NYC FOODSCAPES

NYC FOOD SUPPLY AND RETAIL SYSTEMS
NYC STRATEGIES TO SUPPORT HEALTHY STABLE COMMUNITY

Lyubov Viller

New York Foodscapes

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'Food shapes cities in ways that we largely take for granted. Paradoxically, because it is so pervasive and essential to human societies, food is almost invisible. The place of food in society is also immensely political, both figuratively and geographically. It is also a key part of a quality of life and well-being'[1]

Carolyn Steel

Clinton Piers area is currently transforming from a former manufacturing to residential district. However, quality of the living environment is far from sufficient. The transition is done in a very hasty way and rezoning has a fragmentary character, some blocks have already been rezoned into residential while others are still manufacturing. New high-rise housing developments are rising surrounded by warehouses, car retail shops, parking, car wash and warehouses which don't reflect the changing character of the urban environment. Moreover, the NYC planning department consider this zone a 'food desert' which means that the area between 10th and 12th avenues lacks public amenities which can provide fresh food. Combined with a high level of environmental pollution from the Westside highway, lack of green public spaces and issues of reachability by public transport, it begs the question: how to create a quality livable urban environment for the residents?

History of industries in Hell's Kitchen

The area was primarily shaped in 1851 when the Hudson River Railroad was constructed on the Eleventh Avenue and the streets were lined with industries such as slaughterhouses, breweries and other industries. Coupled with a railroad, the piers were transportation hubs for local industries. Food manufacturing is one of the historic assets of Hell's Kitchen. Its urban tissue was developed as a combination of industrial facilities, docks and warehouses along the Hudson River and blocks of tenement houses for workers towards Midtown. Moreover, the neighborhood had an advanced criminal network of local gangs which combined with vacant industrial structures became bootlegger's headquarters during the Prohibition. This gave rise to numerous Speak-Easy bars which were later transformed into Restaurant Row.

The Clinton Piers area is rapidly transforming from former industrial into a residential district. New high-rise housing developments are rising in the rezoned blocks yet surrounded by car retail shops, parking, car wash and warehouses which don't reflect the changing character of the urban environment. 11th and 12th avenues are drastically underserved by public amenities like eateries, dry cleaners, groceries etc. Although 9th and 8th avenue restaurant rows are in a walking proximity, livability in Clinton Piers can hardly be called sufficient. (Fig. 4.1.3.2, 4.1.3.3, 4.1.3.4, 4.1.3.6)

Average Hell's Kitchen household income has increased within the last few years and is now $98, 728 which is similar to other districts in Midtown. The lack of public amenities is connected to relatively recent gentrification and rezoning of the Clinton Piers.

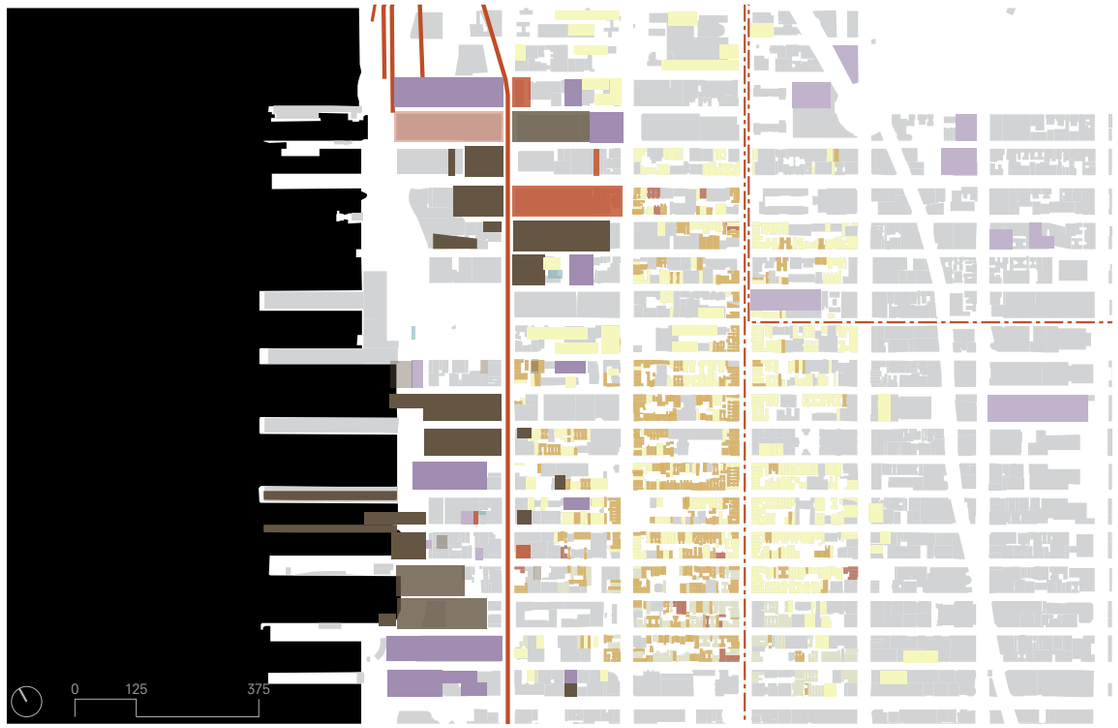
4.1.3.2 Parking between 11th and 12th avenues (photo by L.Viller)

4.1.3.3 Car retail vs new residential tower (image source: Google view)

4.1.3.4 Car retail vs new residential tower (photo by L.Viller)

Map 4.1.3.5:
- Special Clinton Preservation area
- 1879-1901 'Old Law Tenement'
- After 1901 'Tenement House Act'
- Hudson river railroad on Eleventh avenue (1851-1929)
- Ninth avenue elevated railroad (1868-1940)
- Stlaughterhouses
- Gas-holders
- Stables and railroad facilities
- Coal, lumber, building materials
- Other factories and warehouses
- Breweries

Map 4.1.3.6:
- New housing development
- Car retail
- Car wash



4.1.3.5 Special Clinton District preservation area

4.1.3.6 New housing developments and car retail shops

The gentrification of Hell's Kitchen and unaffordable groceries

The situation in the Preservation area is principally different to Clinton Piers. The Hell's Kitchen community has been fighting gentrification over the last 50 years. Despite all precautions taken by the Community Board 4, real estate prices show the dramatic change in Hell's Kitchen in the last decade. The Special Clinton Preservation area protected old tenement buildings but not their residents. New York has lost 50, 000 rent-stabilized units over the last decade and overall Hell's Kitchen shows similar trends which destroyed the permanent local community (Fig. 4.1.3.7). Besides, the percentage of houses converted into AIRBNB's is the second highest in NYC. New residents, mostly young professionals with high or medium-incomes that moved into the area over the last year now represent roughly a quarter of the population of Hell's Kitchen's. Small scale mom-and-pops have been converted to bars and restaurants and businesses like Laundromats and groceries are being pushed out by increasing rent prices. According to the Strategic Resource Group, NYC lost 8 % of family-owned medium and small scale green grocers between 2005 and 2015 [2]. About 100 such stores closed in Manhattan. [3] Even considering the loss of affordability, the Preservation area remains a 'vibrant' and 'diverse' neighborhood, according to secondary sources such as interviews with residents.

For some social groups, groceries in Manhattan are too expensive and unaffordable. According to Numbeo data for 2019, the median groceries expenditures in New York City is $471.34 monthly, per person, compared to $324.20 in the whole of the US [4]. It causes a lot of financial difficulties for low-income members of the community. 12 per cent of Hell's Kitchen population is people below the poverty level. Fresh food distribution reflects a generally high level of social inequality in NYC which has the highest rate in the world according to economist and sociologist Saskia Sassen [5]. Fresh food is usually more expensive than unhealthy products and fast food. Paradoxically, fruit and vegetables costs are higher in low-income compared to areas with higher income, according to the NYC Food Policy. Another tendency is that average Manhattan residents tend to go out or order 'takeaway' more and cook less because most of the old apartments have limited kitchen space. New Yorkers spend 130% more than other Americans on restaurant and take-out food, single person households expenditures for food is 46% in comparison to 27% across the US, according to a CBRE 2019 retail report [6]. A factor which is specific to New Yorkers compared to other Americans is that most people in Manhattan don't own a car which makes big grocery purchases hardly possible. It also explains the big variety of small groceries 'around the corner', the lack of big-scale food retails and the flourishing restaurant industry and rise of food delivery businesses like Fresh Direct.

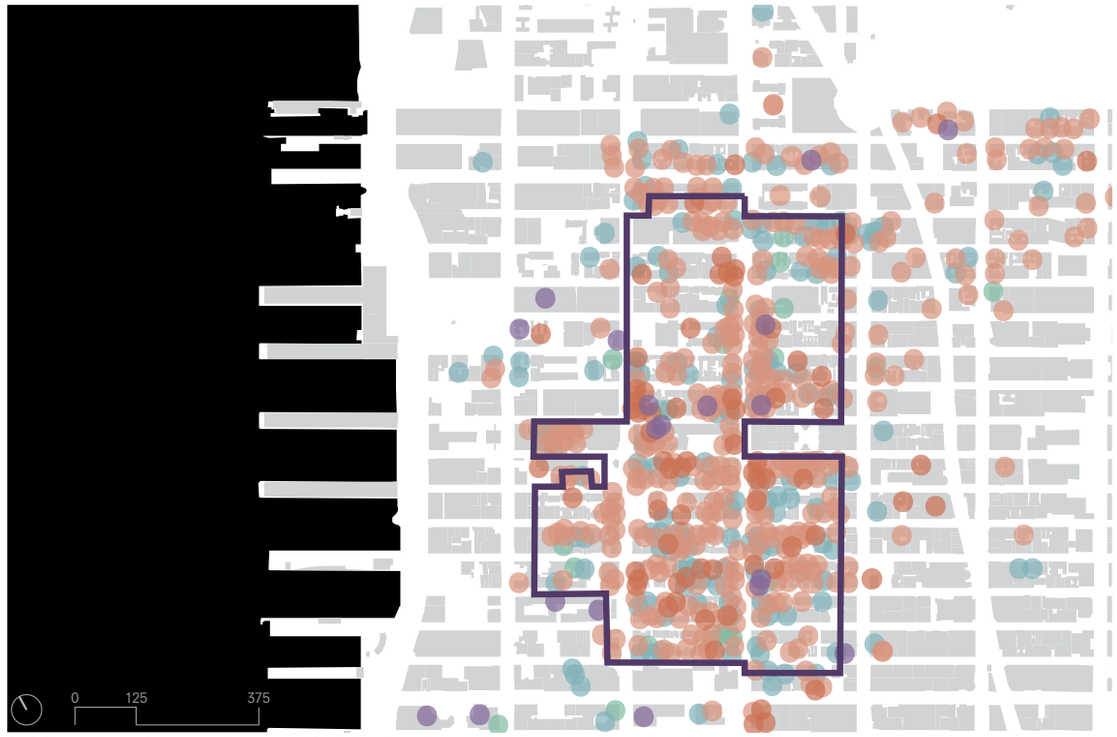
West Highway and environmental issues

In general, the awareness of the origins of food is low in NYC, according to a research 'Understanding NYC's food supply' [7]. 60 percent of NY metropolitan area food supply is coming from Hunts Point distribution center in the Bronx (2, 3 billion lbs of food each year). Hunts point infrastructure which was constructed in 1966 is currently outdated and vulnerable (Fig. 4.1.3.16, 4.1.3.17). In case of natural disaster and the rise of sea level NYC food supply will be at risk. NYC Food Policy center is suggesting two strategies: revitalizing Hunts Point and creating new decentralized food system for NYC. Moreover existing system is far from being sustainable 95% of food transportation is operated by trucks which increase stress on the city infrastructure and environmental pollution. This indicator will only raise in 2035, therefore, food prices will grow following oil prices. More than half of all NYC food supplies are operated through four bridges and two tunnels.[8] The current system is highly vulnerable to flooding risks. (Fig. 4.1.3.16, 4.1.3.17) The more efficient system of food infrastructure and hubs might help to make food distribution more secure and resilient.

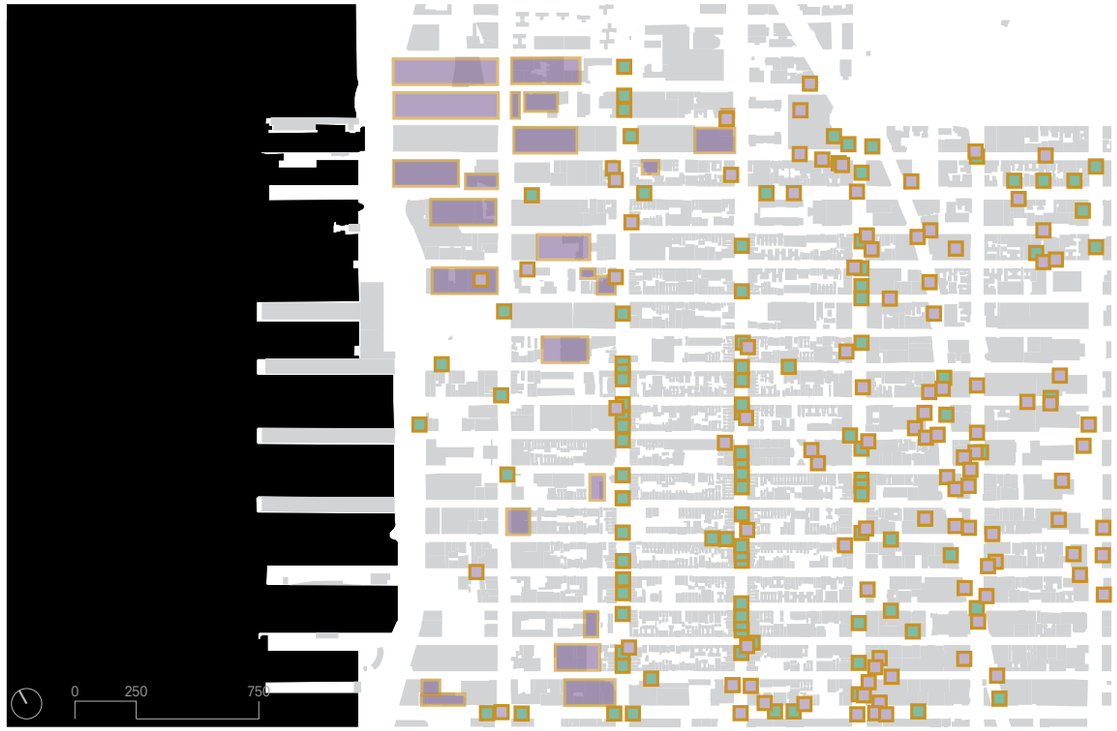
The NYC food system can improve by strengthening regional connectionsc [9]. At the moment there are only 6 few farmer's markets in Midtown such as Columbus Circle weekend market or 57th street Greenmarkets. However, the main trend shows the decay of old market models across the city which encourages the development of new ways of grocery shopping like online shopping, food delivery or urban agriculture as a community initiative. Another issue for the local community is a flourishing Restaurant Row which provides many entertainment opportunities but at the same time drastically worsen the sanitation of the area due to poor garbage storage and collection.

Map 4.1.3.7:
New housing deveelopments
Fast food
Retail(grocery)

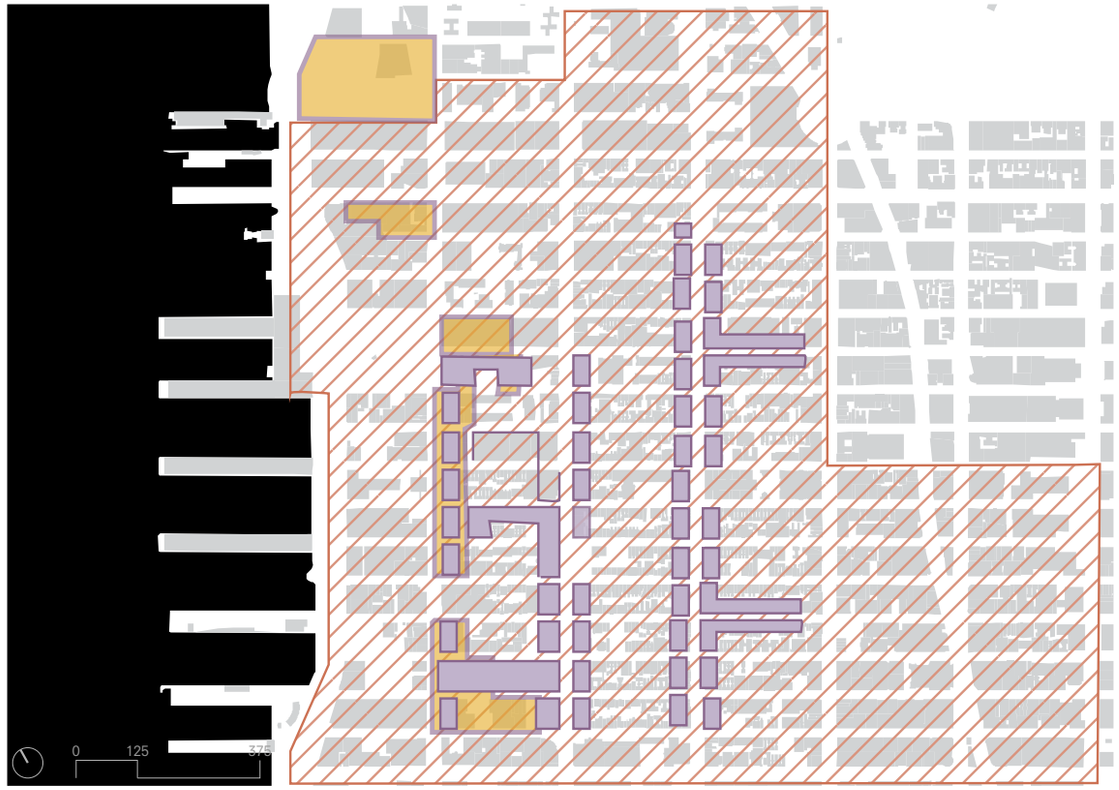
Map 4.1.3.8:
Special Clinton District Preservation Area
Lost at least half of stabiized units
-25% to -50%
-10% to -25%
+75% or more (new construction)
Stabilized count remained the same
+10% TO +25%



4.1.3.7 Loss of rent control apartments in the last decade



4.1.3.8 New housing development and foodscapes



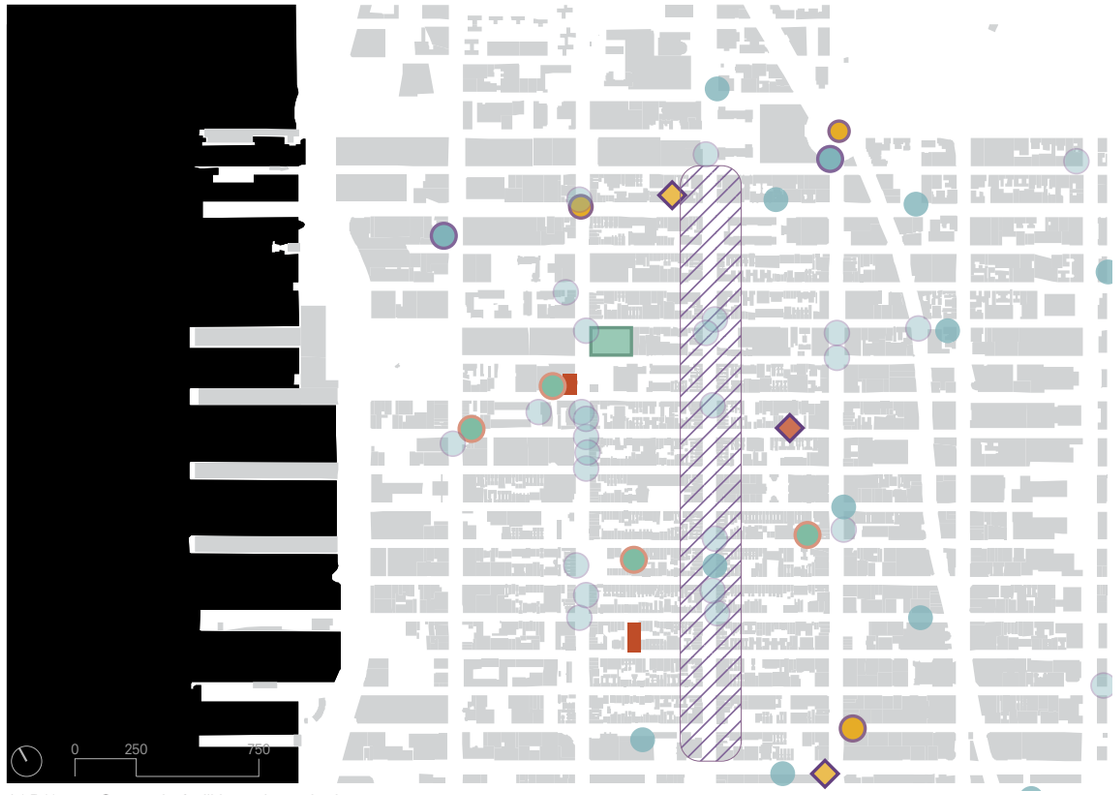
4.1.3.09 NYC strategies and zoning

Map 4.1.3.9:
Fresh zone (establishment and expantion of grocery stores in underserved communities)
New housing deveelopments

Map 4.10:
'Food Desert' (supermarket need index) high
'Food Desert' (supermarket need index) medium

Map 4.1.3.11:
Restarant area
School property with garden
Community supported agriculture pick up sites
Food co-op
Medium grocery
Large grocery
Community garden or urban farm
Farmers markets
Community organisation

4.1.3.10 Retail food stores licensed by department of agriculture



4.1.3.11 Community facilities and organisations

NYC strategies for food systems

According to Nevin Cohen, Professor of Health Policy and Management, CUNY School of Public Health, food topic has been overlooked by NYC city planning over the last 100 years. However, most of new city initiatives aim to actively involve the community to have a healthier lifestyle. City planning strategies are motivated by economic costs spent on public health. [10] Obesity-related treatments in NYC state are about $6 billion and the city of NYC alone spends $2.65 billion on health care annually. Whereas, the public health situation in Hell's Kitchen is relatively good in comparison to other Manhattan districts, 7-14 % of local residents reported they haven't consumed any fresh food the previous day, up to 6% of the residents have diabetes and up to 18% are obese. [11] On the other hand investments in prevention and promoting healthy lifestyle and FRESH programs are relatively small. NYC health department plan for improving food works include a range of strategies such as:

Shop Healthy NYC. Program for local food retailers to encourage healthy food promotion and a variety of stock also activates a conversation between local community and retailers. Nutrition education programs at schools, urban farms, farmer markets. Grow to learn. Public school gardens initiative.

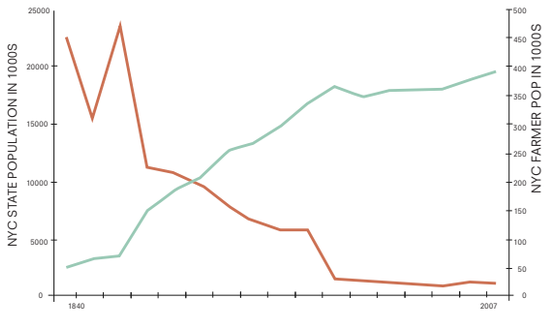
Revitalizing markets and farmer markets. New Yorkers 4 Markets initiative. Improve connections between local and regional farmers and local producers and customers.

Green Thumb. Community gardening support. These green spaces provide environmental (air quality, biodiversity), economic (fresh food produce) and social (recreation, social activity, education) advantages for the community. There are 550 registered gardens across the city though there are only two gardens in Hell's Kitchen and Midtown. The biggest amount of Green Thumbs on Manhattan is in East Village and Upper Manhattan.

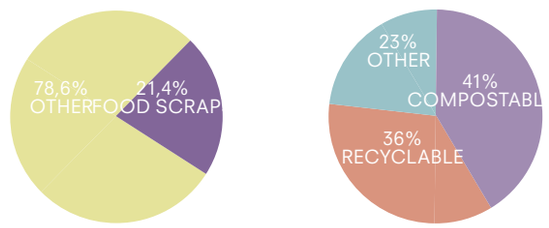
Farms at NYCHA. Program of urban agriculture as a part of the Building Healthy Communities Program. NYCHA is widespread in residential areas of the city however the only 3 NYCHA farms in Midtown are in Clinton Piers area. Green Infrastructure is an alternative system for reducing water pollution by absorbing rainwater which prevents it from overloading sewage systems it also helps to reduce air pollution and heat island effect.

Food Manufacturing. Understanding of food as a part of the economy, providing entrepreneurship incubates and local food production.

Zero Waste . Organic waste (90.000 tons per year) is used to create compost and is going to be used for renewable energy sources like biogas or can be used as a fertilizer for urban agriculture. NYC is aiming for zero waste in 2030. [12]



4.1.3.12 NYC farmers and population 1840-2007

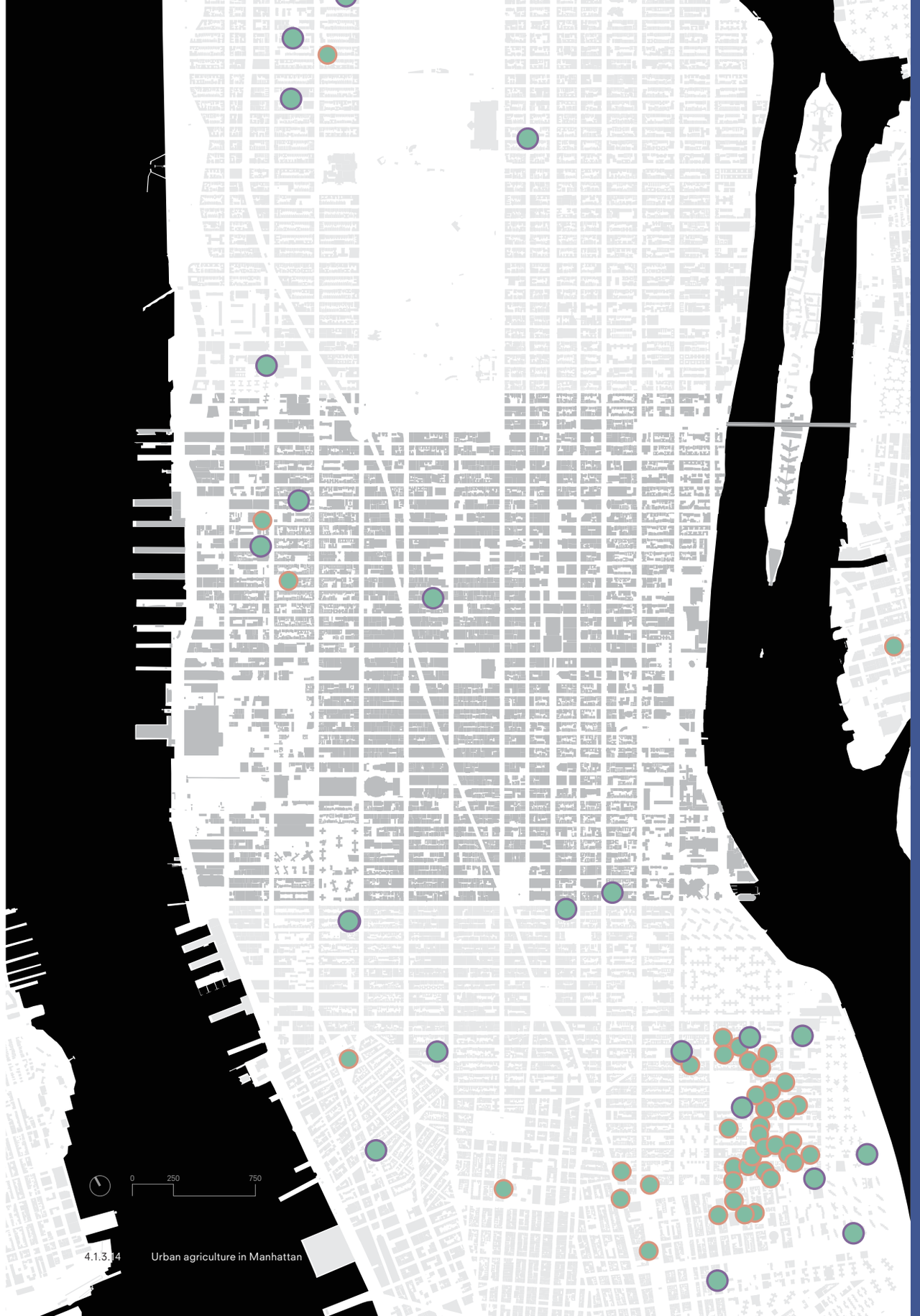


4.1.3.13 Composition of residential waste in NYC. Compostable and non compostable waste stream waste in NYC

Graph 4.1.3.12:
NYC state population in 1000s
NYC farmer Pop in 1000s

Graphs 4.1.3.13.1, 4.1.3.13.2:
Compostable
Recyclable
Other
Food scraps
Other

Map 4.1.3.14:
Community garden or urban farm registered as Green Thumb



4.1.3.14 Urban agriculture in Manhattan

NYC food system facts and figures

8 million residents

$30 billion in food spending
and a budget for institutional meals

Obesity-related medical expenditures in New York State are
$6 billion

New York City spends **$2.65 billion**
on health care annualy, **$315** per resident

Oranic waste **90.000 tons** per year
and it's a **21%** of residential waste

Sourcing regional products market has a surplus demand of nearly
$600 million annually

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$600 million annually

Total Benefits of local food manufacturing in 2018 is **$1,981,716.32**

potential to capture an additional **$1 billion**
in grocery store sales each year that are not met by existing

every **100 jobs** in the City's food manufacturing sector
supports **76 jobs** in other industries

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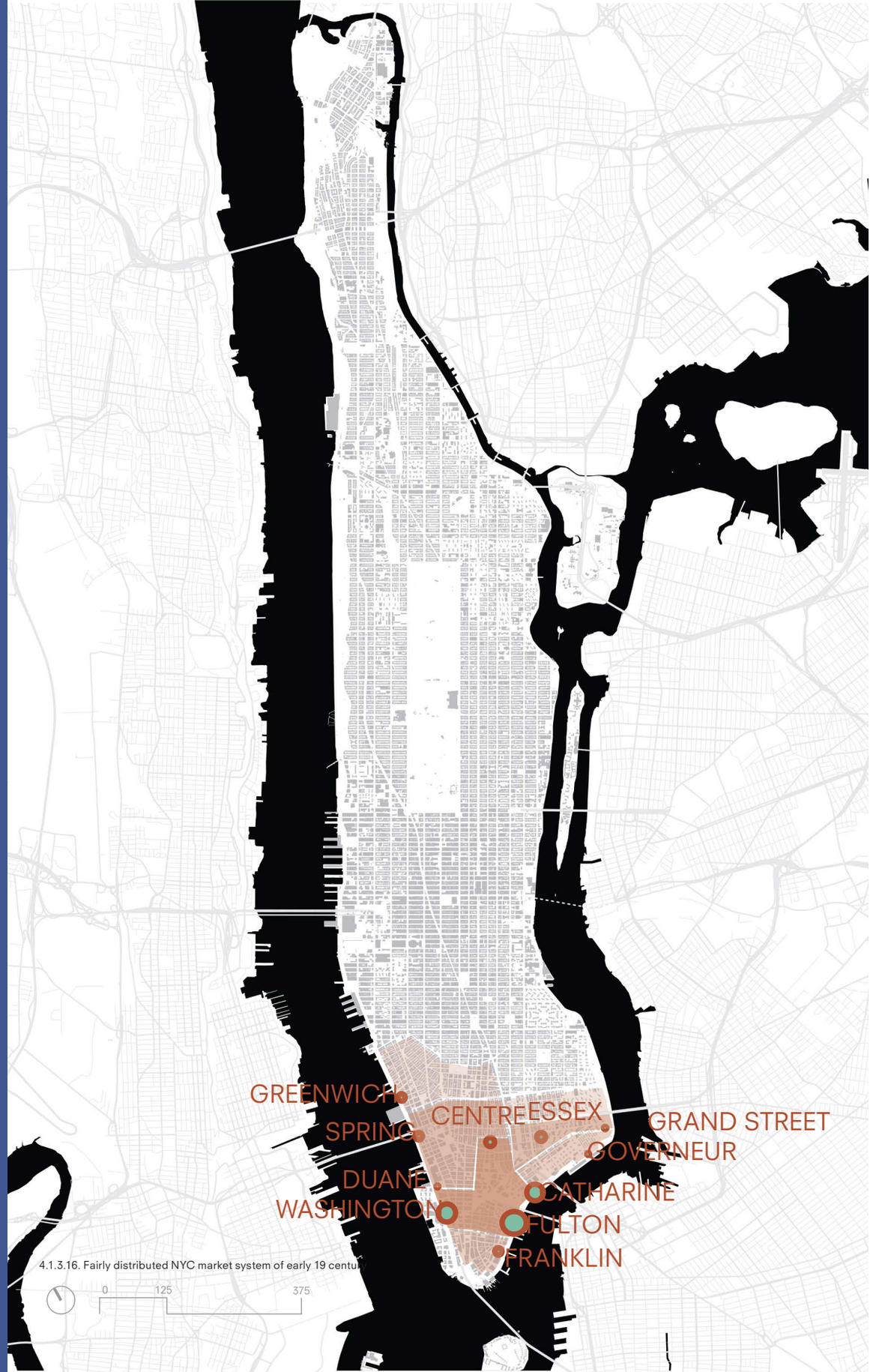
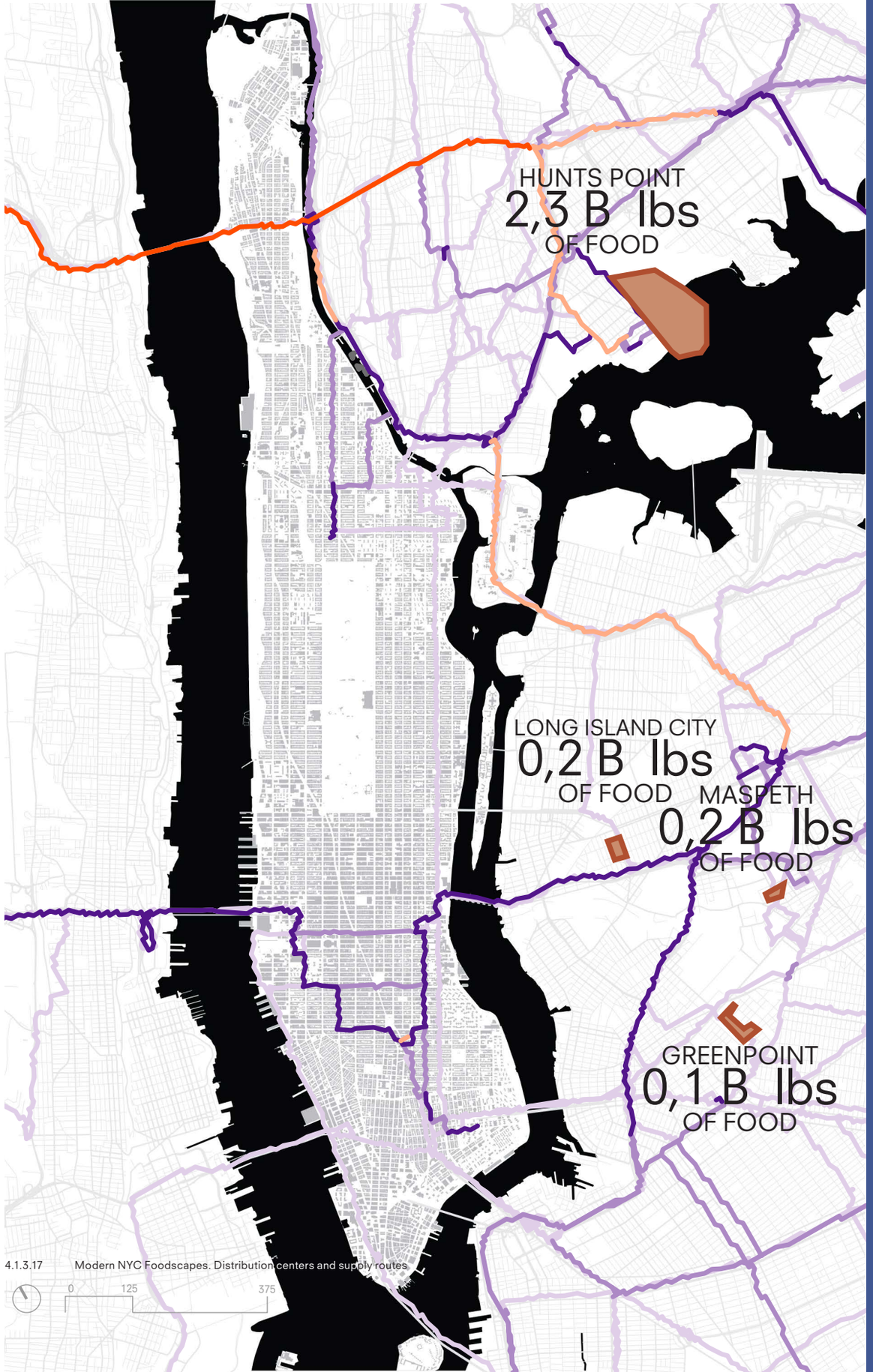
Food processing is a valuable part of our city's economy, providing
$1.3 billion to the Gross City Product

FRESH projects accumulated **$140 million** across the City in 2018
844,000 square feet

4.1.3.15 Poultry market. New York, 1940



4.1.3.16. Fairly distributed NYC market system of early 19 centu



4.1.3.17 Modern NYC Foodscapes. Distribution centers and supply routes

Economic value

Although foodscapes can take different forms it's important to take into consideration their economic value. The food infrastructure can support the local community with services as well as jobs opportunities and they should be economically valuable and self-sustainable. The current high rent prices in Midtown are one of the reasons old model of food supply and grocery shopping is changing, food infrastructure should incorporate new meanings, strategies and typologies in order to succeed. Aside from food retail, the manufacturing of food in the city can contribute to the economy. There are potential benefits and job opportunities in creating foodscapes (the total benefits of local food manufacturing in 2018 was 2 million$, every 100 jobs in the City's food manufacturing sector supports 76 jobs in other industries. Food processing is a part of our city's economy which provides $1.3 billion to the Gross City Product.) [13]

Food infrastructure can reduce Food Costs. Transportation accounts for about 3,2 cents and wholesale trade for 9,1 cents of every food dollar. Investing in a more efficient food infrastructure helps to reduce costs and lessens environmental impacts. [14]

In the case of Clinton Piers area, food manufacturing or urban agriculture and distribution on a local level can be a strategy for a more smooth transition between the industrial past and possible residential future. In addition, it provides more qualities of environmental livability for the local community such as 0 miles fresh food and green public spaces.

How can food infrastructure be integrated into the residential urban environment of Hell's Kitchen and soften the transition from the industrial past? How can local food manufacturing and distribution create new values for community as well as provide green public spaces?

Spatial precedents of food and green infrastructure and potential strategies

Perhaps in case of NYC and its real estate mechanisms only radical strategies would cause an effect on sustaining livable residential districts. Some examples of theoretical paper or built projects should be studied to explore potential strategies for Clinton Piers foodscapes.

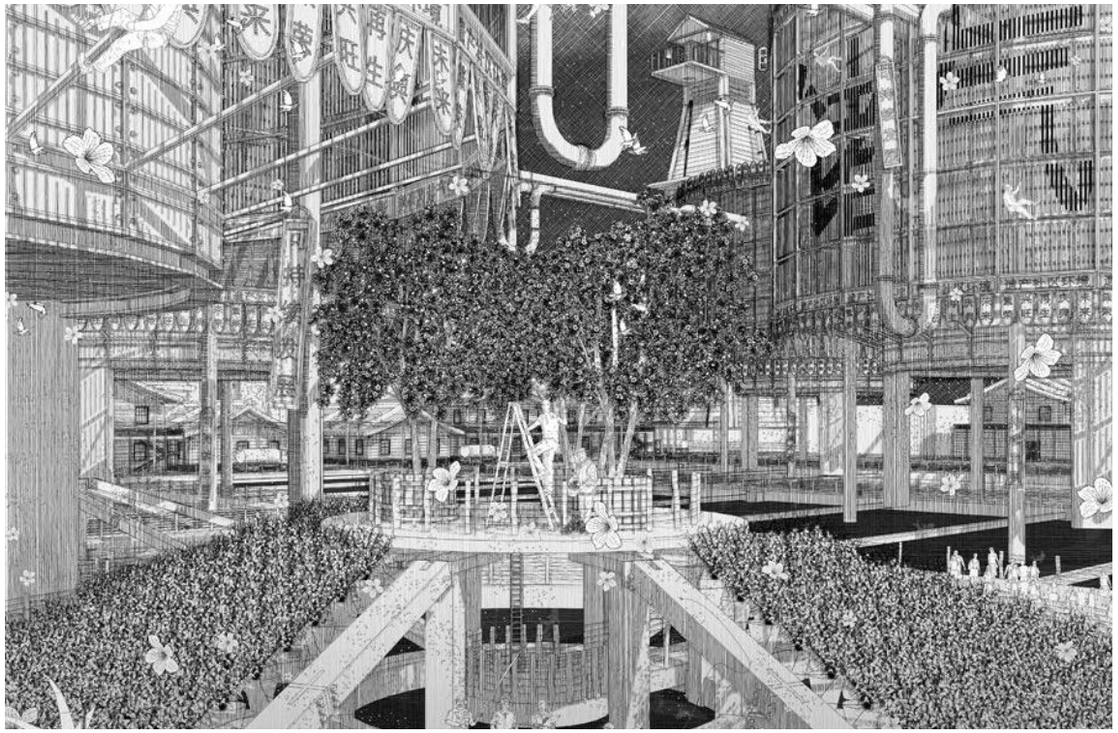
Park Supermarket by van Bergen Kolpa Architecten
The project envisions new ways of grocery shopping and merges it with the idea of recreation and landscape. This strategy includes such aspects as Green infrastructure (Improving environment, pollution), 0 food miles (locally produced, increasing awareness of the food origins), New economy (jobs for low-income households), Circularity (restaurant row waste compost might be used for urban agriculture, solving sanitation issues), 4th industrial revolution. [15]

Food Parliament by S J Lim
The Food Parliament: A democratic practice of everyday life by CJ Lim
The book by C J Lim describes symbiosis between urban development and food throughout history. The project describes how the production, storage and distribution of food can be part of 'a democratic practice of everyday life'. The Food Parliament transforms central London into a food production state. [16]

Markthal by MVRDV
Food infrastructure combined with housing
Privately-developed apartments arranged into a large arch, strategically allowing a private initiative to create a public space. The result is a covered square which features a central market hall during the day and, after closing hours, a lively series of restaurants on its lower levels. It is a hybrid building where visitors are able to shop, eat, enjoy a drink, live, and park their car. [17]

The High-line
The massive revitalization of the industrial area and activation of new development triggered by the introduction of an exclusive typology of green public space and new connectivity.

4.1.3.18 Park-supermarket (Van Bergen Kolpa Architecten)



4.1.3.19 Food Parlament by C. J. Lim (Food city by C.J.Lim)

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