HOW DO WE FEED THE CITY?

FOLLOWING THE ASPARAGUS: AN ETHNOGRAPHIC EXPLORATION OF URBAN FOOD PROVISION

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HOW DO WE FEED THE CITY?

URBAN DESIGN THESIS PROJECT

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ABSTRACT

Rapid urbanisation, growing populations, expanding social and ecological injustices, undeniable effects of climate change, a global health crisis. We, that is humans and nonhumans, are in trouble! How do we feed the city on a 'broken planet' (Fitz & Krasny 2019)?

In midst of a pandemic lockdown, the German government airlifts Romanian harvest workers into Germany to pick white asparagus—a vegetable of national importance. This controversial decision sparks a medial cacophony and raises a vast array of socio-ecological questions in public debates. It is a moment of rupture in the system that suddenly leaks dimensions of injustices of food provision previously blackboxed by political and economic leaders. It is a moment that conveys international dependencies and grievances of food production at our doorstep. It is the moment in which I begin my journey of following the asparagus on an endeavour to scrutinise how we feed the city. By following this vegetable on an ethnographic exploration through Hamburg in this specific time, I unravel and tell stories about and through it, diving deeply into socio-ecological notions of caring *with* (TRONTO 2019) by using DONNA HARAWAY'S (2016) framework of kinship.

Taking the multispecies approach seriously, I attempt to rethink my position, material and methods from a human and nonhuman perspective[1]; from within. Taking seriously also the interdependence of multispecies for the earth to remain habitable, means to rethink the thoughts that think thoughts. This is a challenge that I aim to tackle through the embodied research process, by making kin with different multispecies. The asparagus leads me to numerous places, players, plates and makes visible much larger global crises: such as the climate crisis and the health crisis, both linked by food. The question 'how do we feed the city?' is thus pursued from a socio-ecological perspective through a multi-sited and multi-method approach, whereby different types of materials are brought into dialogue, giving room for conversation but also for confrontation. Using both quantitative and qualitative methods lays bare just how deeply in trouble we are. It also makes visible that this is just the beginning of a much larger paradigmatic shift that is necessary, if we want to enable livability on earth for generations to come.

[1] Though largely leaving out machines, cyborgs and the like, as this would exceed the scope of my work.

> Eating is an inherently political act, as well as an ecological and ethical one; there is no such thing as amoral food, any more than there is a free lunch.
>
> —Carolyn Steel (2019)

Asparagus field in Ahrensburg, Schleswig-Holstein, April 2020

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ACRONYMS & ABBREVIATIONS

CAP	COMMON AGRICULTURAL POLICY (EUROPEAN COMMISSION)
CSA	COMMUNITY-SUPPORTED AGRICULURE
COVID-19	TYPE OF SARS-COV-2 (AKA CORONAVIRUS THAT BROKE OUT IN 2019)
CO_2	CARBON DIOXIDE
EU	EUROPEAN UNION
FAO	FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
GHG	GREEN HOUSE GASES
LGBTQIA+	LESBIAN, GAY, BISEXUAL, PANSEXUAL, TRANSGENDER, GENDERQUEER, QUEER, INTERSEXED, AGENDER, ASEXUAL, AND ALLY COMMUNITY
MUFPP	MILAN URBAN FOOD POLICY PACT
UN	UNITED NATIONS
WHO	WORLD HEALTH ORGANIZATION
ZKM	ZENTRUM FÜR KUNST UND MEDIEN

bn	BILLION
ha	HECTARE (1ha = 10.000m^2)
kg	KILOGRAM
km	KILOMETRES (1km = 1.000m)
m	METERS
mil.	MILLION*
thou.	THOUSAND
t	TONNES (1t = 1.000kg)

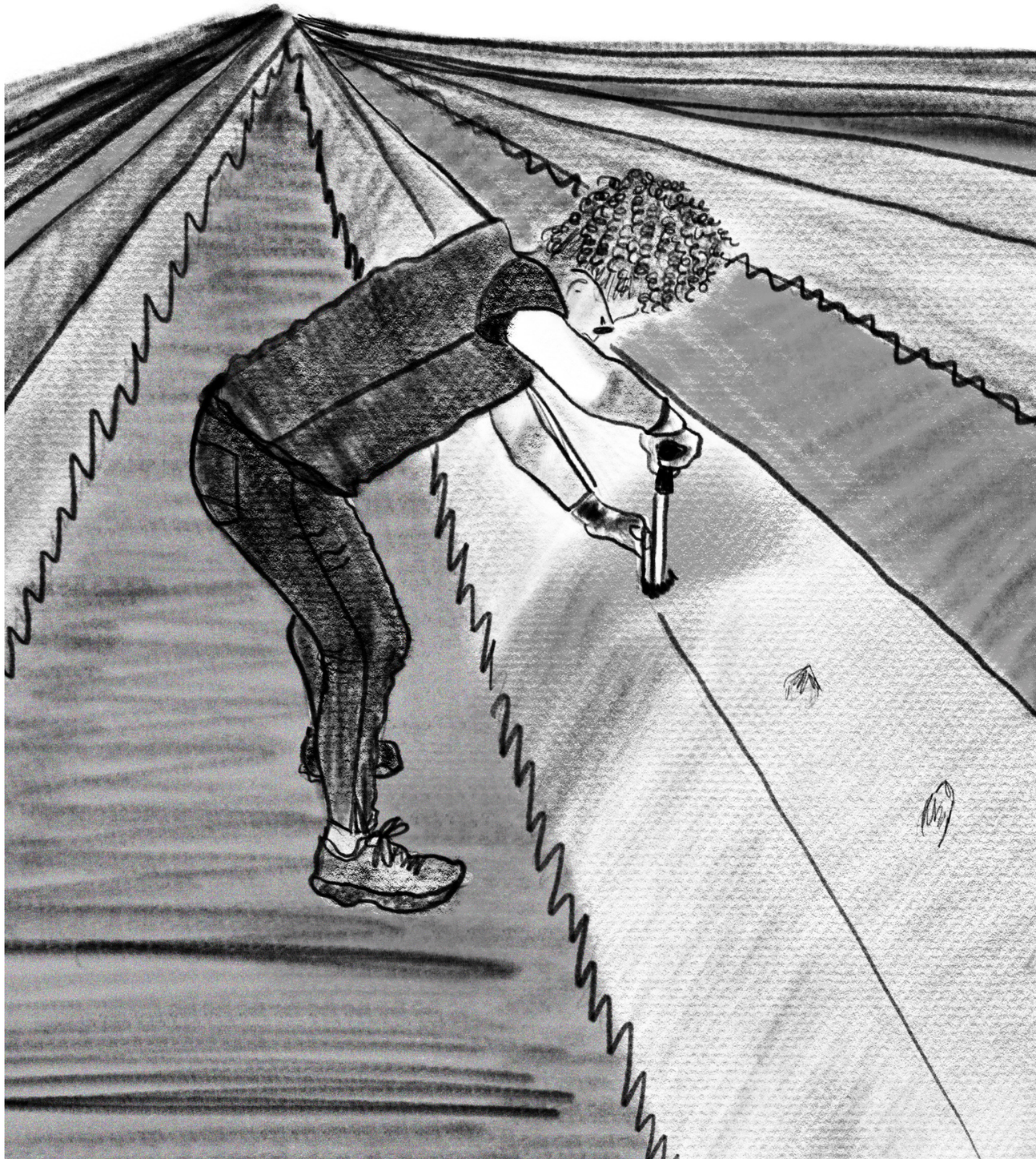
* I have not abbreviated million in most of the text because it becomes confusing with the latin word "mille", meaning one thousand.

[1]

WHEN LIFE GIVES YOU ASPARAGUS

> For a person living in a Western city, it would be easy to imagine that we've solved the problem of how to feed ourselves, and yet the very opposite is true: the way we eat is now the greatest threat to us and our planet.
>
> —Carolyn Steel (2019)

> [This book] engages a critically embodied anthropology to confront the ways in which certain classes of people become written off or deemed less human.
>
> —Seth Holmes (2014:44)



—PRELUDE

This story unfolds in the beginning of March of 2020 in Germany. The sun had already been heating the fields for a couple of weeks and spring was well on its way. The asparagus season was about to start, a vegetable that marks the beginning of local harvest time and whose harvest-end preludes summer. *Spargelzeit* — *asparagus-time:* a uniquely German three month period between March and the 24th of June, in which up to 130.000 t of the white, phallic vegetable worth nearly €845 million (SELL 2020A) are harvested, praised and hyped in many ways. Preparations had begun for the yearly crowning of regional asparagus queens (MILLER 2020) and for countless asparagus parties; the red strawberry-shaped huts had been installed in the cities, ready to sell the asparagus *in cognito* (SUSSEBACH 2020). Everyone and everything in the whole country was prepared for *the white gold* (ROGOZANU & GABOR 2020); buses bringing up to 300.000 temporary harvest workers mainly from Romania and Poland into Germany were ready for take-off (BEJAN 2020); container-cities had been erected for the harvest workers to reside in, albeit precariously (although this was still largely unknown at the time). But instead of masses of harvest workers in full buses and asparagus queens and parties, came the coronavirus (COVID-19).

The novel pandemic challenged the intra-EU-mobility that had been taken for granted by both farmers and migrant workers, by causing nation-state lock-downs and withdrawals from international markets. The closing of borders and enforcement of social distancing measures led to immense insecurities and uprisings among both migrant workers and host countries. The former fearing exploitation and inadequate safeguards and the latter, loss of harvest, importing the virus and 'losing jobs to immigrants' (CAROLL ET AL. 2020). Among many things, COVID-19 made visible the dimension of dependency of the German agricultural sector on migrant labour—and the disgraceful and unworthy way in which these workers are treated and (not) cared for. As POLLAN (2020) states in his article:

> "For our society, the Covid-19 pandemic represents an ebb tide of historic proportions, one that is laying bare vulnerabilities and inequities that in normal times have gone undiscovered."

Indeed, the COVID-19 induced discourse about harvest workers laid bare the precarious working and living conditions (CAROLL ET AL. 2020) under which the food we eat is produced and harvested, not only related to the asparagus, but also the meat industry in Germany (and globally) (BURGER, MARTENS, STEPPAT 2020). The moment of rupture in the food provision system revealed a network of embodied human infrastructures that usually churn in the *invisible*, out of sight, guaranteeing full supermarket shelves in order to still urban appetite. In the words of urban food visionary Carolyn Steel "our food may *seem* cheap, but that is only because the price we pay for it doesn't reflect its true cost" (STEEL 2013:48, EMPHASIS IN ORIGINAL).

This particular series of events sparked my interest in the question: "how do we feed the city?" It was not until COVID-19 exposed multiple sides of urban food provision that I became aware of the massive social infrastructural networks and geographies of (in-)justice underlying—constituting even—the processes involved in feeding the city. Particularly in light of fast growing populations and accelerated urbanisation[!] (UN 2018), expanding inequalities of all sorts, rising global hunger (FAO ET AL. 2020) and looming climate change (THUNBERG ET AL. 2020A), the pandemic bestowed a new relevance upon this overarching question.

So this story unfolds from a moment of rupture that revealed in an undeniable and discerning way that: WE ARE IN TROUBLE!

> The important and ever-expanding labor of making and sustaining urban life is increasingly done by insecure, often part-time and disorganized low-paid labor. The so-called "precariat" has replaced the traditional "proletariat"
>
> —David Harvey (2013: xiv).

[1.1] TROUBLING TIMES

> ***Trouble*** is an interesting word. It derives from a thirteenth-century French verb meaning "to stir up," "to make cloudy," "to disturb." We—all of us on Terra—live in disturbing times, mixed-up times, troubling and turbid times. The task is to become capable, with each other in all of our bumptious kinds, of response. Mixed-up times are overflowing with both pain and joy—with vastly unjust patterns of pain and joy, with unnecessary killing of ongoingness but also with necessary resurgence.
>
> —Donna Haraway (2016:1, emphasis in original)

WE ARE IN TROUBLE. WE ARE TROUBLED. WE ARE THE TROUBLE.

WE, that is all the living species that inhabit the earth—human or not. WE, that is a complex entanglement of relations, producing life and death. WE, that is a continually changing constellation of obligate mutualisms.

→| = when organisms are dependent on one another for survival (Haraway 2016:124)

The troubles I address here, the troubles Donna Haraway, Bruno Latour, Anna Tsing and Joan Tronto (among others) address, all have to do with the way in which we live *together*. But who is we? And how do we live? 'We' takes seriously the notion that humans and nonhumans live and produce the space around us *together*. Space, then, is understood relationally; as a co-produced, constantly changing and evolving entanglement. Humans, then, are just as much co-producers and nurturers as they are themselves co-produced and nurtured within and by this entanglement. 'We' is not only a group of different species and life-forms in space and time, 'we' is itself life-sustaining and enabling. How humans inhabit planet earth today fails to acknowledge the interdependencies and enmeshments of multi-species in life-sustaining activities. I intend to challenge this behaviour.

→| Haraway, Donna J. 2016. Staying with the Trouble: Making Kin in the Chthulucene.

Latour, Bruno, and Peter Weibel. 2020. Critical Zones.https://critical-zones.zkm.de.

Tronto, Joan C. 2019. 'Caring Architecture'. In Critical Care: Architecture and Urbanism for a Broken Planet.

Tsing, Anna. 2015. The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins.

And, not insignificantly: The troubles 'we' are in are being continuously (re)produced through social, political, ecological and financial imbalances, extended and exposed in parts by the pandemic.

COVID-19 has made visible controversies of the complex entanglements we inhabit, consume and exhume. COVID-19 has brought to light inequalities that we knew about, but deliberately ignored in favour of lifestyle choices. COVID-19 has made uncomfortably tangible just how deeply in trouble we are—and this time there is no looking away. Movements are uniting and separating people on a global scale; the lust for change and taking action is literally tangible.

While disparities and inequalities grow, thousands of young people take to the streets to fight for their right to a future on planet earth; black, indigenous, people of colour and minorities stand up for their rights, for example in the Black Lives Matter Movement, mobilising and reaching people all over the world; women in Belarus run for president with the aim to reestablish democracy in a totalitarian regime, backed by thousands of protestors ready to risk their lives for a greater good. Meanwhile, old privileged men like Trump, Putin, Bolsonaro or Lukaschenka, deny the seemingly undeniable, like climate change; disregard human rights; abuse their power and spread fake news. The absurdity of current times calls to think new thoughts. The insecurity of current times calls to venture new ventures. This book traces my endeavour of examining the controversies involved in how we feed the city; the locus of most of these movements, while I attempt to untangle and unravel different layers of the trouble by following the asparagus around Hamburg.

[1.2] MOTIF, MOTIVE

→ See P.74

The social, ecological and economic inequalities inherent to feeding the city have long been known. It would be ignorant, unacceptable even, to pretend that the topics that have surfaced through the COVID-19 pandemic are new (BEJAN 2020). Nevertheless, many elements entailed in and the dimensions of the issues that this global crisis has revealed had been previously invisible to a vast majority (SELL 2020B). Although these issues are not new, they have become part of public discourse and consciousness again only recently. In Germany, the pandemic became *really* topical when the asparagus harvest was suddenly threatened by Romanian and Polish border closings. All media channels reported on losing the asparagus harvest due to a lack of migrant farm workers and depicted this tragedy as an immense loss for the farmers and society. Although it was never an issue of food insecurity, probably because the asparagus is a luxurious good that does not serve the purpose of satisfying hunger in a healthy and nutritious way, the dimension of coverage of this topic made it seem like a matter of life or death. This, in particular, raised questions of legitimacy of action and the cultural importance of this phallic sprout for Germans: would the outrage have been the same, if another vegetable's harvest had been at stake? Whose lifestyle is represented in this agitation and what does this tell us about political interests? If the asparagus does not satisfy hunger, how come it is given this stage and spotlight in the midst of a pandemic? This, in turn, made me question the sovereignty of our food provision infrastructures and sharpened my senses for the controversies and inequalities involved in feeding cities.

→ Diehl, Thomas. Spargelbauer in Not - Keine Erntehelfer in Zeiten von Corona. SWR Fernsehen. 25.03.2020.

Schulz, Florence. 'German Farms Need Nearly 300,000 Seasonal Workers'. 25.03.2020.

Süßebach, Henning. 'Landwirtschaft: Die Wette seines Lebens'. Die Zeit, 20.03.2020.

Once the medial cacophony turned toward the working and living conditions of harvest workers, shedding light onto the indignity—inhumanity even—with which they are treated, I was left affected, ashamed to be a part of and contributor to this injustice through lifestyle choices. The outbreak of COVID-19 in the Tönnies meat plant underlined once more the dimension of exploitation of food workers, leaving no doubt about the urgency of this topic (LEITLEIN 2020; THEILE 2020B). Thinking about social inequality in the context of agriculture made apparent just how intertwined the social, ecological, economic and political dimensions are: taking the challenge of feeding growing urban populations; the acceleration of climate change through agricultural practices (FAO ET AL. 2020: XXIV); socially inscribed histories of colonialism, racism and sexism prevalent in this sector (FOODPRINT 2020; HARAWAY 2016), and the context of financial capitalism, led me to DONNA HARAWAY. She, an interdisciplinary biologist, philosopher and feminist scholar, among other things, suggests a holistic approach to how humans and nonhumans inhabit this planet and urged me to challenge my anthropocentric perspective. Shaped by my cultural sciences background

→ BR. 2020. Erntehelfer beklagen Arbeitsbedingungen auf Spargelhof. 30.04.2020.

Bühler, Alexander, Ulrich Neumann, and Edgar Verheyen. Spargelbauern und Corona: Wie viele Rumänische Erntehelfer ausgebeutet werden. 05.05.2020.

Jacobs, Luisa. 2020. 'Erntehelfer: Das ist der Spargel nicht wert'. Die Zeit, 16.04.2020.

MDR. Mieser Umgang mit Erntehelfern? 23.04.2020.

Theile, Merlind. 'Saisonarbeit: Tod eines Erntehelfers'. ZEIT Arbeit, 22.04.2020.

that had focused mostly on understanding societal systems from a macro-perspective, I was intrigued by the bigger, holistic picture of how the city is fed. Coming from urban design, however, I felt the urge to tackle this topic spatially and ethnographically, diving into the field of research through active and bodily engagement, observations, conversations and by following leads inductively. Combining these two approaches made visible, but also caused struggles and contradictions—and in these tensions that I learned to endure—brought forth just how deeply in trouble and part of the trouble we are.

Picture of precarious state of containers installed for harvest workers in North Rhine Westphalia.

Pitu & Schwartz (2020) ▼

[1.3] COGNITIVE DISSONANCE

In my first approaches to this topic, I experienced the cognitive dissonance of being at the media's mercy, while knowing that I would have to use the media as a serious source of information for parts of my research. I felt unable to identify agendas, gate keeping intensions or the criteria for selection of information presented. I struggled with questions such as: who is the media? Is it just privileged white people writing about a crisis they are not really affected by? In what way does mass media produce a depiction of reality? Whose reality? How does this change in midst of this pandemic? How reflected are these depictions and to what extent do they reinforce political, economic, social or other agendas? As time passed and more knowledge became available about systemic inequalities, the medial discourse moved away from pitying the farmers to increasingly condemning working and living conditions of harvest workers on German farms. The power of the media to shift public discourse continued to strike me as the cases of COVID-19 continued to rise (SELL 2020A), then sank and then rose again. When, despite increasing international safeguards and border-closings, the German government decided to airlift Romanians into Germany to secure the local asparagus harvest, the media turned into a type of mouthpiece for desperate and fearful harvest workers. These uttered their vulnerabilities, the lack of safeguards, exposing several farmers who refused to implement safety measures as advised to (BOATCA 2020; BURGER, MARTENS, & STEPPART 2020; CAROLL ET AL. 2020; JACOBS 2020A & 2020B).

The COVID-19 related death of a migrant farm worker was talked down at first (THEILE 2020A), until the pandemic outbreak in slaughter houses and meat plants left no doubt about the precarity of working and living conditions in the food industry in Germany (BURGER ET AL. 2020; LEITLEIN 2020; THEILE 2020B). It became so bluntly visible and no longer in any way deniable that the way we feed the city today, in the abundance and quality and with the cheap prices we have, is mainly possible because migrant workers and the planet pay for the *true* costs (POLLAN 2020; STEEL 2013). The surfacing of these grievances gave rise to critical voices accusing modern slavery (BEJAN 2020; POLLAN 2020), double standards, or a "Zweiklassengesellschaft" (SELL 2020A) and unjust treatment of foreign work forces (DOHERTY 2017; EDELHOFF, GHASSIM, & HURST 2020; MORGAN 2015; THEILE 2020A; THOMPSON 2017). These allegations fell onto fertile political soil, leading to immediate legal adaptations. The quick reactions, however, continue to be criticised as superficial rush jobs and treatment only of symptoms, as opposed to tackling the root of the problem (ROGOZANU & GABOR 2020; TAGESSCHAU.DE 2020B). The farmer and green politician Friedrich Ostendorff said:

> „die Vorgaben der Bundeslandwirtschaftsministerin sind nichts weiter als eine Farce. Sie gaukeln Sicherheit vor, wo es keine Sicherheiten gibt. Dieses unverantwortliche Handeln bezahlen die Erntehelfer unter Umständen mit ihrer Gesundheit." (SELL 2020A).

This statement touches on one of the largest issues that emerged from imposed measures during the pandemic: their feasibility. While the ideas might sound great, not all measures were examined in terms of viability. Is it even physically possible to house harvest workers the way the regulations demand? Is it possible to guarantee the hygiene regulations given the infrastructures at hand? How can the government air lift thousands of harvest workers into the country without being sure that the safety measures can be safeguarded and implemented by farmers? And who is monitoring their rightful implementation anyway?

Although not explicitly triggered by exploitative relations in the food sector, the growing international black rights movement in June of 2020 made increasingly visible how discrimination and racism are woven systemically into society. Together with the pandemic, which is said to have accelerated and magnified the already present injustices in society (PITU AND SCHWARTZ 2020), this movement drew attention to prevailing power structures and privileges that reign everyday life. Different sources have made visible that food and farm workers have a long "history of state-sponsored racism" (FOODPRINT 2020; MALET 2018) among other discerning inequalities that prevail in present day agriculture. Not only were farm workers mostly denied the right to vote, participate in local life and to food; they were often enslaved (IBID.). Many of the inequalities prevalent today are thus situated in historical metabolisms, such as early forms of capitalism, dedicated to extracting value and creating wealth. Colonialism, racism, sexism and other forms of inequality were co-productions of capitalist and state-led wealth accumulation processes and the demise of feudalism (SOLIDARITY FEDERATION 2012). Financial capitalism as it dominates 'Western' parts of the world today is currently also one of the largest contributors to climate change (BBC 2020; THUNBERG ET AL. 2020A).

→ Hypothesis 1
See P.44

[1.4] URBAN APPETITE

68% is the estimated proportion of the world's population that will be living in urban areas by 2050 (UN 2018). Such rapid urbanisation raises questions regarding (affordable) housing, mobility, labour markets and food infrastructure, among other topics. In particular, it raises ethical questions of equal distribution of and access to food, just labour markets, living and working conditions, as well as animal husbandry; ecological questions regarding food production, such as working with limited resources, exploiting the planet and emitting greenhouse gases (GHG) ; economic questions about the constitution of global supply-chains, economic dependencies; and many more. The socio-ecological dimension of urbanisation is made topical by HEYNEN, KAIKA AND SWYNGEDOUW (2006). They write that particularly "socio-environmental urban conditions are made and remade" (IBID.:2) through political processes, and the scrutiny of socio-ecological dimensions require challenging "who produces what kind of socio-ecological configurations for whom" (IBID.). Considering that cities today consume between 70% and 80% of global food supply and that global food systems, entailing the different pre- and post-production processes, produce 21% to 37% of all emitted GHG, alone (CARUCCI, MALEC, AND SANTINI 2019) raises serious questions of social and ecological justice.

It is a very contradictory entanglement: on the one hand, intensive food production through encroachment on 'natural landscapes' is contributing greatly to anthropogenic GHG emissions, a significant accelerator of climate change. On the other hand, effects of climate change such as droughts or heat waves are impacting negatively on crop yields (JENNINGS ET AL. 2015). And this is 'only' one part of the ecological contradiction encountered. Growing urban appetites for meat and dairy products have shifted crop production predominantly to soy and wheat, used to feed livestock (IBID.). In the ever-growing greed for more capital, livestock is overbred, causing devastating deformities such as ultrathin cows with gigantic udders or extremely muscular cattle that both that can barely move (WOLF 2020) and increased food waste dramatically. In order to increase yields, pesticides and other chemicals are applied, causing the death of precisely those multispecies urgently needed to produce food. Not only does the monocrop agriculture massively reduce biodiversity, it is also much more mechanised and thus machine-labour-intensive, alienating this process from humans and nonhumans.

Regarding productivity, the FAO writes:

> "with improved pollination management, crop yields could be further increased by about 25 percent. [...] Pollinators would contribute significantly to world food security and nutrition for a growing global population, along with ending poverty and hunger" (FAO 2018:8).

It becomes evident, then, that the way we produce food is self-destructive. Instead of working together with the multispecies that co-produce the earth with us humans, we work against them, eradicating them. Policies and projects aim to change this, but regarding these critically, it seems that the anthropocentric view point still dominates. For example, in the quote above, the use of the term 'pollination management' implies a very anthropocentric position: why or who gives humans the management role? Considering that most ecosystemic processes are homeostatic and life-sustaining, one would assume that management by one species is not necessary. Instead of placing humans on top, shifting perception to regard these processes as co-emergent and co-produced might be part of a possible answer. A growing movement toward organic farming also aims to counter this destructive process and to foster and nurture a system of ongoingness that will foster and nurture humans, too (IBID.). The Milan Urban Food Policy Pact is an attempt to unite cities in the endeavour to create resilient, inclusive, safe and diverse sustainable food systems. It was signed by more than 100 cities in October of 2015 ('MILAN URBAN FOOD POLICY PACT' 2015).

→ Hypothesis 6
See P.44

The vast increase in human population in urban areas has changed how cities are fed tremendously. Not only have the small and decentralised supply chains been transformed into larger, consolidated ones (INTERVIEW W.). Supply chains have also become much more global, supported particularly by the development of refrigeration and packaging techniques (JENNINGS ET AL. 2015). Unfortunately, the development of these centralised and much larger supply chains, involving also the packaging and storing of food, its standardisation and transportation, has and still contributes greatly to the pollution of bodies of water and soil, the depletion of resources in very productive areas of the world and to abuse of both human and nonhuman

"'supply chains' are commodity chains that translate value to the benefit of dominant firms; translation between noncapitalist and capitalist value system is what they do." (Tsing 2015:63)

→ Hypothesis 6
See P.44

multispecies (STEEL 2013). Higher consumption, particularly of processed food in urban areas, has also led to a steep increase in the proportion of people who are "without direct engagement in its production or, to a large extent, with its producers" (JENNINGS ET AL. 2015:13). What effects might this alienation have on how food is cared for? Neoliberal politics encourage and support the capital driven optimization and alienation of food production, leading to an ever-increasing (at least felt) distance between the rural and urban (IBID.).

The urban appetite, however 'far' it may be or feel from rural sites of production, nonetheless has a determining effect on rural structures. While the prior dictates demand, the latter is forced to supply (STEEL 2013). And: the extreme rise of supermarket bargaining power gives these companies the leverage to list or unlist producers, depending on whether they can meet the dictated conditions. Those who cannot, or do not want to, are threatened in their existence (LÜNENSCHLOSS AND ZIMMERMANN 2019). These power structures create landscapes of injustice invisible to the urban consumer, extracting labour and resources in extraordinarily destructive manners. Consumers in cities are presented with cheap, packaged, processed foods that have been completely stripped of their stories and identities (CAROLAN 2016). A tag might allude to what area of the world the product comes from, but in truth it makes consumers oblivious to inscribed stories. This suggests an intricate relationship between social and food justice and urban food demands.

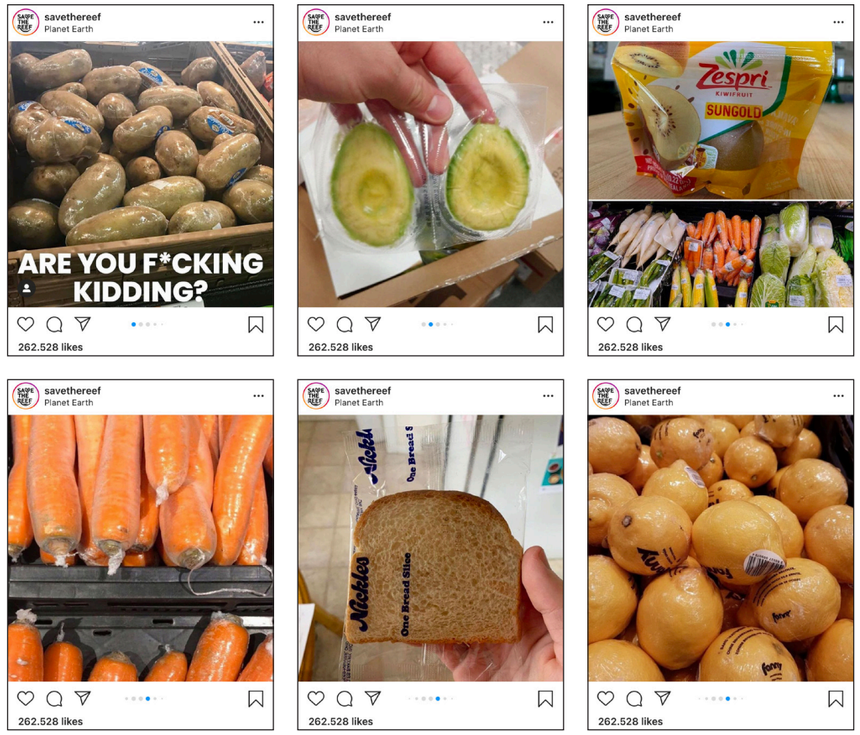
↴ Hypothesis 3 & Hypothesis 4 See P.44

By uniting cities in the combat of arising challenges due to fast urbanisation, such as "unbalanced distribution and access, environmental degradation, resource scarcity and climate change, unsustainable production and consumption patterns, and food loss and waste" ('MILAN URBAN FOOD POLICY PACT' 2015), the Milan pact aims to summon collective responsibility. In line with the UN Sustainable Development Goals (SDG) it specifies that cities are the "centres of economic, political and cultural innovation, and manage vast public resources, infrastructure, investments and expertise" (IBID.) must pioneer in this difficult endeavour. The pact also commits cities to support small-scale farmers and smallholder food producers (often women), as these play key roles in feeding cities and their surroundings and undoing processes of alienation (IBID.). A clear allusion to maintenance and repair accompanies this pact, suggesting that what food systems need, is care for and care with, in TRONTO AND FISCHER'S (1991) sense. These dedications and commitments are a big step toward creating a food system that provides for generations to come.

↴ See P.66

↴ See P.158f.

Social media has played an important role in raising awareness to obscenities of the food industry in recent years. The collective 'save the reef', for example, posted the following pictures on Instagram on August 31st 2020.



These practices of packaging can be considered the epitome of a system of disciplining natural processes gone mad. The aim to raise awareness for such absurdities bears potential to change mindsets, however, it requires more than just mindset changes. What politics make policies? In the North Rhine-Westphalian state elections of 2020, 33% of 16 to 24-year-olds voted for "Die Grünen", 22% for the Christian Democratic Party (CDU) and 16% for Social Democratic Party (SPD). The older the voters, the more they voted on the CDU, amounting to 49% with the 70+ age group (SCHMIDT 2020). In light of named challenges awaiting us, the earth, this raises the question: How do we want to feed the city in the future?

[1.5] URBAN INFRASTRUCTURES OF FOOD

'How do we feed the city?' to some extent implies infrastructures of food provision. Food is moved around the world daily, grown in one place, processed in another, packed in yet another and then sold as a local product of yet another place (Malet 2018; Steel 2013). Although hard infrastructures of food provision will not be central to my thesis, I do wish to touch upon them briefly. I return to notions of embodiment and food justice at a later point, which can be seen as intricately linked to infrastructures.

Etymologically, the prefix infra means “below” or “underneath”. The combination of infra and structure evokes a sense of hidden connectivity, diffusion and networks, which accurately mirrors common perception of infrastructures (STAR 1999). DOMINGUEZ RUBIO & FOGUÉ (2013:1037) suggest that the prevailing conception of invisibility can be traced back to the "Haussmannian ideal of sanitized, well ordered, public urban surfaces through the domestication of nature". The burying of infrastructures, their nature to 'work' in the background (STAR 1999) and their perception as "‘matters of fact’ located outside the realm of public discussion" (DOMINGUEZ RUBIO & FOGUÉ 2013:1040) all contribute to their invisibility in the city (ANGELO & HENTSCHEL 2015; EASTERLING 2010, 2012; GRAHAM & MARVIN 2001; MCFARLANE & RUTHERFORD 2008). It is not surprising, then, that scholars seem to agree that infrastructures attain visibility mostly when they fail (GRAHAM & MARVIN 2001; MCFARLANE & RUTHERFORD 2008; STAR 1999). This attribute is particularly relevant in times of crisis or rupture, as the latter create a momentum that particularly reveals "the politics underpinning urban infrastructural transformation" (MCFARLANE & RUTHERFORD 2008:368).

Funnily this describes the hidden networks of the matsutake mushroom (Tsing 2015) quite well, too. Could these mushrooms thus be considered to provide the infrastructure for nutrient provision in the forest ecosystem through their roots?

Other infrastructures that might come to mind in relation to food and the city are roads, train tracks, air and water ways. Most of these were also affected by the pandemic, particularly as global movement came to something like a halt.

The political nature of infrastructures thus makes it a question of hierarchy and power: who or what is linked and who or what is not? Related to food in the city: what areas are supplied with what products? Upon breakdown, the trajectories become visible, revealing systemic inequalities and injustices. In the recent pandemic, a series of infrastructures became very visible—or rather, their shortcomings did. Not only did the asparagus dilemma in Germany reveal the precarity of the infrastructures that harvest workers are housed in. The sudden need for high amounts of masks and sanitizers in Europe, together with the interrupted supply chains from China, where most masks are/were produced, for example, demonstrated how fragile and vulnerable infrastructures can be. GRAHAM AND MARVIN (2001:23, EMPHASIS ADDED) write that “[m]ore than ever, the collapse of *functioning* infrastructure grids now brings panic and fears of the breakdown of the functioning urban social order.” But who or what do infrastructures function for? And how? What defines their dysfunction? In urban areas, the breakout of corona revealed that such fears are incited and motivated by “panic buying of food” (STEEL 2013:100) and toilet paper, among other victuals. And among these panic buys it became visible how unequal access can be: which supermarkets and suppliers were equipped and provided with what types of products? Within this urban setting, who is really able to stock up on victuals?

From a socio-ecological justice perspective: might it be worth rethinking intricately linked food infrastructures and urban sites, like the Garden City that Ebeneezer Howard proposed in the 1960s? Or is this just another impossible city; an imaginary predestined to reproduce socio-ecological injustices spatially?

> "Garden City proposals addressed many aspects of the food system—production, distribution, collective preparation and consumption, and waste recycling—as integral to the city. Highlights of Howard’s proposals include 5,000 acres of agricultural land doubling as a greenbelt, appropriate location and flow of raw and processed commodities, collective kitchens and dining halls, and recycling of food waste as fertilizer for farms" (POTHUKUCHI AND KAUFMAN 2000:114).

Without judging the general proposal, the implicitness of self-sufficiency and proximity of production and consumption is tempting, particularly in light of feeding ever-growing cities. However, bringing the food system closer to the urban metabolism bears challenges. How can one avoid producing and reproducing urban inequalities, considering that "urban change tends to be spatially differentiated, and highly uneven"? (HEYNEN, KAIKA AND SWYNGEDOUW 2006:10). Thinking about feeding the city in terms of infrastructures thus not only entails a dimension of viability and acess within the urban context, but also one of just production of space and livelihoods.

[1.6] SO WHAT?

↦ And food can be considered a source of pleasure and constituent of social life, not only something that is consumed for 'mere' survival.

Humans (and most other living species) depend on food to survive. Although eating is existential, food provision is not always part of public debate. Similarly, "[...] the food system has been strangely neglected in urban studies until quite recently [...]" (MORGAN 2015:1380). In the past years, the Food and Agriculture Organization of the United Nations (FAO) has repeatedly stressed the challenges that await urban communities, as these continue to grow. Particularly the provision of and access to food are expected to cause unpredictable infrastructural and socio-ecological challenges (FAO ET AL. 2020). The pandemic has thrown back the progress of reaching the 2030 goal of eliminating world hunger by an unpredictable amount. The endeavour of ending hunger is ambitious considering that healthy diets are estimated to be unaffordable for currently more than 3 billion people. "Healthy diets are estimated to be, on average, five times more expensive than diets that meet only dietary energy needs through a starchy staple." (ibid:xvii). These numbers are stupefying, when compared to the estimates that one-third of the global food produced for human consumption is wasted or lost, amounting to 1.3 bn t per year (FAO 2020). In brief, this is the epitome of financial capitalism: capital accumulation is the highest command, regardless of the social or environmental impacts (SCHILLER ET AL. 1995:50).

Food loss is defined as occurring along the food supply chain from harvest/slaughter/catch up to, but not including, the retail level. Food waste occurs at the retail and consumption level.

(FAO 2019:xii)

The inequalities linked to food production become even more urgent when considering that many ecological processes required for the production of food and thus concentration of wealth are produced outside of capitalist control and are finite. Many resources and raw materials (nonhuman) required for capital accumulation are the result of complex processes taking place in different layers of the earth, between different species such as bacteria, fungae, plants, and gases or other nonhumans. Most of these processes take millions of years. TSING refers to the capitalisation of these natural resources as 'salvage accumulation':

> "[...] that is, taking advantage of value produced without capitalist control. Many capitalist raw materials (consider coal and oil) came into existence long before capitalism. Capitalists also cannot produce human life, the prerequisite of *labor*. 'Salvage accumulation' is the process through which lead firms amass capital without controlling the conditions under which commodities are produced. Salvage is not an ornament on ordinary capitalist processes; it is a feature of how capitalism works." (TSING 2015:62F., EMPHASIS IN ORIGINAL)

In this definition, TSING touches upon several relevant food topics: competitive and comparative advantage; manipulation of scarcity; exploitation of labour and the environment. What she describes shows that in this capitalism, humans are not considered to be part of the conditions under which commodities are produced. This view places humans 'outside', in a position to extract value from the land, without realising the co-dependence. Those who best know how to capitalise natural processes have a competitive advantage. In a just understanding of distribution, this advantage could be divided evenly among all, to combat social inequalities. Instead, this competitive advantage is part of the deepening inequality. Take water, for example, the only natural resource required to keep most organisms alive. Water is naturally scarce and this is furthering through practices driving and the effects of global warming. Poor water governance and privatisation are considered additional drivers of scarcity, and at the same time a very lucrative business. Although access to clean water has been declared a human right by the UN, corporations capitalising this natural resource often deny access to it. Returning to TSING'S (2015) point: capitalism cannot create water. How can we feed the city in a just manner, if the underlying system is based on broken entanglements and deliberately produced inequalities?

↦ Hypothesis 6
See P.44

↦ Hypothesis 4
See P.44

↦ Hypothesis 5
See P.44

Similarly, although capitalism cannot produce human life, it depends on human labour. This could tempt to assume that it would treat workers with profuse care. The opposite, however, is the case, as FRASER writes:

> "on the one hand, social reproduction is a condition of possibility for sustained capital accumulation; on the other, capitalism's orientation to unlimited accumulation tends to destabilize the very processes of social reproduction on which it relies." (FRASER 2016:100)

COVID-19 has particularly exposed prevailing contradictions inherent to this accumulation and between capital and care, along with the systemic inequalities these processes entail (UN NEWS 2020). The treatment of harvest and meat plant workers has demonstrated this in a grotesque and appalling form. Not only have decisions been made that put employees' (and their families') health at risk; it seems that the fear of losing revenue was put above the fear of losing *humans*. TSING (2015:64) herself states that "savage and salvage are often twins: Salvage translates violence and pollution into profit". Consuming more resources more rapidly than these can be replenished; polluting the earth to the point of self-destruction—all in the name of infinite capital accumulation. Images of seas of plastic in Almería, Spain that can be seen from space; or deforestation to make space for soy farmland in the Amazon and genetically modified monocultures are a few physical manifestation of this in our time.

Greenhouses in Alméria, Spain © AFP | Stuttgarter Nachrichten (2019)


Greenhouses in Alméria, Spain view from Space © nasa.org (2011)
1000m

Monoculture field, France © Perez (2018)

Amazon Deforestation © João Laet/AFP via Getty Images (2019)

→ See **F4**
P.139

→ Hypothesis 3
See P.44

The photographs show the dimensions that 'salvage accumulation' can take on—and this is only a very small selection. The loss in biodiversity due to monocultures, followed by gene-modification of crops to become more resistant and the development of robot-bees to pollinate the extensively farmed land (HARAWAY 2019); seas of plastic greenhouses exploiting the land as much as possible, magnifying the sun's energy and creating perfect climate for crop growth; the deforestation of remaining 'green lungs' in order to plant wheat and soybeans to feed cattle; the dislocation of food workers and their exploitation. The list of contradictions in production continues. The urgency of the topics touched upon is irrefutable: many processes involved in feeding the city are based on unjust and exploitative relations that abuse nonhuman and human rights, neglect dignity and make visible prevailing traces of colonialism, racism and sexism. The voracious behaviour of humans on earth is causing its very own demise.

In an exhibition at the Centre for Art and Media (ZKM), LATOUR and WEIBEL address precisely this controversy. The thought exhibition in observatories invites to engage with and think critically about the urgency of the state of the earth and its zones, by offering multiple perspectives on sustainable coexistence. They contribute to a shift in paradigm that feminist scholars like ANNA TSING, JOAN TRONTO and DONNA HARAWAY have been approaching in recent years. It involves moving away from the disconnected anthropocentric view of earth, no longer externalising these processes but seeing ourselves, humans, as a part of them. LATOUR and WEIBEL trace the

> "disorientation [of life in a world facing climate change] to the disconnection between two different definitions of the land on which modern humans live: the sovereign nation from which they derive their rights, and another one, hidden, from which they gain their wealth—the land they live on, and the land they live from." (LATOUR & WEIBEL 2020).

Reconnecting the land we live on with the land we come and derive our wealth from requires a new perception of oneself and our surroundings. LATOUR AND WEIBEL allude to HARAWAY'S (2016) notion of *becoming-with,* which means precisely this reconnection and the reassumption of responsibility for the earth's ecosystem (including ourselves, of course). This paradigmatic shift also invites to rethink food production: how does assuming the holistic notion of *becoming with* change the ways in which we produce food and hence feed the city?

> **However great the breakthroughs that have given us industrial food–mechanization, monocultural production, chemical fertilizers, factory farming, chill chains, "efficiencies of scale," just-in-time logistics —they have all had negative corollaries whose true effects have been systematically ignored. In this way, the illusion of 'cheap food' (something that can never exist) came into being, a fantasy upon which modern economies, political systems, and urban civilization itself have come to depend.**
>
> — Carolyn Steel (2019)

[1.7] RESEARCH QUESTIONS AND HYPOTHESES

In this chapter, I have attempted to unfold my personal interest and position, the relevance and urgency of the topic at hand. I have shown how the overarching research question is constituted of and deduced from precisely this threesome. I now plan to tackle how we feed the city, pivoting between the global and local scales, that are intricately intertwined. I thus aim to question food infrastructures and production chains by unpacking and scrutinizing the social, ecological and political dimensions that have become so visible during the COVID-19 pandemic from a socio-ecological perspective. Following, then, from this big question, and including the assumption that food provision inherently bears socio-ecological inequalities, I ask:

What does following the asparagus in midst of the COVID-19 pandemic reveal about socio-ecological inequalities inherent to urban food provision?

In my endeavour to pursue this question, the following hypotheses accompany my research. They have developed through extensive work with literature, critical scrutiny of media and personal experiences during the research process. Note: There is no hierarchy, numbering is for reference purposes only.

1. The way we feed cities today is only possible because we exploit humans and nonhumans in already precarious situations. There is a clear hierarchy between the exploiting and the exploited and this is continually reproduced by political and economic decisions (HARAWAY 2019; HEYNEN ET AL. 2012; HOLMES 2013; TSING 2015).

2. Humans are not only part of, but can actually become infrastructure through bodily labour (TONKISS 2015).

3. There are structural socio-ecological inequalities deeply embedded in urban food production (HEYNEN ET AL. 2012).

4. 'Equality' and 'justice' cannot exist for as long as financial capitalism remains hegemonial (MARCUSE 2009).

5. Certain countries/regions are treated as unequal players in economic unions, so other members can profit from easily accessible, cheap labour forces (BEJAN 2020).

6. *'Becoming with'* the environment and food production means viewing humans and nonhumans as equal contributors to the ecosystem and implies collective responsibility and response-ability required for *change* (HARAWAY 2015).

Although I invite readers to use the references on the sides to skip through this book, it does, indeed, follow a certain linearity. Yellow lines on pictures and illustrations aim to guide the reader's eye while also serving as a means to illustrate the book.

This first chapter aims to introduce the reader to the topic. It is followed by a theoretical chapter, in which the positioning and theoretical-conceptual framework is elaborated. The third chapter aims to transmit very thickly and sensuously the ethnographic material, making it tangible to the reader. By switching to a micro-level embodied multi-sited ethnographic examination of the asparagus within the German urban context, I intend on making visible its *Wirkungsgefüge*, best understood as assemblage of practices of humans and things. The linearity is then broken by chapter [F] that assembles food figures, brings in numbers and statistics and aims to create a dialogue between the local and global scales of food provision. I turn to quantitative data with the aim to contextualise, make tangible the depth of the trouble we are in. The subsequent very short chapter depicts the sorted material from chapters 3 and F, in an endeavour to find recurring themes and codes.

The clusters of material around various codes serves as a basis for chapter 5, in which these codes, the material and the theoretical framework are reassembled. This reassembly crosscuts borders, levels, dimensions and scales, combining, rethinking and juxtaposing the different material and theories according to three codes that are focused on. Here, I aim to scrutinise connections, relationships and dependencies. The final chapter raises new questions, opens new threads and challenges new thoughts within the urban context. Throughout this work I ask: how can I bring the theoretical-philosophical-conceptual approaches into dialogue with my empirical material? Combining these entanglements and binding the different dimensions together will remain a challenge —not only in this thesis.

→ jump to another part of the book.

These text boxes, denoted by red lines, are elaborations, notes, thoughts and other additions that I deem important in order to understand the text.

→ CHAPTER BEGINNINGS:

> We need to make kin symchthonically, sympoetically. Who and whatever we are, we need to make-with—become-with,compose-with—the earth-bound.
>
> —Donna Haraway (2016:102)

[2]

BECOMING WITH

[2] AIM

In this chapter I wish to navigate through relevant theoretical-conceptual and philosophical frameworks reviewing literature and concepts related to my research. The aim is to introduce and elaborate on theories that will further guide the research process. Donna Haraway's (2016) framework of becoming with or making kin is central to my work, which is why I chose to name this chapter Becoming with. Not only is this an allusion to her theoretical concept, it also refers to my own becoming—in the sense that the deeper I dived into theory and fieldwork, in an iterative process, the more I myself developed, changed, *became with*. In my fieldwork, I have adopted and adapted notions that Haraway introduces, aiming to carry on the paradigmatic shift that she and other scholars call to life. I think her thoughts together with scholars like Bruno Latour (2005) and Peter Weibel (2020), Anna Tsing (2015) and Joan Tronto (2019) and connect their notions with theories of justice. I then combine different ideas and formulate, expand, deduce my own thoughts on how I think about social justice. This chapter aims to open up different threads and thought processes, intertwine and create thoughts critically, always reflecting my own position within these. I turn to the FAO, as well, in order to contextualise the trouble that we are in in terms of food justice. Working with Haraway's framework made explicit to me that 'what thoughts think thoughts' and 'what politics make policies' are particularly important when thinking about feeding the city. Who is writing about phenomena of social justice? From where? Who is making the politics and policies of food? For whom? What presumptions underlie these thoughts?

> Our political task, Lefebvre suggests, is to imagine and reconstitute a totally different kind of city out of the disgusting mess of a globalizing, urbanizing capital run amok.
>
> —David Harvey (2013: xvi)

[2.1] SHIFTING PARADIGMS

Just like it would be insincere to claim that the inequalities present in our food system were unknown before COVID-19, it would be naïve to claim that we could, now that we can no longer negate these, easily change our system of exploitation of life-forms. The damage that has been caused, to humans and nonhumans—meaning the earth, its inhabitants of all life-forms and its layers and zones—is vast and discerning; the dimensions of this destruction are largely unknown. Unknown, mainly because we are unaware of how multispecies life-forms modify the soil, the earth's zones and control the habitable conditions we all coexist in (LATOUR & WEIBEL 2020). Unknown also, because the processes that create habitability for different life-forms on earth are largely invisible to us humans, or have taken place to a great extent in the past. With the ongoing protests, different layers of the trouble are beginning to show. While some people protest against climate change and for a liveable planet in the future, others protest against radical or conservative governments. Yet others protest for their rights as minorities, their rights to worthy treatment and fair payment in hard labour jobs (i.e. 50 harvest workers in Bornheim; DPA/LNW 2020). The diversity, dimensions and impacts of these protests show the desire to unite; to point out societal grievances and to trigger collective action. We are facing troubles, we are troubled, but mostly: we are a part of this trouble. Thinking of ourselves as *a part of* is key for the way I approach my research. What happens to us humans, to all life-forms, the earth and its layers if we continue like this? But also: How can we learn to live in and with these concerns?

Different (already named) scholars have turned their attention to the interlinked troubles of our times, namely the ongoing immiseration of humans and nonhumans. They call for a paradigmatic shift; changing the way we *think* earth, its layers and zones, its inhabiting life-forms and the intricate relationships between these, in constituting and maintaining life. One of these scholars is DONNA HARAWAY (2016; 2019), whom I have referred to in the first chapter. She is an advocate and pioneer of rethinking the way in which humans and nonhumans interact, finding a new narrative for understanding and thinking the entangled relations on and with earth, and thus changing the perspective of observation from the outside to within. Reframing and recoining of terms and concepts forms a large part of her approach to this challenge. Her neologisms and play on words reposition humans within the disasters, destructions and crises taking place; provoking and effecting the paradigmatic shift with and through her terminology and language. Her endeavour to overcome the anthropocentrism of our time aims to stop treating prevailing crises and destructions as if they were the virtue of the human species. She sees the root to the problem in the emergence of capitalism, slave-based plantations and appeals to call these economic and political drivers by their name (HARAWAY 2019).

HARAWAY'S (re)thinking is closely acquainted with ANNA TSING'S (2015) work. TSING examines the possibility of life in capitalist ruins by following the matsutake mushroom around the world. Both scholars allude to JOAN TRONTO'S (2019) notion of care on various occasions. TRONTO extends the notion of caring for to caring *with*, situating humans and nonhumans within, suggesting that we are responsible for and with each other. Thinking this with HARAWAY'S notion of *us* as multispecies entanglements—or entangled multispecies—that are responsible to and for each other, also forms part of the shift in paradigm. Finally, among others, BRUNO LATOUR also aligns himself with these scholars. In LATOUR AND WEIBEL'S mentioned exhibition, they translate many of these notions into observatories, aiming to evoke the urgency of rethinking society as something centred around the earth and being terrestrial, as opposed to revolving around humans. Changing perspectives, making things visible and rethinking the ways in which we see ourselves within the earth's entanglements, is one way in which they propose to maintain 'ongoingness'. I would like to take this as a basis for my endeavour of following the asparagus and rethinking the challenges that we face as a society, as complex entanglements of multispecies, as terrestrials.

→ 'ongoingness': "that is, nurturing, or inventing, or discovering, or somehow cobbling together ways for living and dying well with each other in the tissues of an earth whose very habitability is threatened." (Haraway 2016:132)

But first, let me dive a little deeper into the concepts and frameworks that these scholars have developed. In the following, I will attempt to unwrap HARAWAY'S (2016; 2019) framework of *becoming with* or *making kin* on a broken planet. I would like to use different aspects of her framework to think about feeding the city. One aspect might be taking seriously the notion of being responsible and response-able for the abuse that takes place both on a human and nonhuman level. This involves thinking about social justice, a concept that is tightly linked to the notion of *becoming with* and the immiserations in food production that have become visible in the current pandemic. In addition, I want to elaborate on TRONTO'S (2019) notion of *caring with* as part of the *making kin* narrative. Apart from involving a rethinking from within, it also raises serious questions of food justice—particularly in terms of access to healthy and nutritious food (FAO ET AL. 2020). Taking the matsutake mushroom as an inspiration, I would like to integrate TSING'S (2015) thoughts on living in capitalist ruins to scrutinise and unpack certain terms like the Anthropocene and Capitalocene, which the aforementioned scholars view very critically. This also gives me the chance to elaborate on the notions of Plantationocene and Chthulucene that HARAWAY (2016) develops, invents and deduces, often linguistically. These terms might be useful for my own analysis later on, and again, they carry in them the paradigmatic shift I long to extend.

→ 'response-able': "We are all responsible to and for shaping conditions for multispecies flourishing in the face of terrible histories, and sometimes joyful histories too, but we are not all response-able in the same ways. The differences matter— in ecologies, economies, species, lives." (Haraway 2016:29)

See also P.63 & P.179

[2.1.1] BECOMING WITH

The notion of *becoming with* is situated in an interdisciplinary framework of history, feminist critique, biology, philosophy, among others. The way I understand HARAWAY (2016; 2019), the paradigmatic shift of thinking is rooted in the inequalities of our time, exercised to and by humans and nonhumans (HEYNEN ET AL. 2006). Including all life-forms in this notion, means understanding the crises and catastrophes we are currently facing, such as climate change and climate destruction (LATOUR & WEIBEL 2020) and the observable "conservative revolution" (IBID.) as co-produced. This also rethinks modern slavery in the agricultural sector and the prevailing pandemic, as produced by political and economic systems that have been reigning for several hundred years. It rejects the idea that the dilemmas of our time are in any way natural or part of an evolutionary trajectory of the human genetic. *Becoming with* assumes that humans and nonhumans are responsible for and to each other in obligate mutualisms, requiring each other for survival. It is the appeal to form non-biogenetic kinships not only with humans, but also with the different layers, zones, life-forms that inhabit and produce the earth with (and without) us. The notion rethinks how we see ourselves in relation to the earth we inhabit, an earth that simultaneously grants the conditions we require for life and provides much of our wealth (LATOUR & WEIBEL 2020).

→ 'obligate mutualism'= when organisms are dependent on one another for survival, such as ants and acacia trees (Haraway 2016:124)

HARAWAY has a very complex yet playful way of writing and speaking about these entanglements that all life-forms are engaged in together. She refers to life-forms including "microbes, plants, animals, humans and nonhumans, and sometimes even [...] machines" (HARAWAY 2016:169) as critters. This term aims to eliminate all hierarchies that might be inscribed in terms like human and nonhuman. She uses the metaphor of string figures to illustrate this framework, in which every finger (representing every critter) depends on the others to form entanglements. As one finger moves, the other remains still, creating always new patterns and rhythms (IBID.). Understanding all critters as being in constant movement, creating new patterns, assemblages and rearrangements together is to understand earth's habitable conditions as being in continual (re)composition. It also means to understand that as soon as one or the other force, finger, critter, moves beyond its scope, it inhibits the other from having effective force, destroying the pattern. This inhibition, imbalance, lack of homeostasis, is fatal for the entanglement, can lead to extinction of species even. But the ashes of one extinction can form the grounds for new entanglements, resurgences, as the TSING'S (2015) matsutake mushroom shows us. The latter thrives in capitalist ruins and brings life back to extinct places in an ironically anti-capitalist manner, resisting being cultivatable by humans.

→ I would like to note that I mostly mean living species on earth (i.e. what Haraway lists in this quote), when I write about humans and nonhumans. Machines, cyborgs and other such more-than-human entities are largely left outside of this thesis because it would have exceeded my scope to dive adequately into these as well.

[2.1.2] FINDING NEW TERMS FOR OLD PHENOMENA

One aspect of changing how we think about and with, is to unpack and recoin terms, concepts and notions to expose social, political, historical, (...), implicit inscriptions and to overcome these. Two terms that HARAWAY (2016) focuses on that are strongly linked to food production are Anthropocene and Capitalocene. These terms, as she writes, do not do justice to the complexity of our current time—one quite obviously not centred around "the Anthropos as the human species, Modern Man" (HARAWAY 2016:30). She rejects these terms particularly because they refuse to acknowledge the political and economic apparatus driving destructive practices (HARAWAY 2019). Although she dismisses these terms to describe current times, she does see them in a timescape to which she adds the two terms Chthulucene and Plantationocene (HARAWAY 2016). The prior term is derived in a linguistic-artistic interpretation of the *pimoa cthulhu* spider that inhabits the depths of the earth and is known for travelling 'elsewhere'; in the *chthonic*. HARAWAY combines *cthulhu* with *chthonic* to form *chthulu*, thus proposing "a name for an elsewhere and elsewhen that was, still is, and might yet be: the Chthulucene" (IBID.:31). Following from this, she argues that "the earth of the ongoing Chthulucene is sympoietic, not autopoietic" (IBID.:33), as it is neither autonomous, self-producing, nor does it dispose of boundaries in space or time. Poiesis, according to HARAWAY (IBID.), then, is always partnered with other 'units' and has no defined starting point; it is symchtonic. With this thought she solidifies her way of thinking about humans and other earthly critters, the planet, its zones and current destruction as mutually obligate entanglements, *becoming together*.

'Anthropocene' is a term initially introduced by geologists to describe "the epoch in which human disturbance outranks other geological forces." (Tsing 2015:19). The prefix 'anthropo-' means 'human' and could suggest that these disturbances have a biological origin –however, Tsing suggests that the advent of modern capitalism more accurately marks the time line of this epoch. Tsing and Haraway have a history of working and thinking these concepts together. I adopt this notion, not fully rejecting the Anthropocene, but viewing it more as modern capitalist techniques of alienation, turning beings, human or not, into resources.

→ 'sympoietic'= making with, becoming together (Haraway 2016:58)

→ 'symchtonic'= used synonymously to sympoietic, situated in the 'elsewhere' (Haraway 2016:33)

The other notion that Haraway introduces is the Plantationocene. With this term she explicitly addresses the system of forced monocropping that we live in:

> "you take a complex area of the world, and you not only radically simplify its ecology, but you also radically reduce the kinds of organisms that live there. Then, you displace the labor force that's already there and import another labor force, using various forms of force, contract, and indentured labor. You bring in new crops that will produce at high rates, preferably for global markets, and you bring in a labor force that literally can't run away. And you call that 'agriculture'" (HARAWAY 2019).

"Today, the seed market is dominated by the so-called 'big six' agricultural biotechnology companies. These six alone—Monsanto, Syngenta, Bayer, BASF, DuPont, and Dow Chemical—control 63% of the world's commercial seeds and 75% of global agrochemicals" (Hodgson 2018). I leave these numbers here to think about...

What she describes in a few words here gets right to the heart of several issues that became visible to me throughout the past months. One is the global loss of biodiversity and ecological patterns, reducing life-forms that all critters depend on to continue surviving driven by agricultural practices. Another issue is the precarious treatment of imported labour forces that depend on the money to survive, as can be observed in the very local case of asparagus—and globally (POLLAN 2020). The loss of biodiversity and the extermination of many life-forms that constitute habitability on the planet means that biologically, the way we inhabit and exploit the earth, is threatening livability "for vast kinds, species, assemblages, and individuals" (HARAWAY 2016:43). Ironically, precisely this human impact on the planet drives the spread of diseases and also of the coronavirus (BBC 2020).

The interference with planetary processes through anthropogenic practices is hence undeniable (IBID.). Particularly relating to labour in agricultural processes, HARAWAY makes a point I would like to elaborate on. She writes that the Plantationocene is

> "breaking the capacity to care for generations, across generations, so that plants, microbes, animals, and people are in a state of disordered reproductive entanglement for wealth creation and extraction of value." (HARAWAY 2019)

"alienation is that form of disentanglement that allows the making of capitalist assets. [...] Thus, too, alienation makes possible accumulation—the amassing of investment capital [...]. Accumulation is important because it turns ownership into power. Those with capital can overturn communities and ecologies." (Tsing 2015:133)

This, then, means that bringing in foreign seasonal labourers to work on fields causes the opposite of *becoming with* or *making kin*—namely alienation. This assumes that the less affiliated and affected the workers are (and are allowed to be) with their work place, the less they care for and with these places. Does this imply that the more the farm workers depend on the jobs for survival, the less they will be able to care? The need for homeostasis, a state of order and balanced patterning, defines the ongoingness or maintenance of our earthly systems for future generations. The more unattached we become, the more disordered the entanglements become. *Caring with*, then, also implies the paradigmatic shift in the sense that we see ourselves as a part of that which we care for. The notion of *caring with* is adopted from TRONTO (2019). She advocates that caring with, an act of solidarity, can provoke in others a reciprocal response. This means that "people may be able to see how participating in ongoing circles of care make them, over the course of time and through a life-cycle, somewhat more equal" (TRONTO 2019:32). Questions of quality and justice emerged on several occasions in the course of this research, related to living and working conditions of harvest workers; the unequal access to healthy and nutritious diets; the exploitation of the earth.

[2.2] GEOGRAPHIES OF JUSTICE

***Caring with*, as Tronto (2019) understands it and becoming with or making kin, in Haraway's (2016) sense, are intricately linked with and at the same time constitutional of social justice in my understanding of the concept. To me, social justice has a very embodied dimension, one that surfaced especially through the media in the past few months and through my experience of harvesting asparagus. Particularly referring to the aforementioned breaking of ties and thus loss of sense of caring for and with each other, by importing labour forces and not letting them become a part of the surroundings they work in (Bejan 2020), will form a part of this discussion. The concept of justice is very broad and diverse, taking on many dimensions and notions, which I will not be able to work through within the scope of this thesis. Therefore, I will focus on those aspects that are directly relevant to the manifestation of social justice in the urban environment and agricultural sector.**

I would like to begin by taking a look at two aspects of RAWLS' (1971) theory of justice. FAINSTEIN, who writes about the just city, cites Rawls as follows:

> "the allocation of goods in a society should be governed by the 'difference principle', whereby policies should only improve the situation of those better off when 'doing so is to the advantage of those less fortunate' (Rawls, 1971, p. 75). Rawls posits that in the 'original position', behind a 'veil of ignorance' that prevents individuals from knowing what will be their ultimate position in society, they will opt for a more egalitarian distribution of goods." (FAINSTEIN 2014:6)

Both 'the difference principle' and the 'veil of ignorance' assume that each person thinks of themselves as part of an entanglement or construct and hence involves a sense of kinship. The assumption that, if we do not know our ultimate position, we will make choices that are more just for all, is a form of kinship that does not put the human in the centre, but rather the multispecies entanglement as a whole. Unfortunately, this is not the observable behaviour in food production of our financial capitalist world today. Quite the contrary is the case: extracting value is the name of the game. What articles, documentaries and the news have reported on shows that the 'less fortunate' are strategically abused as cheap labour forces, whose ties are broken, thus inhibiting a *becoming with* their work places. The fencing of containers of harvest workers in Germany is only one of the manifestations of this alienation.

→ See P.56-57.

Picture of fencing of container homes for asparagus harvest workers in lower Bavaria, to keep workers away from local population.

Goebel et al. (2020).
Picture: dpa. ▼

Picture of fencing of container homes for asparagus harvest workers in lower Bavaria.

Picture: dpa (2020a). ▶

Corona test centre next to the field in Landau (South-Western Germany)

Picture: dpa (2020b). ▼

→ See P.122f.

Reporting has also shown devastating states of boarding rooms, houses and containers, over-crowded despite COVID-19 safety regulations (JACOBS 2020A, 2020B; NDR 2020; ROGOZANU & GABOR 2020; SWR 2020). Unfortunately, the observed injustices in the food system are prevalent globally. POLLAN (2020) describes very similar conditions in the United States, MALET (2018) on Chinese tomato plantations, while Spain and Italy are also known for struggling with large scale issues of exploitation of harvest workers (LÜNENSCHLOSS & ZIMMERMANN 2019). Subordinating and treating harvest workers as disposable and replaceable entities of the supply chain maximally contradicts the notion of making kin. As TSING very poignantly points out, supply chains "illuminate something very important about capitalism today: Amassing wealth is possible without rationalizing labor and raw materials" (TSING 2015:62). And this is one of the main contributors to the injustices observed in food production supply chains—as elsewhere within today's capitalist accumulation processes. Those who pick the asparagus and other critters are treated as infinite, replaceable resources (IBID.; BEJAN 2020).

"capitalism is a system for concentrating wealth, which makes possible new investments, which further concentrates wealth. This process is accumulation." (Tsing 2015:62)

The soil, which is exploited to a maximum, is also treated as infinite resource, leading to its quick demise and tearing down myriads of life-forms with it—eventually also humans' (BBC 2020). Today's financial capitalism also shapes the definition of justice. It seems to lever or undermine RAWLS' 'veil of ignorance' by turning precarity into a commodity. The documentary by LÜNENSCHLOSS & ZIMMERMANN (2019) shows (male) migrant workers from northern African countries in Italy, standing at the side of the road at dawn, ready to sell their bodies. They wait for farmers to drive by and choose the cheapest and strongest man to employ for the day. Daily employment often means no responsibility for employers and no response-ability for mistreated employees. The precarious circle is kept alive and profited from by the farmers. A comparable situation occurred with Romanian harvest workers in March 2020. The Romanian government had to admit that there was no safety net for jobless harvest workers affected by the crisis and hence agreed to their airlift to Germany (CAROLL ET AL. 2020; ROGOZANU & GABOR 2020).

→ Who are in turn pressured by supermarkets with hegemonial power, such as the German five Lidl, Aldi, Schwarz Gruppe, REWE and EDEKA that have 80% market power (Lünenschloss & Zimmermann 2019).

See P.140 and P.174

→ Hypothesis 5
See P.44

Romania, in other words, sold their harvest workers' bodies to Germany in order to avoid a massive social earthquake, despite prevalent health risks due to COVID-19 and knowledge about the precarious working conditions awaiting the workers. As an EU country, one assumes it would be in collective interest to augment the socio-economic status of Romania in the long-run. The conditions under which Romanian harvest workers are employed in Germany, however, make the integrity and altruistic intensions of this kind of top-down 'aid' questionable. Particularly the fact that seasonal work permits regulate the exemption of temporary work forces from German social security and health care systems, enforces this doubt. In addition, the political choice of risking harvest workers' lives in order to save the harvest in Germany makes explicit a shocking morale with regard to work forces from abroad, in comparison to locals (BEJAN 2020). The injustice in this whole process is that the harvest workers who rely on the German income to survive the year have no choice but to go.

What really surfaced is how these precarious circumstances are and have been kept from public by means of blackboxing. To say it with Thunberg et al. (2020b): "Our democracy is completely dependent on citizens being informed about issues that concern them, and it's quite disturbing—to say the least—that this is not being accurately reported on."

Another example that has made the social gap explicit is the COVID-19 Tönnies scandal. The meat wholesaler employs mainly eastern Europeans, because, as a company spokesman stated: "we cannot find Germans to work for us" (THE ECONOMIST GROUP LIMITED 2020). He added that it is not "pleasant work" (IBID.). Although exploitative relations may have been known prior to COVID-19, the details that have surfaced recently about the working conditions are shocking and new to a great extent. Subcontractors recruiting workers in Poland, Romania and Bulgaria are reported to "charge [workers] for knives, boots and other equipment. They also make them pay for board (in a squalid room shared with half a dozen others) and transport from their home countries" (IBID.). The minimum wage of €9.35 per hour is often paid only for the forty contracted hours, while "sixty-hour weeks are the norm" (IBID.). A new law draft now prohibits the employment of contract workers. Apologetically, Mr. Tönnies promised to employ the workers directly, however, after the law change was communicated, it became public that Tönnies had registered 15 new subsidiary firms that same day. Critics assume this move was an attempt to bypass the new law, which exempts small companies with less than 50 employees (IBID.).

→ = See P.118

→ Hypothesis 4
See P.44

[2.2.1] SOCIAL JUSTICE

→ See also:

Holmes (2013) Fresh Fruit Broken Bodies

Thompson (2017) Chasing the Harvest

Tsing (2015) The Mushroom at the End of the World

Rijken & de Lange (2018) Towards a Decent Labour Market for Low-Waged Migrant Workers

→ 'convenience food'
See P.29

Urbanist and philosopher IRIS MARION YOUNG "define[d] justice as the absence of forms of domination (exploitation, marginalization, powerlessness, cultural imperialism, and violence)" (FAINSTEIN 2014:5), as one of the first scholars to explicitly address the topic. These structural forms of domination have been shown to originate on a political level, shaped strongly by very particular interests (lobbies, economies, capitalism). All of the forms YOUNG names can be observed in the food production industry, as several authors have made explicit in the past and recently (BEJAN 2020; JACOBS 2020A & 2020B; LEITLEIN 2020; POLLAN 2020). Many of these historically situated inequalities are still present today—for example in the actions inhibiting migrant harvest workers from making kin with the surroundings they work in, breaking ties and capacities to "care for generation across generations" (HARAWAY 2019). Alienation has several layers to it: one is the already described (physical) fencing of workers from the surroundings; another is the continual increase in distance between production and consumption of food. The more convenience food is sold in the city, the weaker the bond to where it comes from (INTERVIEW S.). In TSING'S (2015) case, the matsutake pickers in the U.S. and Canada are at a maximal geographic and social distance from where and to whom the luxurious mushroom is sold. Likewise, consumers are completely excluded from the processes of picking, negotiating, selling, sorting and preparing of the mushrooms, that precede their sale in Japan.

The urban can be considered a site of hidden (re)production of these inequalities and alienation. As HEYNEN ET AL. (2006:10) write, "cities seem to hold the promise of emancipation and freedom whilst skilfully mastering the whip of repression and domination." They describe that this discrepancy is one of the results of a capitalist urbanisation process. The continuous encroachment on so-called 'nature' and its appropriation produces unequal landscapes of urbanisation and ecology. Powerful individuals and groups tend to be enabled through urban environmental transformations, while marginalised individuals and groups tend to suffer disempowerment (IBID.). Regarding today's capitalist urbanisation and the concomitant socio-ecological changes, reveals an inherent contradiction between that which produces these changes and that which is produced by these changes: namely socio-ecological inequalities (IBID.).

In the justice literature reviewed, I was quite surprised to find mainly privileged, white, male voices shaping the discourse (FAINSTEIN 2014), which ultimately is both ironic and tragic. If those who are least affected by injustices of all kinds stipulate their frameworks, what does that say about the frameworks? Of course, as already mentioned, I am by no means exempt from this, as I, too, am writing from a privileged white female perspective. Even among female scholars who write about justice, most are white and privileged. What role do the thoughts that think thoughts—alluding to HARAWAY (2016)—play in this context and is this a limitation of the notion of *becoming with*? Does the disability to immerse and empathise fully with inequalities experienced by some, mark the limit of the principle of kinship? Or does making kin work here precisely because hierarchies are trespassed and care is understood as a collective act from within? While YOUNG (1990) was one of the first women to write about justice, feminist scholars, such as ANNA TSING, ANGELIKA FITZ, ELKE KRASNY, PATRICIA ALLEN, NANCY FRASER, JOAN TRONTO, MARÍA PUIG DE LA BELLACASA (AMONG OTHERS) have increasingly been writing about social (in)justices related to food, care, soil, urban (re-)production and other related processes recently. Although it is fantastic that the female perspective is gaining academic space and attention, many perspectives, such as those of black, indigenous and people of colour, LGBTQIA+ and those from regions such as the Global South, Eastern Europe, Asia, among others remain underrepresented in literature.

Justice as a concept has been an integral part of political philosophy since Plato (CONNOLLY & STEIL 2009). It became a more prominent part of urban discourse and scholarship after HENRI LEFEBVRE introduced his relational reading and understanding of space, in which it is no longer viewed merely as a container, but as produced in dynamic social processes (LEFEBVRE 1991[1974]). The two contemporary Marxist thinkers, HARVEY and CASTELLS, both continued developing notions of justice in relation to the city and identified that action is required for the city to become more just. To date, however, neither of them have proposed or defined criteria for justice (FAINSTEIN 2014). This seems to be a challenge faced by numerous: "many of these works assumed a normative standard of justice against which public actions were measured but did not usually make this standard explicit." (IBID.:2; CONNOLLY & STEIL 2009).

So what? Reviewing the literature on social justice reveals precisely what FAINSTEIN (2014), CONNOLLY AND STEIL (2009) carp, namely, a certain difficulty or reluctancy to really define this term. Maybe this is because *de*-finitions, etymologically speaking, have something very finite about them and social justice is a notion that is constantly being reconstituted? I mean this in the sense that social justice could be considered a situated, yet malleable concept, depending on the viewer's perspective. Being a white privileged woman myself makes it impossible for me to fully grasp the inequalities that I am writing about in a bodily sense. I can decide, based on a set of normative values (which are, of course, coined by my Western upbringing), whether I

find something unjust or not. But I cannot really fully empathise with those who experience injustice firsthand. And, on that note, citing, too, is political. What sources do I have access to? What sources appear in my searches? To extend this: it matters what thoughts write algorithms, and with growing independence of these machines, what algorithms write algorithms? How do these (re)produce realities and social inequalities?

→ I can try to read into this from different perspectives and to hear different voices on it, to better understand the dimensions of injustice encountered by many different groups.

SETH HOLMES (2013), anthropologist and physician, describes this dissonance of empathy in his time spent with Oaxacan migrant workers on farms in the United States. No matter how much time one spends in a particular context, even doing the same harvest work, there are social categories and hierarchies inscribed in and attributed to bodies (whether implicit or explicit) that cannot be overcome. He writes that his body was "treated as an equal, a friend, even a superior, while the Oaxacans were treated most often as inferiors, sometimes as animals, or machines" (HOLMES 2013:36). This is a reality that I must reflect in my current endeavour. Even though I may find a notion of social justice that I can work with and relate to kinship and other theories in my framework, I am always going to be thinking, speaking, observing, living, experiencing everything from my white female body—which may or may not evoke certain behaviour in other people without this being my intention.

Although there have been several attempts of pegging down parametres to make justice tangible, I find that most have settled for vague notions such as

> "[u]nderstanding justice requires not only engaging with the dialectical relationship between social and economic conditions, but also with the spatial implications of that relationship" (CONNOLLY AND STEIL 2009:6).

What relationship and spatial implications are meant here exactly, remains unknown. This sort of vagueness makes it quite difficult to grasp the concept and thus to reflect on it critically. In the endeavour to relate social justice to the food question, I thus turn to PATRICIA ALLEN (2008) who has focused on social justice in the food context. She adopts the definition of social justice that BASOK, ILCAN AND NOONAN develop:

> "we mean an equitable distribution of fundamental resources and respect for human dignity and diversity, such that no minority group's life interests and struggles are undermined and that forms of political interaction enable all groups to voice their concerns for change." (BASOK ET AL. 2006:267)

This notion, compared to others, pins down key points that could compose social justice. Of course, certain aspects still remain vague, such as what 'fundamental' is or how to measure equitable distribution. Nevertheless, I would like to work with this definition. In my understanding of social justice, respect of and for human dignity and diversity play a central role. Regarding agriculture in particular, HARAWAY (2016; 2019) mentions its historical situatedness within patterns of colonialism, labour displacement, slavery and exploitative capitalist structures. She sees these as at the root of the loss of the sense of belonging and of relations of caring for and with the plants one works with (HARAWAY 2019). From this notion, as mentioned earlier, she derives the term Plantationocene; directly linking the social injustices prevalent in—determinant even of—agriculture today. The current example of Germany importing harvest workers for a season and then exporting them with all of the bodily and psychological fissures, handing over the responsibility to the 'homeland', indifferent to possible shortcomings and lack of response-ability, underlines that migrant workers are seen as disposable (BEJAN 2020). Although many harvest workers are said to return to German farms every year, the local farmers do not seem to make kin with them. Keeping these employees at an emotional distance makes it easier to defer their maintenance and care (NEBEKER 2020).

The surfacing of the dimensions of this unjust treatment of migrant workers during the current pandemic is a central reason why I am affected by and hence writing about this particular topic. I feel responsible and, turning once again to HARAWAY (2016), more response-*able* now, having related, rethought, rekindled—yes—*made kin* with these stories and realities that we can no longer not know. At the same time I feel restrained, paralysed and response-*unable* because I understand much better how complex this trouble is. In this moment, though, I feel that I finally understand what HARAWAY (2016:12) means when she writes it matters "what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties". It is all about the position, whether within or without, of the thoughts, descriptions and ties, that think, describe and tie. Approaching this topic with feminist theories changes how I think these thoughts—challenging structural inequalities and the effects of anthropocentric behaviour on multispecies entanglements within food production. Approaching it with an ethnographic methodology changes how I describe the descriptions, as I am a part of every step of my research. During the process of untangling these theories, I untangle myself: I start thinking differently about myself as a human (even questioning to what extent I am), as a critter in a multispecies world, and so my approach changes from the outside (as a consumer) to within (a

kin-thinker and asparagus harvester). It is a process; changing the way one thinks is not an easy endeavour. I notice that sometimes my thoughts slip up; that I am inconsistent—this is also part of the process and I embrace it, accepting; *becoming with*.

The response-*ability* I mentioned and that HARAWAY cleverly plays with, is also inscribed in TRONTO'S (2019) notion of *caring with*. I am much more prone to recognise needs, take responsibility and to participate in care giving from within now that I see myself as a co-producer of the injustice. When HOLMES (2013:33) writes that "poverty, violence, and embodied suffering are central experiences of [Oaxans'] lives" and describes that this unjust—inhuman even—treatment is taken for granted by them in a sort of submissive acceptance of their "position in the world" (IBID.:39), I am left awestruck that this is a system that I co-produce. What I want to elucidate by giving insights into my affection is that *becoming with* is a process that involves the whole body and maybe, in a split second of spirituality, even the soul.

I would like to take these different layers, dimensions and constellations discussed until now to extend BASOK, ILCAN AND NOONAN'S (2006) definition of social justice to work with:

> I understand social justice, then, as the state in which humans and nonhumans of all races, genders, colours and minority groups are treated as equal participants and co-producers of a system in which each life-form is, in a homeostatic orchestra, responsible for constituting habitable conditions on earth together. This implies the equitable distribution of fundamental resources among all life-forms, respect for the dignity and diversity of all critters and encouraging kinship between different species. It also implies caring for and with each one, understanding multispecies as entangled in obligate mutualisms that produce, maintain, repair and sustain life . Social justice can thus be seen as a state of homeostasis among humans and nonhumans, free of exploitations and the like, in which none dominates the other.

Rather than seeing this as a *de*-finition, I would like to use this assemblage of notions as a malleable framework to think thoughts with. In that sense, it is ever-changing, just like the patterns that constitute it. In so doing, social justice occupies a significant but not the central role in my work. The components of this assemblage, however, serve as a helping concept to think and identify disruptions and labour related discussions, particularly made visible through the media in light of COVID-19. In the next section, I aim to apply this thought to the discourse on food production and access to food, namely food justice.

[2.2.2] FOOD JUSTICE

The current COVID-19-related reporting, exposing precarious employment and living conditions in the food sector, combined with the 2020 FAO report, laying bare rising numbers of hunger in the world, forms another level of analysis in the justice discussion. In the previous section, I attempted to pinpoint constituting elements of social justice, inspired by theoretical notions, purposely avoiding the term 'definition', because of its implicit seclusiveness. In this section, I now aim to take a closer look at food justice and explore what this dimension might entail.

Food justice is a term that has been declined, interpreted and researched in various ways. This breadth makes it very difficult to touch upon merely some points. I will thus focus only on food justice from a socio-ecological perspective. As critical human geographer MELANIE BEDORE (2010:1422) states in her review of just food systems, it is a broad term encompassing "many practical and conceptual ideas about an ideal food system." While it remains unclear what is meant by 'ideal food system', it is likely to refer to equal access to and distribution of healthy food (FAO ET AL. 2020). Within the urban context, HEYNEN ET AL. (2006) have shown that

> "environmental and social changes co-determine each other. Processes of socio-environmental metabolic circulation transform both social and physical environments and produce social and physical milieus (such as cities) with new and distinct qualities" HEYNEN ET AL. (2006:11).

Regarding food justice as embedded in such metabolic processes, means to understand it as deeply entangled with environmental justice. Inherent to this understanding is the notion that socio-ecological changes but also food justice produce and are produced by urban spaces. It is thus no surprise, that food justice debates stretch from land grabbing, racial and power relations to ecological questions, health-related questions, questions of accessibility and to alternative food systems (BEDORE 2010).

Food justice is intricately linked to food security and food sovereignty. The FAO dedicates the 2020 report to the state of food security and nutrition in the world, focusing particularly on the 2030 agenda goal of eliminating global hunger. I am an advocate of striving for the equitable distribution of and access to resources in all sectors, particularly the food sector. As it turns out in practice, however, this is a challenging endeavour, particular-

Food security: "Adequate access to food in both quality and quantity" (FAO et al. 2020:19)

Dimensions food security: "the ability to access food, the availability of supplies and the livelihoods of rural communities, along with the production chains that ensure the distribution of food." (ibid.:8)

Food sovereignty: "begins precisely with noting the asymmetry of power in the [...] the various spheres of power involved in food [...]. It calls for democratic states to balance these inequalities, and it considers food to be more than a mere commodity." Furthermore, "it is clearly focused primarily on small-scale agriculture of a non-industrial nature, preferably organic, mainly using the concept of agro-ecology." (Gordillo and Méndez Jerónimo 2013:vi)

→ For my elaboration on social justice see P.64

ly in the city. In the aim to create an international framework and guideline for different global goals, such as food justice in its broadest sense, the UN has formulated Sustainable Development Goals (SDG). The commitment of different nations to these goals should supposedly make them more attainable in a collective venture (UN 2015). The current pandemic, however, has caused extensive setbacks in reaching the 2030 goals. Food injustices have become particularly visible in urban areas in the pandemic; with shortages hitting those that cannot afford to panic buy the hardest (POLLAN 2020). The FAO reports that we are off track of reaching SDG 2, zero hunger by 2030, due to the unpredictability and insecurities linked to COVID-19.

The SDGs are strongly interrelated and complement one another. Although the FAO report focuses particularly on SDG 2, it also mentions other SDGs (see below) that are linked to achieving this goal. Each SDG is composed of more detailed targets. Apart from ending hunger by 2030, SDG 2.3 includes the target of

> "doubl[ing] the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment" (UN 2015).

The icons for the six SDGs that the FAO writes about in relation to food security and justice.

(FAO et al. 2020). Icons: un.org

This is interesting considering the question at hand, on multiple levels. For one, it is quite obviously focusing on food justice in terms of strengthening minorities and people who might be more prone to inequalities. It also targets 'secure and equal access to land', something that I will not be going into in depth, but that has, in the history of urban-rural relations, been very controversial.

While land-grab is still very topical today, colonialism and the emergence of financial capitalism in Europe have histories of expropriation and denying access to land (SOLIDARITY FEDERATION 2012). SDG target 2.3 promotes making non-genetic kin in HARAWAY'S sense, . Indeed, it seems that the UN takes on a position from within, very much in favour of a paradigmatic shift. Targets 2.4 and 2.5 focus more deeply on sustainable food production, maintaining ecosystems and diversity "of seeds, cultivated plants and farmed and domesticated animals and their related wild species" (UN 2015). Questioning food justice in an urban context thus also raises questions of infrastructural equalities and right to the city. Who can take part in the urban metabolism and who is excluded? Why? "In other words, environmental transformations are not independent of class, gender, ethnicity, or other power struggles" (HEYNEN ET AL. 2006:10).

Nutrition on both a caloric and ecological level, forms an important part of the question of how we feed the city. As the FAO writes, it is not only about the access to food, but to healthy and nutritious food over a long period of time. What we eat not only has planetary effects on the climate, but can cause or prevent illnesses such as malnutrition and obesity (FAO ET AL. 2020). The increase in the latter is due to rising sugar, starch, fats and salt based diets, and the fact that it has never been cheaper to consume so many calories (HEYNEN ET AL. 2012). The increase in consumption of these kinds of foods is also correlated with lifestyle trends of convenience foods and economic reasons:

> "To increase the affordability of healthy diets, the cost of nutritious foods must come down. The cost drivers of these diets are seen throughout the food supply chain, within the food environment, and in the political economy that shapes trade, public expenditure and investment policies. Tackling these cost drivers will require large transformations in foodsystems with no one-size-fits-all solution and different trade-offs and synergies for countries" (FAO ET AL. 2020:XVII).

This raises many questions of infrastructural, ecological and food justice: How come we can transport (by ship, airplanes, trucks, trains) perishable foods across the globe, but cannot guarantee access to sustainably sourced, healthy and nutritious diets for everyone? It calls for a systemic and paradigmatic transformation including entangled political, economic and social dimensions. What politics make food policies? When does social justice turn into social responsibility? When do matters of concern turn into matters of care? How response-able are we in this huge food supply chain? To what extent is our (situated in Germany, now) wealth dependent on these injustices and how can and must we rethink the system, in order to change this? In short: who and what has the the right to the urban metabolism and for how long? (DEL CASINO JR. 2015:802)

The final link I would like to make is to food sovereignty. The commodification of food, coupled with neoliberal policies, have given rise to large global corporations that play determining roles in setting prices, driving demand and controlling markets. Although these systems have created extensive infrastructural expansions, their hegemonial power leads to "corresponding loss of power and agency for both producers and consumers" (HEYNEN ET AL. 2012:307). Food security and food sovereignty thus sometimes contradict one-another. While advocates of the prior might be considered oblivious to structures constituting it, food security can indirectly lead to a loss of the food sovereignty, which, in turn, can destabilise the whole system.

As mentioned earlier, oligopolies of supermarkets, monopolies of crop producers, of water extractors and many more...

> "Food sovereignty movements work to forge stronger links and break down barriers between producers and consumers, and advocate for returning power and agency within the food system to producers and consumers" (IBID.).

This, in turn, may imply a different level of (felt) food security. The framework of food justice will accompany the research process, particularly in terms of production of urban space and the politics making policies in the food industry in Germany.

[2.2.3] STAYING WITH THE TROUBLE: FEEDING CITIES

Within the framework of *becoming with*, I deliberately ask “how do *we* feed the city”. As I have attempted to show with the different theoretical frameworks, ‘we’ means human and nonhuman entanglements; an active engagement of different zones and critters. With this position I imply that feeding the city is not a solely human endeavour, tying the topic into contemporary debates about multispecies production, *caring with* and *becoming with* the earth’s damaged zones (HARAWAY 2016; LATOUR & WEIBEL 2020; TRONTO 2019; TSING 2015). But how, then, do we stay with these anthropogenic, capitalist ruins and troubles we are faced with? How do we deal with the legacy and responsibility of “whether we asked for it or not, the pattern is in our hands.”? (HARAWAY 2016:34). By using the metaphor *in our hands*, Haraway stresses the physicality of “response-ability; that is collective knowing and doing, an ecology of practices” (IBID.) necessary to deal with the challenges. She appeals to collective knowing and doing in the sense of making kin, engaging with and also taking responsibility or caring for and with the patterns; a notion which I adopt and adapt. I would like to think of the strings of food production in terms of being “in everyone’s hands” and thus impose a collective responsibility and response-ability with all involved critters, for keeping its pattern ‘ongoing’. This implies kinship; making kin with food production; making kin with the processes we are both surrounded by and a part of; becoming with and not going against the earth. Cultivating kinship and cultivating together for the epochs to come, allowing the earth to replenish itself while embracing the heritage or troubles we are presented with, is thus one of my intensions by asking ‘how do *we*’ in the overarching question—particularly in face of looming climate change.

> **Cities are a locus for struggles over the ability for historically marginalized groups to feed themselves.**
>
> **—Joshua Sbicca (2014:817)**

Maybe the asparagus is Germans' favourite vegetable because of its phallic shape—I mean it's like the embodiment of patriarchy.

—Conversation on asparagus field (02.05.2020)

[3]

ASPARAGUS ASSEMBLAGE

[3] BEING HERE AND THERE

We are in trouble. I have outlined with several scholars what trouble I mean, in terms of exploitation of the earth and social injustices relating to food production and access, in the second chapter. But so what? Returning to the paradigmatic shift that involves approaching and thinking *change* from within, as opposed to externalising humans from these processes, I now come to the empirical part of my research. I regard this research process as a translation of the notion of *becoming with* into practice, as I became a part of it and my surroundings in many senses. The endeavour of *following the thing* (Marcus 1995) provided me with multiple perspectives that enabled me to see past the usual 'consumer' point of view. In fact, following the asparagus led me right into the field, onto the field. Becoming part of the harvest process tied me into multiple phases, layers and moments of this vegetable's *becoming*—and as these became visible to me, I became more and more with it. One example might be that COVID-19 made it possible to harvest asparagus myself, a practice that was key in realising what making kin with the earth, the surroundings, the other people really means—and that I would normally have been excluded from. In a strangely entangled way, then, I became with and through the virus.

On a side note: the virus actually made kin in numerous ways. Neighbours made kin with each other, forming new constellations of support; hotels made kin with homeless people, offering shelter; ... In a way, then, the virus opened new windows of kin-opportunity by forcing humans and nonhumans to form new entanglements within a given crisis.

The farmers who reacted quickly to the reduced availability of harvest workers this season and decided to lease the asparagus fields to lay(wo)men, indirectly translated the asparagus as a commodity of capitalist production to a product with a different worth. My interview and harvest partner M. was overwhelmed with the amount of asparagus she took home every week and was thus challenged to rethink its redistribution. Not only did she build up, make kin with a network of people who readily accepted the asparagus. But with this network, she undermined the normal distribution channels such as supermarkets, farmers' markets, strawberry huts, etc. In the moment of gifting, this commodity turns into an expression of one's worth, measured in time needed to harvest and clean it, and physical bodily engagement. In exchange, she was often gifted wine or other food, creating a small bubble of care centred around the asparagus.

Like M., I experienced a transformation in the process of my research, from the position of 'asparagus consumer', to something like an asparagus-philiac; co-*becomer*; accomplice. *Becoming with*, as I found, involves a great deal of realisations and revelations. It requires a continuous caring with, which in turn requires knowledge and empathy, in the German sense of '*be*-greifen'. My body played a large role in this process, as I will elaborate on in this chapter. Embodiment is, to me, a key component of *becoming with*. More precisely, internalising the processes involved in agriculture (sowing, maintaining, caring for and with) and becoming a part of these and my surroundings took on a very corporal dimension in the practice of harvesting. The body turns out to have manifold dimensions; not only the asparagus has a body, but there is also a political body, an economic body, a body of infrastructures; a body of soil. Different bodies play a role in the asparagus harvest and, more broadly, in feeding cities. After following the asparagus around Hamburg, I realised that it started following me. It came home with me after every day of research. It left imprints on my body; my fingers and back hurting. Its peel could eventually no longer be cooked into stock, so it filled the compost, overflowing. Eventually, we started merging. People began addressing me on the markets close to home as 'the asparagus lady'. The asparagus, thus, also became with me.

In this part of the book and research, I zoom in on the asparagus and attempt to provide the reader with detailed accounts of my various experiences, making these tanglible and hopefully transmitting, at least in part, how my experience made me make kin. In diving in so closely and working with one particular vegetable, I aim to make visible the world that I observed, that surrounds me and to relate this to the bigger research endeavour. In Latour and Weibel's (2020) sense: I set up my observatory on the asparagus field.

[3.1] ASPARAGUS TALES

Average German per capita expenditure on food, drinks and tobacco per month in €.....380
Monthly share of disposable income spent on food, drinks and tobacco in 2019 in %.....14

Average German per capita consumption of asparagus per year in kg (2019).....1.7
Average price of 1kg of asparagus in Germany (2015-2018) in €.....7
Average price of 1kg of asparagus in German in 2020 in €.....11
Average revenue through asparagus sales in Germany in million € (2019).....845

Average German per capita consumption of meat per year in kg.....60
Of which is pork in kg.....40
Average price of 1kg of pork in Germany in 2020 in €.....7
Average price of 1kg of pork in Norway in 2020 in €.....10
Average price of 1kg of pork in Poland in 2020 in €.....4

Total German asparagus harvest yield in 2019 in thou. t.....131
German self-sufficiency rate of asparagus in %.....85.5
Total world wide asparagus harvest yield in thou. t.....9.110
Of which is produced in China in thou. t.....7.980

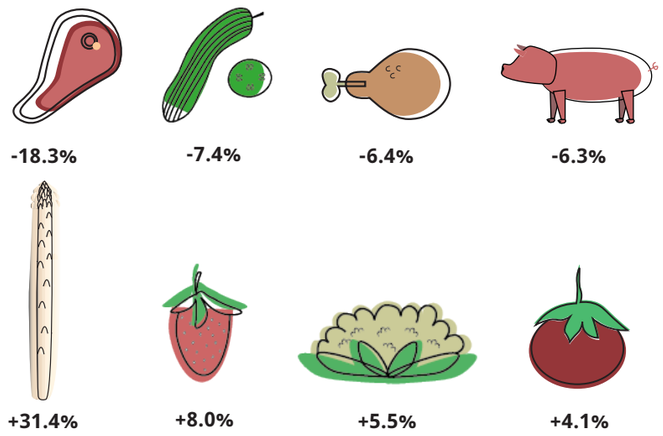
No. of German asparagus producers 2014 in farms.....2009
No. of German asparagus producers 2019 in farms.....1630
Acreage dedicated to growing asparagus 2014 in Germany in thou. ha.....20
Acreage dedicated to growing asparagus 2019 in Germany in thou. ha.....23

Total acreage dedicated to agricultural production in Germany in thou. ha (2019).....16.700
Total acreage dedicated to agricultural production in Germany in thou. ha (1950).....13.300
German asparagus yield per ha in t.....5.6

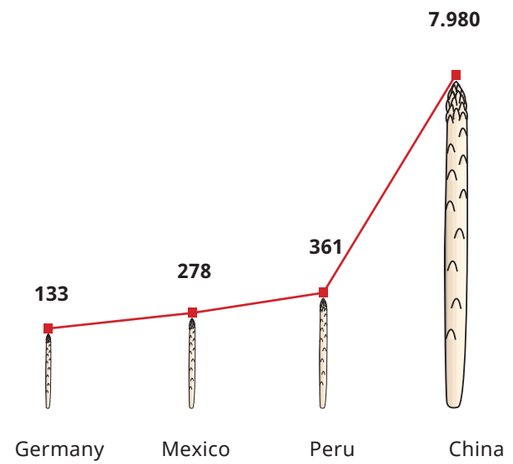
Estimated no. of harvest workers from abroad that work in Germany per year (2020).....300.000
Of which come from Romania in %.....66
Of which were missing in 2020 due to COVID-19 in %.....28

No. of sticks of asparagus harvested in Germany per year in bn.....22
No. of times that stacking the 22bn sticks would reach
from the earth to the moon, assuming an average length of 21 cm.....12
No. of times that stacking the 22bn sticks would reach
from the earth to the sun, assuming an average length of 21 cm.....1

Average changes in food prices in Germany between March and April 2020 (Covid-19 related)



Top four asparagus producers in the world (2018) in 1.000 t



Sources:
Bundesinformationszentrum Landwirtschaft (2020)
Bundesministerium für Ernährung und Landwirtschaft (2020)
Burger et al. (2020)
Fruchtportal.de (2019 & 2020)
destatis.de (2019 & 2020)
statista.com (2019 & 2020)
*All illustrations are own productions

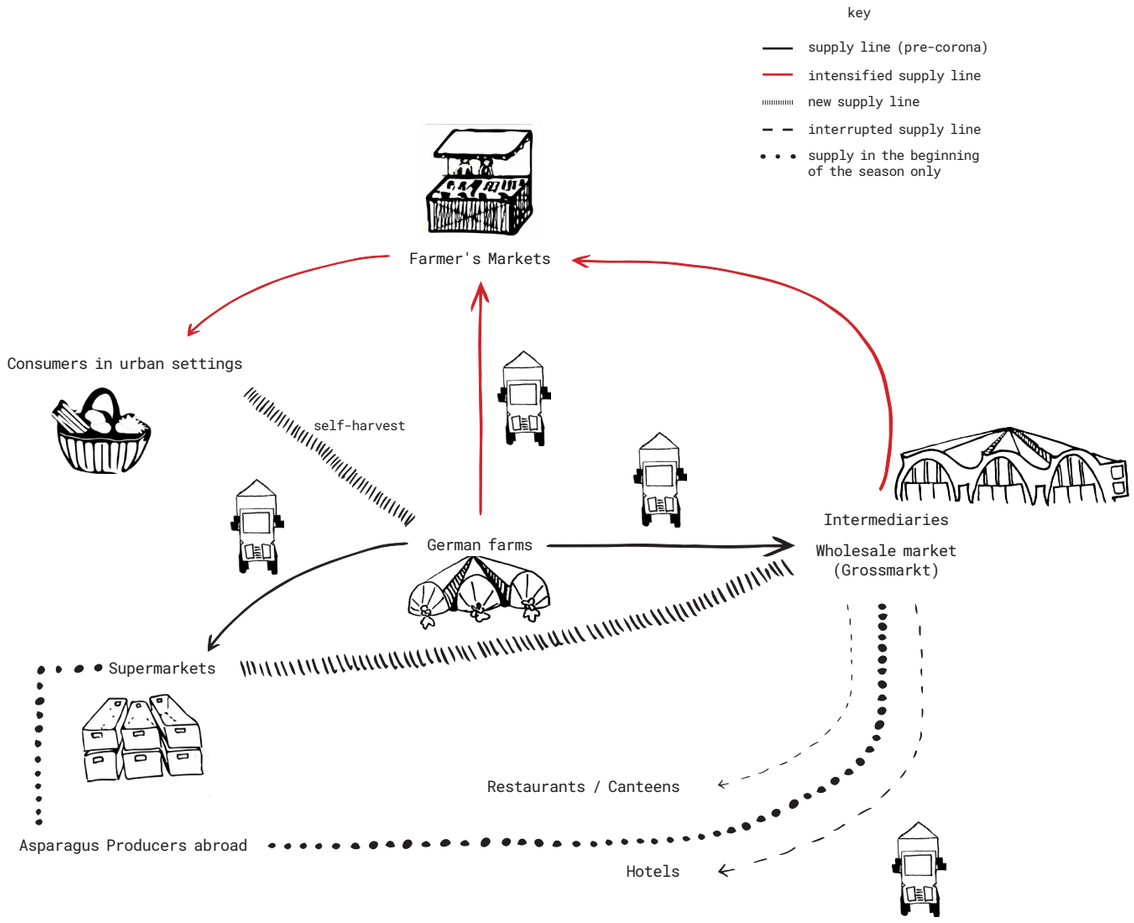
As these numbers show, the asparagus production and consumption in Germany is very high compared to other vegetables and other countries. No other vegetable in Germany is granted this amount of farmland and none other is sold for these prices. The asparagus is one of the most expensive vegetables, making it available only to an elite. It is largely unknown why exactly the asparagus has this very special position on the German menu, however, some tales assume that the appetite for this luxury good is driven by prestige (DIERIG 2016). Others describe another background: "The centuries-old associations between whiteness and purity are both aesthetic and racial" (MILLER 2020). Why is this hype created around the phallic vegetable, whose whiteness is said to have been bred and cultivated in Germany? "It is a German tradition; I don't know why" (SOMMER CITED AFTER HAIRSINE 2011) the German chef Thomas Sommer said in an interview. Asked why the white is better than the green, he answered "It is softer, it's lighter, it's not as heavy as the green one" (IBID.).

The high cultural value attributed to this vegetable also shows in the various ceremonies that are held related to it. Sometimes questionable with regard to the choice of terms to name these, different festivities accompany the season. The crowning of Asparagus Queens is common in many regions, just like the Queen of Wine is crowned yearly.

> "The festivals at which the Queen of Asparagus is crowned are sometimes called Volksfeste: literally, this means 'people's festivals,' but ever since the 1940s the word Volk, with its connotation of the nation as body, as pure community" (MILLER 2020).

Not diving too deeply into the etymology and history of Germany, it is astounding that festivities are held around a vegetable. Because of COVID-19, most of these were cancelled, together with the closing of most restaurants that feverishly await the asparagus season annually, in which the sprout is served in countless dishes, forms and flavours. Interestingly, because of the closings, many producers found new ways to distribute the asparagus this season. As the German Agrarmarkt Informations-Gesellschaft reports, the 2020 season was rated as much better than expected, exceeding even ratings of 2018 and 2019 (KOCH 2020). Due to the consistent weather, this year's harvest was not marked by high peaks, hence making it easier to keep supply continuous (IBID.).

Simplified Asparagus Distribution Channels



[3.2] FOLLOWING THE ASPARAGUS

We are troubled, we are part of the trouble, we are responsible and response-able. In this sense, I align myself with CHATTERTON (2010), who writes:

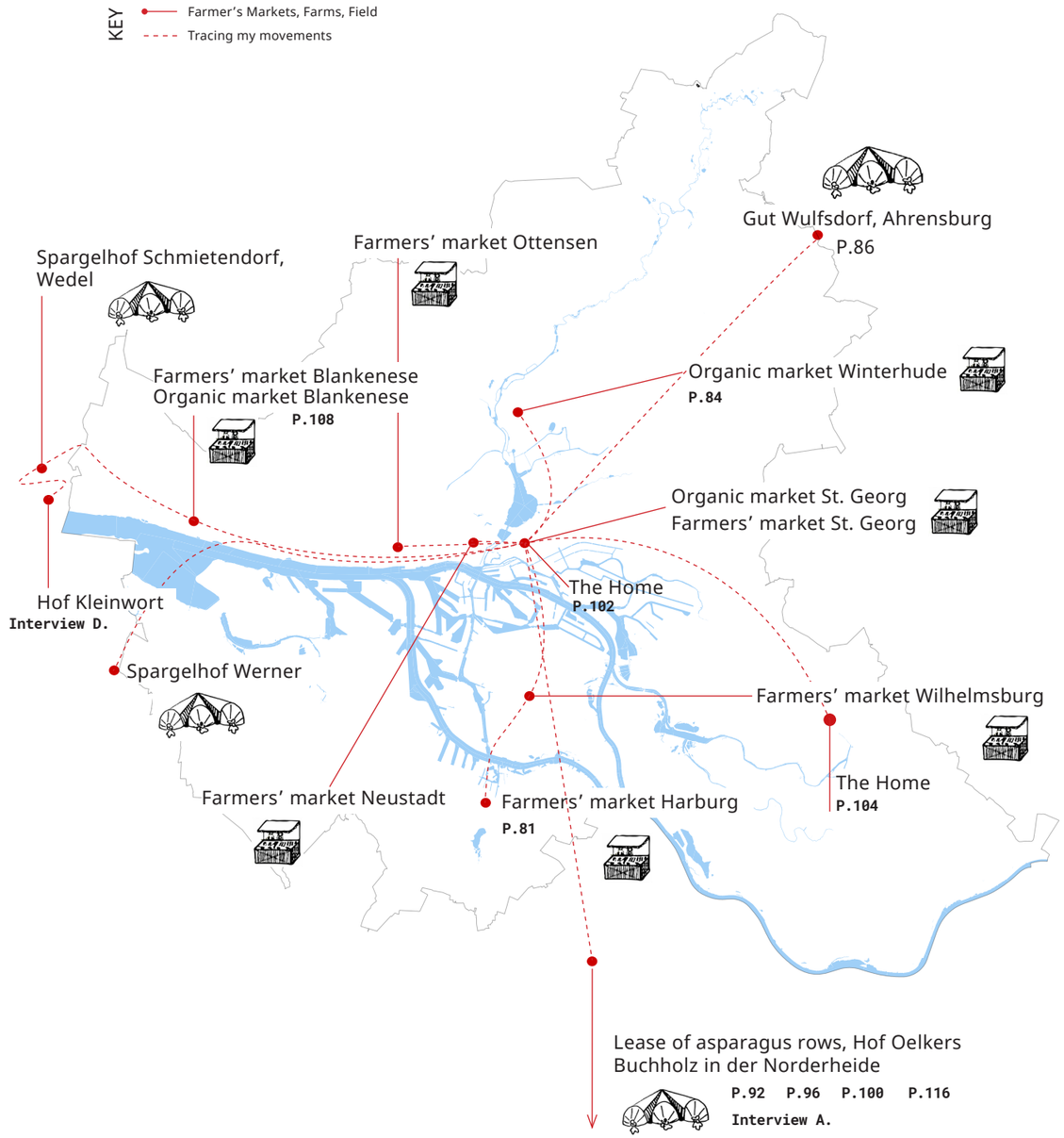
> "the task of the critical urbanist is to be an advocate for different and more just urban worlds, to set up processes that can create alternatives, make them seem feasible, doable and respectable, and make what we have now seem absurd or just downright unjust" (CHATTERTON 2010:236).

I strive to become an advocate for social and ecological justice, for thinking *with* and not *without* by unveiling and reconnecting, or even just calling out injustices. The asparagus is my vehicle in this venture: a vegetable that, as we have seen, embodies contradictions of capital and care, of social hierarchies. In order to become an advocate for these grievances, I have had to position myself; take sides. The latter, not only in terms of what literatures I use, but also in terms of what kind of research I do. I have chosen a multi-sited ethnographic approach that reflects and reciprocates the position I stand for.

→ See MTT7

Let me elaborate: this method was developed by MARCUS (1995) in the mid-1980s. This was a time, in which it was common to conduct single-sited ethnography. The 'new' quality of multi-sited ethnography was thus that it moved away from the single-site, to multiple sites of observation that "cross-cut dichotomies such as the 'local' and the 'global,' the 'lifeworld' and the 'system'" (IBID.:95). This is what I attempt through my embodied ethnographic exploration as well, by investigating the interconnection and sympoietic nature of my field (of research). Relevant also to my endeavour, MARCUS writes that "[s]trategies of quite literally following connections, associations, and putative relationships [...are] at the very heart of designing multi-sited ethnographic research" (IBID.:97). Following the asparagus around Hamburg disclosed different states, rhythms, rules, regulations and narratives related to the asparagus and on how cities are fed.

> **If methods are not innocent then they are also political. They help make realities. But the question is: which realities? Which do we want to help make more real, and which less real?**
>
> **—Law & Urry (2004:404) cited in Paula Hildebrandt (2014:73)**



I began the journey of following the asparagus in the middle of April, after about a month of insecurity regarding how to best act and react to the pandemic. I took my bike on trips to farmers' markets all over Hamburg. My bike turned out to be a very important accomplice, precisely because of the prevailing hygienic insecurities, as it bestowed me with freedom of movement—one that I had never appreciated in this way, and with constant fresh air—not to be underestimated regarding the virus' dissemination. Another constant companion became my mask, one that I did not grow to like particularly, but that brought with it a *caring with* attitude—one that gained momentum in my research and the world simultaneously. Interestingly, the mask also revealed invisible borders, which I will elaborate on in more detail.

The map on the left traces the routes I took, the places I searched for and got lost finding. I visited markets across the city, in an endeavour to find out more about this new medial popstar of a vegetable. The markets revealed rhythms and regularities that I will go into more detail in the thick descriptions to come; the farms were rather difficult to access, apart from when harvesting the asparagus—a very insightful undertaking. My field of study was in constant motion and change, new rules and regulations continually (re)forming it. Social distancing rules changed market structures, for instance, and long queues blocked the market-flow. Masks worked as very peculiar actors and had an astonishing effect on the production of space, as I will describe. I bought about 15kg of asparagus in the eight weeks of following; harvested a total of 90kg; spent from €22,90 to €5,90 on a kilo of the sprout; and surprisingly grew to like its taste.

As time passed, I observed changing prices, changing qualities and quantities of the asparagus. As I spoke to people on the markets, I was given new leads to follow, farms to visit, people to call. I found out that the asparagus is sold for less in Harburg, because "the asparagus is more price elastic here" (CONVERSATION ON MARKET, 24.04.20), whereas it is sold for more in Niendorf, where it is more price inelastic. Terms that came up every now and again to describe the phallic sticks were 'luxury', 'lifestyle' and 'trend-vegetable', suggesting that a certain social class might be particularly interested in it. Although mostly easy to access, the field was also challenging at times. Visiting the farms, for example, involved a great deal of trouble, as most farmers were uninviting, unkind and unwilling to give me any information on the current harvest situation. COVID-19 was used as an excuse on multiple occasions and I was sent away empty-handed.

[3.3] THICK DESCRIPTIONS

Where does the asparagus come from? Where does it go? Who is involved in its production and how does it find the consumers? By following the asparagus its assemblage became increasingly visible to me, exposing different actors that play an important role in food production. I would like to start this section with a thick description of the multi-sited field work, including several different elements and dimensions encountered in the process.

CLIFFORD GEERTZ wrote that ethnography is more about the interpretation than it is an issue of observation (GEERTZ 1973). According to him, the ethnographer is an interpreter or a reader of "a manuscript [...] written not in conventionalized graphs of sound but in transient examples of shaped behavior" (IBID.:10). Following the asparagus in this peculiar corona-time gave me insights into such a *manuscript* that I would not have had under other circumstances. Through thick descriptions I aim to make these manuscripts tangible to myself and my readers by conveying atmospheres, tones, smells and other sensory experiences. Harvesting my own asparagus, for example, has added a deep level of embodiment to my research. It has shaped my understanding of food production and contributed to the theme of making kin with our environment and hence the food that we grow through my body. It has also raised many questions of social and food justice. How is it possible to create more just supply chains if the capitalist market is so demanding and difficult to perforate? It also made me question my own attitude toward food because it showed me in a very bodily way how much food is actually worth.

See MTT7

I physically experienced how much effort goes into harvesting 1kg of asparagus. Although high prices for food may be more legitimate to me now, this raises the question: how can we grant more people access to healthy diets, if harvest is so labour and cost intensive? And finally regarding my overarching research question: What does the asparagus reveal about food provision of cities, if anything? The asparagus, in comparison to other vegetables, is peculiar on two levels. First, it does not feed the city. It consists mainly of water, so nobody gets and stays full from eating it. Second, it is extremely culturally loaded in Germany. The cultural value attributed to this delicate legume is accompanied by price-inelasticity and an excessively *care*-ful handling. This is contrasted by the *care*-less treatment of harvest workers. This vegetable marks the epitome of a systemic contradiction between capital and care: risking thousands of harvest workers' lives is preferred to losing the local harvest. A bitter after-taste remains: it seems that the asparagus' body is treated with more care than the bodies of harvest workers.

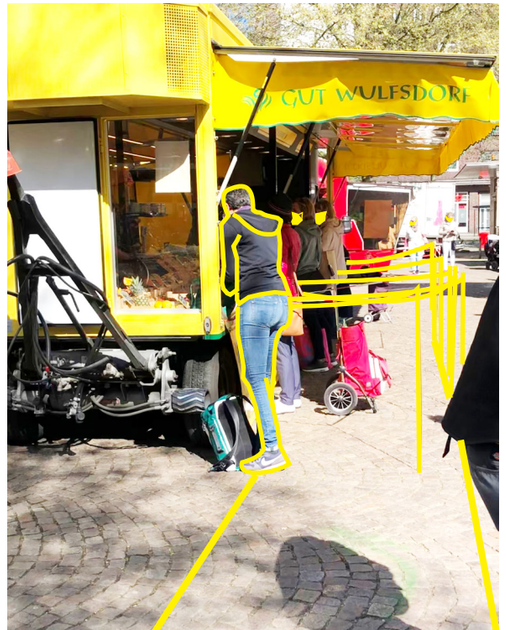
See P.58

[3.3.1] THE MARKET.

Place: Winterhude
Date: April 2020
Temperature: 24°C
Weather: sunny

Twelve people queue in a line stretching across the whole market, a large gap separates each one from the other. I hear a woman next to me sighing. She gets in line in front of me and raises her eyebrows at me. I smile back, but it remains invisible. Masks cover every face; but they do not hide the obviously affluent clientele of this organic market. Who shops here? Masks everywhere erase non-verbal communication almost entirely. Eyes are visible, but more concerned with observing the market than communicating. Those wearing glasses have patches of steam covering the glass from breathing under the mask. People stand in line in front of every market stall, nothing seems to happen for an eternity. It smells of grilled chicken from the booth across the road, the air is electrified, hectic and fearful almost. Our queue is regularly cut by visitors who do not identify it. Annoyed customers beckon to the end of the line—barely visible, it is so far away. The dispersion across the market is unusual, it cuts its natural flow. At one point, someone who quite obviously works here, asks our queue to move to the side to ensure the required distance for other market visitors. I move with the queue, like a wave across the space. As we move, everyone else moves out of our way quickly. I smile at the woman behind me —the queue meanwhile about 15 people long—but she does not see it; the mask. I turn back to the happenings on the market. The vegetable booth has separated slots in which each customer has to stand, guaranteeing the required distance. People struggle to point to the things they would like to buy. No-one is allowed to touch the vegetables, the people working at the stand are wearing medical gloves. It feels a little bit like a hospital or doctor's office. The slots slow the whole buying process down, as about half the space in front of the stall remains unoccupied.

In general, a feeling of caution lingers, manifesting itself in market visitors' movements around one another. Movements are brisk and quick, directional. There is little eye-contact, most people are concerned with keeping to the social distancing rules and hustling. The market is quieter than usual. There is little conversation among visitors. When people do meet, they stand far apart from one-another; the conversations are limited to health inquiries and a very prominent word is 'corona'. Many market visitors carry woven baskets in front of their bodies, most filled with vegetables; particularly the asparagus. After about 25 minutes it is my turn. I want to ask about the asparagus, where is it from? Does the market stand get it directly from the producer or from intermediaries? What about the missing harvest workers? After the third question, the woman becomes uncomfortable. "Do you want to buy some or not?" she asks in a sharp tone. Of course I do. €22,95 per



kilo. I have no choice but to take it. From my slot in line it was not possible to see the price. She hands me the bundled sticks and I hand her the money. "Debit card?" I take out my card, a strange feeling not to pay in cash at a market. As I move away she yells "visit our farm in Ahrensburg if you have so many questions!" The queue continues to grow, I thank her and feel the urge to move. The only people standing are those queuing. All other market visitors are moving. So I move. Watching the happenings as I walk, I almost crash into a lady. She yells at me to be careful—"DISTANCE!" I leave with my asparagus—the most expensive organic vegetable I have ever bought. I wonder what influence I had on the market, if any. Did I stand out because of my mound of questions? How did the market influence my behaviour?

On my way out, I see the Glantz strawberry hut selling asparagus and the first couple of strawberries on the other side of the road. The asparagus there costs €13,90 but is not organic. I talk to the lady briefly but she knows nothing about the asparagus, the employment conditions or the farm. She is employed temporarily on a €450 basis and is only responsible for selling it. As the next customer clears his throat impatiently, I bow out.

→ See P.108
ASPARAGUS IN COGNITO

[3.3.2] THE FARM.

Place: Ahrensburg

Date: April 2020

Temperature: 24°C

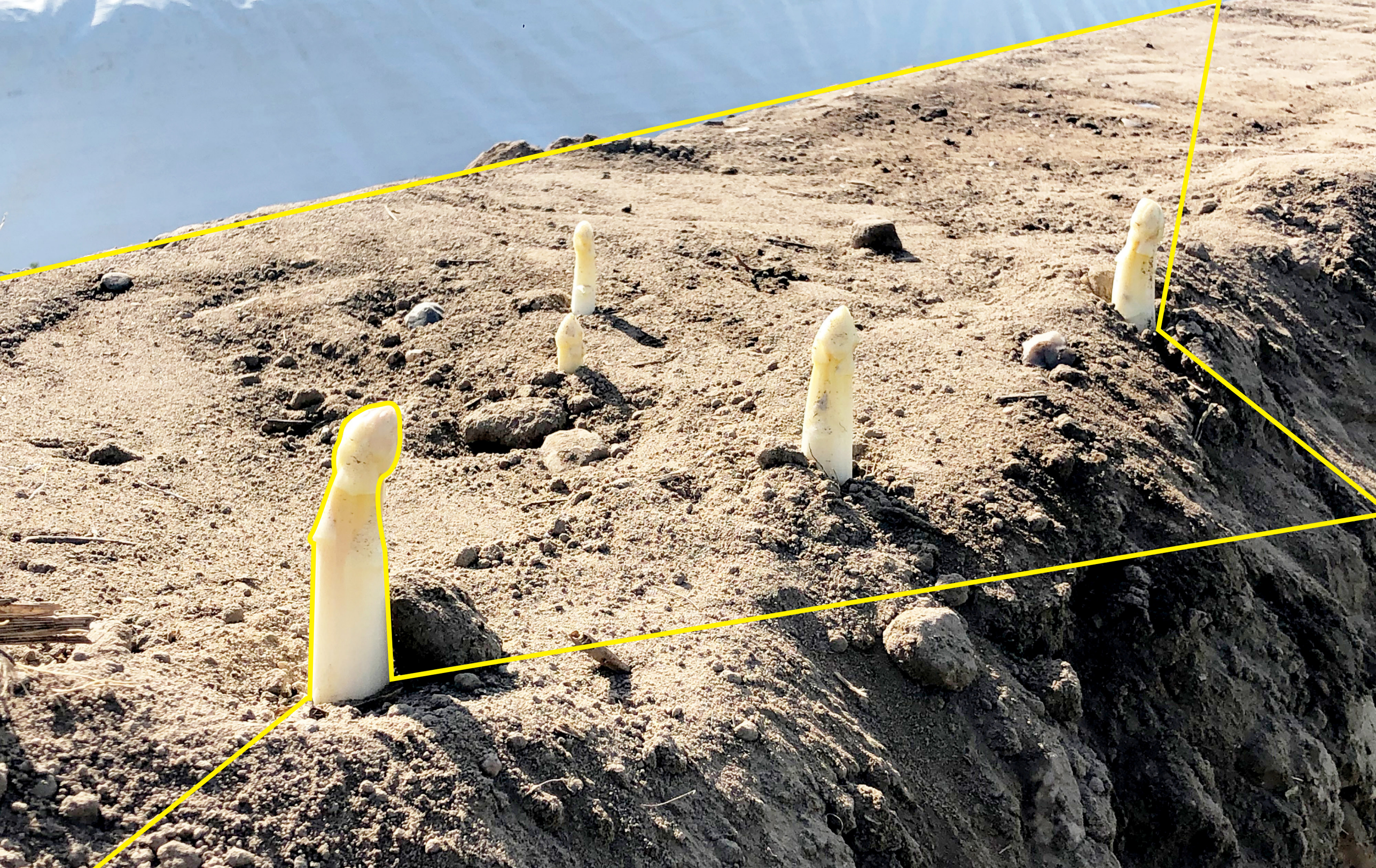
Weather: sunny/ cloudy

After an hour of cycling I arrive at Gut Wulfsdorf in Ahrensburg. Following the market seller's comment to visit the farm, I follow the asparagus to what turns out to be the only farm that grants me any access whatsoever to information, people and the fields in my research process. I am greeted by a strong smell of freshly mowed lawn, followed by an even stronger smell of manure. As I pass the stables, farm workers hustle by. They nod at me and I continue walking. Several buildings and stables stretch along the path on both sides. A big parking area disembogues in a farm shop the size of a small supermarket. It sells a surprisingly vast array of products, from hand creams to frozen foods and fresh vegetables. The fruit is not yet local, apart from the first strawberries, grown in the farm's green houses. The asparagus costs the same as on the market, it is today's harvest, an employee tells me. I ask where the asparagus is grown on the farm, but she does not know. I leave the farm shop and continue exploring the area. After some time I find the asparagus field, only a few sandy rows covered in black plastic tunnels. A huge hare jumps across the field and I see two brown rats. The asparagus rows are long—I cannot see the end. I hear voices as I walk along the row, but the people are very far away and I choose to return.

Finally, I meet Constantin. He is Romanian and works on the farm full-time. He is responsible for the asparagus and for all other vegetables and has been in Germany for 17 years. Back in the day, he tells me, he came as a seasonal harvest worker. Because he worked so well, the farmer asked him to stay. "It's helpful to speak the language of those people who help us with the harvest", he says. They only have a dozen helpers, though, because they employ many locals. He explains that they are one of the only organic farms in northern Germany producing a variety of old asparagus crops, which gives them a certain leverage in setting the prices. This also makes it possible to pay the employees more, he finishes. Constantin takes me into a high-tech shed. We enter a big fridge, where he shows me the different asparagus types: purple, green and two white species. The room temperature is 2 degrees. Just outside, he shows me what happens with freshly harvested asparagus. He opens a big cooling machine and places a box with fresh asparagus inside. Here the asparagus is shock-frosted to 2°C with cold water. He pushes the button and a loud roaring sound emerges. After about 3 minutes the asparagus is cooled and washed, then it is transferred into the cooler. He explains that the asparagus continues ripening if it is not shock-frosted. This way it stays fresh for about 5 days. As we speak, several Romanian farm workers come into the shed and ask Constantin questions. He speaks to them in Romanian in a calm voice, gesturing to the fields. He tells me that they currently only have Romanian men working on the farm.

The rough shed floor has traces of asparagus heads and other greens, cigarette butts that have been swept to the sides also catch my eye. Several machines embellish the space, a workbench alludes to the manual labour that takes place here. It is covered in papers, cups of dried coffee, a plate with remainders of what once was a red sauce and some worn caps. A handful of equipment identifiable as asparagus harvesting gear is visible on the back of a small van that is parked at the other end of the shed. The tires are covered in mud that is still moist from the morning. The smell is a pleasant mixture of fresh field air and grassy-mud. Constantin's boots are covered in mud and he wears his sunglasses on his forehead. He whistles as he swiftly but surely retrieves the delicate sprouts from the shock-cooling machine. I can tell that he cares about them by the way he picks a couple of sticks up and examines them. "These are true beauties" he says proudly. He tells me that the current prices are very high, because of the insecurities caused by the coronavirus. "Our harvest workers were already here, luckily!" he exclaims. The farm works with the same people for decades. Most of the workers come back every year and have become like family. He himself goes back to Romania once or twice a year, in the winter months when he has a short break, but he likes Germany a lot.

No-one wears a mask around the shed and the fields, but I see a bottle of sanitiser at the shed door. Constantin points to the bottle following my glance and laughs "corona". The changed regulations have not had a great impact on the fieldwork, he says. The farm workers usually work independently and are not too close to one another on the fields. Everyone wears the same boots and shorts full of pockets. Some are topless on this warm day, others wear a hat. Most are very tanned from spending time in the sun. The last two months have been very sunny. As they enter the shed they nod to other people inside, including me. I am identified as a stranger, which I notice from several curious looks. I leave the shed and the farm after an insightful tour and return to the field, to take one more look.



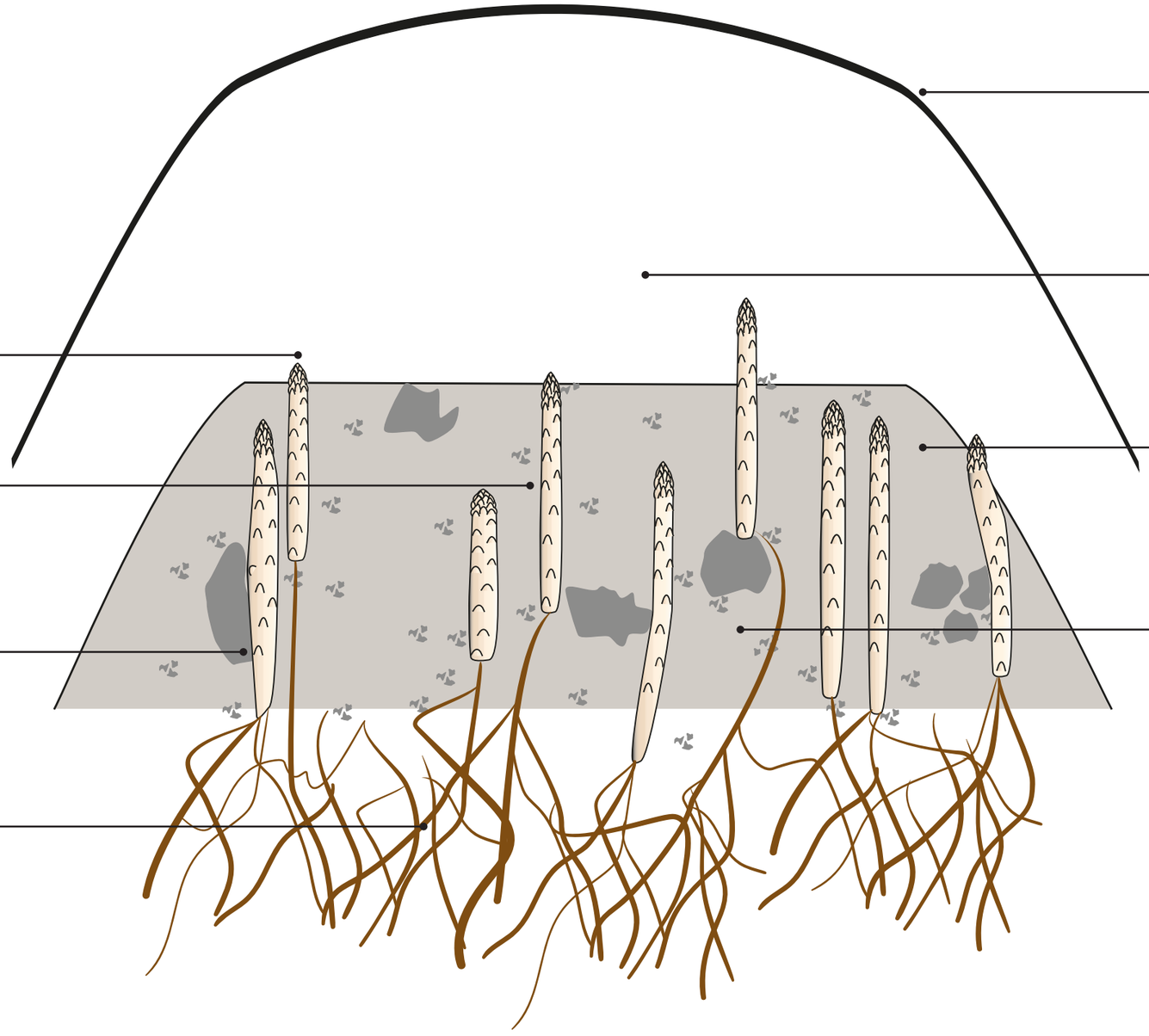
[3.3.3] SECTION OF ASPARAGUS HILL.

Once the asparagus heads start growing out of the soil, they need to be harvested within two days, otherwise they become woody and eventually inedible.

In commercial harvest, the asparagus is picked before it peeks through the soil. The highest market price is achieved when the asparagus heads are still closed and clean.

Asparagus that grows around rocks and has differing shapes is usually not worth very much in retail, which is why this kind of shape is usually sold more on farmers' markets or to canteens. The asparagus is an extremely normed vegetable. →See P.126

The asparagus that is eaten is actually the shoot and not a vegetable as such. The asparagus plant can produce these shoots for up to 15 years, if unharmed. This is why the plant has to be treated with a lot of care during the harvest.



Plastic tunnels cover the asparagus ‚rows'. The aim is to keep the latter warm, in order for the asparagus to grow quickly. One side is black to attract the sun, the other is white, to deflect it. When the weather is too hot, the white side is turned up.

The warm air inside the tunnel keeps the rows warm. On hot days, asparagus can grow up to 7 cm per day.

The rows in northern Germany are composed of sand, soil and bedrock. The growing shoots are earthed up; a blanching technique applied to keep them white. By blocking out the sunlight, the colour-giving photosynthesis process cannot take place.

Depending on the region, the soil can be composed of sand, bedrock and smaller particles. In any case it has to be loose and soft, so that the fragile vegetable can grow up. The components of the soil are essential for the taste of the asparagus.

*own representation

[3.3.4] THE FIELD. BUCHHOLZ.

Place: Buchholz in der Norderheide.

Date: May 2020

Temperature: 27°C

Weather: sunny

Through a friend of a friend I get a number of someone who has leased an asparagus field in Buchholz. I call the woman and we arrange to meet at the train station. She picks me up by car and we drive to the field, about 20 minutes away. The acreage is huge, a black sea of plastic that stretches from one road to the next. 92 rows of asparagus all covered in black plastic tunnels can be seen from afar. The entrance is small, the path trodden raw by countless harvesters entering and leaving. It is only the third week of harvest. My harvesting partner, who has leased the field, two others and I walk to the little hut selling strawberries and equipment, we are row 65. The lady ticks our box and we are free to begin. We walk for about five minutes before reaching row 65. The rows are full of people, although only every second row is allowed to be harvested at a time. Time slots have been set in order to guarantee the necessary social distance. We put down our baskets, the knives and other equipment, our water bottles and backpacks and begin to remove the plastic tarp. We have four hours to harvest 360 metres. A fast, professional harvest worker usually harvests up to 30kg of asparagus an hour; we are four people and we manage 40kg in 3.5 hours. Countless asparagus heads greet us from beneath the plastic tunnel as we lift the tarp. Our row was last harvested two days ago. Each row must be harvested three times per week, the farmer has demanded. Weeds are growing on the sides of the little hills, which is a good sign in terms of pesticide use. Usually, when farmers apply large masses of pesticides, weeds do not grow. The paths between hills are trodden down and muddy from the last rain. Some patches are very wet and slippery. We reach the end of the row after what feels like a very long time; then we begin the harvest.

→ See P.100

→ See **[F3]** P.138 for development of pesticide use in agriculture

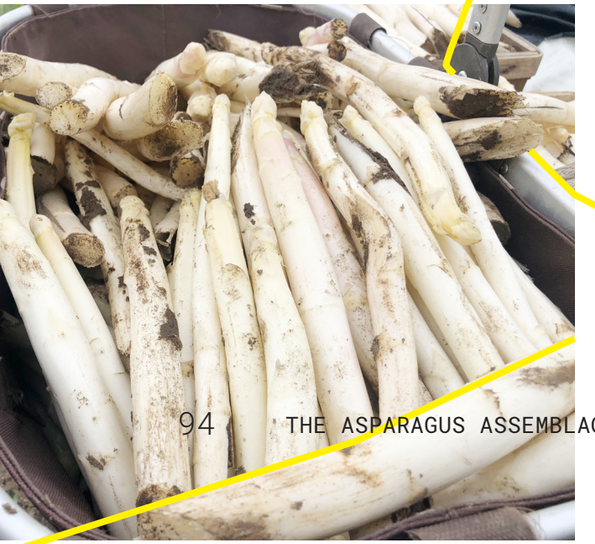
"THE SUN HAS NO MERCY, BURNING DOWN ON US AND INTO OUR SKINS. SWEAT DRIPS DOWN OVER MY NOSE AND ONTO THE GROUND WITHIN MINUTES. I AM SO CLOSE TO THE SOIL THAT I CAN SMELL LAST NIGHT'S RAIN. THE SAME FAMILIAR SOUND OF SCRAPING ASIDE THE DIRT NEXT TO THE LITTLE WHITE HEAD AND OF THE SHARP BLADE DECIDEDLY BUT CAREFULLY PERFORATING THE SOIL FILLS THE AIR IMMEDIATELY. THEN: THE ABRUPT, ALMOST HARSH MOVEMENT OF STABBING THE SPEAR INTO THE ASPARAGUS FROM THE SIDE, FOLLOWED BY THE GENTLE TUG, AS NOT TO BREAK ITS FRAGILE HEAD. THE REPOSITION OF THE SOIL, AND THE TENDER SLAP TO FLATTEN IT OUT WITH THE SPATULA - DONE. THIS PROCEDURE IS REPEATED ALMOST TRANCE-LIKE. WE DO NOT SPEAK MUCH; EACH PERSON IS FOCUSED ON RETRIEVING THE DELICATE VEGETABLE AS NICELY AND QUICKLY AS POSSIBLE. THE REPETITIVENESS BECOMES RHYTHM, HABIT. I DO NOT LIFT MY EYES OFF MY ROW ANYMORE, SCANNING FOR LITTLE WHITE HEADS PEEKING OUT FROM THE WARM SAND AS I MOVE ALONG. EVEN THE DRIPPING OF SWEAT MATCHES THE RHYTHM OF MY MOVEMENTS. OCCASIONALLY, I WIPE MY FOREHEAD WITH MY DIRT-COVERED GLOVES. DIG-STAB-PULL-COVER-DIG-STAB-PULL-COVER. IN THIS REPETITION THE BODY SEEMS TO BECOME INDEPENDENT, WHILE THE MIND WANDERS. IN THIS MOMENT, MY BODY BECOMES A HARVEST MACHINE, WHILE I DREAM OF A COLD SHOWER."
– RESEARCH JOURNAL EXCERPT (23.04.2020)

The research journal describes in detail the rhythmic sequence of harvest. I can feel my back and fingers shortly thereafter, the unusual movements reminding me of my very unbodily everyday life. The smells are intense, not only the asparagus, but also the soil and the mud, and the sweat. It smells like freedom, and like hard work. The end of the row cannot be seen until we reach the middle. At this point we gather to take a short break. We are relieved to see the end of the tunnel (quite literally) and stand straight. The other members of my group point out a white birch tree that marks the middle of the row. It is intriguing to think of time in a different way; of using nature to mark stages, rather than using cell phones, watches, or the like. Time is very relative, as it turns out. Sometimes harvesting ten sticks feels like hours, sometimes there go 30-40 sticks in no time. This field feels exempt from the rhythms and speeds of everyday life. This field has its own time and space.

→ See P.100

Other people move in a similar pace across their rows, many wearing outdoor gear usually worn for sports or hiking. Shawls worn to cover the nape of the neck are often printed with Louis Vuitton or Gucci logos, as well as other logos that I do not recognise. White sneakers most commonly round off the outfit, although most of these are not so white anymore on this day. These outfits are very different to the ones that Constantin's harvest workers were wearing. Most people on the field are women, some of which greet us when our paths cross. Some men are also harvesting, everyone here has leased a row and is doing this in their free time. I look around and see heads bobbing up and down, somewhere in the distance music can be heard, I assume someone brought a boom box. My eyes meet with a man's and we greet each other. I ask him why he decided to harvest asparagus and he explains that he is in "Kurzarbeit", thus working less hours per week, and loves asparagus. I ask him whether working here has changed his relationship to the asparagus. He says that his respect for harvest workers has increased and that he treasures the fragile vegetable much more now. We nod at each other and continue.

As we near the end of the row, my body feels tired and heavy. I really feel like a machine that needs oil and recharging. I used—maybe even abused—my body, to a certain extent. To think that this was only about half or one third of the amount of time that professional harvest workers spend harvesting asparagus per day, for weeks, is shocking. My harvesting crew says that about 500 g of asparagus is needed for an average eater. So for two that is one kilo. I take home about three or four kilos of dirty asparagus that needs washing. My hands are also dirty, and my face, from wiping it with the muddy gloves. I change into flip flops and take a look at my mud-covered shoes and legs. The process of harvesting really does involve multiple layers of my body.



The asparagus washing process is still part of the fieldwork and of the harvest. Not only does it take a long time and use a lot of water, it is also tiring. Each asparagus wants to be scrubbed—but gently! There is sand in the smallest cracks of the white shoots. After about 40 minutes of scrubbing, I have completed the load. The asparagus now gives off a sweet scent, a fresh, crispy perfume. I take a look at my harvest. I feel proud, it looks and smells fabulous—and it is heterogenous in size, diametre and colour. Some of the tips that have turned pink or purple hint at the natural photosynthetic process that has begun. The asparagus is alive, it is working and ripening. I cover it up with a wet cloth and place it in the fridge. 5°C will not suffice to stop it from ripening, as I learned from Constantin. But it will surely slow the process down a bit. As I sit down, I feel every muscle in my back. My right index and middle finger hurt from digging in the sand. Working on the field is an arduous bodily endeavour and I learn so much about the food I eat from harvesting it myself. It is not only the asparagus that grows on the ground. Many vegetables consumed on a daily basis, such as zucchini, celery, aubergine, carrots... all grow so low that one must bend over double to harvest them. This process changes me.

I return to the field two days later to find that my back still hurts, this time, though, my technique is much more swift and it feels like a whole different experience. As Farmer A., who leased the asparagus fields tells me later: "harvesting asparagus is not like picking strawberries: it requires skill and practice and not everyone can do it!" (INTERVIEW A.)

[3.3.5] THE BODY. BUCHHOLZ.

I am on the field and a part of it at the same time. I can smell it and feel it, but I cannot touch it. Gloves are the only thing that interrupt full emergence with all my senses. They help to prevent blisters from handling the knife and they keep my hands clean from the dirt. The gloves get dirty quickly and the dirt moves onto my clothes and face. They are an integral part of the harvest because they stand between me and the asparagus. I sweat underneath the tight, synthetic material. My back is bent—my co-harvesters tell me that I have to push back my hips in order to avoid back pain. They have three weeks of experience that I do not have. Pushing back your hips is tough. It is difficult to remember to do it while focusing on the asparagus. So my back begins to hurt, the pain radiating from my hips toward my shoulder. My arms are also tired after a short time; all movements are extremely unusual to me. I enjoy feeling my body. In a way it feels rewarding to know that I have invested bodily energy into this field. It is a *becoming with* in a translated way. My body becomes a part of this nonhuman system—one in which every step involves new entanglements. *Becoming with* the earth and the processes it provides us means to learn what string figures to move and when. In this moment in time, it means becoming response-able and taking responsibility for the food. Another thought sparks: harvesting the asparagus reminds me of the embodied labour that all food harvest used to involve up to the 1950s, before machines largely took over. Is the asparagus a rebel or an asset to capitalist accumulation?

↑ See [F3] on P. 138
↑ See P. 98

[3.3.6] THE REBEL. RESISTING MACHINES.

I would like to elaborate on the question whether the asparagus is a rebel or an asset to capitalist accumulation. Although it can be cultivated with a large degree of certainty, it requires something like *feeling* or *empathy* to be harvested. To date, although harvesting machines are continually being tested, none are as reliable and efficient as humans. Although other vegetables are also mostly still harvested by hand, this is largely due to the investment sums involved in acquiring machines and because many people working the fields are quite cheap and flexible (INTERVIEW W.). What makes the asparagus so particular is the fact that the most valuable sticks are those that have a closed tip. For the tip to be closed, the asparagus cannot yet have emerged from the soil and is hence invisible. For experienced harvest workers, the tiny irregularity caused by the approaching tip pushing aside the soil can be detected by looking closely. For a machine, it is harder to find these and to differentiate between those sprouts closer to the top and those still too low in the soil to be harvested. A very costly 3D scanning software is required to identify this (IBID.).

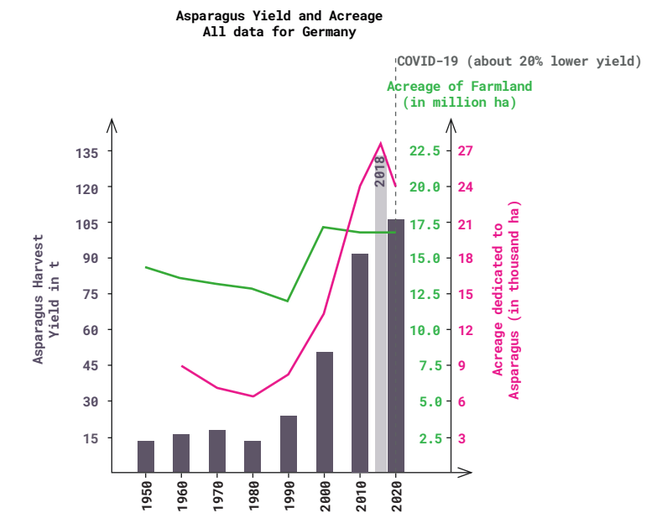
Comment by my interview partner: This is, of course, only true for as long as harvest workers are readily available. This pandemic will surely accelerate research and investment into machine-driven harvest infrastructures and solutions.

The asparagus is a needy vegetable. It not only requires tender care in handling because of its vulnerability and fragility; it also wants to be harvested with love. The trick is that, after spotting the hidden asparagus and gently pushing aside some soil to expose a part of its body, the knife must be inserted into the soil about 2 cm away from the body, perpendicular to the row and parallel to the stick, slowly and carefully. As a right-handed person, I use my left hand to hold onto the asparagus while searching for the ideal height to guillotine it with my right. This requires *sensitivity*, also a form of *becoming with the asparagus*, to coordinate; a process that seems nearly impossible to mechanise. The asparagus does not grow where it is sowed, like other vegetables might. It is thus unpredictable where it will emerge on the dam and how its body will be shaped. If a stone interferes with its path, it can grow around it, becoming more difficult to find with the knife. In addition, while cutting the asparagus at the right spot is important, so that its mother-plant is not damaged and can yield sprouts in the years to come, it is important not to harm other sticks growing in its vicinity.

See P.90

Although the asparagus revolts against full mechanization of harvest through its unpredictable growth pattern, it can be considered quite tamed in various ways. First of all, the human-made dams in which the asparagus grow, prevent photosynthetic processes from taking place, keeping the sprouts white. While the interference with this process can be traced back to Ancient Greece (STEPHAN 2019), it is by far not its most intrusive manipulation.

In order to assert competitive advantage, some fields are heated from below. I see this discerningly in light of current debates about climate change and critical zones, as, to me, it marks the epitome of human manipulation of nature. If we do not shy away from planting a heating system below fields, how far are we prepared to go in our strive to accumulate wealth? Unfortunately, this is a common practice in agriculture, retraceable to the struggle of countering natural temperature fluctuations or late frosts that might ruin the harvest (IBID.). It is also very common to use plastic tunnels to dam the heat and accelerate growth, although there are concerns about this being carcinogenic and burning the soil. Finally, among many other measures, the application of fertilizers, pesticides and other chemicals is common to reduce the risk of losing crops. In light of all of this, I applaud the asparagus for its resistance and conclude that it is both an asset and a rebel.



▲
This graph illustrates the tremendous increase of asparagus harvest and acreage dedicated to growing asparagus in Germany since 1950. The asparagus is the vegetable with the highest dedicated acreage on German fields. Due to COVID-19, the preliminary numbers suggest that this year's asparagus yield was about 20% lower than in 2019. However, projects like the one that I was involved in, with self-harvest, are not included in these figures. The all-time peak yield was in 2018. I have included it as a reference point (destatis 2020).

[3.3.7] WHITE BIRCH TREE.

Place: Buchholz in der Norderheide

Date: May 2020

Temperature: 32°C

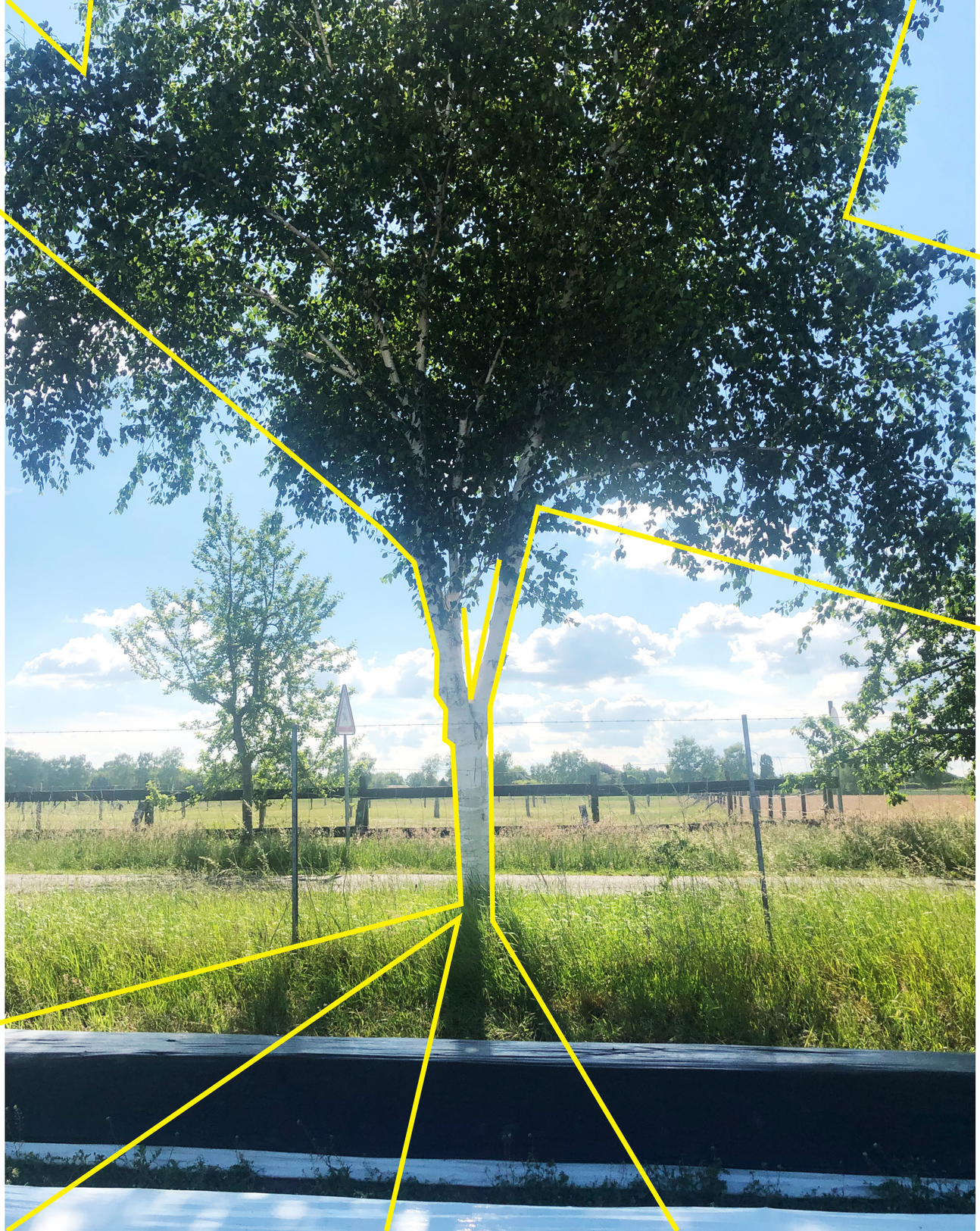
Weather: sunny

THE WHITE BIRCH TREE: IT IS CONNECTED THROUGH SUBTERRANEAN NETWORKS TO WORLDS BEYOND ME, WORLDS I KNOW NOTHING OF. IT IS AFFECTED BY CHOICES, MOVEMENTS, (CHEMICAL) REACTIONS OF OTHER TERRESTRIAL BEINGS. IT STANDS THERE SILENTLY AND YET IT SCREAMS—AT ME IT SCREAMS THAT THIS IS THE MIDDLE, HALF-TIME. HALF-TIME OF HARVEST; HALF-TIME OF LIFE? IT REPRESENTS TIME AND SPACE, IT HAS POWER OVER BOTH AS WELL. IT IS ALIVE, IT IS INTRICATELY INTERTWINED WITH ME AND MY ASPARAGUS.
—RESEARCH JOURNAL EXCERPT (07.05.2020)

→ See P.92

Thinking in entanglements and the reciprocal constitution of human and nonhuman kinship brings me to the white birch tree. This tree marks the middle of the 360 metre asparagus row, a distance that, as time passes, becomes palpable in every centimetre of my body. Anyone who has gone running on a track or watched the Olympics may have an idea of what 400 metre look or feel like. But these 360 metre are different. From one end, the other cannot be seen; from one end, the other cannot be felt. In the engagement with the asparagus and the soil, moving like a crab, sideways along the dam, the 360 metre become miles, become a bodily unit. Feeling distance in the body is painful. So the white birch tree is a sort of salvation, a moment of vacation, deep breath, stretching the arched back and tensed legs; it marks half-way. It seems as though there is always an accompanying wind when this point is reached—a theatrical mise-en-scène of the ecosystem to communicate its deep entanglement with time and space. The latter both losing conventional form, the moment I step onto the field, becoming with my body, the asparagus' body, something else. Time and space are the most relational I have ever experienced here. It is the first time I really doubt my ability to assess them.

Taking being terrestrial seriously in this moment is essential to understand what is happening. Not only are the critters and layers surrounding me terrestrial in the sense of being on, in or under the soil, coming from the soil or actually being the soil. They are also constitutional of terra in the sense of planet earth, the zones that stretch kilometres in either direction of my body. I am terrestrial, I am no more than the asparagus, the white birch tree, the air or water. The tree is rooted, a situated tentacular being of this entanglement creating what surrounds me, just as I am—albeit physically mobile. I am bedazzled by the networks that I belong to and constitute and that constitute me. The practice of harvest does bring me a step closer to understanding, feeling, embodying the notion of *making kin with earth*.

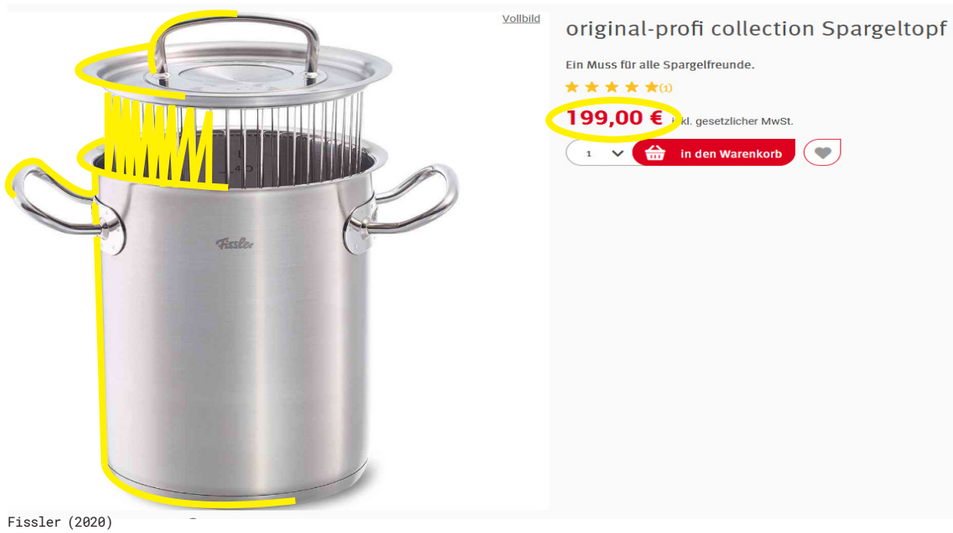


[3.3.8] THE HOME.

Place: St. Georg
Date: May 2020
Temperature: 22°C
Weather: sunny

Following the asparagus around Hamburg resulted in many asparagus purchases. The more I followed it, the more I took it home. The more it followed me home. The peak really occurred when I began harvesting it and took home three to five kilos each time. So my home really became a place of asparagus preparation and experimentation. Not only did I cook it in very different ways, I also learned to enjoy the very distinctive *goût*. Speaking to people about asparagus taught me a lot about this versatile vegetable. First of all, that there is a *proper* way of preparing it in Germany. Not having grown up in this country means that I personally did not have such a strong relationship to the asparagus. My German grandmother told me about the ritual of eating asparagus on Sundays during asparagus season. She told me that it is eaten with (home-made) sauce hollandaise, cooked potatoes and cooked ham. I tried all different types of asparagus recipes (it also gets tiring to eat so much asparagus), and prefer it prepared in a pan. The *proper* way of preparing asparagus in Germany, where it is more than just a vegetable, means that a specific pot has been produced to prepare it in. Some people swear that it must be cooked standing up(!). Adding a little bit of sugar, salt and butter to the water apparently brings out the taste more.

Looking at asparagus pots, it shocked me that they can cost up to €200! Made in Germany, where else? Considering the social injustices and concerns motivating this research project, I find this very ironic and tragic. How many hours of asparagus harvesting work would a professional harvest worker need to invest, to pay for this pot? How many sticks of asparagus must be pulled out of the sandy ground in an unhealthy bodily position to afford this luxury good? And, exaggerating this thought-experiment a little bit, how many cooking-sessions would be needed to cook all of the asparagus harvested in the time it took to earn the €200? Thankfully, the asparagus pot can also be used to cook spaghetti. This is an important virtue, considering the short asparagus season. Imagine leaving this pot unused for eight or nine months a year. Either way, the home is an integral and important part of the asparagus assemblage, particularly in times of corona, in which restaurants were closed, and more people ended up preparing the sprout at home. The farmers on the markets did tell me that this particular season was marked by private households buying larger quantities of asparagus, whereas in the past there would have been more of a mix between consumption at home and at restaurants.



Fissler (2020)

Place: Bergedorf

Date: June 2020

Temperature: 16°C

Weather: cloudy/ rainy

Our friend picks us up by car because it is complicated to reach their house on foot. In a time of social distancing we wave awkwardly to one-another and then get into the car. Upon arrival we meet his wife, whom we have not yet met. She is bubbly and excited to meet us. He guides us into the home. The first door to the right of their '*Doppelhaushälfte*' is a guest washroom. Next to it comes the kitchen, a small room with a prominent fridge. We enter a large open living room, equipped with multiple toys, a small toy-kitchen, books sit on a chair, a toy-horse blocks the way. On the left is a big table, set and ready for dinner. The big sofa is covered in lego—do not touch, it is a masterpiece in the making—a shelf is decorated with dolls holding toy-ice creams. A little girl greets us waving a magic wand in our faces and shows us her kitchen. She is proud to have all the necessary equipment to cook, just like her dad. She holds up a battery-powered mixer and it swirls around noisily. By the end of the evening, the battery is dead.

We take a seat and are waved at by their son, who is busy playing football outside in the garden with the neighbour. The second boy lives in the other half of the *Doppelhaus*. We watch the kids run around wildly and talk to our hosts. He owns a restaurant close to our home. We helped him out in the difficult beginnings of the crisis, setting up an online presence and thinking through some general changes to the business together. As a gesture of gratitude he invited us to his home; to eat asparagus. "Asparagus is more fun with friends" he said. And it is. Asparagus is a social vegetable. Its preparation, handling and devouring; a sensuous and unique experience. Our friends eat asparagus on Sundays during the season. He often gets a special price, because he buys it from his usual asparagus dealer for the restaurant. This time, there was too much left over, because restaurants were closed, so the distributor asked him to ask the neighbours. "Corona brought the neighbours here together more", he tells us. "And now the asparagus has brought us even closer. Everyone in this neighbourhood bought some, especially the older people were excited because I delivered it to their doorsteps, so they didn't have to leave the house". Incredible, how one vegetable can create a sense of community, yet be the manifestation of social injustices and alienation all at once.

He disappears into the kitchen while we remain in the living room, talking. The potatoes are already peeled, she tells us. "He always serves the asparagus with butter and potatoes. Today he made a Sunday roast to accompany it." They do not own a special asparagus pot. Instead, he cooks the sprout in pans, horizontally. It is his special trick, he swears the asparagus tastes better this way. He brings in the white sticks on a tray, together with the salted potatoes. The kids sit down and start mashing them on the plate. We devour the white gold. I take this chance to taste the *proper* way of eating asparagus. I am surprised at the difference in taste with this mode of preparation. The asparagus is sweeter, possibly because of the sugar in the water? We speak about the asparagus a lot, maybe because of my thesis—but also because it is asparagus season and very topical in the news this year. Sundays *are* asparagus dinners from April to June. Not only at my grandmother's house. Also here.

Ronja (2014)

[3.3.9] THE RECIPE.

in times of Tönnies scandals, I wonder whether this might change...

Serves 4 | Total prep time: 45 min. | Ingredients:

Asparagus & Potatoes:

2 kg white asparagus
1 tablespoon salt
1 teaspoon sugar
1 tablespoon butter
1 kg waxy potatoes
1 tablespoon salt

Sauce Hollandaise:

250g unsalted butter
3 large egg yolks
1-2 dessert spoons white wine
1/2 lemon
Salt & pepper to season

Serve with:

100-150g of boiled ham per person if desired
Sauvignon Blanc

Method

Potatoes: peel and cook in large pot for about 25 minutes (depending on size)

Asparagus:

1. Peel from middle to bottom, cut off woody stick-ends.
2. Place in large asparagus pot or other large pot with salt, butter and sugar. Let it cook for 20-25 minutes, depending on thickness of the asparagus. Test texture with sharp knife, the asparagus should still be firm.

Sauce Hollandaise:

1. Arrange saucepan with heat-proof bowl that sits stably on pan. Half-fill the pan with water and bring to a simmer. Turn down the heat, but keep the water simmering.
2. Melt the butter in another pan, do not let it boil or burn.
3. Separate egg yolks into heat-proof mixing bowl and place over simmering pan. Low heat is important so that eggs do not scramble.
4. Start beating eggs with balloon whisk, slowly adding white wine. Keep whisking.
5. Slowly drizzle in melted butter, continue whisking the whole time, incorporating the butter in the warm egg and wine mixture. It should start turning into a thick light yellow sauce.
6. Squeeze a little bit of lemon into the mixture and season with salt and black pepper.

Serve warm sauce over the asparagus to potatoes, add boiled ham and Sauvignon Blanc if desired.

Use asparagus peel and ends to make delicious broth and avoid food waste!

[3.3.10] ASPARAGUS IN COGNITO.

Place: Blankenese
Date: June 2020
Temperature: 20°C
Weather: sunny

Constitution and production of space is a topic that came up regarding the strawberry-shaped huts present in Hamburg, selling asparagus and strawberries. These huts lead *making kin* ad absurdum, while feeding the capitalist narrative of accumulation. They are a simulation of cultivation of response-ability and terrestriality; being themselves a contradiction to what they stand for—or where they stand, for that matter—namely close to 'nature', 'the natural', 'the earth'. The blown up berries could not be less kin with what they try to represent and yet they seem to successfully lure consumers through their bluntness and vastness. At the same time, they are an urban manifestation, a small momentum of visibility and insight into modern capitalist apparatus. I mean this in the sense that capitalist accumulation does not shy away from turning kinship and proximity to imaginaries of 'nature' and 'the natural', a current lifestyle, into a commodity. Of course we experience this in supermarkets and elsewhere on a daily basis, but these huts have a peculiar way of disneyfying the space they inhabit. Imaginaries of romantic countrysides and natural fields capable of feeding the city, as STEEL (2013) puts it, might be evoked. But in truth, an imperium built on social inequalities lies hidden behind the innocence of symbol, namely that of the "northern German asparagus and strawberry baron Glantz'" (TRANSLATED CONVERSATION 24.04.20).

I borrow the term "disneyfication" from Sharon Zukin (2010), who uses this term to describe a development of creating 24/7 entertainment zones in cities.

The symbolic power of these huts dominate in space: "das Symbol beherrscht den Raum" (VENTURI, SCOTT BROWN, IZENOUR 1979:24). The presence of these farmers' market-stands in midst of the urban fabric not only marks a certain season and has a temporal constitutive power over space—it also establishes a division between those who can afford to buy these luxurious vegetables here and those who cannot. Their usually central situation, such as next to supermarkets or on open market spaces, increases chances of encounter, to see and to be seen. Although the red body stands out in the city scape, it is not evident at first sight that asparagus is sold here. The asparagus is camouflaged; were it not practically impossible to miss the huts due to their constitutive presence and marketing efforts, one might never find out that they also sell 'the white gold'. Compared to other fruits and vegetables grown and sold in Germany, such as apples, the strawberry and asparagus (and on some rare occasions cherries) are the only ones with exclusive treatment in terms of extra visibility in urban space. This raises the question: why do they dispose of this exclusive privilege of being physically visible and present within the city in special huts? And: because most of the huts in Hamburg are privately owned by the Glantz, how come one producer is given more visibility compared to others in the city?

Souvenir from the harvest: the work gloves.

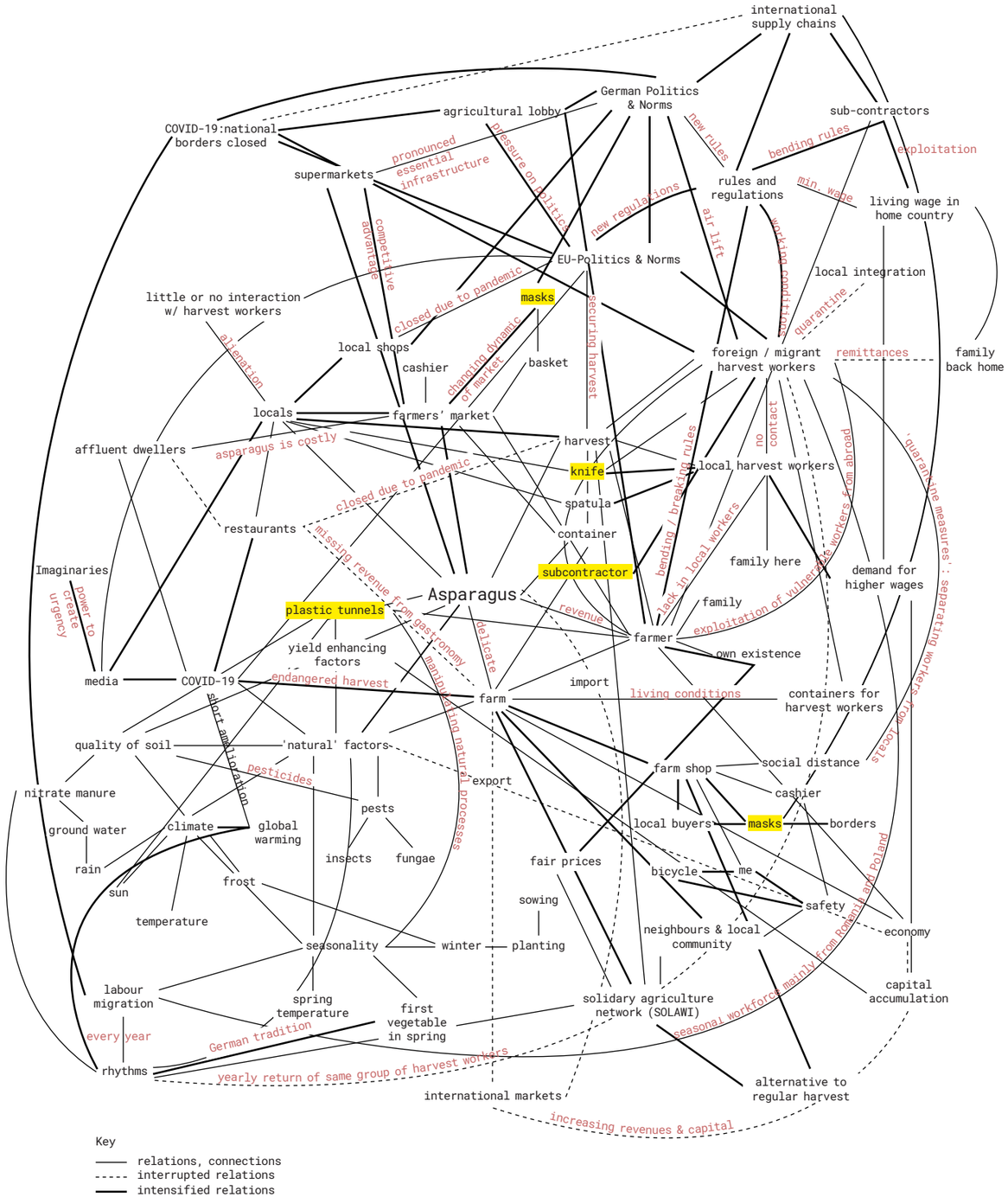
[3.4] ENTANGLED ACTORS AND ACTIONS

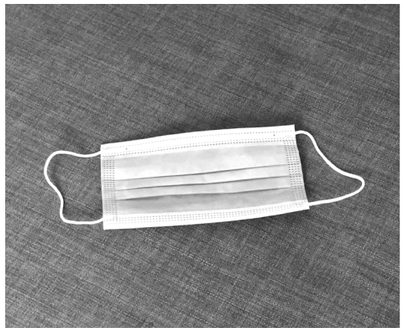
In this section I will focus on the actors and actions that became visible to me throughout the research process. The actor-network on the right unfolded and unveiled its multiple layers as I became increasingly familiar with and a part of the field. As I followed the asparagus around Hamburg, the complexity of relations and actors involved in the asparagus production became more and more dense. The network, hence, is a depiction of my ethnographic process as well as being a process itself, constantly rewiring and reassembling in time and space. It is by no means to be understood as a closed or finished depiction. On the contrary: it is to be seen as a freeze-frame of actors and processes in action. In the following, I would like to zoom in and elaborate on some actors and actions that became particularly central in the research.

[3.4.1] MASKS.

As mentioned in the introduction to this chapter, masks became a constant *compagnon* of my research endeavour. I have already described thickly how masks acted on the farmers' market, now I turn to a more analytical perspective of their agency and relations to other actors in the field. In the very beginning of my journey, their use was optional, leaving it up to the individual to wear one or not. As time passed, masks were pronounced mandatory in stores, public transport and on farmers' markets (among other places) by the government and hence turned into a key actor, with the power to grant or deny access to places, people, things... Checking whether I had packed a mask became part of my daily routine before leaving the house. Not having one would mean not having access to the field. One thing that I find particularly interesting about the mask is that it is worn by one individual *for* another. It does not protect its *porteur* from micro-droplets that might carry the dangerous virus, but it does protect the other. It can, then, in a slightly romantic sense, be considered the embodiment of the notion of *caring with*: each person that wears it cares with the other for one-another.

But the mask also has other interesting attributes that are quite different from this aspect of care. Observing masks in everyday life during the pandemic, I realised that they possess transformative agency. They can be worn to hide behind or to create uniformity; their symbolic power evokes distance or reminds to keep distance. In my research, I encountered masks of all materialities, shapes and colours; hand-made, bought, improvised out of coffee filters... They covered faces and made it difficult to communicate, reducing facial expressions to eyes and eyebrows. It was surprising to realise

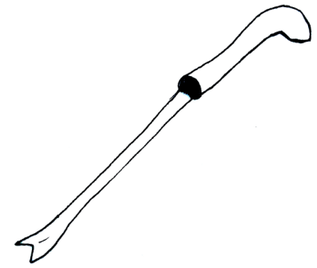




how much one deduces from facial expressions, subconsciously even, that was suddenly erased from life in public. And: as much as they change the space in which they are worn, serving as a reminder to keep distance, as an inhibitor of conversation because lip-reading is not possible, they themselves have also transformed throughout the pandemic. Beginning only as a politically and publicly scorned and ridiculed idea, they quickly turned into a highly demanded product and victim of global supply chain break-down (and continue being scorned by many). As a product 'made in China', the latter being the epicentre of the pandemic at the time, supply was short and prices shot up, making industrialised masks luxurious goods (SCHNABEL 2020). This shortage sparked entrepreneurial energies, quickly inspiring young and old to sew masks and even sell these in neighbourhoods or online. Some firms rechannelled their production to focus on masks. During the black lives matter movement, they transformed into an instrument for political statements, as can be seen in the left picture above.

I also encountered several situations in which the mask made invisible borders visible. On one occasion, I visited a farm in Schleswig-Holstein, a neighbouring state, in which masks were not yet mandatory. As I entered the farm-shop—wearing a mask— I was told explicitly that I could take it off, as there was no "Maskenpflicht" in this state yet. On another occasion, I was sitting on a bench facing a farmers' market, while there were benches facing in the other direction directly behind me. Someone asked me to wear a mask, as I was facing the market and was hence in its 'territory'. Borders got me thinking: they play such a big role in the pandemic. The asparagus, the mask and borders are somehow intricately linked because of COVID-19. Also, who produces these masks in China? Is it potentially the same company that produces pesticides or plastic tunnels and packaging used in agriculture here? Returning also to the field: Masks were suposed to be worn on the way to our row, but we were allowed to harvest mask-less.

[3.4.2] KNIFE.



The knife turned into a central actor in my research on the asparagus field. The first time I held it, it felt very alien, distant in a way. The heavy, brown wooden handle piece fit quite well into the palm of my hand, yet it felt stiff, unhandy. The long spear with the snake-tongue-edge was sharp and menacing, its body with an aesthetically pleasing curve to it. I held it in my hand, juggled it a little, and tried becoming friends with it. I was shown how to apply it and had some trouble finding the right angle to stab the asparagus with it at first. My knife had little tab stuck to its spear to indicate the maximum depth of inserting it. Going deeper into the soil could cause damage to the mother-plant. It took me multiple attempts to master the slice, stab, slap, but I got the hang of it after a while. When I did, the knife turned into an extension of my arm, steered to precision by my wrist. The curved wooden handle piece that snuggled comfortably in my palm followed my lead, sliding the metal spear into the soft soil carefully. The abrupt stabbing was and remains brutal, but there is a certain moment of intense intimacy to it, when the hand, spear and asparagus are all one. Stab.

From the documentaries I had learned that the knife is the most important harvesting tool. It is responsible for the quality of the asparagus, if blunt, it will not cut the asparagus cleanly, causing a loss in length and hence in market value (NDR 2020). To us harvesters, the knife was a tool to harvest the fragile vegetable, bonding our bodies to the soil for a moment, only to break the bond within it in the next. We only had two knives, although there were four of us harvesting. This meant that two people would cut, while the other two collected the harvest and topped up the holes with soil in order to maintain the climate inside the hill. The handing over of the knife from harvest to harvest, team to team, person to person made it feel like a baton in a relay; in the race to save the white sticks from their demise. There was a rhythm to it, just like the harvest had a very distinct beat. The knives worked hard. They cut a total of 468kg of asparagus in seven weeks. They raced up and down the 360 metre long field countless times in search of succulent sprouts appearing on the surface of the hills. I felt the palm of my hand hollowed out by the force applied onto the wooden handle again and again, sore from the rub even through the glove. The knife, heavy and bold, separated the asparagus from its mother-plant like a guillotine. The knife, made of hard metal, juxtaposed the soft and fragile body of the asparagus. The knife, an extension of my limb, turned my body into a harvest machine on the field. As I cut the bonds in the soil, I created bonds in kin.

[3.4.3] PLASTIC TUNNELS.

For as far as the eye can see: plastic tunnels. The images of Almería, Spain, from space are appalling. It is not the plastic that appals me. It is the fact that these human-made landscapes of capitalist exploitation, extermination and production are like ticking time bombs. The anthropocentric manipulation of nature, natural rhythms and the abuse of earth to accumulate wealth is what appals me. We are pushing it to the limit, reaching the limit, passing the limit. There is no sense of belonging to, or being a part of these landscapes. It is Humans against the Earth. Culture against Nature. But at the horizon, plastic and nature converge into one. Intensive agriculture has been one of the main contributors to global warming. Up to nearly 40% of all GHG are emitted in agricultural practices (FAO ET AL. 2020) and that is by far not the only environmental damage that agriculture causes. Exploitation of the soil through the application of aggressive pesticides, herbicides, other-cides, kill species, reduce biodiversity, decrease oxygen levels, increase pollutants in the air, deplete water, pollute water, pollute animals, pollute humans... And plastic tunnels channel the heat, promote growth, encourage a sense of "permanent global summer" (STEEL 2013:63). These circumstances elucidate the controversy of life in a globalised and capital driven economy: the same plastic that enhances the growth of some species causes the death of others. The same masks that are meant to save lives during COVID-19 pollute the oceans and risk entering the food chain, causing harm to humans and nonhumans on multiple levels (i.e. microplastics).

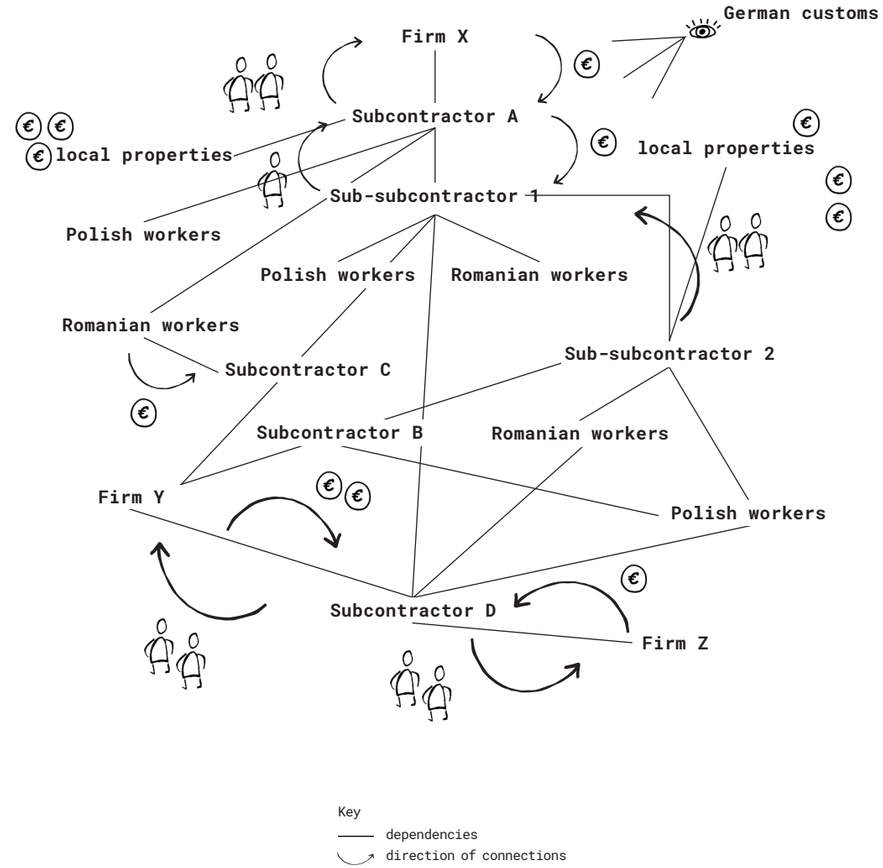
Arriving at the field in Buchholz, I was greeted by a sea of black and white tunnels. The black-side-up attracting more heat, promoting more growth, the white-side-up decelerating the growth process. Our row was left on black for the entire harvesting period, although I only reflected what this means for the ecosystem after finishing the harvesting process. Covering the field in this unnatural way reduced the sense of closeness or proximity to it for me. It felt more like being *in* a machine. Nonetheless, uncovering the field always evoked a sense of excitement. It was only then that we saw how many asparagus heads had perforated the soil. It was only then that we realised whether it would be a hard day or an easy day of work. In a funny but also appreciative manner, we greeted the asparagus heads as we unwrapped the row. We laughed about talking to the asparagus about waking the dormant beauty by unveiling it from its plastic duvet. But being a part of this very conscious consumer-group, part of the solidarity network, there was also some seriousness to it—this way we showed some appreciation, respect and gratitude for the harvest, despite intervening with its natural flow by changing the relationship the plant has to the sun.

[3.4.4] SUBCONTRACTORS.

→ See P.120

Working with media such as the documentaries and news articles revealed a deep entanglement of different subcontractors involved in the provision of harvest workers for contracting firms. Most agricultural businesses, for example, do not employ harvest workers directly, but instead engage subcontractors, who employ them or in turn engage other subcontractors and so on. This entanglement leads to great intransparencies and difficulties when attempting to hold someone or a firm accountable for precarious working or living conditions (DEUTSCHE WELLE 2020). The highly simplified diagram on the right shows how the employment system with sub- and sub-subcontractors works. Subcontractor A is in charge of supplying Firm X with workers. If Subcontractor A does not have the necessary supply of workers that Firm X requires, they contract Sub-subcontractor 1. Those people working in Firm X are either employed by Subcontractor A or Sub-subcontractor 1, but not by Firm X directly. Firm X, then cannot be held accountable for grievances in the system. German customs are responsible to check on and control the different businesses. The high number of subcontractors makes it very difficult to track employment statuses though (IBID.). The documentary even reveals that firms are regularly warned before German customs checks up on them, suggesting a leakage in the system.

Harvest workers seeking employment abroad sometimes pay subcontractors commissions, which is illegal in Germany. One woman paid €300 for a placement at a German farm, of which €150 were commissions and the rest were travel expenses (IBID.). Because of the precarious conditions upon arrival, she returned home quickly. The subcontracting firm was not interested in helping her on her return home. Recently, a new issue has arisen: subcontractor firms have started large scale aggressive buying of properties in rural areas, leading to an increase of local housing prices (IBID.). Locals can no longer afford to buy homes in these areas and become subject to these subcontractors for rent. This development is changing the rural landscape, particularly as many of the housing for seasonal workers is empty during several months a year.



[3.5] ASPARAGUS IN THE MEDIA

The asparagus took over the corona-reporting in the middle of March in Germany. Not only newspapers were keen to report on the tragic loss of the harvest due to missing harvest workforce from Romania and Poland, but also news, radios, podcasts and other media reported on this. Particularly because of the cultural importance that the asparagus has in Germany, the threat created a huge stir. Normally, asparagus parties are thrown, asparagus queens are crowned (Miller 2020) and the white gold is devoured in masses. Germany produces 80-85% of the asparagus that is consumed here. 15-20% are imported, particulary in the beginning of the season, from Greece and Spain (Bundesinformationszentrum Landwirtschaft 2020; Lenfers 2019). In order to harvest all of this asparagus, up to 300.000 seasonal workers come to Germany. Many of these are farmers themselves, who cannot earn a living from agriculture in their home countries. These, and many other qualified workers come to Germany to sustain families, pay for university or to meet other life goals. Many of us strive for progress, most likely because "[...] most of us were raised on dreams of modernization and progress" (Tsing 2015:20).

While it was known that a large part of local harvest workers come from abroad, the timely coincidence of the COVID-19 lock-down and the movement restrictions made visible just how dependent the local economy is on these harvest workers. With this realisation, the media contributed significantly to placing and maintaining the topic of precarious working and living conditions in public awareness, sparking debates about this controversy on an international level. The crisis did, to some extent, expose these circumstances—but it was really the media, the news and documentaries in particular, that made it so topical. The following collection of different film stills and headlines shows the different topics that became visible and depicts how the asparagus contributed to this revelation.

[3.5.1] FREEZE FRAMES.

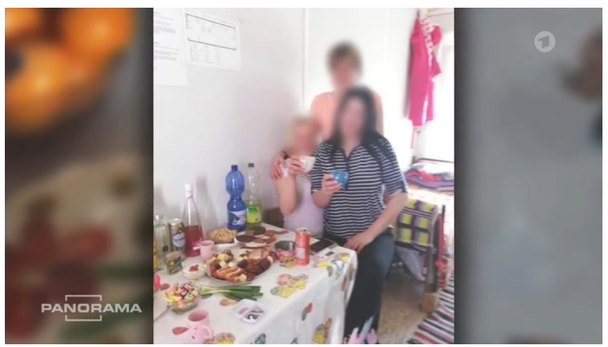
Different documentaries have raised awareness for the prevailing injustices in the food-sector, particularly in times of the coronavirus. The following film stills illustrate some of these. Incorporating this type of material in my qualitative research was deliberate. As I myself did not have access to harvest workers directly, I chose this medium to gain some insights into their perspectives and realities. Although the material must be scrutinised carefully, for example, regarding hidden agendas or deliberate cutting, it is a useful complementary source.

Images showing the precarious boarding conditions in the German harvest worker accommodations. ▼

Deutsche Welle (2020)

Deutsche Welle (2020)

MDR(2020)



NDR(2020)

The image below shows how a big farmer in Hessen organised his farm workers in order to meet social distancing and sanitation requirements (NDR 2020). The panoptical arrangement aims to segregate teams from one another. I perceive a certain tragedy in these containers: the spectral presence of harvest workers is reinforced through and inscribed in the provisional architecture they 'live' in. There is also a degree of irony to containers in particular, regarding that it is precisely this understanding of production of space that Lefebvrian theory emancipates us from, yet here containers produce space.

All of the COVID-19 related measures undertaken cost him about €1 million extra. He hopes to be able to cross-finance this through higher prices, is afraid, however, that competitors who do not take measures seriously can underprice him (NDR 2020). ▼

Accommodations provided by Farmer Baer to ensure safety measures during the pandemic (NDR 2020)

I have chosen film stills that show different dimensions of injustice. Apart from being exposed to the virus during travel, harvest workers were spotted in shards, crammed inside buses and vans, inside the dormitories and even on the fields themselves. The unequal treatment of these people within the system can no longer be denied. Workers are treated as disposable bodies: Those who are not able to harvest 35kg of strawberries an hour, are dismissed immediately. This bodily burden is not only unreasonable, it is also impossible for many. The psychological and financial pressure exerted by employers is frightening. The conditions are slave-like. One man stated “we are treated like animals”(MDR 2020). Taking a look back at the fragile asparagus it can be said with certainty that this vegetable is treated with more care than many harvest workers are.

Precarious transportation conditions ▼

Crowded bus full of harvest workers (MDR 2020)

Airport in Cluj, Romania, the day the airlift was decided on (NDR 2020)

NDR(2020)

Images of the transportation of harvest workers to and from the fields, no safety measures respected (NDR 2020)

Working under performance pressure ▼

This harvest worker was dismissed. The company had suddenly imposed new yield minimums that are barely doable (MDR 2020)

(MDR 2020)

The company justified the dismissal by stating that not every worker could manage the hard bodily work (MDR 2020)

Working ten hours per day, seven days a week is normal at this and many other farms (MDR 2020)

[3.5.2] THE SOCIAL STRATA OF THE ASPARAGUS.

The documentaries also gave me insight into the very delicate topic of sorting. Asparagus is known to have to fulfil multiple criteria (EU Regulation (EG) No. 1580/2007), in order to achieve the highest prices on the market. The ultimate length, circumference, 'straightness', condition of the head and the colour of the body are very strictly regulated. Depending on these criteria, asparagus is sorted into classes (RÖSCH ET AL. 2020):

Class	Length (max.)	Circumference (min.)	Colour	Other Criteria
Extra	22 cm	12 mm	white	closed, white heads (not pink at all); no stains on the skin; asparagus body must be straight
Class I	22 cm	10 mm	white	
Class II	22 cm	8 mm	off-white	not necessarily fully closed heads, tips can be slightly pink or green; skin may be slightly stained and asparagus body may be crooked

▲
I might add that there are also other colours of asparagus, such as green and purple. I do not focus on these in this research endeavour, however, so I will leave the norms and standards relating to them out for the time being.

This vegetable is sorted into the corresponding classes according to these criteria, which makes it essential that they are harvested 'well'. One comment my interview partner W. made was that farmers' markets regularly undermine the asparagus classifications. The farmer can sell his or her 'best' sticks as Extra or Class I, even if they do not fulfil all criteria, because there is no control. Supermarkets, however, are obliged to buy the vegetables according to the norm, which means that their prices are tied to the available supply. If one year's harvest does not meet the 'Extra' standards, they cannot demand the corresponding prices (INTERVIEW W.).

The following film stills from the SWR (2020) documentary show the sorting process that takes place by hand on the farms. It begins on the fields, where the asparagus is placed into containers that have the adequate length. These are then sorted into sizes on the truck, taken to the cooler and sorted more carefully by hand. As the asparagus is a very delicate vegetable, handling it involves care and diligence, as can also be seen in the images. The sorting might remind us of TSING'S (2015) matsutake Open Ticket. But the asparagus involves less drama and artfulness, and more fordist style factory sorting.

These first two stills show the harvesting process [1] and the quality control [2]. The asparagus ends that come out the back of the containers have to be cut off. The aim is to harvest almost exactly 22 cm, in order to waste as little as possible. Of course it depends how much of the sprout has already emerged from the dam. Cutting too far down is also dangerous as it can harm to mother-plant and affect the yield in the years to come (INTERVIEW A.).

"Each worker is given a number, so that we can track the individual harvest yields. Then they are paid accordingly."

—Quote from a different documentary (NDR 2017)
◀

The stills below show the loading of the asparagus onto the truck, at the side of the field. I have seen different methods of transportation and sorting: some farms sort the sticks right away, while others have individual containers that are first weighed (particularly when workers are paid for piecework). In still **[3]** the farmer (right) is pointing to the asparagus that is too long. **[4]** shows how the asparagus is roughly sorted into sizes and lengths with a lot of care.

Finally, these stills show workers (often women) in the cooled assembly line. The asparagus is first unloaded from the truck and separated into boxes **[5]**. Then the sticks are placed onto racks on a cutting machine individually and cut into the right size **[6]**. Then follows sorting by circumference, also on these individual conveyor belts. The sorted asparagus is then moved to another cooling room and made ready for retail. Some farms already package them, others just sort them by classes.

"Before the edible ivory leaves our address, it passes through the fingers of 300 seasonal workers."

– Quote from a different documentary (NDR 2017)

◀

[3.5.3] ASPARAGUS IN THE NEWS.

COVID-19 and Disposable Migrant Workers

Raluca Bejan
Do 16 Apr 2020

Reiner Burger, Michael Martens, Timo Steppat

Harte Arbeit

Wanderarbeiter aus Rumänien zerteilen Rinder und ernten Spargel.
Oft unter schlechten Bedingungen und für zu wenig Geld. Das ist seit Jahren bekannt.
Aber die Corona-Krise könnte etwas daran ändern.

Covid-19 crisis stokes European tensions over migrant labour

Farmers risk losing harvests but populists are seeking to cash in on fears of foreigners taking jobs

The Sickness in Our Food Supply

Michael Pollan

JUNE 11, 2020 ISSUE

Labor and Workers in the Food System

Sustainable food must be produced in a way that takes not only the environment and consumers into account, but also the people who grow, harvest and process it.

nd

FoodPrint.

Alle abgestochen

Die Spargelernte kann lang werden, wenn man selbst auf dem Acker steht. Jetzt ist es vorerst vorbei mit dem Kampfgemüse

Saisonkräfte

Du sollst den Spargel ehren

Auch eine Pandemie soll den Spargelkonsum der Deutschen nicht gefährden. Nicht einmal, wenn rumänische Saisonkräfte gesundheitliche Schäden davontragen - oder sterben. Von MANUELA BOATCĂ

KATAPULT
Magazin für ~~Eis~~, Kartografik und Sozialwissenschaft

FRANKFURTER ALLGEMEINE ZEITUNG

The New York Review of Books

Verfassungsblog ON MATTERS CONSTITUTIONAL

Temporarily included in the labour market yet excluded from workplace benefits

Dangerous Working Conditions

Whether in vegetable fields or meatpacking plants, farm and food workers face hard, often dangerous working conditions.

Conditions in the Fields

Planting and harvesting crops, from asparagus to zucchini, involves repetitive motions, often being stooped or bent for many hours, lifting heavy buckets of produce and operating machinery such as tractors that can lead to injuries. The work is performed outdoors in hot weather, often without shade or adequate water.

Breaks are infrequent — sometimes workers are punished for taking a bathroom break, and the common method of paying workers by the piece penalizes those who do take breaks, because they'll make less money. Workers often face nausea, dizziness, heat exhaustion, dehydration and heat stroke, which is the leading cause of farmworker death. **[11]**

Farmworkers are also regularly exposed to toxic chemicals from applying pesticides or herbicides (often done without adequate protection), from handling produce that has been recently sprayed, or, in some instances, from being directly in the path of a pesticide application. The apparently strict rules about aerial or other large-scale chemical application, including what is not to

Das ist der Spargel nicht wert

80.000 Rumänen kommen zur Ernte nach Deutschland. Trotz Corona. Einer von ihnen ist gestorben, er war an Covid-19 erkrankt. Das hätte nicht passieren dürfen.

The Guardian

Are western Europe's food supplies worth more than east European workers' health?

ZEIT ONLINE

This is a representation of some of the written news and media sources that I used in my research endeavour. I would like to stress my critical approach to these. Whilst they are all carefully picked, I paid particular attention to the content, comparing sources. I deliberately included sources with different political backgrounds, such as the Katapult, FAZ, Neues Deutschland and Zeit Online, in order to broaden the spectrum of perspectives. While I used these sources particularly to contextualise the pandemic and trace the development of measures, the German media in particular revealed a dramatic shift from pitying the farmers to shaming the employment system in the food sector. This shift went hand-in-hand with an increase in visibility of the prevalent inequalities, not only regarding the asparagus, but also the Tönnies scandal. The media's power to shape public discourse became very visible during the pandemic and continues to astonish me.

[F]

FOOD FIGURES

> The origins of agriculture are obscure, but what can be said with some degree of certainty is that before farming came along, there were no cities.
>
> —Carolyn Steel (2013:10)

[F] FIGURING WITH FOOD FIGURES

Why bother with mixed methods in a predominantly qualitative research process? As mentioned in the introduction, I was coined by different disciplines from the very beginning, studying communication and cultural management in an interdisciplinary context prior to my urban design master's degree. What I learned in particular from statistics courses in my first degree is that weaving quantitative and qualitative material together can make things visible that might otherwise not be. Thinking these methods together is hence a possibility to engage more deeply with the complexity of the question 'how do we feed the city?', a question that is both very local and very global. It has measurable and immeasurable dimensions. What intrigues me in particular is combining different material, levels of analysis and ideas, theories or concepts in a novel way: experimenting with the material, becoming part of it, aiming to avoid causal short circuits. I would like to stress this point, because I do not want to 'read' data from a top-down perspective, but rather to engage in a dialogue with it. In a way, I want to let the different material speak to me—speak to each other; become together. I want to create possibilities for serendipity; for new *in*sights and *far*sights. Although some of the data might give room for interpretations and conclusions, I find it much more interesting to present it without drawing these. I want to put numbers next to one-another and to make different interpretations possible. Having said that, I do combine certain statistics for a reason and hence point in certain directions. I do not fully refrain from making some small causal assumptions, such as possible effects on the structure of food provision after the introduction of birth control in 1961 [SEE F2]. This particular phenomenon was called to my attention during one of my interviews, in which my interview partner W. stressed that how we feed the city today is closely linked to social structures and societal developments.

Following the asparagus has shown many questions and fields that are a part of the food production network. In this chapter, I will focus on figures and intertwine these with empirical material where possible. In allusion to Haraway (2016), I will engage in acts of figuration; figuring the figures and always asking: what figures figure the figures?

All data was sourced from:
Bundesministerium für Ernährung und Landwirtschaft (BMEL)
European Commission (europa.eu)
Statistisches Bundesamt (destatis)
Statista

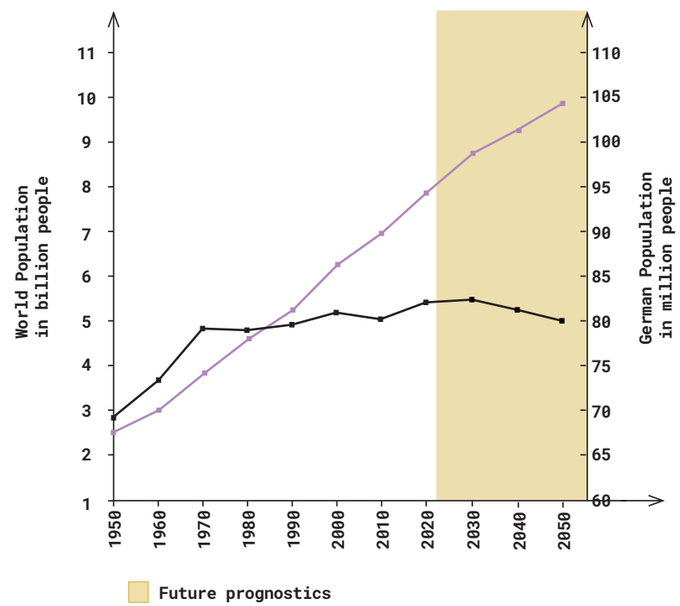
[F.1] GROWING POPULATION

First off, the growing population is not only challenging us—the earth, its critters and zones—in urban settings in every possible way. Global population is expected to grow continuously in the coming years, exceeding the 10 billion mark just after 2050 **[F1]**. While the German population is tending to plateau or even decrease slightly in the coming years, globally speaking, we are in trouble. The increase in population poses several challenges of feeding cities, especially regarding the topics of just access to and production of food. It raises questions such as 'what is the real cost of our food and who pays for it?' (STEEL 2013) or 'how can we feed the city in an ecologically and socially just manner?' (MORGAN 2015)

→ See P.26f.

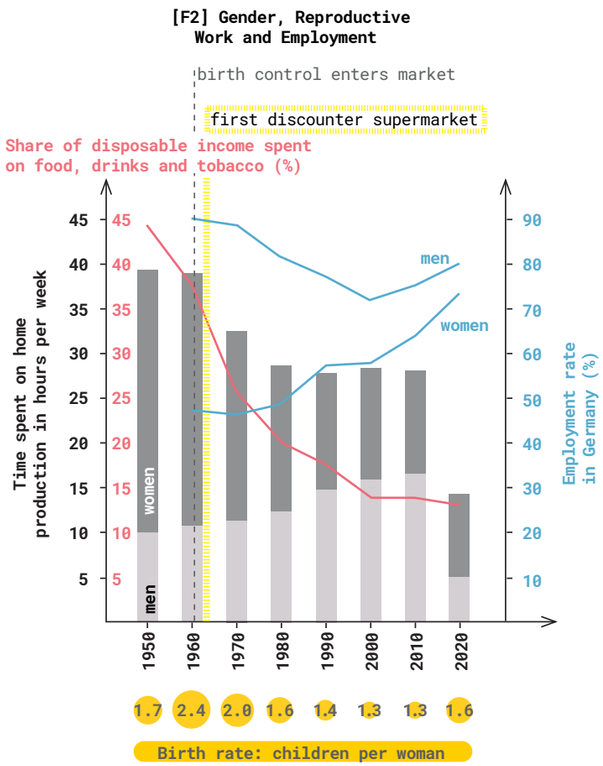
Donna Haraway is very concerned with the growing population, as the more people inhabit the earth, the more resources are needed and used. She thus proposes to "Make Kin Not Babies" (HARAWAY 2016:102). Her serious appeal to making kin in a sense of forming familiar yet non-genetic ties between humans and humans, but also between humans and non-humans, is an attempt to raise awareness for this trouble. In terms of focusing on keeping earthly processes ongoing, she believes that by following this credo, the human population might once again be reduced to two or three billion, "increasing well-being for diverse human beings and other critters as means and not just ends." (IBID.:103). One might ask, then: at what point might this trouble or matter of concern turn into a matter of care? And who even cares?

[F1] Population Trends



[F.2] CHALLENGING NUMBERS

I was unaware of the depth of interconnection of how the city is fed and certain events or developments in society. I allude to the aforementioned speculation, voiced by my interview partner W., that birth control changed the system of how the city is (or was) fed. F2 is an almost three dimensional figuration, relating figures on time spent on home production (involving cleaning, food preparation and rearing children), employment and birth rate, the share of disposable income spent on food, drinks and tobacco all in light of the introduction of birth control. I would like to add that employment and home production are separated by gender, into male and female.



This gives me the opportunity to comment (in the sense of what figures figure figures) on the heteronormativity that underlies the quantitative data that I found in my research. This is a bias that is continually reproduced and not really commented on or reflected. It is a bias that affects the data, changes the data and that is also a part of how the social injustices that we face as a society, as earthly beings are (re-)produced. Those who are not represented in the data, do not exist? Who collects the data and with what agenda? What assumptions underly the data? If the data is based on statistics derived from national surveys, what conceptions conceive concepts? Are statistics, then, not only a very momentary, biased depiction, a freeze frame of a very specific slice of a very specific situation? I am trying to avoid the term 'reality', because I would like to think that there is no such thing—or rather, that it is always constructed, produced, created in every moment, for every human or nonhuman. I would like to remain critical toward these numbers.

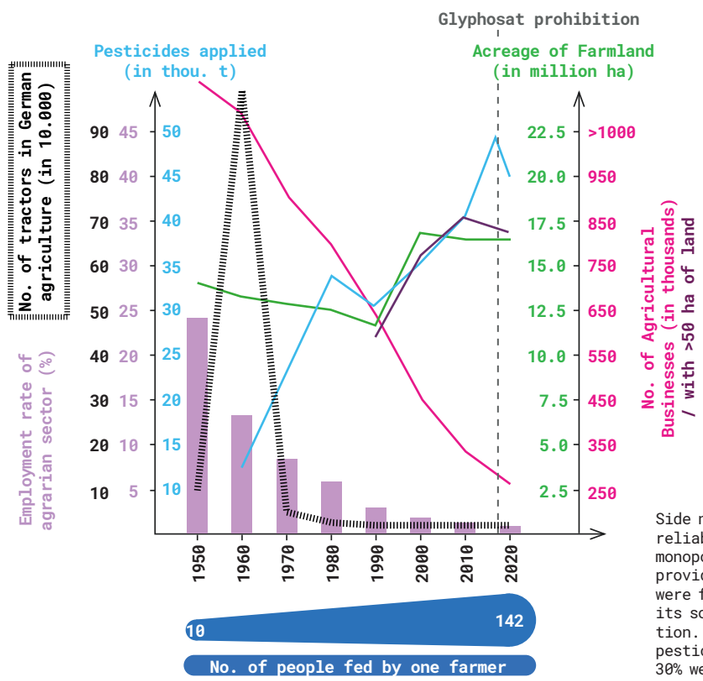
With these thoughts in mind, one might regard F2 as always embedded in a context and time, unable to make statements of its own. One might take a look at the development of hours spent on home production for both genders, the development of birth rate per woman, and the development of employment of women in the given time frame. As the female employment rate rose from under 50% to over 70% between 1960 and 2020, birth rates decreased from 2.4 children per woman to 1.3, only recently rising again to 1.6. At the same time, men seem to spend more time in home production activities, the male employment rate sinking from 90% in 1960 to 70% in 2000. During this time, female home production time sank from nearly 40 hours per week in 1950 to around 15 hours in 2020, which is still almost three times more than men. These numbers will also have changed during corona, an event that has been criticised for pushing women back into 1950s gender roles (ALLMENDINGER 2020). A recent study of the Socio-Economic Panel (SOEP) has found, however, that this is not necessarily the case. Although the study finds that women, in general, spend significantly more time with care work, the pandemic seems to have increased the amount of time spent with these activities by an equal amount (GROLL AND LOOS 2020). With all these studies, I wonder: what thoughts think these thoughts? What figures figure the figures?

Either way, it is a topic to continue tackling: feeding the city always asks about justices of food production, which is closely entangled with home production. One major change to the food supply system, according to W., is that when women began working and birth rates dropped, the number of out-of-home catering and convenience food providers soared (INTERVIEW W.). Unfortunately, I did not find data for this development. W. also said that the specialised small structures, such as the *'Tante Emma Läden'*, the butchers, bakeries, cheese shops, etc. were increasingly pressured to turn into more convenient providers, because the required time to go from shop to shop for all different foods was no longer available. The introduction of supermarkets that integrated all different products and of discounters finally changed the food provision in the city forever. With these big players also came a drop in overall prices, which can be seen in F2. The percentage of income spent on food, drinks and tobacco has dropped immensely since 1950, potentially also because households increasingly live off of two incomes.

[F.3] AGRARIAN SECTOR IN GERMANY

After diving briefly into changing structures of home production, it is time to return to food production. F3 sheds light onto the agrarian sector in Germany. It depicts the changes in employment rate of humans in this sector, together with the tractor boom, for example, the employment of pesticides, change in acreage of farmland and farm sizes. These numbers tell stories. Whilst roughly one fourth of the German employees worked in agriculture in the 1950s, today we are looking at less than 1.3%. At the same time, the number of agricultural businesses in total has been decreasing steadily, while the number of big agricultural businesses with more than 50 ha of land have been increasing. The tractor boom that took place between 1950 and 1960 sank just as quickly as it had soared by 1970, whereas the application of pesticides in agriculture has increased drastically since the 1960s. The prohibition of glyphosat, due to its accused carcinogenic effects, has caused a decrease recently.

[F3] Farmland, Farms and Farmworkers in Germany



The agricultural sector in Germany, then, employs only a very small portion of German workforce now-a-days (a side not here: the seasonal workers are not counted in this statistic), and the number of large farms is increasing. In the 1960s, average farm size was 7.5 ha, whereas today it is around 62.3 ha (SCHWENNER 2019). Machines have pushed this development by making it possible to farm more land with less people.

Side note: it was difficult to find reliable numbers regarding the monopolistic development of crop providers. And: glyphosat traces were found up to 1000km away from its source, despite the prohibition. A recent study traced 138 pesticides in Germany, of which 30% were never or are no longer approved (Grahn et al. 2020).

[F.4] SOY, CATTLE AND THE AMAZON

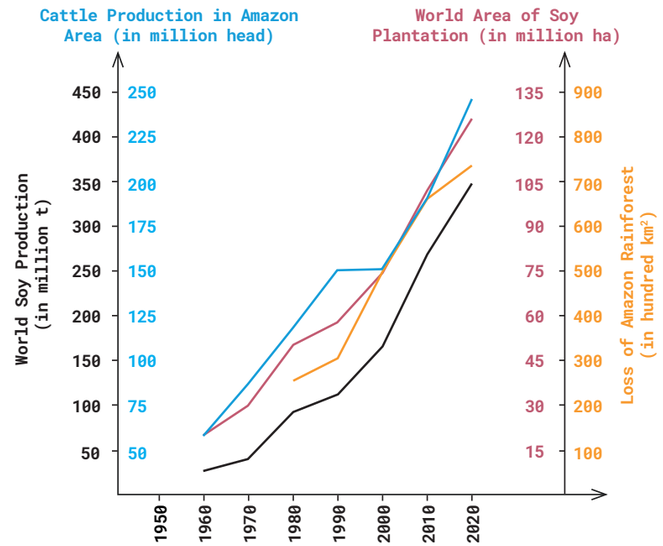
The total acreage in Germany has plateaued in the last 20 years, after increasing by about 5 million ha between 1990 and 2000. This increase can to be traced back to repurposing of land. Whereas grasslands used to form a large part of the green areas in the past, now most of it is cropland. Unfortunately, this is happening on a global scale and has led to a large reduction in biodiversity, impacting not only the climate, but also changing the earth's zones significantly. Remaining on a global scale, this leads to F4, focusing on the Amazon rainforest. World wide soy production has boomed since the 1960s. The area dedicated to soy plantation in the world has increased from 15 million ha to almost 130 million ha. The latter equals three times the area of Germany. Increasing soy plantations means a loss of the Amazon rainforest. This has been taking place at almost the same rate, as can be seen below [F4]. In light of the prevailing research question, it is particularly interesting that the soy plantations are not purposed to feed humans. Instead, they serve to feed livestock. It is no surprise, then, that cattle production in the Amazon region has been gaining importance as well, growing in a similar pattern as the other factors. And to find space for the cattle, more rainforest is destroyed. At whose cost, though? At what price?

Side note: every minute, one and a half football fields worth of rain forest are being destroyed.

Because of the vast deforestation of the so-called "CO2 sinks" (forests that absorb a large portion of the produced GHG), scientists believe that by 2060 the Amazon, for example, might start releasing more CO2 than it absorbs—which would have serious negative impacts on climate change (Harvey 2020).

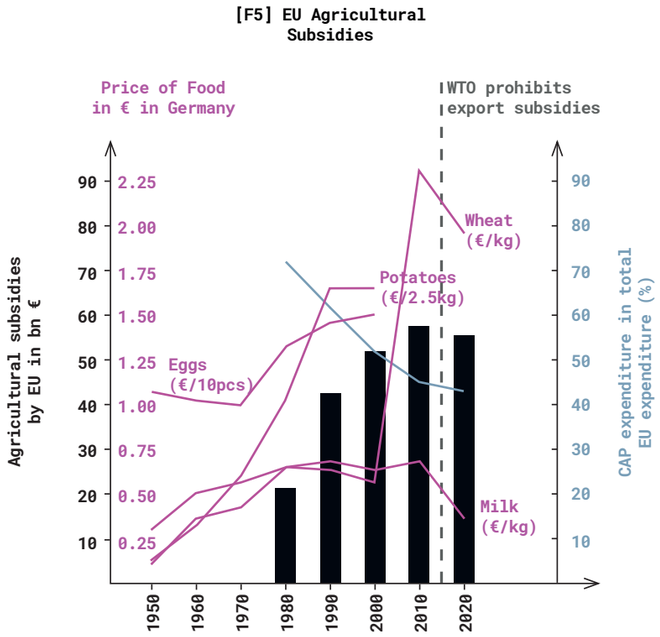
Measures:
1 ha = 0.01 km²
100 ha = 1 km²

[F4] Soy, Cattle and Deforestation in the Amazon Rainforest



[F.5] THE CONTROVERSY OF SUBSIDIES

[F5] EU Agricultural Subsidies



The story told by the first four figures in conversation with other material and sources, is furthered by **F5**. This figure plots different agricultural subsidies and food prices against one-another. I followed this lead upon watching the documentary by LÜNENSCHLOSS AND ZIMMERMANN (2019) called *Europe's dirty harvest* (translated). The documentary sketches out the mafiosi structures of the Italian agricultural sector and the role of politics in the Spanish agricultural areas (such as Almería), particularly focusing on how these businesses receive EU subsidies that are then laundered or misused. It was not easy to find detailed numbers, which is why this figure is somewhat slimmer than the others. The EU currently spends over €58bn per year on agriculture (CAP). In the 1980s, this sum was much smaller (about €20bn), but made up nearly 70% of the total expenditures. Meanwhile, the CAP expenditures amount to just over 40% of total EU expenditures (EUROPEAN COMMISSION N.D.). Thus, in the last 40 years, the EU budget has increased tremendously as has the importance of agriculture in the European economy. The comparison of different food prices suggests a general downward trend, which can be related to **F3**. As more big farms and monopolist supermarkets control the field, the more prices can be pushed. And: the more subsidies the EU distributes, for example, for poultry production, the more is produced (LÜNENSCHLOSS AND ZIMMERMANN 2019). As can be seen in **F6**, meat consumption in general is sinking (in Germany). The excess produce of poultry is thus exported to Africa, for example, where it is sold below the local market price. This destabilises local farmers that cannot compete with the dumped prices and so on. Some EU subsidies, then, are indirectly harming the whole food provision network in a cascade effect.

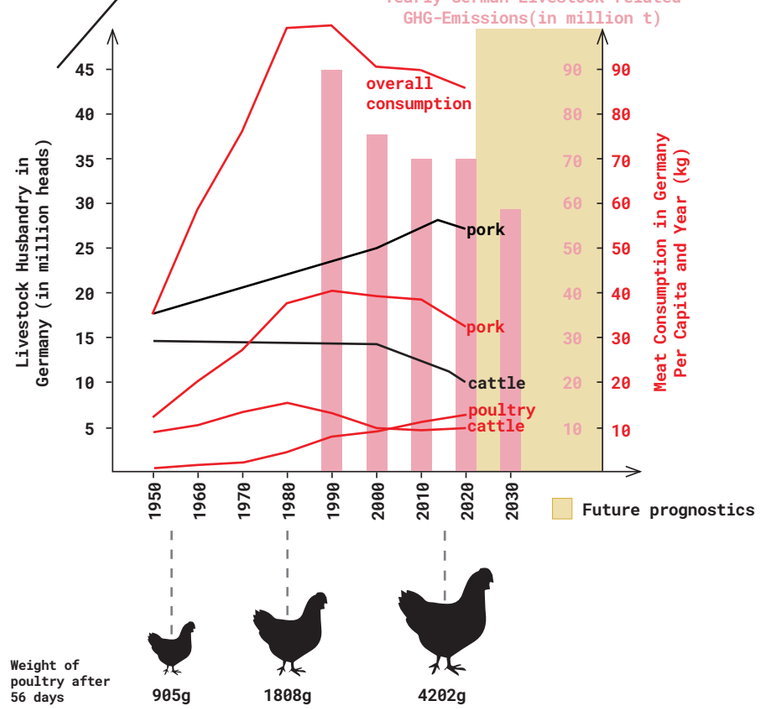
[F.6] ANIMAL HUSBANDRY IN GERMANY

My interview partner W. also commented on this competitive distortion and said that the EU subsidies not only encourage overproduction and consumption of meat, but also harm global food supply chains. The conversation between **F3**, **F4** and **F5** hints at a correlation between different developments. *Der Fleischatlas* (HEINRICH-BÖLL-STIFTUNG ET AL. 2018) makes the connection visible: the subsidies paid per ha of land amount to about €280, making it particularly attractive to operate large farms. In face of the current urgency of reducing the emission of gases that exterminate the earthly zones, leading to an increase in temperatures and to many existential issues, how can overproduction and waste of resources be subsidised by the EU? In the documentary by LÜNENSCHLOSS AND ZIMMERMANN (2019), the reporters even tried to speak to politicians in the EU parliament about the situation. These ignored the reporters and their questions bluntly.

Food production is very complexly entangled with political agendas: Is the priority to maintain the agricultural industry or save the planet? How can both be combined? Many questions remain unanswered because they exceed the scope of this research. Maybe they can be answered elsewhere, just like the question, why, although overall livestock husbandry in Germany has gone down in the last years, the related GHG have stayed relatively stable? On a good note, in total, these emissions make up 7,4% of the yearly German GHG emissions; about 20% less than in 1990 (WILKE 2020).

poultry production (off the chart!)

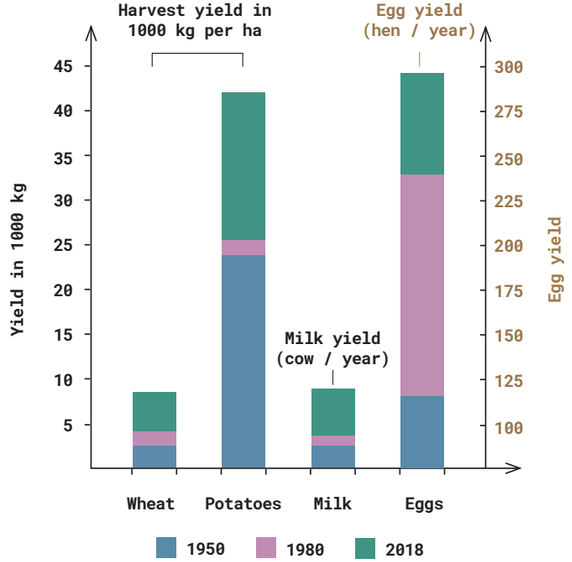
[F6] Animal Husbandry: Production & Consumption in Germany



[F.7] THE SUPER-HEN AND ULTRA-POTENT DAIRY COW

On that note, I would like to converse with **F7**. Since 1950, the yield of wheat, soy (see **F4**), milk and eggs have exploded. I chose these commodities because they have some sort of importance: wheat, together with soy, is taking over a large part of global plantations to feed livestock. At the same time, the potato, which is known to be a traditional German vegetable, is losing its local status; consumption is going down. Milk has been on the news for years because of similar situations as can be observed with the excess meat production—seas of milk, mountains of butter, these images mark my childhood. Cows today are producing 230.5% more milk than in 1950. The number of milk cows in Germany has gone down by 26% in the same time frame (SCHWENNER 2019). This is remarkable and disgusting, just like the development of egg production. Hens today are obviously about three times more potent than 70 years ago: they lay 300 eggs a year, compared to about 120 in 1950. The number of hens increased from about 45 million (1950) to over 60 million (1970). Then the numbers decreased to about 40 million (1995) and have remained steady since (IBID.). In percentages: the number of hens has decreased by 9.4% since 1950, while the yield per hen has increased by 181.3% in this time frame (IBID.). How is this even possible? The way humans exploit animals and other earthly critters, fields and earthly zones, making of them production machines, altering natural rhythms always seeking more extraction of wealth, shows just how little we humans see ourselves as part of the world that we are surrounded, maintained and produced by.

[F7]Change in Yields since 1950



[F.8] WHO CARES?

In my endeavour to find out more about the way we feed the city, the asparagus and particularly the pandemic have made social and environmental inequalities visible. Taking these quantitative data and relating them to one-another in different ways has given me a deeper insight into how food production is not only a political issue, but always a glocal one, too. Global and local networks are tightly interconnected and interdependent, they produce one-another and depend on each other. Actions on one end of the string figure entanglement always have effects on all other ends; such as on ecological and animal justice. Although it is intriguing to take these numbers as truths, it is important to maintain a healthy, critical distance to them. Not only is it impossible to see the entanglements that have created them, but it is also invisible what thoughts thought the thoughts, what figures figured the figures. By making kin with the different levels of analysis, I aim to invite these numbers to participate in the discourse in a critical manner.

I return to the questions, when do these matters of concern turn into matters of care? And who even cares? From both the empirical, local asparagus material in chapter 3 and the scrutiny of the more distanced quantitative data in this chapter, I feel that these matters of concern are already turning into matters of care. The more protesters take the streets to fight for action in the politics of climate change, the more this topic becomes a matter of care. The more the media unwraps the social inequalities related to the food on our table, the more it becomes a matter of care. The more we humans begin to think of ourselves as a part of, as opposed to being above or beyond the issues; the more we realise that we are also affected by our own actions that are changing the earthly zones, the air we all breathe, the soil we get our wealth from and the critters that we co-produce the terrestrial with, the clearer it is that more than ever, *we must care*.

The following diagram is an attempt to take the conversation between the different layers, dimensions, types of data, to another level. This type of diagrammatic depiction makes it possible to relate timely, representational and textual material to make processes, relations, dependencies and discontinuities visible. It also illustrates the relatedness of social, ecological, political and economic dimensions. It can be read from any direction, as it has no determined beginning or end. The material in the diagrammatic scheme has in one form or another been discussed in this work, so this reassembly aims to relate the different chapters and levels of analysis in a productive manner.

SOCIO-ECONOMIC AND SOCIO-POLITICAL EVENTS

alienation

Matters of Care?

COVID-19 and Disposable Migrant Workers

Raluca Bejan
Do 16 Apr 2020

Covid-19 crisis stokes European tensions over migrant labour

Who cares?

essential workers

Germany | World | Birth rate: children per woman | Food prices

Minimum wage €10,45/hour
Minimum wage €9,35/hour
Big five German supermarkets own 80% of market share
WTO prohibits agri. export subsidies
Minimum wage €8,50/hour

(dis)continuities

accountability

Plant protection act (PflSchG)

monocultures & monopolies

responsibility

response-ability

rhythms

roots

alternative food networks

EU Rural Development Policy in effect

The Sickness in Our Food Supply
Michael Pollan
JUNE 11, 20

nonhuman critters (Haraway 2016)

human & nonhuman entanglements

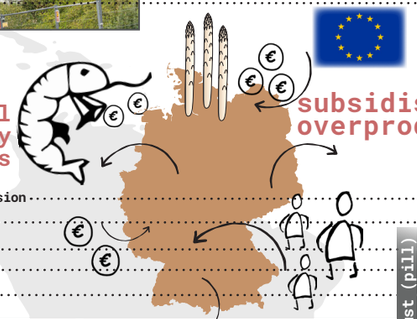
Gschwel et al. 2020

breaking walls or building them? And: for or against whom?

Reunification of Germany

Pitu & Schwartz 2020

global supply chains



subsidised overproduction

price dumping abroad

1.EheRG: women are free to work without husband's permission
Plant protection act (PflSchG)
maintenance & repair
First pressure cooker
Price maintenance for food lifted
One-millionth migrant worker enters Germany

WDR 2016

Second German Women's Movement

First discounter supermarket
EU Common Agri. Policy launch
Birth control launched

WDR 2020

First frozen foods available
distribution availability
Opening of first large self-service supermarket in Cologne
alienation

Tractor boom

Castelow n.d.

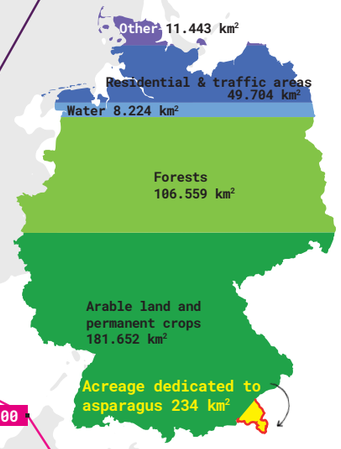
Deregulation | Depression | baby-bust (pill) | baby-boom | Wirtschaftswunder | migrant workers enter Germany | Fin. Crisis | Swine Flu | Avian Flu | COVID-19

1.4 1990
1.6 1980
2.0 1970
2.4 1960
1.7 1950
1.6 2020
1.3 2010
1.3 2000
2030

Key* * all data for Germany

- Percentage of employees in agriculture
- Number of businesses in agriculture
- Herbicide residues in groundwater
- Acreage of asparagus farmland in ha
- German asparagus harvest yield in t
- Number of businesses in agriculture with >50 ha of land
- Time men dedicate to home production per week in hours
- Time women dedicate to home production per week in hours

24.000	1.3%	267.000	5.50	14.00	835.100	106.400	
21.000	1.7%	299.100	4.6%	16.40	27.60	852.000	92.400
13.000	2%	448.900	16.30	9.7%	27.90	786.700	50.800
8.000	3%	562.800	14.90	27.50	629.700	22.010	
6.000	6%	797.400	12.90	28.00	905.000	14.050	
7.000	8%	17.500	11.40	33.30			
9.000	14%	16.300	10.70	38.10	1.385.000		
9.00	25%	38.80	1.646.000				



SELECTED FOOD PRODUCTION FIGURES

[4]

REARRANGING

> And remember that your data speaks of particular occasions, situations, times and places, not of general laws, universal truths or timeless knowledge.
>
> —Lotte Hoek (2014:105)

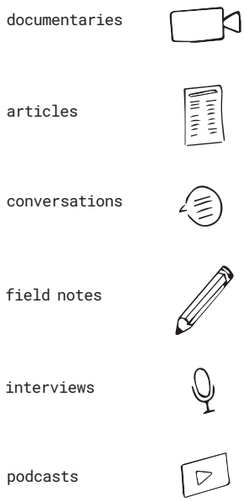
[4] FINDING & LOSING MEANING

In the previous section I tackled some quantitative data and attempted to rethink it together with empirical material in the diagrammatic scheme. F9 embeds some of the codes generated, because these emerged within the iterative and non-linear research and were hence part of thought processes that thought the thoughts. Coding forms an integral part of the research process, following a grounded theory approach. It aims at identifying recurring themes in the material inductively, giving room for development in different directions. Being very bodily involved in my research provided me with rich material (see chapter 3), of which I plan to un- and refold a selection in the following. In the coding process, I worked closely with my material, assembling and reassembling material from different sources and rekindling them into codes. I proceeded loosely, letting the material guide me. In this process, I attempted to find meaning, understand relations and identify topics and themes that may have emerged in different material. It was arduous and involved finding and losing a lot of meaning, repeatedly. Meaning, I guess, is attributed by me anyway. So the codes, the meaning found in the material might be considered a reflection of my own biography, to a certain extent.

While finding and losing meaning, I incorporated my fieldwork material, including field notes, interviews, participant observations and conversations; film documentaries, podcasts and multiple articles, and the quantitative data. Throughout the research process, I coded and conducted research parallel to one-another, triangulating my thoughts and codes with literature ongoingly (see also chapter 5). I arrived at a multitude of codes in this process, of which many were discarded, some recycled and others pursued further. I would like to believe that this iteration of finding and losing created and added depth to the codes I present in the following. It is, however, only a selection or collection of the most prominent codes that emerged. I have clustered selected material around the codes (yellow), aiming to illustrate how I arrived at them. I leave the codes more or less uncommented here. In the subsequent chapter, the reassembly of different levels of analysis and the codes will tackle what has become visible in-depth.

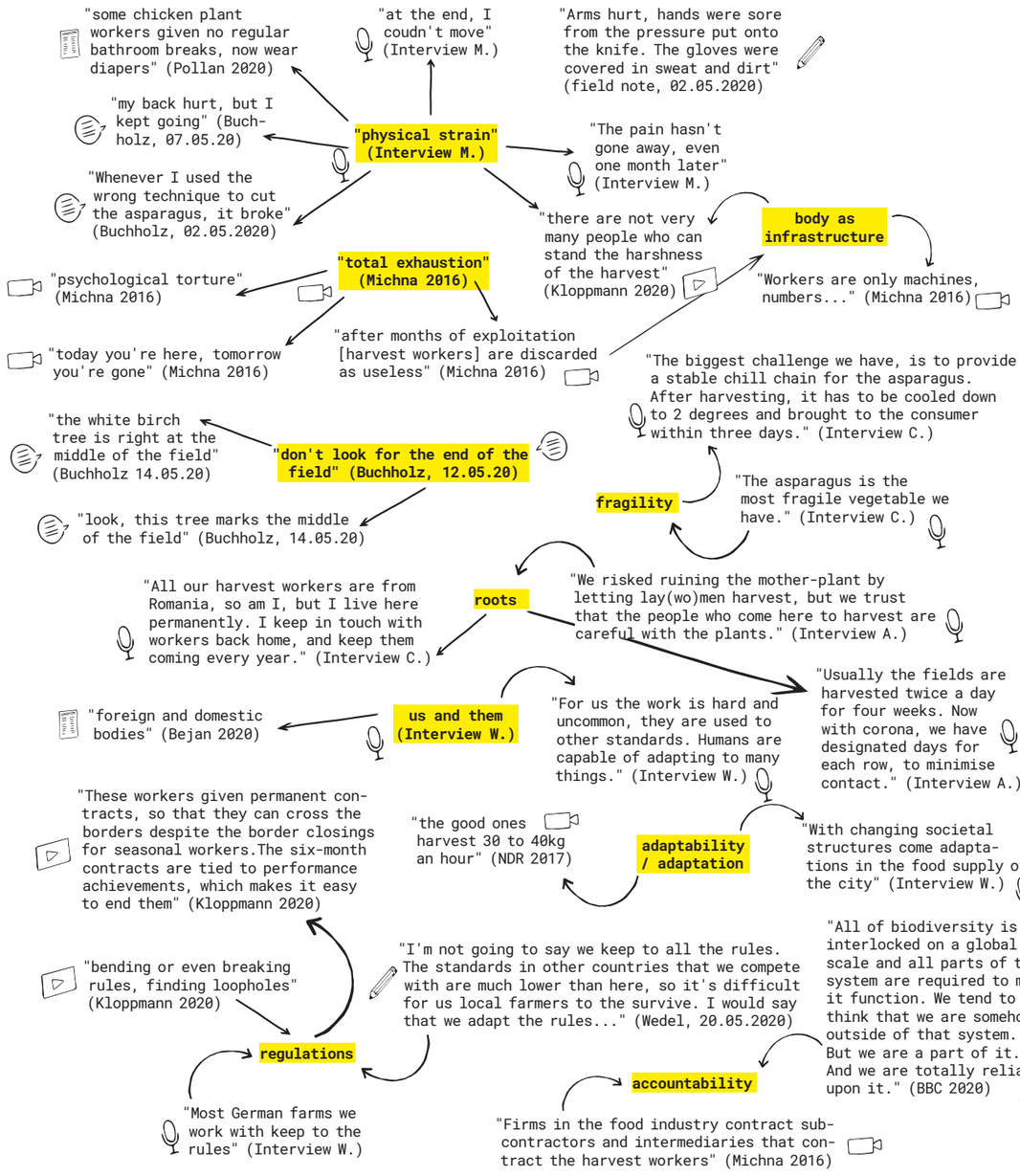
[4.1] HOW TO READ THE DIAGRAM

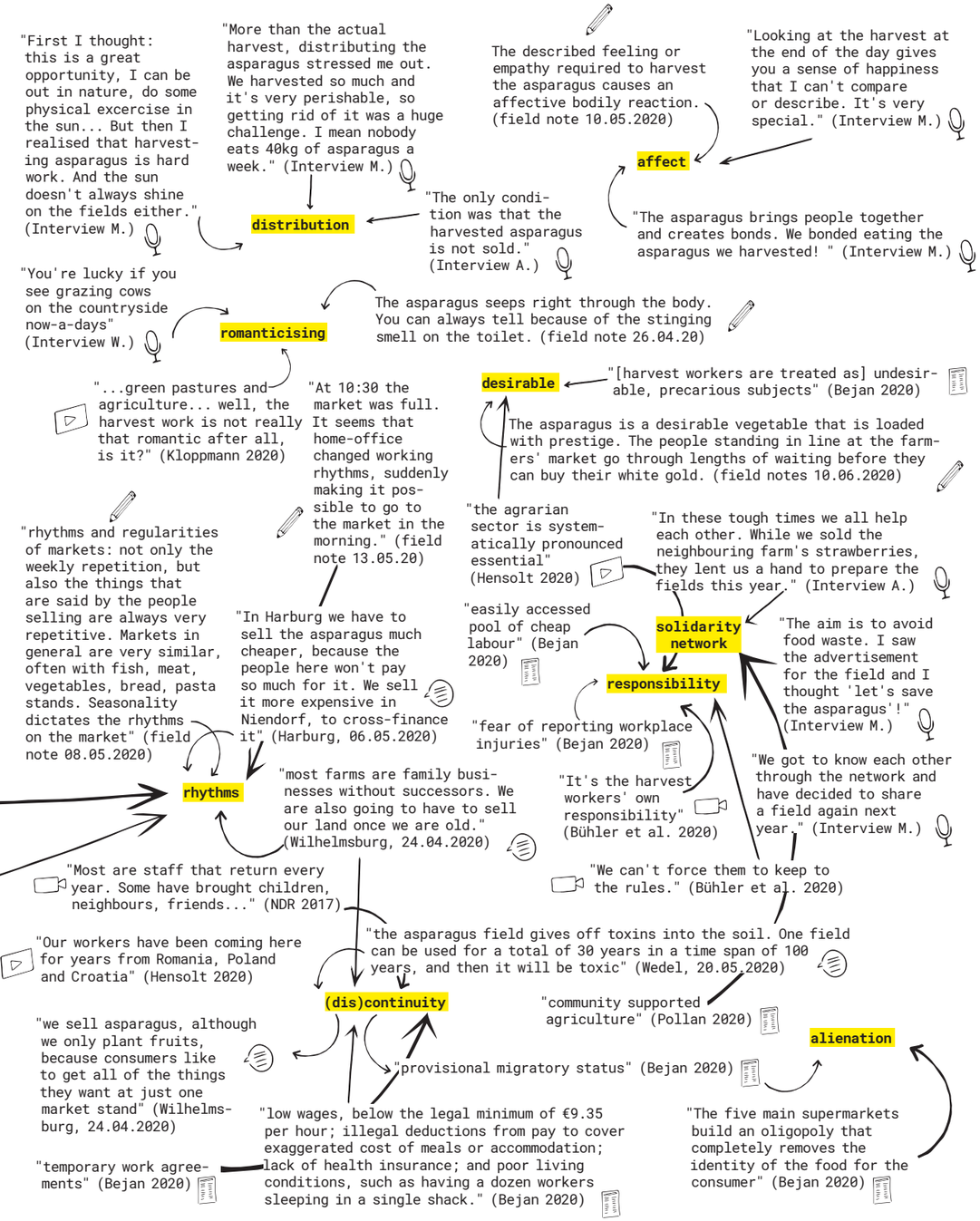
While the codes below are only a selection, they do represent a number of themes that emerged again and again in the research process and that I consequently consider meaningful. I have chosen not to form categories out of these codes, as might be done in other coding approaches, because I would like to remain very close to the material. In my iterative coding phases I attempted to subsume different codes into larger categories, which unfortunately led to a loss in relateability and proximity to the material. Returning, thus, to the 'raw' material has helped to define and identify much more concrete themes that are significant, in order to continue working with these in the reassemblage in chapter 5.



The material is presented in clusters around corresponding codes. The material is denoted with the icons above, these make it easier to understand what type of material it is and where it comes from.

[4.2] REARRANGING MATERIAL





[5]

MAKING THINGS PUBLIC*

> There might be no continuity, no coherence in our opinions, but there is a hidden continuity and a hidden coherence in what we are attached to. Each object gathers around itself a different assembly of relevant parties. Each object triggers new occasions to passionately differ and dispute. Each object may also offer new ways of achieving closure without having to agree on much else.
>
> —*Bruno Latour, Making Things Public Exhibition ZKM (2005:15)

[5] MAKING THINGS PUBLIC

> We might be more connected to each other by our worries, our matters of concern, the issues we care for, than by any other set of values, opinions, attitudes or principles.
>
> —Bruno Latour, Making Things Public Exhibition ZKM (2005:14)

Yes, particularly in times of trouble, our worries, our matters of concern and the issues we care for seem to build bridges between us, between multispecies, between non-genetically related critters. Not only has the common denominator 'trouble' or 'crisis' given birth to new kinships, as the pandemic has shown with neighbours, for example. The shared worries have also produced new spaces, windows of opportunity that have potential for change. With my fieldwork and multi-method approach, I have attempted to make visible the troubles we are in—and a part of. My aim was to examine how we feed the city, but the research process revealed so many dimensions to it that I was somewhat overwhelmed: what to make public, what not? I had to make choices. I had to say goodbye to things that will have to be made public elsewhere. In this chapter, I now aim to reassemble different dimensions and knowledges to bring theoretical and empirical material into dialogue, in order to contribute to the debate of how we feed the city and to find approaches to the research question:

What does following the asparagus in midst of the COVID-19 pandemic reveal about socio-ecological inequalities inherent to urban food provision?

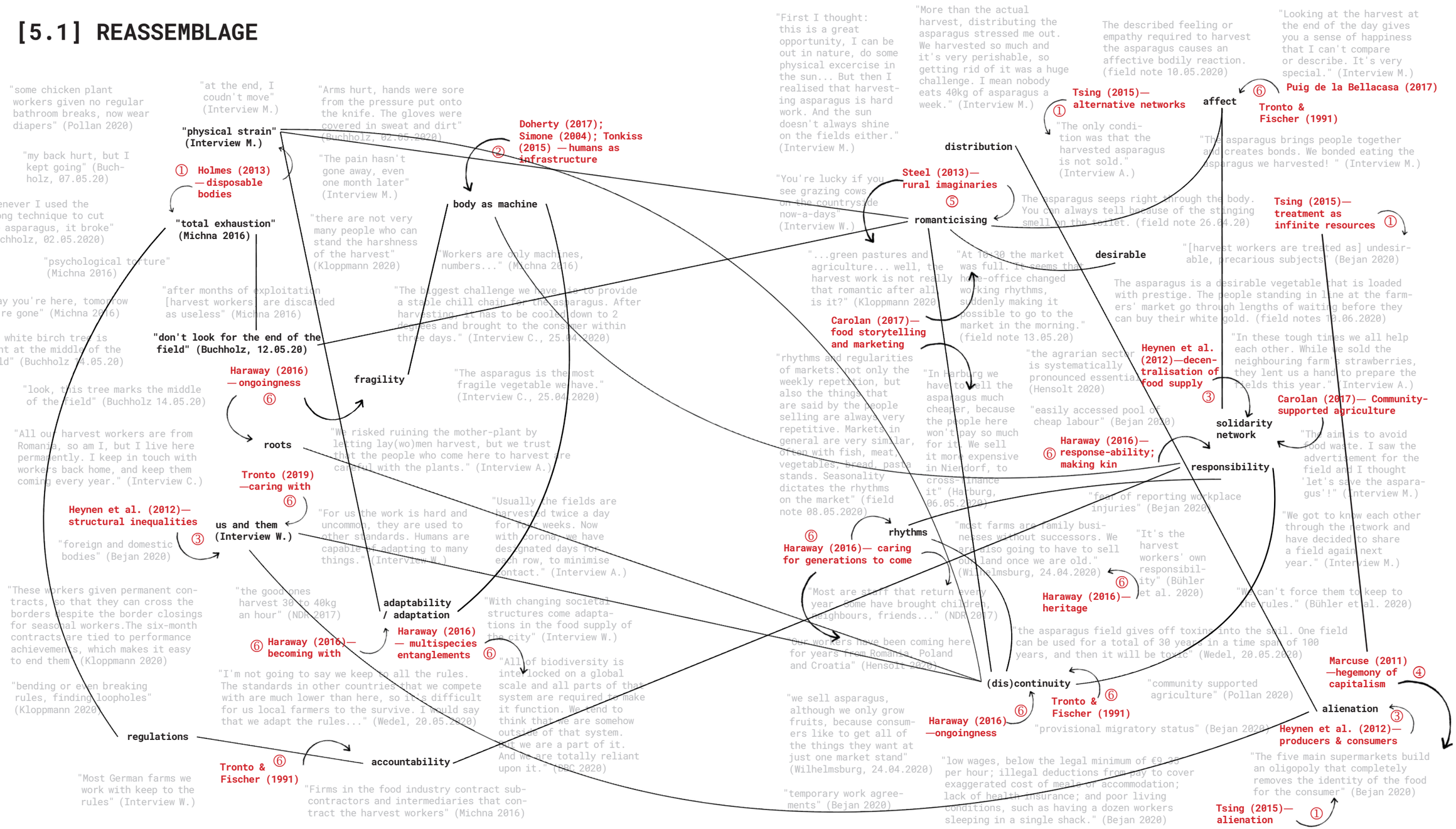
The process of assembling the material brought forth a variety of codes. In order to tackle the questions at hand, I have chosen to elaborate on three codes that were particularly prominent. The first will be '(dis)continuity'. Using this code, which appeared independently in much of my material, as a starting point, I will then navigate my way through the codes 'roots' and 'responsibility'. The latter two are both closely related to (dis)continuity, as well as to 'accountability', which I will incorporate in my discussion. My aim in this chapter is to entangle and rearrange these codes and the empirical material, enmeshing it with the theoretical concepts and hypotheses postulated at the beginning. In doing so, I plan to bring to light discrepancies, contradictions, matters of concern; in other words, to make things public.

On the following two pages, the mind map with codes from the previous chapter, the underlying theoretical frameworks and the hypotheses are overlapped. This graphic rearrangement makes visible how I quite physically combined, connected, enmeshed theoretical and empirical material. The circled numbers connote the corresponding hypotheses, the theoretical frameworks are denoted in red, while the black lines connect different codes and theories to one-another.

→ See P.150-151

→ See P.44

[5.1] REASSEMBLAGE



[5.2] (DIS)CONTINUITY AS OPPORTUNITY

(Dis)continuity. I deliberately use this hybrid writing, instead of writing out both terms, because I consider them as co-emergent, symbiotic, constituent of one-another. This thesis emerged from and within discontinuities, ruptures, *troubles*. But it also became with this trouble, drew and grew from different efforts to reconstitute continuity. The discontinuity caused by the pandemic, led to rethinking of daily business and routines: the opportunity to harvest asparagus as a lay(wo)man is only one of the results. This momentum, then, triggered various processes of rethinking, rekindling, refiguring. It opened windows of opportunity that were previously invisible; exposed frameworks of bypassing systems of mere capital accumulation, that had to date remained unquestioned. I see these metaphorical windows of opportunity as magnifying glasses or spotlights for current troubles. And in so being, as enablers of continuity within discontinuities. These windows made possible the assumption of roles of care giving by people who might not usually have had the opportunity—uniting urban and rural forces in the endeavour to save asparagus from their demise. "What can we do to avoid losing the harvest?" (INTERVIEW A.)—the family at Hof Oelkers asked themselves, after realising that harvest workers would be scarce this season. Why not rechannel the asparagus, motivate consumers with time to spare to harvest the sprouts themselves and avoid masses from going to waste?

In her notions of inheritance and ongoingness, HARAWAY (2016) could be understood to imply a concomitance of dis- and continuity, as well. But what exactly is meant by continuity? Given these theoretical tools and the conducted fieldwork, it seems simple to me: continuity is a result of bodily human—nonhuman kinship; of maintaining and repairing obligate mutualisms of becoming together; of respect and humbleness of multispecies. It thus also implies an (eco)systemic stability that enables heritage. Yes, it is vague, but it also is not, precisely because it entails this notion of care, of stable ongoingness that I will elaborate on below. In terms of food, it is embedded specifically in HARAWAY'S (2016) notion of the Plantationocene. Within this, continuity has everything to do with maintenance and repair, it is emblematic, even, as a concept, for compost thinking.

↵ See P.53

'compost' meant literally; from the latin root componere, to put something together. Here I mean to think things together, to think in multispecies entanglements; to think in generations. This thought was inspired by Haraway (2016), she uses compost slightly differently, though.

It entails the paradigmatic shift, away from the anthropocentric view, away from the Capitalocene. Again: it matters in whose interest continuity is maintained, and at whose cost? Adapting TRONTO'S (2019:30) sentence, I would say that "[if] care only means protecting the interests of the wealthy, it will result in a different [politics of food] than one designed to repair the world".

Taking this a step further, I would like to consider a definition of care developed by JOAN TRONTO AND BERENICE FISCHER (1991). As MARÍA PUIG DE LA BELLACASA (2017) comments in her book *Matters of Care*, this generic and widely used definition has been key in developing the care discourse. Interestingly, it also entails a notion of continuity, thought together with maintenance and repair. They write:

> "in the most general sense, care [is] a species activity that includes everything that we do to maintain, continue, and repair our 'world' so that we can live in it as well as possible. That world includes our bodies, our selves and our environment, all of which we seek to interweave in a complex, life-sustaining web" (TRONTO & FISCHER 1991:40).

In terms of feeding the city, it is essential that this definition thinks of care as an activity performed by humans and nonhumans *together*, in life sustaining acts. Food, then, can be considered a constituent and prerequisite of many life-forms. At the same time, the caring, maintaining and repairing behaviour of multispecies life-forms are necessary for food to become, for crops to grow and for rhythms of production to continue, as Farmer D. stated (INTERVIEW D.). Food itself (in the broadest sense of assemblage of nutrients), is both a product and producer of life-sustaining activities. Rethinking how humans view themselves and act within this ecosystem is thus central to its continuation. Alluding to LATOUR AND WEIBEL (2020): it is time to stop separating the land that we live on from the land that we draw our wealth (and resources) from! Human life today performs life-sustaining activities for human life only (BBC 2020). Who has what agency in today's food production? And with what effect?

TRONTO (2019) also comments on this definition (of care) in her contribution in ANGELIKA FITZ AND ELKE KRASNY'S (2019) book titled *Critical Care— Architecture and Urbanism for a Broken Planet*. She writes that it tends to provoke frustration, because of its breadth, however, that the latter is deliberate. Care is situated and malleable, it is broad and specific all at once: caring for a child is different to caring for an elderly person, just as it is different to caring for the planet or for a specific asparagus field. She adds that care is not only a human matter—just as it is not merely a feminized one (IBID.). Not only humans, but animals and other 'critters', really all natural and artificial things are part of entanglements, enmeshments of life-sustaining practices of care. It is essential to judge this care, she writes further, in order to fulfil the part of the definition entailing 'living in the world as well as possible'. TRONTO (IBID:30) states powerfully that "what we care about determines what kind of a society we are". This statement can be related to the situation with the harvest workers very well: do we care about their lives in the pandemic or

about the asparagus harvest? As a society: is thinking and writing about maintenance and care already an act of such? I would like to challenge to what extent these notions are romaticised and when vocated, treated as thoroughly *good*; as 'beyond critique' (MATTERN 2018). Is care always care? MATTERN (2018) writes about the need to remain critical toward care, just as FITZ AND KRASNY (2019) do. Within the narratives of care, then, I want to stay with the trouble, in HARAWAY'S (2016) sense.

On this note, I turn to pollinators and other multispecies, who are considered 'essential workers' in agricultural production, maintenance and repair, threatened by exterminating practices (BBC 2020; MITMAN 2019). Take a look at the film stills from the BBC documentary *Extinction: the Facts* (2020), to the right **[Fig 5.1]**. They show how multispecies work with the soil to make it fertile. This fertility is becoming increasingly threatened by the extermination of life-forms. I want to believe that if humans were aware of the significance of this symbiotic relationship, we would not be exterminating earthly critters, but rather working much more toward cultivating continuity; toward becoming *together*. But I am afraid that, in light of financial capitalism, this would be naïve. Am I stuck on an Anthropocene train of thought here, or am I disentangling myself from it, finally?

> Interdependency is not a contract, nor a moral ideal—it is a *condition*. Care is therefore concomitant to the continuation of life for many living beings in more than human entanglements—not forced upon them by a moral order, and not necessarily a rewarding obligation
> —María Puig de la Bellacasa (2017:70)

◀ Fig. 5.1

Film stills from the BBC production *Extinction: the Facts* aired on September 13th 2020. It shows two stages of decomposition of soil by insects (top) vs. soil without multi-species (bottom).

A thought experiment posted on a blog suggests that a 500ml glass of honey would cost €673.200, if honey bees were paid the German minimum wage of €9,35 per hour (dueppenweilerimker.de 2017). Although conducted loosely without a scientific background, the value exemplifies just how unaware humans must be of the importance of nonhuman co-production, especially in the food sector (FAO 2018).

[5.2.1] CONTINUING WITH THE PLANTATIONOCENE

All of these examples suggest that quite the opposite of cultivating continuity seems to dominate in agricultural production today. In a podcast hosting DONNA HARAWAY AND ANNA TSING, the two feminist scholars speak about the Plantationocene with respect to continuity (MITMAN 2019). HARAWAY criticises the system of plantation situated within capitalism today and within histories of exploitation, slavery and racism with the following, very powerful statement.

> "The plantation system speeds up generation time. The plantation disrupts the generation times of all the players. It radically simplifies the number of players and sets up situations for the vast proliferation of some and the removal of others" (HARAWAY IN MITMAN 2019).

Taking a look at the coronavirus, or at the rapid reproduction of rats (BBC 2020), we might get a glimpse of what is meant with 'vast proliferation'. Both species are considered to profit from the eradication of others, such as natural pest controls and antibodies. And what comes next? Considering generation time, the asparagus plant is an interesting case. Not only does it 'live' for about ten years, and hence require maintenance and care, "the asparagus plant gives off toxins into the soil. One field can be used for a total of 30 years in a time span of 100 years, and then it will be dead" (INTERVIEW D.).

→ See [F9] P.144

→ See P.100

The asparagus field is thus not an infinite mine that can be extracted for unlimited salvage accumulation. This raises the following contradiction of capital and care: The asparagus is a high-revenue vegetable with the largest single-vegetable acreage dedicated to it in Germany, yet its cultivation ends up destroying the soil. Considering the underground infrastructure of nutrient supply among critters, the white birch tree and other neighbouring multispecies could be threatened by the intoxication. Thinking about living on earth as well as possible with multispecies, then, means rethinking behaviours—or food and vegetables—that might not be compatible with a greater socio-ecological ongoingness necessary to feed the city. Farmer D. hopes that with new technology this could be prolonged (INTERVIEW D.), a technofix approach that HARAWAY (2016) strongly rejects, because it often serves as an excuse not to rethink behaviours.

The domination and extraction of ecosystems, concomitant with coerced labour (human and nonhuman) and their displacement (i.e. human workers, plants and seeds, animals) also forms a part of the Plantationocene. Environmental and social inequalities, hence, are described as being inherent to the practices known as agriculture today. TSING adds that within neoliberal politics, this has led to a collective forgetting that agriculture can also be conducted differently (IBID.). This domination of human and nonhuman multispecies has led to scenarios such as one named by W.: "you're lucky if you see grazing cows on the countryside now-a-days" (INTERVIEW W.). Judging by the amount of cows that are reared in Germany, one could believe that these would be very visible. But, they are not. The same goes for all the other animals and also for the labour forces. Although I visited multiple farms throughout my fieldwork—and even actively searched for harvest workers—they remained invisible to me.

→ See [F6] P.141

> **The provision of care directly links to rising inequality and the conditions of exploitative labor and indebted lives. More recently, movements [...] have raised awareness for precarious bodies and precarious land in need of care. This shows the fundamental interconnectedness of social and environmental justice.**
>
> — Angelika Fitz & Elke Krasny (2019:13)

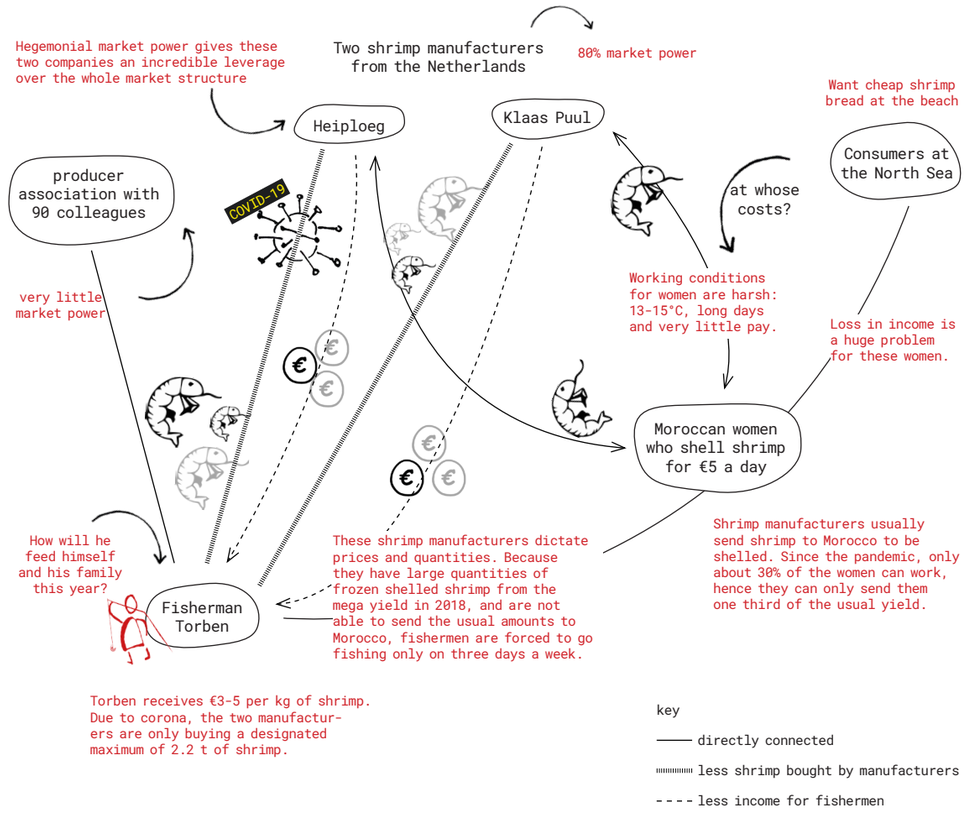
[5.2.2] (DIS)CONTINUITIES TRANSCENDING LOCAL AND GLOBAL

The asparagus is my personal example for how a small change can cause a chain reaction with potential of remodelling or at least challenging how food is viewed and valued. Engaging in physical and arduous bodily labour on the field abruptly shifted my harvest group's appreciation for and relationship to fresh food and the earth. We really became a part of this multi-species entanglement and thus of the asparagus' *life cycle*, through harvest. The distribution of the harvested vegetable that, due to its abundance, called for new kinship among neighbours, friends, etc. added another dimension to this experience. It reminds me of TSING'S (2015) descriptions of the performative Open Ticket buying and selling of the matsutake mushroom, you had to *be* there. Similarly to the mushroom, the asparagus' worth is suddenly no longer just a monetary value, but rather one of time and hard physical labour. It is no longer just a commodity, but a physical manifestation of trust, friendship, freedom even? "What will I do with all the asparagus?" (INTERVIEW M.) became a companion question; the sprout's fragility and perishability turning suddenly central in terms of distribution logistics. "How to transport it? How to keep it fresh?" (IBID.). How to maintain the continuity—the asparagus—ongoing? What effects might this new distribution or gifting have on the urban? "Does it affect the sale of asparagus through conventional capitalist structures, such as farmers' markets, supermarkets or the like?" (IBID.)

I would like to take a brief look at another very local example. A recent article reported on German Krabbenbrötchen, a delicacy common at the North Sea, that is affected by COVID-19 related discontinuities in global food production chains. The shrimp sandwiches have more than doubled in price recently, because the locals are shelling them themselves. The reasons for this are disruptions in a thickly entangled global supply machinery. Let me try to sketch [Fig. 5.2] the situation starting at Fisherman Torben:

→ Based on article in Die Zeit by Kristina Läsker (29.08.2020)

Fig. 5.2 Sketch of Shrimp Supply Chain ▼



This simplified sketch of different dependencies within the production chain of something as 'simple' as shrimps is exemplary for the global entanglement of this sector. The Moroccan women, who earn very little for their hard shelling job, make it possible for consumers in Germany to pay as little as €4 for a Krabbenbrötchen. Nota bene that these crabs have been transported halfway around the globe, only to return to where they originally came from and to be sold as German speciality to tourists. This phenomenon is by no means limited to shrimp, though. Tomatoes are grown and partly processed in China, then processed further and packaged in Italy, only to be sold as an Italian product, for example (MALET 2018). Animals are reared in countries like Hungary, but slaughtered in others, like Germany, so that they can be sold as 'local' produce. Various of the analysed documentaries commented that the economic benefits of blackboxing information, particularly related to the precarious working conditions of asparagus harvesters, seem to outweigh ethical questions of transparency and honesty (DEUTSCHE WELLE 2020; LÜNENSCHLOSS AND ZIMMERMANN 2019; PÖLITZ 2016). Most of the last steps are done only to keep alive imaginaries related to food production that have long not corresponded to reality (CAROLAN 2016; MALET 2018). Just think of the obscenity of crowning of asparagus queens now that we know more about the harvest conditions.

Ruptures in the supply chain, such as due to the coronavirus, might suddenly expose these invisibilities in form of shortages or the named protests. Apart from the social inequalities, infrastructural inequalities become apparent through ruptures, too. Transporting masses of shrimp from the North Sea to Morocco and back is cheap and unproblematic, even during the pandemic. Meanwhile, the Moroccan shelling factory neither disposes of sufficient buses to transport workers to and from the factory, nor can it guarantee adequate safeguarding on site to continue the shelling jobs. It is hence forced to reduce its workforce to 30% (LÄSKER 2020). Taking a closer look at this, I would like to suggest that two types of infrastructural inequalities surface: one regarding the hard infrastructures that enable transportation of goods (i.e. roads, railways, etc.) and one regarding the embodied infrastructures that are made up of precisely these women in Morocco, the harvest workers from Romania in Germany and other humans/ nonhumans, that form a part of food infrastructure through their embodied work. I will return to this thought in brief.

First, let me return to the windows of opportunity and visibility created through the (dis)continuities of the coronavirus. Apart from these local and very tangible disruptions, the pandemic also leveraged another trouble linked to global food production: the climate. Once humans were confined to their homes, in order to avoid further spreading of the virus, air plane traffic was reduced drastically and many industries were put to a halt, air pollution levels plummeted to an all-time low over China. In India, people even reported seeing the Himalayas for the first time (GARDINER 2020). In observable processes of reconstitution, it became literally *visible* that earth's critters are engaged in continuous processes of maintenance and repair, constantly (re-)creating life-sustaining conditions. In other words, there is livability on earth without—or rather, despite—humans. Although this reconstitution did not last long, with images of beaches filled with plastic masks soon dominating the media, it did give a glimpse into the ecological potential of changing behaviour. The irony that a lethal and socially paralysing virus can spawn even a temporary alleviation of a different discontinuity on earth is, well, both dramatic and hopeful. At the same time, it seems all too cynical that the air pollution produced through anthropogenic processes, as well as the human destruction of biodiversity, actually exacerbate the health damages caused by the virus in humans (BBC 2020).

I have adopted this notion of repair from Tronto and Fischer (1991), but I would like to voice that it is to be used carefully (pun intended!), as the term implies that something is broken. In this particular case, I do mean repair of a damaged or broken planet (Fitz and Krasny (2019)), but not in the sense that it can be 'fixed'. There is no going back or returning to a previous state of being; extermination has changed the entanglement forever.

The effects of this global climate change affected this year's asparagus harvest in Buchholz, too. As A. stated, "there was no peak in the harvest this year because of the consistently warm weather with cold nights" (INTERVIEW A.). She also noted that it was very dry during spring, which is rather unusual. Although effects of climate change worry her, she is more worried about a "shortage in water and more regulations" (IBID.). The EU provides subsidies for agricultural production, but this also comes with "lots of conditions" (IBID.). Although the EU does not always control these, the German government is very strict. Like Farmer D., A. said that "the biggest problem is that the imported food is not as strictly regulated, making it hard for us to compete in terms of price" (IBID.). The shortcomings of this globalised system seem to fall onto the German farmers' feet. These often end up bending the rules, in order to keep up with competitors (INTERVIEW D.). All at the cost of other humans and nonhumans, who are not always in the position to reinforce rights and continuities for themselves.

→ See [F5] P.140

[5.2.3] (DIS)CONTINUITIES AND THE PRODUCTION OF SPACE

On the one hand, discontinuities like the virus can have indirect global effects, such as on the climate, that affect food productivity directly. On the other hand, it can have a direct local effect, such as on the families of women who depend on the shrimp shelling income, on A.'s harvest workers and family. Discontinuities produce discontinuities; and reproduce inequalities along the individual nodes. The most vulnerable hinges, both human and nonhuman, are usually the ones that suffer the most (BBC 2020; CAROLAN 2016). What is more: the continuous entanglements produced by (dis)continuities produce politics and policies; produce realities; produce space; in effect, produce urban life. To say it with LEFEBVRE:

> "[...] we may be sure that the forces of production (nature; labour and the organization of labour; technology and knowledge) and, naturally, the relations of production play a part — though we have not yet defined it — in the production of space." (LEFEBVRE 1991[1974]:46)

But has the pandemic not defined it? It has shown that ruptures in the relations and forces of production produce provisional spaces within cracks, insecurities and uncertainties. The asparagus fields opened to lay(wo)men in different slots, for example. Or the harvest workers confined to German farms behind gates, caged almost, as another. The sudden visibility of precisely these conditions—these forces both enabling and restricting labour, created a space that was previously seemingly inexistent. The news and media produced this space by making it present in public discourse, but mostly, the pandemic made the production of these types of spaces possible. At the same time, my experience of harvesting the asparagus let spaces converge: my urban space and the space of production, time and space. A convergence I understand as making kin, like with the white birch tree. And making kin, in my understanding, produces space in every possible way, because caring with, maintaining, repairing and engaging in life-sustaining practices is precisely what physically and metaphorically produces the earthly. Hence, becoming with multispecies entanglements and thinking from within, changes the production of space. It changes what thoughts think thoughts, what politics are given space to create policies. It affects interactions, ways of life and death. And this produces new patterns of movement, consumption, reflection. What imaginaries imagine imaginaries?

In addition, the pandemic has made visible how local and global food supply chains and their spaces converge. The shrimp or the small asparagus farmers exemplify this. But the coronavirus has also challenged other invisible spaces produced through food production that directly affect cities. For example, the polluting effects of global farming on local ground water, as my interview with W. revealed. He told me about the big but blackboxed issue of liquid manure in Germany. It is applied excessively in agriculture, but cannot be fully absorbed by the fields. The excess nitrate leaks into and pollutes the ground water. Urban tap water, hence, is often not as clean as it should and could be, posing possible health hazards to urban consumers (INTERVIEW W.). As homeostatic life-sustaining webs know no waste, these amounts of excess manure make visible an alarming disequilibrium of production (BBC 2020).

F9 shows the levels of water pollution in Germany. These have gotten slightly better recently, but could still be health threatening (HEINRICH-BÖLL-STIFTUNG, ET AL. 2019). As W. told me, "the root of the problem lies in the highly subsidised meat production and urban meat and dairy consumption" (INTERVIEW W.). Would we produce less meat, which is happening already, to some extent, then we might produce less manure. But, of course, it is much more complex than that. In 2016, Germany imported 2.164.000 t of manure from the Netherlands alone (HEINRICH-BÖLL-STIFTUNG, ET AL. 2019). The authors of the *Meat Atlas* write that political sanctions are necessary to reduce the (over)production of manure, as it bears too many health risks for humans and nonhumans (IBID.). But again, the manure marks only an end of the socio-ecological, political and economic disaster. The blackboxing of life-threatening agricultural practices and the imaginaries we are led to believe, raise manifold questions regarding the politics and ethics of continuity and care.

→ See P.144

→ See [F6] P.141

As Greta et al. (2020b) would say, politicians have been cheating with numbers. Instead, they propose: "our leaders need to face the climate emergency instead of creating new loopholes while building their so called 'pledges' on the cheating tactics that got us into this mess."

The discontinuity of the pandemic also challenged the production of everyday urban spaces. Not only did masks create unease among visitors of markets, for example. The market, a site of urban production shaped by discourse and interaction, was turned into something like an outdoor supermarket because of social distancing regulations, serving only the purpose of quick food supply and no longer as a place of urban production.

[5.2.4] CONTINUITY THROUGH EMBODIED INFRASTRUCTURES

> Disposable people as infrastructure is certainly more than an absence or lack. It is a means of making a life within highly unequal cities. But it is also […] an uneven exposure to death that, at a global scale, disproportionally discards certain lives, particularly young black lives, from the institutions of social and economic (re)production.
>
> —Jacob Doherty (2017:16)

The discussed dimensions make visible: the politics of (dis)continuity play a central role in imaginaries of food production (CAROLAN 2016). Continuation of imaginaries is treated as a commodity: capital accumulation and hence wealth depend on it. The longer the discontinuous period, the larger the economic disaster and the bigger the destruction of the imaginaries. Within the novel pandemic, reconstituting continuity at any cost turned into the utmost priority. Countries began to rate one-another based on their ability to sustain continuity, by counting COVID-19 cases—causing, in severe cases, such as Brazil, the concealing of numbers (PHILLIPS 2020). Fear, fake news, mistrust, accusations. these are only a few of the repercussions experienced. But in whose interest and with what agenda is the battle to maintain continuity fought, anyway? Who is continuous continuity for? Or rather: whose continuity is continued? It has become visible: in times of crisis, urban continuities give preference to the already privileged, whose continuities are never really at stake (HEYNEN ET AL. 2006). In our financial capitalist system, it is about power and money. It is about neoliberal politics that make policies for precisely those people produced by the very system. It is about continuities continuing continuities and, in effect, about continuing discontinuities.

I borrow the term 'embodied infrastructure' from TONKISS 2015 and apply it to food provision. Bringing the body into this discussion seems inevitable, as physical labour and the body play a significant role in different stages of food production. During the course of my fieldwork, quite literally standing on the field, harvesting asparagus, I came to understand that in at least this part of the process, one's body becomes infrastructure. I mean this in the sense that machines cannot (yet) harvest asparagus successfully. It is hence necessary that human bodies do the work, and in so doing, the body becomes the infrastructure of harvest. Apart from this, "the repetitive movements become very mechanic" (FIELD NOTE 02.05.20). This phenomenon can also be addressed elsewhere, maybe in cotton picking or with other processes in the food industry. In fact, several scholars have picked up on this in other areas.

Tonkiss (2015:385) writes about the "*auto-economies* of everyday provision which rely on the embodied human labour—whether commodified or not—of infrastructural work"

Although SIMONE (2004) seems to have been among the first to make a bodily connection to infrastructure, other scholars have meanwhile extended it. For example, to disposable people as infrastructure (DOHERTY 2017); time as infrastructure (BESEDOVSKY 2019; COMAN ET AL. 2019); embodied infrastructures (TONKISS 2015); and eviction as infrastructure (BAKER 2020). Although these notions may seem very different at first, they are all interrelated. Most of them place human bodies at the centre of the definition, moving away from the 'hard' notion elaborated earlier. SIMONE (2004:407) emphasises humans as infrastructure in terms of "economic collaboration among residents seemingly marginalized from and immiserated by urban life" and focuses on the activities of these people in the city. DOHERTY (2017) criticises that SIMONE does not account enough for the infrastructural violence involved in hard infrastructural sectors. He adds that "it makes visible the ways human lives, labor and bodies […] are not only enrolled in but *constitute* infrastructure" (IBID.:5; ITALICS IN ORIGINAL). In his research about boda boda drivers in Kampala, DOHERTY (2017:3) finds that "[s]tability is achieved, tentatively and precariously as people become infrastructure". He emphasises the juxtaposition of this notion, comparing the fragility and vulnerability of the drivers with the systemic stability they convey. The latter, in turn, is achieved particularly by treating every(-)body as disposable.

It is possible to relate different aspects of these definitions to my research. First, SIMONE'S (2004) focus on minority groups that are exempt or excluded from the urban metabolism, reflects the status of immigrant harvest workers in Germany (BEJAN 2020), or elsewhere (POLLAN 2020). This year's physical fencing of the workers to 'protect locals' (BEJAN 2020) marks a zenith of the exclusion in a very inhuman and rigorous way and as mentioned earlier, creates new spaces of fear, of othering, of inferiority. Reflecting on how harvest workers are inhibited from making kin with their surroundings, by being caged, confined to farms and separated from locals, I wonder whether situations in which people are infrastructure inherently imply this alienation. Does infrastructure ever really make kin with the environment? Is it not always some sort of means to an end? How do we deal with this then, related to necessary bodily labour in agriculture?

Second, I would like to pick up on the conflict that (DOHERTY 2017) calls out. Similarly to the contradiction between capital and care (FRASER 2016), stability—or continuity (also of other (eco)systems like the economy)—is achieved by employing and calculating with disposable bodies as infrastructure. The harvest workers from abroad maintain stability and continuity in fresh food provision and hence capital accumulation in Germany, while they themelves could not be more vulnerable. Why is it that hard infrastructures, like roads, are readily maintained and repaired (bearing in mind that this does also reproduce social inequalities), but humans as infrastructure are treated as disposable? Maybe it is because "we care for things not because they produce value, but because they already have value" as MATTERN (2018) writes, alluding to MARÍA PUIG DE LA BELLACASA. Broken bodies, then, that no longer 'produce value' for the farm, are sent elsewhere for repair, disposed of (HOLMES 2013).

Returning to the idea of infrastructures as inherently invisible until ruptured (STAR 1999), then, I postulate that harvest workers from abroad are not only a part of but actually constitute infrastructure of German agriculture. I draw this hypothesis from my research that has made visible, in a moment of rupture and discontinuity, just how essential these humans are for securing food supply. Particularly the measure of flying harvest workers into the country from abroad in a time of utmost social distance and care leaves a bitter aftertaste of certain humans being reduced to their embodied potential to add value. I would actually go as far as to say that their bodies were seen as cogwheels of a large machinery, vital yet disposable, replaceable and hence not worthy of care (BEJAN 2020). As these grievances emerged, the argument was adopted that harvest workers can make a whole year's living back home in only three months in Germany. And if it was not this narrative, then it was argued that choosing to come to Germany to work was up to every individual. Julia Klöckner, Federal Minister of Food, Agriculture and Consumer Protection, promised that

> "wir unterscheiden überhaupt nicht, wo jemand herkommt. Hier geht es darum, um Arbeitnehmerinnen und Arbeitnehmer, die frei entscheiden können, wo sie arbeiten in Europa" (NDR 2020).

Regarding the reported conditions that harvest workers were confronted with in both Romania and Germany, this is ridiculous and disrespectful.

What if someone is infected by the virus—who cares for them and who fights for a continuity in their life? (BEJAN 2020). Questions like these show that continuity is not only very political, but also situated in time, space and prevailing social hierarchies. This screams "salvage accumulation!" (TSING 2015:64). It also becomes clear who decides on this, now. It is, once again, a question of political and economic power; of racism and socio-ecological inequalities deeply woven into urban entanglements and (deliberately) left unchallenged by those in power. If this is not about hierarchies and power play, then why are humans not making kin with other humans, in acts of humanitarian solidarity across closed borders? The latter demonstrates that, if it is going to be about politics, then it could at least be about politics of care.

Statements like "workers are only machines, numbers..." (MICHNA 2016), or "there are not very many people who can stand the harshness of the harvest" (KLOPPMANN 2020) from the documentaries underline an alienation between "us" and "them". Situating this treatment within the racist, sexist and exploitist histories of agriculture and the notion of salvage accumulation turns the spotlight back onto the savagery of financial capitalism. The harvesting process (and I only harvested for four hours at a time) showed me how bodily straining the work is—and farmers know this. In a shocking way, I quickly realised the diametrically opposite treatment of that which produces value and that which has value. The asparagus was treated with tenderness and care and the harvest workers like disposable bodies.

> **This is really an existential situation. It's difficult—we took care of [the asparagus] all year, spent money on them, dedicated our time and gave our love to them—and now nobody can come here to harvest them. That hurts deep down.**
>
> **— Farmer Tim B. (Diehl 2020)**

[5.3] ROOTS: FROM BE-COMINGS TO UN-ROOTINGS

→ See employment rate in agricultural sector in [F3] P.138

In the podcast, HARAWAY AND TSING also refer indirectly to roots, a code that came up in my material multiple times (MITMAN 2019). Not only did it appear related to the asparagus' vulnerable plant, it also appeared related to the lack in successors in the farming sector. Several farmers on the markets spoke about the art of farming as being their 'roots' or heritage. But, "farming is very labour intensive and not very lucrative", one farmer in Wilhelmsburg told me. His daughter just completed an apprenticeship in IT, because it is much more promising for the future. This discontinuity of heritage, unrooting of familial and terrestrial ties, the end of a pattern in sight, is a painful symptom of the illness of our food supply system. The same farmer told me that "the EU subsidises big farms, and small farmers are screwed" (IBID.), just like A. and D. said. Because of various climate-related issues in the past and COVID-19, he has invested his pension money into the farm, leaving no leverage for a life after farming, even if farming is life. Farmers find no repercussion of the kinship they share with their land, among consumers, Farmer D. told me: "For as long as consumers chase prices, local farmers will lose the race" (INTERVIEW D.).

→ See [F3] & [F5] P.138 & 140

The sickness of food supply is also discussed by MICHAEL POLLAN (2020) in his latest article in the New York Review of Books. He writes about the surfaced vulnerabilities and inequalities, not only regarding the harvest and farm workers, but also the farmers themselves, who are put under pressure to produce and sell at certain prices. W., who has been in the agricultural business for 50 years, stated that the strong (German) supermarket oligopoly is the root of the evil. "Through their power, they are able to dictate prices on an international level" (INTERVIEW W.). I find it difficult to 'blame' just one player, but several different sources suggest that the hegemonial power of financial capitalism, coupled with the neoliberal politics and the strong oligopoly of supermarkets, has strongly shaped today's decentralised foodscape in social, economic and ecological ways (BEJAN 2020; CAROLAN 2016; FOODPRINT 2020; INTERVIEW S.; POLLAN 2020; IVESON 2011). Equally, LÜNENSCHLOSS AND ZIMMERMANN (2019) expose in their documentary that many farms that have existed for generations are becoming unrooted, exterminated through the growing power and hegemony of big players. They also describe that big agricultural producers in Italy and Spain are often financed by the Mafia or other corrupt organisations, putting 'honest' farmers out of business. Financial capitalism is *really* eradicating multispecies; also of the human kind.

→ Hypothesis 4 P.44

The white birch tree and Tsing's (2015) matsutake stories have shown the interconnectedness of multipecies underground. The roots are like infrastructures, providing species with nutrients, keeping them alive *together*.

Quite fittingly, HARAWAY AND TSING comment that plantation has always had a diagnostic relationship to exterminism (MITMAN 2019). The tendency toward extermination and breaking of roots (quite literally) is reflected also in the quantitative data. Take a closer look at the exponential

→ See [F3] & [F4] P.138 & 139

increase in use of pesticides and other chemicals and the concomitant rise in production yields between 1950 and 2020 or the massive deforestation taking place in the Amazon rainforest in favour of soy plantations and cattle husbandry. The contradiction is tragic: habitats of human and nonhuman species are destroyed in order to grow livestock feed, to feed a world, to feed cities, whose appetite for meat is exacerbating by the minute. Although the recent documentary by the BBC takes on an anthropocentric perspective, KATHY WILLIS makes a powerful statement:

> "All of biodiversity is interlocked on a global scale and all parts of that system are required to make it function. We tend to think that we are somehow outside of that system. But we are a part of it. And we are totally reliant upon it" (BBC 2020).

One thing that this thesis comes short of is sketching out how interrelated the food chain is. The BBC documentary demonstrates not only how the bacteria and insects in soil digest and transform it into fertile soil that bears nutrients for plants and other critters to thrive. It also illustrates that every single part of the food chain is interlinked and entangled in obligate mutualisms, and how these depend on the homeostasis, on the harmonious orchestra of string figures, to maintain continuity. In the quote, WILLIS sums up what HARAWAY, TSING, TRONTO, LATOUR and various others say, in a very tangible way: We *are* the trouble!

→ See P.161.

Moving from this global scale back to the local asparagus, I would like to focus on roots relating to the mother plant and the harvest workers. Regarding the prior: A. told me that opening the asparagus harvest to lay(wo)men was a very risky decision. Not only is the asparagus plant very fragile, it is also extremely expensive. As elaborated on in the Asparagus Assemblage, the asparagus plant is sowed once and then harvested for up to ten (or sometimes even more) years. Because of this longevity, it requires extensive maintenance and tender care. Damaging the asparagus' root is an issue, because it is the source of multiple asparagus shoots, and harming it can cause a lower yield in the years to come or even its death. Trained eyes and hands are assumed to present a lower risk to the farm, A. said. Either way, there is an excessive time lag involved: whether the plants have been harmed or not will only show next year (INTERVIEW A.).

→ See Chapter 3 P.72f.

Despite this lag, Hof Oelkers has already decided to repeat the experiment, and A. said that most people who leased a row this year have already applied for a row next year. My interview partner M. also stated that she will be doing it again next year, but that she wants to organise the distribution channels beforehand in order to reduce the stress she experienced this year (INTERVIEW M.). New forms of multispecies entanglements, new rhythms are being established and continued through next year's repetition. In a sense, the lay(wo)men harvest workers made kin with the fields, the asparagus, and the asparagus has made them make kin with neighbours, friends and other asparagus devourers, me. We have become part of new entanglements that undermine the usual capitalist structures. This has potential for more: through our work on the fields, we changed ourselves, our kinships and practices within but also outside of agriculture. Remembering TRONTO AND FISCHER'S (1991) definition of care: it is all about continuing, maintaining and repairing life-sustaining webs. It is about those thoughts that think thoughts. It is about putting down new roots.

Regarding the seasonal harvest workers from abroad, there are two aspects that I would like to touch upon. First, what repercussions do they suffer in terms of continuity and care through new business models like that of Hof Oelkers? Next year, the farm is raising the lease prices per row, so that they can better cover the costs. If locals will readily pay the new prices (M. told me that it is fine for her) and find a liking to harvesting, then this might actually be more comfortable and more lucrative for farmers than hosting harvest workers. What reverberations might changing this system, these rhythms, have on the life-sustaining webs that harvest workers are entangled in back home? If the income from working on German fields breaks away, how will the continuity of the local Romanian economy be maintained? How can this be thought through in terms of caring for and with generations to come, regarding kinships between German farmers and their harvest workers? Who has what responsibility, and who is in what way response-able? I will pick up on this third thought in chapter 5.4.

Second, I would like to engage one more time with the concept of unrooting and displacement, related to harvest work, that HARAWAY (2016; 2019; MITMAN 2019) AND TSING (2015; MITMAN 2019) explore. In the podcast, HARAWAY in particular focuses on the entangled heritage of agricultural practice and forced labour. She elaborates that forced labour does not only mean coerced labour, but any labour that is disciplined in such a way that it leaves no room for other recreational activities. It is a system of constant production and reproduction of segregation, for example, in racial terms (MITMAN 2019). The analysed documentaries have hinted at the dimension of this in Germany. Ten to twelve hour workdays are the norm in the food industry. Contract work involving inhuman goals (i.e. picking 35kg of strawberries an hour) are common, just like unworthy boarding and working conditions (BÜHLER ET AL. 2020). My interview partner W. also used frequent notions of "us" and "them" when speaking of harvest workers on German farms, just like several politicians, constructing a dangerous narrative of difference (NDR 2020). Additionally, W. said that "they are able to get used to the working conditions" (INTERVIEW W.) whereas 'we' Germans are not. This is extremely critical, again, in light of prevailing racism and sexism in this industry. The widespread view of harvest workers from abroad as less worthy or less human(?) than locals that has emerged within the media turmoil of the pandemic is of discriminating nature. Treatment of workers is so precarious that they are not allowed to put down roots. This calls for an excursus on citizenship, which I will have to adjourn.

POLLAN (2020) furthermore reports on meat plant workers wearing diapers in the U.S. because they are not granted bathroom breaks. To me, these exploitative practices and demoralising, unjust treatments of workers, exposed this year through the COVID-19 pandemic in particular, demonstrate the most inhuman and disgusting possible way of *unrooting*. These examples show how workers are stripped of their last traces of human dignity, something that roots all as earthly beings, in a process that merges human and nonhuman species as infrastructures of urban food provision. Workers, in this moment, become "machines" (MICHNA 2016). And in an understanding of the world as a complex multispecies entanglement, free from the hierarchies and power structures that (in)form conventional anthropocentric thought processes, not even machines would be stripped of their dignity like this. Because, as TSING suggests, just like all other critters, also machines care with; by continuing and maintaining life-sustaining webs (MITMAN 2019). To say it with BEJAN (2020): "if people [and nonhumans] are good enough to work they should be good enough to be cared for."

Staying on this train of thought, let me return briefly to the knives and plastic tunnels that I picked out as particularly relevant actors to focus on, in the Asparagus Assemblage. Both can be considered to have agency related to this code. Not only is the knife the medium that separates the asparagus from its root, almost like cutting through an umbilical cord. The plastic tunnels can be considered to act as accelerators, intensi- and magnifiers of growth, which in effect, is a form of disciplining of the roots' productivity. In what way do these tools or actors that surely dispose of some sort of agency contribute or inhibit continuity of life-forms? Of what life-forms, and for how long? In the

BBC (2020) documentary, it was said that when humans have the choice to opt for a smaller catch over a longer amount of time, or a large catch for a short time, we have always opted for the latter. I think that this speaks for itself. Who or what continues continuities; for whom?

Now turning to the urban: it becomes evident, from all this, that the city is a conglomerate of unrootedness. Not only are many people who live in cities 'immigrants' in the broadest sense. The food that is for sale also comes from elsewhere. It is often unrooted to a maximum, actually, as the horrific images of the plastified fruit and vegetables in chapter 1 show. I would like to connect this sense of unrootedness to alienation. Not only is food in the city completely identity-less, then. It is also alienated from its likes. Apples are sold all-year round and those unaware of seasonality might not realise that some of these have travelled the world to be here. What effect did this transportation have on the climate and the local economy where they come from? Who picked these apples under what conditions? My interview with S. emphasised once more that consumers chase prices, not origins. In terms of climate effects, S. told me that "we have to see it in a more differentiated way" (INTERVIEW S.). Apples from New Zealand in April or May will probably have emitted less GHG than German ones in those same months. Apples are sturdy fruit and often shipped. This makes their ecological footprint lower than the German apples that are kept in massive coolers for eight months (IBID.).

→ See P.34f.

Likewise, Born and Purcell (2006) tell us that we have to be careful with the so-called local trap:

> "'[...] the local trap assumes that a local-scale food system will be inherently more socially just than a national-scale or global-scale food system'" (BORN AND PURCELL 2006:195 CITED IN BEDORE 2010:1422).

It seems plausible that we connote proximity and justice, as we might like to believe that our personal values are represented in the surroundings we live in. However, particularly the crisis has exposed just how close these injustices really are to home. One more common fallacy related to diets that I want to name is that "not all healthy diets are sustainable and not all diets designed for sustainability are always healthy" (FAO ET AL. 2020:XVII9). As the FAO writes, this is often mistaken and missing from public debates.

[5.4] RESPONDING RESPONSIBLY

The third code, responsibility, has been touched upon on several occasions directly or indirectly. Becoming part of a solidarity network for food distribution for my research is one key factor inspiring this code, because it brings with it behaviours, political views and patterns that might not be as apparent elsewhere. M. told me that she saw the asparagus fields in Buchholz for lease in a newspaper and was instantly interested in 'saving' the harvest. Although she had not harvested before, being part of a solidary food network, she felt responsible(INTERVIEW M.). This responsibility was turned into response-ability through the network, because she was able to act on it. Under other circumstances, food is lost in various parts of the supply chain that remain invisible to consumers who might otherwise be interested in intervening. The lack in response-ability is an issue of invisible processes; and not knowing where to begin often results in a loss in responsibility "because I can't do anything about it anyway" (INTERVIEW M.). Feeling responsible to keep food processes continuous and ongoing might have an activist background, but could also be part of a new trend (INTERVIEW S.). Although the demand for convenience foods is increasing, so is the demand for responsibly sourced foods, particularly among young people (IBID.). Because of its rather invisible nature, the food sector makes a good marketing instrument for green washing. Sustainable claims hence require careful and critical scrutiny (CAROLAN 2016).

Which, in many cases, are kept invisible deliberately, as we have seen in dialogues between chapter [F] and other sources like Haraway 2019; Interview W.; Mitman 2019; Thunberg et al. 2020b;... In light of these developments, trusting numbers becomes increasingly difficult, which is why chapter [F] is to be treated with a good portion of scepticism.

The threats of current ways of consumption for the continuity of future generations of humans and nonhumans on earth has become part of public debate largely since Greta Thunberg began her Fridays For Future strikes. Her appeal to politicians, 'grown ups', but also to everyone else to take responsibility for the livability on planet earth, has strongly shaped discourse about contemporary modes of production, including food, as major contributors to climate change (BBC 2020). As **F4** shows, soy production for livestock feed has increased exponentially: animal husbandry being one of the main drivers of GHG emissions (IBID.). S. says that the young population is more aware of sustainability and less willing to accept unnecessary packaging, that this responsibility is linked to comfort, however (INTERVIEW S.). If acting responsibly is not convenient, even the younger generations are likely to pick the more comfortable option. The challenge is thus to combine convenience and sustainability.

→ See P.139

The growing interest in ecologically produced food is also part of this paradigmatic shift. Urban consumers try to bridge the alienation to production processes by buying 'responsibly' (INTERVIEW S.). In other words, consumers who buy organic food feel like they are contributing to continuity (IBID.): not only in terms of the saying "you are what you eat" (CAROLAN 2016:69), but also in terms of enabling a longer life for the soil and earth. EU expenditures linked to organic farming methods are increasing (BUNDESINFORMATIONSZENTRUM LANDWIRTSCHAFT 2020). The total organic acreage in Germany is only around 9.1% (2018), though. It has been rising slowly (it was only 5.9% in 2010), but incentives are being created (IBID.). Between 2010 and 2018, the number of farms with ecological production rose from 7.4% to 12.0% (IBID.).

The coronavirus has now added another level to the dimension of responsibility: that of social justice. It is no longer an 'invisible' factor that was potentially unknown or ignored. This visibility of the circumstances under which our food is produced, right in front of us, has literally placed "the pattern [...] in our hands" (HARAWAY 2016:34). It has *handed* over the responsibility and the response-ability to act. But I am caught between the stools with these strings in my hands: is it better for the harvest workers that the fields will be leased again next year, thus rendering them redundant? Or is it worse for them assuming that many depend on this work to maintain continuity back home, where they are not able to make a living wage? I am not sure about the (dis)continuities, the ripple effects of ending this entanglement. On top of this, although left largely unmentioned, because they are a minority species, there are some farms that treat their harvest workers according to the law. Who is responsible and who is response-able for what and whom?

The Milan Pact tries to unite cities in terms of responsibility: by placing social and ecological justice in the centre of its framework, it aims to build resilient, sustainable and continuous systems of care. It attempts to change the thoughts that think thoughts and the politics that make policies from within. I am sure that this is one right approach to effect change. By targeting cities, the pact indirectly tackles both the supply (i.e. supermarkets) and demand (i.e. consumers) sides at once. Although this is an ambitious endeavour, it is only logical to try to transform the different roots of this crisis simultaneously. How is this monitored, though? The next step might be through education, such as the Critical Zones exhibition aims to do. Of course, the exhibition targets a certain social strata and education must go far beyond that to effect change. By teaching people to challenge views and to regard human and non-human entanglements in a non-hierarchical way, might bring about a change in behaviour, thoughts and politics.

Finally, the BBC documentary assumes that consumption patterns drive production. This thesis has conveyed, though, that consumption, production, political and economic dimensions are so entangled that it seems insufficient, naïve even, to attempt to name one culpable player. I think that it has become clear that we (the earth and its critters) need an extensive shift in how food is produced, consumed, policed and financed; a shift that requires recalibrating the thoughts and politics that shape these dimensions. But it is necessary to acknowledge that this shift will take time to establish. As I experience myself, challenging what thoughts think my thoughts: it is not easy to change mindsets and patterns that have been rehearsed for a lifetime. We could learn from the matsutake mushroom: together with multispecies it creates subterranean life-sustaining webs in the Chthulucene—reminding us that it is not only about changing mindsets; it is also about learning to live on a damaged planet *together* (TSING 2015). To say it in HARAWAY'S (2016:1) words: "Mixed-up times are overflowing with both pain and joy—with vastly unjust patterns of pain and joy, with unnecessary killing of ongoingness but also with necessary resurgence."

> There can be no social justice without climate justice. And there can be no climate justice unless we acknowledge the fact that we have dumped large parts of our emissions overseas, exploiting cheap labour and poor working conditions as well as weaker environmental regulations.
>
> Because not only are the ones least responsible for the climate crisis suffering its consequences the most – we are now also blaming them for our emissions, as they are the ones producing the stuff we buy.
>
> —Thunberg et al. (2020b)

[6]

THE FUTURE OF THE ASSEMBLAGE

[6] BECOMING HERE, NOW.

This research endeavour, in this time and year (April to October 2020) and in this place (Hamburg, Germany) was very different to what a similar endeavour might have looked like in any other place or year. It was marked by severe insecurities, fears, political, social and personal challenges. The pandemic changed not only life, it also changed the city, in which everyone was suddenly told to behave in certain ways by law; affecting the hustle and bustle of everyday life; the "intricate ballet" (Jacobs 1961:65) on the sidewalks that produces urban space. Practices, patterns of movement, social behaviour taken for granted to date were suddenly questioned and transformed through ever-changing safety measures, rules and regulations. Jobs were classified and ranked as essential or not; shops were closed according to these criteria, countless people were left jobless, the German economy fell into the deepest recession since World War II (Rasch 2020).

The pandemic had and continues having an immense effect on multiple levels: socially, politically, economically, environmentally. It changed my field of research, made things possible that would otherwise not have been; made things visible that triggered discussions that may otherwise not have taken place and it also changed the way I examined, scrutinised and researched the city. Social distancing, border closings, and other measures challenged urban infrastructures—also of food provision. Shortages and international dependencies that were known, but not given much attention to, suddenly threatened to destabilise whole nations. The matters of concern challenged individualist thoughts and actions, putting collective safeguard above personal desires. I mention these circumstances because they affected my research, the ability to discuss the findings with others, the way in which we interact (through screens)... But mostly, I mention them because despite the difficulties, they, once again, made visible my privileged position as a white woman in society, completing a second university degree in a politically stable country.

[6.1] FOOD FOR THOUGHT

In the preceding pages I have told stories. What started off as an asparagus tale turned quickly into a discussion about structural inequalities in local and global food provision. Within the contradictions that emerged, this research has made unbearably visible and tangible just how in trouble we are. Now, after making things public, it is time to reflect what relevance my findings have to answer 'how do we feed the city?'

Working on the question 'what does following the asparagus in midst of the COVID-19 pandemic reveal about socio-ecological inequalities inherent to urban food provision?' has deepened my knowledge and understanding of urban foodscapes in a multitude of ways. While it has rendered me more conscious, aware and sensitive for (eco)systemic injustices performed to both humans and nonhumans, it has also led to an inner paralysis. How can I *continue* now, knowing all of this? My newly gained knowledge, coupled with my privileged societal position makes me responsible, but does it make me response-able, too? The strings are in my hands, but I have no idea how to figure with them. In that sense, SHARON MATTERN (2018) wrote quite fittingly:

> "This is an exciting area of inquiry precisely because the lines between scholarship and practice are blurred. To study maintenance is itself an act of maintenance. To fill in the gaps in this literature, to draw connections among different disciplines, is an act of repair or, simply, of taking care — connecting threads, mending holes, amplifying quiet voices."

Indeed, scholarship and practice blur in an attempt to reciprocate the thoughts I think into action, activation, activism. The asparagus has revealed, laid bare in a moment of rupture, just how "sick" (POLLAN 2020) the urban and global, human and nonhuman entanglement of food production is. It has led me to different places, players, plates, revealing every time a little more of the deepening global climate crisis. While the asparagus itself served as a lens to look at urban food supply in a moment of rupture, what did it really reveal about how we feed the growing city?

As a local manifestation of a very deeply entangled global crisis, the asparagus as such did not reveal much about how we *feed* the city. In fact, it is not suited to 'feed' anyone, really, consisting practically only of water. But because of its very unique cultural standing in Germany, it served very well as a local case to scrutinise this question. The asparagus gave insights into deep enmeshments of global and local food provision systems, it exposed socio-ecological exploitations of this industry and demonstrated that these grievances are taking place right in front of us (and through us). It also conveyed that these troubles are not to be solved by simply pulling one of the many strings. There is no way to 'fix' this. Instead, it has made clear just how social, ecological, political and economic dimensions are entangled in constantly reconstituting patterns and that changing anything means changing everything. How will we feed 10 bn people by 2050 in light of looming climate change, vast loss in biodiversity, socio-ecological injustices and neoliberal politics, if not through a holistic paradigmatic shift?

The asparagus has made me a witness to the urgency of this matter, leaving me with a book full of thoughts about thoughts that think thoughts. It has exposed dimensions of injustices previously unknown to me; shattered imaginaries of the food industry I had previously indulged in; given me a new framework of multispecies to think life with and resulted in a deep desire to act (and activate), do, become *with*. This is a dilemma the crisis has forced upon us: I can no longer not know. I can no longer not see. I can no longer not act. It could be a turning point, then. What tackling the codes (dis)continuity, roots and responsibility has shown is that there is no 'going back'. We have to learn to live with these troubles, to thrive in the ruins like the matsutake mushroom. It is not always about continuing continuities, then, but rather about maintaining, repairing and sustaining webs.

The asparagus, as an urban lifestyle vegetable, hence, might not be suitable to tackle how we feed the city, but following it and becoming with it has been essential in enabling an embodied understanding of the depth of this matter of concern. And through it, I have been able to (at least in the humble realms of this thesis) make things public. Actually, precisely its standing as an elite vegetable granted visibility to inconsistencies of urban food policies through the controversial air lift of harvest workers. Because of the pandemic and the obscene turmoil, the asparagus made it possible to make kin with the fields in a way that I would not otherwise have experienced—and through this kinship, opened my eyes and mind to think new thoughts. In the process of untangling, I have come to realise that maybe it might not be suitable to continue cultivating precisely the asparagus to the extents to which it is done in Germany today. Thinking in multispecies entanglements is to trade-off one's own desires for the greater good. This is something the pandemic has taught us and something that we humans seldomly do (BBC 2020).

[6.2] CONTINUING THE ASSEMBLAGE

Changing how we think about feeding cities and how we do it, is key to finding ways to reframe future continuities. But changing consumption patterns and production processes requires both political and economic tailwind, willingness, time and knowledge. Change has to come from within because we, humans, finally understand ourselves as part of the entanglement and not as above or beyond it. Change might mean discomfort. It might mean admitting that patterns of rehearsed behaviour result in extermination and thus giving things up for the greater good. Change will mean recalibrating the importance of multispecies in continuing life for all. It will inevitably mean *caring with*, *making kin*, *becoming together*. This pandemic as a global threat, then, returning to LATOUR'S (2005) hypothesis that we are connected by collective matters of concern, could mean an acceleration of processes of care. So how does this assemblage continue? How do we translate the findings and discussions about responsibility and response-ability, about accountability, (dis)continuities and roots into the urban context? Alluding to HARAWAY (2016:2) how might we "make kin in lines of inventive connection as a practice of learning to live and die well with each other in a thick present"?

Taking seriously the blur between scholarship and practice (MATTERN 2018) I will thus take a brief and critical look at three projects in Germany that tackle different aspects of the prevailing question. First, I will discuss Frischepost, a farm-to-table platform that aims to bridge physical distance between local farmers and urban consumers in a transparent process. While it might have solid intentions and be a promising approach, it can also be viewed critically. On their website, the online firm plays with food production imageries and imaginaries that I have already touched upon, creating visually a dichotomy between the places we draw our resources from and those we live in (LATOUR & WEIBEL 2020). By explicitly addressing urban consumers that care about the environment, good food and convenience, an elitist clientele is targeted and established. This enactment and staging of 'good food' (whatever that means) and sustainability as a lifestyle, however, vehemently contradicts the notion of living together in a caring, "thick present" (HARAWAY 2016). It does not challenge how precisely this elitism reproduces, deepens even, inequalities in urban (and rural) settings, or even leads to further dying of cities. Understanding this thick present as the dynamic entanglement, as the casual interactions and negotiations that produce urban space, means to understand home delivery as the urban demise. What Frischepost produces is delivered conveniently food to an urban elite that has lost touch—instead of bringing people together on local markets, it contributes to the alienation of producers, consumers and the city.

Nature and culture, then, are pulled apart and romanticised, the rural being the idyllic site of production of 'good food', happy cows and succulent fruit included, while the city is depicted as the fast-paced site of cultured consumption. On the one hand, town dying is lamented, on the other, it is furthered by precisely the amazonification of urban food. How shall a thick present be produced if all its dynamic constituents are eradicated or fed at home? Frischepost does not question the traffic caused by driving around the city with countless vans to deliver the goods to each individual. It neglects the struggles faced by farmers to produce and continue their livelihoods and heritage and the repercussions of urban consumption patterns. Although it might be a step into the direction of challenging the hegemonial power of supermarkets, which I am all for, regarding the implications for urban space who is this really a 'solution' for?

→ relating to the controversial online company Amazon

Second, I will take a look at the recent trend of urban agriculture. As a more professional approach than urban gardening, different projects aim to bring agriculture into the city. While this might at first sight seem promising and maybe even lead to a thicker present, it quickly reveals its shortcomings. Vertical or underground farming aims to use urban space like rooftops, old tunnels or facades productively. This is an interesting idea, considering that green urban areas are scarce and known to have a positive effect on the psyche. The only problem is that particularly the underground approach quite obviously views food as having the sole purpose of feeding humans. Thinking in multispecies entanglements, however, suggests quite the opposite is the case: each stage of farming, from sowing seeds to harvesting is entangled in life-sustaining webs. As I have demonstrated, not only bacteria and insects take part in preparing fertile soil, but other multispecies are involved in processes like pollination, which in turn form the basis of processes, like producing honey. Underground farming does not contribute to continuity and ongoingness, then, it goes only in one direction. Aquaponics use a more holistic, cyclical approach, but again, only within their own closed organisms. Another point that overshadows these approaches:

→ such as the ECF Farm Berlin

> "[vertical farms may be part of the solution but,] as vertical farmers themselves admit, such farms are not the answer to feeding cities in the future, since, apart from the vast amount of space needed to build them, the cost of growing staples like grain in towers simply doesn't stack up. " (STEEL 2019).

Creating thickness in how we live together means to make different lifeforms possible. Although projects like *essbare Stadt* try bringing food into the city, I find that it is more about rethinking how food is produced and consumed, as opposed to trying to fit the farm into the skyscraper.

Returning to production of urban space leads to the third initiative, Kantine Zukunftin Berlin. Their aim is to transform the city's public caterers into sites of sustainable, healthy and local food. This senate-funded project aims to benefit society, not only individuals. Berlin's canteens serve more than one hundred thousand meals per day, making it an incredibly interesting nodal point. Canteens are not only places where big and small of different socio-economic backgrounds eat, they are also places of production—of food, but more importantly of a thick present in HARAWAY'S sense. Canteens are thus both produced by and producers of the urban, in LEFEBVRE'S sense of social production of space, where different people cook, gather and eat together. The canteen, in effect, can be seen as a physical urban manifestation of the notions *becoming with* and *caring with*. It becomes with and through collective socio-ecological acts of caring. In addition to this social component, the vast number of meals served in canteens a day give them leverage to change landscapes of demand. Kantine Zukunft aims to increase the share of organically sourced food to 60% and reduce its carbon footprint by sourcing locally, while maintaining prices the same, in order to benefit all and avoid food elitism in their realms.

This idea follows the Copenhagen model, where public canteens have been transforming into sustainably sourced food providers. Of course, not all organic food is sustainable and that not all sustainably sourced food is organic (MARTINEZ 2015). But the idea of increasing demand for regional and organic food aims to motivate local farmers to produce more ecologically. The idea seems to tackle several different roots of the problem at once, because even if canteens serve meals on a 'small' local scale, the repercussions could attain a whole other magnitude. Although this does not yet tackle 'private' consumption behaviour, it has potential to, in an act of caring with, lead to reciprocal effects (TRONTO 2019) and thus to educate. Already the aim to create longevity, continuity of periurban agricultural land and to transform urban foodscapes through this, roots in a far more holistic approach to food (production to consumption) than encountered today. And maybe thinking the canteen together with aspects of Frischepost or new systems of rooftop agricultural production, strengthening the communication and connection between surrounding farmers and canteens could open new windows of opportunity to feed the growing city.

Applying the lenses developed in this thesis to regard contemporary endeavours of feeding cities has shown that there is still much work to be done, but that many initiatives have picked up on the collective responsibility and urgency of tackling how we feed cities. It has also unveiled that urban food is a very elitist topic which could be researched further in terms of socio-ecological justice. How can the city be fed in a more integrative, diversified and just manner? Further research could also engage with questions of citizenship, related to migrant workforce in urban areas and with discourses on the right to (healthy and nutritious) food in the city. We live in troubling times, in times of great controversy, in which the places with highest abundance of food are simultaneously those with the highest levels of malnutrition (FAO ET AL. 2020). *This* is the moment in which economic matters of concern turn into socio-ecological matters of care. I hope to have left my readers as affected and frustrated as I am, sparking a deep desire to start figuring with the strings placed in our hands. In HARAWAY'S tradition, staying with the trouble, then, means to stay critical and to retrieve the ability to tell the forgotten stories about "the lively activities of all beings, human and non human" (TSING 2015:VII), not just about (Wo)Man.

> Inequality, an issue which ‘defines our time’,risks destroying the world’s economies and societies.
>
> —UN Secretary-General António Guterres (18.07.20)

ROOTS OF MY THOUGHTS

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All interviewees gave their consent to the use of the material, but asked to appear anonymously.

PHOTOS

Unless stated otherwise, the used visuals (i.e. photos, images, graphs, illustrations) are own productions.

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Feeding the city of Hamburg...

Population size: **1.845.229**
(as of June 2020)

Daily per capita consumption:

- 45g of poultry = total of 40.000 chickens
- 110g of pork = total of 3.000 pigs
- 27g of beef = total of 200 cows
- 120L of water = 1 tub of water per person

Hamburg price index 2020

- 1L milk €0.85
- 12 eggs €2.51
- 1kg chicken €7.18
- 1kg beef €9.97
- 1kg apples €2.22

approx. **700 supermarkets and discounters** supply the city,
of which about 80 per cent are REWE,Lidl, Aldi, EDEKA or Schwarz Gruppe.
Of the 700, approx. **55 are organic markets** and about **175 are drug stores**.

approx. **60 farmers´ markets**
sell local fresh foods, meat and
dairy products throughout the week.

approx. **12.000 farms** in
Schleswig-Holstein feed Hamburg

Average farm size: **77.9ha**
German average: 61ha

approx. **600 farms** in Hamburg
Average farm size: 14ha
= about 35 average sized football fields

The Hamburg Grossmarkt supplies a large part of Northern Germany with fresh fruits and vegetables.

approx. **31 farms**
in Hamburg are organic

94 per cent of farm employees
are male and over **55 years old**

Containers from abroad...

25.5 million t of food was handled at the port (2016),
which was almost **20 per cent** of total throughput of the port.
1.1 million t of processed fruit and vegetables and **1.4 million t**
of fresh fruit and vegetables were imported (2016).

Sources: Fruchtportal.de (2019;2020); Bundesinformationszentrum Landwirtschaft (2020); destatis.de (2019); Hafen Hamburg Marketing e.V. (2020); Schwenner (2019)