

[FOOD FROM THE EMPIRE]

The rural as the new territory of productive living

P5 Presentation

Niroopa

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Second mentor :

Ir. Filippo laFleur

Research Studio

Delta Interventions

North Sea : Landscapes of Coexistence

Christmas in India ,1879, drawing by E.K. Jhonson



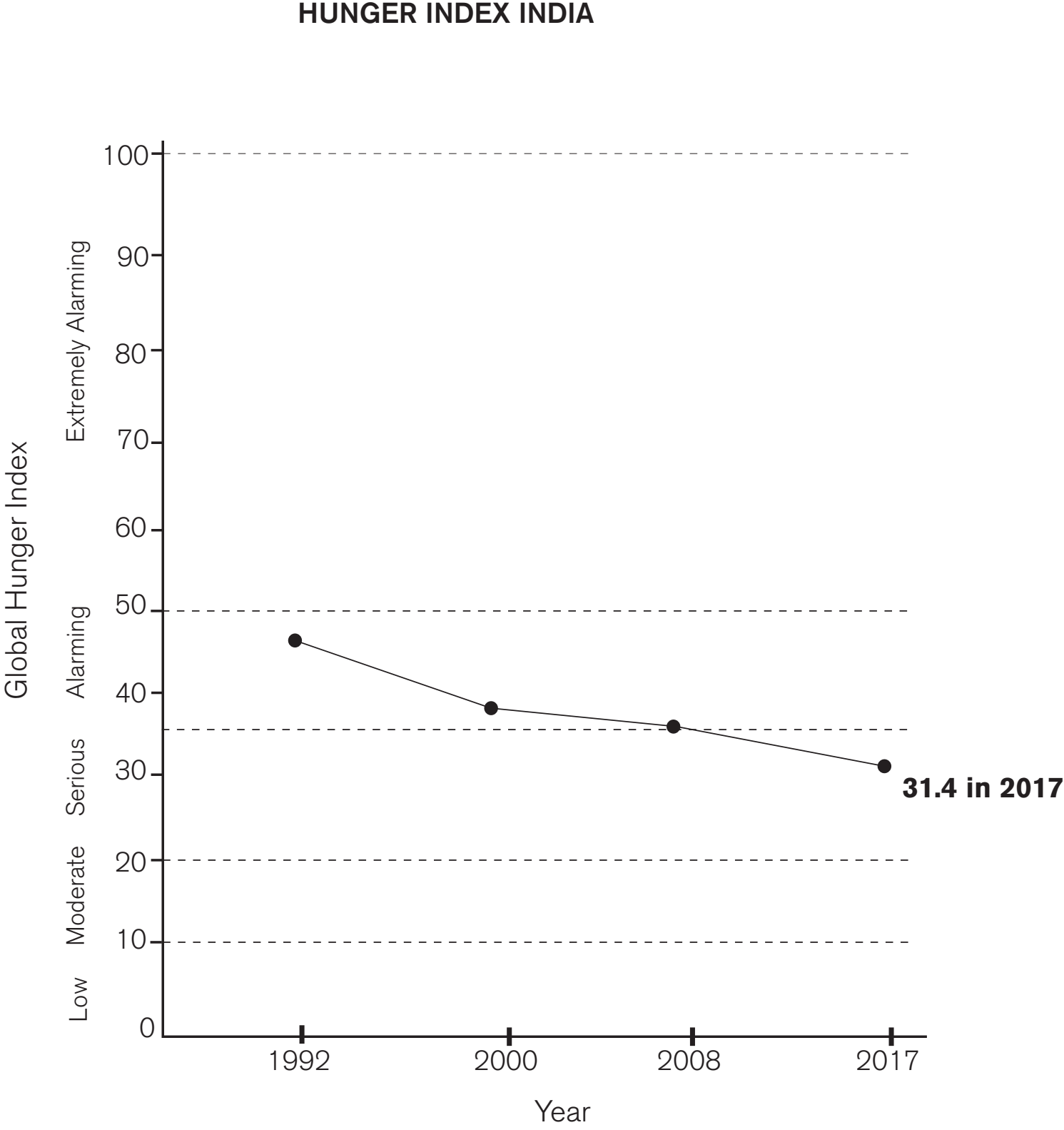
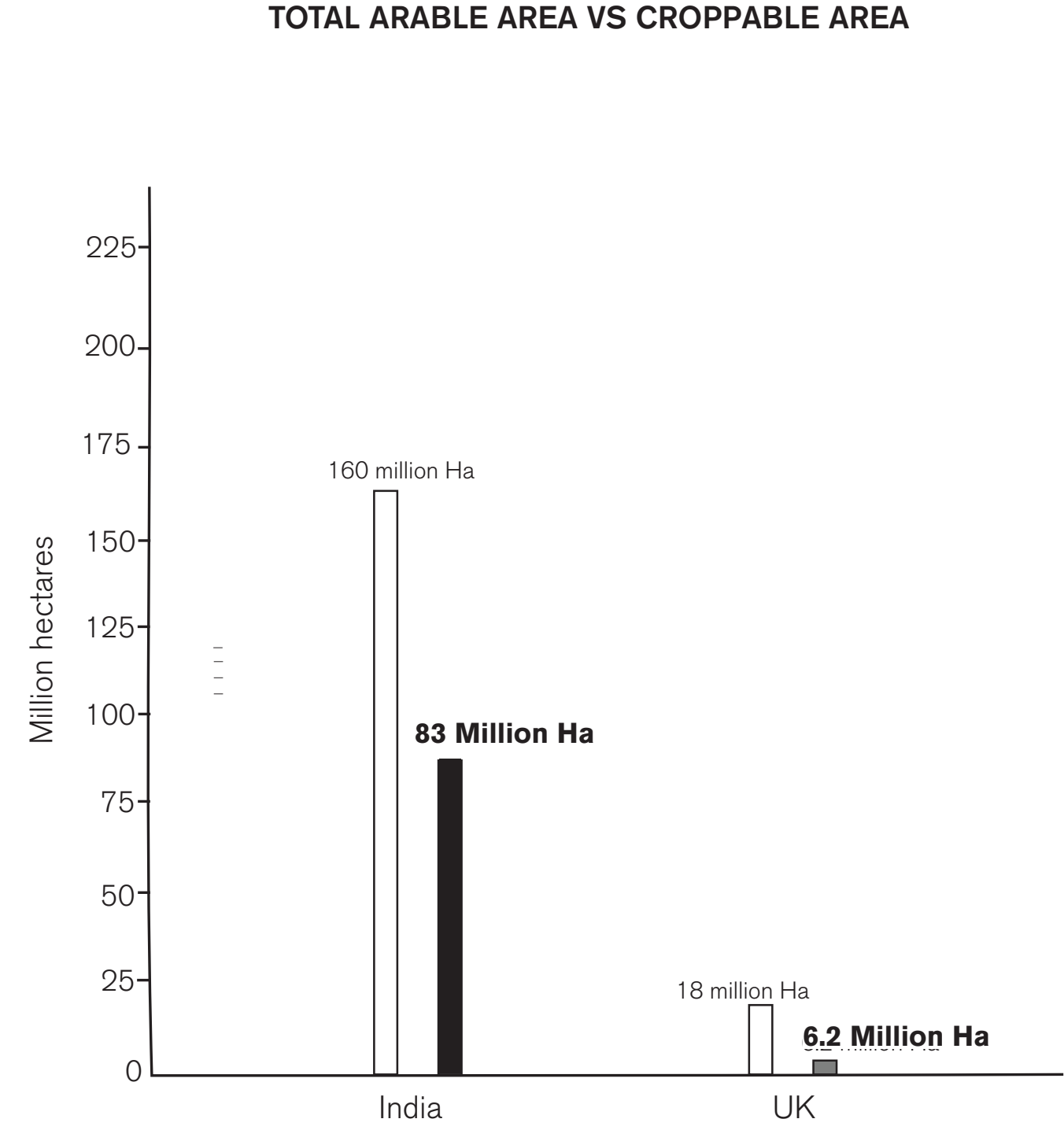
An idealized picture of British home life : attentive servants and happy children

Great famine of 1876-78 India



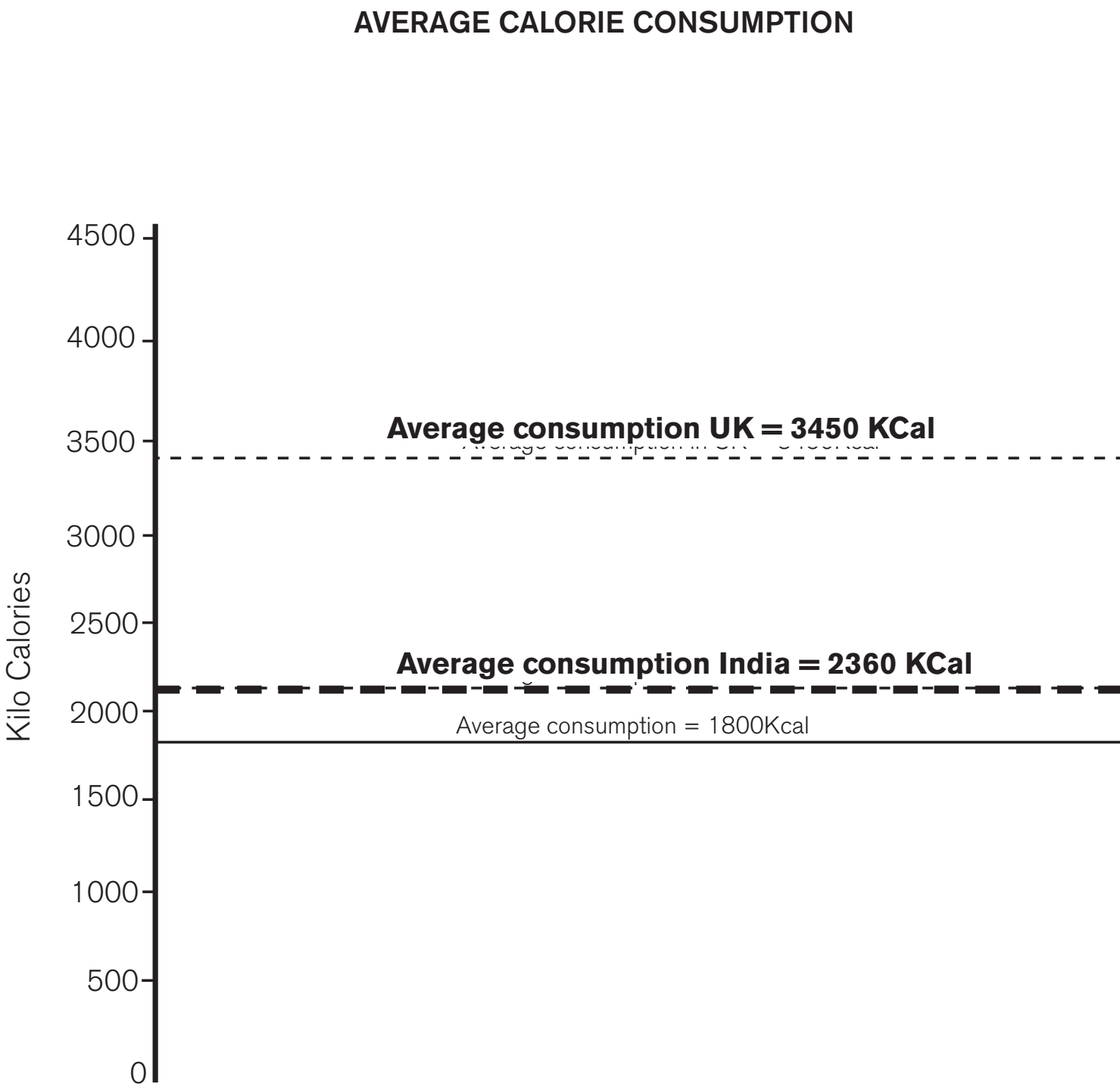
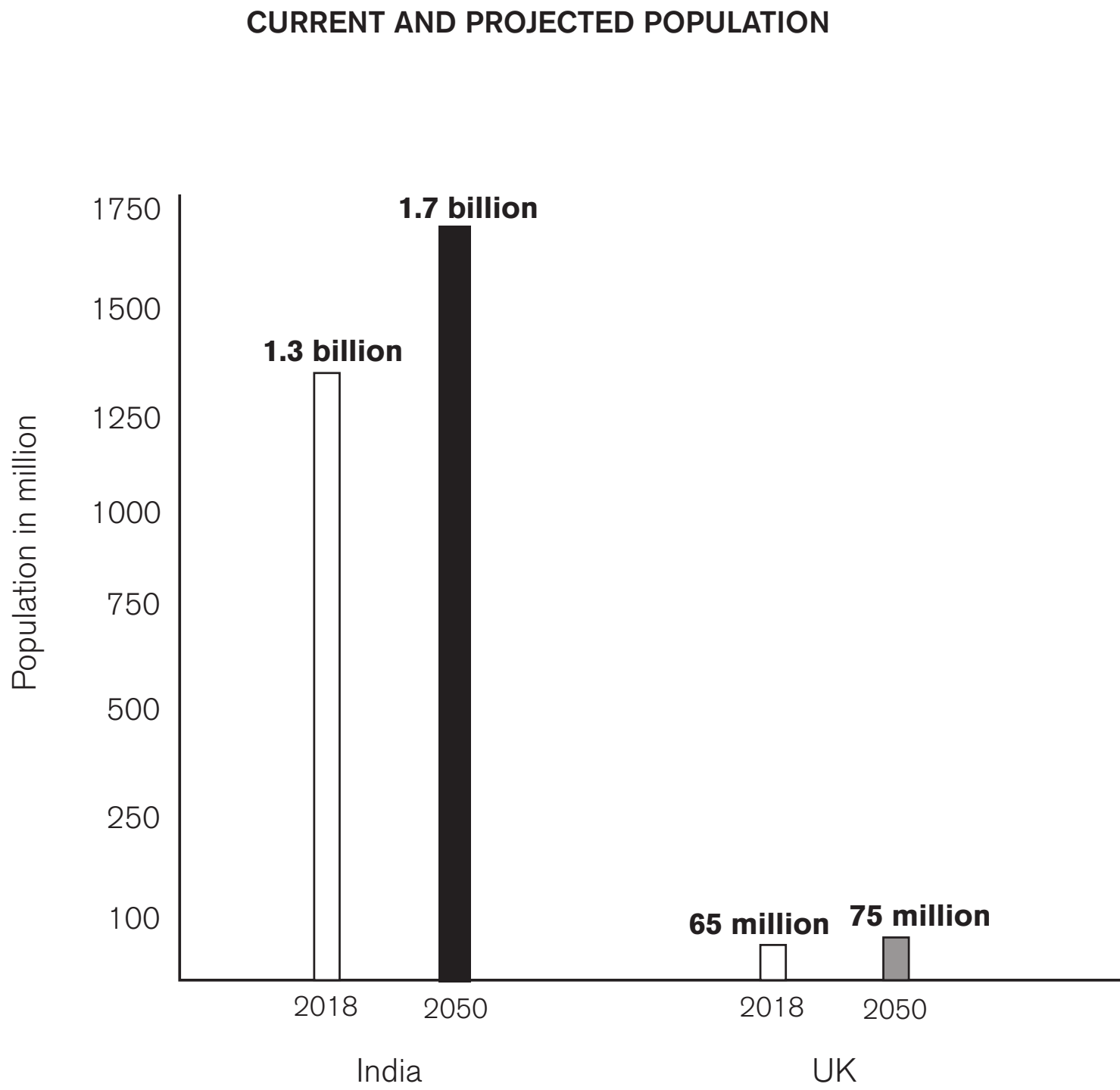
Starving Indians beg for food at a British Army Post ,1878

UK and India
ABUNDANCE AND HUNGER



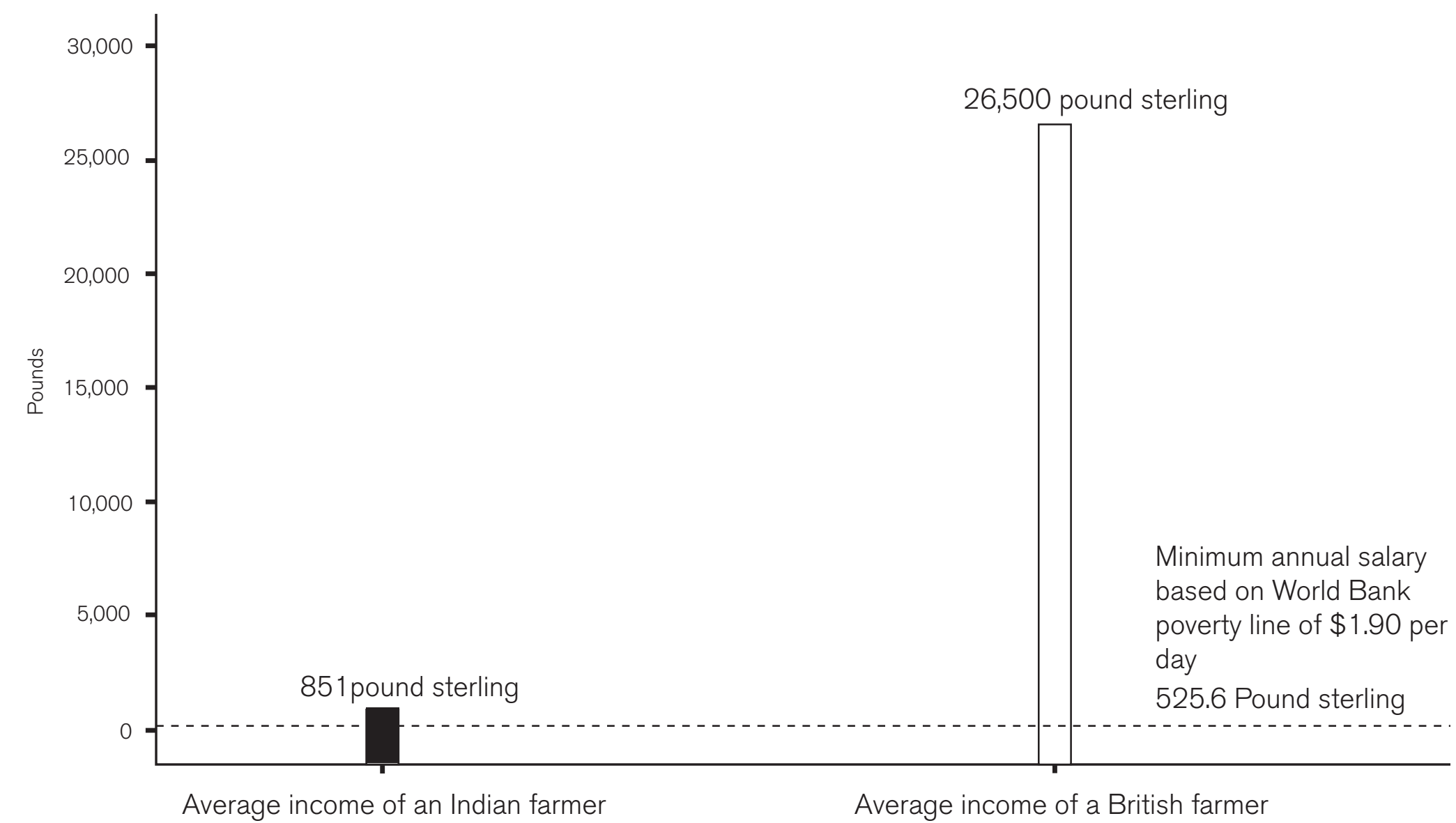
UK and India

POPULATION AND CONSUMPTION



UK and India

AVERAGE ANNUAL INCOME OF THE FARMER

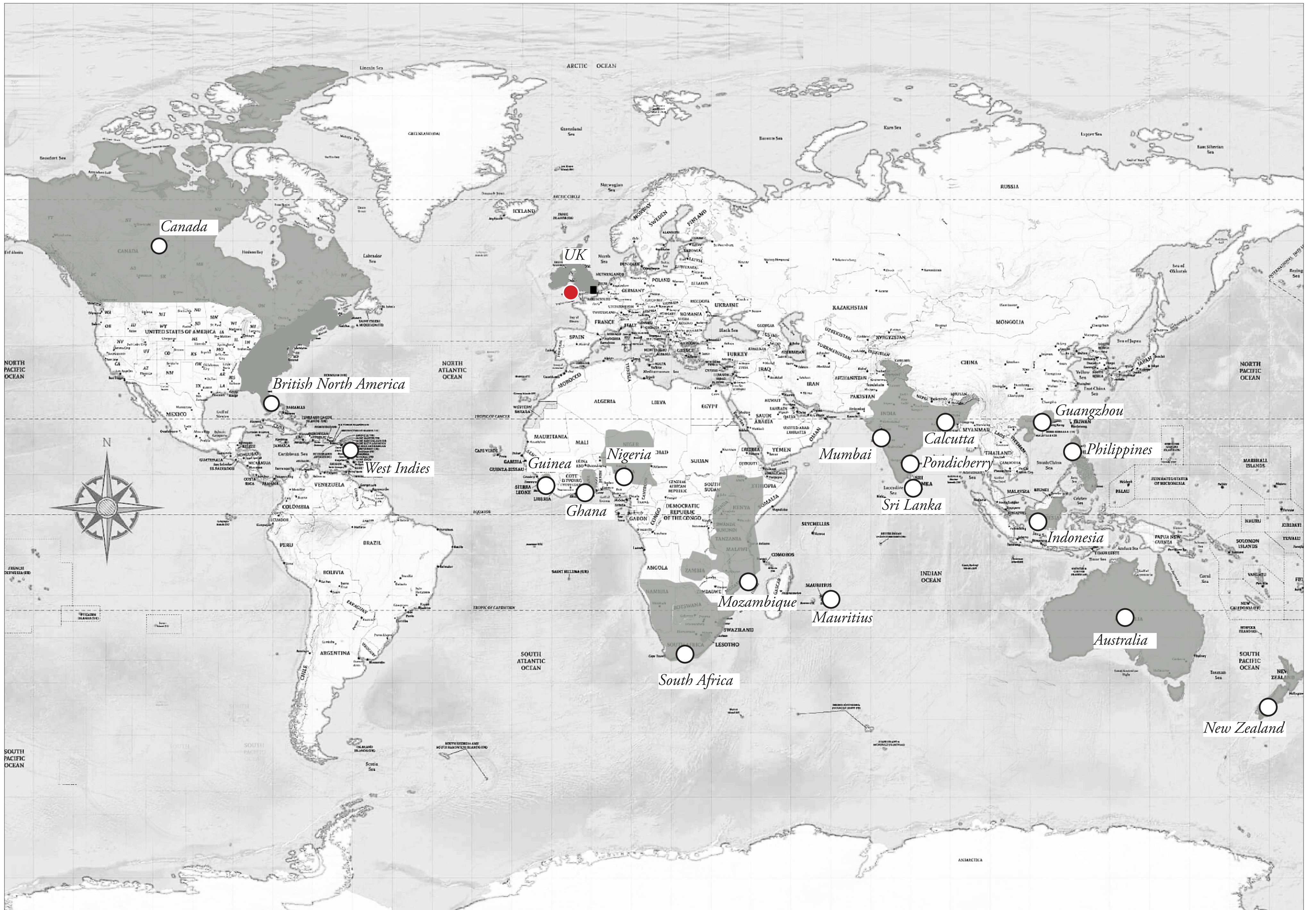


See Atlas N° 11.

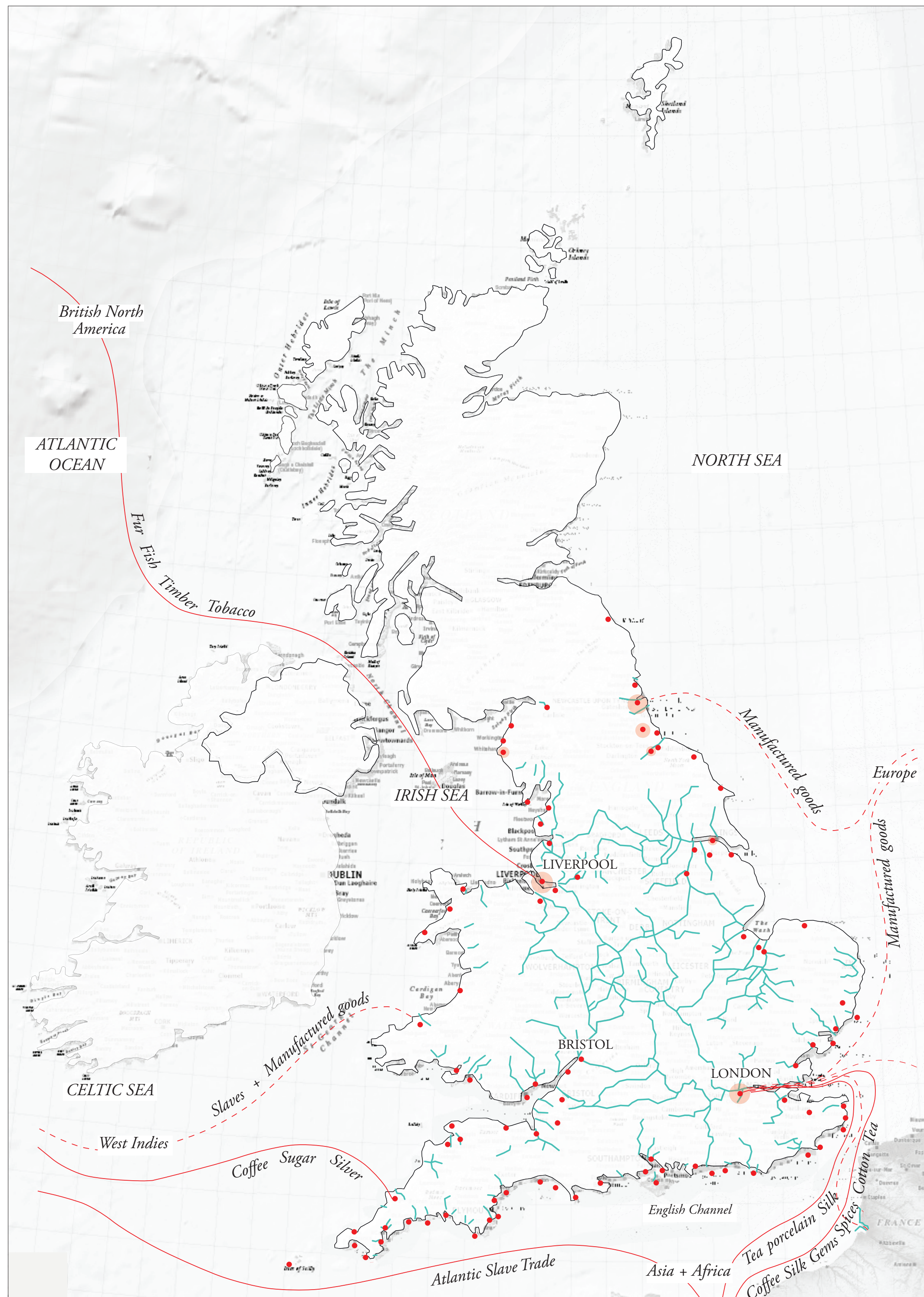




[The Hungry Empire]*



[The territory of the British Empire]



[The British empire - flows of power 1900's]

- Imports
- Exports
- Waterways
- Ports

[The growth of UK ports and waterways]

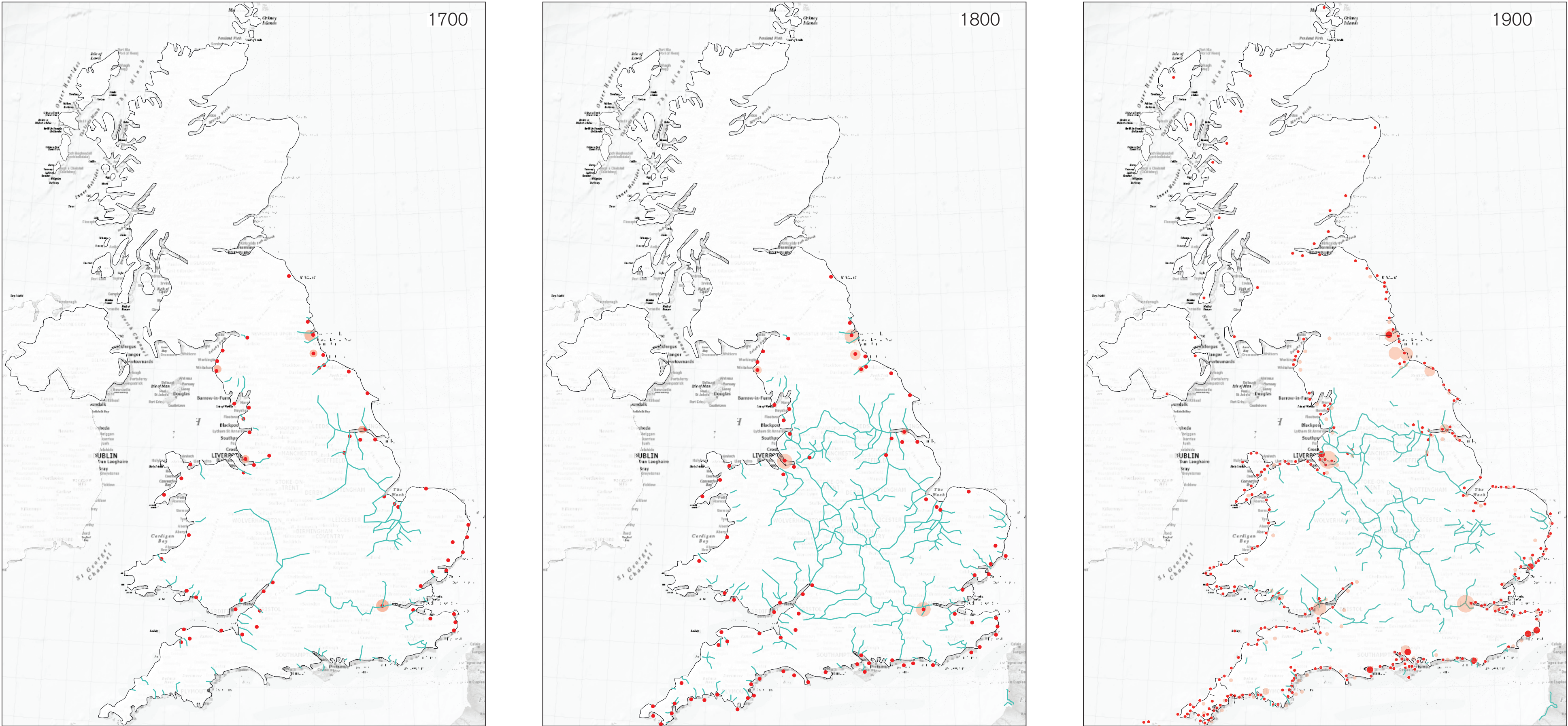
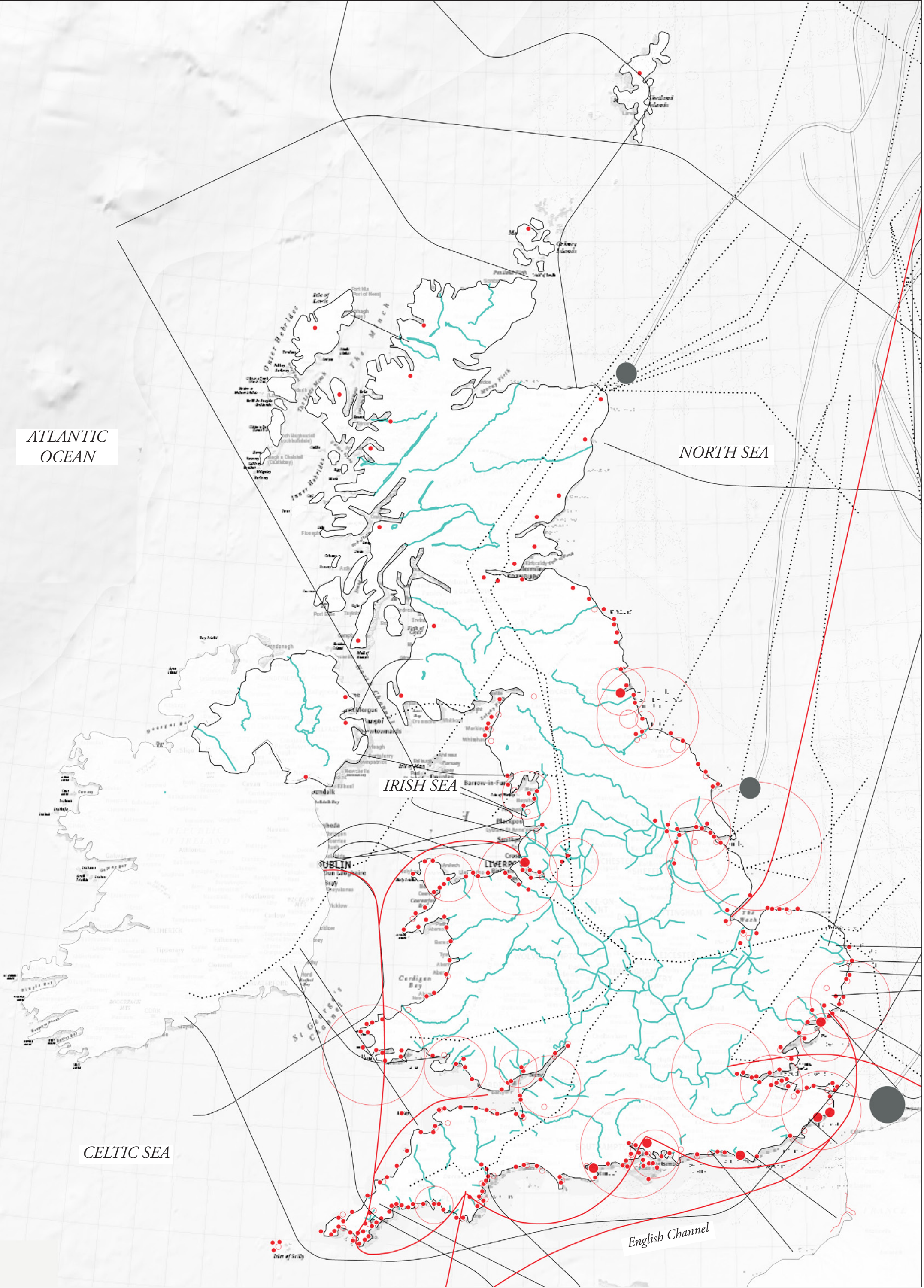


FIGURE 05 : *The growth of UK ports and waterways*

Source : MMO, 2016 , drawn by author

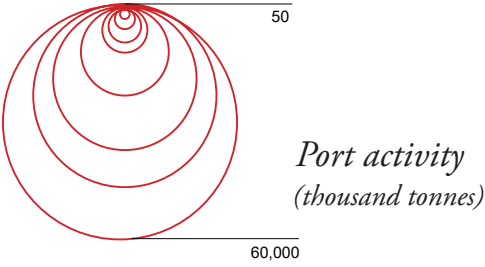
— Waterways
● Ports



The new system of transport and logistics facilitated the outsourcing of land and food demands

[The British empire - flows of power today]

- Natural gas pipelines
- Submarine cables
- Sea trade routes
- Oil pipelines
- Extraction points
- Ports





Birds eye view of Norfolk, Portsmouth and Berkley , drawn by Augustus Koch , 1840

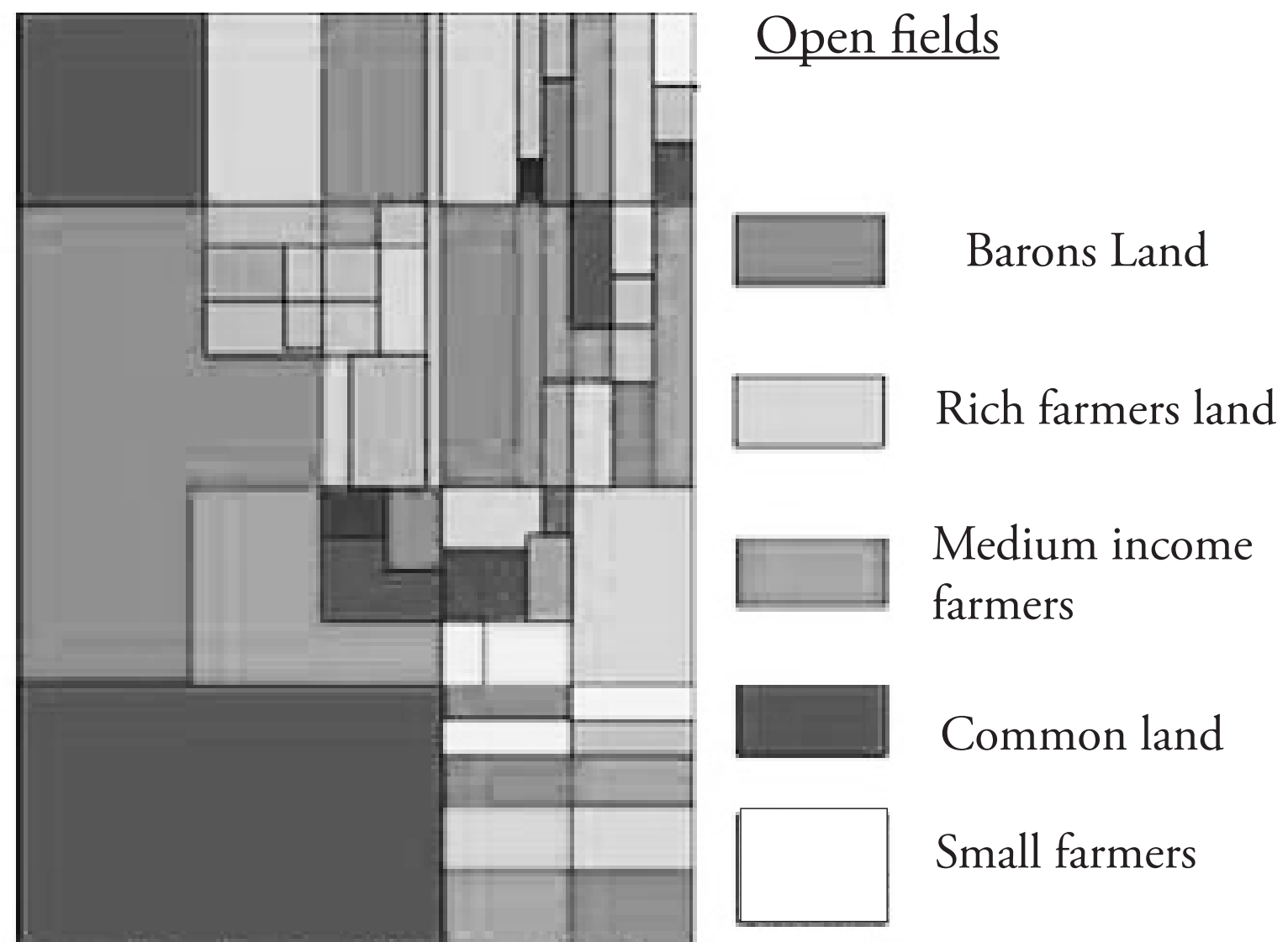
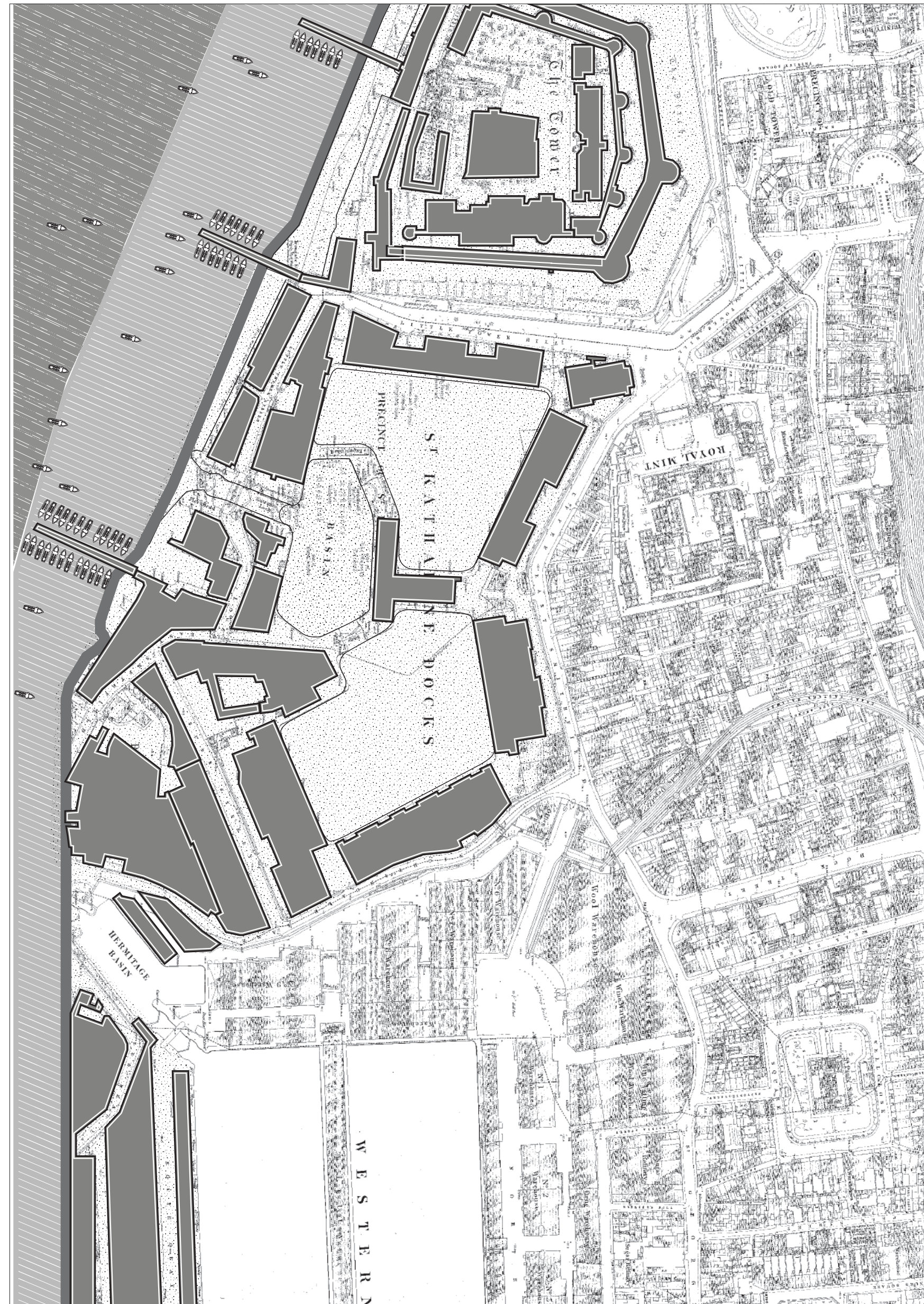


FIGURE 07 : *Rural area : from and open field system to enclosures*

The coast



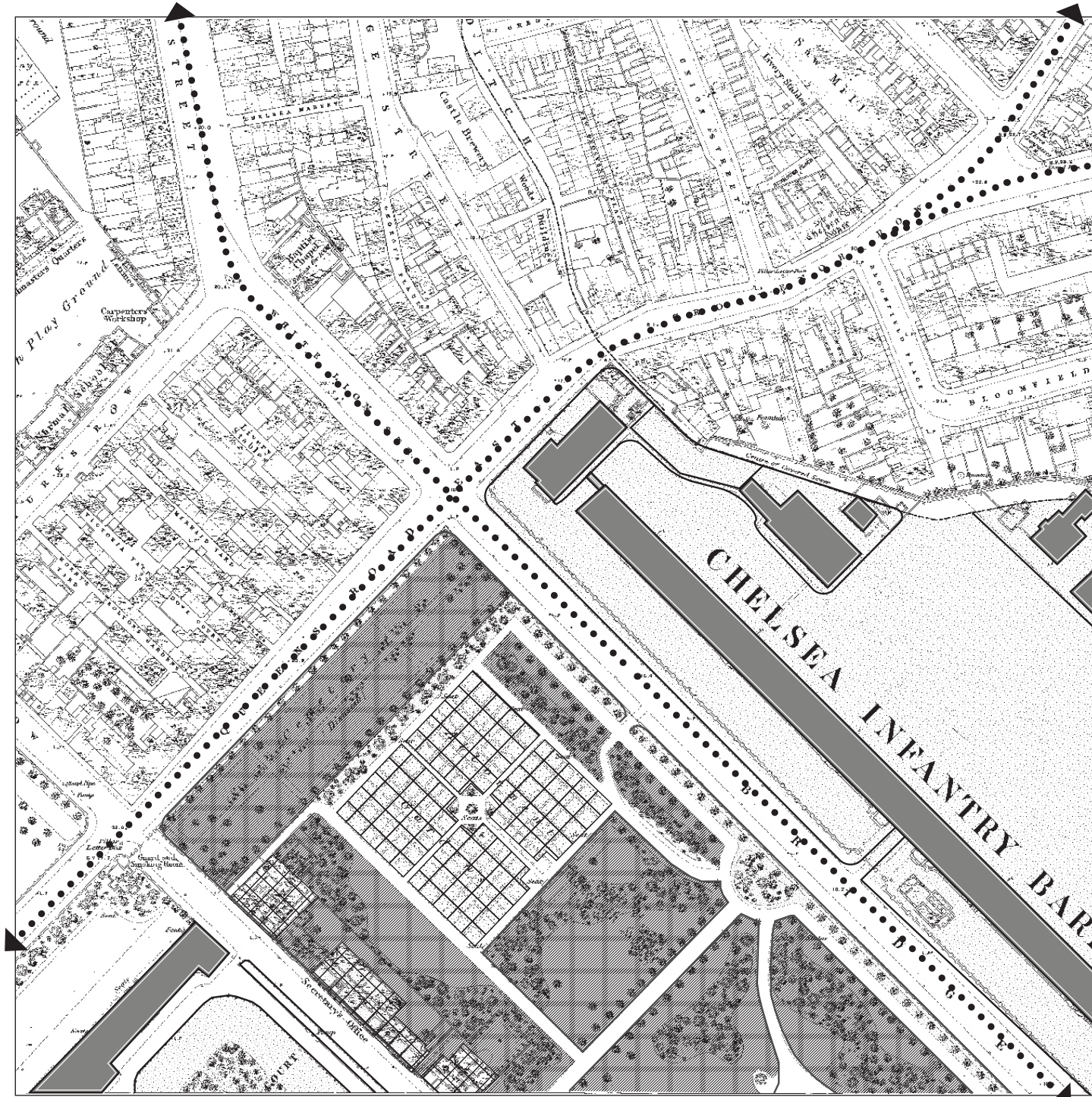
Docks and warehouses, Thames North bank , 1800's

The coast



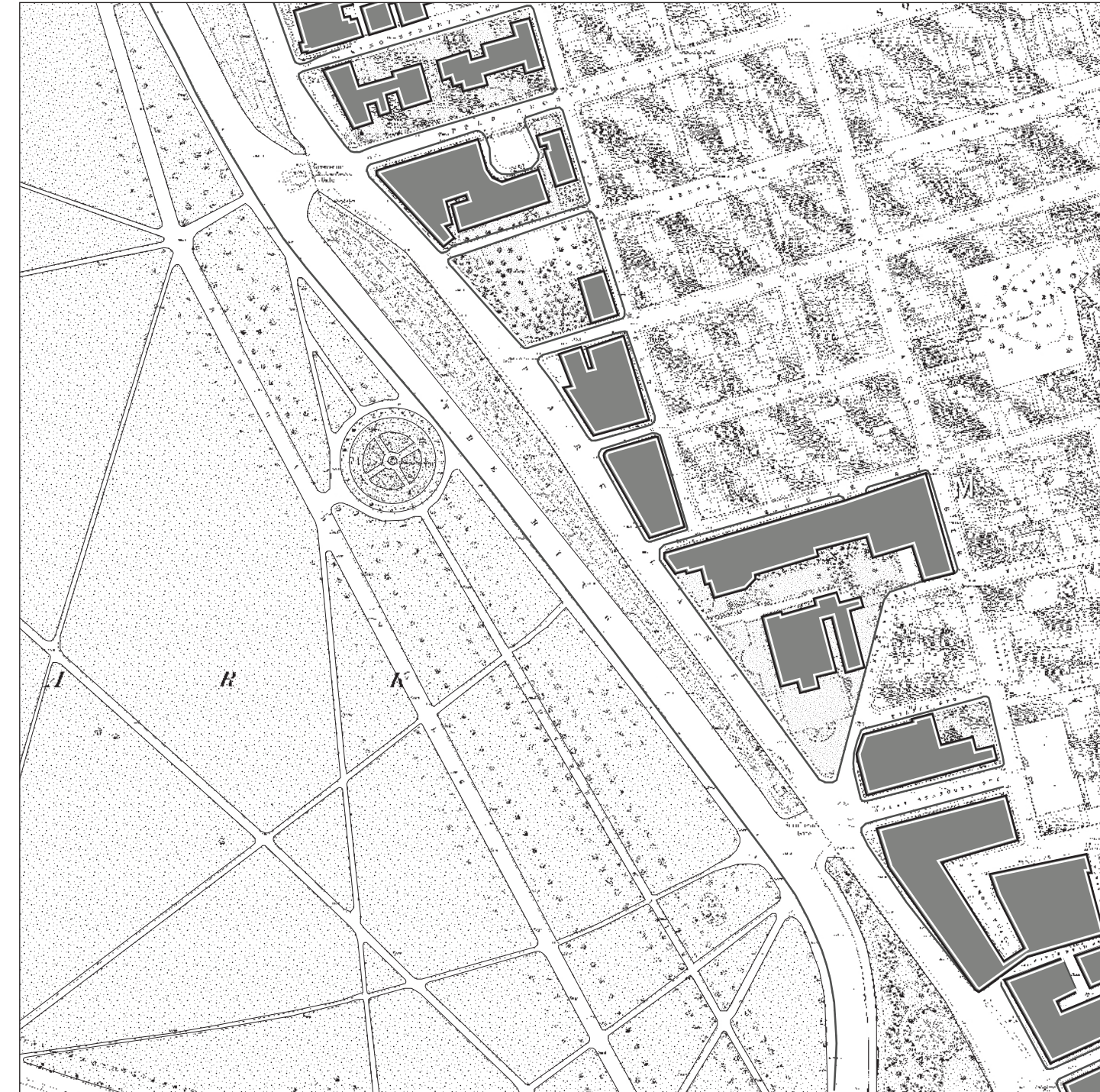
Large scale mills on Thames north bank , 1800's

The city



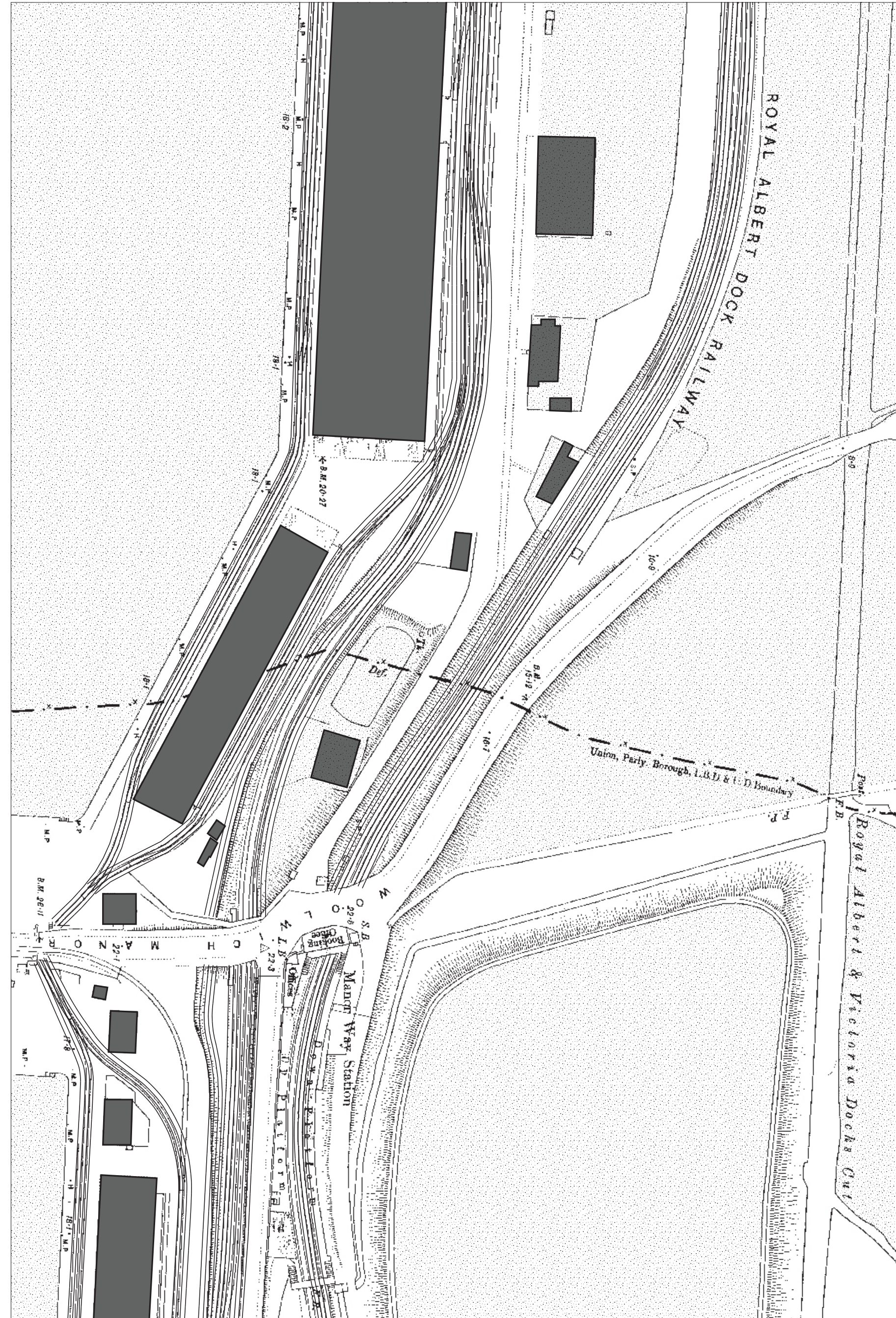
Allotment gardens , London, 1800's

Source : Digimap.edu



Hyde Park , London , 1800's

The city and rural edge



Royal Victoria docks, City of London , 1800's

This is a detailed black and white map of a rural landscape. The map features several prominent buildings: 'The Rectory' in the upper left, 'Sharnbury House' at the bottom center, and 'The Farmhouse' on the right side. A network of roads, including 'SHREWSBURY ROAD' and 'THE RECTORY LANE', connects different parts of the area. Large areas of land are depicted with diagonal hatching, likely representing agricultural fields or pastures. Other smaller features include 'The Old Mill' near the top right, 'The Old Barn' near the bottom right, and various smaller structures and trees scattered throughout the landscape. The map uses fine lines to delineate boundaries, paths, and individual plots of land.

[illegible]

The coast



Alexandria waterfront, 1863

The city



City of Bristol, Laurence Stephen Laurie , 1887

The rural



Industrial landscape in Manchester , Laurence Stephen Lowry 1887

||



[*Food from the empire*]

Decline of small farms and the shift towards commercial farming

Revealed: industrial-scale beef farming comes to the UK



▲ Some of the UK's intensive units can hold up to 3000 cattle at a time. Photograph: Bureau of Investigative Journalism/Guardian

Investigation uncovers about a dozen intensive beef units, despite assurances that US-style practices would not happen here

Thousands of British cattle reared for supermarket beef are being fattened in industrial-scale units where livestock have little or no access to pasture.

Research by the Guardian and the Bureau of Investigative Journalism has established that the UK is now home to a number of industrial-scale fattening units with herds of up to 3,000 cattle at a time being held in

UK has nearly 800 livestock mega farms, investigation reveals



▲ Inside a mega farm in Kington, Herefordshire, England. Photograph: Rob Stothard

Exclusive: 1 cattle is sw concerns on

How have

Nearly ever farm, with research rev

The increas unnecessary a shift that

Chicken mega-farms are how we'll feed the UK, says poultry industry head

British consumers eat chicken twice a week. Are large farms the only way forward?



▲ Britain's poultry sector is among the largest in Europe. Photograph: Randall Hill/Reuters

Britain will need to build more mega-farms to keep it supplied with chicken, according to the head of the UK's influential poultry lobby.

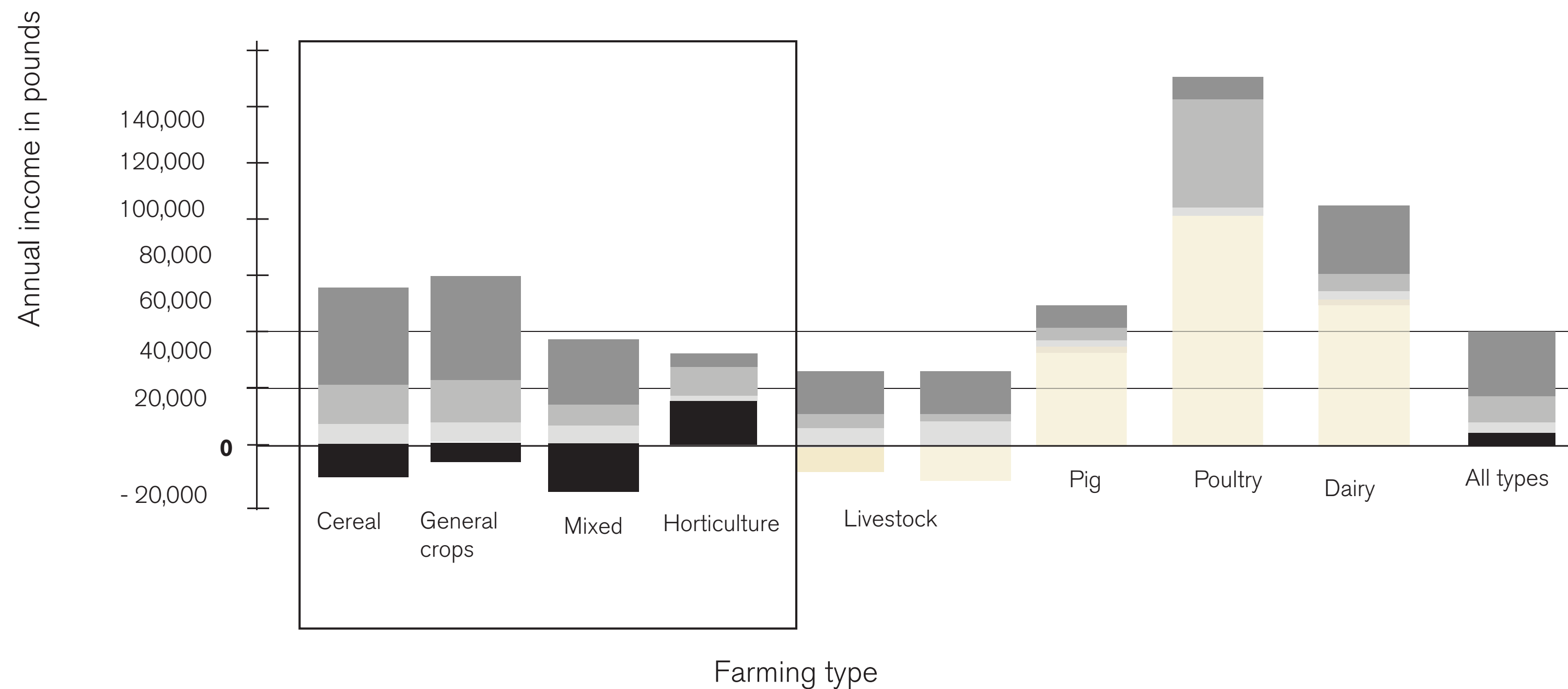
But the biggest threat to UK consumers, he believes, comes from cheap imported meat - "chlorinated chicken" - produced to lower standards as a result of post-Brexit trade deals.

Most Brits eat chicken twice a week. As a result Britain's poultry sector is

eight day two ve

is as r May's

Crop based agriculture heavily dependent on subsidies, thus increasing shift to commercial animal based farms



Farming profits UK , Source : Defra, drawn by author

Income breakdown :

- Single Payment scheme - subsidies
- Agri-environment
- Diversification (other business)
- Land based subsidies

Increased outsourcing of land and food demands

Cambodia's sugar rush leaves farmers feeling bitter at 'land grab'

Kate Hodal reports from Koh Kong, where villagers claim they are losing their livelihoods to plantations that supply Tate & Lyle



The plantation extends as far as the eye can see, with tall sugarcane stalks swaying against the dusky blue light of the horizon. There are no houses, no animals, no

Standing by a rickety wooden fence that separates the field in front of us, Yoen Sarin, 29, waves his hand. "The fence was extended from there to just over there." She tried to bulldoze their way closer but I built it. They've already knocked it down twice, I'm not

UK investors gather for controversial Africa land summit

International development and environment charities to protest against 'land grab' outside Agriculture Investment Summit



△ An estimated 70m hectares of agricultural land - or 5% of Africa - has been sold or leased to western investors since 2000. Photograph: Siphwe Sibeko/Reuters

Pension fund managers and hedge funds gather in London on Tuesday for a summit to discuss the next big investment opportunity: buying up swaths of African farmland.

The Agriculture Investment Summit promises guidance through the

Economic disaster beckons as water-hungry investors buy up Africa's land

Water drawn from rivers, dams or underground to irrigate new farms in Africa may severely affect users downstream



△ Ethiopia. Many irrigation schemes are too reliant on 'blue' water, drawn from rivers and dams. Photograph: Jenny Vaughan/AFP/Getty Images

investments in African farmland by "ecologically illiterate" groups, sovereign wealth funds and speculators. The risk of economic disaster and possibly even conflict, some of which water experts have predicted.

food crisis and attracted by low land prices and subsidies in sub-Saharan Africa, hundreds of investors from around the world have acquired millions of hectares (some as much as 230m hectares) of underused land where they can draw on rivers and underground water to irrigate food crops on a large scale. Many have struck deals with governments guaranteeing them unlimited access to water for years.

It, says King's College London researcher Martin Kropf, is a new book of 50 academic essays on the implications of major foreign direct investments

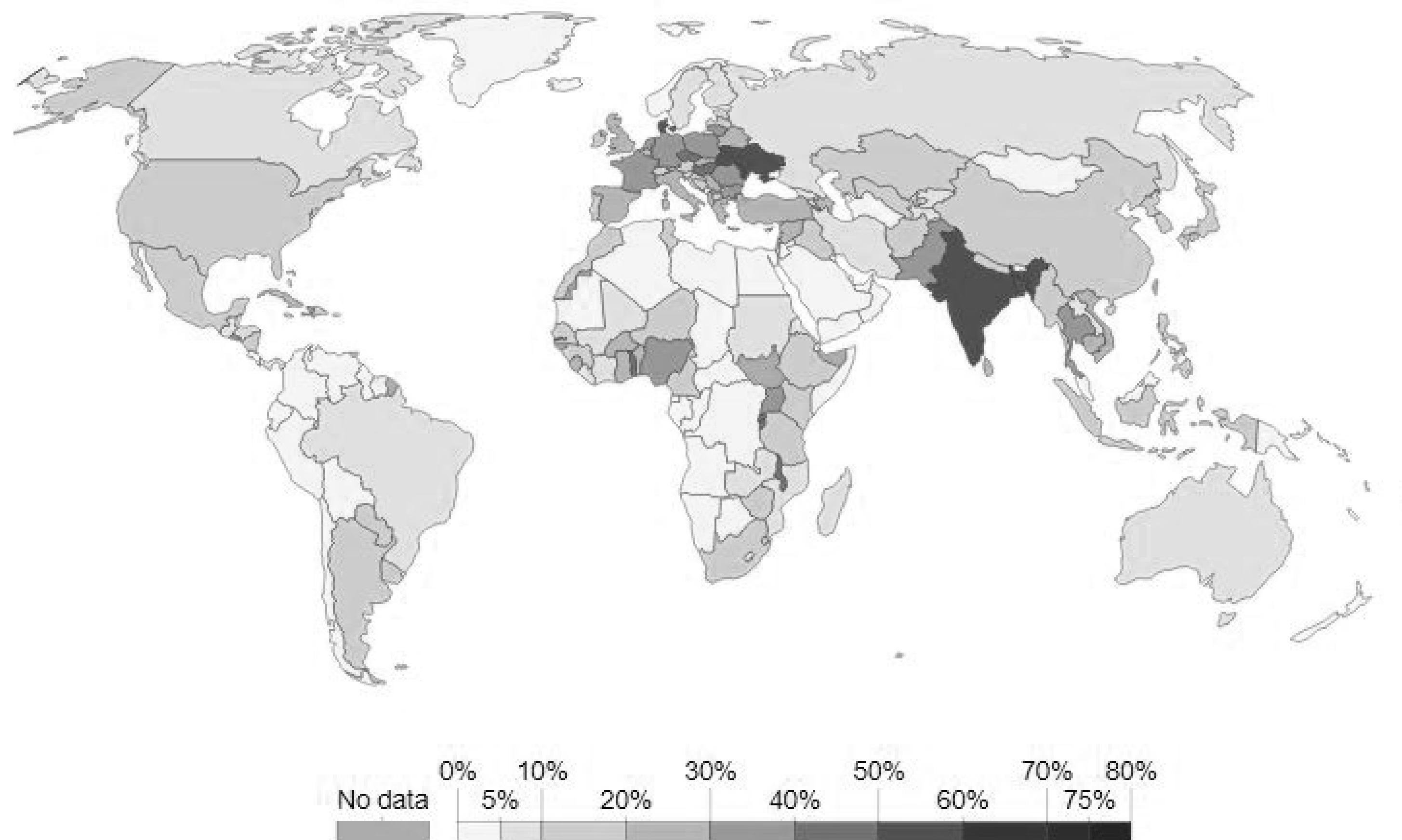
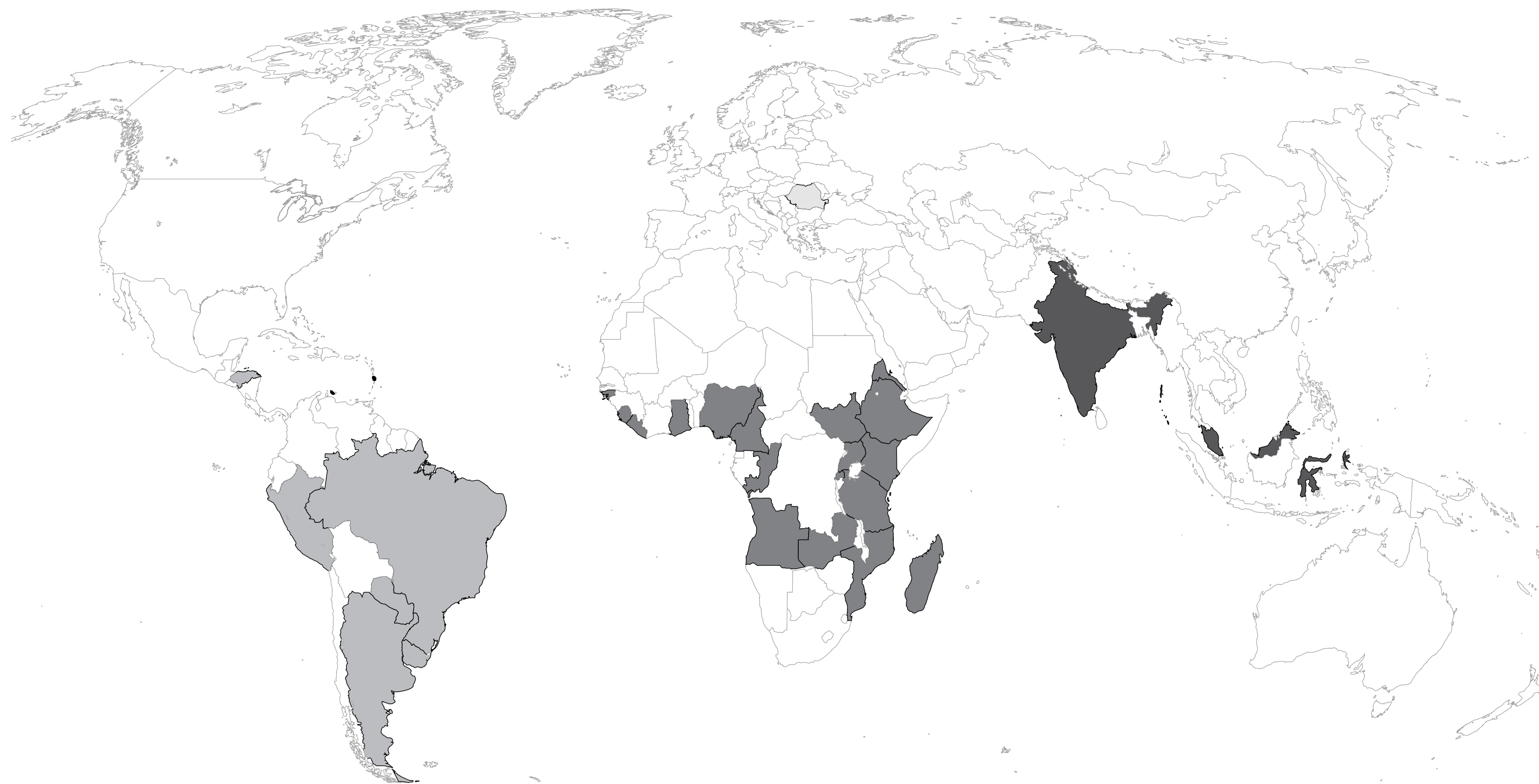


FIGURE 00 : *Share of global land area used for arable agriculture , 2014* Source : World Bank , 2014 .



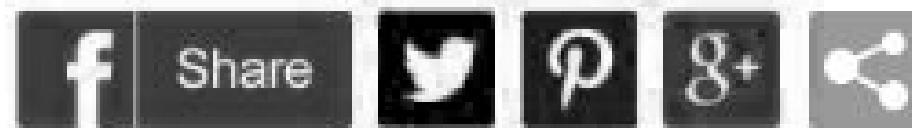
UK acquired agriculture land globally as of 2016 , Source : statistica.com, 2016 , drawn by author

Changing planning attitudes , rural areas have now become favorable areas for future growth

More than half the British countryside at risk of 'urban sprawl' if planning laws are relaxed, campaigners warn

By LEON WATSON

UPDATED: 10:20 BST, 7 February 2012



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View comments

Urban sprawl will threaten more countryside under a proposed system, it was claimed today.

The Campaign to Protect Rural England (CPRE) has published detailed maps of areas at risk of development.

They mark 55 per cent of land in Areas of Outstanding Natural Beauty (AONBs) under threat.



Brexit could leave Britain with a bare larder, farmers warn

NFU says UK produces only 60% of its own food and must increase production to avoid food insecurity after leaving EU

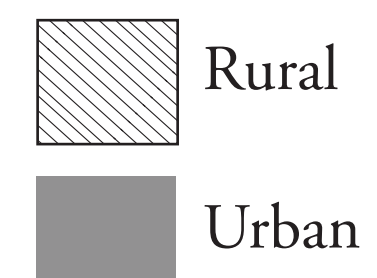
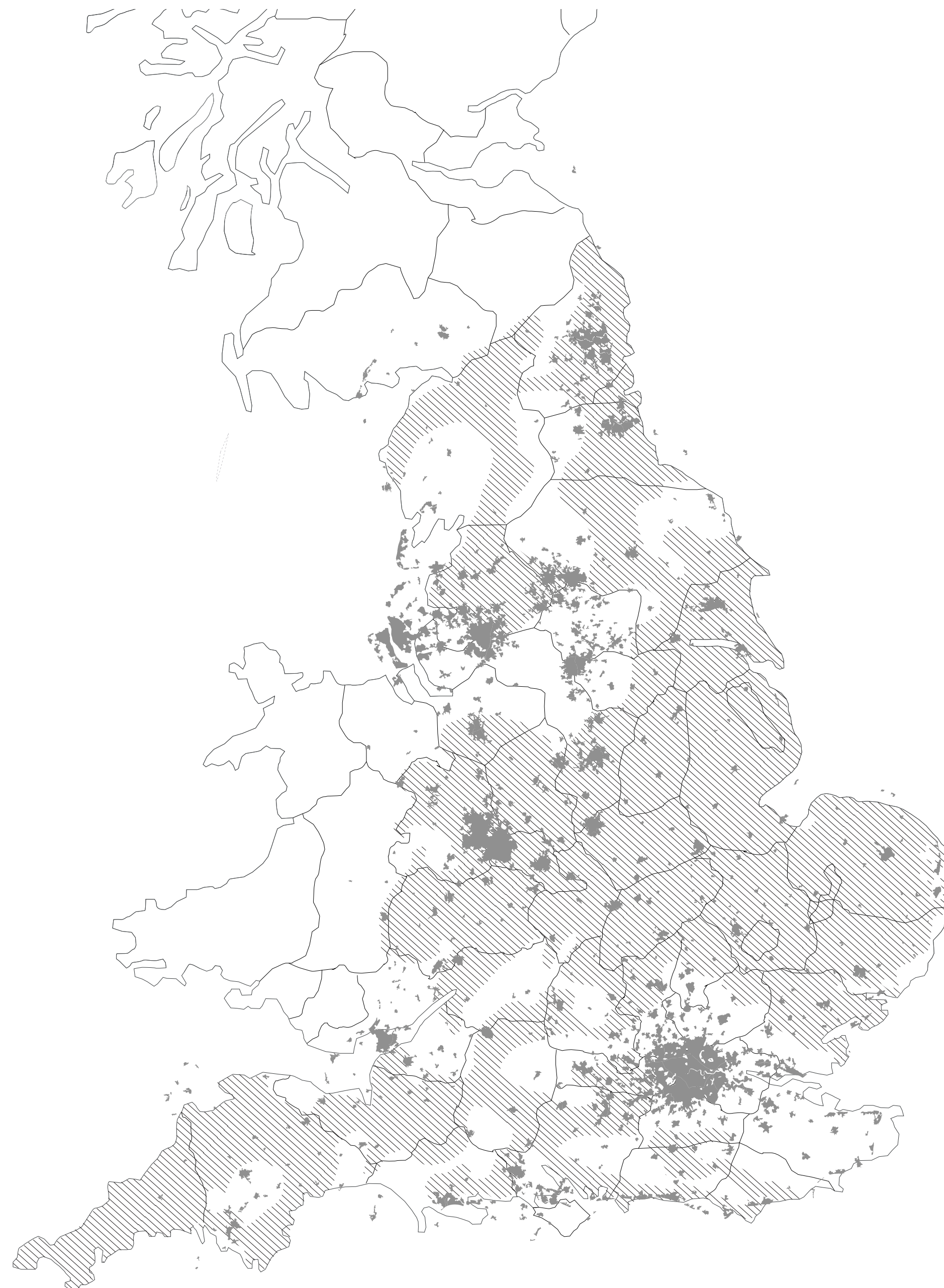


▲ The NFU says vegetable shortages in Europe and the US this year have highlighted the UK's over-reliance on other countries for food. Photograph: Chris Ratcliffe/Bloomberg/Getty Images

Britain must increase home-grown food production and build stronger supply chains to face Brexit uncertainties, the National Farmers Union has said.

Tim Breitmeyer: Councils need to rethink attitude to rural development after Brexit

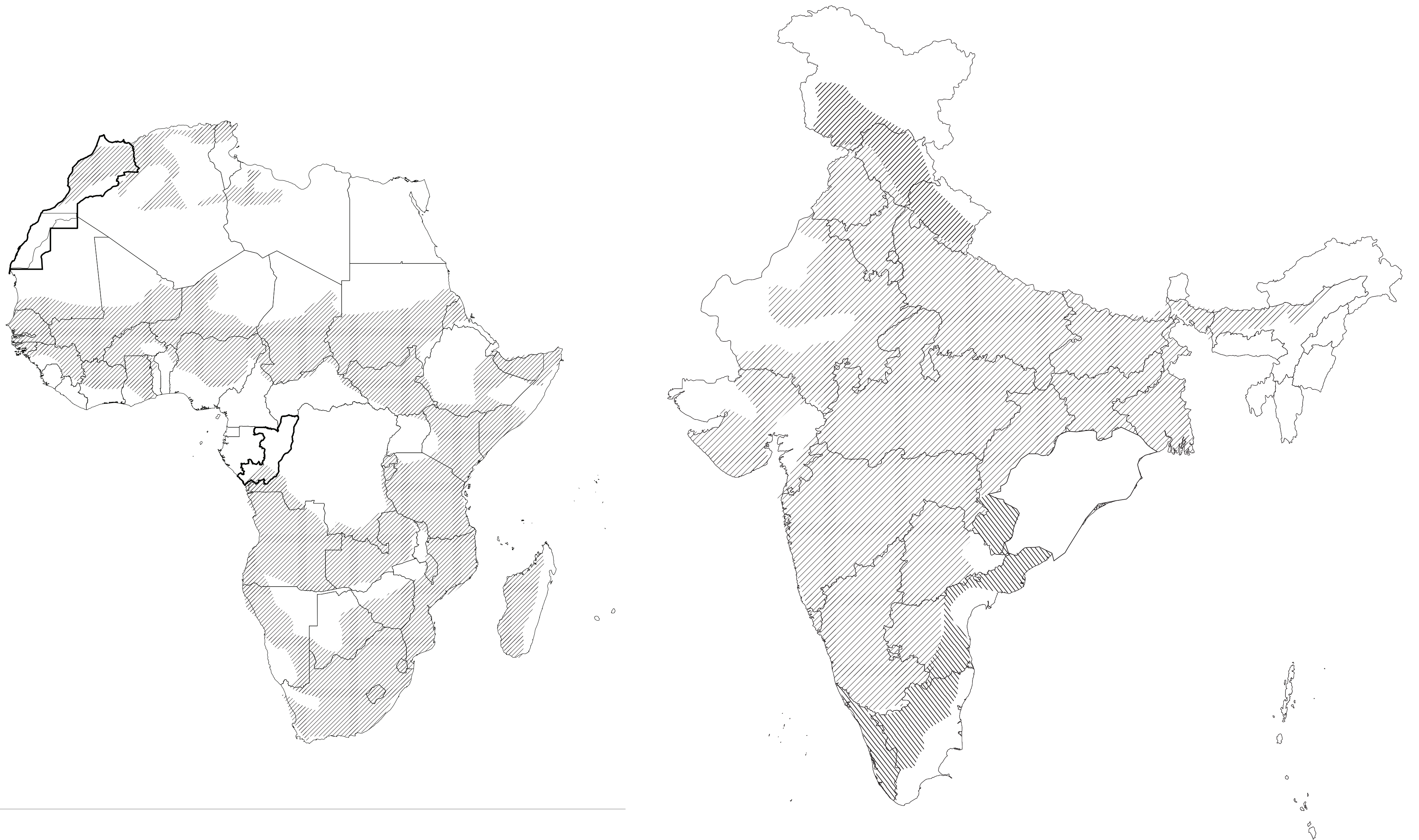




UK existing agricultural land cover

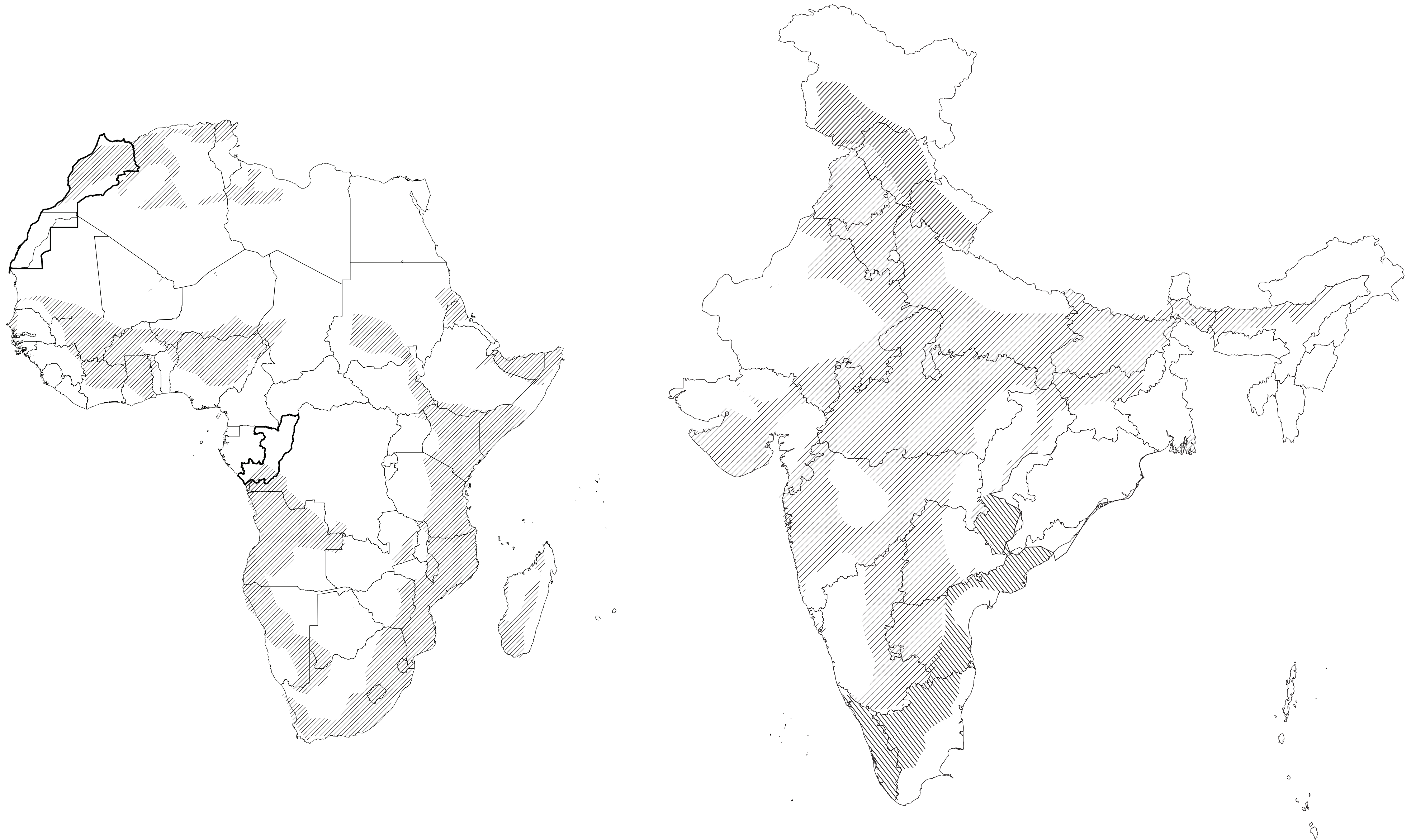


UK urbanised rural land in the post brexit future



Africa and India : Existing agricultural land cover

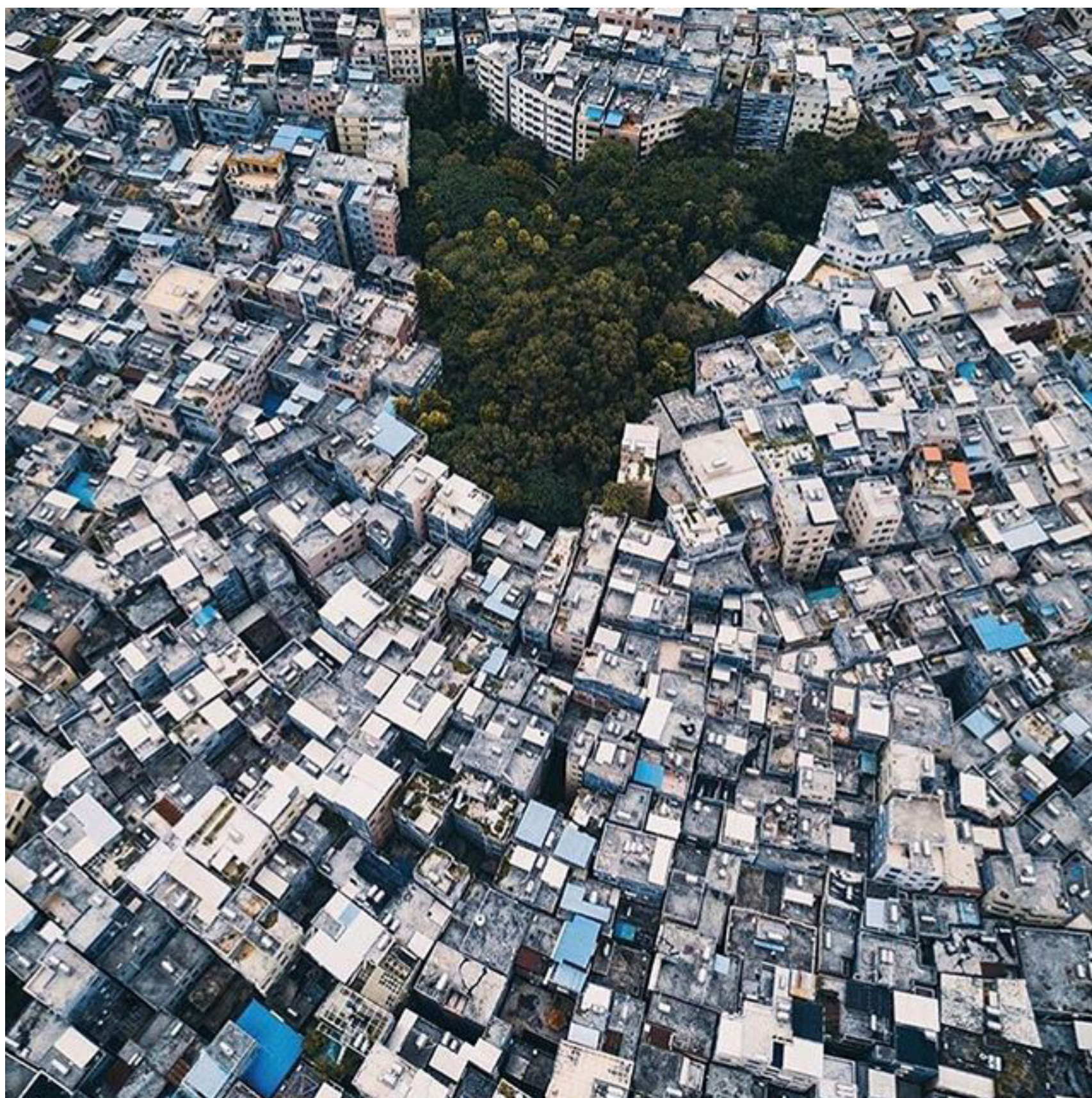
 Rural

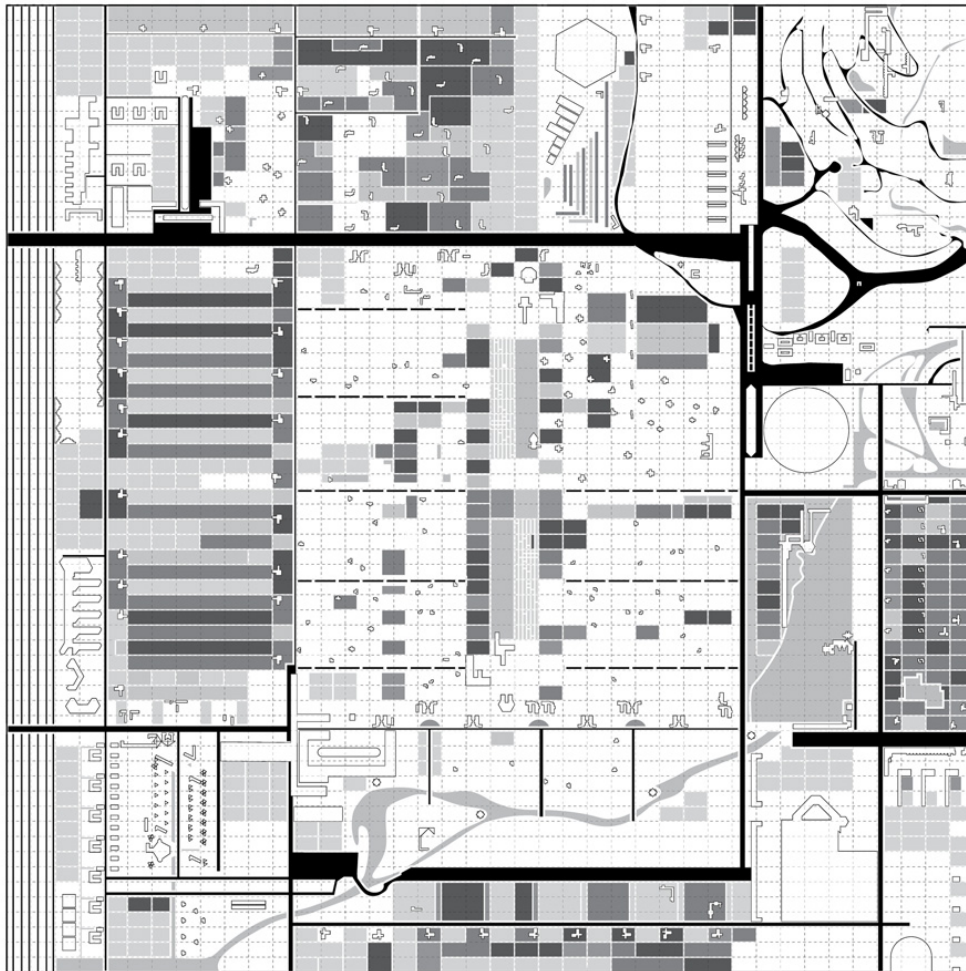


Africa and India :Loss of agriculture land with UK's increasing food demands post brexit

 Rural







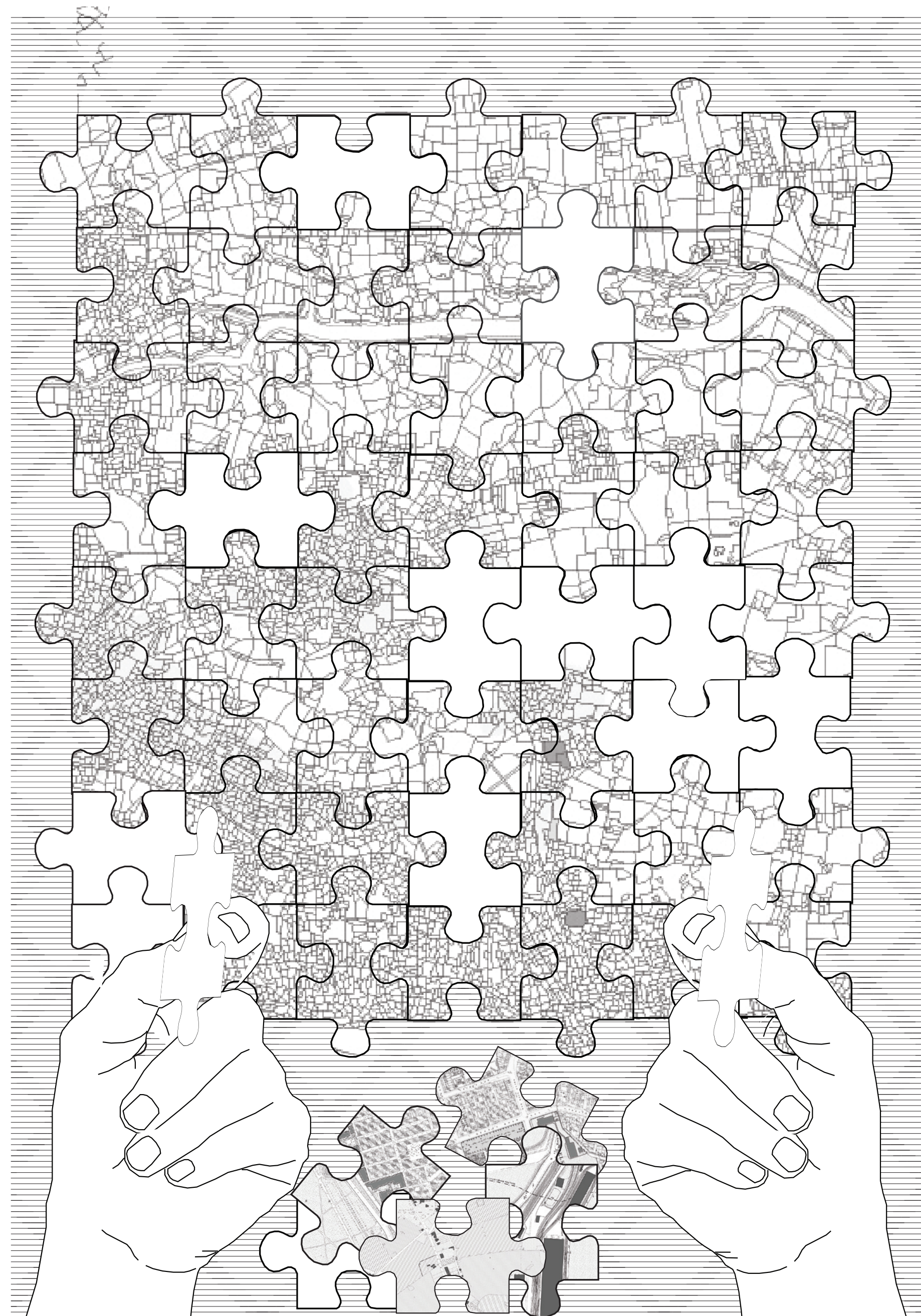
[*The new rural city*]

III. 01. The main question



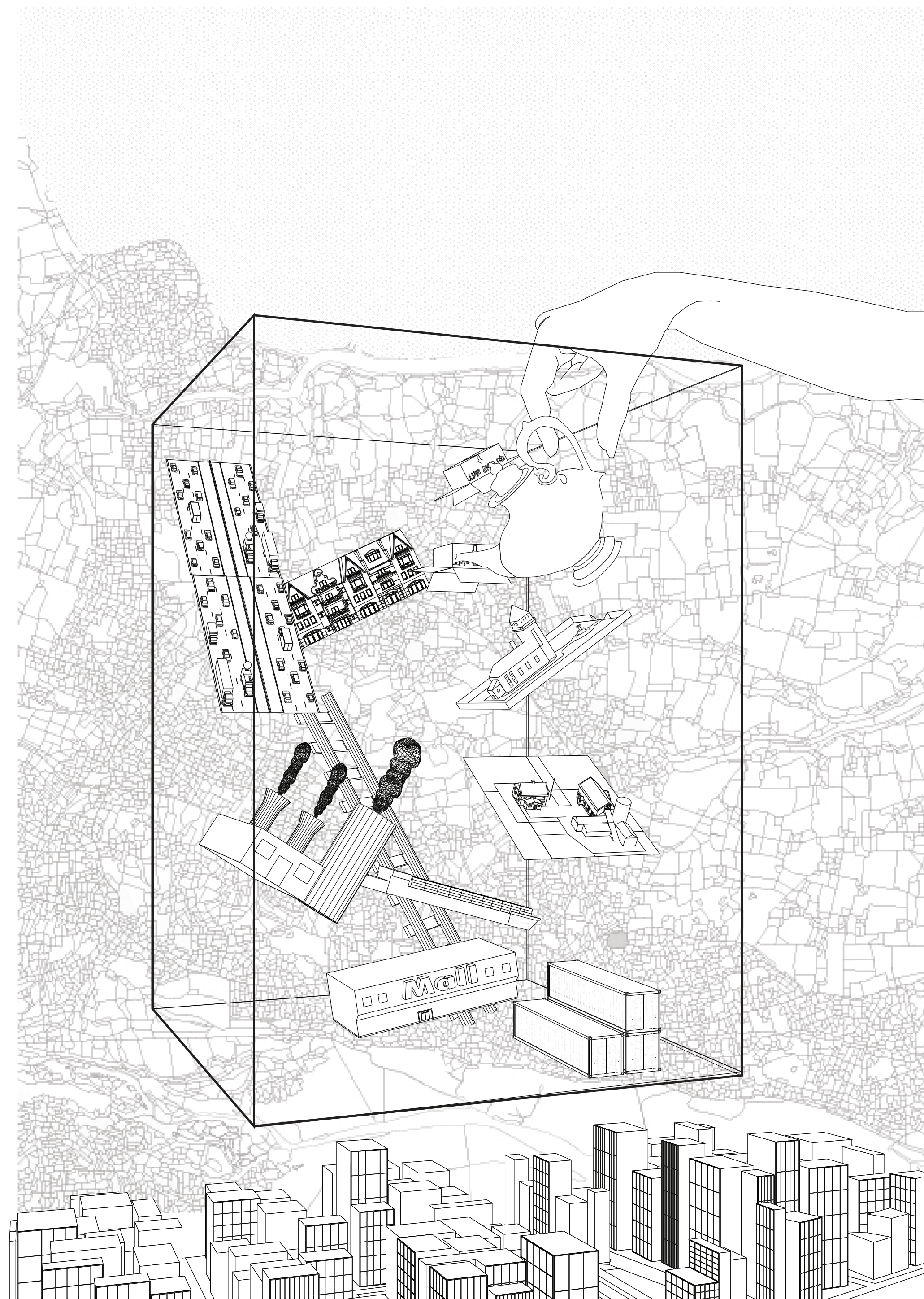
Can reappropriating the rural to accommodate new possibilities of production, living and occupation create the conditions for food sufficiency within the post Brexit UK while also helping in subverting the pressure of its food demands on its former colonies?

III. 02. Hypothesis



Stripping the rural of its existing spatial logic that was the result of its colonial industrialisation

Drawn by author

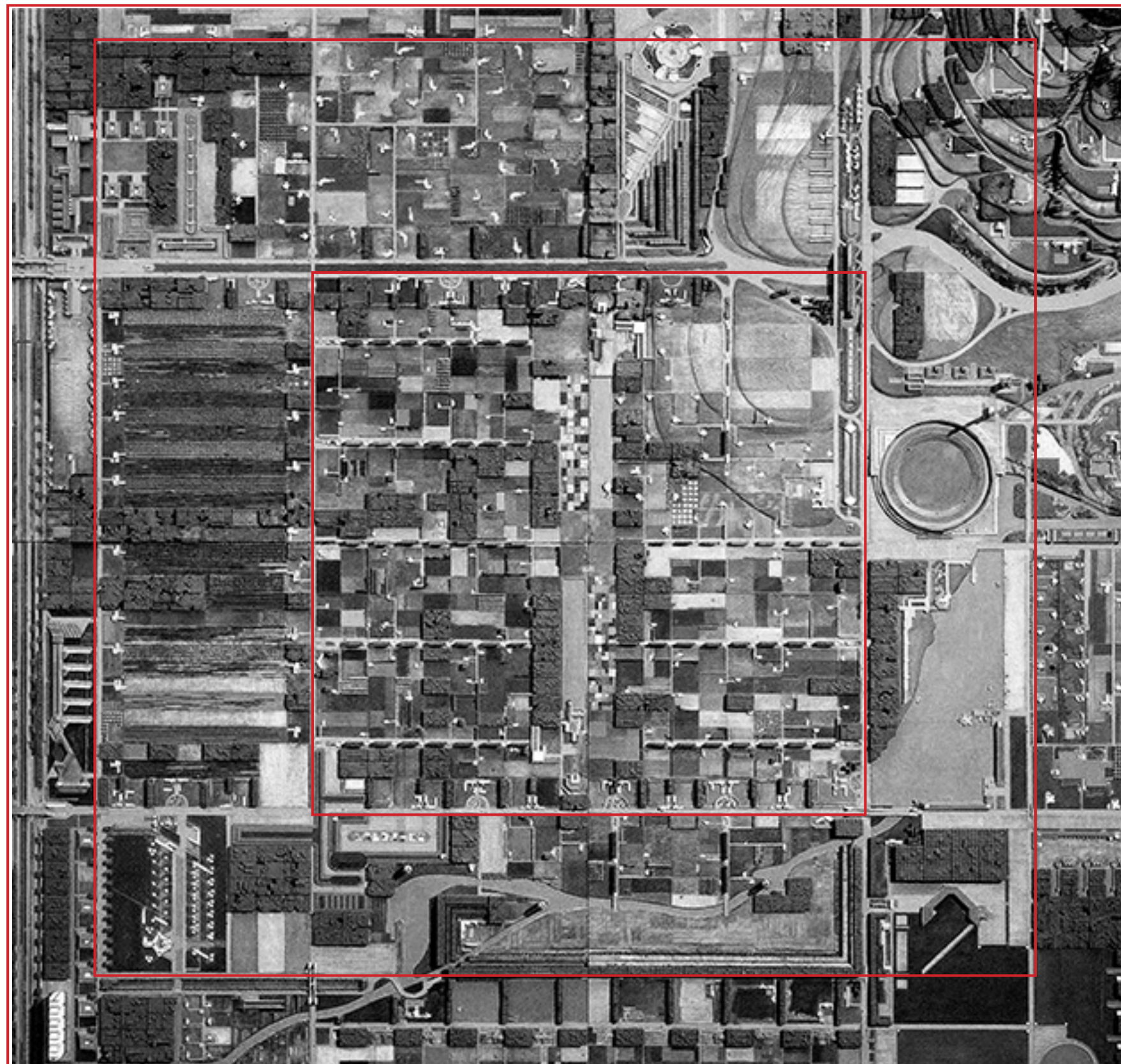


Setting aside the elements of the industrial city to be replaced back only after a new land order is established

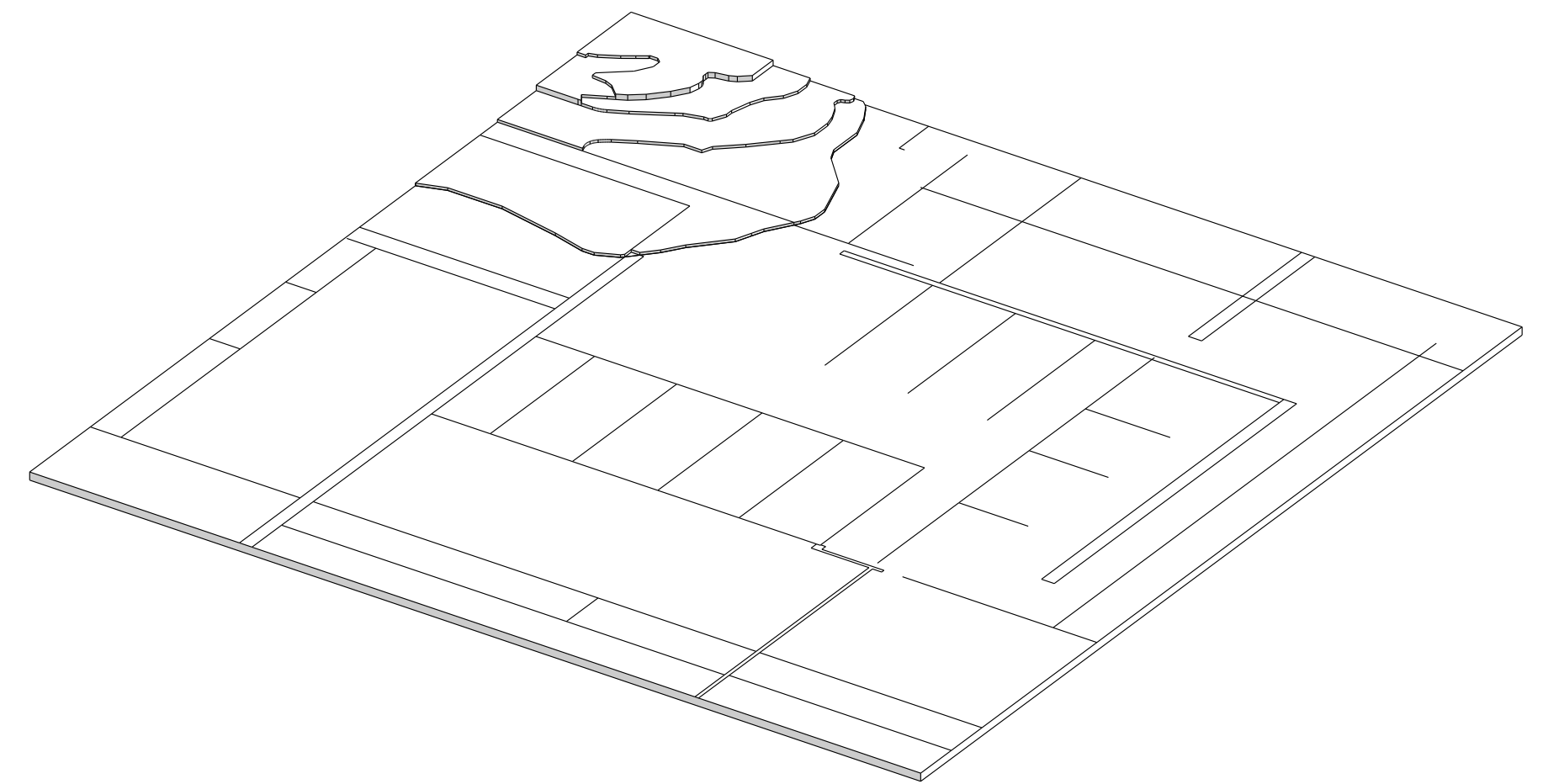
Drawn by author

III . 03 . The elements of the new city

Broadacre city , Frank Lloyd Wright

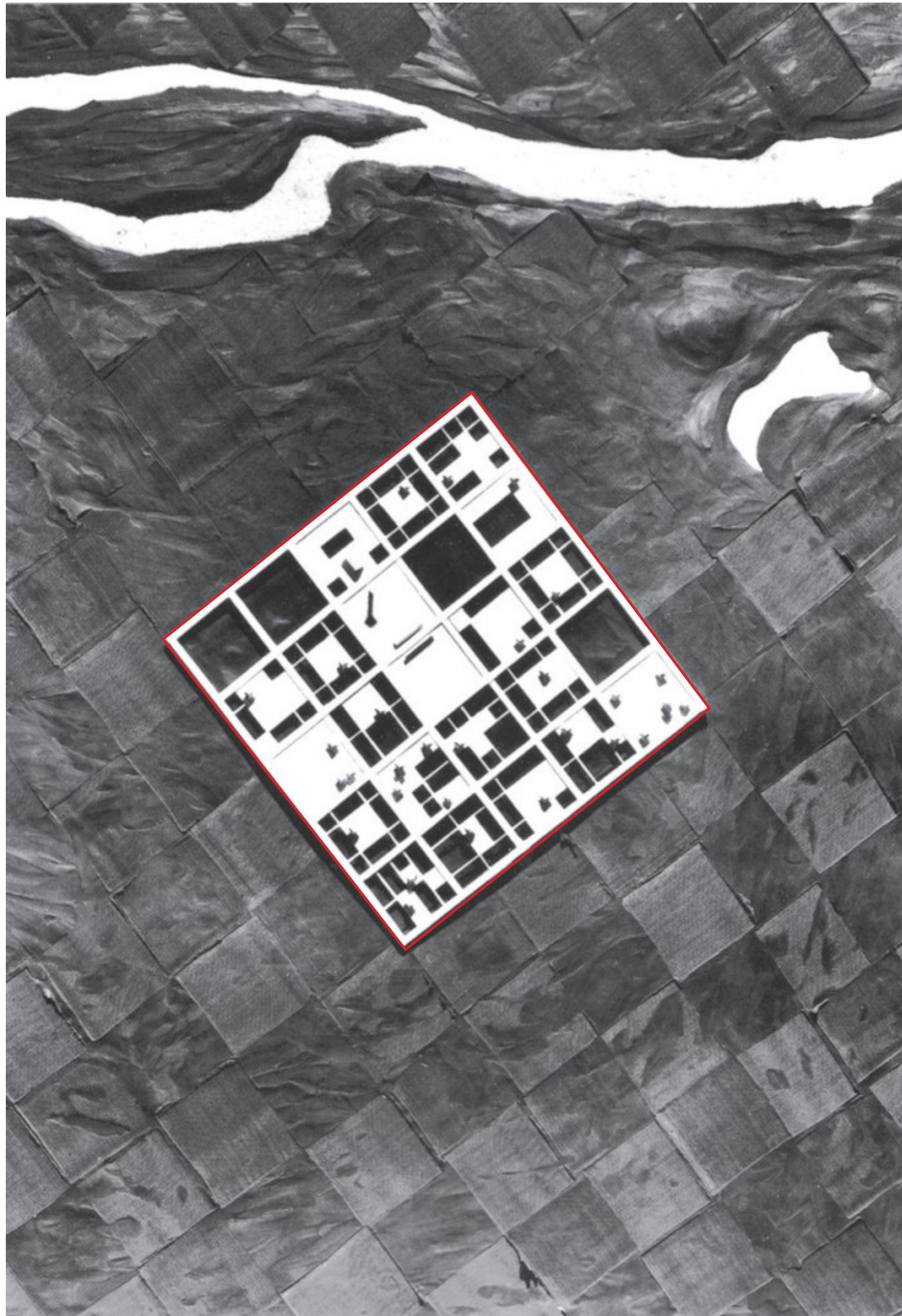


Broadacre City masterplan, Frank Lloyd Wright, 1935

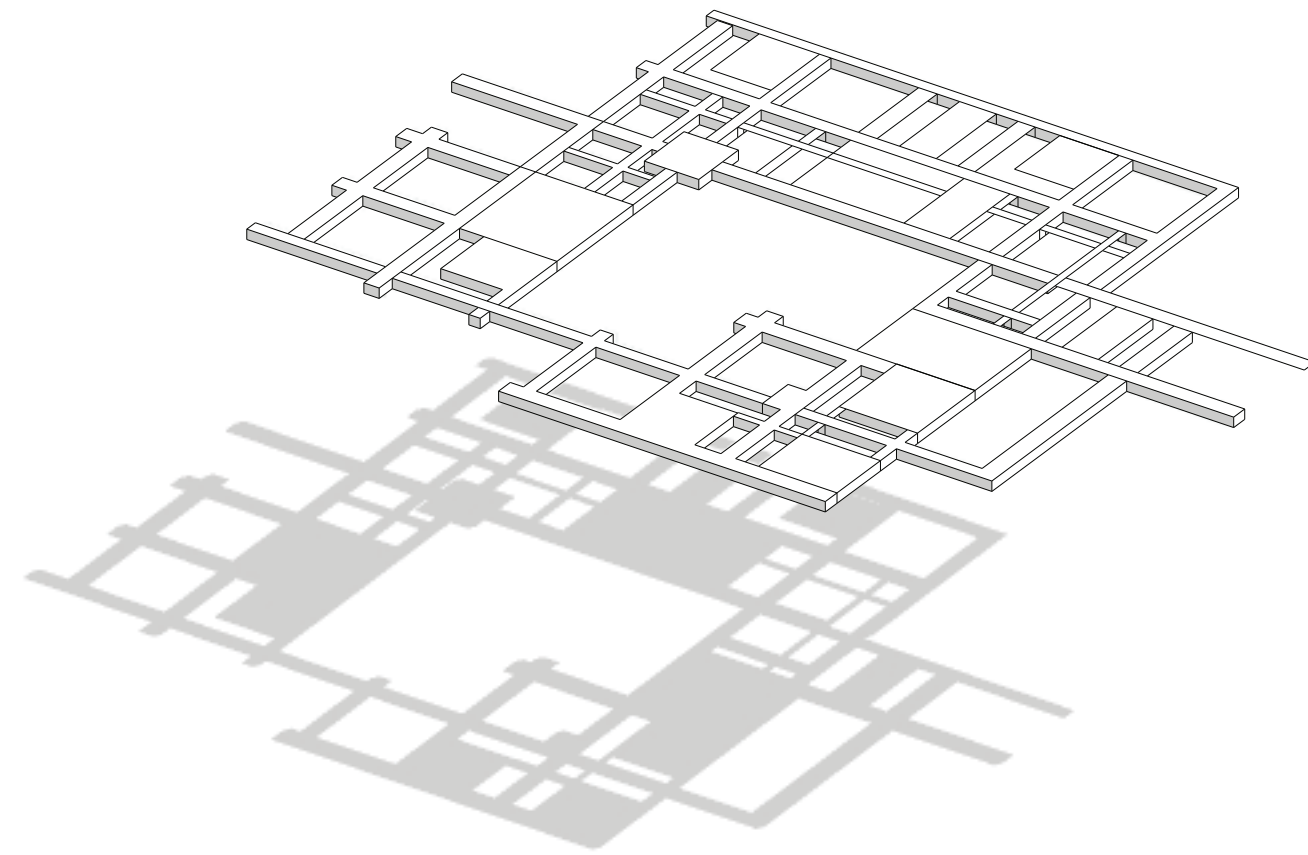


Extracted element : The grid , Source : drawn by author

Agriculture city , Kisho Kurokawa



Agricultural City, Kisho Kurokawa, 1960

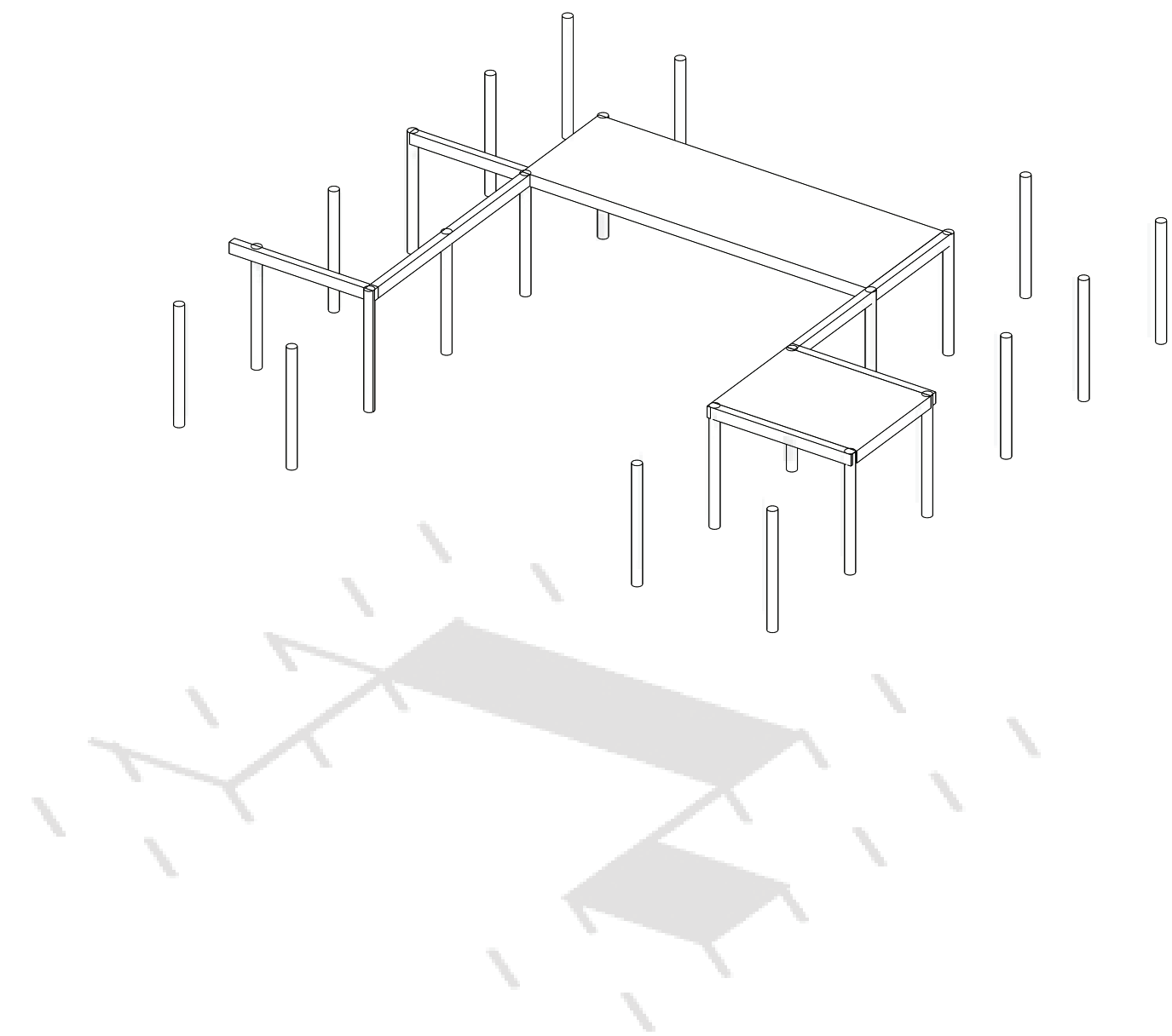


Extracted element : Elevated infrastructure grid

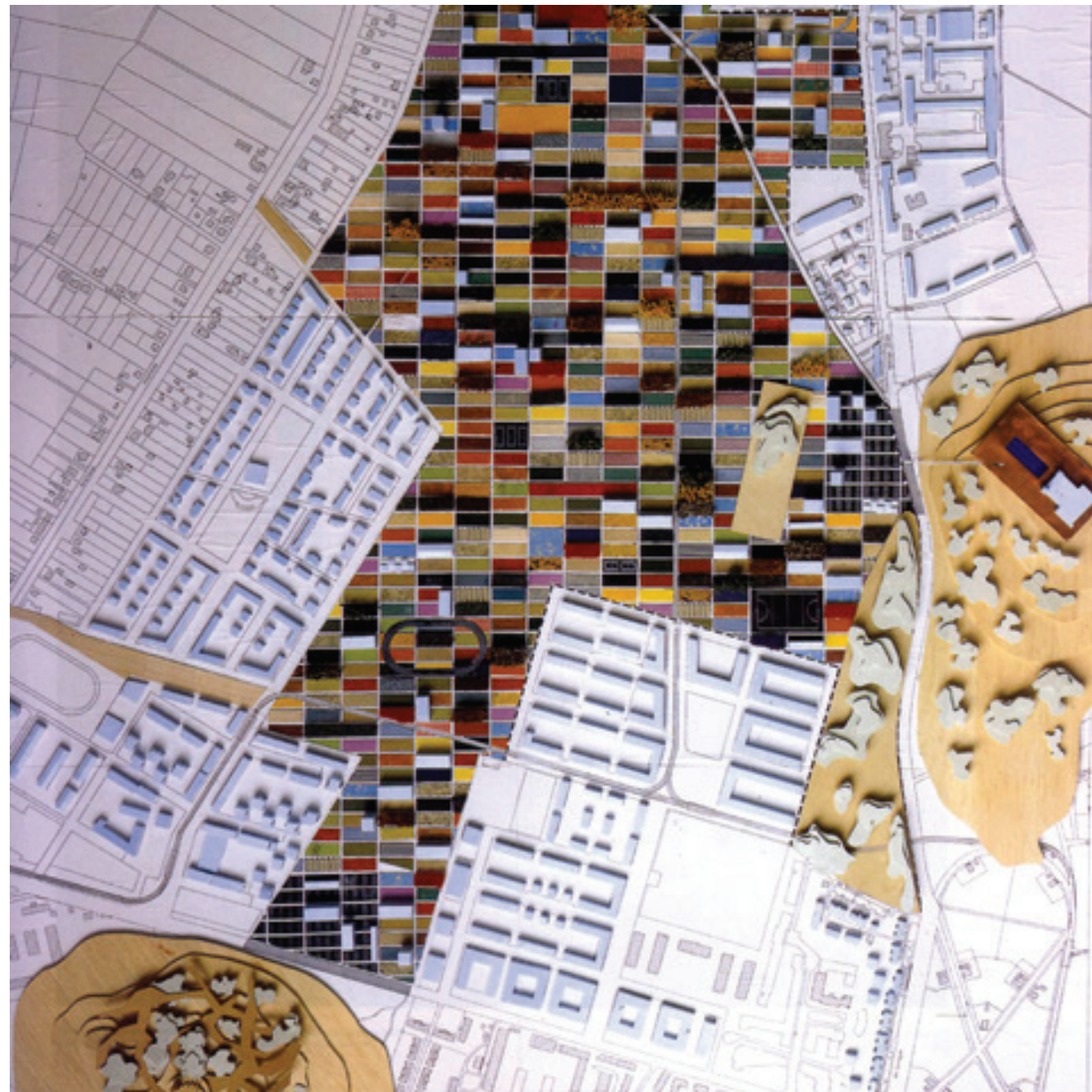
Agronica , Andrea Branzi



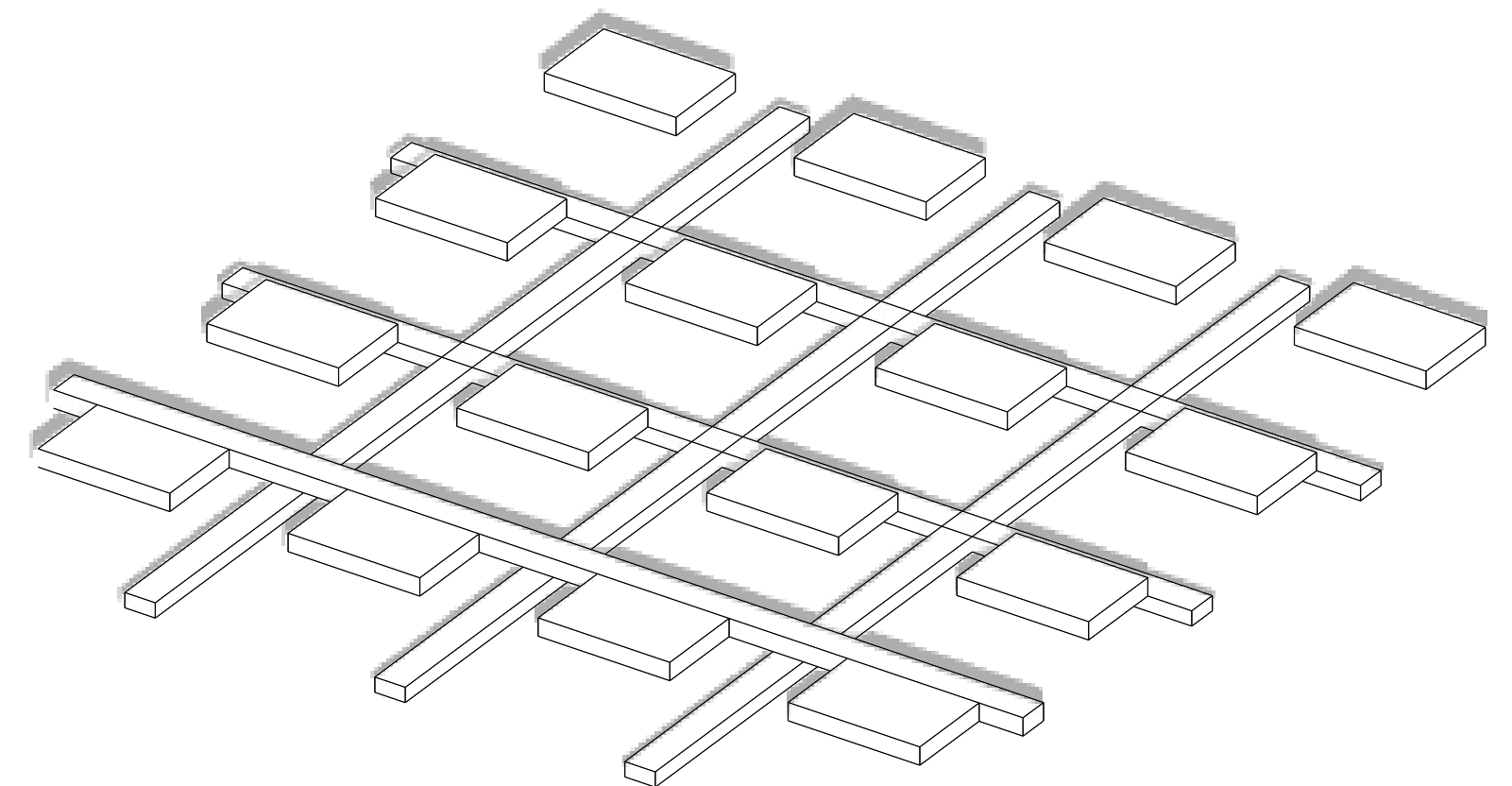
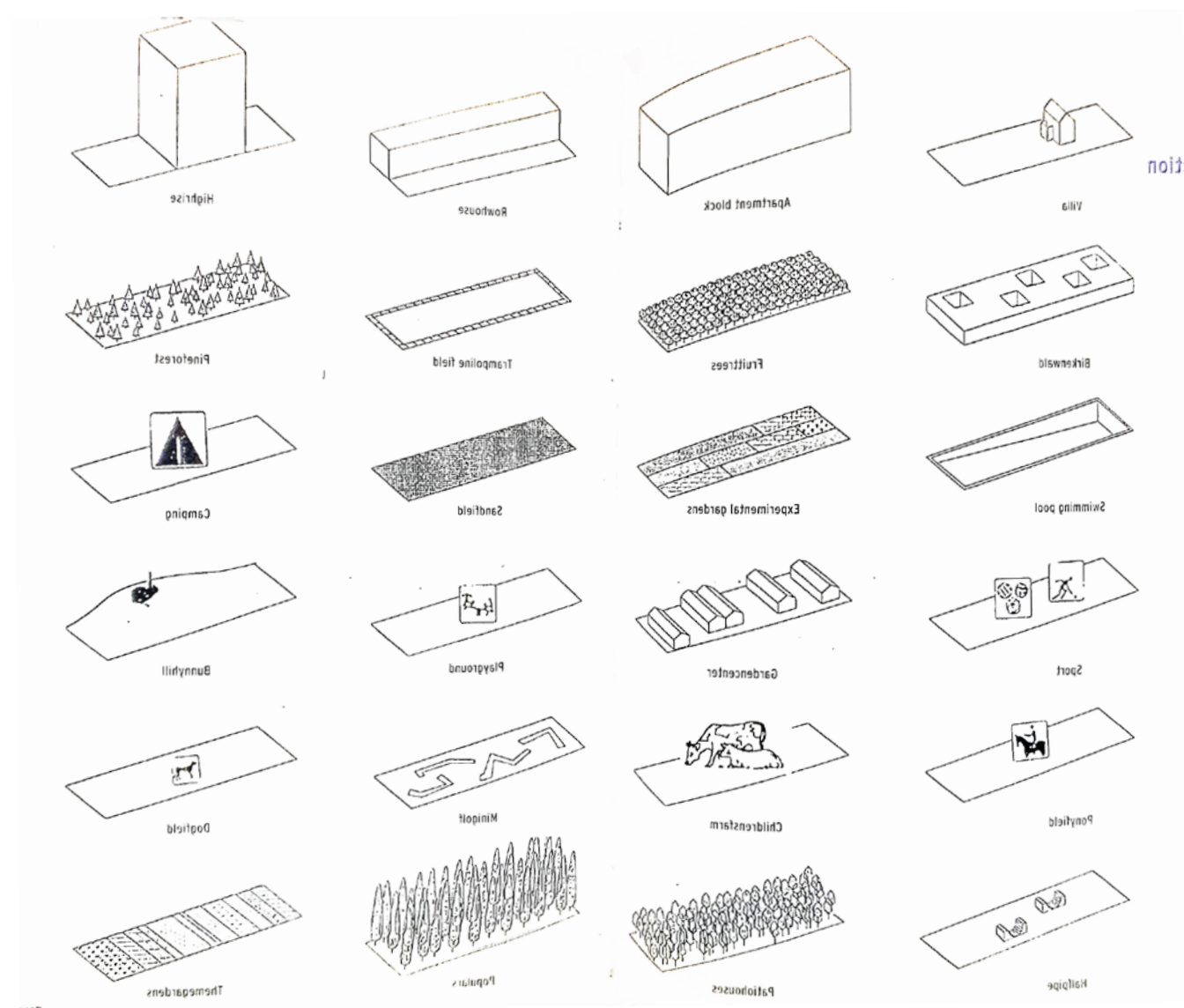
FIGURE 21 : *Agricultural City* , *Kisho Kurokawa* , 1960 Source :



Extracted element : Cylindrical pillars for both service and structural support

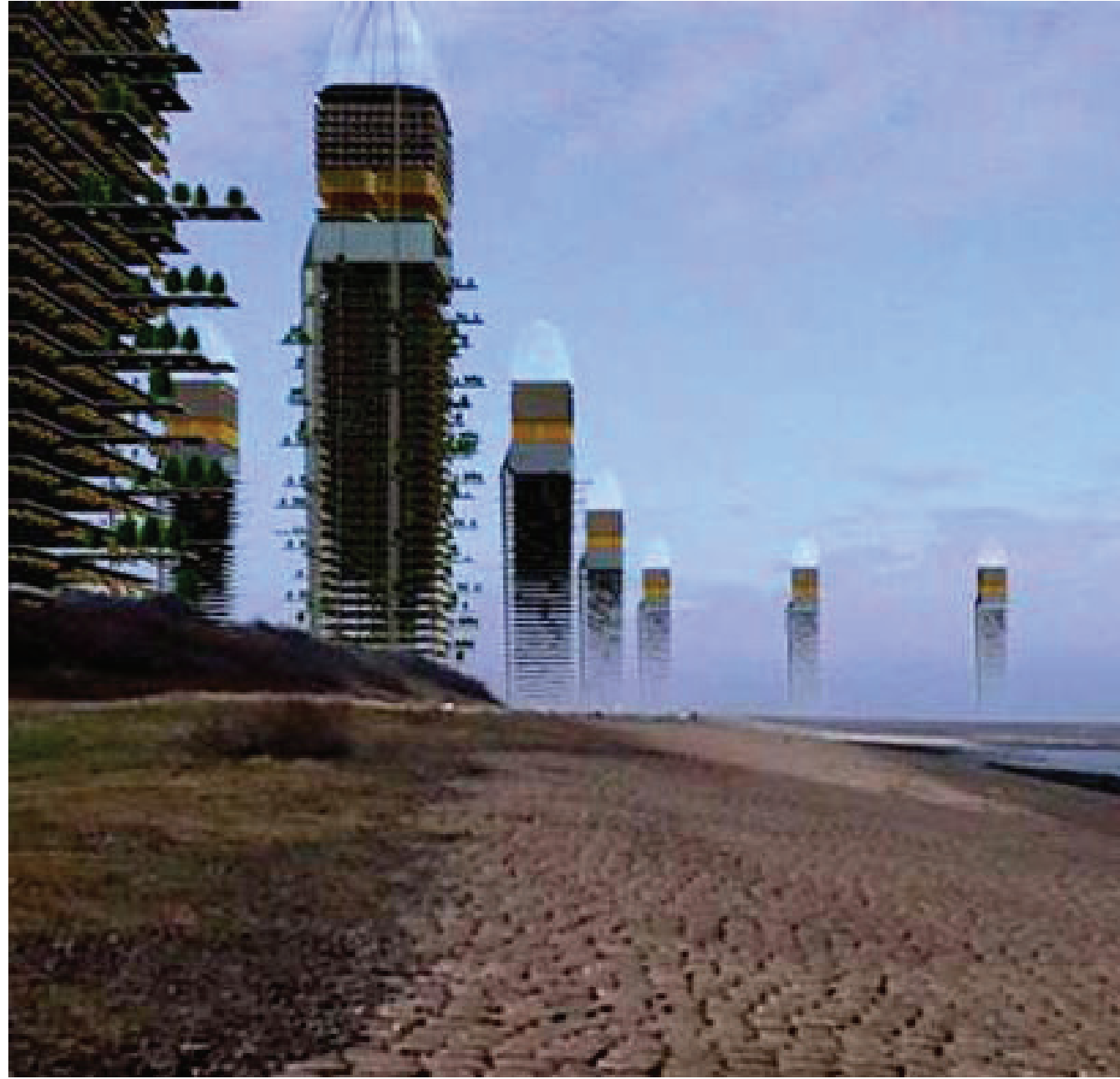


Pixel City , MVRDV

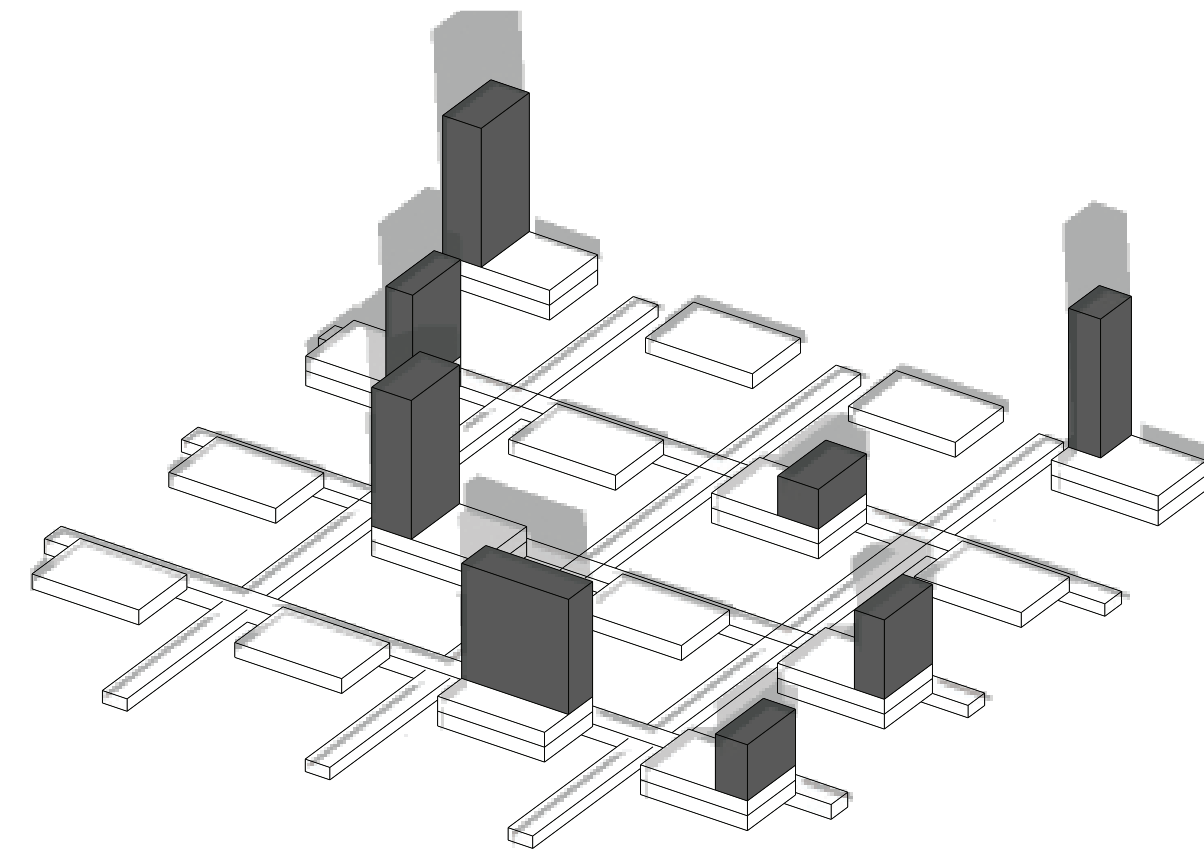
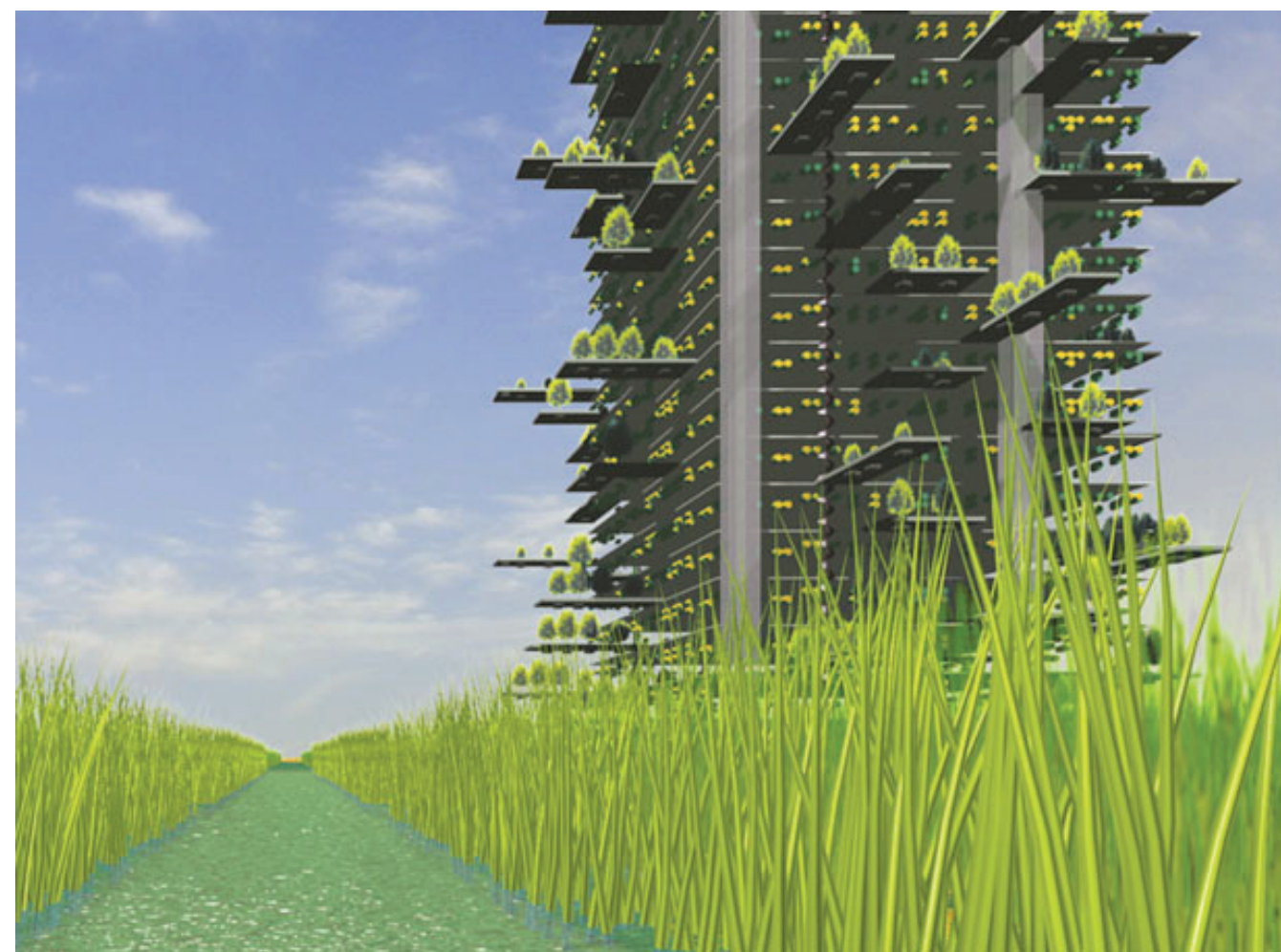


Extracted element :Equal sized urban typologies

FIGURE : 20X50m typologies , *Pixel City MVRDV* , Source : (Maas, Rijs and Koek, 1998)

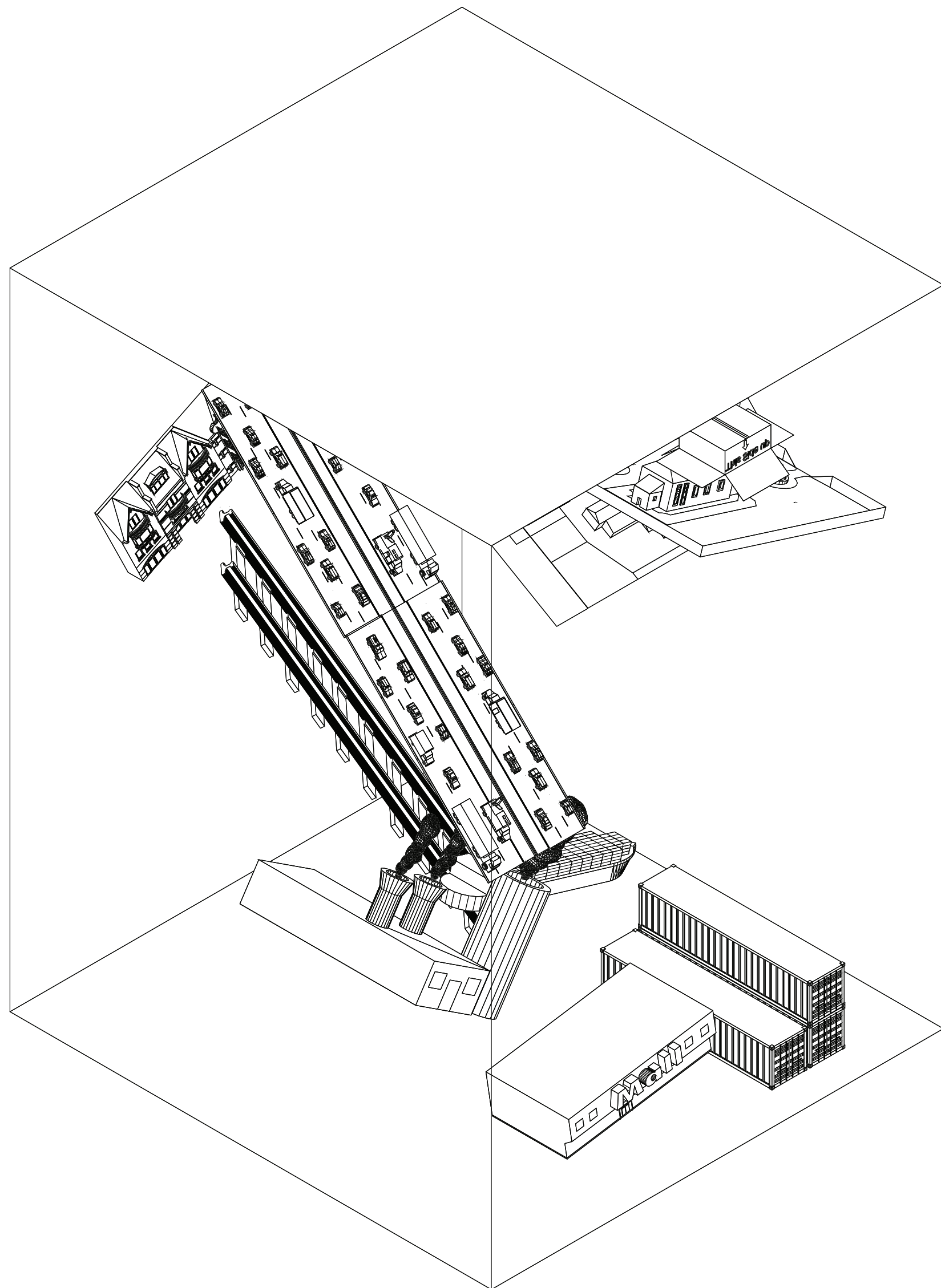


Pig City , MVRDV

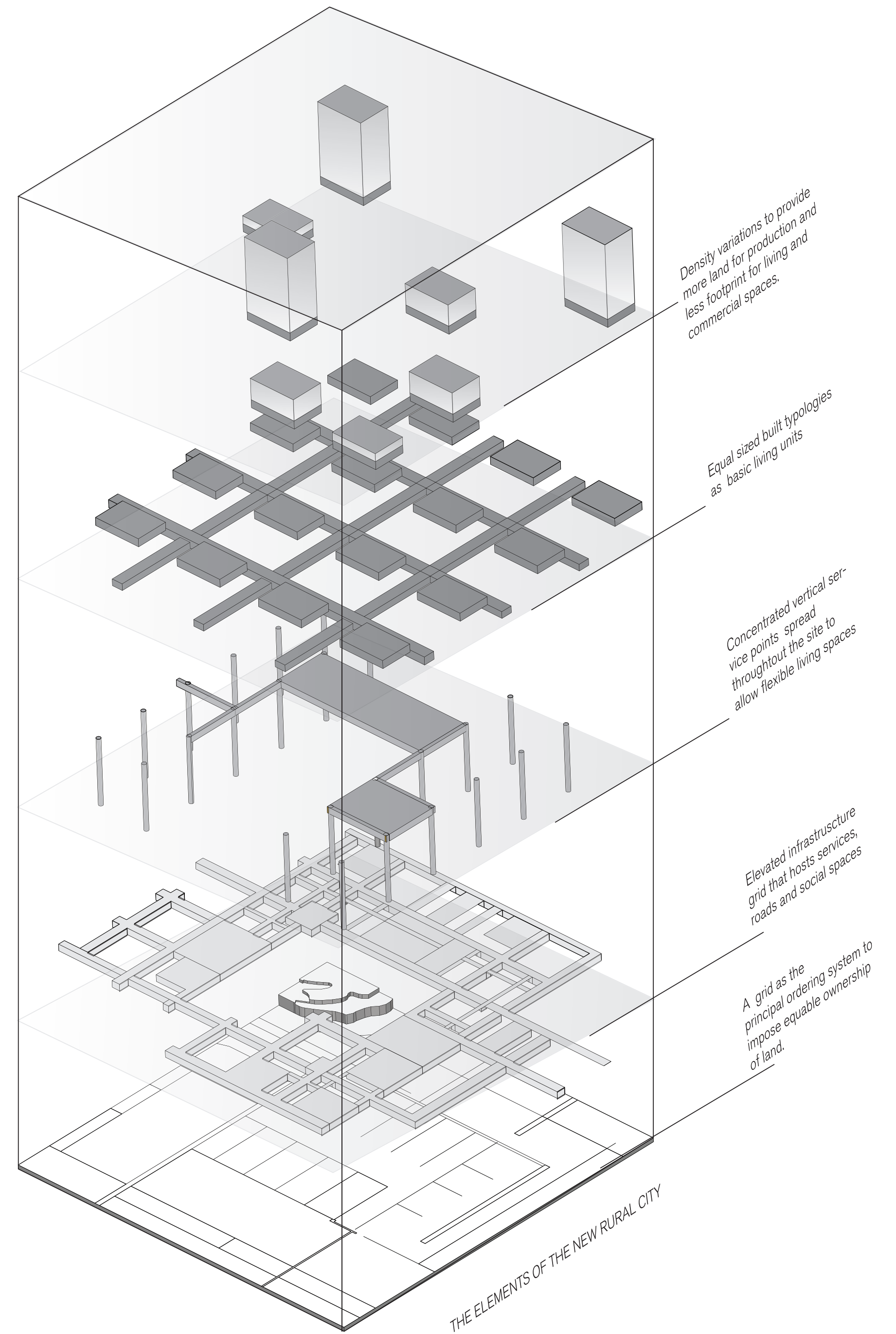


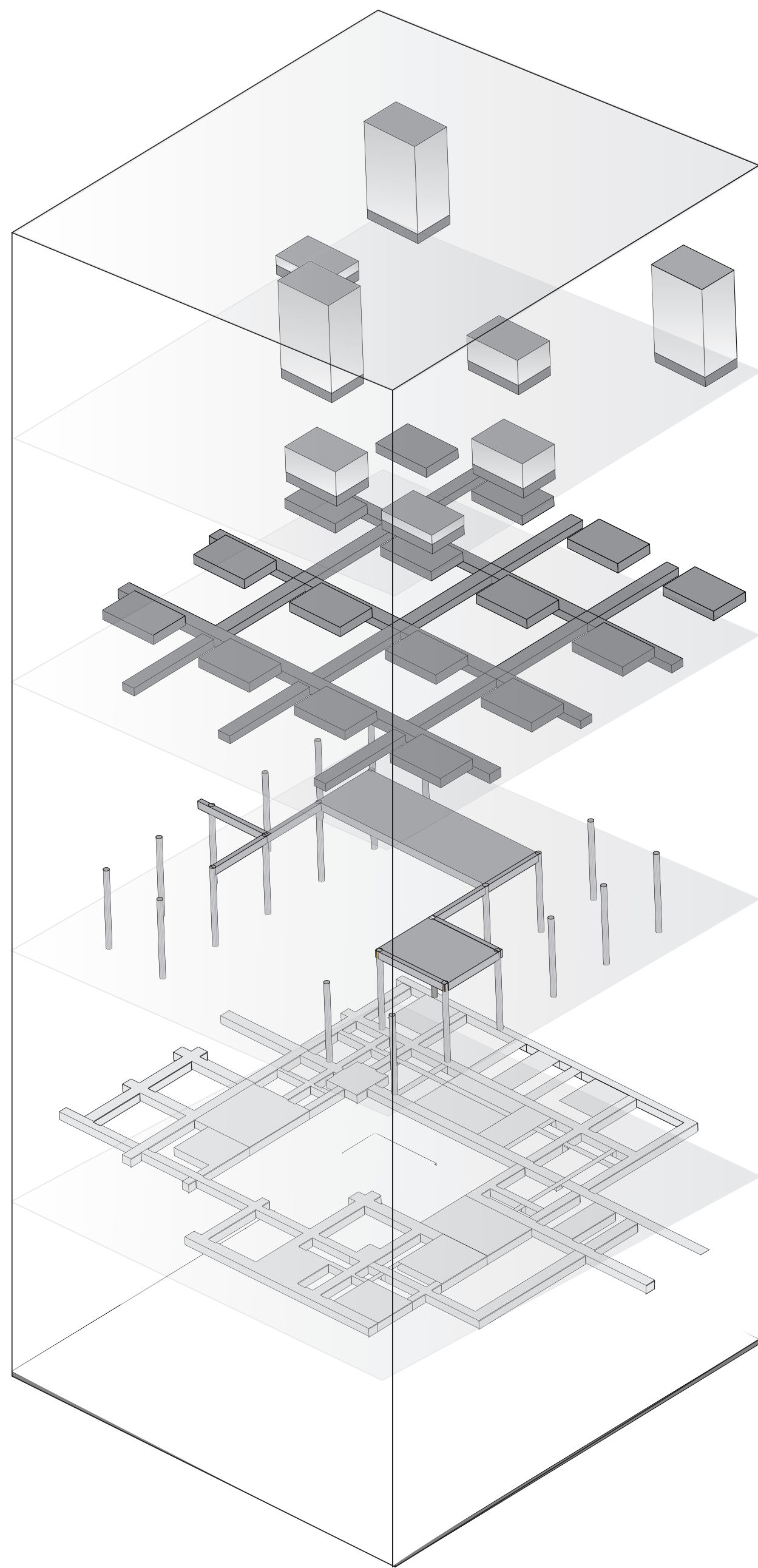
Extracted element : Density as a tool to create different open-built ratios

FIGURE Image of the farming tower , Pig City, MVRDV , Source : *(Maas, Rijs and Koek, 2000)*



The elements of the industrial city , drawn by author

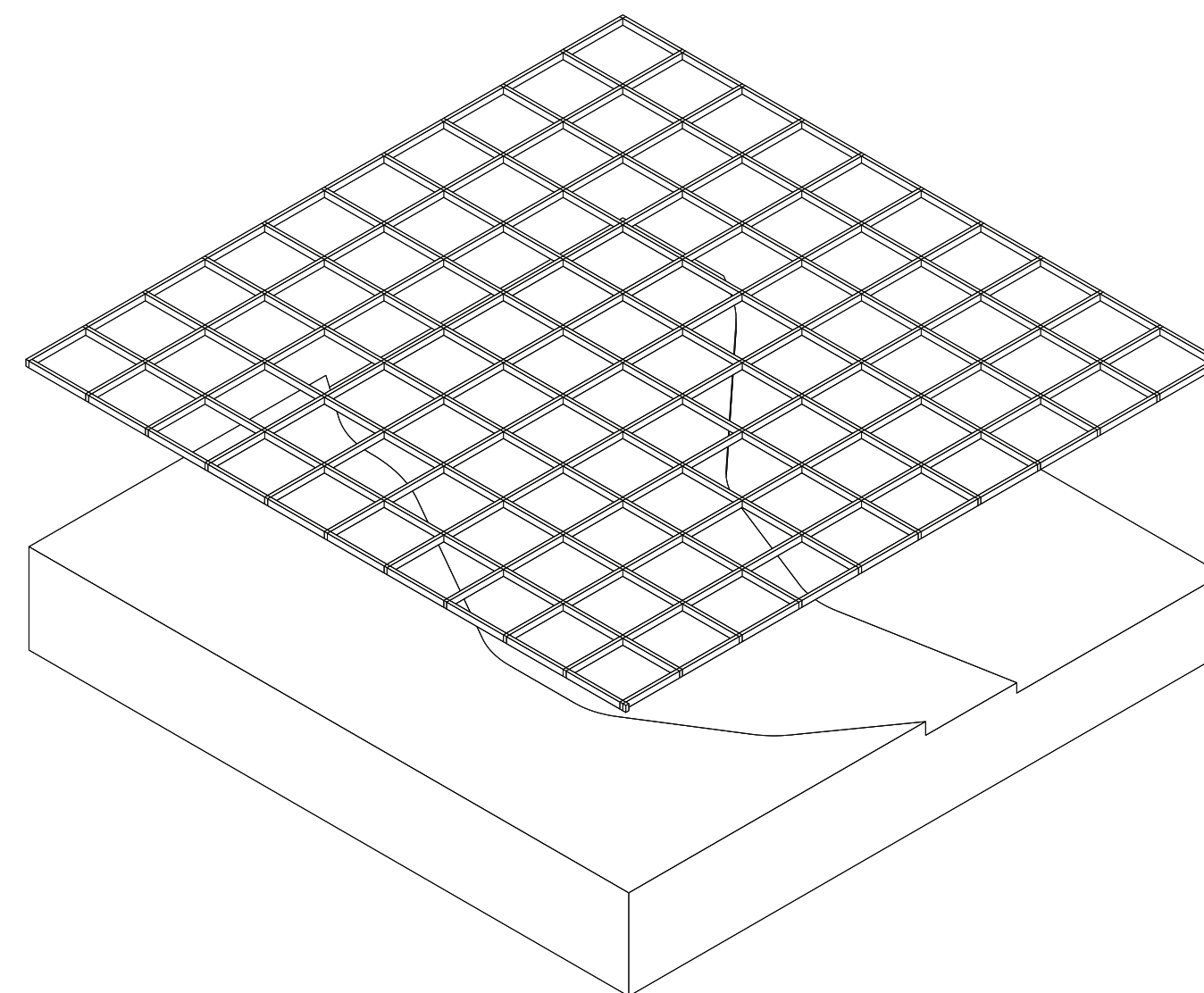




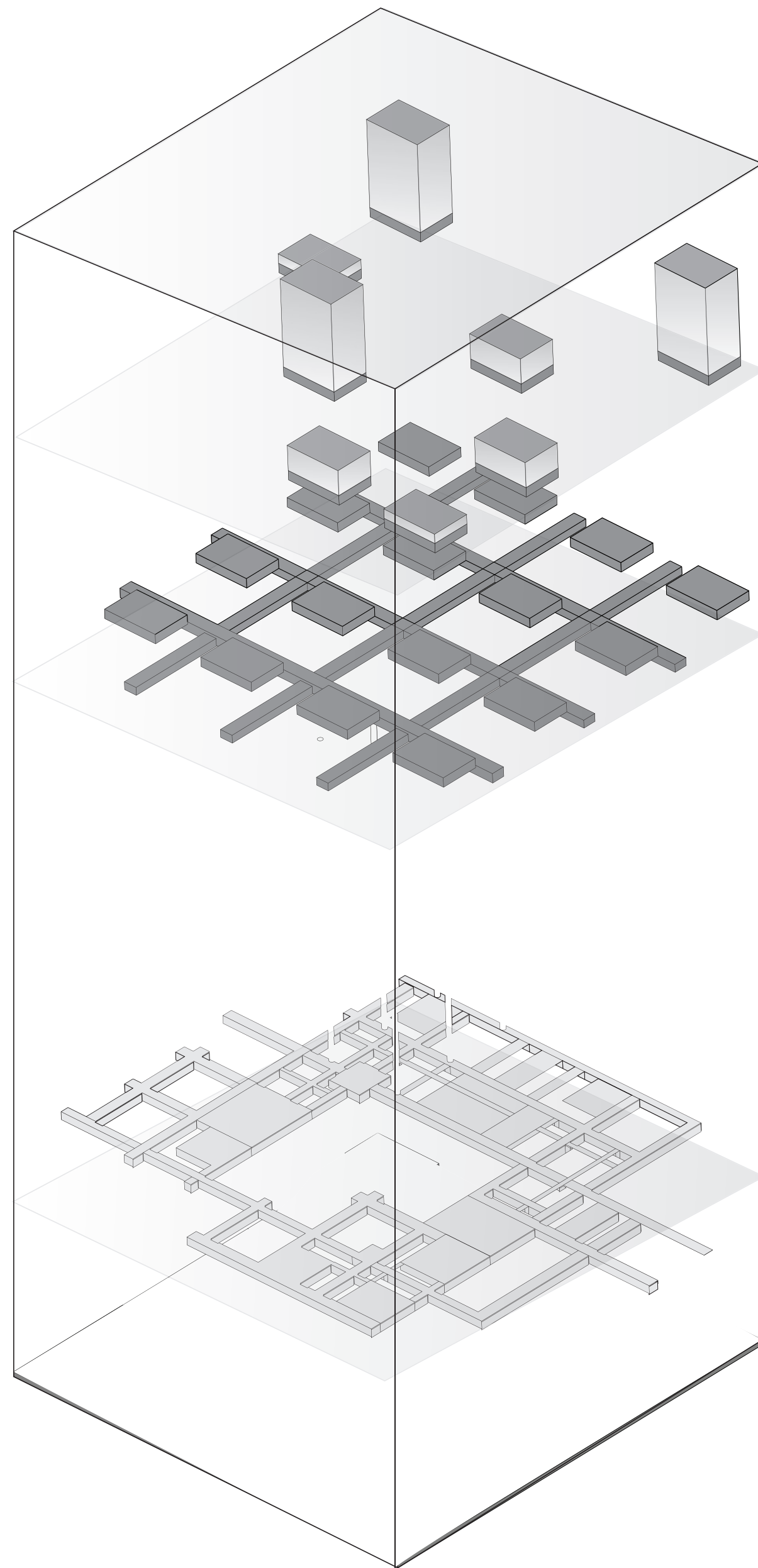
The proposed land order of the new rural city

III . 04 . The manifesto

01. De- privatising agricultural land

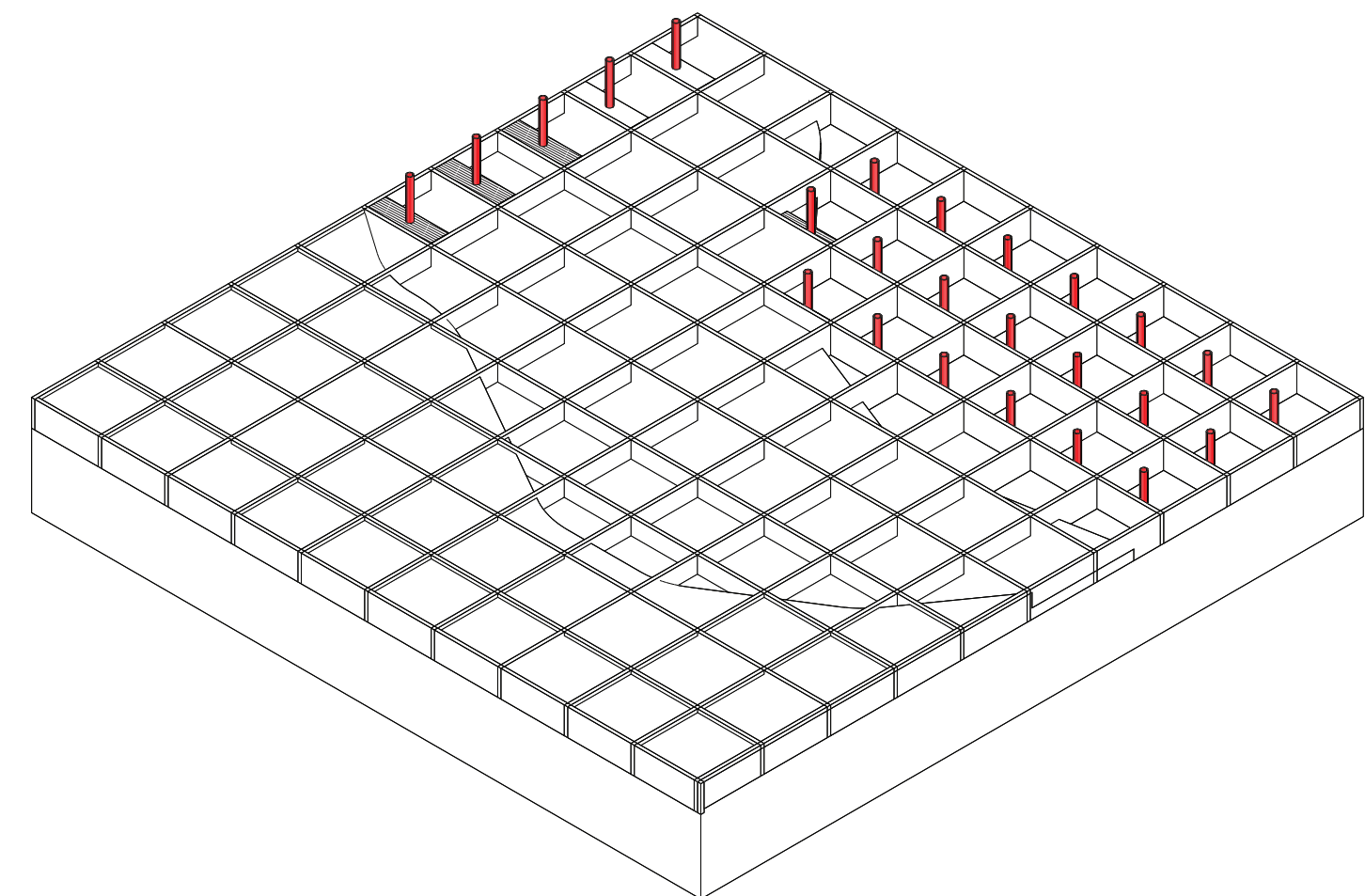


Superimposing a 1 hectare grid to create a new land order

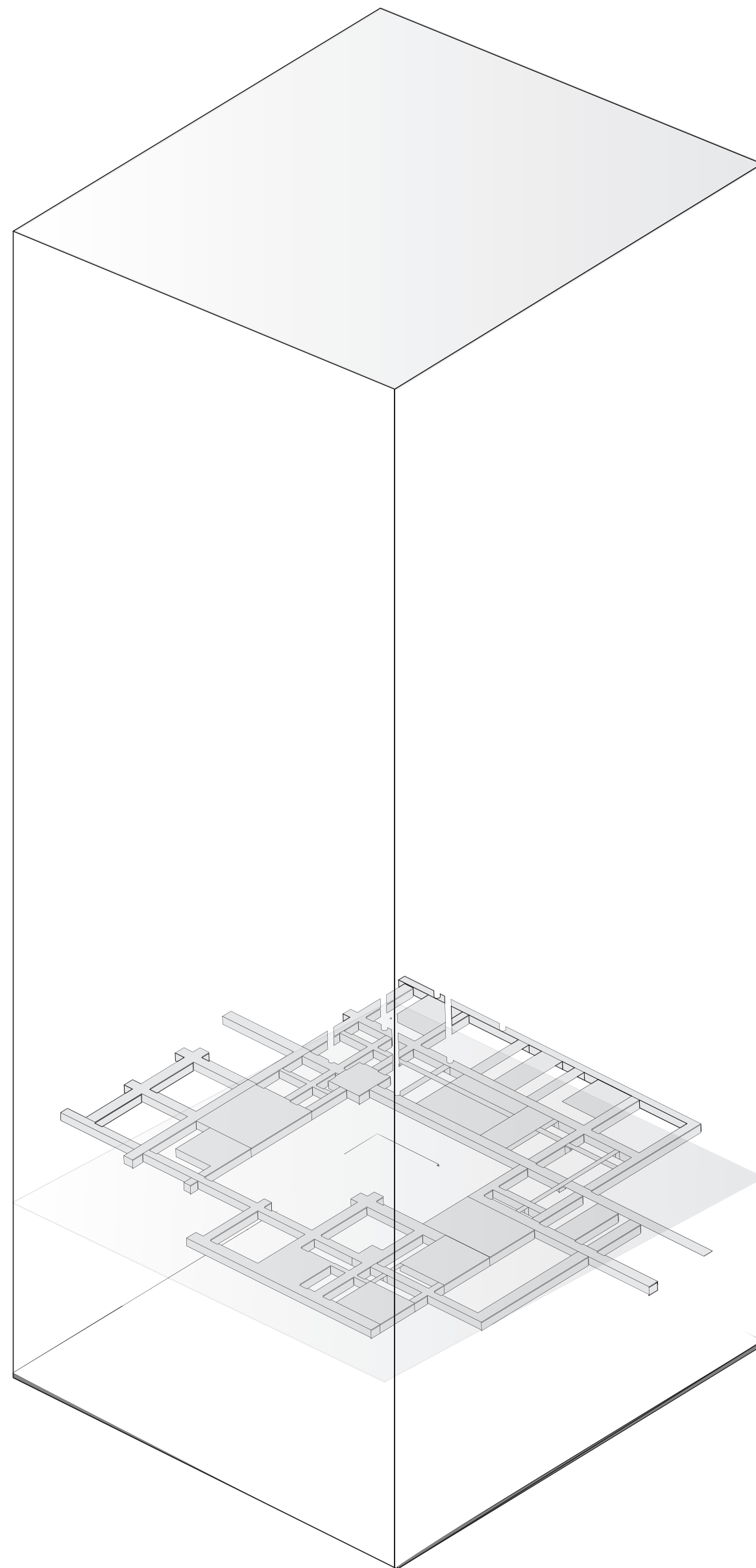


The proposed land order of the new rural city

02.Repurposing low yield land and introducing incentives

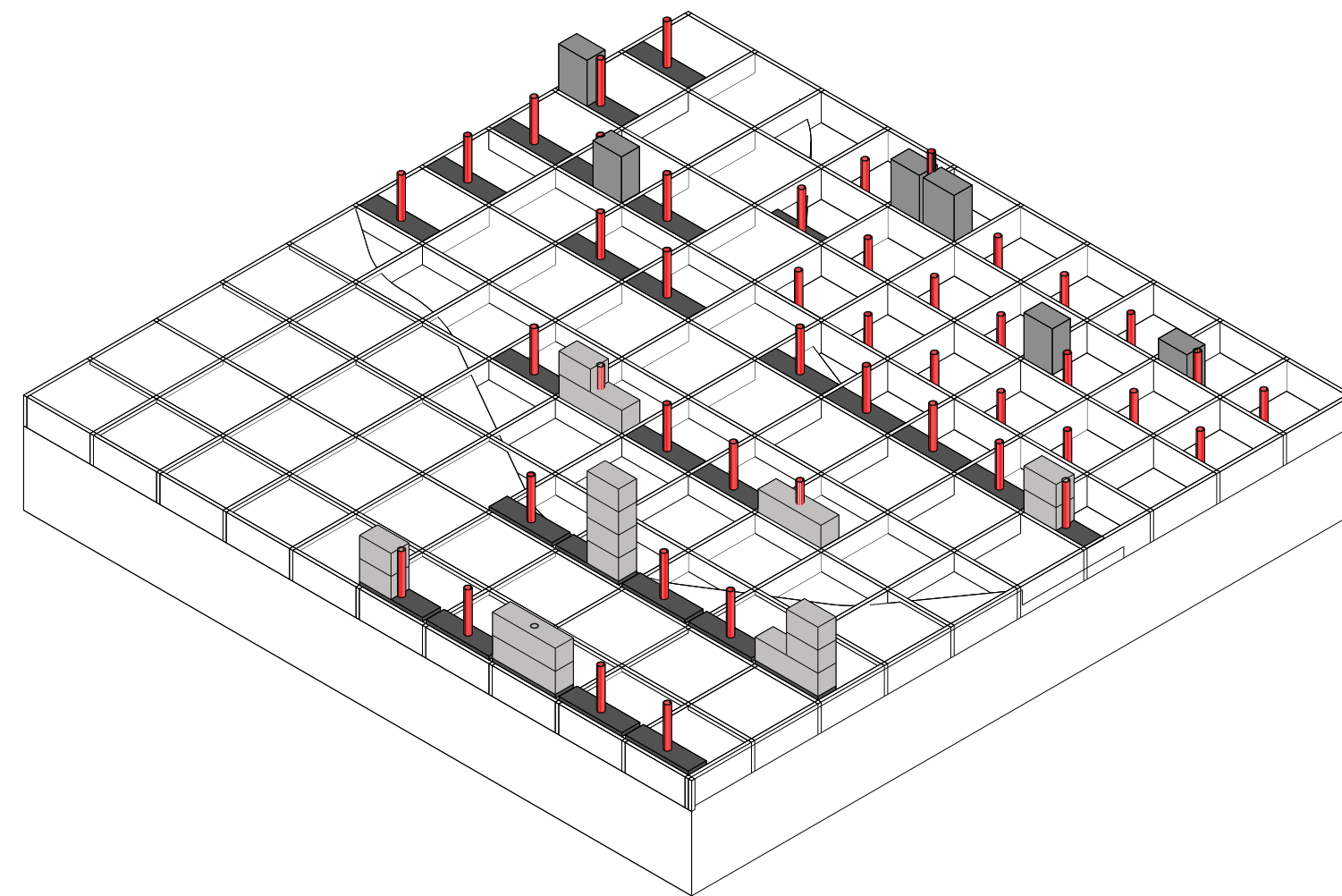


Introducing the plinth and the service core on site

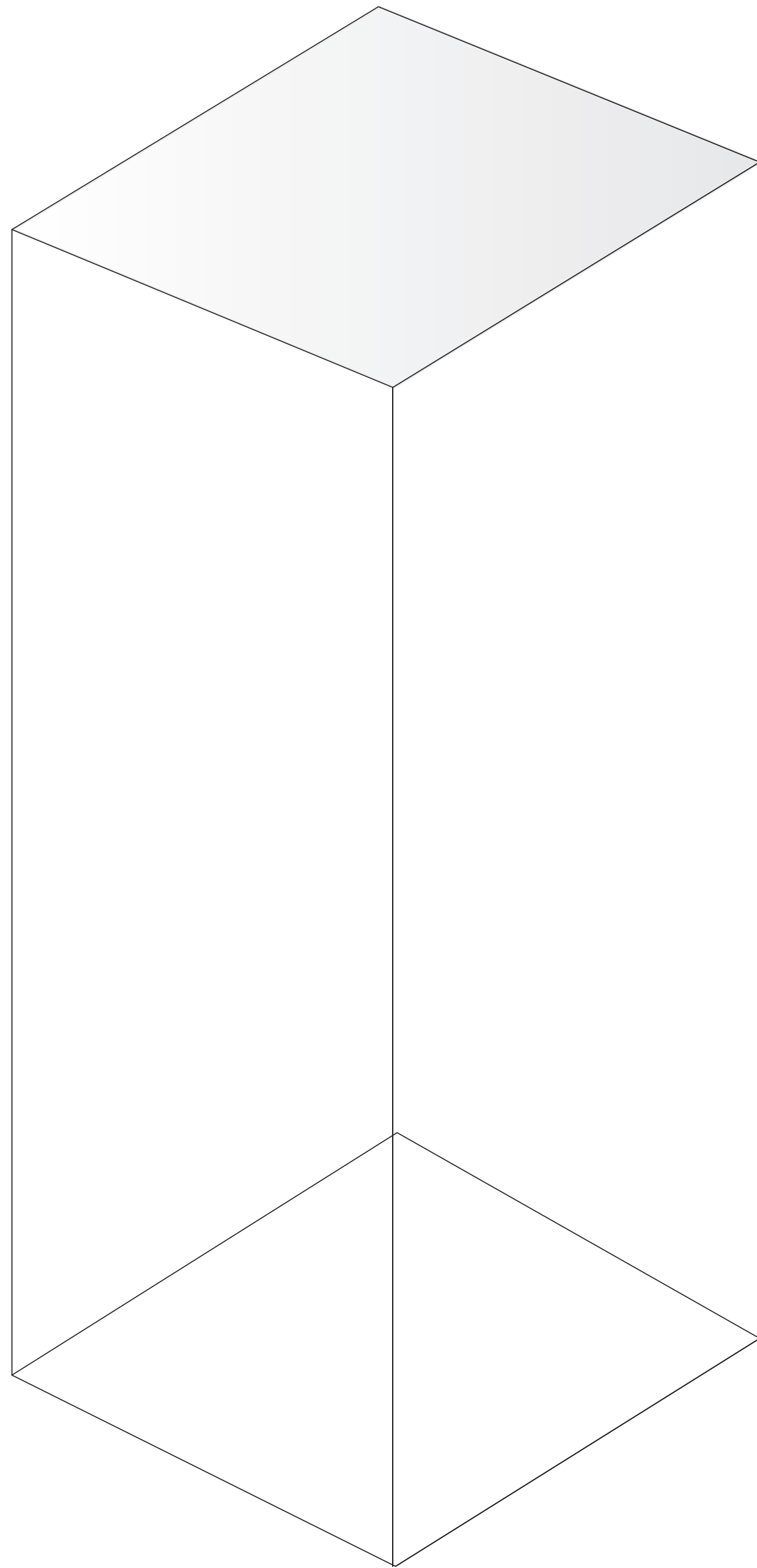


The proposed land order of the new rural city

03. New rural housing projects : densities and footprint

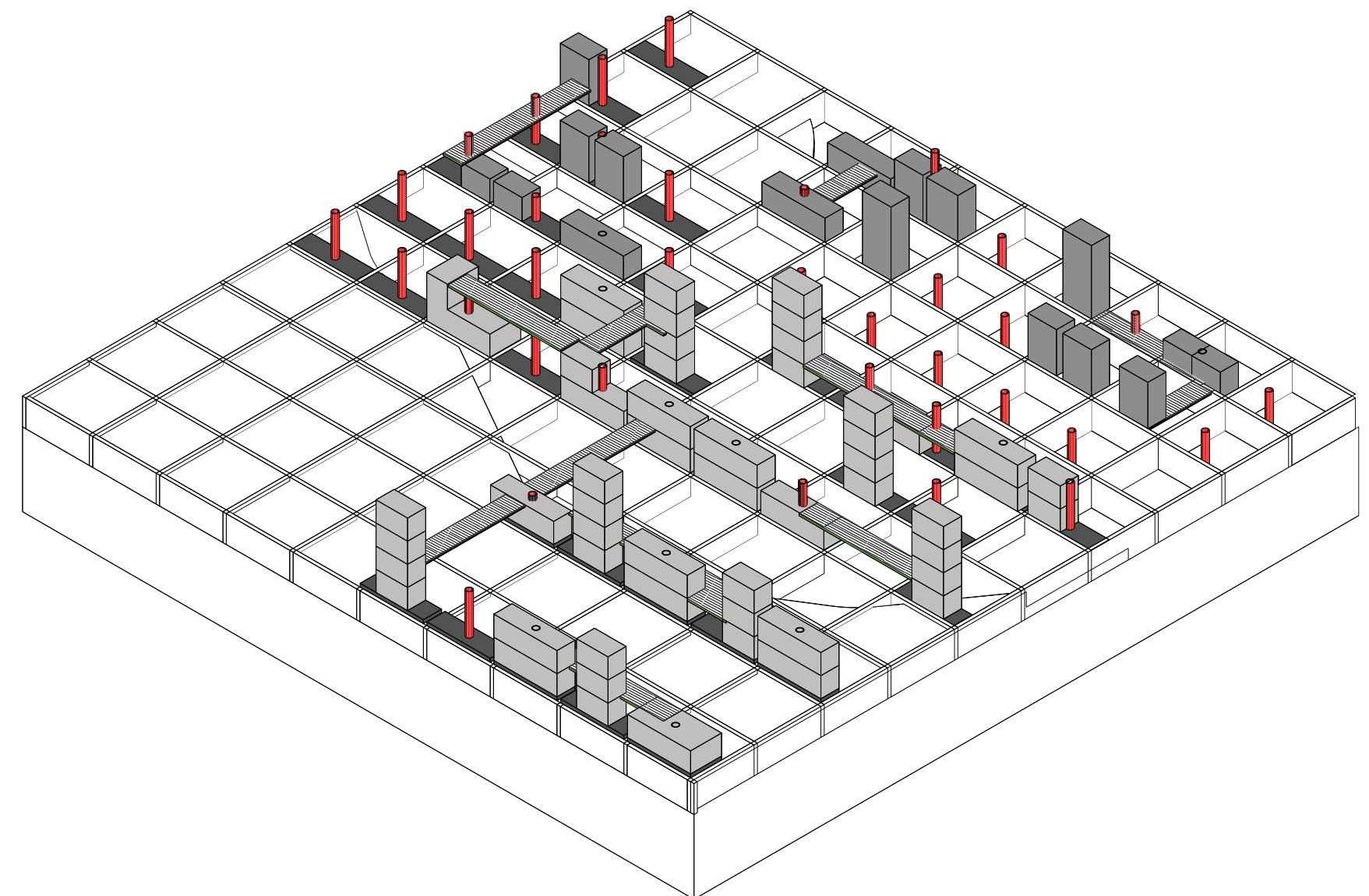


Fixing the maximum densities based on proposed landuses .



The proposed land order of the new rural city

04 . Promoting occupational diversity within the rural economy by incorporating a variety of land-uses.



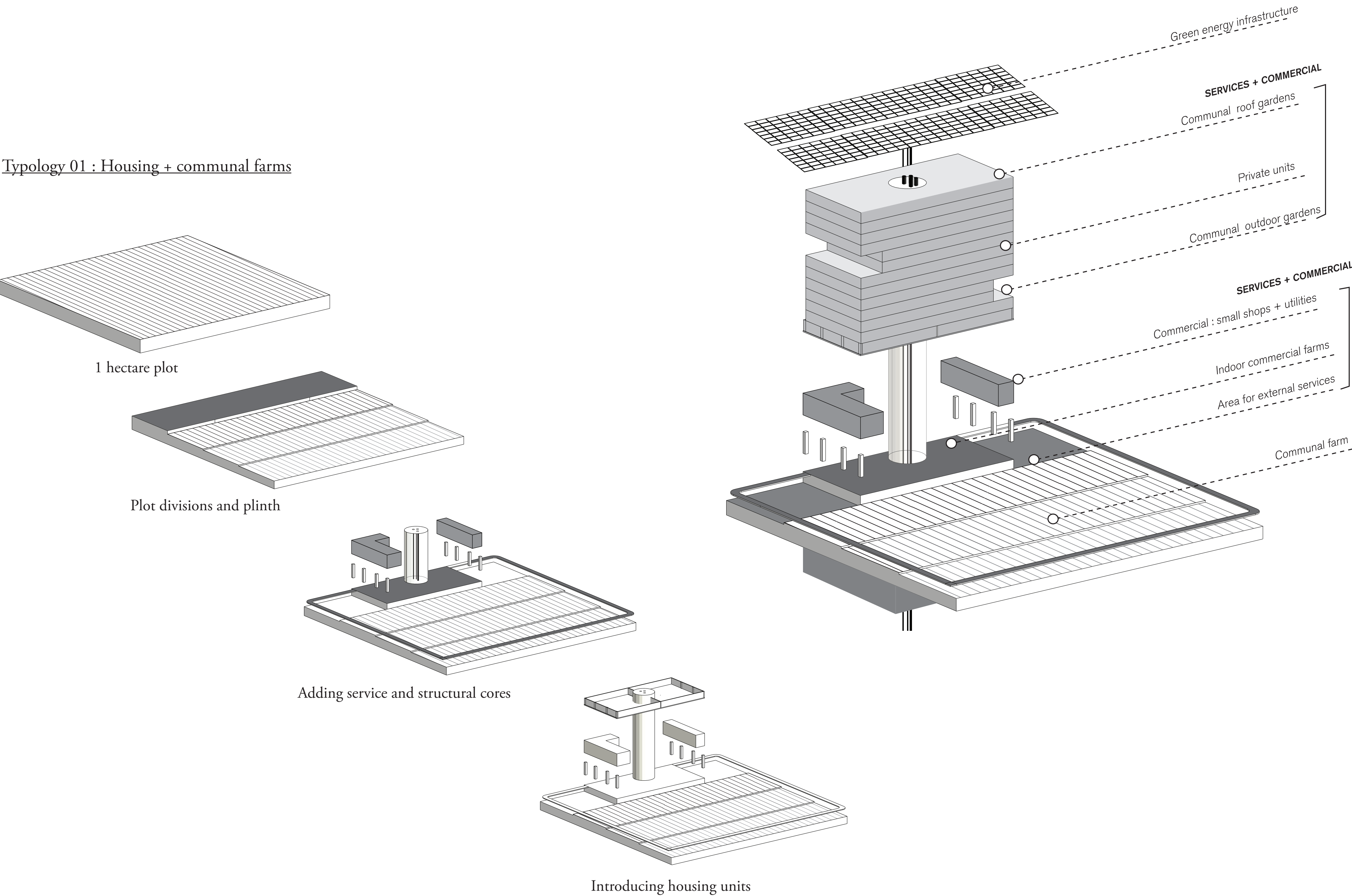
Creating a new level that hosts social and commercial spaces and also facilitates sharing of services

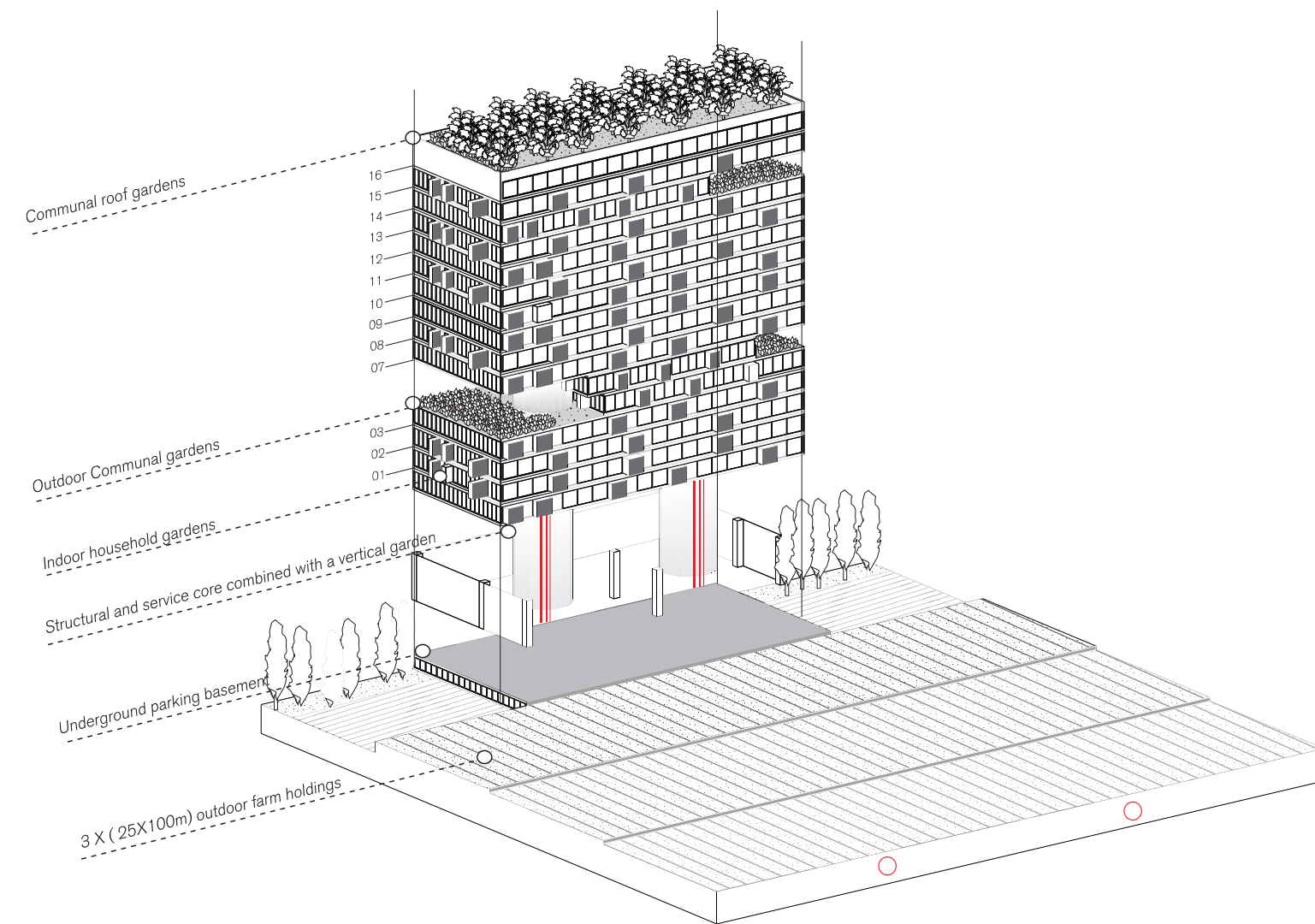
IV

[*The design*]

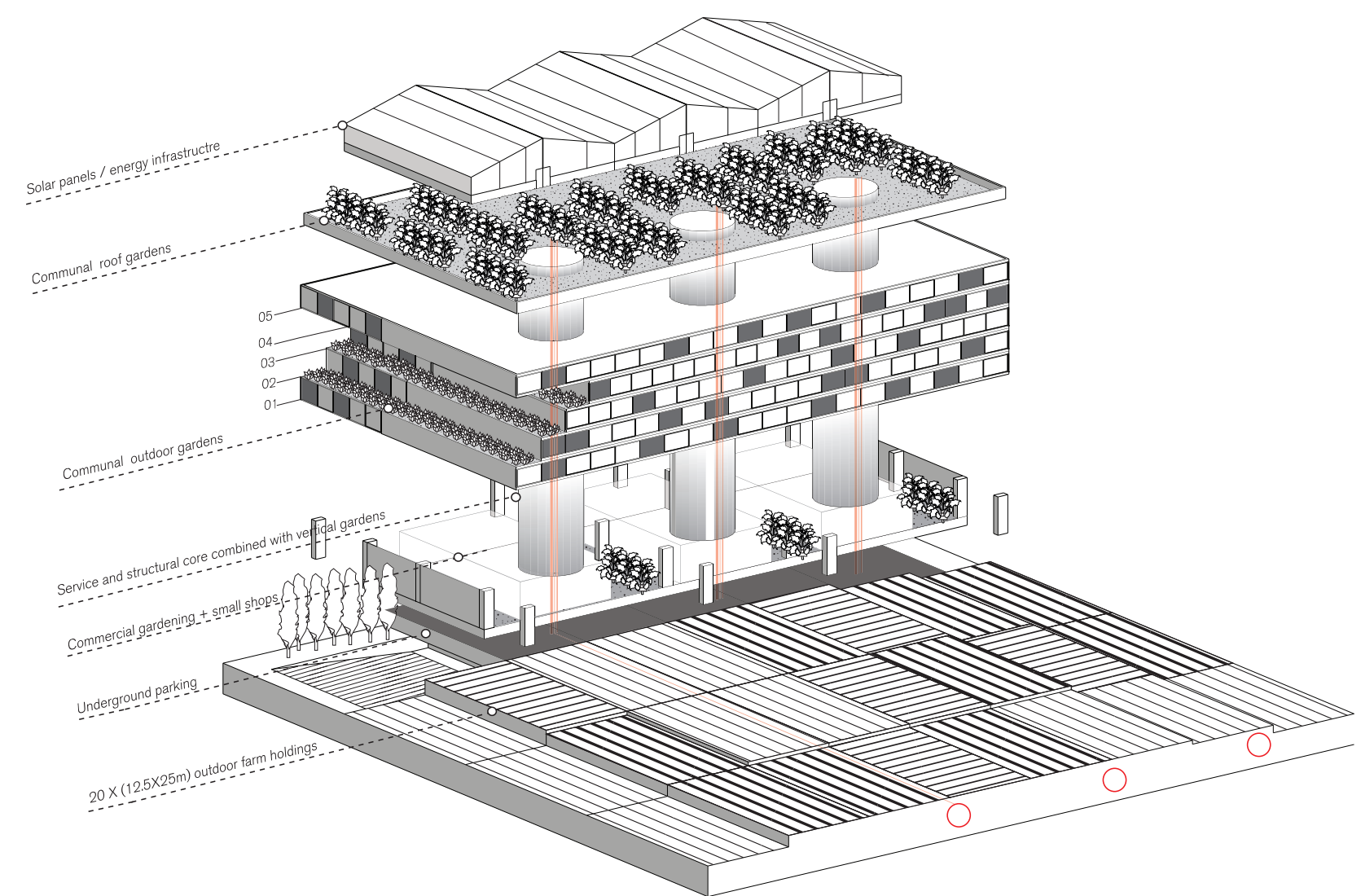
1V. 01. Making the site typologies

Typology 01 : Housing + communal farms

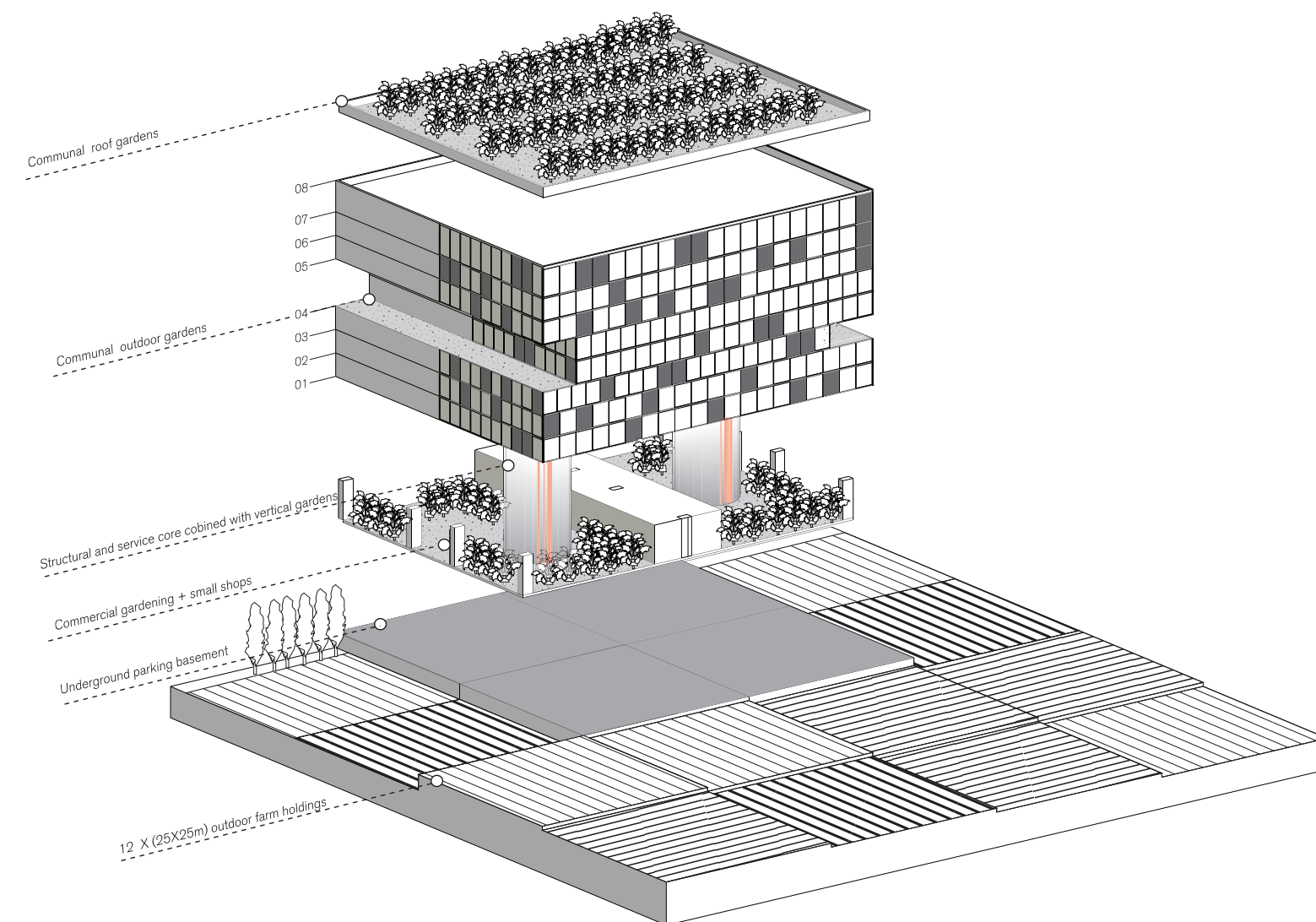




Cereal crop typology , 16 Floors , 0.25 Ha coverage



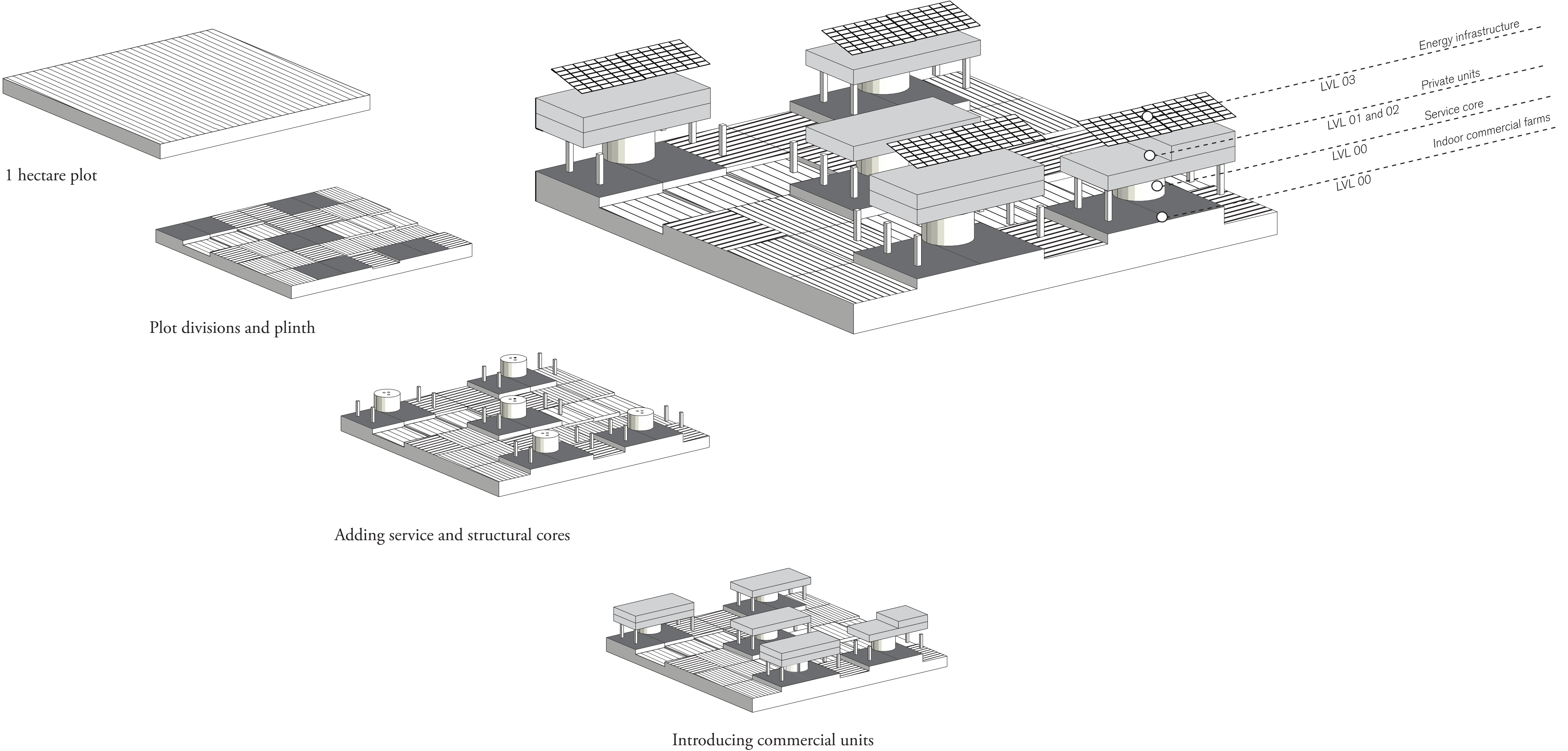
General crop typology , 8 Floors , 0.5 Ha coverage



Horticulture crop typology , 5 Floors , 0.5 Ha coverage

Typology 02 : Service + commercial farms

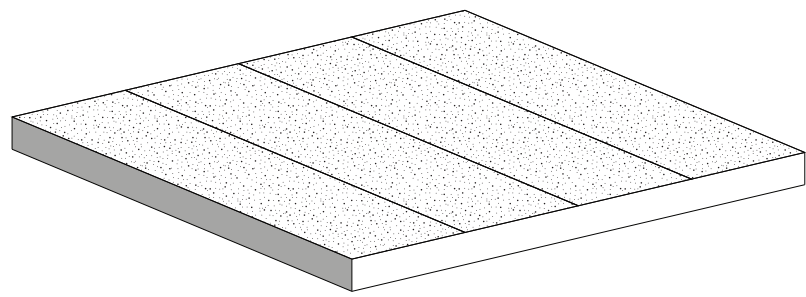
Any animal based farm , 12-36 commercial unit , 0.5Ha Coverage



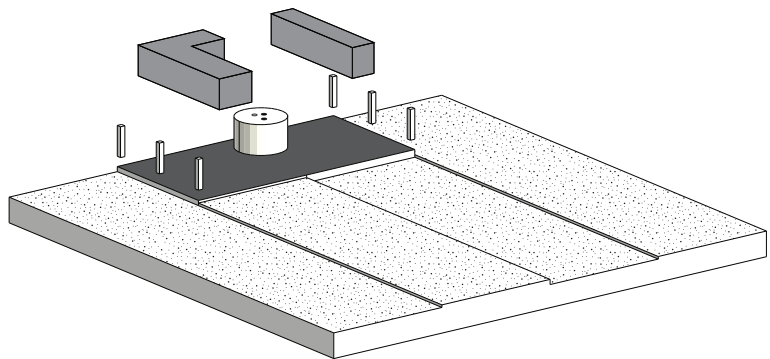
Typology 03 : Public function mixed farms

Orchards and /or public parks and gardens, 16 floors , 0.25Ha coverage

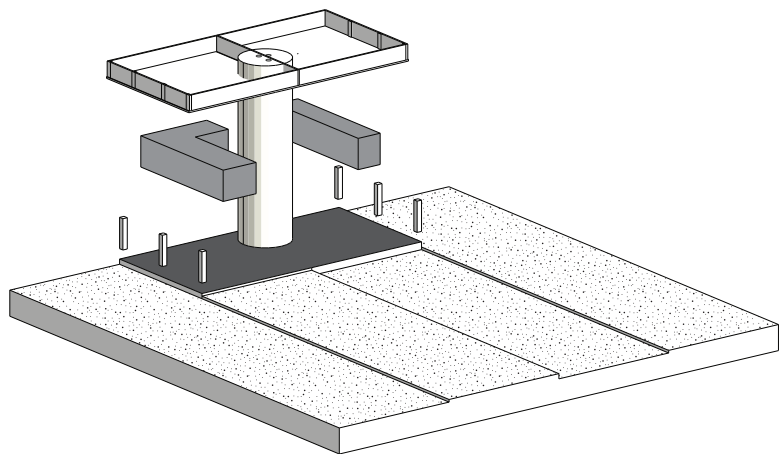
1 hectare plot



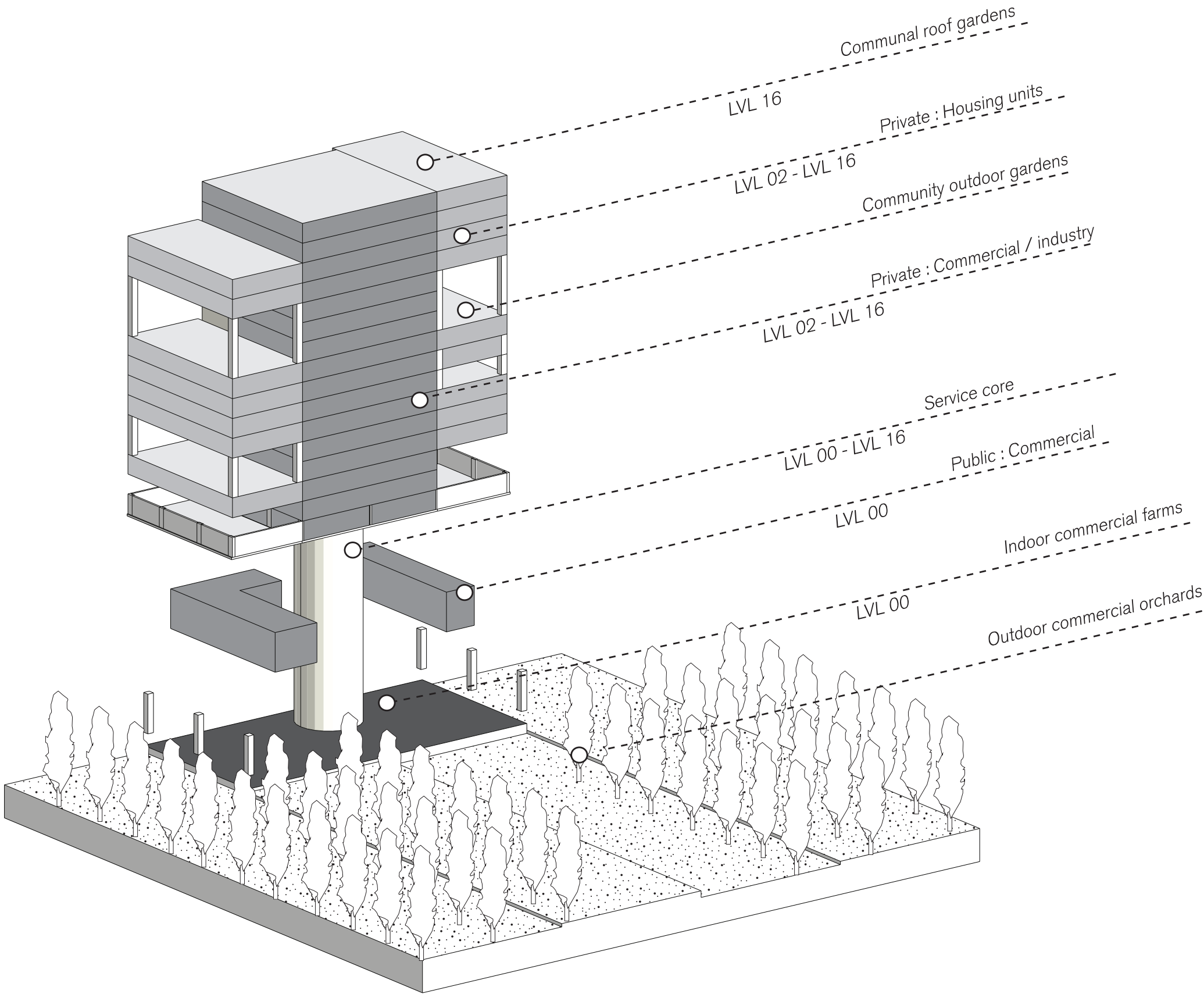
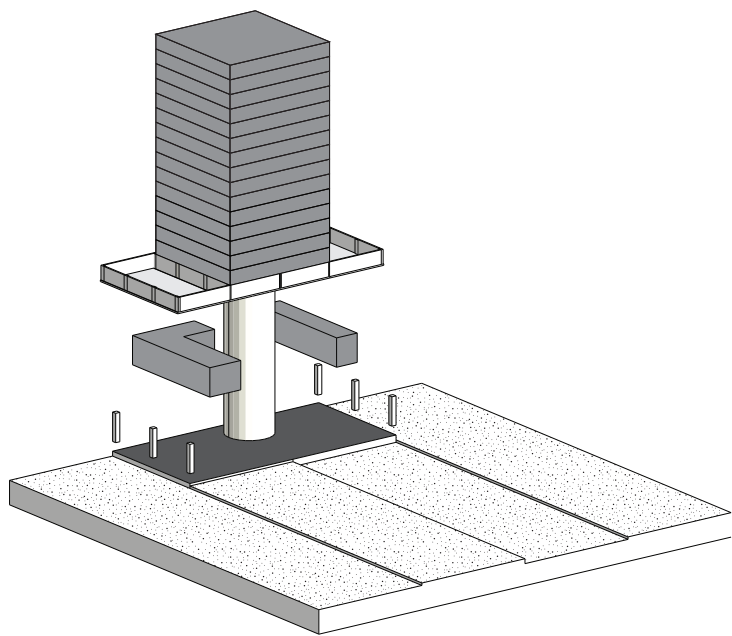
Plot divisions and plinth



Adding service and structural cores

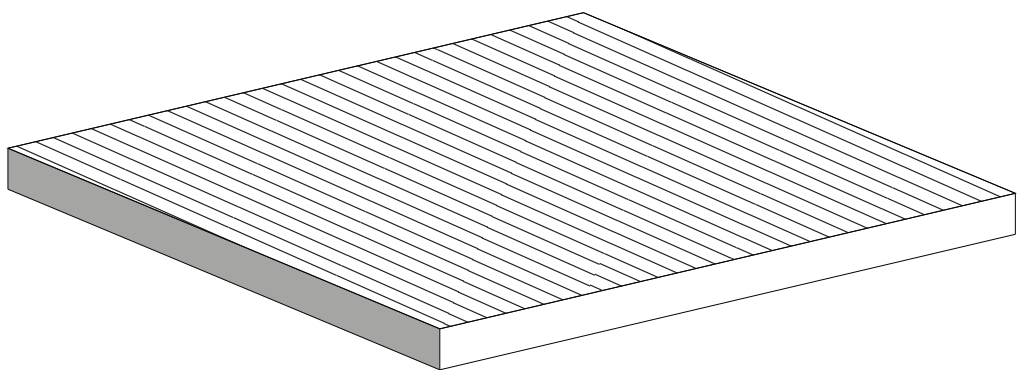


Introducing commercial units

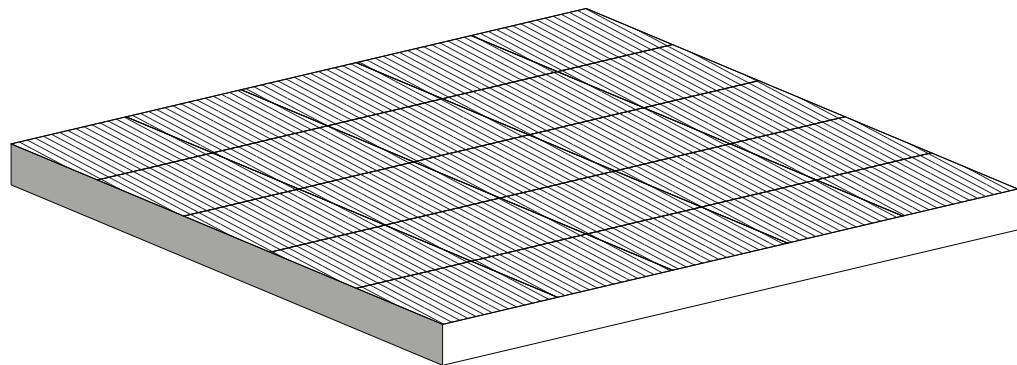


Typology 04 : Soilless mixed farms

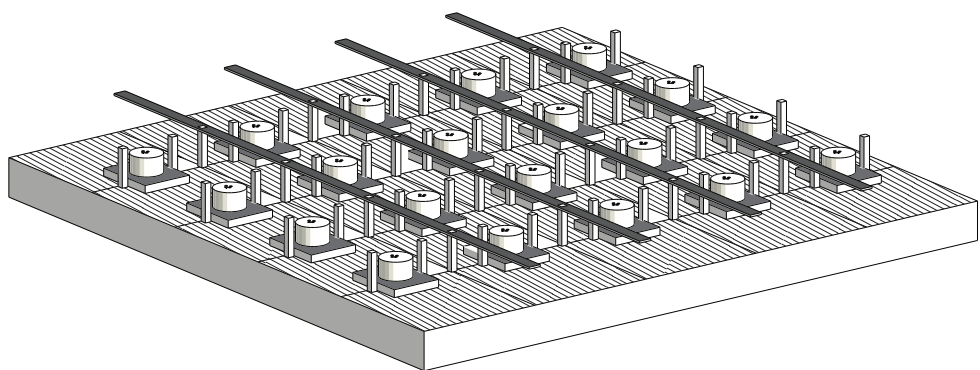
16-32 floors , full coverage allowed



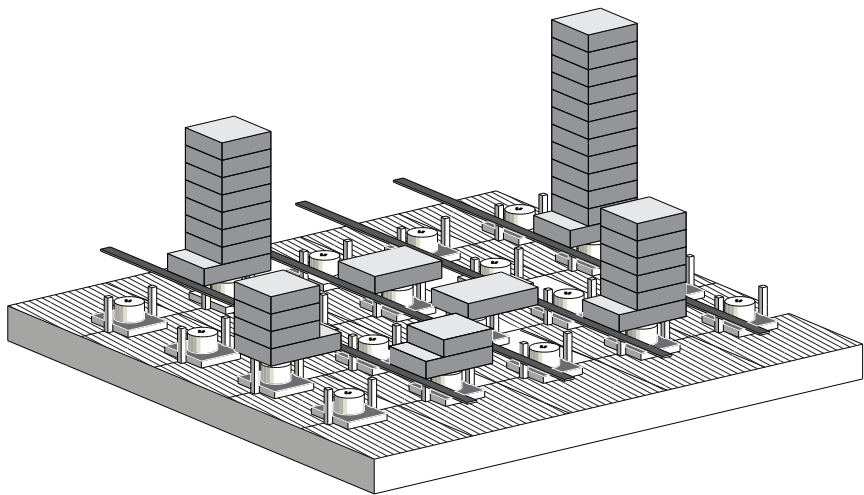
1 hectare plot



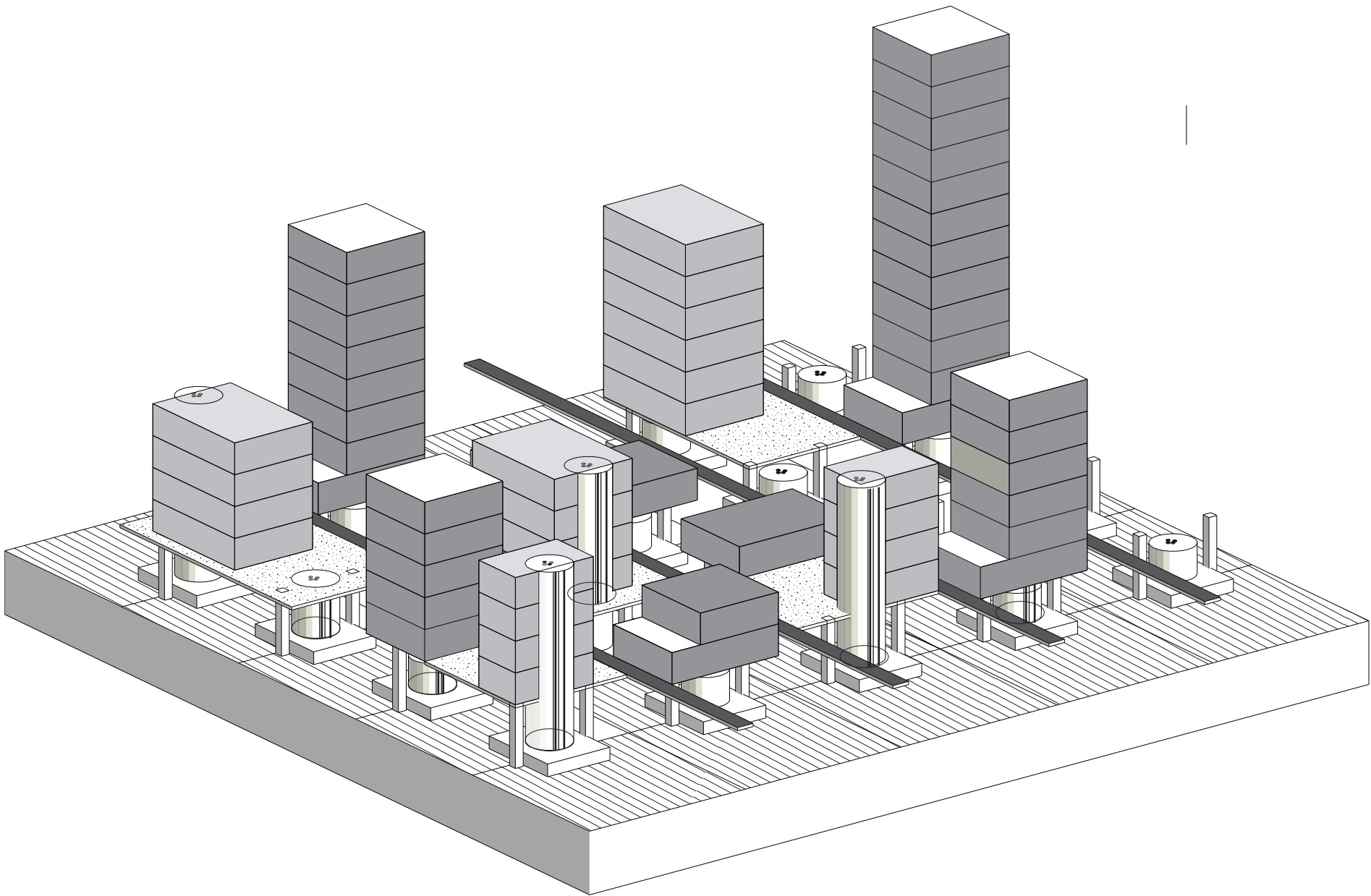
Plot divisions and plinth



Adding service and structural cores

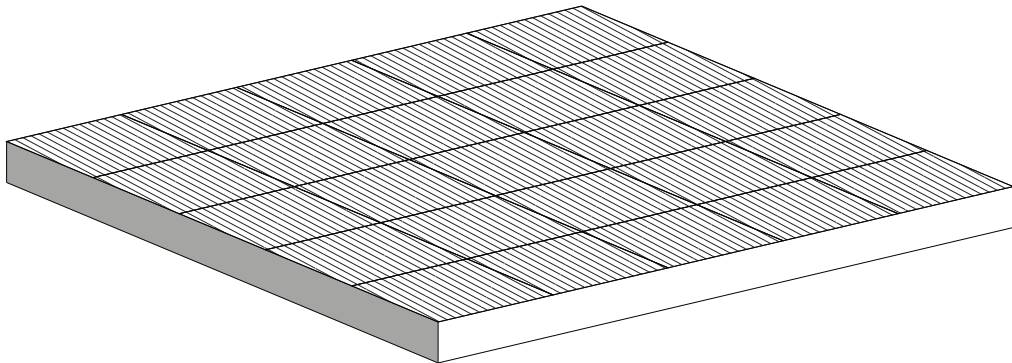


Introducing commercial units

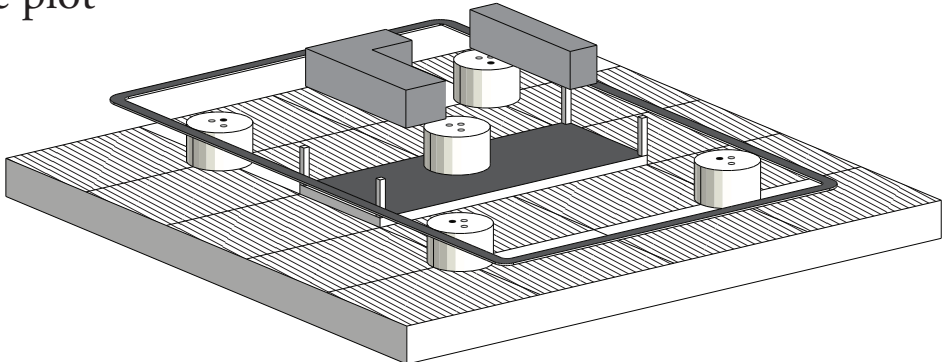


Typology 05 :Fish farms

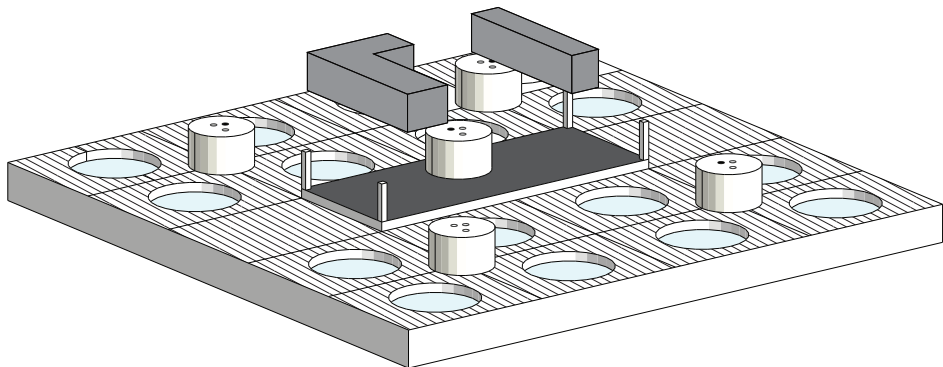
16 floors , 0.25 coverage



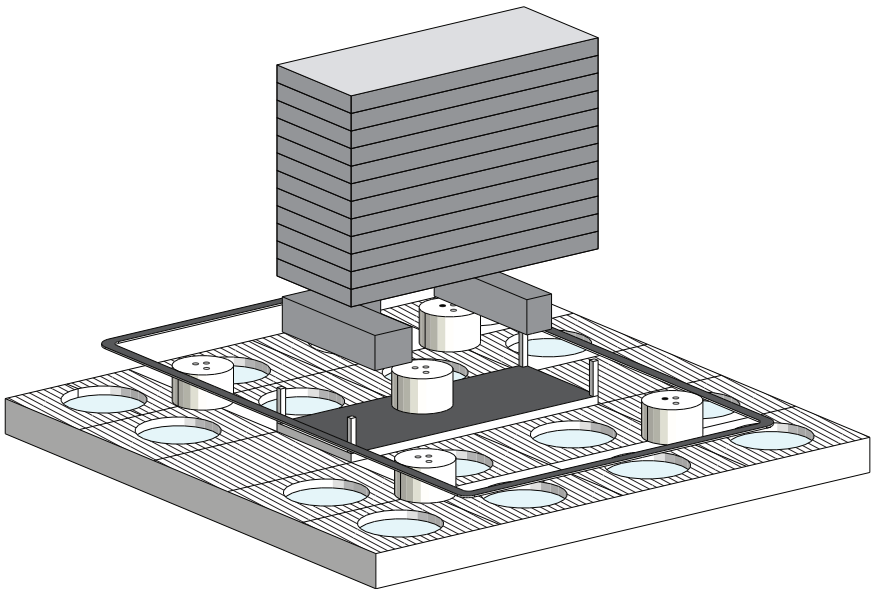
1 hectare plot



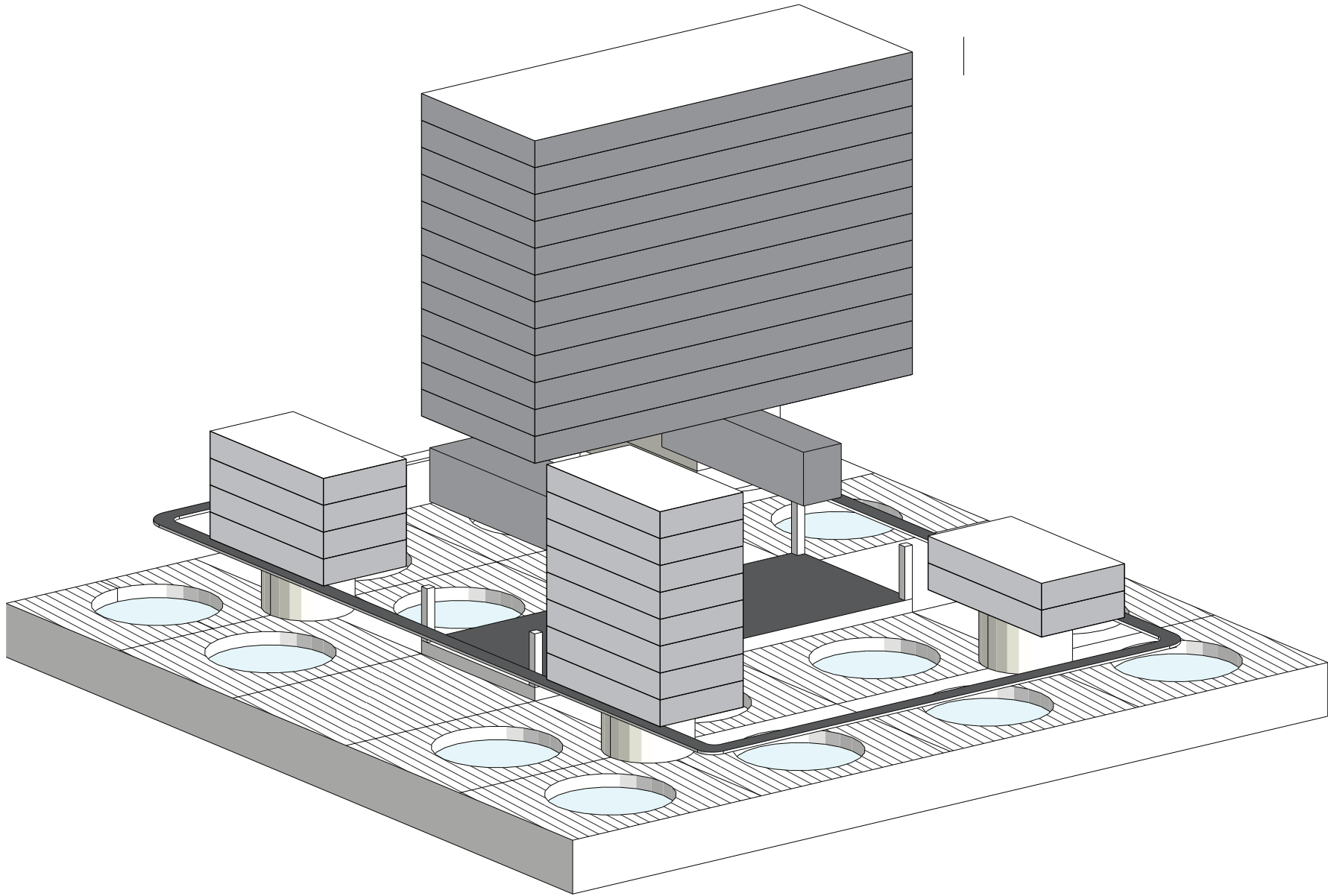
Plot divisions and plinth



Adding fish farms



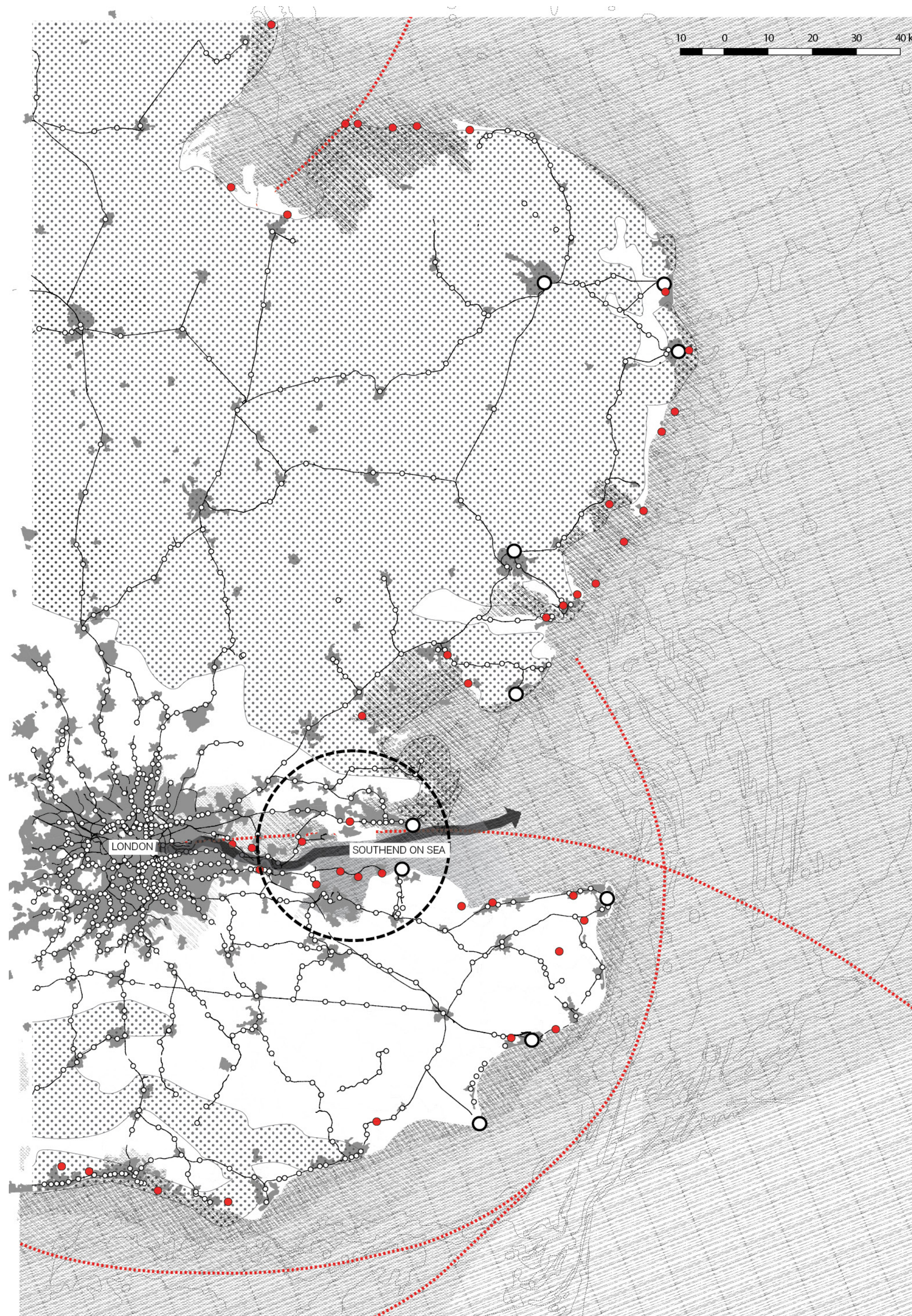
Introducing commercial units



Selecting an area to test the design



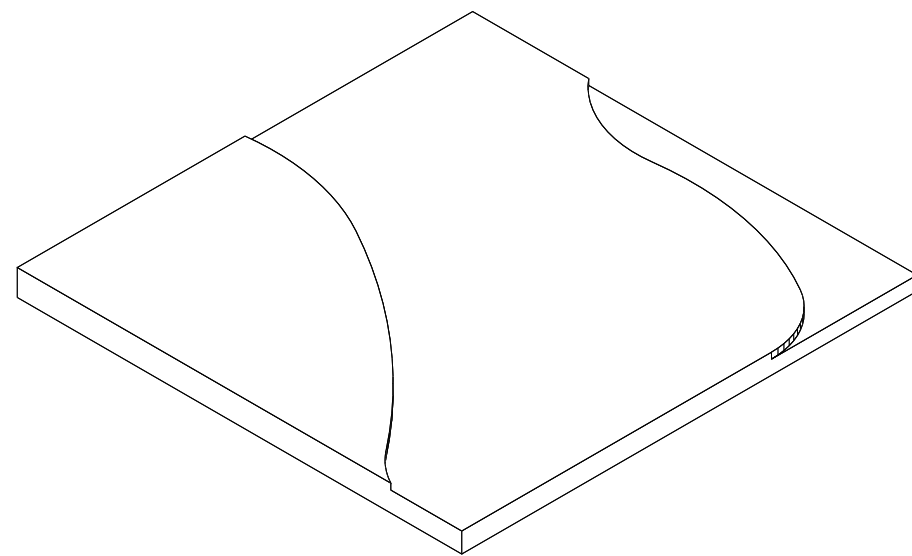
The undersigned rural and
its proximity to industrial
typologies



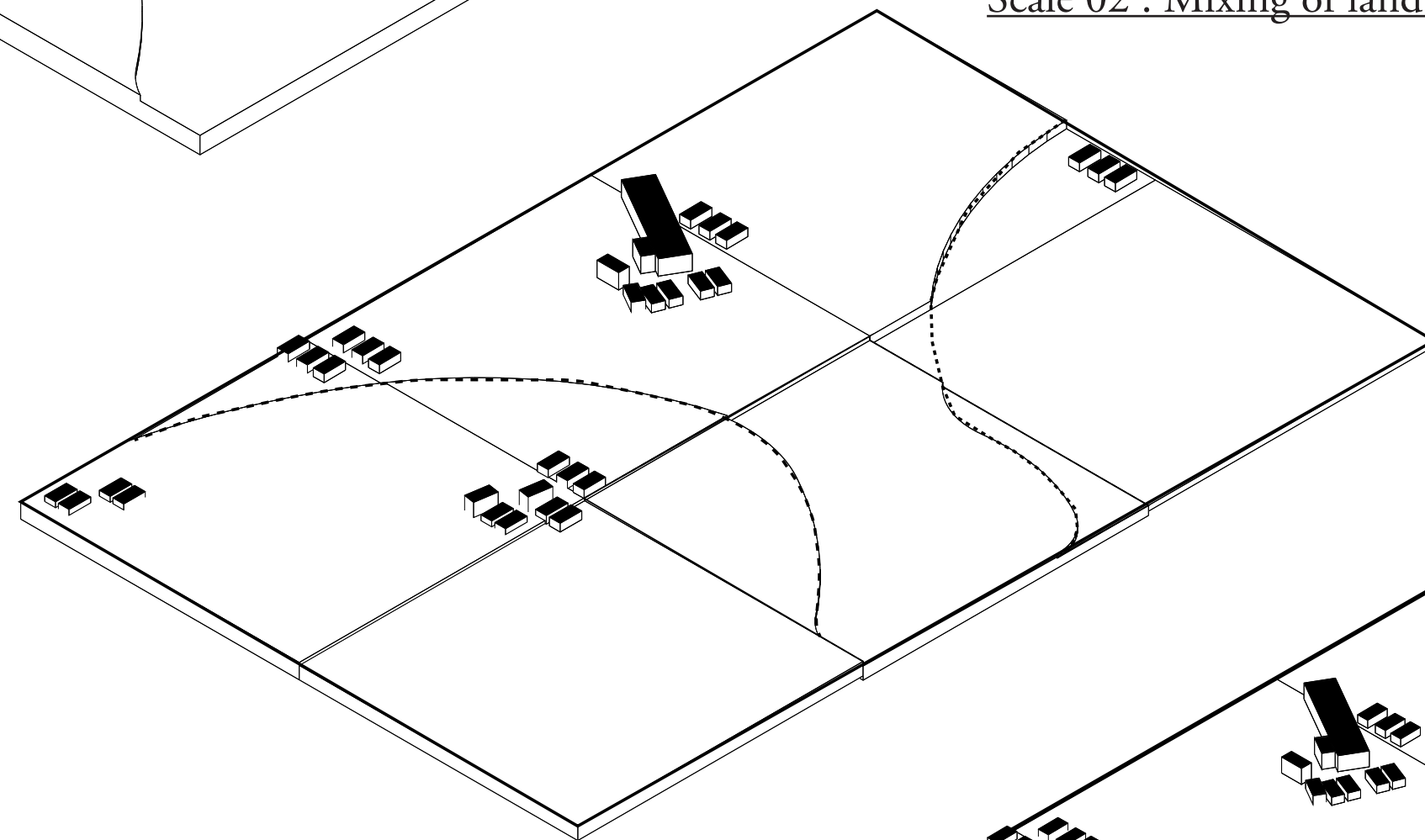
The South east coast and its
various logistical points



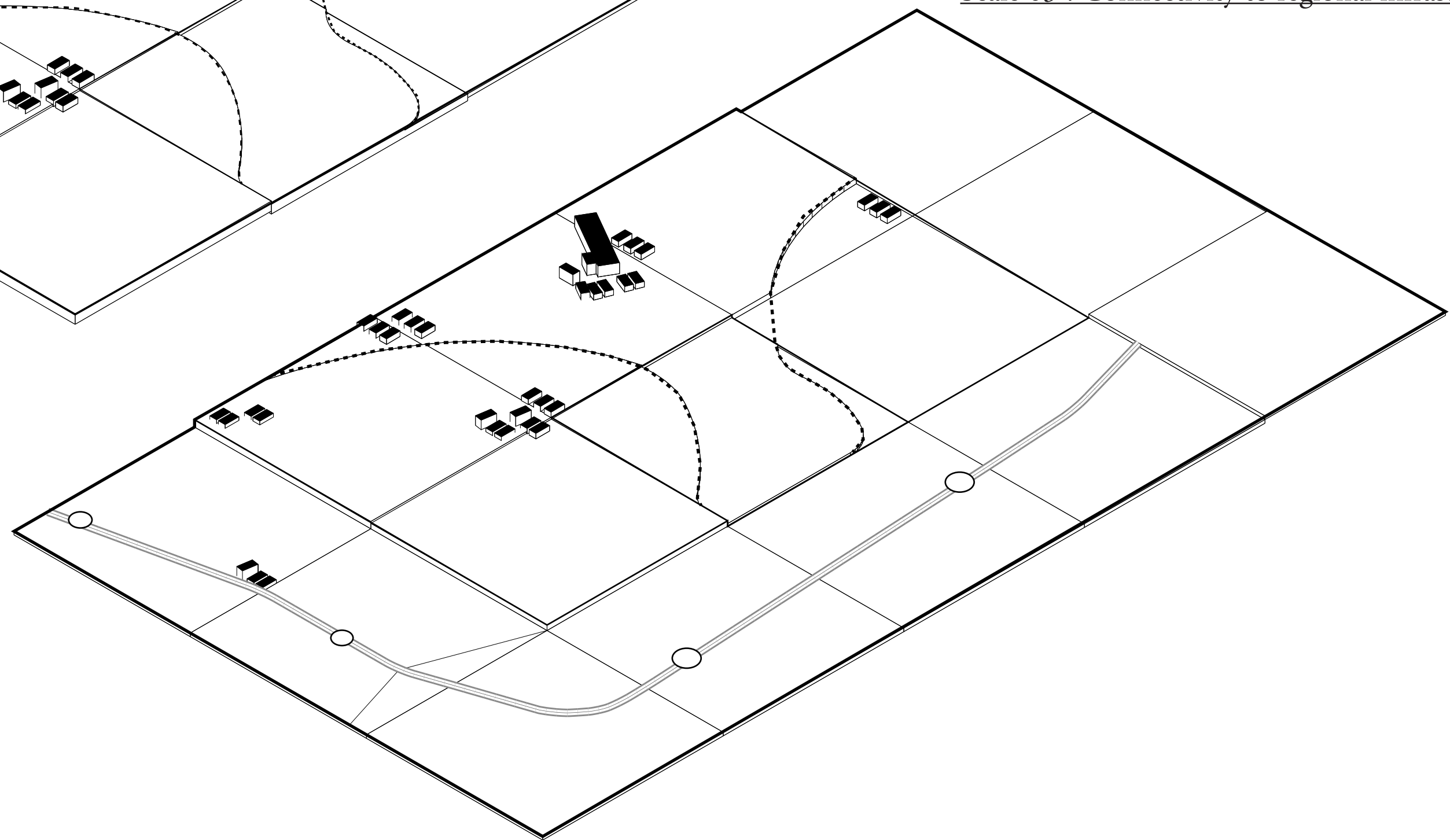
Southend on sea as the selected area for testing the design



Scale 01 : Topography



Scale 02 : Mixing of landuses

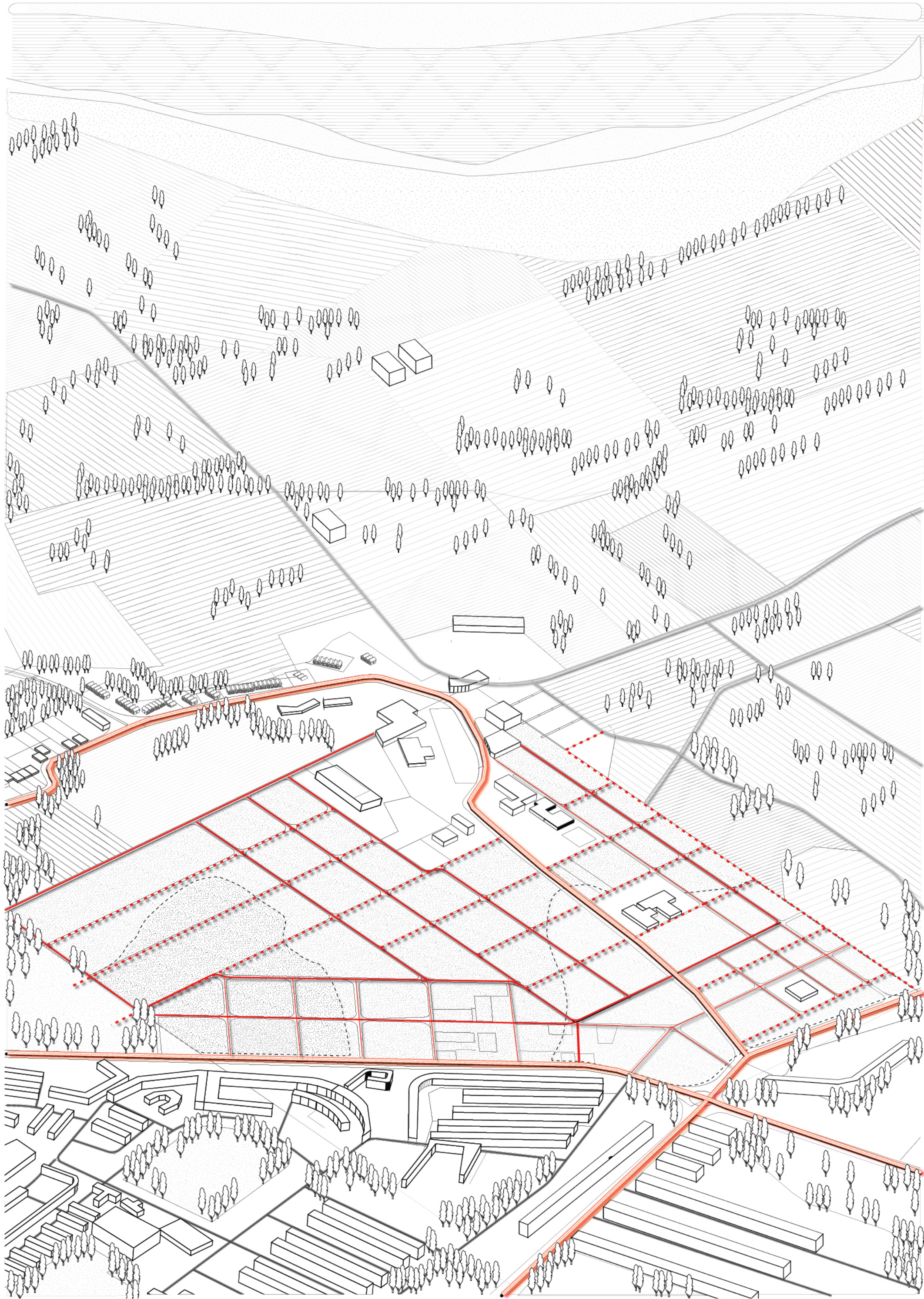
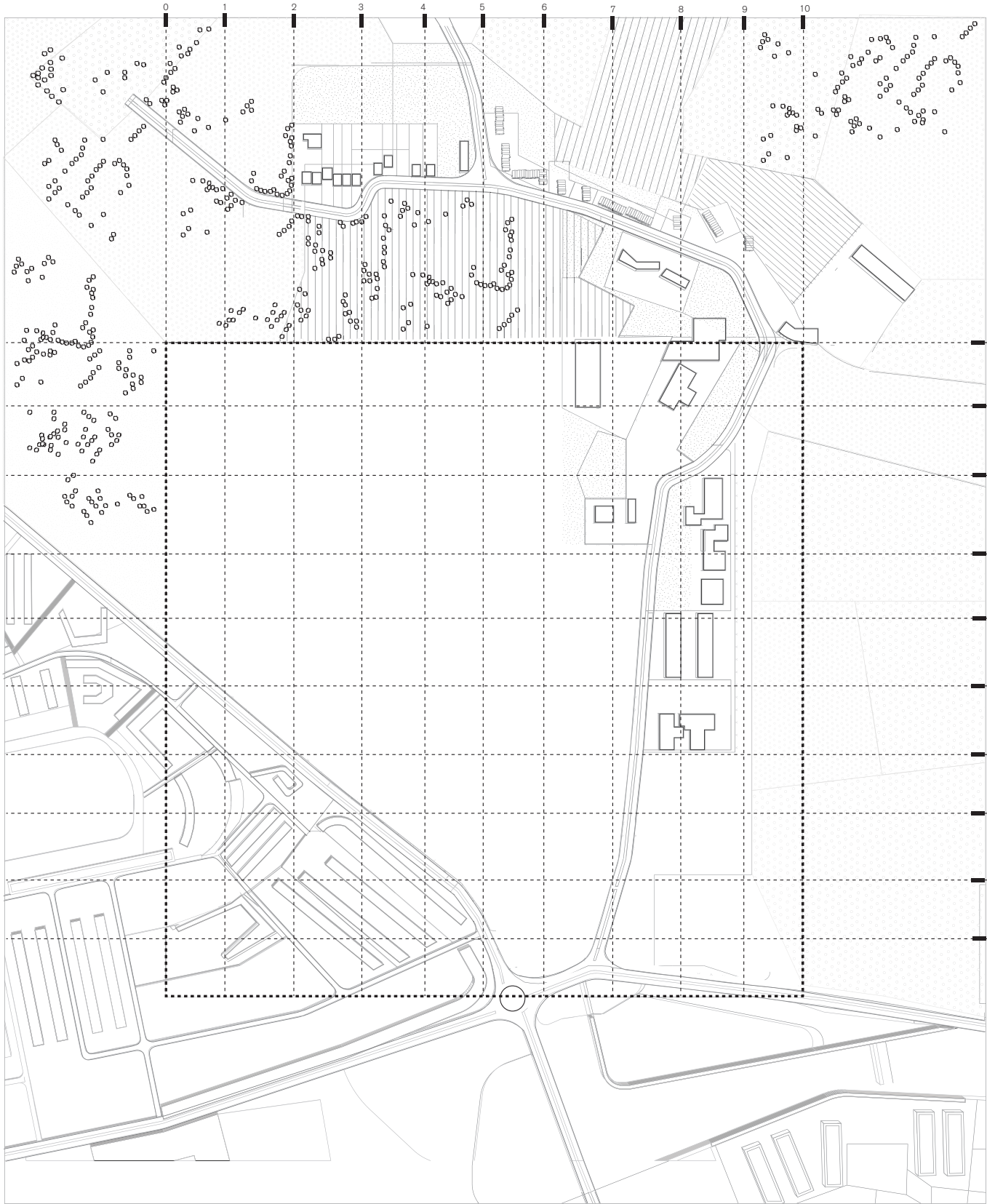


Scale 03 : Connectivity to regional infrastructure

Placing the typologies on the selected site area

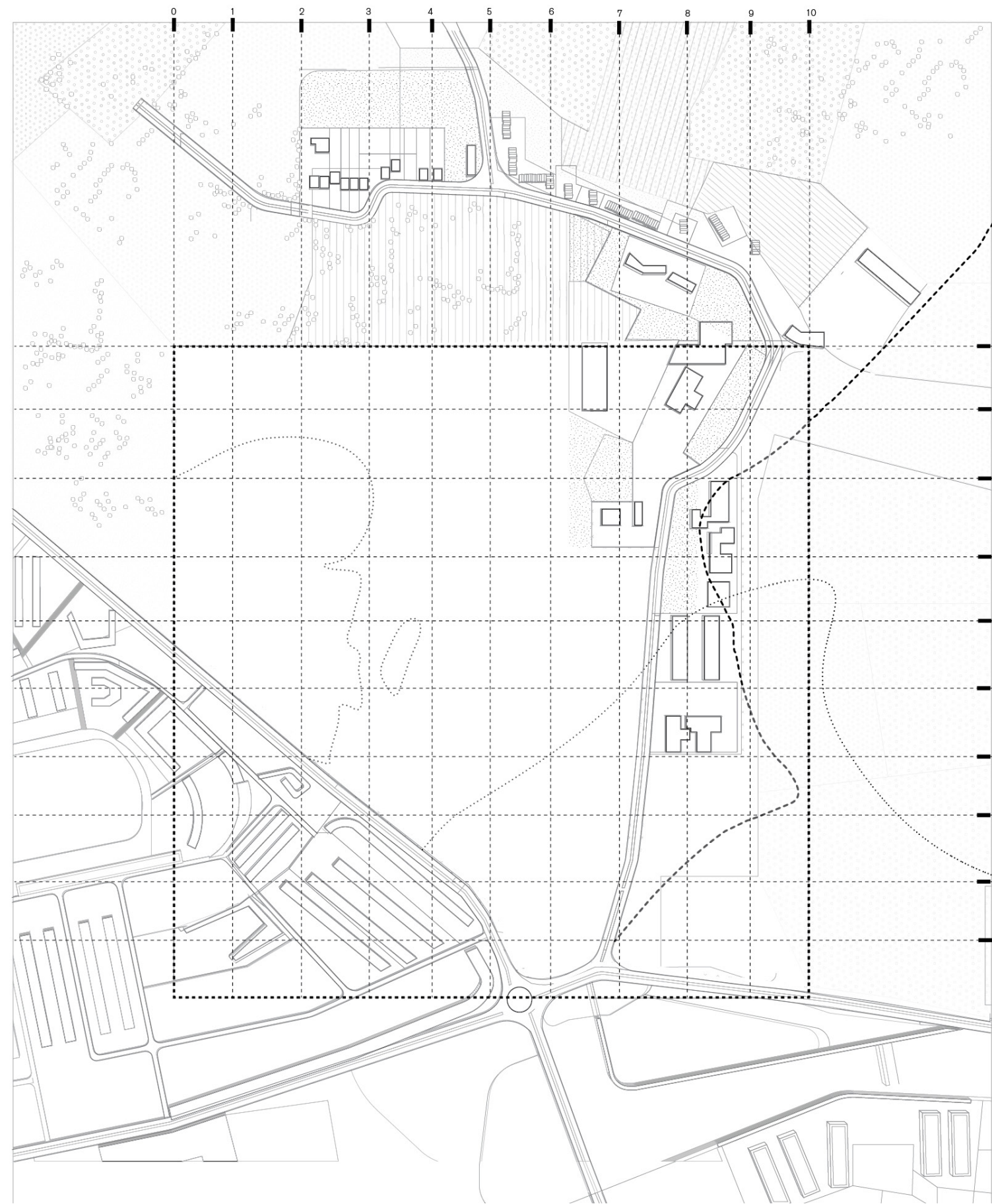
SCALE 01 : Typical typology

Step 01 : The grid



SCALE 01 : Typical typology

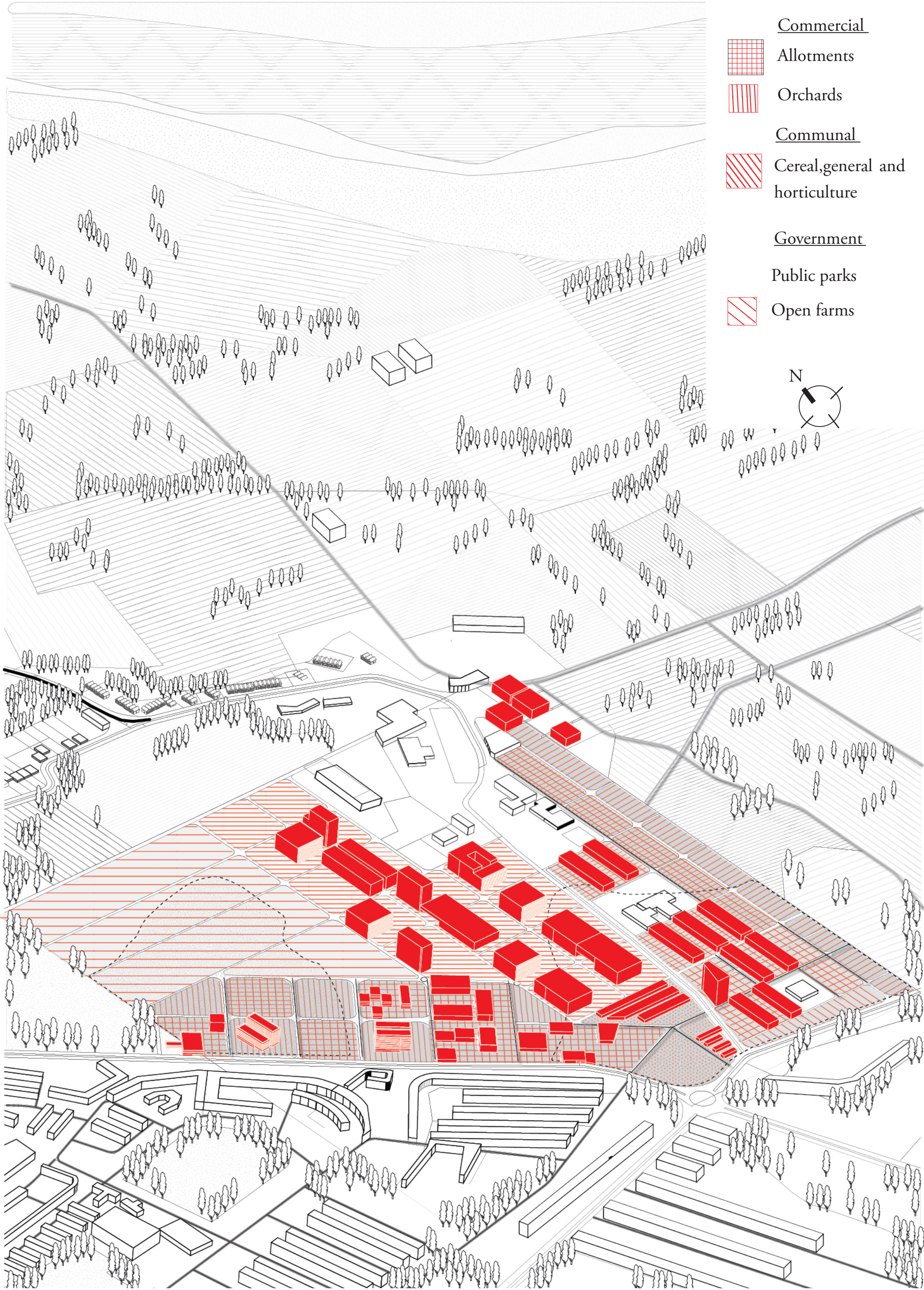
Step 02 : Overlaying the site features



The new communal parcels

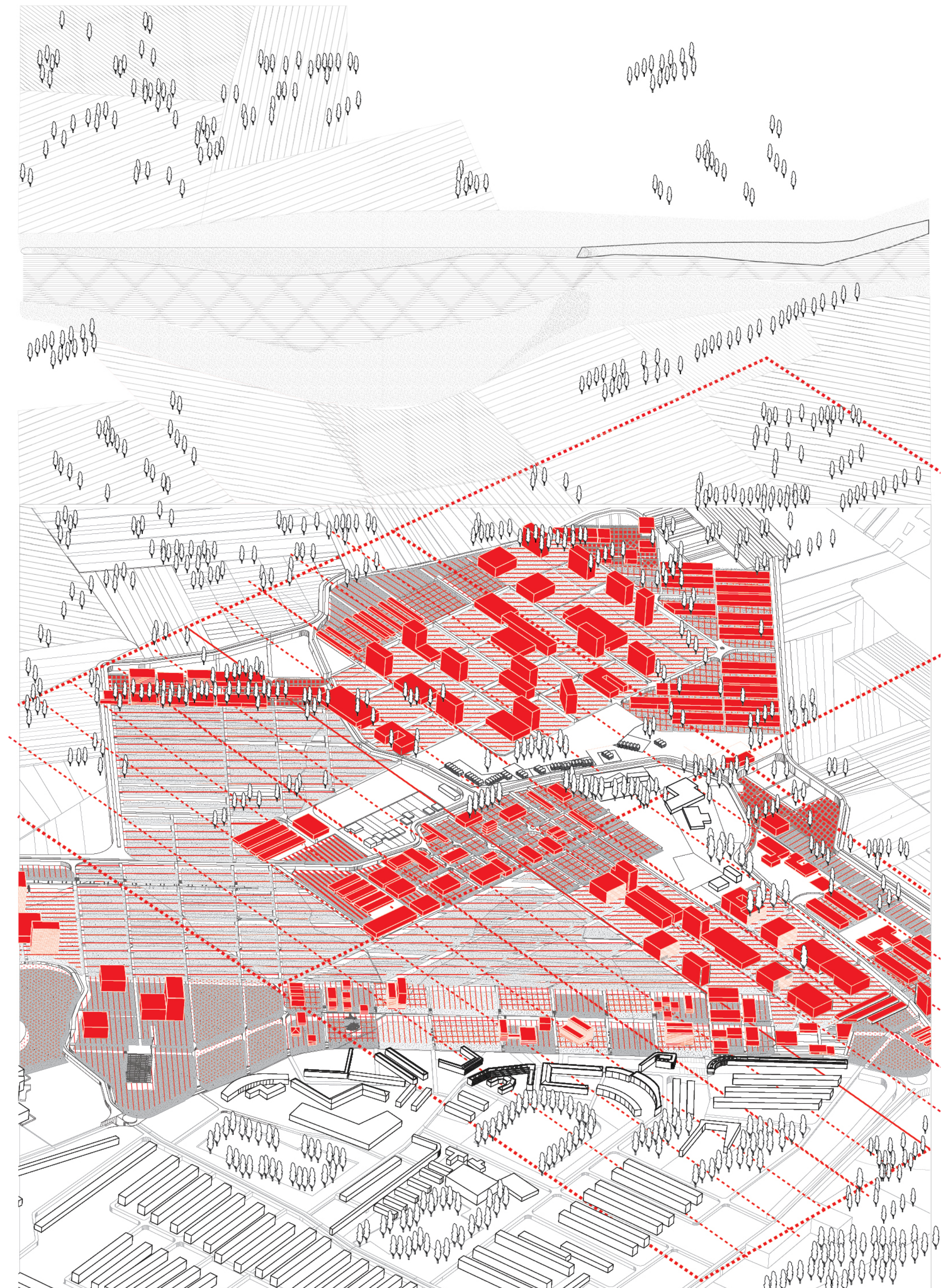
SCALE 01 : Typical typology

Step 04 : Superimposing the built densities based ownerships

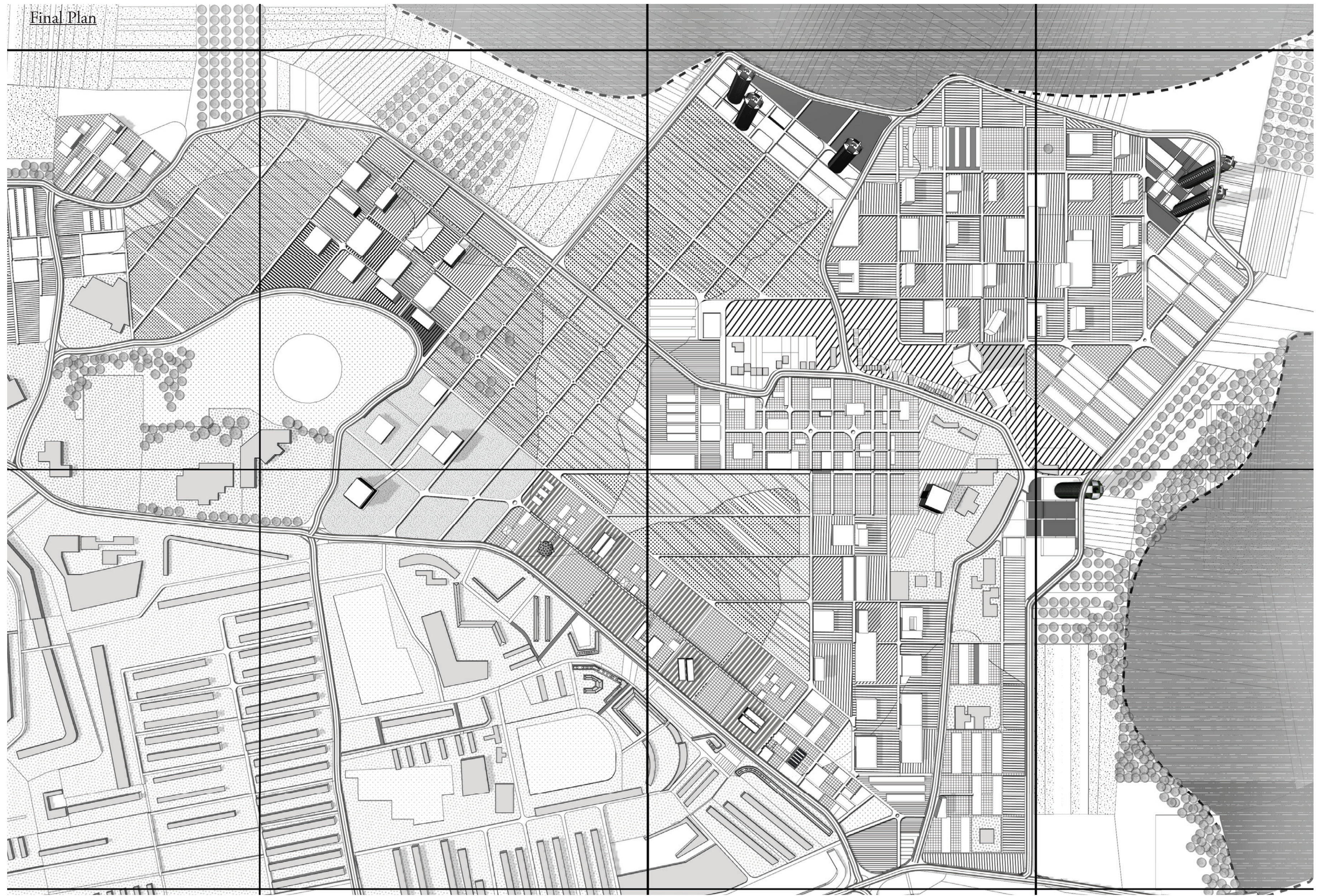


Scale 02

Replicating and zooming out



Final Plan

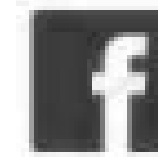


Part 01 : Design scalability
and the future of the rural in post Brexit UK

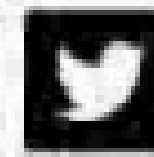
More than half the British countryside at risk of 'urban sprawl' if planning laws are relaxed, campaigners warn

By LEON WATSON

UPDATED: 10:20 BST, 7 February 2012



Share



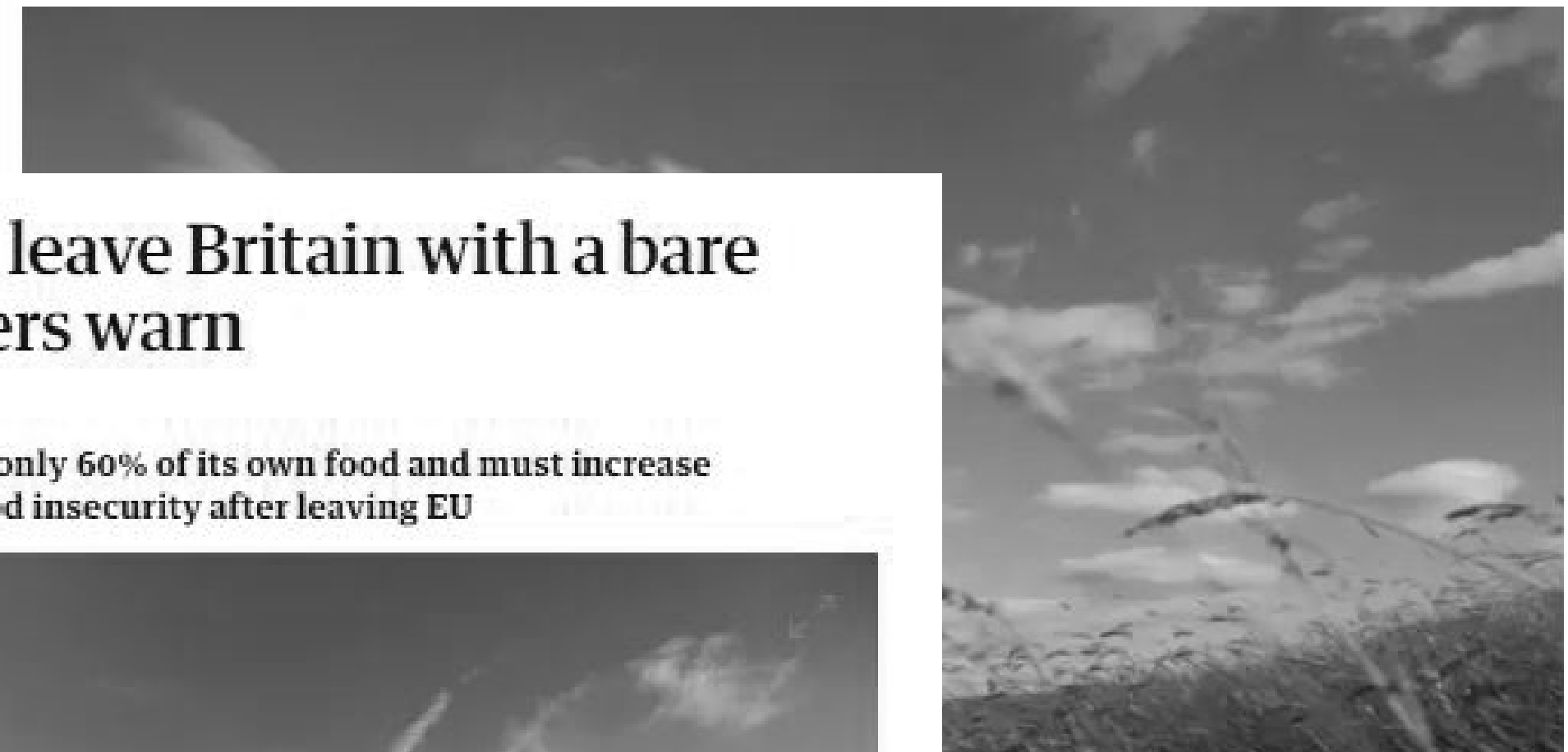
34

Urban sprawl will threaten countryside under a proposed system, it was claimed today.

The Campaign to Protect Rural England (CPRE) has published detailed maps of the countryside at risk of development.

They map Areas of Outstanding Natural Beauty (AONBs) under threat.

Tim Breitmeyer: Councils need to rethink attitude to rural development after Brexit



Brexit could leave Britain with a bare larder, farmers warn

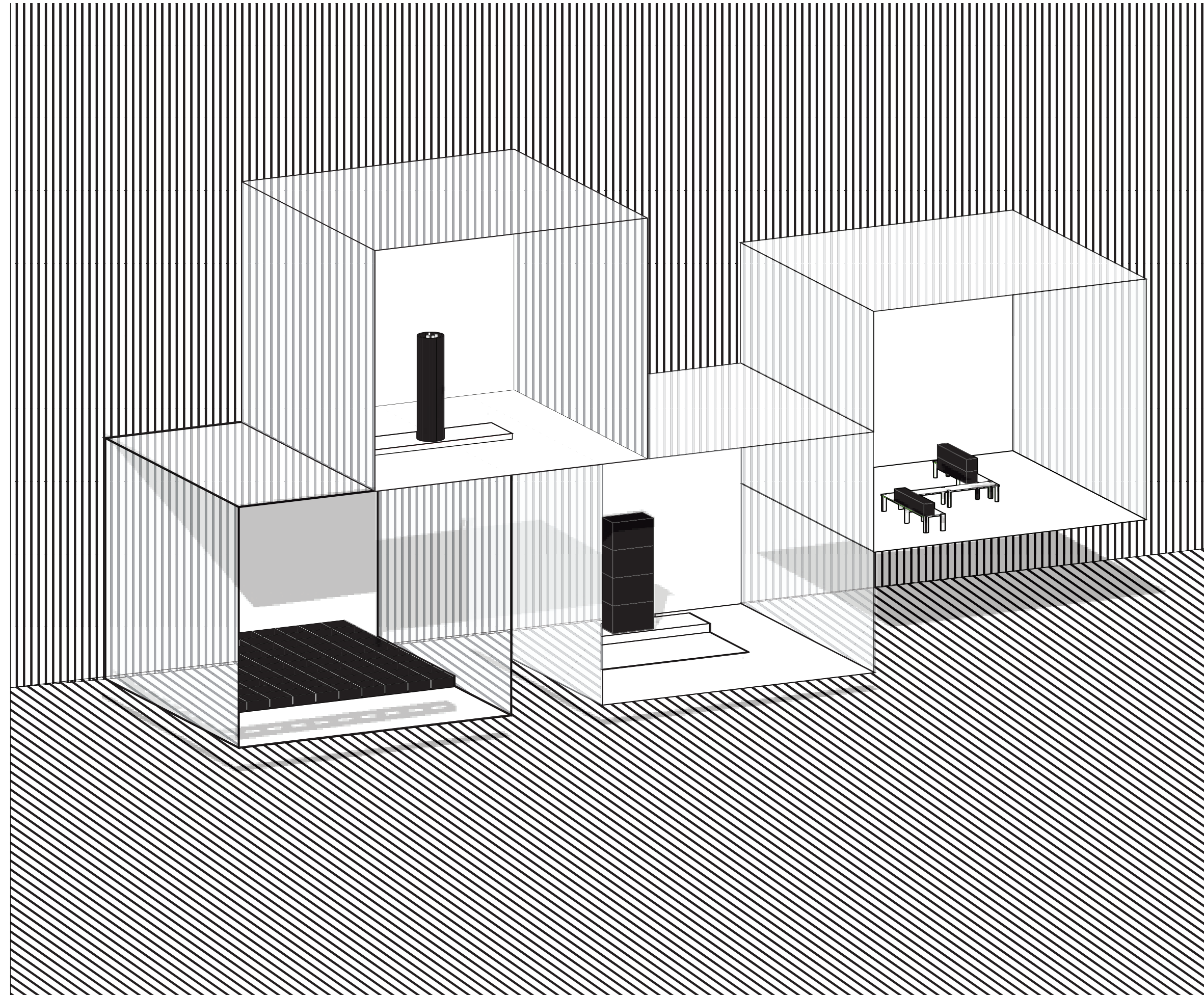
NFU says UK produces only 60% of its own food and must increase production to avoid food insecurity after leaving EU



▲ The NFU says vegetable shortages in Europe and the US this year have highlighted the UK's over-reliance on other countries for food. Photograph: Chris Ratcliffe/Bloomberg/Getty Images

Britain must increase home-grown food production and build stronger supply chains to face Brexit uncertainties, the National Farmers Union has said.

The fixed elements of the new city



The grid - as a tool for delineating ownership , The service cores - that act as the infrastructural exchange points between the city and the rural, The typology : that establishes the open built ratio and lastly The elevated superstructure that combines production with functions of the community

SCALE 01



Figure : *New living typologies that are built around the space of production*

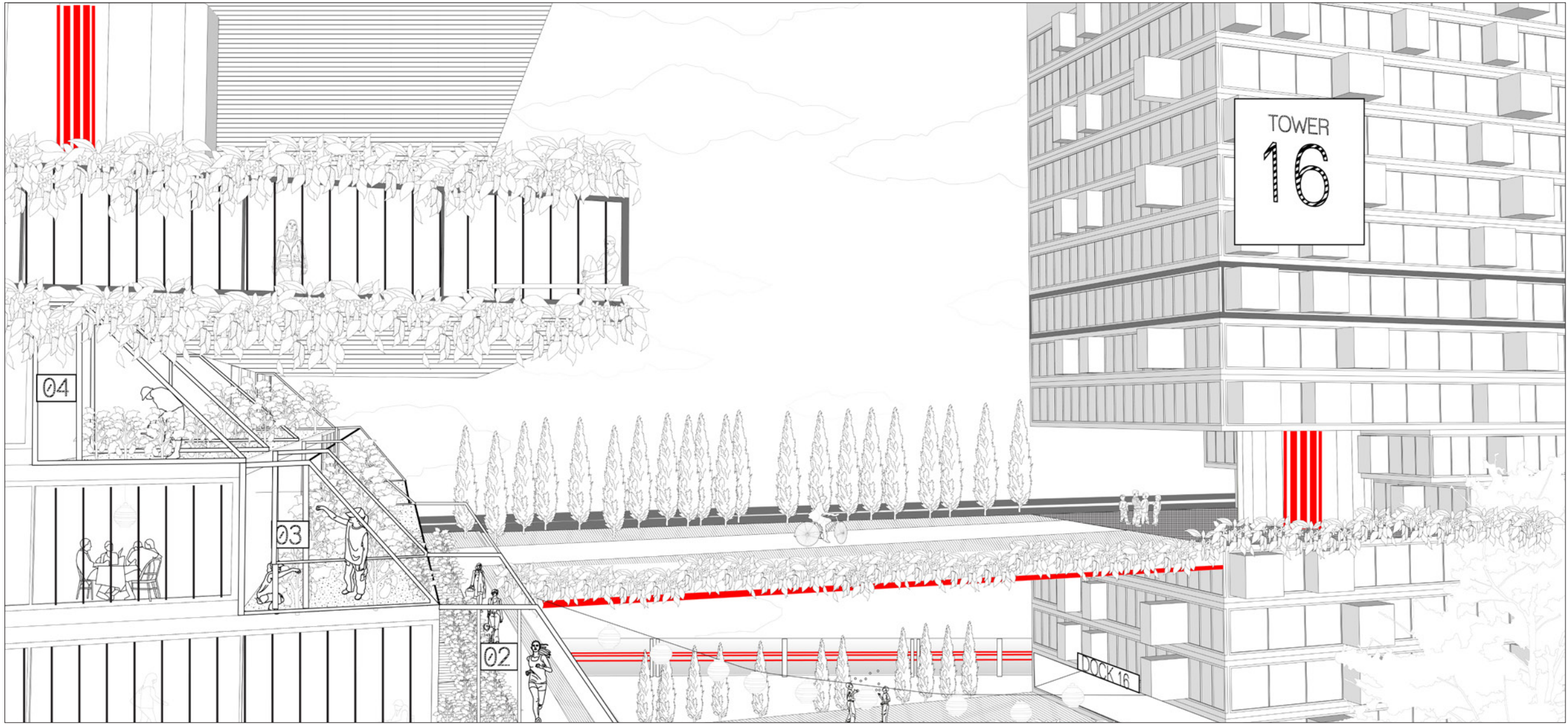


Figure : *Elevated social spaces that can create unique communal parks with a variety of farming types*

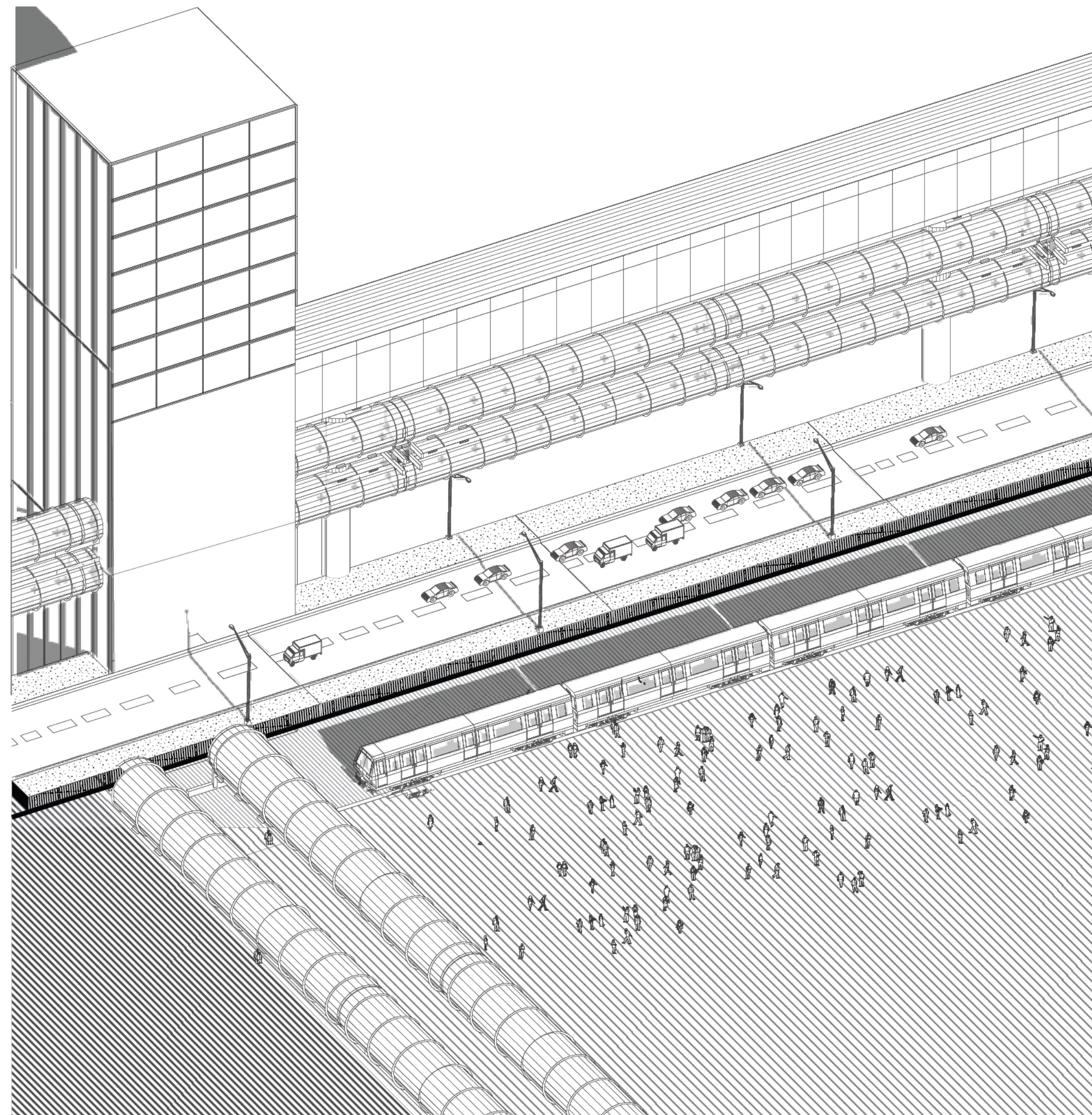


Figure : *Logistical edge between two typical typologies* , Drawn by author

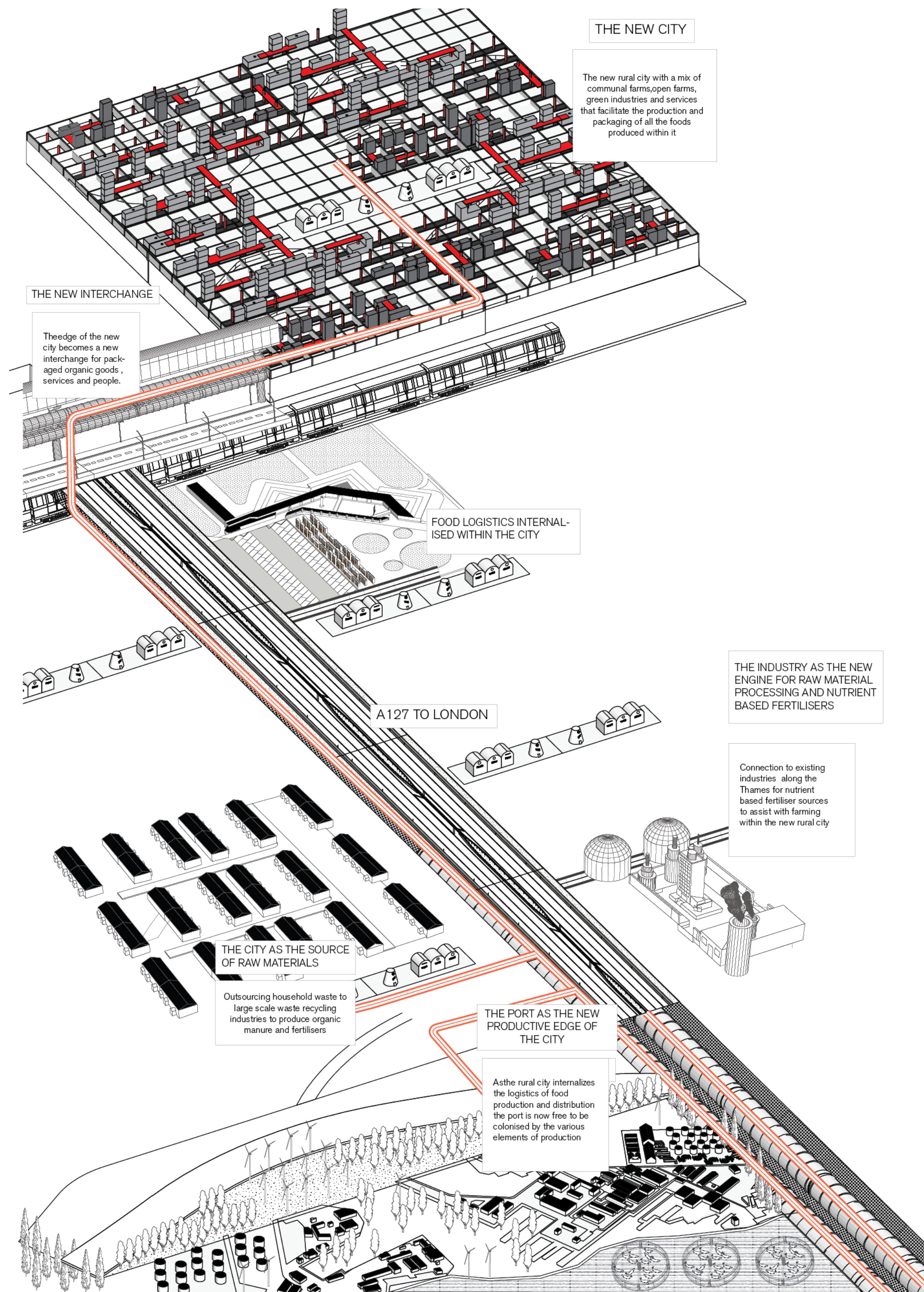


Figure : The new rural city at its points of interchange at the regional scale , drawn by author

Cambodia's sugar rush leaves farmers feeling bitter at 'land grab'

Kate Hodal reports from Koh Kong, where villagers claim they are losing their livelihoods to plantations that supply Tate & Lyle



The plantation extends as far as the eye can see, with sugar cane leaves swaying against the dusky blue sky on the horizon. There are no houses, no animals, just rows of cane.

Standing by a rickety wooden fence that separates the field from the road, Yoen Sarin, 29, who has lived here since he was a child, says: "The land has been extended from here to just over there."

UK investors gather for controversial Africa land summit

International development and environment charities to protest against 'land grab' outside Agriculture Investment Summit



△ An estimated 70m hectares of agricultural land – or 5% of Africa – has been sold or leased to western investors since 2000. Photograph: Siphwe Sibeko/Reuters

Pension fund managers and hedge funds gather in London on Tuesday for a summit to discuss the next big investment opportunity: buying up swaths of African farmland.

The Agriculture Investment Summit promises guidance through the

Economic disaster beckons as water-hungry investors buy up Africa's land

Water drawn from rivers, dams or underground to irrigate new farms in Africa may severely affect users downstream



Irrigation schemes are too reliant on 'blue' water, drawn from rivers and lakes, say critics. Photograph: Amy Vaughan/AFP/Getty Images

As investors buy up land in African farmland by "ecologically unsustainable" means, sovereign wealth funds and speculators are also buying up land, and possibly even conflict, some of the experts have predicted.

And attracted by low land prices and cheap labour in Africa, hundreds of investors from around the world have acquired millions of hectares (some in millions of hectares) of underused land where they can draw groundwater to irrigate food crops. They have struck deals with governments that promise access to water for years.

London School of Economics researcher Martin Korten has written a book of 50 academic essays on the impact of major foreign direct investments

Part 02 : Design replicability and its impact on UK's increasing land grabbing

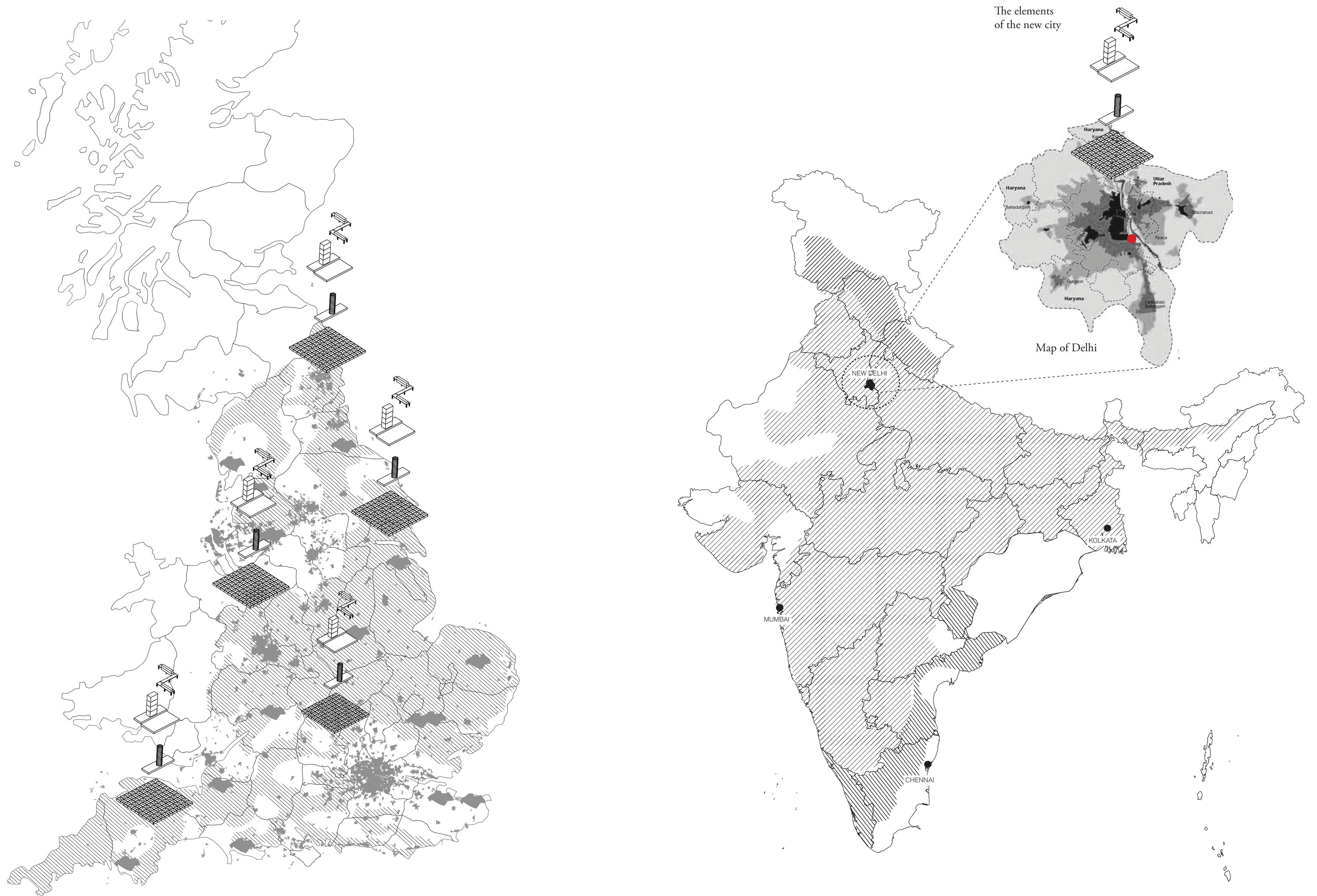


FIGURE : Replicating the design to reappropriate the UK rural landscape

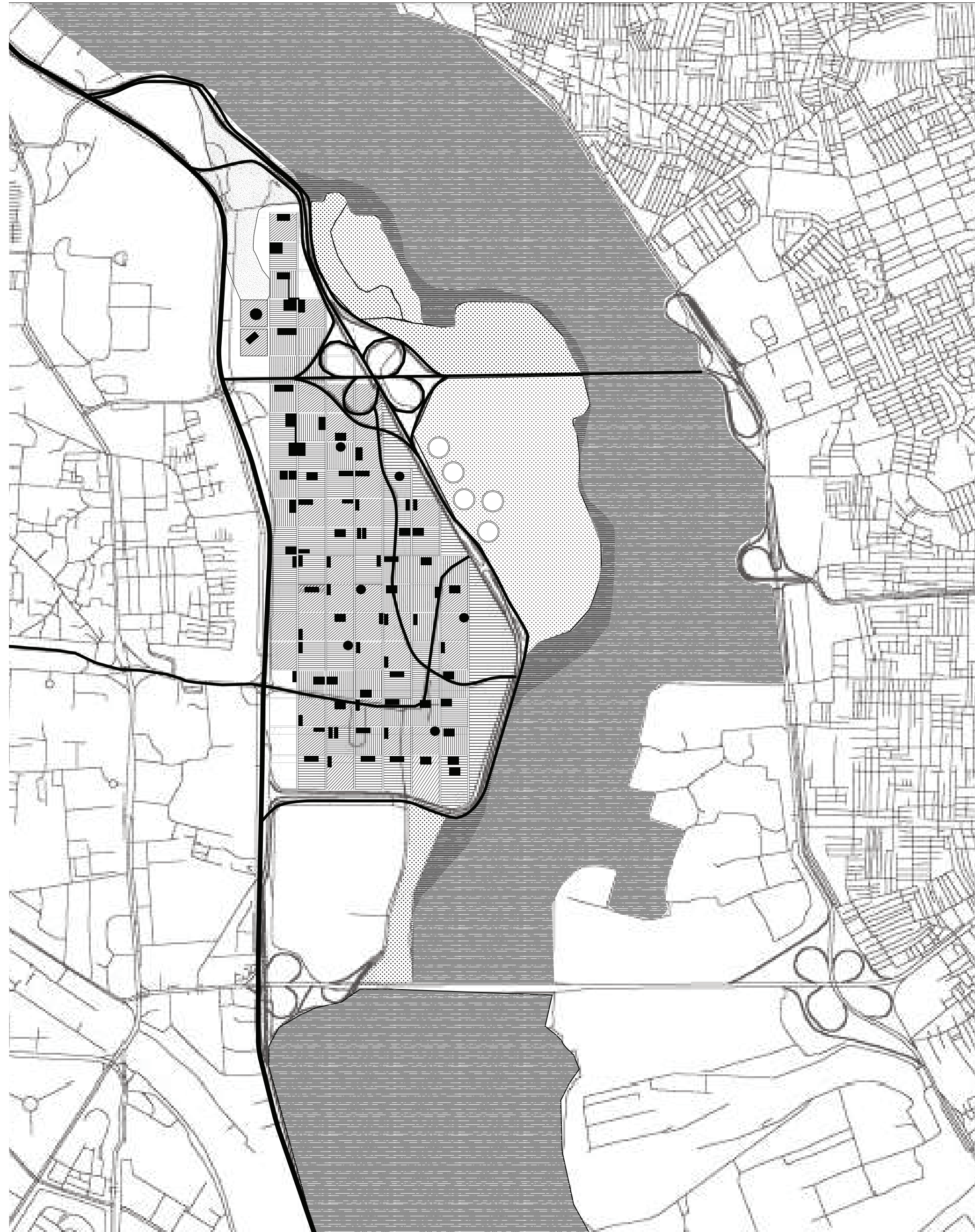
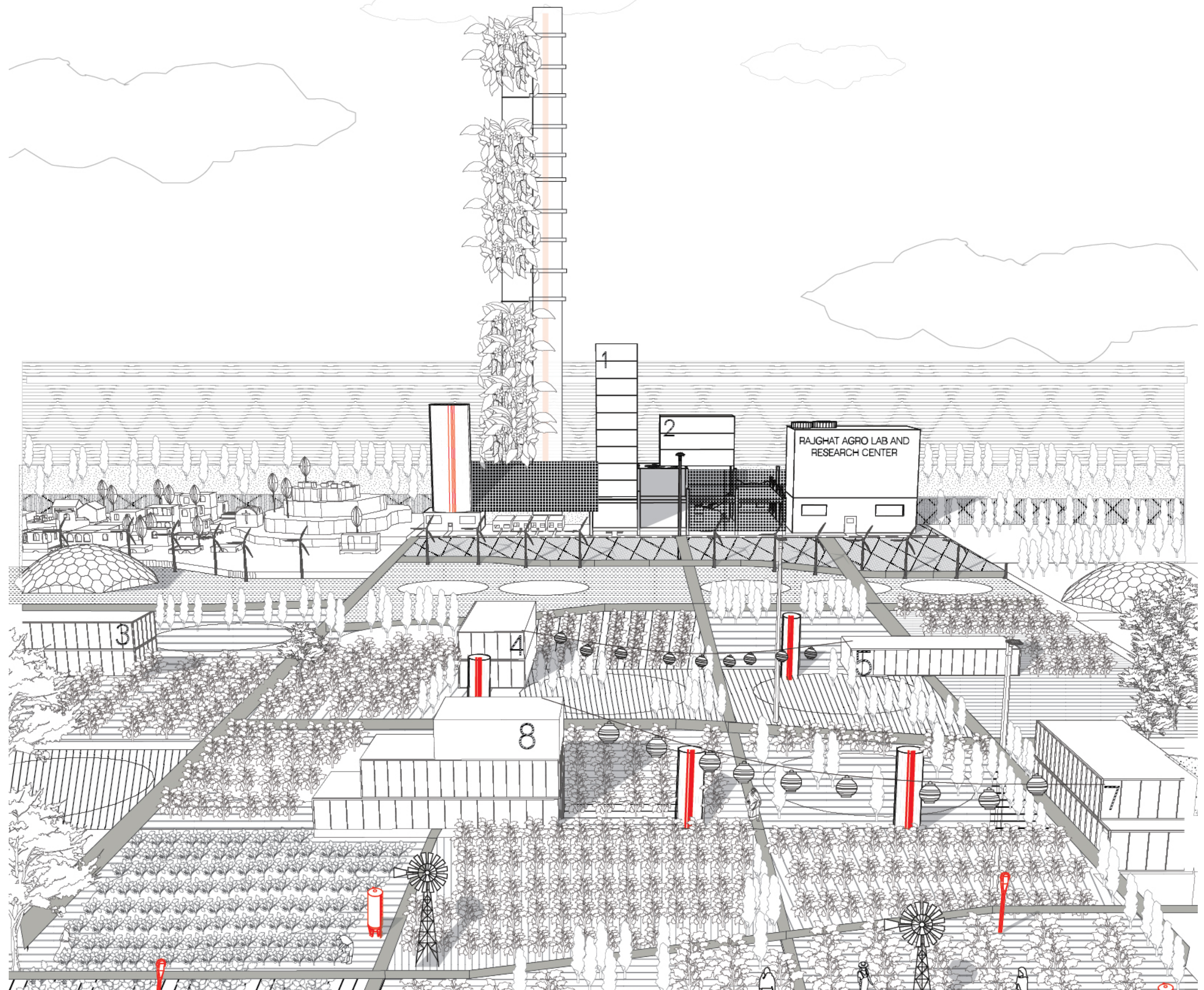


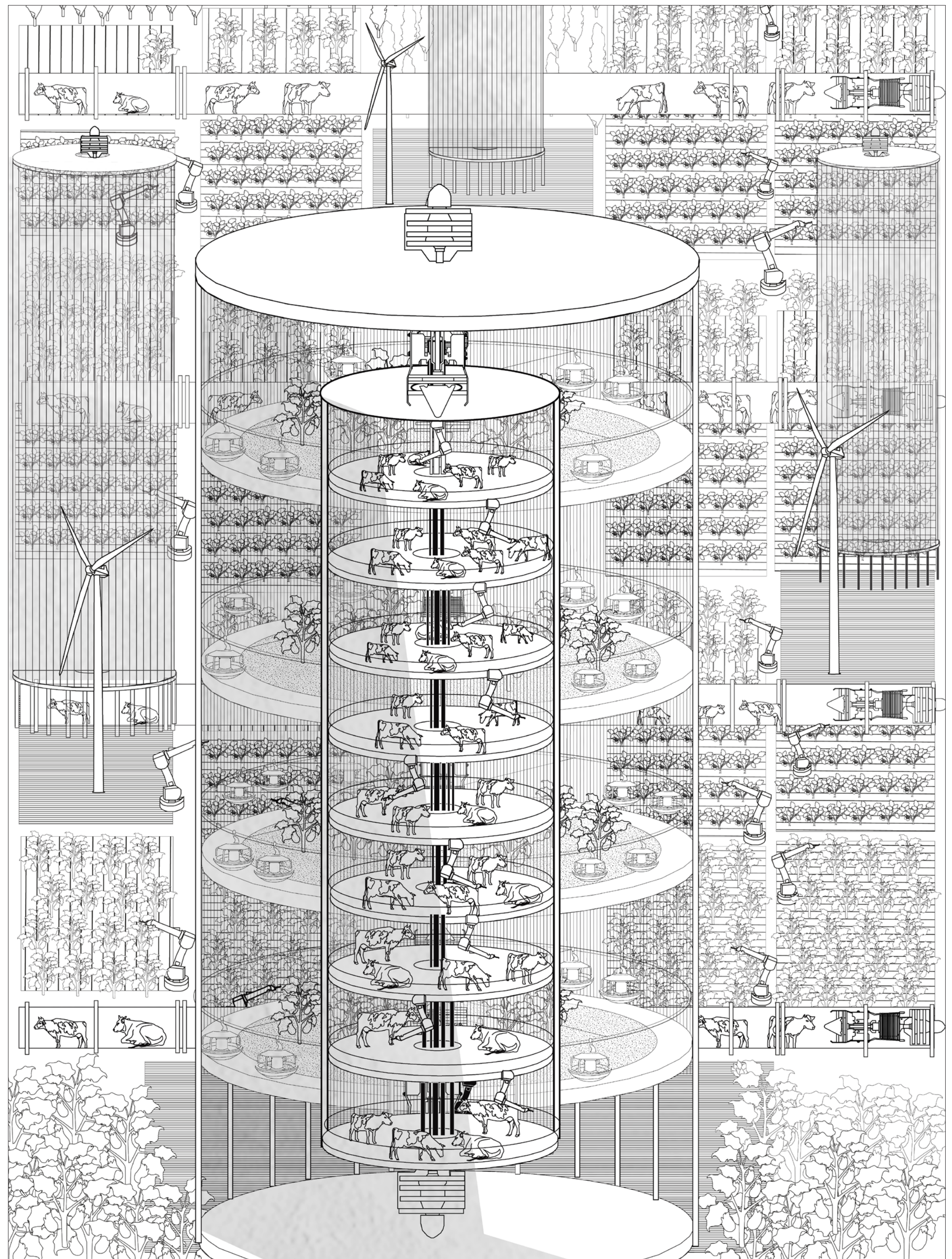
FIGURE : Placing the design in the post industrialist landscape of Delhi , seen here the Rajghat powerplant land reappropriated , drawn by author

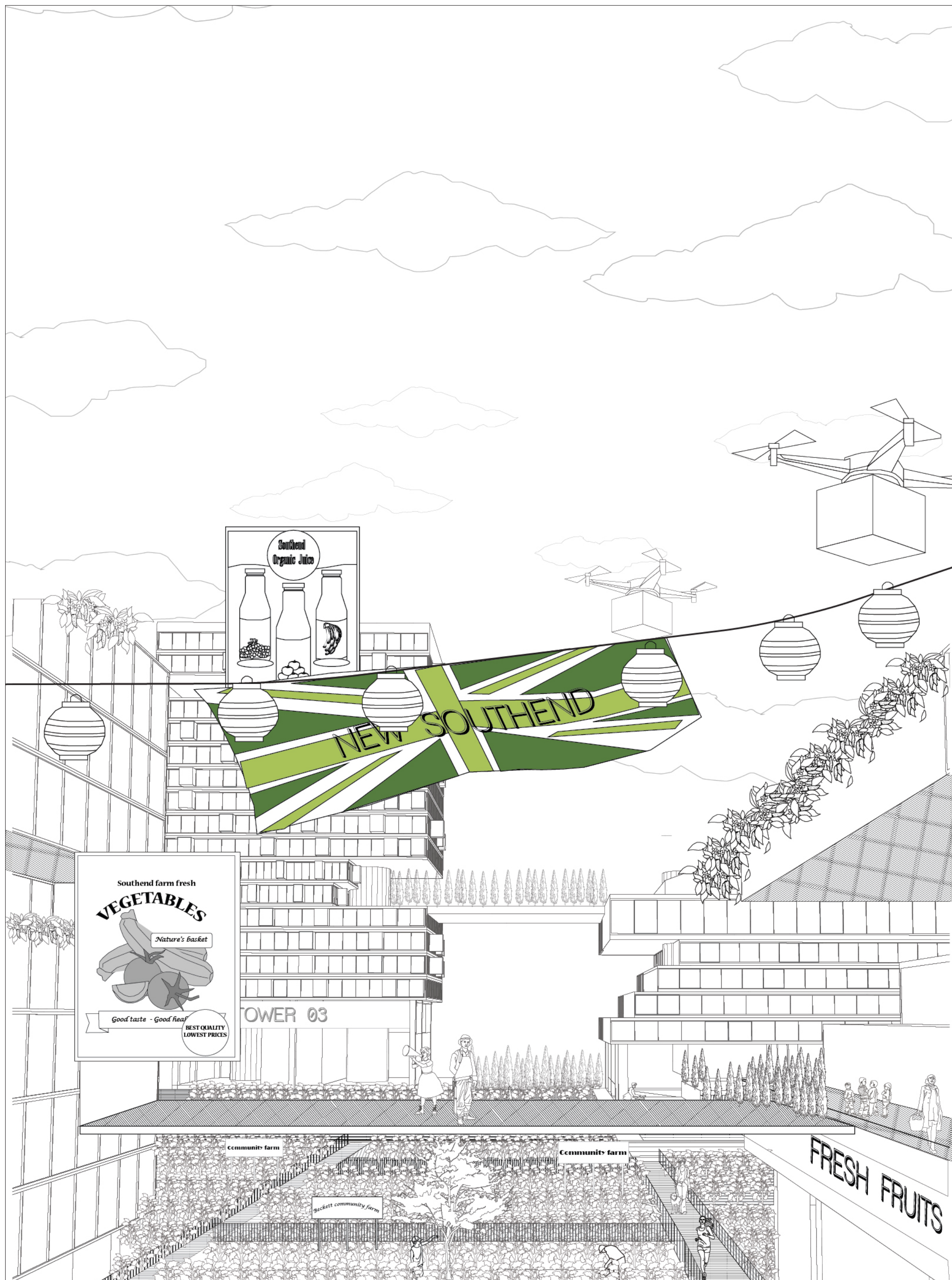
FIGURE : **Repurposing the post industrialist ruins of Delhi** :
 Reclaiming vital productive land within the densely urbanised city of
 Delhi by repurposing abandoned ruins of the industrial city , in this
 case a non functional coal based powerplant along the banks of the
 river Yamuna that could be reappropriated and sold out to farming
 communities around the city to make food available at a much cheaper
 rate .



Part 03 : Commercial food production and labour

FIGURE : The new city internalizes all animal based farms into highly dense agro towers that can effectively combine both animal farming and commercial food production and will be heavily dependent on technology based labour





The manual communal farms :

The communal farms will be mainly allowed to grow short duration crops that would require constant upkeep and maintenance making it a highly labour intensive production activity . While the communal farms are under the care of the communities that collectively own the land parcel , the farmers on the other hand will be allowed to grow long duration crops in larger open farms . The main objective is to incentivise organic farming and make it more labour intensive by utilising the opportunity to introduce new agricultural reforms in the post Brexit UK .

Port of Dover warns of 'regular gridlock' in event of hard Brexit

Port's head of policy says there will be serious congestion without a suitable trade deal



▲ Lorries queue on the M20. Port chiefs said a two-minute delay could become a two-hour delay. Photograph: Gerry Penny/EPA

The port of Dover has warned there will be a week in the town and on surrounding roads in the event of a [Brexit deal](#) involving frictionless trade.

Richard Christian, the port's head of policy, said:

'Armageddon' Brexit: 'No deal' scenario could hit fuel and food

UK officials have warned that leaving the EU with no deal could immediately cripple trade, a newspaper report says. In one scenario, there could be food and fuel shortages within two weeks. And it could be even worse.



Secret government 'ARMAGEDDON' report reveals Brexit will leave Scotland's supermarkets empty

Andrew Learmonth
Journalist

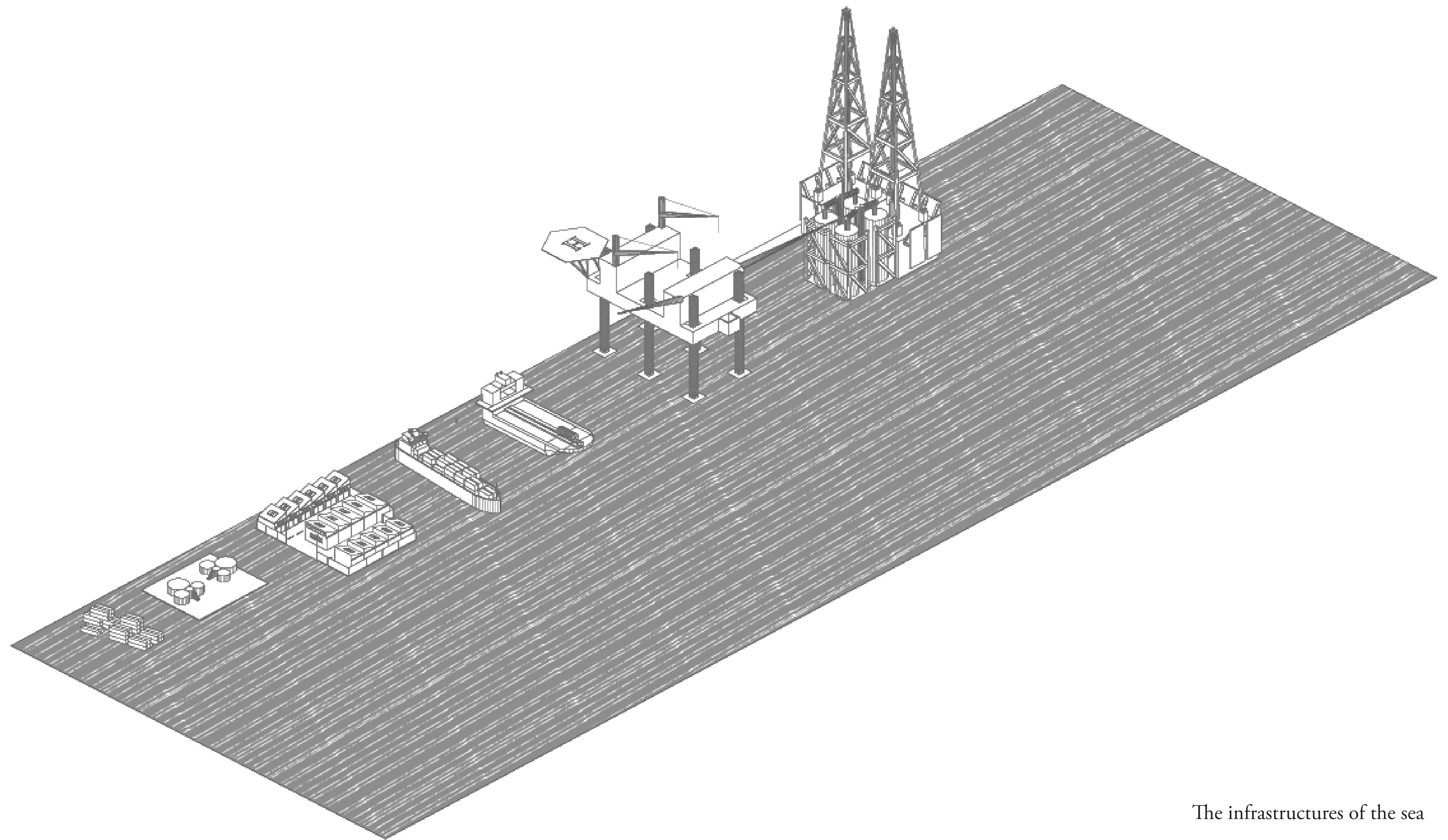


ARMAGEDDON: Scotland to run out of food and medicine according to May secret Brexit report

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- 8 First Minister says it's no 'game on' for staying in single market post-Brexit
- 9 Is it OK for Scots to hope Anyone But England win World Cup?

Part 04 : The port and the changing food economy



The infrastructures of the sea

Port of Dover reimagined

