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PATTERNS OF CARE AND RESISTANCE

infrastructure of care that fosters solidarity, agency and health to improve liveability for young fluidly housed adults

colophon

carescapes

toward a careful imagination for the liveability of young fluidly housed adults in Brussels

Cover: two beds outside Gare du Midi, Brussels Photograph by author 2023

Master Thesis - Pattern Booklet
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introduction

This Pattern Booklet offers an overview of socio-spatial patterns developed during the graduation thesis Carescapes: Toward a Careful Imagination for the Liveability of Young Fluidly Housed Adults in Brussels. It focuses on fluidly housed individuals—those experiencing fluctuating forms of homelessness. In the context of Brussels, this may include people moving between squats, staying with family and friends at times, and occasionally living rough.

This booklet is the outcome of a research-by-design process aimed at enhancing the liveability of young fluidly housed adults. It proposes tangible, bottom-up interventions alongside long-term, top-down strategies, making young fluidly housed adults the central agents of care in this transition while exploring how physical space can play a meaningful role in the practice of care. While the full methodology, theoretical framework, and design outcomes are detailed in the accompanying Graduation Report (available in the TU Delft repository), this booklet focuses specifically on the developed patterns and pattern fields.

The patterns presented here emerge from a radical spatial imagination—one that seeks to understand root causes and 'hack' systems of oppression through a network of socio-spatial interventions. These interventions aim to provide socio-spatial potential that young, fluidly housed adults can activate to meet their own needs. Together, these interventions form an infrastructure of care—a system that frames care as an active, collective process meeting human needs while respecting planetary boundaries. It is never finished and can be extended endlessly. It can serve as an exploration and communication tool for urbanists, policymakers, architects, urban planners, and residents—opening up multiple possible imaginaries of more just futures and how they can be shaped collectively.

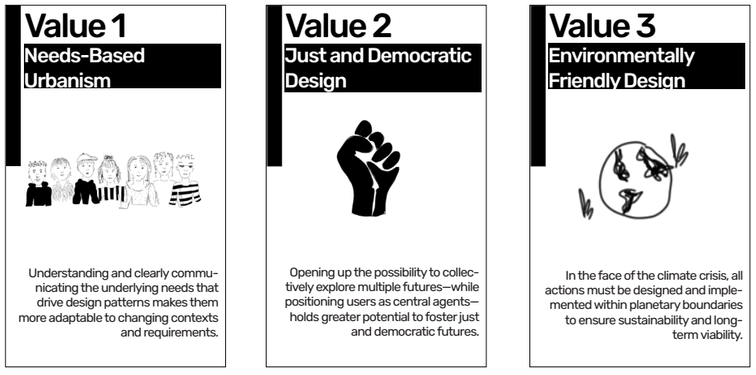

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Fig. 2: Rue de la Loi, Brussels Photograph by Max Schuska

The concept of Pattern Language was first developed by architect Christopher Alexander in 1977, as a system of design principles offering context-specific solutions to common problems in the built environment (Salingaros, 2000).

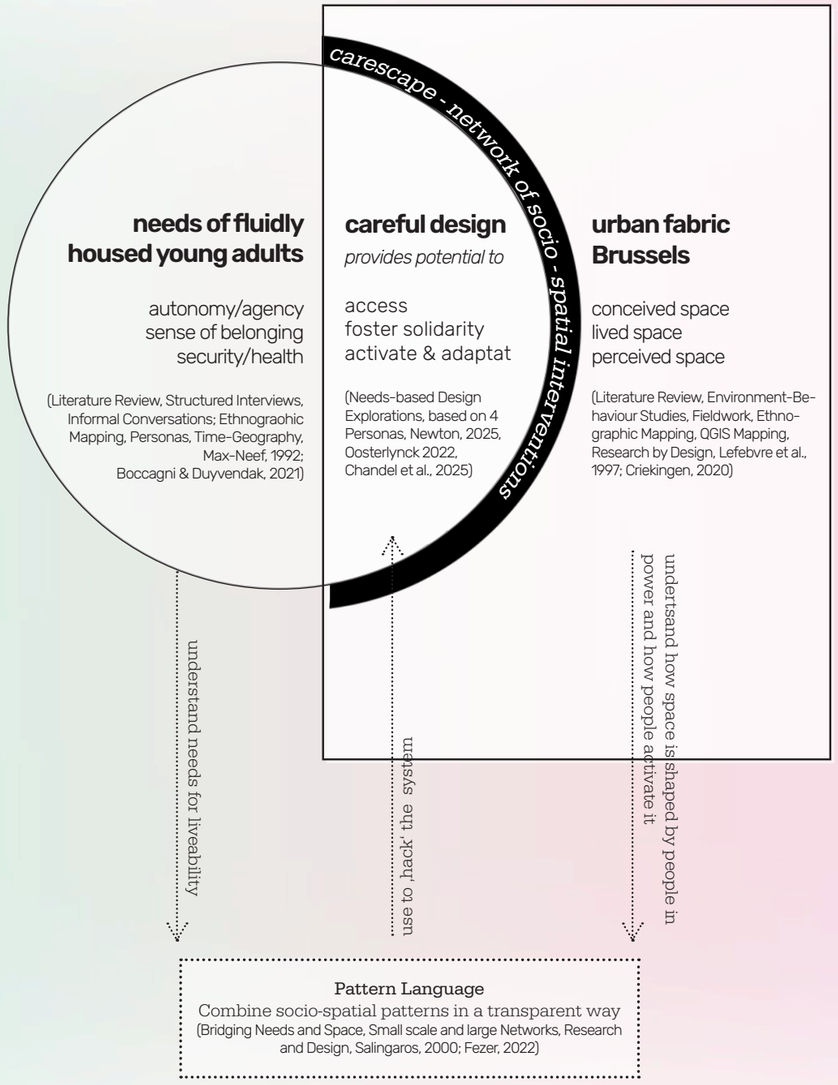
Alexander's approach challenged the idea of design as purely the domain of a designer's intuition. He recognized that problems in the built environment are growing increasingly complex and often stem from deeper, unmet human needs. Each pattern, therefore, is grounded in the observable connections between social events and the physical spaces where they unfold—providing a foundation for informed and responsive design (Fezer, 2022).

He argued that meaningful design emerges from active user engagement, rather than being imposed top-down. Alexander placed increasing value on grassroots empowerment, observing that when the people who inhabit a space also shape it, adaptation to evolving needs happens more organically. In his later work, he reflected that top-down planning should only occur in cases of conflict—and even then, it should be structured to foster autonomy and self-sufficiency (Fezer, 2022).

While his ideas were not without criticism, several independent initiatives affirm his belief in self-empowerment as key to liveability. One such example is Bologna's approach to collective care for the commons. Through contractual agreements, the city enables citizens to collaboratively manage and regenerate public spaces (Regulation on Collaboration between Citizens and the City for the Care and Regeneration of Urban Commons, 2014).

Taking inspiration from this example, I propose a set of patterns aimed at providing the potential for fluidly housed young adults in Brussels to activate space based on their own needs—while also identifying where top-down support is necessary to sustain this process.

For me, Pattern Language serves as a systemic design method—a way to critically examine how power operates within space. By bridging research and design, I can uncover underlying connections, reveal tensions, and organize them into pattern fields. This approach makes the logic behind each pattern more transparent, allowing them to evolve with new insights and shifting conditions. It also draws attention to the multi-scalar dynamics of liveability for fluidly housed youth, showing how minimal but strategic top-down interventions can support meaningful, bottom-up action. In this way, the complex system of youth homelessness becomes more accessible—broken down into actionable, human-scaled building blocks of knowledge.



connected
similar
supports
enables

satisfiers
food
water
shelter
agency

Based on insights from the literature review, fieldwork, case studies, and other observations I added further patterns. All patterns are illustrated on the next pages, organized according to the four systems.

It is important to emphasize that these systems are not finished. Instead, they represent a starting point for understanding the socio-spatial system related to young fluidly housed adults. These systems can—and should—be further expanded or adapted as new insights emerge.

You can access the full-quality interactive illustration on kumu.io at the following link: https://kumu.io/Wiebke/carescapes-masterthesis-wiebkestadtlander-june2025#patternfield

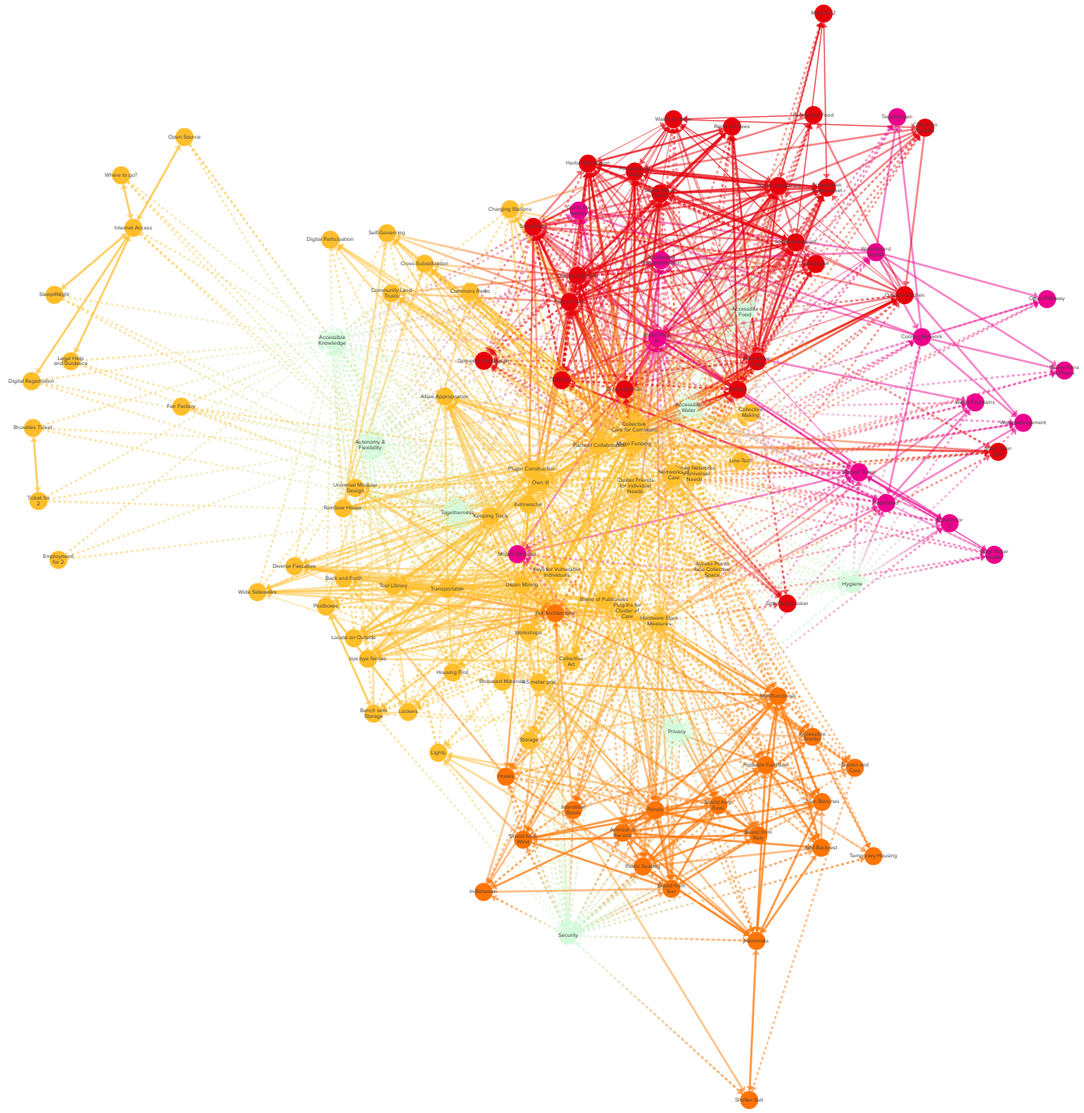


Fig. 3: Illustration showing connections between the patterns of all four systems, highlighting the satisfiers and four systems, made by author on kumu.io

Each pattern is rich in information. The title, image, and hypothesis provide an initial overview of the pattern and introduce its core idea. The color of each pattern indicates the related pattern field and shows whether it provides access to satisfiers, provides the oportunity to activate or adapt socio-spatial conditions and/or fosters solidarity.

The patterns are structured within the four key systems I identified—Food, Water, Shelter, and Agency—or grouped under overarching satisfiers. The quantity of patterns within each system helps me organize them clearly and consistently.

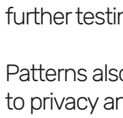
Each pattern includes a type, which indicates whether it primarily relates to a political, spatial, or behavioural implication. It also includes a source, revealing whether the pattern is grounded in literature review (and thus tested and proven), based on fieldwork through observed practices, or developed through a research-by-design process—representing speculative ideas that still require further testing.

Patterns also connect to emotional dimensions, showing whether they relate to privacy and security, solidarity and community, flexibility and autonomy, or a combination of these. This categorization helps clarify how each pattern supports different forms of homemaking in public space, recognizing that individuals may prioritize different needs.

Links between patterns make visible how they function within a system—some support or depend on one another and benefit from being implemented together. The scale of each pattern indicates whether it operates on a small or large level, ranging from furniture and materials to entire green-blue networks within the city.

Many of the patterns are supported by theoretical backing, offering examples or references from research and practice to demonstrate its relevance. The social implication outlines what social conditions or support systems are needed for the pattern to work effectively ranging from top-down to bottom-up implementation, while the spatial implication provides guidance on wheather the pattern should be embedded in an introvert or extrovert space within the urban fabric.

In this way, the complex system of youth homelessness becomes more accessible—broken down into understandable, actionable components that can guide both bottom-up and top-down implementation.



Pattern Explained

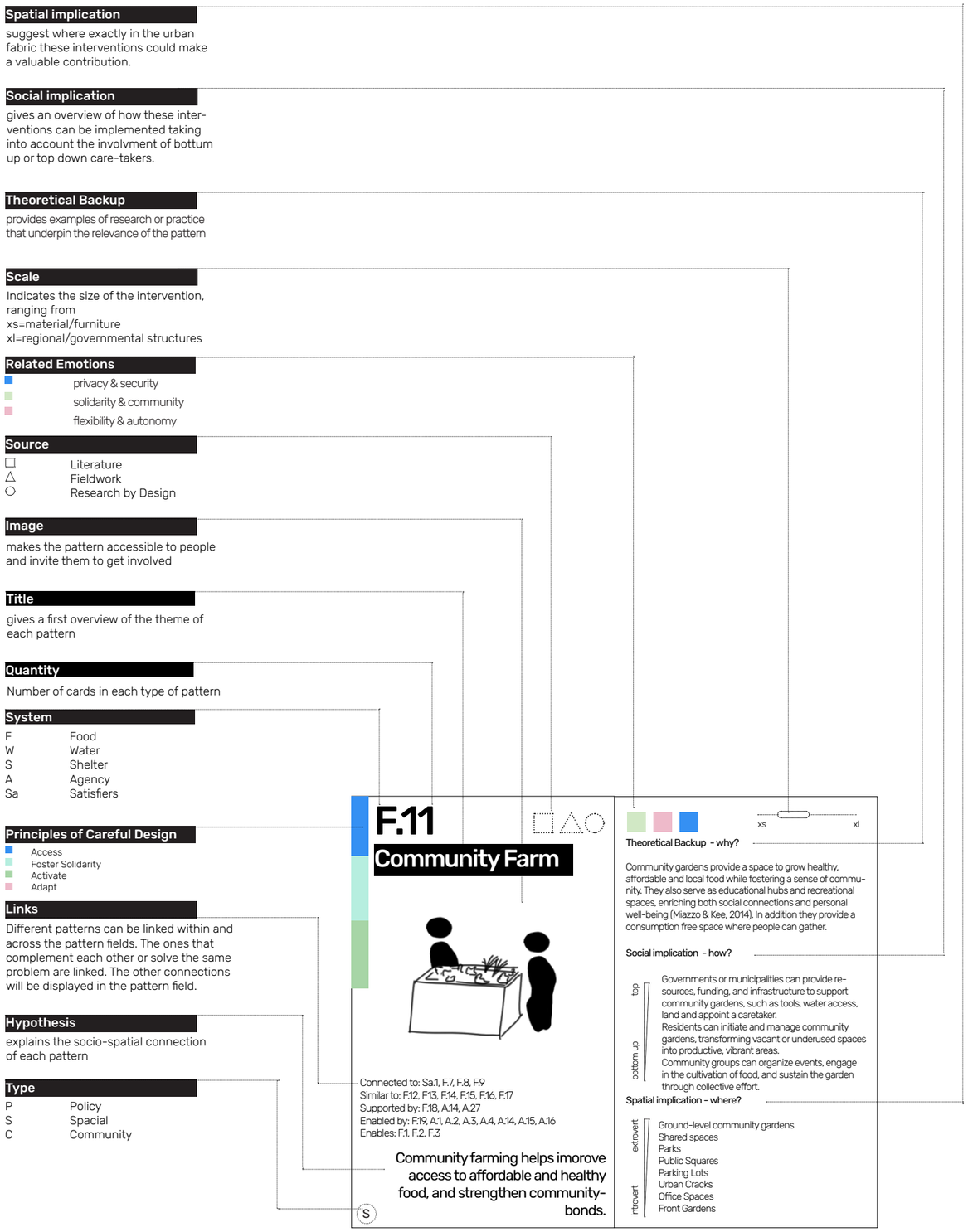


Fig. 4: Graphic showing final design of patterns, made by author

central patterns

Some patterns are particularly central across all satisfiers (green). These include policy frameworks—like collective care for the commons and enabling appropriation (dark blue); spatial plug-in conditions—such as building setbacks, grids, hooks, water and power plugs (light blue); and overarching patterns—like the blend of publicness, hardware store measures, plug-in construction, and care clusters or networks (blue).

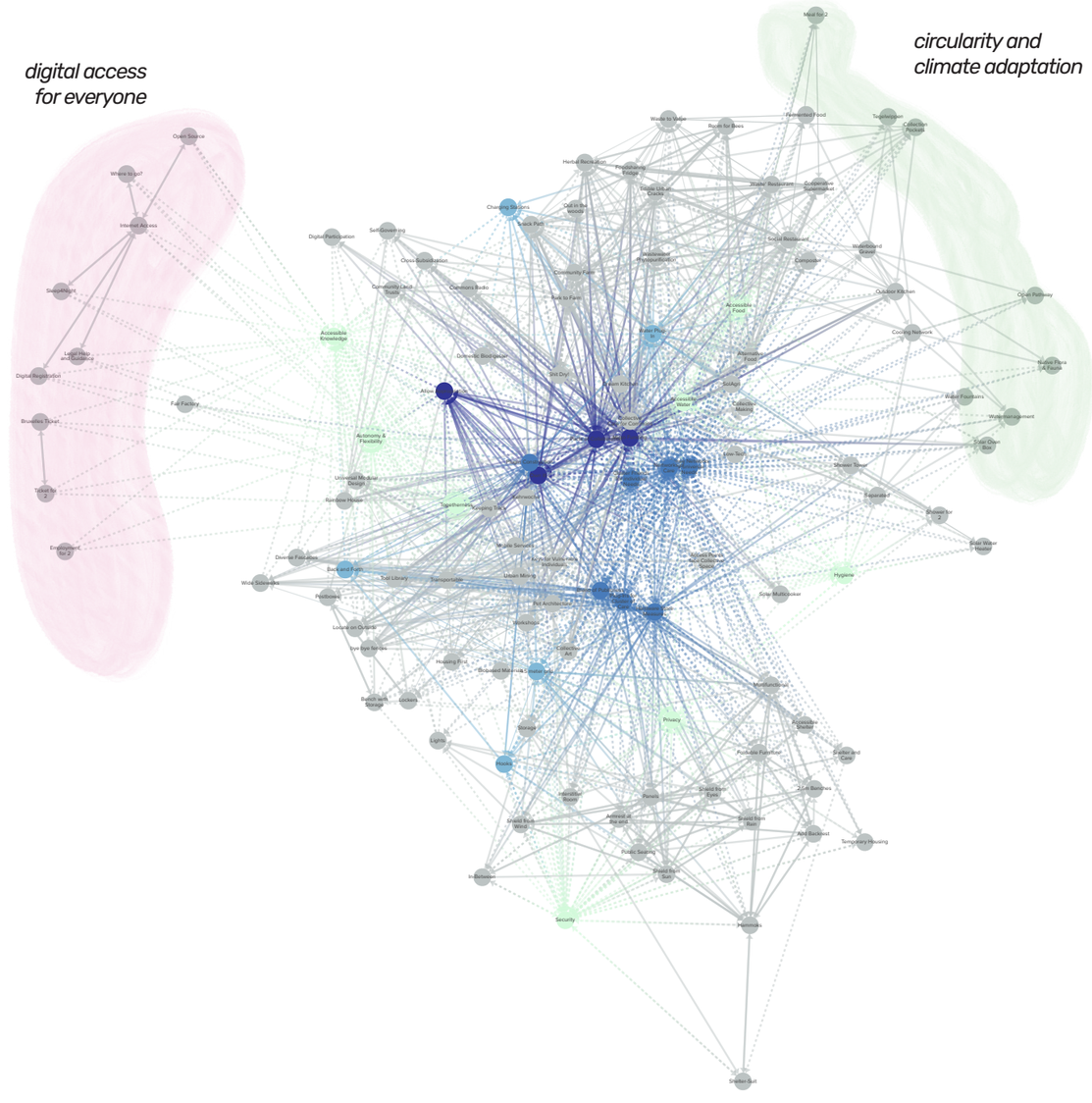
A.31 Plug-In Construction stands out as a key connector—both within the pattern field and across satisfiers (green). It links closely to A.18 Back and Forth, S.18 Hooks, A.7 4.5m Grid, W.1 Water Plug-In, and A.5 Charging Stations. Together, they support a flexible infrastructure for interventions like lockers, postboxes, seating, hammocks, and access to power and water—all vital to the everyday liveability of young, fluidly housed adults.

In contrast, patterns related to shelter and digital infrastructure—such as open-source tools, legal help, or “Where to go?” platforms—sit more at the system’s edge. While essential in situations of roofflessness, they are not the core of liveability for this group.

Similarly, circularity and climate adaptation patterns—such as water management, waste-to-value systems, and collective governance models—address broader needs. Though less central to the specific discourse around fluidly housed youth, they offer important entry points for other stakeholders focused on wider urban resilience.

connected
similar
supports
enables

satisfiers
central policy patterns
central spatial patterns
central overarching patterns



Shelter Suit, minimal, non-spatial improvement in time of rough-sleeping

Fig. 5: Illustration showing all patterns, highlighting the central patterns (red) and the satisfiers (green), made by author on kumu.io

The patterns are organized according to principles I identified for careful design:

Access – to spaces that provide the potential to be activatedby young fluidly housed adults.

Solidarity – informa bout spatial patterns that enable collective processes and community building.

Activation – seing young fluidly housed adults as central agents in activating the urban fabric to meet fundamental needs related to health and security, sense of belonging and agency.

Adaptation – ensuring the system can evolve in response to shifting needs, conditions, and lived experiences.

By introducing infrastructure in the form of plug-ins — such as building setbacks, hooks, modular grids, power outlets, and water connections — into urban pockets at strategic locations, these spaces can be activated bottom-up by young, fluidly housed adults to meet their daily needs and support flexible, self-determined use.

However, material infrastructure alone is not sufficient to meaningfully improve liveability. Patterns related to solidarity depend heavily on community-building. This highlights the importance of spaces that not only provide universal satisfiers — like water, food, or mailboxes— but also foster opportunities for social interaction and the formation of meaningful connections. While spatial design can enable such possibilities through adaptable, open-ended interventions, their success ultimately relies on the presence and participation of active communities.

In contrast, patterns related to access address broader, systemic conditions. While small-scale interventions can offer immediate improvements and serve as important entry points, lasting change requires top-down decisions that support long-term stability and collective care. These include policies such as Housing First, investment in social infrastructure, and comprehensive strategies to address the housing crisis, as well as frameworks for collective governance.

Fig. 6: Illustration showing all related to the principles for careful design and eight satisfiers (green), made by author on kumu.io

food

Graffiti in Schaerbeek West, photograph taken by author

the food system

connected
similar
supports
enables

satisfiers
food

The system surrounding Accessible Food is highly dependent on accessible water. Water is essential not only for growing food but also for cooking and cleaning, making it a foundational element in addressing health-related needs. Moreover, food-related activities—such as collective cooking or urban gardening—can serve as powerful tools for community building and social cohesion.

While the satisfier hygiene is partially linked—as clean water is necessary for washing cooking utensils and maintaining food safety—it is not central to the Accessible Food system. Similarly, satisfiers like privacy and security, though important in a broader sense, are less central to this specific subsystem and play only a peripheral role.

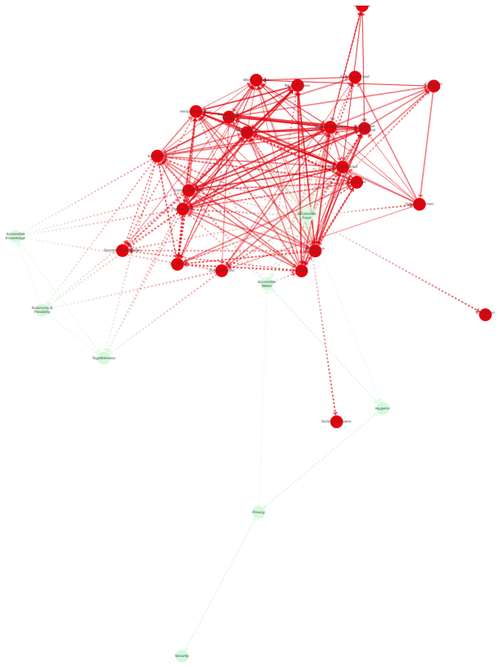


Fig. 7: Illustration showing the food related patterns (red) and the eight satisfiers (green), made by author on kumu.io

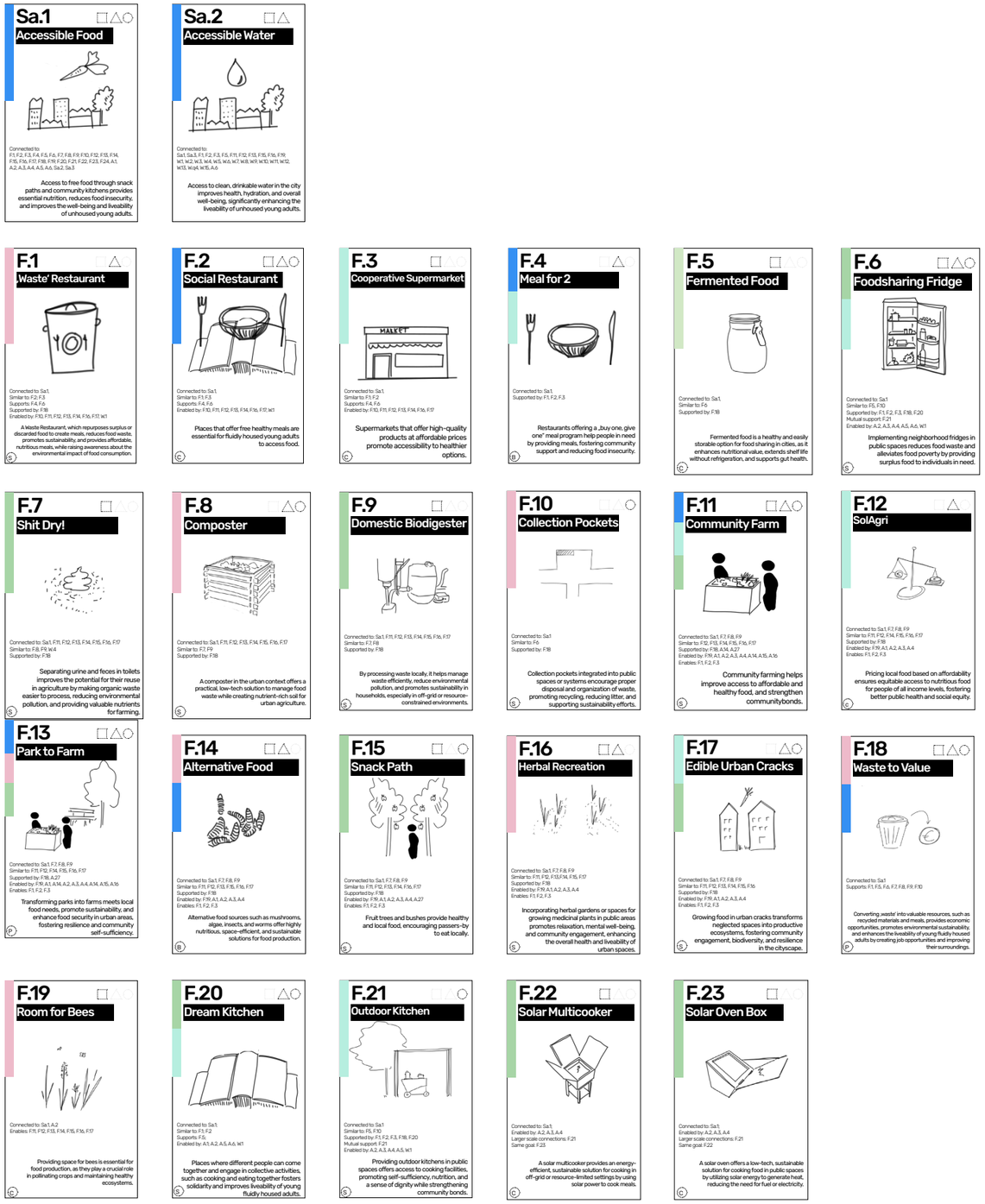


Fig. 8: overview of patterns in food system, made by author

F.1

‚Waste' Restaurant

Connected to: Sa.1, A.52, A.53
Similar to: F.2; F.3
Supports: F.4, F.6
Supported by: F.18
Enabled by: F.10, F.11, F.12, F.13, F.14, F.16, F.17, W.1

A Waste Restaurant, which repurposes surplus or discarded food to create meals, reduces food waste, promotes sustainability, and provides affordable, nutritious meals, while raising awareness about the environmental impact of food consumption.

S

xs xl

Theoretical Backup - why?

Examples such as Instock Restaurant in Amsterdam was known for creating gourmet meals from surplus or discarded food, aiming to reduce food waste and promote sustainability (REFRESH, 2021).

Social implication - how?

top down
Policy incentives for businesses donating food waste (tax reductions, legal protections), Municipal support in funding waste restaurants and integrating them into urban planning, Public awareness campaigns to shift perceptions on surplus food.

bottom up
Community-led food rescue initiatives, Volunteer-driven kitchens preparing and distributing meals, Local partnerships with supermarkets, bakeries, and markets to donate unsold food.

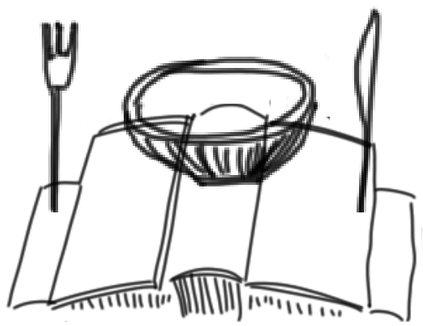
Spatial implication - where?

extrovert
Markets and commercial streets
Restaurants
Community centers and public squares
University campuses and Schools

introvert
Industrial kitchen spaces
Backyard kitchens
Residential courtyards

F.2

Social Restaurant



Connected to: Sa.1, A.52, A.53
Similar to: F.1; F.3
Supports: F.4, F.6
Enabled by: F.10, F.11, F.12, F.13, F.14, F.16, F.17, W.1

Places that offer free healthy meals are essential for fluidly housed young adults to access food.

C

xs xl

Theoretical Backup - why?

Public communal kitchens, such as the Dream Kitchen in Anderlecht offer all people, including unhoused individuals access to essential cooking facilities, promoting self-sufficiency, dignity, and social interaction. These spaces provide a platform for community-building and contribute to improved nutrition and well-being

Social implication - how?

top down
Governments can fund and facilitate public communal kitchens, ensuring accessibility and safety.

Restaurants that have the encessary equipment for cleaning and cooking can facilitate communal kitchens outside opening hours

bottom up
NGOs and community organizations can initiate communal kitchens in vacant buildings or underused public spaces.

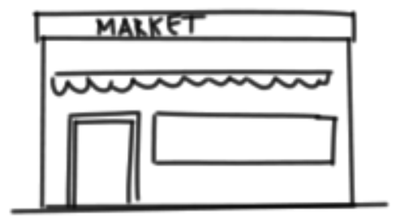
Spatial implication - where?

extrovert
markets on days not used
public squares
restaurant
existing facilities in schools, universities

introvert
underused buildings
office buildings during or after opening hours

F.3

Cooperative Supermarket



Connected to: Sa.1, A.52, A.53
Similar to: F.1; F.2
Supports: F.4, F.6
Enabled by: F.10, F.11, F.12, F.13, F.14, F.16, F.17

Supermarkets that offer high-quality products at affordable prices promote accessibility to healthier options.

C

xs xl

Theoretical Backup - why?

Existing supermarkets in Brussels such as BEES coop aim to offer quality products at affordable prices through a consumer-based cooperative model, emphasizing sustainability and community involvement as economic model (Leefmilieu Brussel en Brussel Economie en Werkgelegenheid, 2023).

Social implication - how?

top down
Government subsidies for affordable healthy food
Regulations on pricing and fair wages in food retail
Incentives for supermarkets to reduce food waste and support local producers

bottom up
Consumer cooperatives negotiating fair prices
Community advocacy for affordable healthy food
Local partnerships with farmers and surplus food networks

Spatial implication - where?

extrovert
Supermarkets

introvert

F.4

Meal for 2

Connected to: Sa.1, A.52, A.53
Supported by: F.1, F.2, F.3

Restaurants offering a „buy one, give one" meal program help people in need by providing meals, fostering community support and reducing food insecurity.

B

xs xl

Theoretical Backup - why?

Some restaurants in Brussels already offer „pay it forward" meals, allowing customers to buy an extra meal for someone in need. This approach fosters dignity by integrating support into everyday transactions, reducing stigma while promoting solidarity. It also contributes to a circular food economy by ensuring surplus resources are shared rather

Social implication - how?

top down
Municipalities provide incentives (subsidies, tax benefits) for participation, Local governments integrate the program into broader food security policies, Public institutions collaborate with restaurants to scale the initiative citywide.

bottom up
Restaurants and cafés independently implement "buy one, give one" programs, Residents support and promote the initiative through word-of-mouth and social media, Community groups organize partnerships between restaurants and food aid organizations.

Spatial implication - where?

extrovert
Restaurants
Community Centers

introvert
At Home (when having access to it)

F.5

Fermented Food

Connected to: Sa.1, A.52, A.53
Similar to: F6
Supported by: F.18

Fermented food is a healthy and easily storable option for food sharing in cities, as it enhances nutritional value, extends shelf life without refrigeration, and supports gut health.

C

xs xl

Theoretical Backup - why?

This low-tech preservation method reduces food waste, promotes community-based food networks, and provides a sustainable way to share surplus food in urban environments (Low Tech Lab, 2025).

Social implication - how?

top down: Government programs supporting sustainable food practices and providing resources for fermentation at scale.

bottom up: Community-led fermentation workshops or local initiatives to produce and share fermented foods, distributed in the neighbourhood

Spatial implication - where?

extrovert:
markets
public food fairs
community centers
schools and universities
community kitchens

introvert:
backyards
indoor spaces

F.6

Foodsharing Fridge

Connected to: Sa.1, A.52, A.53
Similar to: F5, F.10
Supported by: F.1, F.2, F.3, F.18, F.20
Mutual support: F.21
Enabled by: A.2, A.3, A.4, A.5, A.6, W.1

Implementing neighborhood fridges in public spaces reduces food waste and alleviates food poverty by providing surplus food to individuals in need.

S

xs xl

Theoretical Backup - why?

‚Fairteiler' that are implemented in Stuttgart are examples of a decentralized food-sharing initiative where surplus food is made freely accessible to the public, reducing waste and supporting those in need.

Social implication - how?

top down: Municipalities can provide infrastructure, regulations, and funding.

Restaurants and supermarkets can maintain a foodsharing fridge and store leftover food

bottom up: Community groups and volunteers can maintain and stock the fridges.

Spatial implication - where?

extrovert:
Public squares
community centers
near supermarkets
schools and universities
libraries

introvert:
Residential courtyards and frontgardens
shared housing complexes
neighborhood hubs

F.7

Shit Dry!

Connected to: Sa.1, F.11, F.12, F.13, F.14, F.15, F.16, F.17, A.52, A.53
Similar to: F.8, F9, W.4
Supported by: F.18

Separating urine and feces in toilets improves the potential for their reuse in agriculture by making organic waste easier to process, reducing environmental pollution, and providing valuable nutrients for farming.

S

xs xl

Theoretical Backup - why?

Additionally, the waste collected can be repurposed as agricultural fertilizer, promoting sustainable farming practices while addressing hygiene and waste management needs in temporary or mobile living situations. (Low Tech Lab, 2025)

Social implication - how?

top down: Municipalities can implement waste-to-fertilizer programs, providing infrastructure and regulations for safe processing.

bottom up: Communities and individuals can set up small-scale composting systems to convert waste into fertilizer for local use.

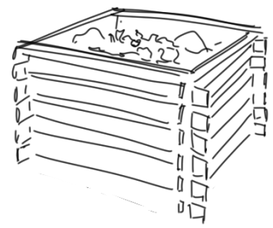
Spatial implication - where?

extrovert:
urban farms
public toilets

introvert:
community gardens
private gardens
allotments gardens
rooftops
mobile living setups

F.8

Composter



Connected to: Sa.1, F.11, F.12, F.13, F.14, F.15, F.16, F.17, A.52, A.54
Similar to: F.7, F9
Supported by: F.18

A composter in the urban context offers a practical, low-tech solution to manage food waste while creating nutrient-rich soil for urban agriculture.

S

xs xl

Theoretical Backup - why?

By recycling organic waste, composting reduces landfill waste, lowers carbon emissions, and produces valuable fertilizer that can enhance soil quality, supporting local food production. This sustainable approach helps foster more resilient, self-sufficient urban communities while promoting environmental stewardship and reducing waste disposal costs (Low Tech Lab, 2025).

Social implication - how?

top down: Municipalities can provide public composting facilities, integrate composting into waste management policies, and offer incentives for participation.

bottom up: Community-led composting initiatives, local compost bins, and neighborhood education programs can encourage participation and self-sufficiency.

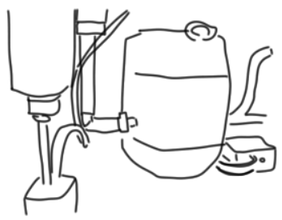
Spatial implication - where?

extrovert:
Public parks
community gardens
urban farms

introvert:
courtyards
shared residential spaces
rooftop gardens

F.9

Domestic Biodigester



Connected to: Sa.1, F.11, F.12, F.13, F.14, F.15, F.16, F.17, A.52, A.54
Similar to: F.7, F8
Supported by: F.18

By processing waste locally, it helps manage waste efficiently, reduce environmental pollution, and promotes sustainability in households, especially in off-grid or resource-constrained environments.

S

xs xl

Theoretical Backup - why?

A domestic biodigester is a low-tech, sustainable system that breaks down organic waste, such as food scraps and household sewage, to produce biogas and nutrient-rich fertilizer. It reduces waste, lowers household reliance on external energy sources, and creates a renewable energy solution for cooking or heating. (Low Tech Lab, 2025)

Social implication - how?

top down: Governments and NGOs can provide funding, incentives, and training programs to encourage household adoption.

bottom up: Communities can implement shared biodigesters, with residents contributing organic waste and benefiting from biogas and fertilizer.

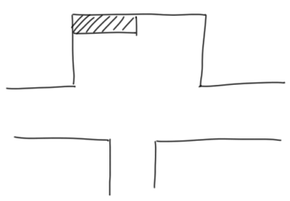
Spatial implication - where?

extrovert:
Public parks
public squares
community kitchens
open markets

introvert:
private courtyards
rooftops
off-grid settlements

F.10

Collection Pockets



Connected to: Sa.1, A.52, A.54
Similar to: F.6
Supported by: F.18

Collection pockets integrated into public spaces or systems encourage proper disposal and organization of waste, promoting recycling, reducing litter, and supporting sustainability efforts.

S

xs xl

Theoretical Backup - why?

Collection pockets help reduce litter, promote recycling, and foster sustainable waste management in urban environments. At the same time they can help reduce waste and give people access to resources another does not want to use anymore.

Social implication - how?

top down: Municipal or governmental policies providing infrastructure, like strategically placed collection pockets, and enforcing waste management regulations.

bottom up: Community-led initiatives, such as local groups creating designated waste collection spots or organizing waste disposal campaigns.

Spatial implication - where?

extrovert:
High-traffic public spaces
parks
squares
bus stops,
commercial areas
residential streets

introvert:
backyards
private spaces

F.11

Community Farm

Connected to: Sa.1, F.7, F.8, F.9, A.52, A.53, A.54
Similar to: F.12, F13, F.14, F.15, F.16, F.17
Supported by: F.18, A.14, A.27
Enabled by: F.19, A.1, A.2, A.3, A.4, A.14, A.15, A.16
Enables: F.1, F.2, F.3

Community farming helps improve access to affordable and healthy food, and strengthen communitybonds.

S

xs xl

Theoretical Backup - why?

Community gardens provide a space to grow healthy, affordable and local food while fostering a sense of community. They also serve as educational hubs and recreational spaces, enriching both social connections and personal well-being (Miazzo & Kee, 2014). In addition they provide a consumption free space where people can gather.

Social implication - how?

top down: Governments or municipalities can provide resources, funding, and infrastructure to support community gardens, such as tools, water access, land and appoint a caretaker.

bottom up: Residents can initiate and manage community gardens, transforming vacant or underused spaces into productive, vibrant areas.
Community groups can organize events, engage in the cultivation of food, and sustain the garden through collective effort.

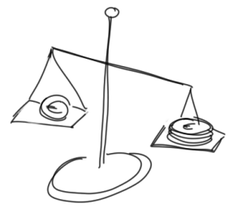
Spatial implication - where?

extrovert:
Ground-level community gardens
Shared spaces
Parks
Public Squares
Parking Lots
Urban Cracks

introvert:
Office Spaces
Front Gardens

F.12

SolAgri



Connected to: Sa.1, F.7, F.8, F.9, A.52, A.54
Similar to: F.11, F12, F.14, F.15, F.16, F.17
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4
Enables: F.1, F.2, F.3

Pricing local food based on affordability ensures equitable access to nutritious food for people of all income levels, fostering better public health and social equity.

C

xs xl

Theoretical Backup - why?

The concept of equitable pricing, often seen in Solidarity Agriculture (SoLaWi) models, allows for a sliding scale based on income. This ensures that healthy food is accessible to individuals and families from diverse socio-economic backgrounds, thereby promoting fairness and public health

Social implication - how?

top down: Government Subsidies: Policies that ensure healthy food remains affordable for all.

SoLaWi & Food Co-ops: alternative models for pricing for affordable, nutritious food.

bottom up: Community-Support: Individuals with higher incomes share resources within local, intimate settings, helping those in need.

Spatial implication - where?

extrovert:
Agricultural practices
Accessible on markets

introvert:
Smaller, localized distribution points that with access to the immediate community

F.13

Park to Farm

Connected to: Sa.1, F.7, F.8, F.9, A.49, A.52, A.53
Similar to: F.11, F.12, F.14, F.15, F.16, F.17
Supported by: F.18, A.27
Enabled by: F.19, A.1, A.14, A.2, A.3, A.4, A.14, A.15, A.16
Enables: F.1, F.2, F.3

Transforming parks into farms meets local food needs, promote sustainability, and enhance food security in urban areas, fostering resilience and community self-sufficiency.

P

xs xl

Theoretical Backup - why?

Concepts such as the Edible City in Andernach, Germany demonstrate the impact of transforming public green spaces into areas for cultivating edible plants. This approach promotes urban agriculture, sustainability, and community engagement by allowing residents to harvest fruits, vegetables, and herbs grown throughout the city (Andernach Tourismus, 2025).

Social implication - how?

top down
- Government policies supporting urban agriculture
- Public funding for community gardens
- Zoning laws allowing food production in parks

bottom up
- Community-led urban farming initiatives
- Volunteer-driven maintenance and harvesting
- Local cooperatives managing food distribution

Spatial implication - where?

extrovert
- Public parks and plazas
- School and university campuses
- Community centers with open-access gardens

introvert
- Rooftops farms in private or semi-public buildings

F.14

Alternative Food

Connected to: Sa.1, F.7, F.8, F.9, A.52, A.53
Similar to: F.11, F.12, F.13, F.15, F.16, F.17
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4
Enables: F.1, F.2, F.3

Alternative food sources such as mushrooms, algae, insects, and worms offer highly nutritious, space-efficient, and sustainable solutions for food production.

B

xs xl

Theoretical Backup - why?

These foods such as Mushrooms, Black Soldier Fly, Algae (e.g. spirulina) require minimal resources, grow rapidly, and have a low environmental footprint compared to traditional agriculture. By utilizing alternative food systems, communities can enhance food security, reduce dependence on conventional farming, and promote resilient, eco-friendly nutrition in urban and resource-limited, (Low Tech Lab, 2025)

Social implication - how?

top down
- Policy support for alternative food production (e.g., zoning laws, subsidies), Public investment in research and innovation for large-scale production, Educational campaigns to raise awareness and acceptance.

bottom up
- Community-led urban farming initiatives, Small-scale workshops and knowledge-sharing on alternative food cultivation, Local entrepreneurs experimenting with sustainable food startups.

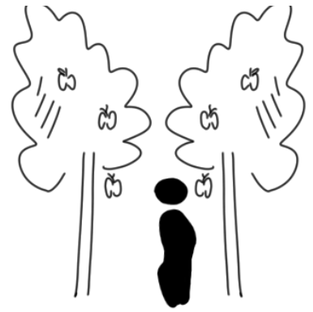
Spatial implication - where?

extrovert
- Markets and food halls
- Public parks and community gardens
- Restaurants and food hubs
- Indoor vertical farms

introvert
- Rooftops and basements
- Small-scale home setups

F.15

Snack Path



Connected to: Sa.1, F.7, F.8, F.9, A.49, A.52, A.53
Similar to: F.11, F.12, F.13, F.14, F.16, F.17
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4, A.27
Enables: F.1, F.2, F.3

Fruit trees and bushes provide healthy and local food, encouraging passers-by to eat locally.

S

xs xl

Theoretical Backup - why?

Publicly accessible fruit trees and shrubs encourage local food consumption, reducing the need for long supply chains and the carbon footprint associated with transport. They also provide fresh, nutritious food directly to the community, encouraging healthier eating habits (Grimnacher, 2024).

Social implication - how?

top down
- Municipal programs ensuring the planting, maintenance, and accessibility
- Policies that integrate food-producing plants into urban planning
- Public funding for caretakers

bottom up
- Community-led food initiatives
- Volunteers and local organizations
- Public engagement through harvesting events and educational workshops

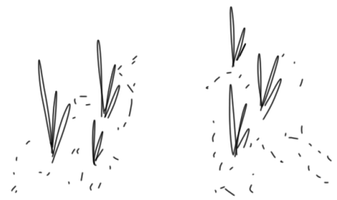
Spatial implication - where?

extrovert
- Key transition points near busy pathways
- Public parks and plazas
- Community gathering spaces

introvert
- Courtyards and enclosed gardens
- Residential green spaces
- Less frequented side streets
- small neighborhood parks

F.16

Herbal Recreation



Connected to: Sa.1, F.7, F.8, F.9, A.52, A.54
Similar to: F.11, F.12, F.13,F.14, F.15, F.17
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4
Enables: F.1, F.2, F.3

Incorporating herbal gardens or spaces for growing medicinal plants in public areas promotes relaxation, mental well-being, and community engagement, enhancing the overall health and liveability of urban spaces.

S

xs xl

Theoretical Backup - why?

Herbal gardens and spaces for medicinal plants contribute to mental health and community engagement by offering residents a space for relaxation, learning, and collective care. These spaces also promote sustainability and provide opportunities for individuals to reconnect with nature in an urban setting (Grimbacher, 2024).

Social implication - how?

top down
- Municipalities incorporate herbal gardens in urban plans. Policies support public green spaces with medicinal plants.

bottom up
- Community members create and maintain gardens. Residents collaborate on planting and learning.

Spatial implication - where?

extrovert
- public parks
- public squares
- streetnetwork
- parking lots
- restaurants, school outdoor spaces
- urban cracks

introvert
- backyards
- rooftops

F.17

Edible Urban Cracks

Connected to: Sa.1, F.7, F.8, F.9, A.52, A.53
Similar to: F.11, F.12, F.13, F.14, F.15, F.16
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4
Enables: F.1, F.2, F.3

Growing food in urban cracks transforms neglected spaces into productive ecosystems, fostering community engagement, biodiversity, and resilience in the cityscape.

S

xs xl

Theoretical Backup - why?

Urban farming transforms neglected spaces into productive ecosystems, promoting biodiversity, community engagement, and resilience (Chandran, 2020) It further helps mitigate impact on climate change when greening spaces that have not been green before (Lee, 2023).

Social implication - how?

top down: Incdentives for urban farming (land conversion, access to water), Funding for community gardens and green spaces, Simplify permits for urban agriculture on public land, Promote urban farming and sustainability education

bottom up: Community initiatives, Workshops on sustainable gardening and composting, Voluntary programs

Spatial implication - where?

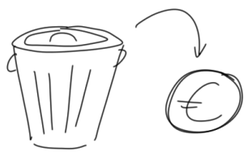
extrovert: Parks and plazas, Commercial areas, Transportation Corridors

Interstitial Spaces

introvert: Neighborhood backyards, Rooftops/courtyards

F.18

Waste to Value



Connected to: Sa.1, A.52, A.54
Supports: F.1, F.5, F.6, F.7, F.8, F.9, F.10

Converting ‚waste' into valuable resources, such as recycled materials and meals, provides economic opportunities, promotes environmental sustainability, and enhances the liveability of young fluidly housed adults by creating job opportunities and improving their surroundings.

P

xs xl

Theoretical Backup - why?

Converting waste into valuable resources, such as through recycling or upcycling food, not only addresses environmental sustainability but also creates economic opportunities. Initiatives like community-based recycling programs or food recovery networks have been shown to improve local economies and support marginalized populations by providing job training, income, and a sense of community involvement (Roetz Fair Factory, 2025).

Social implication - how?

top down: Government policies for waste conversion and job creation.
Formal recycling programs.

bottom up: Community-led recycling and meal programs.
Micro-businesses for resource generation.

Spatial implication - where?

extrovert: Public recycling stations.
Community events for job fairs or meal distribution.

introvert: Private workspaces for recycling or meal prep.
Fair Factories
Job training workshops.

F.19

Room for Bees

Connected to: Sa.1, A.2, A.52, A.53
Enables: F.11, F.12, F.13, F.14, F.15, F.16, F.17

Providing space for bees is essential for food production, as they play a crucial role in pollinating crops and maintaining healthy ecosystems.

C

xs xl

Theoretical Backup - why?

Bees are crucial for biodiversity and agriculture due to their role in pollination, which supports the reproduction of many plant species, including a significant portion of the crops humans rely on for food. The decline in bee populations, driven by factors like habitat loss, pesticide use, and climate change, threatens both ecosystems and global food security, as pollinators contribute to approximately 75% of flowering plant species and 35% of global food crops. Without bees, many food sources would become scarce, and biodiversity would significantly decrease, impacting entire ecosystems. (van Veen, 2023)

Social implication - how?

top down: Governments can integrate bee habitats into urban planning and offer incentives.

bottom up: Local communities and schools create bee habitats in gardens or vacant lots.

Restaurants plant herbs and bee-friendly plants in their outdoor seating areas

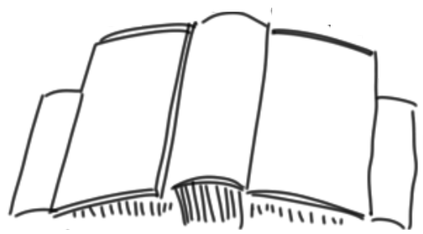
Spatial implication - where?

extrovert: public parks, public squares, streetnetwork, parking lots, restaurants, school outdoor spaces, urban cracks

introvert: backyards, rooftops

F.20

Dream Kitchen



Connected to: Sa.1; A.52, A.54
Similar to: F.1; F.2
Supports: F.5;
Enabled by: A.1; A.2, A.5, A.6, W.1

Places where different people can come together and engage in collective activities, such as cooking and eating together fosters solidarity and improves liveability of young fluidly housed adults.

S

xs xl

Theoretical Backup - why?

Public communal kitchens, such as the Dream Kitchen in Anderlecht offer all people, including unhoused individuals access to essential cooking facilities, promoting self-sufficiency, dignity, and social interaction. These spaces provide a platform for community-building and contribute to improved nutrition and well-being

Social implication - how?

top down: Governments can fund and facilitate public communal kitchens, ensuring accessibility and safety.

bottom up: Restaurants that have the encessary equipment for cleaning and cooking can facilitate communal kitchens outside opening hours

NGOs and community organizations can initiate communal kitchens in vacant buildings or underused public spaces.

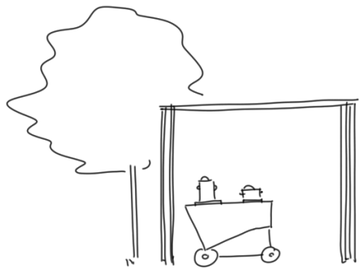
Spatial implication - where?

extrovert: markets on days not used, public squares, restaurant, existing facilities in schools, universities

introvert: underused buildings, office buildings during or after opening hours

F.21

Outdoor Kitchen



Connected to: Sa.1, A.50, A.52, A.53
Similar to: F5, F.10
Supported by: F.1, F.2, F.3, F.18, F.20
Mutual support: F.21
Enabled by: A.2, A.3, A.4, A.5, W.1

Providing outdoor kitchens in public spaces offers access to cooking facilities, promoting self-sufficiency, nutrition, and a sense of dignity while strengthening community bonds.

S

xs xl

Theoretical Backup - why?

Providing outdoor kitchens in public spaces is an essential intervention for promoting dignity and autonomy, particularly for unhoused individuals.The example of the ‚Stadtregal' in Stuttgart at the Österreichische Platz has shown that access to cooking facilities can improve nutrition and self-sufficiency - also for the homeless community.

Social implication - how?

top down
Municipal or government programs offering funding, infrastructure, and policies to create and maintain outdoor kitchens for public use.

bottom up
Community-led initiatives, local organizations, or mutual aid groups building and maintaining outdoor kitchens in accessible public spaces.

Spatial implication - where?

extrovert
High-traffic public spaces
markets, or urban squares
parks

introvert
community gardens
backyards
rooftops

F.22

Solar Multicooker

Connected to: Sa.1; A.50, A.52, A.54
Enabled by: A.2, A.3, A.4
Larger scale connections: F.21
Same goal: F.23

A solar multicooker provides an energy-efficient, sustainable solution for cooking in off-grid or resource-limited settings by using solar power to cook meals.

C

xs xl

Theoretical Backup - why?

This low-tech appliance reduces reliance on electricity, gas, or firewood, making it an eco-friendly option for cooking while decreasing carbon footprints. It also promotes self-sufficiency, especially in areas where access to traditional cooking resources is scarce, offering a practical solution for preparing a variety of meals in an environmentally conscious way (Low Tech Lab, 2025).

Social implication - how?

top down
Governments and NGOs can subsidize and distribute low-tech cooking appliances, integrating them into sustainable energy policies.

bottom up
Community workshops can teach people how to build and maintain these appliances, fostering self-sufficiency and knowledge sharing.

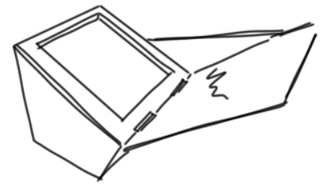
Spatial implication - where?

extrovert
Public parks
public squares
community kitchens
open markets

introvert
private courtyards
rooftops
off-grid settlements

F.23

Solar Oven Box



Connected to: Sa.1; A.50, A.52, A.54
Enabled by: A.2, A.3, A.4
Larger scale connections: F.21
Same goal: F.22

A solar oven offers a low-tech, sustainable solution for cooking food in public spaces by utilizing solar energy to generate heat, reducing the need for fuel or electricity.

C

xs xl

Theoretical Backup - why?

This eco-friendly method provides an accessible way for unhoused individuals or communities to prepare meals, promoting self-sufficiency and reducing environmental impact in areas where traditional cooking resources may be scarce. (Low Tech Lab, 2025)

Social implication - how?

top down
Governments or NGOs can fund, install and care for communal eco-friendly cooking facilities in public spaces.

bottom up
Communities can establish shared cooking spaces using low-tech methods, promoting self-reliance.

Spatial implication - where?

extrovert
Public parks
public squares
community kitchens
open markets

introvert
private courtyards
rooftops
off-grid settlements

water

Functioning Watertap in building fascade in Schaerbeek West, photograph taken by author

the water system

connected
similar
supports
enables

satisfiers
water

The system surrounding Accessible Water is deeply connected to multiple satisfiers, particularly Hygiene and Privacy, with indirect links to Security. In fact, water plays a foundational role across nearly all satisfiers, making it a crucial enabler within the care infrastructure.

However, while water access is critical at the local scale, it is also embedded in larger blue-green infrastructures and a broader water management system that ensures water quality and public hygiene. In Brussels, water is regarded as a common good, and maintaining its quality and accessibility requires not only localized interventions but also top-down governance and infrastructure maintenance. As such, the success of accessible water systems depends on a coordinated approach, combining bottom-up initiatives with institutional support.

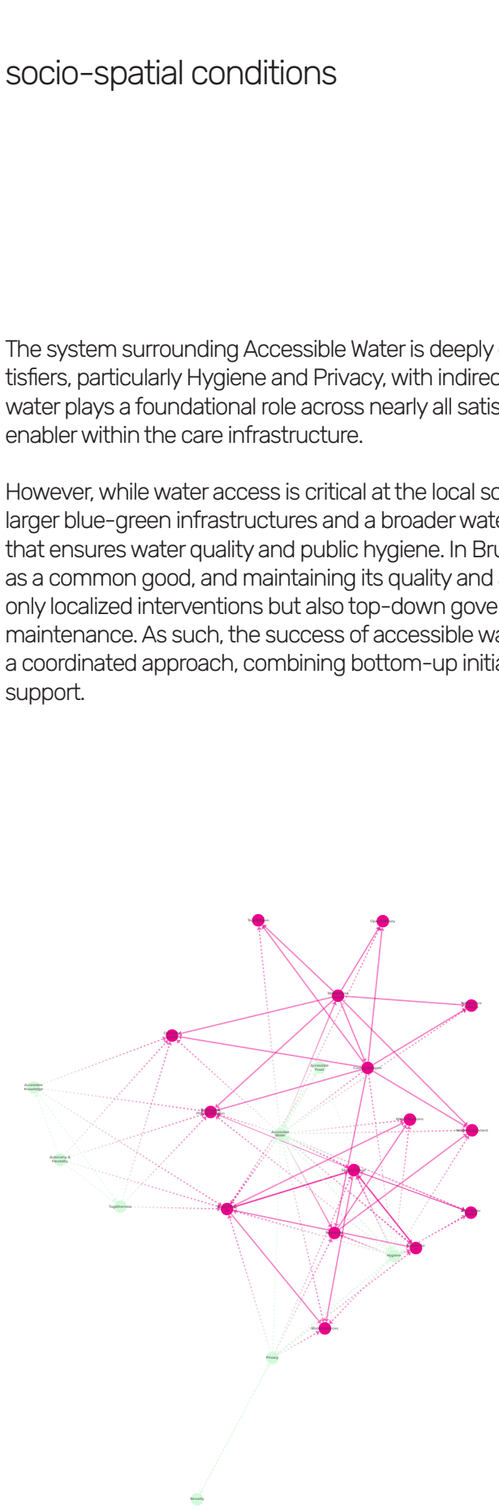


Fig. 9: Illustration showing the water related patterns (pink) and the eight satisfiers (green), made by author on kumu.io

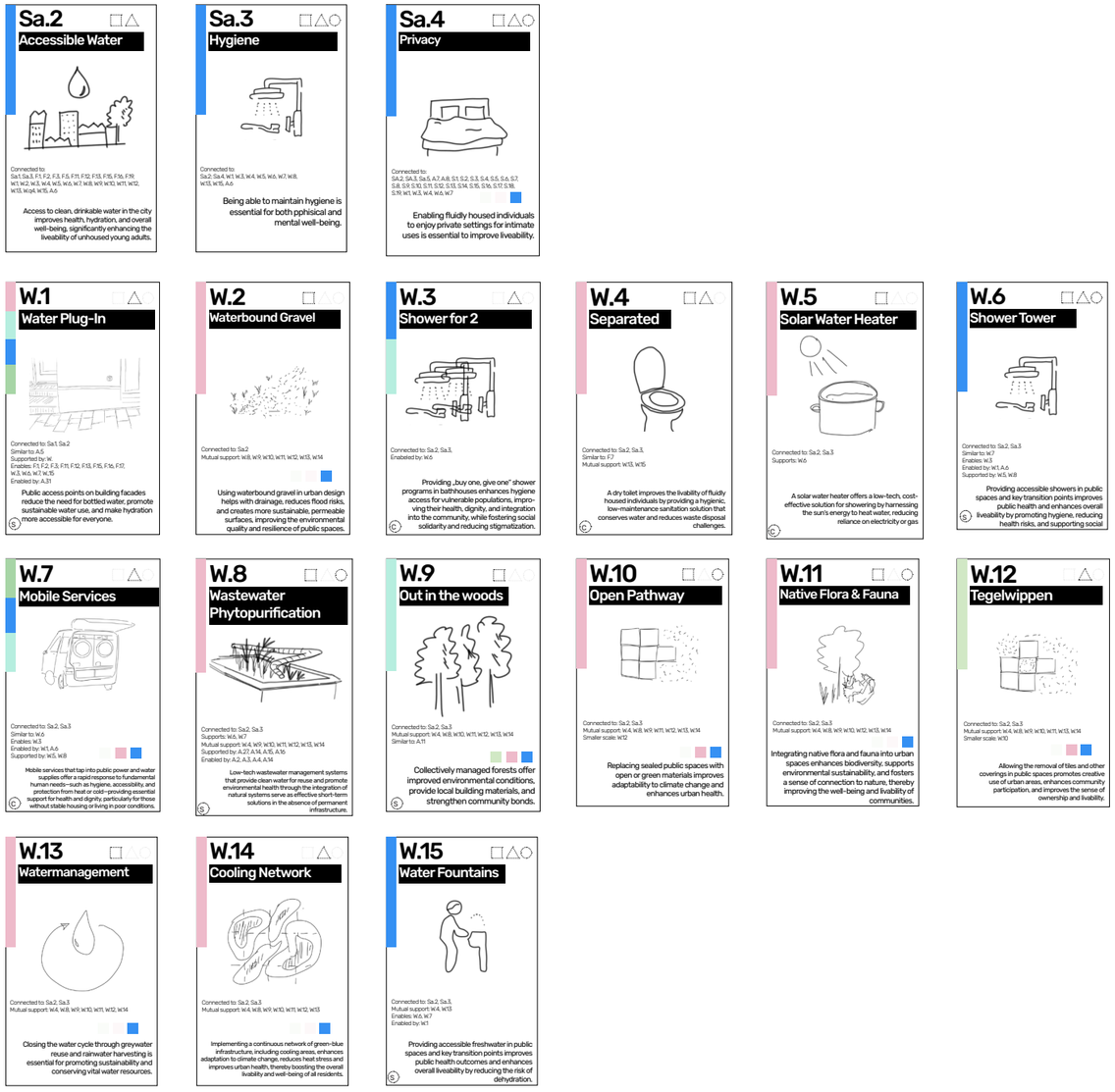


Fig. 10: overview of patterns in water system, made by author

W.1

Water Plug-In

Connected to: Sa.1, Sa.2, A.52, A.53
Similar to: A.5
Supported by: W.13
Enables: F.1, F.2, F.3; F.11, F.12, F.13, F.15, F.16, F.17, W.3, W.6, W.7, W.,15, A.51
Enabled by: A.31, A.50

Public access points on building facades reduce the need for bottled water, promote sustainable water use, and make hydration more accessible for everyone.

S

W.2

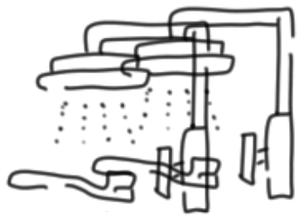
Waterbound Gravel

Connected to: Sa.2, A.52, A.53
Mutual support: W.8, W.9, W.10, W.11, W.12, W.13, W.14

Using waterbound gravel in urban design helps with drainage, reduces flood risks, and creates more sustainable, permeable surfaces, improving the environmental quality and resilience of public spaces.

W.3

Shower for 2



Connected to: Sa.2, Sa.3, A.49, A.52, A.53
Enabeled by: W.6

Providing „buy one, give one“ shower programs in bathhouses enhances hygiene access for vulnerable populations, improving their health, dignity, and integration into the community, while fostering social solidarity and reducing stigmatization.

C

xs xl

Theoretical Backup - why?

Provideing critical services to those in need as done in Vienna, reduces inequalities and stigma, and promotes mental and physical public health (Magistratsabteilung 44 – Bäder, 2020).

Social implication - how?

top down
Municipalities or local governments can establish and fund for shower programs in public bathhouses, ensuring equitable access for vulnerable populations.

bottom up
Regulations and partnerships with private businesses can ensure the integration of such programs, offering a sustainable model to improve community health.

Residents can pay a solidary fee

Spatial implication - where?

extrovert
Bathhouses
Schools
Universities
Libraries
Gym

introvert

W.4

Separated

Connected to: Sa.2, Sa.3, A.49, A.521, A.52, A.53
Similar to: F.7
Mutual support: W.13, W.15
enabled by: A.50

A dry toilet improves the livability of fluidly housed individuals by providing a hygienic, low-maintenance sanitation solution that conserves water and reduces waste disposal challenges.

C

xs xl

Theoretical Backup - why?

Urine contains high concentrations of nitrogen, phosphorus, and potassium, making it an excellent fertilizer. Feces can be processed into compost to enrich soil and improve plant health. This practice reduces pollution, conserves water, and enhances agricultural productivity in urban environments (Goldeimer, 2025).

Social implication - how?

top down
Governments and municipalities can legislate and fund the development of infrastructure that separates urine and feces in public toilets, ensuring proper waste management and nutrient recovery.

bottom up
Communities can establish small-scale, DIY systems for waste separation in their gardens or community spaces, creating awareness and fostering sustainable waste management practices at a local level.

Spatial implication - where?

extrovert
Public toilets
Public facilities
office buildings
schools and universities
libraries
gardens and backyards
rooftops
private homes

introvert

W.7

Mobile Services

Connected to: Sa.2, Sa.3, A.49, A.50, A.51, A.52, A.54
Similar to: W.6
Enables: W.3
Enabled by: W.1, A.6
Supported by: W.5, W.8

Mobile services that tap into public power and water supplies offer a rapid response to fundamental human needs—such as hygiene, accessibility, and protection from heat or cold—providing essential support for health and dignity, particularly for those without stable housing or living in poor conditions.

C

W.9

Out in the woods

Connected to: Sa.2, Sa.3, A.52, A.54
Mutual support: W.4, W.8, W.10, W.11, W.12, W.13, W.14
Similar to: A.11

Collectively managed forests offer improved environmental conditions, provide local building materials, and strengthen community bonds.

S

W.5

Solar Water Heater

Connected to: Sa.2, Sa.3, A.51, A.52, A.54
Supports: W.6

A solar water heater offers a low-tech, cost-effective solution for showering by harnessing the sun's energy to heat water, reducing reliance on electricity or gas

C

xs xl

Theoretical Backup - why?

Wastewater phytopurification, as a bottom-up system, uses plants and natural processes to treat and purify wastewater locally, empowering communities to manage their own water resources. It can be especially beneficial in underserved or resource-constrained areas, fostering community resilience and environmental stewardship. (Low Tech Lab, 2025)

Social implication - how?

top down
Governments or municipalities can provide funding, guidelines, and infrastructure to ensure systems meet health and safety standards while scaling up these projects across communities.

bottom up
Local communities can establish small-scale, decentralized wastewater phytopurification systems using plants, filters, and natural processes to purify wastewater.

Spatial implication - where?

extrovert
green-blue networks
public parks
waterbodies
community gardens
open spaces

introvert
allotments
residential areas

W.6

Shower Tower

Connected to: Sa.2, Sa.3, A.49, A.51, A.52, A.53, A.54
Similar to: W.7
Enables: W.3
Enabled by: W.1, A.6, A.50
Supported by: W.5, W.8

Providing accessible showers in public spaces and key transition points improves public health and enhances overall liveability by promoting hygiene, reducing health risks, and supporting social

S

xs xl

Theoretical Backup - why?

Personal hygiene is important for a good quality of life and health (Hobmair & Altenthan, 2013). If not maintained, it adds further to stigma of homeless people. Furthermore, it is almost impossible to get or even hold a job without access to basic facilities such as showers and toilets, which perpetuates the cycle of homelessness. (Landry, 2018, Brox et al., 2023, Bloh et al., 2021).

Social implication - how?

top down
Governments and municipalities can fund and implement permanent shower facilities in public spaces and public buildings.
Partnerships between local authorities, businesses, and non-profits can provide both short-term and long-term solutions, ensuring accessibility, maintenance, and cleanliness.

bottom up
Local communities and NGOs can set up mobile shower units or public shower facilities in busy areas to provide easy access to hygiene facilities.

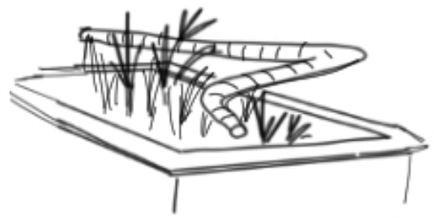
Spatial implication - where?

extrovert
near transportation hubs
central squares
schools and universities
libraries
dedicated hygiene centers
bathhouses and swimmingpools
gym

introvert

W.8

Wastewater Phytopurification



Connected to: Sa.2, Sa.3, A.52, A.54
Supports: W.6, W.7
Mutual support: W.4, W.9, W.10, W.11, W.12, W.13, W.14
Supported by: A.27, A.14, A.15, A.16
Enabled by: A.2, A.3, A.4, A.14

Low-tech wastewater management systems that provide clean water for reuse and promote environmental health through the integration of natural systems serve as effective short-term solutions in the absence of permanent infrastructure.

S

xs xl

Theoretical Backup - why?

This sustainable method provides a consistent, eco-friendly way to access hot water, particularly in areas with limited resources, improving hygiene and overall well-being while minimizing environmental impact (Low Tech Lab, 2025).

Social implication - how?

top down
Governments can fund research and development for alternative heating systems and integrate them into urban planning.

bottom up
Communities or local organizations can create and maintain alternative heating systems in public spaces or community centers.

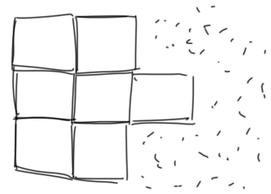
Spatial implication - where?

extrovert
Public parks
community centers
outdoor communal areas

introvert
mobile living setups
small community units

W.10

Open Pathway



Connected to: Sa.2, Sa.3, A.52, A.53
Mutual support: W.4, W.8, W.9, W.11, W.12, W.13, W.14
Smaller scale: W.12

Replacing sealed public spaces with open or green materials improves adaptability to climate change and enhances urban health.

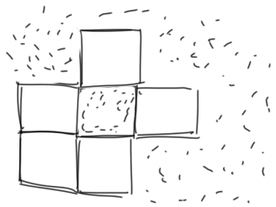
W.11

Native Flora & Fauna

Connected to: Sa.2, Sa.3, A.52, A.53
Mutual support: W.4, W.8, W.9, W.10, W.12, W.13, W.14

Integrating native flora and fauna into urban spaces enhances biodiversity, supports environmental sustainability, and fosters a sense of connection to nature, thereby improving the well-being and livability of communities.

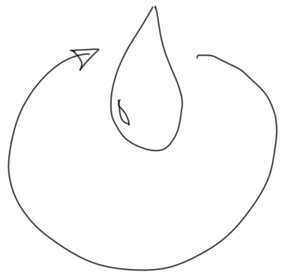
W.12
Tegelwippen



Connected to: Sa.2, Sa.3, A.52, A.53
Mutual support: W.4, W.8, W.9, W.10, W.11, W.13, W.14
Smaller scale: W.10

Allowing the removal of tiles and other coverings in public spaces promotes creative use of urban areas, enhances community participation, and improves the sense of ownership and livability.

W.13
Watermanagement



Connected to: Sa.2, Sa.3, A.52, A.53, A.54
Mutual support: W.4, W.8, W.9, W.10, W.11, W.12, W.14

Closing the water cycle through greywater reuse and rainwater harvesting is essential for promoting sustainability and conserving vital water resources.

W.14
Cooling Network

Connected to: Sa.2, Sa.3, A.52, A.53, A.54
Mutual support: W.4, W.8, W.9, W.10, W.11, W.12, W.13

Implementing a continuous network of green-blue infrastructure, including cooling areas, enhances adaptation to climate change, reduces heat stress and improves urban health, thereby boosting the overall livability and well-being of all residents.

W.15
Water Fountains

Connected to: Sa.2, Sa.3, A.52, A.53
Mutual support: W.4, W.13
Enables: W.6, W.7
Enabled by: W.1, A.50

Providing accessible freshwater in public spaces and key transition points improves public health outcomes and enhances overall liveability by reducing the risk of dehydration.

S

xs xl

Theoretical Backup - why?

Staying hydrated is essential for human wellbeing. Especially in public areas and without access to stable housing, access to clean drinking water is often limited. By providing accessible and visible drinking water, it is more likely for people to stay hydrated (Mulla, 2024).

Social implication - how?

top down / bottom up

Governments and municipalities can implement policies and infrastructure to provide public water fountains in accessible public spaces, ensure regular maintenance, quality checks, and proper drainage systems.
Regulations for sustainable water use, including incorporating water collection systems for reuse or return to the water cycle.
Community-led initiatives can monitor and report issues, ensuring the fountains remain functional and accessible to those in need, especially unhoused individuals.

Spatial implication - where?

extrovert / introvert

key transition hubs
green-blue networks
public parks
waterbodies
community gardens
open spaces

residential areas

shelter

Photo of Fence around Solidary Mobile Housing Project in Koekelberg, photograph taken by author

connected
similar
supports
enables

satisfiers
shelter

The system surrounding Privacy and Security is closely linked to Accessible Shelter and indirectly connected to all other satisfiers. The selected patterns focus on shelter in worst-case scenarios—specifically, when individuals are forced to sleep rough and no other immediate options are available. In such cases, these patterns propose spatial interventions that can offer temporary rest and protection, primarily through bottom-up adaptations within the urban fabric.

However, it is important to stress that these are not ideal or sufficient solutions. Meaningfully addressing rough sleeping requires confronting the broader housing crisis, particularly the systemic lack of affordable and secure housing. A Housing First approach—which prioritizes the provision of stable housing alongside integrated support services—is widely recognized as a necessary first step in addressing this complex issue (Housing First Europe Hub, 2020).

Given the focus of this project on bottom-up interventions and the socio-spatial needs of young, fluidly housed adults, the patterns presented here represent provisional responses that operate within existing constraints, rather than long-term solutions.

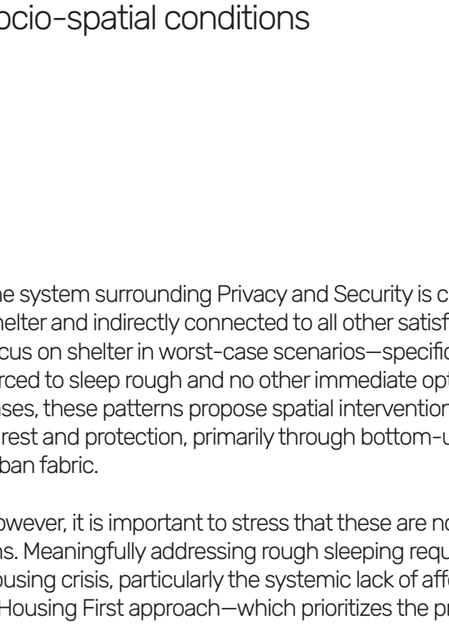


Fig. 11: Illustration showing the shelter related patterns (orange) and the eight satisfiers (green), made by author on kumu.io

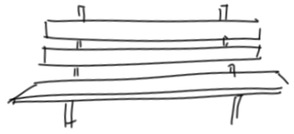
Fig. 12: overview of patterns in shelter system, made by author

S.1
Accessible Shelter

Connected to: Sa.4, Sa.5, A.49, A.52, A.53, A.54
Enabled by: S.2, S.17, S.15, S.16, A.50, A.51

Access to safe places during times of uncertain living conditions protects young, fluidly housed adults from harm.

S.3
Add Backrest

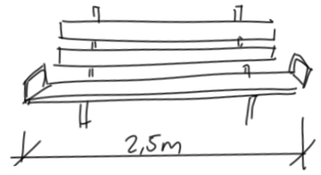


Connected to: Sa.4, Sa.5, A.49, A.50, A.51, A.52, A.53
Similar to: S.4, S.5, S.6, S.7, S.19
Larger scale: S.2

Backrests provide a minimum level of comfort and protection from falling during times of rootlessness, while also supporting proper posture and making it easier to sit for longer periods.

S

S.4
Armrest at the end

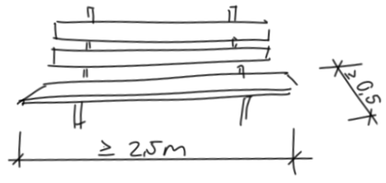


Connected to: Sa.4, Sa.5, A.49, A.50, A.51, A.52, A.53
Similar to: S.3, S.5, S.6, S.7, S.19
Larger scale: S.2

Armrests placed 2.5 meters apart provide support for getting up while allowing enough space on the bench for sleeping in public spaces.

S

S.5
2,5m Benches

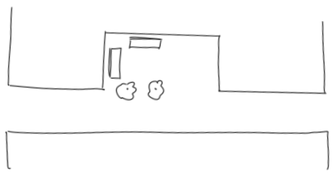


Connected to: Sa.4, Sa.5, A.49, A.50, A.51, A.52, A.53
Similar to: S.4, S.5, S.6, S.7, S.19
Larger scale: S.2

Wide and long benches offer a basic level of comfort during times of root-lessness.

S

S.2
Public Seating



Connected to: Sa.4, Sa.5, A.49, A.50, A.51, A.52, A.53
Small scale: S.4, S.5, S.6, S.7, S.19
Enables: S.1

Providing street seating is essential for young, fluidly housed adults, as it enables rest, encourages social interaction, enhances walkability, and fosters a sense of community—contributing to a more lively and connected neighborhood.

S

xs — xl

Theoretical Backup - why?

Street seating, in the form of benches, chairs, or other surfaces, is crucial to the vibrancy of urban spaces (Mehta, 2009). It encourages spontaneous social interactions, supports walkability, and enhances the sense of place, making neighborhoods more inviting and dynamic (Gehl, 2011).

Social implication - how?

top down
- Government or local municipalities allocate resources for designing and installing inclusive, accessible public seating in urban areas.
- Urban planners and local authorities ensure that seating designs meet the diverse needs of all citizens

bottom up
- Local businesses, community groups, or residents can introduce flexible seating arrangements outside cafes, markets, or in semi-public spaces to create more vibrant and interactive areas.

Spatial implication - where?

extrovert
- commercial streets
- public parks
- public squares
- near businesses
- front gardens

introvert
- backyards
- rooftops

S.6
Foldable Furniture

Connected to: Sa.4, Sa.5, A.49, A.50, A.52, A.53, A.54
Similar to: S.3, S.4, S.5, S.7, S.19
Larger scale: S.2
Enabled by: A.7, A.51

The use of foldable benches in public spaces allows for flexible activation based on shifting needs—enabling seating, sleeping, or other uses.

S

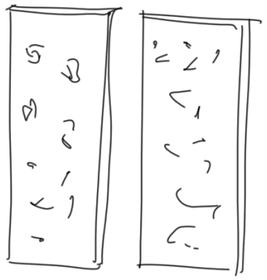
S.7
Multifunctional

Connected to: Sa.4, Sa.5, A.52, A.53, A.54
Similar to: S.3, S.4, S.5, S.6, S.19
Larger scale: S.2
Enabled by: A.7, A.8, A.49, A.50, A.51

Flexible street furniture improves the well-being and dignity of fluidly housed individuals by providing adaptable, accessible spaces for rest and social interaction in public areas.

S

S.8
Climbing Panels

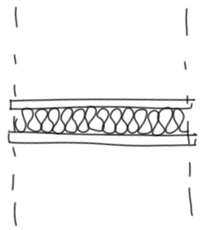


Connected to: Sa.4, Sa.5, A.51, A.54
Enables: S.9, S.10, S.11, S.12, S.13, S.14, A.49
Enabled by: A.7, A.8, A.50, A.51

Modular climbing panels function as both adaptable sports facilities and shelters—offering protection from wind, sun, and rain, while also providing privacy.

S

S.9
In-Between



Connected to: Sa.4, Sa.5
Enables: S.13
Enabled by: S.8, A.8, A.50, A.51

Sandwich panels improve livability for young, fluidly housed adults when being filled with insulation materials during extreme heat or cold waves, enhancing well-being in urban spaces.

S

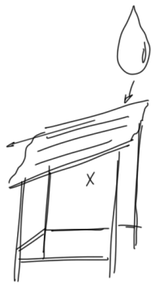
S.10
Shelter and Care

Connected to: S.7; S.8; S.20; A.49, A.50; A.51, A.52, A.54

Offering shelter within elderly homes addresses both the loneliness experienced by older adults and the need for temporary housing among those without stable shelter.

S

S.11
Shield from Rain

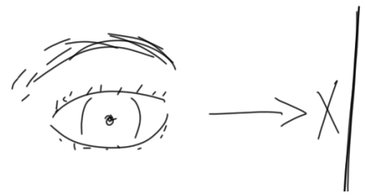


Connected to: Sa.4, Sa.5, S.18, A.52, A.53
Similar to: S.12, S.13, S.14, A.9
Enabled by: A.7, S.8, A.50, A.51

Providing sheltered spaces in public areas to protect from rain improves comfort and safety for young, fluidly housed individuals, while also creating inclusive, consumption-free places for rest.

S

S.12
Shield from Eyes

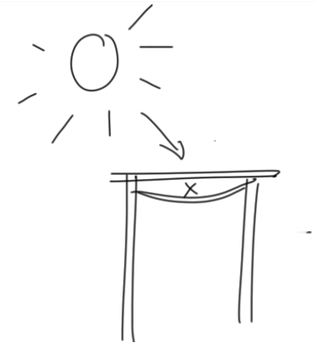


Connected to: Sa.4, Sa.5, S.18, A.52, A.54
Similar to: S.11, S.13, S.14, A.9
Enabled by: A.7, S.8, A.49, A.50, A.51

Creating spaces that shield individuals from public view, such as private areas in public spaces or designated shelters, provides roofless individuals with privacy, dignity, and a sense of security.

S

S.13
Shield from Sun



Connected to: Sa.4, Sa.5, S.18, A.52, A.53
Similar to: S.11, S.12, S.14,
Enabled by: A.7, S.8, A.50, A.51

Providing sheltered spaces in public areas to protect from sun improves comfort and safety for young, fluidly housed individuals, while also creating inclusive, consumption-free places for rest.

S

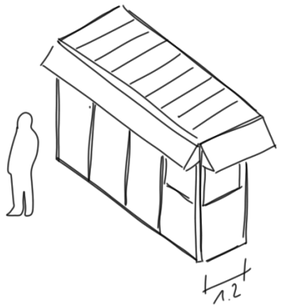
S.14
Shield from Wind

Connected to: Sa.4, Sa.5, S.18, A.52, A.53
Similar to: S.11, S.12, S.13, A.9
Enabled by: A.7, S.8, A.50, A.51

Providing sheltered spaces in public areas to protect from wind improves comfort and safety for young, fluidly housed individuals, while also creating inclusive, consumption-free places for rest.

S

S.15
Pet Architecture

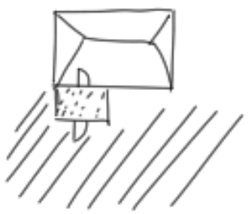


Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.49, A.52, A.53, A.54
Enables: A.36
Enabled by: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.33, A.34, A.35, A.50, A.51
Supports: A.36

Small-scale „pet architecture“ can respond to shifting urban needs by being flexibly integrated—or „plugged in and out“—of larger structures, contributing to a more adaptable and responsive urban fabric.

S

S.16
Interstitial Room



Connected to: Sa.4, Sa.5, A.49, A.52, A.53, A.54
Enables: S.1
Similar to: S.15
Enabled by: A.50, A.51

Creating semi-integrated threshold spaces—small, temporary living quarters attached to private residences with independent access—can provide young homeless individuals with safe, transitional shelter, fostering stability while respecting the boundaries between private and public life.

S

xs xl

Theoretical Backup - why?

This model can be linked to contemporary spaces like motels, which similarly provide temporary, autonomous refuge without deeper social integration. Applying this principle to urban homelessness, threshold shelters could offer young people a dignified, stable, yet non-institutionalized form of temporary housing, increasing liveability while maintaining social permeability (Foucault, 1997).

Social implication - how?

top down: Municipalities or government agencies can create policies, fund, and regulate the establishment of threshold shelters as part of a broader homelessness strategy.

bottom up: Local communities, NGOs, or private initiatives can design and implement threshold shelters that focus on providing temporary, non-institutionalized housing.

Spatial implication - where?

extrovert
- community centers
- existing facilities
- schools and universities
- libraries
- gym
- offices

introvert
- residential housing

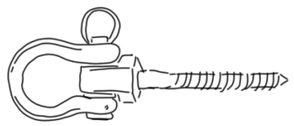
S.17
Temporary Housing

Connected to: Sa.4, Sa.5, A.52, A.53
Enables: S.1

Temporary or transitional housing helps address the housing crisis by providing a rapid solution for roofless individuals, while allowing for flexible forms of living in the future.

P

S.18
Hooks



Connected to: Sa.4, Sa.5, S.11, S.12, S.13, S.14, A.49, A.52, A.53
Enabled by: A.18, A.31, A.50
Enables: S.19, A.51

Hooks enable the appropriation of public space for various functions, such as hanging hammocks, garlands, or awnings.

C

S.19
Hammoks

Connected to: Sa.4, Sa.5, A.49, A.50
Similar to: S.3 S.4, S.5, S.6, S.7, S.20
Larger scale: S.2
Enabled by: S.18, A.7, A.8

Providing hammocks for homeless individuals is not a solution to homelessness but offers a safer and more comfortable alternative to sleeping on the ground in situations where no other shelter is available.

C

xs xl

Theoretical Backup - why?

Sleeping on the ground can expose homeless individuals to harsh environmental conditions, such as dampness, cold, and unsanitary surfaces (Feantsa, 2011). Hammocks can offer better protection from the elements, reduce exposure to parasites, and improve comfort, potentially leading to better physical and mental well-being.

Social implication - how?

top down: Governments or NGOs can fund and distribute Hammoks as part of emergency response programs, ensuring that the most vulnerable populations have access to the minimum protection.

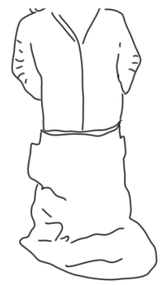
bottom up: Local communities or grassroots organizations can partner with manufacturers to provide Hammoks to unhoused individuals in need, store them and wash them regularly.

Spatial implication - where?

extrovert
- public buildings
- supermarkets
- hospitals
- schools and universities
- libraries
- gym

introvert

S.20
Shelter-Suit



Connected to: Sa.5
Similar to: S.19
Enabled by: A.8

Shelter Suits are not a permanent solution but provide essential warmth and protection for people experiencing periods of sleeping rough.

C

xs xl

Theoretical Backup - why?

In the worst case of sleeping rough, especially in the cold and rainy months, Bas Timmer's Sheltersuits can provide a practical, weather-resistant, and portable solution for unhoused individuals, combining warmth and mobility to meet urgent shelter needs in a dignified and sustainable way (Timmer, 2018).

Social implication - how?

top down: Governments or NGOs can fund and distribute Shelter-suits as part of emergency response programs, ensuring that the most vulnerable populations have access to life-saving warmth and protection.

bottom up: Local communities or grassroots organizations can partner with manufacturers to provide Sheltersuits to unhoused individuals in need.

Spatial implication - where?

extrovert
- public buildings
- supermarkets
- hospitals
- schools and universities
- libraries
- gym

introvert

agency

Graffiti on Wall in Schaerbeek, photograph taken by author

the agency system

connected
similar
supports
enables

satisfiers
agency

The system surrounding Agency encompasses the largest number of patterns and connects to all satisfiers within the framework. The pattern overview can be found on the next pages.

Improving the liveability of young, fluidly housed adults depends heavily on enabling key interventions that can have a disproportionately positive impact—for example, postboxes. These seemingly small additions enable individuals to register officially, which is crucial for gaining access to employment, stable housing, monetary benefits, and the ability to participate in civic life, including voting.

Many of the selected patterns are rooted in the potential of young people to actively shape their environments, when given the space, tools, and support to do so. As such, these patterns often draw from the principles of commoning. While the concept of the commons is widely discussed and lacks a single definition, the process of commoning—focused on shared ownership, collective care, and mutual stewardship—remains highly relevant to the design of an ‚infrastructure of care'.

Key patterns that address this include A.12 Allow Appropriation, along with A.2–A.4, which are inspired by Bologna's Regulation on Collaboration between Citizens and the City for the Care and Regeneration of Urban Commons (2014)a nd present top-down actions. This model empowers citizens through micro-funding and pacts of collaboration, enabling the co-care and co-management of public spaces and must be supported by further top-down patterns. For example, A.1 Own It emphasizes the need for transparency in land and property ownership in Brussels—ensuring that citizens know which spaces belong to whom, and thus, where action is possible.

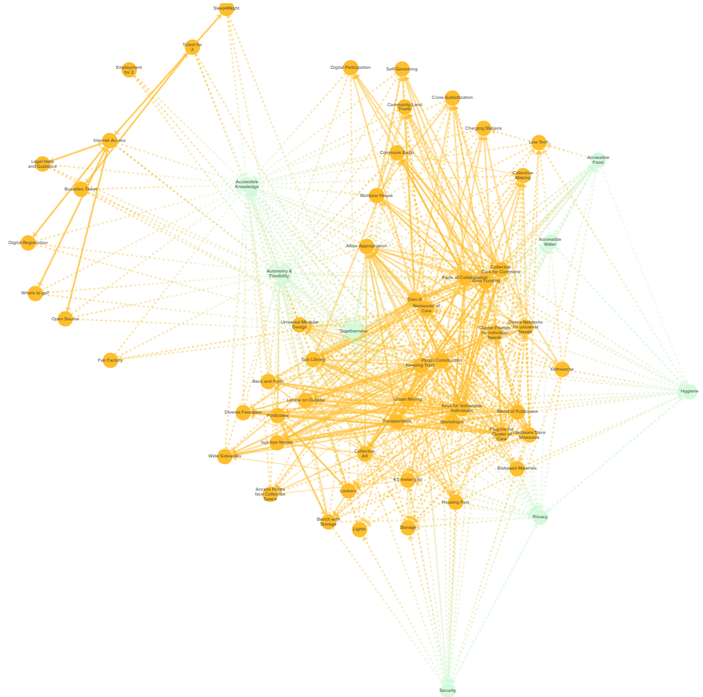


Fig. 13: Illustration showing the agency related patterns (yellow) and the eight satisfiers (green), made by author on kumu.io

Sa.6
Autonomy & Flexibility

Connected to:
Sa7, Sa8,A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, A40, A41, A42, A43, A44, A45, A46, A47, A48, W1, W8, W9, F11, F13, F15, F20, S15

Many young fluidly housed adults choose flexibility over security, therefore flexibility enhances their liveability

Sa.7
Accessible Knowledge

Connected to:
Sa5, Sa8, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, A40, A41, A42, A43, A44, A45, A46, A47, A48, W1, W8, W9, F11, F13, F15, F20, S15

Access to knowledge through libraries, digital resources, or educational programs empowers unhoused young adults, fostering personal growth, skill development, and improved liveability.

Sa.8
Solidarity & Community

Connected to:
Sa5, Sa7, A1, A2, A3, A4, A5, A6, A7, A8, A9, A10, A11, A12, A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, A24, A25, A26, A27, A28, A29, A30, A31, A32, A33, A34, A35, A36, A37, A38, A39, A40, A41, A42, A43, A44, A45, A46, A47, A48, W1, W8, W9, F11, F13, F15, F20, S15

Solidarity fosters emotional stability, resilience, and access to shared resources, helping young fluidly housed adults better navigate the uncertainties of everyday life.

A.1
Own it!

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Enables: A2
Similar to: A2, A13, A14, A15, A16
Mutual support: A12, A17, A18, A19, A20, A21, A22, A23, A29, A31

By making ownership transparent, both public and uncared-for land can be activated.

A.2
Collective Care for Commons

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Similar to: A1, A13, A14, A15, A16
Enabled by: A1, W1
Mutual support: A2, A4
Enables: F1, F2, F4, F11, F12, F13, F15, F16, F17, F20, F21, W8, W9, A12, A23, A24, A25, A26, A28, A29, A31

Establishing a legal framework for collaborative governance between citizens and municipalities fosters sustainable urban stewardship, social cohesion, and shared responsibility.

A.3
Micro Funding

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Similar to: A1, A13, A14, A15, A16
Enabled by: A1, W1
Mutual support: A2, A4
Enables: F1, F2, F4, F11, F12, F13, F15, F16, F17, F20, F21, W8, W9, A12, A23, A24, A25, A26, A28, A29, A31

Microfunding provides a financial foundation that enables individuals and communities to activate and manage common spaces collectively.

A.4
Pacts of Collaboration

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Similar to: A1, A13, A14, A15, A16
Enabled by: A1, W1
Mutual support: A2, A3
Enables: F1, F2, F6, F11, F12, F13, F15, F16, F17, F20, F21, W8, W9, A12, A23, A24, A25, A26, A28, A29, A31

Pacts of Collaboration provide a legal foundation that enables individuals and communities to collectively activate and manage pulic and common spaces.

A.5
Charging Stations

Connected to:
Sa1
Similar to: A6, W1
Enables: A2, F1, F2, F6, F20, F21
Enabled by: A31

Charging stations enable adaptive use of the urban fabric—supporting essential activities such as phone charging, cooking, and gathering—and can foster community resilience, social interaction, and self-organization.

A.6
Low-Tech

Connected to:
Sa1
Similar to: A5
Enables: A2, F1, F2, F6, F20, F21, W3, W6, W7, W15

Low-tech solutions improve livability for young, fluidly housed adults by offering accessible methods for phone charging, water filtration, and alternative food sources—enhancing health, dignity, and flexibility.

A.7
4.5 meter grid

Connected to:
Sa4, Sa5
Enables: Sa, S7, S9, S10, S11, S12, S13, S14, S15, S16, S18
Mutual support: A7

Placing pillars 3.5 to 4 meters apart provides ideal spacing for hanging hammocks, improving livability for young fluidly housed individuals by offering a portable, elevated resting option during periods of rooflessness.

A.8
Storage

Connected to:
Sa4, Sa5
Enables: S7, S8, S9, S19, S20
Mutual support: A7

Providing storage facilities with modular elements enables adaptive use and protects them from damage and environmental factors when not in use, ensuring a longer lifespan.

A.9
Lights

Connected to:
Sa5
Similar to: S11, S12, S13, S14

Lights contribute to a feeling of safety at night, and by allowing individuals to control them, they can better meet diverse needs in public spaces.

A.10
Employment for 2

Connected to:
Sa6, Sa7, Sa8
Supports: A11

Requiring companies to hire an additional person with every new employment opportunity helps reintegrate more individuals into the job market, promoting economic inclusion and reducing unemployment.

A.11
Fair Factory

Connected to:
Sa6, Sa7, Sa8
Similar to: W9
Supported by: A10

Employment and learning opportunities that are accessible to everyone, foster greater inclusivity, skill development, and social mobility, ultimately enhancing individual and community well-being.

A.12
Allow Appropriation

Connected to:
Sa1, Sa4, Sa5, Sa6, Sa7, Sa8
Mutual support: A1, A2, A3, A4, A17, A18, A19, A20, A21, A22, A23, A29, A31
Enables: F11, F13, F15, F20, W8, A24, A25, A26, A30

Allowing appropriation of spaces enhances the liveability of young fluidly housed adults by fostering autonomy, stability, and social connection.

A.13
Digital Participation

Connected to:
Sa6, Sa7, Sa8
Similar to: A1, A2, A14, A15, A16

Digital participation models enhance transparency, and foster inclusive urban decision-making through open-source technology and collaborative governance.

A.14
Cross-Subsidization

Connected to:
Sa6, Sa7
Similar to: A1, A2, A13, A14, A15, A16
Enables: F11, F13, F15, W8, W9, A12,

Increasing the costs of luxury or environmentally harmful industries—such as finance or pollution-heavy sectors—and redirecting revenues from taxes and fees makes essential but less profitable services feasible, significantly enhancing urban livability.

A.15
Community Land Trusts

Connected to:
Sa6, Sa7, Sa8
Similar to: A1, A2, A13, A14, A15, A16
Enables: F11, F13, F15, W8, W9, A12,A30

Community Land Trusts provide long-term affordable housing, prevent displacement, and foster solidarity by ensuring collective stewardship of urban land.

A.16
Self-Governing

Connected to:
Sa6, Sa7, Sa8
Similar to: A2, A14, A15
Enables: F11, F13, F15, W8, W9, A12, A30

Communal living fosters a resilient alternative model of urban life that challenges conventional governance, property ownership, and social structures.

A.17
Locate on Outside

Connected to:
Sa2, Sa3, Sa5, Sa6, Sa7, Sa8
Similar to: A18, A19, A20, A21, A22
Mutual support: A1, A12, A18, A19, A20, A21, A22, A23, A29, A31

Locating important facilities such as showers, toilets, kitchens on the outside of public buildings, helps communities to make them accessible to people in need in times of crisis.

A.18
Back and Forth

Connected to:
Sa2, Sa3, Sa5, Sa6, Sa7, Sa8
Similar to: A17, A19, A20, A21, A22
Mutual support: A1, A12, A17, A19, A20, A21, A22, A23, A29
Supports: A24, A25, A26

Architectural setbacks create transitional spaces that invite public appropriation, fostering social interaction, urban vitality, and adaptive use.

A.19
Diverse Fascades

Connected to:
Sa2, Sa3, Sa5, Sa6, Sa7, Sa8
Similar to: A17, A18, A20, A21, A22
Mutual support: A1, A12, A17, A18, A20, A21, A23, A22, A29, A31

Diverse building facades enhance urban vibrancy by providing shelter, opportunities for rest, and fostering social interaction.

A.20
Access Points face Collective Space

Connected to:
Sa3, Sa5, Sa6, Sa7, Sa8
Similar to: A17, A18, A19, A21, A22
Mutual support: A1, A12, A17, A18, A19, A21, A22, A23, A29

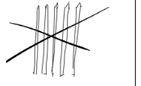
The design and positioning of entrances to collective spaces influence social interaction, accessibility, and the perception of

A.21
Wide Sidewalks

Connected to:
Sa2, Sa3, Sa5, Sa6, Sa7, Sa8
Similar to: A17, A18, A19, A20, A22
Mutual support: A1, A12, A17, A18, A19, A20, A22, A23, A29, A31

wide sidewalks transform places of transition into places to stay and foster various activities and community bonding.

A.22
bye bye fences



Connected to:
Sa2, Sa3, Sa5, Sa6, Sa7, Sa8
Similar to: A17, A18, A19, A20, A21
Mutual support: A1, A12, A17, A18, A19, A20, A21, A23, A29, A31
Enables: A24

Removing fences in urban areas fosters openness, strengthens social interactions, and enhances accessibility, challenging traditional notions of private and public space.

A.23
Tool Library

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Mutual support: A1, A12, A17, A18, A19, A20, A21, A22, A29, A31
Enabled by: A2, A3, A4
Enables: A24

Tool libraries enable fluidly housed individuals to access tools to actively reshape their built environment to meet shifting needs.

A.24
Collective Making

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Enabled by: A2, A3, A4, A5, A22, A23
Supported by: A18
Supports: A28

Collective making spaces serve as welcoming environments for everyone, fostering creativity and collaboration while providing opportunities for diverse activities and knowledge sharing.

A.25
Collective Art

Connected to:
Sa4, Sa5, Sa6, Sa7, Sa8
Enabled by: A2, A3, A4, A12, A22, A23
Supported by: A18

Collective art fosters creativity and collaboration while providing opportunities for diverse activities and knowledge sharing.

A.26
Workshops

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Enabled by: A2, A3, A4, A12, A22, A23
Supported by: A18

Workshops foster inspiration, solidarity and collaboration, helping young fluidly housed adults improve their livability.

A.27
Kehrwoche

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Same as: A2
Supports: W8, W9, F11, F13, F15

Shared Responsibility in Urban Cleanliness fosters communal responsibility, enhances neighborhood cleanliness, and reinforces social cohesion through collective maintenance practices.

A.28
Commons Radio/Zine

Connected to:
Sa4, Sa7, Sa8
Enabled by: A2, A3, A4, A23
Supported by: A24

Radio or Magazine commons enhances civic engagement and social cohesion by providing a platform for local voices, fostering dialogue, and disseminating information that reflects the needs and interests of the community.

A.29
Keys for Vulnerable Individuals

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Mutual support: A1, A12, A17, A18, A19, A20, A21, A22, A23, A31
Enabled by: A2, A3, A4

Providing vulnerable individuals with access to essential infrastructure—such as semi-private rooms, power stations, and showers—is crucial for meeting their needs while promoting responsible use.

A.30
Rainbow House

Connected to:
Sa4, Sa7, Sa8
Enabled by: A2, A3, A4, A14, A15, A16, A27

Community safe spaces are crucial for fostering a sense of safety and building community.

A.31
Plugin Construction

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Supports: A12, A17, A19, A21, A22, A23, A29, A32, A33, A34, A35
Supported by: A37
Enables: A3, S15, W1

Designing construction modes that allow for the easy addition or removal of elements empowers individuals to adapt their environment to personal needs, even without prior knowledge or expertise.

A.32
Urban Mining

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Mutual support: A12, A17, A19, A21, A22, A23, A29, A31, A33, A34, A35
Supports: A36, S15

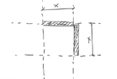
Ensuring materials can be reused for different functions enables adaptable use while reducing consumption and mitigating climate change.

A.33
Transportable

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Mutual support: A12, A17, A19, A21, A22, A23, A29, A31, A32, A34, A35
Supports: A36, S15

Transportable kitchen supplies, washing machines, and even homes ensure access while providing flexibility and adaptability, allowing individuals to activate changing spaces.

A.34
Universal Modular Design



Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Mutual support: A12, A17, A19, A21, A22, A23, A29, A31, A32, A34, A35
Supports: A36, S15

Standardized building parts with consistent measurements allow modular units to seamlessly fit both empty industrial buildings and vacant plots, offering flexible, efficient, and sustainable solutions for diverse urban contexts.

A.35
Keeping Track

Connected to:
Sa1, Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Mutual support: A12, A17, A19, A21, A22, A23, A29, A31, A33, A34
Supports: A36, S15

Building Information Modeling (BIM) enhances urban development efficiency by enabling precise tracking of resources, timelines, and design changes, facilitating the reuse and repurposing of existing materials.

A.36
Housing First

Connected to:
Sa2, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Supported by: S15, A32, A33, A34, A35

Providing unconditional housing alongside essential support services fosters community, personal agency, and dignity—key elements in effectively addressing homelessness. (Housing First Finland)

A.37
Biobased Materials

Connected to:
Sa1, Sa3, Sa4, Sa5, Sa6, Sa7, Sa8
Supports: A31

Using bio-based materials allows for flexible adaptation of the built environment to changing needs while reducing environmental impact.

A.38
Lockers

Connected to:
Sa4
Similar to: A39, A40
Enabled by: A29
Enables: Sa6

Free lockers provide secure storage solutions that enhance dignity and autonomy, allowing individuals to safely store their personal belongings.

A.39
Postboxes

Connected to:
Sa4
Similar to: A38, A40
Enabled by: A29
Enables: Sa6

Access to postboxes ensures reliable communication and connectivity, fostering independence and improving liveability for young fluidly housed adults.

A.40
Bench with Storage

Connected to:
Sa4, Sa5
Similar to: A39, A40
Enabled by: A29
Enables: Sa6

Integrating storage into benches allows people sleeping rough to secure their belongings, reducing the risk of theft.

A.41
Internet Access

Connected to:
Sa5, Sa7
Enables: A42, A43, A44, A45, A48

Internet access enables individuals to make appointments, seek assistance, and maintain social connections, thereby improving their chances of stability.

A.42
Digital Registration

Connected to:
Sa5, Sa7
Enabled by: A41

Allowing digital registration improves dignity and access to essential rights, while providing a clearer understanding of the number of individuals in need.

A.43
Open Source

Connected to:
Sa5, Sa7
Enabled by: A41

Freely sharing knowledge, tools, and resources fosters access to essential information and services, while enhancing collective problem-solving.

A.44
Legal Help and Guidance

Connected to:
Sa5, Sa7
Enabled by: A41

Access to social services offers vital support for stability by helping individuals navigate bureaucratic challenges, secure housing, and rebuild a sense of home.

A.45
Where to go?

Connected to:
Sa5, Sa7
Enabled by: A41

Accessible help facilities, mapped through online sources and apps, guide individuals to where they can find assistance and meet their needs.

A.46
Ticket for 2

Connected to:
Sa6
Similar to: A47

Paying for public transport based on affordability ensures fluidly housed individuals can access free or reduced-fare tickets, promoting mobility, inclusion, and equal access to city resources.

A.47
Bruxelles Ticket

Connected to:
Sa6
Similar to: A46

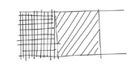
Providing free public transport to all residents enables them to access resources located further away and reduces the amount of car infrastructure needed.

A.48
Sleep4Night

Connected to:
Sa5, Sa7
Enabled by: A41

Apps that enable sharing experiences can help fluidly housed individuals find safe places to sleep at night and access essential resources such as postboxes, hygiene facilities, food, power, and water.

A.49
Blend of Publicness



Connected to:
F13, F15, W3, W4, W6, W7, A8, A20, A22, A23, A24, A26, A34, A38, S11, S22, A3, S4, S5, S6, S10, S15, S15, S16, S18, S19, A30, A51, A52, A53, A54
Enables: S7, S12
Enabled by: S8, A7, A12, A17, A19, A18, A19, A21, A31

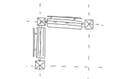
By offering public spaces that range from extroverted to introverted, both intimate and community-oriented uses can be supported.

A.50
Hardwarestore Mesures

Connected to:
F21, F22, F23, S2, S3, S4, S5, S6, S10, S19, A6, A8, A9, A18, A23, A24, A31, A32, A33, A34, A35, A37, A38, A39, A40, A49, A51, A52, A53, A54
Enables: W1, W4, W6, W15, S1, S7, S8, S9, S11, S12, S13, S14, S15, S16, S17, A12
Enabled by: A7, A19

Designing larger structures with plug-in points that fit widely available hardware store dimensions makes bottom-up activation more feasible.

A.51
Plug-Ins for Clusters of Care



Connected to:
W24, W5, W6, W7, S2, S3, S4, S5, S10, A8, A23, A24, A26, A28, A29, A32, A34, A37, A38, A39, A40, A49, A50, A52, A53, A54
Enables: S1, S6, S7, S8, S11, S12, S13, S14, S15, S16, A12, A18
Enabled by: W1, S18, A5, A17, A19, A31

Placing plug-in points strategically enables fostering creativity and fostering intimacy and privacy.

A.52
Networks of Care

Connected to:
F1-F23, W2-W15, S1-S18, A1, A2, A3, A6, A7, A8, A9, ANY0, A11, A14, A15, A16, A18, A20, A23, A24, A25, A26, A28, A30, A34, A36, A49, A50, A51, A52, A53, A54
Enabled by: W1, A5, A12, A17, A22, A34

Networks of spaces that can be activated to meet the evolving needs of fluidly housed adults in Brussels are essential for enhancing their liveability.

A.53
Dense Network for universal Needs

Connected to:
F1-F27, F11, F13, F14, F15, F17, F19, F21, W2-W4, W6, W10, W11, W14, W15, S1-S7, S11, S13, S14, S15, S16, S17, S18, A1, A2, A3, A6, A7, A8, A9, A14, A15, 18, A23, A24, A34, A36, A38, A39, A40, A49, A50, A51, A52
Enabled by: W1, A5, A12, A17, A22, A31

Services that address universal needs should be placed more frequently.

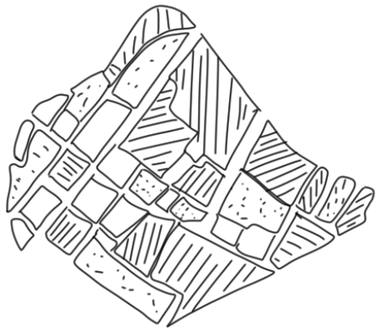
A.54
Cluster Friends for individual Needs

Connected to:
F8-F12, F16, F18, F20, F22, F23, W5-W9, W13, W14, S1, S6, S7, S8, S10, S12, S15, S16, A1, A2, A3, A7, A8, A14, A15, A18, A23, A24, A25, A26, A28, A30, A34, A38, A39, A40, A49, A50, A51, A52
Enabled by: A12, A17, A22, A31

Services that address less universal needs should be clustered with existing facilities

A.1

Own it!



Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.52, A.53, a.54
Enables: A.2
Similar to: A.2, A.13, A.14, A.15, A.16
Mutual support: A.12, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.29, A.31

By making ownership transparent, both public and uncared-for land can be activated.

P

A.3

Micro Funding

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.52, A.53, A.54
Similar to: A.1, A.13, A.14, A.15, A.16
Enabled by: A.1, W.1
Mutual support: A.2, A.4
Enables: F.1, F.2, F.6, F.11, F.12, F.13, F.15, F.16, F.17, F.20, F.21, W.8, W.9, A.12, A.23, A.24, A.25, A.26, A.28, A.29

Microfunding provides a financial foundation that enables individuals and communities to activate and manage common spaces collectively.

P

A.4

Pacts of Collaboration

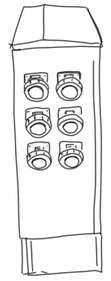
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.52, A.53, A.54
Similar to: A.1, A.13, A.14, A.15, A.16
Enabled by: A.1, W.1
Mutual support: A.2, A.3
Enables: F.1, F.2, F.6, F.11, F.12, F.13, F.15, F.16, F.17, F.20, F.21, W.8, W.9, A.12, A.23, A.24, A.25, A.26, A.28, A.29

Pacts of Collaboration provide a legal foundation that enables individuals and communities to collectively activate and manage pulic and common spaces.

P

A.5

Charging Stations



Connected to: Sa.1
Similar to: A.6, W.1
Enables: A.2, F.1, F.2, F.6, F.20, F.21, A.51, A.52, A.53
Enabled by: A.31

Charging stations enable adaptive use of the urban fabric—supporting essential activities such as phone charging, cooking, and gathering—and can foster community resilience, social interaction, and self-organization.

S

A.2

Collective Care for Commons

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.52, A.53, A.54
Similar to: A.1, A.13, A.14, A.15, A.16
Enabled by: A.1, W.1
Mutual support: A.3, A.4
Enables: F.1, F.2, F.6, F.11, F.12, F.13, F.15, F.16, F.17, F.20, F.21, W.8, W.9, A.12, A.23, A.24, A.25, A.26, A.28, A.29

Establishing a legal framework for collaborative governance between citizens and municipalities fosters sustainable urban stewardship, social cohesion, and shared responsibility.

P

xs — xl

Theoretical Backup - why?

Through the Bologna Regulation for the Care and Regeneration of the Urban Commons, residents and local government co-create policies, maintain public spaces, and develop civic initiatives. This partnership empowers citizens to take an active role in their environment, strengthening local democracy, trust, and resilience while ensuring long-term urban sustainability (Commune di Bologna, 2014).

Social implication - how?

top down
- Legal Frameworks for the Commons
- Public-Community Partnership Agreements
- Funding & Resource Support from Governments

bottom up
- Neighborhood-Led Stewardship Initiatives – Residents collectively maintain parks, plazas, and infrastructure

Spatial implication - where?

extrovert
- Open plazas
- Public parks
- at transit hubs or stations
- University campuses and Schools
- Libraries and cultural centers

introvert
- Residential courtyards
- Co-living spaces
- Underutilized urban spaces (e.g., beneath bridges)

A.6

Low-Tech

Connected to: Sa.1; A.50, A.52, A.53
Similar to: A.5
Enables: A.2, F.1, F.2, F.6, F.20, F.21, W.3, W.6, W.7, W.,15

Low-tech solutions improve livability for young, fluidly housed adults by offering accessible methods for phone charging, water filtration, and alternative food sources—enhancing health, dignity, and flexibility.

A.9

Lights

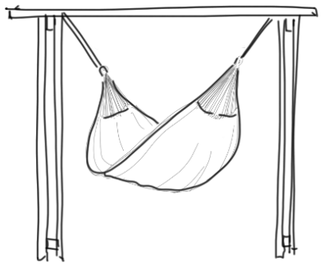
Connected to: Sa.5, A.50, A.52, A.53
Similar to: S.11, S.12, S.13, S.14

Lights contribute to a feeling of safety at night, and by allowing individuals to control them, they can better meet diverse needs in public spaces.

S

A.7

4.5 meter grid



Connected to: Sa.4, Sa.5, A.52, A.53, A.54
Enables: S.6, S.7, S.9, S.10, S.11, S.12, S.13, S.14, S.15, S.16, S.18, A.49, A.50
Mutual support: A.8

Placing pillars 3.5 to 4 meters apart provides ideal spacing for hanging hammocks, improving livability for young fluidly housed individuals by offering a portable, elevated resting option during periods of rooflessness.

S

xs xl

Theoretical Backup - why?

By integrating construction market-available measurements, this approach ensures practical implementation without requiring custom materials, making it easier and more cost-effective for everyone to activate public spaces. It can be used for hanging hammocks as well as lanterns or awings that support community gatherings, fostering solidarity (see Smithsons garden architecture) .

Social implication - how?

top down
- Regulations define pillar spacing (3.5–4m) in public and semi-public structures
- Parks, bus stations, and shelters integrate pre-spaced pillars as part of design guidelines
- Incentives encourage private projects to adopt hammock-compatible designs

bottom up
- People retrofit existing structures (e.g., bridges, pergolas) with secure anchor points
- Activists push for recognizing hammocks as viable urban furniture for unhoused youth

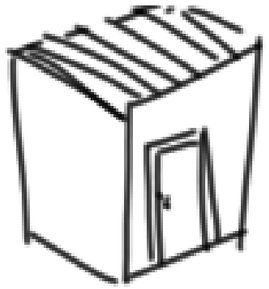
Spatial implication - where?

extrovert
- Open plazas
- Public parks
- at transit hubs or stations
- University campuses and Schools
- Libraries and cultural centers
- Residential courtyards

introvert
- Co-living spaces
- Underutilized urban spaces (e.g., beneath bridges)

A.8

Storage



Connected to: Sa.4, Sa.5, A.49, A.50, A.51, A.52, A.53, A.54
Enables: S.7, S.8, S.9, S.19, S.20
Mutual support: A.7

Providing storage facilities with modular elements enables adaptive use and protects them from damage and environmental factors when not in use, ensuring a longer lifespan.

S

xs xl

Theoretical Backup - why?

This approach aligns with sustainable design principles, promoting durability and resource efficiency while reducing waste by extending the life of materials and components.

Social implication - how?

top down
- Urban Design Standards – Incorporating dedicated storage spaces for modular elements in urban planning or building codes.

bottom up
- Community-Led Storage Solutions – Local communities can create shared storage spaces for modular elements that are used for temporary or seasonal purposes, ensuring proper protection.

Spatial implication - where?

extrovert
- In close proximity to public areas

introvert
- in existing facilities (schools, libraries, etc)

A.10

Employment for 2

Connected to: Sa.6, Sa.7, Sa.8, A.52
Supports: A.11

Requiring companies to hire an additional person with every new employment opportunity helps reintegrate more individuals into the job market, promoting economic inclusion and reducing unemployment.

P

A.12

Allow Appropriation

Connected to: Sa.1, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Mutual support: A.1, A.2, A.3, A.4, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.29, A.31
Enables: F.11, F.13, F.15, F.20, W.8, A.24, A.25, A.26, A.30, A.49, A.52, A.53, A.54
Enabled by: A.50, A.51

Allowing appropriation of spaces enhances the liveability of young fluidly housed adults by fostering autonomy, stability, and social connection.

P

A.11

Fair Factory

Connected to: Sa.6, Sa.7, Sa.8, A.52
Similar to: W.9
Supportsed by: A.10

Employment and learning opportunities that are accessible to everyone, foster greater inclusivity, skill development, and social mobility, ultimately enhancing individual and community well-being.

S

xs xl

Theoretical Backup - why?

The example of Roetz's Fair Factory shows that when education and job prospects are equally available, individuals—especially those from marginalized backgrounds—can break cycles of poverty, gain independence, and actively contribute to their communities (Roetz Fair Factory, 2025).

Social implication - how?

top down
- Public investments in accessible online learning platforms and community education centers.
- Incentives for businesses and social enterprises prioritizing inclusive hiring.

bottom up
- Community-led workshops, mentorship programs, and skill-sharing initiatives.

Spatial implication - where?

extrovert
- industrial areas
- handcraft
- public offices
- universities and schools
- digital work

introvert

A.13

Digital Participation

Connected to: Sa.6, Sa.7, Sa.8
Similar to: A.1, A.2, A.14, A.15, A.16

Digital participation models enhance transparency, and foster inclusive urban decision-making through open-source technology and collaborative governance.

P

xs xl

Theoretical Backup - why?

By integrating digital platforms into governance, residents gain direct access to urban planning discussions, policy-making, and resource allocation, ensuring that decisions reflect diverse community needs rather than top-down directives (Ajuntament de Barcelona, n.d.).

Social implication - how?

top down
- Municipal Adoption of Open-Source Governance Tools Laws requiring transparency in policymaking through digital citizen engagement

bottom up
- Open-Source Hubs – Community-run spaces where residents can co-develop digital solutions for governance challenges.

Spatial implication - where?

extrovert
- municipalities
- city council
- neighbourhood hubs
- community centers
- on private smartphone

introvert

A.14

Cross-Subsidization

Connected to: Sa.6, Sa.7, A.52, A.53, A.54
Similar to: A.1, A.2, A.13, A.14, A.15, A.16
Enables: F.11, F.13, F.15, W.8, W.9, A.12,

Increasing the costs of luxury or environmentally harmful industries—such as finance or pollution-heavy sectors—and redirecting revenues from taxes and fees makes essential but less profitable services feasible, significantly enhancing urban livability.

P

xs xl

Theoretical Backup - why?

Cities like Hamburg's HafenCity have successfully used cross-financing by allocating profits from high-end real estate to fund affordable housing and public amenities.

Social implication - how?

top down
- Regulatory Frameworks for Cross-Financing
  Tax & Incentive Structures – Tax breaks or subsidies encourage developers to reinvest in social infrastructure.

bottom up
- Cooperative Cross-Financing Models – Community-led projects pool resources from different sectors (e.g., local businesses funding social programs).
  Crowdfunding & Local Investment Funds – Residents collectively finance public initiatives by redirecting profits from community-owned ventures.

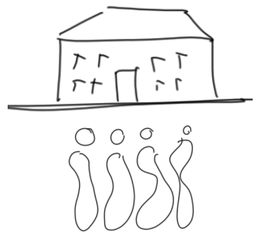
Spatial implication - where?

extrovert
- agency
- food
- water
- housing and shelter

introvert

A.15

Community Land Trusts



Connected to: Sa.6, Sa.7, Sa.8, A.52, A.53, A.54
Similar to: A.1, A.2, A.13, A.14, A.15, A.16
Enables: F.11, F.13, F.15, W.8, W.9, A.12,A.30

Community Land Trusts provide long-term affordable housing, prevent displacement, and foster solidarity by ensuring collective stewardship of urban land.

P

xs xl

Theoretical Backup - why?

By separating land ownership from housing ownership, community land trusts prevent gentrification-driven displacement while giving residents a direct role in decision-making about their living environment. This model promotes equity, economic resilience, and democratic control, making it a powerful tool against urban inequality.

Social implication - how?

top down
- Municipalities allocate vacant or underutilized land for long-term community stewardship
- Financial Incentives for CLT Housing
- Policies ensure that land held in trust remains permanently affordable
- Residents collectively purchase land to secure affordable housing

bottom up
- Cooperative Housing Development
- Community members oversee decision-making and long-term planning for the trust

Spatial implication - where?

extrovert
- Large-scale housing developments in urban centers
- Mixed-use(housing, businesses, and public amenities)

introvert
- Small-scale housing development

A.16

Self-Governing

Connected to: Sa.6, Sa.7, Sa.8, A.52
Similar to: A.2, A.14, A.15
Enables: F.11, F.13, F.15, W.8, W.9, A.12, A.30

Communal living fosters a resilient alternative model of urban life that challenges conventional governance, property ownership, and social structures.

C

xs xl

Theoretical Backup - why?

Christiania's informal economy, shared housing, and emphasis on autonomy challenge the rigid separation of public and private spaces while demonstrating that community-driven governance can maintain stability and cultural identity without top-down control.

Social implication - how?

top down
- Governments allow experimental self-governed communities
- Legal frameworks enabling cooperative property management rather than private ownership
- Residents create co-housing and communal resource systems

bottom up
- Consensus-based governance instead of hierarchical municipal control.
- Alternative Economic Systems

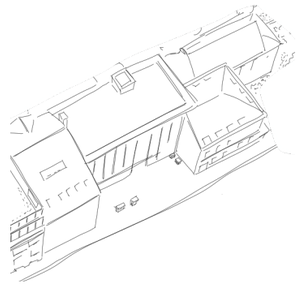
Spatial implication - where?

extrovert
- Economy
- Public Spaces

introvert
- Housing

A.18

Back and Forth



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Similar to: A.17, A.19, A.20, A.21, A.22
Mutual support: A.1, A.12, A.17, A.19, A.20, A.21, A.22, A.23, A.29
Supports: A.24, A.25, A.26
Enables: A.49, S.18

Architectural setbacks create transitional spaces that invite public appropriation, fostering social interaction, urban vitality, and adaptive use.

S

xs xl

Theoretical Backup - why?

In Brussels, many of these spaces encourage public appropriation by providing room for gathering, lingering, and informal activities. This fosters social interaction, enhances urban vitality, and allows for adaptive uses such as seating areas, and cultural events.

Social implication - how?

top down
- Municipal regulations mandate setbacks to create semi-public spaces.
- Governments offer tax benefits or increased floor-area ratios for projects incorporating accessible setbacks.
- Cities integrate setback requirements into master plans to promote interactive streetscapes.

bottom up
- Local groups repurpose setback spaces with temporary furniture, art, or greenery.
- Neighborhood associations advocate for inclusive, user-friendly setback designs.

Spatial implication - where?

extrovert
- commercial streets
- Public squares
- plazas
- Semi-Public Spaces
- University campuses
- Library and museum forecourts

introvert
- Inner courtyards of mixed-use buildings

A.19

Diverse Fascades

Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.17, A.18, A.20, A.21, A.22
Mutual support: A.1, A.12, A.17, A.18, A.20, A.21, A.23, A.22, A.29, A.31
Enables: A.49, A.50, A.51

Diverse building facades enhance urban vibrancy by providing shelter, opportunities for rest, and fostering social interaction.

S

xs xl

Theoretical Backup - why?

Articulated facades with varied features, such as alcoves, nooks, and ledges, create dynamic, functional spaces that encourage pedestrian engagement, provide shelter, and invite informal gatherings (Mehta, 2009). These elements support both more extrovert and introvert needs of diverse groups and increase social interactions.

Social implication - how?

top down
- Urban Design Guidelines
- Zoning Incentives

bottom up
- Co-Designed Public Spaces
- Adaptive Reuse

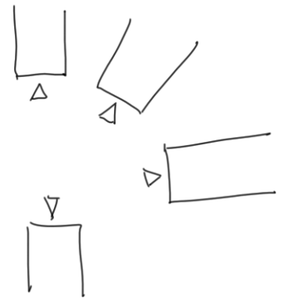
Spatial implication - where?

extrovert
- Retail streets
- Public squares
- Transit hubs
- Library and museum
- University campuses
- Mixed-use developments

introvert
- Residential buildings
- Office facades

A.20

Access Points face Collective Space



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Similar to: A.17, A.18, A.19, A.21, A.22
Mutual support: A.1, A.12, A.17, A.18, A.19, A.21, A.22, A.23, A.29

The design and positioning of entrances to collective spaces influence social interaction, accessibility, and the perception of

S

xs xl

Theoretical Backup - why?

When entrances are oriented toward shared areas rather than isolated corridors or back streets, they naturally encourage interaction, casual encounters, and a stronger sense of community. This design fosters visibility, accessibility, and a sense of belonging, reinforcing the idea that shared spaces are meant for engagement rather than exclusion.

Social implication - how?

top down
- Urban Planning Codes
- Incentives for Social Connectivity
- Public Building Design Standards

bottom up
- Participatory Design – Local users contribute to entrance placements, ensuring alignment with actual social behaviors.

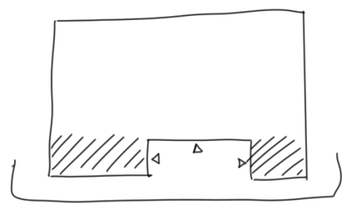
Spatial implication - where?

extrovert
- Entrances of public buildings
- Entrances of community hubs
- Schools and universities
- Libraries and cultural centers
- Co-working spaces
- Residential complexes

introvert
- Office buildings

A.17

Locate on Outside



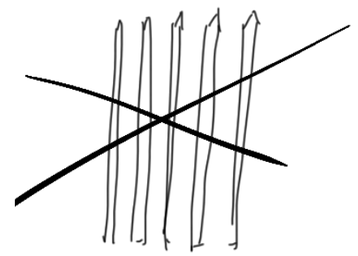
Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.18, A.19, A.20, A.21, A.22
Mutual support: A.1, A.12, A.18, A.19, A.20, A.21, A.22, A.23, A.29, A.31
Enables: A.49, A.51, A.52, A.53, A.54

Locating important facilities such as showers, toilets, kitchens on the outside of public buildings, helps communities to make them accessible to people in need in times of crisis.

S

A.22

bye bye fences



Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8, A.49
Similar to: A.17, A.18, A.19, A.210 A.21
Mutual support: A.1, A.12, A.17, A.18, A.19, A.20, A.21, A.23, A.29, A.31
Enables: A.24, A.52, A.53, A.54

Removing fences in urban areas fosters openness, strengthens social interactions, and enhances accessibility, challenging traditional notions of private and public space.

P

A.21

Wide Sidewalks

Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.17, A.18, A.19, A.210 A.22
Mutual support: A.1, A.12, A.17, A.18, A.19, A.20, A.22, A.23, A.29, A.31
Enables: A.49

wide sidewalks transform places of transition into places to stay and foster various activities and community bonding.

S

xs xl

Theoretical Backup - why?

A certain minimum width of sidewalk was required to accommodate the activities at the edges of buildings, the pedestrian flow of traffic and space for street furniture and other artifacts. Retaining the existing wide sidewalks and increasing the width of the narrow sidewalks were among the key recommendations from people for creating a pedestrian-friendly street environment (Mehta, 2009).

Social implication - how?

top down: Minimum Sidewalk Width Standards

bottom up: Community-led temporary sidewalk expansions using planters, paint, or movable seating

Spatial implication - where?

extrovert: High traffic streets: Support interaction and diverse uses

introvert: Low traffic streets: Strengthen neighborhood connections

A.23

Tool Library

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.49, A.50, A.51, A.52, A.53
Mutual support: A.1, A.12, A.17, A.18, A.19, A.20, A.21, A.22, A.29, A.31
Enabled by: A.2, A.3, A.4
Enables: A.24

Tool libraries enable fluidly housed individuals to access tools to actively reshape their built environment to meet shifting needs.

S

xs xl

Theoretical Backup - why?

By promoting resource-sharing, tool libraries create environments where individuals from diverse backgrounds can connect, exchange knowledge, and collectively work toward common goals, while fostering agency.

Social implication - how?

top down: Municipal Support for Tool Libraries

bottom up: Volunteer-Led Tool Libraries

Spatial implication - where?

extrovert: City level with wider tools

introvert: Neighbourhood level with fewer, more common tools

A.24

Collective Making

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.49, A.50, A.51, A.52, A.53, A.54
Enabled by: A.2, A.3, A.4, A.12, A.22, A.23
Supported by: A.18
Supports: A.28

Collective making spaces serve as welcoming environments for everyone, fostering creativity and collaboration while providing opportunities for diverse activities and knowledge sharing.

C

A.25

Collective Art

Connected to: Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.52, A.54
Enabled by: A.2, A.3, A.4, A.12, A.22, A.23
Supported by: A.18

Collective art fosters creativity and collaboration while providing opportunities for diverse activities and knowledge sharing.

C

A.26

Workshops

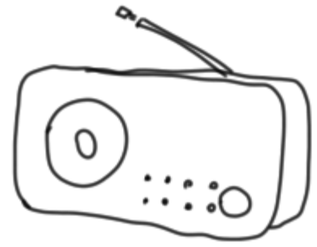
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.49, A.51, A.52, A.54
Enabled by: A.2, A.3, A.4, A.12, A.22, A.23
Supported by: A.18

Workshops foster inspiration, solidarity and collaboration, helping young fluidly housed adults improve their livability.

C

A.28

Commons Radio/Zine



Connected to: Sa.6, Sa.7, Sa.8, A.51, A.52, A.54
Enabled by: A.2, A.3, A.4, A.23
Supported by: A.24

Radio or Magazine commons enhances civic engagement and social cohesion by providing a platform for local voices, fostering dialogue, and disseminating information that reflects the needs and interests of the community.

C

A.27
Kehrwoche

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Same as: A.2
Supports: W.8, W.9, F.11, F.13, F.15

Shared Responsibility in Urban Cleanliness fosters communal responsibility, enhances neighborhood cleanliness, and reinforces social cohesion through collective maintenance practices.

C

xs xl

Theoretical Backup - why?

Community-driven cleanliness initiatives—such as adopt-a-street programs, neighborhood clean-up days, and waste management cooperatives—strengthen social cohesion by creating opportunities for residents to work together toward a common goal. These efforts also complement municipal sanitation services, ensuring that urban environments remain welcoming, healthy, and well-maintained.

Social implication - how?

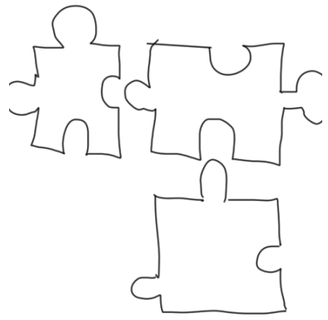
top down — Municipal Incentives for Community Clean-Up Programs

bottom up — Neighborhood-Led Cleaning Initiatives – Residents organize clean-up days or street adoption programs.

Spatial implication - where?

extrovert
City
Municipality
Streetnetwork
Public Squares and parks
introvert

A.31
Plugin Construction

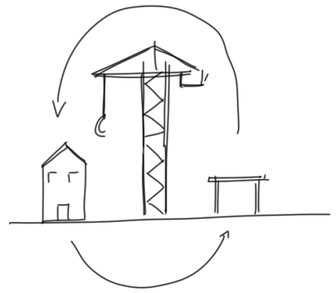


Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Supports: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.32, A.33, A.34, A.35, A.50,
Supported by: A.37
Enables: A.5, S.15, W.1, A.49, A.51, A.52, A.53, A.54

Designing construction modes that allow for the easy addition or removal of elements empowers individuals to adapt their environment to personal needs, even without prior knowledge or expertise.

S

A.32
Urban Mining

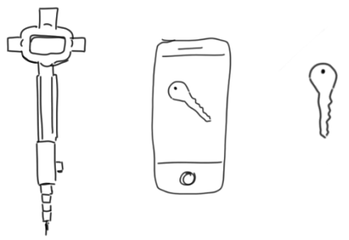


Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.50, A.51
Mutual support: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.33, A.34, A.35
Supports: A.36, S.15

Ensuring materials can be reused for different functions enables adaptable use while reducing consumption and mitigating climate change.

P

A.29
Keys for Vulnerable Individuals



Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.51
Mutual support: A.1, A.12, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.31
Enabled by: A.2, A.3, A.4

Providing vulnerable individuals with access to essential infrastructure—such as semi-private rooms, power stations, and showers—is crucial for meeting their needs while promoting responsible use.

C

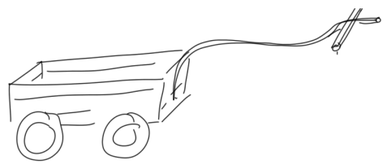
A.30
Rainbow House

Connected to: Sa.4, Sa.7, Sa.8, A.52, A.54
Enabled by: A.2, A.3, A.4, A.14, A.15, A.16, A.27

Community safe spaces are crucial for fostering a sense of safety and building community.

S

A.33
Transportable



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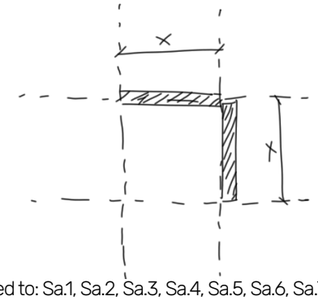
Mutual support: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.32, A.34, A.35
Supports: A.36, S.15

Transportable kitchen supplies, washing machines, and even homes ensure access while providing flexibility and adaptability, allowing individuals to activate changing spaces.

S

A.34
Universal Modular Design



Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.49, A.50, A.51, A.52, A.53, A.54
Mutual support: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.33, A.34, A.35
Supports: A.36, S.15

Standardized building parts with consistent measurements allow modular units to seamlessly fit both empty industrial buildings and vacant plots, offering flexible, efficient, and sustainable solutions for diverse urban contexts.

S

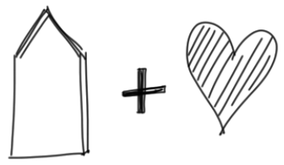
A.35
Keeping Track

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.50
Mutual support: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.33, A.34
Supports: A.36, S.15

Building Information Modeling (BIM) enhances urban development efficiency by enabling precise tracking of resources, timelines, and design changes, facilitating the reuse and repurposing of existing materials.

P

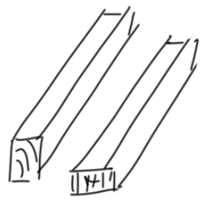
A.36
Housing First



Connected to: Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.52, A.53
Supported by: S.15, A.32, A.33, A.34, A.35

Providing unconditional housing alongside essential support services fosters community, personal agency, and dignity—key elements in effectively addressing homelessness. (Housing First Finland)

A.37
Biobased Materials



Connected to: Sa.1, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, A.50, A.51
Supports: A.31

Using bio-based materials allows for flexible adaptation of the built environment to changing needs while reducing environmental impact.

P

xs xl

Theoretical Backup - why?

These materials typically require less specialized knowledge and can be manipulated with simple tools, empowering individuals to actively participate in the construction process. Furthermore, biobased materials are generally lightweight and versatile, allowing for modifications and adjustments to meet changing needs, which supports more sustainable and adaptive building practices

Social implication - how?

top down
- Government incentives for biobased materials.
- Research funding for sustainable building materials made from food waste.

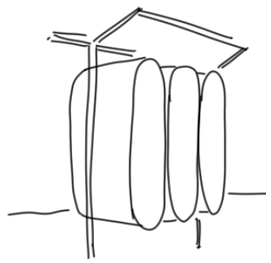
bottom up
- Community projects producing biobased materials.
- DIY initiatives for local sustainability.

Spatial implication - where?

extrovert
- Public buildings and pavillions
- Urban infrastructure such as markets and seating

introvert
- Private buildings like homes and gardens.
- Small-scale structures and shelters

A.38
Lockers



Connected to: Sa.4, A.49, A.50, A.51, A.52, A.53, A.54
Similar to: A.39, A.40
Enabled by: A.29
Enables: Sa.6

Free lockers provide secure storage solutions that enhance dignity and autonomy, allowing individuals to safely store their personal belongings.

S

xs xl

Theoretical Backup - why?

Access to secure storage can increase an individual's sense of control and security, which is essential for maintaining mental health and personal dignity. It also enables individuals to engage more easily in job searches, social activities, and community interactions without the constant concern of losing personal belongings.

Social implication - how?

top down
- Incentives to provide access to lockers for everyone in need

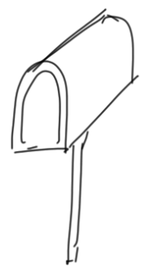
bottom up
- Solidaritan model to pay for lockers

Spatial implication - where?

extrovert
- Public Lockers in Key Urban Spaces in transition hubs

introvert
- in introvert areas close to public spaces, transition hubs or post stations
- in publicly accessible buildings such as universities, libraries, gym

A.39
Postboxes



Connected to: Sa.4, A.49, A.50, A.51, A.52, A.53, A.54
Similar to: A.38, A.40
Enabled by: A.29
Enables: Sa.6

Access to postboxes ensures reliable communication and connectivity, fostering independence and improving liveability for young fluidly housed adults.

S

xs xl

Theoretical Backup - why?

For young unhoused individuals, access to a postbox reduces the sense of isolation and increases access to important resources, contributing to their ability to navigate bureaucracy, seek employment, and maintain important relationships. This simple yet impactful feature is a small but powerful intervention that enhances liveability, contributing to a more inclusive and supportive urban environment.

Social implication - how?

top down
- Public Postbox Access Points
- Integration in Public Infrastructure
- Partnerships with Postal Services

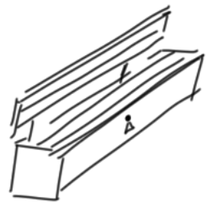
bottom up
- Advocacy & Awareness Campaigns – Activists or advocacy groups could work to promote accessible postal services for unhoused individuals by organizing public petitioning or partnering with postal companies for support.

Spatial implication - where?

extrovert

introvert
- in introvert areas close to public spaces, transition hubs or post stations

A.40
Bench with Storage



Connected to: Sa.4, Sa.5, A.50, A.51, A.52, A.53
Similar to: A.39, A.40
Enabled by: A.29
Enables: Sa.6

Integrating storage into benches allows people sleeping rough to secure their belongings, reducing the risk of theft.

S

xs xl

Theoretical Backup - why?

For individuals who may not have access to private spaces or secure shelters, benches with integrated storage act as both a resting place and a protective space for personal items, offering them peace of mind. This small yet impactful design choice can encourage greater comfort and well-being in public spaces, while also fostering a sense of dignity and belonging.

Social implication - how?

top down
- Urban Design Guidelines for Inclusive Public Furniture
- Policy Incentives for Accessibility

bottom up
- Neighborhood Initiatives for Safe Resting Spaces
- Public awareness Campaigns

Spatial implication - where?

extrovert
- In close proximity to public areas

introvert
- close to existing facilities (schools, libraries, etc)

A.41
Internet Access

Connected to: Sa.6, Sa.7
Enables: A.42, A.43, A.44, A.45, A.48

Internet access enables individuals to make appointments, seek assistance, and maintain social connections, thereby improving their chances of stability.

P

A.42
Digital Registration

Connected to: Sa.6, Sa.7
Enabled by: A.41

Allowing digital registration improves dignity and access to essential rights, while providing a clearer understanding of the number of individuals in need.

P

A.43
Open Source

Connected to: Sa.6, Sa.7
Enabled by: A.41

Freely sharing knowledge, tools, and resources fosters access to essential information and services, while enhancing collective problem-solving.

C

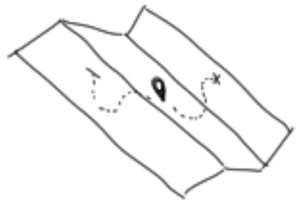
A.44
Legal Help and Guidance

Connected to: Sa.6, Sa.7
Enabled by: A.41

Access to social services offers vital support for stability by helping individuals navigate bureaucratic challenges, secure housing, and rebuild a sense of home.

P

A.45
Where to go?

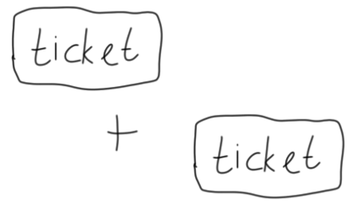


Connected to: Sa.6, Sa.7
Enabled by: A.41

Accessible help facilities, mapped through online sources and apps, guide individuals to where they can find assistance and meet their needs.

C

A.46
Ticket for 2



Connected to: Sa.6
Similar to: A.47

Paying for public transport based on affordability ensures fluidly housed individuals can access free or reduced-fare tickets, promoting mobility, inclusion, and equal access to city resources.

C

A.47

Bruxelles Ticket

Connected to: Sa.6
Similar to: A.46

Providing free public transport to all residents enables them to access resources located further away and reduces the amount of car infrastructure needed.

P

A.48

Sleep4Night

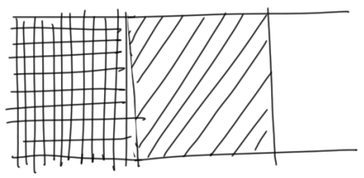
Connected to: Sa.6, Sa.7
Enabled by: A.41

Apps that enable sharing experiences can help fluidly housed individuals find safe places to sleep at night and access essential resources such as postboxes, hygiene facilities, food, power, and water.

C

A.49

Blend of Publicness



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Enables: S.7, S.12
Enabled by: S.8, A.7, A.12, A.17, A.18, A.19, A.21, A.31

By offering public spaces that range from extroverted to introverted, both intimate and community-oriented uses can be supported.

S

A.50

Hardwarestore Mesures

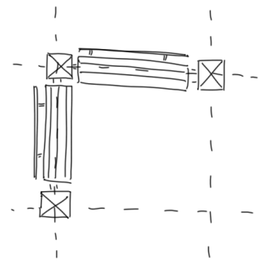
Connected to: F.21, F.22, F.23, S.2, S.3, S.4, S.5, S.6, S.10, S.19, A.6, A.8, A.9, A.18, A.23, A.24, A.31, A.32, A.33, A.34, A.35, A.37, A.38, A.39, A.40, A.49, A.51, A.52, A.53, A.54
Enables: W.1, W.4, W.6, W.15, S.1, S.7, S.8, S.9, S.11, S.12, S.13, S.14, S.15, S.16, S.18, A.12
Enabled by: A.7, A.19

Designing larger structures with plug-in points that fit widely available hardware store dimensions makes bottom-up activation more feasible.

S

A.51

Plug-Ins for Clusters of Care



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Enables: S.1, S.6, S.7, S.8, S.9, S.11, S.12, S.13, S.14, S.15, S.16, A.12, A.18
Enabled by: W.1, S.18, A.5, A.17, A.19, A.31

Placing plug-in points strategically enables the creation of spaces that foster intimacy and privacy.

S

xs xl

Theoretical Backup - why?

Strategically placed plug-in points are essential to create adaptable spaces that can foster intimacy and privacy, meeting the diverse and shifting needs of fluidly housed adults. These spaces support wellbeing by offering areas for both social connection and personal retreat.

Social implication - how?

top down: implement standardized plug-in points in ways that enable the formation of flexible spatial arrangements—such as triangles, squares, or paired rows of furniture and structures.

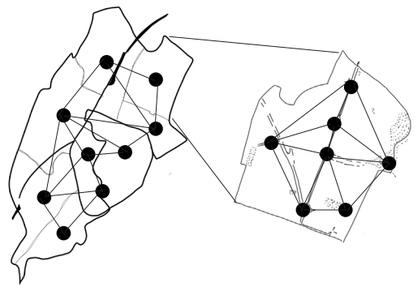
bottom up: activate these plug-in points to create a variety of spatial experiences—such as narrow, enclosed areas for introverted retreat or more open, central spaces that encourage collective activities and foster social solidarity.

Spatial implication - where?

Plug-in points should be strategically placed across a range of urban contexts—including existing buildings and facades, public spaces, transitional areas, key connectors, and destinations—to maximize accessibility and support diverse modes of use and interaction.

A.52

Networks of Care



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Enabled by: W.1, A.5, A.12, A.17, A.22, A.34

Networks of spaces that can be activated to meet the evolving needs of fluidly housed adults in Brussels are essential for enhancing their liveability.

S

xs xl

Theoretical Backup - why?

A network of spaces that meets diverse needs is essential to increase the liveability of fluidly housed adults in Brussels. By ensuring access to basic necessities, health, and security, alongside opportunities for community, solidarity, agency, and autonomy, such a network supports their wellbeing and resilience in a dynamic urban environment.

Social implication - how?

top down: Solidify socio-spatial potential by designing adaptable infrastructures with standardized plug-ins, using dimensions compatible with widely available hardware store components.

bottom up: Activate these spaces by adding or removing small interventions—such as lockers, water taps, or seating—using

Spatial implication - where?

Universal needs like food, water, and lockers require close proximity and are best served by a dense, concentrated network with multiple access points within each neighborhood to ensure timely and equitable availability.
In contrast, needs related to individual and social activities—such as collective art and knowledge sharing—benefit from a wide, dispersed network, with at least one accessible space per neighborhood to foster diversity and inclusivity.

A.53

Dense Network for universal Needs

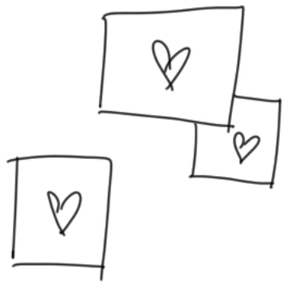
Connected to: F.1-F.27, F.11, F.13, F.14, F.15, F.17, F.19, F.21, W.2-W.4, W.6, W.10, W.11, W.12, W.13, W.14, W.15, S.1-S.7, S.11, S.13, S.14, S.15, S.16, S.17, S.18, A.1, A.2, A.3, A.6, A.7, A.8, A.9, A.14, A.15, 1.8, A.23, A.24, A.34, A.36, A.38, A.39, A.40, A.49, A.50, A.51, A.52
Enabled by: W.1, A.5, A.12, A.17, A.22, A.31

Services that address universal needs should be placed more frequently.

S

A.54

Cluster Friends for individual Needs



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Enabled by: A.12, A.17, A.22, A.31

Services that address less universal needs should be clustered with existing facilities

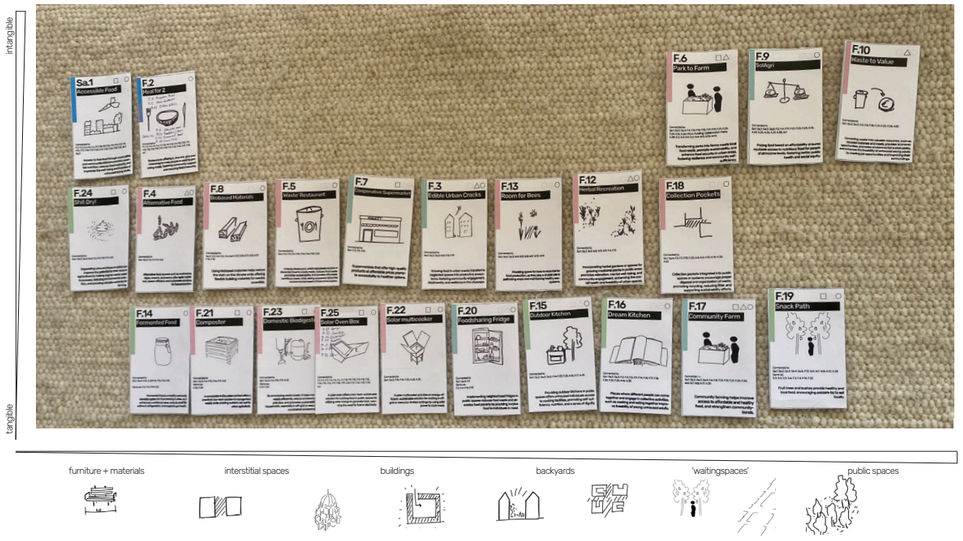
S

process

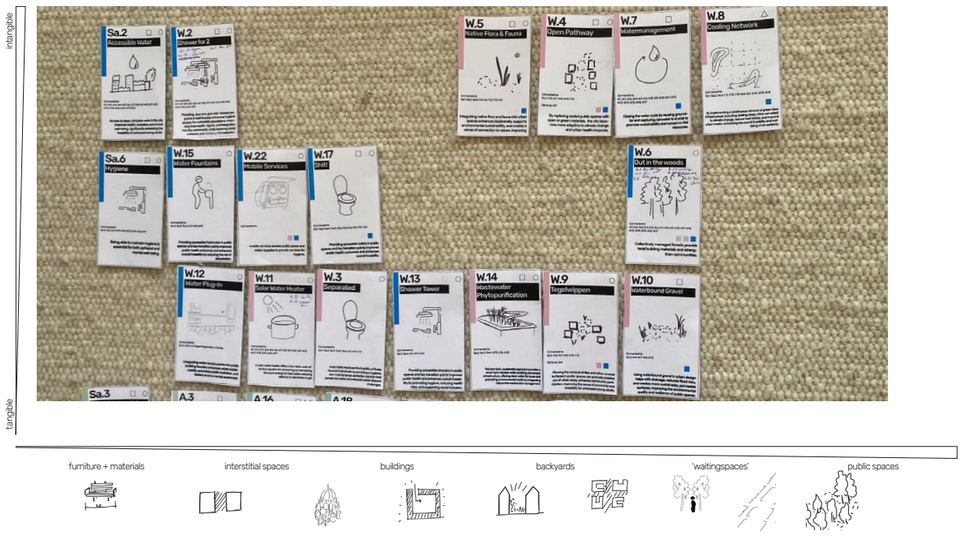
Photo taken during process of organizing patterns and connections, photograph taken by author

four systems

This page provides an overview of the process used to arrange the patterns into fields, during which I added, removed, or modified some patterns. The patterns are organized according to four systems related to the needs and satisfiers of young, fluidly housed adults, as described in the report.

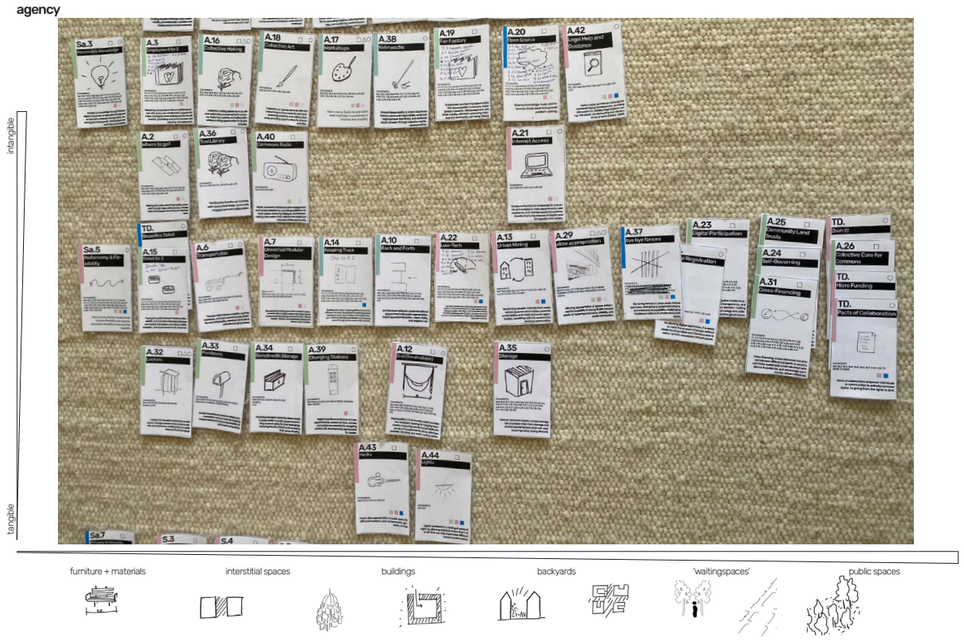


food



water

shelter



agency

providing food

This pattern field shows the relevant patterns for options that support accessible food. Patterns closer to the bottom-up side represent those that can be implemented by young, fluidly housed adults or communities. Patterns from the top-down represent those that need implementation by policymakers or designers. The scale indicates whether the pattern is very tangible—related to materials and furniture—or more connected to wider systems. The connections indicate whether patterns are linked, support each other, have the same goal, or even enable one another.

bigger smaller scale
support each other
supported by

same goal
connected
enables

blocks
activator

top down
bottom up
Brussels
municipality
local communities
fluidly housed

Sa.1 Accessible Food

Sa.2 Accessible Water

F.1 ‚Waste' Restaurant

F.2 Social Restaurant

F.3 Cooperative Supermarket

W.1 Water Plug-In

A.1 Own it!

F.14 Alternative Food

F.18 Waste to Value

F.15 Snack Path

F.10 Collection Pockets

A.2 Collective Care for Commons

F.4 Meal for 2

F.6 Foodsharing Fridge

F.7 Shit Dry!

F.11 Community Farm

F.12 SolAgri

F.16 Herbal Recreation

A.3 Micro Funding

F.5 Fermented Food

F.8 Composter

F.9 Domestic Biodigester

F.13 Park to Farm

F.17 Edible Urban Cracks

F.19 Room for Bees

A.4 Pacts of Collaboration

Moveable Elements, Furniture and Materials

Existing Facilities

Introvert Space

Semi-Public Space

Extrovert Space

Connected Networks (water, power, green)

preparing food

patternfield

This pattern field shows the relevant patterns for options that support access to freshly made food. Patterns closer to the bottom-up side represent those that can be implemented by young, fluidly housed adults or communities. Patterns from the top-down represent those that need implementation by policymakers or designers. The scale indicates whether the pattern is very tangible—related to materials and furniture—or more connected to wider systems. The connections indicate whether patterns are linked, support each other, have the same goal, or even enable one another.

bigger smaller scale
support each other
supported by

same goal
connected
enables

blocks
activator

top down

Brussels

municipality

local communities

fluidly housed

bottom up

Sa.1 Accessible Food

Sa.2 Accessible Water

F.1 ‚Waste' Restaurant

F.2 Social Restaurant

F.20 Dream Kitchen

W.1 Water Plug-In

A.5 Charging Stations

A.1 Own it!

A.2 Collective Care for Commons

A.3 Micro Funding

A.4 Pacts of Collaboration

A.6 Low-Tech

F.21 Outdoor Kitchen

F.6 Foodsharing Fridge

F.22 Solar Multicooker

F.23 Solar Oven Box

Moveable Elements, Furniture and Materials

Existing Facilities

Introvert Space

Semi-Public Space

Extrovert Space

Connected Networks (water, power, green)

accessible water and hygiene

patternfield

This pattern field shows the relevant patterns for accessible water and hygiene. Patterns closer to the bottom-up side represent those that can be implemented by young, fluidly housed adults or communities. Patterns from the top-down represent those that need implementation by policymakers or designers. The scale indicates whether the pattern is very tangible—related to materials and furniture—or more connected to wider systems. The connections indicate whether patterns are linked, support each other, have the same goal, or even enable one another.

bigger smaller scale
support each other
supported by

same goal
connected
enables

blocks
activator

Sa.2 Accessible Water

Sa.3 Hygiene

Sa.4 Privacy

top down

bottom up

Brussels

municipality

local communities

fluidly housed

W.1 Water Plug-In

W.2 Waterbound Gravel

W.3 Shower for 2

W.4 Separated

W.5 Solar Water Heater

W.6 Shower Tower

W.7 Mobile Services

W.8 Wastewater Phytopurification

W.9 Out in the woods

W.10 Open Pathway

W.11 Native Flora & Fauna

W.12 Tegelwippen

W.13 Watermanagement

W.14 Cooling Network

W.15 Water Fountains

A.6 Low-Tech

Moveable Elements, Furniture and Materials

Existing Facilities

Introvert Space

Semi-Public Space

Extrovert Space

Connected Networks (water, power, green)

finding shelter

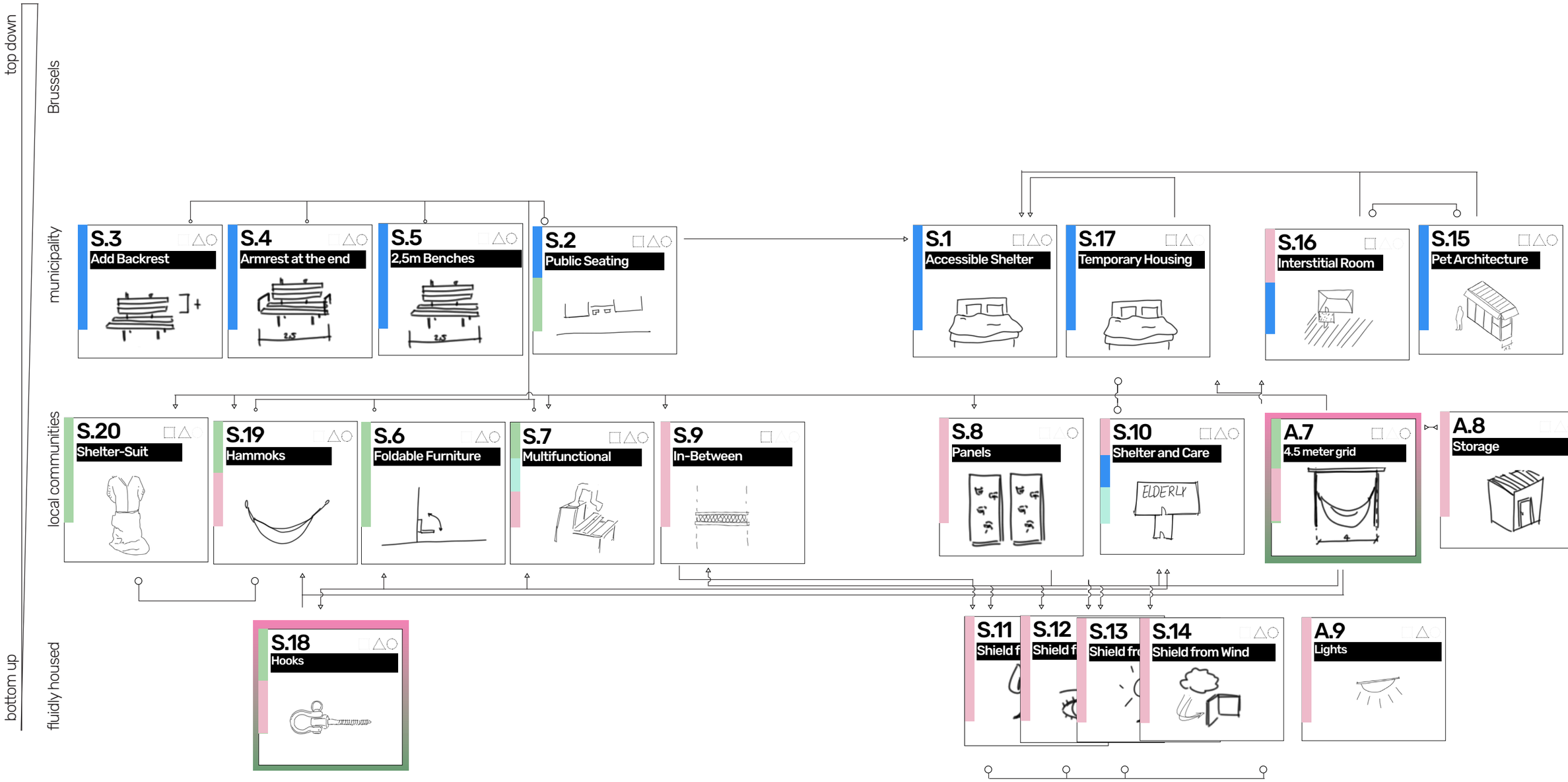
patternfield

This pattern field shows the relevant patterns for finding shelter during times when individuals are forced to sleep rough. Unlike hostile architecture, these patterns aim to offer support and refuge, though they primarily serve as temporary solutions rather than long-term housing options. Patterns closer to the bottom-up side represent those that can be implemented by young, fluidly housed adults or communities. Patterns from the top-down represent those that need implementation by policymakers or designers. The scale indicates whether the pattern is very tangible—related to materials and furniture—or more connected to wider systems. The connections indicate whether patterns are linked, support each other, have the same goal, or even enable one another.

bigger smaller scale
support each other
supported by

same goal
connected
enables

blocks
activator



Sa.4 Privacy

Sa.5 Security

Moveable Elements, Furniture and Materials

Existing Facilities

Introvert Space

Semi-Public Space

Extrovert Space

Connected Networks (water, power, green)

building solidarity

patternfield

This pattern field shows the relevant patterns for building solidarity. Patterns closer to the bottom-up side represent those that can be implemented by young, fluidly housed adults or communities. Patterns from the top-down represent those that need implementation by policymakers or designers. The scale indicates whether the pattern is very tangible—related to materials and furniture—or more connected to wider systems. The connections indicate whether patterns are linked, support each other, have the same goal, or even enable one another.

bigger smaller scale
support each other
supported by

same goal
connected
enables

blocks
activator

Moveable Elements, Furniture and Materials

Existing Facilities

Introvert Space

Semi-Public Space

Extrovert Space

Connected Networks (water, power, green)

enabling flexibility

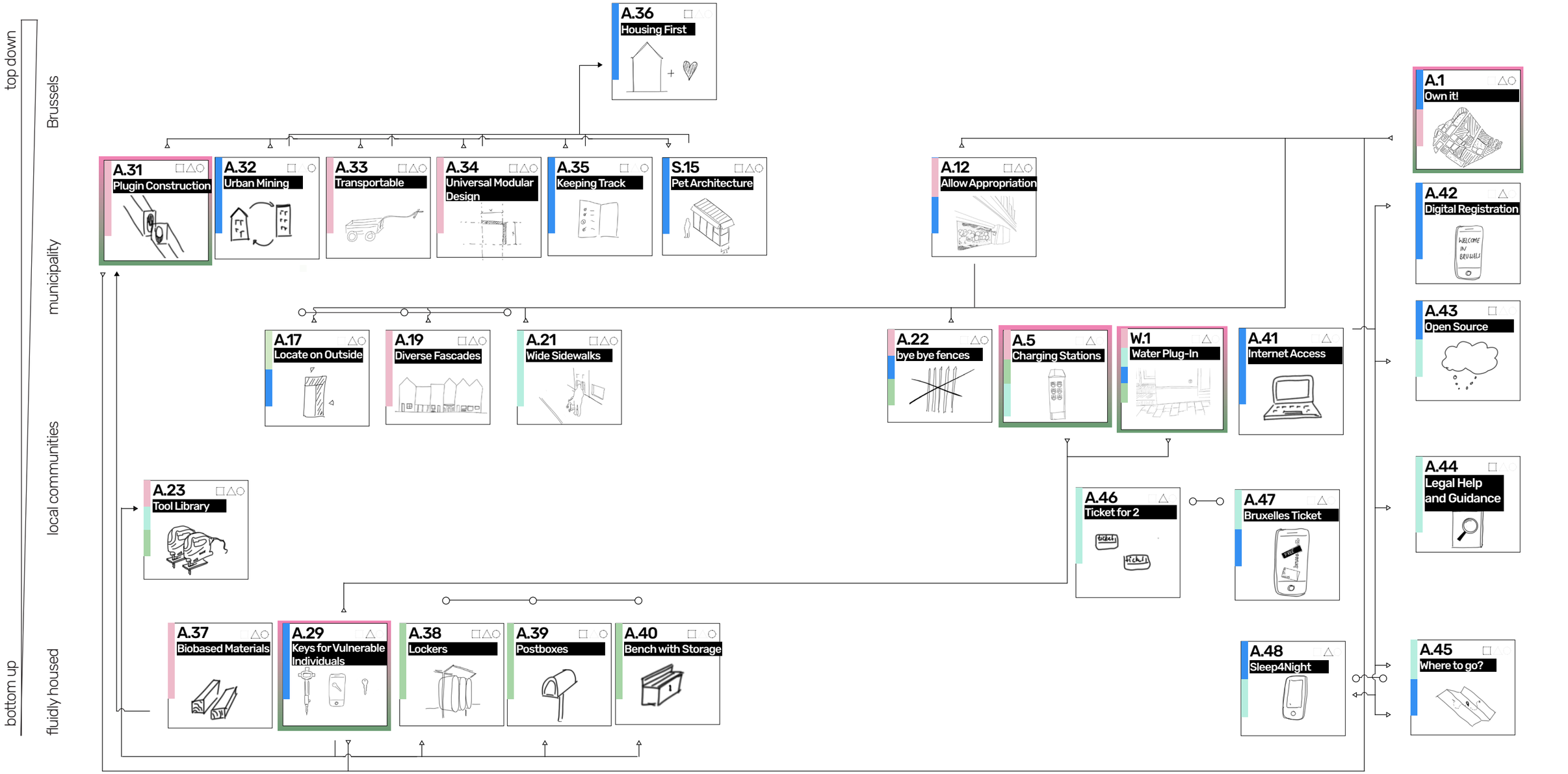
patternfield

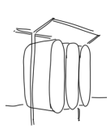
This pattern field shows the relevant patterns for enabling flexibility and providing elements that allow to be adaopted to shifting needs. Patterns closer to the bottom-up side represent those that can be implemented by young, fluidly housed adults or communities. Patterns from the top-down represent those that need implementation by policymakers or designers. The scale indicates whether the pattern is very tangible—related to materials and furniture—or more connected to wider systems. The connections indicate whether patterns are linked, support each other, have the same goal, or even enable one another.

bigger smaller scale
support each other
supported by

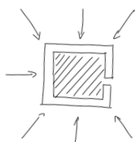
same goal
connected
enables

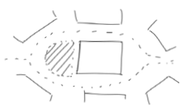
blocks
activator

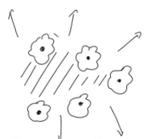



Moveable Elements, Furniture and Materials

Existing Facilities


Introvert Space


Semi-Public Space


Extrovert Space

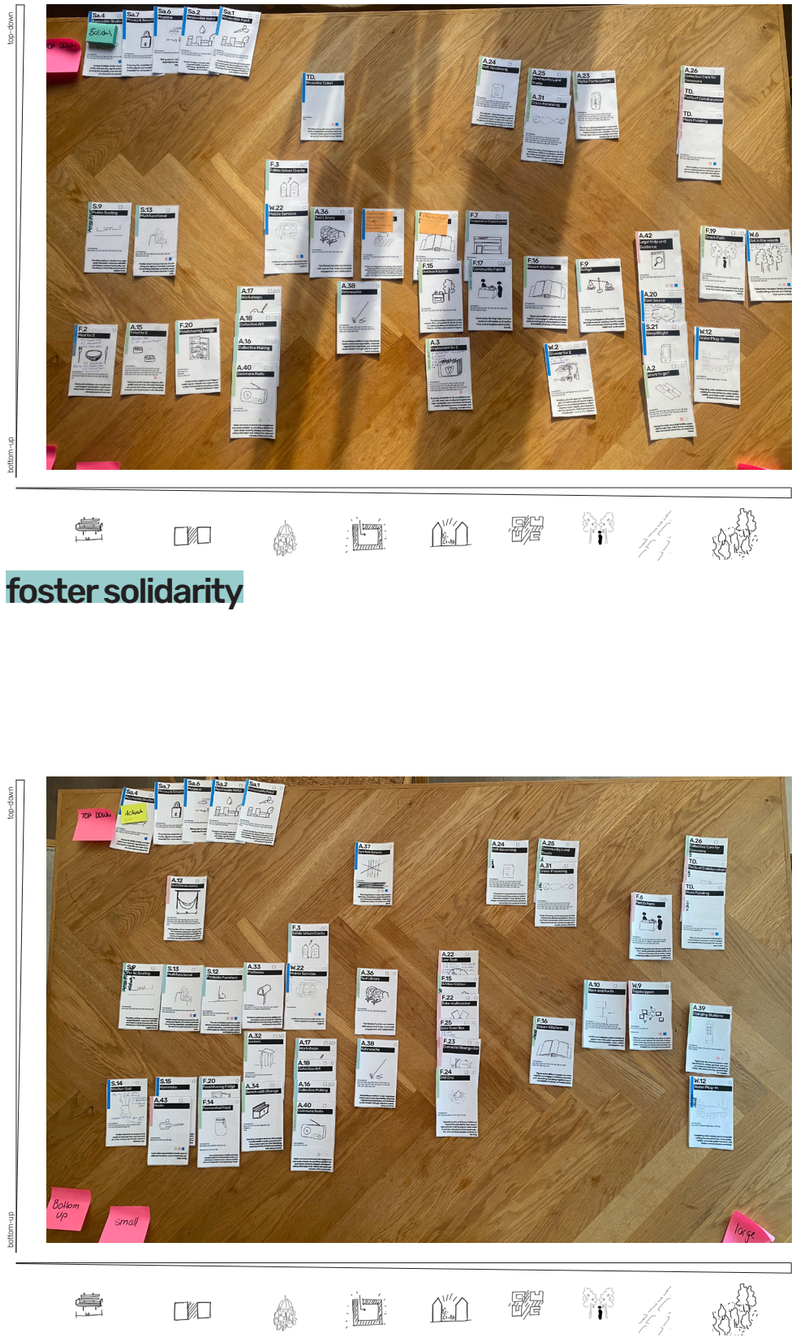
Connected Networks (water, power, green)

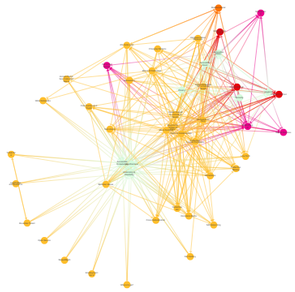
principles for careful design

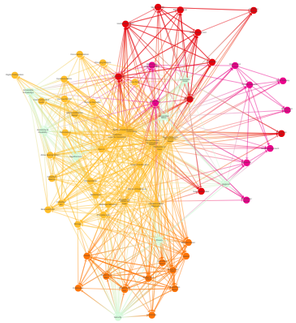
This page provides an overview of the process used to arrange the patterns into fields, where I added, removed, or modified some patterns. They are organized according to the four principles of careful design, as described in the report's methodology chapter.

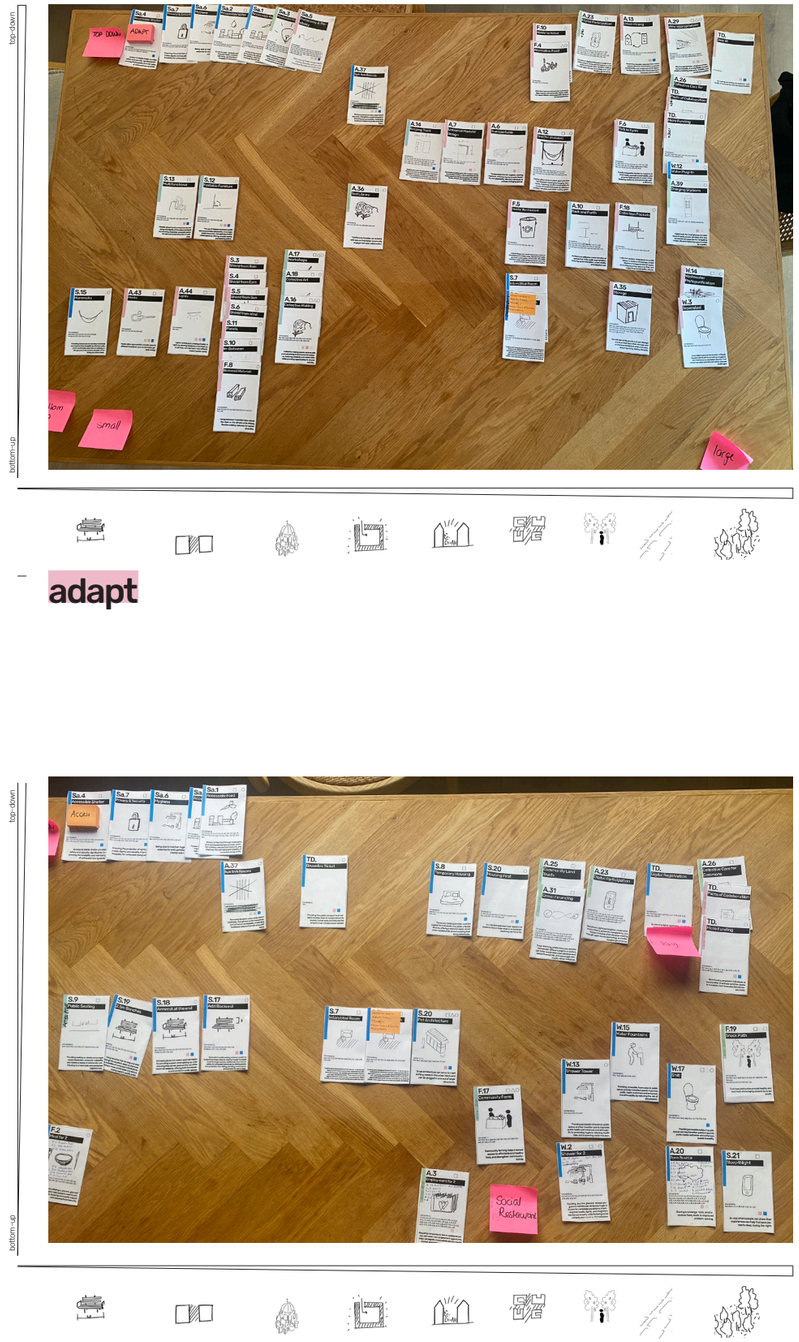
patternfields

satisfiers
food
water
shelter
agency

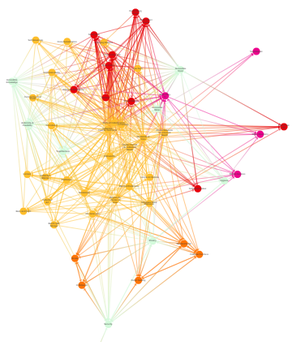


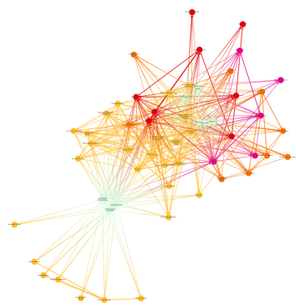






foster solidarity





adapt

activate

access

foster solidarity

This pattern field provides an overview of the patterns that enable collective processes and community building. Patterns on the bottom-up side are those that can be initiated by young, fluidly housed adults or grassroots communities, while those on the top-down side require implementation by policymakers or designers. As a result, many of the patterns are situated closer to the community-driven end.

top down

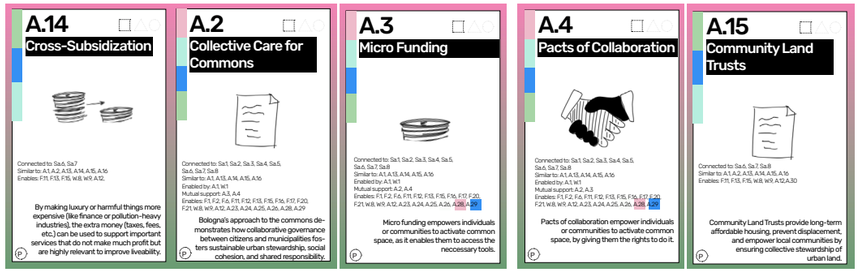
bottom up

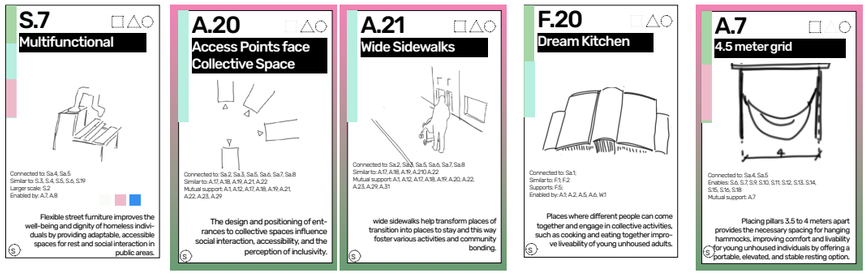
Policymaker

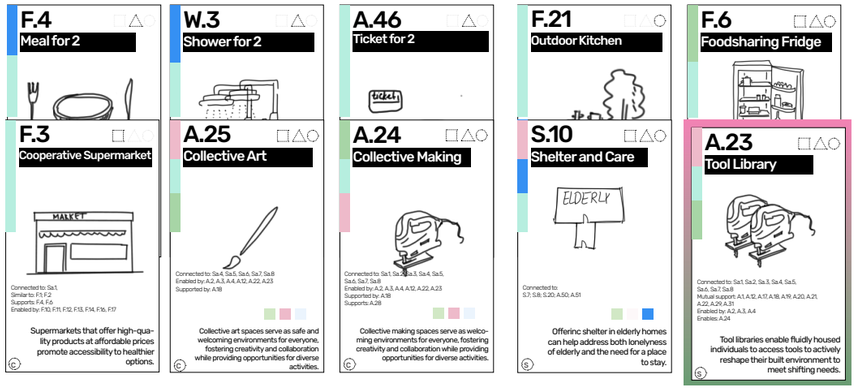
Designers

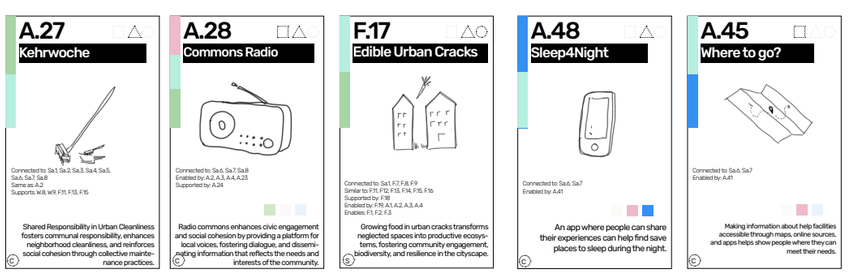
local communities

fluidly housed



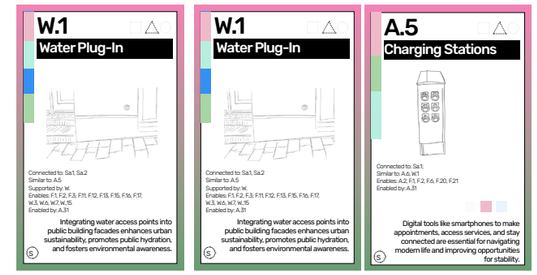


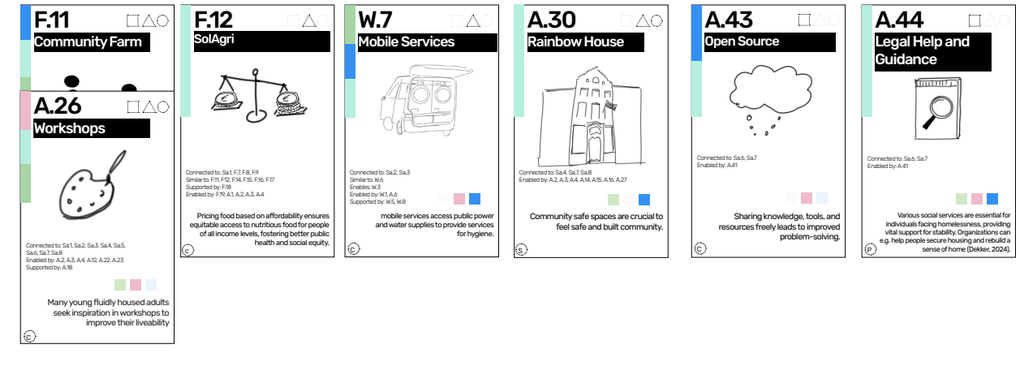




principles for careful design

- Access
- Foster Solidarity
- Activate
- Adapt





activate

This pattern field provides an overview of patterns that recognize young, fluidly housed adults as central agents in activating the urban fabric to meet fundamental needs related to health, safety, belonging, and personal agency. Patterns on the bottom-up side can be initiated by these individuals or grassroots communities, while top-down patterns require implementation by policymakers or designers. As a result, many patterns are situated on the bottom-up side, though important top-down contributions remain essential.

principles for careful design

- Access
- Foster Solidarity
- Activate
- Adapt

top down

bottom up

Policymaker

A.14 Cross-Subsidization
Connected to: Sa.6, Sa.7
Similar to: A.1, A.2, A.13, A.14, A.15, A.16
Enables: F.11, F.13, F.15, W.8, W.9, A.12.
By making luxury or harmful things more expensive (like finance or pollution-heavy industries), the extra money (taxes, fees, etc.) can be used to support important services that do not make much profit but are highly relevant to improve liveability.

A.2 Collective Care for Commons
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.1, A.13, A.14, A.15, A.16
Enabled by: A.1, W.1
Mutual support: A.3, A.4
Enables: F.1, F.2, F.6, F.11, F.12, F.13, F.15, F.16, F.17, F.20, F.21, W.8, W.9, A.12, A.23, A.24, A.25, A.26, A.28, A.29
Bologna's approach to the commons demonstrates how collaborative governance between citizens and municipalities fosters sustainable urban stewardship, social cohesion, and shared responsibility.

A.3 Micro Funding
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.1, A.13, A.14, A.15, A.16
Enabled by: A.1, W.1
Mutual support: A.2, A.4
Enables: F.1, F.2, F.6, F.11, F.12, F.13, F.15, F.16, F.17, F.20, F.21, W.8, W.9, A.12, A.23, A.24, A.25, A.26, A.28, A.29
Micro funding empowers individuals or communities to activate common space, as it enables them to access the necessary tools.

A.4 Pacts of Collaboration
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.1, A.13, A.14, A.15, A.16
Enabled by: A.1, W.1
Mutual support: A.2, A.3
Enables: F.1, F.2, F.6, F.11, F.12, F.13, F.15, F.16, F.17, F.20, F.21, W.8, W.9, A.12, A.23, A.24, A.25, A.26, A.28, A.29
Pacts of collaboration empower individuals or communities to activate common space, by giving them the rights to do it.

A.15 Community Land Trusts
Connected to: Sa.6, Sa.7, Sa.8
Similar to: A.1, A.2, A.13, A.14, A.15, A.16
Enables: F.11, F.13, F.15, W.8, W.9, A.12, A.30
Community Land Trusts provide long-term affordable housing, prevent displacement, and empower local communities by ensuring collective stewardship of urban land.

A.16 Self-Governing
Connected to: Sa.6, Sa.7, Sa.8
Similar to: A.2, A.14, A.15
Enables: F.11, F.13, F.15, W.8, W.9, A.12, A.30
Christiania's unique blend of anarchism and communal living creates a resilient, alternative model of urban life that challenges conventional governance, property ownership, and social structures

Designers

S.6 Foldable Furniture
Connected to: Sa.4, Sa.5
Similar to: S.3, S.4, S.5, S.7, S.19
Larger scale: S.2
Enabled by: A.7
The use of foldable benches in public spaces promotes adaptability, encourages social interaction, and optimizes limited urban space by offering versatile seating and sleeping options.

S.7 Multifunctional
Connected to: Sa.4, Sa.5
Similar to: S.3, S.4, S.5, S.6, S.19
Larger scale: S.2
Enabled by: A.7, A.8
Flexible street furniture improves the well-being and dignity of homeless individuals by providing adaptable, accessible spaces for rest and social interaction in public areas.

S.2 Public Seating
Connected to: Sa.4, Sa.5
Small scale: S.4, S.5, S.6, S.7, S.19
Enables: S.1
Providing seating on streets encourages social interaction, enhances walkability, and fosters a sense of community, contributing to a more lively and connected neighborhood.

A.17 Locate on Outside
Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.16, A.19, A.20, A.21, A.22
Mutual support: A.1, A.12, A.18, A.19, A.20, A.21, A.22, A.23, A.29, A.31
Locating important facilities such as showers, toilets, kitchens on the outside of public buildings, helps communities to make them accessible to people in need in times of crisis.

A.18 Back and Forth
Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.17, A.19, A.20, A.21, A.22
Mutual support: A.1, A.12, A.17, A.19, A.20, A.21, A.22, A.23, A.29
Supports: A.24, A.25, A.26
Architectural setbacks create transitional spaces that invite public appropriation, fostering social interaction, urban vitality, and adaptive use.

F.20 Dream Kitchen
Connected to: Sa.1
Similar to: F.1, F.2
Supports: F.5
Enabled by: A.1, A.2, A.5, A.6, W.1
Places where different people can come together and engage in collective activities, such as cooking and eating together improve liveability of young unhoused adults.

A.7 4.5 meter grid
Connected to: Sa.4, Sa.5
Enables: S.6, S.7, S.9, S.10, S.11, S.12, S.13, S.14, S.15, S.16, S.18
Mutual support: A.7
Placing pillars 3.5 to 4 meters apart provides the necessary spacing for hanging hammocks, improving comfort and livability for young unhoused individuals by offering a portable, elevated, and stable resting option.

W.1 Water Plug-In
Connected to: Sa.1, Sa.2
Similar to: A.5
Supported by: W.
Enables: F.1, F.2, F.3, F.11, F.12, F.13, F.15, F.16, F.17, W.3, W.5, W.7, W.15
Enabled by: A.31
Integrating water access points into public building facades enhances urban sustainability, promotes public hydration, and fosters environmental awareness.

F.15 Snack Path
Connected to: Sa.1, F.7, F.8, F.9
Similar to: F.11, F.12, F.13, F.14, F.16, F.17
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4, A.27
Enables: F.1, F.2, F.3
Fruit trees and bushes provide healthy and local food, encouraging passers-by to eat locally.

A.5 Charging Stations
Connected to: Sa.1
Similar to: A.6, W.1
Enables: A.2, F.1, F.2, F.6, F.20, F.21, W.3, W.6, W.7, W.15
Enabled by: A.31
Digital tools like smartphones to make appointments, access services, and stay connected are essential for navigating modern life and improving opportunities for stability.

local communities

F.5 Fermented Food
A.26 Workshops
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Enabled by: A.2, A.3, A.4, A.12, A.22, A.23
Supported by: A.18
Many young fluidly housed adults seek inspiration in workshops to improve their liveability

S.20 Shelter-Suit
A.25 Collective Art
Connected to: Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Enabled by: A.2, A.3, A.4, A.12, A.22, A.23
Supported by: A.18
Collective art spaces serve as safe and welcoming environments for everyone, fostering creativity and collaboration while providing opportunities for diverse activities.

S.19 Hammoks
Connected to: Sa.4, Sa.5
Similar to: S.3, S.4, S.5, S.6, S.7, S.20
Larger scale: S.2
Enabled by: S.18, A.7, A.8
Providing hammocks for homeless individuals can improve their liveability by offering a safer, more comfortable alternative to sleeping on the ground, in the extreme situation of not finding any other shelter.

F.6 Foodsharing Fridge
Connected to: Sa.1
Similar to: F.5, F.10
Supported by: F.1, F.2, F.3, F.18, F.20
Mutual support: F.21
Enabled by: A.2, A.3, A.4, A.5, A.6, W.1
Implementing neighborhood fridges in public spaces reduces food waste and alleviates food poverty by providing surplus food to individuals in need.

F.7 Shit Dry!
Connected to: Sa.1, F.11, F.12, F.13, F.14, F.15, F.16, F.17
Similar to: F.8, F.9, W.4
Supported by: F.18
Separating urine and feces in toilets can improve the potential for their reuse in agriculture by making organic waste easier to process, reducing environmental pollution, and providing valuable nutrients for farming.

A.24 Collective Making
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Enabled by: A.2, A.3, A.4, A.12, A.22, A.23
Supported by: A.18
Supports: A.28
Collective making spaces serve as welcoming environments for everyone, fostering creativity and collaboration while providing opportunities for diverse activities.

A.23 Tool Library
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Mutual support: A.1, A.12, A.17, A.18, A.19, A.20, A.21, A.22, A.29, A.31
Enabled by: A.2, A.3, A.4
Enables: A.24
Tool libraries enable fluidly housed individuals to access tools to actively reshape their built environment to meet shifting needs.

F.11 Community Farm
Connected to: Sa.1, F.7, F.8, F.9
Similar to: F.12, F.13, F.14, F.15, F.16, F.17
Supported by: F.18, A.14, A.27
Enabled by: F.19, A.1, A.2, A.3, A.4, A.14, A.15, A.16
Enables: F.1, F.2, F.3
Community farming helps improve access to affordable and healthy food, and strengthen communitybonds.

W.7 Mobile Services
Connected to: Sa.2, Sa.3
Similar to: W.6
Enables: W.3
Enabled by: W.1, A.6
Supported by: W.5, W.8
mobile services access public power and water supplies to provide services for hygiene.

A.38 Lockers
Connected to: Sa.4
Similar to: A.39, A.40
Enabled by: A.29
Enables: Sa.6
Lockers for homeless individuals provide secure storage solutions that enhance dignity and autonomy, enabling them to safely keep personal belongings

A.39 Postboxes
Connected to: Sa.4
Similar to: A.38, A.40
Enabled by: A.29
Enables: Sa.6
Access to postboxes ensures reliable communication and connectivity, fostering independence and improving liveability for unhoused young adults.

fluidly housed

S.18 Hooks
Connected to: Sa.4, Sa.5
Enabled by:
Enables: S.19
Hooks allow appropriation of public space for different functions, such as hammocks, garlands, awings

A.27 Kehrwoche
Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Same as: A.2
Supports: W.8, W.9, F.11, F.13, F.15
Shared Responsibility in Urban Cleanliness fosters communal responsibility, enhances neighborhood cleanliness, and reinforces social cohesion through collective maintenance practices.

A.28 Commons Radio
Connected to: Sa.6, Sa.7, Sa.8
Enabled by: A.2, A.3, A.4, A.23
Supported by: A.24
Radio commons enhances civic engagement and social cohesion by providing a platform for local voices, fostering dialogue, and disseminating information that reflects the needs and interests of the community.

F.23 Solar Oven Box
Connected to: Sa.1
Enabled by: A.2, A.3, A.4
Larger scale connections: F.21
Same goal: F.22
A solar oven offers a low-tech, sustainable solution for cooking food in public spaces by utilizing solar energy to generate heat, reducing the need for fuel or electricity.

F.9 Domestic Biodigester
Connected to: Sa.1, F.11, F.12, F.13, F.14, F.15, F.16, F.17
Similar to: F.7, F.8
Supported by: F.18
By processing waste locally, it helps manage waste efficiently, reduce environmental pollution, and promotes sustainability in households, especially in off-grid or resource-constrained environments.

A.40 Bench with Storage
Connected to: Sa.4, Sa.5
Similar to: A.39, A.40
Enabled by: A.29
Enables: Sa.6
Including storage in benches allows people to sleep better in public spaces by providing a secure place for their belongings, reducing the risk of theft and increasing their sense of safety.

F.13 Park to Farm
Connected to: Sa.1, F.7, F.8, F.9
Similar to: F.11, F.12, F.14, F.15, F.16, F.17
Supported by: F.18, A.27
Enabled by: F.19, A.1, A.2, A.3, A.4, A.14, A.15, A.16
Enables: F.1, F.2, F.3
Transforming parks into farms meets local food needs, promote sustainability, and enhance food security in urban areas, fostering resilience and community self-sufficiency.

F.17 Edible Urban Cracks
Connected to: Sa.1, F.7, F.8, F.9
Similar to: F.11, F.12, F.13, F.14, F.15, F.16
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4
Enables: F.1, F.2, F.3
Growing food in urban cracks transforms neglected spaces into productive ecosystems, fostering community engagement, biodiversity, and resilience in the cityscape.

W.12 Tegelwippen
Connected to: Sa.2, Sa.3
Mutual support: W.4, W.8, W.9, W.10, W.11, W.13, W.14
Smaller scale: W.10
Allowing the removal of tiles and other covered surfaces in public spaces can promote creative use of urban areas, enhance community participation, improving the sense of ownership and liveability for unhoused young adults.

A.6 Low-Tech
Connected to: Sa.1
Similar to: A.5
Enables: A.2, F.1, F.2, F.6, F.20, F.21, W.3, W.6, W.7, W.15
Low-tech solutions can effectively address the basic needs of unhoused individuals in public spaces by providing accessible, affordable, and sustainable methods for phone charging, water filtration, and alternative food sources, reducing reliance on high-cost or infrastructure-dependent services.

adapt

This pattern field provides an overview of patterns that ensure the system can evolve in response to shifting needs, conditions, and lived experiences. Patterns on the bottom-up side can be initiated by individuals or grassroots communities, while top-down patterns require action from policymakers or designers. As a result, the patterns are almost equally divided, with a slight emphasis on bottom-up approaches.

top down

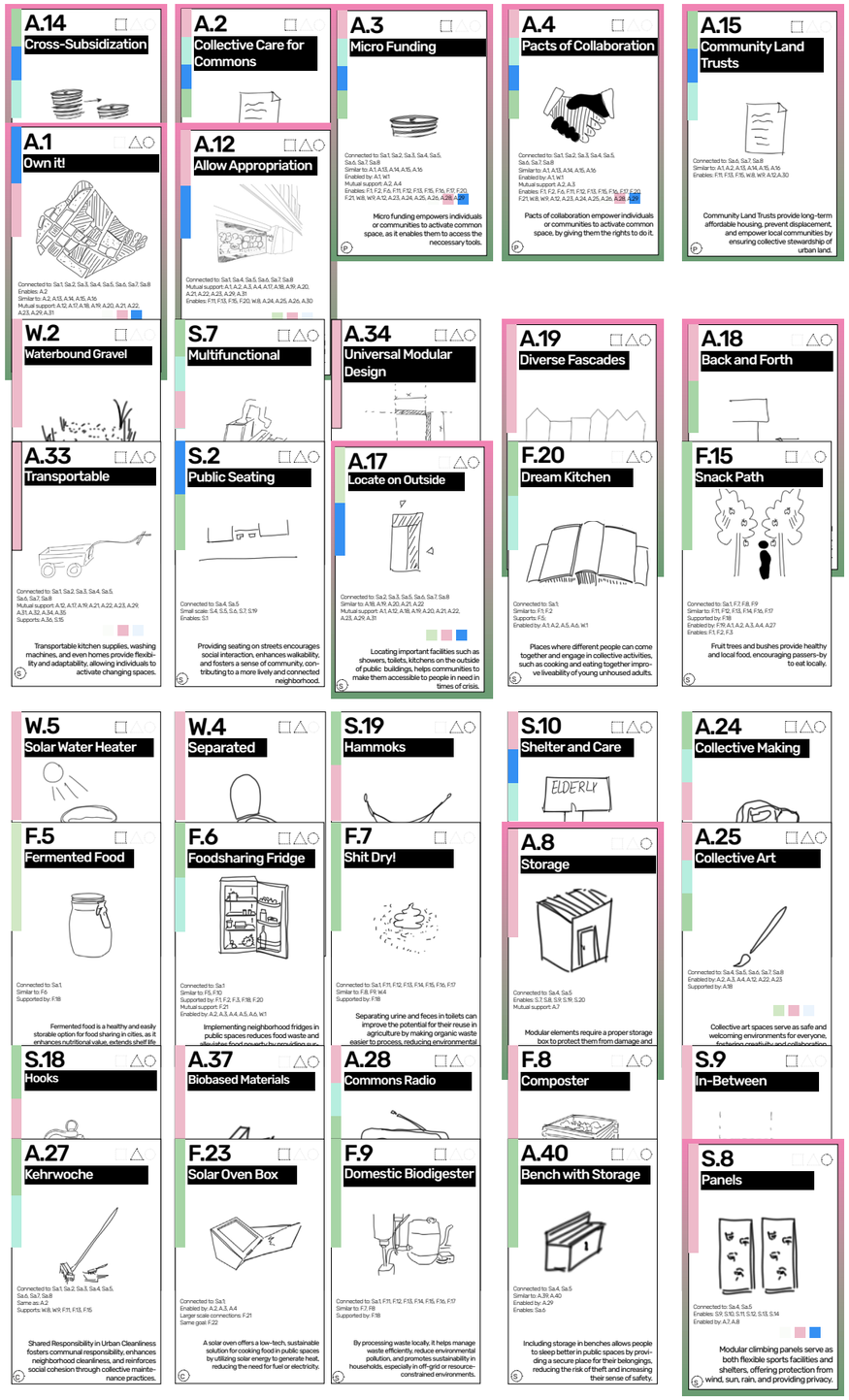
bottom up

Policymaker

Designers

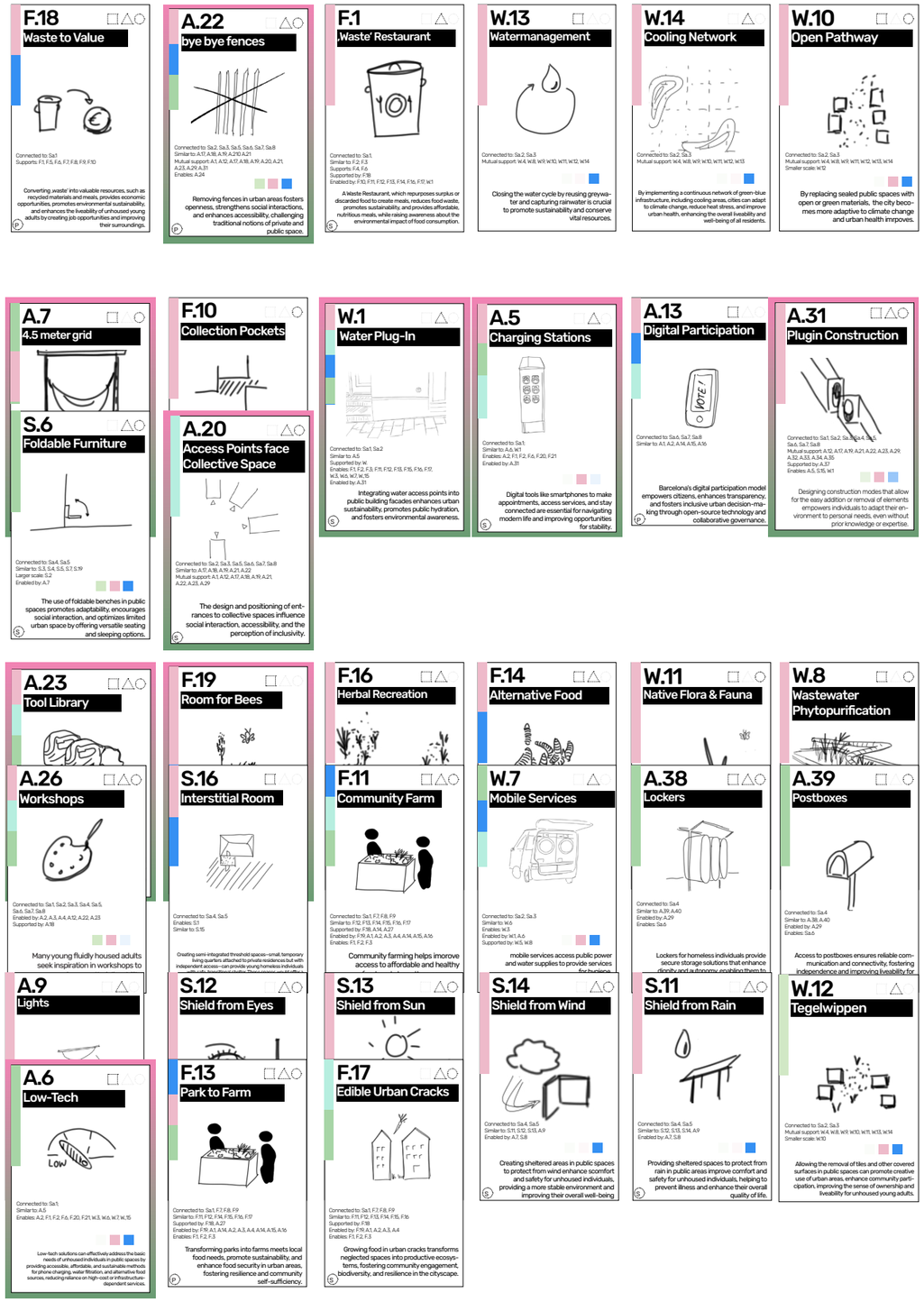
local communities

fluidly housed



principles for careful design

- Access
- Foster Solidarity
- Activate
- Adapt



access

This pattern field provides an overview of patterns that ensure access to essential services and spaces with the potential to be activated by young, fluidly housed adults. Patterns on the bottom-up side can be initiated by individuals or grassroots communities, while top-down patterns require action from policymakers or designers. As a result, most of the patterns are located on the top-down side, with some driven by communities and very few initiated directly by young, fluidly housed individuals.

top down

bottom up

Policymaker

Designers

local communities

fluidly housed

A.14 Cross-Subsidization

Connected to: Sa.6
Similar to: A.46

Providing free public transport to all residents enables them to access resources located further away and reduces the amount of car infrastructure needed.

A.2 Collective Care for Commons

A.3 Micro Funding

A.4 Pacts of Collaboration

A.15 Community Land Trusts

W.15 Water Fountains

A.47 Bruxelles Ticket

Connected to: Sa.6
Similar to: A.46

A.1 Own it!

Connected to: Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Enables: A.2
Similar to: A.2, A.13, A.14, A.15, A.16
Mutual support: A.12, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.29, A.31

By making ownership transparent, both public or uncared for land can be activated.

S.1 Accessible Shelter

Connected to: Sa.4, Sa.5
Enabled by: S.2, S.17, S.15, S.16

Access to stable shelter provides safety and security, significantly improving the liveability and well-being of unhoused young adults.

Sa.6 Autonomy & Flexibility

Connected to:
Sa1, Sa.2, A.1, A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28, A.29, A.30, A.31, A.32, A.33, A.34, A.35, A.36, A.37, A.38, A.39 A.40, A.41, A.42, A.43, A.44, A.45, A.46, A.47, A.48, W.1, W.8, W.9, F.11, F.13, F.15, F.20, S.15

Many young fluidly housed adults choose flexibility over security, therefore flexibility enhances their liveability

Sa.7 Accessible Knowledge

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28, A.29, A.30, A.31, A.32, A.33, A.34, A.35, A.36, A.37, A.38, A.39, A.40, A.41, A.42, A.43, A.44, A.45, A.46, A.47, A.48, W.1, W.8, W.9, F.11, F.13, F.15, F.20, S.15

Access to knowledge through libraries, digital resources, or educational programs empowers unhoused young adults, fostering personal growth, skill development, and improved liveability.

Sa.8 Togetherness

Connected to:
Sa.6, Sa.7 A.1, A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9 A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28, A.29, A.30, A.31, A.32, A.33, A.34, A.35, A.36, A.37, A.38, A.39, A.40, A.41, A.42, A.43, A.44, A.45, A.46, A.47, A.48, W.1, W.8, W.9, F.11, F.13, F.15, F.20, S.15

Solidarity fosters emotional stability, resilience, and access to shared resources, helping young fluidly housed adults better navigate the uncertainties of everyday life.

S.3 Add Backrest

Connected to: Sa.4, Sa.5
Similar to: S.4, S.5, S.6, S.7, S.19
Larger scale: S.2

Backrests in public seating enhance comfort by supporting proper posture, making it easier for people to sit for longer periods. Additionally, they improve safety for unhoused individuals by offering shelter and protection from falling, providing a more secure environment for rest or sleep.

S.4 Armrest at the end

Connected to: Sa.4, Sa.5
Similar to: S.3, S.5, S.6, S.7, S.19
Larger scale: S.2

Armrests placed 2.5 meters apart are helpful for providing support when getting up, while ensuring they do not obstruct the use of the bench for sleeping, offering both functionality and comfort in public spaces.

S.5 2.5m Benches

Connected to: Sa.4, Sa.5
Similar to: S.4, S.5, S.6, S.7, S.19
Larger scale: S.2

Using benches that are long and wide enough for people to sleep on improves the liveability of unhoused individuals by providing a more comfortable and secure resting space in public areas.

S.2 Public Seating

Connected to: Sa.4, Sa.5
Small scale: S.4, S.5, S.6, S.7, S.19
Enables: S.1

Providing seating on streets encourages social interaction, enhances walkability, and fosters a sense of community, contributing to a more lively and connected neighborhood.

S.2 Public Seating

Connected to: Sa.4, Sa.5
Small scale: S.4, S.5, S.6, S.7, S.19
Enables: S.1

Providing seating on streets encourages social interaction, enhances walkability, and fosters a sense of community, contributing to a more lively and connected neighborhood.

A.17 Locate on Outside

Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.18, A.19, A.20, A.21, A.22
Mutual support: A1, A.12, A.18, A.19, A.20, A.21, A.22, A.23, A.29, A.31

Locating important facilities such as showers, toilets, kitchens on the outside of public buildings, helps communities to make them accessible to people in need in times of crisis.

F.4 Meal for 2

Connected to: Sa1
Supported by: F1, F.2, F.3

Restaurants offering a „buy one, give one" meal program help people in need by providing meals, fostering community support, and reducing food insecurity.

W.3 Shower for 2

Connected to: Sa.2, Sa.3,
Enabled by: W.6

Providing „buy one, give one" shower programs in bathhouses enhances hygiene access for vulnerable populations, improving their health, dignity, and integration into the community, while fostering social solidarity and reducing.

A.35 Keeping Track

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Mutual support: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.33, A.34
Supports: A.36, S.15

Building Information Modeling (BIM) enhances the efficiency of urban development by allowing precise tracking of resources, timelines, and design changes, ensuring seamless coordination and reducing errors throughout the construction process.

S.10 Shelter and Care

Connected to:
S.7, S.8, S.20, A.50, A.51

Offering shelter in elderly homes can help address both loneliness of elderly and the need for a place to stay.

F.2 Social Restaurant

Connected to: Sa.1,
Similars to: F.1, F.3
Supports: F.4, F.6
Enabled by: F.10, F.11, F.12, F.13, F.14, F.16, F.17, W.1

Places that offer free healthy meals are essential for fluidly housed young adults to access food.

S.16 Interstitial Room

Connected to: Sa.4, Sa.5
Enables: S.1
Similar to: S.15

Creating semi-integrated threshold spaces—small, temporary living quarters attached to private residences but with independent access—can provide young homeless individuals with safe, transitional shelter. These spaces would offer a balance between social inclusion and autonomy, fostering stability while respecting both private and public boundaries.

F.13 Park to Farm

Connected to: Sa1, F.7, F.8, F.9
Similar to: F.11, F.12, F.14, F.15, F.16, F.17
Supported by: F.18, A.27
Enabled by: F.19, A.1, A.14, A.2, A.3, A.4, A.14, A.15, A.16
Enables: F.1, F.2, F.3

Transforming parks into farms meets local food needs, promote sustainability, and enhance food security in urban areas, fostering resilience and community self-sufficiency.

A.48 Sleep4Night

Connected to: Sa.6, Sa.7
Enabled by: A.41

An app where people can share their experiences can help find save places to sleep during the night.

A.45 Where to go?

Connected to: Sa.6, Sa.7
Enabled by: A.41

Making information about help facilities accessible through maps, online sources, and apps helps show people where they can meet their needs.

principles for careful design

- Access
- Foster Solidarity
- Activate
- Adapt

F.18 Waste to Value

Connected to: Sa.6, Sa.7, Sa.8
Supports: A.11

Requiring companies to hire an additional person with every new employment opportunity helps reintegrate more individuals into the job market, promoting economic inclusion and reducing unemployment.

Sa.1 Accessible Food

Sa.2 Accessible Water

Sa.3 Hygiene

Sa.4 Privacy

S.17 Temporary Housing

Connected to: Sa.4, Sa.5
Enables: S.1

Temporary housing provides essential support for individuals who prefer a flexible lifestyle, offering a safe and stable retreat when needed while accommodating their living preferences.

A.10 Employment for 2

Connected to: Sa.6, Sa.7, Sa.8
Supports: A.11

A.29 Keys for Vulnerable Individuals

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Mutual support: A.1, A.12, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.31
Enabled by: A.2, A.3, A.4

Giving vulnerable individuals access to important infrastructure, such as semi-private rooms, power stations, showers, etc. they can activate them to meet their needs while ensuring careful use.

A.12 Allow Appropriation

Connected to: Sa.1, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Mutual support: A.1, A.2, A.3, A.4, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.29, A.31
Enables: F.11, F.13, F.15, F.20, W.8, A.24, A.25, A.26, A.30

Allowing appropriation of spaces enhances the liveability of young fluidly housed adults by fostering autonomy, stability, and social connection.

A.42 Digital Registration

Connected to: Sa.6, Sa.7
Enabled by: A.41

By allowing digital registration, it is easier to make the amount of people without stable housing visible and therefore able to add or remove necessary infrastructure.

A.22 bye bye fences

Connected to: Sa.2, Sa.3, Sa.5, Sa.6, Sa.7, Sa.8
Similar to: A.17, A.18, A.19 A.20, A.21
Mutual support: A.1, A.12, A.17, A.18, A.19, A.20, A.21, A.23, A.29, A.31
Enables: A.24

Removing fences in urban areas fosters openness, strengthens social interactions, and enhances accessibility, challenging traditional notions of private and public space.

W.6 Shower Tower

Connected to: Sa.2 Sa.3
Similar to: W.7
Enables: W.3
Enabled by: W.1, A.6
Supported by: W.5, W.8

Providing accessible showers in public spaces and key transition points improves public health and enhances overall liveability by promoting hygiene, reducing health risks, and supporting social inclusion.

S.15 Pet Architecture

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Enables: A.36
Enabled by: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.33, A.34, A.35
Supports: A.36

Small architecture can serve to meet shifting needs in the urban fabric and can be plugged in and out of larger structures.

W.1 Water Plug-In

Connected to: Sa.1, Sa.2
Similar to: A.5
Supported by: W.
Enables: F.1, F.2, F.3, F.11, F.12, F.13, F.15, F.16, F.17, W.3, W.6, W.7, W.10,
Enabled by: A.31

Integrating water access points into public building facades enhances urban sustainability, promotes public hydration, and fosters environmental awareness.

A.32 Urban Mining

Connected to: Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Mutual support: A.12, A.17, A.19, A.21, A.22, A.23, A.29, A.31, A.33, A.34, A.35
Supports: A.36, S.15

Reclaiming valuable materials from waste reduce resource consumption, promote sustainability, and create economic opportunities, benefiting both the environment and local communities.

A.36 Housing First

Connected to: Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8
Supported by: S.15, A.32, A.33, A.34, A.35

is a valuable approach that needs to be implemented on large scale to end precarious living permanently.

A.10 Employment for 2

Connected to: Sa.6, Sa.7, Sa.8
Supports: A.11

Requiring companies to hire an additional person with every new employment opportunity helps reintegrate more individuals into the job market, promoting economic inclusion and reducing unemployment.

F.11 Community Farm

Connected to: Sa1, F.7, F.8, F.9
Similar to: F.12, F.13, F.14, F.15, F.16, F.17
Supported by: F.18, A.14, A.27
Enabled by: F.19, A.1, A.2, A.3, A.4, A.14, A.15, A.16
Enables: F.1, F.2, F.3

Community farming helps imorove access to affordable and healthy food, and strengthen communitybonds.

W.7 Mobile Services

Connected to: Sa.2, Sa.3
Similar to: W.6
Enables: W.3
Enabled by: W.1, A.6
Supported by: W.5, W.8

mobile services access public power and water supplies to provide services for hygiene.

F.14 Alternative Food

Connected to: Sa.1, F.7, F.8, F.9
Similar to: F.11, F.12, F.13, F.15, F.16, F.17
Supported by: F.18
Enabled by: F.19, A.1, A.2, A.3, A.4
Enables: F.1, F.2, F.3

Alternative food sources such as mushrooms, algae, insects, and worms offer highly nutritious, space-efficient, and sustainable solutions for food production.

A.43 Open Source

Connected to: Sa.6, Sa.7
Enabled by: A.41

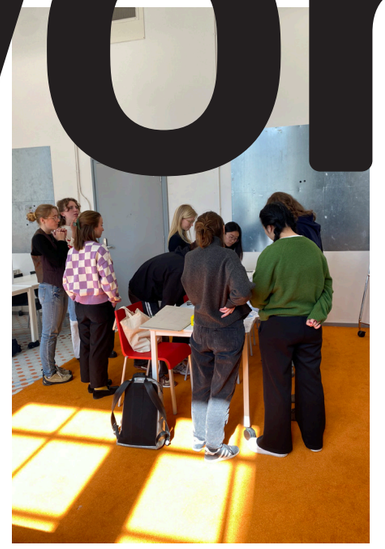
Sharing knowledge, tools, and resources freely leads to improved problem-solving.

A.41 Internet Access

Connected to: Sa.6, Sa.7
Enables: A.42, A.43, A.44, A.45, A.48

Access to the internet is essential for everyone, as it enables to make appointments, seek assistance, and maintain social connections, thereby improving chances of stability and reintegration into society.

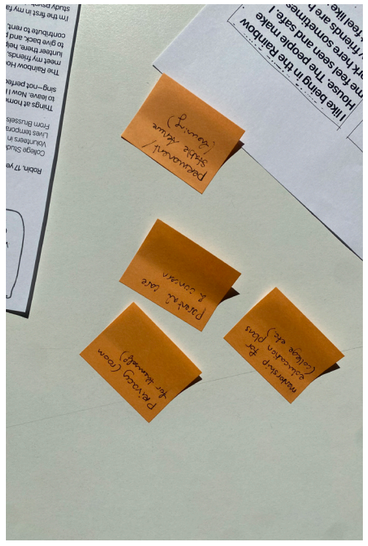
workshop

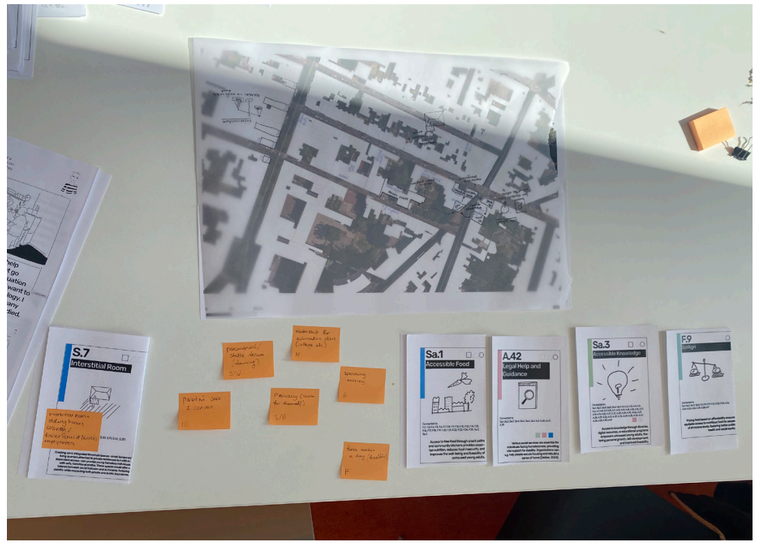


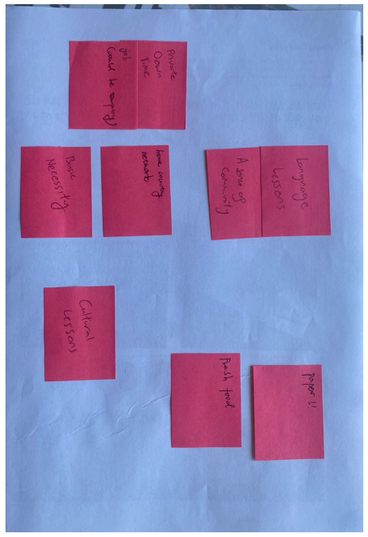
10.04.25
2 hours
5 locations
11 students

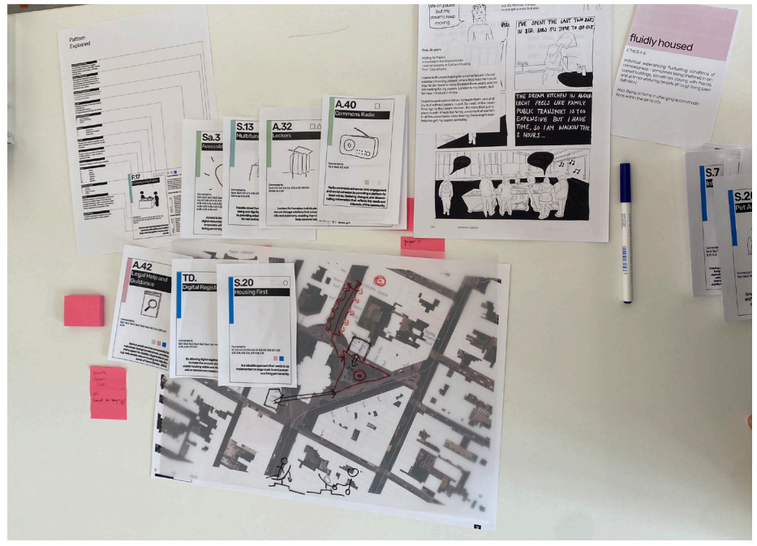
Round 1: Get to know the 4 Personas

Which Needs would you have if you were in the situation of your Persona?
How can you meet these Needs in one/multiple locations? Are Patterns missing?







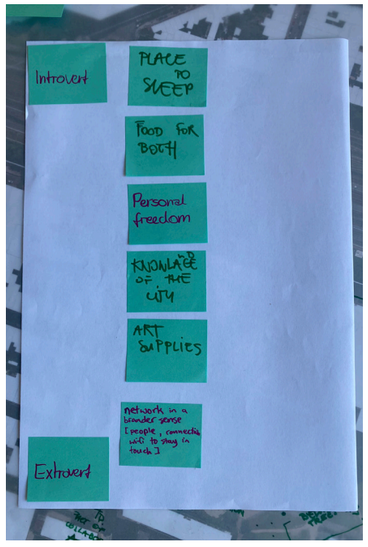


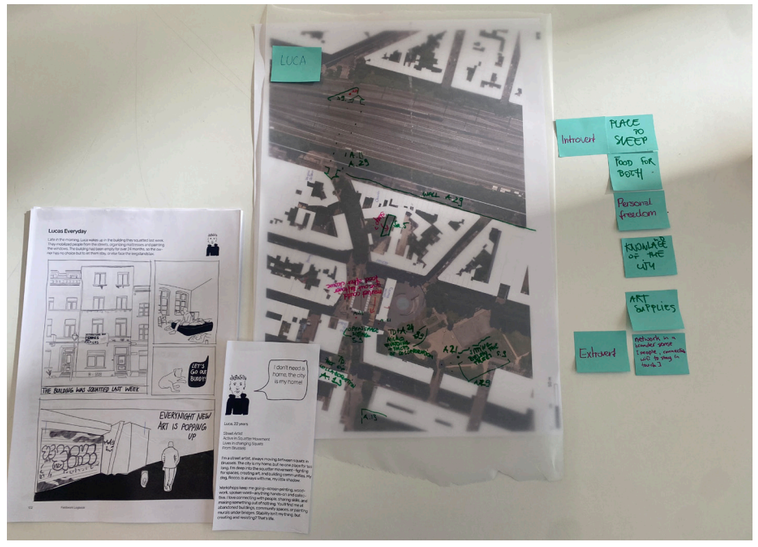
Group Robin: Margot, JP, Carine

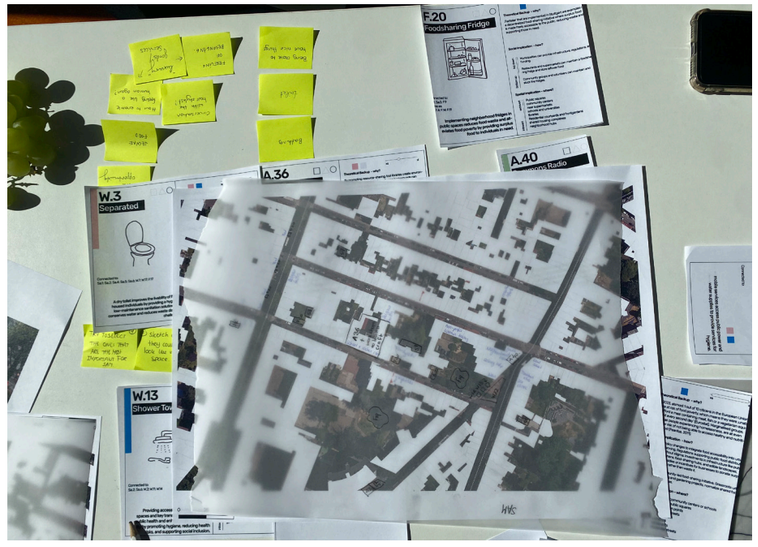
Robin

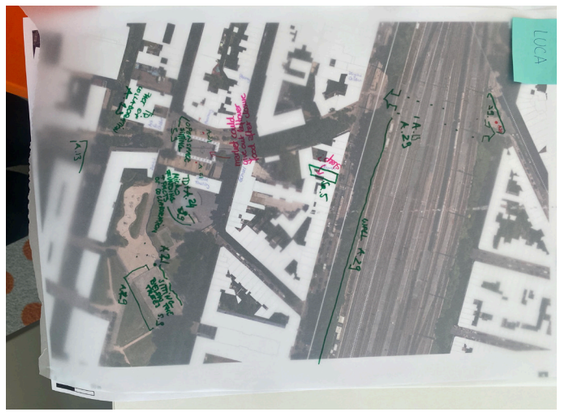
Group Ava: Yi-An, Yiling

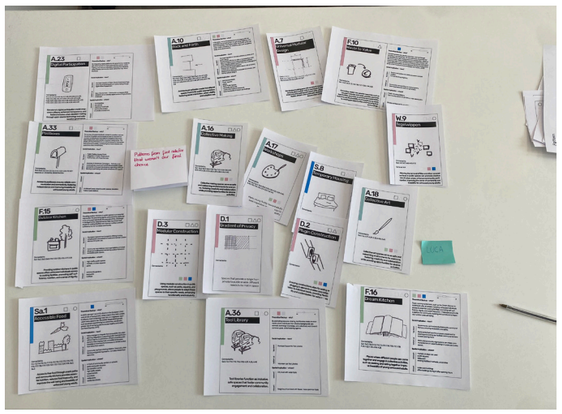
Ava

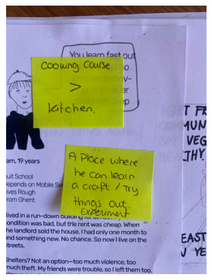












Group Luca: Alina, Jing, Ola

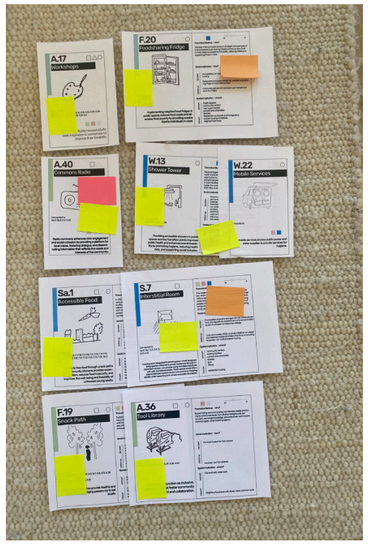
Luca

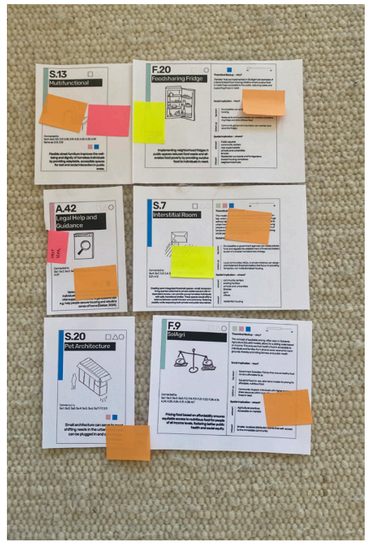
Group Sam: Angela, Feline, Gill

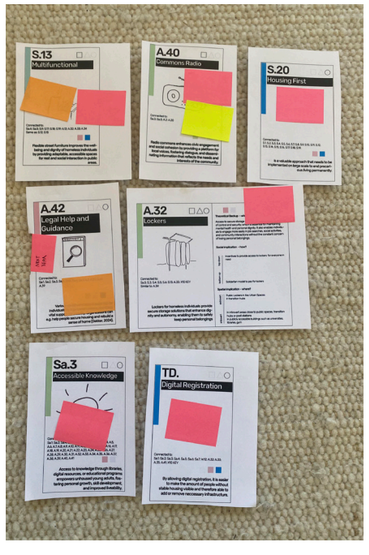
Sam

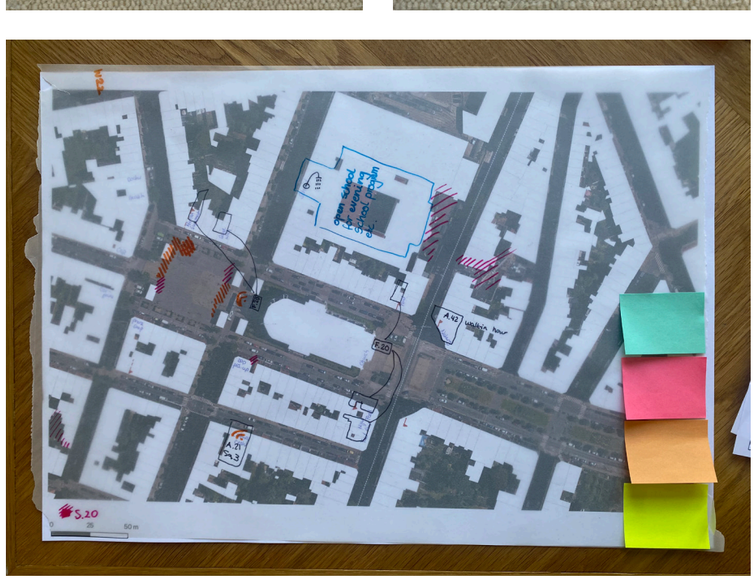
Round 2: Combine your Plans

If your goal would be to improve the liveability of all 4 Personas within the next year, how would you prioritise and combine your designs?

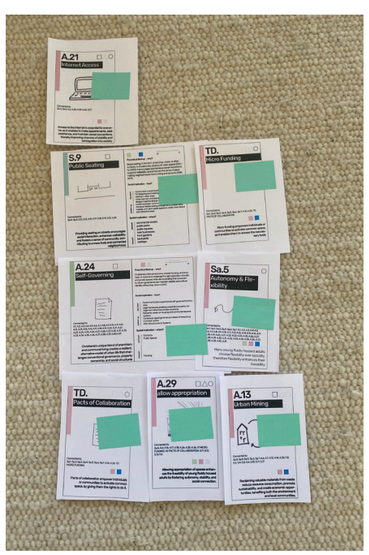


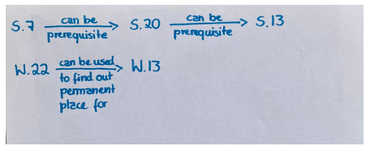


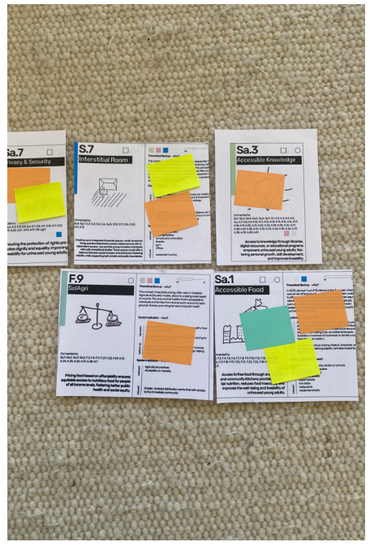


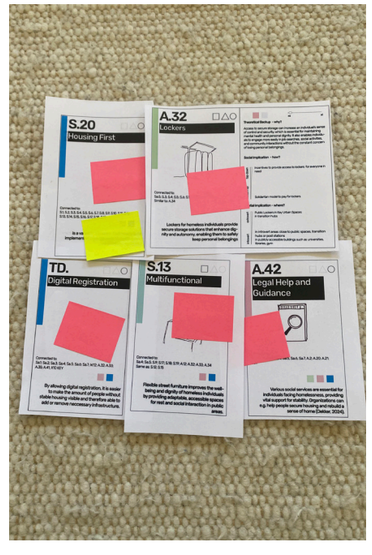


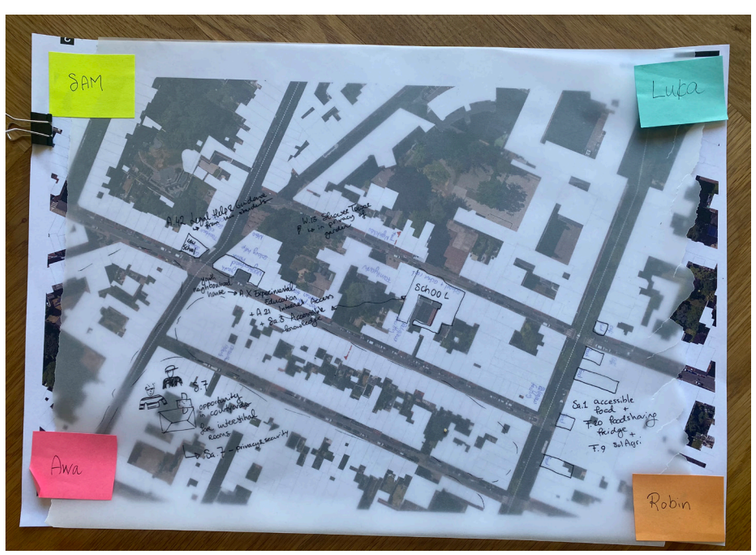
Group 1: Angela, Margot, Yiling, Alina

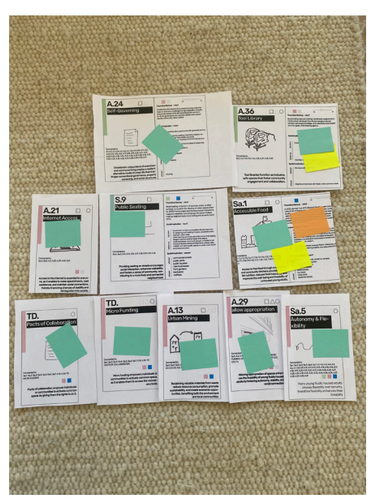












Group 2: Feline, Yi-An, Carine, Ola

feedback

Angela:
- Add Patten ‘Remove Fences’ again (left it out for the workshop
- Define a path how you can achieve a goal am make transparent how it is connected

Alina:
- Some patterns work in steps, difficult to grasp in short time without pattern field
1. step: S.13 multifunctional
2. step: S.20 Pet Architecture
3. step: S.7 Interstitial Room
- liked organisation according to introvert - extrovert

Margot:
- organise different depending on who you are talking to. Which patterns are for government, which onse for urbanists, which ones for fluidly housed? otherwise overwhelming.
- Missing place for free food -> result: divide Dream-kitchen into social restaurant and community kitchen
- you can organise them according tot he time they take to implement rather than scale

Feline:
- add differentiation between physical and societal patterns

removed

Sa.10
Employment

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Employment and learning opportunities contribute to agency and responsibilities and therefore improve liveability.

F.11
Resilience through Agriculture

Connected to:
F.1, F.2, F.3, F.4, F.5, F.6, F.7, F.8, F.9, F.10, F.12, F.13, F.14, F.15, F.16, F.17, F.18, F.19, F.20, F.21, F.22, F.23, F.24, F.25, W.1

Urban farming serves as a vital tool for economic resilience, community revitalization, and food security in times of transition.

xs — xl

Theoretical Backup - why?

In both Post-Industrial Detroit and Post-Soviet Cuba, urban farming has emerged as a crucial strategy for economic survival and community resilience, addressing food insecurity, revitalizing abandoned spaces, and fostering local self-sufficiency in the face of economic and political transformation (Keep Grwoing Detroit, n.d.).

Social implication - how?

top down — Governmental incentives and policies that support these efforts

bottom up — Communities transform vacant spaces into urban farms

Spatial implication - where?

extrovert
- Agricultural fields
- urban farms
- parks
- parking lots

introvert
- urban cracks
- backyards
- rooftops

Sa.8
Money

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Money is the fastest way to meet both short- and long-term needs

Sa.9
Rights

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

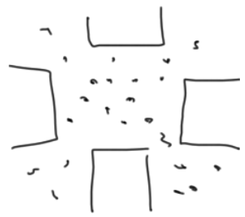
Having the ability to access ones own rights is a key factor in improving liveability.

A.9
Gradient of Privacy

Connected to:
A.1, A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28, A.29, A.30, A.31, A.32,

In public buildings, the facilities such as bathrooms and kitchens need to be outside. This way, it can be made accessible to unhoused individuals.

S.10
Streets for Staying



Connected to:
S.1, S.2, S.3, S.4, S.5, S.6, S.7, S.8, S.9, S.10, S.11, S.12, S.13, S.14, S.15, S.16, S.17, S.18, S.19.

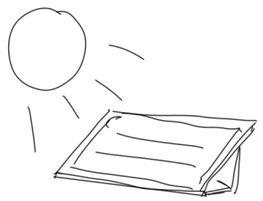
Transforming streets into spaces designed for lingering and socializing, rather than just transit, enhances community interaction, promotes local culture, and contributes to urban sustainability.

Sa.1
Inspiration

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Many young fluidly housed adults seek inspiration to improve their liveability

A.41
PV Modul



Connected to:
A.1, A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28, A.29, A.30, A.31, A.32, A.33, A.34, A.35, A.36, A.37, A.38, A.39, A.40, A.41

PV moduls are a easy and comparably flexible way of collecting energy on site and allow charging mobile devices that are needed for everyday navigation.

S.16
Mattresses

Connected to:
Sa.4; Sa.7; S.3; S.4; S.5; S.6; S.7; S.8
Similar to: S.9; S.14; S.15; S.17; S.18

Sleeping on a mattess improves liveability as it gives support, comfort and a heightened position.

Sa.5
Autonomy

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Supporting autonomy fosters independence and confidence, improving liveability for unhoused young adults.

Sa.2
Rights

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Ensuring the protection of rights promotes dignity and equality, improving liveability for unhoused young adults.

Sa.3
Friendship

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

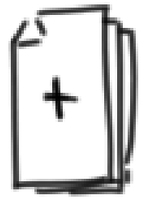
Encouraging friendships provides emotional support and social stability, improving liveability for unhoused young adults.

Sa.6
Self-Esteem

Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Supporting the development of self-esteem boosts confidence and resilience, improving liveability for unhoused young adults.

Sa.7
Responsibilities



Connected to:
Sa.1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Providing opportunities for responsibility fosters a sense of purpose and self-worth, improving liveability for unhoused young adults.

P2

Sa.5 Autonomy

Connected to:
Sa1, Sa2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Supporting autonomy fosters independence and confidence, improving liveability for unhoused young adults.

Sa.3 Sense of Belonging

Connected to:
Sa1, Sa2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Supporting the development of self-esteem boosts confidence and resilience, improving liveability for unhoused young adults.

Sa.4 Flexibility

Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

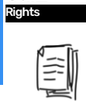
Many young fluidly housed adults choose flexibility over security, therefore flexibility enhances their liveability

Sa.1 Inspiration

Connected to:
Sa1, Sa2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Many young fluidly housed adults seek inspiration to improve their liveability

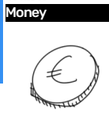
Sa.2 Rights



Connected to:
Sa1, Sa2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Ensuring the protection of rights promotes dignity and equality, improving liveability for unhoused young adults.

Sa.8 Money



Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Money is the fastest way to meet both short- and long-term needs

Sa.12 Legal Help and Guidance

Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, Sa.9, Sa.10, Sa.11

Various social services are essential for individuals facing homelessness, providing vital support for stability. Organizations can e.g. help people secure housing and rebuild a sense of home (Dekker, 2024).

Sa.13 Hygiene

Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, Sa.9, Sa.10, Sa.11, Sa.12, W1, W2

Being able to maintain hygiene is essential for both phisical and mental well-being.

S.2 Security

Connected to:
S1, S.2, S.3, S.4, S.5, S.6, S.7, S.8, S.9, S.10, S.11, S.12, S.13, S.14, S.15, S.16, S.17, S.18, S.19

Ensuring the protection of rights promotes dignity and equality, improving liveability for unhoused young adults.

Sa.3 Sense of Belonging

Connected to:
Sa1, Sa2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Encouraging friendships provides emotional support and social stability, improving liveability for unhoused young adults.

Sa.7 Responsibilities

Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Providing opportunities for responsibility fosters a sense of purpose and self-worth, improving liveability for unhoused young adults.

Sa.10 Address

Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, Sa.9, Sa.11

Having an address ensures reliable communication and connectivity, fostering independence and improving liveability for unhoused young adults.

W.1 Accessible Water

Connected to:
W1, W.2, W.3, W.4, W.5, W.6, W.7, W.8, W.9, W.10, W.11, W.12, W.13, W.14, W.15, W.16, W.17

Access to clean, drinkable water in the city improves health, hydration, and overall well-being, significantly enhancing the liveability of unhoused young adults.

F.1 Accessible Food

Connected to:
F.2, F.3, F.4, F.5, F.6, F.7, F.8, F.9, F.10, F.11, F.12, F.13, F.14, F.15, F.16, F.17, F.18, F.19, F.20, F.21, F.22, F.23, F.24, F.25, W.1

Access to free food through snack paths and community kitchens provides essential nutrition, reduces food insecurity, and improves the well-being and liveability of unhoused young adults.

Sa.9 Rights

Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8

Having the ability to access ones own rights is a key factor in improving liveability.

S.2 Privacy & Security

Connected to:
S1, S.2, S.3, S.4, S.5, S.6, S.7, S.8, S.9, S.10, S.11, S.12, S.13, S.14, S.15, S.16, S.17, S.18, S.19

Ensuring the protection of rights promotes dignity and equality, improving liveability for unhoused young adults.

A.1 Accessible Knowledge

Connected to:
A1, A.2, A.3, A.4, A.5, A.6, A.7, A.8, A.9, A.10, A.11, A.12, A.13, A.14, A.15, A.16, A.17, A.18, A.19, A.20, A.21, A.22, A.23, A.24, A.25, A.26, A.27, A.28, A.29, A.30, A.31, A.32, A.33, A.34, A.35, A.36, A.37, A.38, A.39, A.40, A.41

Access to knowledge through libraries, digital resources, or educational programs empowers unhoused young adults, fostering personal growth, skill development, and improved liveability.

Sa.11 Employment

Connected to:
Sa1, Sa.2, Sa.3, Sa.4, Sa.5, Sa.6, Sa.7, Sa.8, Sa.9, Sa.10

Employment and learning opportunities contribute to agency and responsibilities and therefore improve liveability.

spaces to plug-in

Sa.13 Solidificated Solidarity

transforms temporary support into lasting, tangible community networks, offering reliable resources, mutual aid, and a sense of belonging that fosters stability and empowerment.

Sa.12 On the Ground Activism

empowers to actively engage in creating change, fostering a sense of community, advocacy, and ownership over their environment, which can lead to greater social support and resources.

Sp.1 Existing Facilities

Access to showers, bathrooms, and kitchens within schools and universities provides essential hygiene, comfort, and independence, improving the well-being and liveability of unhoused young adults.

Sp.2 Art Exhibitions

Many young fluidly housed adults seek inspiration in accessible exhibitions, that are free of charge.

Sp.3 Education Facilities

Foster learning, skill-building, and community connections, empowering them toward stability and opportunity.

Sp.4 Community Centers

Access to community centers provides resources, social connections, and support services, improving the well-being and liveability of unhoused young adults.

Sp.5 Supermarket

Supermarkets are often highly accessible and can provide key locations for fluidly housed adults.

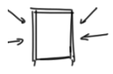
Sp.27 Multifunctional

Play key role in providing adaptable environments that support basic needs, social connections, skill-building, and respite, fostering stability and inclusion.

Sp.28 ‚Waitingspaces'

Offer flexible, low-barrier spaces for temporary use, fostering creativity, community-building, and opportunities for social or economic growth while awaiting long-term transformation.

Sp.7 Spaces of Pivacy



Access to spaces of privacy fosters independence, emotional well-being, and personal dignity, improving the liveability and mental health of unhoused young adults.

Sp.8 Shelter

Access to stable shelter provides safety and security, significantly improving the liveability and well-being of unhoused young adults.

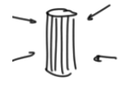
Sp.9 Library

Libraries provide a welcoming space for all, offering access to computers for those without their own, opportunities for reading, and a sense of privacy. (Dekker, 2024)

Sp.10 Healthcare facilities

Healthcare facilities that are accessible and inclusive improve community well-being by providing essential medical services and promoting preventive care.

Sp.11 Changing Room



Providing accessible changing rooms in public spaces offers unhoused individuals the opportunity for privacy, hygiene, and personal dignity, improving their overall well-being and social inclusion.

Sp.12 Sanitary

Providing accessible sanitary rooms in public spaces and key transition points improves public health outcomes and enhances overall liveability.

Sp.13 Lively Places to stay

In bustling areas near key transit hubs like the central station, fluidly housed individuals often find it easier to access money and food.

Sp.14 Public Parks

Parks foster space for temporary stays, relaxation, social gatherings or shelters for different individuals. (Dekker, 2024)

Public Squares

Bustling public places serve as hubs for socializing, leisure, and events, while also offering homeless individuals opportunities for shelter and community engagement. (Dekker, 2024)

Sp.16 Playgrounds

Playgrounds can foster community engagement, social interaction, and recreation, enhancing the sense of belonging and liveability also for unhoused young adults.

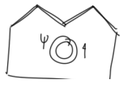
Sp.24 Networks

Enhance mobility, foster social inclusion, and increase access to essential services, thereby reducing stress and promoting stability in daily lives.

Sp.25 Circular Places

Foster inclusivity, continuous resource exchange, and sustainable community support.

Sp.26 Community Kitchens



Provide opportunities for nourishment, skill-building, and communal engagement.

Sp.17 Places of agency

Creating accessible, everyday settings that offer basic amenities and social spaces improves the well-being and stability of unhoused individuals, providing them with agency.

Sp.18 Interstitial Spaces

Interstitial spaces, such as alleys or unused urban areas, can be transformed to foster social interaction and temporary refuge, enhancing liveability and resource accessibility for unhoused young adults.

Sp.19 Backyard

Opening up backyards for community use creates shared spaces for gardening, social interaction, and relaxation, fostering stronger community ties and enhancing urban well-being.

Sp.20 Spaces of Solidarity

Access to spaces of solidarity fosters mutual support, empowerment, and a sense of community, improving the well-being and resilience of unhoused young adults.

Sp.21 Rooftops

Potential to provide safe, open spaces for relaxation, socialization, and respite from urban stress.

Sp.22 Consumption free

Offer inclusive spaces for rest, social connection, and stability without financial barriers.

Sp.23 Social Restaurants

Enhance liveability for fluidly housed young adults by providing accessible spaces for nourishment, connection, and community support.

patterns commons

what else can be commons?

autonomy

Co.38 Charging Stations

Connected to
H.3; N.4; N.5; N.6; N.7; N.9; Co.39; Co.40; Co.41; Co.42; Co.44

Digital tools like smartphones to make appointments, access services, and stay connected are essential for navigating modern life and improving opportunities for stability.

Co.39 PV Modul

Connected to
H.3; N.4; N.5; N.6; N.7; N.9; Co.38; Co.40; Co.41; Co.42; Co.44

PV moduls are a easy and comparably flexible way of collecting energy on site and allow charging mobile devices that are needed for everyday navigation.

Co.40 Commons Radio

Connected to
H.3; N.4; N.5; N.6; N.7; N.9; Co.38; Co.39; Co.41; Co.42; Co.44

Radio commons enhances civic engagement and social cohesion by providing a platform for local voices, fostering dialogue, and disseminating information that reflects the needs and interests of the community.

Co.41 Open Source

Connected to
H.3; N.4; N.5; N.6; N.7; N.9; Co.38; Co.39; Co.41; Co.42; Co.44

Sharing knowledge, tools, and resources freely leads to improved problem-solving.

Co.42 Internet Access

Connected to
H.3; N.4; N.5; N.6; N.7; N.9; Co.38; Co.39; Co.40; Co.41; Co.44

Access to the internet is essential for everyone, as it enables to make appointments, seek assistance, and maintain social connections, thereby improving chances of stability and reintegration into society.

Co.43 Collective Art

Connected to
H.2; H.3; N.4; N.5; N.7; N.9; Co.32; Co.34; Co.44

Collective art spaces serve as safe and welcoming environments for everyone, fostering creativity and collaboration while providing opportunities for diverse activities.

Co.44 Accessible Knowledge

Connected to
H.2; H.3; N.4; N.5; N.7; N.9; Co.32; Co.34; Co.43

Access to knowledge through libraries, digital resources, or educational programs empowers unhoused young adults, fostering personal growth, skill development, and improved liveability.

inspiration/work

Co.27 Ticket for 2

Connected to
H.3; N.5; N.9; J.1

Paying for public transport based on affordability ensures that unhoused individuals can access free tickets, promoting mobility, inclusion, and equal access to city resources.

Co.28 Outdoor Playgrounds

Connected to
H.2; N.5; N.6

y ensuring that public facilities, such as playgrounds, bathrooms, or kitchens, are located on the outside of buildings, access can be maintained outside of regular opening hours, improving accessibility and enhancing the liveability of unhoused young adults.

Co.29 Social Factory

Connected to
H.3; N.4; N.7; Co.30; C.2; C.2a; C.3

Employment and learning opportunities that are accessible to everyone, foster greater inclusivity, skill development, and social mobility, ultimately enhancing individual and community well-being. (Roetz)

Co.30 Employment for 2

Connected to
H.3; N.4; N.7; Co.29; C.2; C.2a; C.3

Requiring companies to hire an additional person with every new employment opportunity helps reintegrate more individuals into the job market, promoting economic inclusion and reducing unemployment.

Co.32 Collective Making

Connected to
H.2; H.3; N.4; N.5; N.7; N.9; Co.34; Co.43; Co.44

Collective making spaces serve as safe and welcoming environments for everyone, fostering creativity and collaboration while providing opportunities for diverse activities.

Co.33 Biobased Materials

Connected to
H.1; Co.36; Co.37

Using biobased materials helps reduce the stain on the climate while offering flexible building materials for needes amenities.

Co.34 Tool Library

Connected to
H.3; N.4; N.5; N.6; N.7; N.8; Co.32

Tool libraries function as inclusive, safe spaces that foster community engagement and collaboration.

Co.35 Urban Mining

Connected to
H.3; N.4; N.5; N.6; N.7; N.8; Co.32; Co.34; Co.36; Co.37

Reclaiming valuable materials from waste reduce resource consumption, promote sustainability, and create economic opportunities, benefiting both the environment and local communities.

Co.36 Collection Pockets

Connected to
H.3; N.4; N.5; N.6; N.7; N.8; Co.32; Co.34; Co.35; Co.37

Collection pockets integrated into public spaces or systems encourage proper disposal and organization of waste, promoting recycling, reducing litter, and supporting sustainability efforts.

Co.37 Waste to Value

Connected to
H.3; N.4; N.5; N.6; N.7; N.8; Co.32; Co.34; Co.35; Co.36

Converting waste into valuable resources, such as recycled materials, provides economic opportunities, promotes environmental sustainability, and enhances the liveability of unhoused young adults by creating job opportunities and improving their surroundings.

water

Co.15 Shower for 2

Connected to
H.1; N.1; Sa.6; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.25; Co.26

Allocating showers in stations and other central points benefits both digital nomads and unhoused individuals by providing access to essential hygiene facilities in public spaces.

Co.16 Water Fountains

Connected to
H.1; N.1; Sa.6; Co.15; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.25; Co.26

Providing accessible freshwater in public spaces and key transition points improves public health outcomes and enhances overall liveability by reducing the risk of dehydration.

Co.17 Shit!

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.18; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.25; Co.26

Providing accessible toilets in public spaces and key transition points improves public health outcomes and enhances overall liveability.

Co.18 Shower Tower

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.25; Co.26

Providing accessible showers in public spaces and key transition points improves public health and enhances overall liveability by promoting hygiene, reducing health risks, and supporting social inclusion.

Co.19 Separated

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.20; Co.21; Co.22; Co.23; Co.24; Co.25; Co.26

Separating urine and feces in toilets improves the potential for their reuse in agriculture.

Co.20 Tegelwippen

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.21; Co.22; Co.23; Co.24; Co.25; Co.26

Allowing the removal of tiles and other covered surfaces in public spaces can promote creative use of urban areas, enhance community participation, improving the sense of ownership and liveability for unhoused young adults.

Co.21 Open Pathway

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.22; Co.23; Co.24; Co.25; Co.26

By replacing sealed public spaces with open or green materials, the city becomes more adaptive to climate change and urban health improves.

Co.22 Native Flora & Fauna

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.23; Co.24; Co.25; Co.26

Integrating native flora and fauna into urban spaces enhances biodiversity, supports environmental sustainability, and creates a sense of connection to nature, improving the well-being and liveability of communities.

Co.23 Waterbound Gravel

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.24; Co.25; Co.26

Using waterbound gravel in urban design helps with drainage, reduces flood risks, and creates more sustainable, permeable surfaces, improving the environmental quality and resilience of public spaces.

Co.24 Out in the woods

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.23; Co.25; Co.26

Collectively managed forests provide local building materials and strengthen communities.

Co.25 Cooling Network 1000m grid?

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.26

By implementing a continuous network of green-blue infrastructure, including cooling areas, cities can adapt to climate change, reduce heat stress, and improve urban health, enhancing the overall liveability and well-being of all residents.

Co.26 Watermanagement

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.25; Co.37

Closing the water cycle by reusing greywater and capturing rainwater is crucial to promote sustainability and conserve vital resources.

food

Co.5 Meal for 2

Connected to
H.1; N.1; Sa.5; Sa.15; Co.6; Co.7; Co.8; Co.9; Co.10; Co.11; Co.12; Co.13; Co.14; Co.45

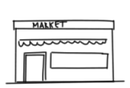
Restaurants offering a „buy one, give one" meal program help people in need by providing meals, fostering community support and reducing food insecurity.

Co.6 Neighbourhood Discount

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.7; Co.8; Co.9; Co.10; Co.11; Co.12; Co.13; Co.14; Co.45

Offering neighborhood discounts on food improves access to nutritious meals for local residents, support community cohesion, and reduce food insecurity, particularly for low-income and unhoused individuals.

Co.7 Cooperative Supermarket



Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.8; Co.9; Co.10; Co.11; Co.12; Co.13; Co.14; Co.45

Supermarkets that offer high-quality products at affordable prices promote accessibility to healthier options.

Co.8 Foodsharing Fridge

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.9; Co.10; Co.11; Co.12; Co.13; Co.14

Implementing neighborhood fridges in public spaces reduces food waste and alleviates food poverty by providing surplus food to individuals in need.

Co.45 Dream Kitchen

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.9; Co.10; Co.11; Co.12; Co.13;

Places where different people can come together and engage in collective activities, such as cooking and eating together improve liveability of young unhoused adults.

Co.9 Community Farm

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.10; Co.11; Co.12; Co.13;

Community farming helps imorove access to affordable and healthy food, and strengthen communybonds.

Co.10 Park to Farm

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.9; Co.11; Co.12; Co.13; Co.14; Co.45

Transforming parks into farms meets local food needs, promote sustainability, and enhance food security in urban areas, fostering resilience and community self-sufficiency.

Co.11 Snack Path

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.9; Co.10; Co.12; Co.13; Co.14; Co.45

Fruit trees and bushes provide healthy and local food, encouraging passers-by to eat locally.

Co.12 Herbal Recreation

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.9; Co.10; Co.11; Co.13; Co.14; Co.45

Incorporating herbal gardens or spaces for growing medicinal plants in public areas promotes relaxation, mental well-being, and community engagement, enhancing the overall health and liveability of urban spaces.

Co.13 Solagri

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.9; Co.10; Co.11; Co.12; Co.14; Co.45

Pricing food based on affordability ensures that people with lower incomes have access to the same nutritious food as those with higher incomes, promoting equity and better public health.

Co.14 Waste' Reataurant

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.9; Co.10; Co.11; Co.12; Co.13; Co.37; Co.45

A Waste Restaurant, which repurposes surplus or discarded food to create meals, reduces food waste, promotes sustainability, and provides affordable, nutritious meals, while raising awareness about the environmental impact of food consumption.

human — planet

- security
- sense of belonging
- autonomy & agency

first pattern conclusions

extrovert

introvert

D.1 Plugin Construction

Sa.16 Bench with Storage

Sa.18 Storage Box

Sa.21 Shield from Wind

Sa.22 Shield from Rain

Sa.20 Shield from Sun

Sa.19 Shield from Eyes

Sa.17 Climbing Panels

Sa.23 Mattresses

Connected to
H.1; Sa.11; Sa.24; S.26; S.27

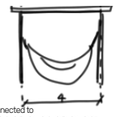
Sleeping on a mattess improves liveability as it gives support, comfort and a heightened position.

D.2a 2,5m Benches

D.2b Add Backrest

D.2c Armrest at the end

D.3a 4 meter grid



Connected to
S.1; S.2; S.3; D.1; D.2; D.3; D.1; D.2a; D.2b; D.2c; D.3b

Placing pillars 3,5 to 4 meters apart provides the necessary spacing for hanging hammocks, improving comfort and livability for young unhoused individuals by offering a portable, elevated, and stable resting option.

Co.8 Foodsharing Fridge

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6;

Sa.9 Lockers

Sa.10 Postboxes

Connected to
H.3; N.1; N.2; Sa.7; Sa.9; Sa.16; Sa. 17; Sa.18

Access to postboxes ensures reliable communication and connectivity, fostering independence and improving liveability for unhoused young adults.

Co.16 Water Fountains

Co.7 Cooperative Supermarket

Co.45 Dream Kitchen

Co.34 Tool Library

Connected to
H.3; N.4; N.5; N.6; N.7; N.8; Co.32

Sa.24 Temporary Housing

Connected to
H.1; Sa.11; Sa.23; S.26; S.27

Temporary housing provides essential support for individuals who prefer a flexible lifestyle, offering a safe and stable retreat when needed while accommodating their living preferences.

Sa.3 Workshops

Connected to
H.2; J.1; N.3; N.8; Co.9; Co.32; Co.24; Sa.1; Sa.2

Many young fluidly housed adults seek inspiration in workshops to improve their liveability

Co.36 Collection Pockets

Connected to
H.3; N.4; N.5; N.6; N.7; N.8; Co.32; Co.34; Co.35; Co.37

Collection pockets integrated into public spaces or systems encourage proper disposal and organization of waste, promoting recycling, reducing litter, and supporting sustainability efforts.

Sa.24 Temporary Housing

Sa.11 Shelter

Connected to
H1; N.2; D3a; D3b; D3c; Sa.17; Sa.18; Sa.19; Sa20; Sa21; Sa.22; Sa.23; Sa.24; Sa.25

Access to stable shelter provides safety and security, significantly improving the liveability and well-being of unhoused young adults.

pattern field indicating scales needed

security
sense of belonging
autonomy & agency

Sa.15 Outdoor Kitchen

Co.9 Community Farm

Co.10 Park to Farm

Co.12 Herbal Recreation

Connected to
H.1; N.1; Sa.5; Sa.15; Co.5; Co.6; Co.7; Co.8; Co.9; Co.10; Co.11; Co.13; Co.14; Co.45

Incorporating herbal gardens or spaces for growing medicinal plants in public areas promotes relaxation, mental well-being, and community engagement, enhancing the overall health and liveability of urban spaces.

Co.20 Tegelwippen

Co.23 Waterbound Gravel

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.24; Co.25; Co.26

Using waterbound gravel in urban design helps with drainage, reduces flood risks, and creates more sustainable, permeable surfaces, improving the environmental quality and resilience of public spaces.

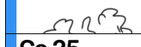
Co.11 Snack Path

Co.21 Open Pathway

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.22; Co.23; Co.24; Co.25; Co.26

By replacing sealed public spaces with open or green materials, the city becomes more adaptive to climate change and urban health improves.

Co.24 Out in the woods



Co.25 Cooling Network 1000m grid?

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.18; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.26

By implementing a continuous network of green-blue infrastructure, including cooling areas, cities can adapt to climate change, reduce heat stress, and improve urban health, enhancing the overall liveability and well-being of all residents.

Co.17 Shit!

Co.18 Shower Tower

Connected to
H.1; N.1; Sa.6; Co.15; Co.16; Co.17; Co.19; Co.20; Co.21; Co.22; Co.23; Co.24; Co.25; Co.26

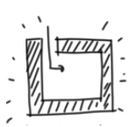
Providing accessible showers in public spaces and key transition points improves public health and enhances overall liveability by promoting hygiene, reducing health risks, and supporting social inclusion.

furniture + materials

interstitial spaces

buildings

backyards



'waitingspaces'

public spaces

streets

street-network

blue green infrastructure

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