

# HOW TO LIVE WITH NATURE

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“To grow nature is to encourage more of it. That’s not easy to do. More nature means less control. Less control requires a certain kind of faith, which is where the worldview comes into play. Do you see the natural world as needing modification and improvement, or do you see it as something to be observed and interpreted? Do you view humans as a small part of an unbelievably complicated and fragile system, or do you view us as the commanders?”<sup>1</sup>

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<sup>1</sup> Barber, Dan. “Field Notes on The Future of Food.” 59-68

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## Field of Engagement

The nature of this project is speculative. To imagine what the food landscape of 2050 might look like, firstly, you'd have to deal with an overwhelmingly big question such as "how do we feed the world?" Urban areas will have to transform; it is a change that is bound to happen, so how can we accommodate it? Writing this programme, a form of delimitation has been crucial, not only in terms of the size of the immediate project but also in evaluating and arguing for what a possible future could look like. The Food and Agriculture report (2018) by the UN gives an idea of some of the challenges we will be facing. The report sets up three scenarios based on data collected worldwide and draws up the framework for an imagined future. Those futures naturally take off from "the now" and cannot predict happenings like a worldwide pandemic, e.g., corona, which has significantly impacted the way we live and work. Amongst other things, making working from home a possibility, time-consuming hobbies trendy again and enabled (young) people/families to move out of the city and into the countryside.

Speculative design can open up new perspectives and see what the world could possibly be if our values, habits, and beliefs were just slightly different. By nature, speculative design is provocative, simplified, and fictional. Perhaps even a bit naive. Set in motion by a what-if question and filtering through what is possible, plausible, and probable, we start to distinguish the preferable<sup>2</sup>.

This project is a hypothetical, social-philanthropic exercise in co-living with other than human entities based on the very probable food future outlined by the UN and influenced by a necessity of a paradigm shift in how we view nature, natural resources, sustainability, and growth.

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<sup>2</sup> Dunne, Anthony & Fiona Raby "Speculative Everything" 1-9



Figure 1: Weekly Comic 184, Jayde Perkin, 2021



*Figure 2: Tivoli viale e prospetto della Villa d'Este, Giuseppe Barberis, 1894*

## Definitions

### **Nature**

the phenomena of the physical world collectively, including plants, animals, the landscape, and other features and products of the earth, as opposed to humans or human creations.<sup>3</sup>

### **Agriculture**

the science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products.<sup>4</sup>

### **Community**

- 1) a group of people living in the same place or having a particular characteristic in common.
- 2) the condition of sharing or having certain attitudes and interests in common.<sup>5</sup>

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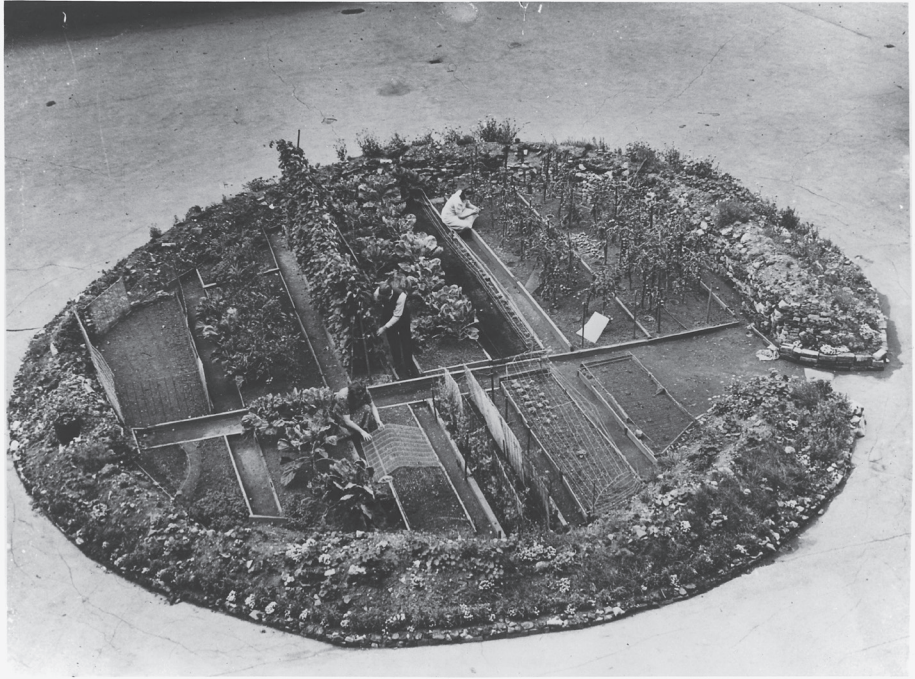
<sup>3</sup> Oxford Languages, nature.

<sup>4</sup> Oxford Languages, agriculture.

<sup>5</sup> Oxford Languages, community.

## **Background & Motivation**





*Figure 3: Gardening in a crater, WW2.*

## *UN Food and Agriculture*

In 2018 the UN released an in-depth report about the possible food landscapes of 2050. By analyzing enormously large sets of data surrounding population growth, income, politics, climate change, and many more, the report's three timelines, Business As Usual (BAU), Towards Sustainability (TSS), and Stratified Societies (SSS), unfolds three scenarios of possible futures and their consequences on the globe and its environment. For this project, the focus lies on the TSS track, which by the report's conclusion, is the best way to keep the ever-growing world population fed, doing so by bringing about a radical change in food production and consumer habits. To ensure food security and equality globally, it is crucial to redirect resources where they are needed and to invest in sustainable farming practices<sup>6</sup>.

“Globally, food systems produce enough food for everybody, but not everybody has enough purchasing power to obtain sufficient food. This gives rise to the most extreme form of inequality, that's occurring between those who have access to enough food and those who are forced to go hungry.”<sup>7</sup>

Currently, 54.5 percent of the world's population lives in urban areas. By 2050, this number is expected to be 68 percent and this increase in urban dwellers means that we need to rethink how these megacities are fed<sup>8</sup>. A rise in demands for produce will naturally follow a surge in population, but a limited amount of arable land can be further included in food production. Furthermore, changing climate and a growing middle class demanding the same kind of produce further adds to the stress of sustaining food systems as we know them today.

“Globally, there are few opportunities left for further expanding agricultural areas. Moreover, much of the available land is not suitable for agriculture, and using it for agricultural production would incur heavy environmental, social and economic costs.”<sup>9</sup>

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<sup>6</sup> FAO. “The future of food and agriculture – Alternative pathways to 2050.” 12

<sup>7</sup> Ibid. 14

<sup>8</sup> Steel, Carolyn. “Sitopia: How Food Can Save the World.” 194

<sup>9</sup> FAO. “The future of food and agriculture – Alternative pathways to 2050.” 26



*Figure 4:* British farmland, 2016



*Figure 5: American farmland, 2016*

The diet of an increasing middle class, especially in emerging countries, is already showing an increase in more resource-intensive food preferences like meat and dairy products<sup>10</sup>. However, by looking at recent food trends, it is evident that a primarily plant-based diet is rising in many first-world countries. Likewise, artisanal and local produce is becoming trendy, which shows a willingness to invest in and learn about agriculture on a personal level.

“These assumptions rely on the hypothesis that consumers are on average more educated and better informed about the health and environmental impacts of excessive consumption of animal proteins, especially meat. Dietary shifts towards more fruit and vegetables and less animal protein imply lower malnutrition, including reduced child and adult obesity. In the TSS scenario, consumers are also assumed to be more concerned about food waste than in BAU.”<sup>11</sup>

And especially the willingness and option to choose better and local products, are needed. Today, the price we pay for food rarely reflects production’s “true cost.” The “true cost” is vast problems like deforestation, pollution, chronic disease, climate change, biodiversity loss, etc. Currently, these are issues and expenses dealt with partly on a national level with global consequences. Prices are kept low both by consumer ignorance and by large conventional farms being subsidized by the state<sup>12</sup>. Price surges for food staples are a reality for all three scenarios, whether reflecting actual costs, accommodating supply and demand, or converting to more sustainable agricultural practices. With the further addition of inflation, the cost of living will only become higher in every way - which inevitably means that regardless of the future scenario, the splendor and abundance of today is not a reality of tomorrow. We will have to make do with less<sup>13</sup>.

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<sup>10</sup> FAO. “The future of food and agriculture – Alternative pathways to 2050.” 12

<sup>11</sup> Ibid. 69

<sup>12</sup> Steel, Carolyn. “Sitopia: How Food Can Save the World.” 163

<sup>13</sup> FAO. “The future of food and agriculture – Alternative pathways to 2050.” xvii

### *Regenerative Agriculture*

When talking about transitioning to sustainable agriculture, it seems that there are two directions to go, namely the technological or the traditional way. It is evident that technology will take part in agricultural evolution regardless, but how it is utilized differs a lot. In recent years, urban farming methods like hydro- and aquaponics, vertical farming and rooftop farms have increased in popularity, however one issue is the methods of plant nutrition, both in terms of “sunlight” and fertilizers<sup>14</sup>.

When talking about a regenerative food system, the hyper technological ways fall short in a few areas. Focused on closed circuit farming, that might include hydro- or aquaponics, the plant matter does not enter a continuous circular system, and in that way, never gives back to the earth we inhabit. Regenerative agriculture is a broad description. Rainfed crops, no-till farming, mob grazing and default livestock are just some of the practices that fall into the category. Common for most of the disciplines under the term is a slower farming process and turnover for the produced goods, but a farmland that is more durable, healthy and usable for a longer period of time. It is the holistic farming approaches, which are highly dependent on the local environment, vernacular farming methods passed down through the centuries, and the combination of arable land and pastures, that ensure the microbiological health of these farms. This shows that farming animals as a part of a plant based approach is a reasonable and sustainable idea, since the animals will eat damaged produce and will help fertilize the land in return<sup>15</sup>.

Regenerative Agriculture also helps secure a broad range of species and aims to introduce and protect endangered species in their natural habitats. The selective domestication of specific plants and animals has contributed to an enormous biodiversity loss both in species and their habitats not included into the chosen range of produce<sup>16</sup>, but by farming methods like no-till farming, you ensure that nature and its other residents have free roam on the farm, contributing in all ways both known and unknown to us.

“Our dilemma is that, in order to live, we must manipulate nature, yet must seek to do so without diminishing it.”<sup>17</sup>

## 5 principles of Regenerative Agriculture

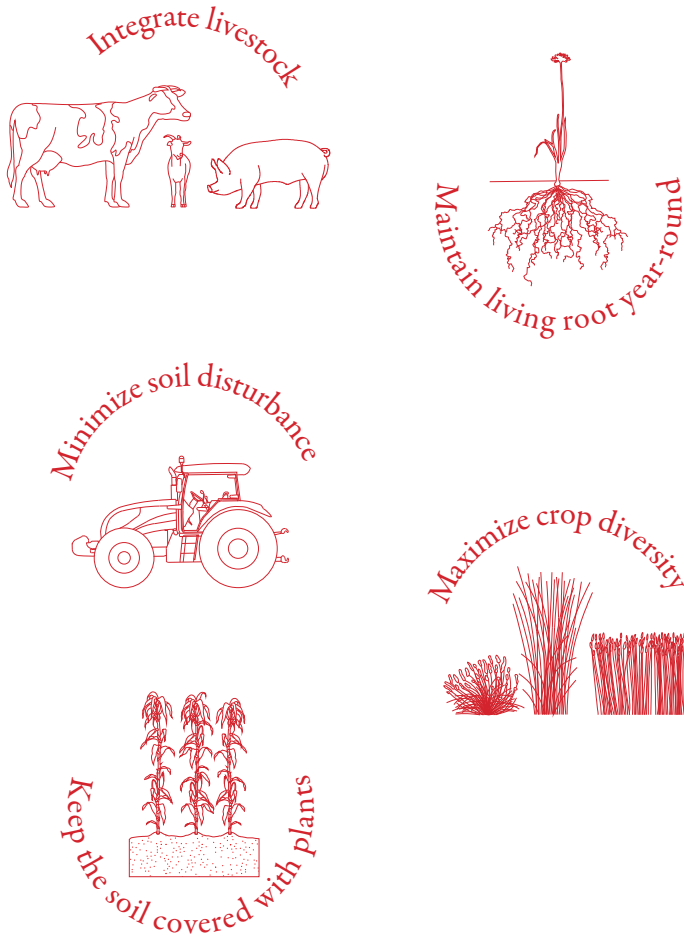


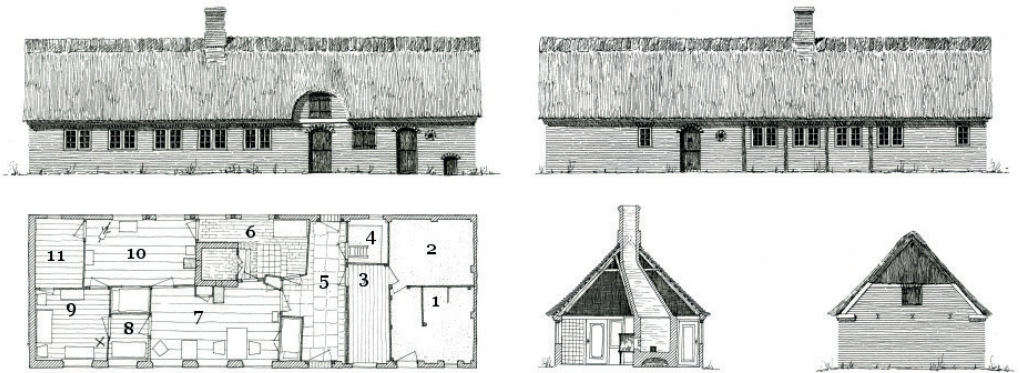
Figure 6: 5 principles of Regenerative Agriculture

<sup>14</sup> Steel, Carolyn. "Sitopia: How Food Can Save the World." 183-185

<sup>15</sup> Ibid. 261

<sup>16</sup> Ibid. 235-36

<sup>17</sup> Ibid. 245



*Figure 7: Fisherman's House, registration drawing by Borge Ehrhardt, 1980*



### *Eating and Living*

Throughout history human beings have been living in close relation to the crops and livestock that fed them. With the industrial revolution a large number of people migrated to the cities and left behind the knowledge of cultivating land<sup>18</sup>. This has resulted in a general disconnectedness from the nature that feeds us, driving a wedge between agriculture and nature and turning most of our natural surroundings into a more decorative experience.

“Prior to the advent of industrial agriculture and the alienation of urban dwellers from the production of their food, families saved crop seeds, passing them down through generations of gardeners.”<sup>19</sup>

Exactly how close we've been to food production becomes evident by visiting Frilandsmuseet and their large collection of country houses from before the 19th century. In most cases, we see the barn as a natural extension of the house, effectively turning the animals into residents of the house with a designated space of their own. They are valued members of the household, both for their companionship, possible profit and as a food resource. As farming has moved out of the house to become a lot more efficient and centralized, farm animals still have a space of their own, it is just rarely shared with other members of the animal species - let alone human beings. With modern society and cattle rearing, a lot of issues also arrived. In our quest to feed the cities, infectious diseases like foot-and-mouth disease have made it necessary to instill policies about the proximity to produce and uphold the boundaries between the species<sup>20</sup>, making it harder for the average person to keep cows and pigs for a household need, making the “small farm” practically non-existent. That being said, it is not impossible to find farm animals in the urban fabric. Chickens and goats are amongst some of the more often seen residents in urban and semi urban areas, providing people with a feel of fresh produce and the slow paced life of both greenery and animals.

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<sup>18</sup> Steel, Carolyn. “Sitopia: How Food Can Save the World.” 95

<sup>19</sup> Spencer, Chelsea. “Grocery Gizmo.” 69-71

<sup>20</sup> Steel, Carolyn. “Sitopia: How Food Can Save the World.” 261-265

“For centuries, the garden has been regarded as a mirror of society, a microcosm of the larger world, reflecting on a small scale the broader relationships between nature and culture.”<sup>22</sup>

Though gardening and farming are interlinked, it has simultaneously also become two very different things. Gardening has leisurely connotations, perhaps an idea of a decorative element that can be studied and showcased, whereas agriculture seems to be more about the practicalities surrounding the human need for sustenance and profit. For centuries people of all social classes and nationalities have been enjoying allotment gardens and the small wonders a personal plot of land can evolve into. The same garden that grows delicate, decorative flowers can be turned into a field of crops in times of need, as was seen for instance during the World Wars, where the so-called Victory Gardens became an international phenomena. With slogans like “Dig for Victory” and “Blitz on Bugs” gardening became a necessity for supplying populations with food during food shortages and also as a way to reclaim the war ravaged cities<sup>22</sup>. Having a personal piece of nature, where you can govern who and what can stay, makes the surprise of the neighbors’ raspberry bush invading the perimeters of the lot or the branch of an apple tree over the bushes, seem like a welcome intrusion in the garden paradise. And it is exactly this, slowing down, watching and understanding the evolution of the plants, the seasons and the weather that makes gardening so healthy and healing. It forces us to slow down the pace and occupies us with what is there right in front of us. It gives us a sense of purpose and fulfillment that might have been lost in our busy urban lives<sup>23</sup>. What would happen if it wasn’t just hardship that made us grow our own food, what if growing our own food was the default?

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<sup>21</sup> Cluitmans, Laurie. “Introduction On the Necessity of Gardening.” 13-15

<sup>22</sup> Howard, Ellie. “Victory gardens: A war-time hobby that’s back in fashion.”

<sup>23</sup> Steel, Carolyn. “Sitopia: How Food Can Save the World.” 175



Figure 8: Advertisement for Victory Gardens.

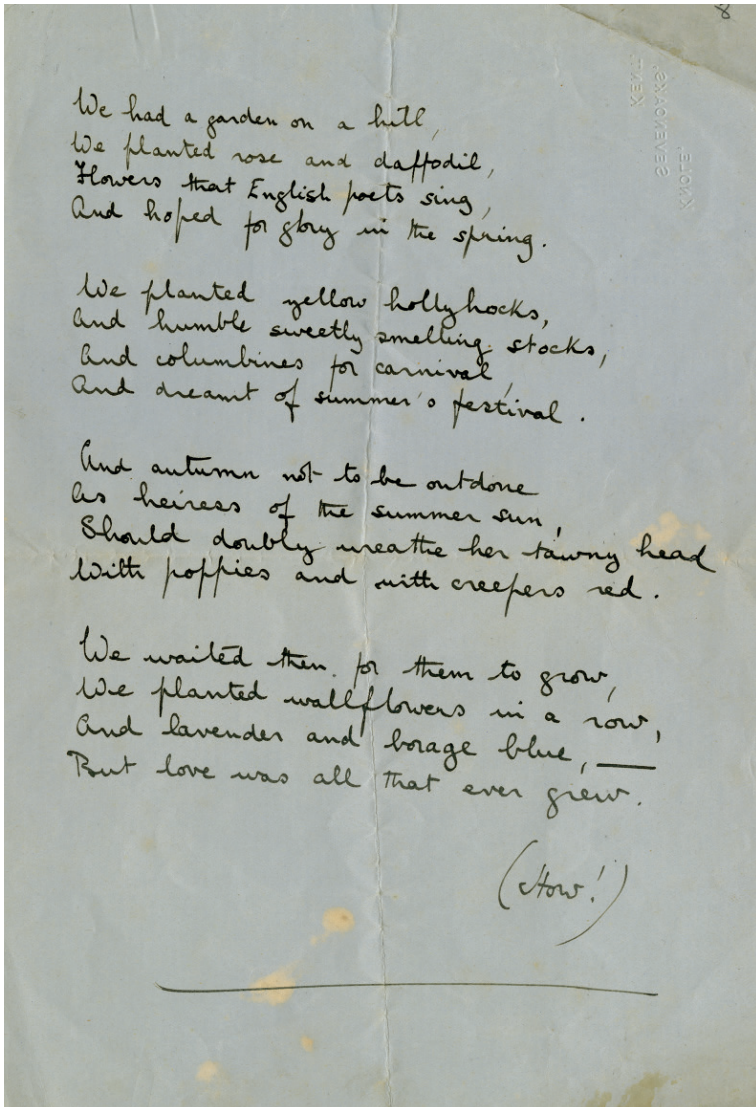


Figure 9: The Garden, poem by british poet Vita Sackville-West, 1915

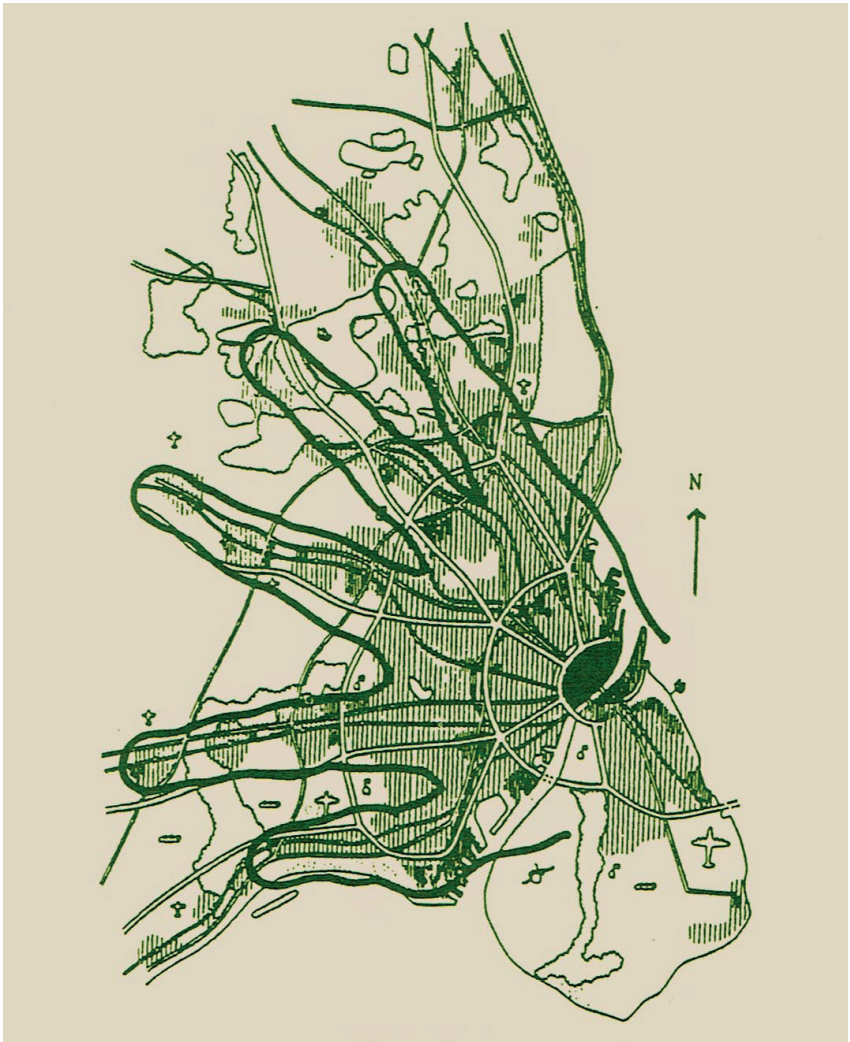
## *Motivation*

The motivation for this project stems from a personal interest in and enthusiasm about nature and how to co-exist with it. It is becoming necessary to think about agriculture, land, and community in new and different ways in urban and suburban contexts. Perhaps architecture can contribute by facilitating these shared spaces and transforming existing structures into healthy communities where food production becomes an ingrained part of daily life. By decentralized food production, produce would be more readily available, diets potentially more varied, and the connection to the natural world much stronger, tied to the seasons and what they allow to be grown. Perhaps a closer relationship to nature could help make the world more empathic and the future look less dark.

## **Context**



Figure 10: Better Homes and Gardens magazine cover, 1959.



*Figure 11: The Finger Plan of the Copenhagen expansion, 1947.*



### *The Detached House*

The parcel or plot is the starting point for detached housing (danish: parcelhuse) and how this typology came into existence. Originating partly from the workers movements' parcel garden unions, the bourgeois Villa movement and the garden city idea, the villa and detached housing idea merged around the 1940's to form the middle class oriented single family housing areas we now know as "Parcelhuskvarterer" or detaching housing neighborhoods. On one hand there was a communal realization of the garden city, on the other a completely private planning, managed by unions and private owners, that made the realization of the city planning law of 1938 a reality in order to counter the planless growth of cities. The following master plan of the expansion of Copenhagen from 1947, dubbed the Finger Plan, further enabled the expansion of these areas and the dream of private land ownership to flourish, as people moved from the shared spaces of the city to the suburbs<sup>24</sup>. The detached housing neighborhood consists of four elements, namely the house, the garden, the road and the plot. Their internal relation decided the areas' various appearances and how they evolved.

The early detached house is characterized by being rather small, typically two and half storeys, master bricklayer villas situated on long narrow plots surrounded by a kitchen garden. Later on, prefab elements, single storey, detached houses dominated the building environment, surrounded by a large decorative garden on a rectangular plot of land.

Detached housing areas vary greatly in scale, but typically consists of anywhere between 50 and 200 plots of relatively similar houses. However, even though many of the areas have been built within a short time frame, today the houses' interior layout and exterior representation are very diverse thanks to private ownership and the DIY-mentality typically connected thereto. The changes made to the house depending on changing family dynamics and styles throughout time<sup>25</sup>.

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<sup>24</sup> Jensen, Mette & Tine R. Sode. "Typehuset fra 1960 til 1980 - alt, du behøver at vide."

<sup>25</sup> Kulturstyrelsen. "Bygningskultur 2015: Parcelhuskvarter"

## ***Historical Overview***

### ***Nyboder, 1631***

Nyboder in Copenhagen, built in 1631 by Christian 4.th and designed by Hans Steenwinckel, was revolutionary of its time and has been the forefather for the ideas behind much of the workers housing in the late 1800's. Originally built as small single story houses, they resembled country houses and brought about an idyllic way of life to the naval personnel inhabiting them.

Nyboder was built following a stringent master plan and using standardized building elements and techniques, which allowed for the area to be completed in a short amount of time and with great precision. The wide streets between the precisely laid out rows of houses supplied the interiors with sufficient light throughout the day, which, amongst other things, made them healthy for their inhabitants. On the other side of the house, a patch of arable land was wedged in between the opposing structures, which provided the households a place to grow vegetables and keep animals. The communal garden helped to sustain and supply the community with food and neighbourly connections. Since then, many alterations have been made to the area and the gardens have lost their openness, now fenced in small squares devoted to each property.<sup>26</sup>

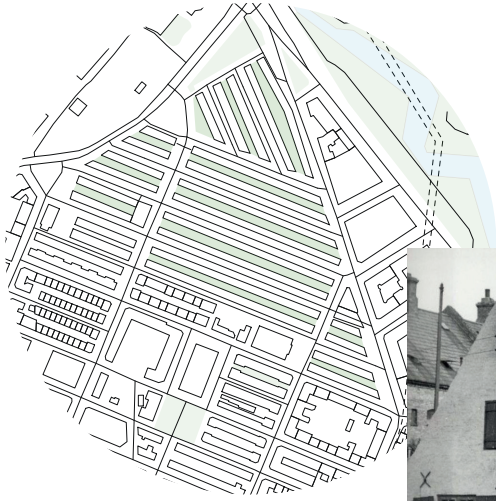
### ***Den Røde By, 1904***

Between 1898-1904, "Valby og Omegns Byggeforening" erected "Den Røde By" - 100 brick houses drawn by Julius Bagger, all with varying degrees of exterior detailing and situated upon reclaimed farmland for the city's expansion. Most of the villas' first residents were workers at Carlsberg brewery, purchasing the houses through the rent, eventually paying off the full cost of the house. The villas are between two and three stories and were commonly made out to house two families, making the owner of the house a landlord as well. The houses were placed center on the plot of land, meaning that the free standing structure was and is surrounded by a relatively large garden. Connected to the area was a big community house, with four shops, a communal room and space for activities, making "Den Røde By" practically self sustainable.<sup>27</sup>

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<sup>26</sup> Ørum Nielsen, Jørn. "Længeboligen." 82-93.

<sup>27</sup> Olesen, Peter. "Valby - Bevar mig vel." 86-87.



*Figure 12: Original Nyboder housing structure, 1936*



*Figure 13: JPE Hartmanns Alle, 1936*



*Figure 14: Bakkehusene exterior view, 1939*

### *Bakkehusene, 1921*

Bakkehusene in Bellahøj were drawn by Ivar Bentsen and Thorkild Henningsen and finished building in 1921. The 171 unit rowhouses came as a response to the acute need for working class housing after the first world war. With inspiration in Danish vernacular architecture and a strong eye for the crafts, Bakkehusene sought to provide the working class with the same benefits people residing in areas with villas could enjoy. One of these benefits were the garden, which became a very central part of the layout, as it was thought to secure a healthier lifestyle for the working classes. The plan of the house is extremely flexible and therefore highly adaptable to the resident's needs, with only the outer walls being load bearing. This allowed for a high degree of variation in the interiors, and it is believed that there are no two identical houses.

In addition, people also had the garden space - both the formal, decorative front garden and the more practical back garden - to display the inhabitant's character. It is especially thanks to the gardens and the small alleyway in the back, which is separating the plots but connecting the residents, that Bakkehusene gets their distinguished atmosphere, character and strong community.

The idea and layout of Bakkehusene places them between the ideas of Nyboder and Den Røde By by combining the high residential density and the benefits of the large private garden.<sup>28</sup>

### *Detached housing, 1960s*

Almost 450.000 detached houses were built in the 60s and 70s making this housing typology the most prominent one in danish building culture. Characteristic of the areas, built in the suburbs of many Danish cities, are the long even roads that lead into branches and clusters of smaller roads. The farmable land close to the city was converted into parcels, typically disregarding the landscape they were imposed on, and often with no attempt to make room for facilitating good relations between homeowners. The nuclear family was the main customer and in this way, the children functioned as the social ice-breakers and entry point to building social relations. The houses themselves defined by pre-fab elements and cheap construction materials.<sup>29</sup>

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<sup>28</sup> Ørum Nielsen, Jørn. "Længeboligen." 242-262.

<sup>29</sup> Kristensen, Hans. "Kristensens Bolighistorie." 89-90.

### *Site*

The detached house remains the most dominant and popular housing type in Denmark, even though it is viewed as a brown sleeper city with no connection to its surroundings. However, this is precisely why these areas need to be transformed using a different set of values and from a different perspective. To own a plot of land is a luxury and will continue to be as we become more people. The transition will have to deal with some of the significant issues typically found in the areas.

To a large extent, the houses are inhabited by an aging group of people whose children have moved out, and thus the house has fewer residents than was intended. Typically built to house the nuclear family, with a master bedroom, two children's rooms, and potentially a guest room, this leaves a lot of empty space and makes it hard to accommodate other types of living programs. As there is often no natural meeting point in the areas, creating these areas is equally important to secure a sense of community. Furthermore, these areas mustn't become secluded without relation to the cities they're extending from<sup>30</sup>. Finally, there is the state of the buildings, varying greatly both in looks and in state of repair. Characteristics of the typology from the 60s and 70s are the large roof with a slight angle and substantial overhang, brick walls in yellow or brownish colors, and typically a dark stained wood paneling. The standardized building materials and modular prefab systems made it quick and easy to erect a house, expand it, do repairs, and alter the interior, as only the outer walls are load-bearing<sup>31</sup>. The garden became increasingly decorative and today acts more like an extension of the living room, typically connected by large unbroken glass panels.

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<sup>30</sup> Jerichow, Ric. "Er parcelhus-kvartererne det nye slum?"

<sup>31</sup> Kristensen, Hans. "Kristensens Bolighistorie." 89-90.



*Figure 15: Unknown suburban area*

## **Thesis Statement**

To create and tie together a community by transforming an introverted and detached housing typology, introducing (sub)urban community-supported agriculture functioning as a 'community house' and natural meeting point, making the area partially self-sufficient.





Figure 16: GROW Totteridge Farm, Asseble Studio, 2019

**Theory  
&  
Working Methods**



Figure 17: Plant diagram for Hauser & Wirth Somerset, Piet Oudolf

*Trans-corporeality*<sup>32</sup>

As the premise of this project is highly dependent on a change of perception of nature, trans-corporeality becomes relevant in the way it sees nature as an equal actor as humans.

“She urges us to envision nature as a “free autonomous actor” that we should respect as an equal partner deserving political representation.”<sup>33</sup>

Trans-corporeality, branching off from new materialism, offers a different way to perceive resources and our relation to the world surrounding us. The key theoretical term ‘agency’<sup>34</sup>, described by Felicity J. Coleman, as “something that refers to the relationality of the political, cultural position that and by which matter and things are defined, distributed and organised - by their relationality to other matter and things; and which do not have a pre-existing ontology”<sup>35</sup>. Trans-corporeality takes off from the body and its limits, the name literally translating to something that transcends the bodily confinements, or something that is “more than human.”<sup>36</sup> Often dealing with themes related to the human body, but outside of human reach or command - like disability, pain, sexual desires or something more “tangible” like nature and wilderness<sup>37</sup>, trans-corporeality aims to disrupt the Western human exceptionalism by arguing that everything, including humans, have agency and everything we do, affects not just us, but entire systems of entities<sup>38</sup>. The theory is often seen used in queer-, gender-, race-, disability- and nature studies - all interconnected from a trans-corporeal view<sup>39</sup>.

“Acknowledging the agency of the more-than human world is crucial for environmental ethics because it challenges the prevalent practice of “thingification” (in Barad’s terms), which, in this case, means the reduction of lively, emergent, intra-acting phenomena into passive, distinct resources for human use and control. Moreover, acknowledging the agency of all that is not human affirms the need for places—urban, suburban, and especially “wilderness”—in which the “doing/being” of creatures, ecological systems, and other non discrete life forms can flourish.

*(continued)*



Figure 18: House of Weed, Atelier Bow Wow, 2004

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<sup>32</sup> Paragraph written for the theoretical assignment 2021, ed. 2022

<sup>33</sup> Alaimo, Stacy. "Trans-corporeal Feminism and the Ethical Space of Nature." 246

<sup>34</sup> Colman, Felicity J. "Agency."

<sup>35</sup> Ibid.

<sup>36</sup> Alaimo, Stacy. "Trans-corporeal Feminism and the Ethical Space of Nature." 238

<sup>37</sup> Ibid. 249

<sup>38</sup> Alaimo, Stacy. "Trans-corporeality." 435-38

<sup>39</sup> Alaimo, Stacy. "Trans-corporeal Feminism and the Ethical Space of Nature." 239-242



Figure 19: Urban Mark "The city as a responsive environment" Peter Cook, 1972

In fact, one of the most fundamental values of environmental ethics—the value of the “wild”—can be understood as a kind of material agency. Wildness may well be defined as nature’s ongoing, material-semiotic interactions—actions that may well surprise, annoy, terrify, or baffle humans, but that nonetheless are valued by environmentalists as the very stuff of life itself.<sup>40</sup>

In Peter Cook’s eight drawing series, *Urban Mark* (1972), a man-made, cubic frame structure, imposed on the terrain of an unknown place, gets overtaken by additions, remodeling, and erosion from both nature and humans. Here nature’s agency becomes very clear and equally important as the human agency to transform a place. There is an absurdity in trying to control something carrying so much agency as an entire network of plants and animals. They will evolve and grow even without human intervention, suggesting that we should no longer see the culture/nature divide as two opposing entities but rather as something human actors engage in and shape on equal terms as non-human actors<sup>41</sup>.

Trying to define a space that nature can inhabit, like we see in Atelier Bow Wow’s *House of Weed* (2004), opens up a question about what nature is without humans and what humans are without nature. Perhaps it is about managing and maintaining a symbiotic relationship between humans and other than human entities and environments.

“The relation between humans and the non-human world is thus reciprocal. Humans adapt to nature’s environmental conditions; but when humans alter their surroundings, nature responds through ecological changes.”<sup>42</sup>

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<sup>40</sup> Alaimo, Stacy. “Trans-corporeal Feminism and the Ethical Space of Nature.” 249

<sup>41</sup> Ibid. 257

<sup>42</sup> Ibid. 245

### *Urban Void & 4th Generation Housing*

Urban Voids are residual spaces, where ownership is often hard to determine in the urban fabric. Usually found between public/private spaces and private/private spaces to help form a negotiated space with co-ownership. By valuing the various negative spaces in the city and equating them with actual spaces, it is possible to create an entirely new space. Clarifying the spaces “in between”, like parks, edges of plots, and gaps, especially in high-density areas, the notion of privacy can dissolve the limits of the plot without interfering with the other plots and how the plot of land relates to other plots, blurring the boundaries without erasing them<sup>43</sup>.

The 4th generation house aims to: 1) bring people from outside the family back inside, 2) increase the opportunities to dwell outside the house, and 3) redefine the gaps between structures.<sup>44</sup> These are all present in the 1st generation house, which over time transformed the detached house, surrounded by a garden, into a hyper private, closed structure, extending to the outer limits of the plot it resides on. In the urban landscape of Tokyo, it becomes easy to see the different generations and how political and societal ideals and standards has shaped both the plots and the housing typology. With a rapidly rising urban population, the plots have become subdivided and more closed off, relating to the suburban detached housing areas in Denmark, where the migration from the cities to the suburbs came with the expectation of privacy that intensified and was realized with the growth of the hedges lining the plot.

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<sup>43</sup> Kitayama, Koh, et al. “Tokyo Metabolizing.” 23-25

<sup>44</sup> Ibid. 41-43





*Figure 20: Akropolis, Dimitri Pikonis, 1957*

### *Working Methods*

An axonometric drawing study could highlight the relationship between the individual houses, the size of the garden vs. housing unit, and uncover any underlying structures and patterns present, making it easier to understand the boundaries and limits of the plot and the idea of privacy tied to it.

The serial vision would unfold specific sequences and views, helping to navigate the spaces and highlight important moments.

Similarly a photo registration would highlight the material properties at hand, showcasing existing conditions on-site, and capture the light conditions.

Sketch modeling will aid an investigation of the limits and possibilities of the chosen typology, namely by adding and subtracting volumes, and experimenting with compositions, materialities and details.



*Figure 21: Granby Four Streets, Assemble Studio, 2013 (ongoing)*

## Vision

To imagine “a world in which food is nutritious and accessible for everyone and natural resources are managed in a way that maintains ecosystem functions to support current as well as future human needs.”<sup>45</sup>

To transform a detached house and the area surrounding it into a partly self-sufficient farming property.

To promote a symbiotic relationship between non-human and human residents and thus enable the organic evolution of merging housing plots and farmland.

To sample vernacular architecture elements that embody simplicity, efficiency, and durability.

To reconnect people with each other and with nature by opening up to varied family typologies.

To preserve the individualization of a generic detached house from generations of inhabitants while shaping a communal space that encourages social interactions.

To manage and define the transition from private to public garden space.

To encourage a slow-paced lifestyle guided by the seasons.

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<sup>44</sup> FAO. “The future of food and agriculture – Alternative pathways to 2050.” 6



*Figure 22: Road Side Vegetable Kiosk, Marstal, 2021*



*Figure 23: Farmhouse interior, Old Denmark (Frilandsmuseet)*

## ***Project Framing***

### **Programme**

Transformation of existing housing, connecting the households to a community supported agriculture (CSA) that allows for partial self-sustainability.

### **Users**

1) Residents of the immediate surroundings, both human and non-human and 2) passerbys, visitors, short term residents and guests of households, and similar settlements in trading unions.

### **Specifics (subject to change)**

1) alterations to existing housing typology, 2) establishment of communal agriculture - pastures, fields, planters etc., 3) Housing for animals and plants, 4) space for trading and 5) space for meeting.

*Deliverables*

- 1 Programme
- 2 Booklets: References, Materials
- 3 Logbook

*Contextual*

- 4 Axonometric context drawing
- 5 Site plan of 4 house+garden interrelation
- 6 Elevation of context

*Spatial*

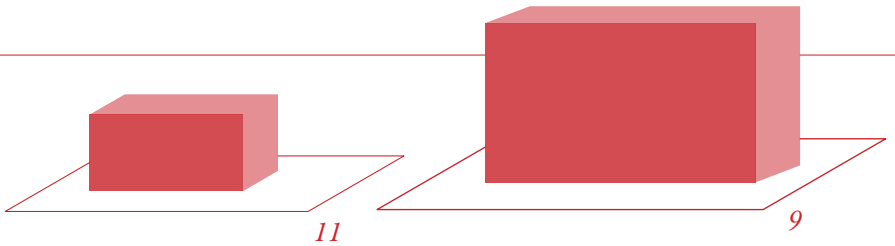
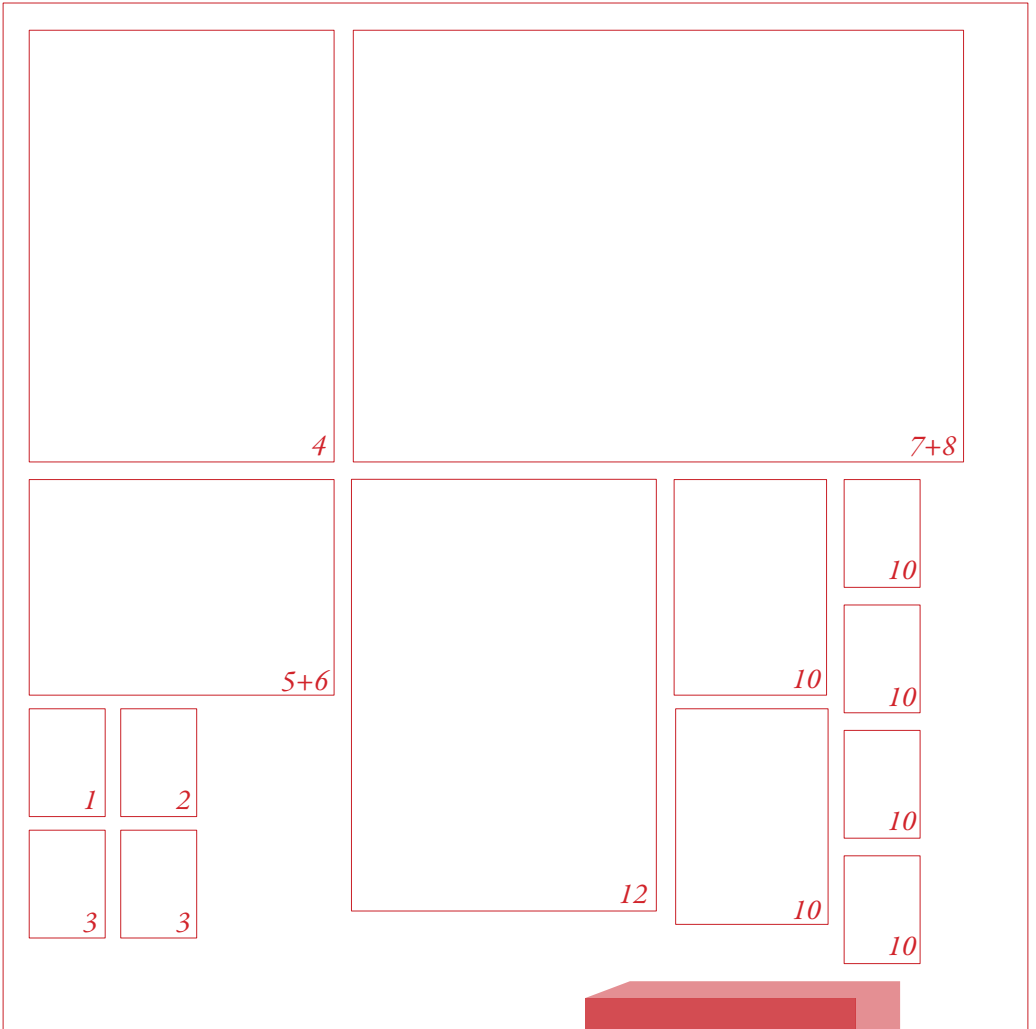
- 7 Plan of 1 unit with design proposal
- 8 Unit+garden elevation/section
- 9 Model of unit+design proposal
- 10 Visualisations

*Detail*

- 11 Model studies of various details
- 12 Detail drawing



Presentation Plan



***Schedule***

<i>Week 6</i>	Program writing	
<i>Week 7</i>	Program writing	
<i>Week 8</i>	Program writing	<i>Crit 1</i>
<i>Week 9</i>	Site research Reference booklet	<i>Program hand-in Workshop 1</i>
<i>Week 10</i>	Site research Site visit + photo Sketchmodel area plan	
<i>Week 11</i>	Model building Plan/section/elevation drawings Design sketching	<i>Workshop 2</i>
<i>Week 12</i>	Model building Design sketching	
<i>Week 13</i>	Model building Design sketching Model photoes Serial vision	<i>Crit 2</i>
<i>Week 14</i>	Model building Design sketching Model photoes Serial vision	

*Schedule*

<i>Week 15</i>	Material Booklet Serial vision Material samples	<i>Easter Break</i>
<i>Week 16</i>	Design revision Model revision Plan/section/elevation revision Axonometric drawing Detail model	<i>Workshop 3</i>
<i>Week 17</i>	Detail model Detail drawings Axonometric drawing Tectonic drawing	
<i>Week 18</i>	Detail drawing Axonometric drawing Tectonic drawing	
<i>Week 19</i>	Detail drawing Axonometric drawing Tectonic drawing	<i>Crit 3</i>
<i>Week 20</i>	Detail model Model photos Booklet process	
<i>Week 21</i>	Finishing touches	
<i>Week 22+23+24</i>		<i>Exam</i>

## *Appendix*

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