

Social building: a future for yesterday, today and tomorrow

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Shared and public local mobility services, autonomous and otherwise.



Super-local microgrids, with renewable energy, battery storage and shared ownership.



Cooperative design, build and ownership of dense and diverse neighbourhoods.



Circular, natural materials for buildings, products and infrastructure, with local loops.



Everyday services via active transport, reduced & fossil-free long-range connections.



Privacy-preserving yet public decision-making platforms, with discourse and data.

Tech Envisions the Ultimate Start-Up: An Entire City

Silicon Valley wants to save cities. What could go wrong?



Software is eating the world.

But this means the key issues in contemporary cities are not technical—but concern ownership, dynamics, identity, culture, social fabric, economics, ethics, politics...

**We are taking 21st century challenges,
evaluating them with 20th century
ideas, and responding with 19th
century tools.**

**Madeleine Albright
Former US Secretary of State
2013**



Policymaking



Make the climate Greta again



Do transportation network companies decrease or increase congestion?, *Science Advances*, May 2019

Smart city tech makes things worse, without inventive, capable, responsible and engaged governance.

Uber and Lyft increased traffic delays in San Francisco by 40 percent



TECHNOLOGY 8 May 2019



Going nowhere

Getty Images

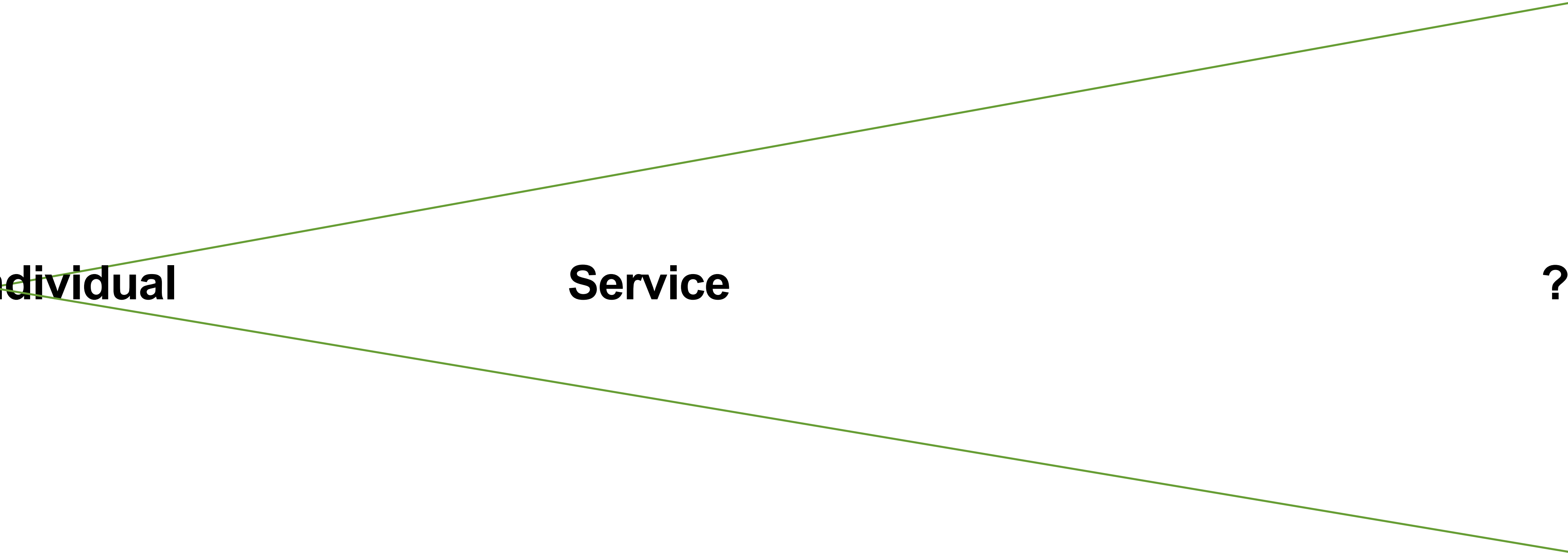
By **Chelsea Whyte**

Uber and Lyft drivers are on strike to demand regulated fares and [livable wages](#), in the lead-up to Uber's initial public offering on the stock exchange on 10 May. Now there is some more bad news for these services: they haven't lived up to claims of reducing

Individual

Service

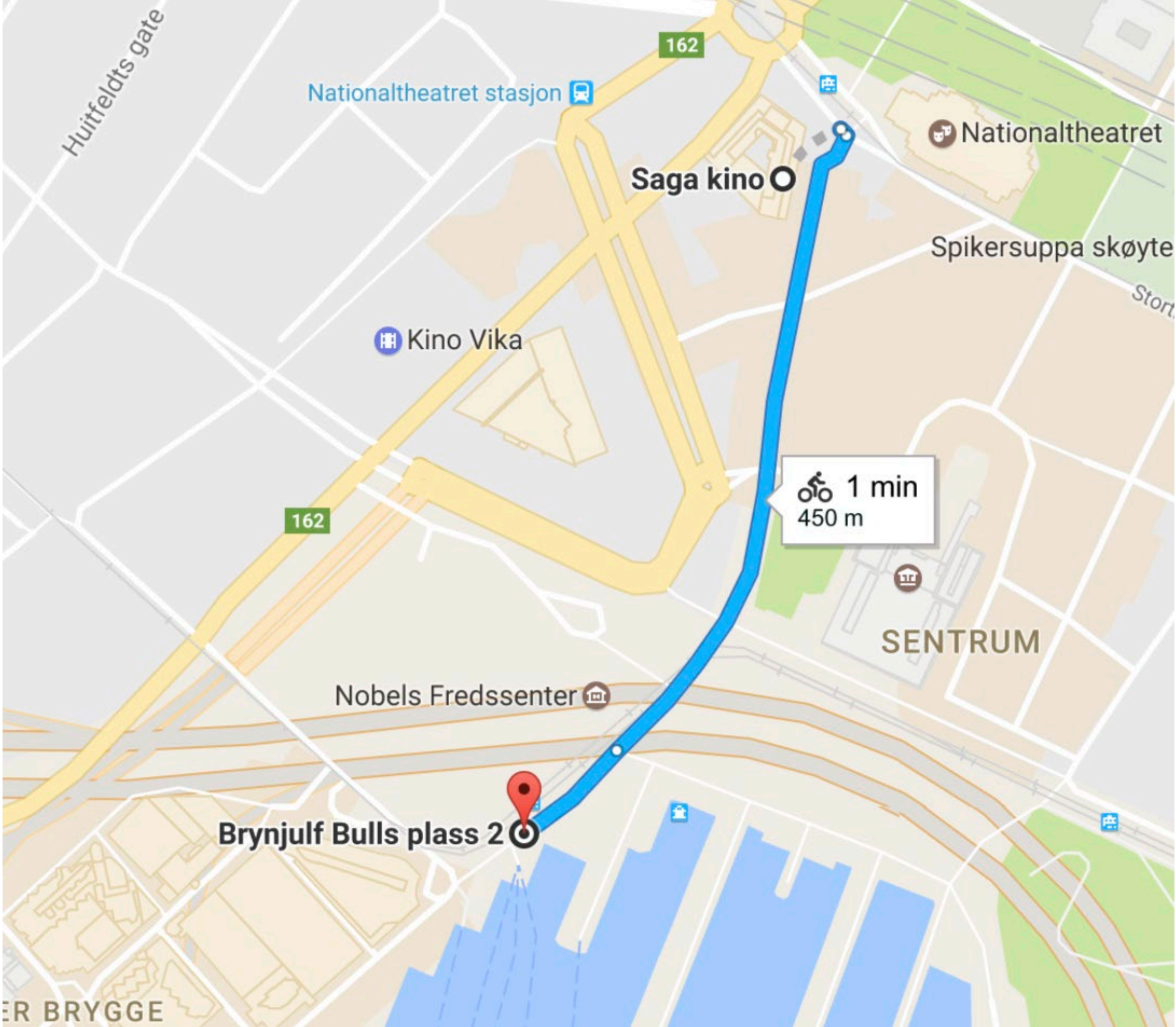
?







Oslo Bysyssel
2015



Oslo Bysykkel
2015—



marit_elisabeth_j • [Follow](#)

Oslo, Norway

marit_elisabeth_j Min egen bysykkel!
[#oslobysykkel](#) [#bysykkel](#) [#norway](#) [#sykkel](#)



40 likes

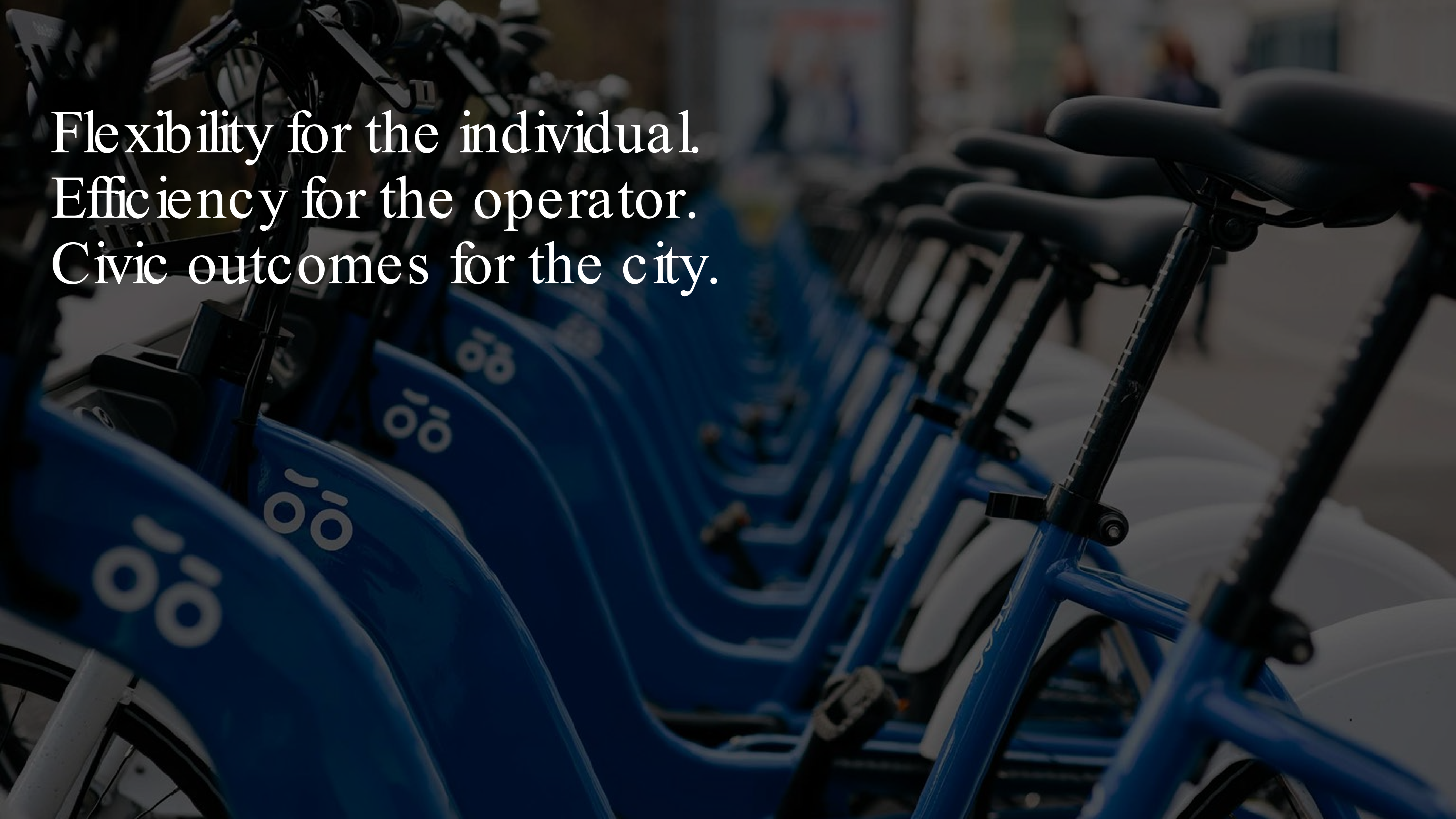
MAY 21

Add a comment...



Oslo Bysykel
2015



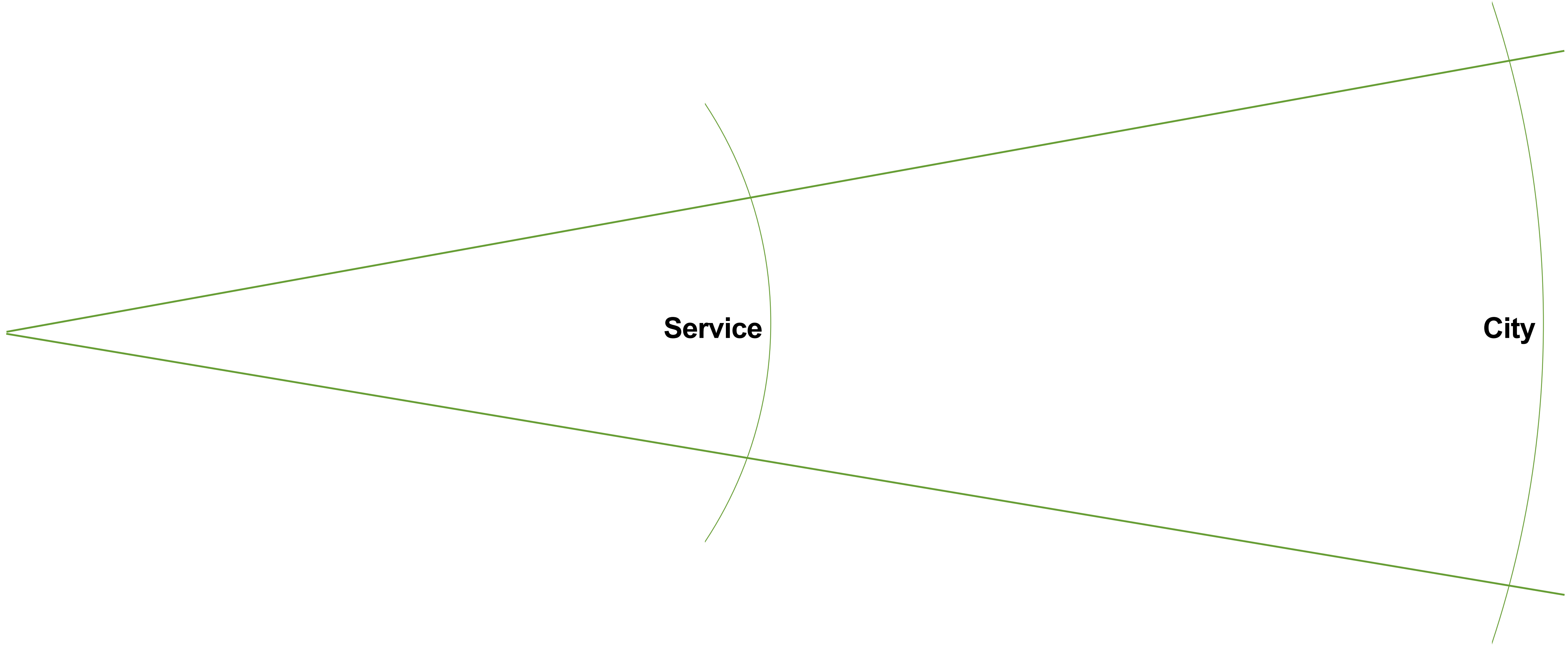
A row of blue bicycles parked in a station, with a hand on the handlebars of the foreground bike. The bicycles are arranged in a line, receding into the background. The foreground bike is in sharp focus, showing the handlebars, seat, and frame. The background is blurred, showing more bicycles and a person in the distance. The overall tone is dark and moody.

Flexibility for the individual.
Efficiency for the operator.
Civic outcomes for the city.

Citizen

Service

City



Urban Village Project / SPACE10, 2019



Urban Village Project / SPACE10, 2019



Nightingale 1 / Breathe Architects, 2017–

Melbourne baugruppen



Moriyama House, Ryue Nishizawa



BIGyard, Berlin / Zanderroth Architekten

Baugruppen



Evening draw for Space-S (2015—)

Co-design



Kalkbreit housing cooperative, Zürich

Coöperative model





More Than Housing, Zürich

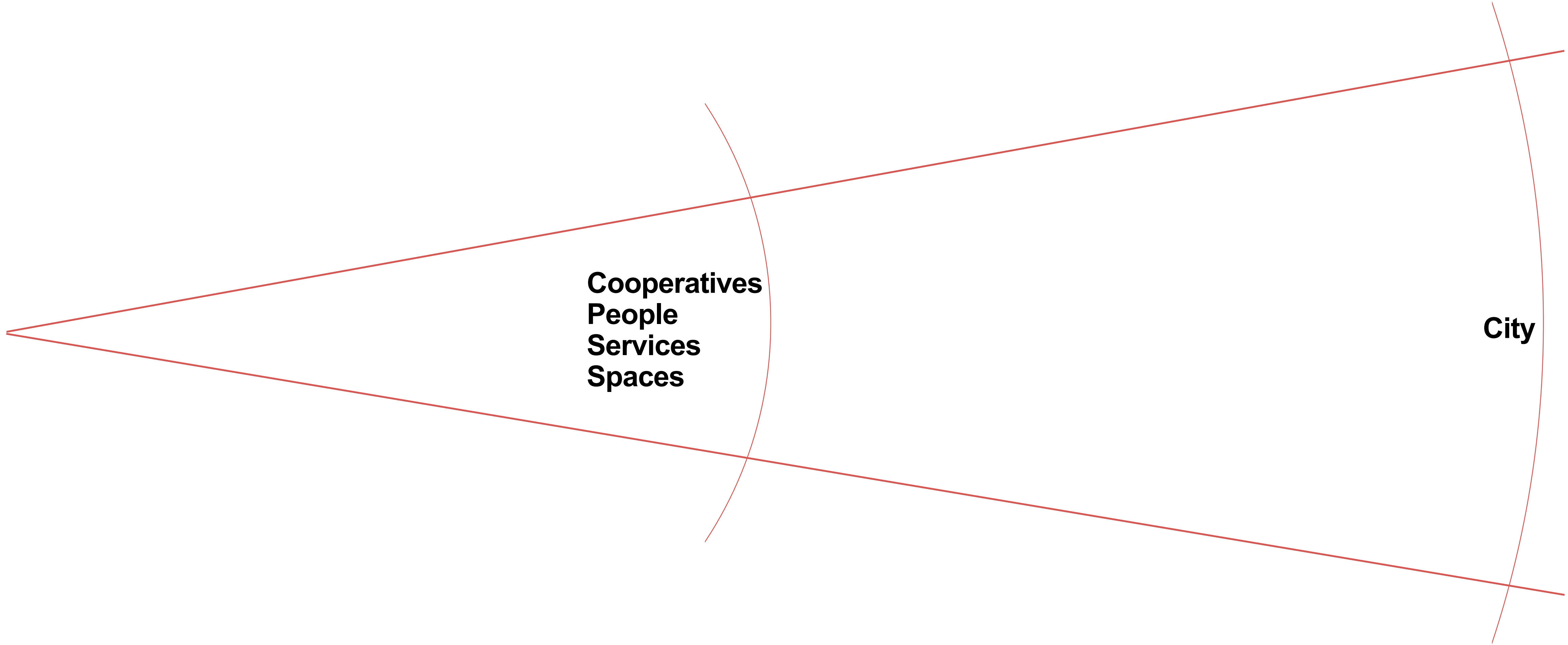
Cooperative housing district

50 cooperatives.
13 buildings.
400 units.
35 retail + community units.
No public subsidy.
Rent 20-30% below market levels.
Nearly car-free.
Shared daily infrastructure.
2000 Watt society.
45% energy generated on-site.
4 hectares held back for future.

Citizen

**Cooperatives
People
Services
Spaces**

City



Sweden: *The Middle Way*, Marquis Childs (1936)

SWEDEN

THE MIDDLE WAY

BY MARQUIS W. CHILDS

CARLETON COLLEGE
NORTHFIELD, MINN.

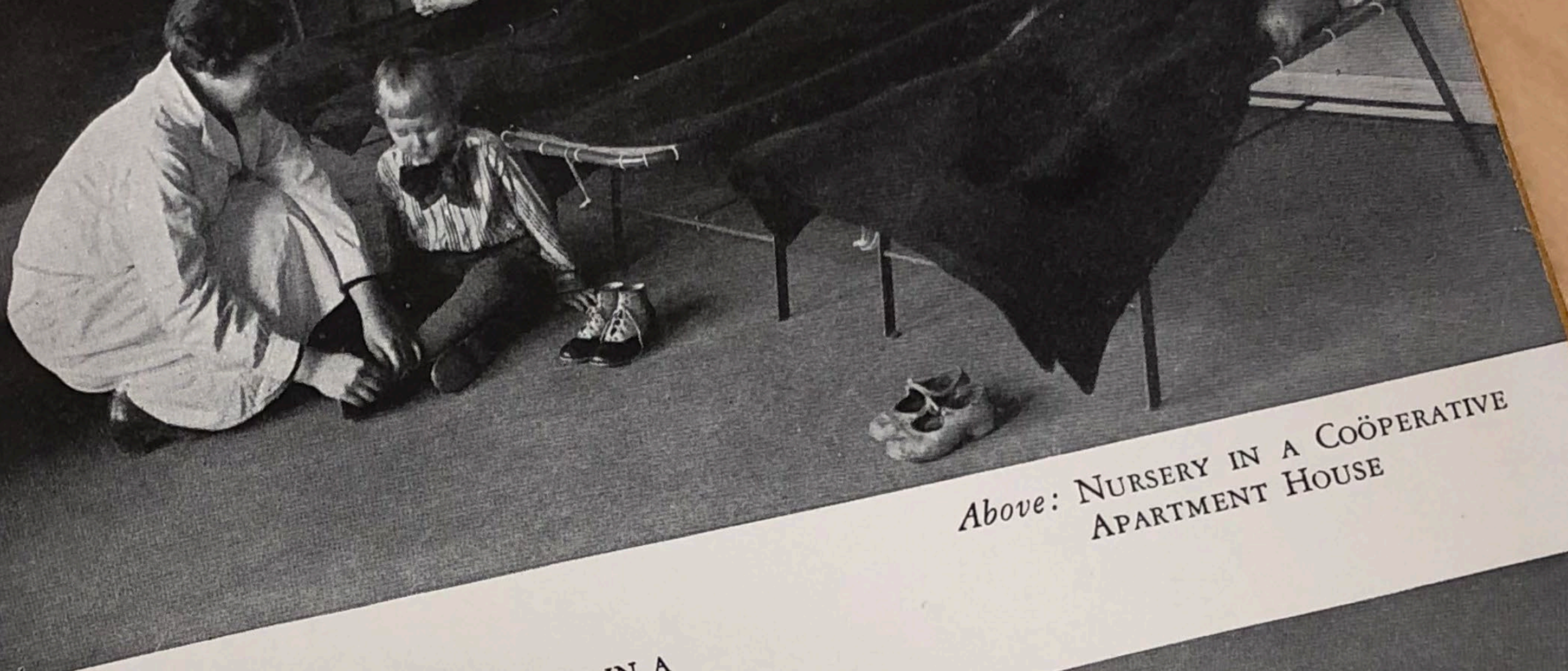
NEW HAVEN · YALE UNIVERSITY PRESS · 1936

98890

Sweden: The Middle Way. Marcus Childs (1936)

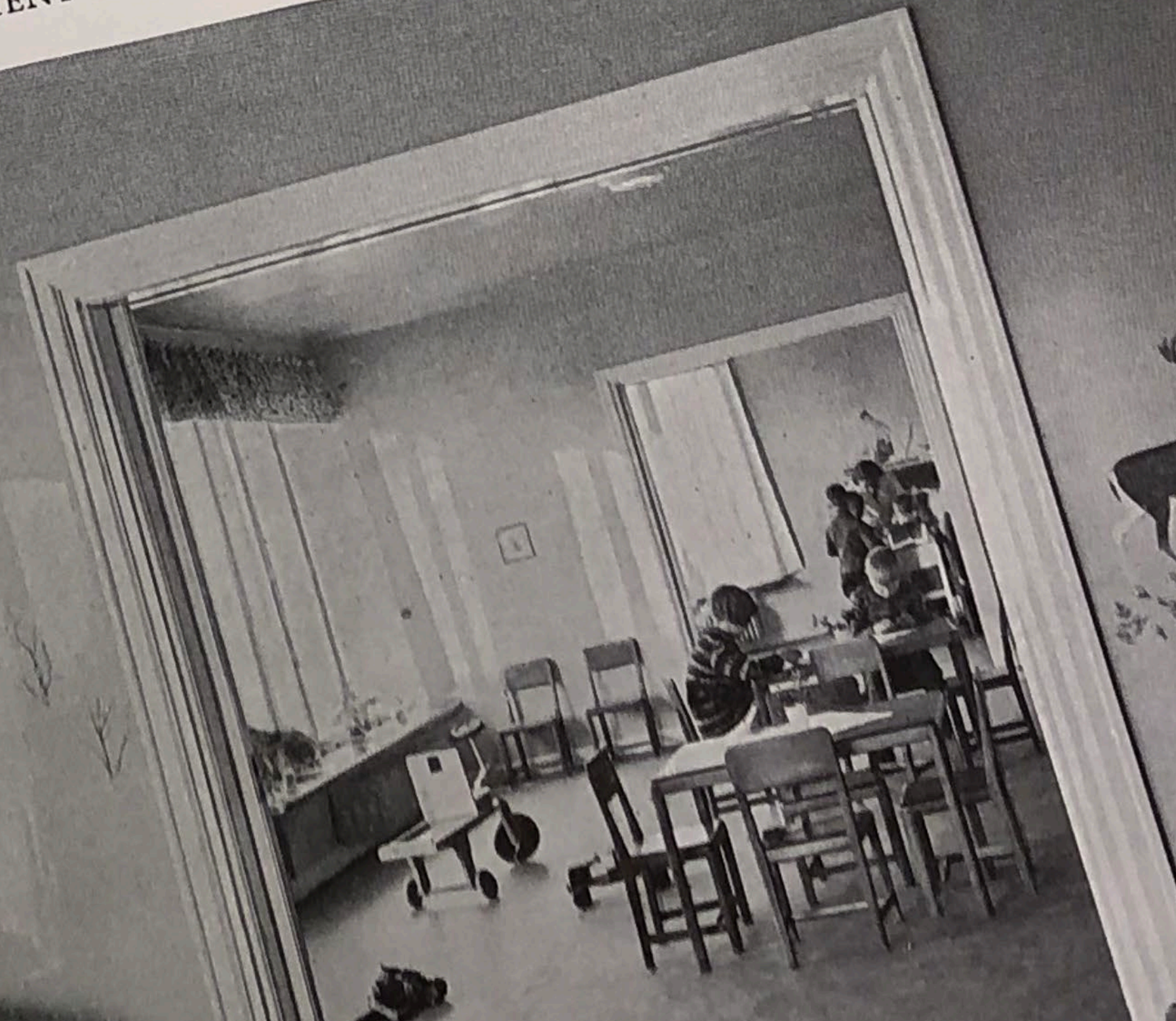
When the wooden wall sections are usually required. Experts are also required for the installation of electric plumbing fixtures and to do the sheet metal work. As the work progresses through the numerous small tasks fall to the lot of the instructor, who has checked up on the weather stripping, with a paintbrush too, does her share. At last the head of the house- The instructor, who has checked up on the weather stripping, has gone forward, all finished. The weather stripping is close to the head of the house. The weather stripping is close to the head of the house.

The "Coöperative House" has taken shape in a few short days of the family that will occupy it. Type No. 1, it contains in the basement a laundry equipment, two closets for food storage, a coal bin; on the first floor is a hall, kitchen and on the second floor, hall, closet, and large workshop of generous proportions; there are two sizes next in order contain on the first floor, and the second floor has two sizes next in order contain of one. The two sizes next in order contain of rooms but they are a little larger. effected by installing the bathroom fixtures in such a way as to justify this minor inconvenience. is sufficient to justify this minor inconvenience. it must be remembered, in any sense jerry-built they are completed, they comply in every respect with the plan is the fact that during the construction, at the sheriff's sale, and they comply with the strict building laws. Director of the



Above: NURSERY IN A COÖPERATIVE APARTMENT HOUSE

Below: CHILDREN'S PLAYROOM IN A COÖPERATIVE APARTMENT HOUSE



has shown how much the Colony Gardens meant to Swedish workers. They provided an interval of peace and quiet; but, more than that, a sense of independence and achievement that a man could not get from a machine, went with these garden plots.

They were in a sense a preparation for the "Magic House" project that Stockholm started in 1926. The city's "Magic House" has lived up to its name. It is a pre-fabricated house sold on the basis of the cost of the materials, and assembled with the labor of the purchaser. In less than ten years the "Magic House" plan has provided comfortable suburban homes for more than 50,000 people, and at a lower cost than any other housing scheme in Europe.

The prospective purchaser of one of the city's "Magic Houses" goes to the Small House Bureau in the Town Hall and there fills out a lengthy application blank. His name is put upon a waiting list, for "Magic Houses" are so popular that the bureau is able to obtain the ground only slowly.

homes have garages, for the
glassed-in sun porches have been added. Often through the
special skill of the builder a substantial saving on labor costs
makes additional improvements possible.

→ When the contract is finally signed, there is tremendous excitement in the family of the prospective home owner. They have leased the lot and made a first payment on the materials for a house, and now it is up to them to build it. Early and late the whole family works, and brothers and cousins and uncles volunteer their services, somewhat after the fashion of a middle-western barn-raising. First the cellar must be dug, following the careful instructions contained in the handbook provided by the city. If difficulties, such as rock requiring blasting, are encountered, the city takes over and prorates the added cost among all the houses, so that no one individual is penalized. When the excavation is completed, the aerated blocks for construction of the basement wall are delivered and the prospective householder turns mason, under the supervision of inspectors employed by the city. Because the basement is used for workroom and garage, great

...individual is penalized. cost
...are completed, the aërated blocks for con-
...basement wall are delivered and the prospec-
...mason, under the supervision of inspec-
...turns by the city. Because the basement is used for
...employed by the city. Because the basement is used for
...storage, bathroom, laundry, workroom, and garage, great
...care is taken in waterproofing the foundation.

On every side "Magic Houses" are going up. The head of
the household comes direct from his work to the site of the
new house. The older children may be there already, prepared
to help or merely to become acquainted with the new neigh-
borhood. In the late afternoon the wife arrives with a hamper
of lunch and the whole family has a picnic supper on the site
where the house will rise. Nearby are other similar groups, and
children and grownups strike up early friendships with future
neighbors.

The joists and the flooring arrive from the factory all cut

houses equipped with few modern conveniences. As it first took shape, made by housing experts for the city of the so-called "jungle suburbs" surrounding other European capitals caused a complete change in this plan. The "Magic House," the city decided, should contain every modern convenience, including electricity, bath, toilet, central heating system, gas stove, sewer connection, and city water. It was to be a "Magic House" not only in the swift facility with which it would go up but in the ease of living which the occupants of the finished house would enjoy.

When the city has received the initial down payment of \$80 from the prospective home owner, there is established in his favor by the city a credit account sufficient to cover the materials above the amount of his cash selected and

tion and glazing work. As the work progresses through the summer and early fall, numerous small tasks fall to the lot of the children. The wife, too, does her share, with a paintbrush or even a hammer and a saw. At last the head of the household is on top of the roof laying the tiles. The weather stripping is all in place. The instructor, who has checked up on every detail as construction has gone forward, will come only once more. The kitchen cabinet, closet, and shelves, all finished at the factory, have been installed and a housewarming is close at hand. The "Magic House" has taken shape in a few short months under the eyes of the family that will occupy it.

If it is a house of Type No. 1, it contains in the basement a bath and toilet, laundry equipment, two closets for food storage, furnace, and coal bin; on the first floor is a hall, kitchen and living room; and on the second floor, hall, kitchen bedroom. In the next size T

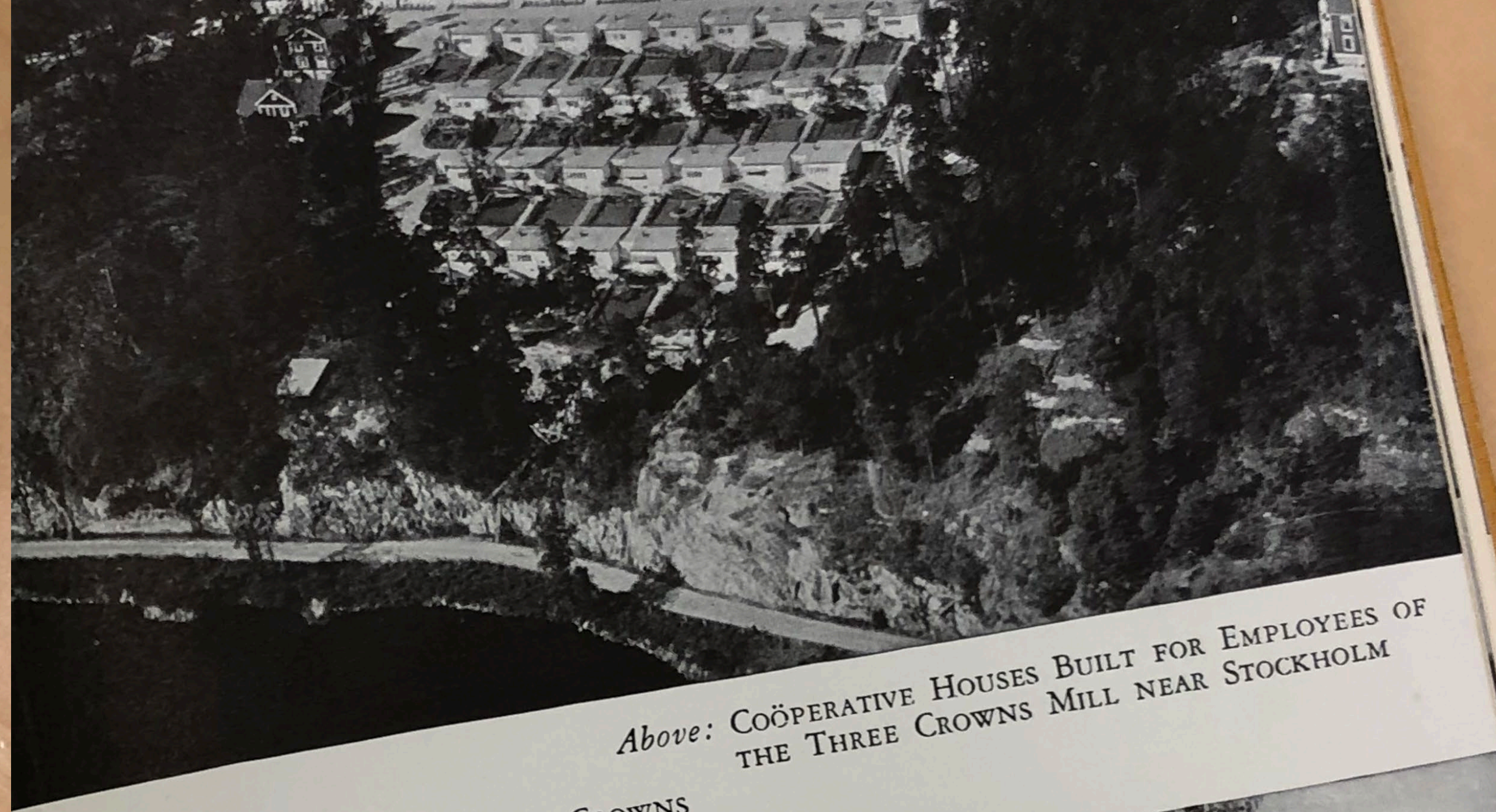
LOW COST HOUSING

contributed by the home owner. Throughout the construction period the city exercises the strictest supervision over the way in which the home builder uses the credit he has been granted. For, of course, the value of the city's mortgage on the property depends upon the quality of construction and the elimination of waste in materials and labor. If the entire credit is not used, the city sometimes allows the builder to make additions that naturally add to the value of the house. Sixty per cent of the homes have garages, for example, and in many instances glassed-in sun porches have been added. Often through the special skill of the builder a substantial saving on labor costs makes additional improvements possible.

When the contract is finally signed, there is tremendous excitement in the family of the prospective home owner. They and made a first payment on the materials to them to build it. Early and late and cousins and uncles and a mid-

Sweden: The Middle Way, Marquis Childs (1936)

COLLECTIVE
HOUSE,
DESIGNED BY
SVEN MARKELIUS



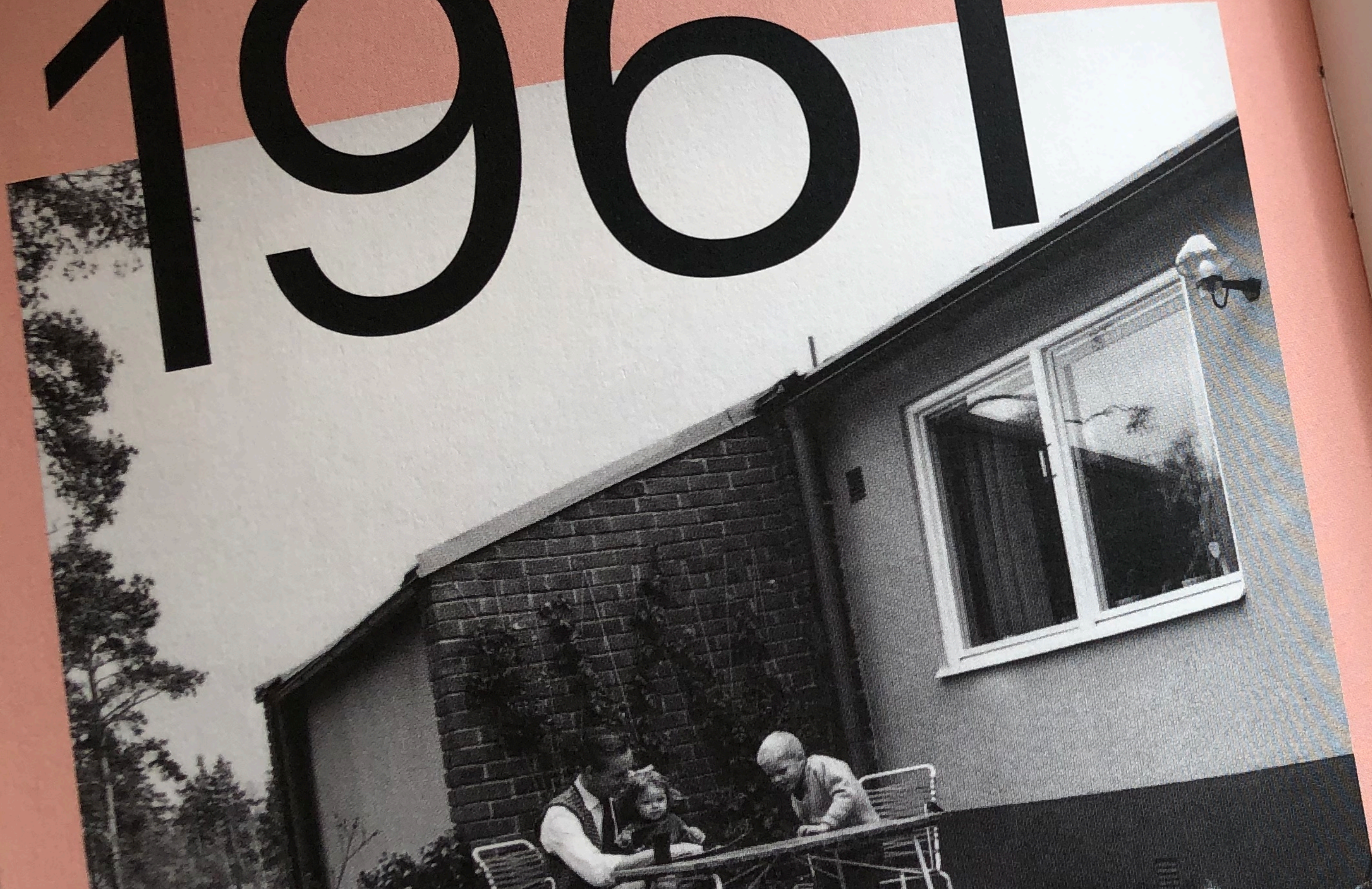
Above: COÖPERATIVE HOUSES BUILT FOR EMPLOYEES OF
THE THREE CROWNS MILL NEAR STOCKHOLM

Below: HOUSES IN THE THREE CROWNS
COÖPERATIVE DEVELOPMENT



Tio byggnader som definierade 1960-talet (2018)

V 1961



STOCKHOLM
& KLÖVERBLADET, STOCKHOLM

Sörgården och Klöverbladet, Stockholm. Den 18 januari 1961 presenterar *Expressen* »en statlig bostadsbomb«. Det är den nya »folkvillan« som presenteras. Med en sekretess lika sträng som »kringfabriksgjorda folkvillan«.

I två år har »ett lag edsvurna tekniker« arbetat med detta. Nu står det första exemplaret redo att »provbos av familjen Viking Ahlberg i Upplands Väsby«. Med bilindustrin som förebild och ett stagnerande marint varv i Karlskrona har Handelsdepartementet – som högsta instans för det som kallades »statens affärsdrivande industrier« – tagit initiativ till ett hus ritat av arkitekten Lennart Bergström i samarbete med konstruktören Arne Johnson. Husskivorna 2,40 meter breda och 10 meter långa, tillverkade helt färdiga på fabriken med golv, tak och inredning. Skivorna transporteras på ett specialkonstruerat lastbilssläp. De körs sedan hela vägen fram till tomten där de glider på plats med hjälp av en räls. »Varje detalj och varje arbetsmoment har grundligt studerats«, huset skruvas ihop av fru Ulla Ahlberg som provbor bostaden sätter i *Expressen* betyget »önskebostaden«. Det är en friliggande villa på 119 kvadratkilometer, särskilt »lovordar hon rymligheten och allrummenheten«. *Expressens* bostadsreporter Olle Bengtzon konstaterar »det är ett slående bevis för att avancerat industriellt byggande inte behöver vara något hinder vare sig för god planlösning eller konstnärlig form«. Priset omkring 75 000 kronor är, enligt Bengtzon, ungefär hälften av »dagens marknadspris i Stor-Stockholm». Fönster, dörrar, innerväggar går att flytta och samma konstruktion kan användas för att bygga fler hus.

Det pågår under den här tiden en statlig jakt på bostäder som också kan efterfrågas av familjer med lägre inkomster. Den statliga bostadspolitiken på 1960-talet handlade inte bara om radhus och villor. En typ av bostad som kallade miljöhus

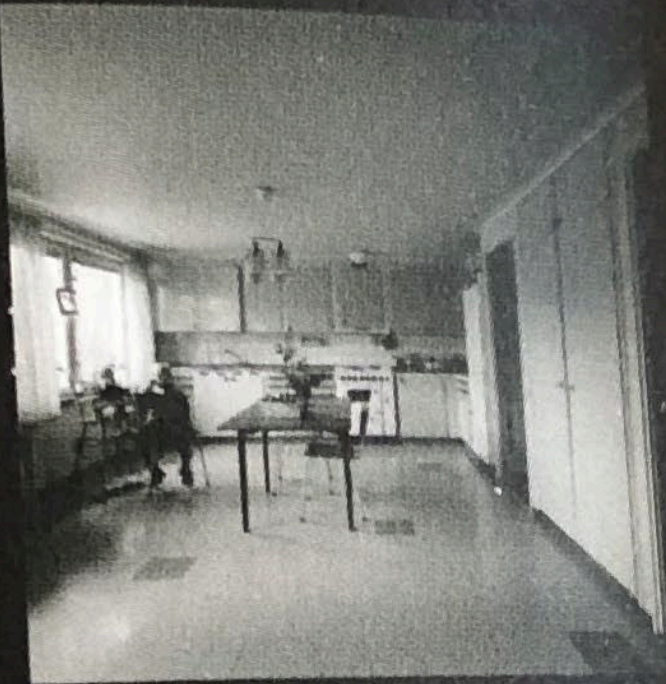
Tio byggnader som definierade 1960-talet (2018)



5



9



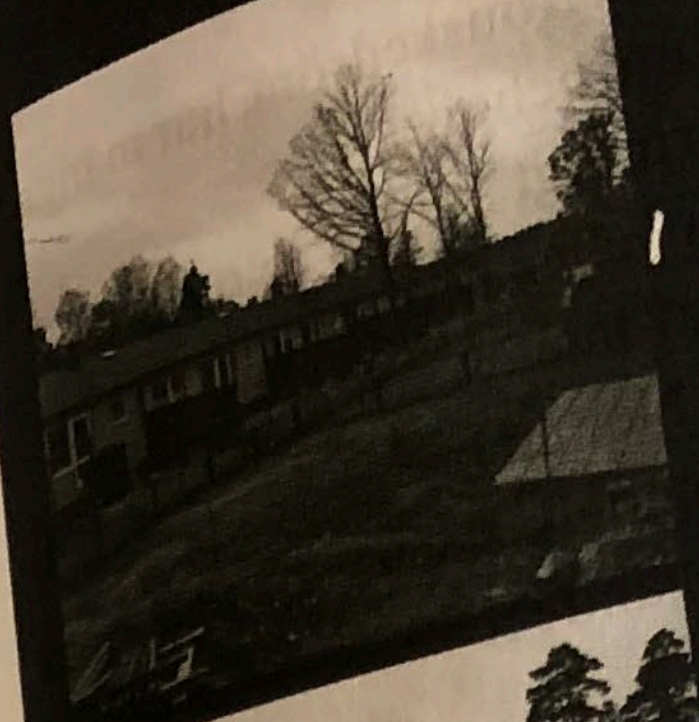
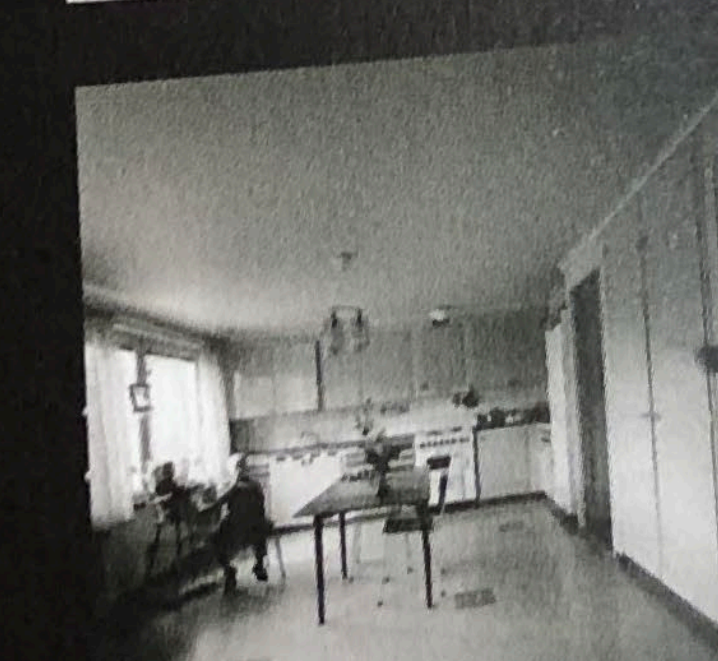
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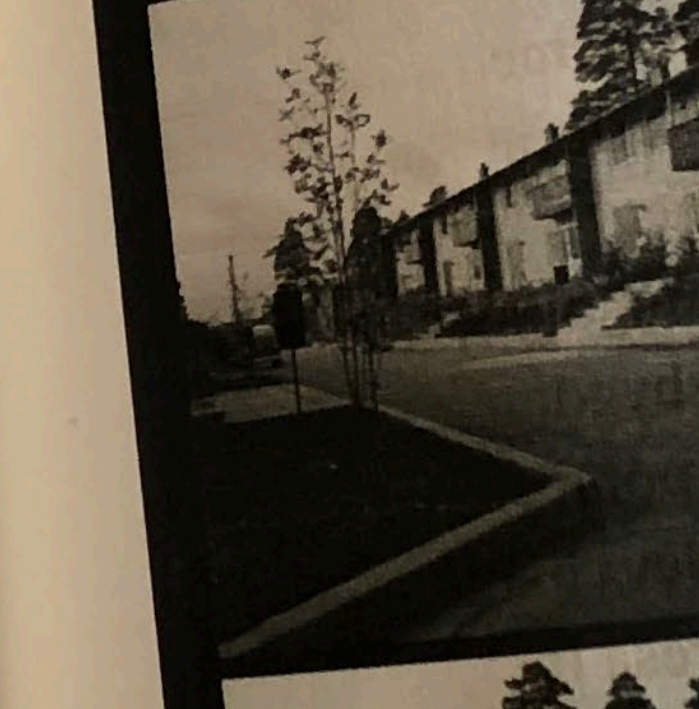
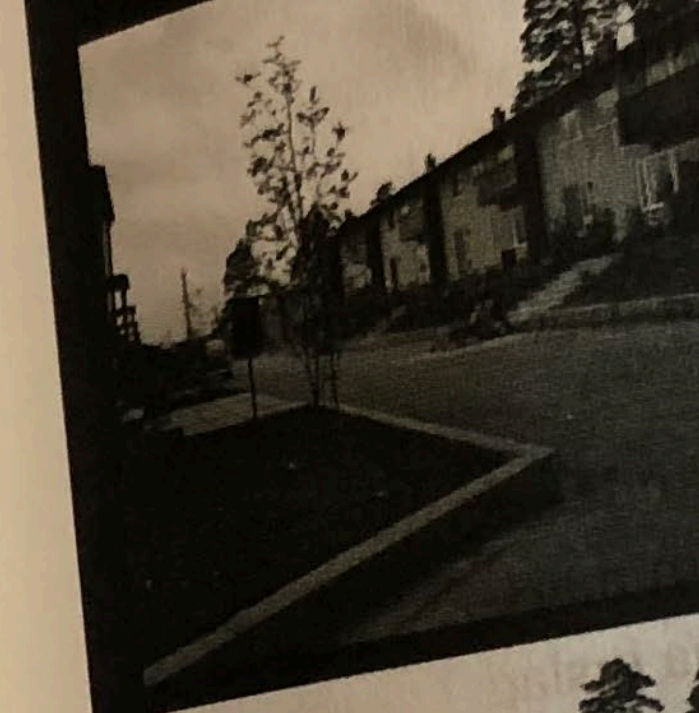
7



11



1



3



Wikihouse



EXPRESSEN



- den här / STENG

TISDAGEN DEN 18 JANUARI

5*
VARDAGAR 45 ÖRE
SÖNDAGAR 50 ÖRE

5 öre högre pris
på tåg och båtar

1966 nummer 16
från starten 7488
Tel: Sthlm 22 48 00
Tel: Riks 08/22 48 20

EXTRERA FOLKVILLAN BYGGBOMB



Joakim Ahlberg, 4, konsumenttestar tillsammans med sina föräldrar och sin lillebror den första Folkvillan.

Expressen presenterar i dag en statlig bostadsbomb. Efter två års strängt hemlighållna försök vid det statliga Karlskronavarvet står den första helt fabriksbyggda Folkvillan klar och inflyttad. Expressens Olle Bengtson har gått Husesyn i provhuset, en 119 kvm friliggande villa i Upplands Väsby. Vad Folkvillan kommer att kosta vet man inte exakt i dag. Med dagens materialkostnader i högrationell fabriksdrift bör dock kostnaderna stanna kring 75 000 kronor, tippar Expressens byggexpert. Priset inkluderar grund, men inte tomt och anslutningsavgifter. dagens marknad

rad lägenhet. Men enfamiljshuset gjorde det i en välplane-
som en del i den aktiva politiken, redo att kliva fram som det att-
raktiva målet för den strävsamma arbetaren.

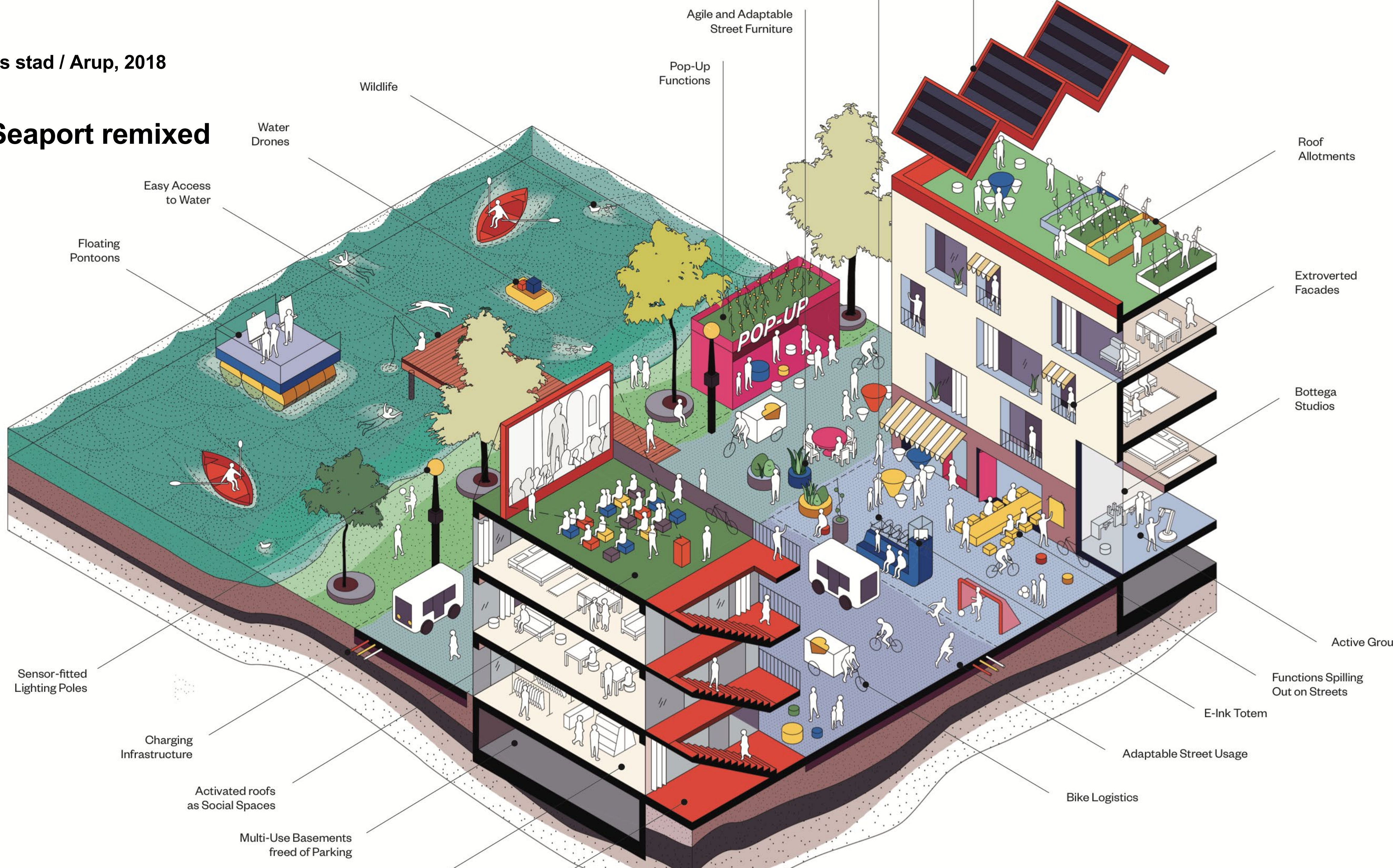
Men om de första decennierna efter 1930 hade ägnats framför
allt åt att bygga flerfamiljshus så var H55 villa- och radhusstadens
och bilsamhällets utställning. Sverige var redan 1955 Europas

biltätaste land. »Bo med bil« hette ett av småhusen på H55 med
inredning i svart, orange och citron. Småhusägarna »behöver
bilen för att hålla kontakt med den stad de bor i och utnyttja stads-
boendets fördelar«, konstaterade Olle Bengtzon.

Journalisten och debattören Ulla Molin hörde till dem som
protesterade mot det svenska folkhemsprojektets vilja att skilja
människorna från marken i höga hus. Enligt höghusfi-
karna skulle ett stadsbyggande
människor skilja

Stockholms stad / Arup, 2018

Royal Seaport remixed



Wildlife

Agile and Adaptable
Street Furniture

Pop-Up
Functions

Roof
Allotments

Water
Drones

Easy Access
to Water

Extroverted
Facades

Floating
Pontoons

Bottega
Studios

Sensor-fitted
Lighting Poles

Active Group

Functions Spilling
Out on Streets

Charging
Infrastructure

E-Ink Totem

Activated roofs
as Social Spaces

Adaptable Street Usage

Multi-Use Basements
freed of Parking

Bike Logistics

Airut/Low2No /SITRA (2010-)

Urban development



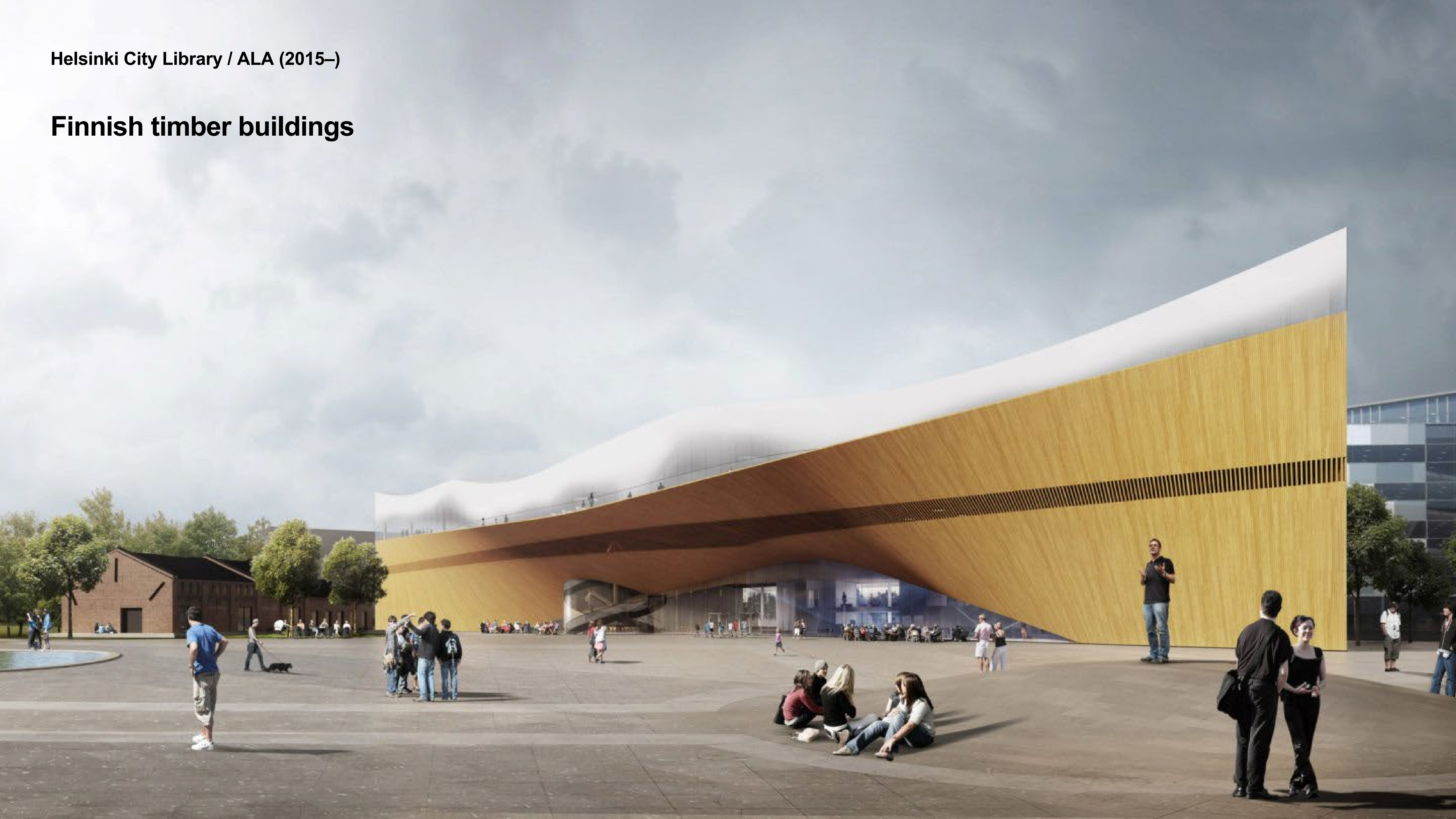
Airut/Low2No /SITRA (2010–)

Timber buildings



Helsinki City Library / ALA (2015–)

Finnish timber buildings



Helsinki City Library / ALA (2015–)

Finnish timber buildings



Riihikartano apartment building / Office for Peripheral Architecture Oy (2017–)

Finnish timber buildings



Low2No, SITRA Energy programme (2007-2017)

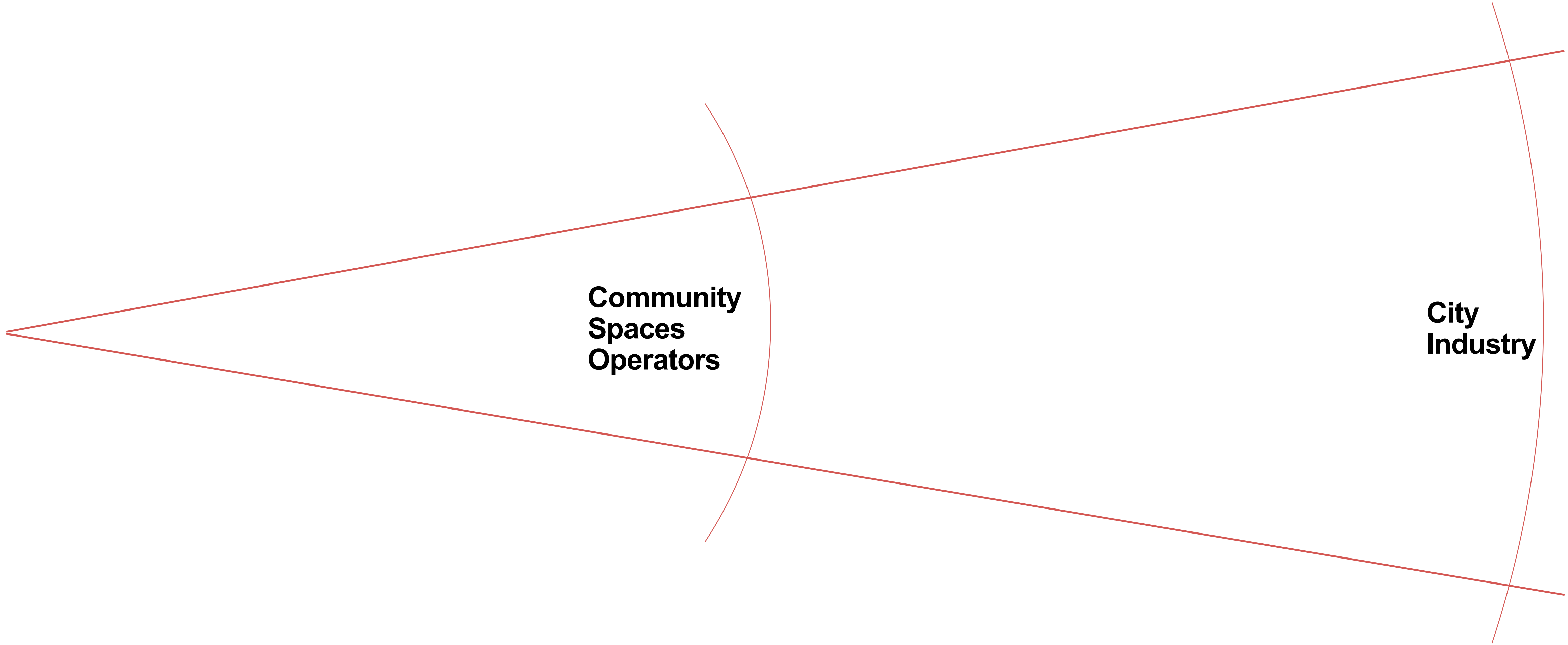
Finnish forestry industry



Citizen

**Community
Spaces
Operators**

**City
Industry**



Vinnova mission-oriented innovation

Mobility workshop one



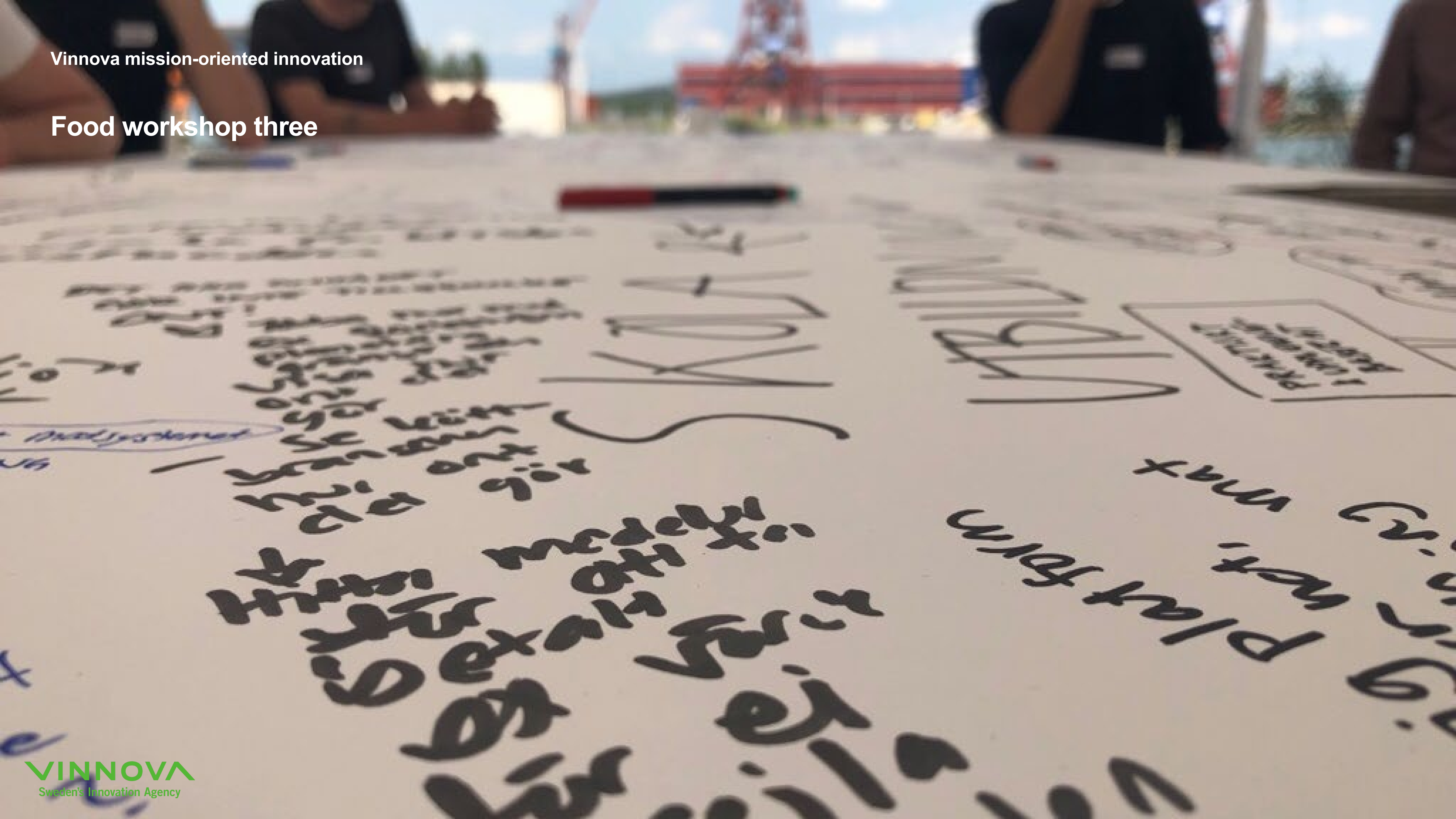
Vinnova mission-oriented innovation

Food workshop one



Vinnova mission-oriented innovation

Food workshop three



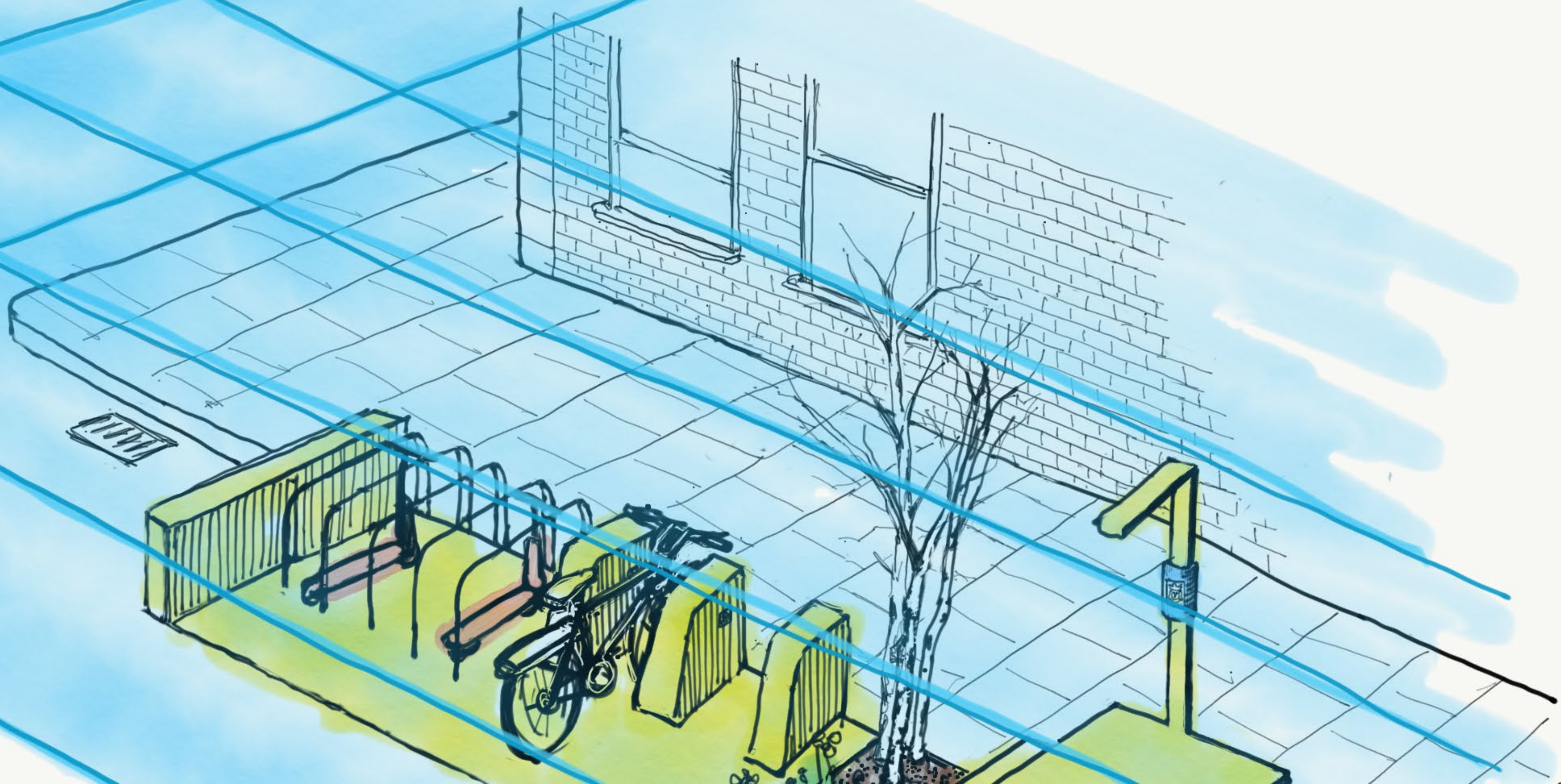
CULTURE

BUSINESS MODELS

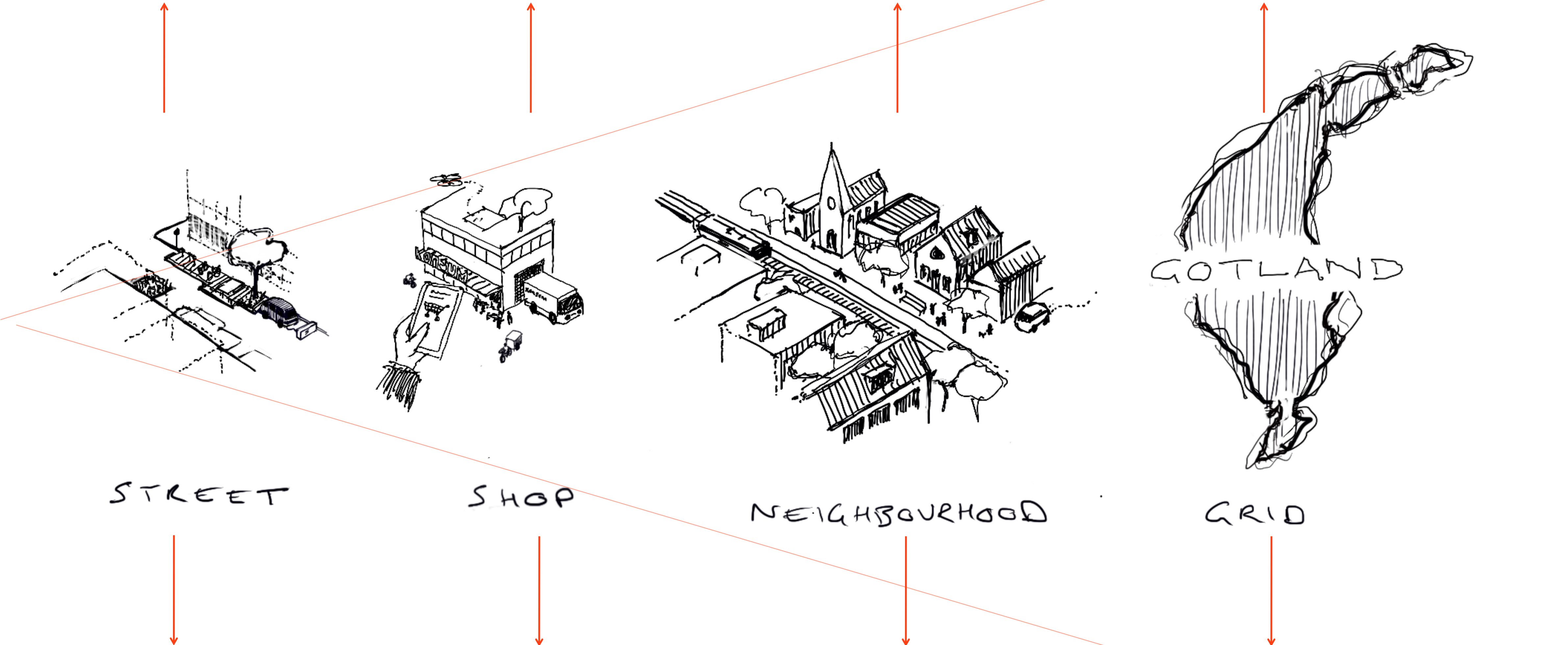
DATA

POLICY

REGULATION



Vinnova mission-oriented innovation



Citizen

**Community
Services
Operators
Coöperative**

City



Stockholm, Sweden is without
said that while this may be over-generous,
country, and while this may be over-generous,
certainly been approximated.

In Sweden those who were interested in promoting better housing had also come to the realization two decades or more ago that there would be little real progress until the interest of the group to benefit from improved housing was enlisted. And this, it may be noted here, is at the root of most of the reforms that Sweden has adopted; they are *sui generis*, growing out of a social need that has been keenly felt and insistently presented against a broad background of social and economic education; they have not, in short, been superimposed from above through the beneficence or the righteousness of a class that took its own superiority for granted. This is a vital distinction and it has led in Sweden more often than not to the coöperative solution of social and economic problems. The coöperative method, together with assistance from other ways, that has made low-cost housing possible that existed before the influx of

he must meet
though he were dealing with
the investigation of prospective home owners
ough, the city's losses have been negligible. For 1931
Estate Department of the City of Stockholm reported a surplus
of 817,000 kronor on its operations which went into the city's
general surplus for that year, amounting to a total of 13,500,-
000 kronor.

→ Any one who has seen the handsome, scrubbed cottages of
Dalecarlia, the clean, modern homes of the miners at Kiruna,
or the tiny waterside villas built by the workingmen of Stock-
holm on all the islands of the archipelago must realize that
the Swedes have a special capacity for home making and home
ownership. There has been this to build on in any housing pro-
gram, coöperative or state.

Sweden: The Middle Way, Marquis Childs (1936)

At present the social order is in a state of transition, hoping to steer a safe course through the shift in international relationships which is taking place; Sweden's export trade, the very life of the country, depends upon that course.

The shadow of impending war is very dark. The high civilization that has been achieved to the north of Europe may be degraded or destroyed in the general conflagration; the light of this remote candle extinguished in the general hurricane. But whatever the future may bring there will remain the record of a people who cultivated their garden, their rocky, remote, lonely garden, with patience, with courage, and with an extraordinary degree of intelligence.

Tack! Please get in touch!

Dan Hill.

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