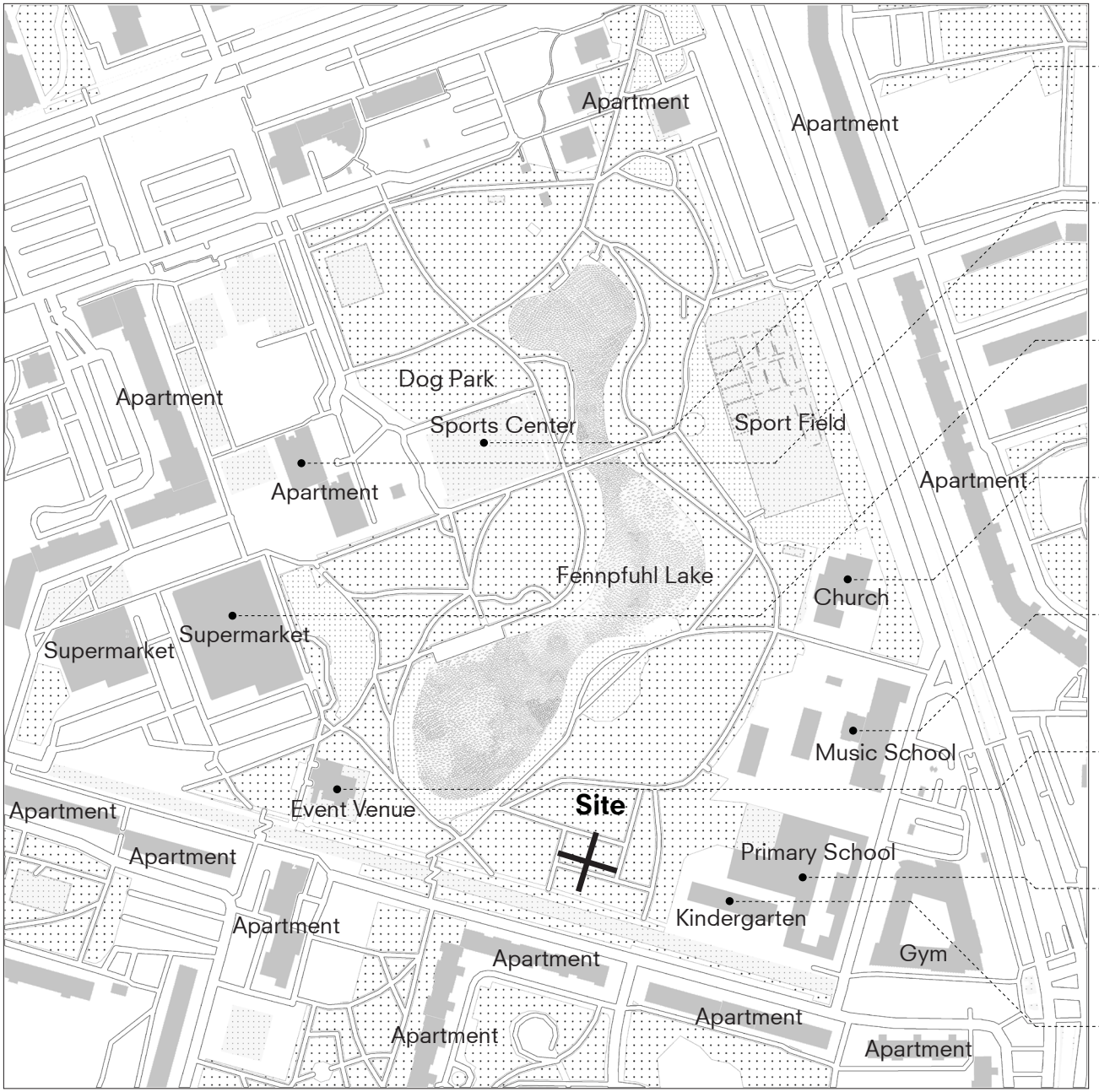
FENNPFUHL, LICHTENBERG



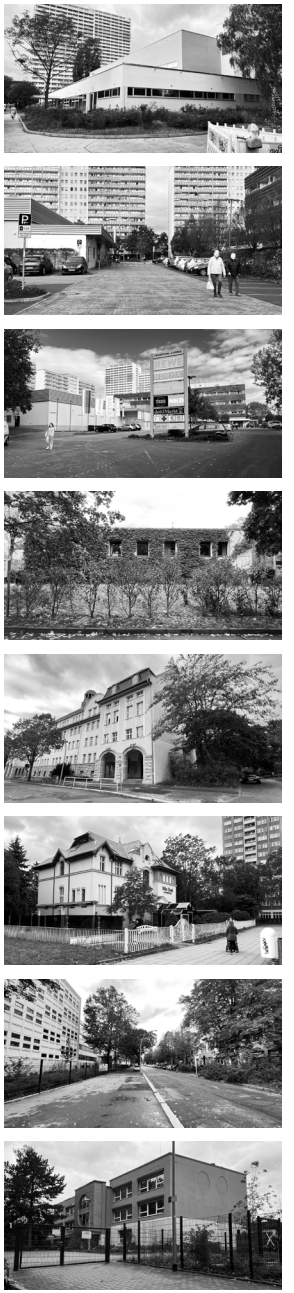
Legend

- Lake
- Park
- Building
- Sports Facility
- Site
- Plot
- Tram&Bus Line

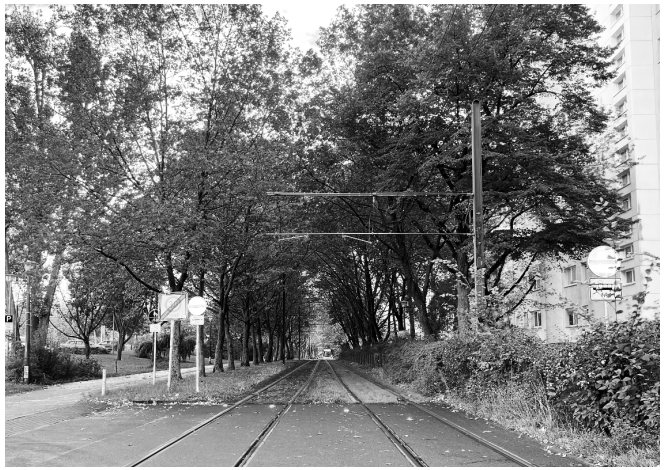
BUILDINGS


Apartment
Apartment
Apartment
Dog Park
Sports Center
Sport Field
Apartment
Apartment
Fennpfuhl Lake
Church
Supermarket
Supermarket
Music School
Event Venue
Site
Apartment
Apartment
Primary School
Kindergarten
Apartment
Gym
Apartment
Apartment
Apartment





SITE PHOTOS



Green Trail



Landscape



Sculpture



Fishing

HISTORY

The park has been demolished and restored, with various measures and activities activating the area and aiming to provide a variety of services. However, most of the events only provide for some special festivals.

1.
Ice Age

Fennpfuhlpark has its origins in a stagnant water area that has remained flat since the Ice Age.

2.
18th Century

The entire region was still relatively remote. A part of the area (Roederstrasse 14-17) had an ornamental garden, including a greenhouse owned by commercial nursery owner Gustav Adolph Schultz. Fennpfuhl, functioning as an ice factory, produced natural ice blocks on the frozen surface during winter and transported them to a brewery.

3.
1891 to 1905

The first hotels emerged around Pfuhl, attracting tourists with the slogan "Berlin's largest and most beautiful natural garden."

4.
1905 to 1906

Gustav Adolph Schultz constructed a new Art Nouveau-style villa in Fennpfuhl, initially serving as a residence and later used for dining and event celebrations.

5.
1912

The headquarters of the adult education center and the Lichtenberg Music School were completed.

6.
1925 to 1953

An official ice rink, 250 meters long, was established on the frozen lake, even hosting the Berlin Speed Skating Championship in February 1951. During the East German era, the small lake became part of the Lichtenberg May Festival, where children and young people could try rowing under experienced trainers' guidance.

7.
1943 to 1945

Approximately half of the Fennpfuhl area housed eleven forced labor camp barracks. In 2005, the district government erected a plaque to commemorate the period of forced labor.

8.
1945

The Fennpfuhl garden was preserved, and owners built small houses in the garden.

9.
1972 to 1975

The East German government decided to gradually develop the new Lichtenberg (North) district. Owners or tenants received minimal compensation, and the garden was dismantled. The areas around the two ancient bodies of water from the Ice Age remained undeveloped due to unstable subsoil, allowing existing trees to stand.

10.
1986

A fountain system was installed in the southern part of the lake to aid water ventilation.

11.
1987

The Visual Artists Association invited people to participate in the second Berlin International Sculpture Symposium with the motto "Poetry of the Big City." Many sculptures were made from Reinhardtsdorf sandstone provided to the park. A stone, open-air rose pavilion was also planned at the time and was later built and planted.

12.
1988

At the urging of the district government and a major Berlin newspaper, the Drushba festival began around the park. In the park, numerous visitors discovered folk art such as sculptures, snack stands, sports and music events, rowing, skating or skiing, and fireworks, delighting both visitors and residents.

13.
1988 to 2014

A boat rental service was established on the banks of the Fennpfuhl River, renting rowboats during the warm season. However, due to insufficient demand and excessive official requirements, the service ceased operations again in 2014.

14.
2000

Since the beginning of the 21st century, the Fennpfuhlfest has been held annually. The festival focuses on music, dance, and sports performances by numerous dance groups, choirs, and sports clubs.

15.
2000 to 2001

Extensive renovations were carried out on the water body. Now there are small-scale paved paths, gravel, and paving stones. Due to disease, some trees directly located on the riverbank had to be removed, and new plants were planted in their place.

16.
Ice Age

The Lichtenberg Street and Green Space Management Office added two park benches. They are labeled "Plauderbank" on the backrest, providing an opportunity to connect with others willing to chat. Subsequently, memorial benches for Else and Erwin Gansdorf were installed in the park.

PEOPLE

Mixed-age community.

Elderly	Adult	Youth	Kid
			
Walk dogs	Go jogging	Read books	Play games
			
Wander	Enjoy parenting time	Go to sports center	Enjoy parenting time
			
Feed birds	Take care of the old	Go to music school	Go to school
			
Go fishing	Go fishing with kids	Graffiti	Go fishing with parents

PLANT

The old and newly planted trees in the landscaped leisure park make an important contribution to the clean air.

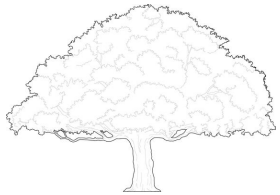

Maple Tree

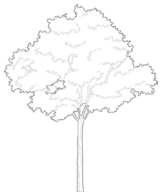

Chestnut

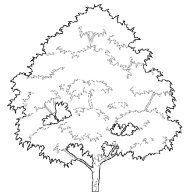

Poplar Tree

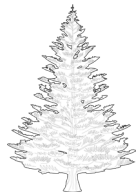

Weeping Willow


Plane Tree

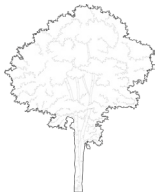

Oak

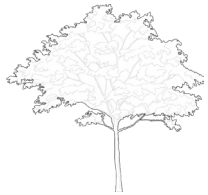

Plum Tree


Lime Tree

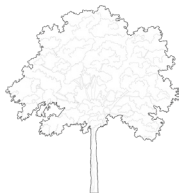

Conifer

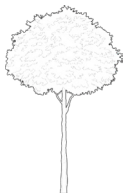

Elm*

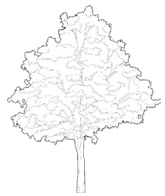

Rowan*


Dogwood Tree*


Black Willow


Pear Tree*


Cherry Tree*


Beech Tree*

* means tree species to be added to school projects

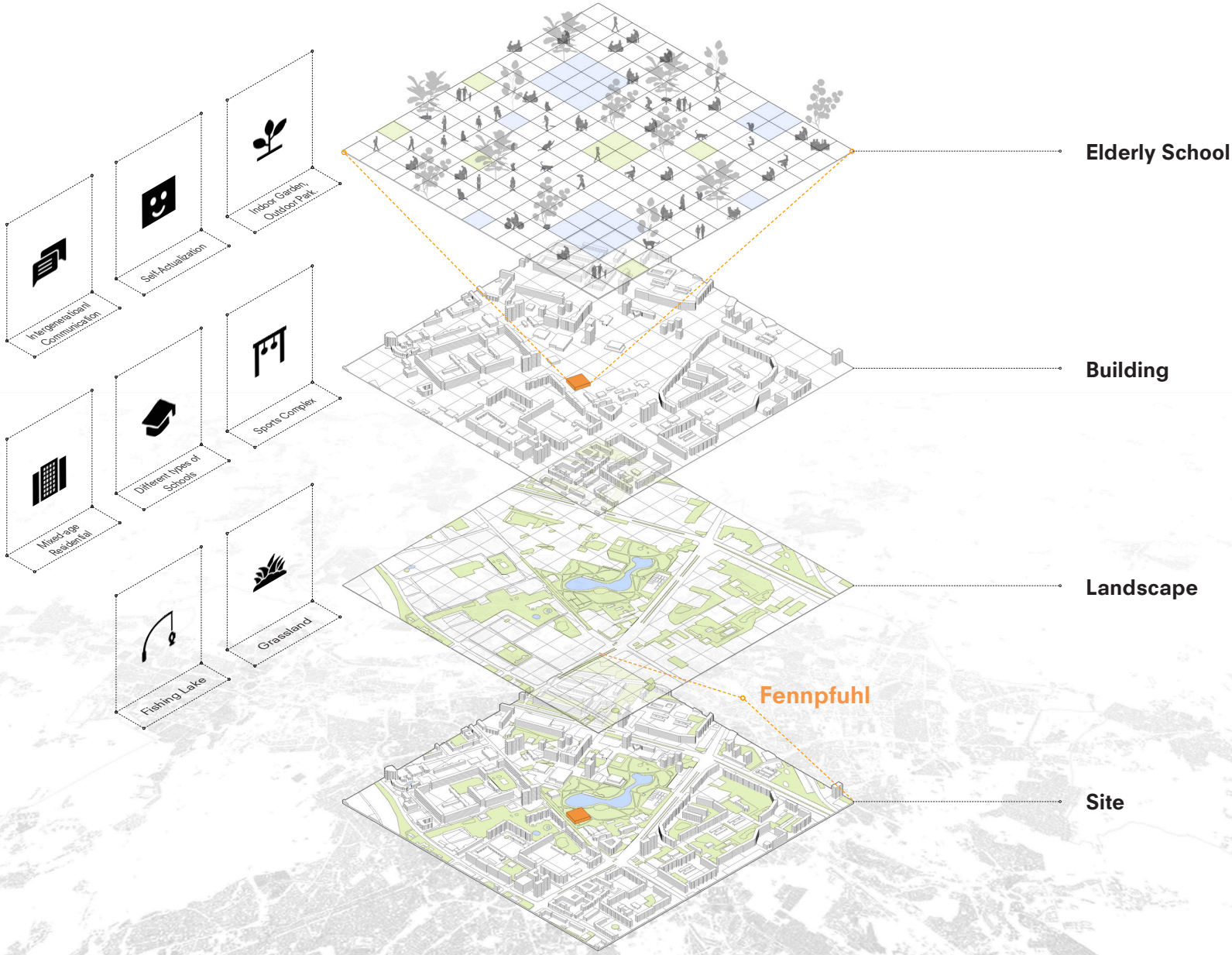
Text source: https://de.wikipedia.org/wiki/Fennpfuhlpark

ANIMAL

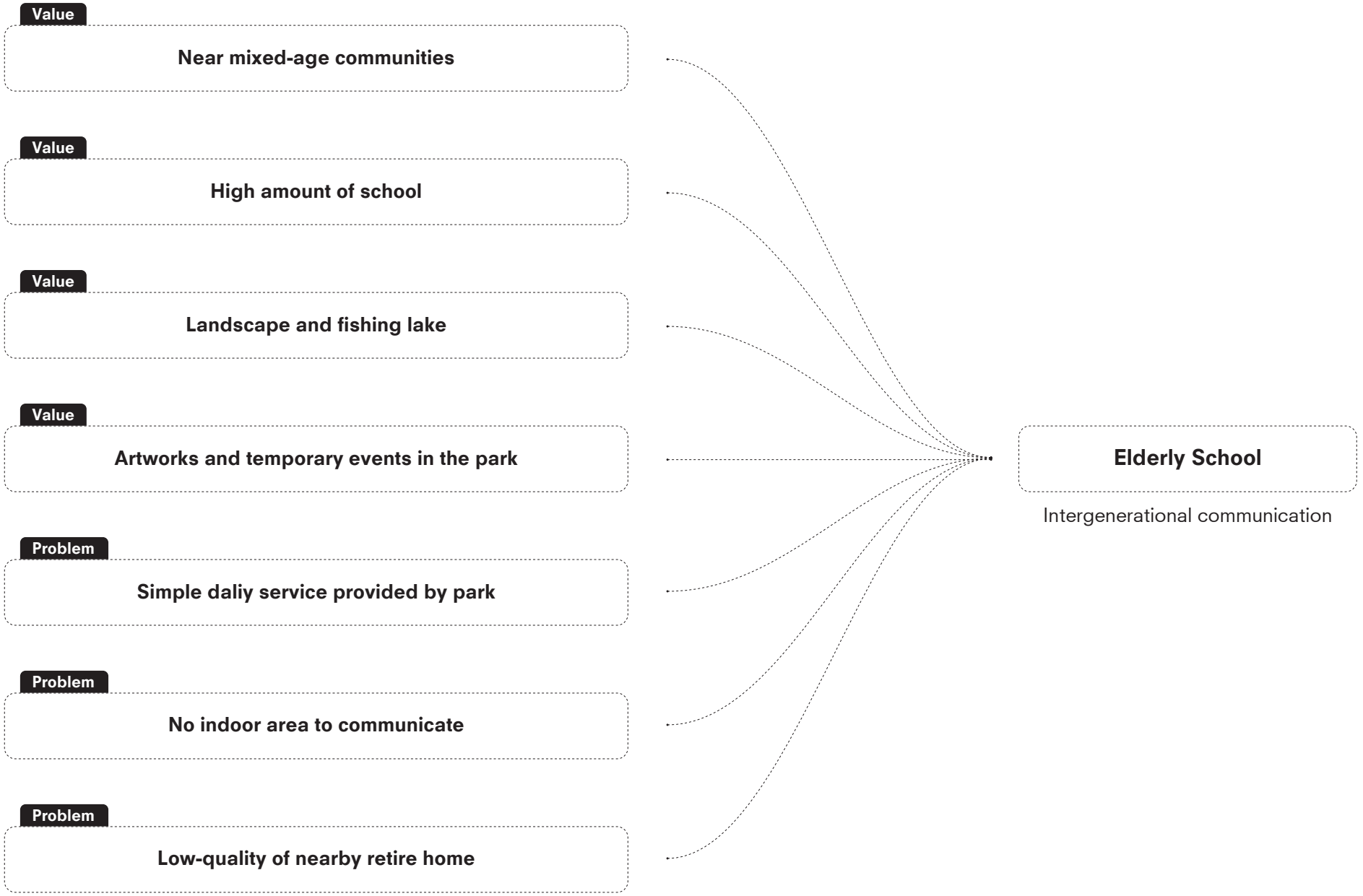
Species-friendly park.

Bird	Dog	Fish	Insect
			
			
			
			

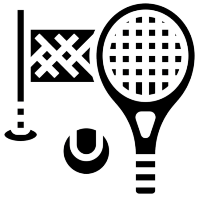
URBAN-BLOCK-BUILDING LAYER



SITE VALUE AND PROBLEM

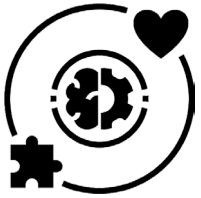


SERVICE ADDING TO PARK



Recreation

Physical



Education

Mental

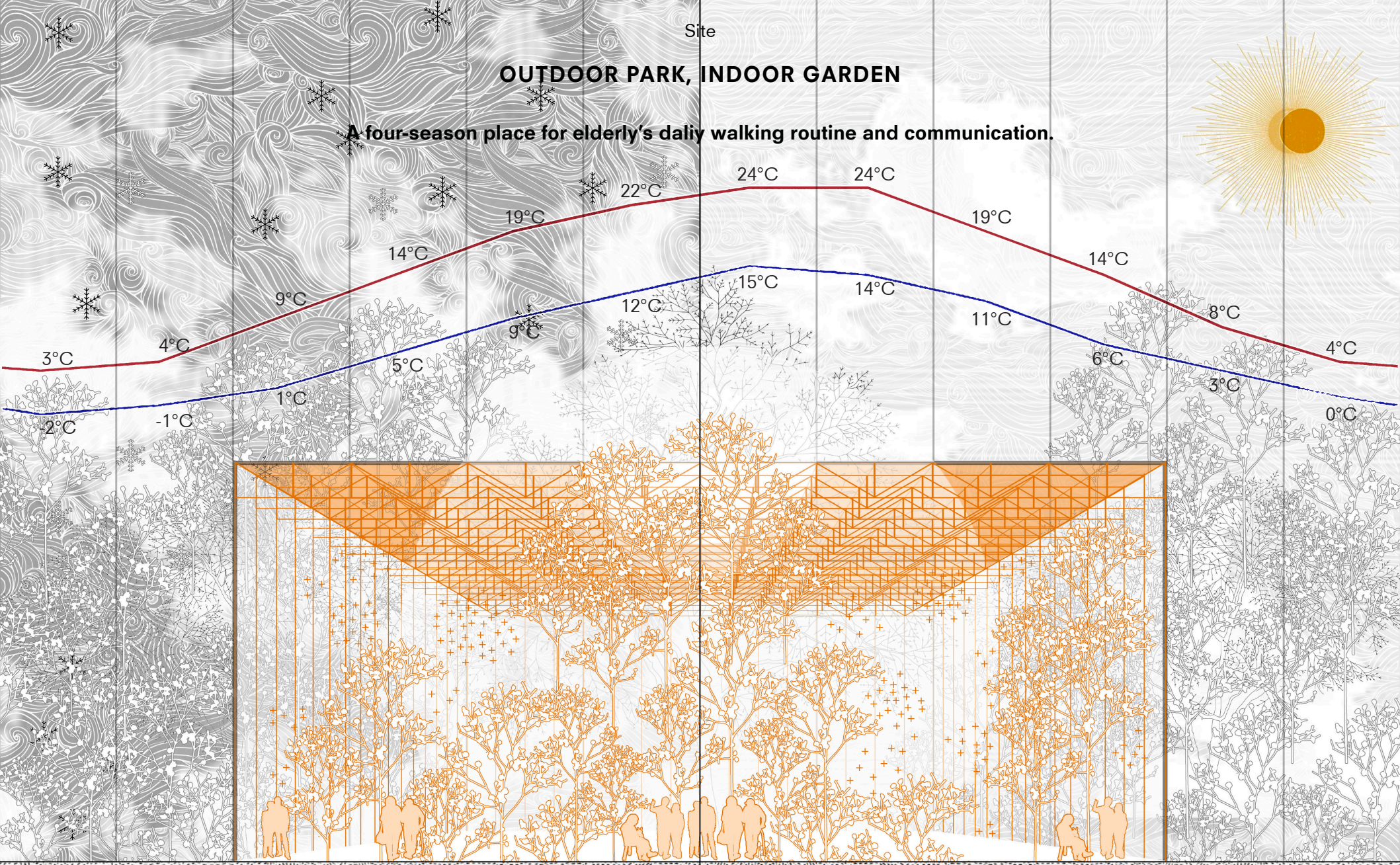


Communication

Social

OUTDOOR PARK, INDOOR GARDEN

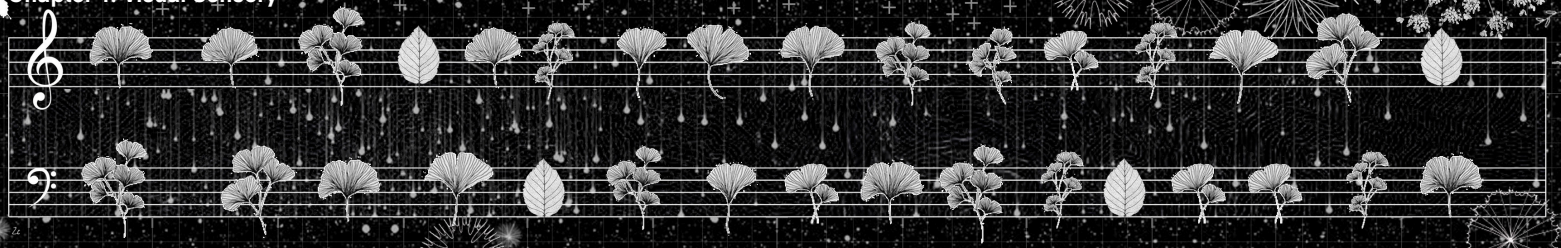
A four-season place for elderly's daliy walking routine and communication.



MULTI-SENSORY NATURESCAPE

Use multiple sensory perception to stimulate intergenerational communication.

Chapter 1. Visual Sensory



Chapter 2. Auditory Sensory



Chapter 3. Olfactory Sensory

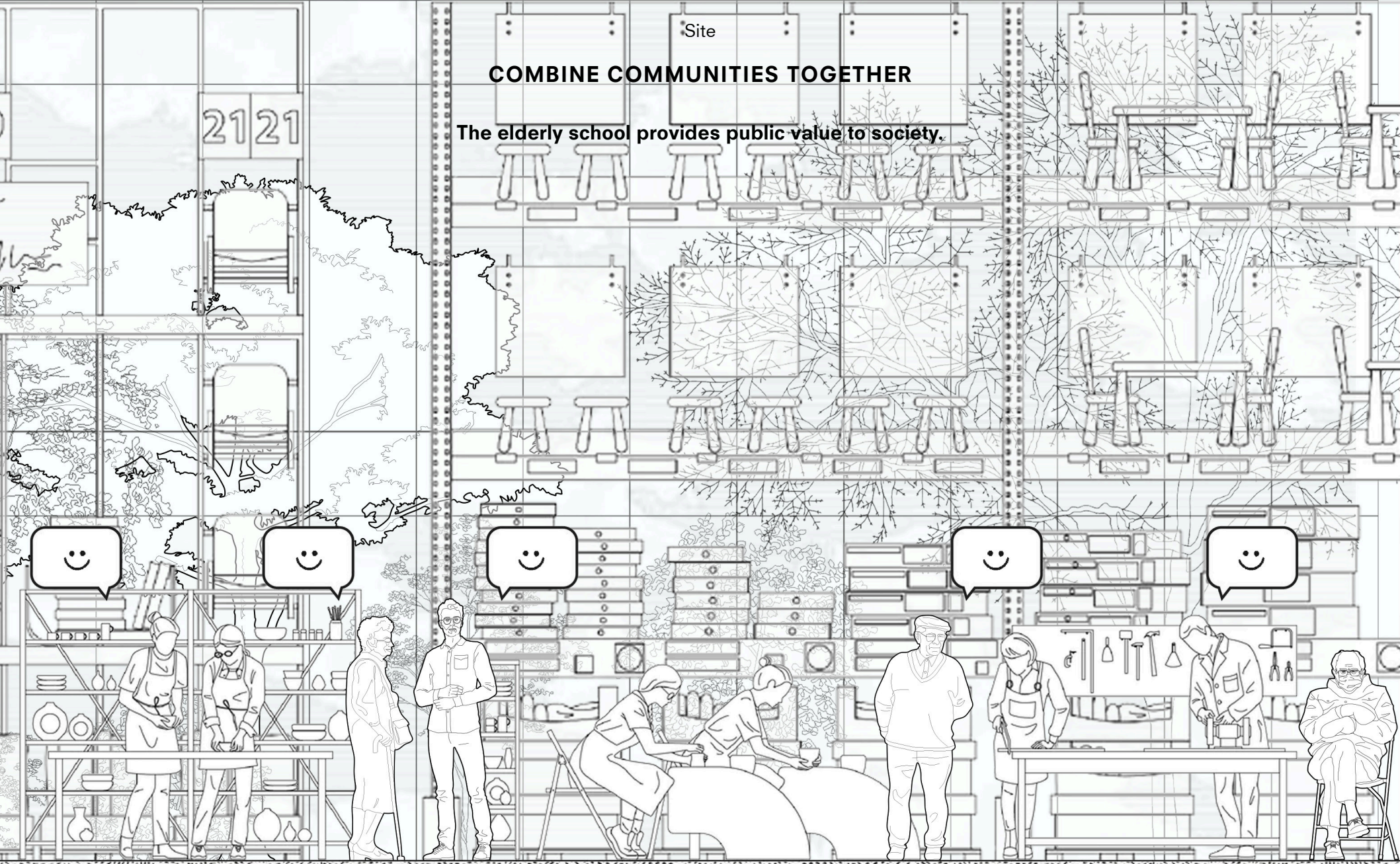


Chapter 4. Tactile Sensory

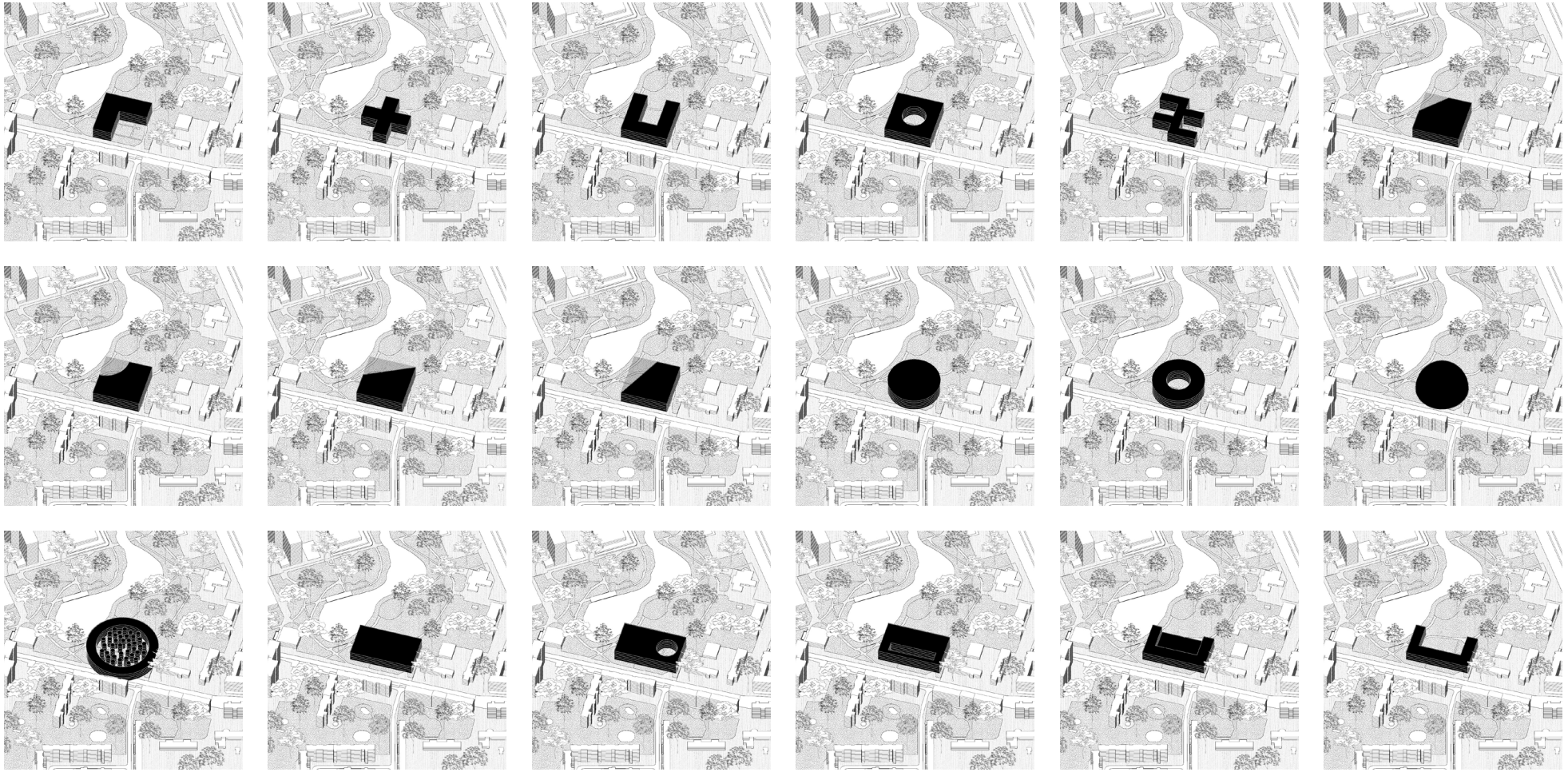


COMBINE COMMUNITIES TOGETHER

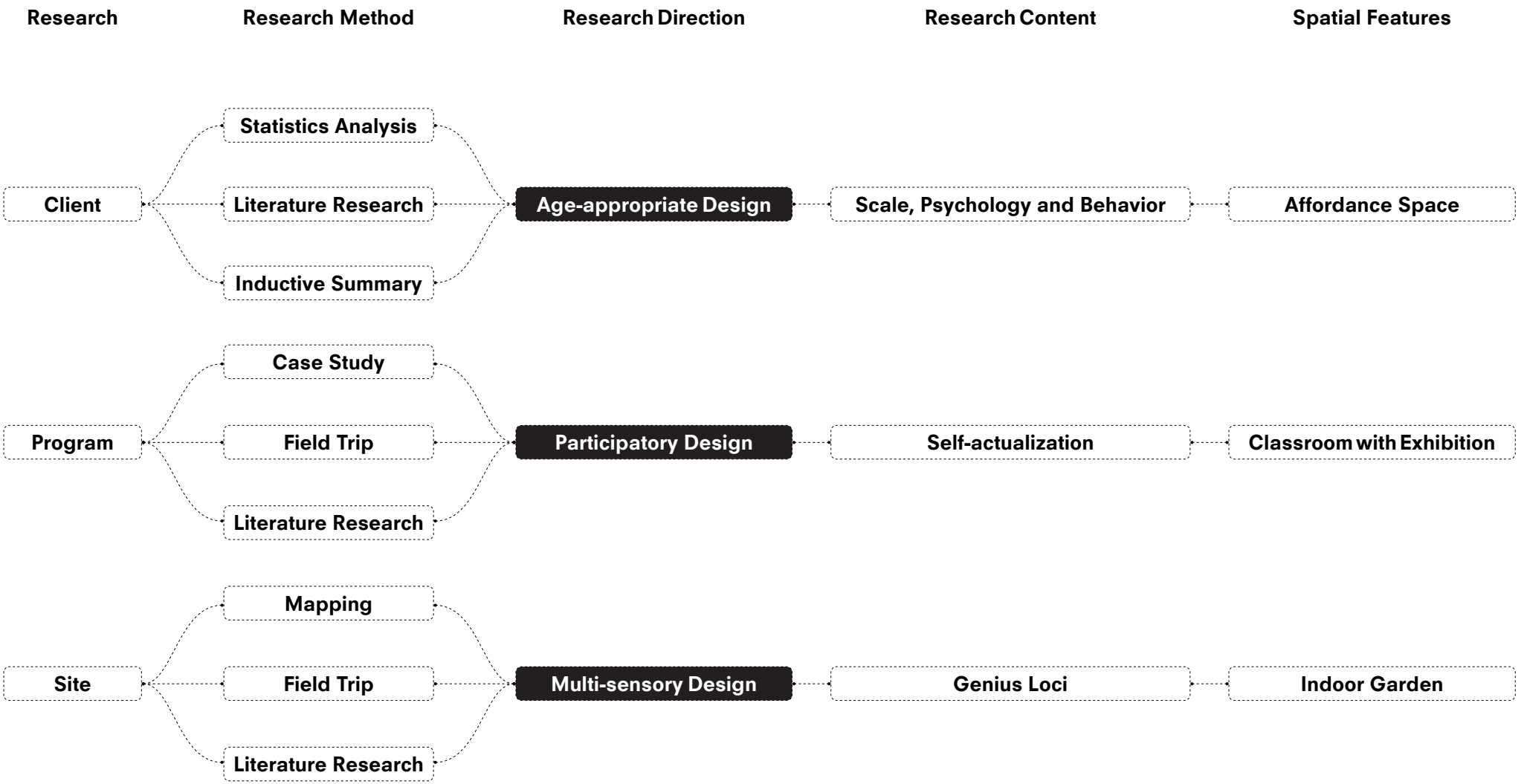
The elderly school provides public value to society.



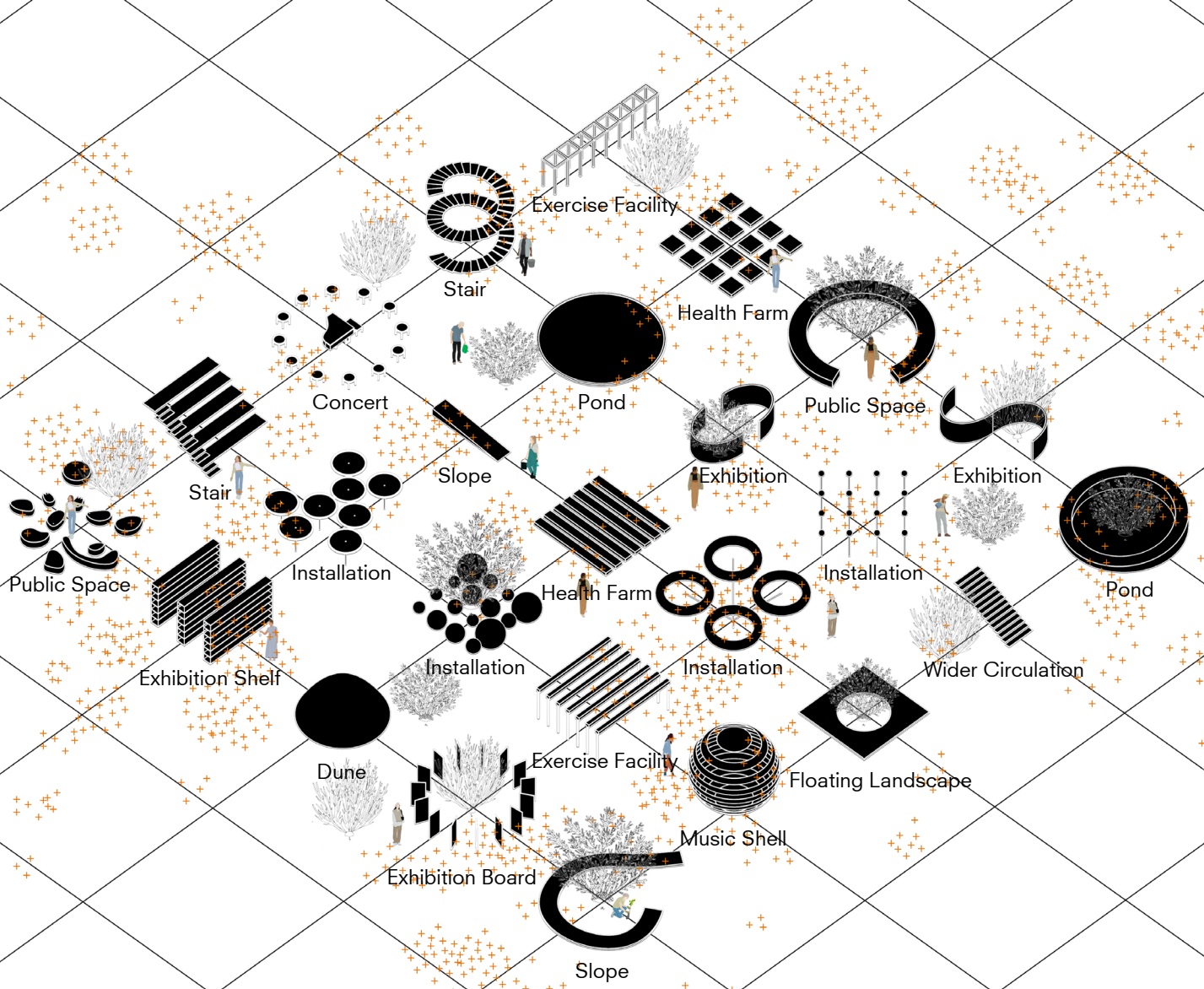
MASSING COMPARISON



RESEARCH FRAMEWORK



SPACE ELEMENT



DE-AGING EDEN



DESIGN



DEFINITION OF SCHOOL



What do we talk about when we talk about

GOING TO SCHOOL?

A forgotten age of open air classrooms in the Netherlands, 1957.
https://twitter.com/historyinmemes/status/1653083950619803664/photo/1

DEFINITION OF SCHOOL



Mental calculation at primary school. Nikolay Bogdanov-Belsky, 1895.
https://nl.wikipedia.org/wiki/Hoofdrekenen#/media/Bestand:BogdanovBelsky_UstnySchet.jpg

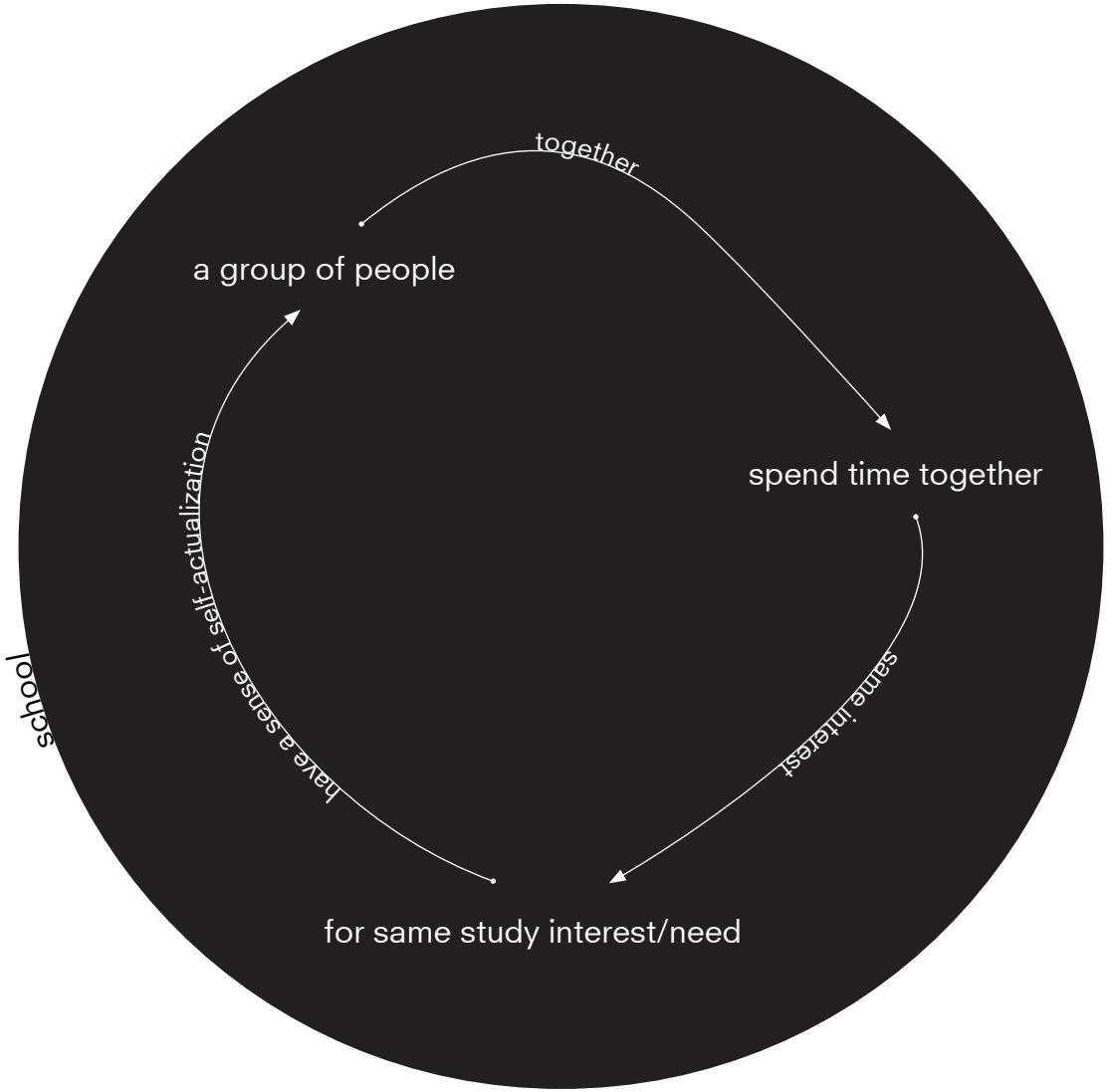
DEFINITION OF SCHOOL



The Anatomy Lesson of Dr Nicolaes Tulp. Rembrandt van Rijn, 1632.
https://www.mauritshuis.nl/en/our-collection/artworks/146-the-anatomy-lesson-of-dr-nicolaes-tulp/

DEFINITION OF SCHOOL

School is not only for children and young people...



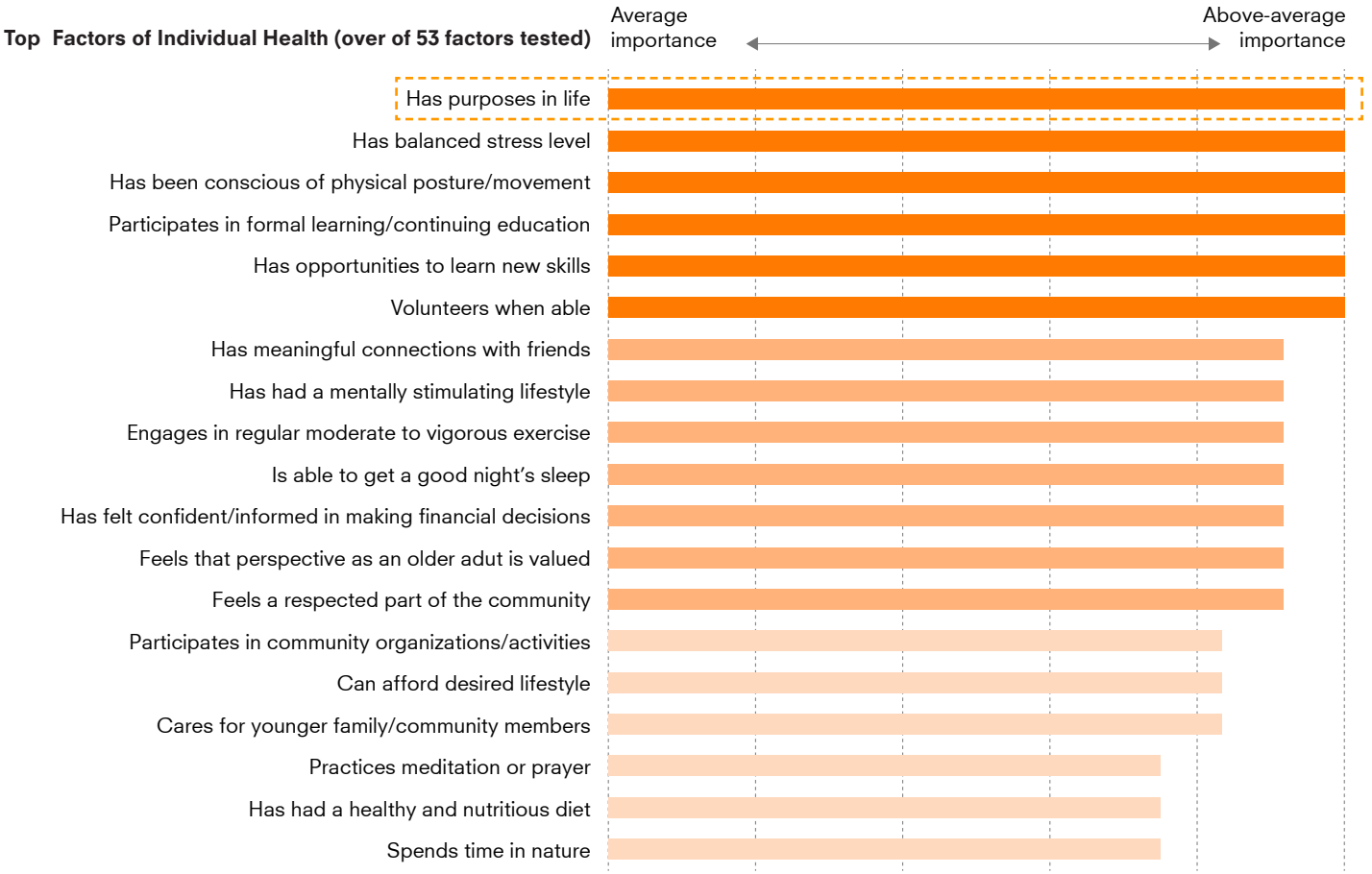
DEFINITION OF SCHOOL



School of Athens. Raffaello Sanzio da Urbino, 1509-1511.
https://www.museivaticani.va/content/museivaticani/en/collezioni/musei/stanze-di-raffaello/stanza-della-segnatura/scuola-di-atene.html

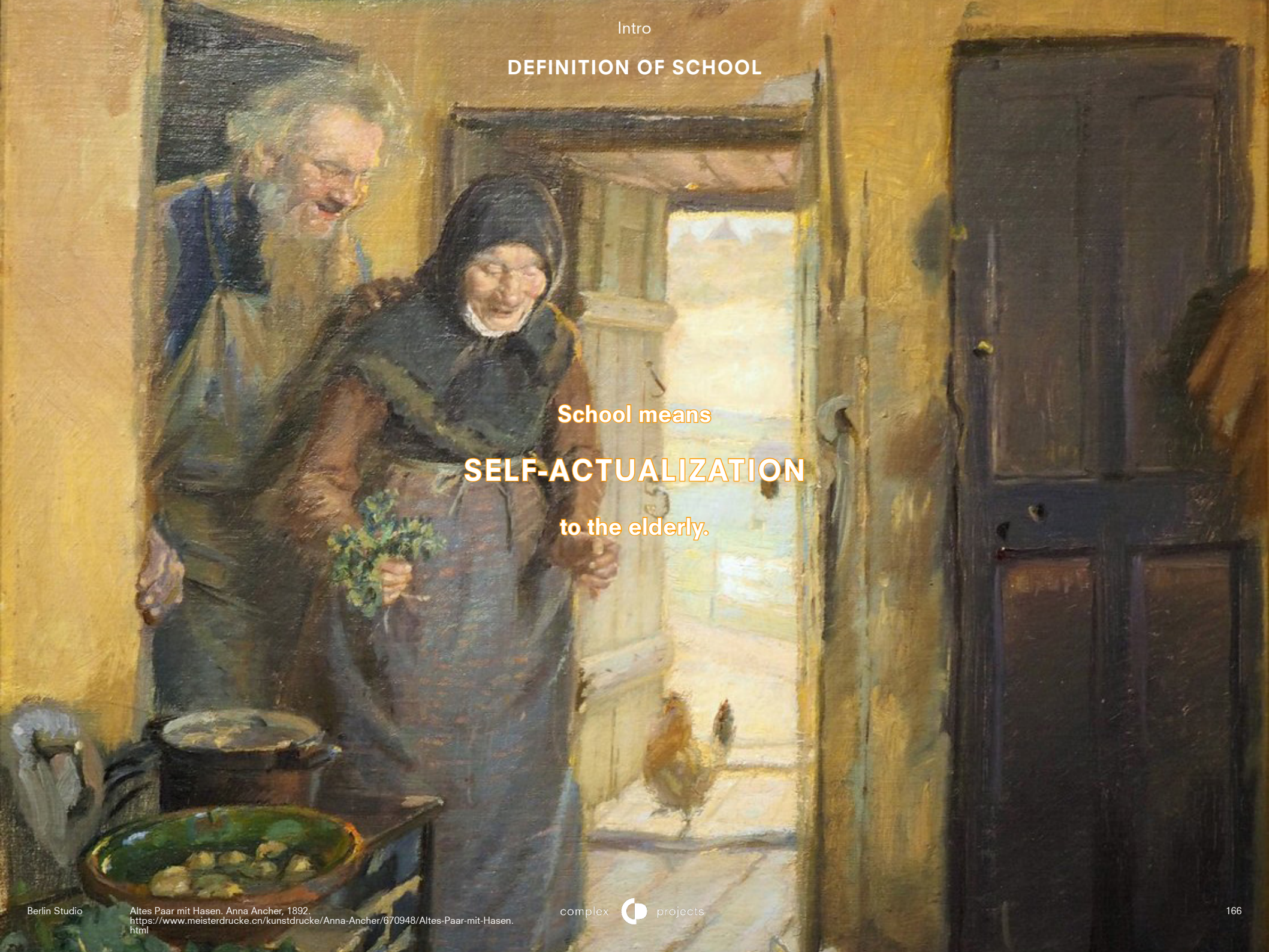
SELF-ACTUALIZATION

Teaching and learning in schools can help the elderly have a sense of self-actualization, which matters most to elderly's health.



Data Source: https://www.mckinsey.com/mhi/our-insights/age-is-just-a-number-how-older-adults-view-healthy-aging

DEFINITION OF SCHOOL



School means

SELF-ACTUALIZATION

to the elderly.

Altes Paar mit Hasen. Anna Ancher, 1892.
https://www.meisterdrucke.cn/kunstdrucke/Anna-Ancher/670948/Altes-Paar-mit-Hasen.html



What is the situation of

THE ELDERLY IN BERLIN?

AGING POPULATION

There will be more elderly in the future.

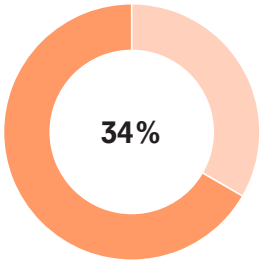


German population development

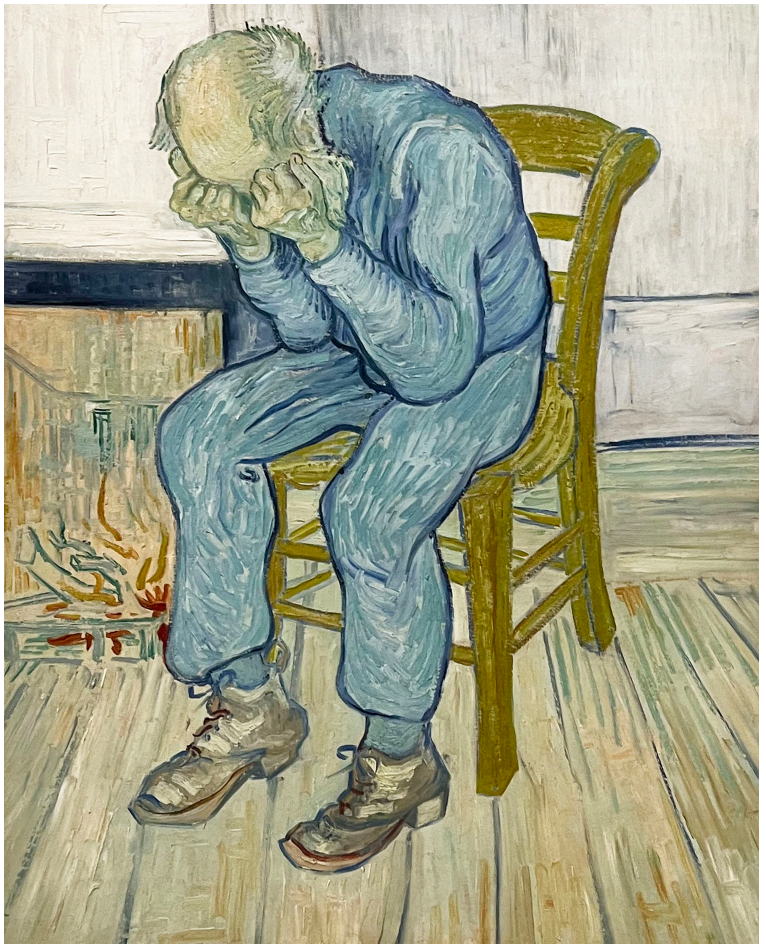
Data Source: https://www.businessinsider.de/wirtschaft/forscher-zeigen-an-7-beispielen-wie-radikal-sich-deutschland-in-den-naechsten-10-jahren-veraendern-wird/, https://www.researchgate.net/figure/Population-structure-of-Germany-2050-constructed-using-Bayesian-population-projection_fig5_330592416

Picture Source: https://aphconnectcenter.org/aging/social-isolation-and-loneliness-major-risks-factors-for-older-people/

ELDERLY LIVING ALONE



In Germany, approximately 5.9 million people aged 65 or older live alone, accounting for one-third (34%) of the population in this age group.





Elderly people living alone are more likely to suffer from anxiety and depression.
They may feel abandoned by society.

Sorrowing Old Man, At Eternity's Gate. Vincent Van Gogh, 1890
Photographed in Kröller-Müller Museum
Data Source: https://www.destatis.de/EN/Press/2021/09/PE21_N057_12411.html



SOCIETY | GERMANY

The Germans curing loneliness with homes for young and old

Volker Witting
05/23/2023

Multigenerational housing projects — with young and old living under one roof — are becoming increasingly popular in Germany. Having a diversity of ages in one home can improve lives, especially as the population ages.

News Title: https://www.dw.com/en/the-germans-curing-loneliness-with-homes-for-young-and-old/a-65703756
Picture Source: https://hopva.org/benefits-of-seniors-and-young-children-spending-time-together/

MIXED-AGE CO-LIVING



INTERGENERATIONAL COMMUNICATION

would boost all aspects of health for the elderly in Berlin.

La Grenouillere. Pierre-Auguste Renoir, 1869.
https://www.kunstkopie.nl/a/pierre_auguste_renoir/la-grenouillere.html

ELDERLY SCHOOL



What if we put those lonely elderly at school instead of home?

To solve the loneliness, maybe school is a better place for the elderly to have a sense of self-actualization.

RESEARCH QUESTION

Can intergenerational-knowledge-sharing space help the elderly achieve self-actualization?



SELF-CARED ELDERLY IN BERLIN



Two German women chat in the gardens of a senior care home in Berlin.
Sean Gallup/Getty Images.
https://www.ijpr.org/2013-10-17/grandma-exodus-german-seniors-look-to-poland-for-care

Client

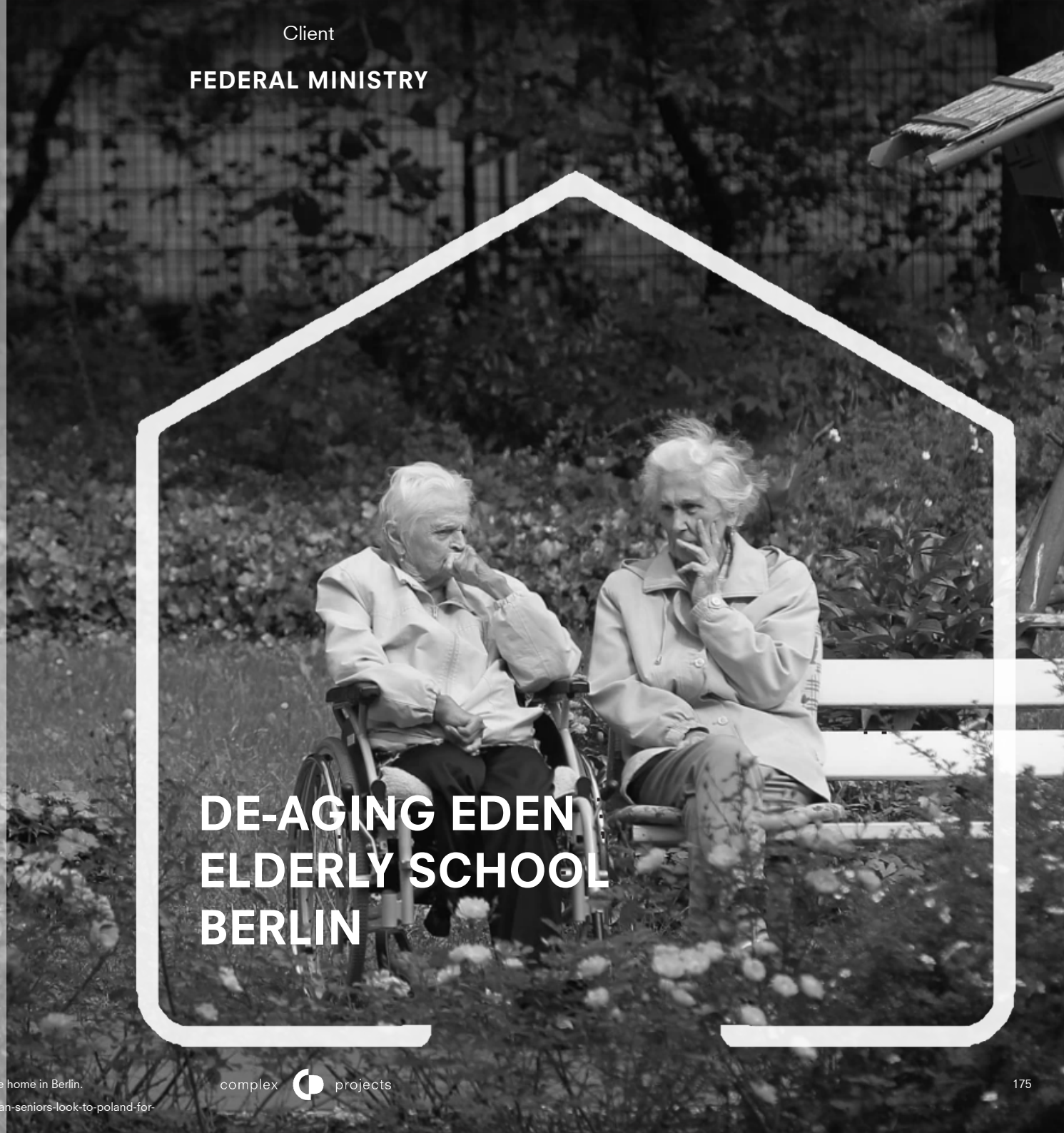
FEDERAL MINISTRY

Federal Ministry of Health

Federal Ministry for Family Affairs, Senior Citizens, Women and Youth

Federal Ministry of Education and Research

DE-AGING EDEN
ELDERLY SCHOOL
BERLIN



Two German women chat in the gardens of a senior care home in Berlin. Sean Gallup/Getty Images. https://www.ijpr.org/2013-10-17/grandma-exodus-german-seniors-look-to-poland-for-care

INTERGENERATIONAL CLASS



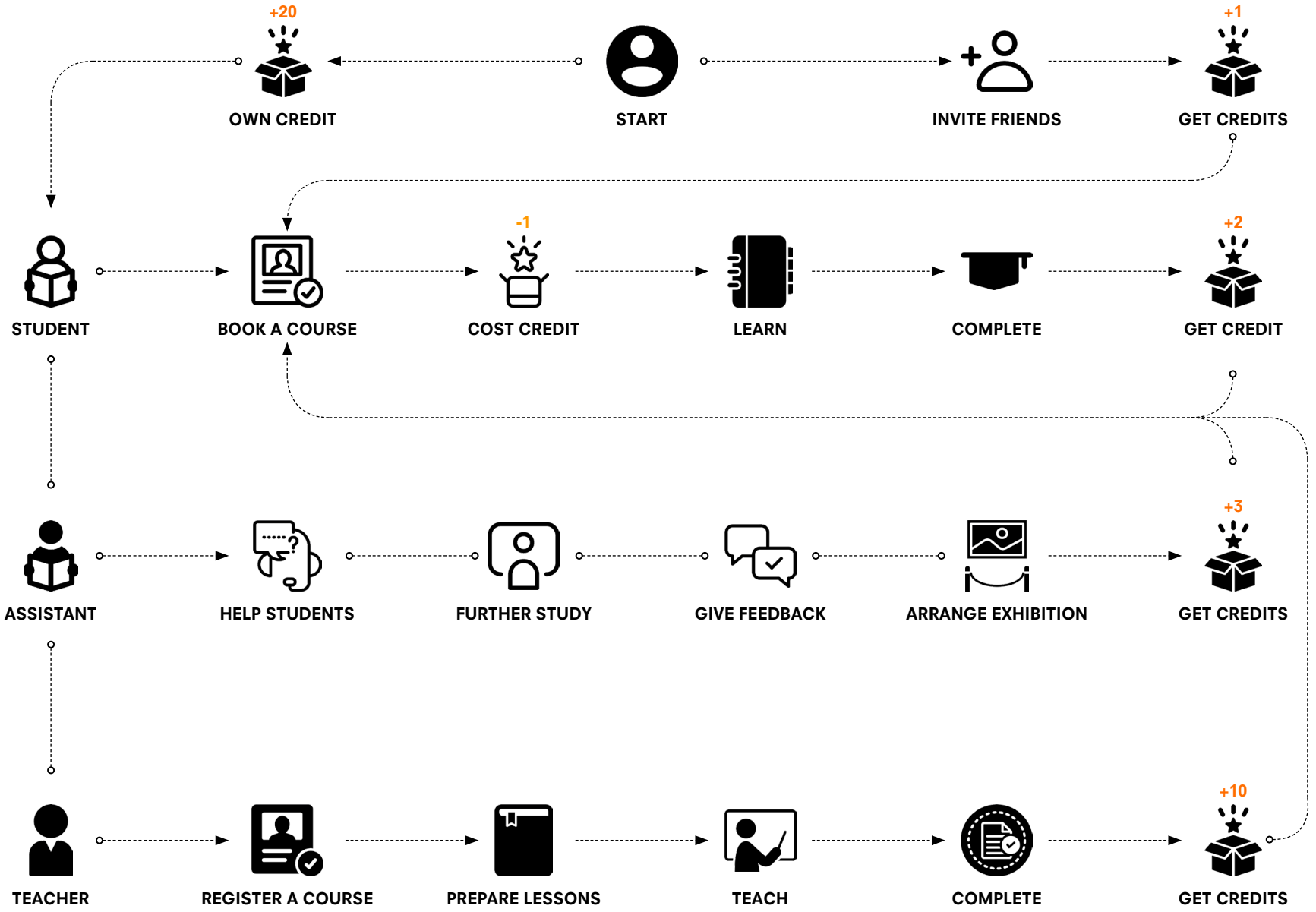
Teach

Teach



Old People **Intergenerational Communication** **Young People**

CREDIT SYSTEM

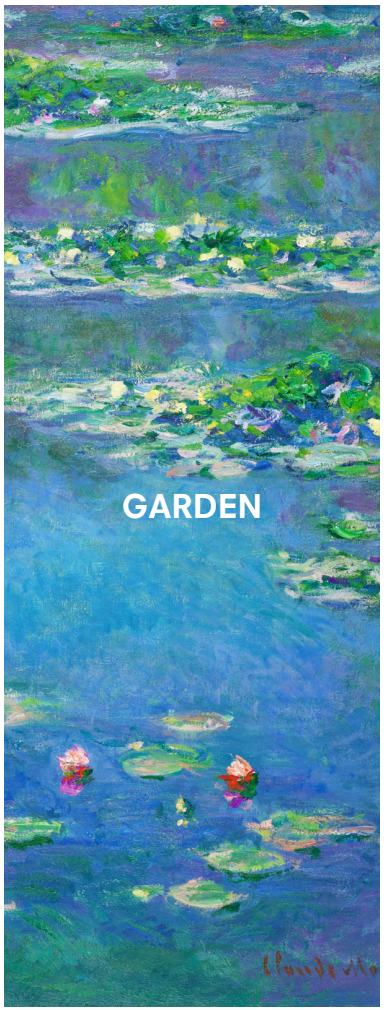


ELDERLY SCHOOL



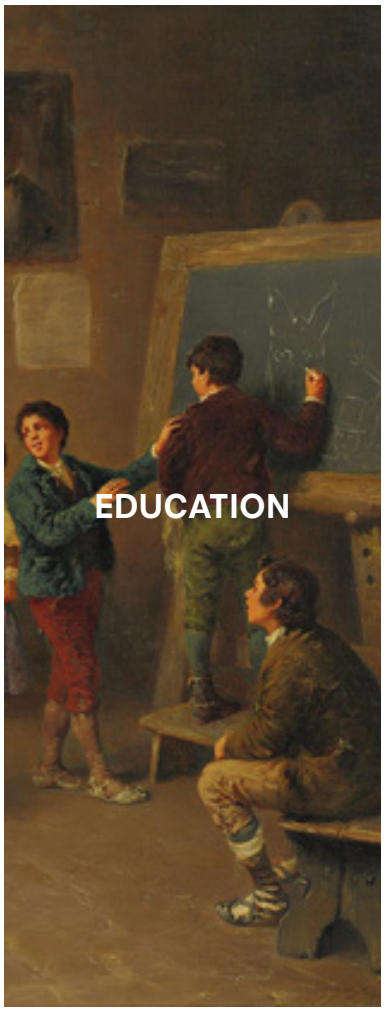
Terrace of a Café at Night.
Vincent van Gogh, 1888

https://krollermuller.nl/en/vincent-van-gogh-terrace-of-a-cafe-at-night-place-du-forum-1



Water Lilies.
Claude Monet, 1906

https://www.artic.edu/artworks/16568/water-lilies



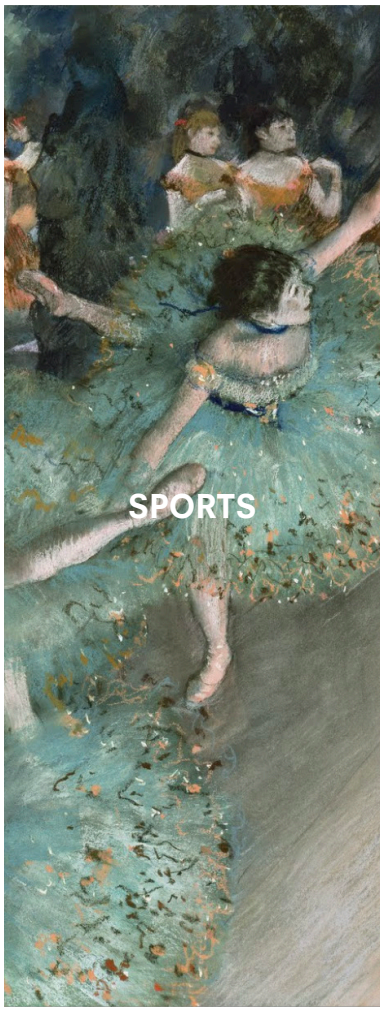
The Unruly Classroom.
Francesco Bergamini, date unknown

https://commons.wikimedia.org/wiki/File:THE_UNRULY_CLASSROOM.PNG



Dance at Le Moulin de la Galette.
Pierre-Auguste Renoir, 1876

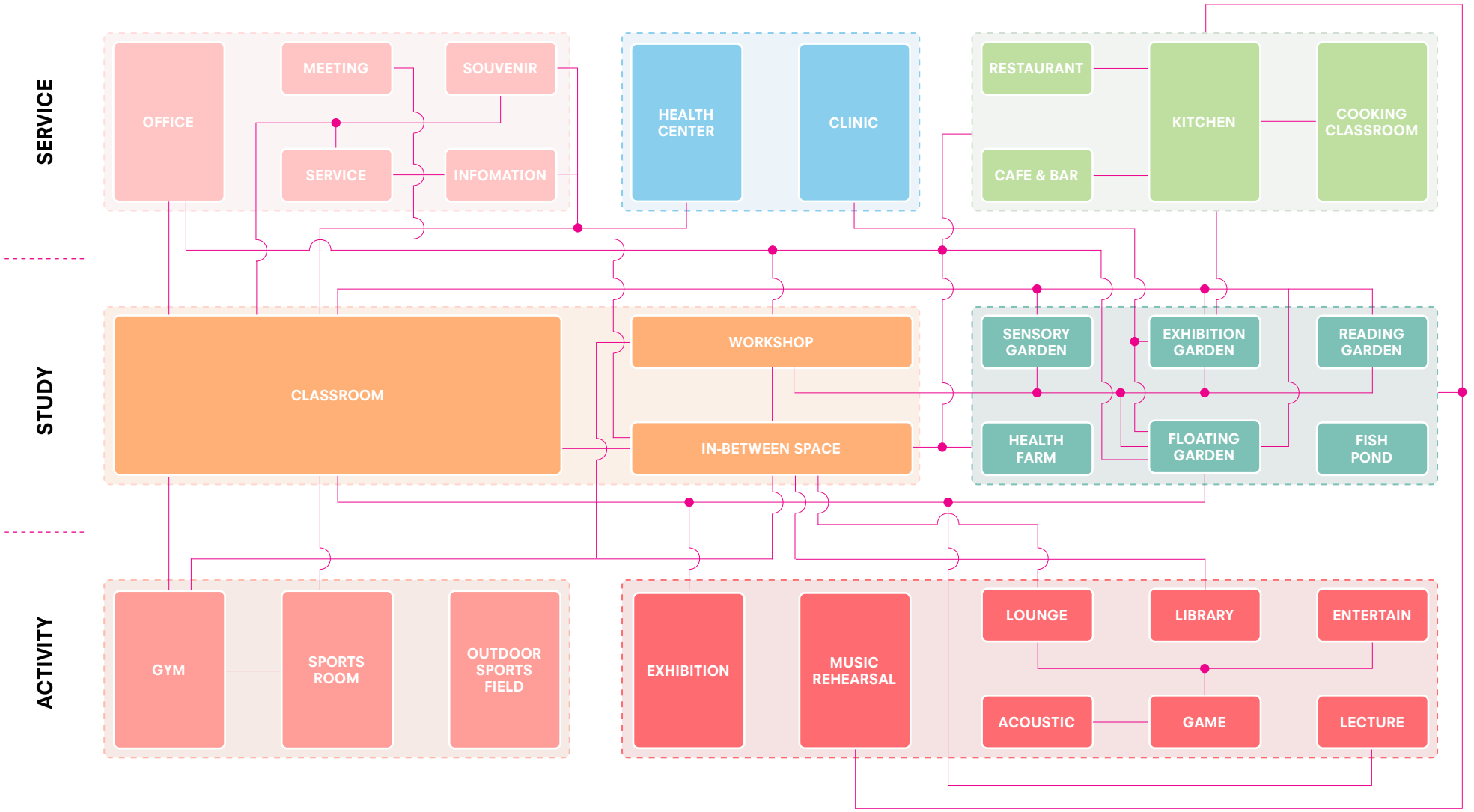
https://artsandculture.google.com/asset/dance-at-le-moulin-de-la-galette/rQEx7CtGiKE3yg?hl=en-GB



Swaying Dancer.
Edgar Degas, 1877-1879

https://artsandculture.google.com/asset/swaying-dancer-dancer-in-green/PAG7nnYIK8XTTA?hl=en-GB

RELATION SCHEME




Space Imagination
DE-AGING EDEN
WOODEN
GLASS
EXHIBITION
1717
Berlin Studio
complex
projects

SITE MASSING COMPARISON



COURTYARD RING



WATERFRONT CUBOID



FLOATING BRIDGE

+ +



GARDEN PAVILION



WATERFRONT RING



GARDEN CUBOID

+ +



STREETFRONT CUBE

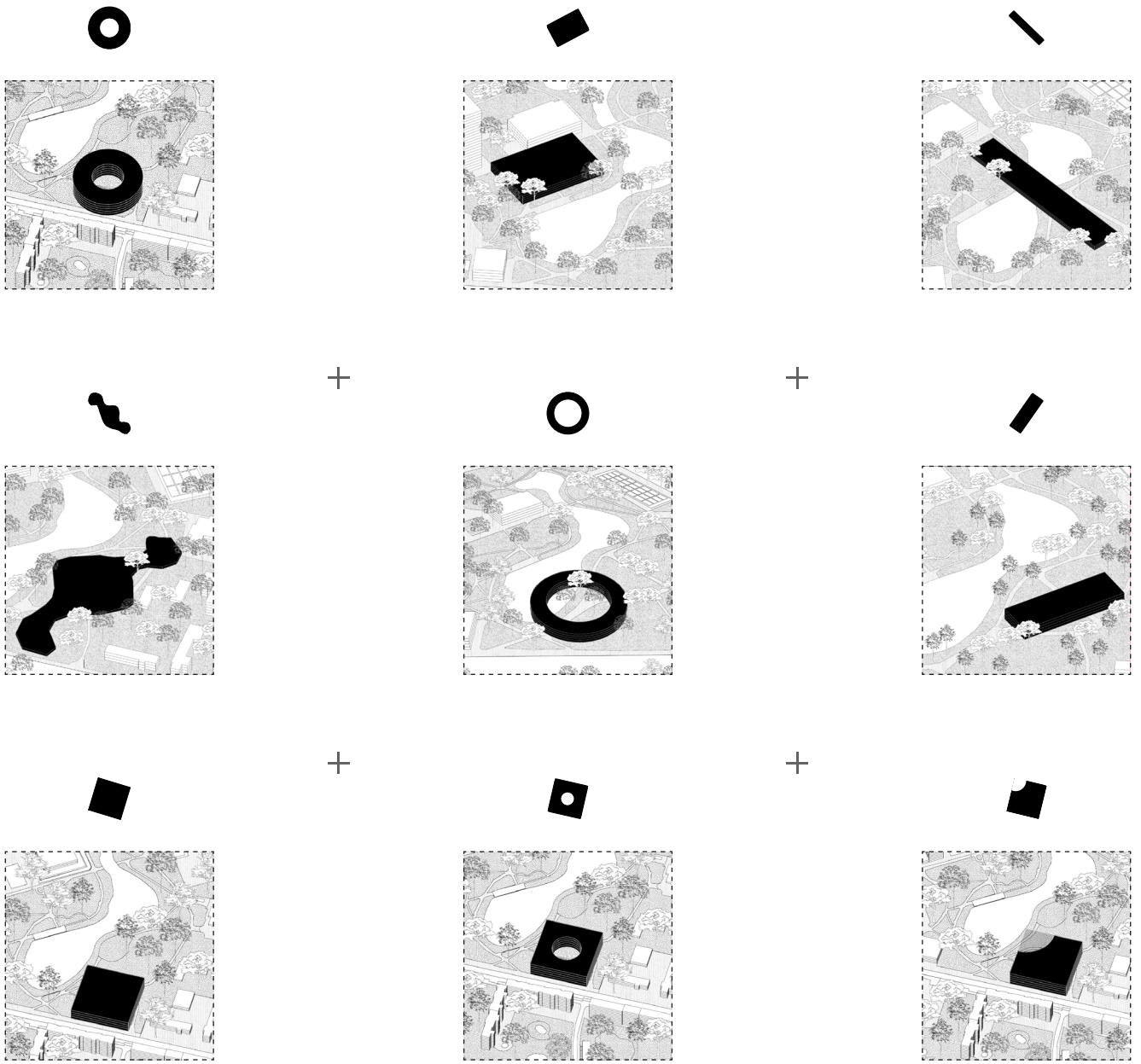


GROUND FLOOR

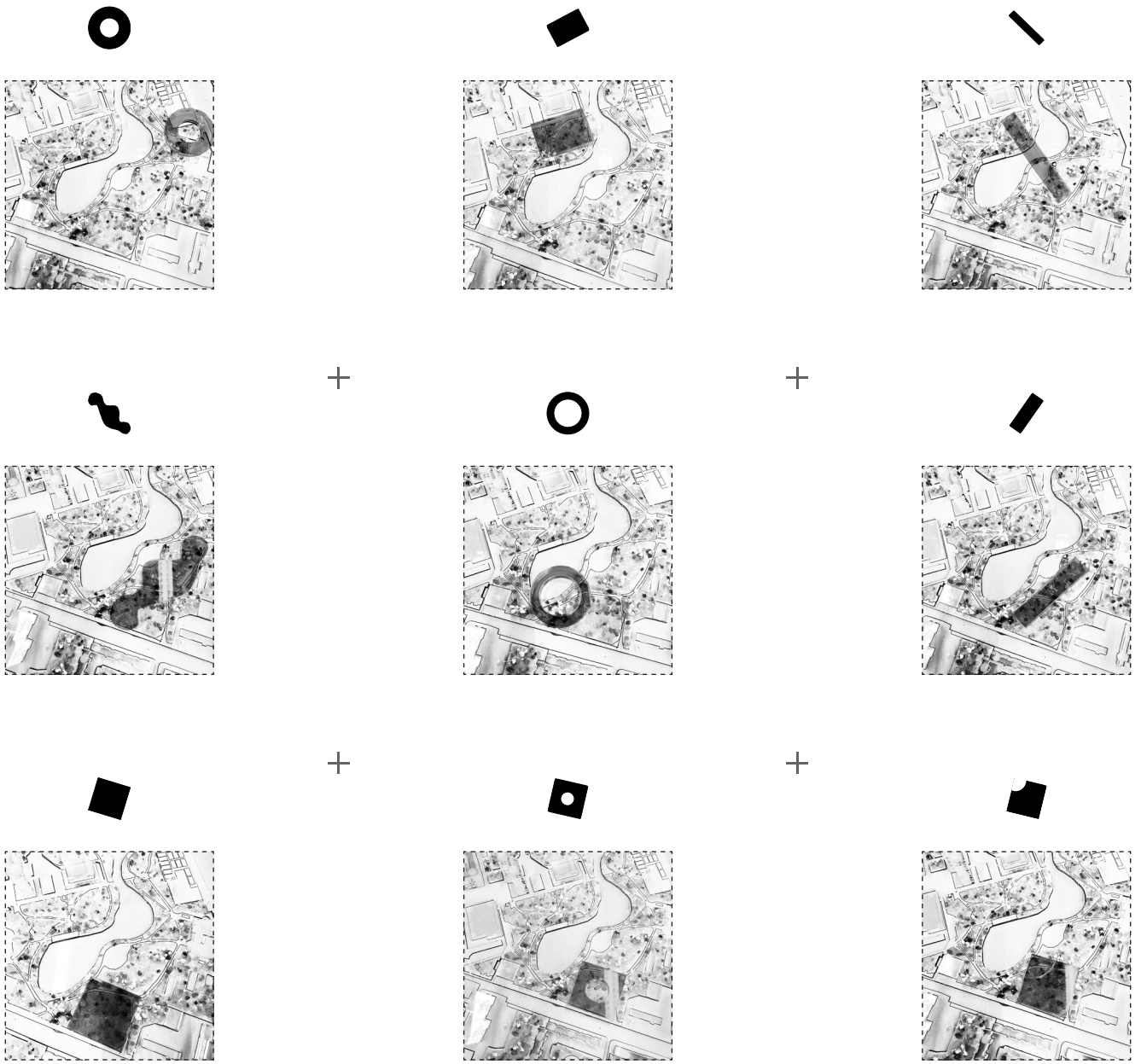


INTROVERTED CUBE

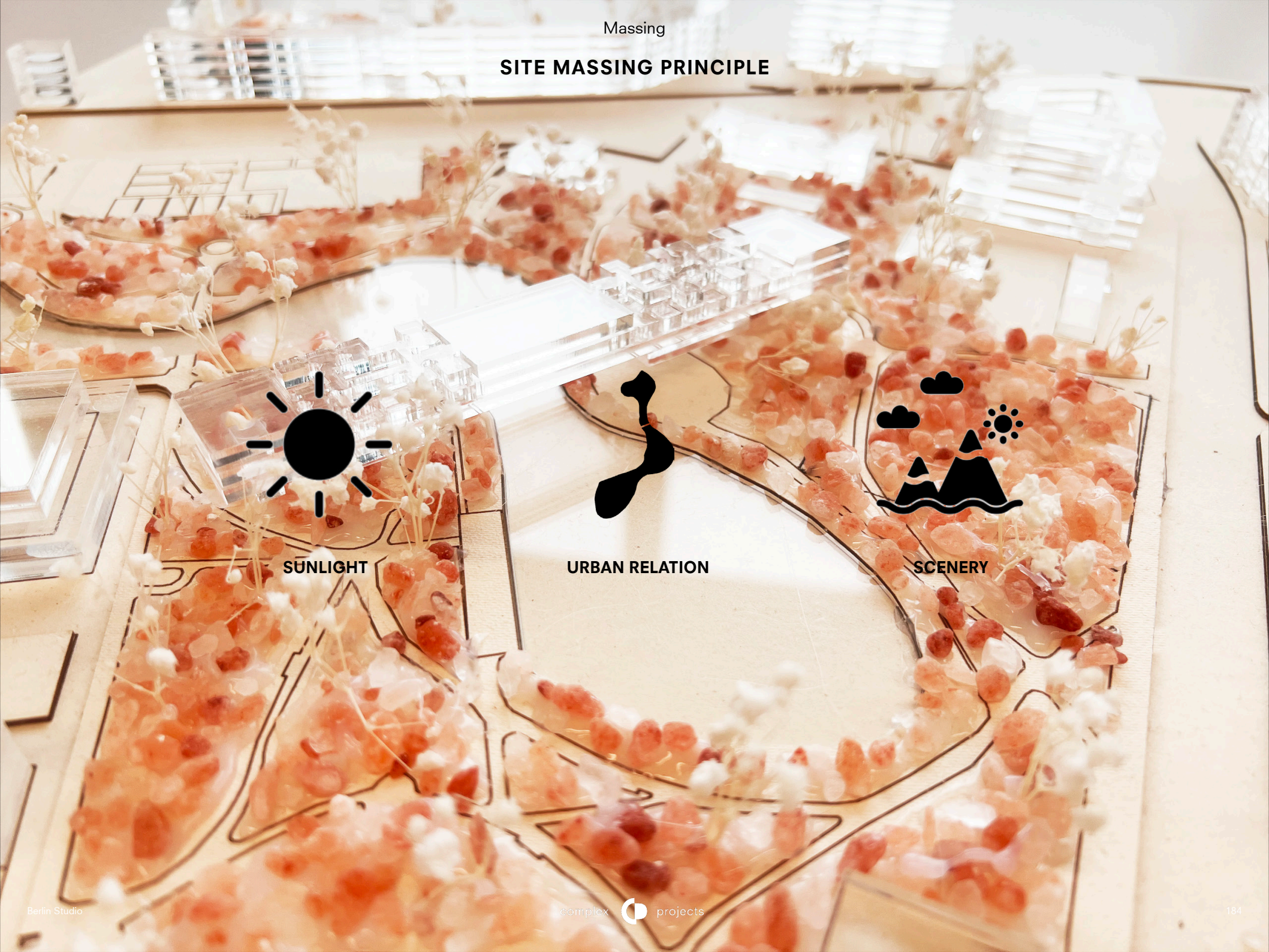
SITE MASSING COMPARISON



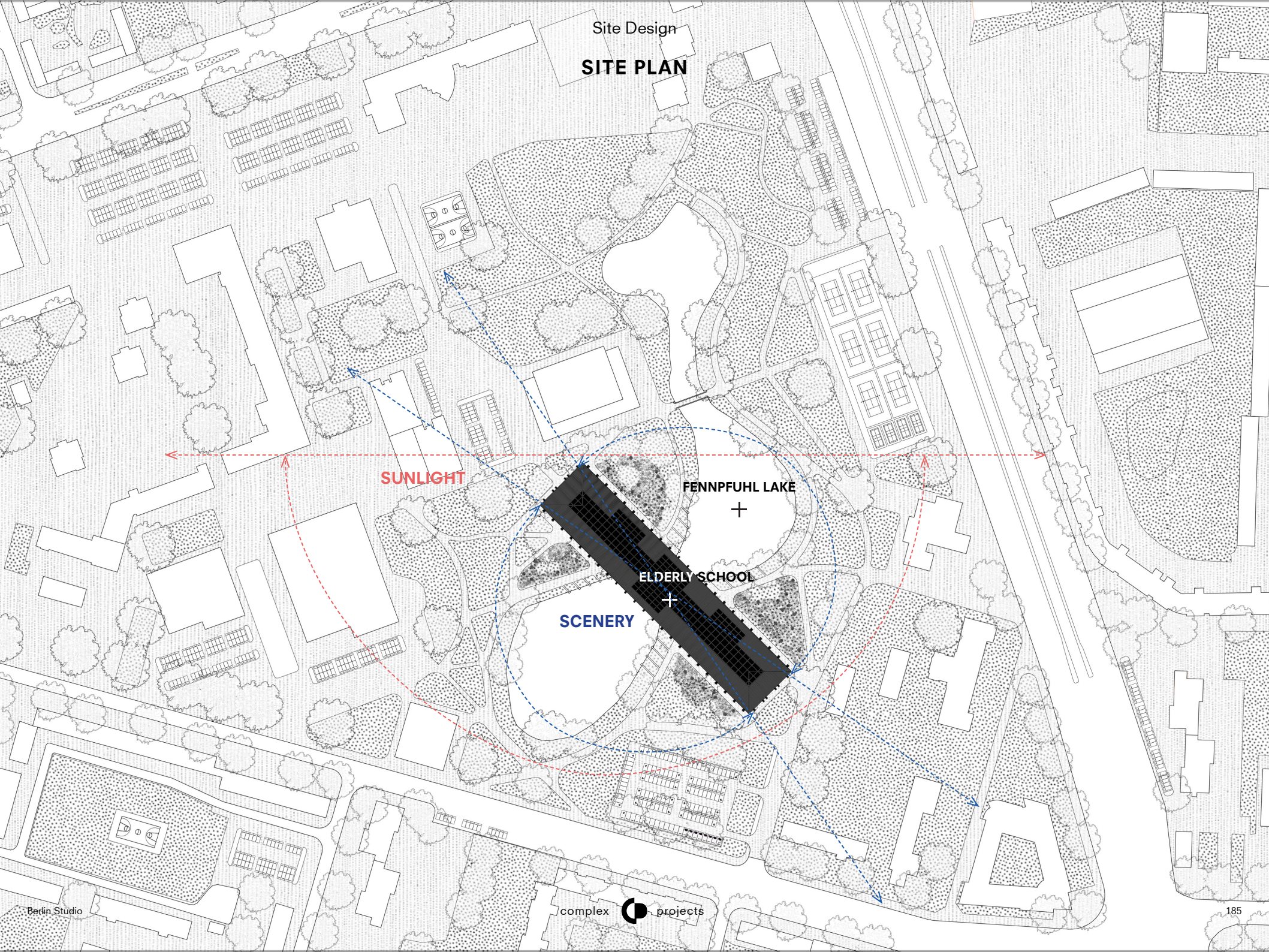
SITE MASSING COMPARISON



SITE MASSING PRINCIPLE



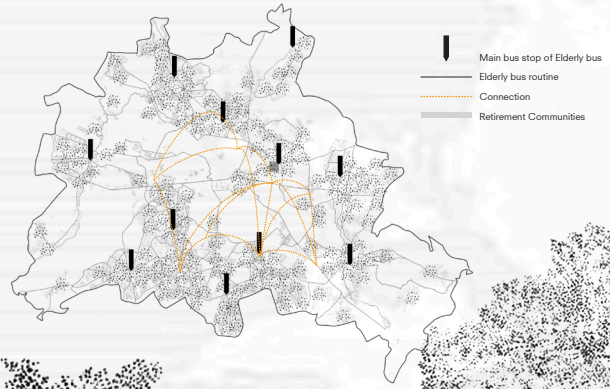
SITE PLAN



MELT IN NATURE, FLOAT ON LAKE.

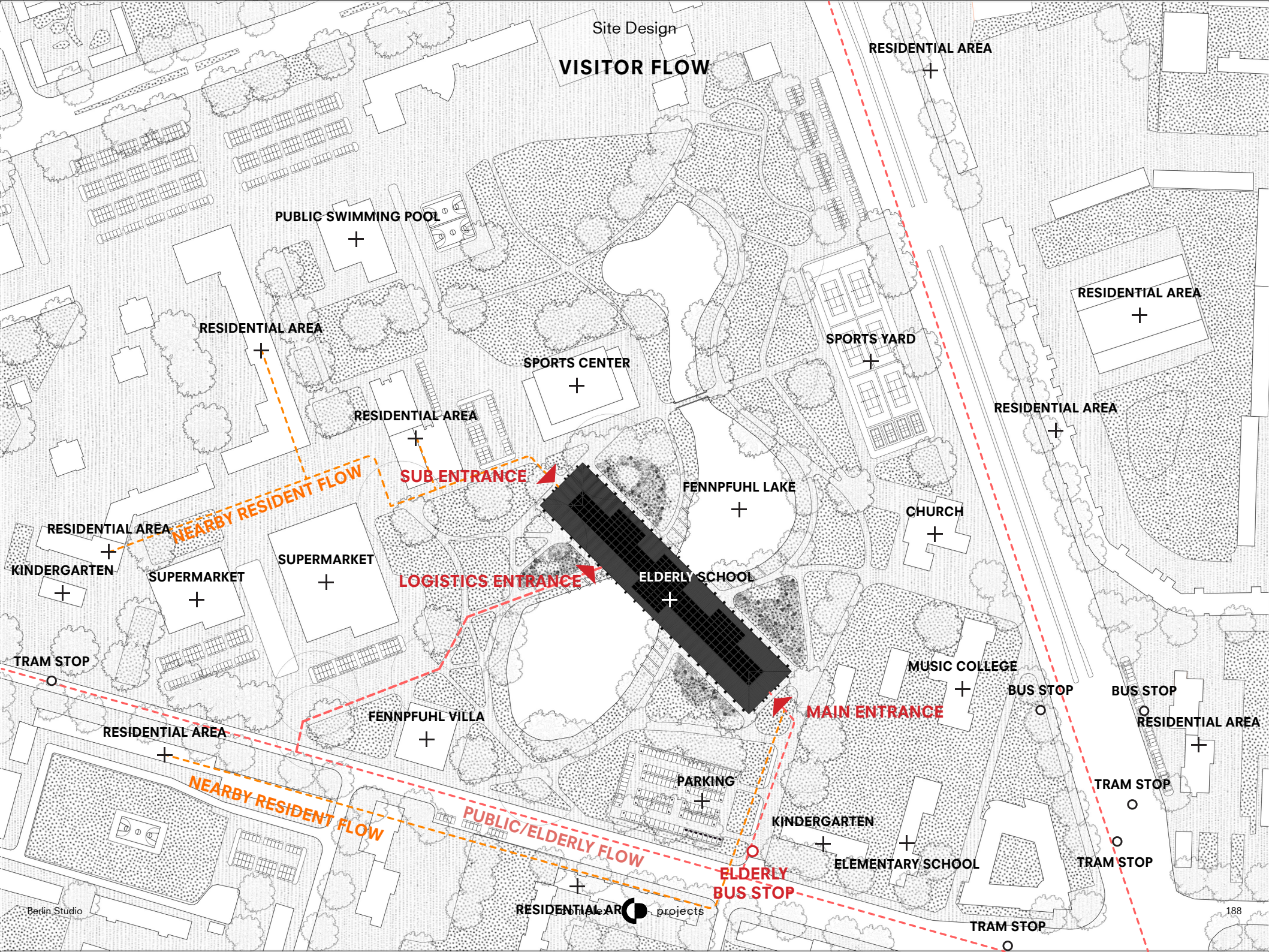


ELDERLY BUS


Main bus stop of Elderly bus
Elderly bus routine
Connection
Retirement Communities

Site Design

VISITOR FLOW



EXISTING SCULPTURES + LANDSCAPE



Paar



Zwiesprache



Junges Paars



Felicia



Dem Leben gewidmet



David und Goliath



Poesie der Großstadt



Poetische Stimmung

Große Liegende

Refrain

Windrad

Rosenpavillon

Zwiesprache

Der Entfesselte

Junges Paars

Begegnung

Zwei

Felicia

Dem Leben Gewidmet

David und Goliath

Poetische Stimmung

ELDERLY SCHOOL



Begegnung



Impressionen



Sitzmauer



Wasserwand



Kugelbrunnen



Refrain



Löwe

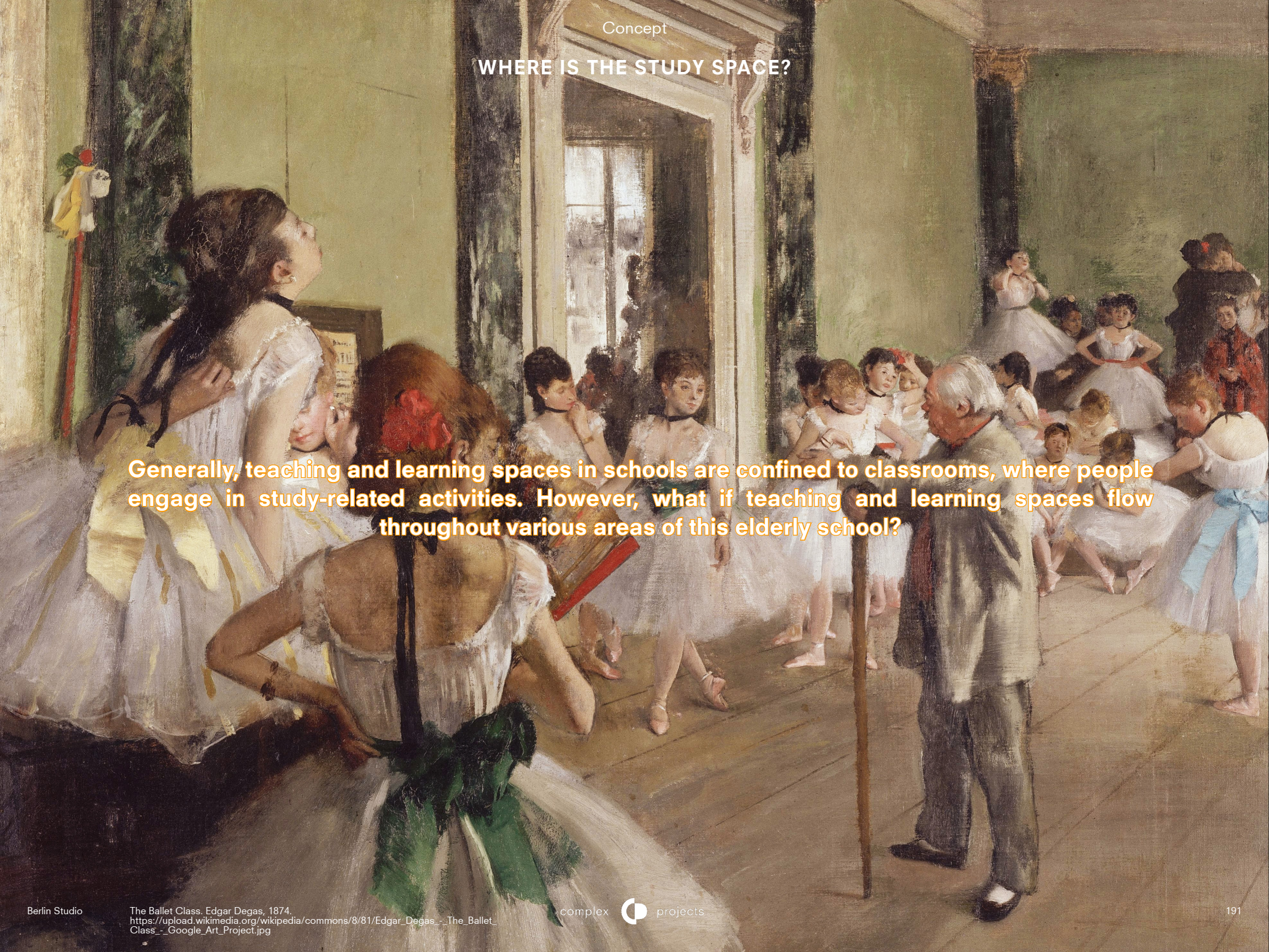


Holztiere

OUTDOOR PARK EXPERIENCE



WHERE IS THE STUDY SPACE?



Generally, teaching and learning spaces in schools are confined to classrooms, where people engage in study-related activities. However, what if teaching and learning spaces flow throughout various areas of this elderly school?

The Ballet Class. Edgar Degas, 1874.
https://upload.wikimedia.org/wikipedia/commons/8/81/Edgar_Degas_-_The_Ballet_Class_-_Google_Art_Project.jpg

CHANCE TO ENCOUNTER



CREATE CHANCE TO ENCOUNTER, TO TALK, TO STUDY AND LEARN.

FLUID-STUDY SPACE

INDOOR GARDEN

Landscapes for exhibition, Concert, gardening things and activities.

IN-BETWEEN SPACE

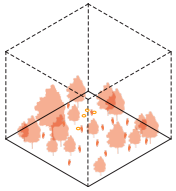
Random learning and communication spaces outside the classroom.

STUDY ROOM

Places for the elderly and young people to teach and study.

PUBLIC

PUBLIC

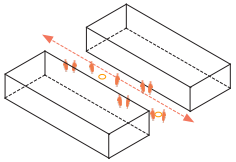


MAIN GARDEN

Concert/Exhibition/Gardening

People Amount | + + + +

Partition | Rooms, Shelves

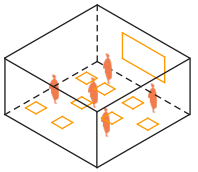


CORRIDOR

Circulation/Enhance

People Amount | + + +

Partition | Rooms



CLASSROOM

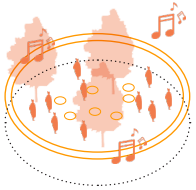
Intergenerational Class

People Amount | + + + +

Partition | Walls

OPEN

CLOSE

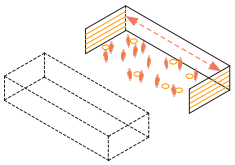


FLOATING GARDEN

Talks/Exhibition/Gardening

People Amount | + + +

Partition | Rooms, Shelves

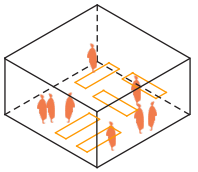


THRESHOLD

Band/Lounge

People Amount | + + + +

Partition | Rooms, Facade



WORKSHOP

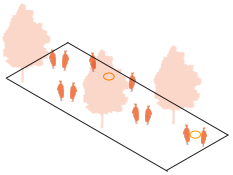
Intergenerational Workshop

People Amount | + + + +

Partition | Walls

OPEN

CLOSE

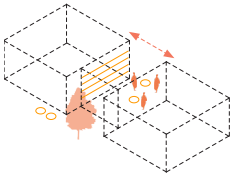


MINERAL GARDEN

Relax/Gardening

People Amount | +

Partition | Paving

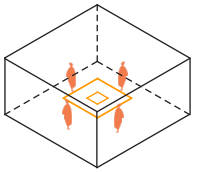


LIMINAL SPACE

Meditation/Consult/Fun

People Amount | + +

Partition | Rooms, Facade



GAME ROOM

Mahjong/Card Game/Movie

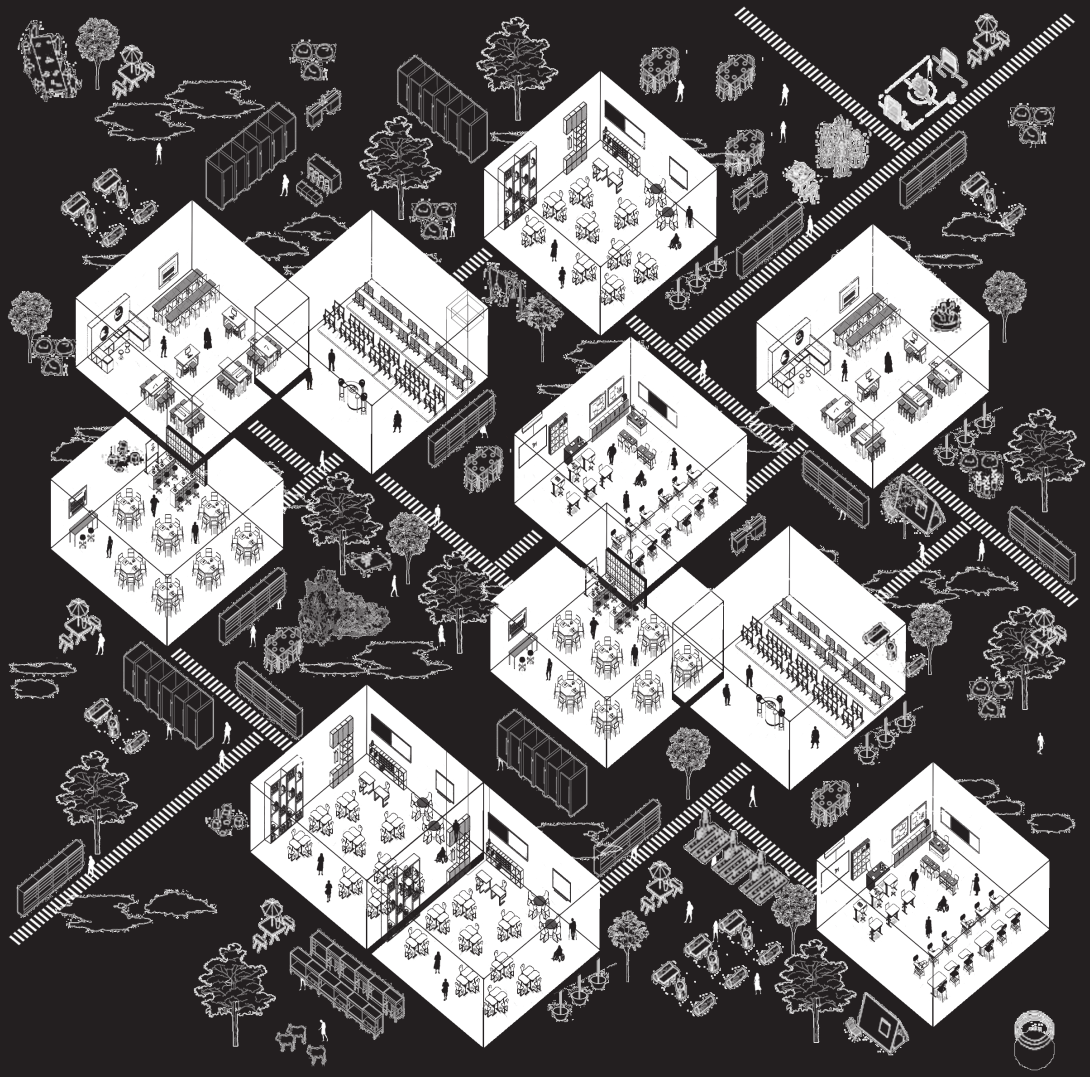
People Amount | + + +

Partition | Walls

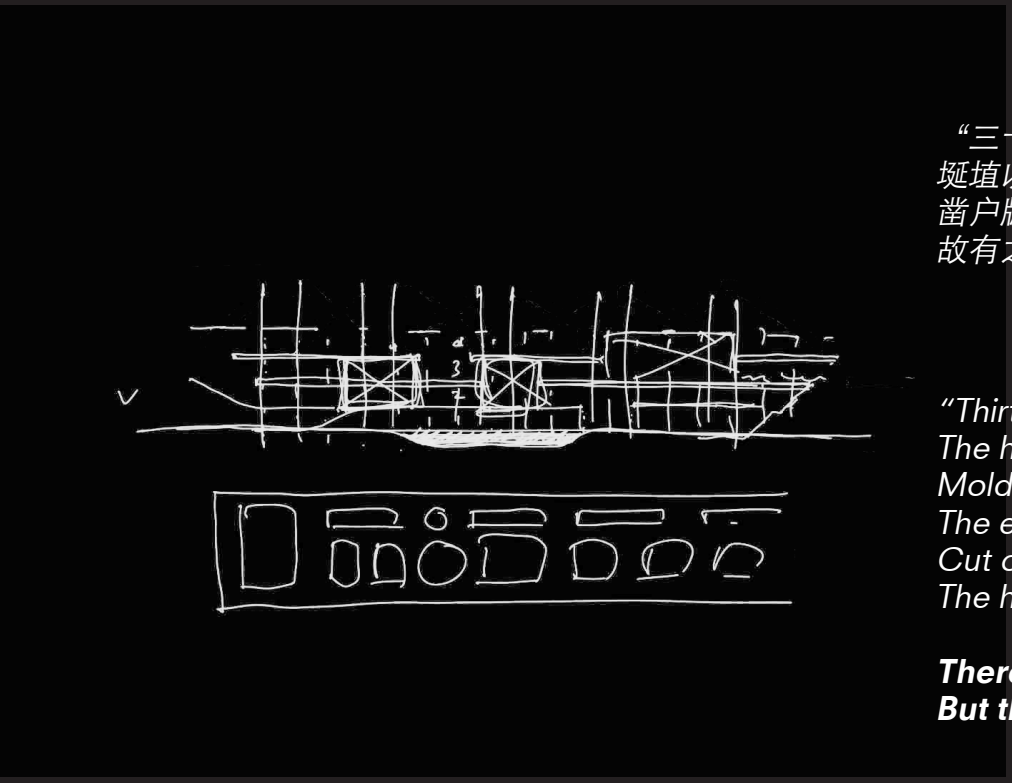
PRIVATE

PRIVATE

SPACE CONCEPT



SPACE PHILOSOPHY



“三十辐，同一毂，当其无，有车之用也。
埏埴以为器，当其无，有器之用也。
凿户牖以为室，当其无，有室之用也。
故有之以为利，无之以为用。”

--《道德经》第十一章（老子，公元前509年）

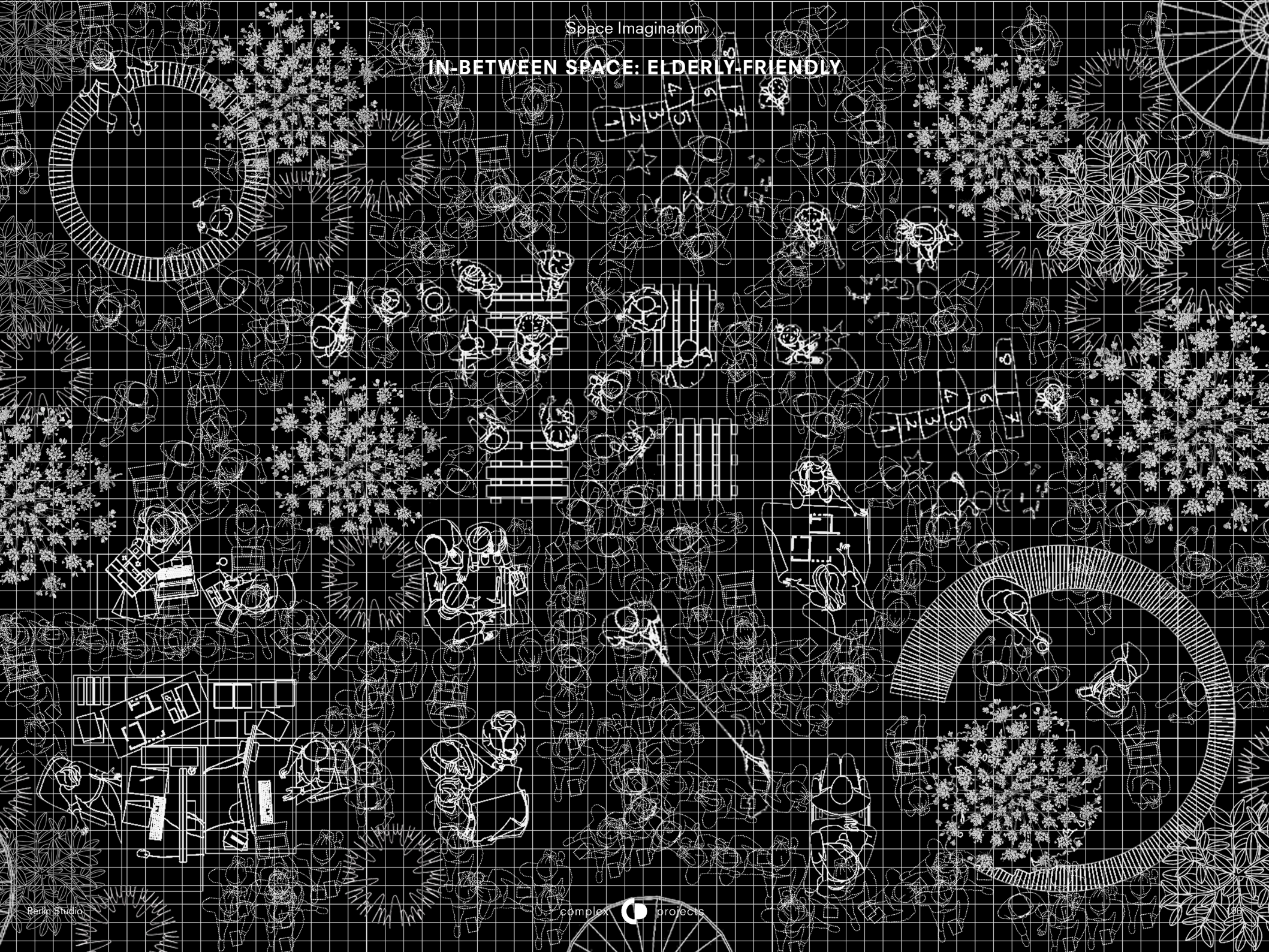
“Thirty spokes are joined in the wheel’s hub.
The hole in the middle makes it useful.
Mold clay into a bowl.
The empty space makes it useful.
Cut out doors and windows for the house.
The holes make it useful.

Therefore, the value comes from what is there,
But the use comes from what is not there.”

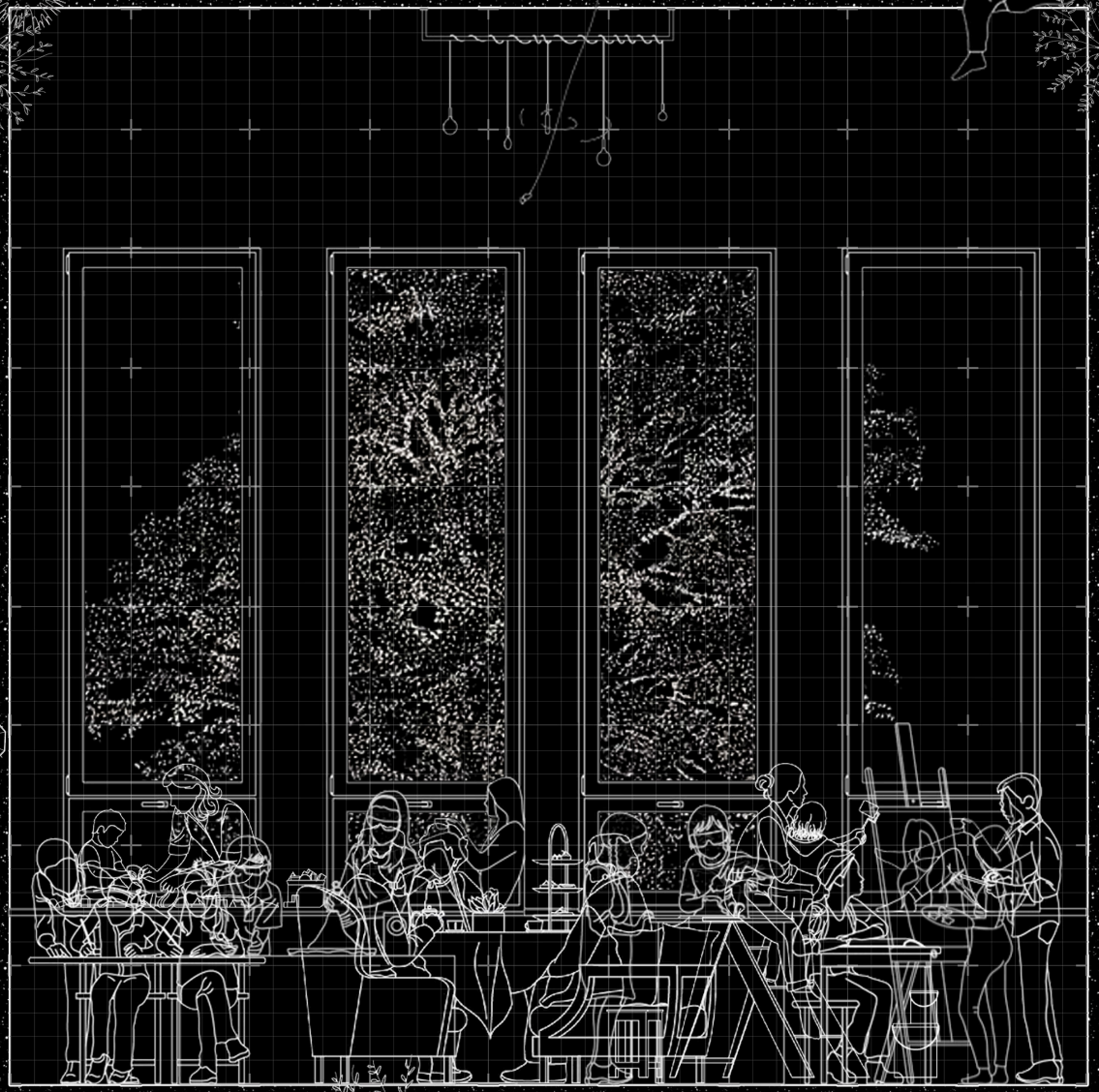
-- *Tao Te Ching, Chapter XI* (Lao Tzu, 509 B.C.)

Translate Source: https://www.taoistic.com/taoteching-laotzu/taoteching-11.htm

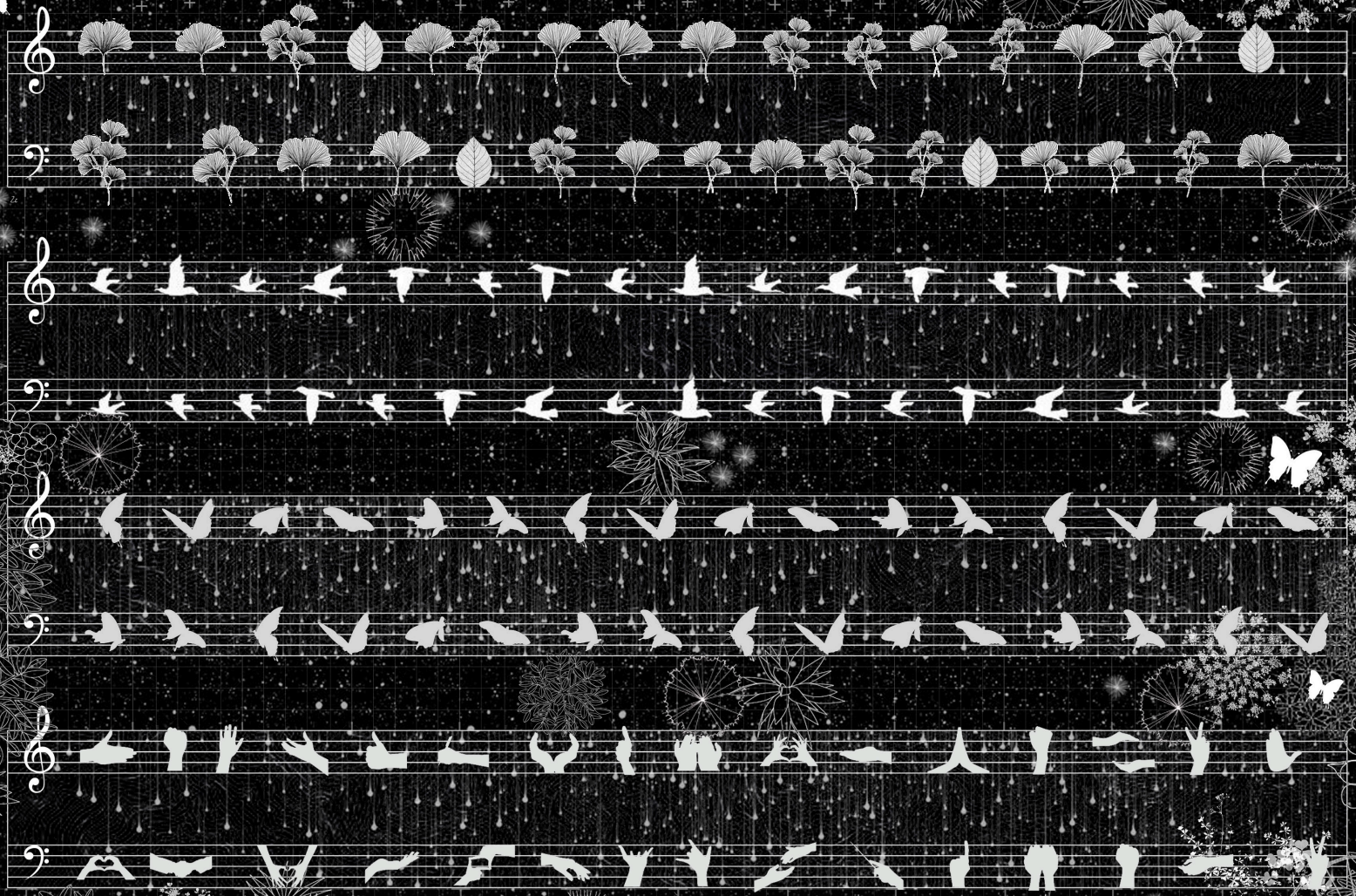
IN-BETWEEN SPACE: ELDERLY-FRIENDLY



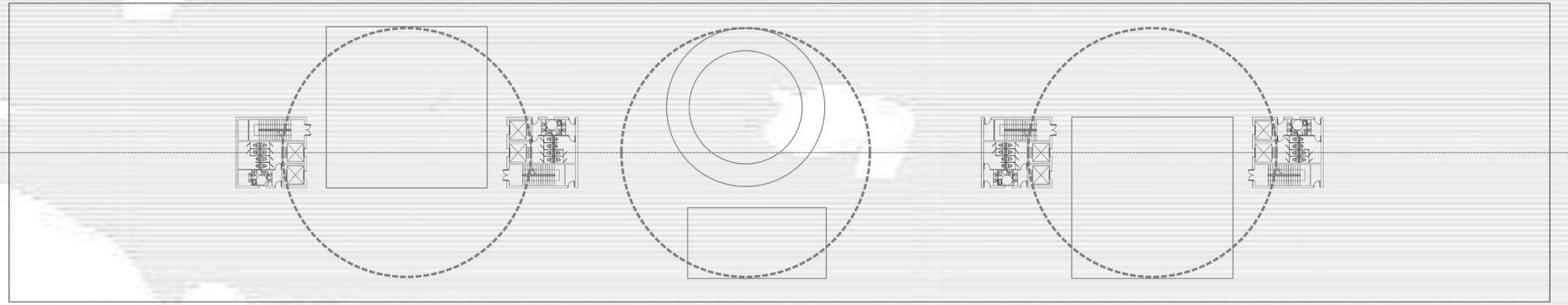
STUDY ROOM: PARTICIPATORY

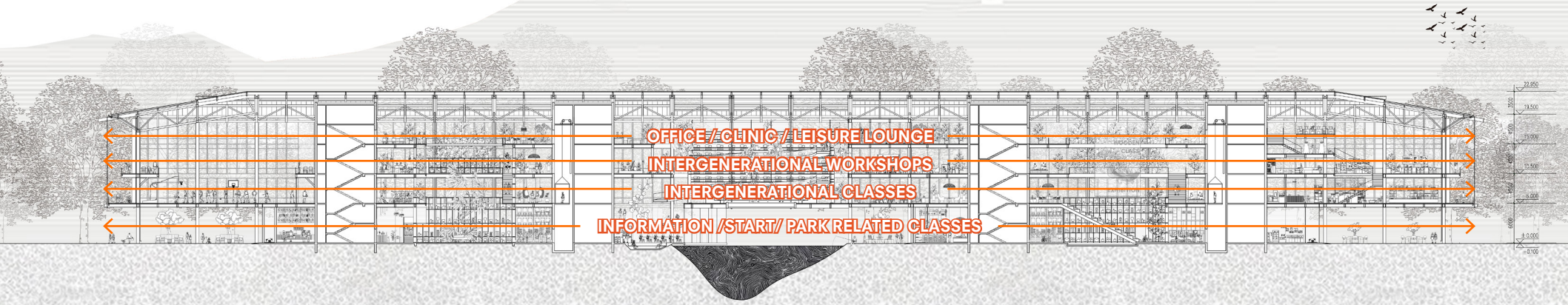


INDOOR GARDEN: MULTI-SENSORY

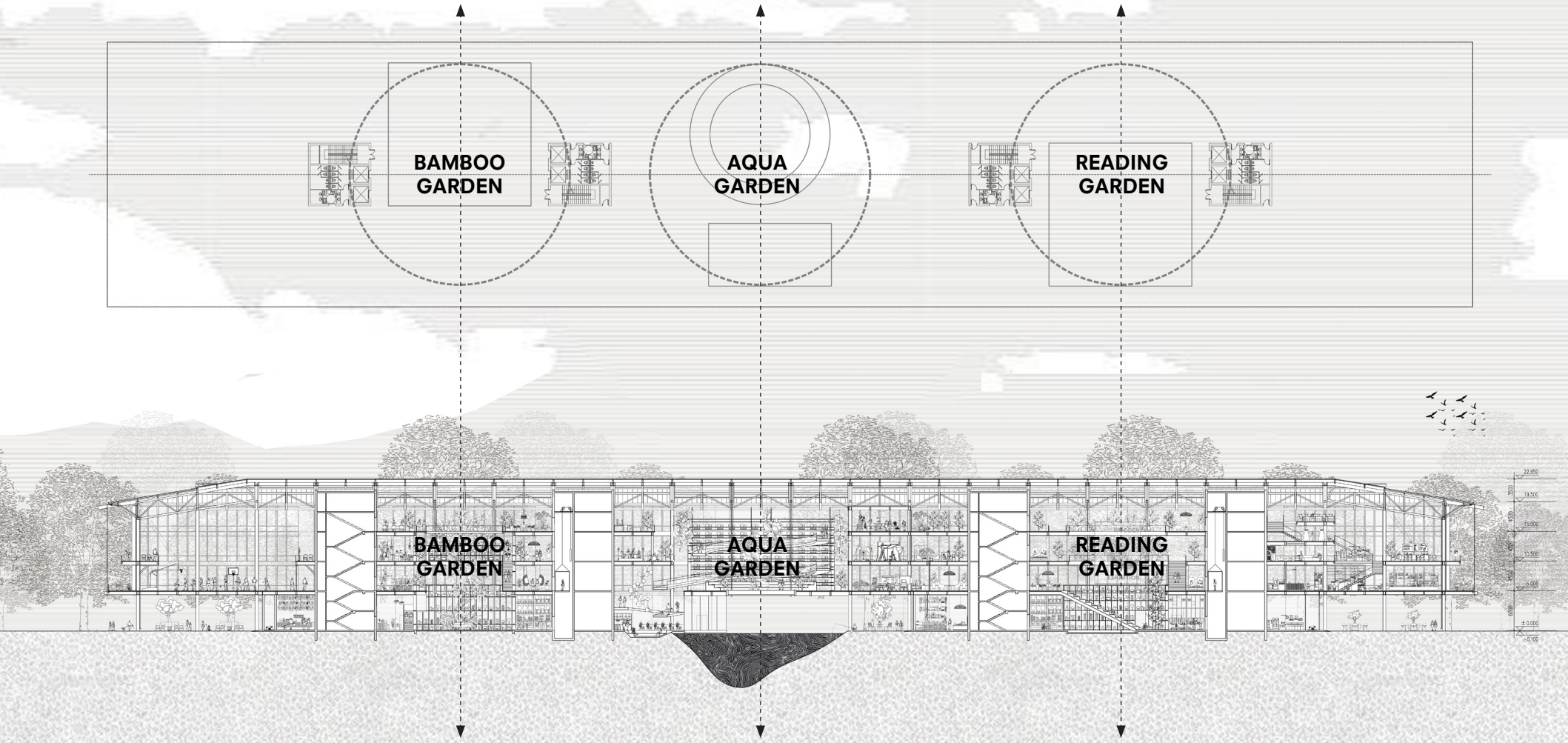


SECTION 1-1

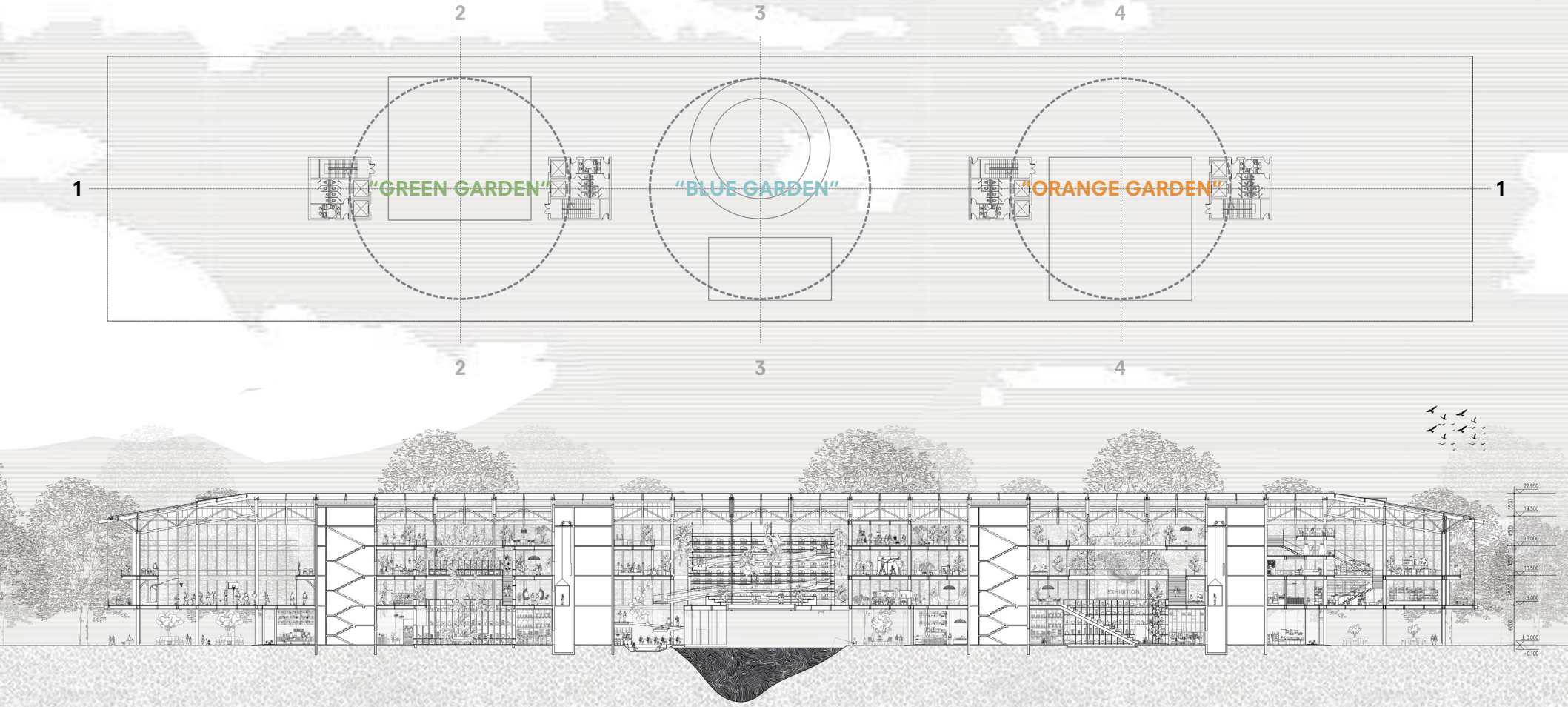


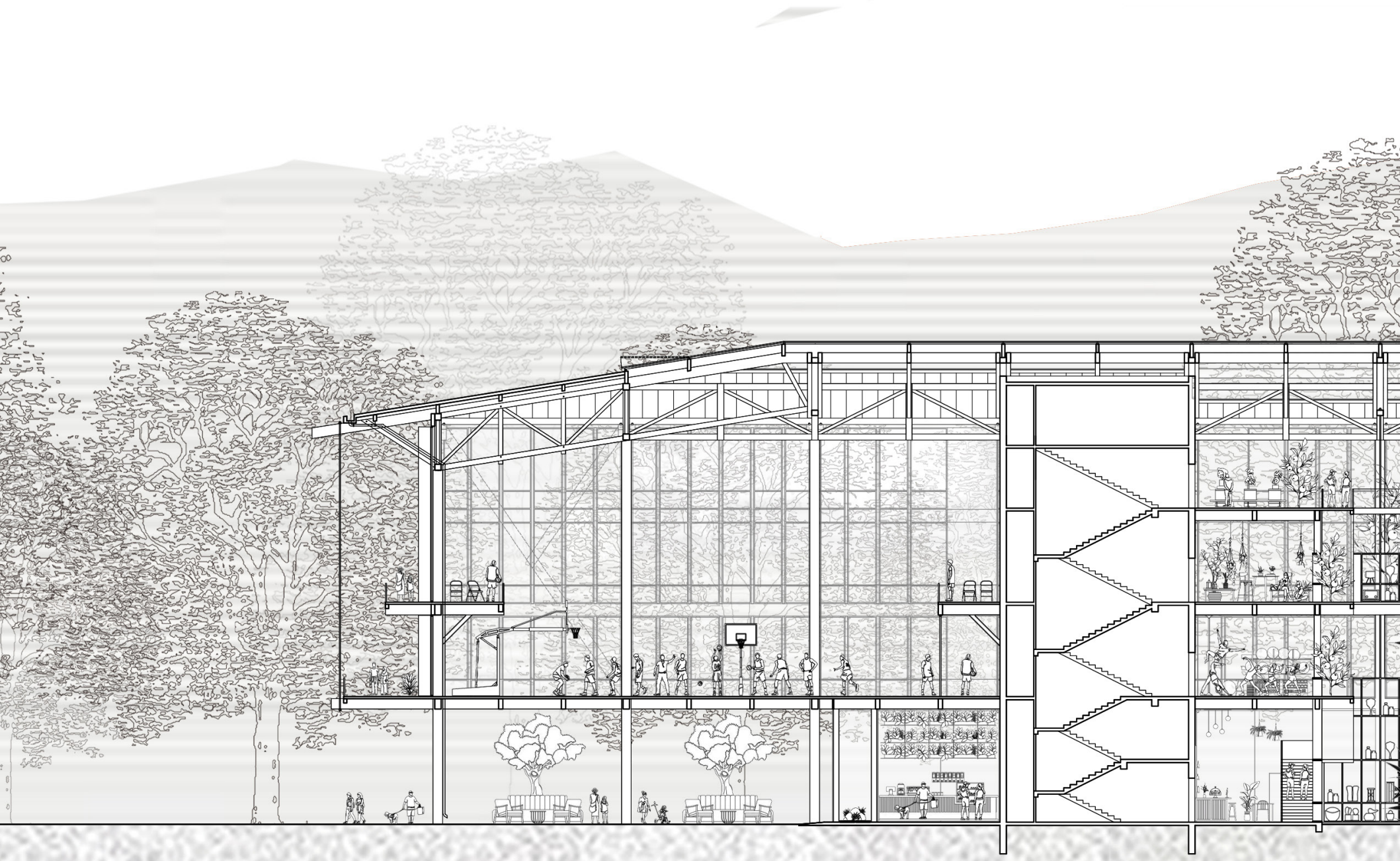

OFFICE / CLINIC / LEISURE LOUNGE
INTERGENERATIONAL WORKSHOPS
INTERGENERATIONAL CLASSES
INFORMATION /START/ PARK RELATED CLASSES

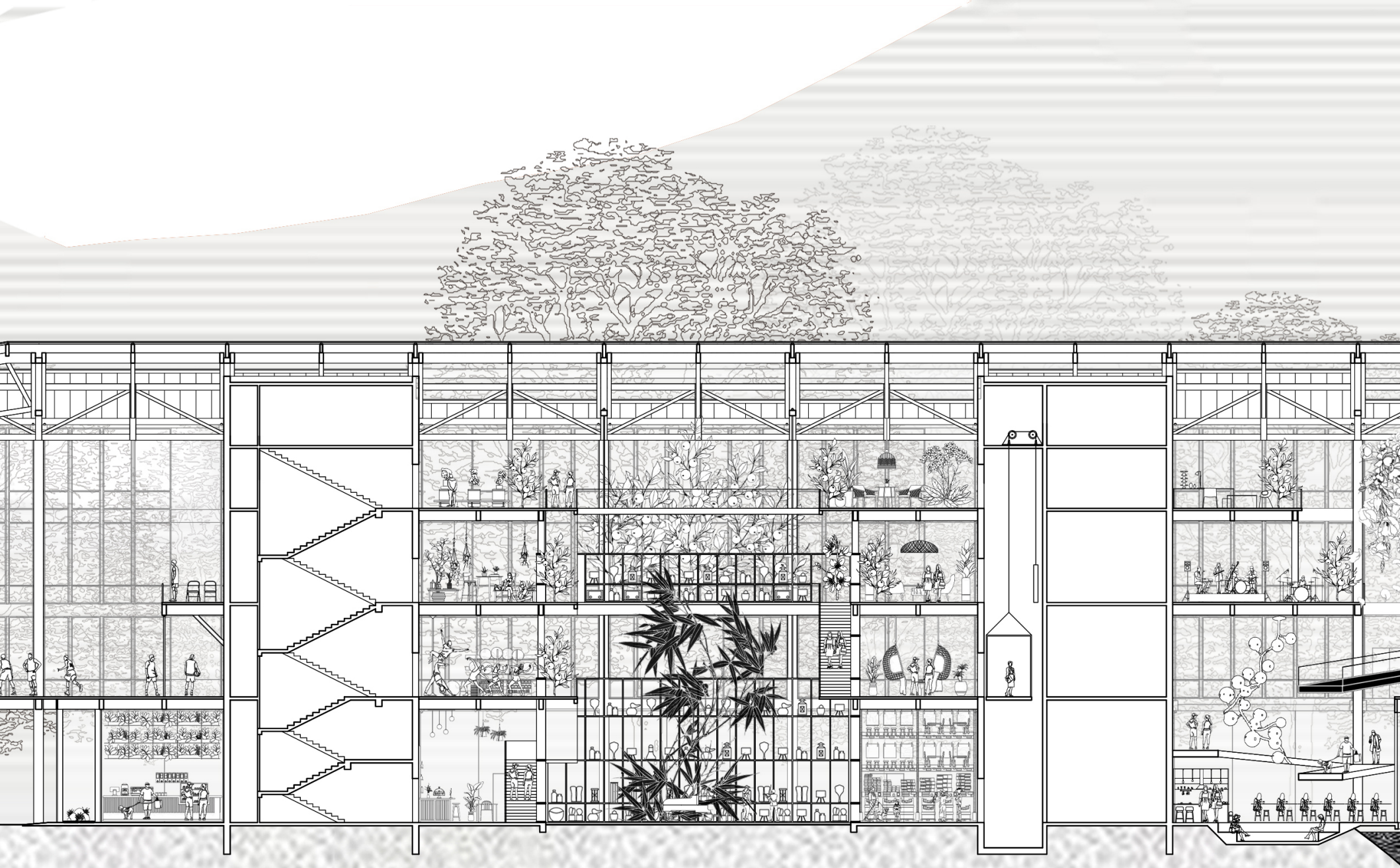
SECTION 1-1

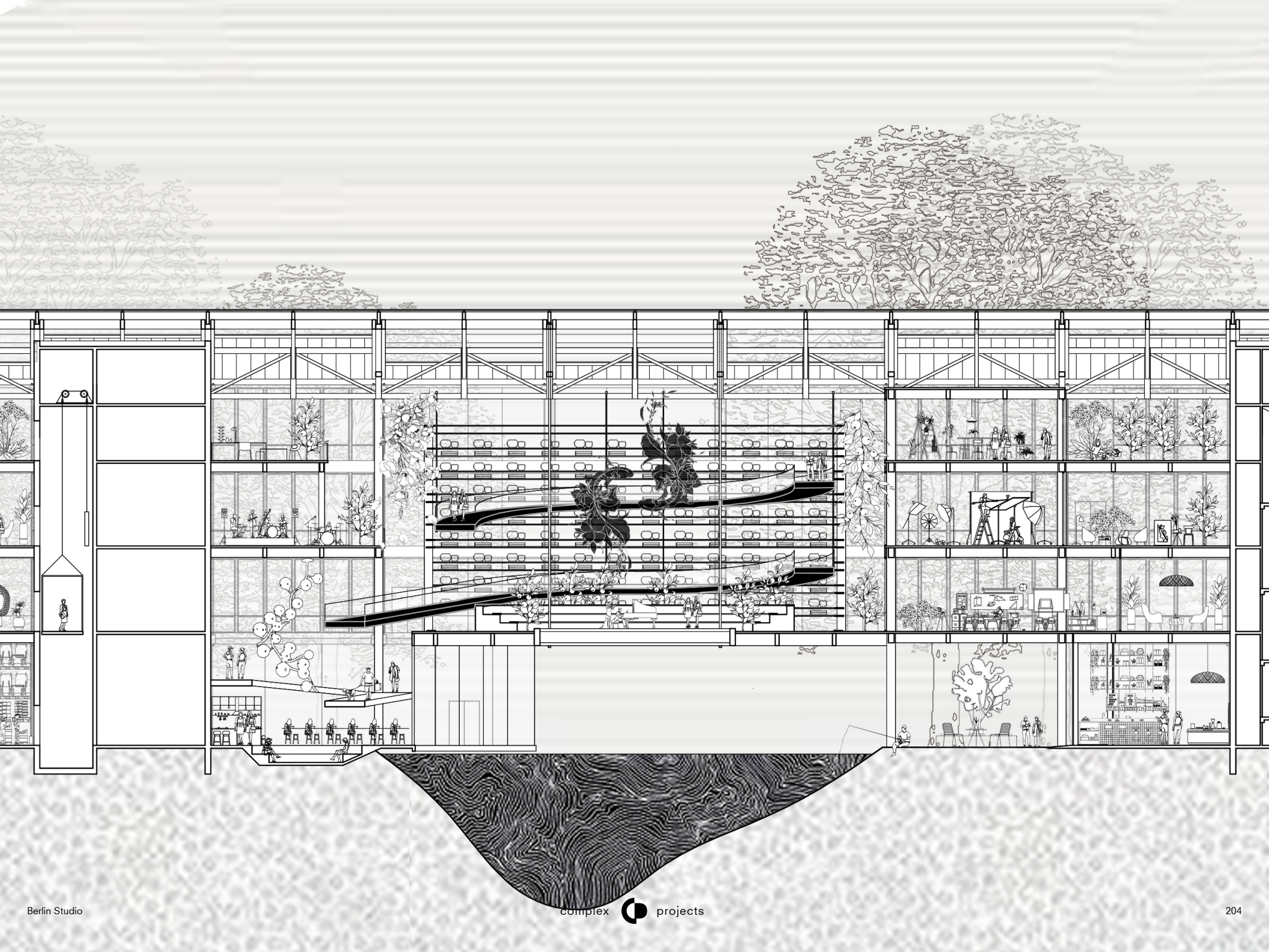

BAMBOO GARDEN
AQUA GARDEN
READING GARDEN
BAMBOO GARDEN
AQUA GARDEN
READING GARDEN

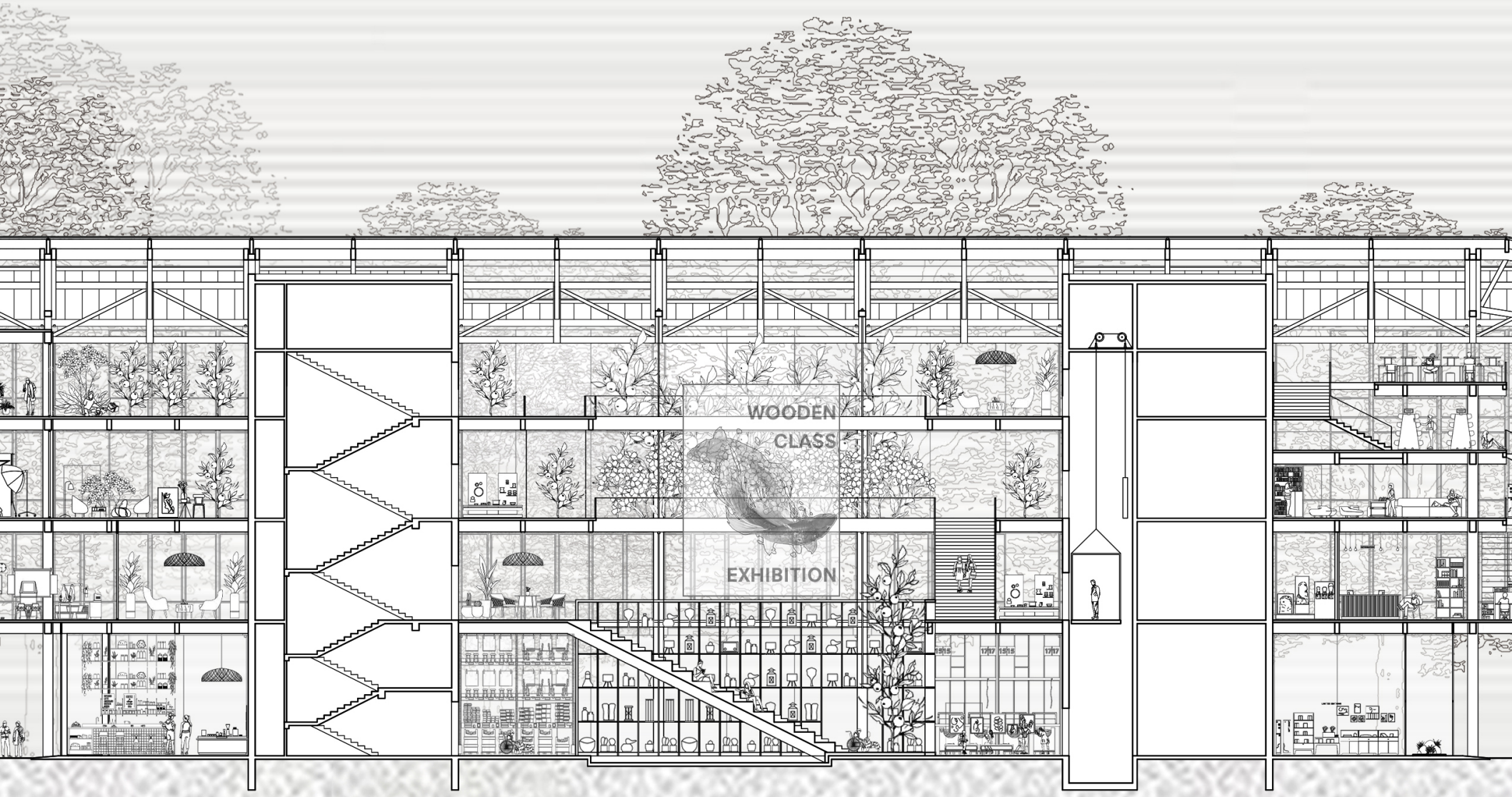
SECTION 1-1

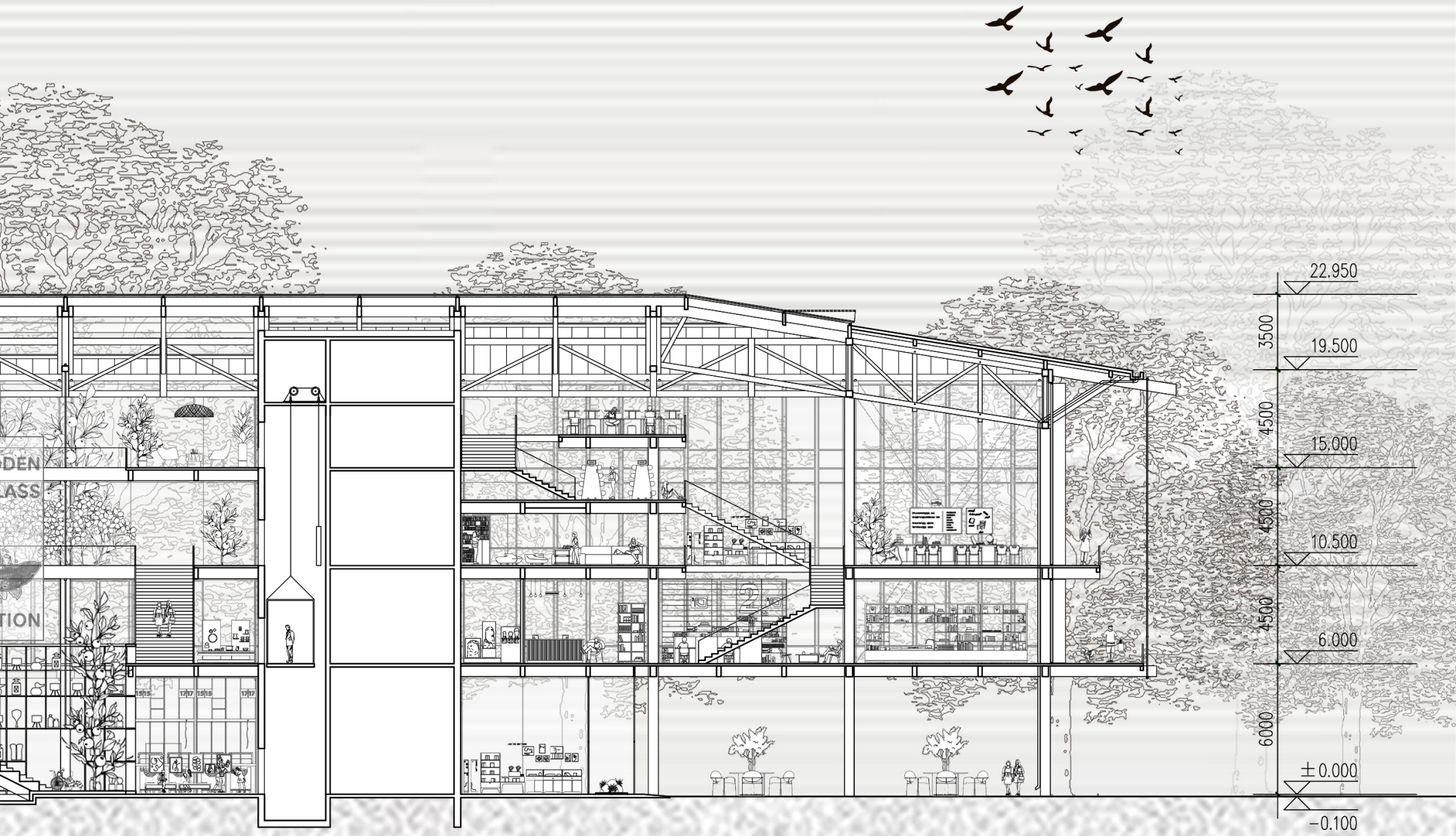




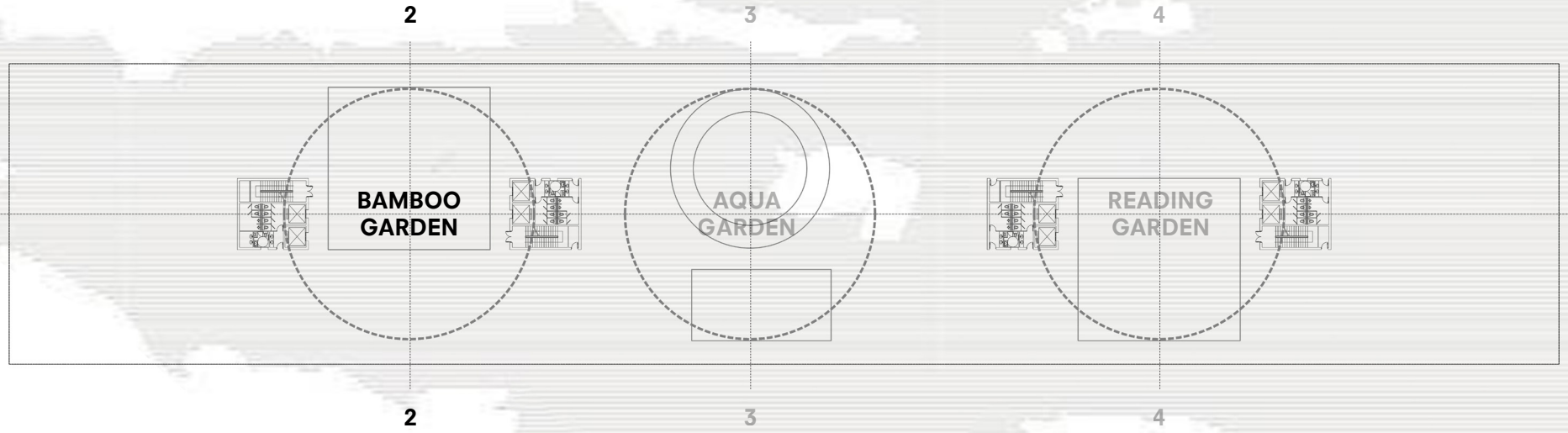


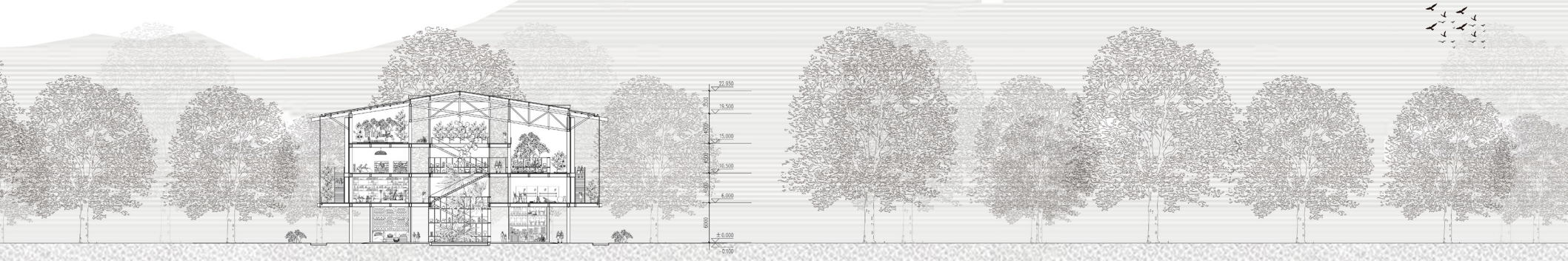



WOODEN
CLASS
EXHIBITION

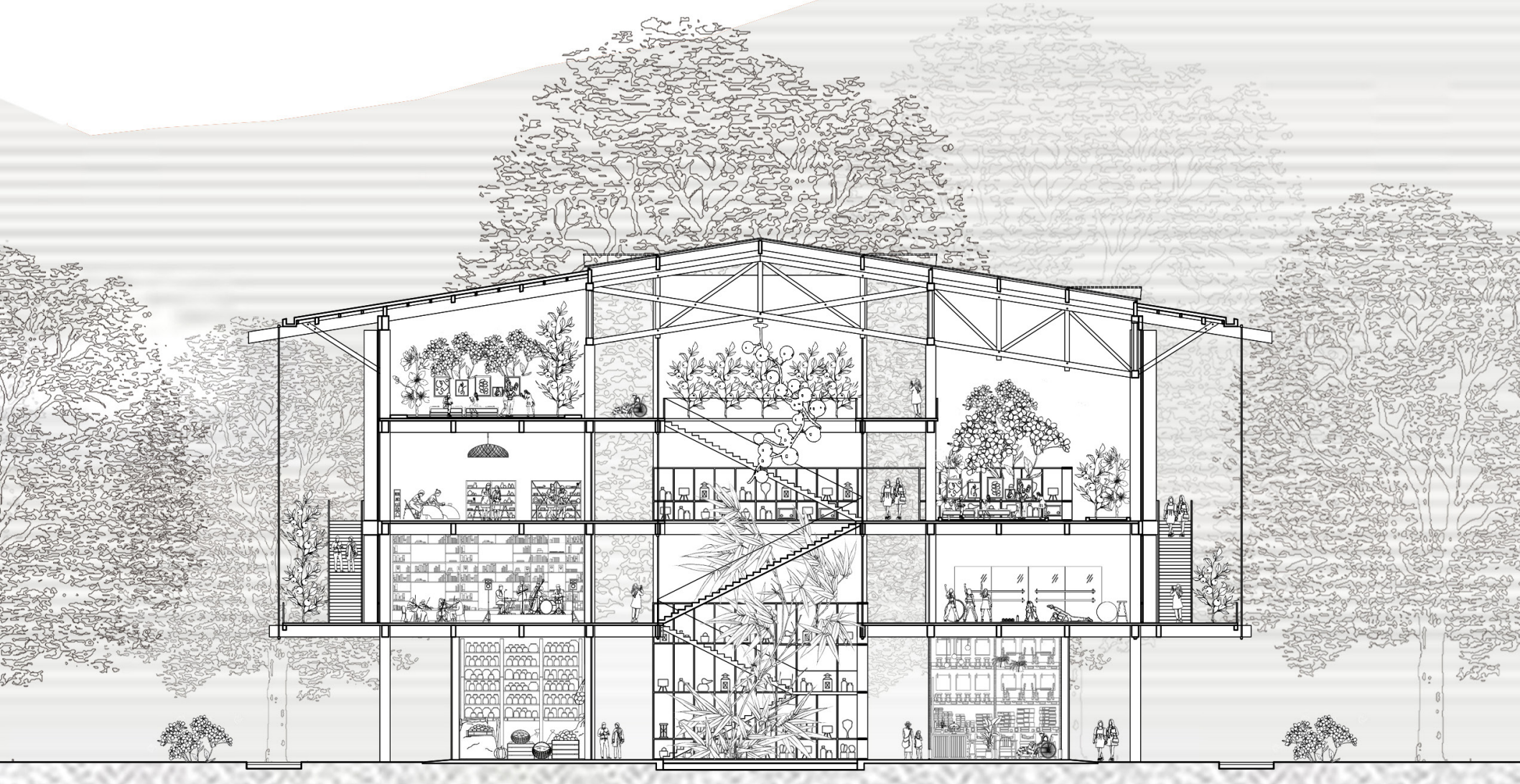

22.950
19.500
15.000
10.500
6.000
±0.000
−0.100
3500
4500
4500
4500
6000

SECTION 2-2

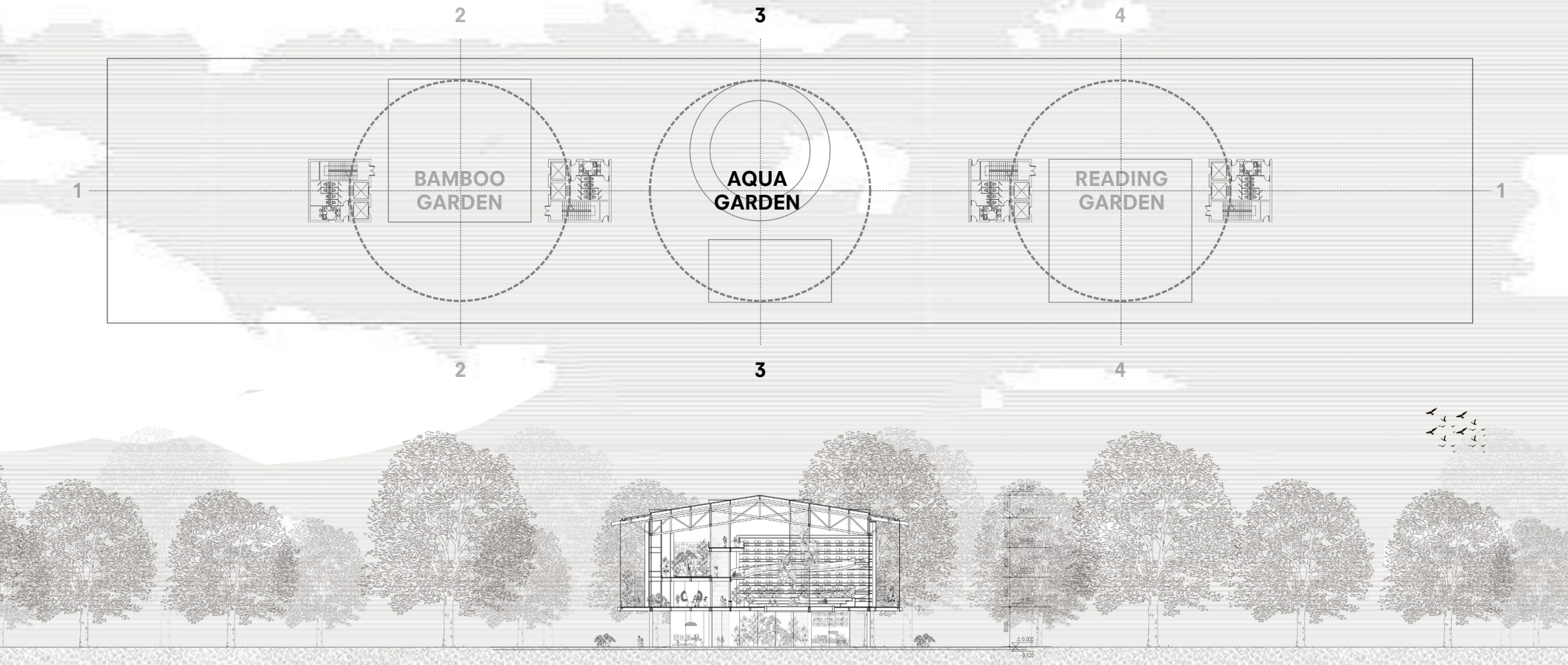




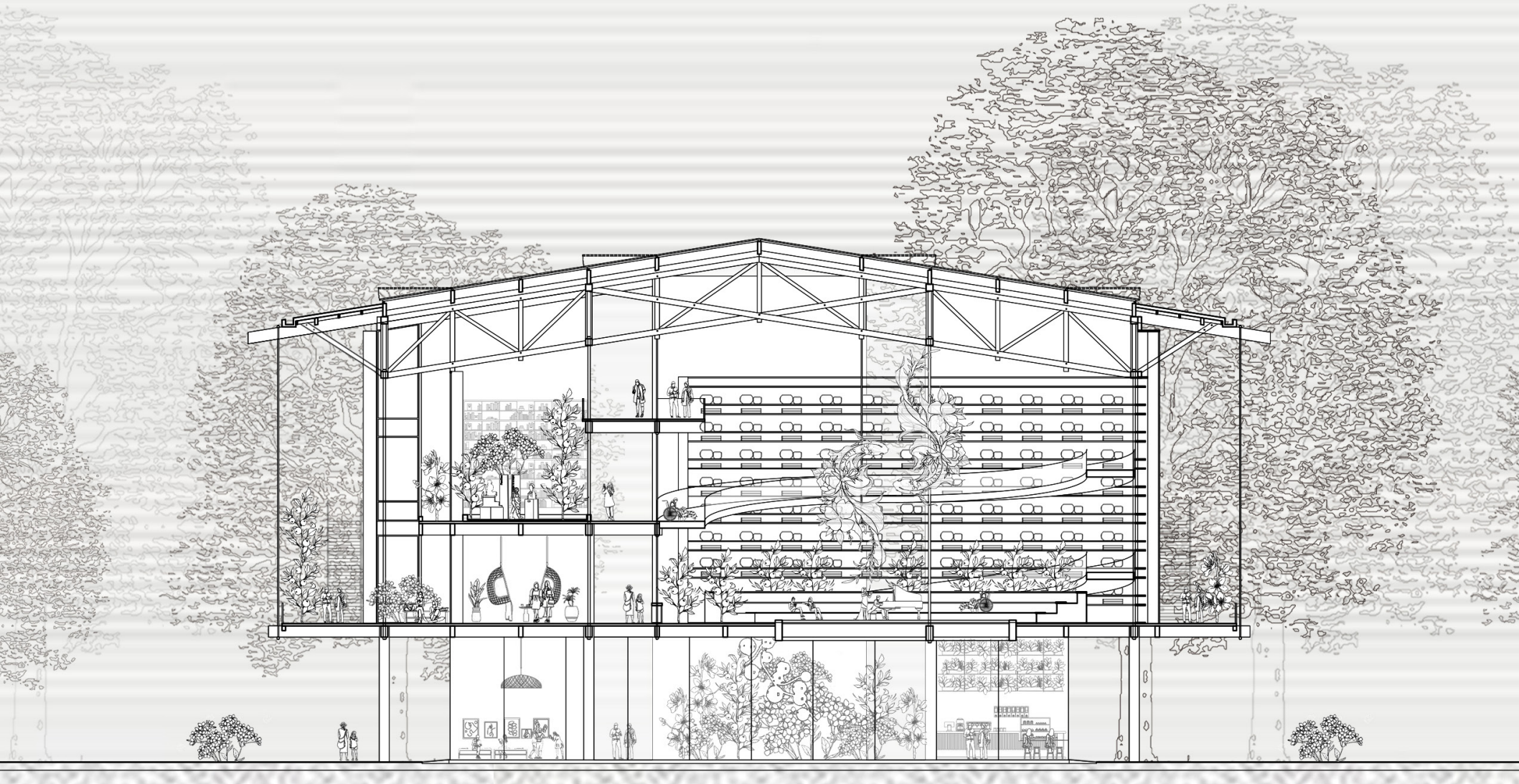
BAMBOO GARDEN



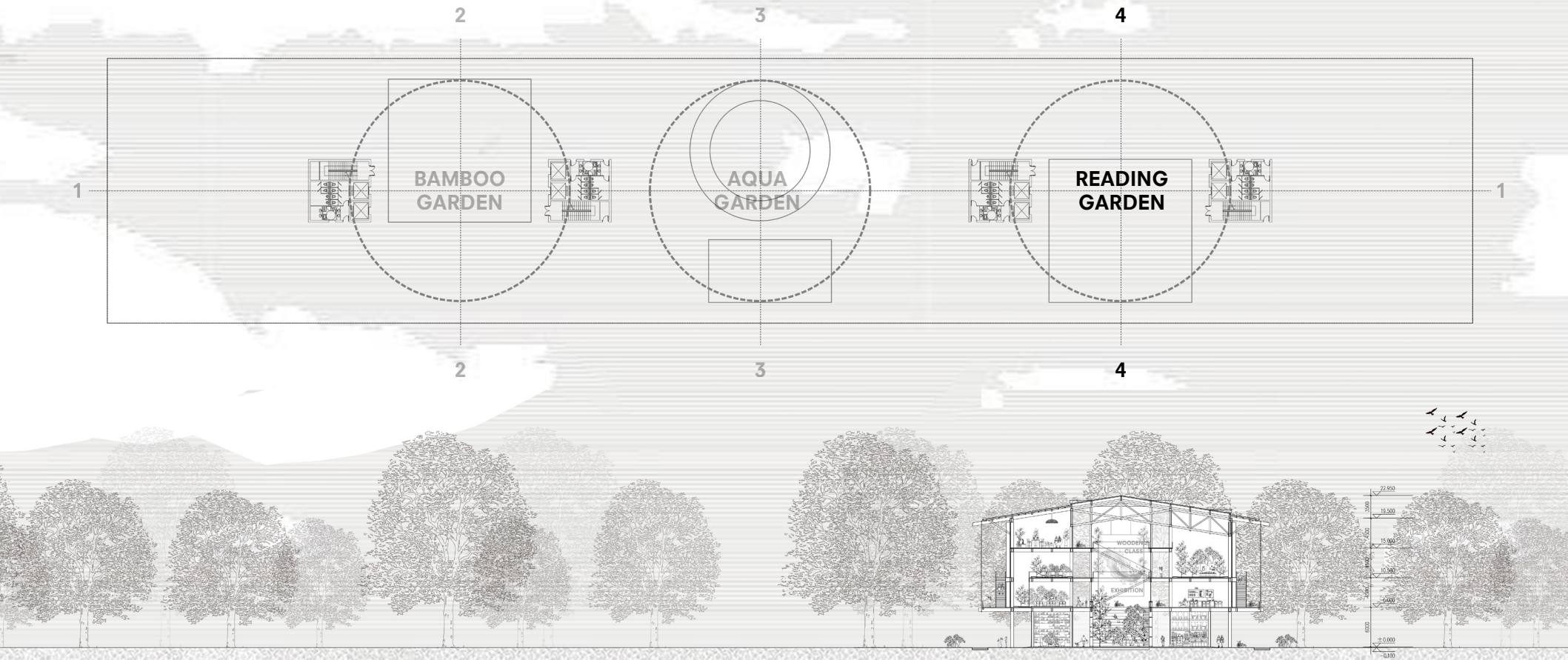
SECTION 3-3



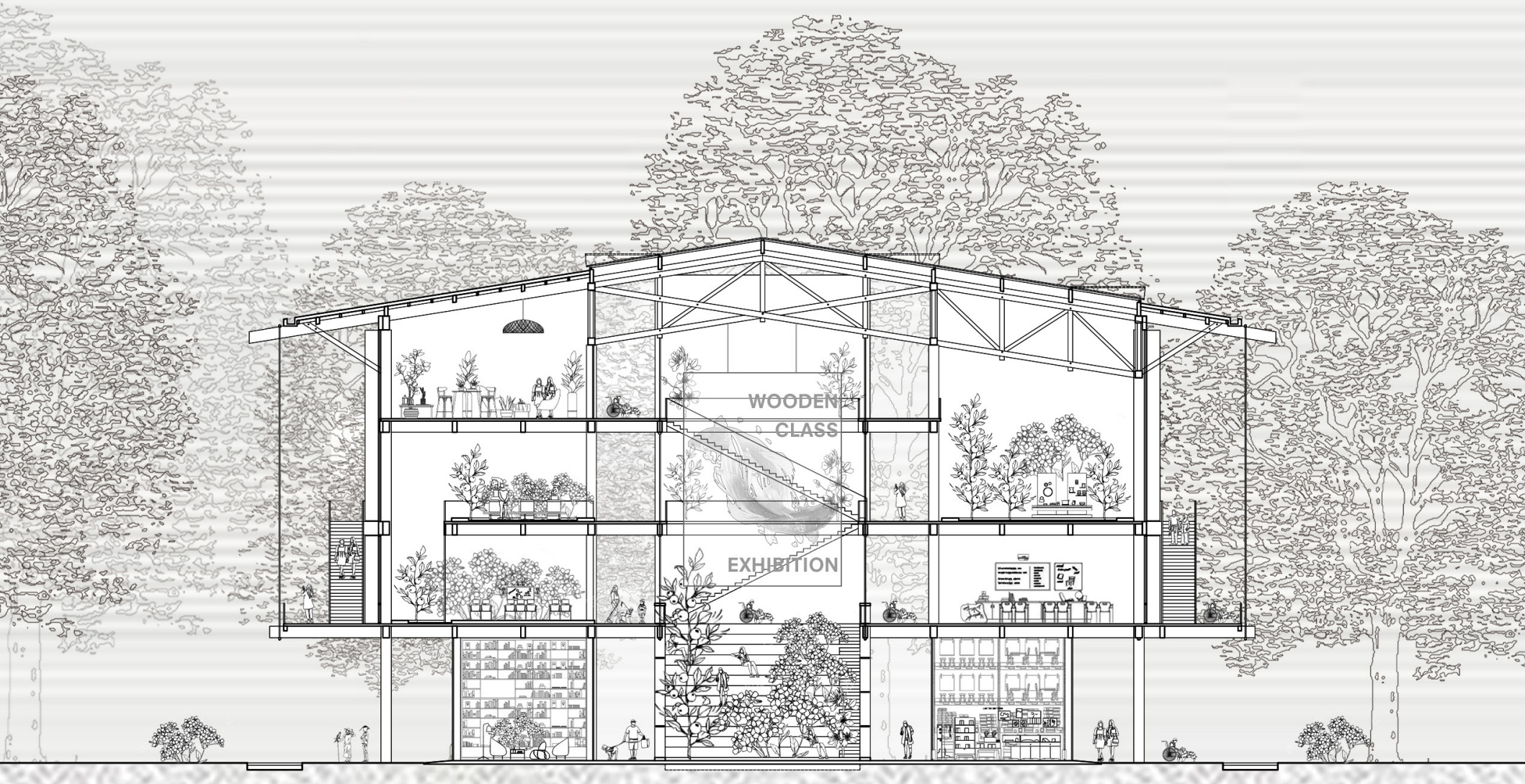
AQUA GARDEN



SECTION 4-4



READING GARDEN



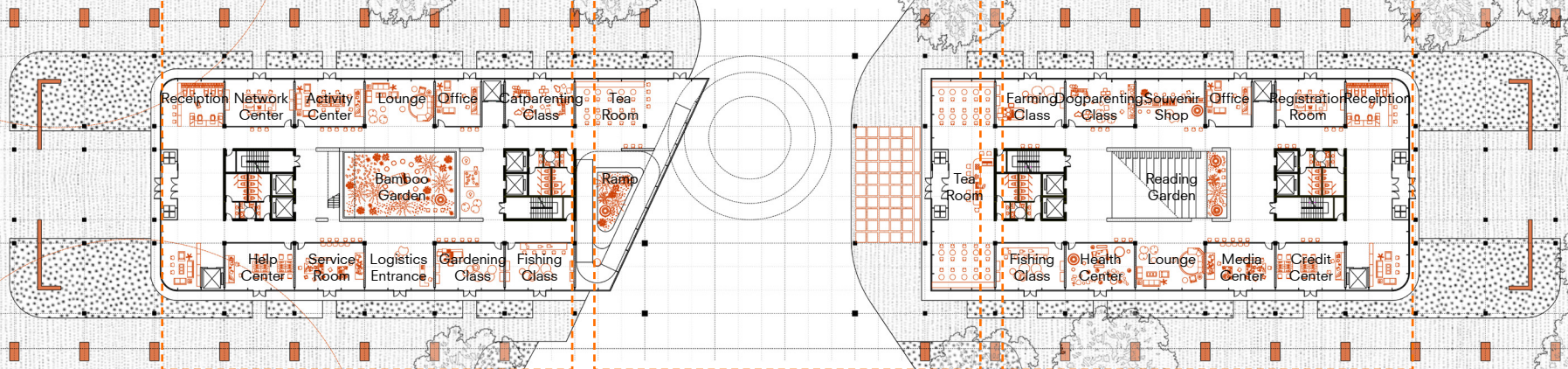
GROUND FLOOR PLAN

INFORMATION / HELP / PARK RELATED CLASSES

PARK-RELATED CLASSES
INFORMATION + HELP

TEA ROOM

PARK-RELATED CLASSES
INFORMATION + HELP

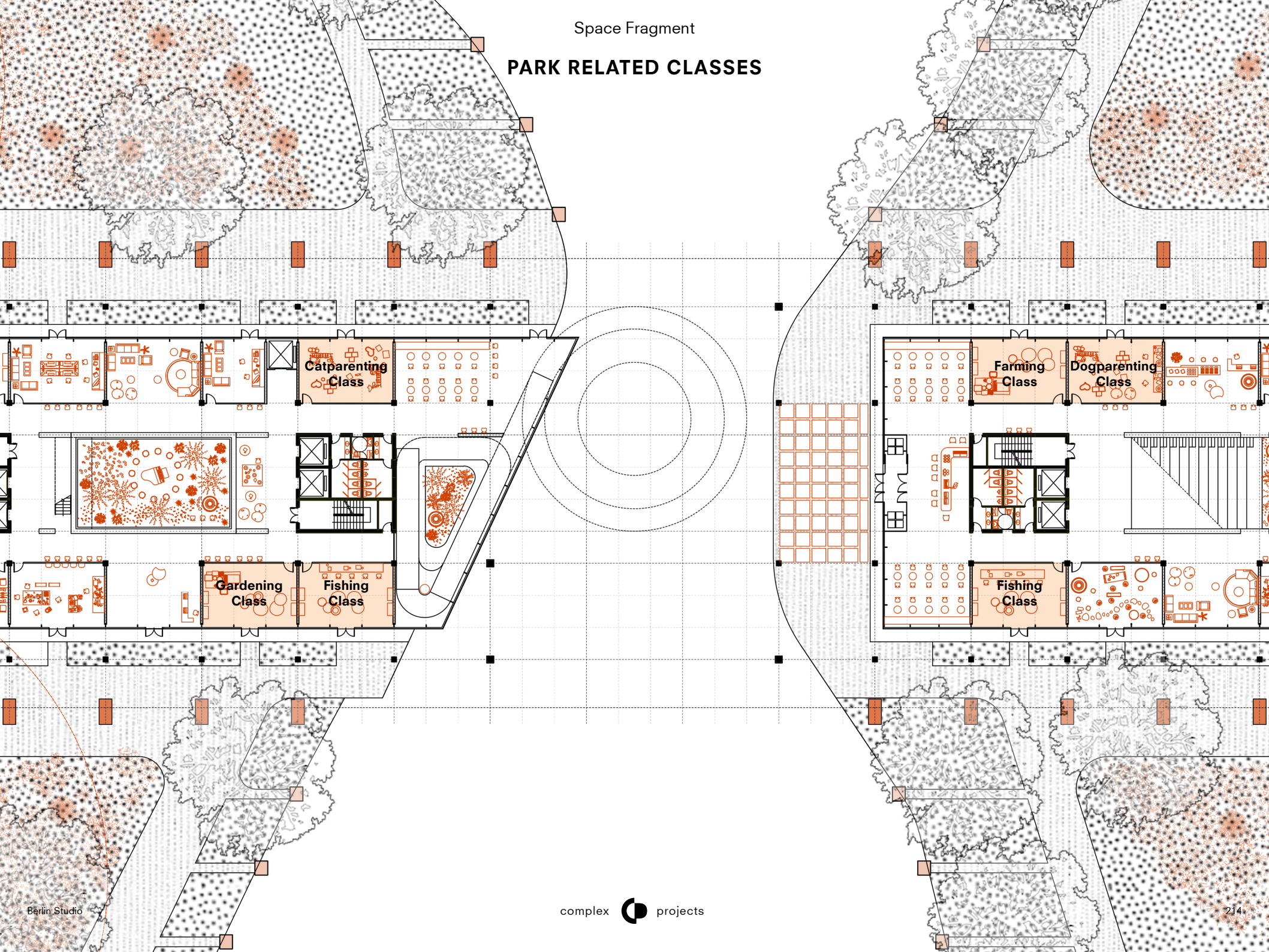


SPACE RHYTHMN: VISION + SMELL + HEARING



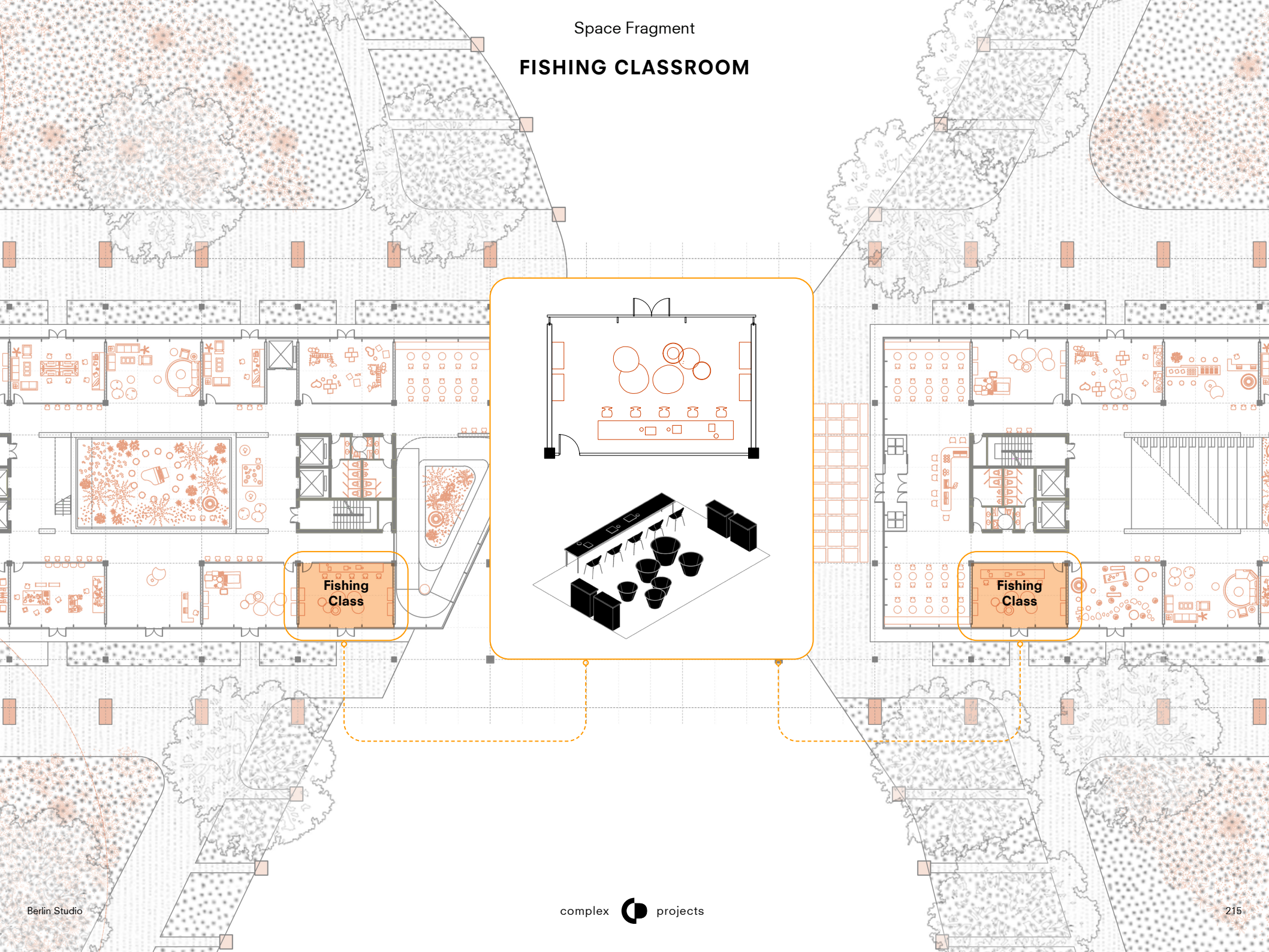
Space Fragment

PARK RELATED CLASSES



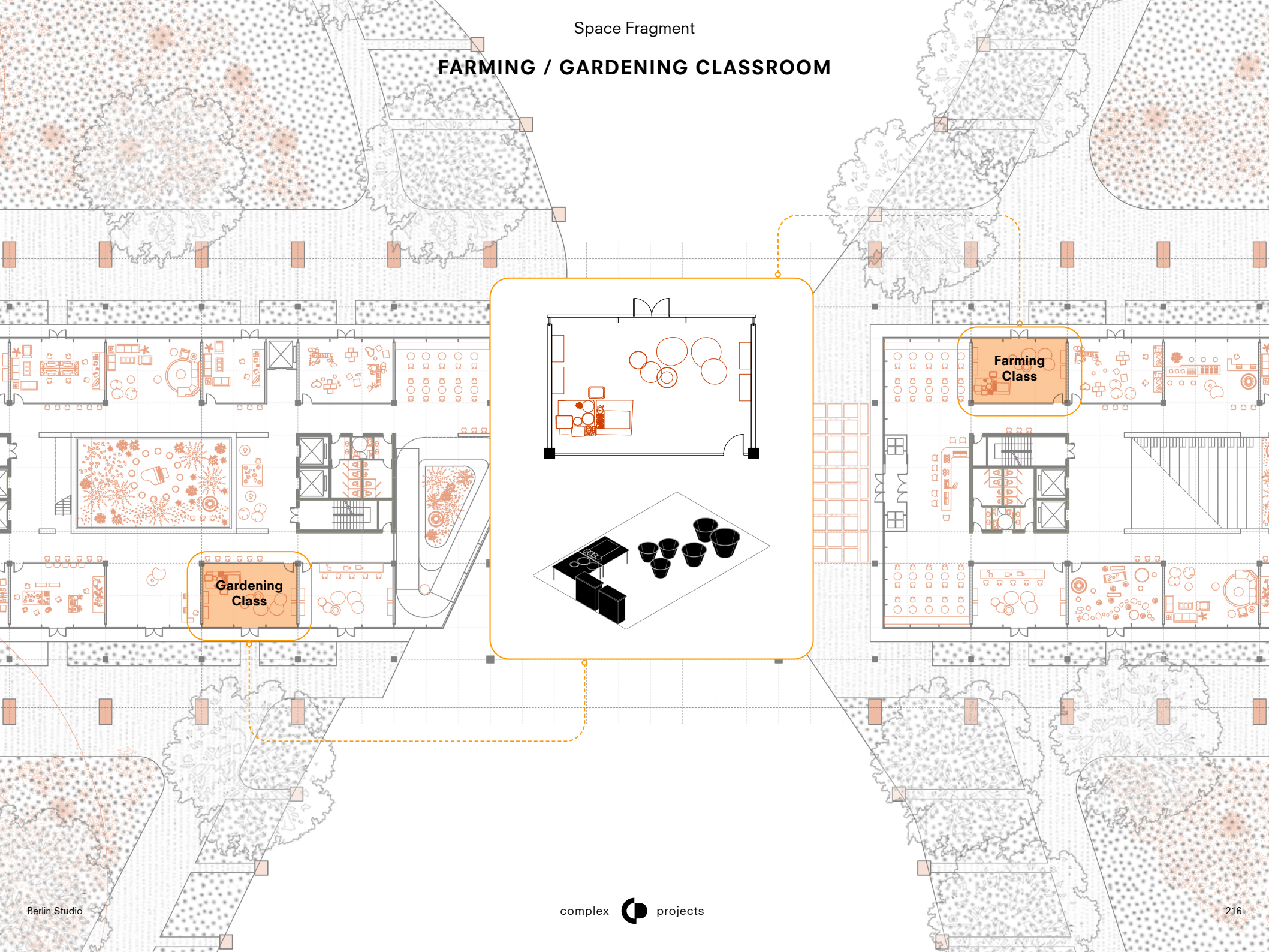
Space Fragment

FISHING CLASSROOM



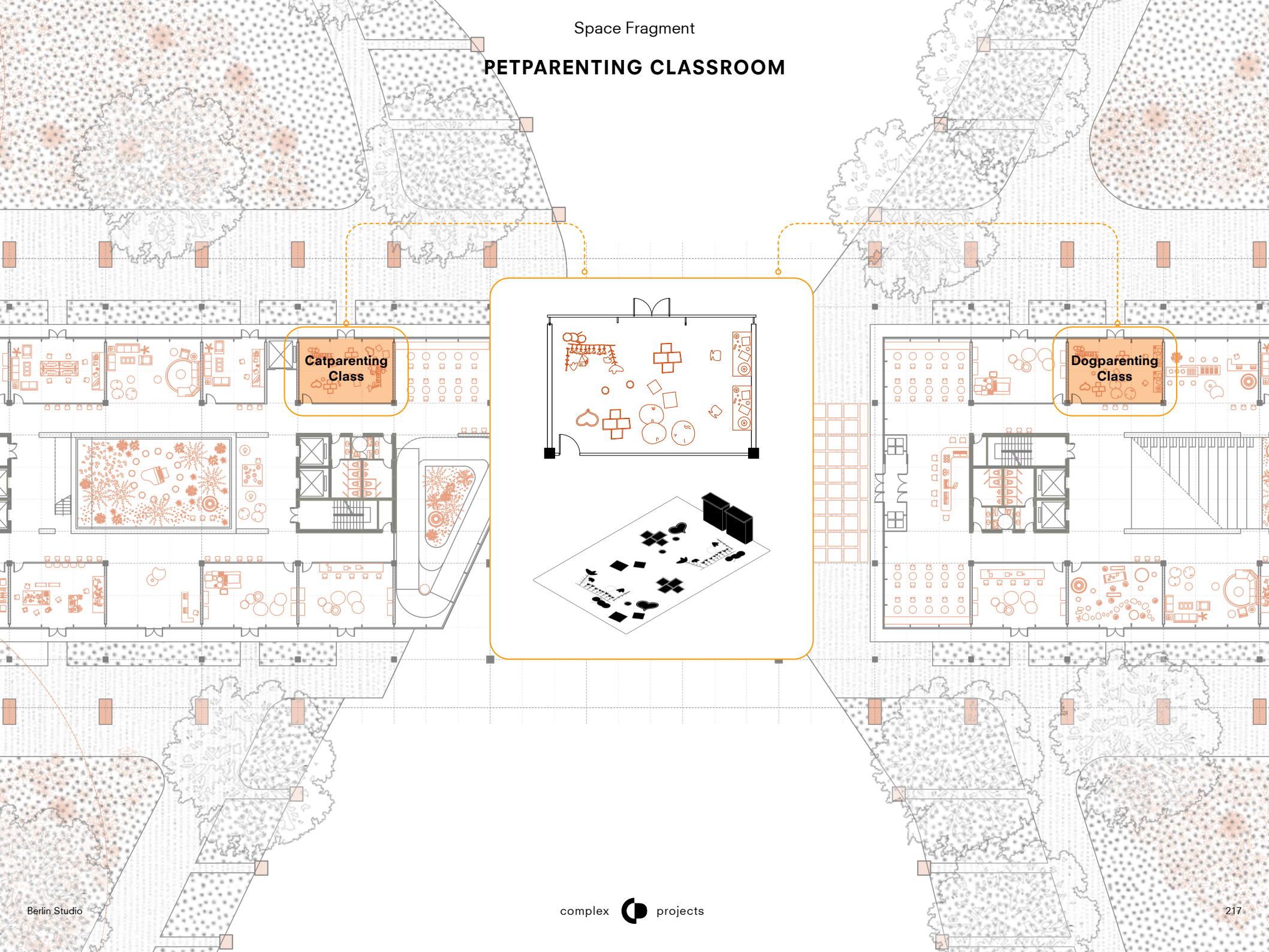
Space Fragment

FARMING / GARDENING CLASSROOM



Space Fragment

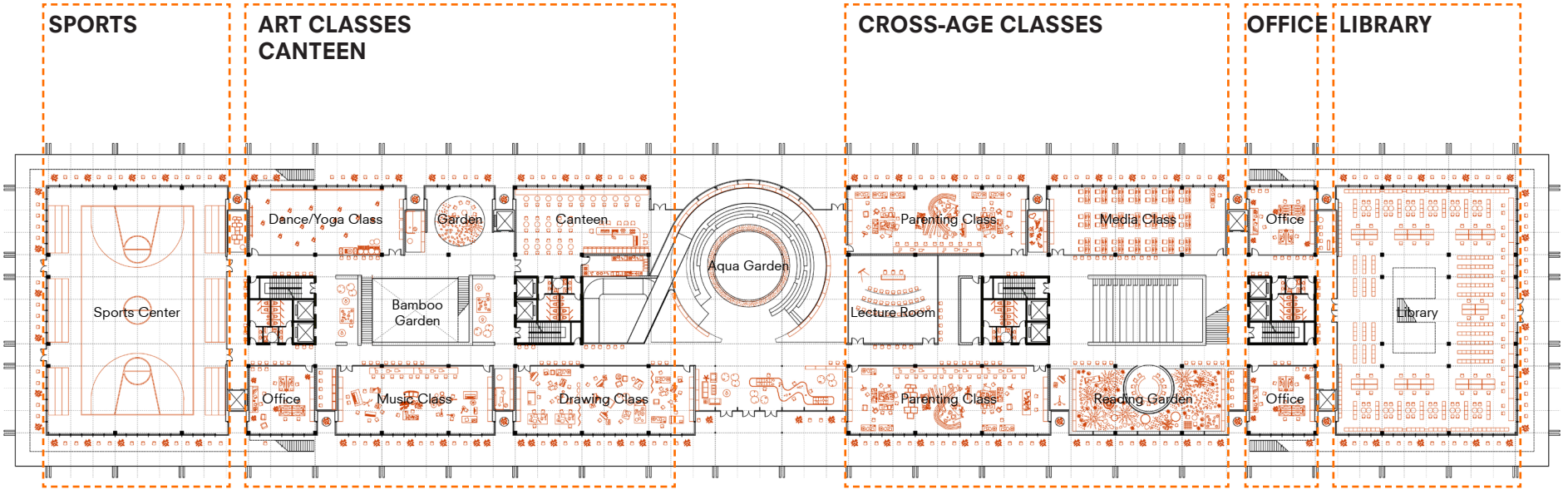
PETPARENTING CLASSROOM



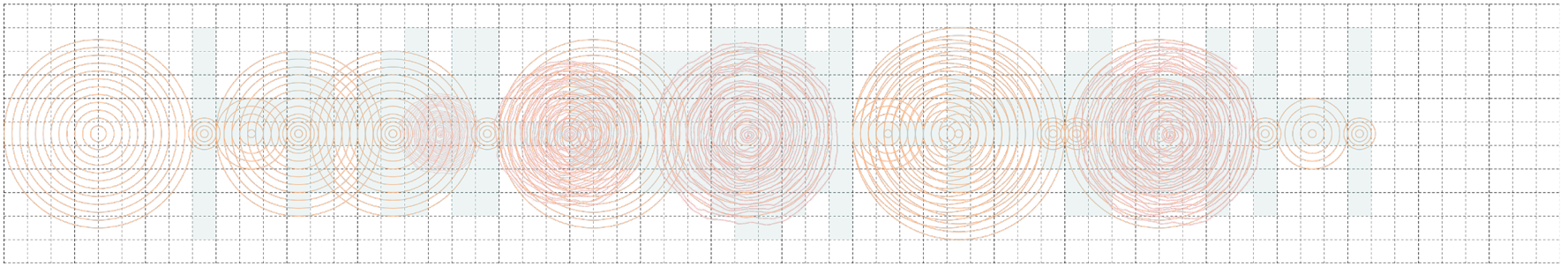
FIRST FLOOR PLAN

INTERGENERATIONAL CLASSES

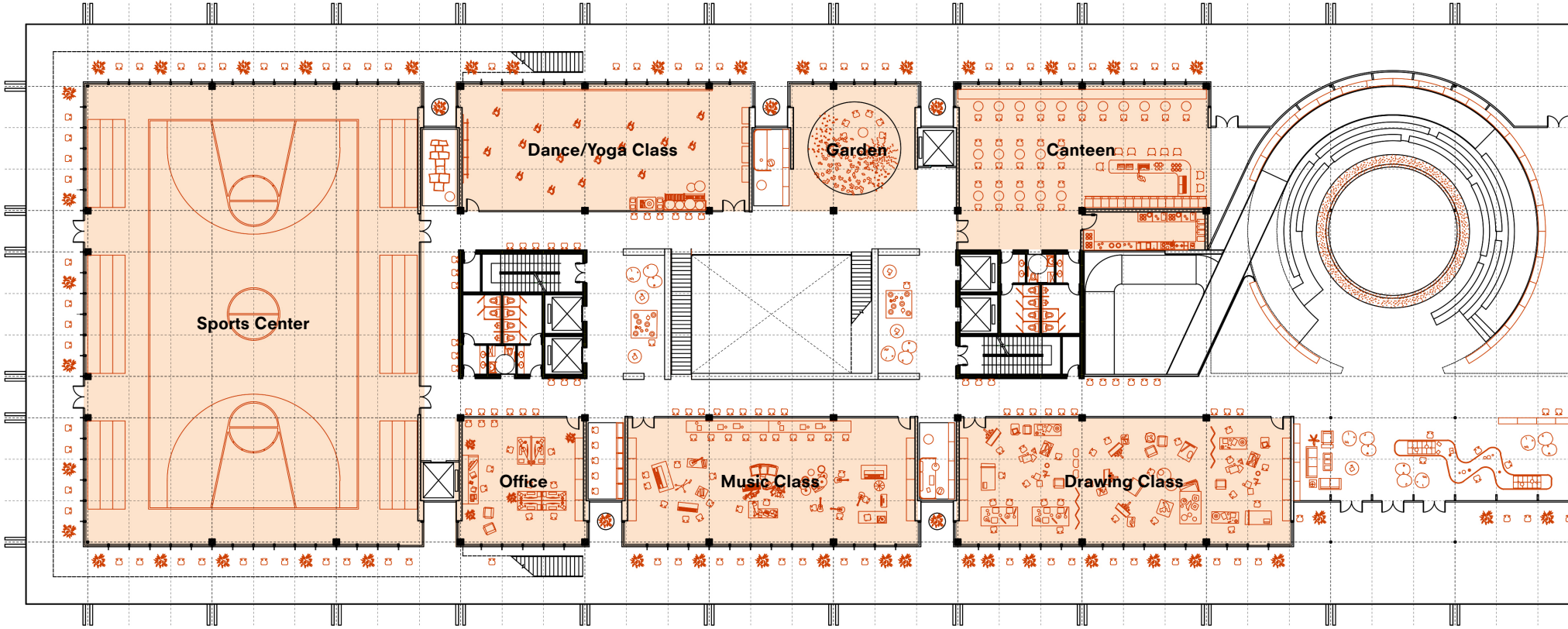




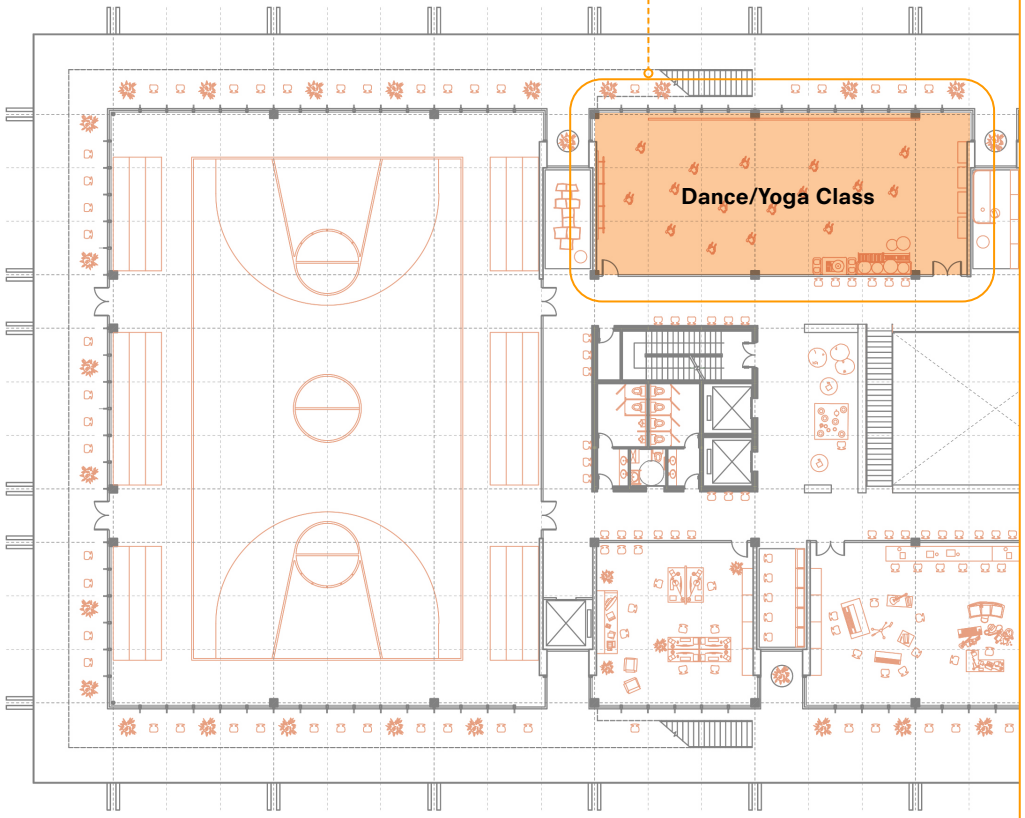
SPACE RHYTHMN: VISION + SMELL + HEARING

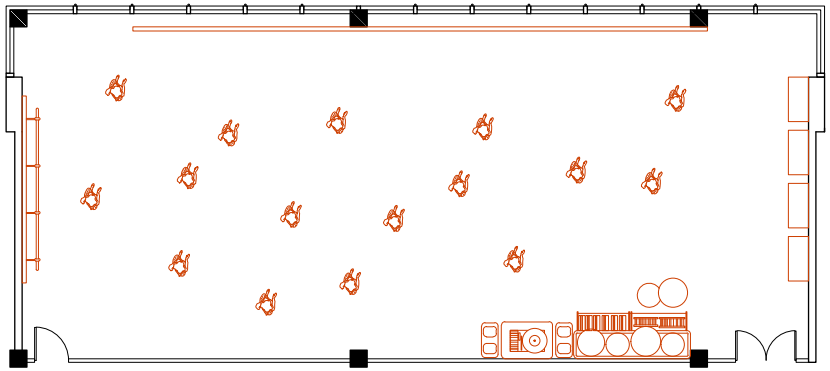


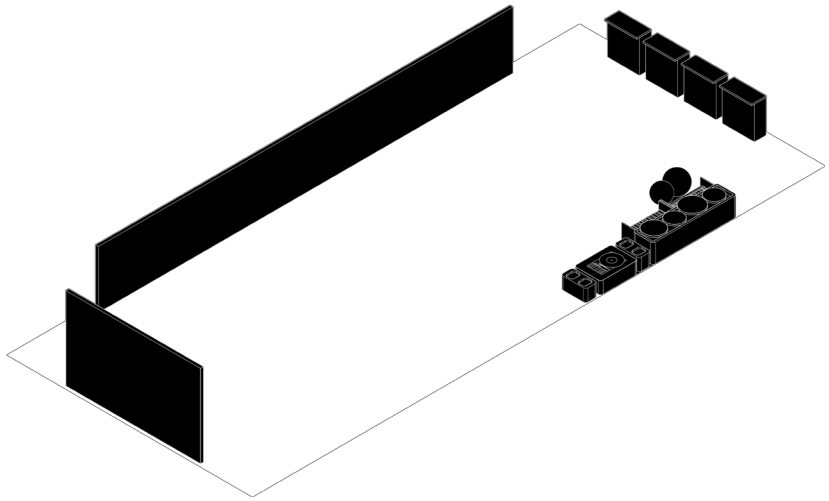
ART CLASSES


Sports Center
Dance/Yoga Class
Garden
Canteen
Office
Music Class
Drawing Class

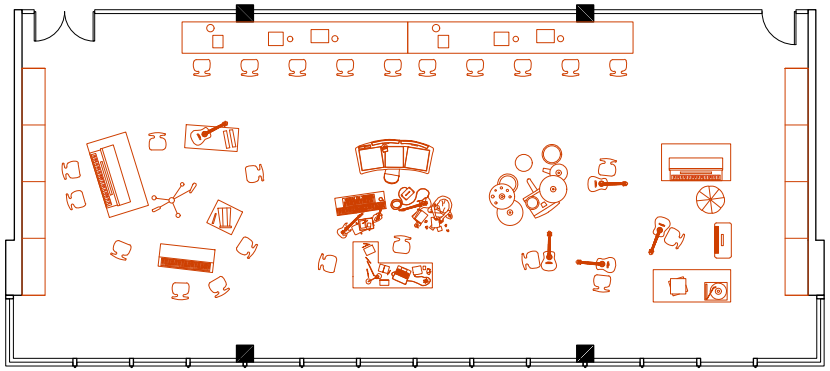
DANCE CLASSROOM

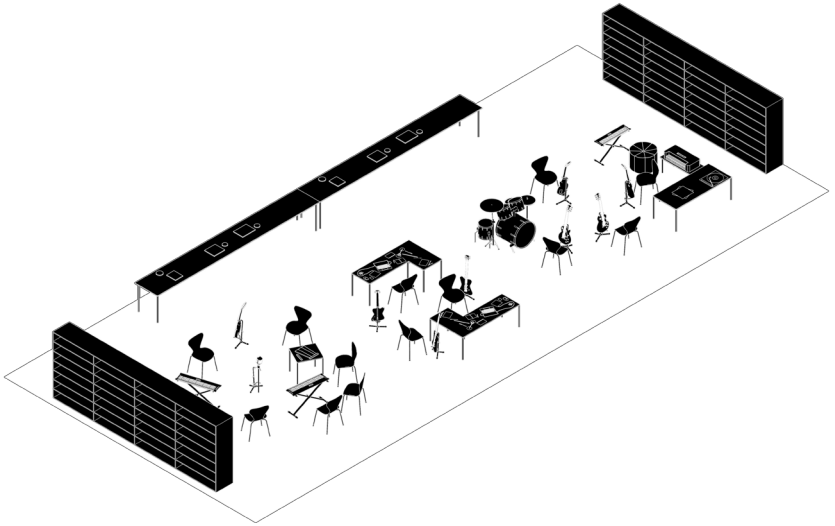


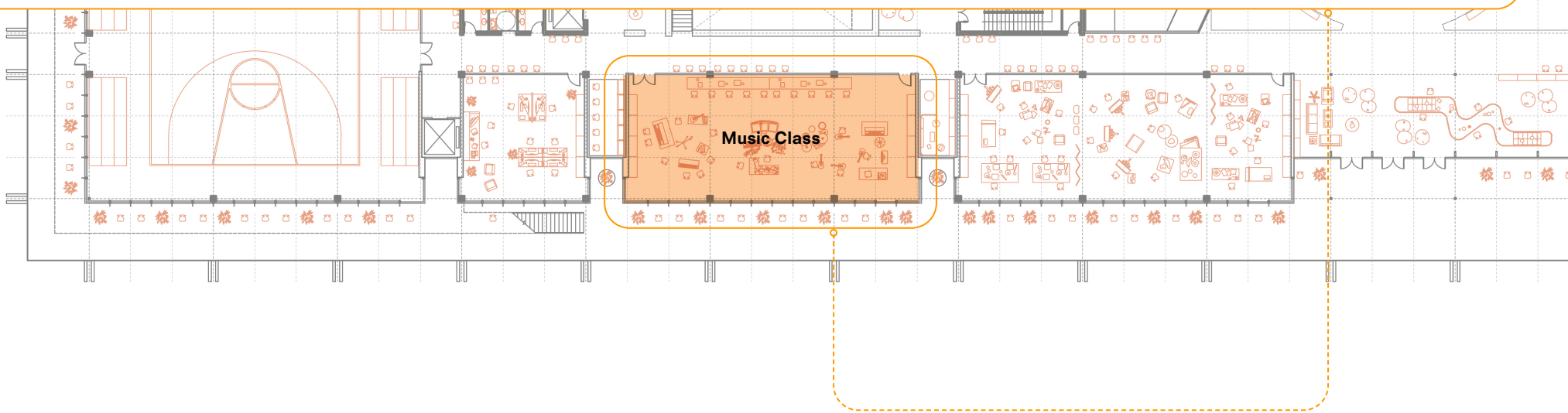




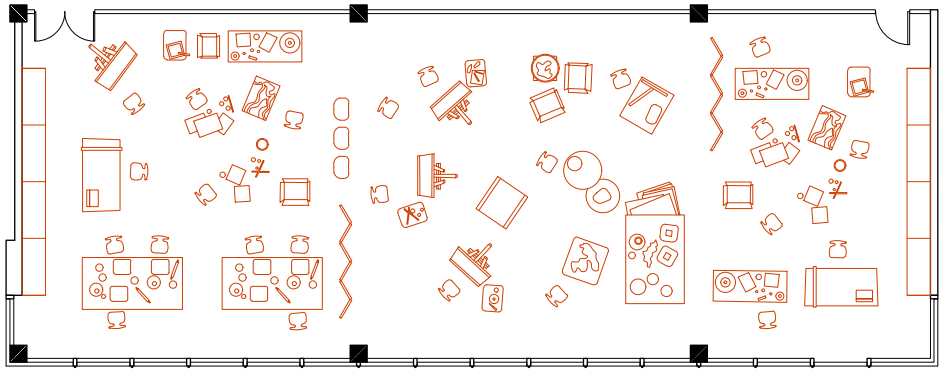
MUSIC CLASSROOM

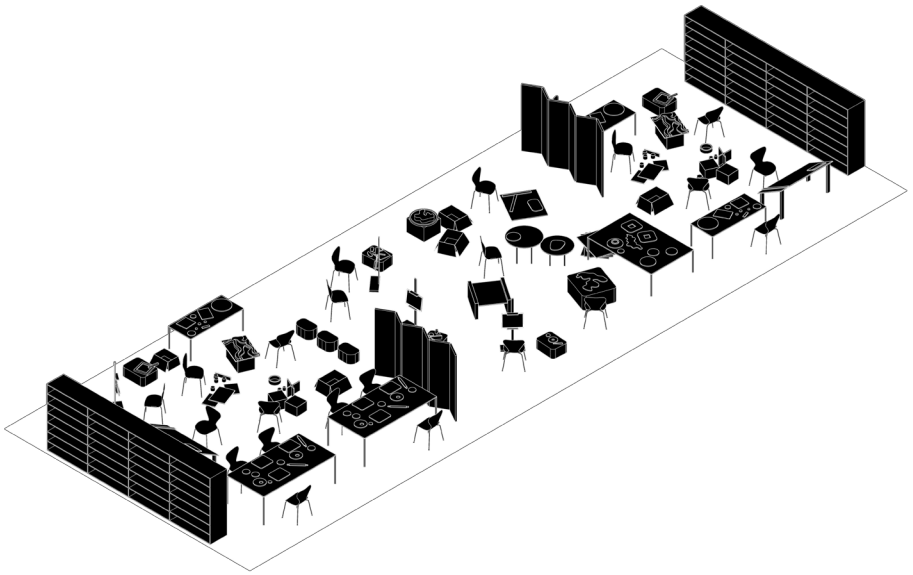


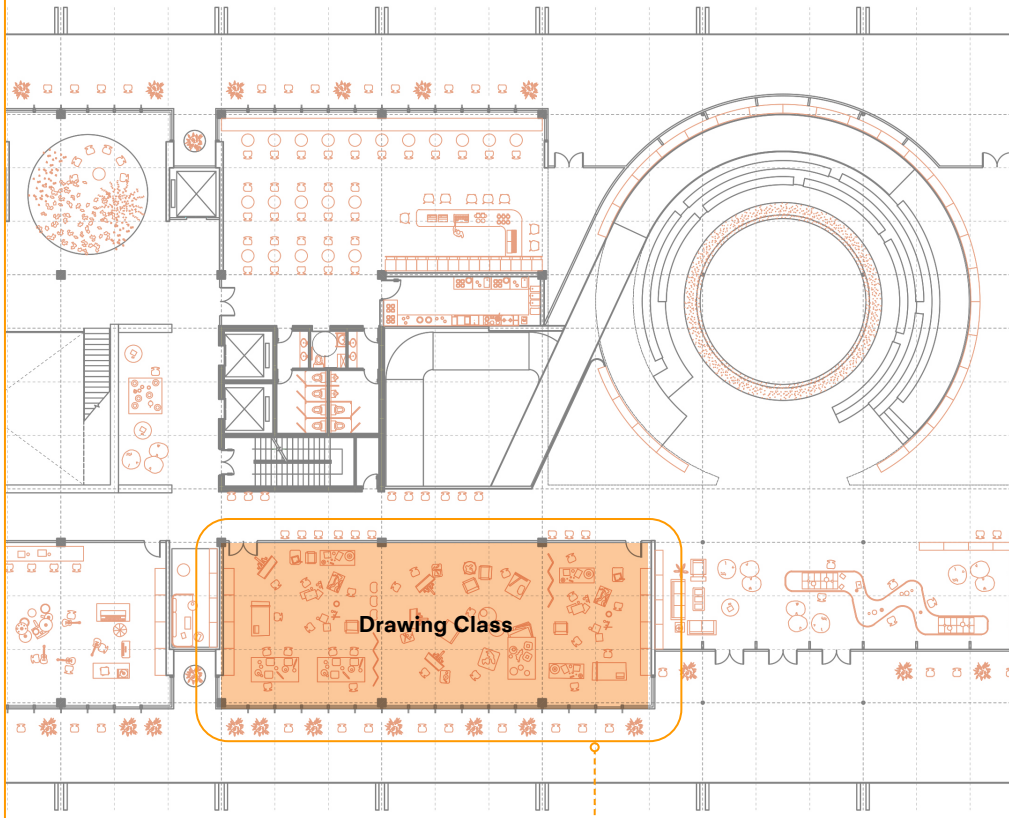




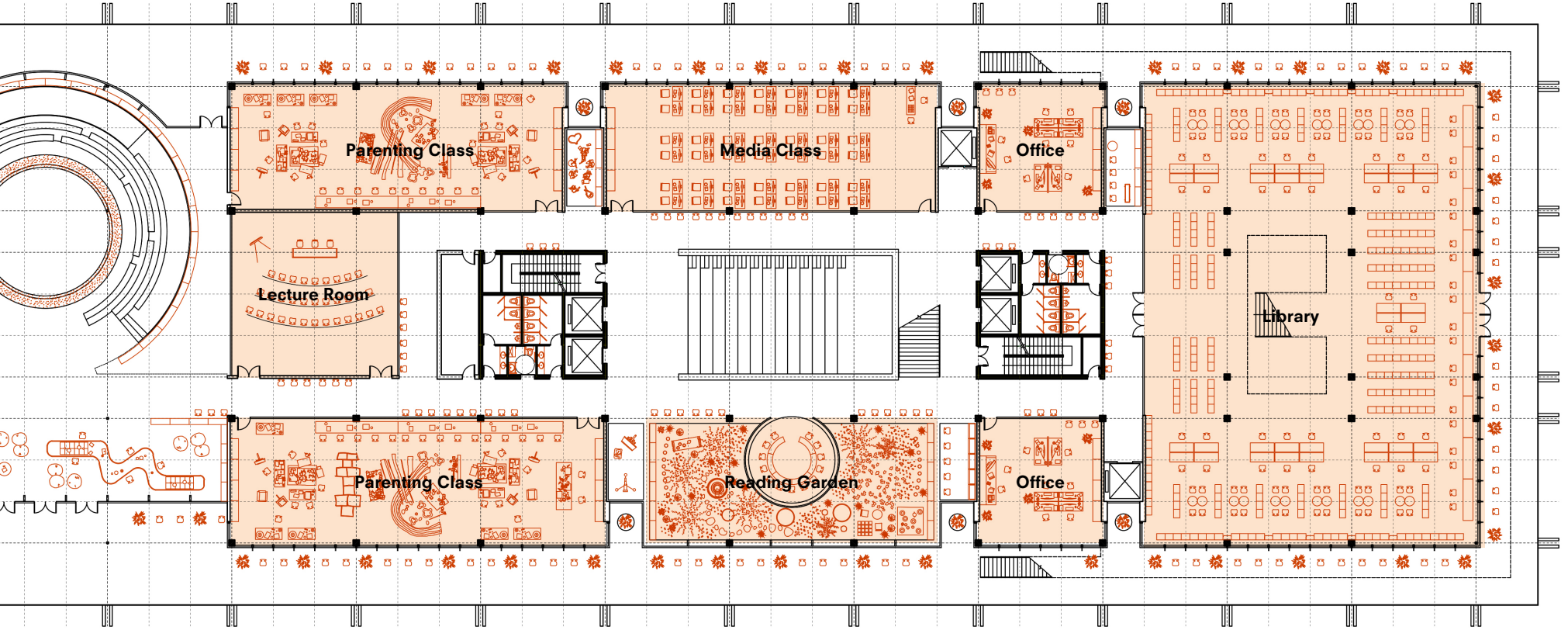
DRAWING CLASSROOM



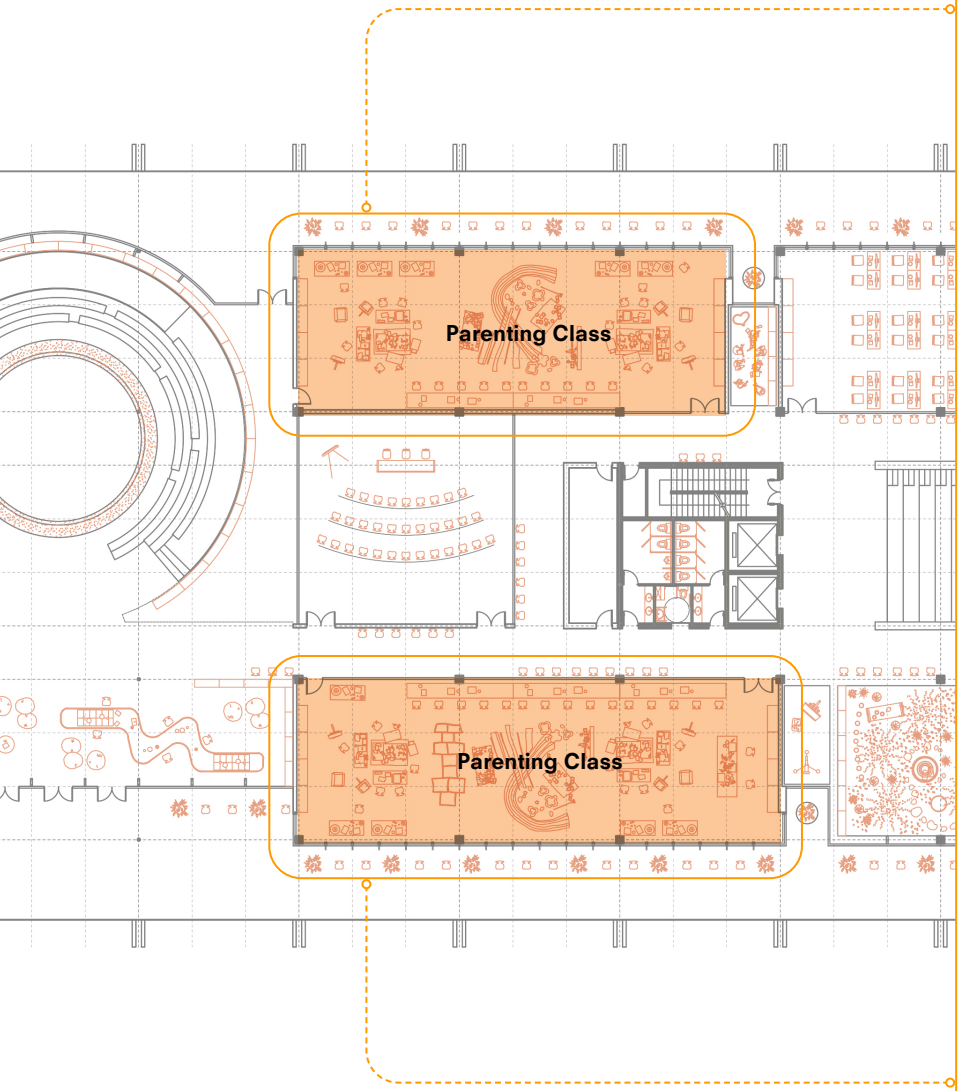


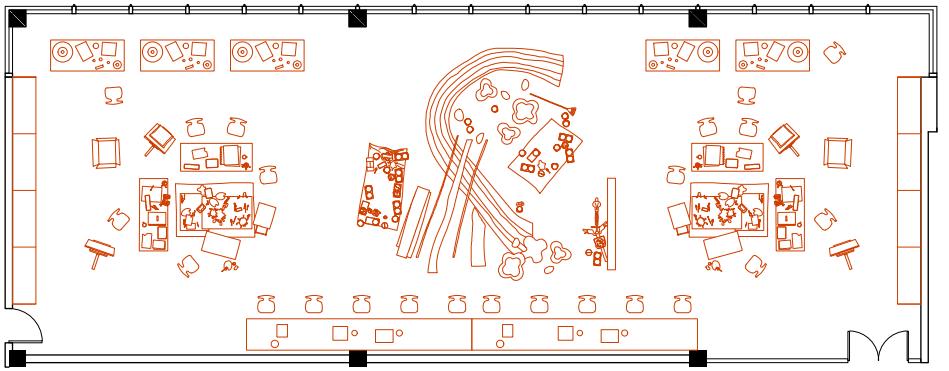


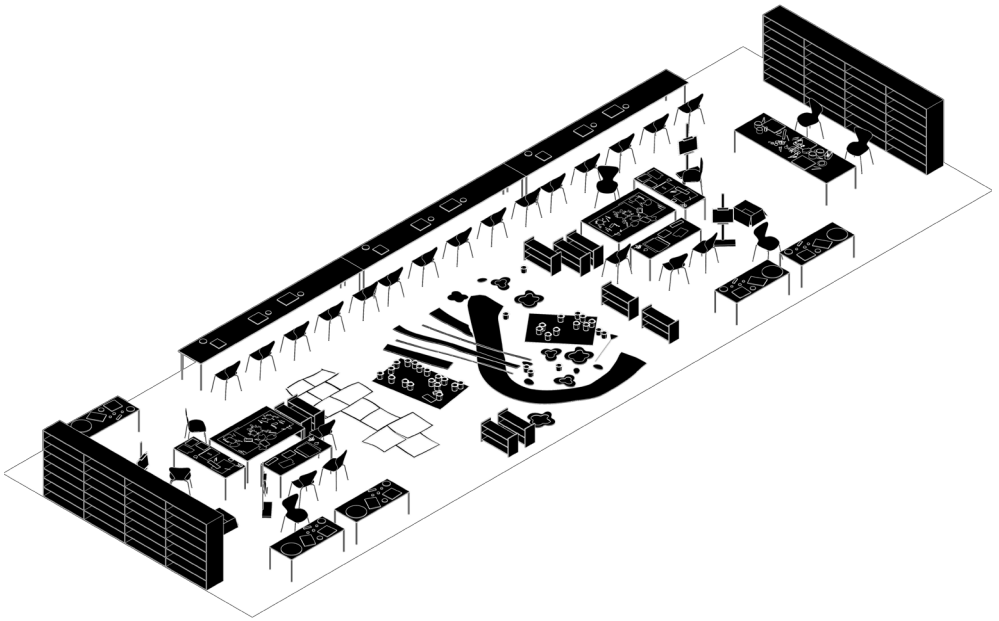
CROSS-AGE CLASSES



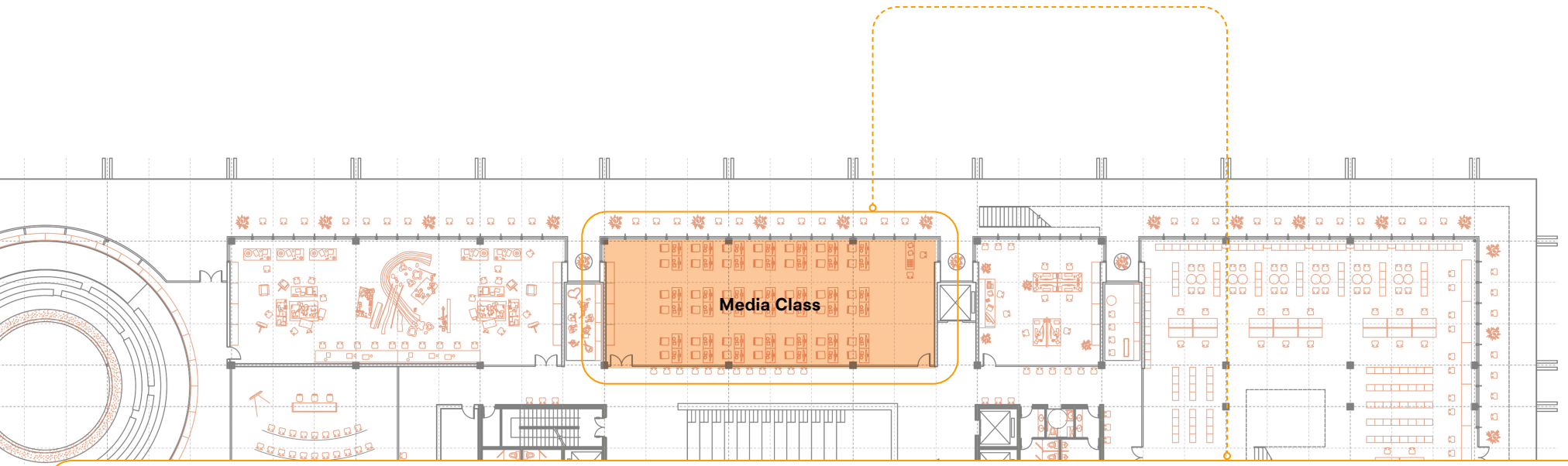
PARENTING CLASSROOM

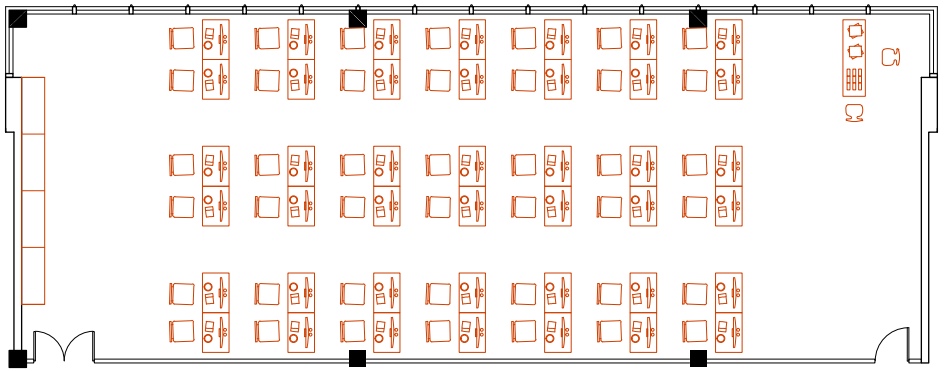


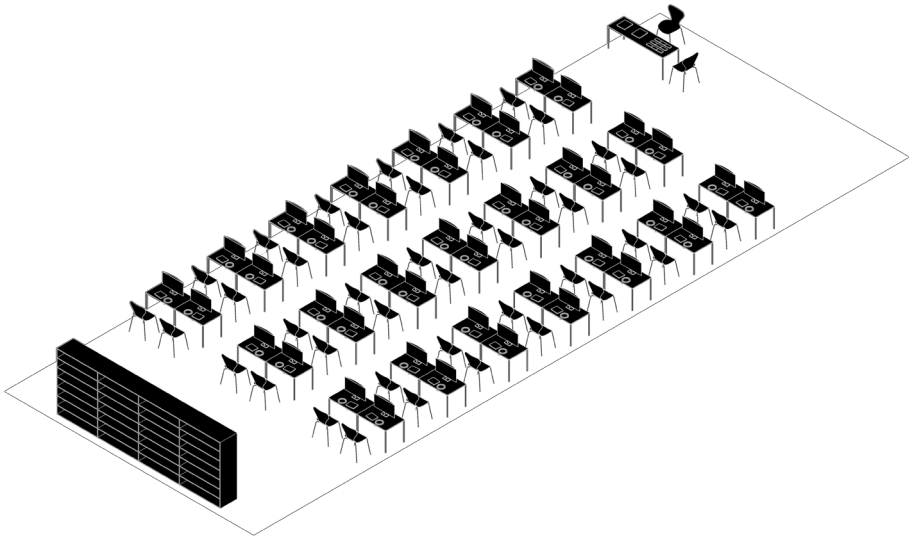




MEDIA CLASSROOM



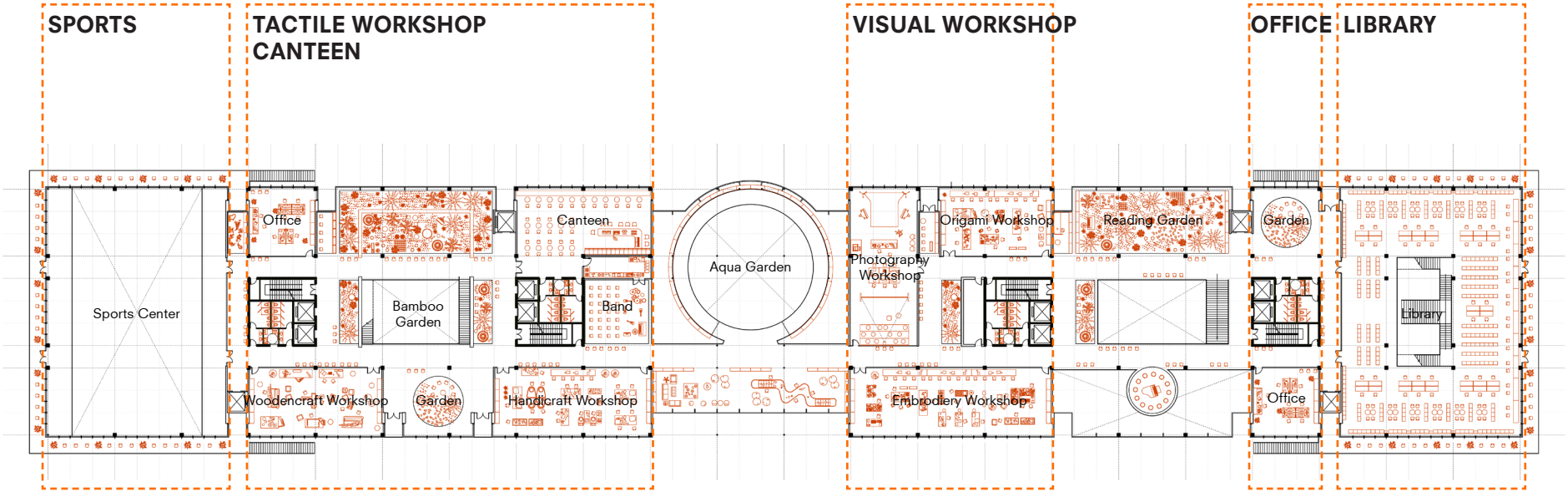




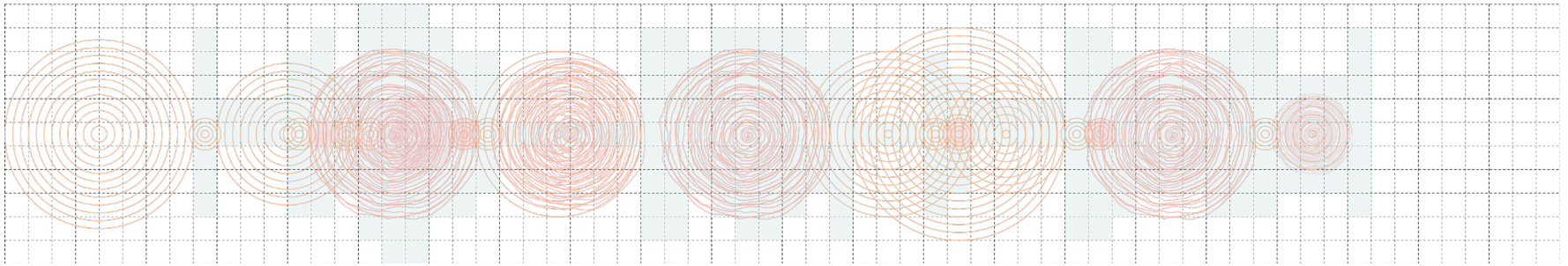
SECOND FLOOR PLAN

INTERGENERATIONAL WORKSHOPS

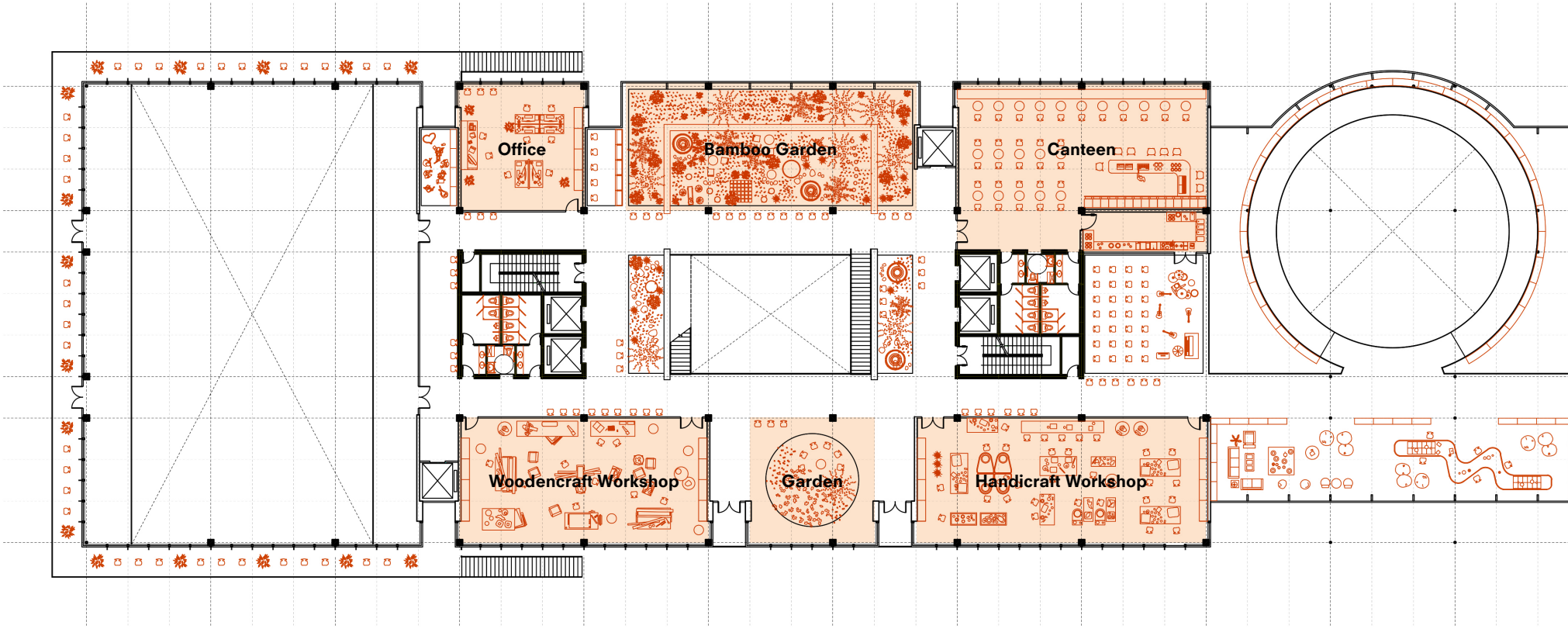




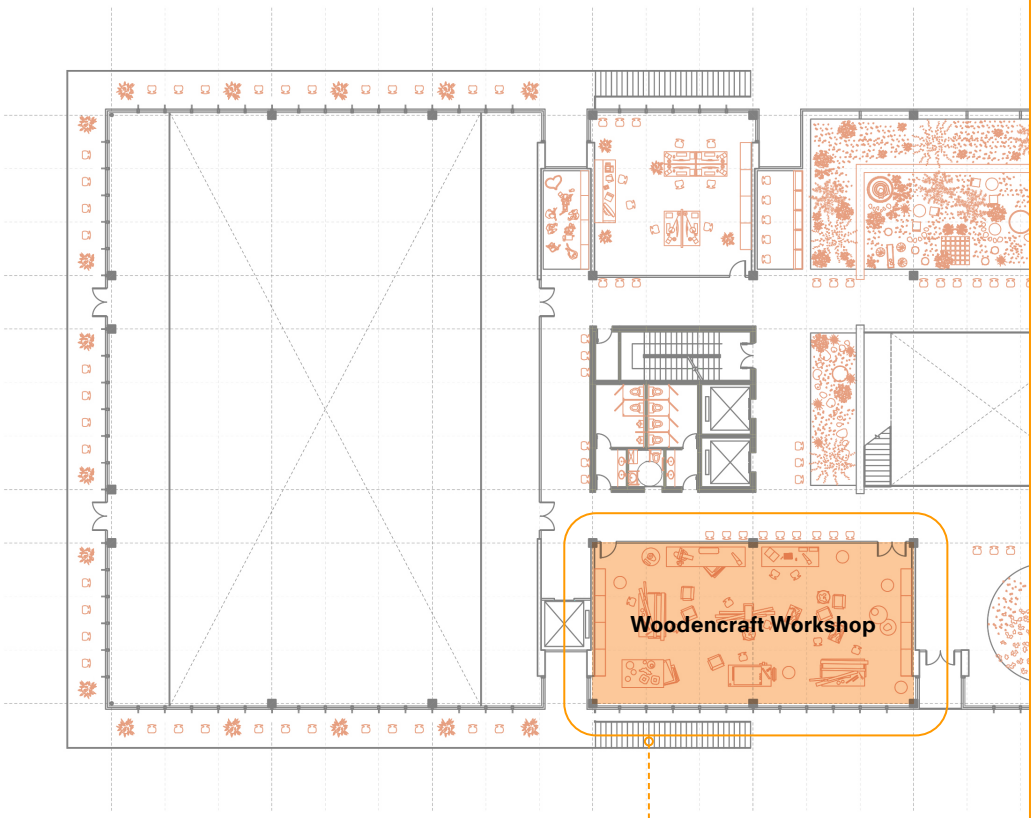
SPACE RHYTHMN: VISION + SMELL + HEARING

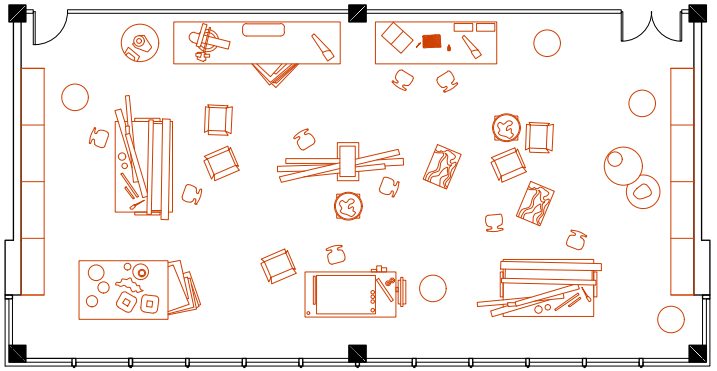


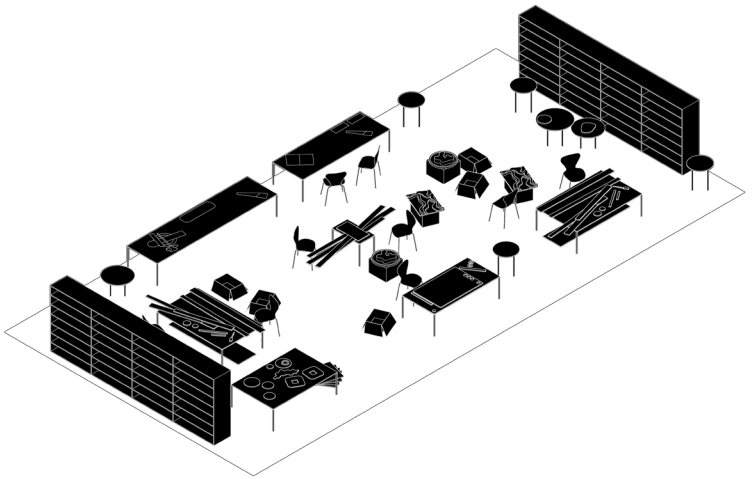
TACTILE WORKSHOP



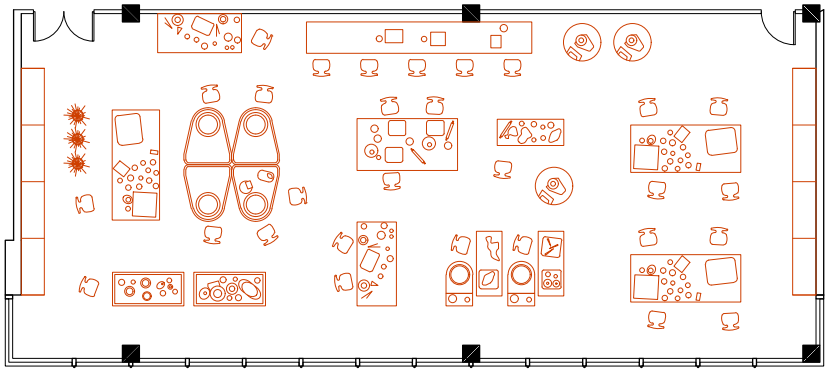
WOODENCRAFT WORKSHOP

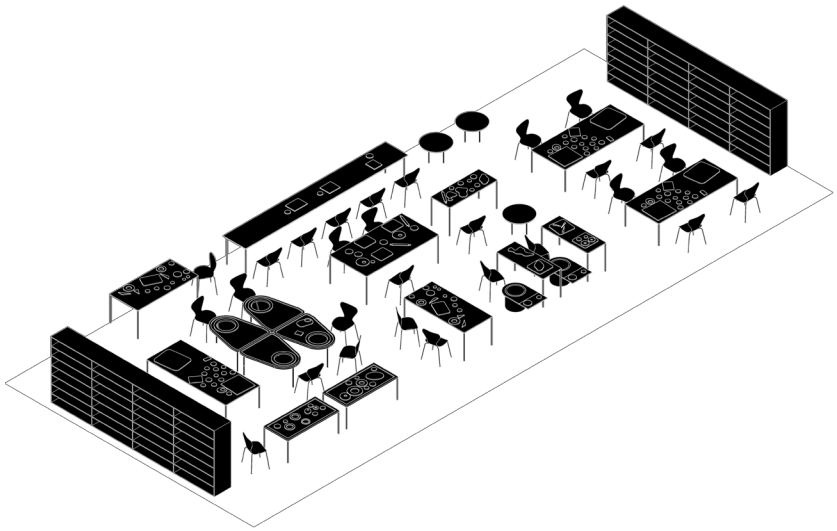


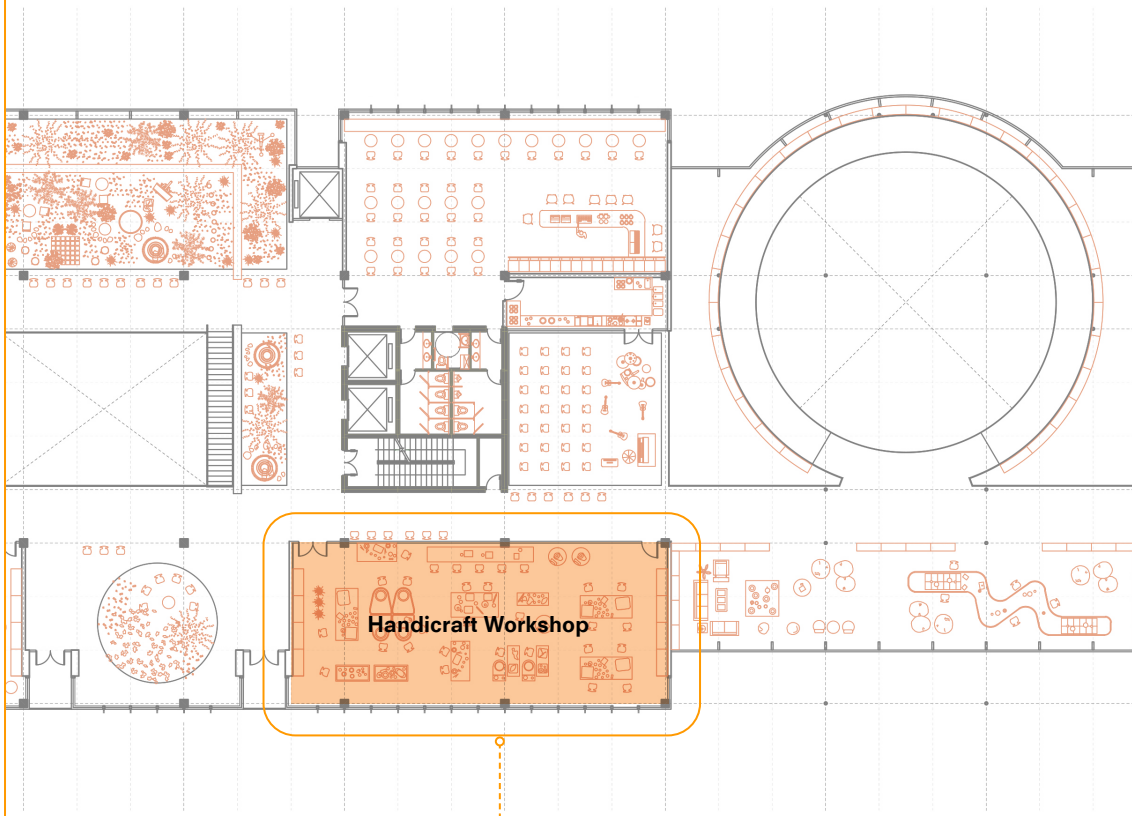




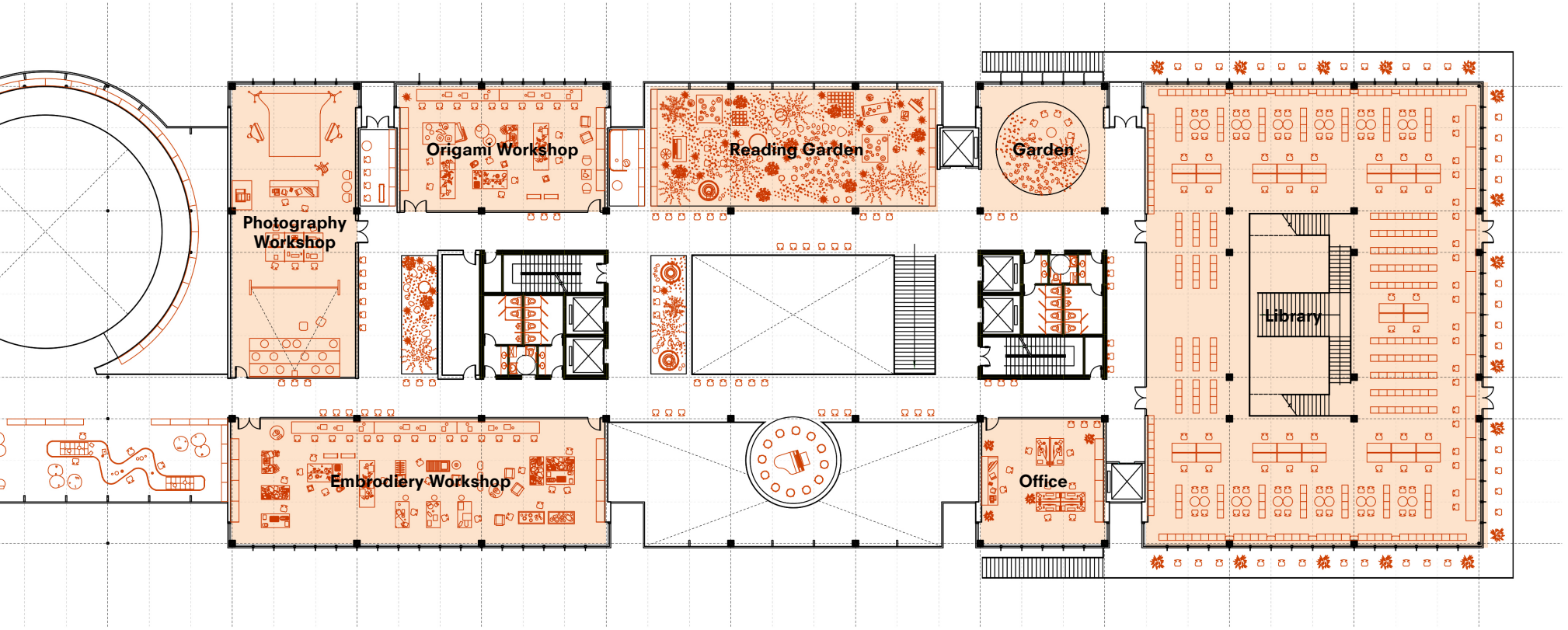
HANDICRAFT WORKSHOP



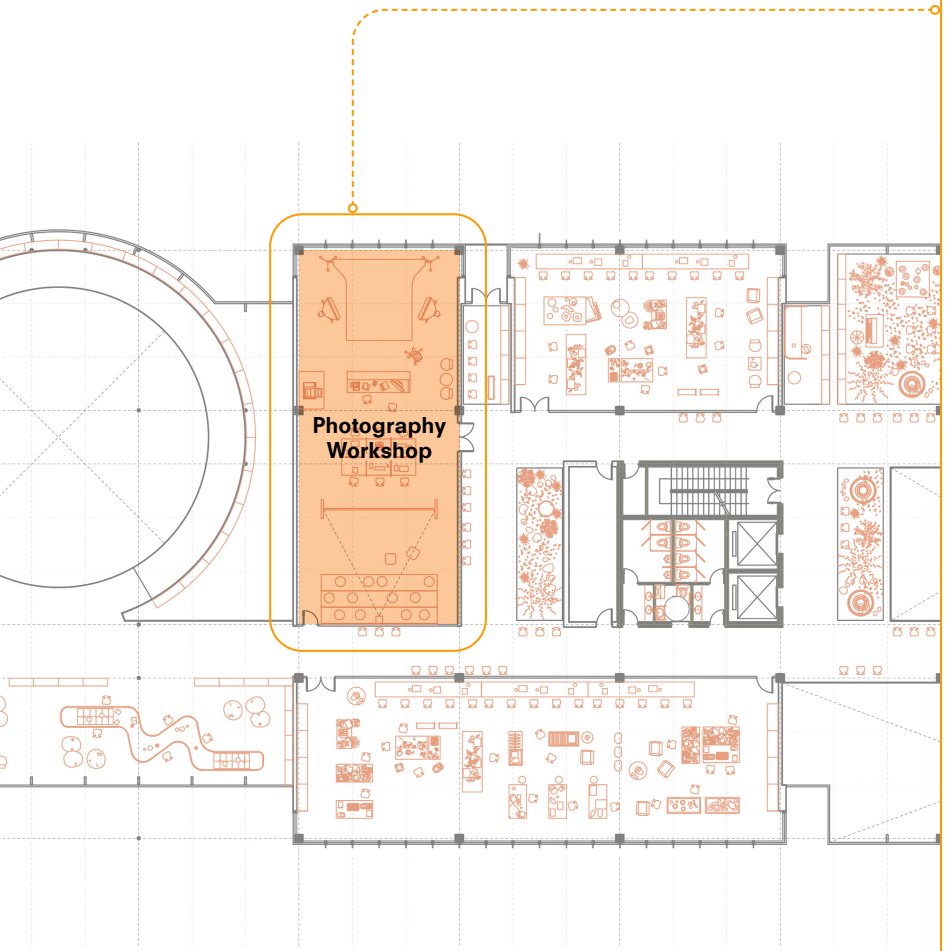


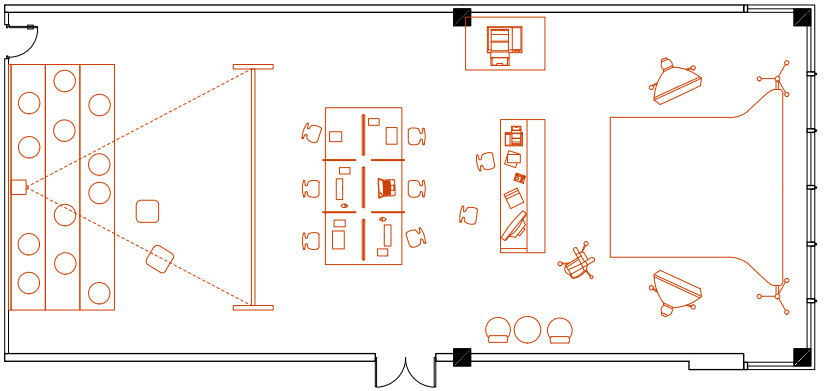


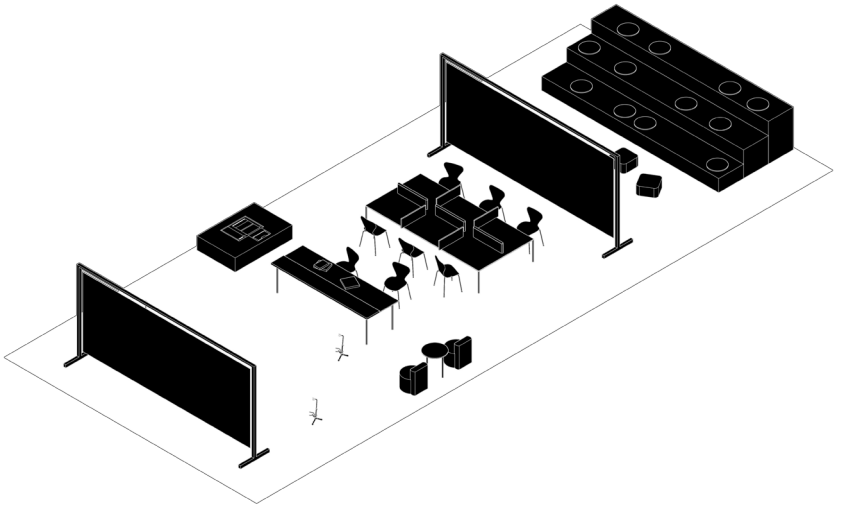
VISUAL WORKSHOP



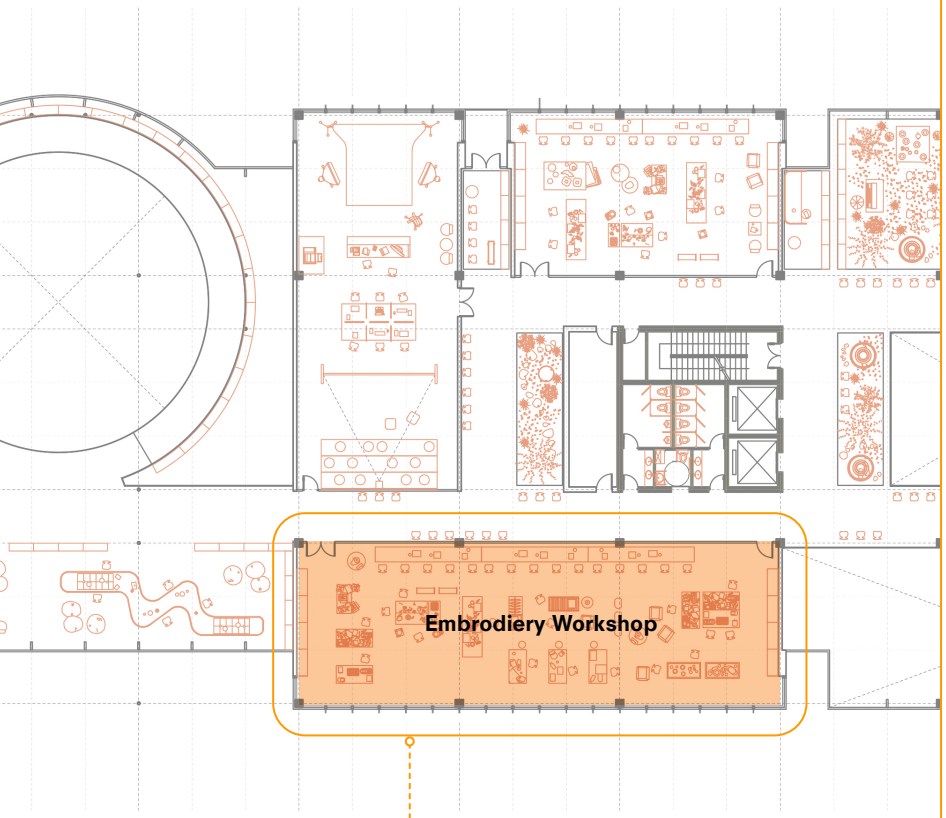
PHOTOGRAPHY WORKSHOP

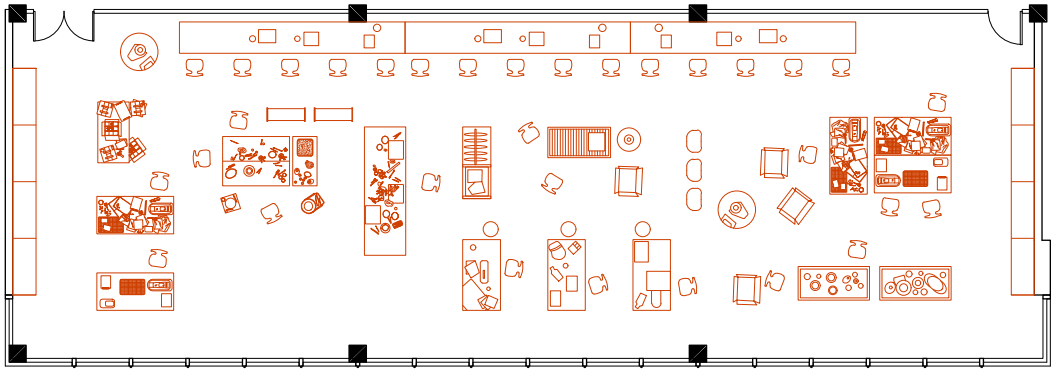


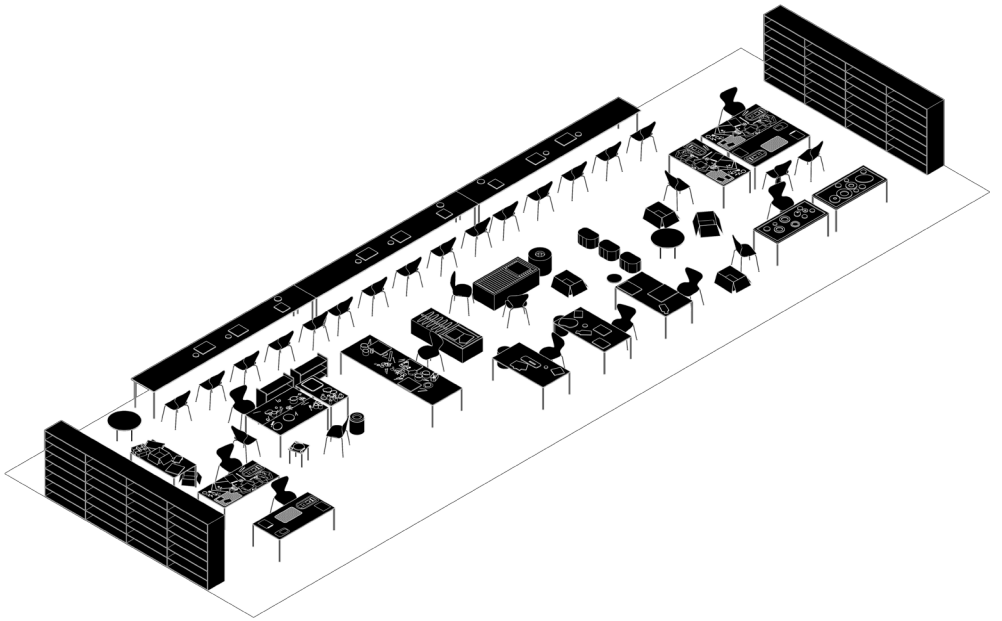




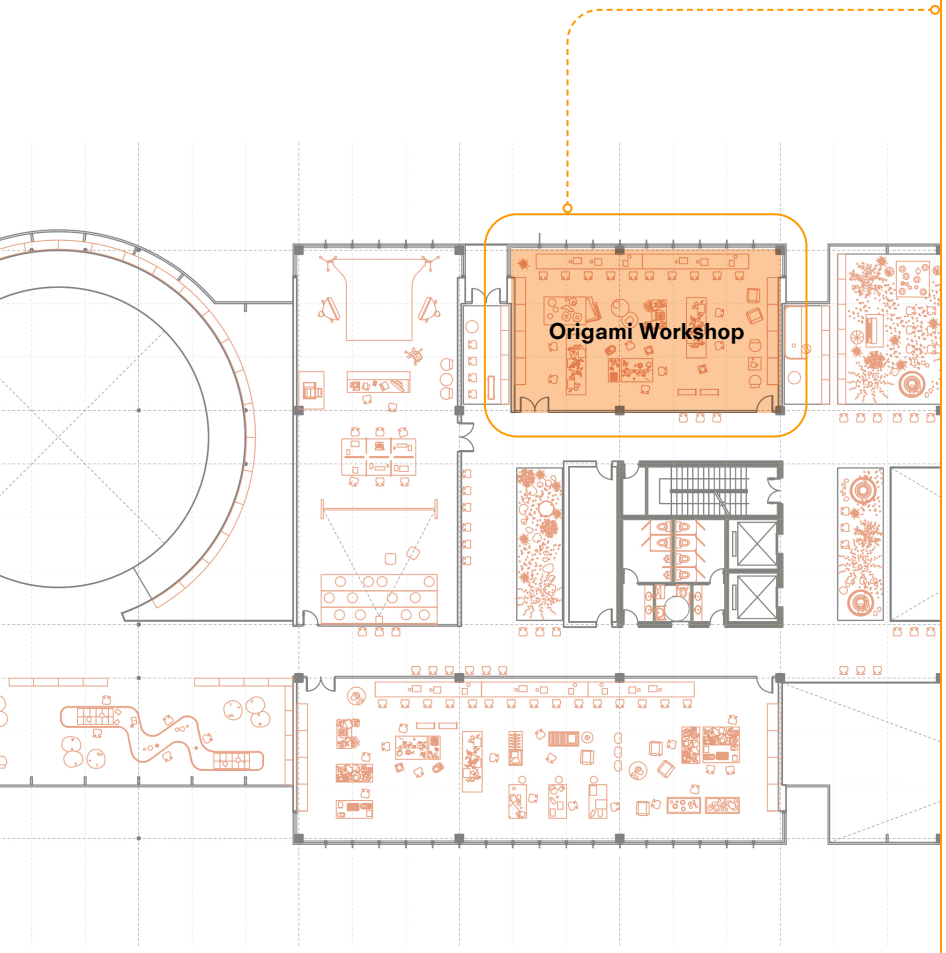
EMBRODIERY WORKSHOP

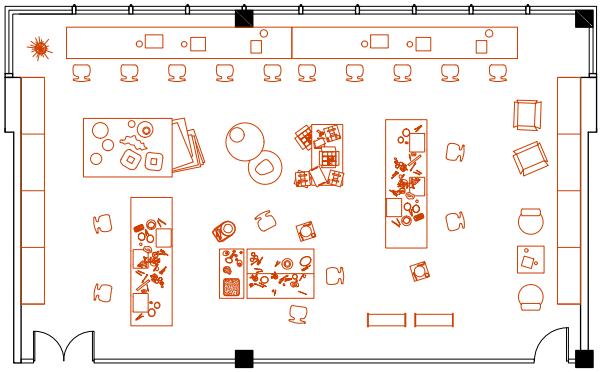


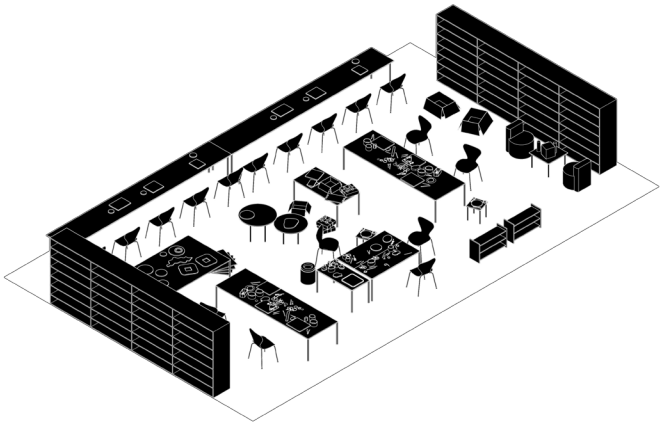




ORIGAMI WORKSHOP



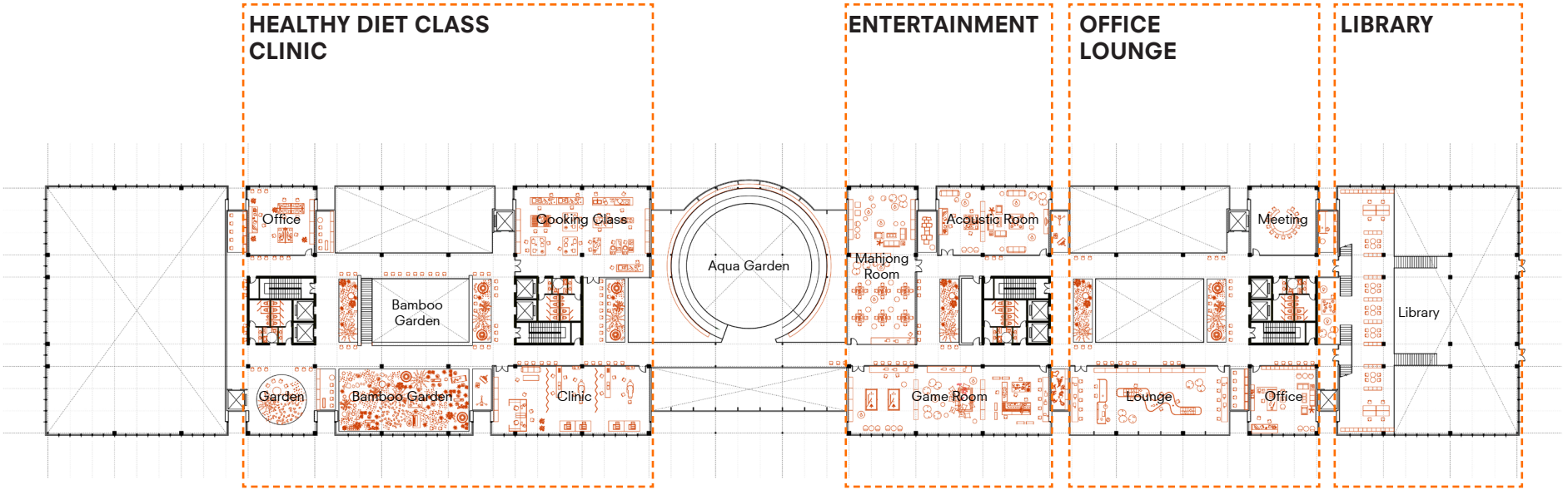




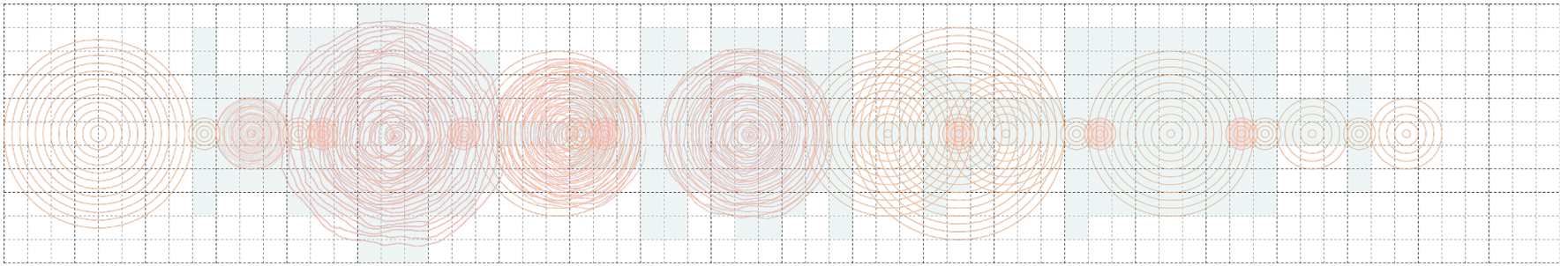
THIRD FLOOR PLAN

HEALTH-RELATED AREA / LEISURE LOUNGE

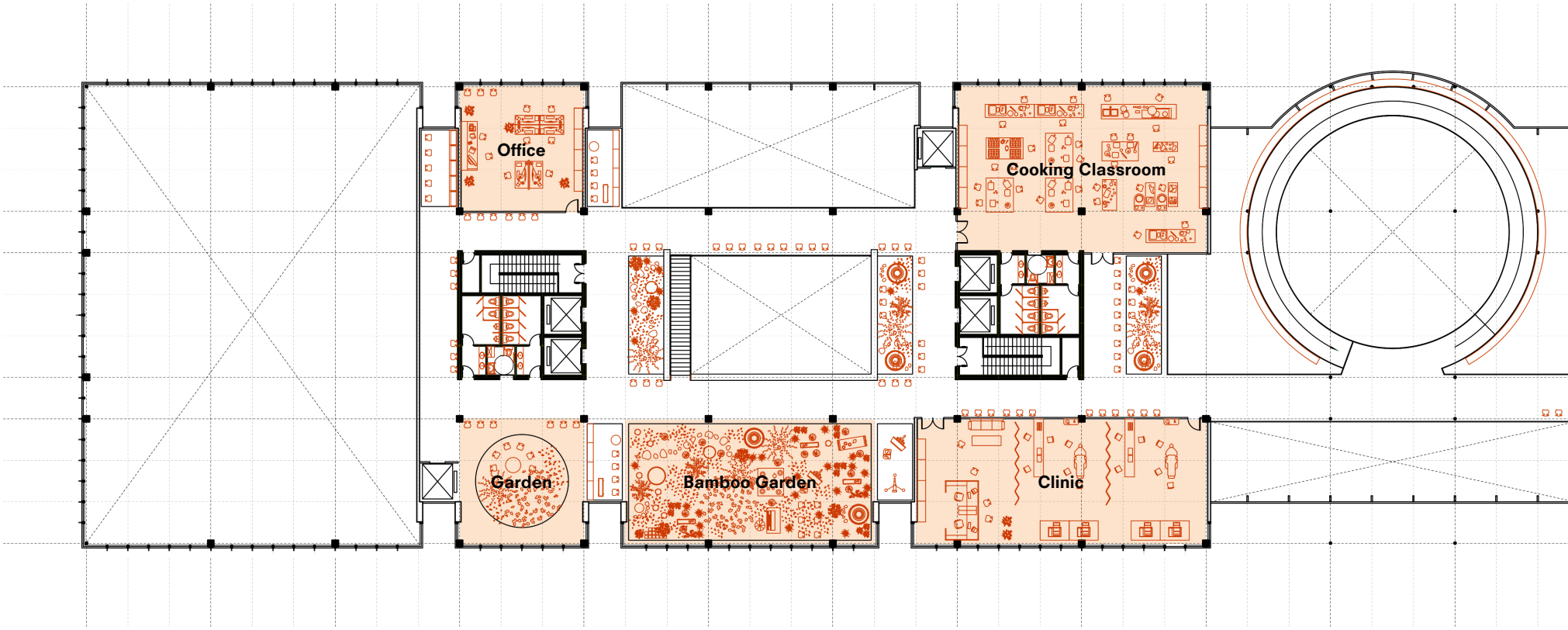




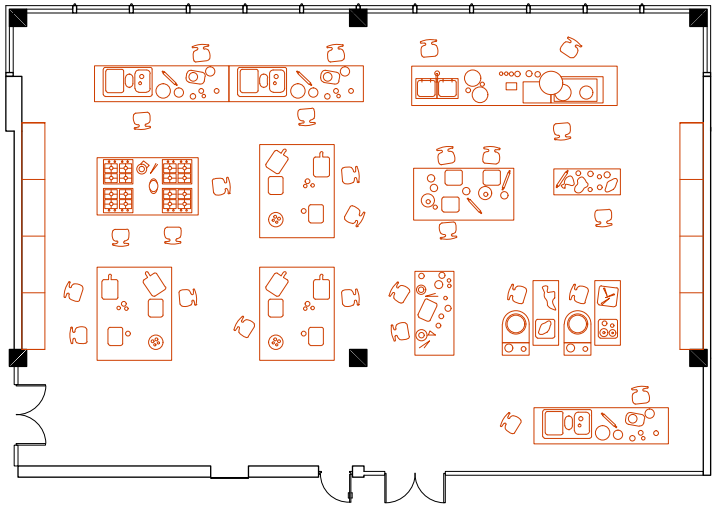
SPACE RHYTHMN: VISION + SMELL + HEARING

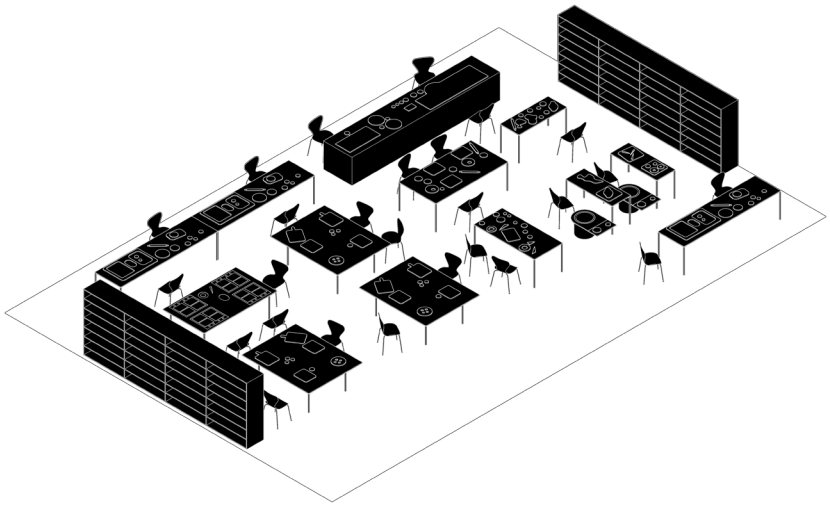


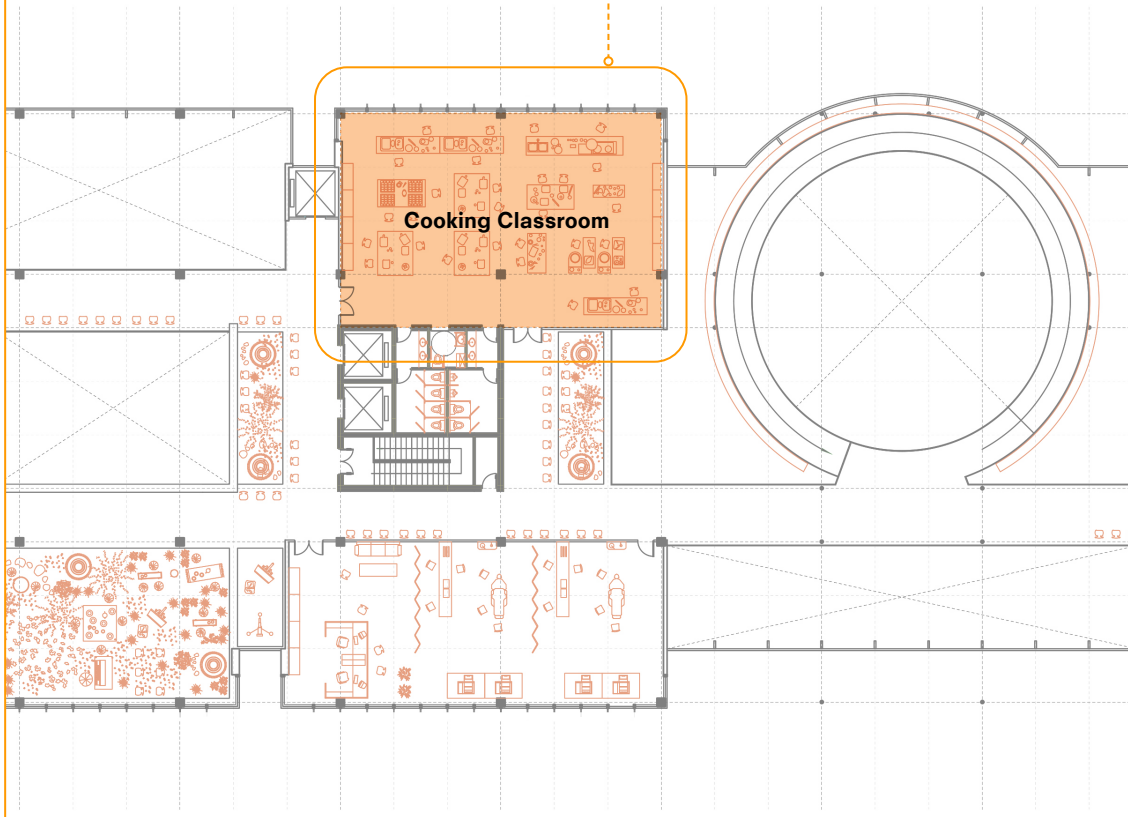
HEALTH-RELATED AREA



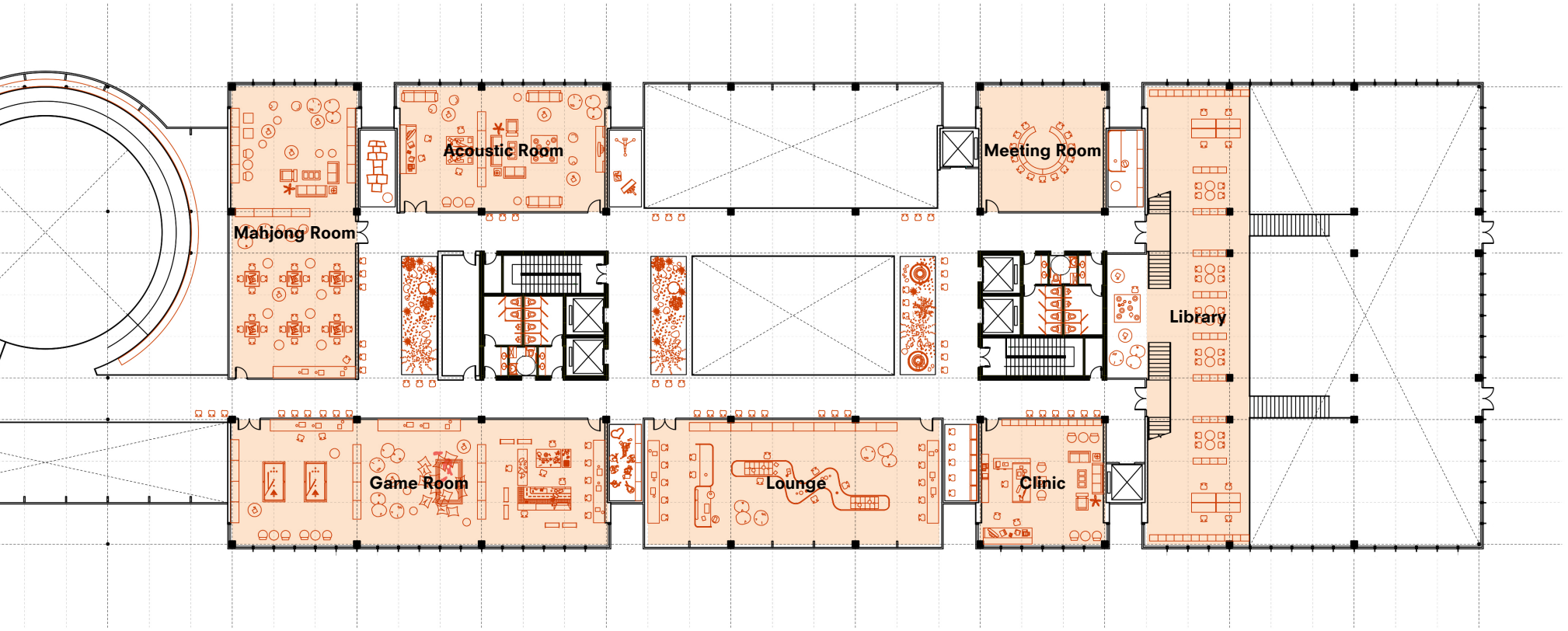
COOKING CLASSROOM



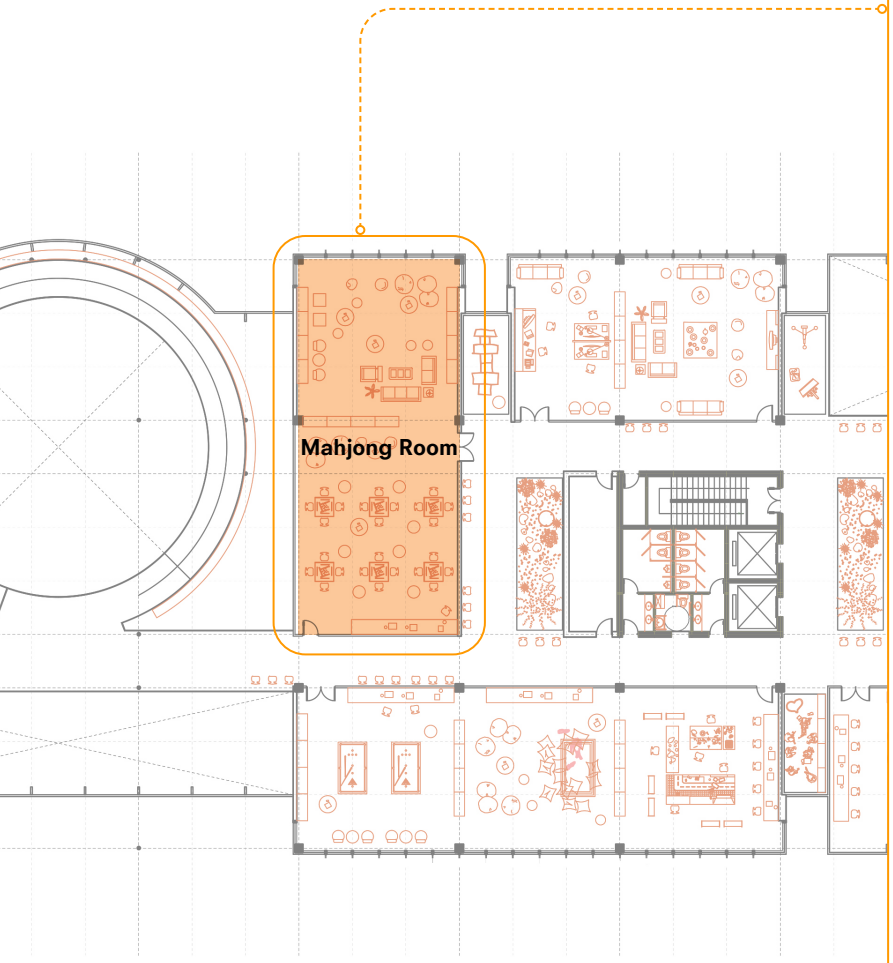


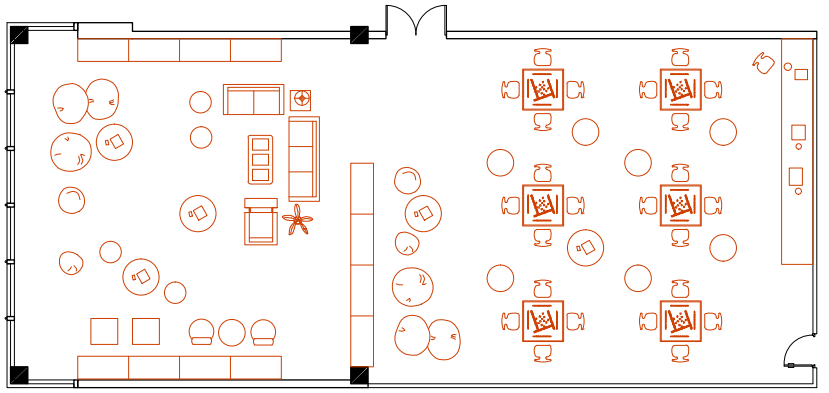


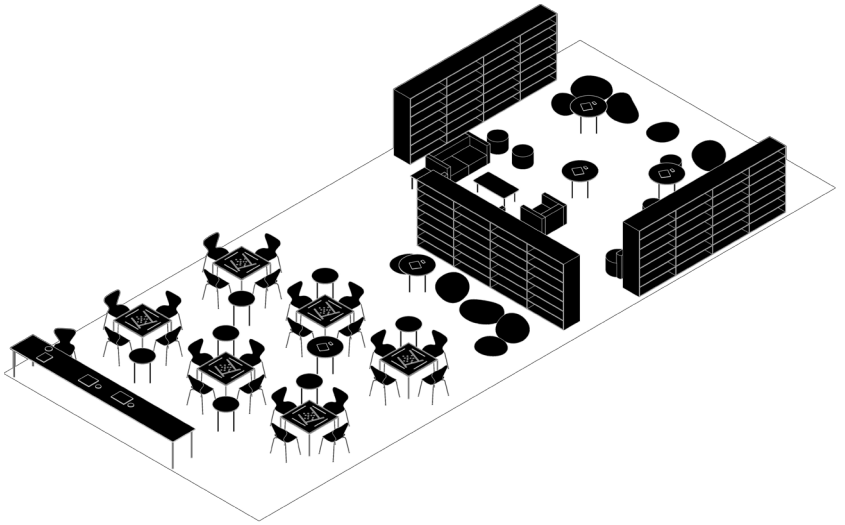
ENTERTAINMENT AREA



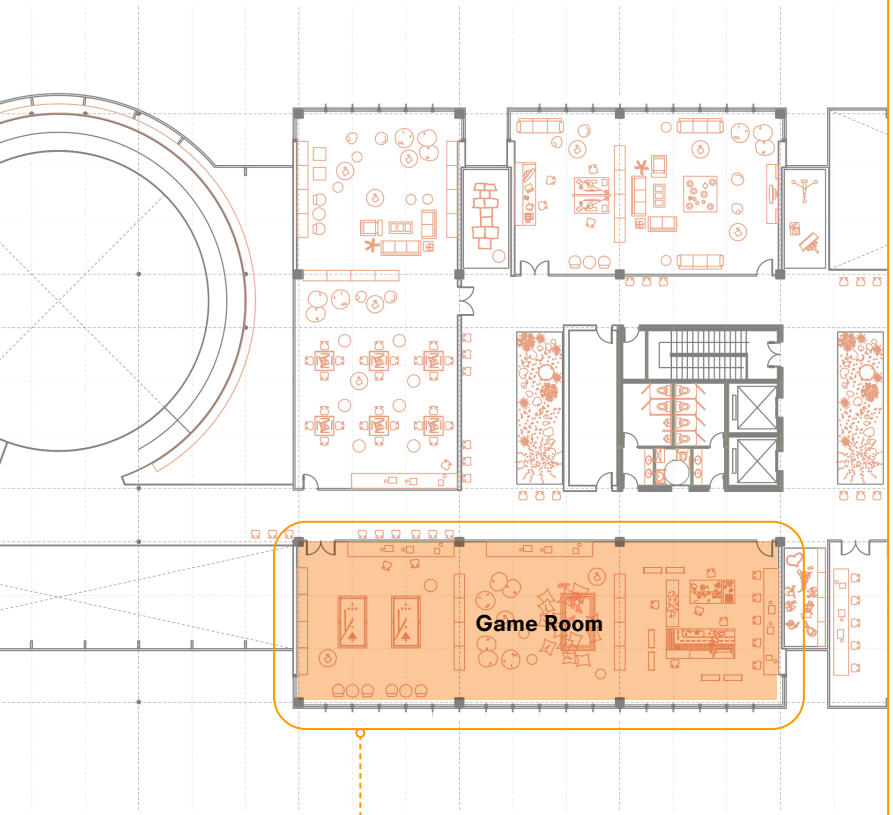
MAHJONG ROOM

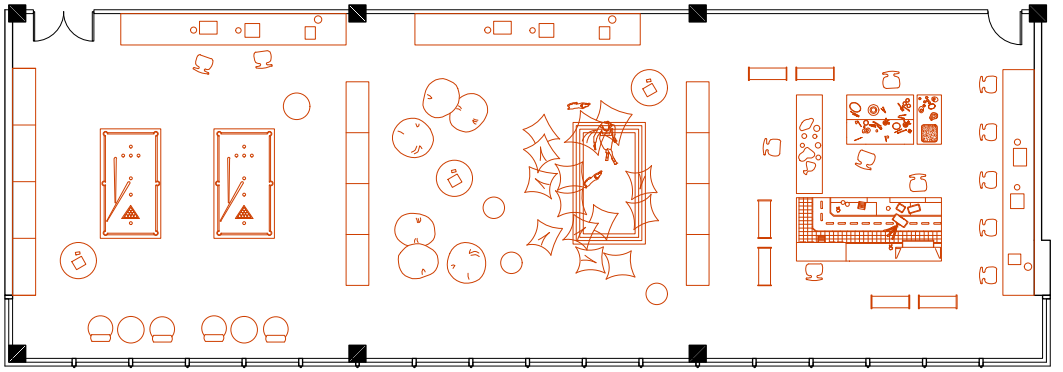


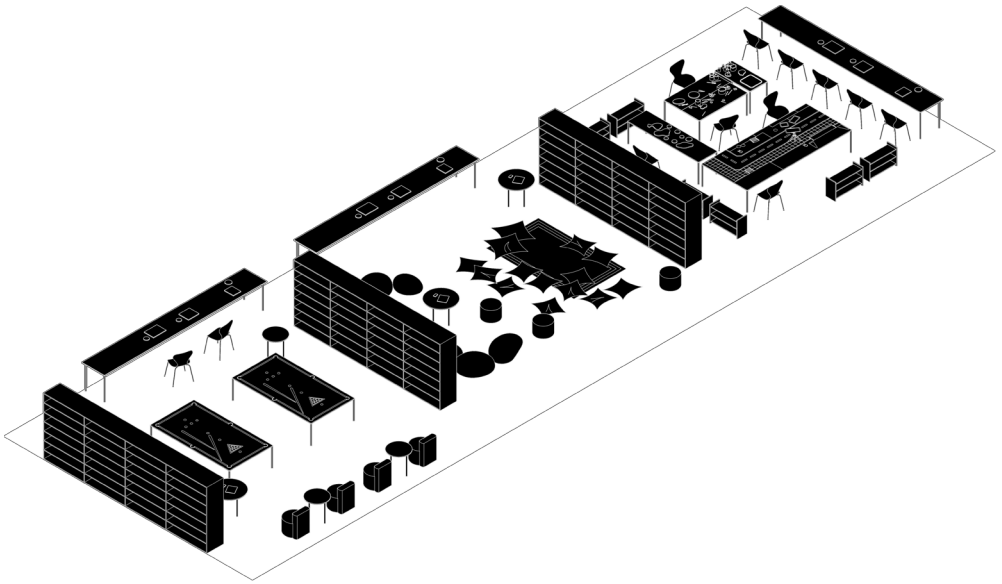




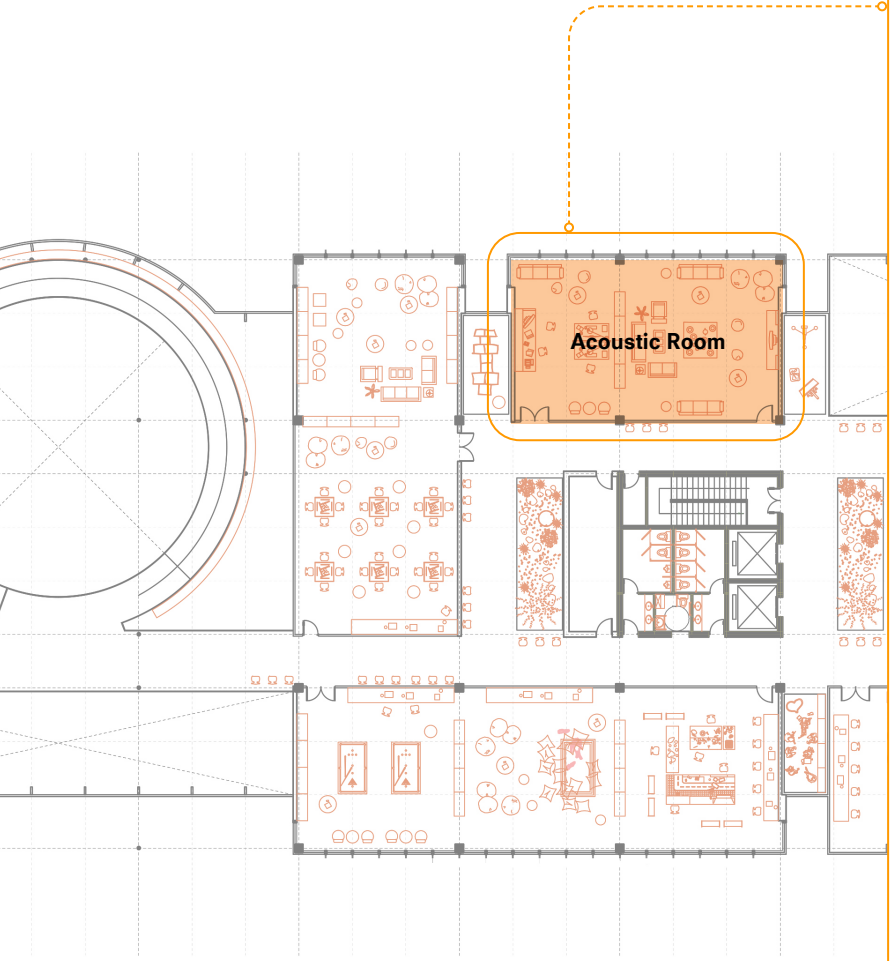
GAME ROOM

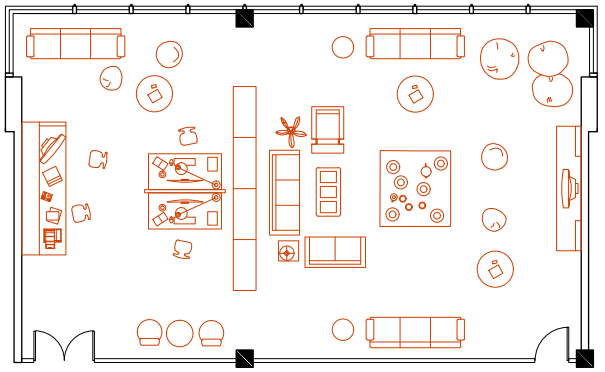


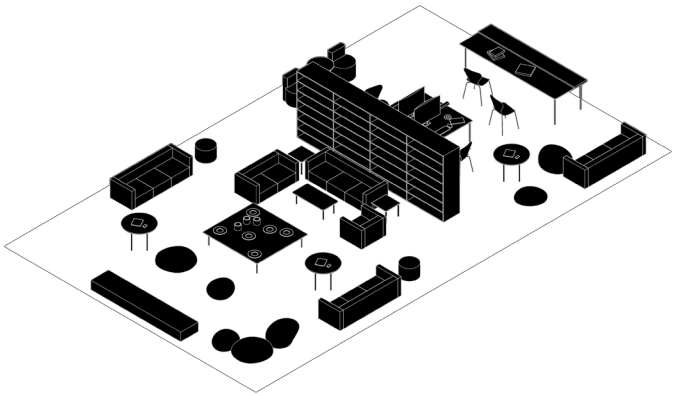




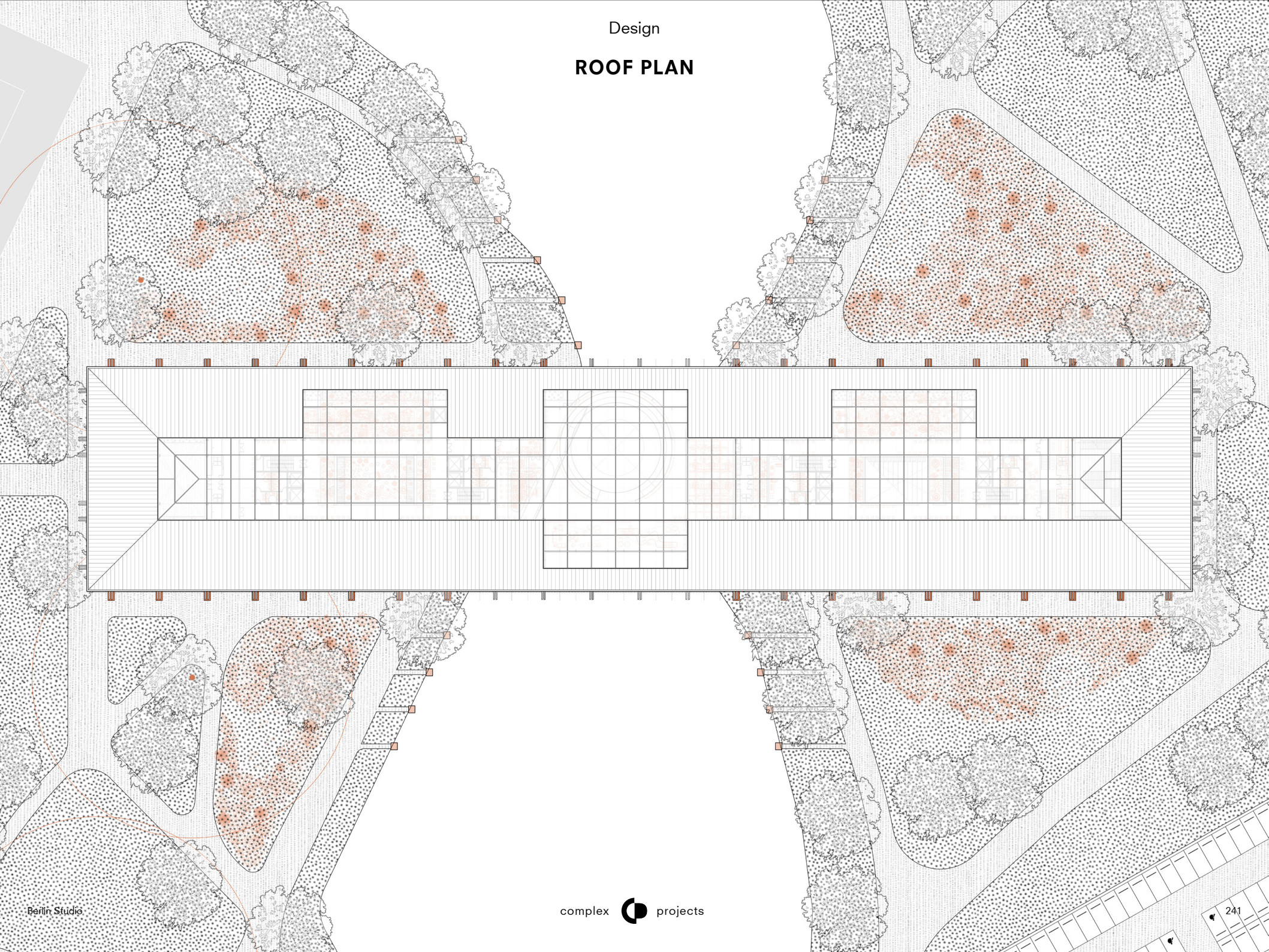
ACOUSTIC ROOM



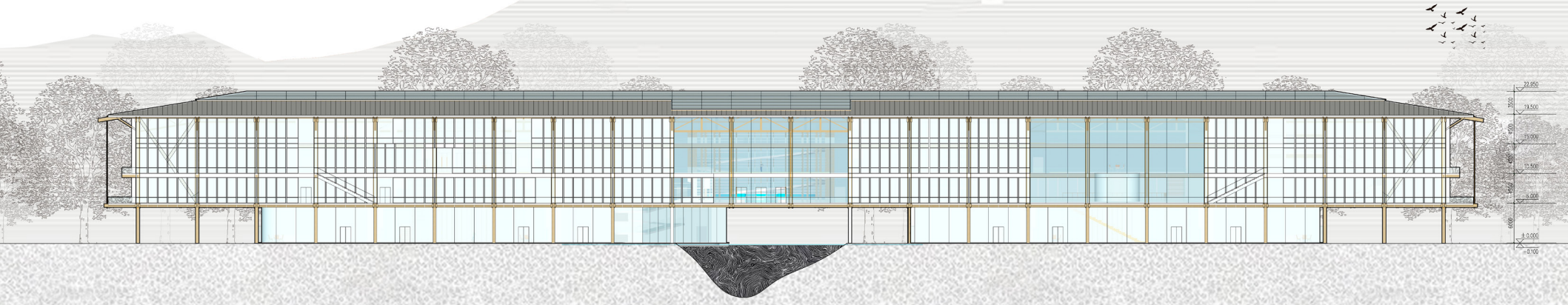




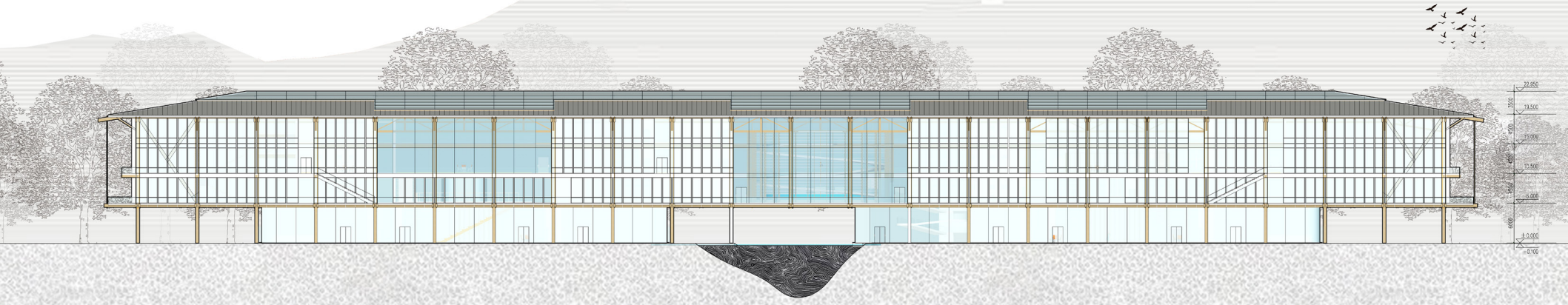
ROOF PLAN



ELEVATION



ELEVATION



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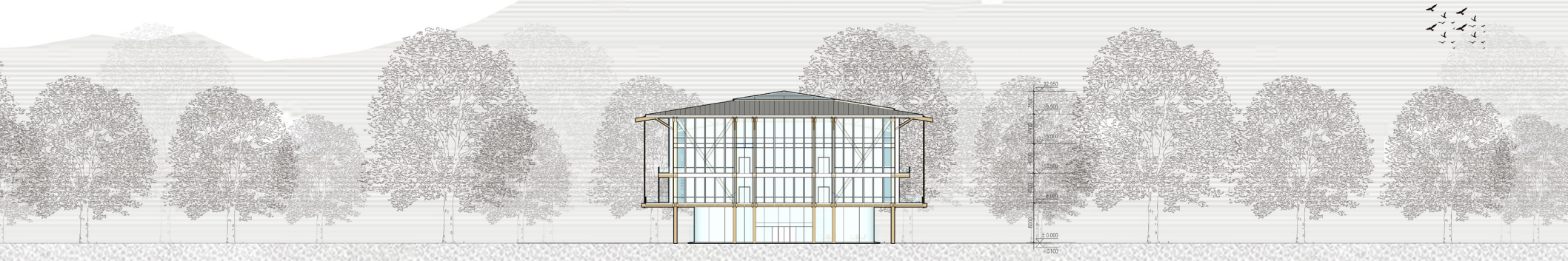
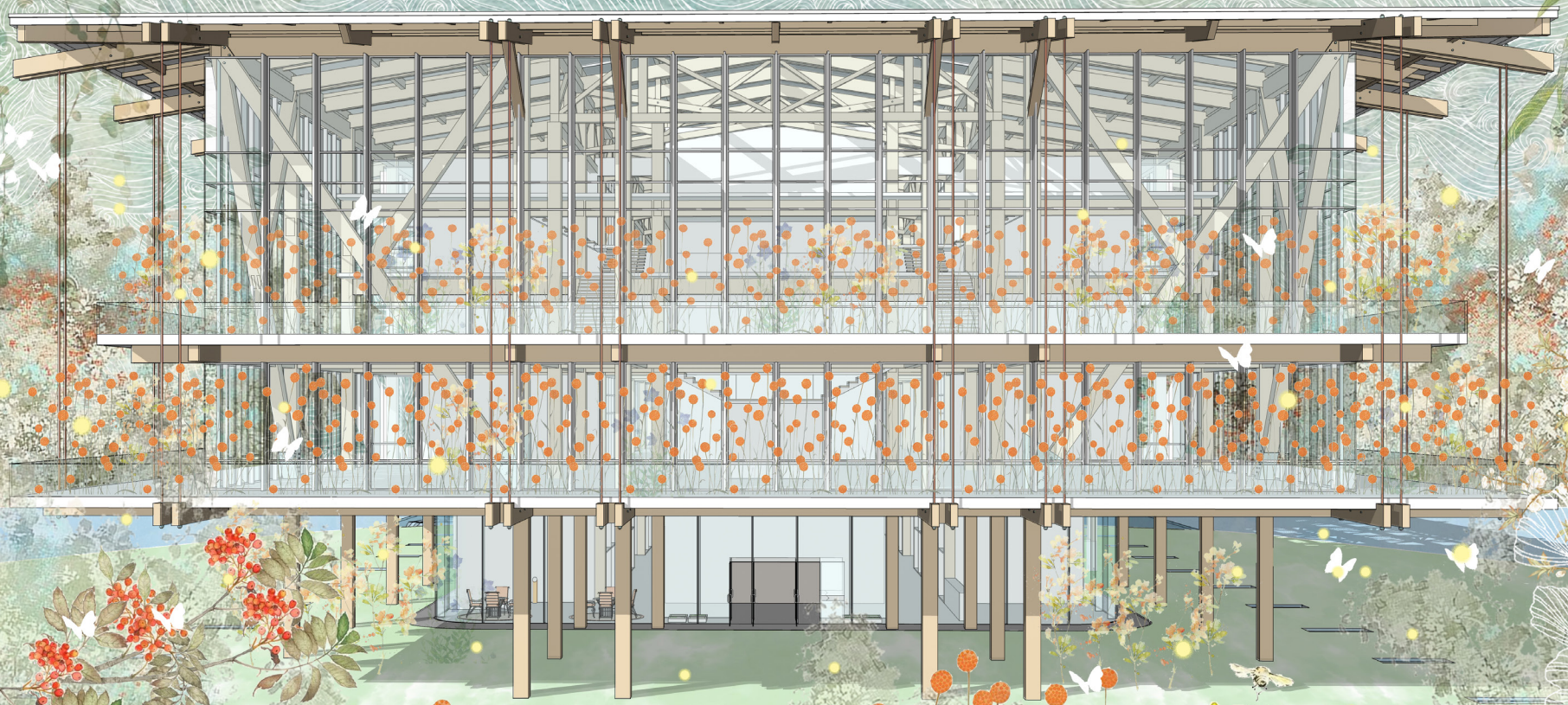




MATERIAL



TIMBER

AS

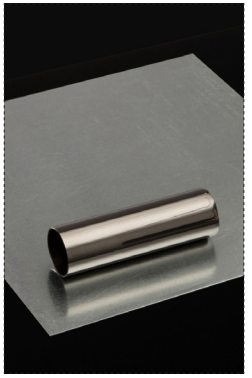
COLUMN
BEAM
WALL



GLASS

AS

FACADE



GALVANIZED STEEL

AS

BRACING
HANGER



CONCRETE

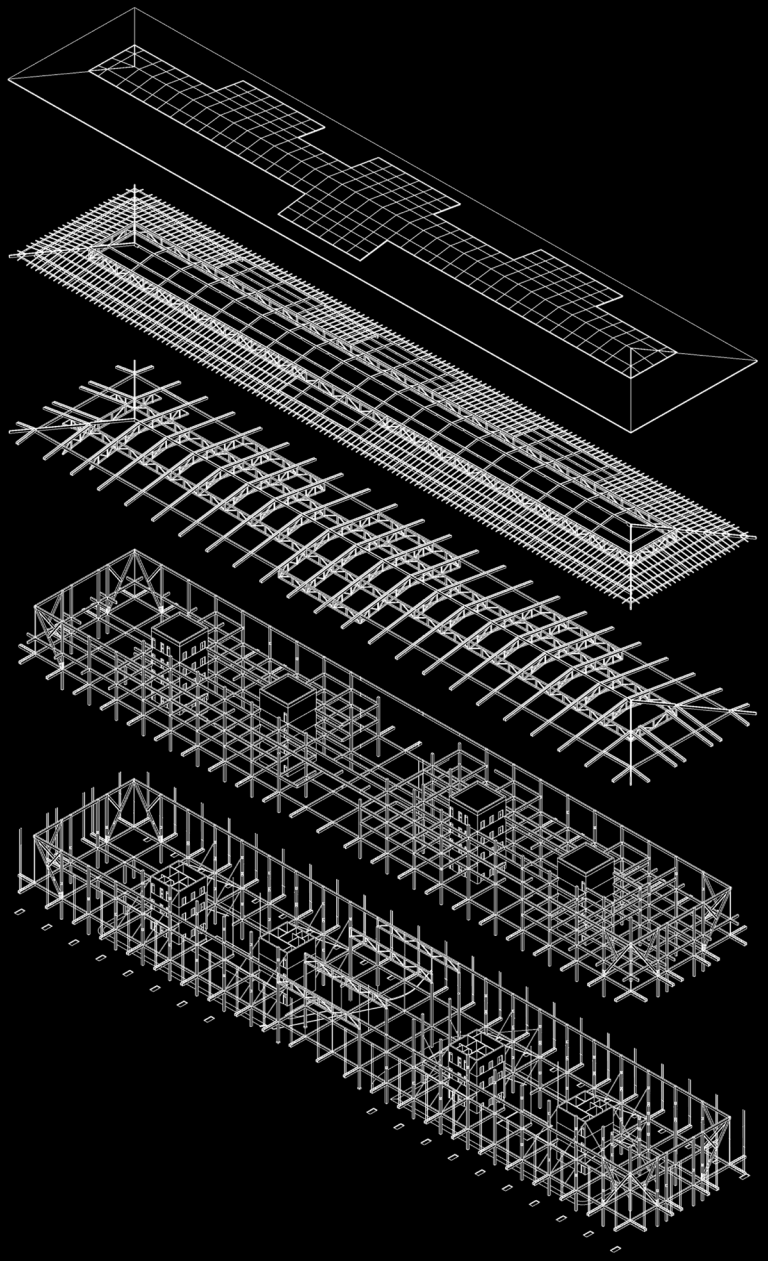
AS

CORE

STRUCTURE


Roof Skylight
Purlin and Rafter
Beam and Truss
Concrete Core, Beam and Column
Third Floor
Second Floor
Indoor Garden
First Floor
Ground Floor
Bracing and Hanger

STRUCTURE



Roof Skylight

Glass, Aluminum-magnesium-manganese alloy

Purlin and Rafter

Laminated veneer lumber

Beam and Truss

Glued laminated timber

Concrete Core, Beam and Column

Fair-faced concrete, Glued laminated timber

Bracing and Hanger

Galvanized steel wire

STRUCTURE

Interior Flooring

Dowel laminated timber

Interior Wall

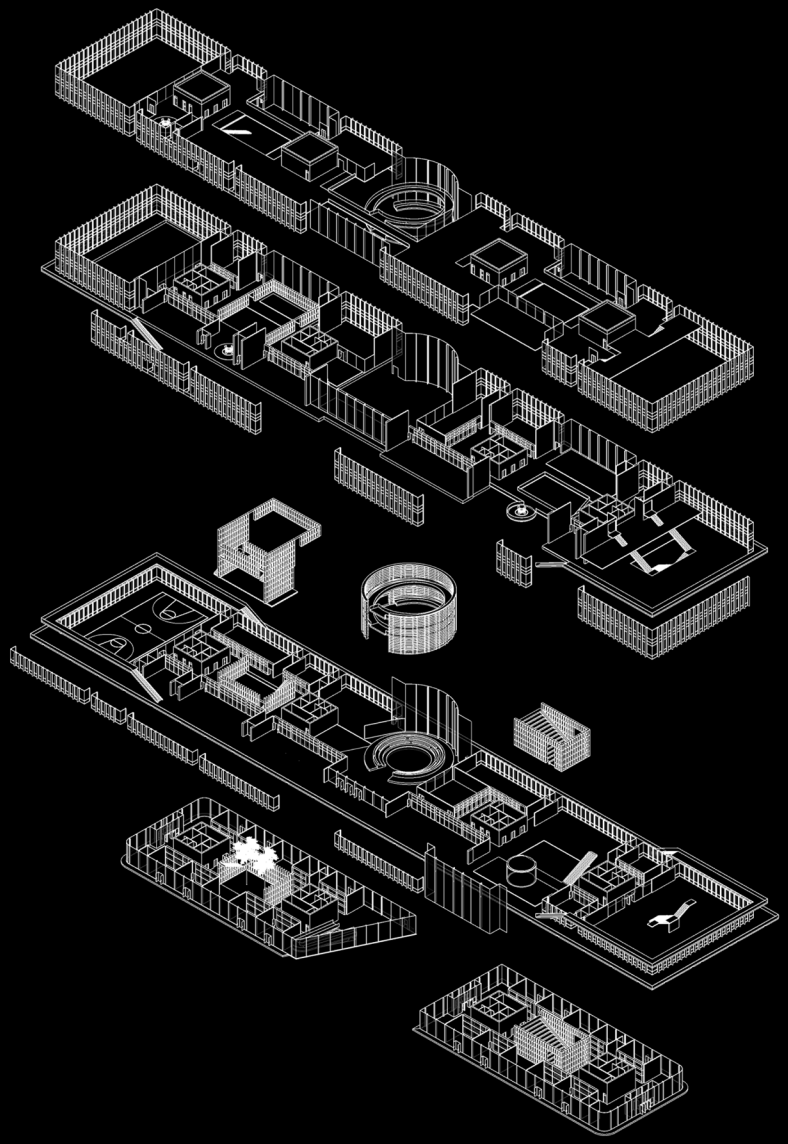
Dowel laminated timber

Facade

Glass

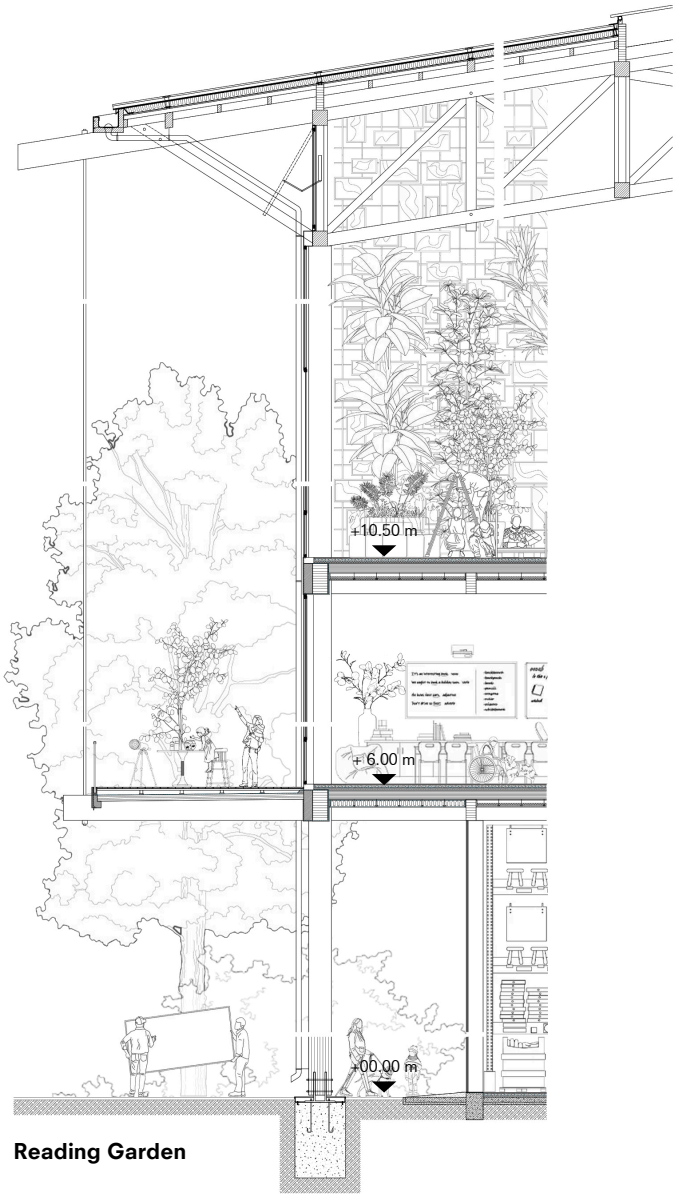
Veranda Flooring

Glued laminated timber



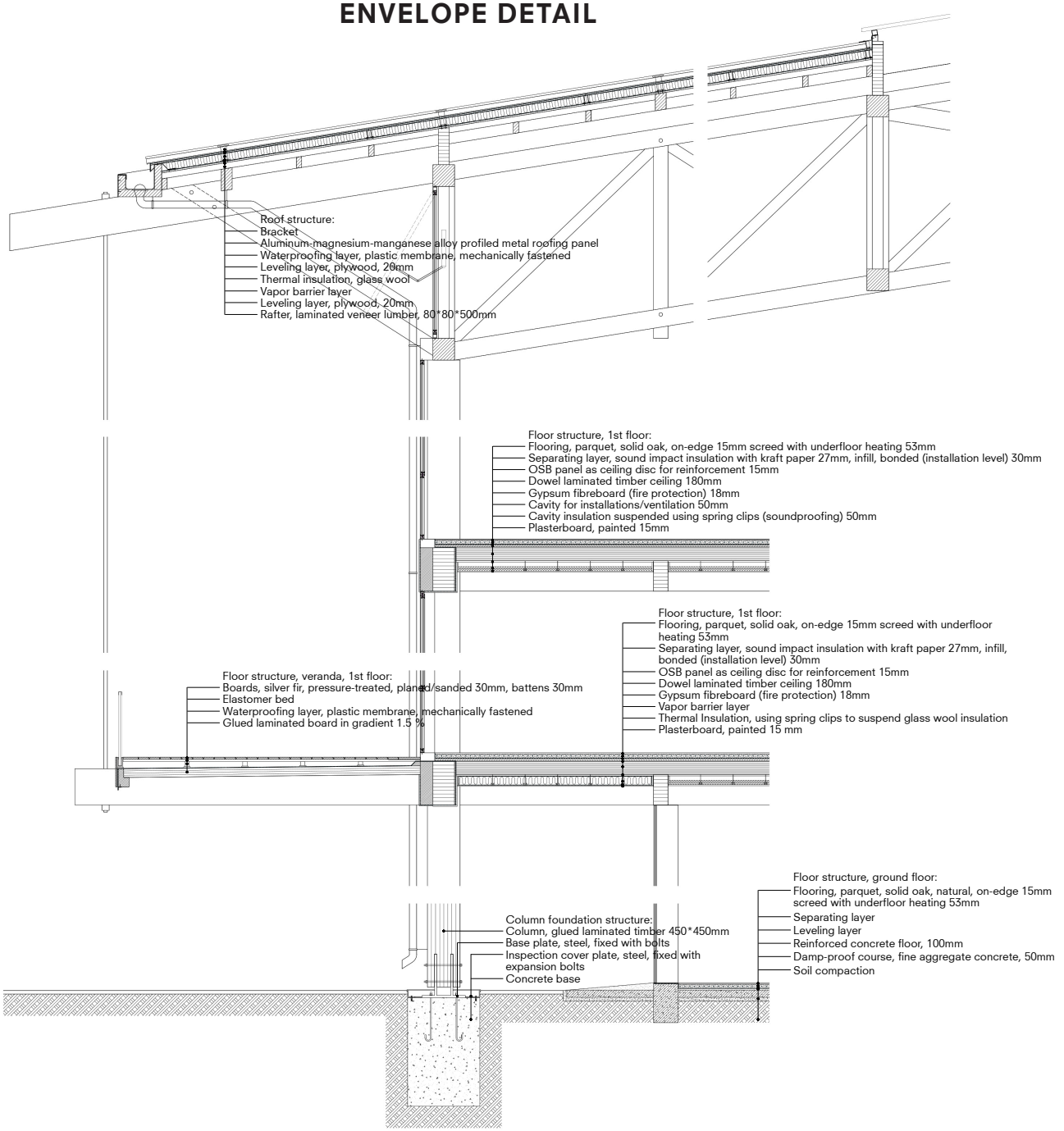
ENVELOPE DETAIL



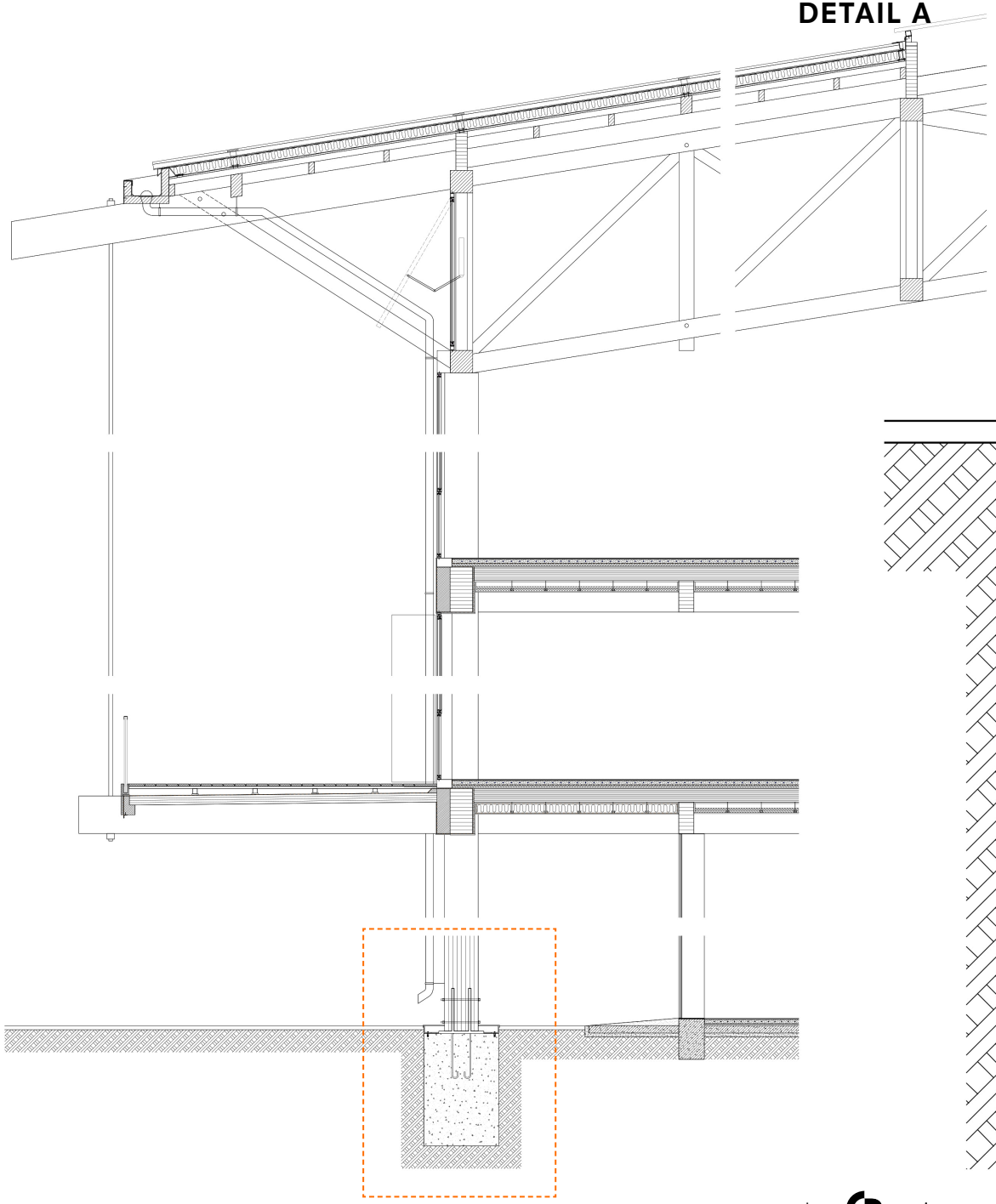


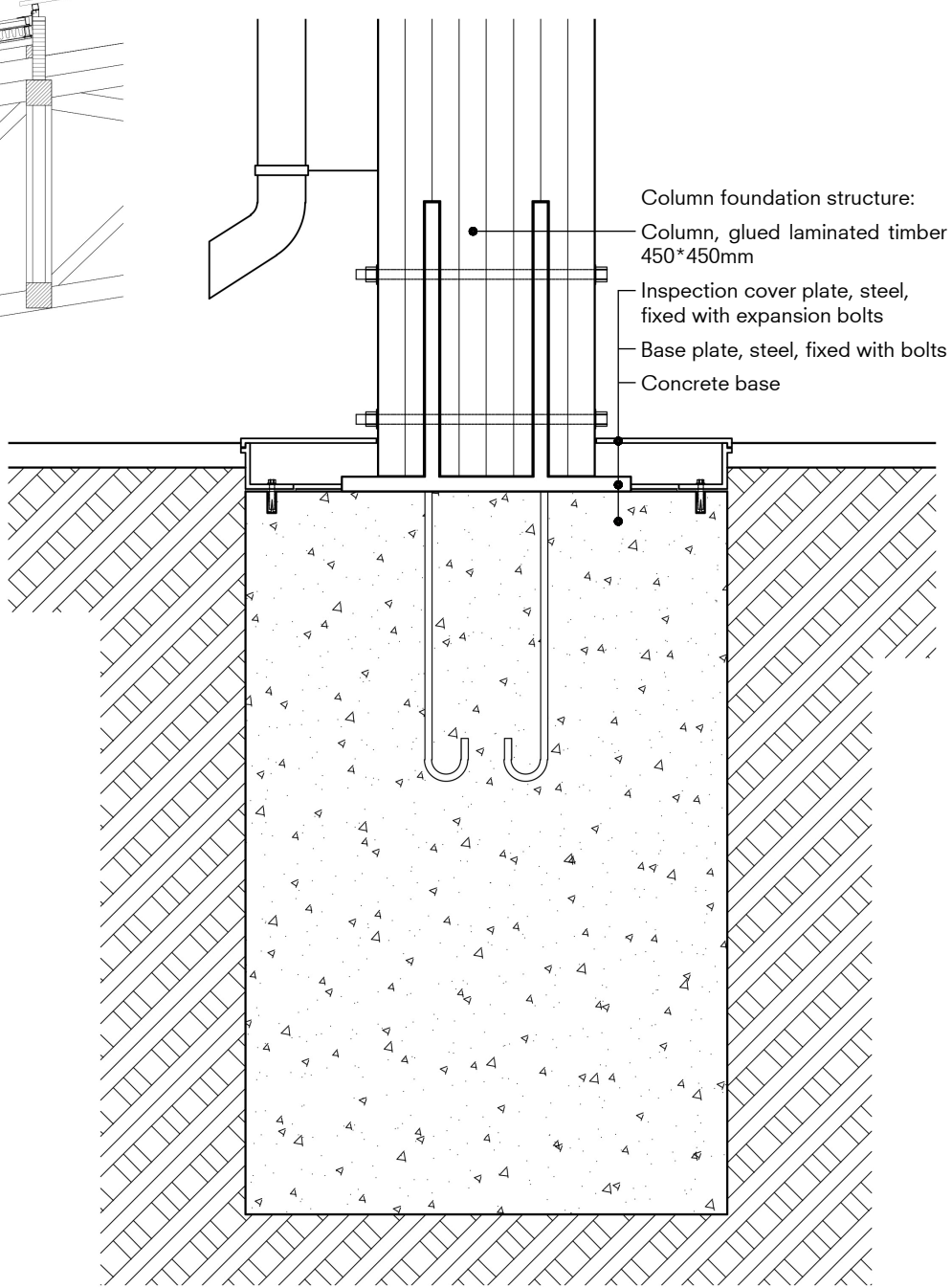
Reading Garden

ENVELOPE DETAIL

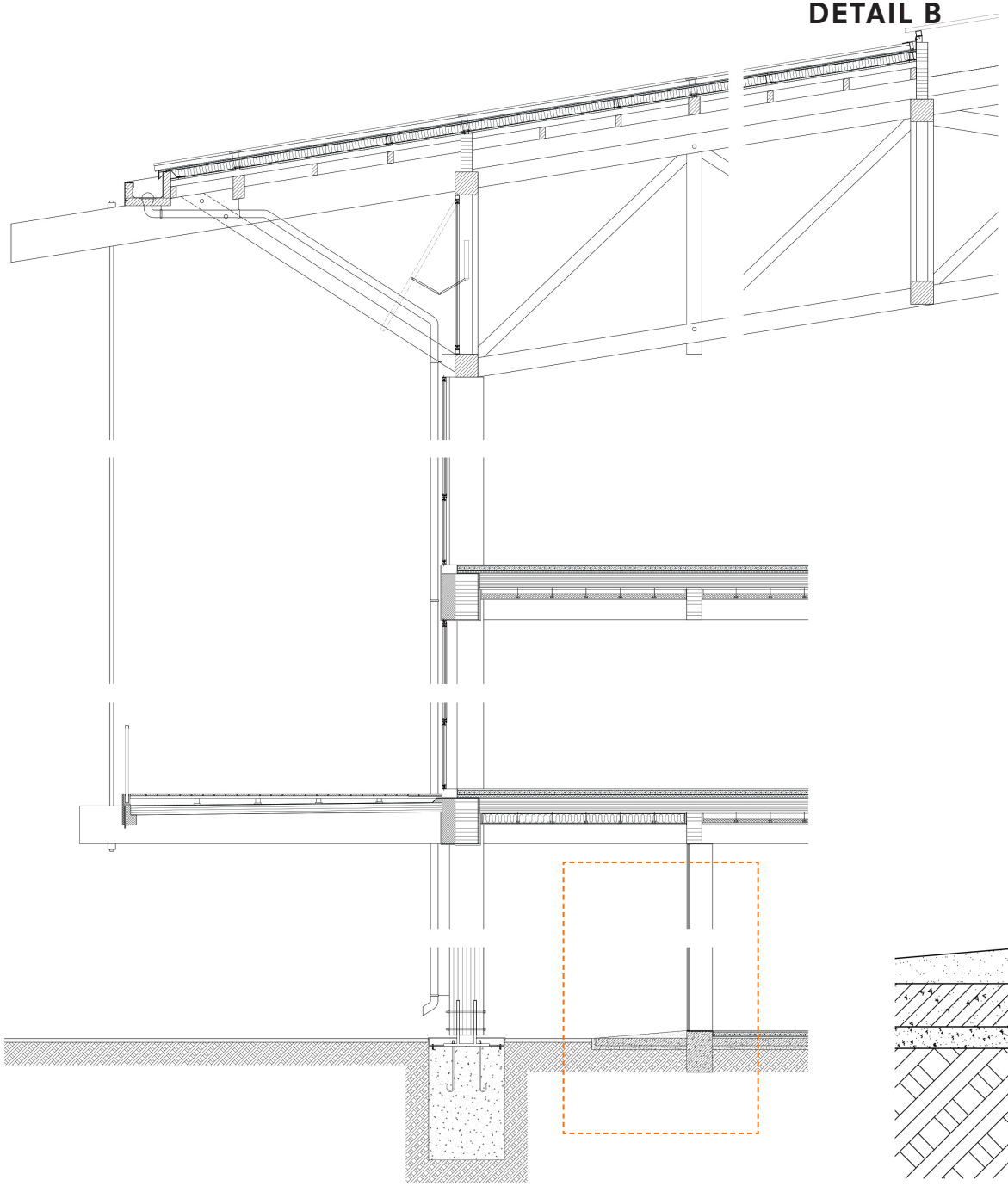


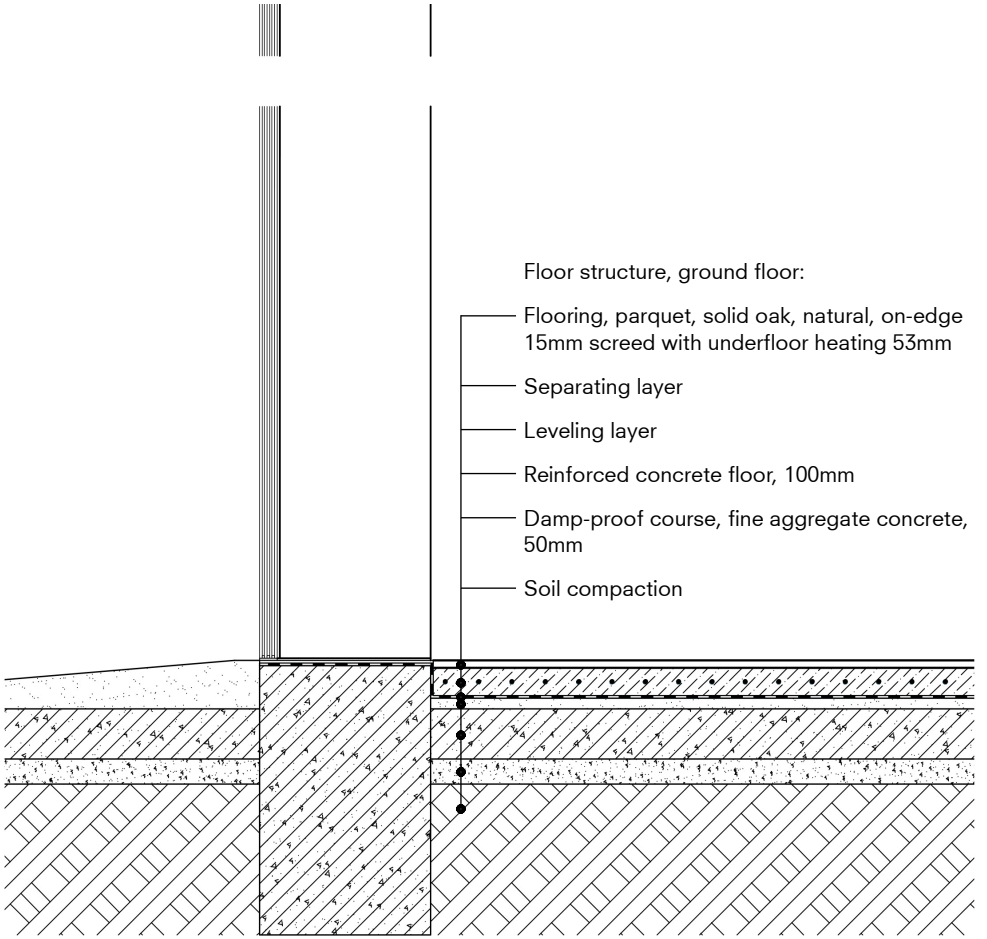
DETAIL A




Column foundation structure:
Column, glued laminated timber 450*450mm
Inspection cover plate, steel, fixed with expansion bolts
Base plate, steel, fixed with bolts
Concrete base

DETAIL B

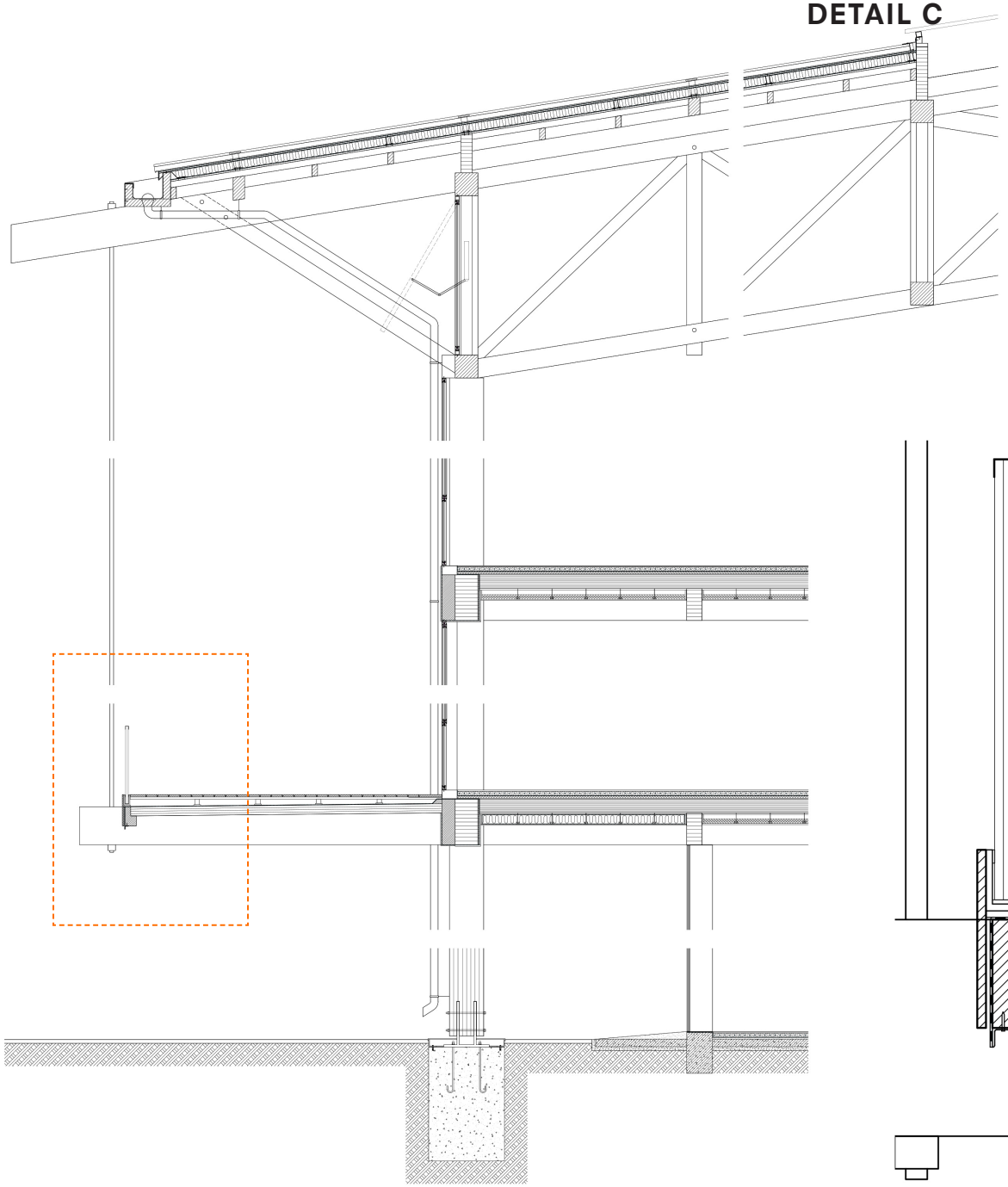


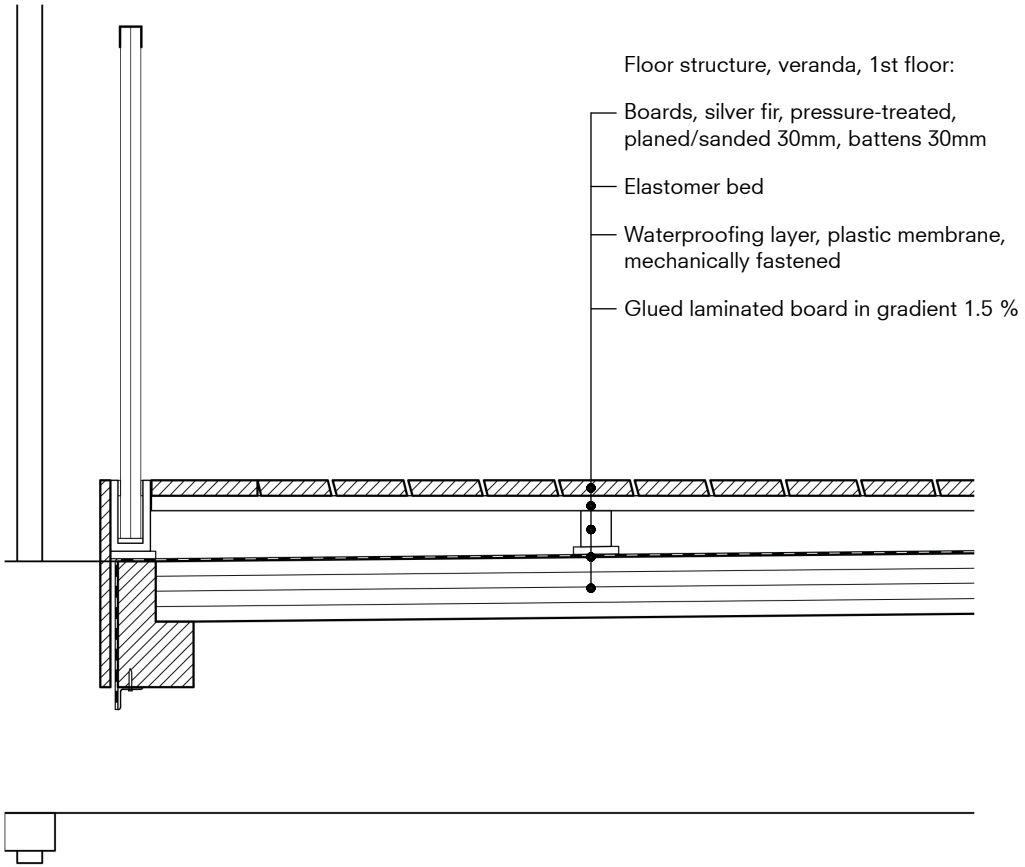


Floor structure, ground floor:

- Flooring, parquet, solid oak, natural, on-edge 15mm screed with underfloor heating 53mm
- Separating layer
- Leveling layer
- Reinforced concrete floor, 100mm
- Damp-proof course, fine aggregate concrete, 50mm
- Soil compaction

DETAIL C

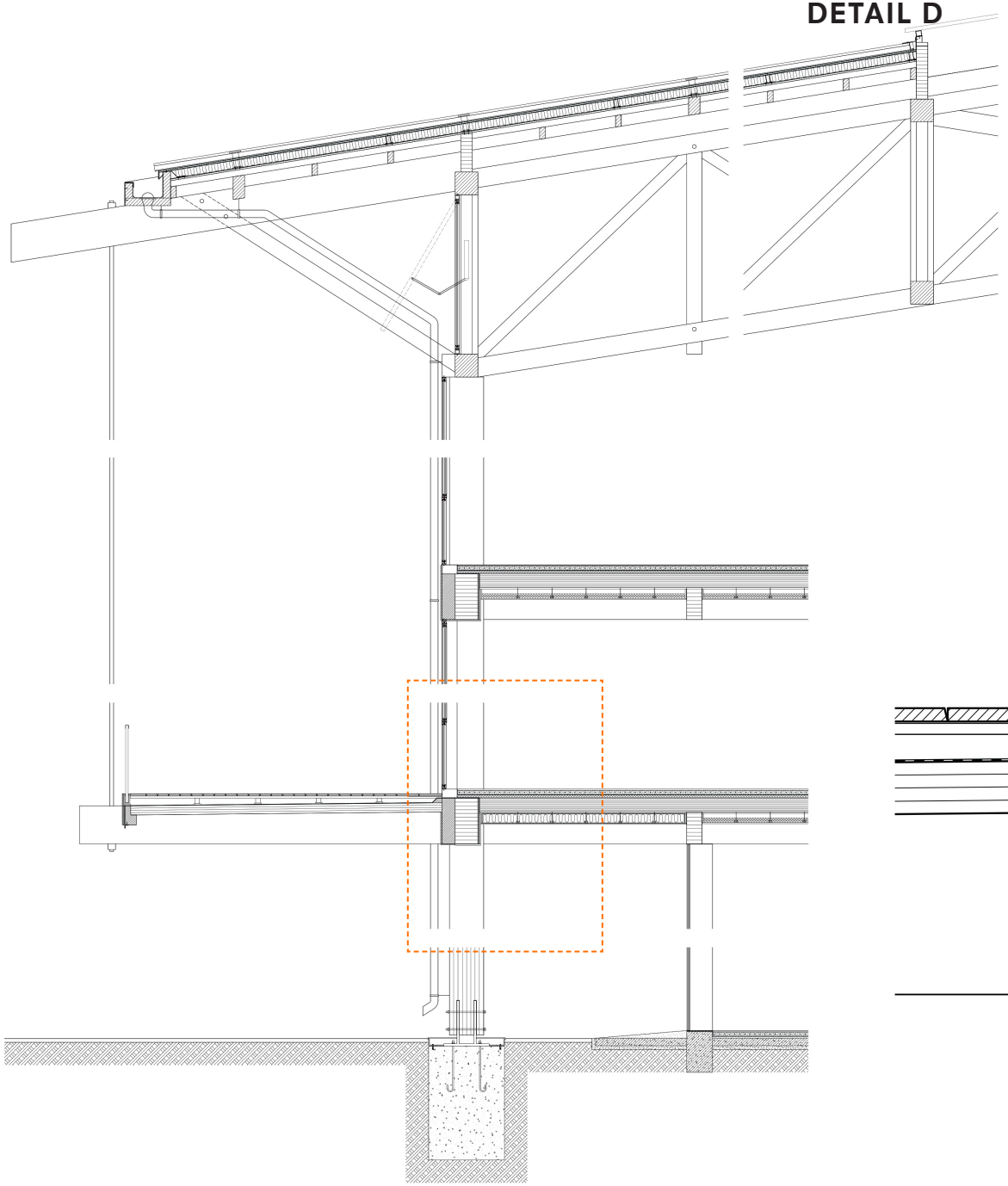


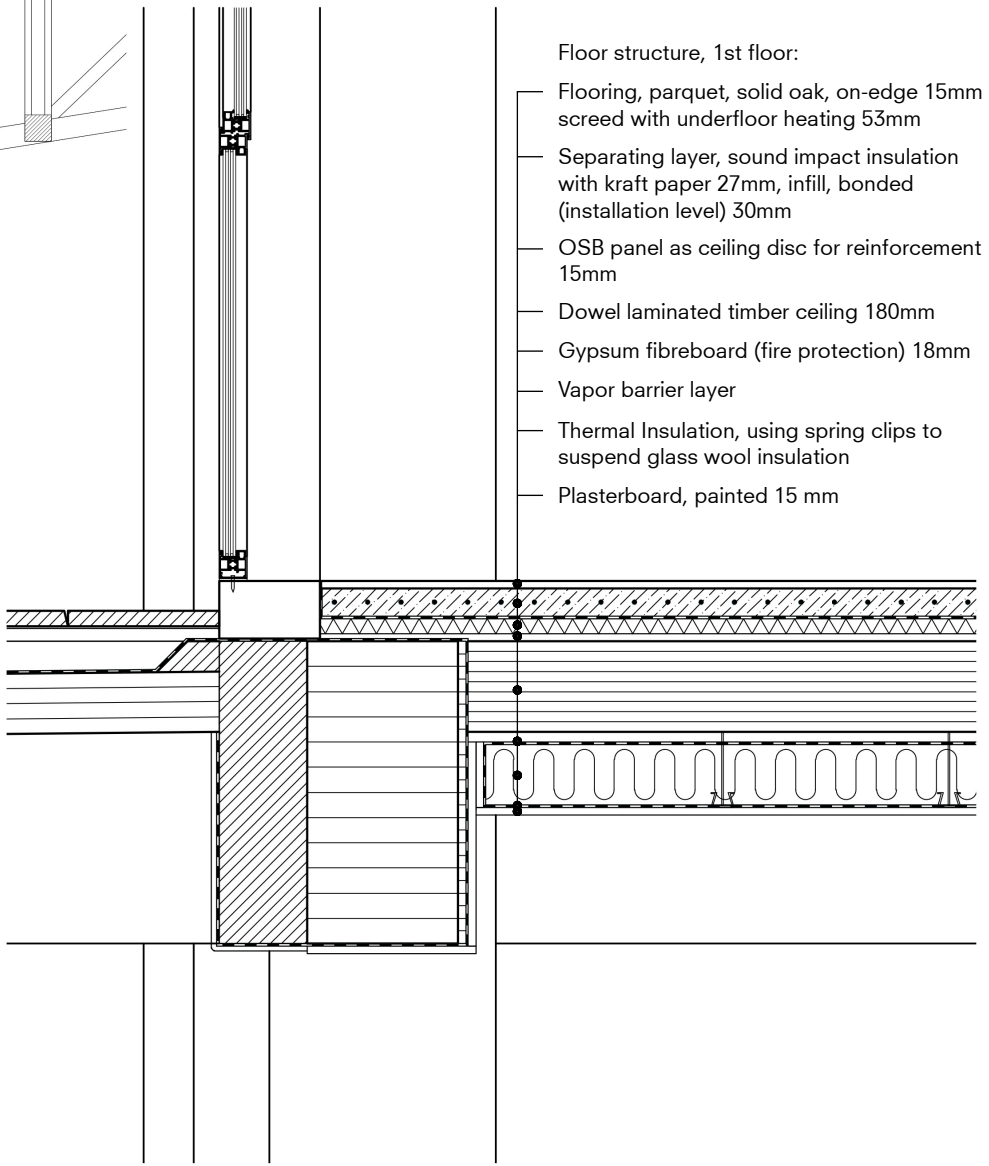


Floor structure, veranda, 1st floor:

- Boards, silver fir, pressure-treated, planed/sanded 30mm, battens 30mm
- Elastomer bed
- Waterproofing layer, plastic membrane, mechanically fastened
- Glued laminated board in gradient 1.5 %

DETAIL D

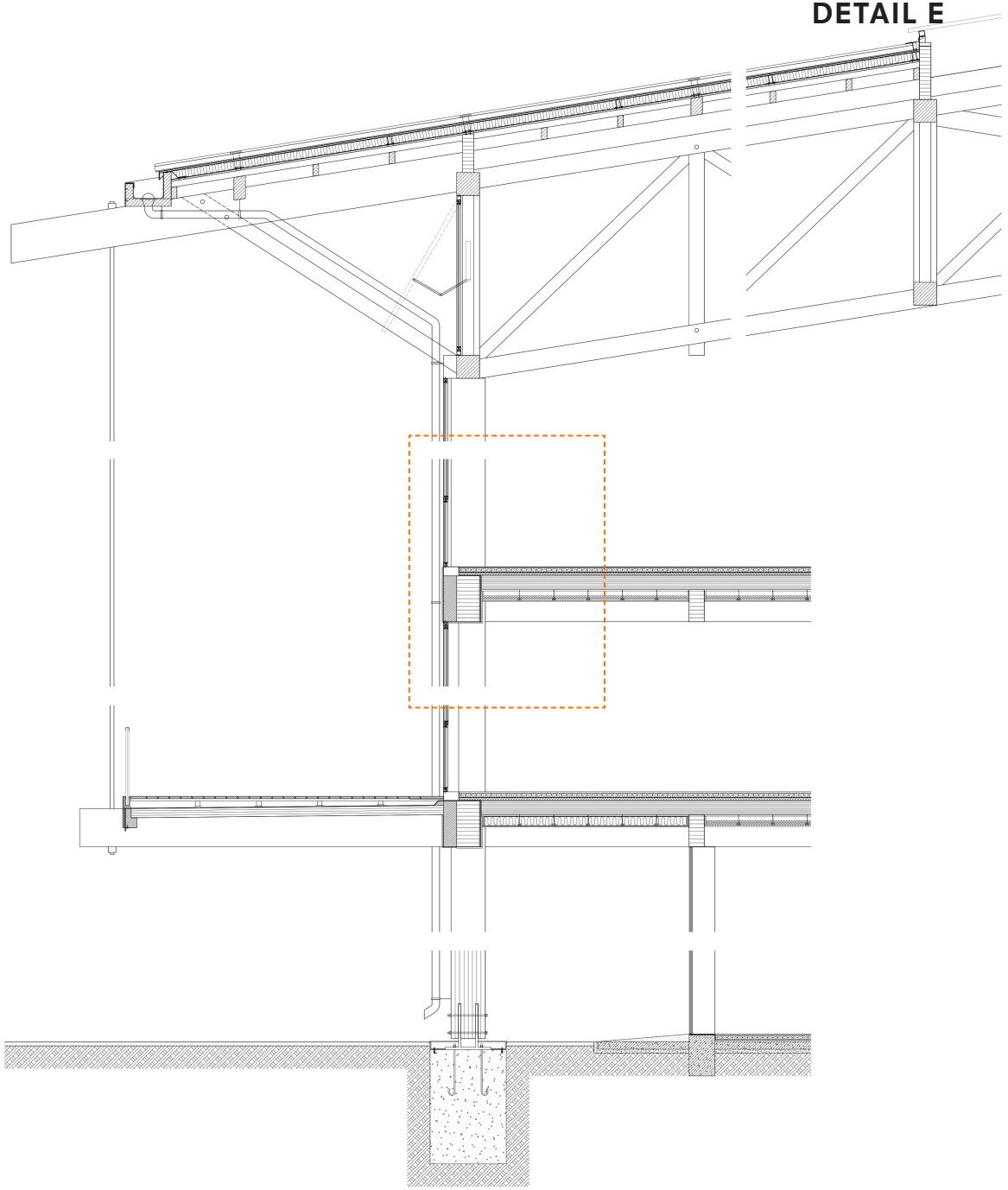


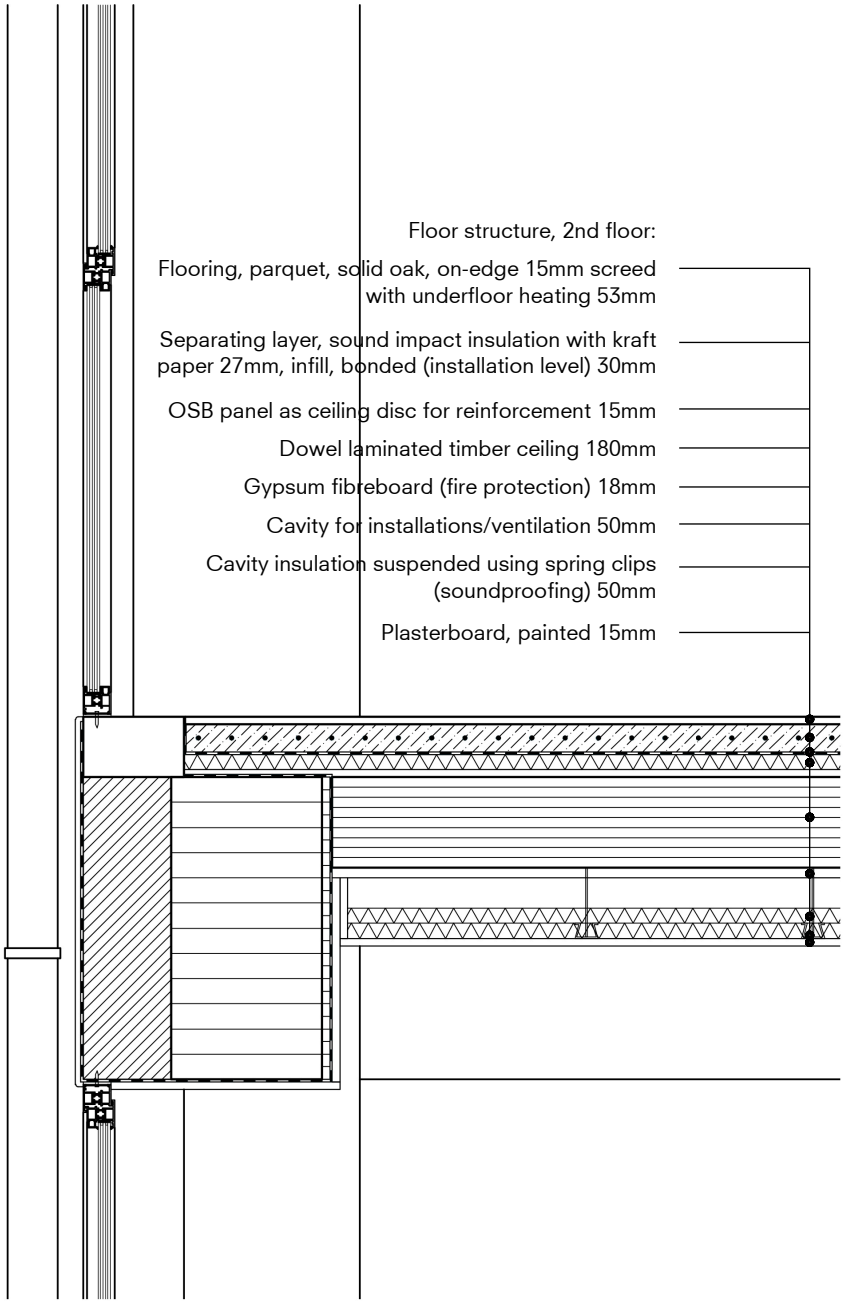


Floor structure, 1st floor:

- Flooring, parquet, solid oak, on-edge 15mm screed with underfloor heating 53mm
- Separating layer, sound impact insulation with kraft paper 27mm, infill, bonded (installation level) 30mm
- OSB panel as ceiling disc for reinforcement 15mm
- Dowel laminated timber ceiling 180mm
- Gypsum fibreboard (fire protection) 18mm
- Vapor barrier layer
- Thermal Insulation, using spring clips to suspend glass wool insulation
- Plasterboard, painted 15 mm

DETAIL E

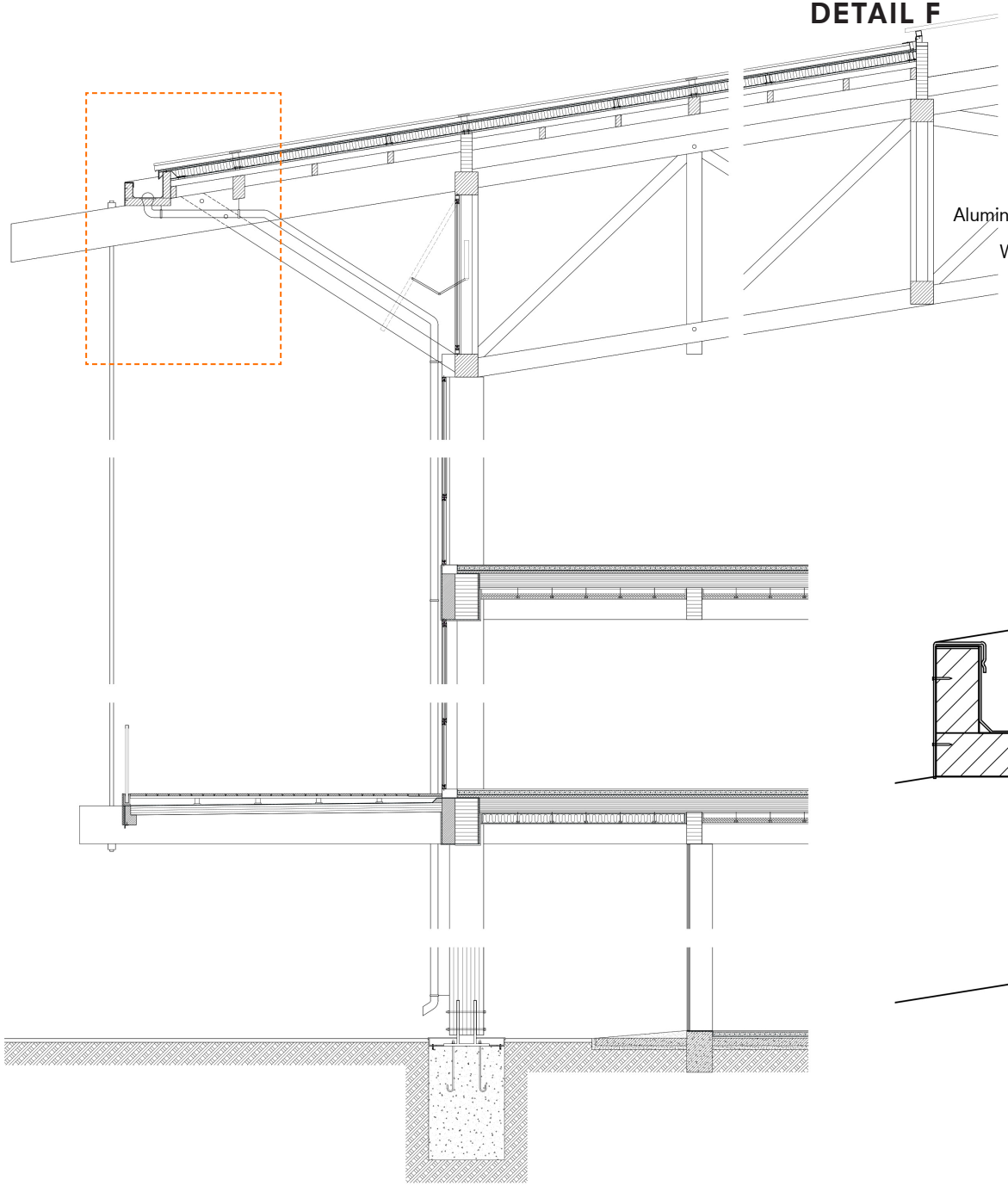




Floor structure, 2nd floor:

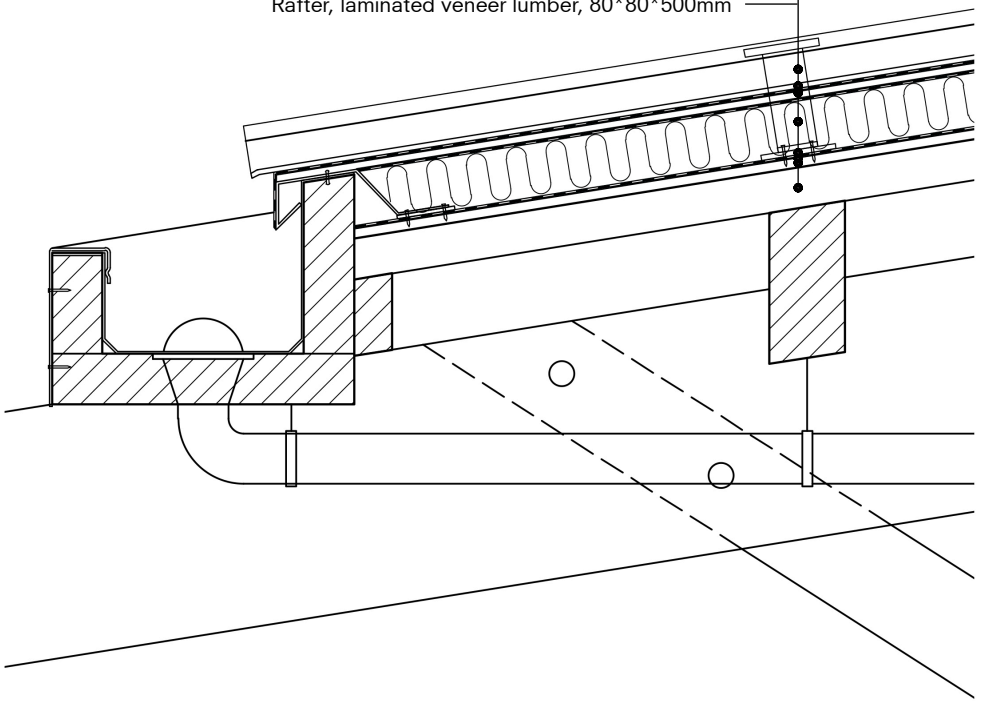
- Flooring, parquet, solid oak, on-edge 15mm screed with underfloor heating 53mm
- Separating layer, sound impact insulation with kraft paper 27mm, infill, bonded (installation level) 30mm
- OSB panel as ceiling disc for reinforcement 15mm
- Dowel laminated timber ceiling 180mm
- Gypsum fibreboard (fire protection) 18mm
- Cavity for installations/ventilation 50mm
- Cavity insulation suspended using spring clips (soundproofing) 50mm
- Plasterboard, painted 15mm

DETAIL F

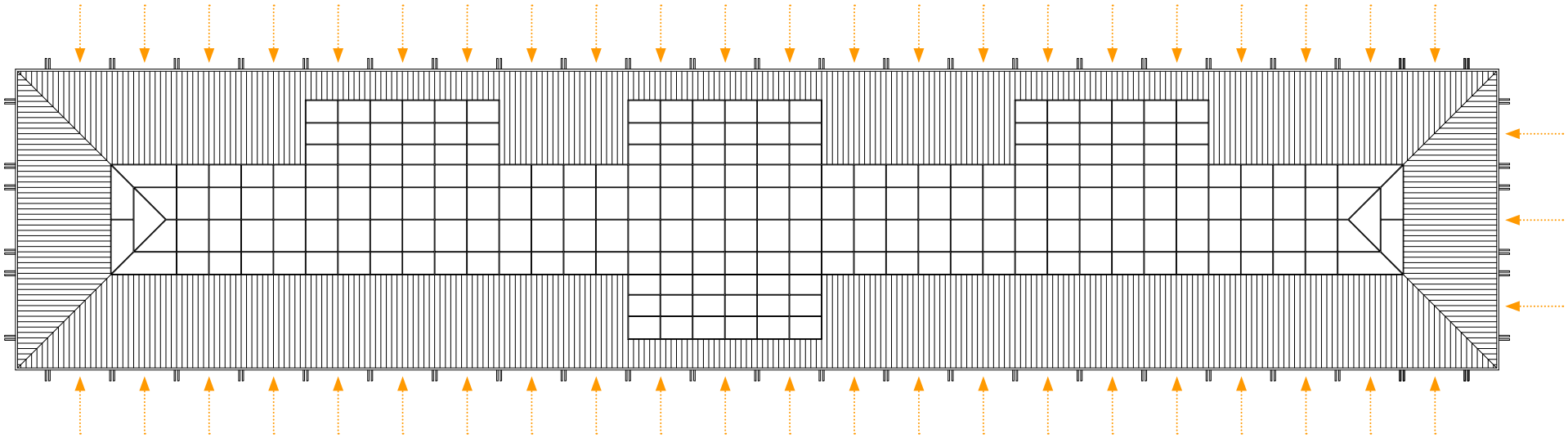


Roof structure:

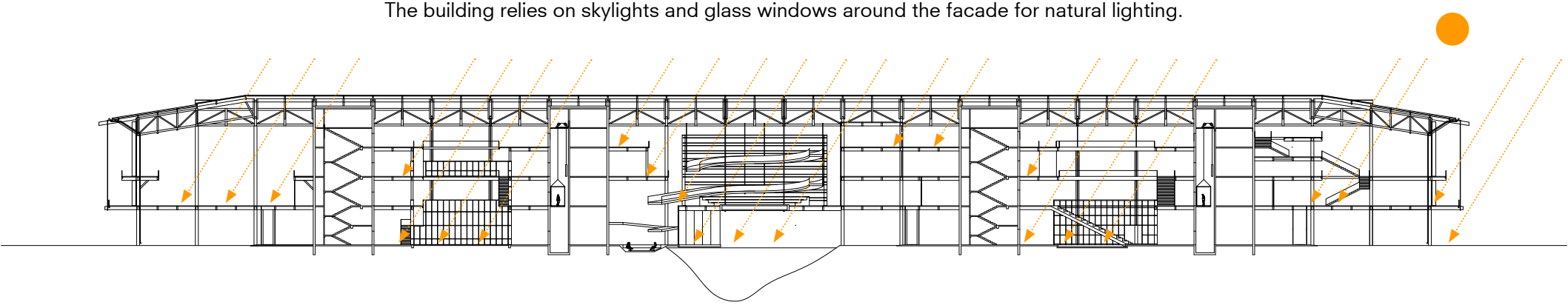
- Bracket
- Aluminum-magnesium-manganese alloy profiled metal roofing panel
- Waterproofing layer, plastic membrane, mechanically fastened
- Leveling layer, plywood, 20mm
- Thermal insulation, glass wool
- Vapor barrier layer
- Leveling layer, plywood, 20mm
- Rafter, laminated veneer lumber, 80*80*500mm



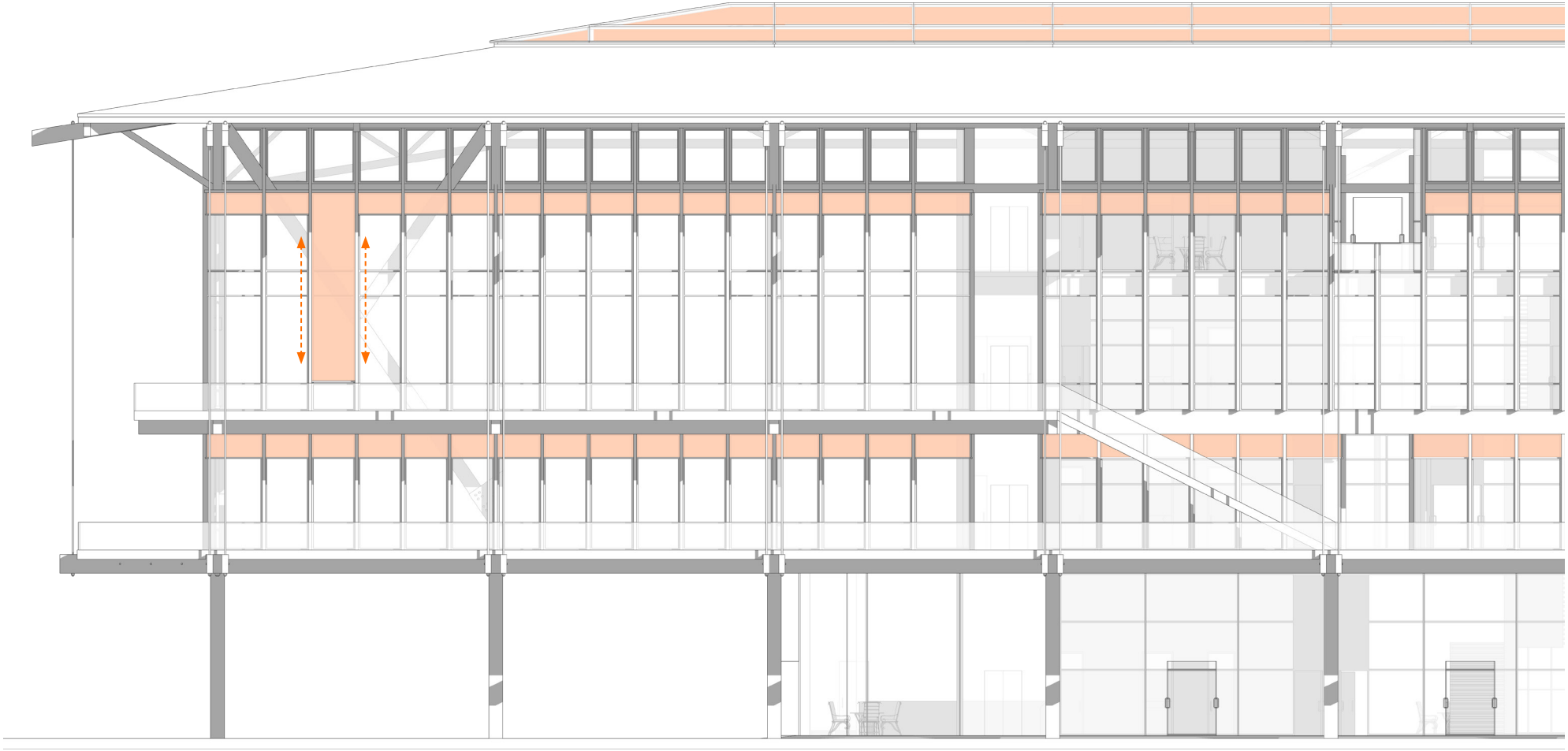
SKYLIGHT



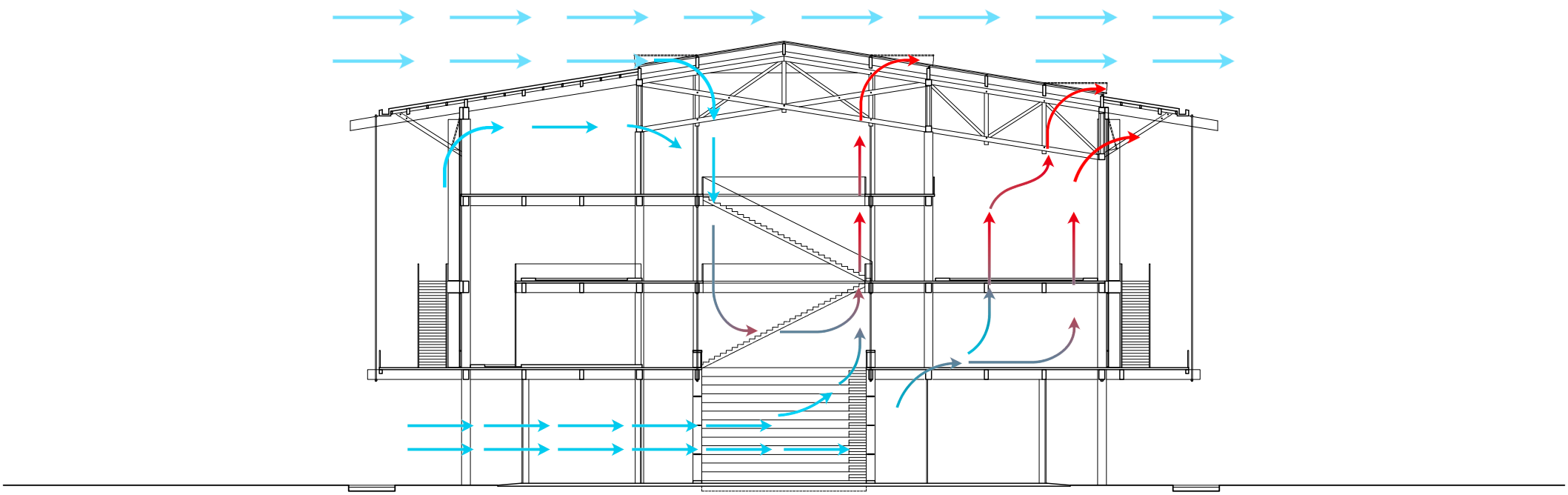
The building relies on skylights and glass windows around the facade for natural lighting.



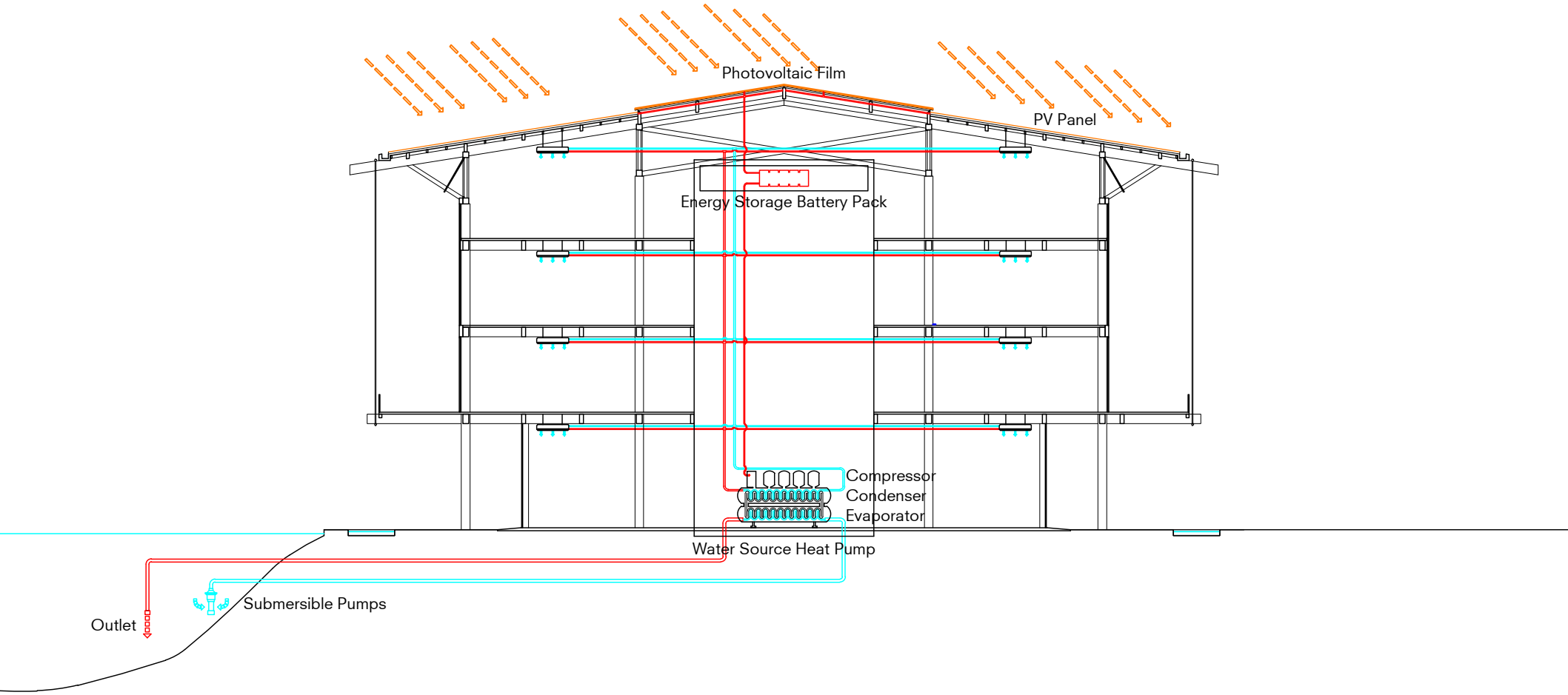
SUN SHADE



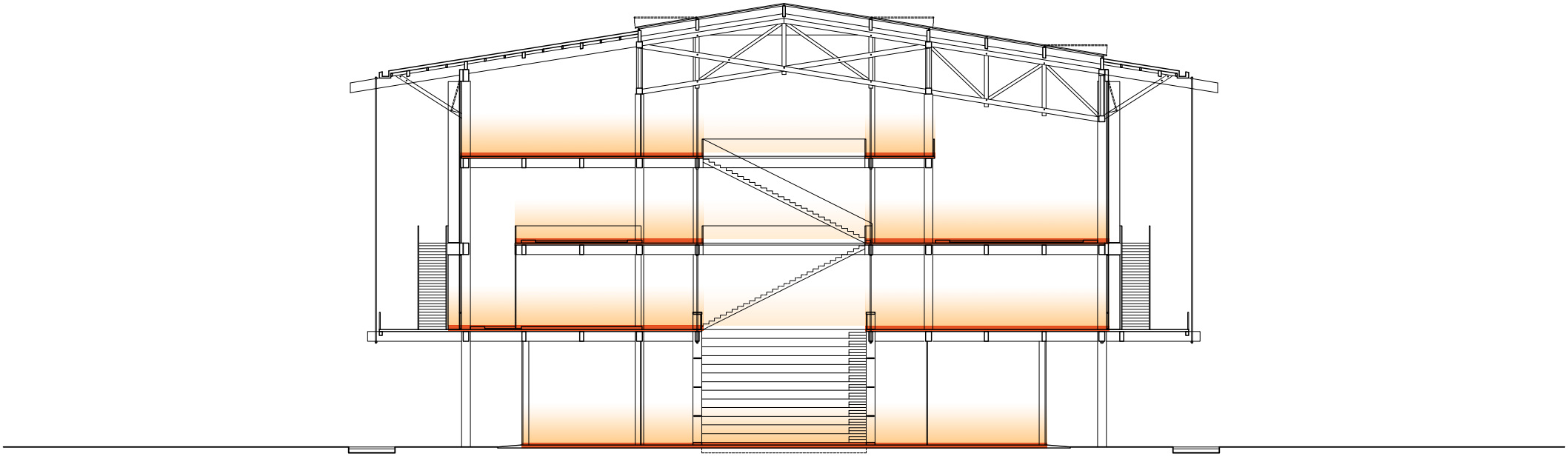
SUMMER - VENTILATION



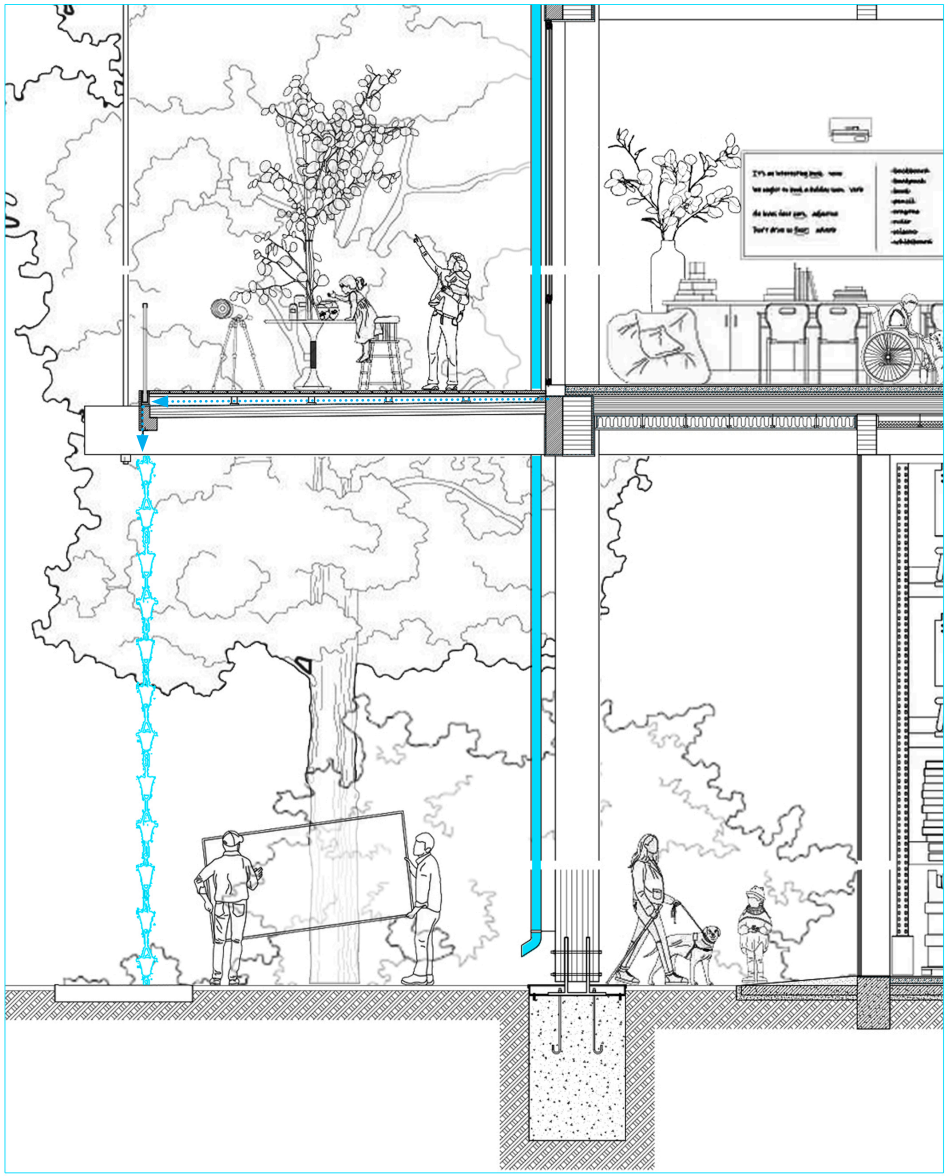
SUMMER - SOLAR ENERGY & WATER SOURCE HEAT PUMP

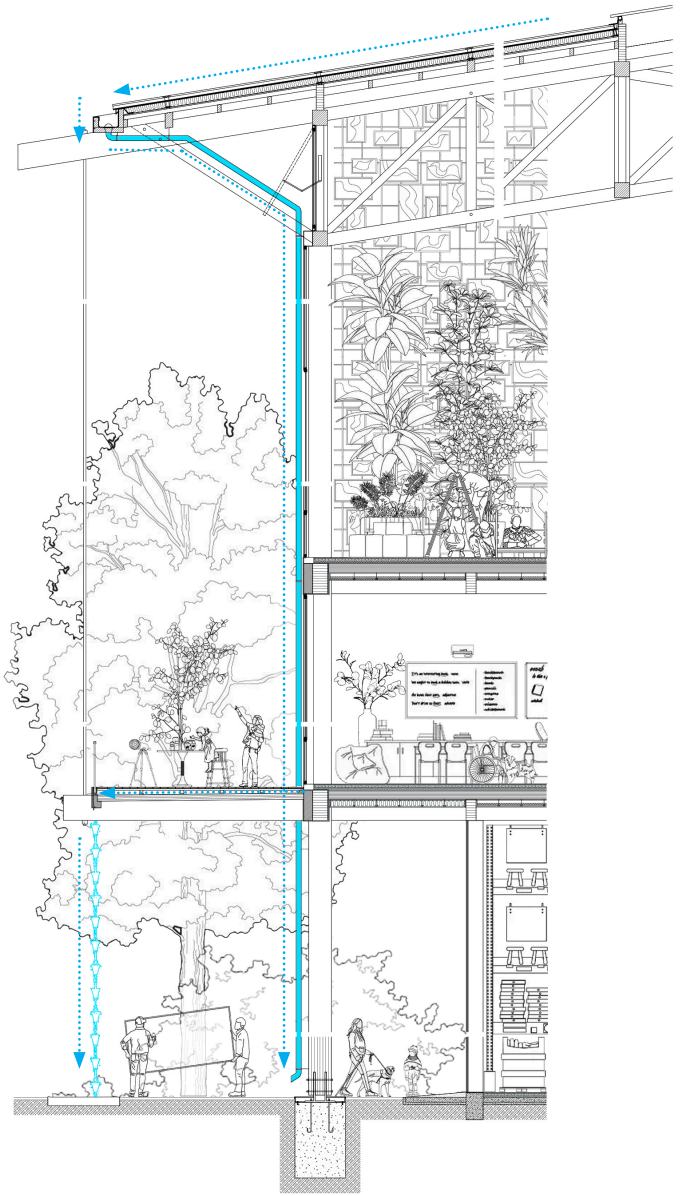


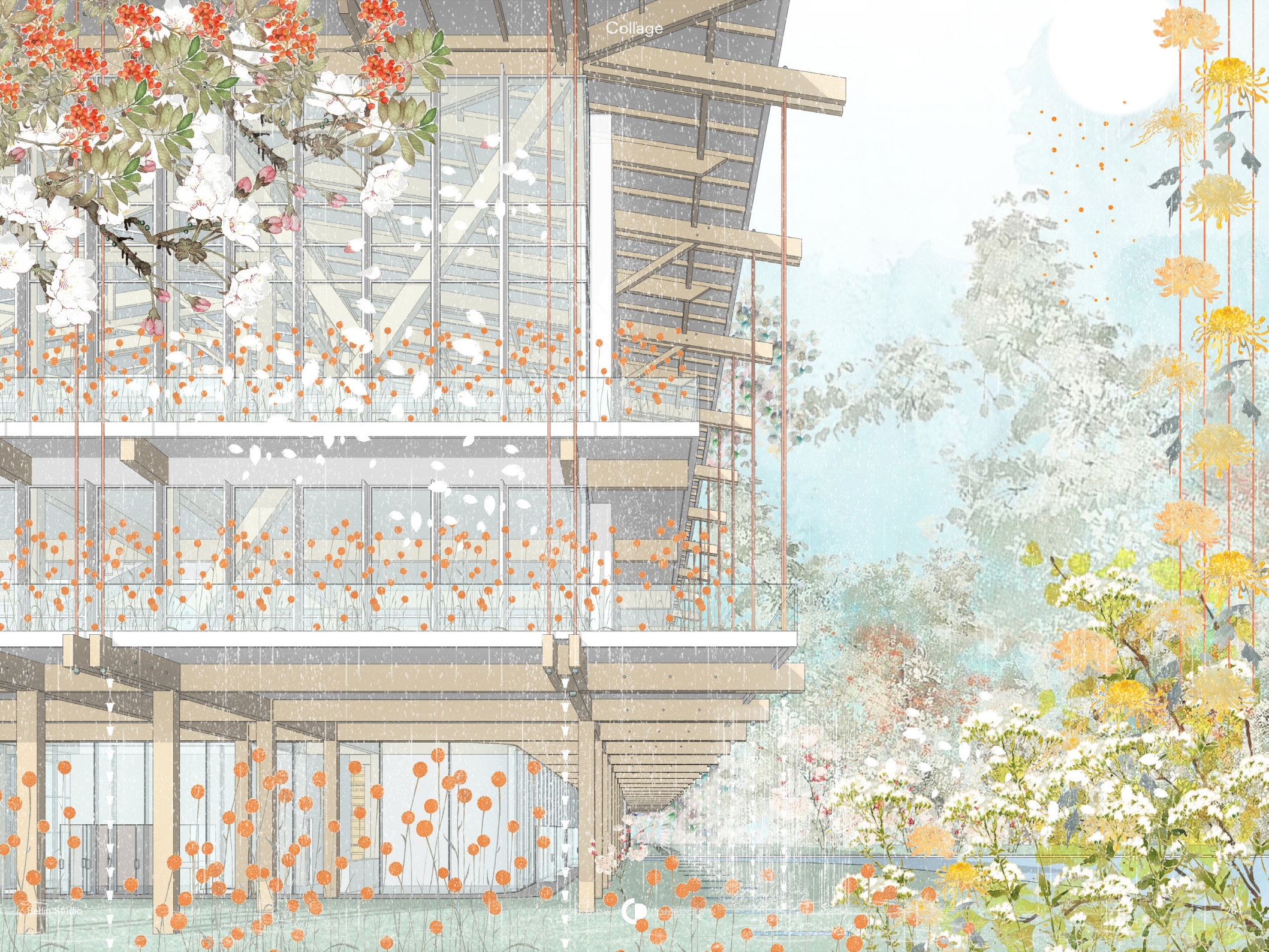
WINTER - FLOOR HEATING



BUILDING DRAINAGE

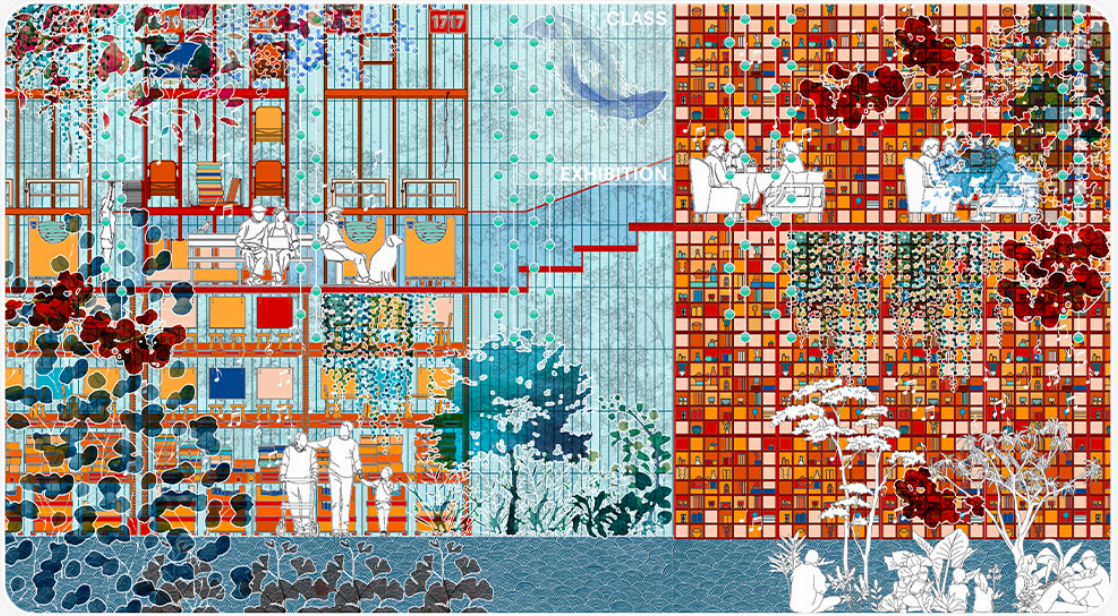





Collage

GUIDEBOOK

Klasse Aktivität Ausstellung Nachricht



WILLKOMMEN ZU ENTALTERUNG EDEN!

Deutsche Version

Fennpfuhlpark, Lichtenberg, 10369 Berlin, Deutschland
https://www.deagingeden.com

DE-AGING EDEN
ELEDERLY SCHOOL
BERLIN

SCHOOL SIZE



Student

1200



Teacher

60



Staff

40



Administration

10



Volunteer

300+

1



Petparenting

2



Farming

3



Gardening

4



Fishing

5



Media

6



Dancing

7



Yoga

8



Music

9



Drawing

10



Parenting

11



Origami

12



Embrodiery

13



Woodencraft

14



Photography

15



Handicraft

16



Cooking

17



Mahjong

18



Game

19



Sports

20



Literature

FLOORGUIDE

THIRD FLOOR



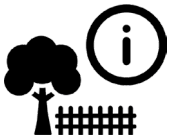
SECOND FLOOR



FIRST FLOOR



GROUND FLOOR



LEISURE LOUNGE / CLINIC

- Mahjong Room
- Game Room
- Cooking Classroom
- Lounge
- Acoustic Room
- Library
- Meeting Room
- Dean's Office
- Clinic Room
- Doctor's Office

Bamboo Garden
Aqua Garden
Reading Garden

INTERGENERATIONAL WORKSHOPS

- Handicraft Workshop
- Woodencraft Workshop
- Embrodiery Workshop
- Origami Workshop
- Photography Workshop
- Cafe & Restaurant
- Library
- Office
- Sports Room's Stands

Bamboo Garden
Aqua Garden
Reading Garden

INTERGENERATIONAL CLASSES

- Music Classroom
- Dancing Classroom
- Media Classroom
- Parenting Classroom 1&2
- Lecture Room
- Cafe & Restaurant
- Drawing Classroom
- Library
- Office
- Sports Room

Bamboo Garden
Aqua Garden
Reading Garden

INFORMATION / PARK RELATED CLASSES

- Tea Room
- Garden Classroom
- Fishing Classroom
- Petparenting Classroom
- Souvenir Shop
- Reception Room
- Repair Room
- Media Room
- Office

Bamboo Garden
Aqua Garden
Reading Garden

VISTOR MAP

3rd Floor - LEISURE LOUNGE / CLINIC

- Mahjong Room
- Game Room
- Cooking Classroom
- Lounge
- Acoustic Room
- Library
- Meeting Room
- Dean's Office
- Clinic Room
- Doctor's Office
- Bamboo Garden
- Aqua Garden
- Reading Garden

2nd Floor - INTERGENERATIONAL WORKSHOPS

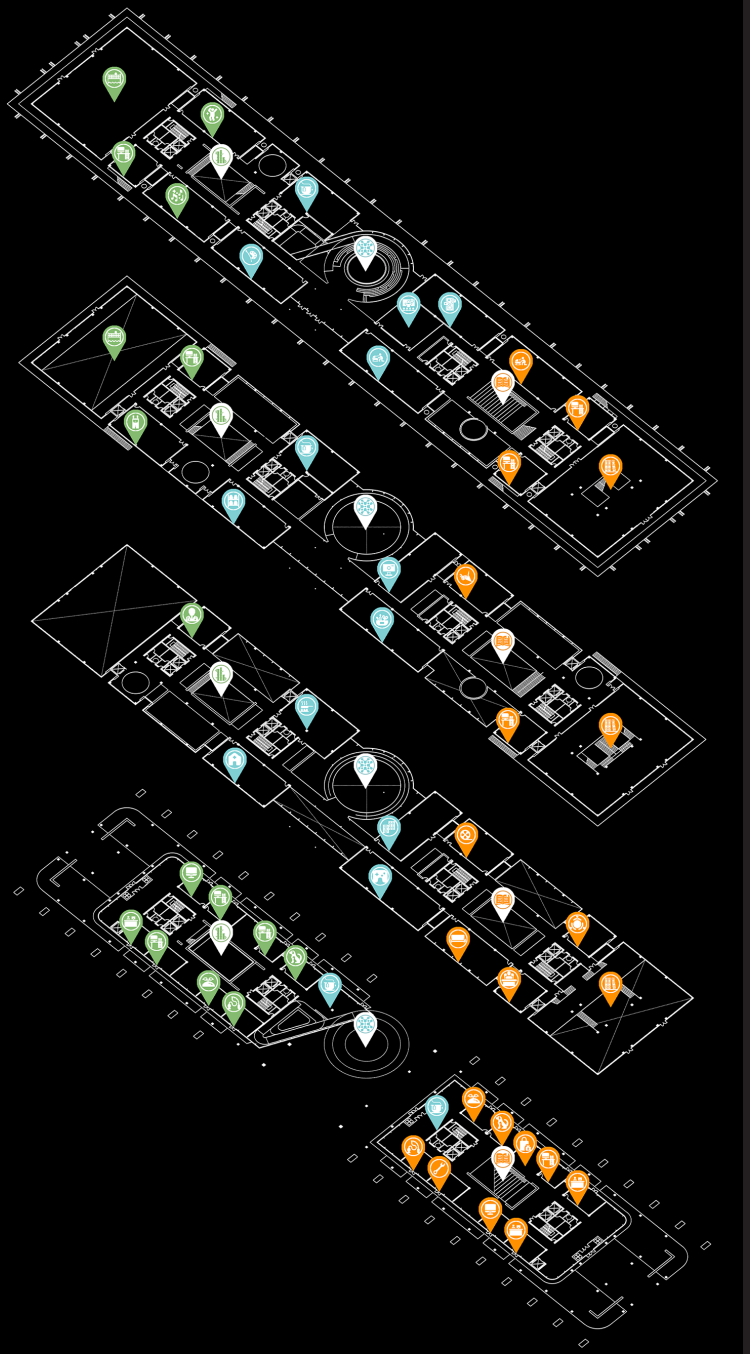
- Handicraft Workshop
- Woodencraft Workshop
- Embrodiery Workshop
- Origami Workshop
- Photography Workshop
- Cafe & Restaurant
- Library
- Office
- Sports Room's Stands
- Bamboo Garden
- Aqua Garden
- Reading Garden

1st Floor - INTERGENERATIONAL CLASSES

- Music Classroom
- Dancing Classroom
- Media Classroom
- Parenting Classroom 1&2
- Lecture Room
- Cafe & Restaurant
- Drawing Classroom
- Library
- Office
- Sports Room
- Bamboo Garden
- Aqua Garden
- Reading Garden

Ground Floor - INFORMATION / PARK RELATED CLASSES

- Tea Room
- Garden Classroom
- Fishing Classroom
- Petparenting Classroom
- Souvenir Shop
- Reception Room
- Repair Room
- Media Room
- Office
- Bamboo Garden
- Aqua Garden
- Reading Garden



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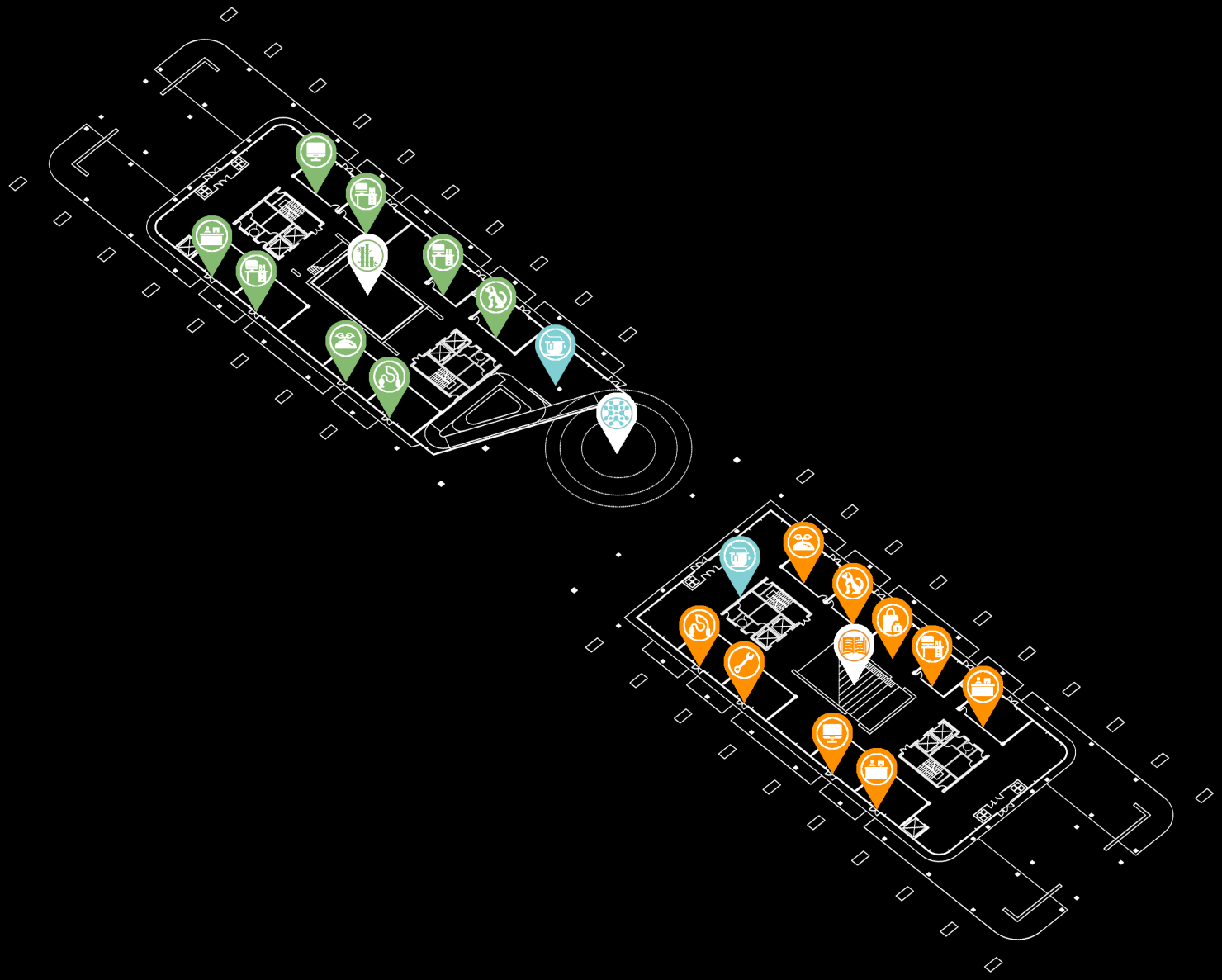
VISTOR MAP



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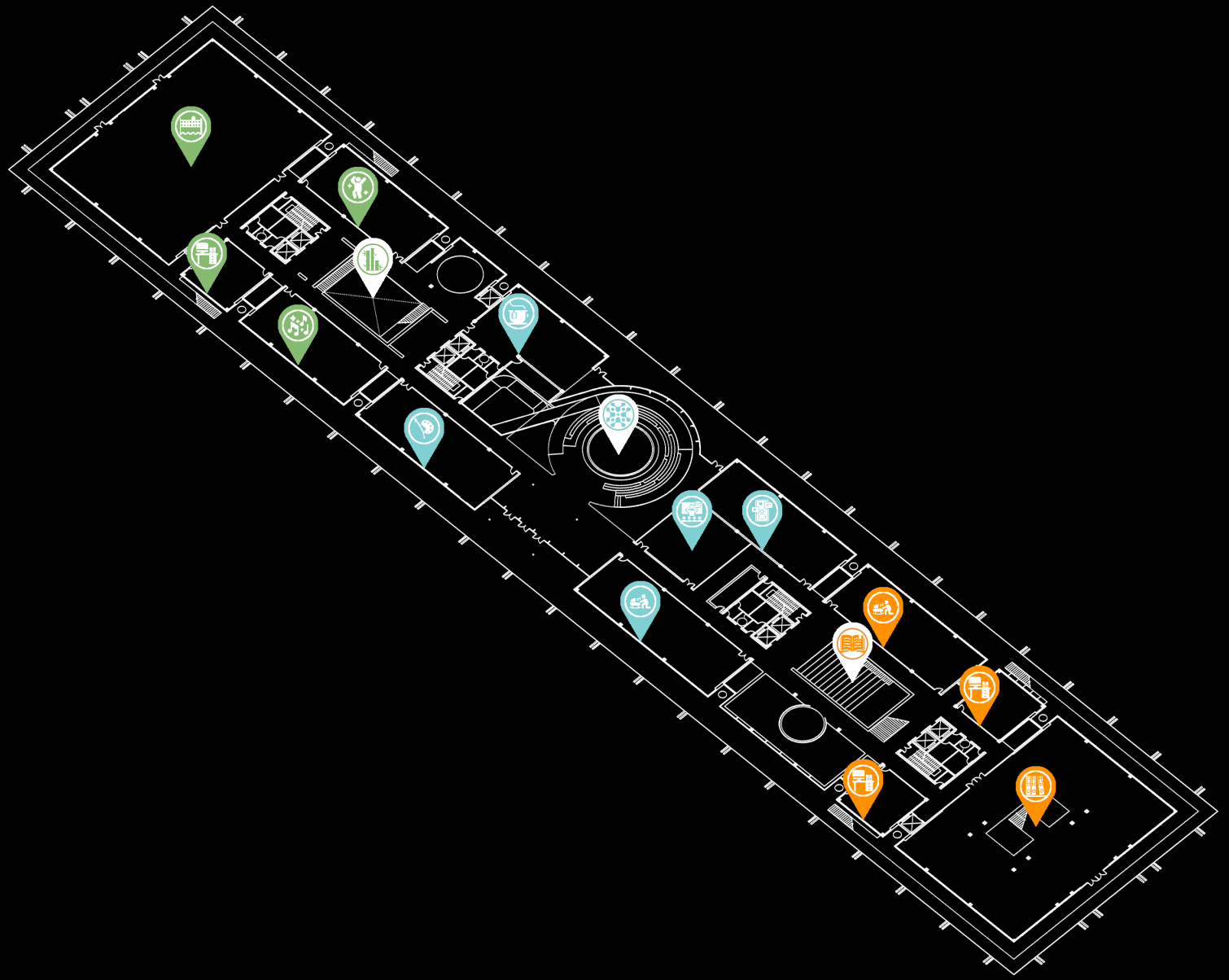
VISTOR MAP



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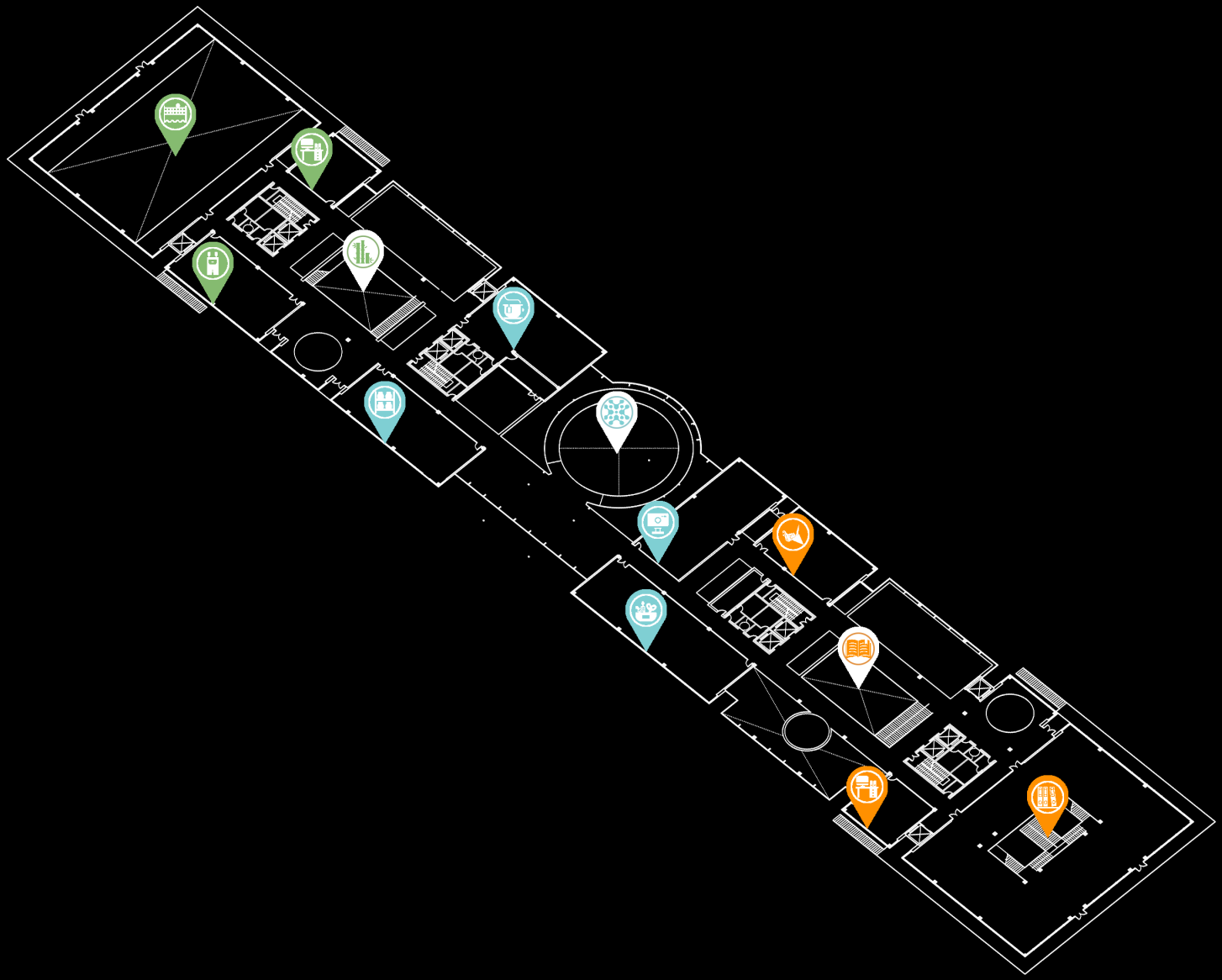

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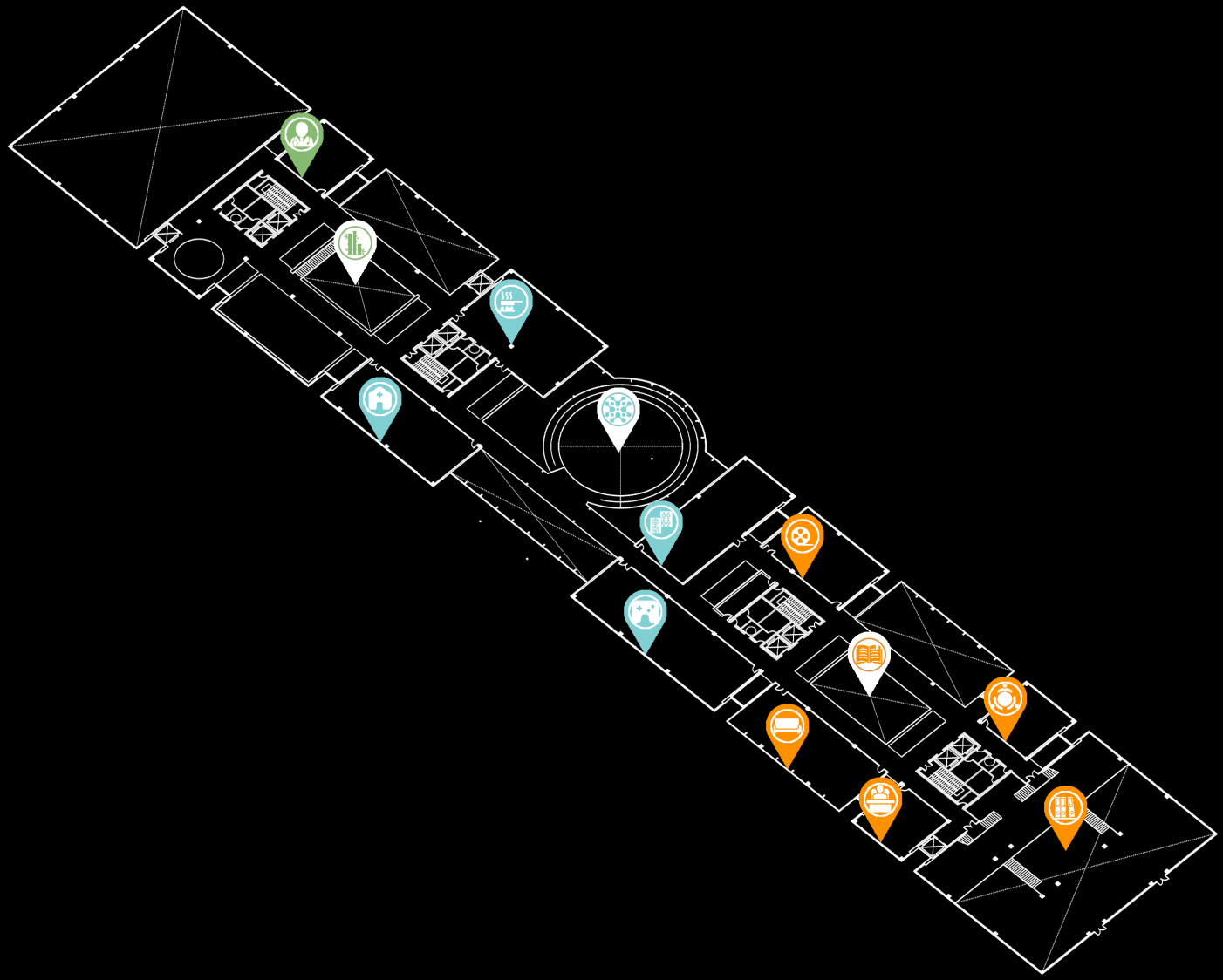
VISTOR MAP



THE ELDERLY'S ONE DAY

08:00-08:15
Register at office

08:15-08:45
Read in the orange garden

08:45-10:00
Learn in the media classroom

10:00-11:15
Learn in the music classroom

11:15-11:30
Mental consult with young people

11:30-12:00
Have lunch in the canteen

12:00-12:30
Watch basketball game

12:30-13:00
Take a rest in the garden

13:00-14:15
Teach young people woodencraft

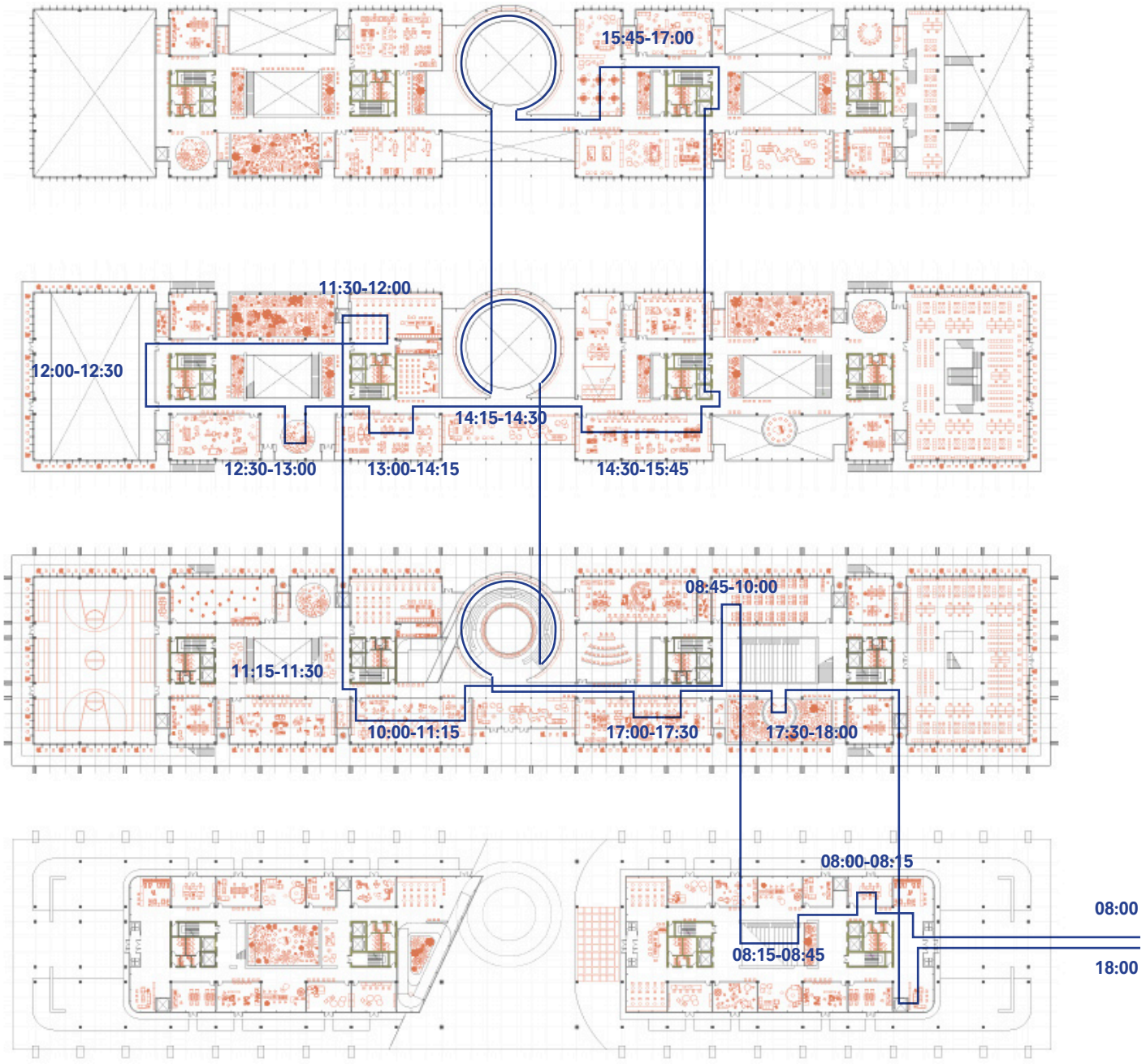
14:15-14:30
Take a rest in the lounge

14:30-15:45
Help young people with embroidery

15:45-17:00
Play mahjong with new friends

17:00-17:30
Have fun with after-school kids

17:30-18:00
Play piano in the garden

























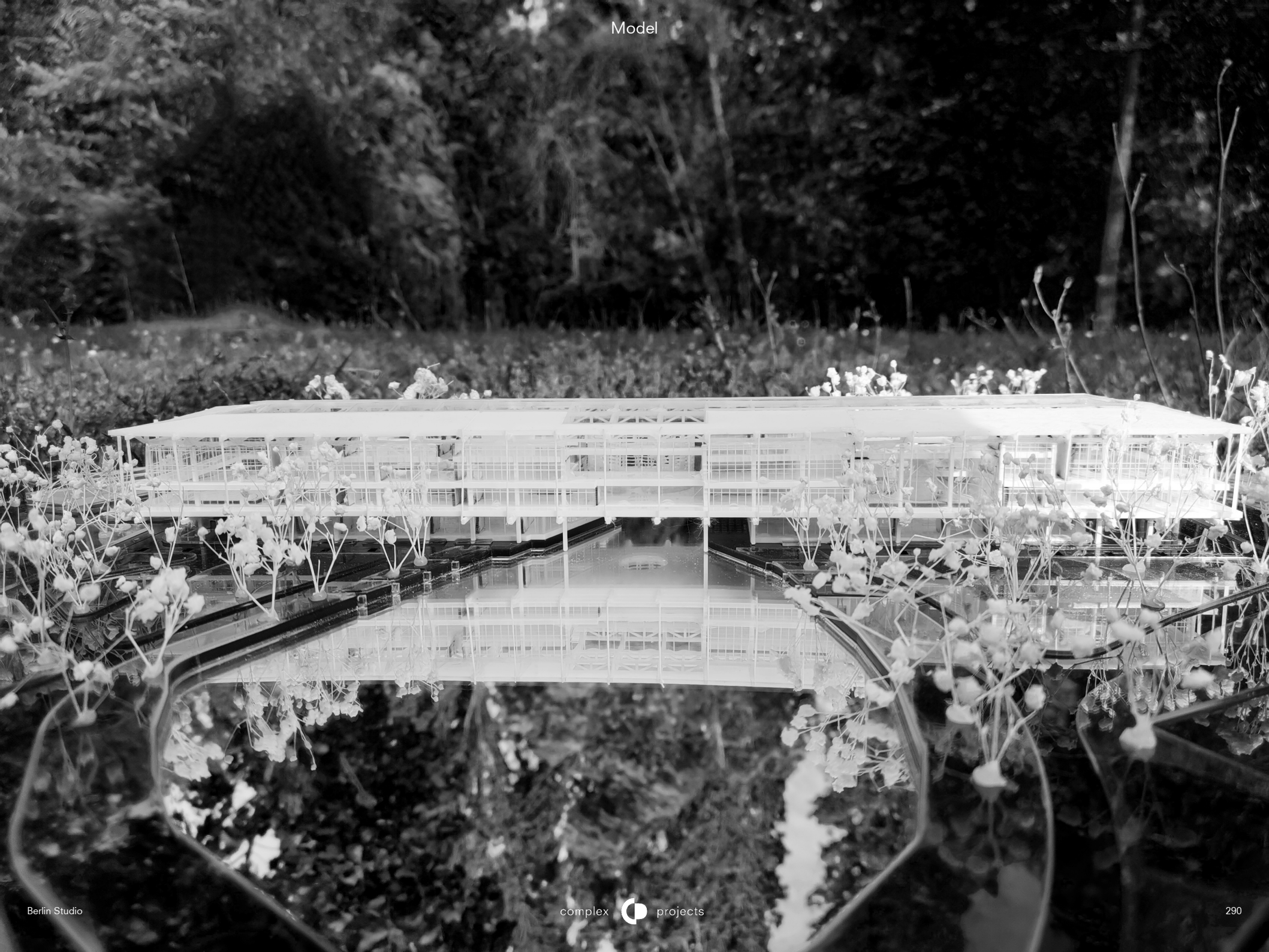








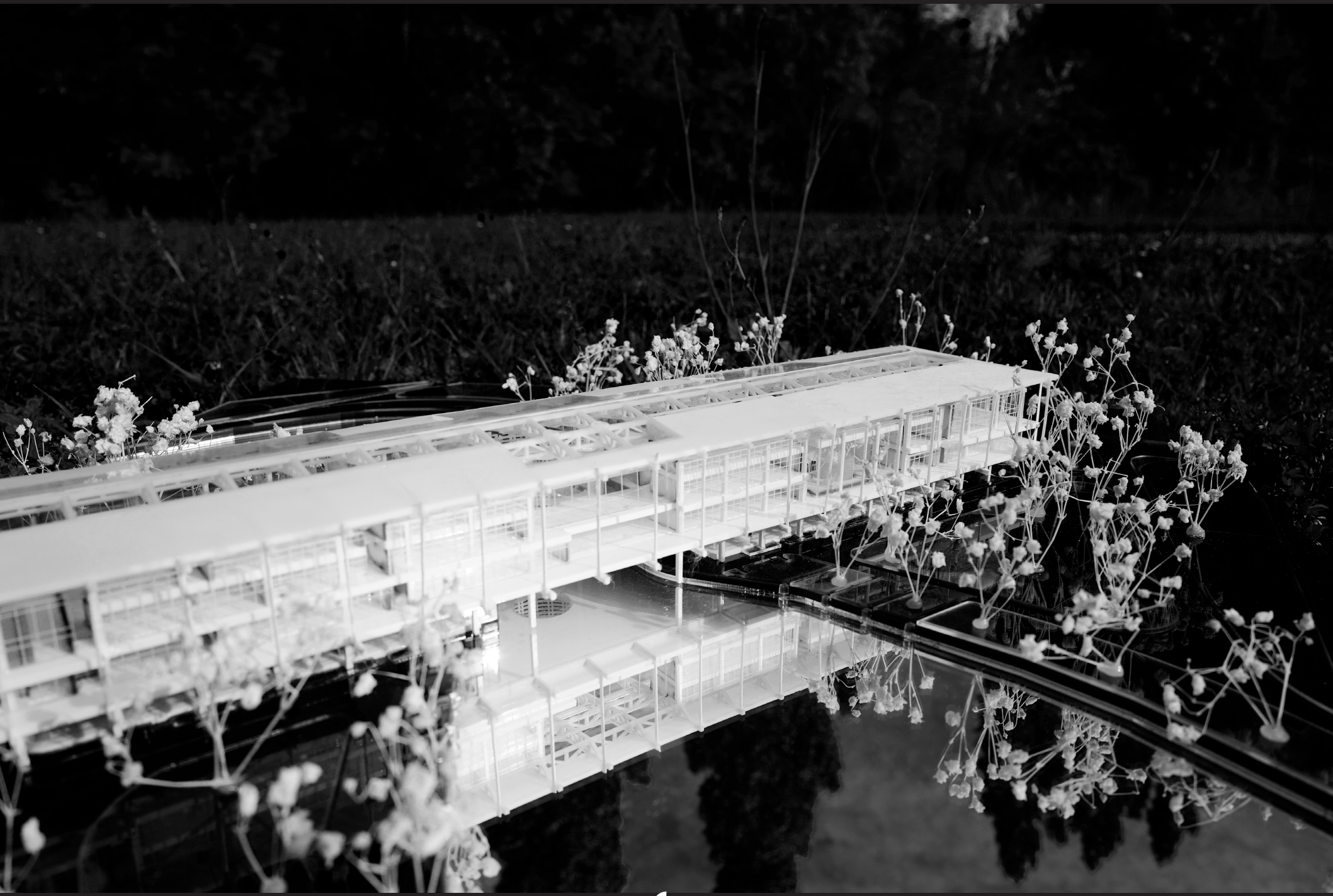




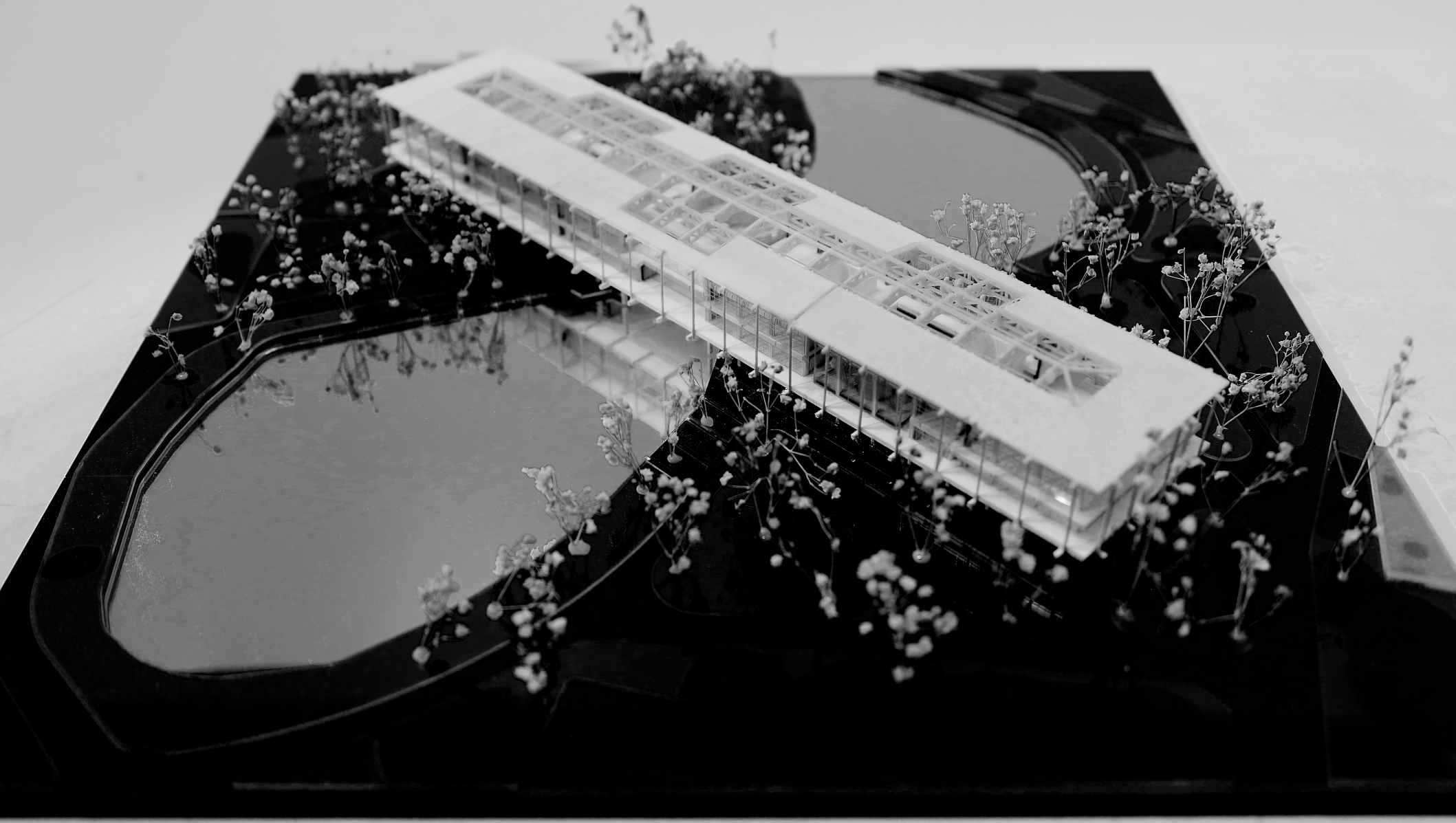


Model







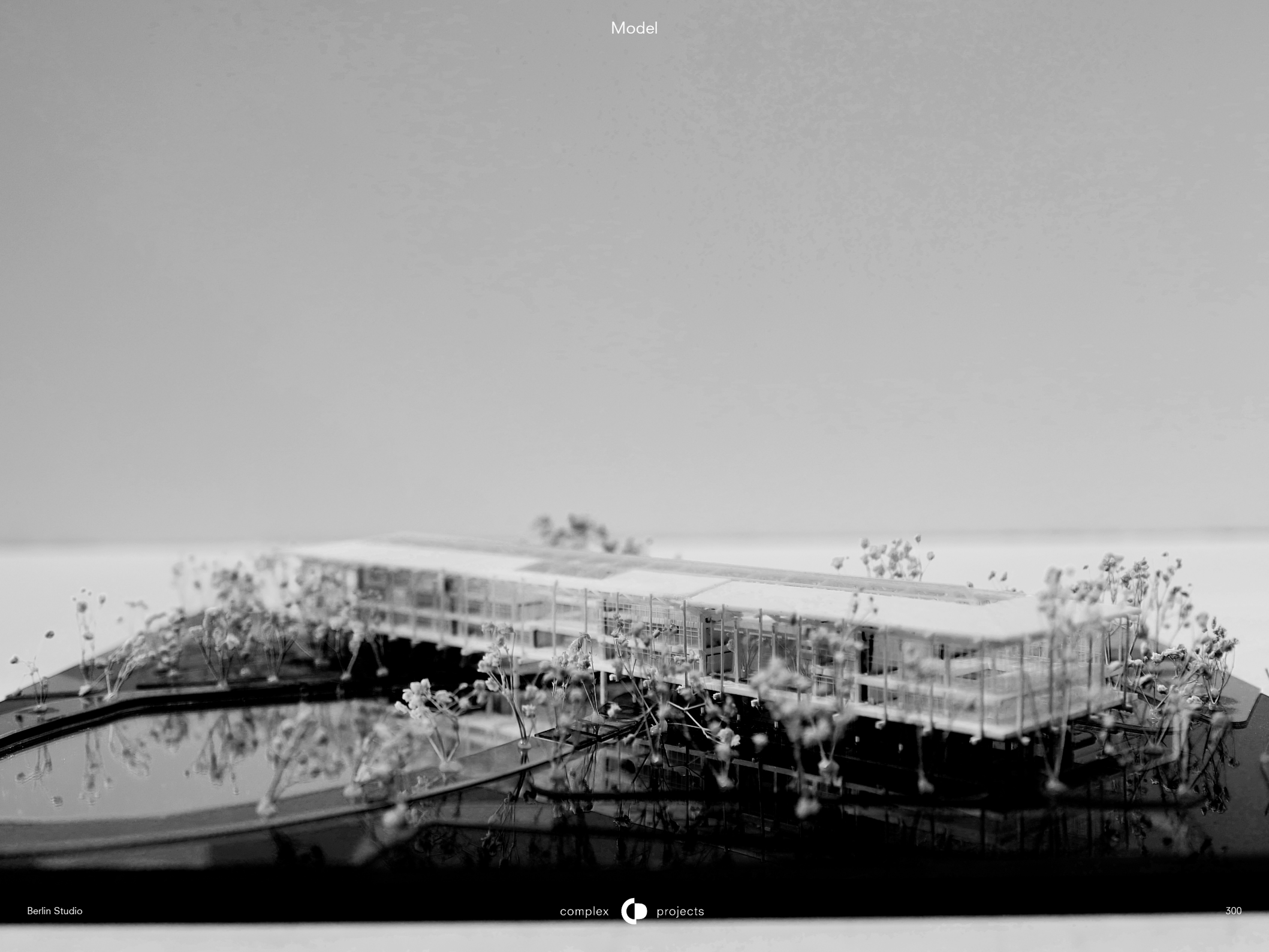






















Model

















VALUE

Everything for the elderly, elderly for everyone.



“老吾老以及人之老，幼吾幼以及人之幼。”

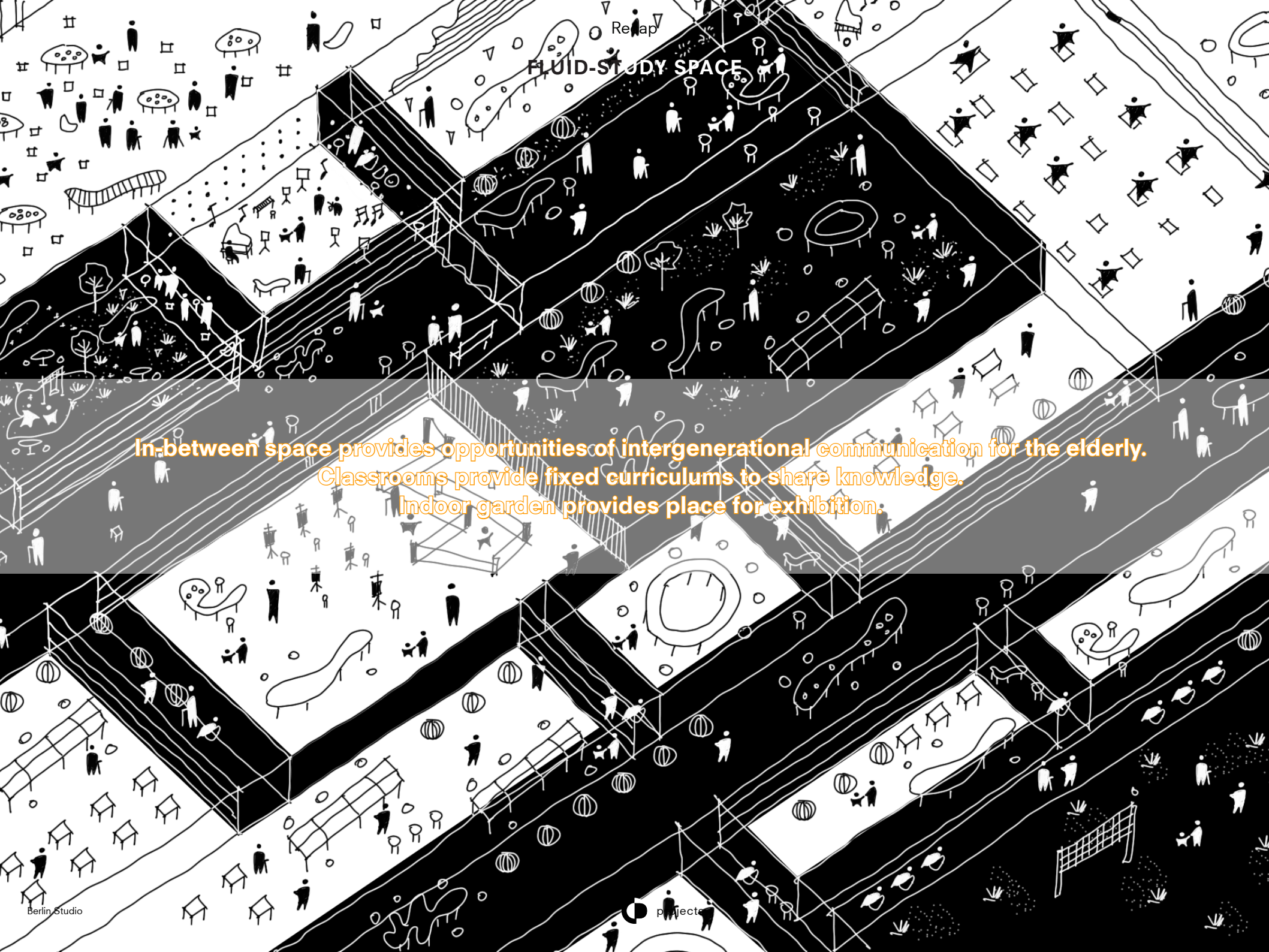
--《梁惠王上》（孟子，公元前320年）

“Honor old people as we do our own aged parents, and care for other’s children as our own.”

-- *Liang Hui Wang I* (Mencius, 320 B.C.)

Picture Source: https://www.culturalkeys.cn/2021/09/17/chinese-stories-mencius/

FLUID-STUDY SPACE




THANK YOU!