

Architectural care

A public building oriented towards mental wellbeing

Studio

AR3AP100 2024-25 Public Building Graduation Studio
„Public Condenser, Copenhagen”

Mentors

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Maria Napieralska · P5 Presentation

Agenda

Location & context

Research

Project design

Contact with natural environment

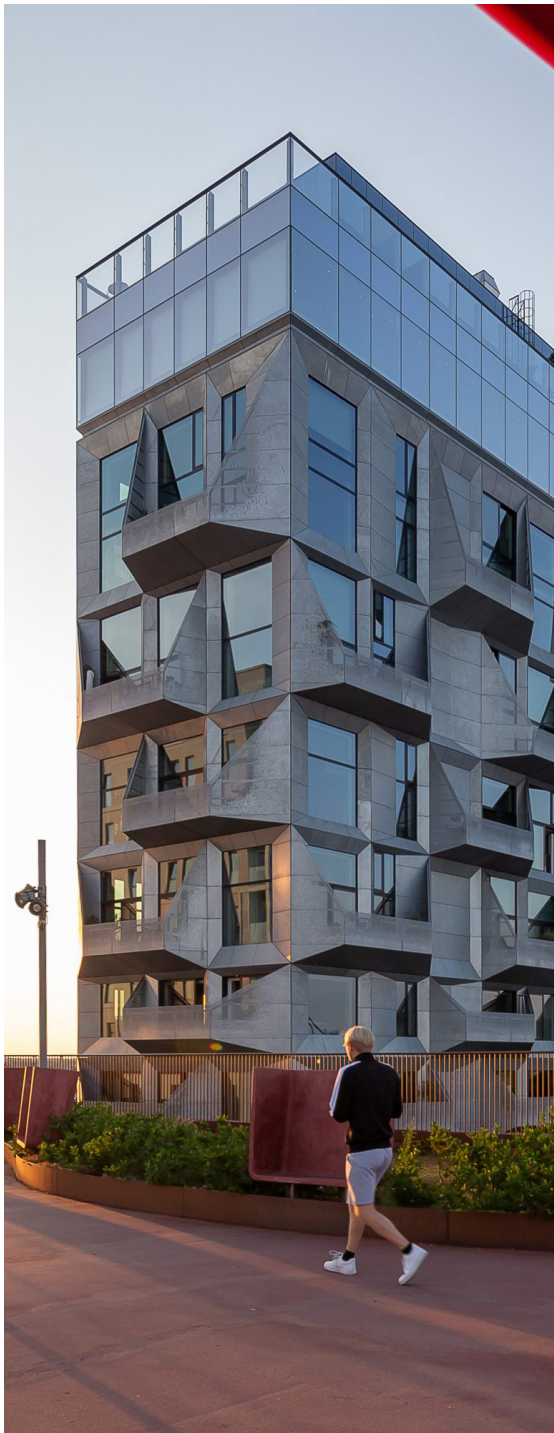
Cognitive stimulation

Physical activity

Social interaction

Agency

Location & context | Competitive city



Location & context | Competitive city



Medicon Valley, an example of bi-national life science cluster.



2010 ▲

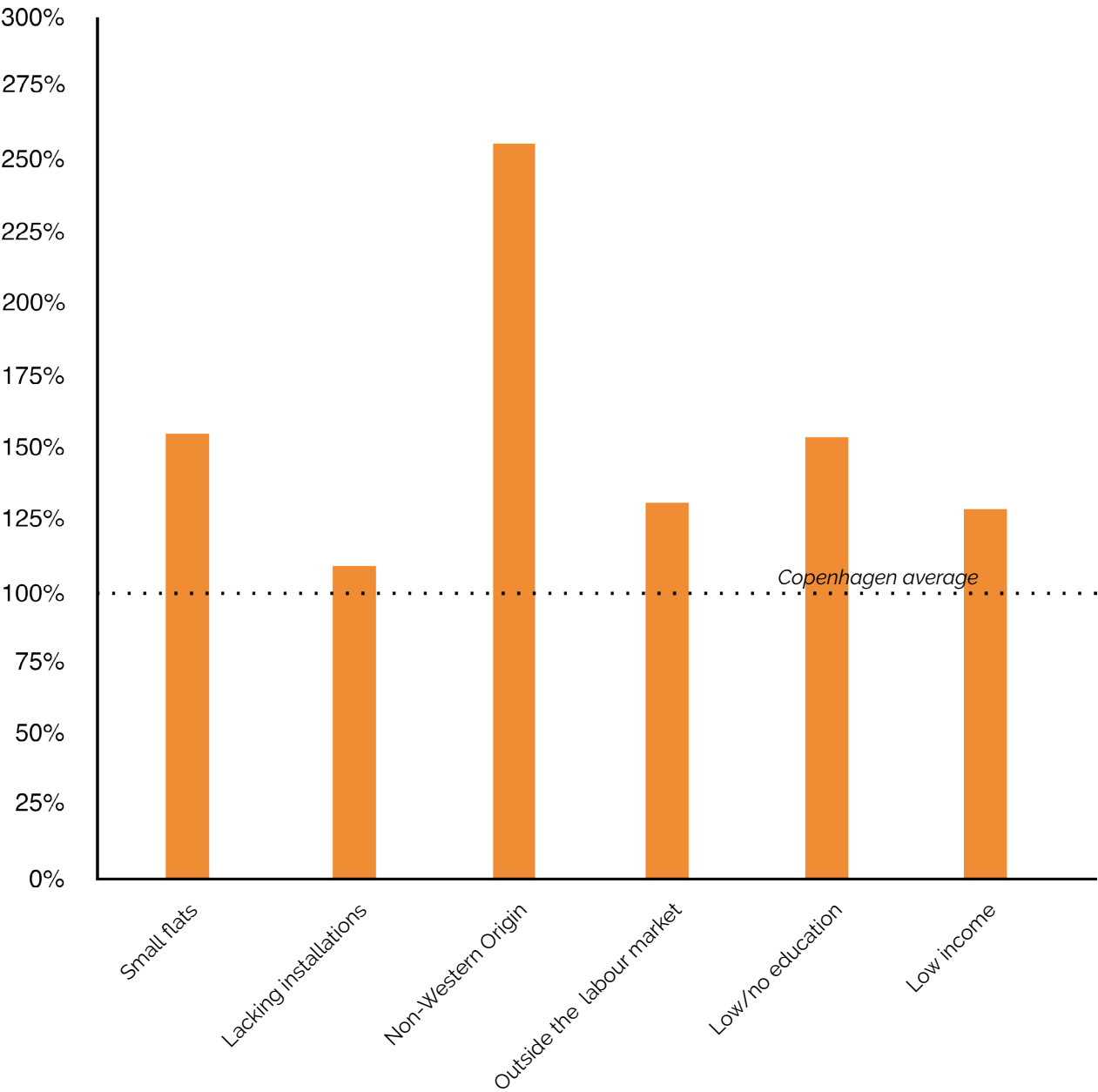
2021 ▼



Percentage in low mental health score among Danish citizens. Source: National Health Profile, 2021.



Lcoation of Bispebjerg



Bispebjerg statistics from Policy For Disadvantaged Areas in Copenhagen.

Greater local fear of crime than in the rest of Copenhagen

COPENHAGEN

Survey reveals: This is where citizens live with a crime record. Three places are getting

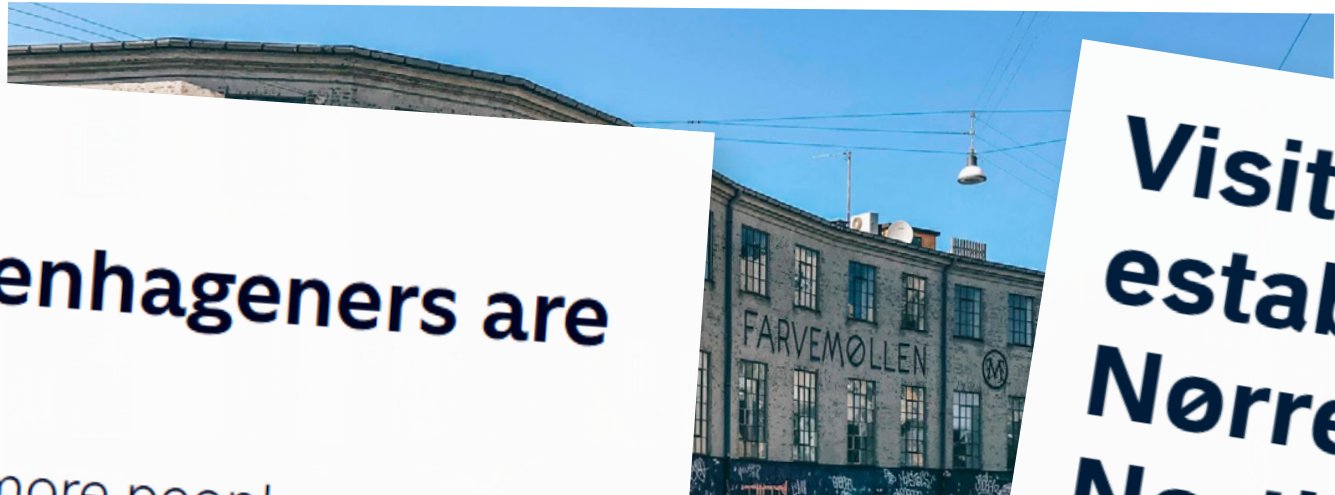
Where do Copenhageners live with stable crime records? This is revealed by brand new data from Denmark, which CopenhagenLIV has collected. A particular stand out in the statistics

Survey: Here Copenhageners are feeling unsafe

A safety survey shows that more people

Copenhagen Police establishes two search zones

As one of several tools to curb the current conflict between



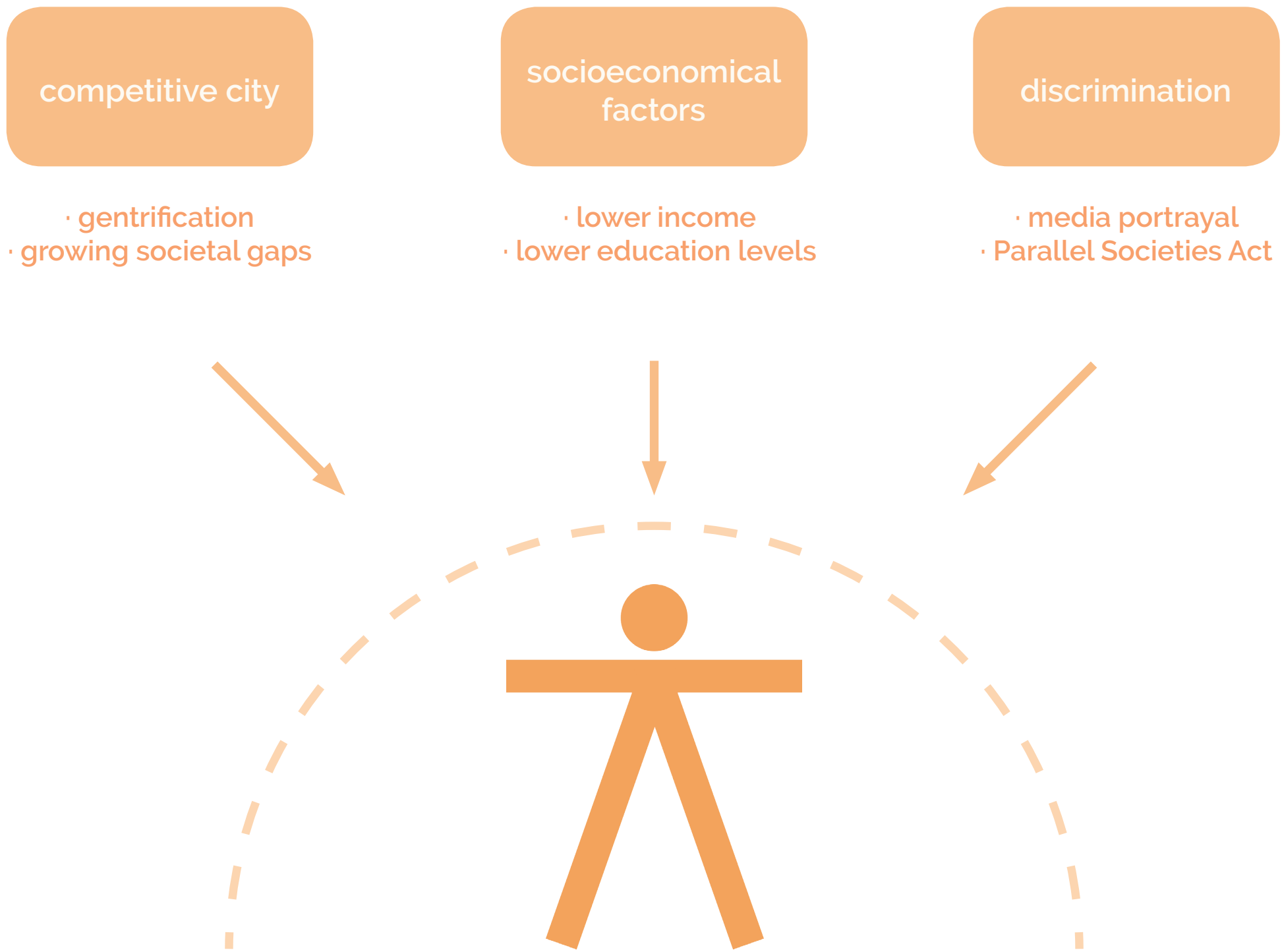
Visitation: established in Nørrebro and

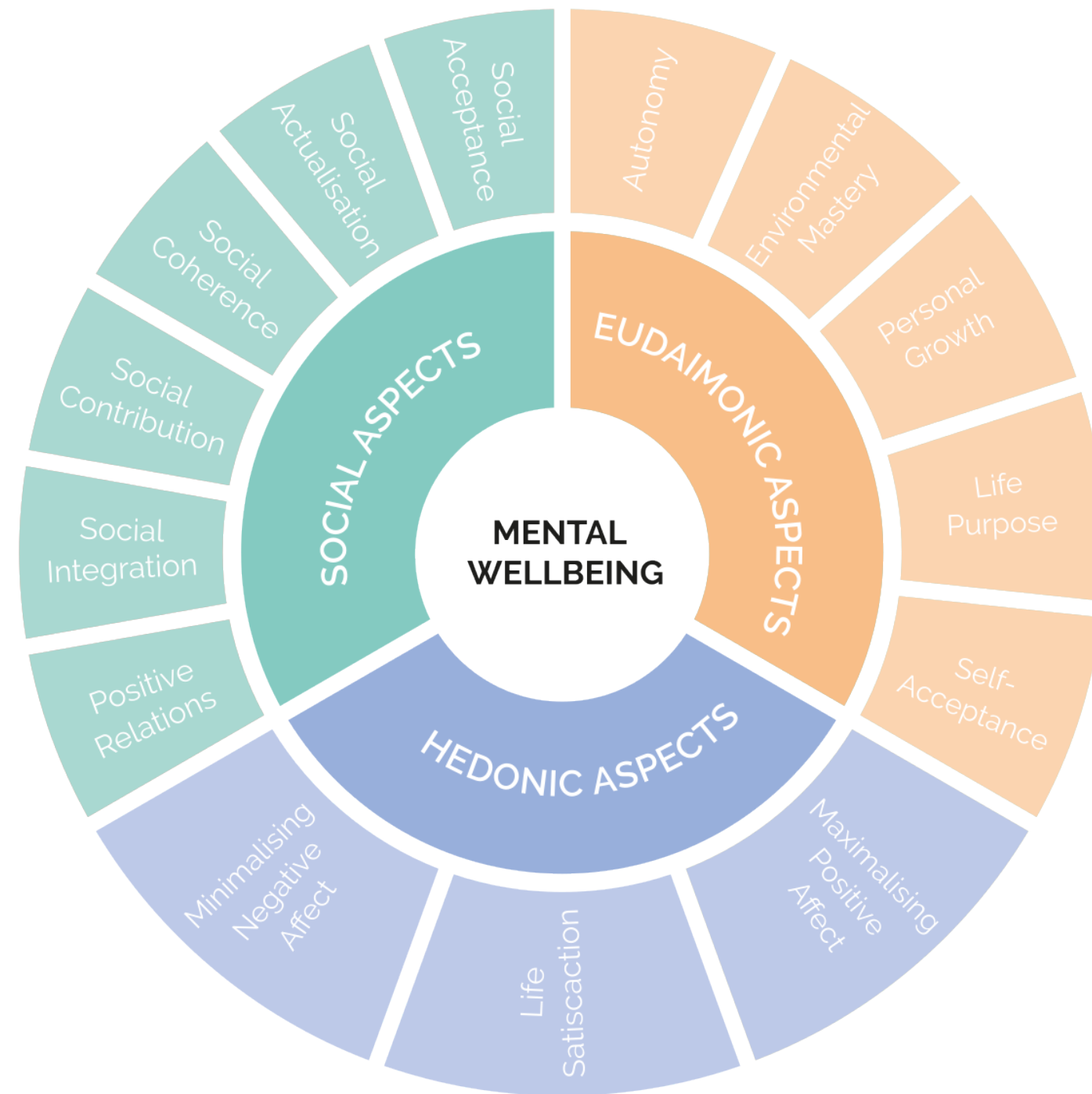


Nordvest media portrayal. Author: Hidde Barstra.



Citizens' protest against 'Ghetto Plan'. „Hands off our homes“, „Our homes aren't for sale“.





environmental
enrichment

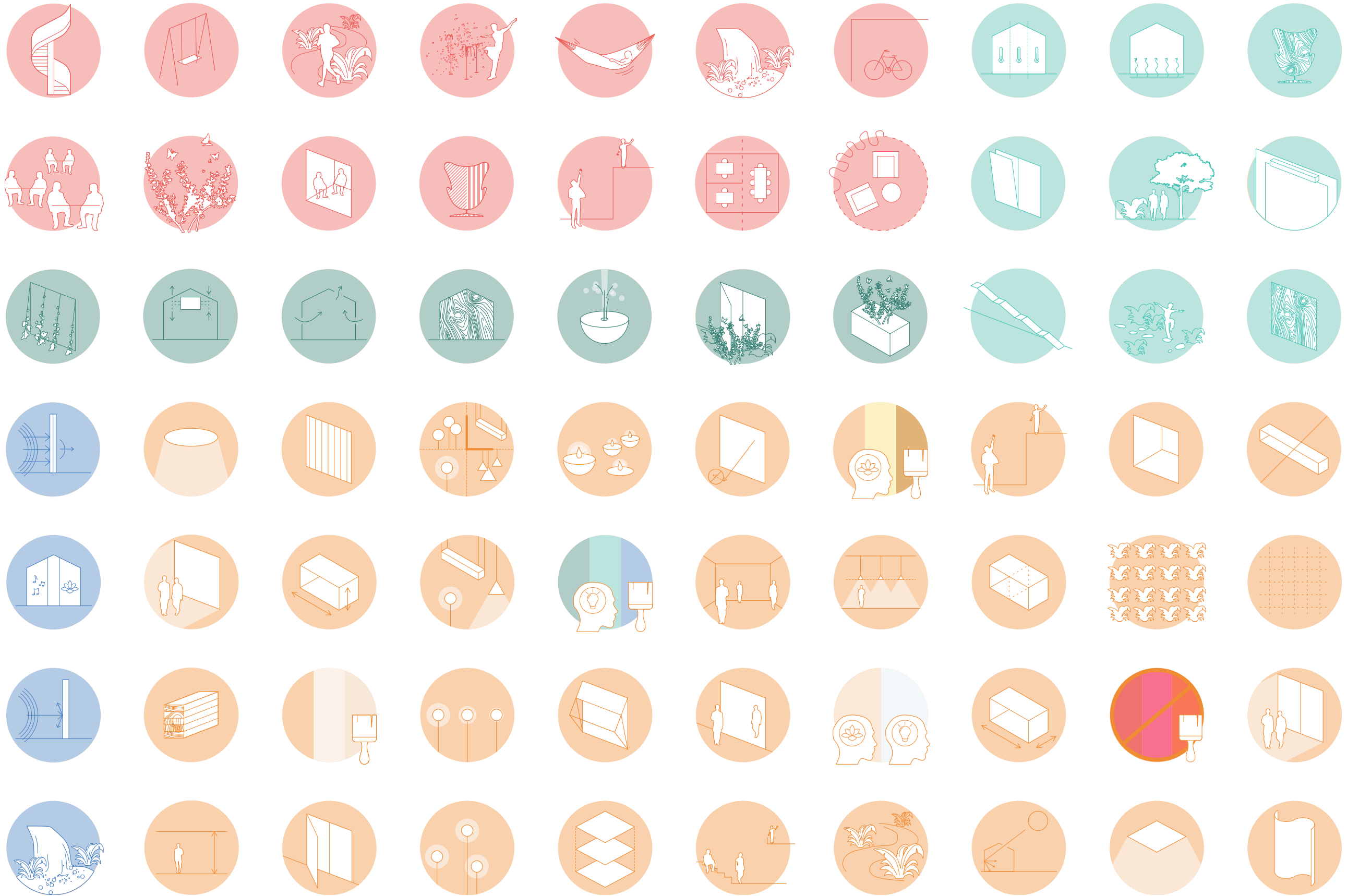
touch

smell

sound

sight

Research | Literature review



Research | Comparative case study



Community Centre Máj
České Budějovice, Czechia
SLLA Architects, 2017



Médiathèque Aubrac-Laguiole
Laguiole, France
Bétillon & Freyermuth, Crypto Architectes, 2024



Harmeny Learning Hub
Balerno, Edinburgh, United Kingdom
Loader Monteith, 2023



Maggie's Cancer Centre
Manchester, United Kingdom
Foster + Partners, 2016



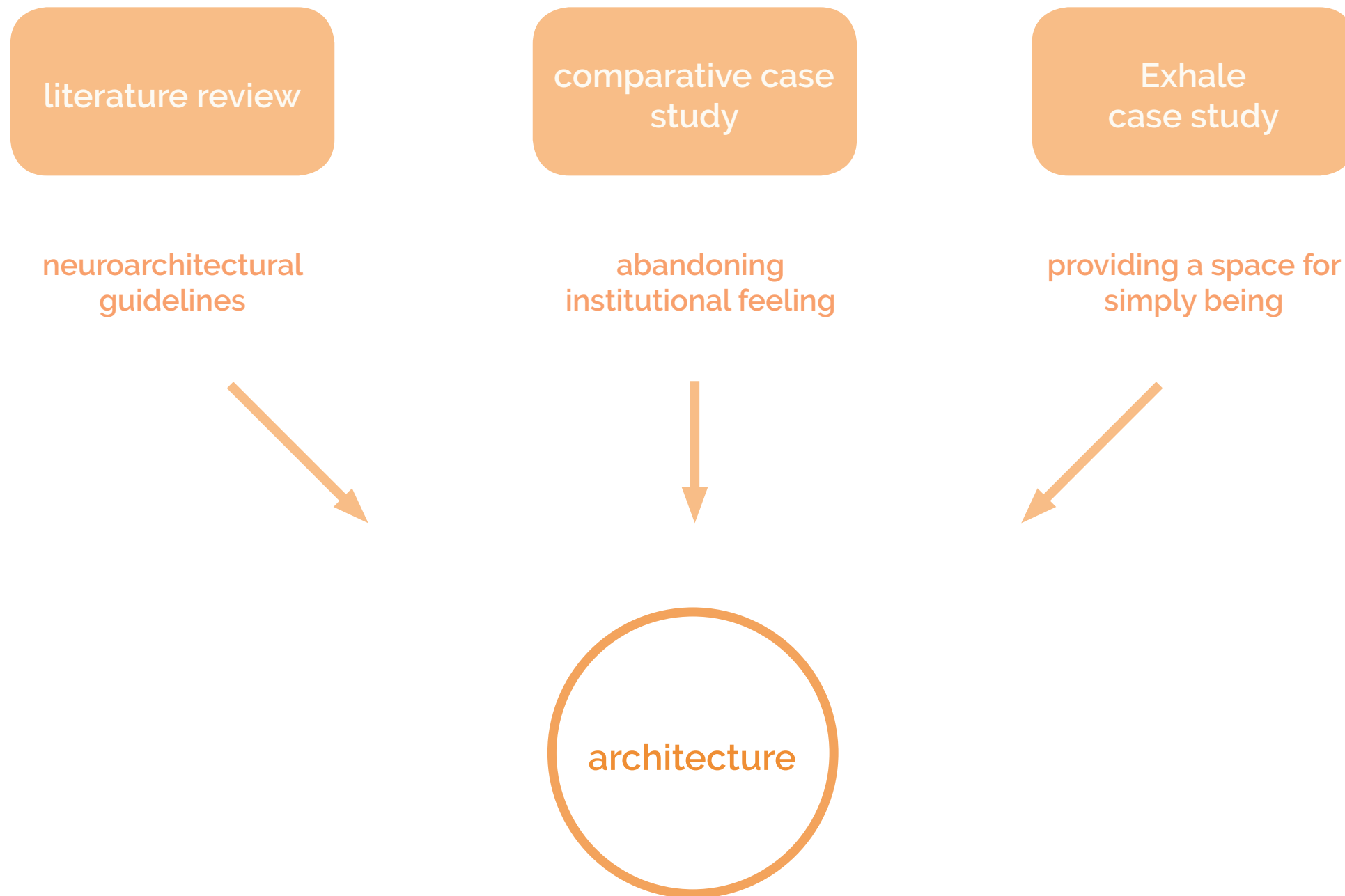
Oasis Farm Waterloo
London, United Kingdom
Feilden Fowles, 2018

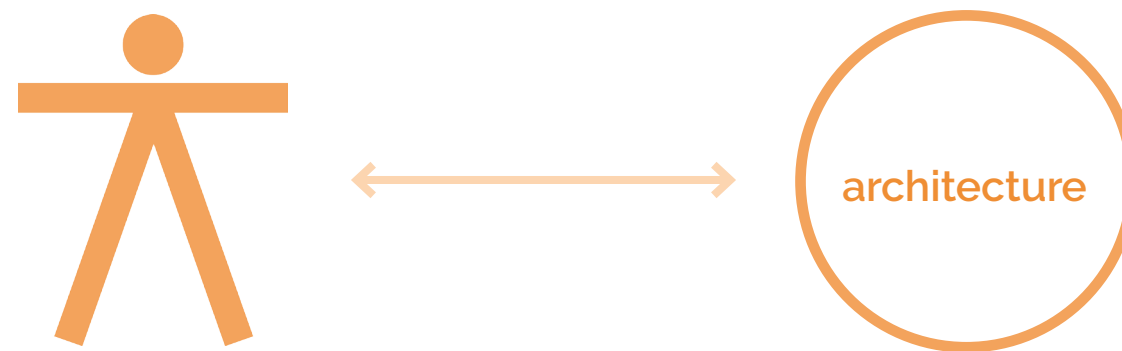


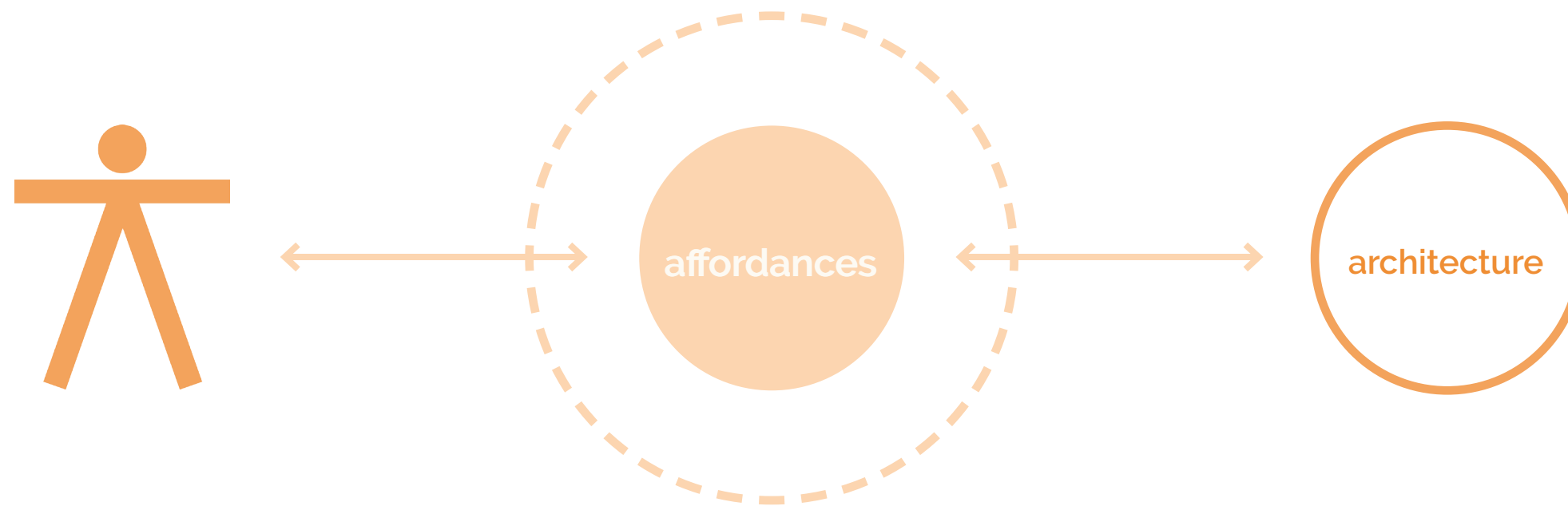
Livsrums Cancer Counselling Center
Næstved, Denmark
EFFEKT, 2013

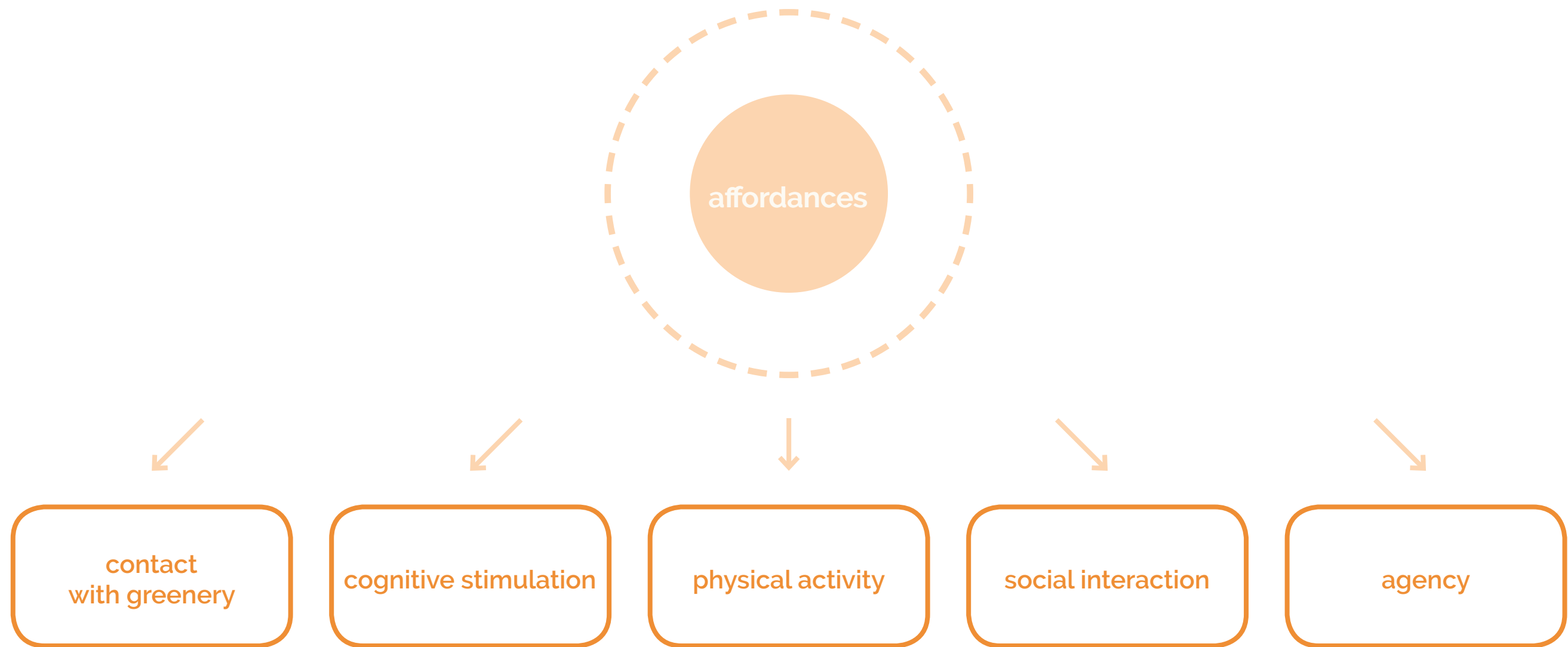


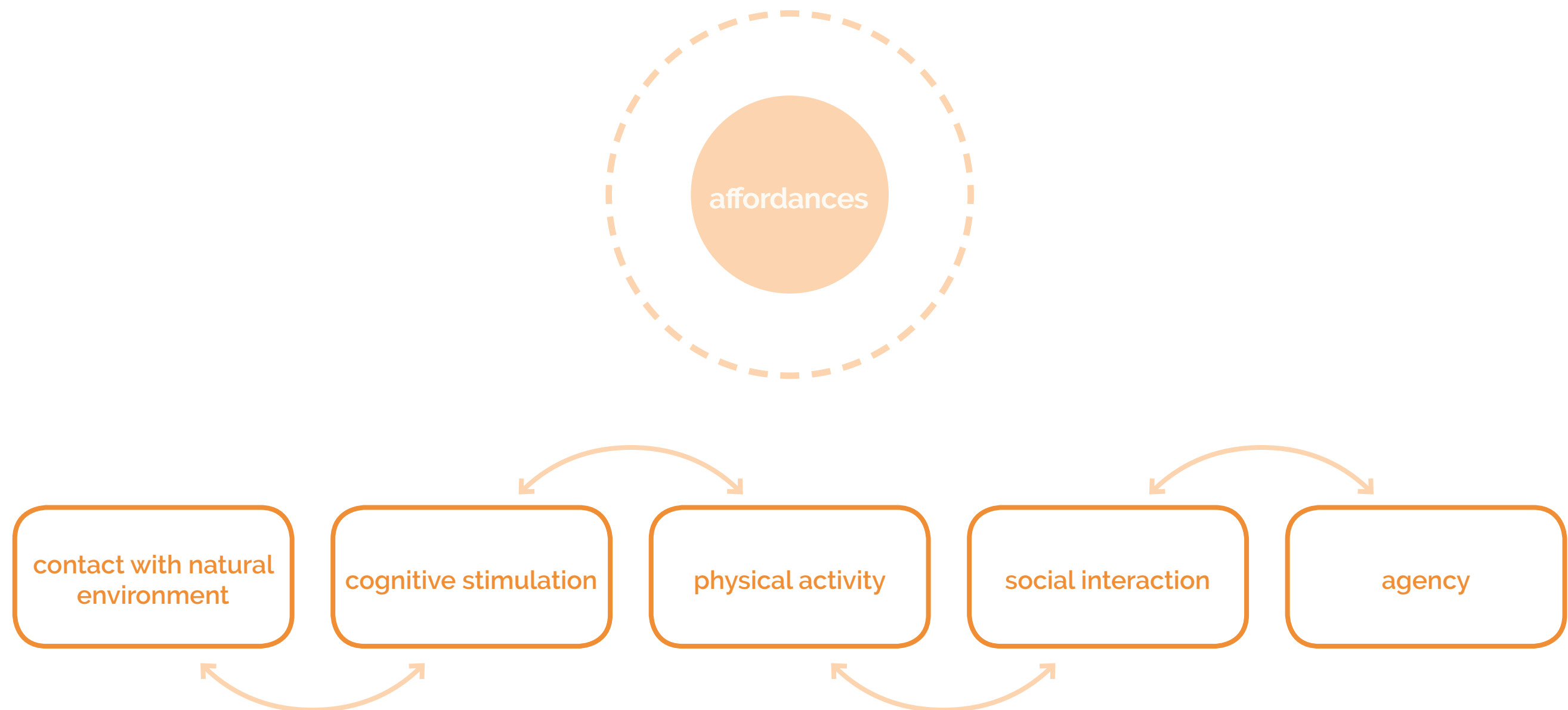
Exhale, a social living room for TU Delft students











Contact with natural environment | Studies examples



Skin exposure to sunlight can delay sleep phase and correct circadian rhythm.

Karami et al., 2016

Environment with plants significantly increased human comfort.

Qin et al., 2014

Photographic sky composition lowered stress and anxiety in hospital patients', compared to traditional tiled setting.

Pati et al., 2016

Manifestations of nature (view of nature from a window, images of nature, indoor plants) can positively affect patients' condition, including decreased pain, anxiety, depression, and their lengths of stay.

Karami et Jamshidi, Parker, and Hashemi, 2020

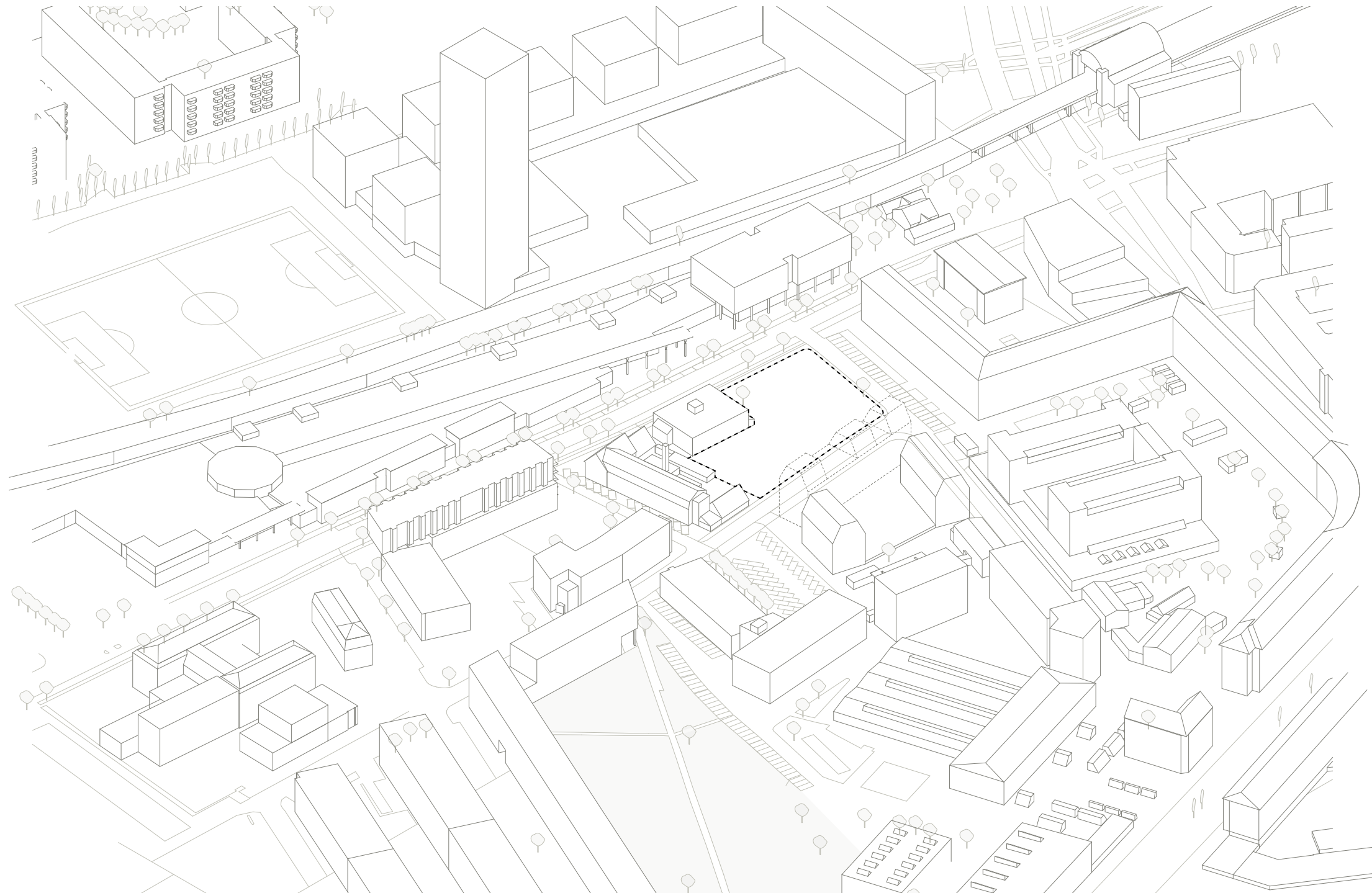
View towards nature can fasten recovery.

Ulrich, 1984

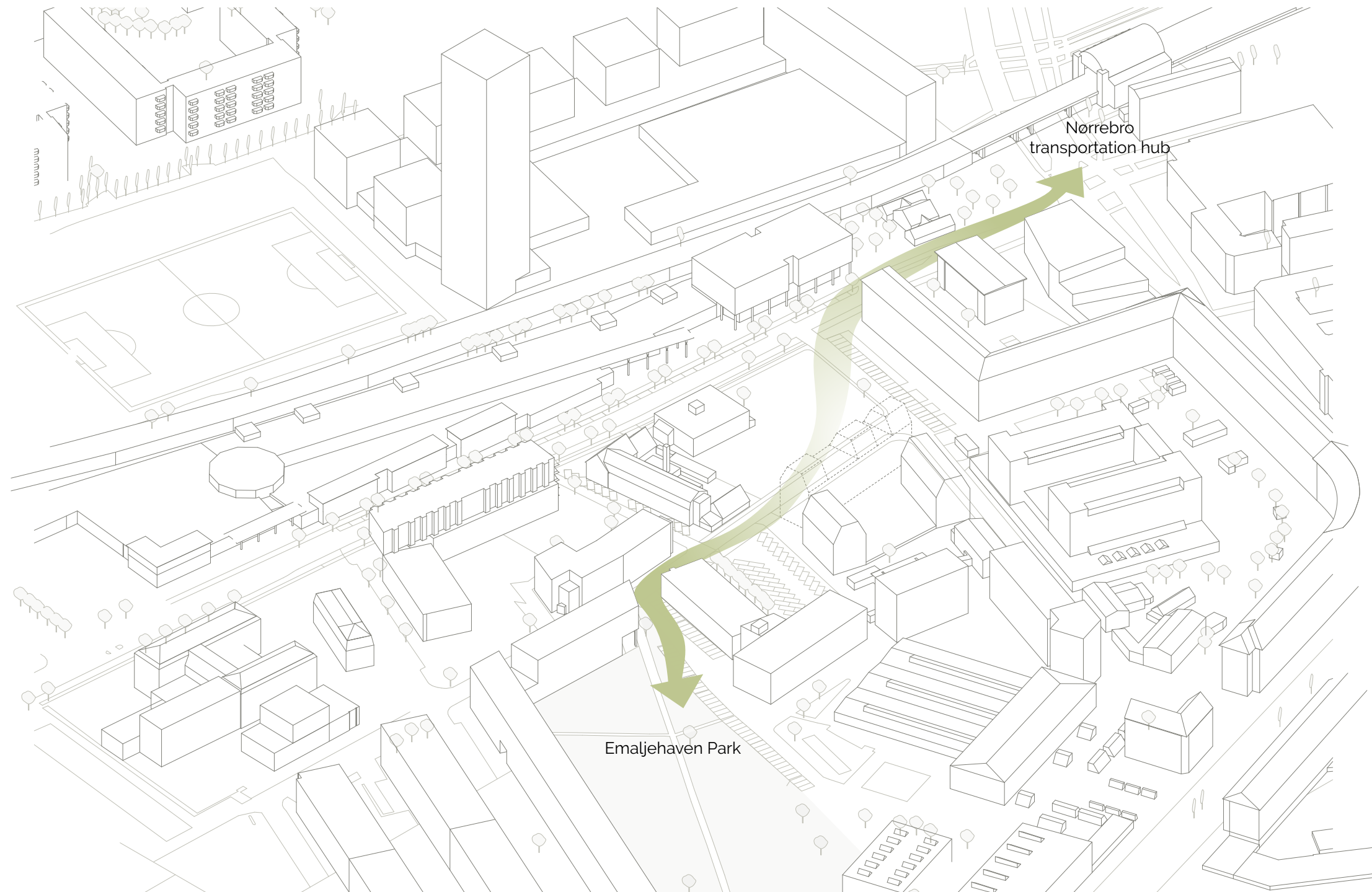
Touching wood affected performance positively and had relaxing influence on people.

Vavrinsky et al., 2019

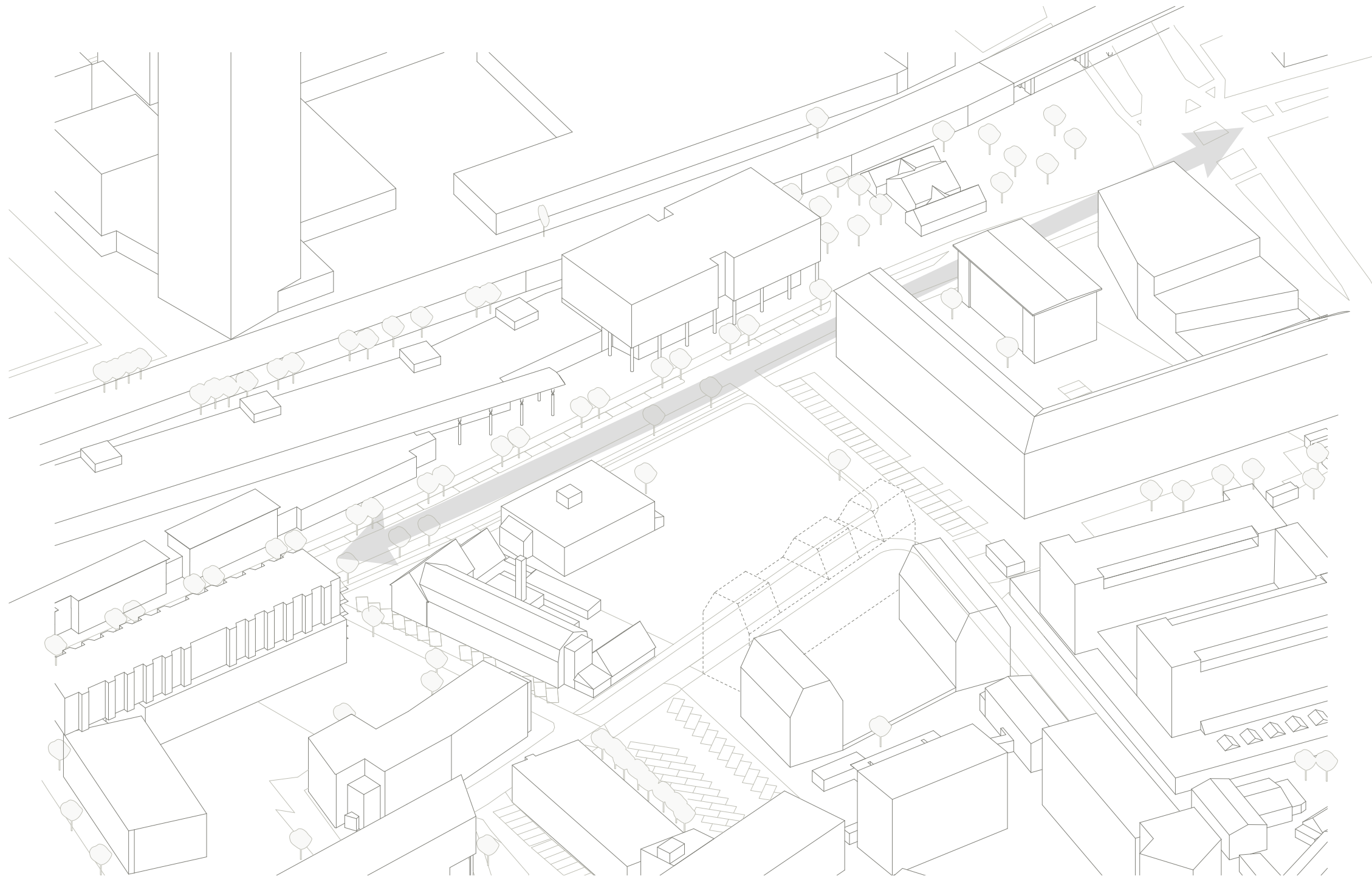
Contact with natural environment | New green area for the neighbourhood



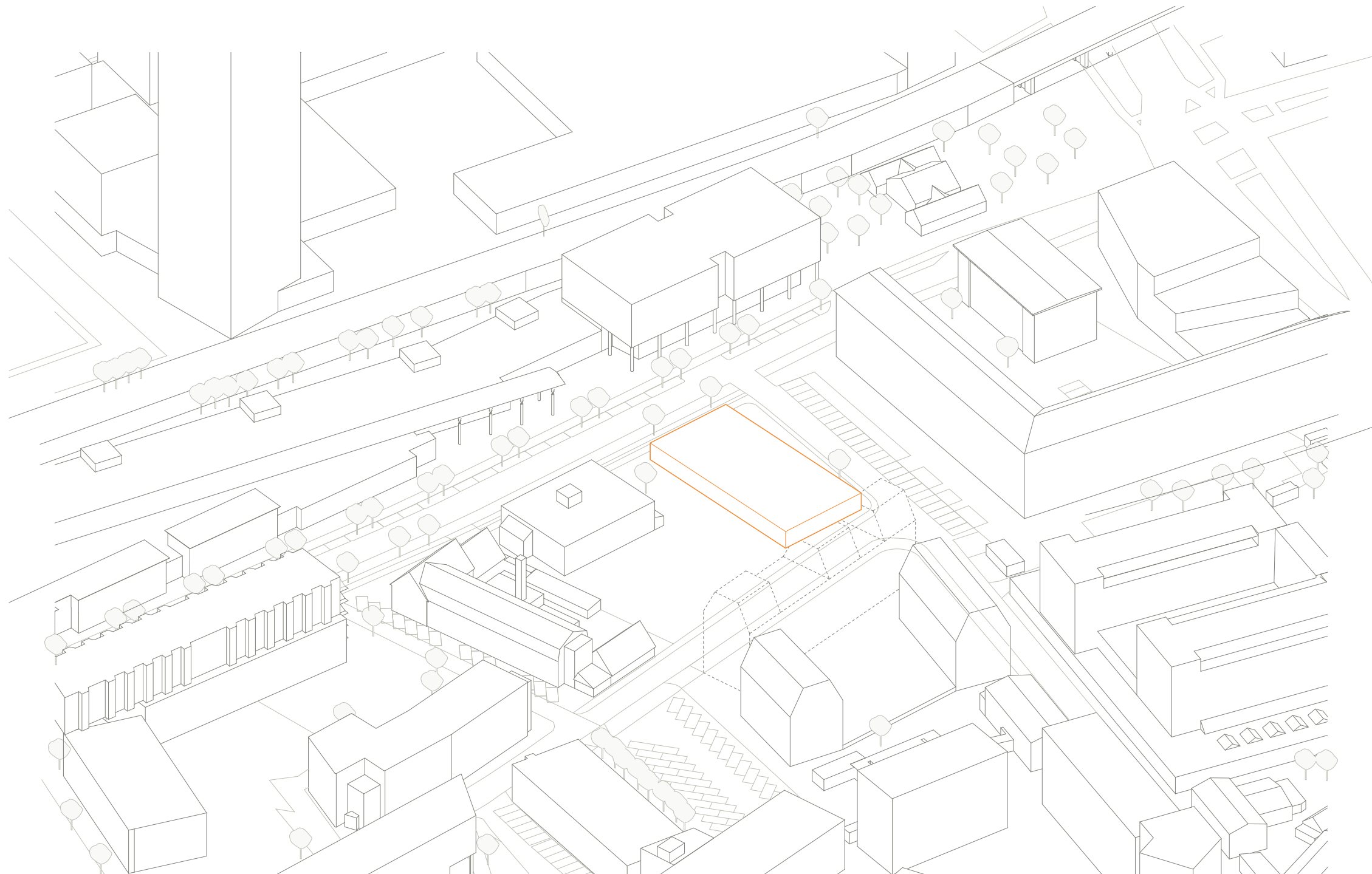
Contact with natural environment | New green area for the neighbourhood



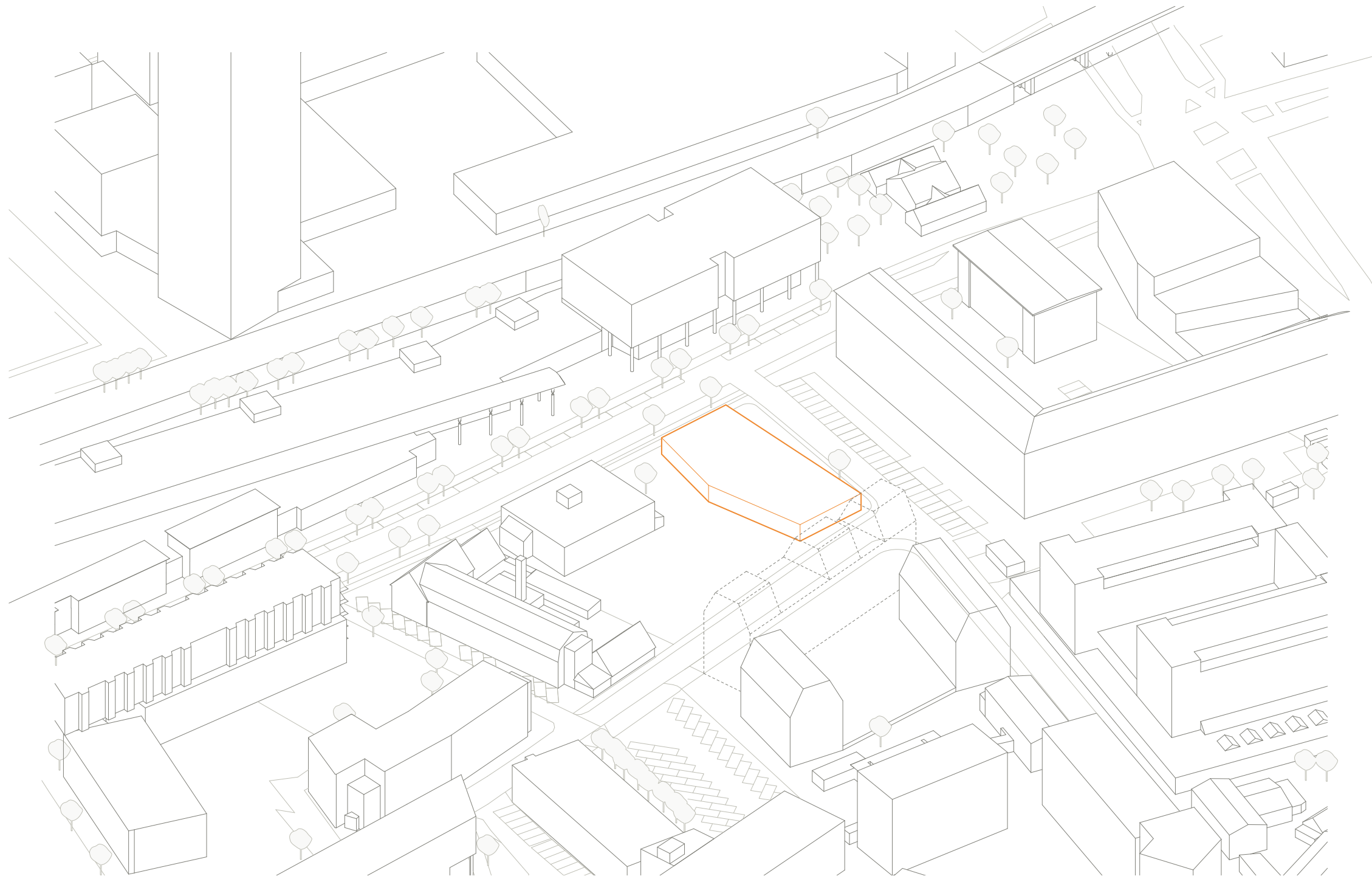
Contact with natural environment | New green area for the neighbourhood



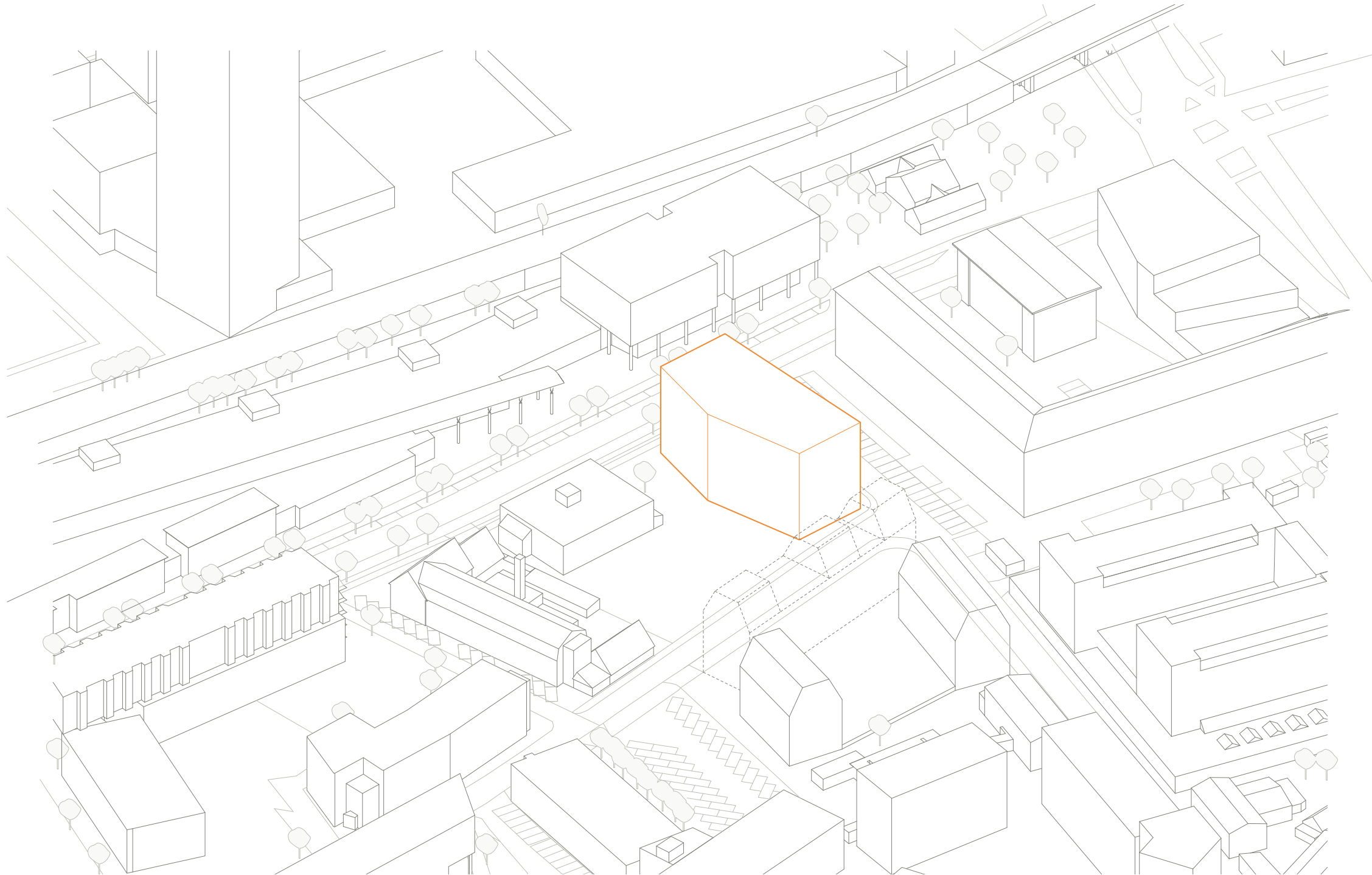
Contact with natural environment | New green area for the neighbourhood



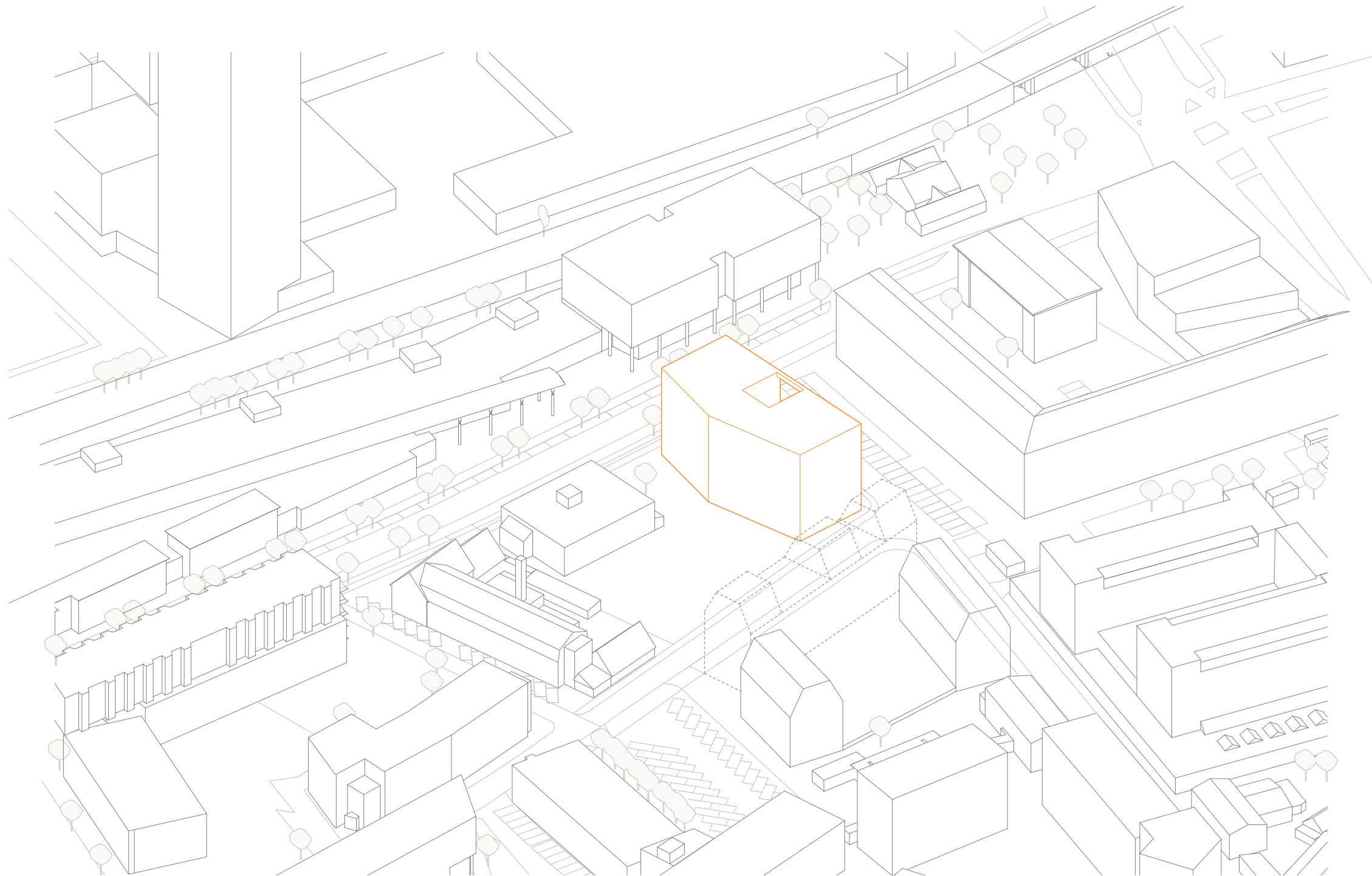
Contact with natural environment | New green area for the neighbourhood



Contact with natural environment | New green area for the neighbourhood



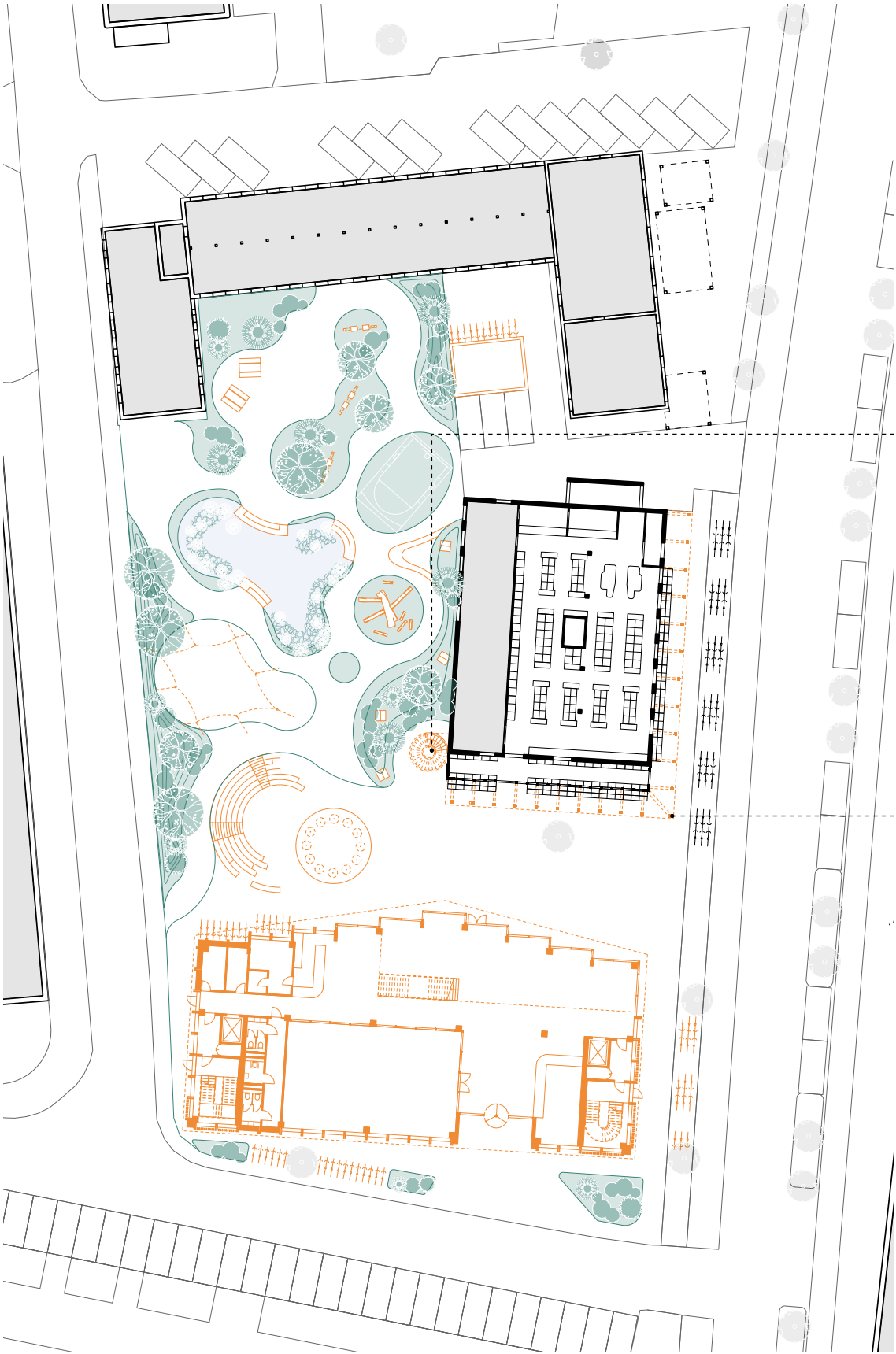
Contact with natural environment | New green area for the neighbourhood



Contact with natural environment | South entrance



Contact with natural environment | Siteplan



Rooftop farming

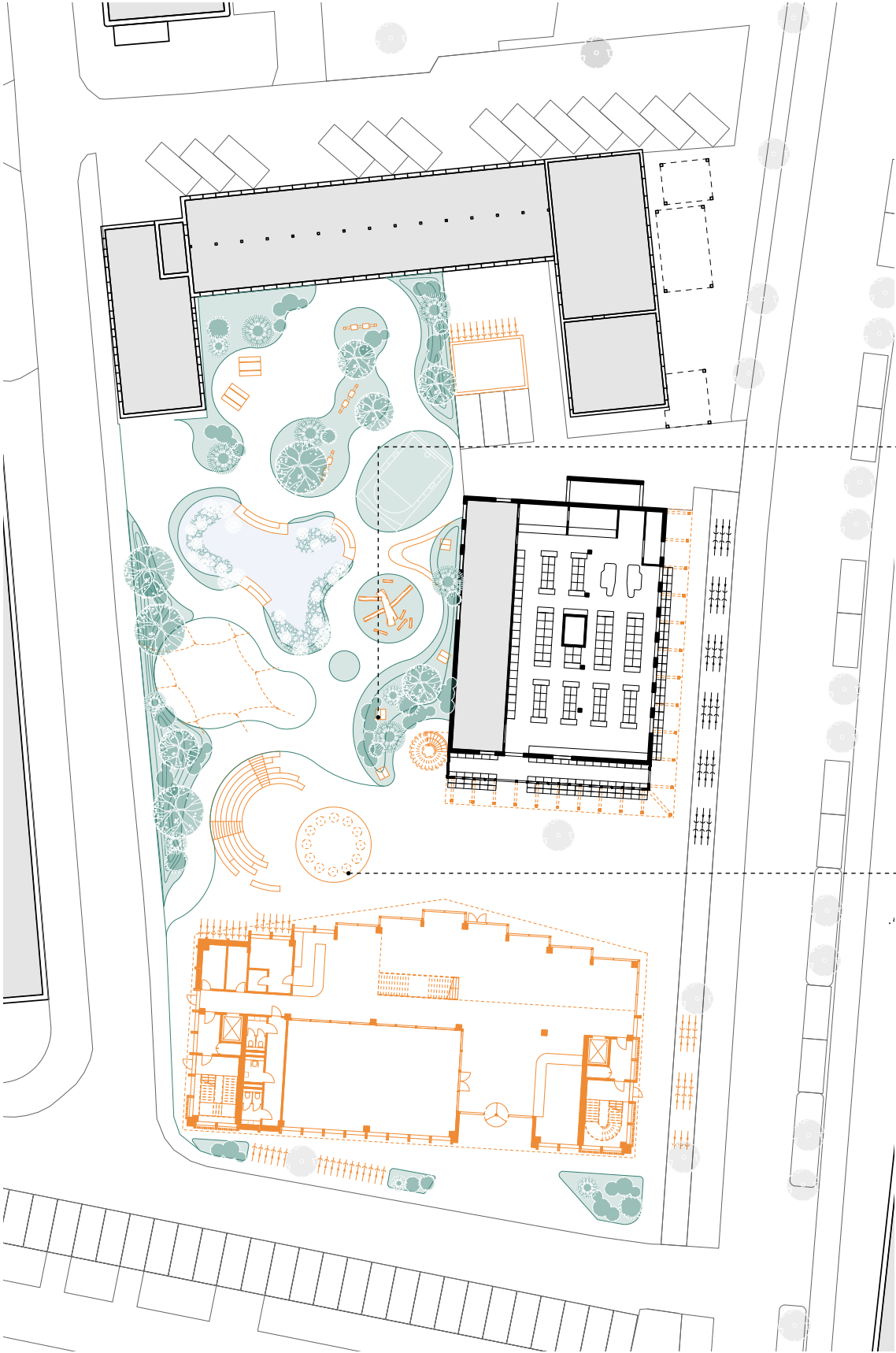


Bazaar evolution





Contact with natural environment | Siteplan



Tall grass



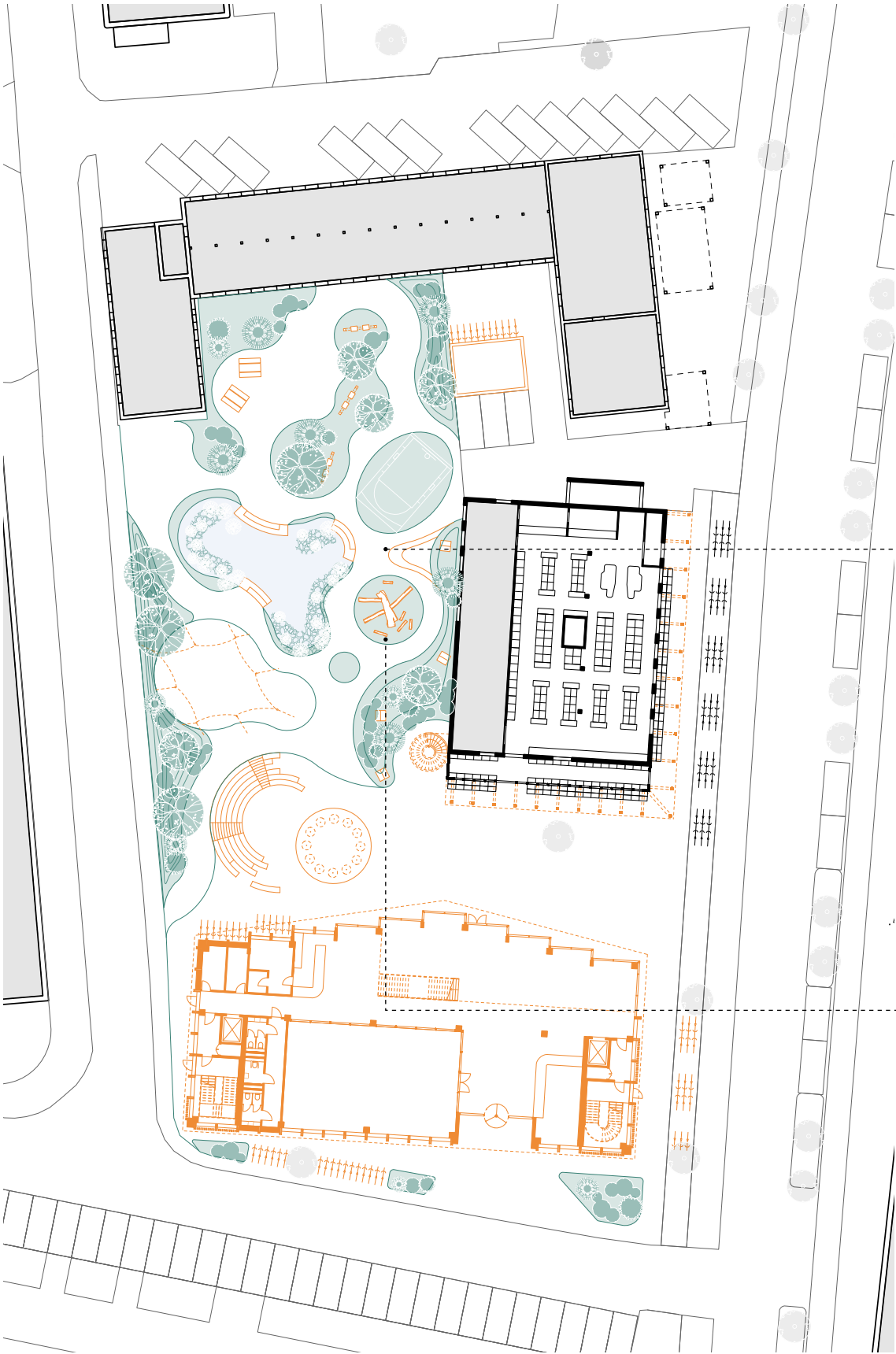
Water movement



Contact with natural environment | Siteplan



Contact with natural environment | Siteplan



Pond with wooden platforms



Wooden logs



Contact with natural environment | Atmosphere



Cognitive stimulation | Studies examples



Cognitive stimulation significantly improves general cognitive functioning, memory, orientation, praxis, and calculation in older adults

García-Campayo et al., 2022

Cognitive training and mental stimulation improve executive function, working memory, processing speed, and subjective cognitive performance in older adults.

Kelly et al., 2014

Children exposed to higher levels of cognitive stimulation at home show greater improvements in executive function, such as working memory and cognitive flexibility.

Rosen et al., 2020

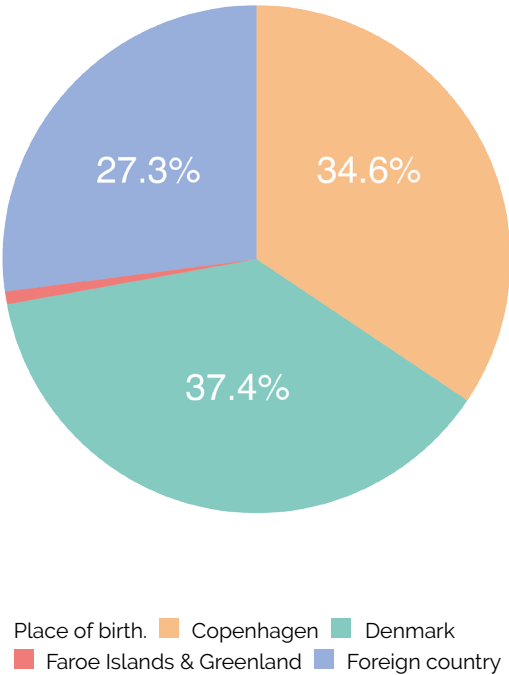
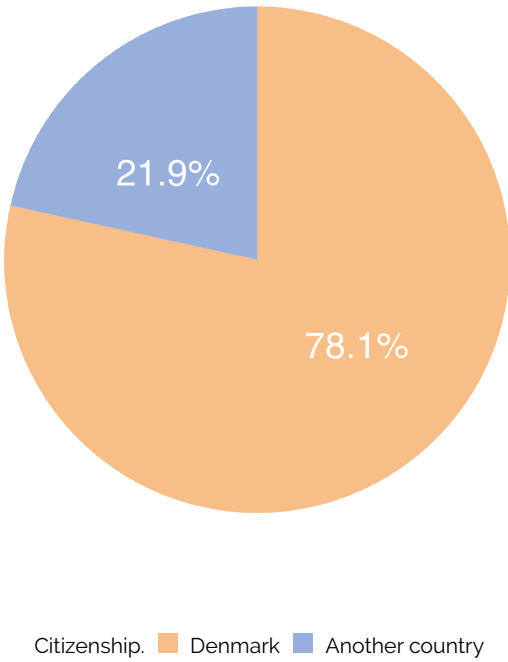
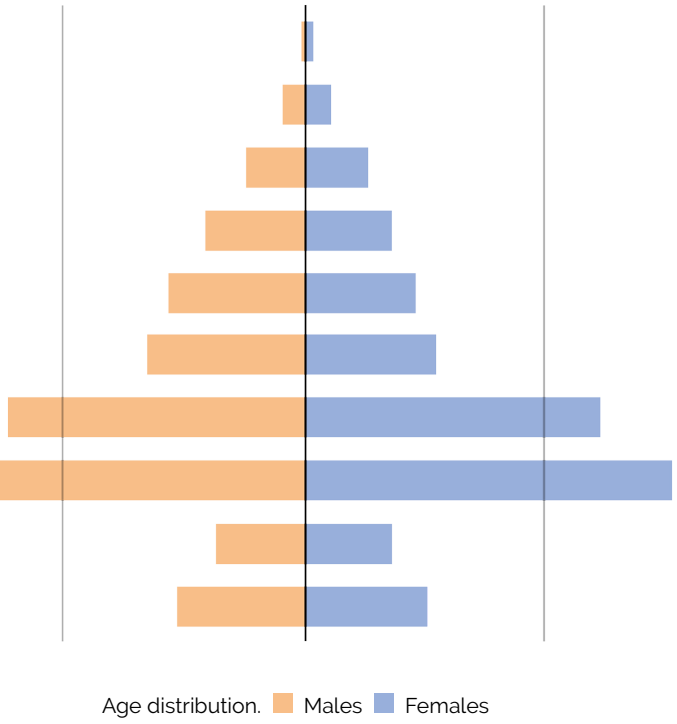
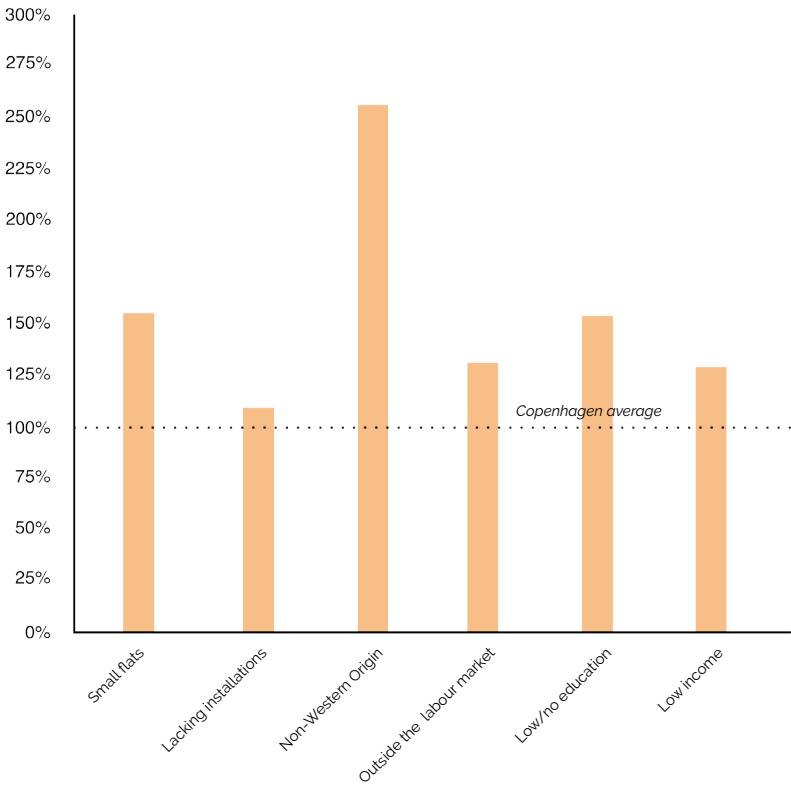
Early-life cognitively stimulating activities are associated with better cognitive performance in late life.

Nature, 2025

School-based cognitive stimulation interventions lead to improved executive functions and better academic outcomes in later grades.

Matthys, 2023

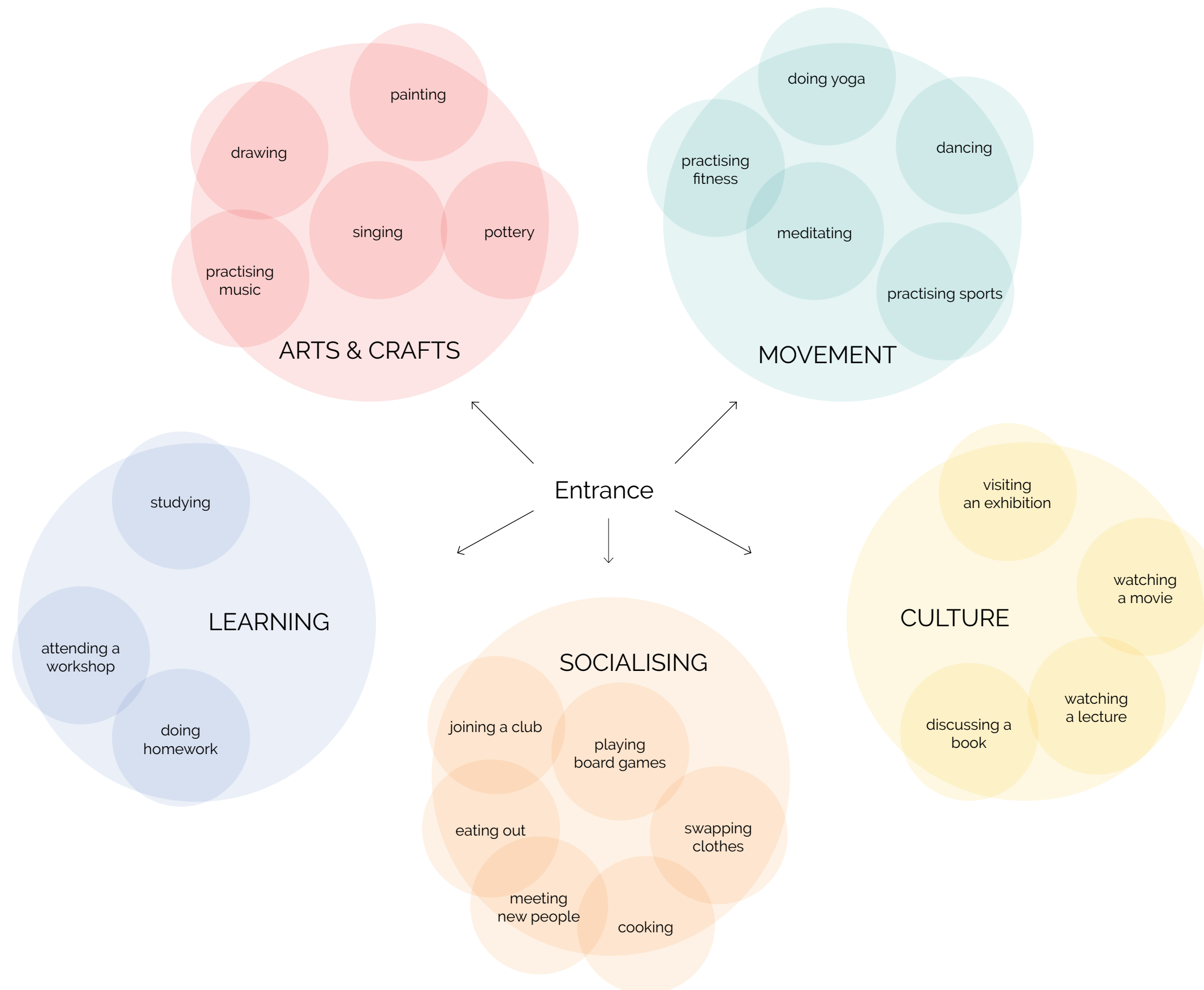
Cognitive stimulation | Population



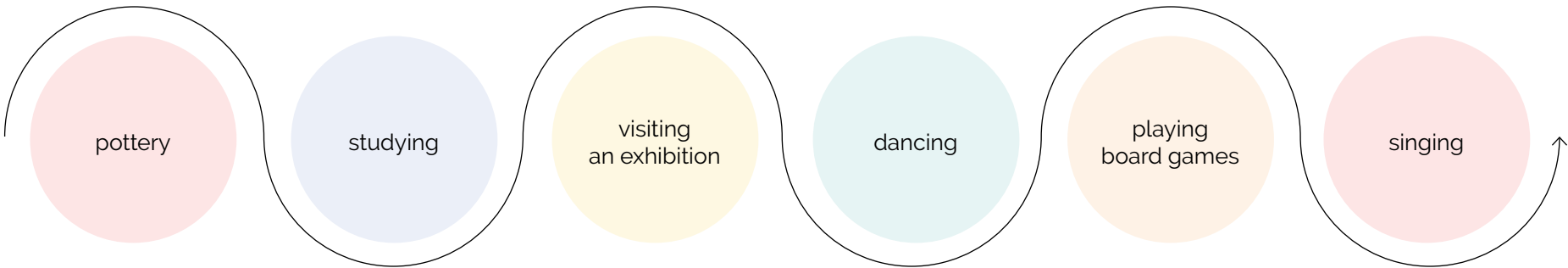
Cognitive stimulation | Creating affordances



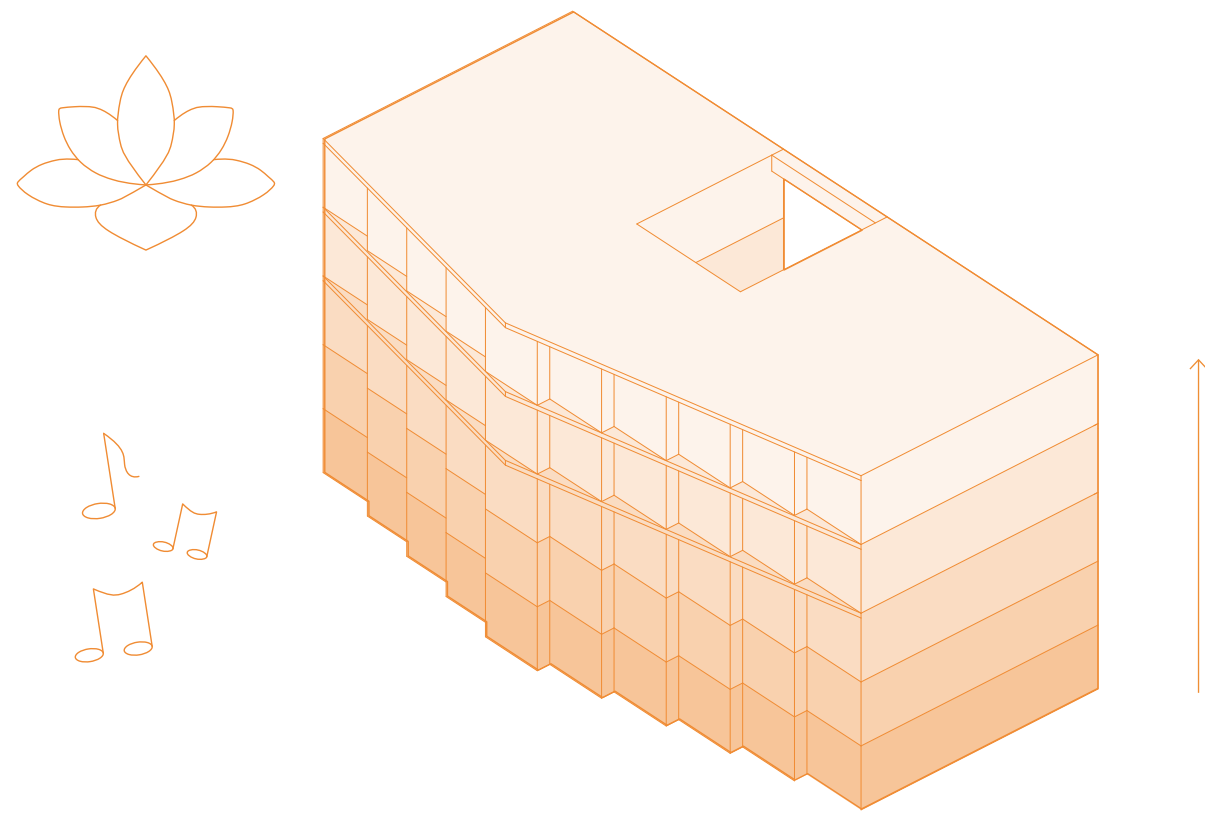
Cognitive stimulation | Clusters



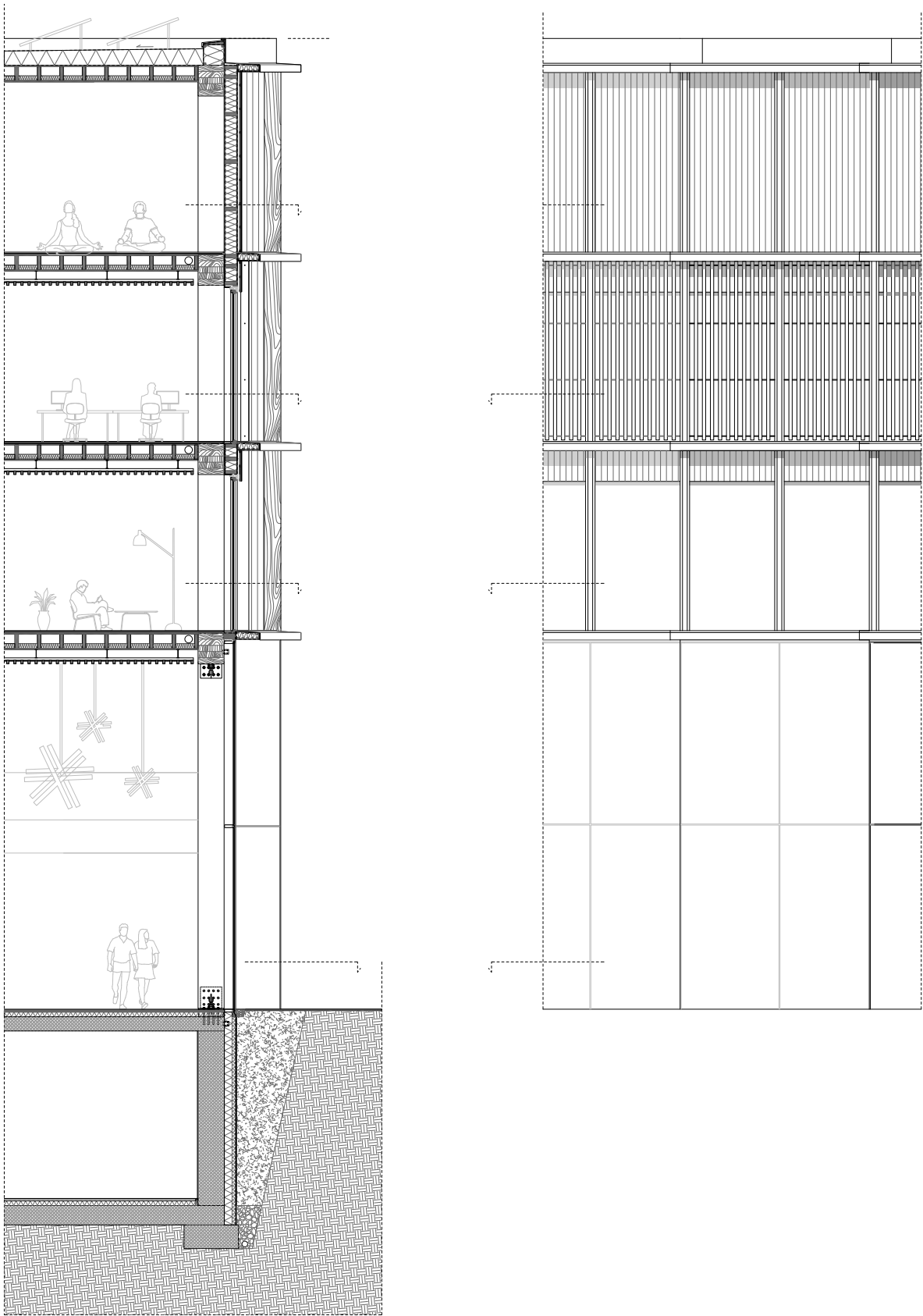
Cognitive stimulation | Intertwined functions



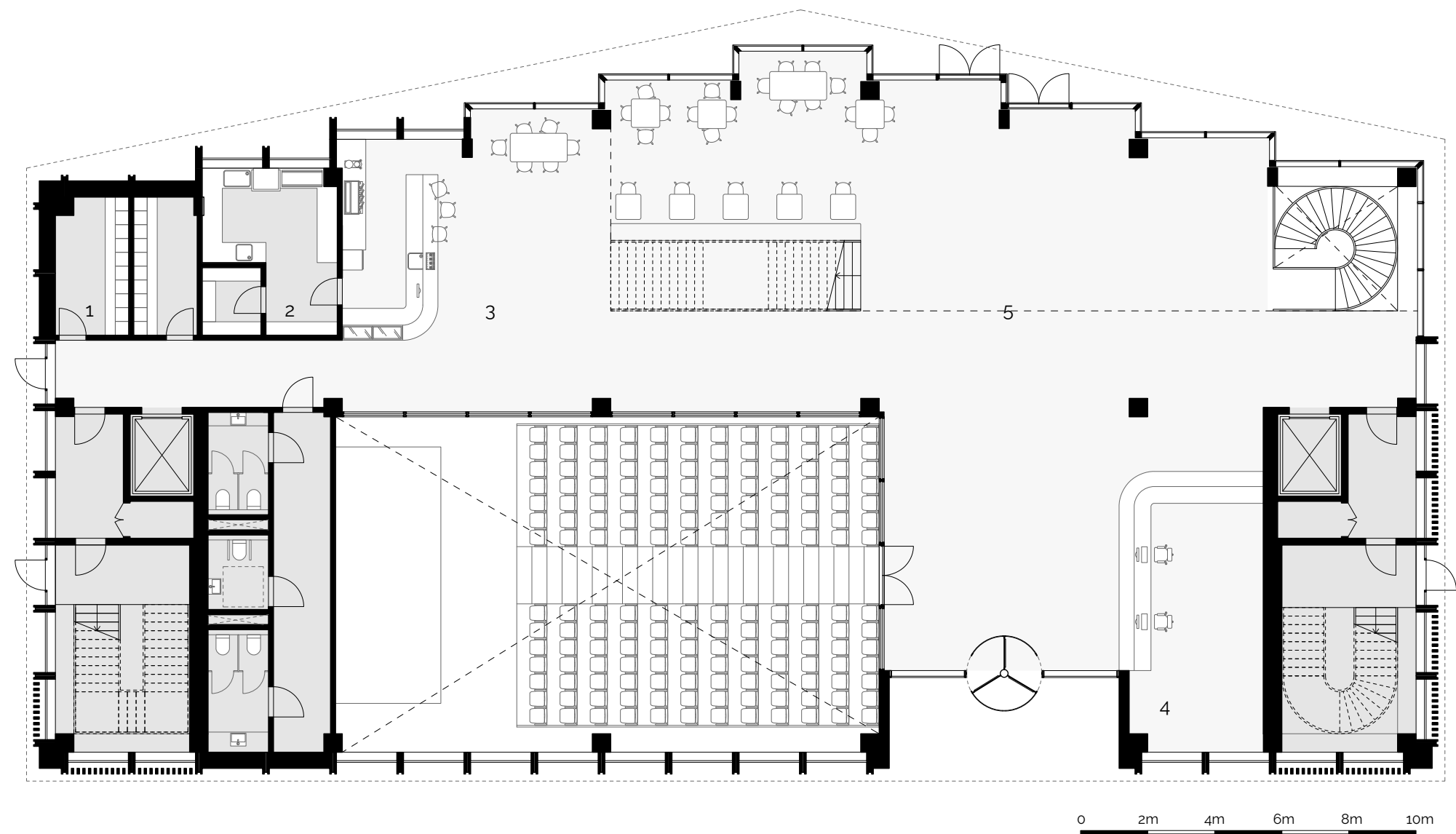
Cognitive stimulation | Programme gradation



Cognitive stimulation | Building detail



Cognitive stimulation | Programme placement

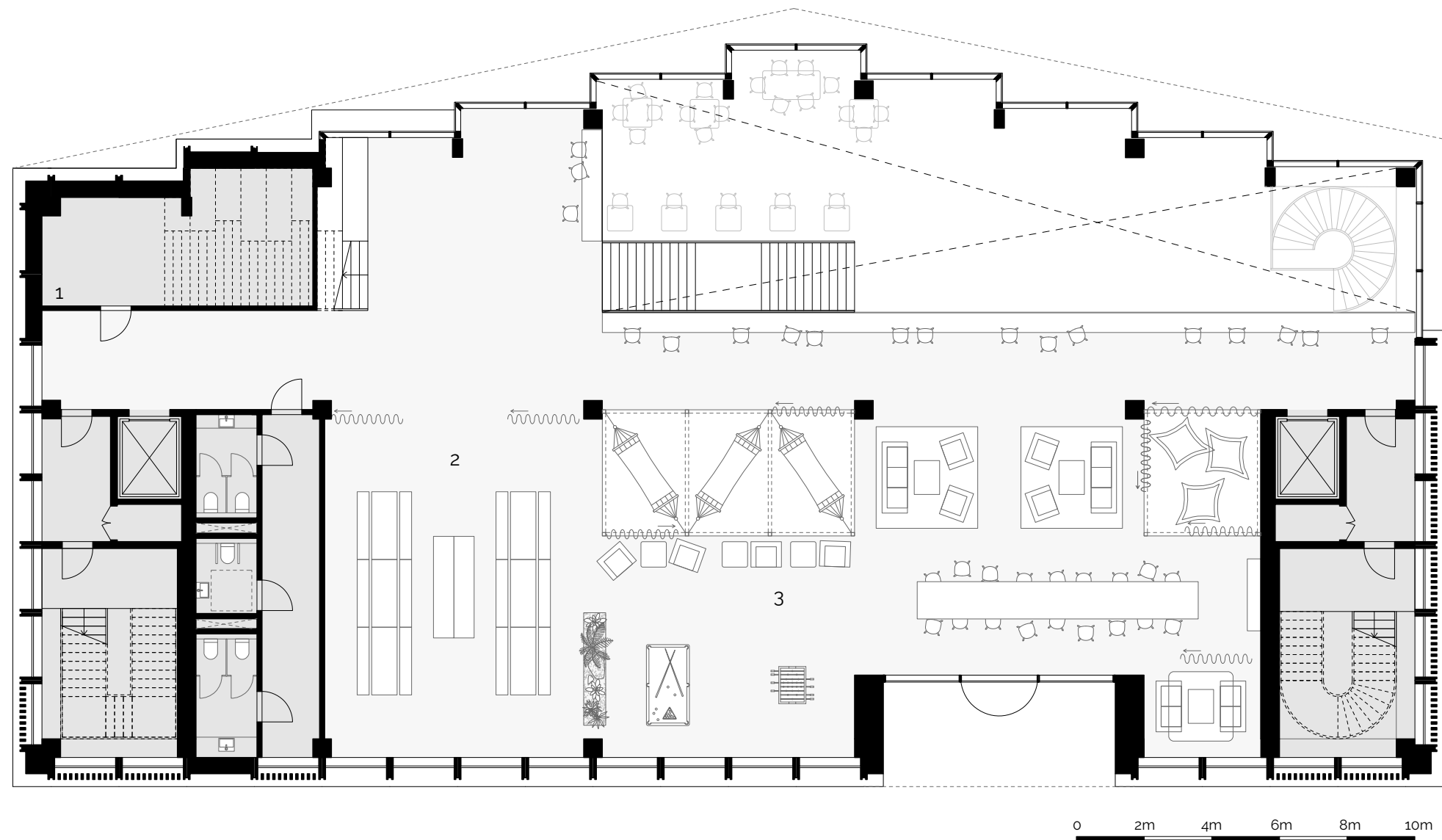


- Level 0, scale 1:100 (rescaled)
- 1 personel changing rooms
- 2 cafeteria preparation
- 3 cafeteria
- 4 reception desk
- 5 foyer

Cognitive stimulation | Programme placement



Cognitive stimulation | Programme placement



Level +1, scale 1:100 (rescaled)

1 storage

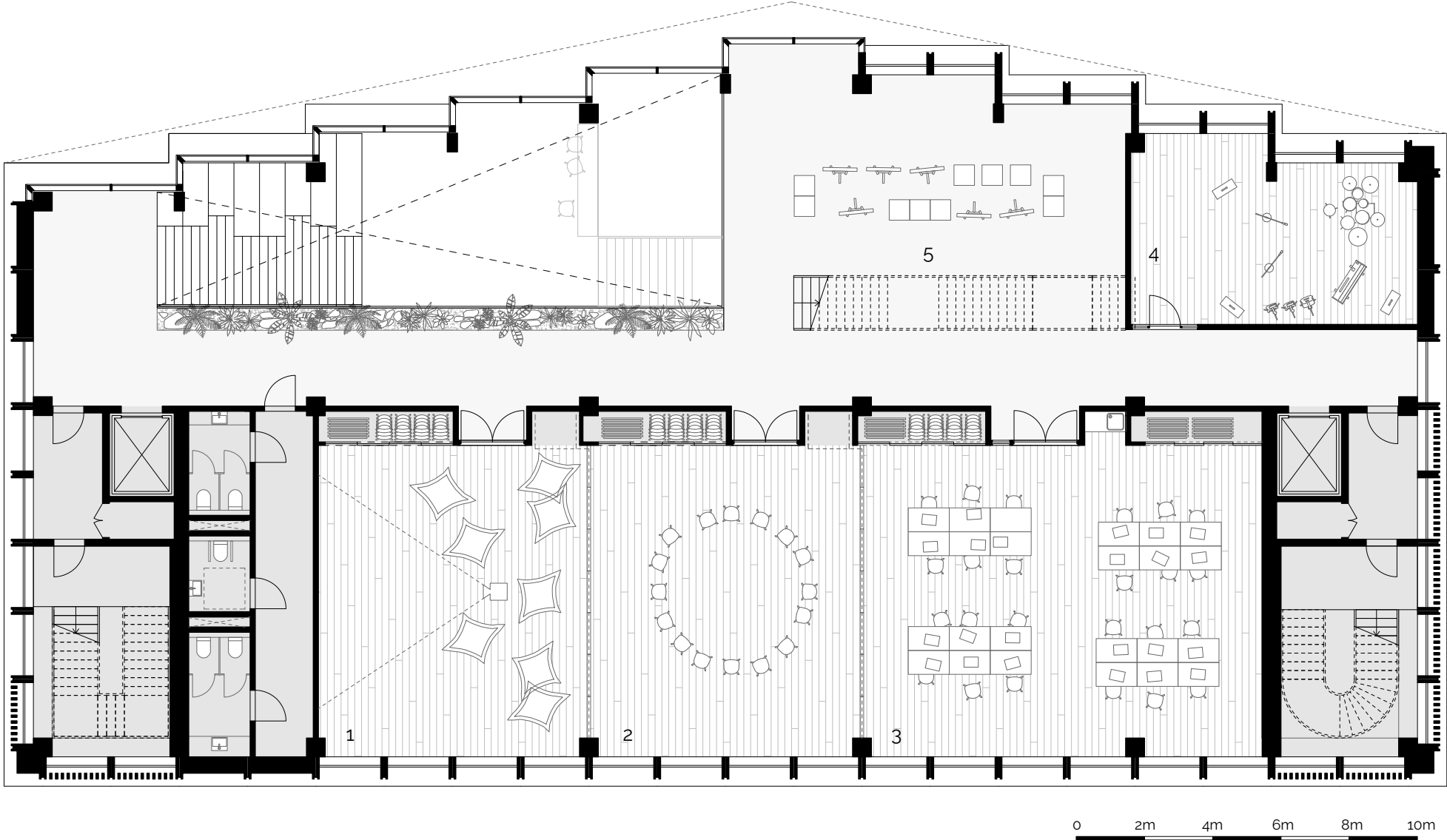
2 community kitchen

3 social living room

Cognitive stimulation | Social living room

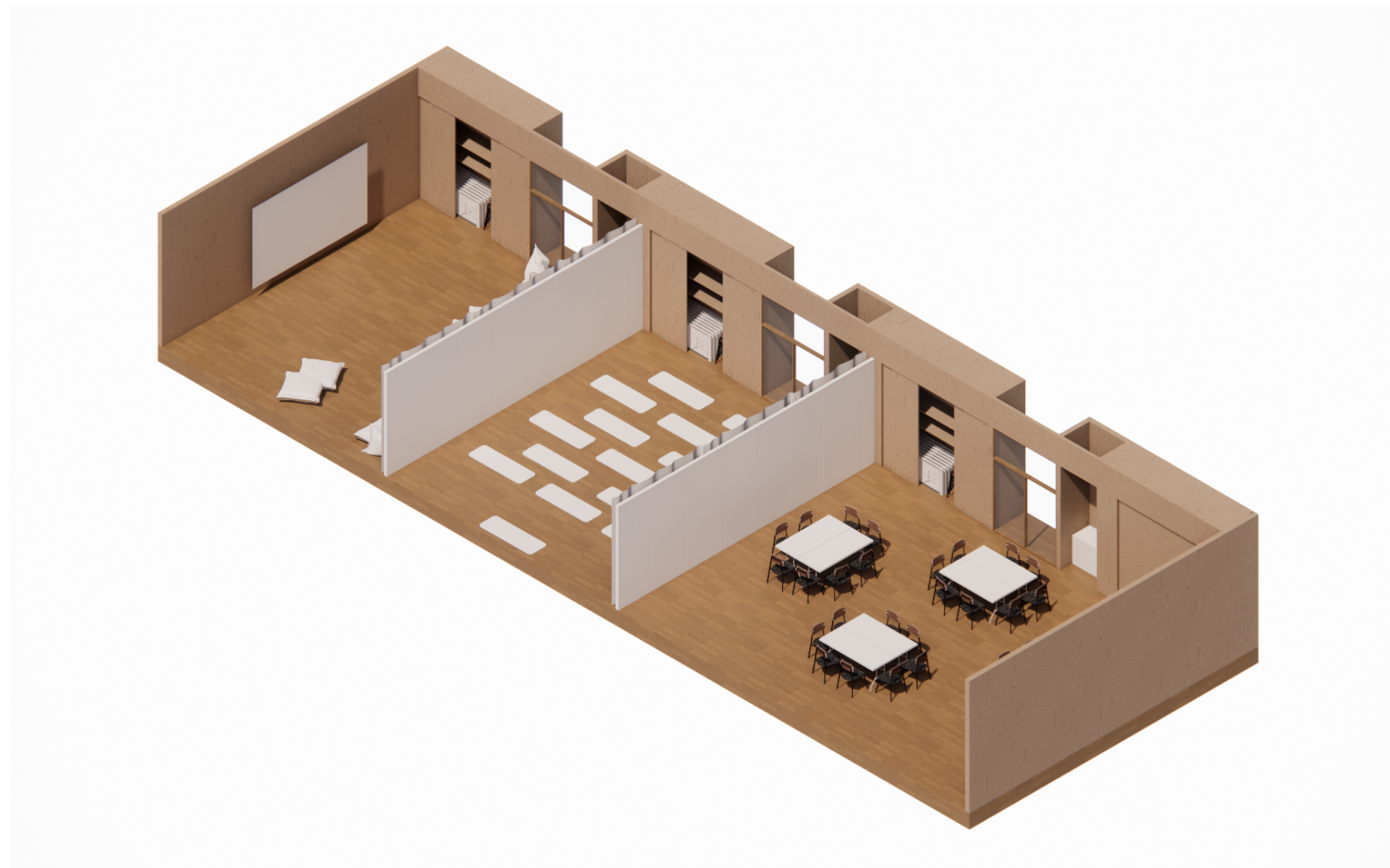


Cognitive stimulation | Programme placement

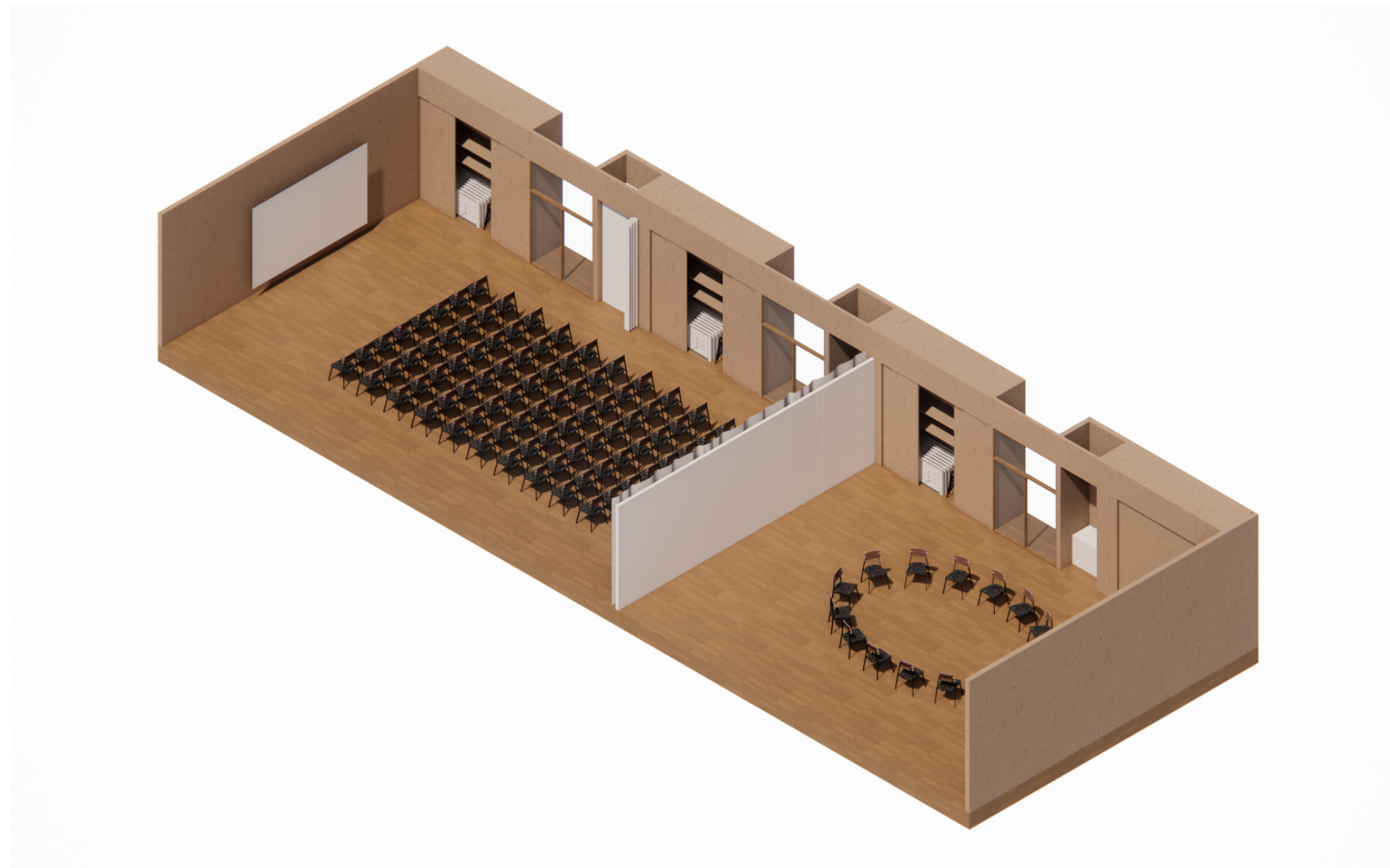


- Level +2, scale 1:100 (rescaled)
- Multipurpose area, arrangement proposal
- 1 movie screening
 - 2 book club meeting
 - 3 children workshop
 - 4 music practise room
 - 5 exhibition area

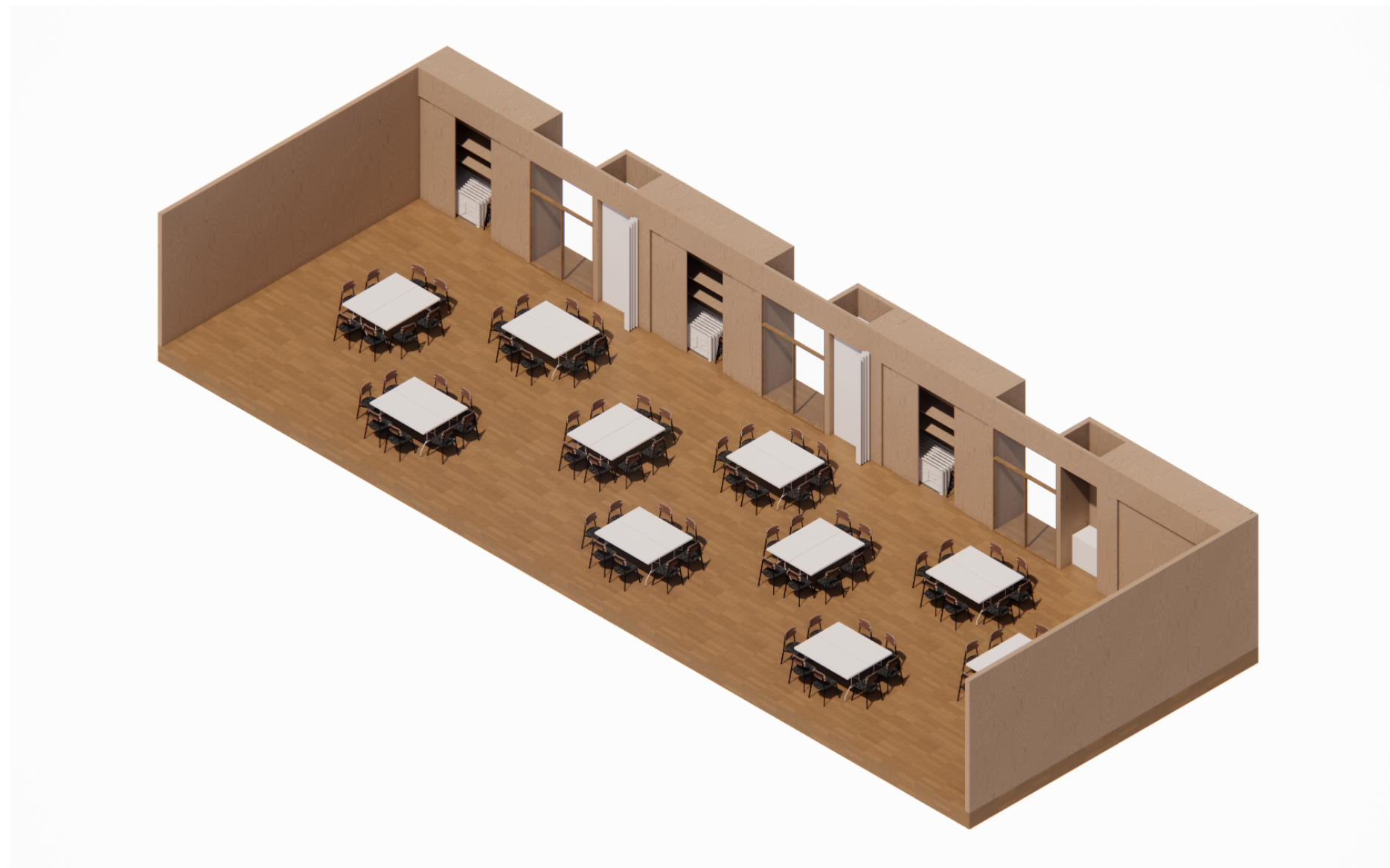
Cognitive stimulation | Adaptability



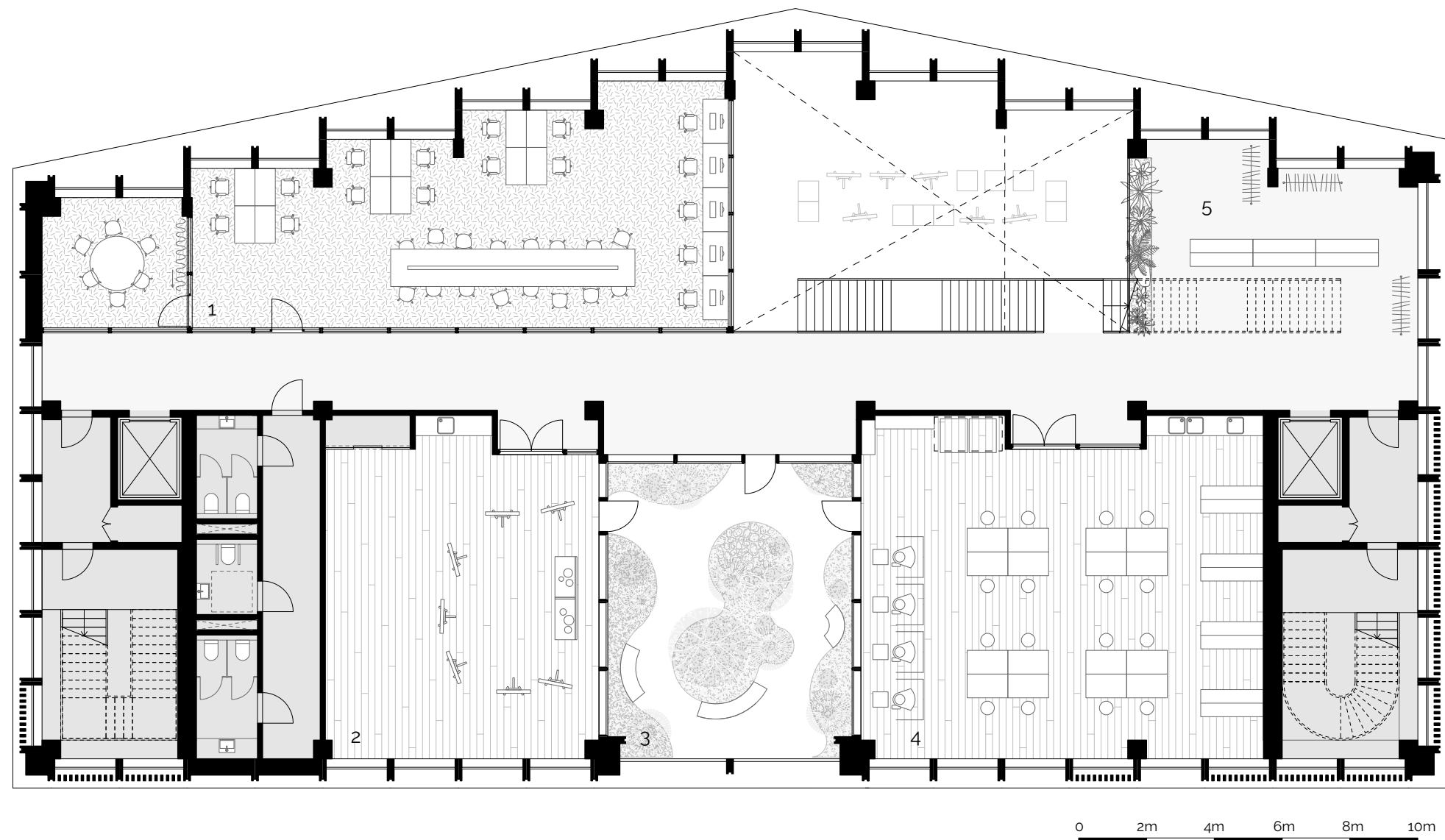
Cognitive stimulation | Adaptability



Cognitive stimulation | Adaptability



Cognitive stimulation | Programme placement



Level +3, scale 1:100 (rescaled)

1 quiet reading room

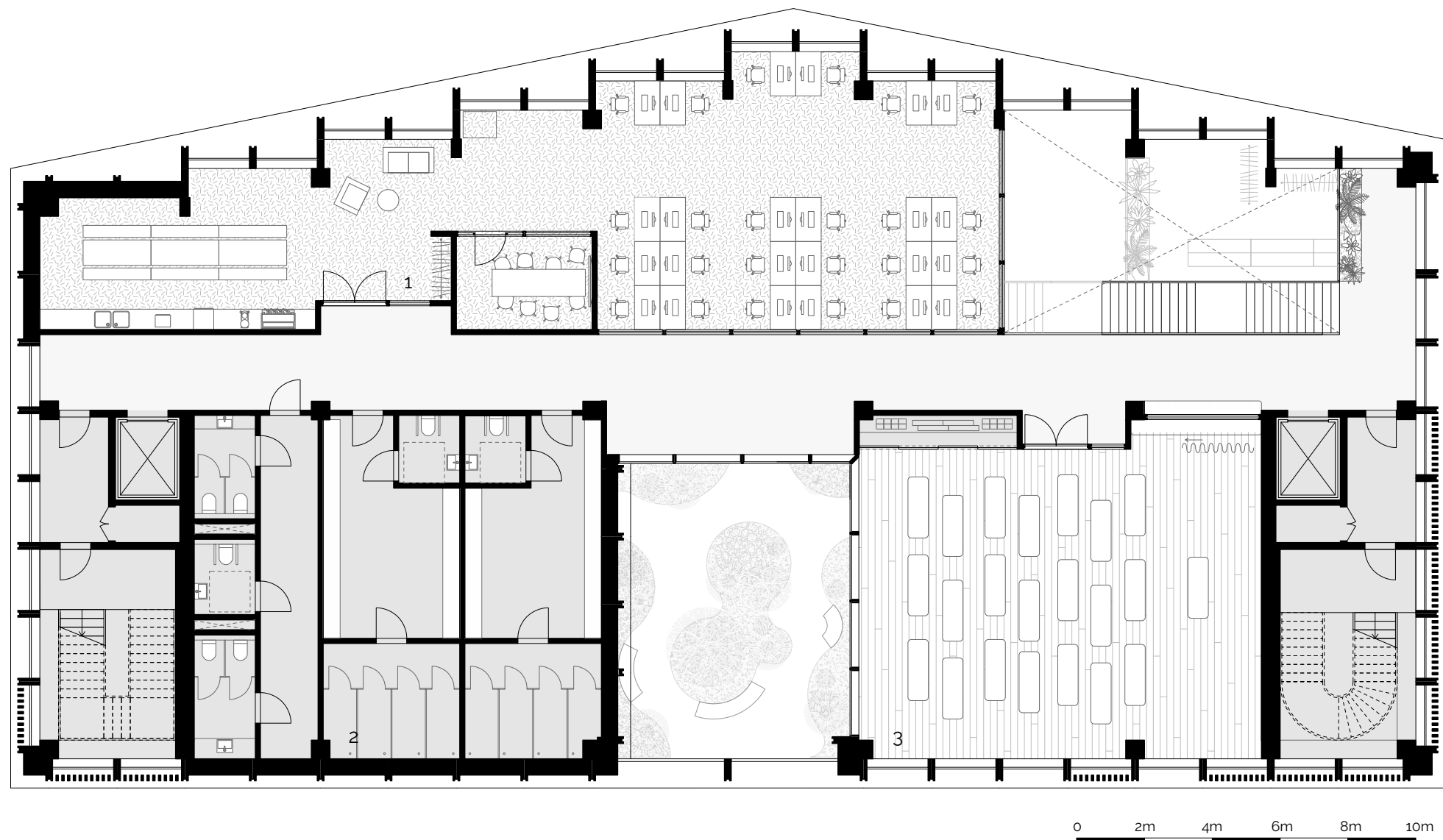
2 art studio

3 outdoor terrace

4 ceramics studio

5 swap corner

Cognitive stimulation | Programme placement



Level +4, scale 1:100 (rescaled)

1 administration

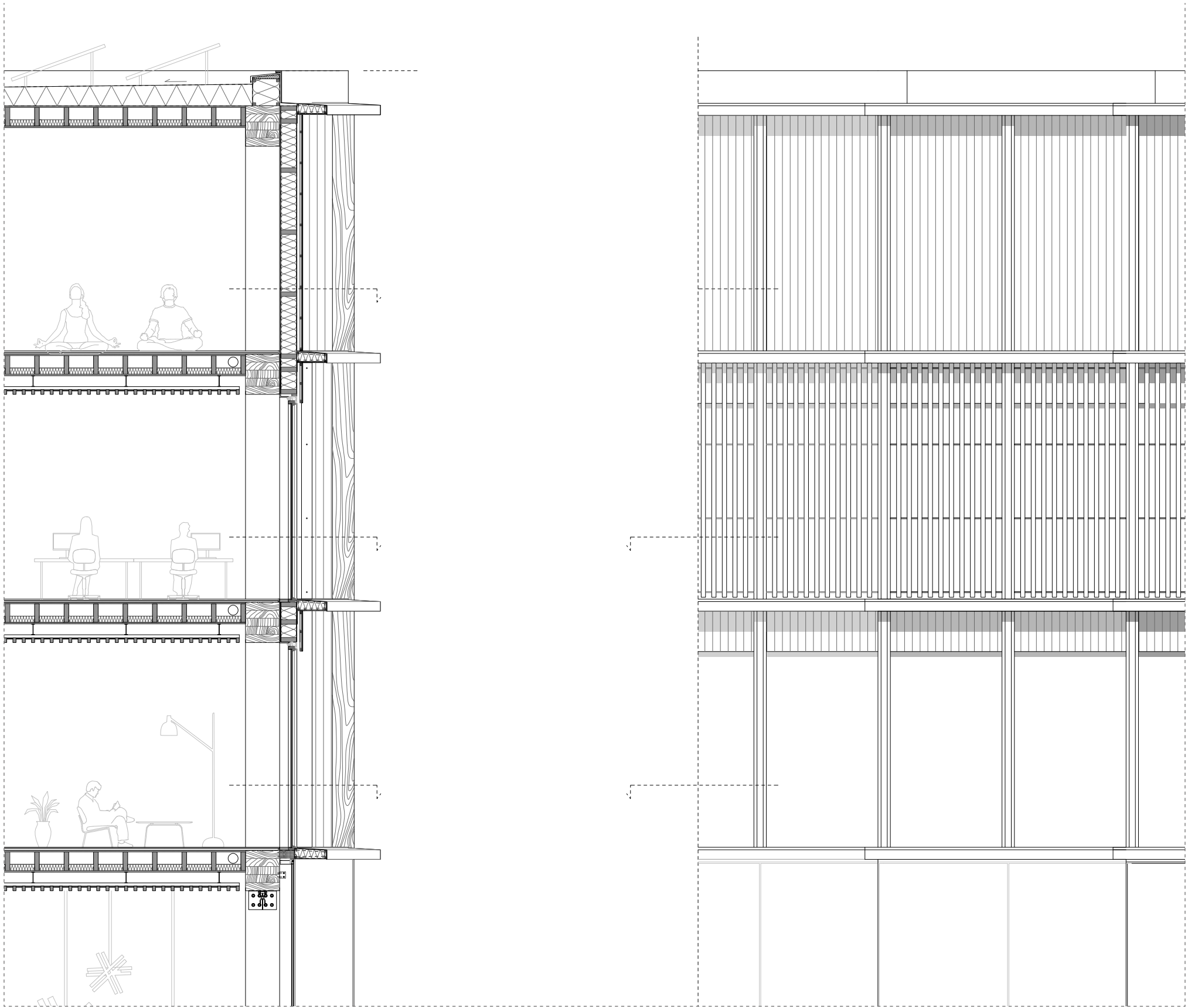
2 changing rooms with showers

3 yoga studio

Cognitive stimulation | Yoga studio



Cognitive stimulation | Building detail



Physical activity | Studies examples



Exercise alleviate symptoms such as low self-esteem and social withdrawal.

Sharma et al., 2006

Even a short period (4 weeks) of regular physical activity leads to measurable increases in happiness, life satisfaction, and self-esteem.

Stolarski et al., 2021

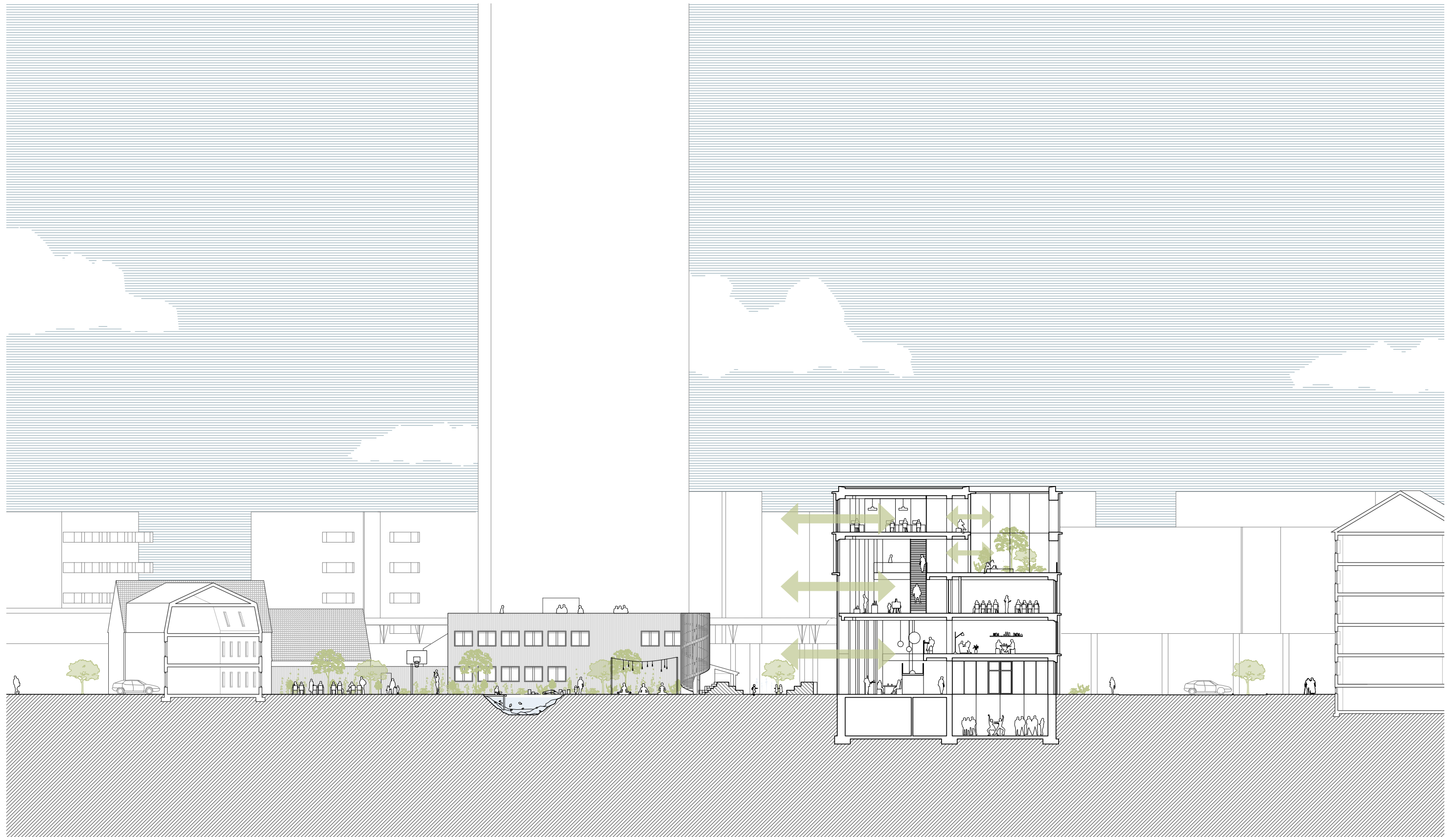
Regular physical activity significantly improves mood, self-esteem, cognitive function, and sleep quality, while reducing stress and symptoms of psychiatric disorders.

Gao et al., 2023

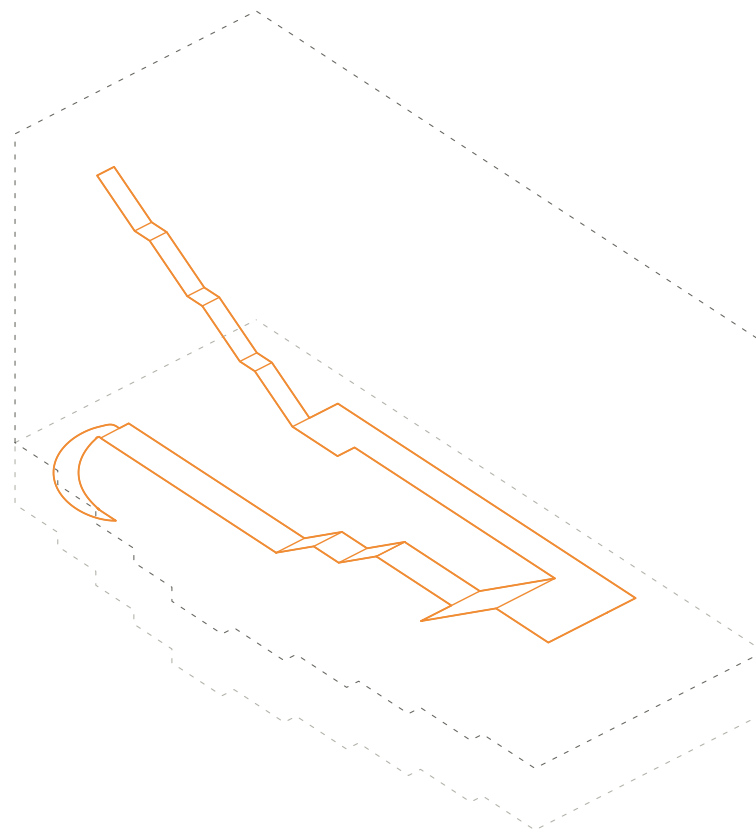
Engaging in consistent physical exercise enhances subjective well-being, mitigates stress and negative emotions, and fosters psychological resilience across all age groups.

Menhas et al., 2023

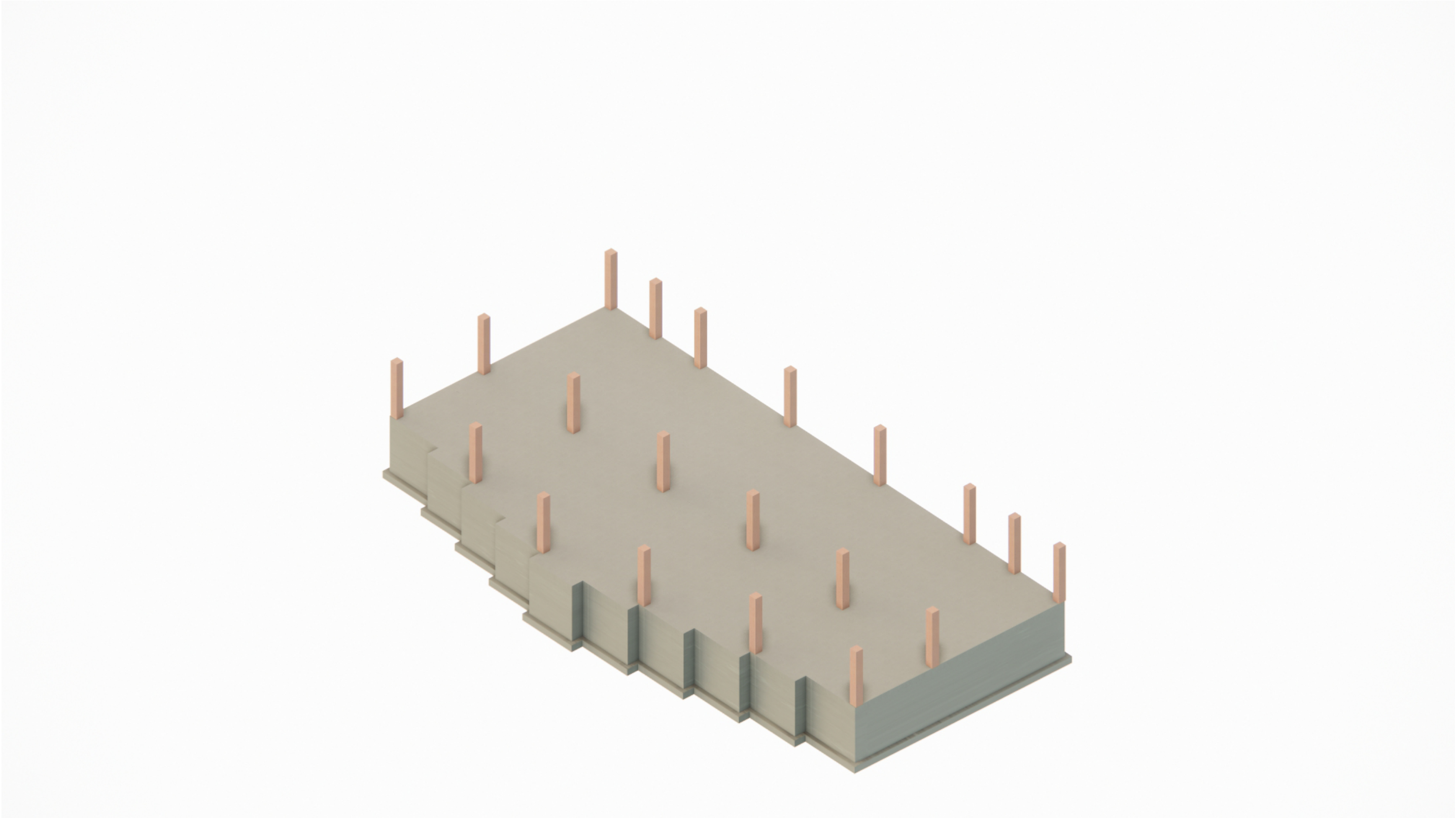
Physical activity | Visual contact with outside



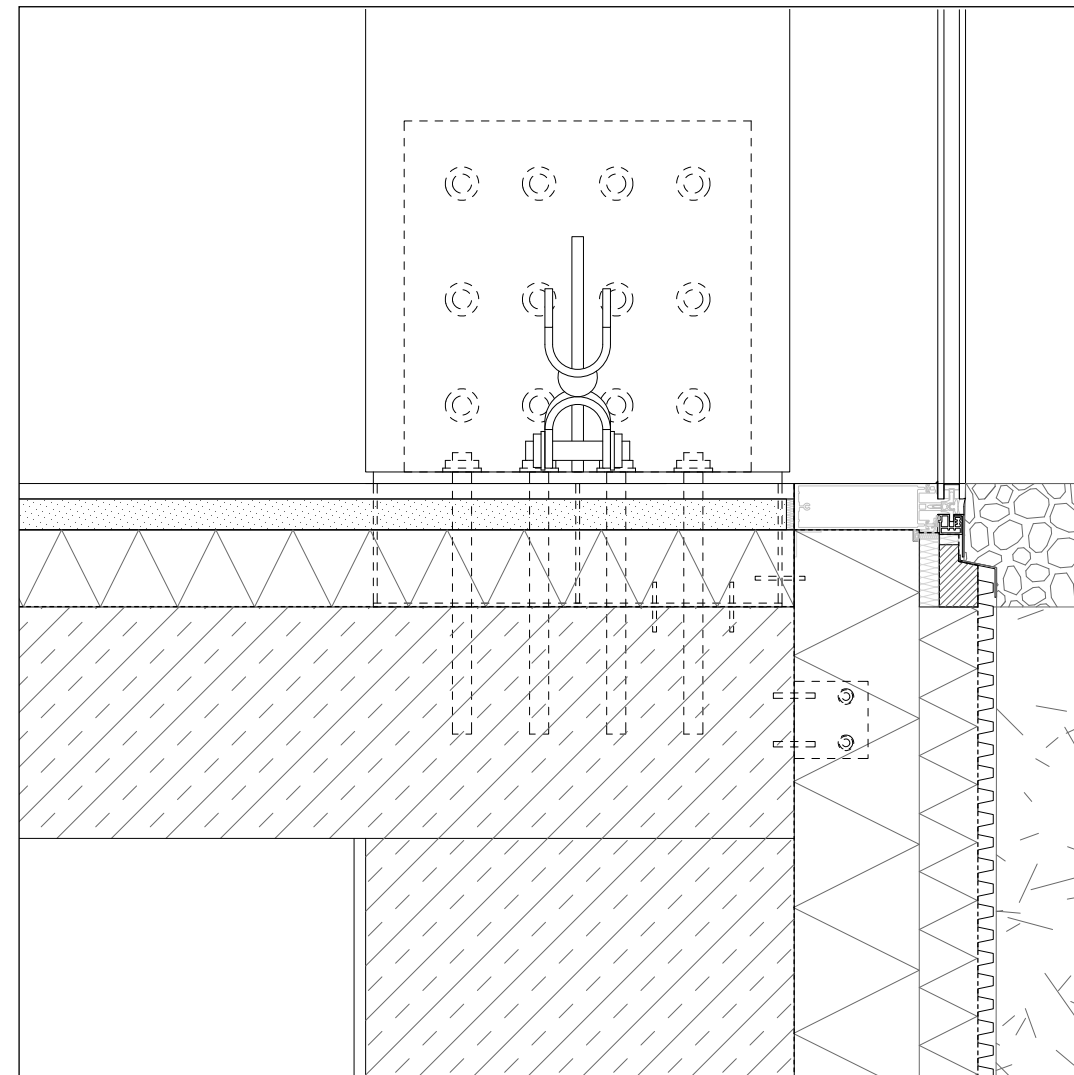
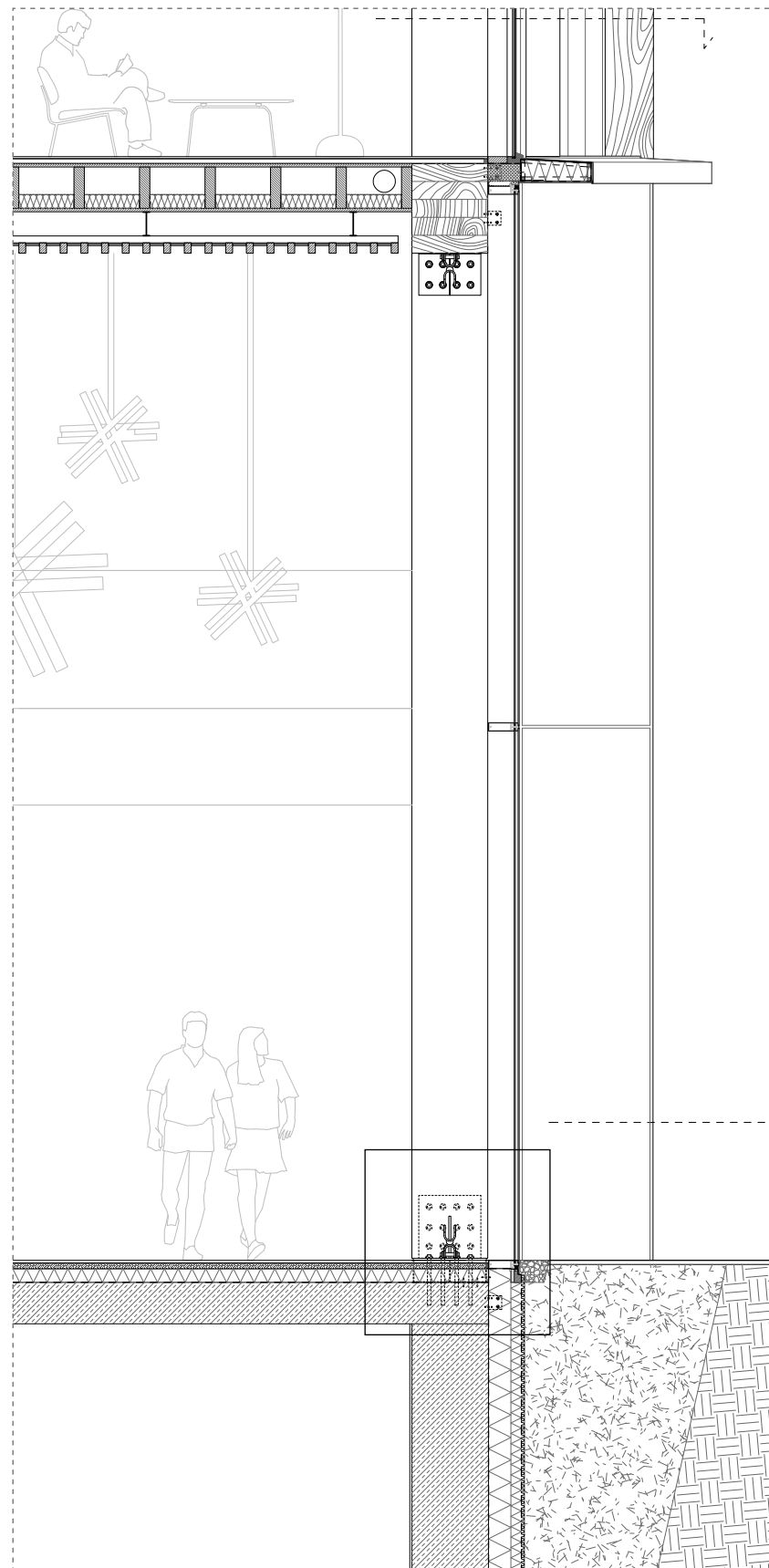
Physical activity | Circulation

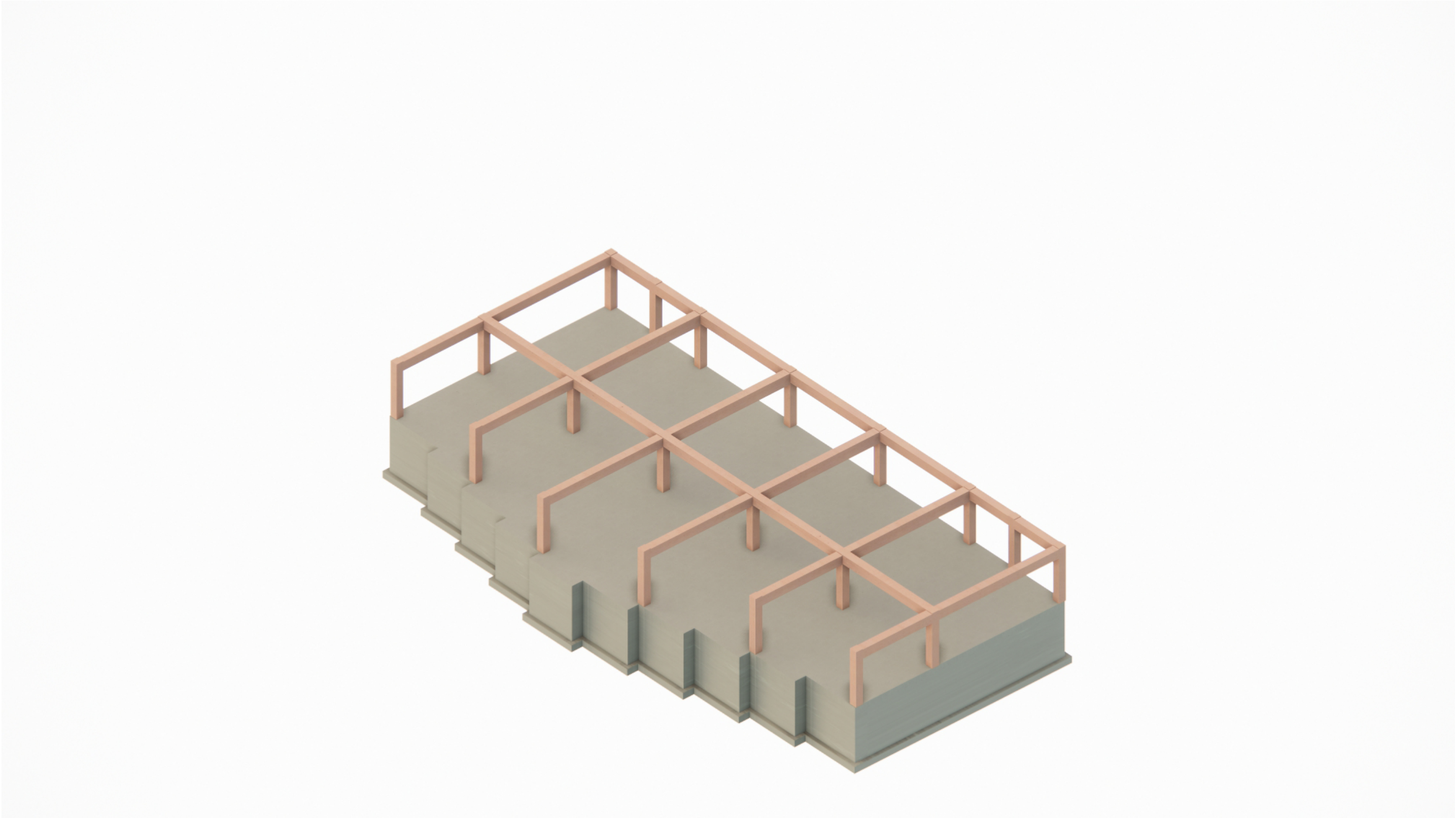


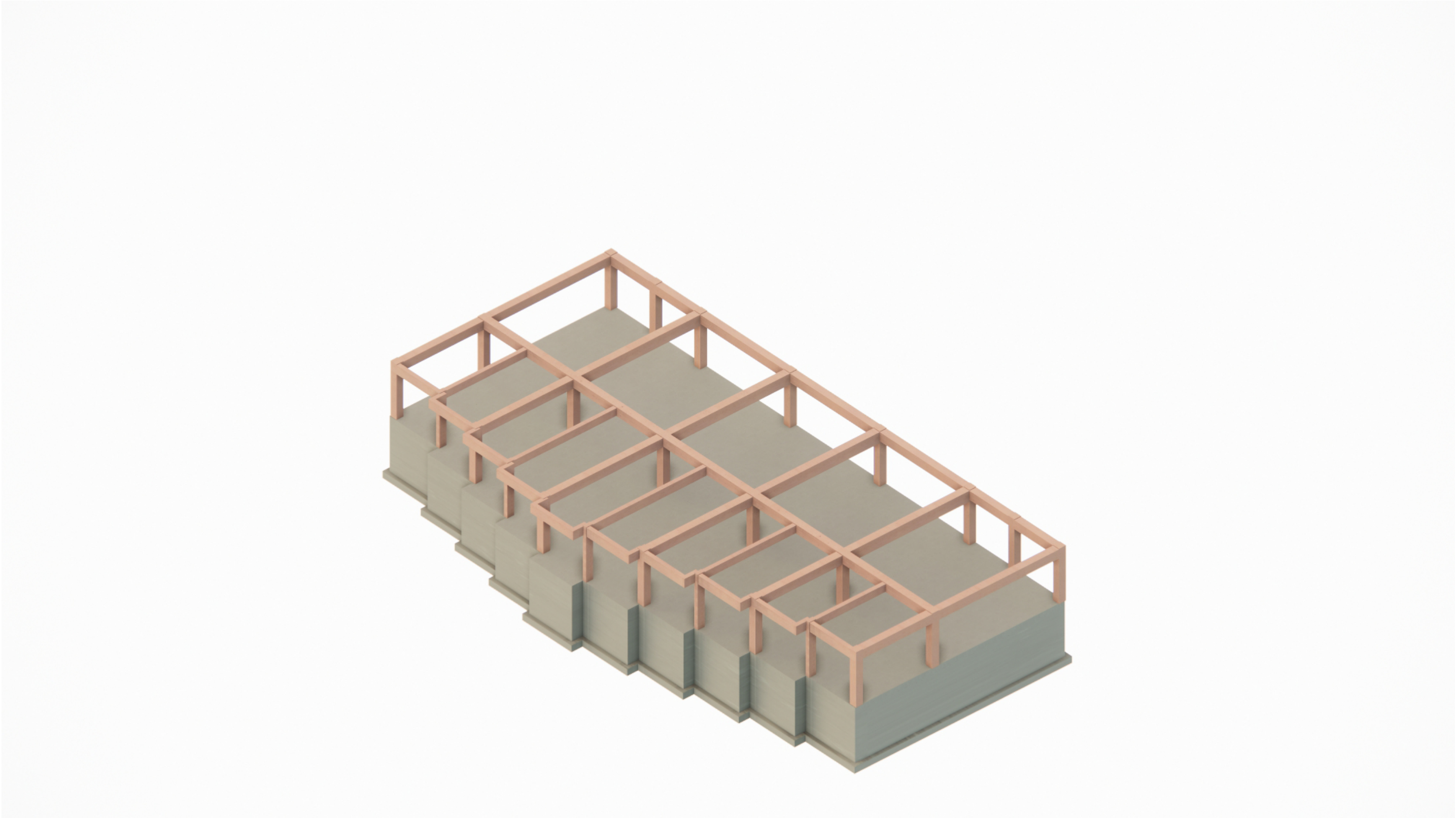


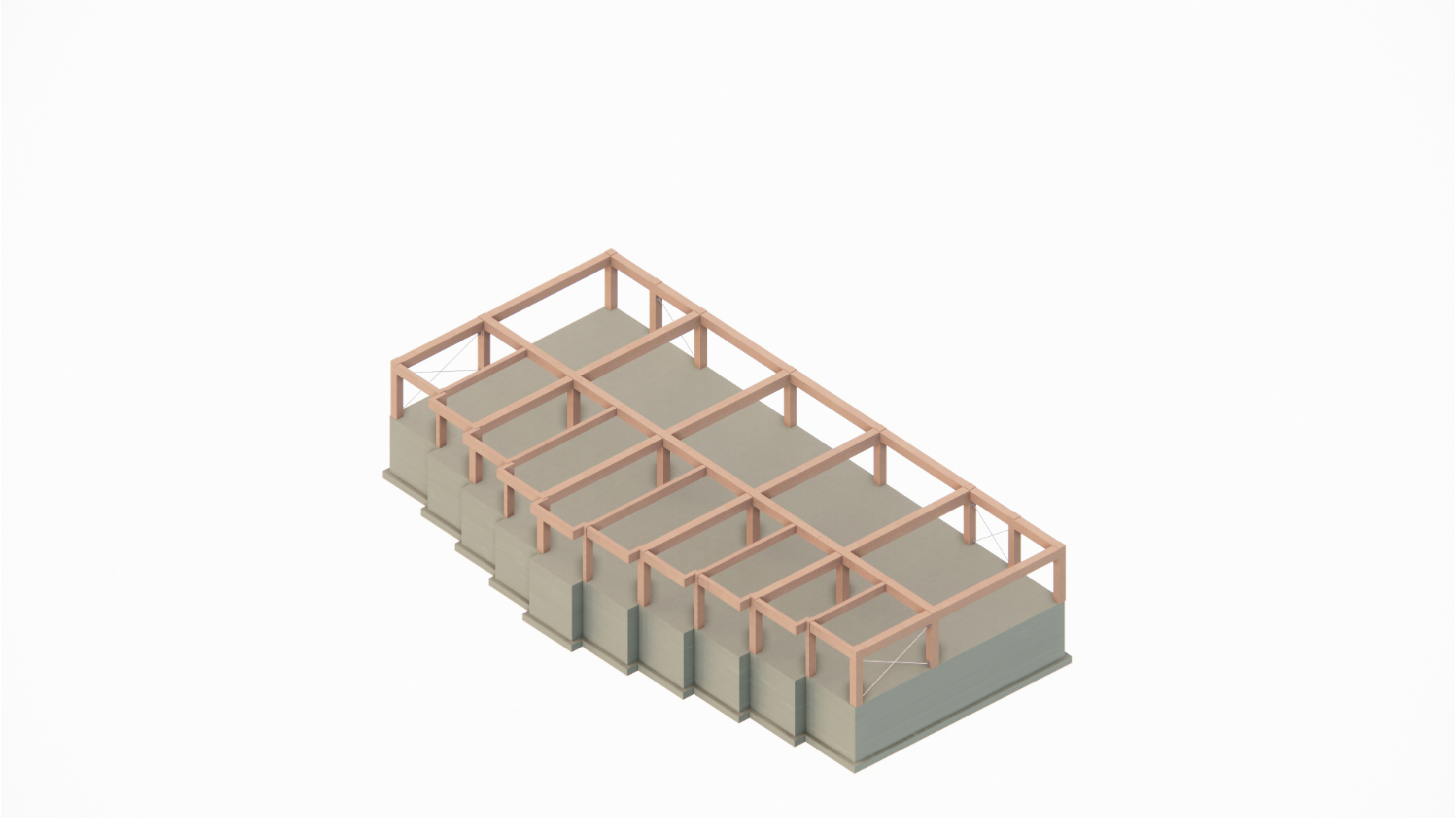


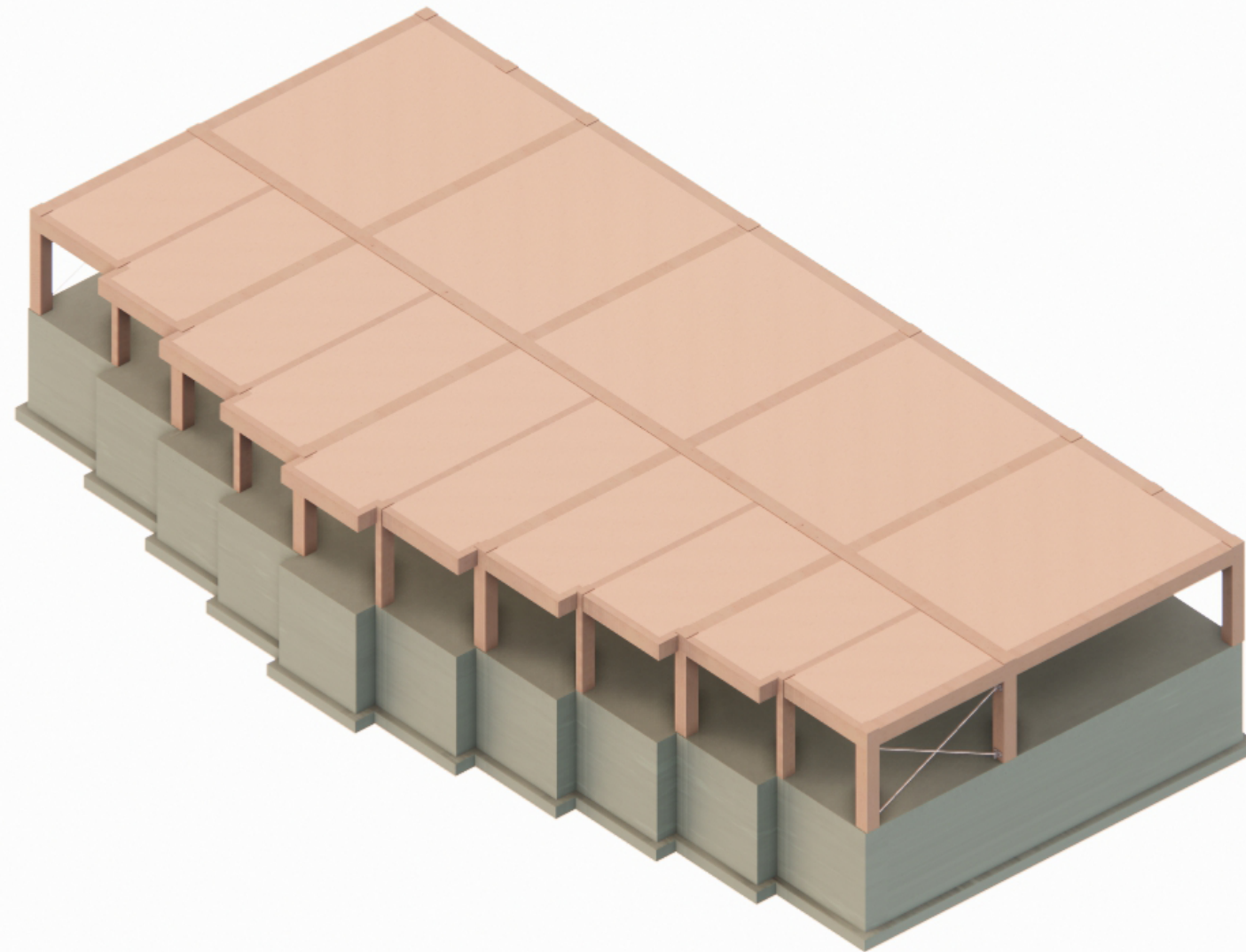
Physical activity | Structure detail



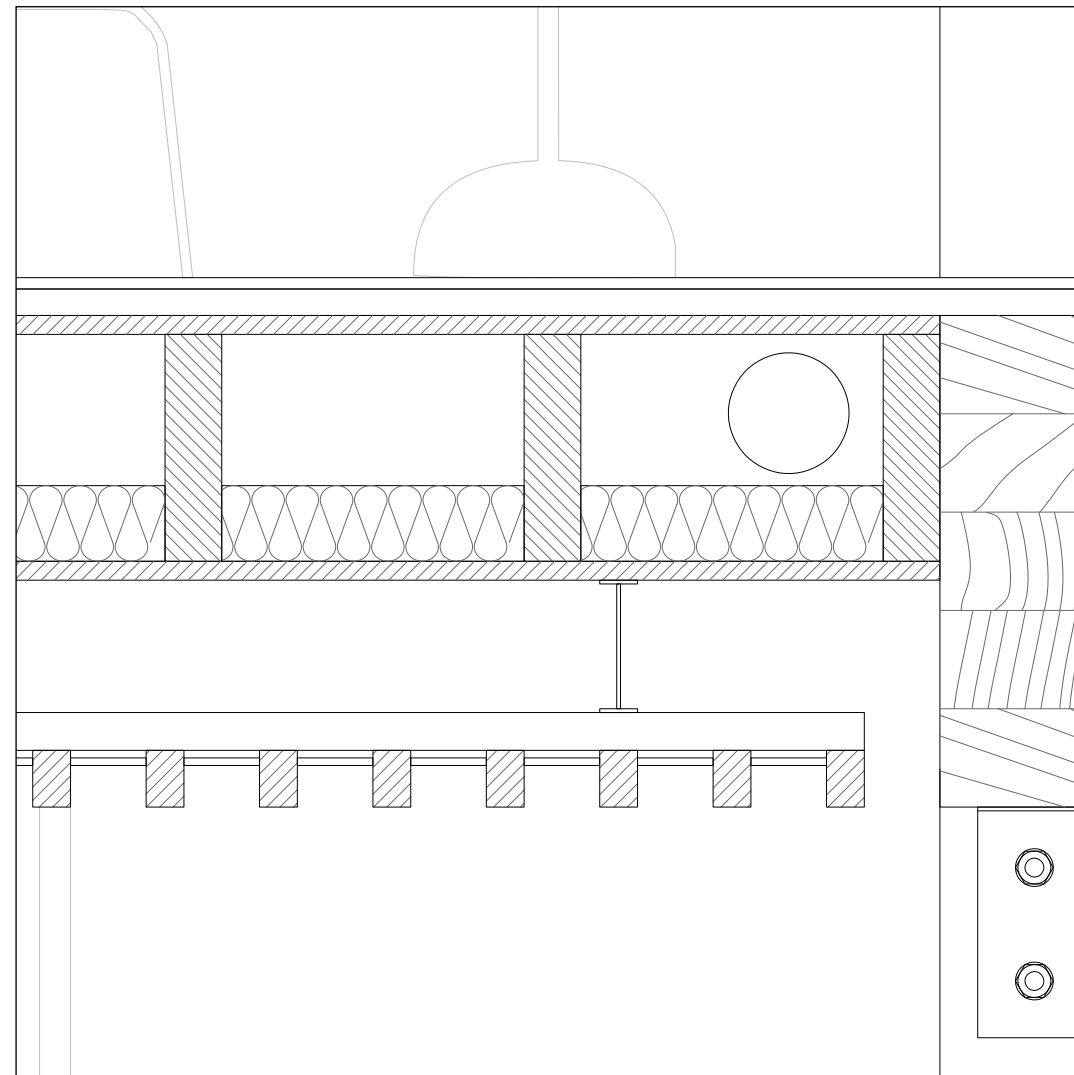
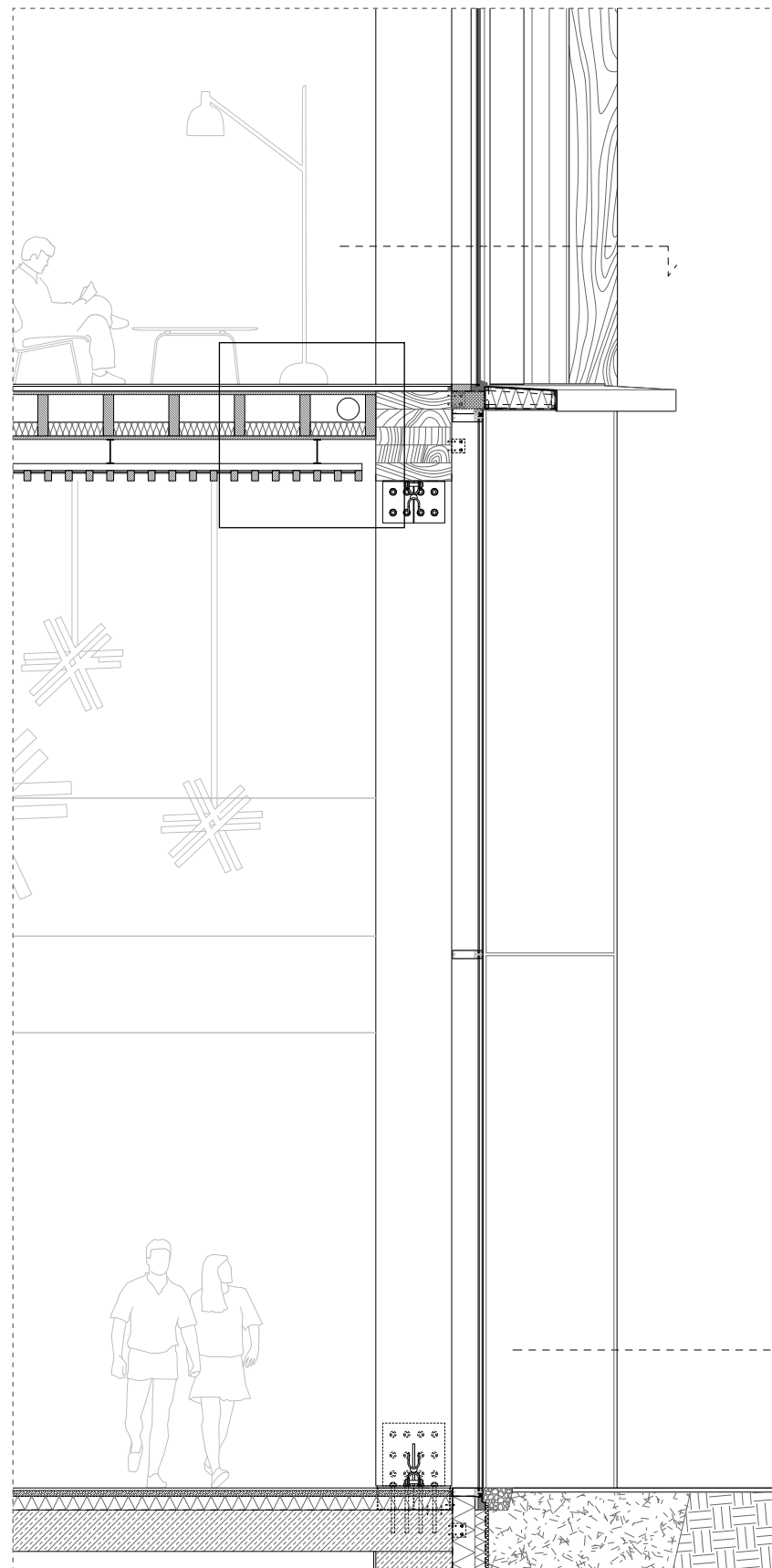


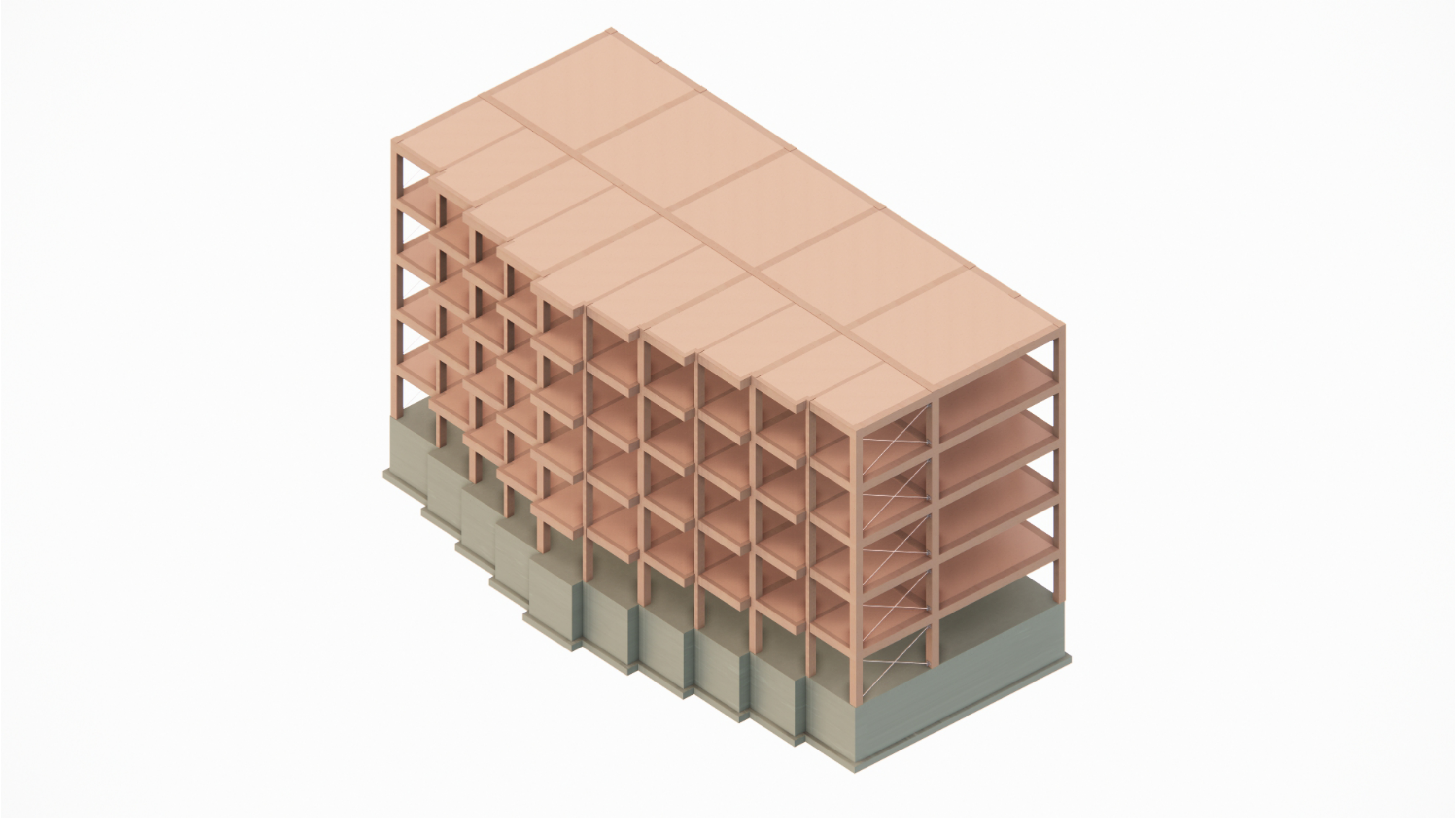


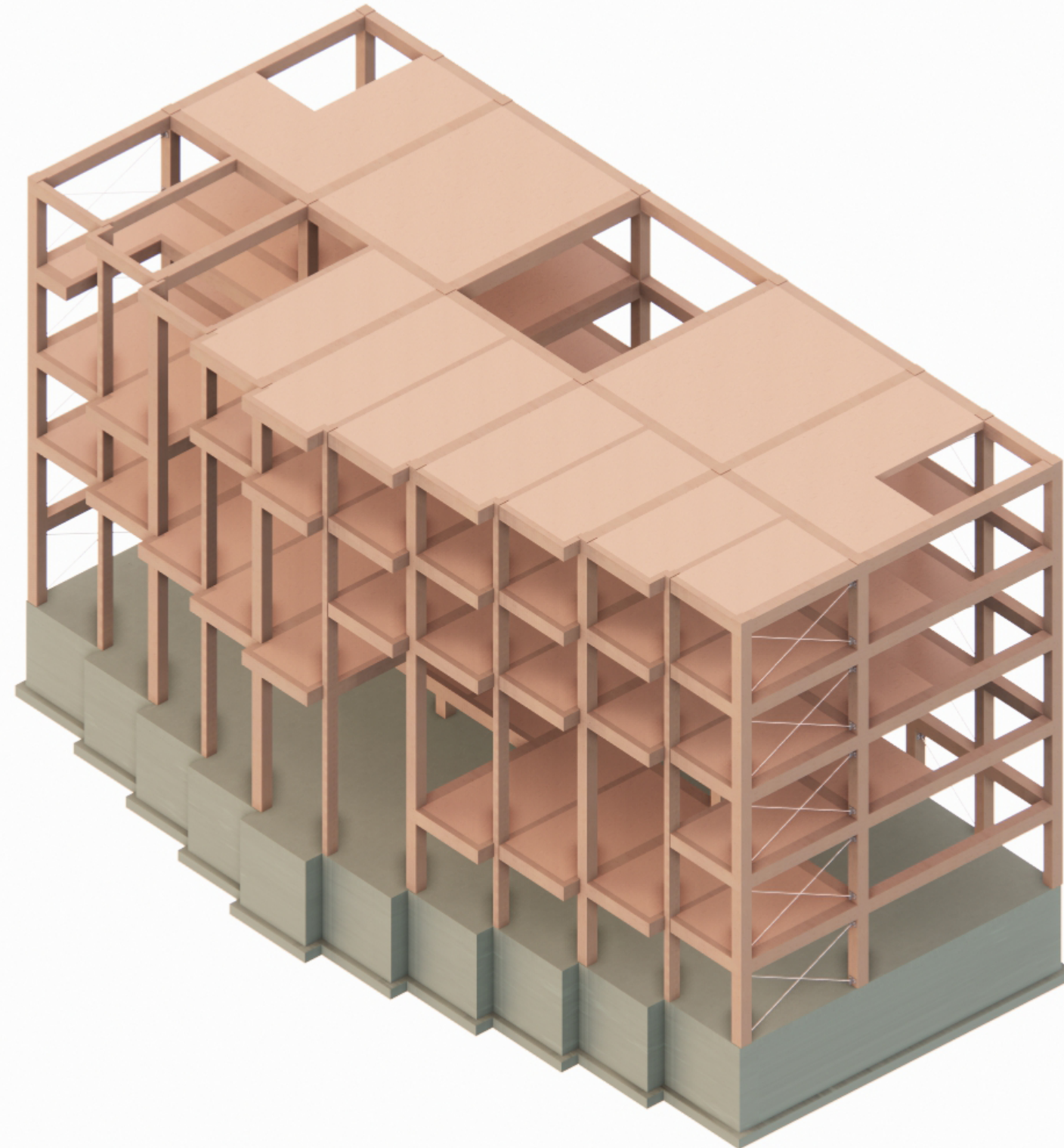


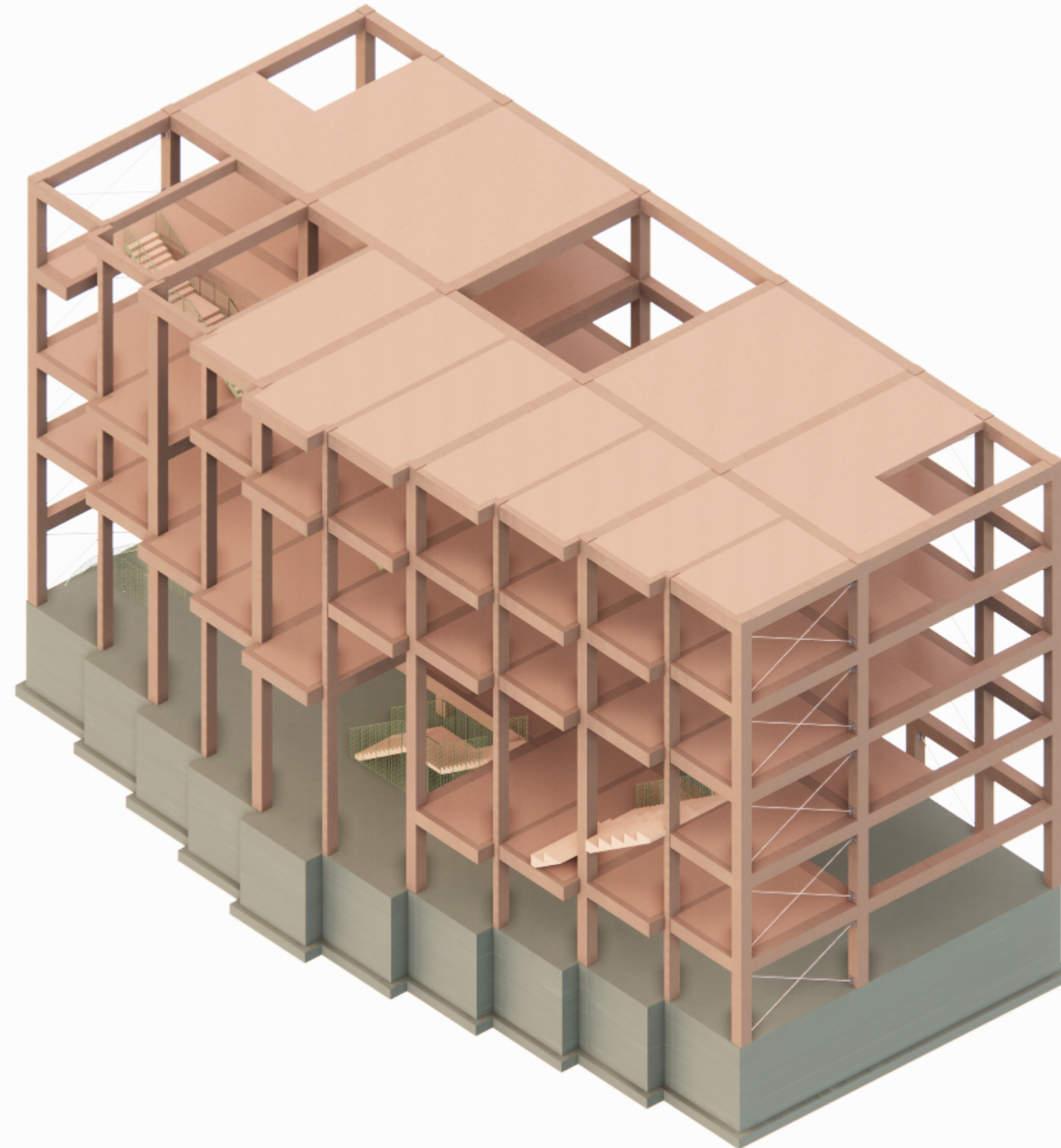


Physical activity | Structure detail

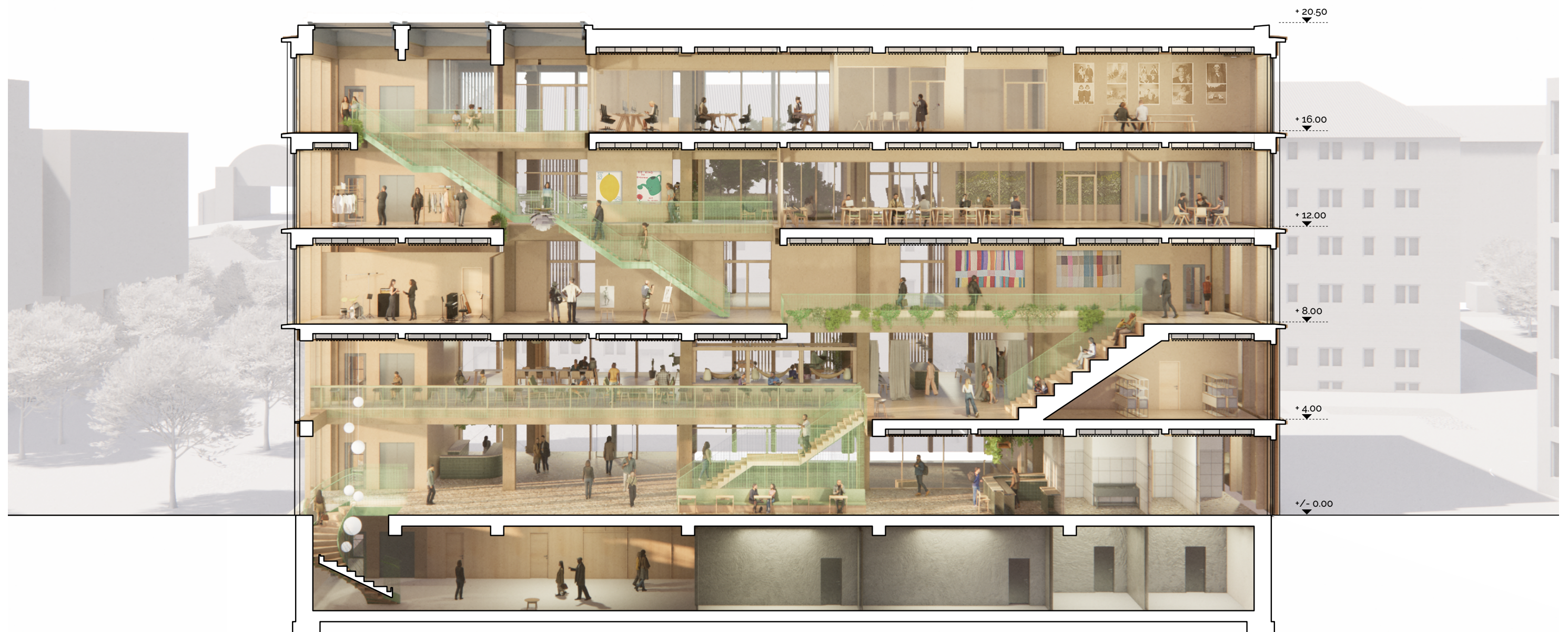








Physical activity | Circulation



Social interaction | Studies examples



Social relationships positively influence health behaviors, mental and physical health, and mortality by supporting immune, endocrine, and cardiovascular function and reducing chronic stress.

Umberson & Montez, 2010

Meaningful social interactions lower loneliness and improve affective well-being, with face-to-face interactions offering greater benefits than digital communication.

Roshanaei et al., 2024

Diverse social interactions are associated with increased happiness and well-being, beyond the effects of the total number of interactions or time spent socializing.

Kushlev et al., 2022

Social interaction | Levels of social contact

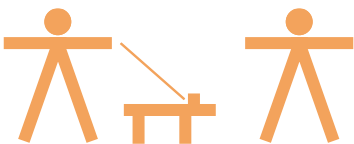


No contact



Passive contact

Being in the same space in presence of others



Chance contact

Non-personal interaction with stranger, e.g. asking for time or petting the dog.



Familiar stranger

Recognising people on a regular basis in the same place (bus stop, cafe).

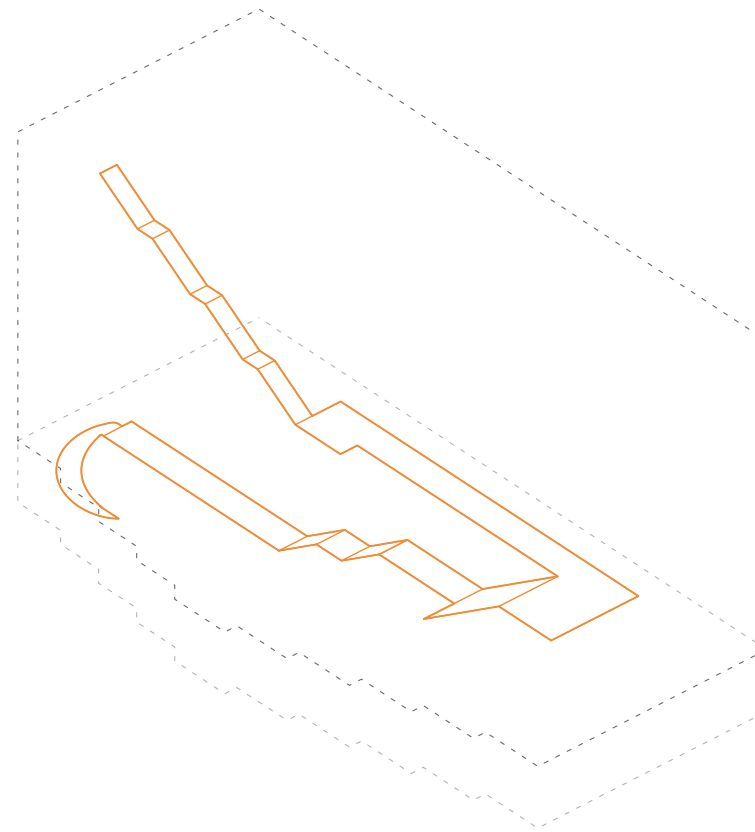


Friends

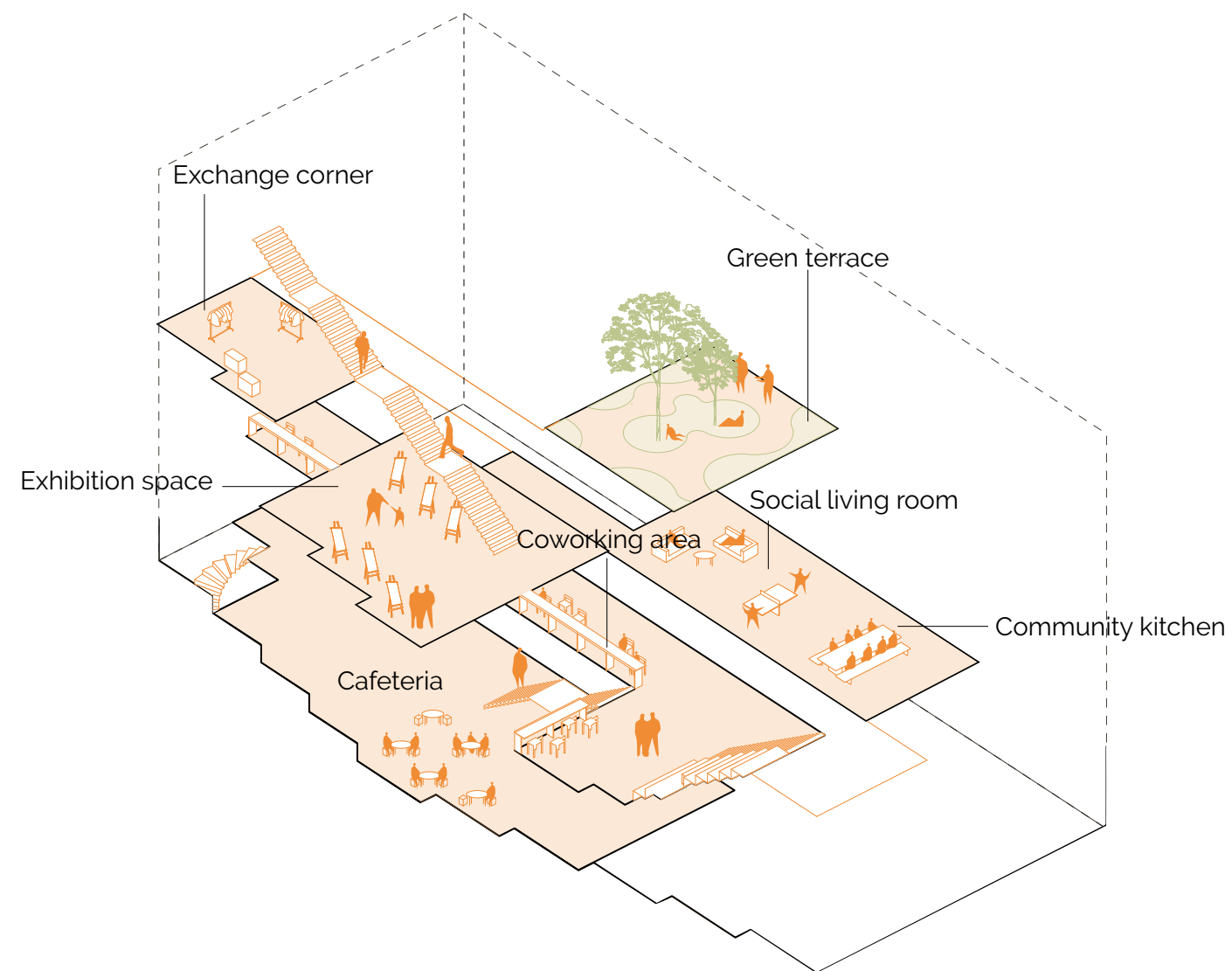
No contact

Personal contact

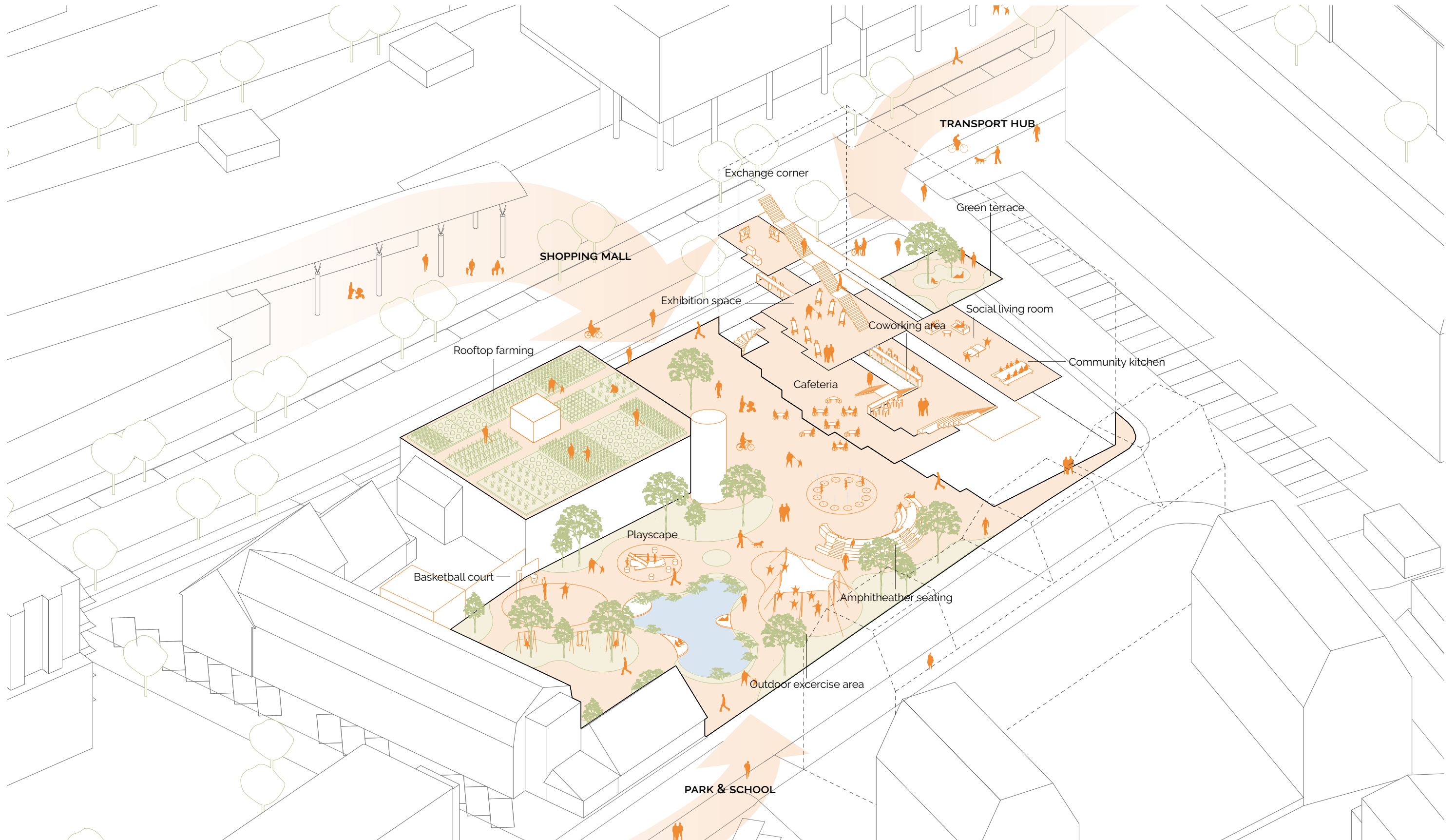
Social interaction | Commons



Social interaction | Commons



Social interaction | Commons



Social interaction | Commons



Agency | Studies examples



Greater perceived autonomy is strongly associated with higher psychological well-being, including self-acceptance, positive relations, environmental mastery, personal growth, and purpose in life.

Bernat et al., 2020

The psychological experience of autonomy facilitates self-regulation and is associated with improved health and well-being.

Ryan and Deci, 2000; Ryan et al., 2006

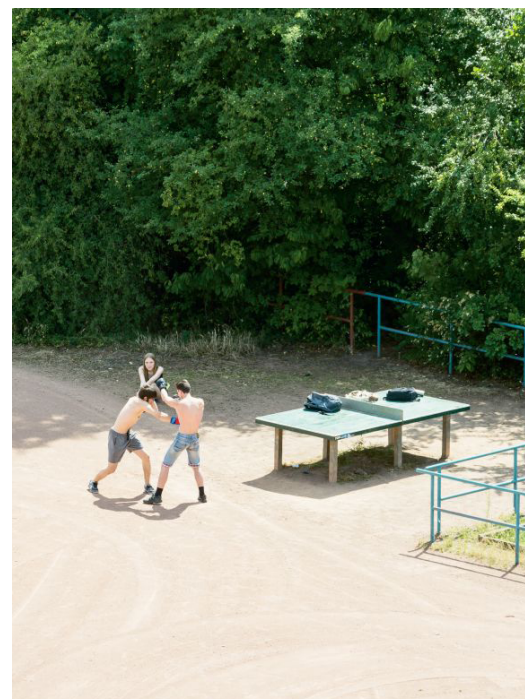
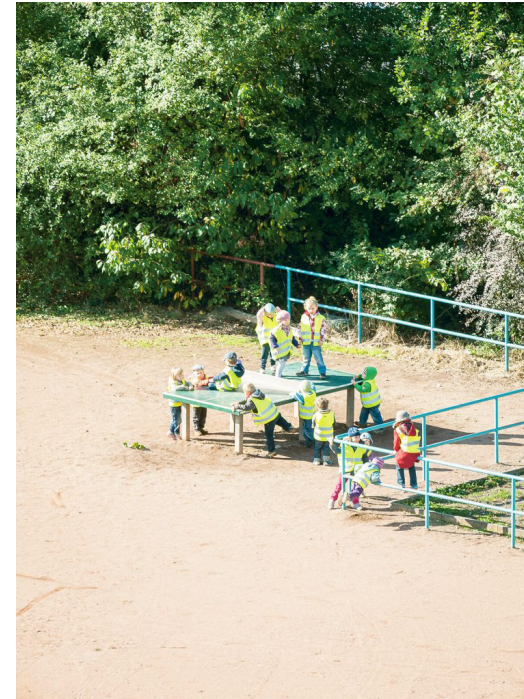
Autonomy is more important for national well-being than wealth.

Fischer and Boer, 2011

Nursing home residents given more control over their daily lives had higher survival rates and better health outcomes than those with less control.

Langer and Rodin, 1976

Agency | Ownership



*TTP series of photographs
by Hayahisa Tomiyasu, 2016-2016.*



From institutional to home-like environment



Movable space divisions

Agency | Ownership



Adjustable lights



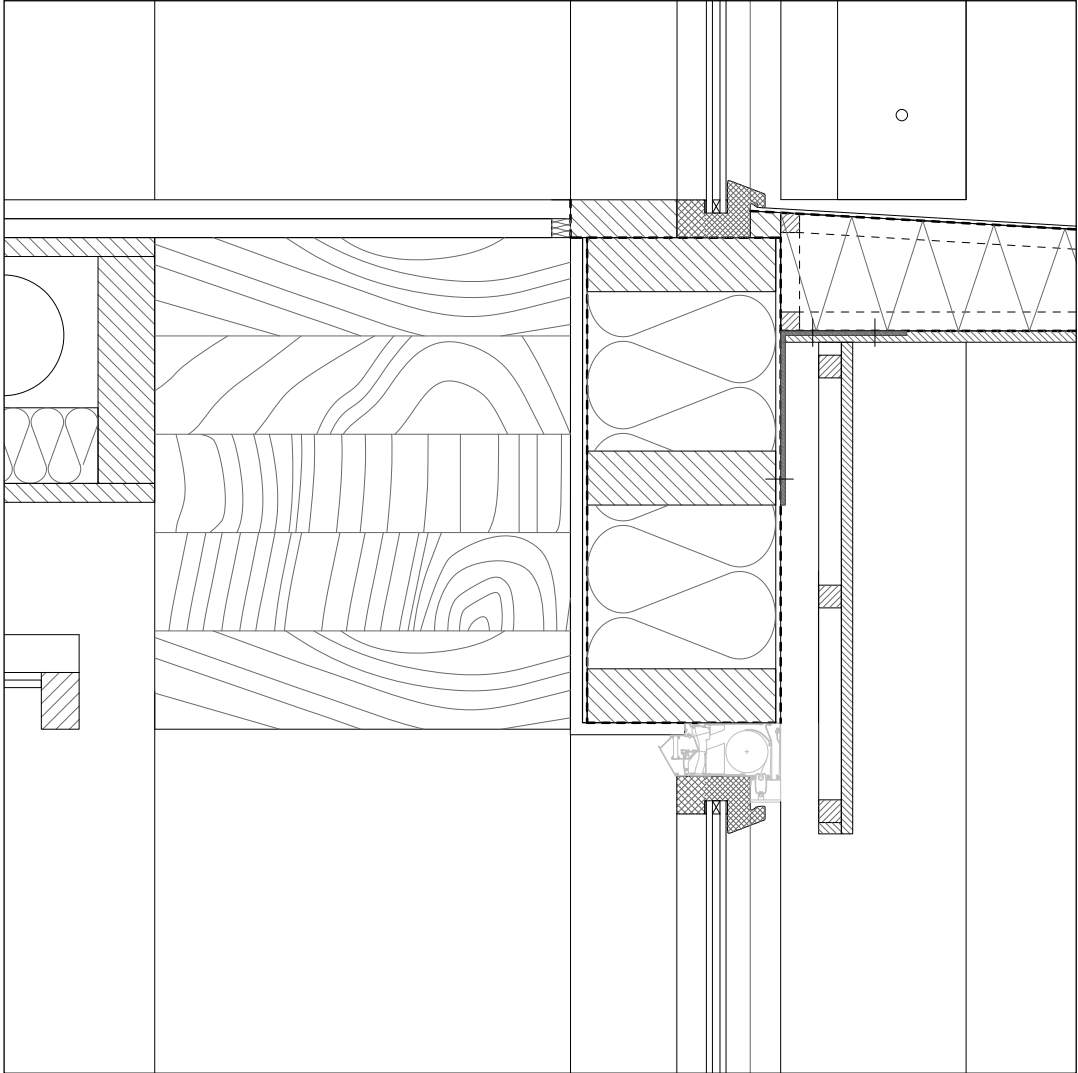
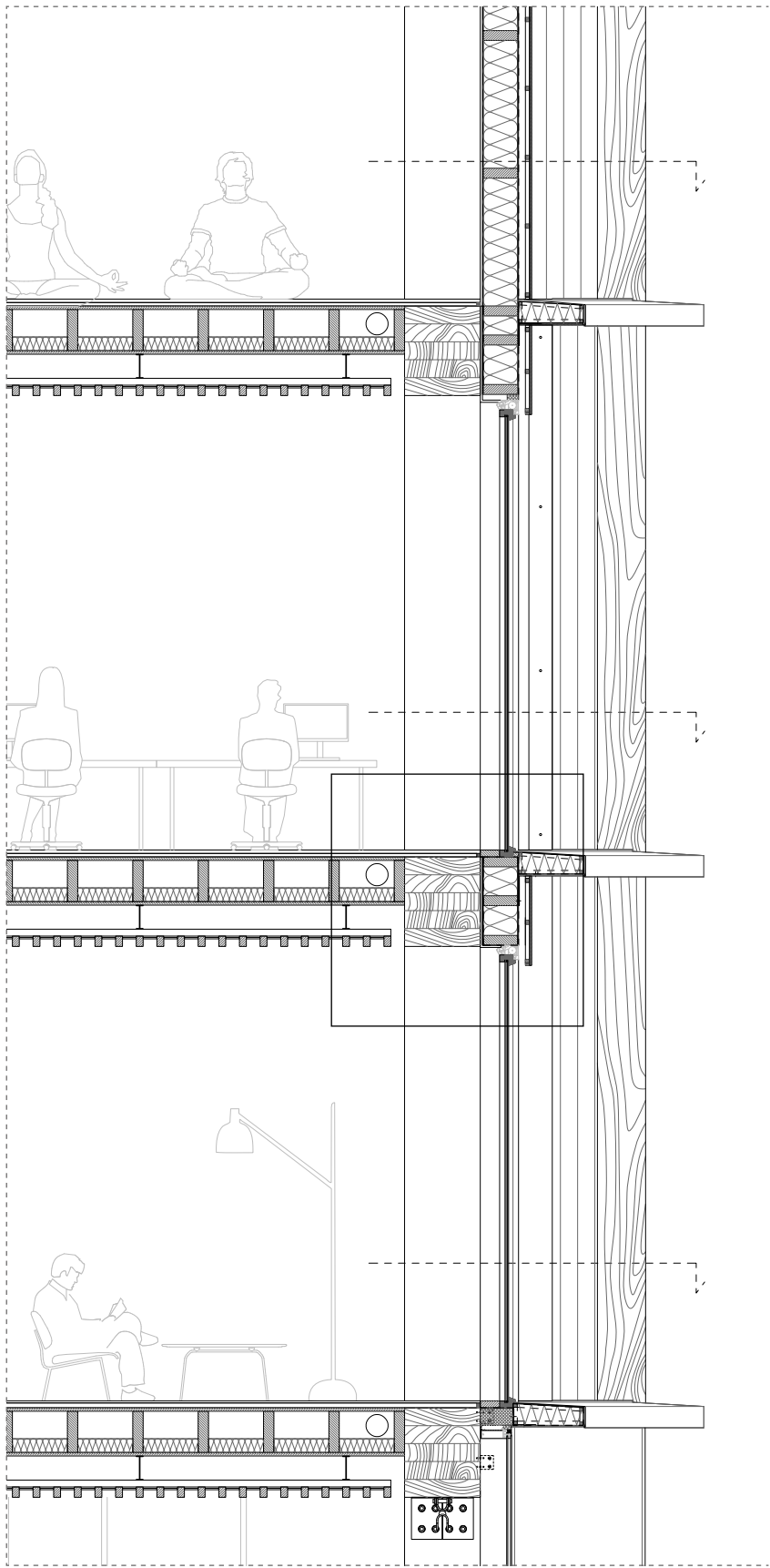
Spaces for display



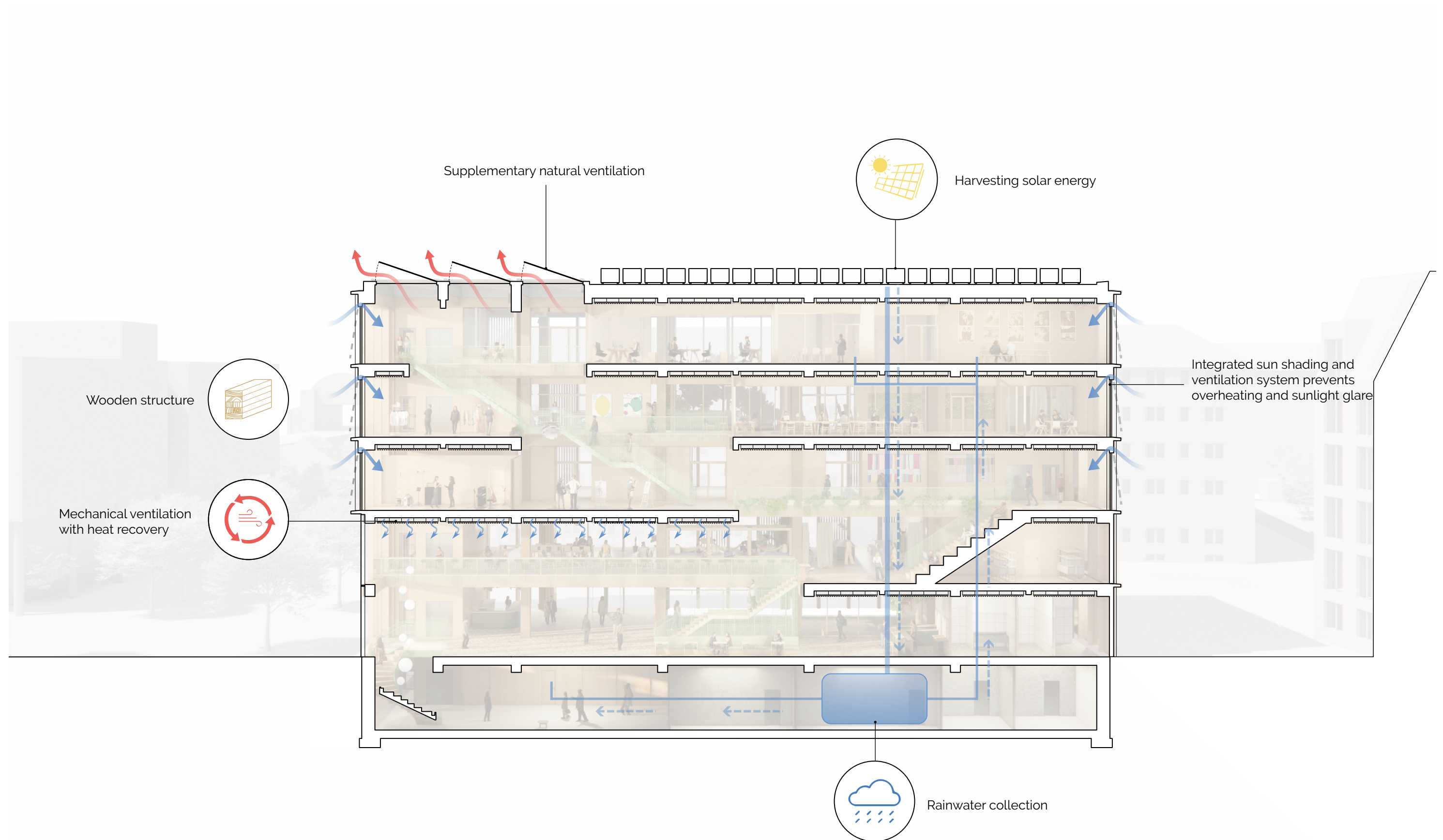
Variety of seating options



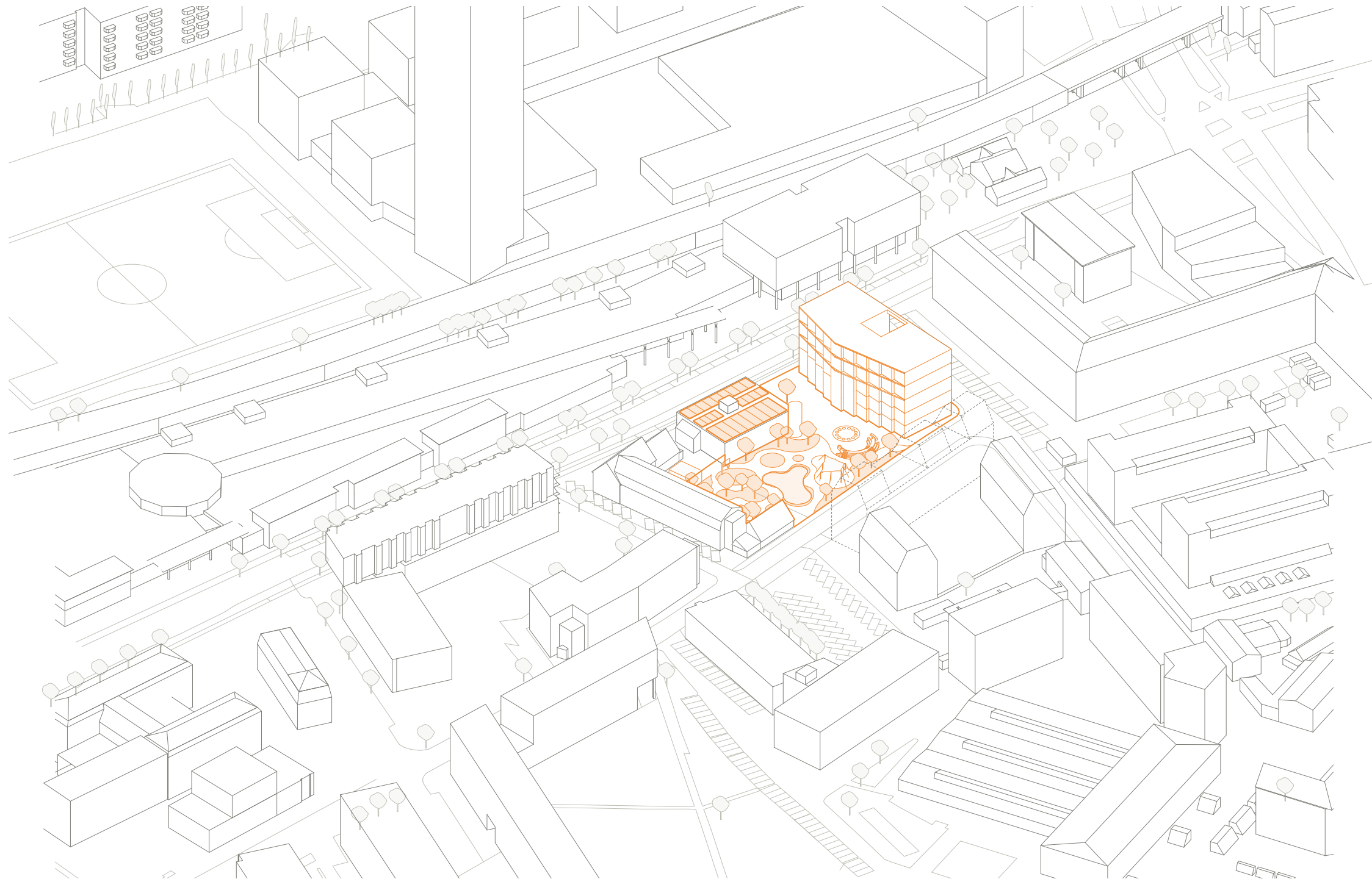
Adjustable airflow and sunshading systems



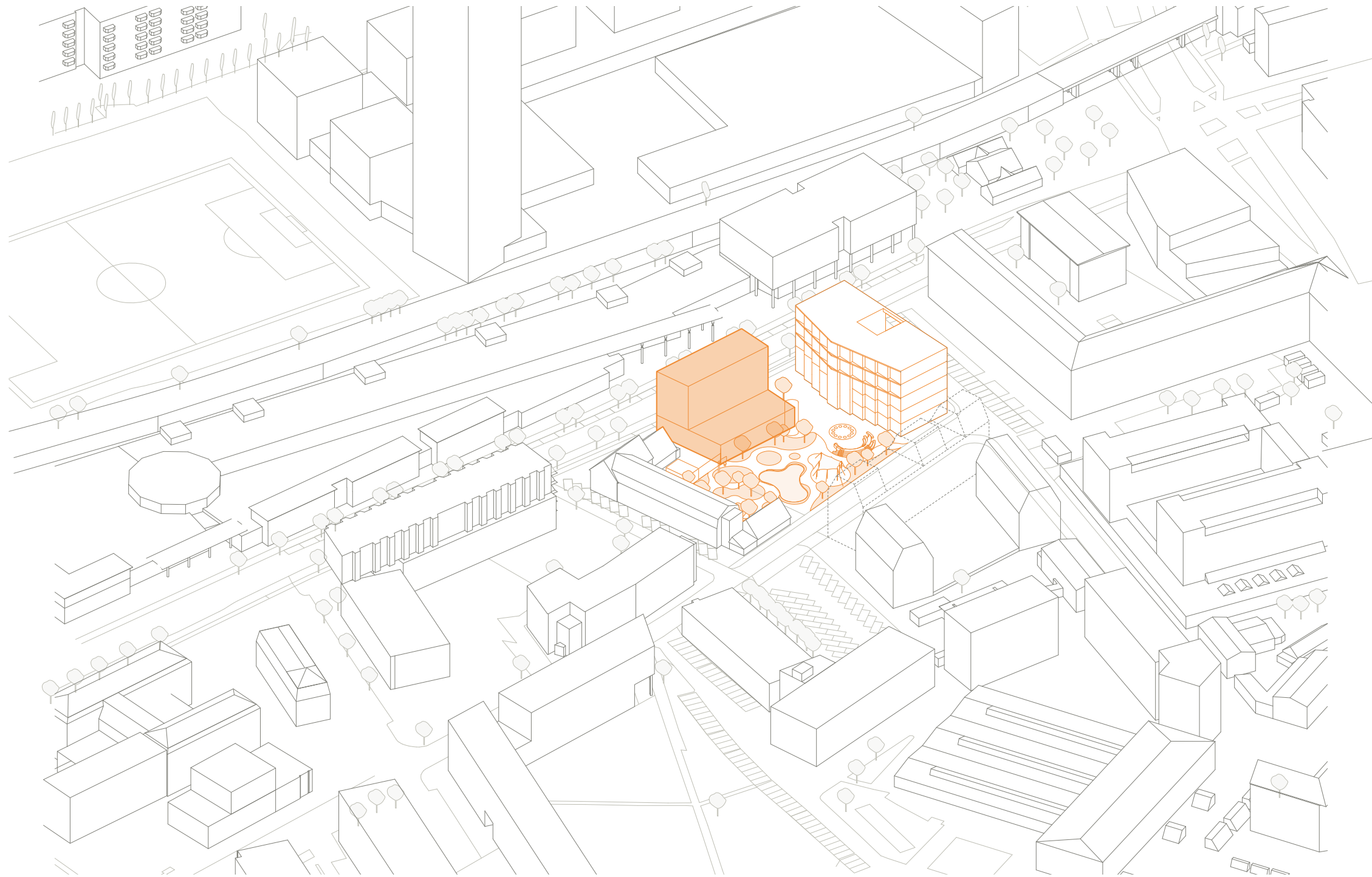
Agency | Sustainable strategies



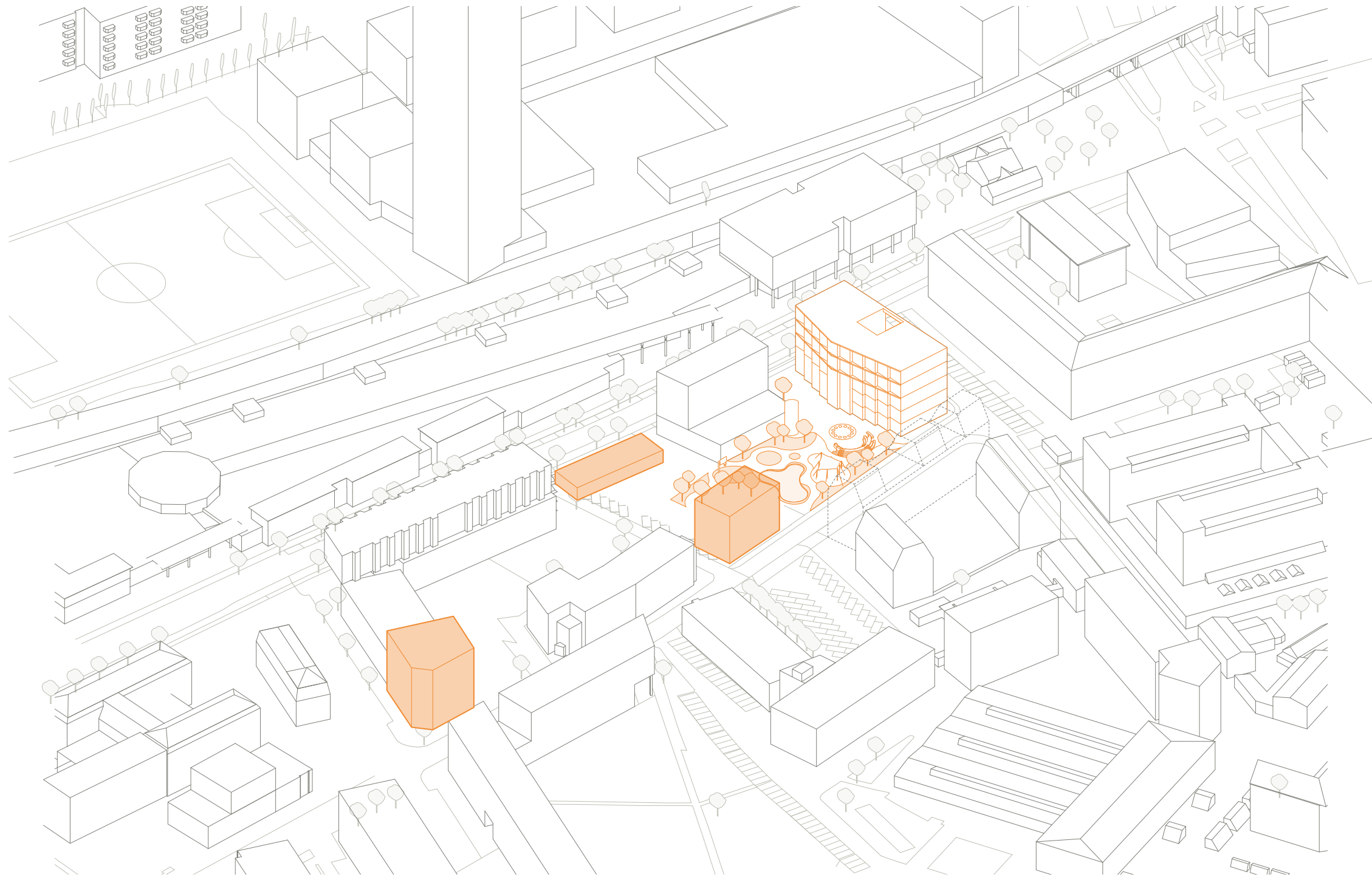
Agency | Long-lasting impact



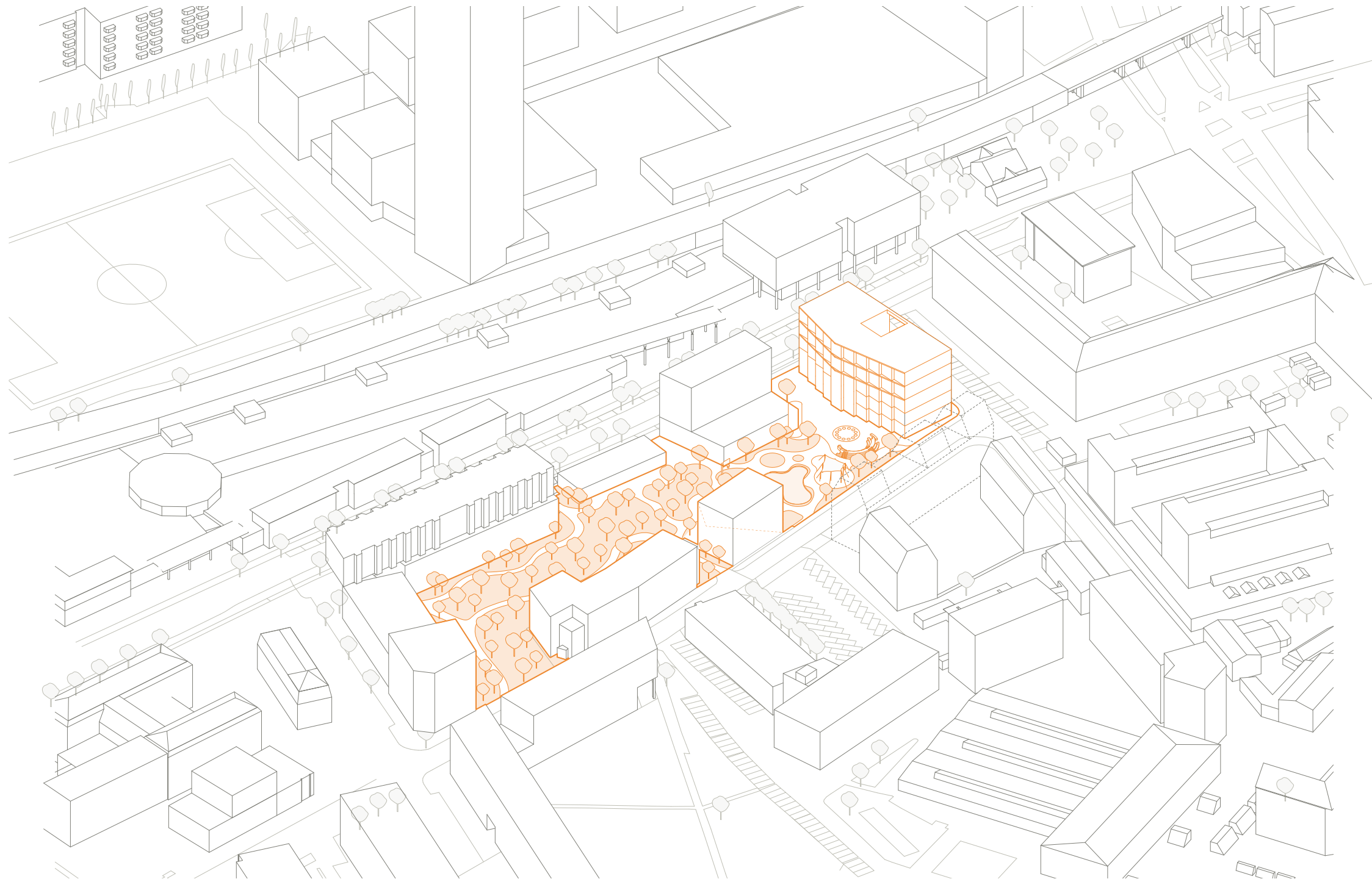
Agency | Long-lasting impact



Agency | Long-lasting impact



Agency | Long-lasting impact



+ 20.50

+ 16.00

+ 12.00

+ 8.00

+ 4.00

+/- 0.00

