Tactical Urban Agriculture

Small scale urban agriculture in a transforming industrial area

Taktisk Stadsodling – Småskalig stadsodling i ett omvandlande industriområde

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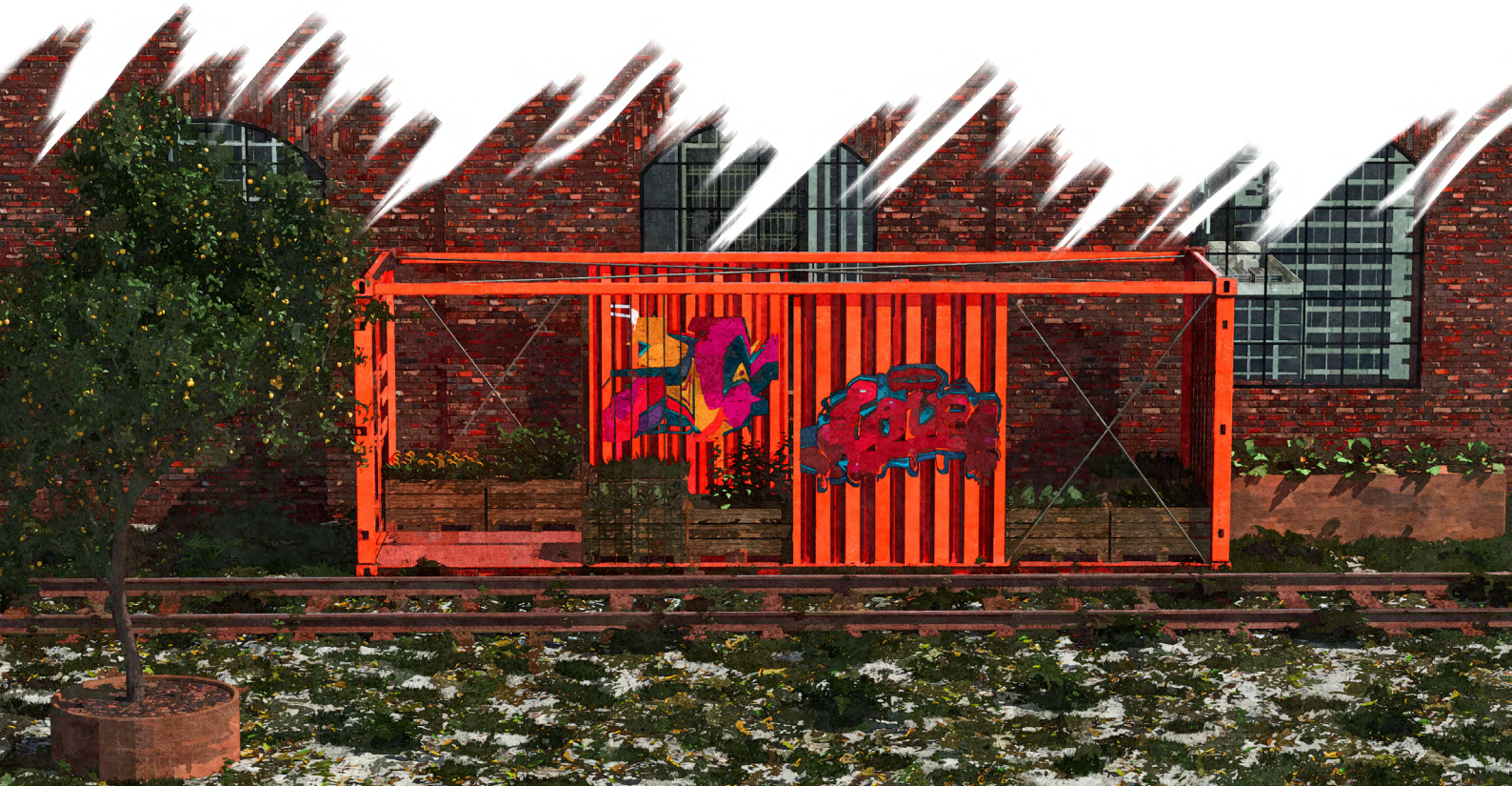

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Abstract (English)

As decaying industrial areas in European cities are redeveloped into mixed-use districts, often through top-down approaches, preserving their deeper cultural and social heritage while ensuring a smooth transition has become a key urban planning concern. Meanwhile, urban population growth, driving the demand for new construction, has deepened the disconnect between cities and agriculture, even as food security and sustainability face global threats. Understanding these challenges, this thesis explores the potential of small-scale urban agriculture through the lens of Tactical Urbanism in supporting these transitions, reshaping the general perception of these areas, while catalyzing experimentation and engaging the public. Defining the concept of Tactical Urban Agriculture through literature review and case studies, this thesis then applies it in the district of Gåsebäck, in Helsingborg, Sweden, through a desktop project, assessing its potential. The findings demonstrate that: (1) Tactical Urban Agriculture offers a cost-efficient framework for reconnecting agriculture and urban areas while rapidly increasing urban vegetation; (2) it similarly provides an adaptive and evolving strategy that supports transitional urban landscapes; (3) it fosters public involvement and social inclusion, revitalizing decaying spaces; and (4) it can effectively contribute to shift the general perception of an area, potentially leading it. By defining and applying Tactical Urban Agriculture as a tool supporting the revitalization of a decaying industrial district, this thesis bridges two seemingly distinct challenges and introduces a new approach to urban transformation while contributing to the ongoing discourse on urban agriculture. The research concludes by advocating for further studies on Tactical Urban Agriculture within other contexts as well as by emphasizing the need to implement and test the proposed project in Gåsebäck.

Abstract (Svenska)

När förfallna industriområden i europeiska städer omvandlas till blandstadsområden, ofta genom toppstyrda processer, har bevarandet av deras djupare kulturella och sociala arv samtidigt som en smidig övergång säkerställs blivit en central stadsplaneringsfråga. Samtidigt har den växande stadsbefolkningen, som driver efterfrågan på nybyggnation, fördjupat avståndet mellan städer och jordbruk, just när livsmedelssäkerhet och hållbarhet står inför globala hot. Med förståelse för dessa utmaningar undersöker denna avhandling potentialen hos småskalig stadsodling genom linsen av taktisk urbanism för att stödja dessa övergångar, omforma den allmänna uppfattningen om dessa områden, samtidigt som den katalyserar experiment och engagerar allmänheten. Genom att definiera begreppet Taktisk Stadsodling genom litteraturstudier och fallstudier, tillämpar denna avhandling det sedan i stadsdelen Gåsebäck i Helsingborg, Sverige, genom ett skrivbordsprojekt för att bedöma dess potential. Resultaten visar att: (1) Taktisk stadsodling erbjuder en kostnadseffektiv ram för att återknyta jordbruk och stadsområden samtidigt som den snabbt ökar mängden urban grönska; (2) den tillhandahåller också en anpassningsbar och utvecklande strategi som stödjer övergångslandskap i städer; (3) den främjar medborgarengagemang och social inkludering, vilket bidrar till att revitalisera förfallna områden; och (4) den kan effektivt bidra till att förändra den allmänna uppfattningen om ett område och potentiellt påverka dess framtida utveckling. Genom att definiera och tillämpa Taktisk Stadsodling som ett verktyg för att stödja revitaliseringen av ett förfallet industriområde, överbryggar denna avhandling två till synes separata utmaningar och introducerar ett nytt angreppssätt för stadsomvandling samtidigt som den bidrar till den pågående diskussionen om stadsodling. Forskningen avslutas med att förespråka vidare studier av Taktisk Stadsodling i andra sammanhang samt genom att betona behovet av att genomföra och testa det föreslagna projektet i Gåsebäck.

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Introduction

While Thomas Jefferson used to say that "agriculture is our wisest pursuit", we are today forced to recognize that agriculture, as it is generally practiced in our capitalist world, might not be pursued in the wisest manner. The increasing amount of issues it is facing can be related, for some aspect and on the matter of food security in particular, to the ongoing climate crisis (IPCC, 2023). Similarly, the industrial/fertilizer revolution and latter on the evolution of conservation techniques have allowed food trade to be operated at a global scale and gain in stability, complexity and efficiency at least in the last 30 years, thus improving food availability and nutritional diversity (J. Wang & C. Dai, 2021). But this incentivised the industrialization of agricultural practices leading to similar clusterization processes as the ones seen with more traditional industries, leading to some similar downsides (R. Hassink & S. Dong-Ho, 2005) while increasing the disconnection between where food is produced and where food is consumed. This is particularly true in Europe, where agricultural areas and urban areas have almost always been seen as two very different entities as pointed out by the astu / khôra opposition in ancient Greece or Ambrogio Lorenzetti's Effects of Good Government in the City and in the Country in 1338 (M. Tawa, 2019). In the last decades, the ever increasing urbanization and the terciarization of the economy have amplified the scale of this disconnection between the agricultural land and the urban land leading to a lack of public knowledge on the food processes while increasing public pressure on the farmers (R. Wheeler et al., 2021). Not only does this mean that agricultural production in Europe is not really in majority local anymore, but also that people living in urban areas (approx. 75% of the european population) are generally disconnected from agriculture, the very thing that feeds them.

But the agricultural landscape is not the only thing that has shifted in Europe during the last decades. Over the past 50 years, the Occidental world and Europe in particular have seen a gradual decrease of the industry sector both in terms of GDP share and of employment share through delocalization of the production facilities and through an overall terciarization of the occidental economies (M. Fontaine & X. Vigna, 2019). This shift has brought various consequences on Europe among which is a progressive shrinkage of the size and/or a shift of the uses of industrial areas. While some of the existing infrastructure is either re-used of destroyed, part of it remains, abandoned, effectively creating ghost areas where only a fraction of the past activity remains, and sometimes none. In a context where the amount of people living in urban areas is consistently increasing, this shrinkage of industry seems to have been seen, from an urban planning perspective at least, as generally carrying opportunities for development. The examples are starting to be quite common now across Europe. From the Île de Nantes project in Nantes, France to the Vastra Hamnen one in Malmö, Sweden, and passing by many others across the continent, it is now clear that the usual trajectory for these vanishing industrial areas is to be converted to mixed-use habitat oriented districts through top-down approaches. This kind of project, reflecting the scale and the speed of urbanization are a way of "solving" the matter of decaying industrial areas and the lack of housing in the urban areas at the same time but it carries a significative loophole: such an urbanism shift takes time. In the case of the Île de Nantes project, a plan-guide that would accompany the transition of the area have been done to try to address this issue but has ultimately been abandoned after some time to a more classic master plan even though the previous had not failed its objectives (L. Dietrich & C. Dahl, 2016). While such way of improving urban areas is rarely seen in top-

down planning approaches, it is important to acknowledge that, in the face of the current issues both environmental and urban, the need has arisen for fast and innovative urban improvement which, in a world where resources are becoming increasingly strained, also means low-cost (M. Lydon & A. Garcia, 2015).

The district of Gåsebäck in Helsingborg, Sweden, is not exempt from these considerations. Located close to the historical center of Helsingborg, the ninth largest city of Sweden, the industrial area of Gåsebäck is going through a similar evolution as many comparable areas all around Europe have gone through. As part of the H+ project, a major ongoing urbanization plan for Helsingborg municipality, the area is bound to transition from an industrial area where activity is on the decline and with almost no inhabitants to a mixed use area home to hundreds and more in the upcoming decades. But while a final state of the Gåsebäck district is mostly planned by now, the area is still shrouded with an overall poor perception tightly linked to its heritage. As pointed out by Dennis Kerkhof, H+ project leader at Helsingborg municipality: "Everyone [in Helsingborg] has an opinion on Gåsebäck. Even if they haven't been there in the last ten years.". It thus seems of particular importance to accompany the transition of the Gåsebäck area, not only on the change of the hardscape but also on the on the necessary change of perception of the district by the current and future public of it whether they live, work, or pass by the area.

While vegetation in the urban fabric is now overwhelmingly considered as beneficial from a human and climate perspective (F. Lindberg et al., 2016; C. W. Thompson, 2017; IPCC, 2023) and is broadly pushed by Helsingborg municipality itself as pointed out by the 2019 green infrastructure plan for 2021-2026 (Helsingborg municipality, 2019), it raises some questions regarding the area of Gåsebäck and the greening of such an area through common processes. Understanding the uniqueness of Gåsebäck within Helsingborg municipality, a greening strategy that would effectively suit such an area and accompany its transition seems to have to go through a fast, innovative and low-cost response that would allow for experimentation, public involvement and provide an outcome as unique as this area.

Purpose and questions

As a consideration to the aspects the Gåsebäck area entails, to the issues its transition raises both locally and in a more general context, and to the broader perspective of the disconnection of urban areas towards agriculture, the following report will explore the potential of small scale urban agriculture through the lens of Tactical Urbanism in a transforming industrial area as a tool for accompanying the change of the hardscape and perception of the area, and as a way of experimenting solutions while generating public involvement.
The questions the report will primarily investigate are the following:
- How can small scale urban agriculture projects accompany the transition of an industrial area and participate in the change of its perception while not disregarding its heritage?
- How to make these small projects a catalyst for experimentation and public involvement in order to generate a long-term change?

This research starts from a theoretical review of the major shifts in urban planning and agriculture since the industrial revolution; in order to highlight the potential of tactical urban agriculture in transforming leftover areas and more precisely in transforming industrial areas. The investigation then pivot to focus on the potential of the Gåsebäck district for such kind of project, first from a general overview of its place within the ongoing dynamics at work in Helsingborg, and then, from a more grounded in the context, analysis of the landscape of the area. Following these considerations, the investigation dives into a project aiming at putting the theory at work and access its outcomes in order to give recommendations regarding the research questions.

Method

This research follows a qualitative, design-based methodology, grounded in research-through-design and site-specific inquiry. It draws on theoretical frameworks, historical reflection, site analysis, and design experimentation to explore the potential of Tactical Urban Agriculture in accompanying the redevelopment of Gåsebäck.

Methodologically, it stems from the growing recognition of urban greening as a necessity, as emphasized by multiple studies and reports, among which the latest IPCC (2023) report on climate change stands out as the most widely recognized. Based on similar considerations, this research emphasizes the importance of urban agriculture, both in terms of food production and of public awareness, understanding that the interest in these matters has increased in recent years (or a regain depending on context and point of view) despite still being relatively low compared to other urban greening issues. The research starts from general theoretical considerations on the two major strands entailed by its title, namely urban planning (in *The Urban Tides*) and urban agriculture (in *Feeding the Cities*), before pivoting to the Gåsebäck district in Helsingborg (in *Gåsebäck in Helsingborg, a shifting district in a broader dynamic*) that marks the beginning of the exploration of the Gåsebäck district, through an integrative literature review.
The Gåsebäck district is selected due to its ongoing dynamics that are comparable to a lot of industrial areas in Europe while retaining a rich heritage and a unique identity, something that tends to become unusual in current industrial areas transformations. It is also important to state here that the identity of Gåsebäck is considered unique even within Helsingborg, which has led to the municipality calling for solutions to accompany the transition of the area and change the negative aspects of its perception while preserving its identity and heritage. This work is one answer to Helsingborg municipality's call.

Becoming aware:
Inspired by the overall structure of Sebastien Marot's work *Taking the Country's Side: Agriculture and Architecture.* (2019), partly due

to the similarities in explored themes, each part of the literature review starts by briefly exploring the history of the part it is related to: Urban Planning, Urban Agriculture, and Helsingborg. The discussion then shifts to the exploration of a recent disturbance in the general trend the aspect was undergoing: the disappearance of industries in Europe, the exploding gap between agriculture and urban areas, and the redevelopment of the southern half of Helsingborg, the ninth largest city in Sweden. Each part then slightly differs from one another in specific structure but addresses similar themes; namely general trends that either present radical solutions to the negative impacts of the recent disturbance or significantly influence them, either formally or within the discourse they are integrated in. Additionally, *Feeding the Cities* explores specific case studies to inform the following definition of Tactical Urban Agriculture. It is also important to note that *Gåsebäck in Helsingborg, a shifting district in a broader dynamic* does not explore the latter (as doing so is the aim of this work) but instead presents a zoom on the Gåsebäck district.

Becoming local:
Started through literature, the exploration of the Gåsebäck district continues in an in-depth site analysis aiming at thoroughly Understanding Gåsebäck. Starting with a desktop study heavily relying on GIS datasets, including LIDAR, interpreted through computer assisted drawing (CAD) and 3D modeling, including 3D scans, as a way to grasp the form of the site in a detached perspective, the exploration of Gasebäck then shifts towards a study of the characters of Gåsebäck done through multiple site visits, informed by Spacescape's report *Gåsebäck Själ* (2023), where photography plays an important role in transcribing the author's perception of the district. Lastly the journey towards an understanding of Gåsebäck focuses on a specific study of the comprehensive plan for the south of Helsingborg (Helsingborgs stad, 2024) in order to understand the large scale shift the area will face in the upcoming years, leading to the identification of a need for an operation aiming at preparing the shift. It is here important to note that the site analysis aiming at understanding Gåsebäck is not carried out solely to serve the eventual project proposal but to build empathy towards the site and its people, as a way to, as much as possible, becoming local.

Becoming an actor:
Informed by both literature and site analysis, the exploration of the Gåsebäck district finally pivots towards becoming an actor within the dynamics at work through the planning of a Tactical Urban Agriculture project. This project is directly linked to the expected time-frame for the redevelopment of the Gåsebäck district to enable its development, following its aim to accompany the transition of district, not being a standalone project. Similarly, its reliance on CAD and stylized 3D rendering to communicate its outcomes aims at emphasizing the flexibility of the proposed solution by avoiding overly prescriptive guidelines that could hinder not only its capacity to adequately accompany the transition of the district, but also its potential to be a catalyst for experimentation and public involvement.

This exploration of Gåsebäck through design is grounded within the theoretical framework of research through designing following a pragmatic approach as defined by S. Lenzholer & al. (2017). This approach, trying to use any kind of knowledge available with minimal paradigm reduction, aims at generating applicable knowledge (S. Lenzholer & al., 2017) that could, in the end, find a concrete application. It is important to note here that the outcome this investigation aims to produce is, per se, not a formal design or plan. While the exploration of Gåsebäck through design, especially in the smaller time frames, will produce formal ideas, they are to be used as a base that could support further participation and exploration throughout the whole transformation of the Gåsebäck district and beyond. It is therefore important to clarify at the outset that in the event the project would be allowed to take place in the area and be integrated within its development, it would need to evolve beyond whatever design outcomes formalized in this report. If in five, ten, or more years, the project still takes the shape of what is formalized here, it will probably mean a failure of the project.

The Urban Tides

Urban planning as a process of technical and political nature focusing on the plannification and design of land-use and built environment (S. S. Fainstein, 2024) cannot exactly be qualified as something new. While some would argue that urban planning is as old as human settlements themselves thus locating its birth at the neolithic revolution 12 000 years ago, the generally recognized actual debut of urban planning can be dated back to what Vere Gordon Childe points out as the "urban revolution" (S. Marot, 2019) that seems to have been ongoing at first in ancient Sumer around 5000 years ago (The editors of Encyclopaedia Britannica, 2016). Similarly the orthogonal plan (or grid-like plan) has been widely used and spread by various civilizations among which the ancient Greeks and the Romans, to the point of this kind of plan being also known as the Hippodamian plan named after Hippodamus of Miletus, an ancient Greek architect considered as the father of European urban planning (E. Gleaser, 2011).
Considering these aspects, it is clear that urban planning is not exactly something new. However, it has evolved throughout history and is deeply tied with Europe, especially in the mid-19th and 20th century, perhaps more than with any other continent.

This importance of Europe in urban planning during this period generally can be linked to two major factors.
The first one comes from inside Europe itself and is, in more than one way, one turning point of its history: the Second Industrial Revolution. This exponential surge of industry, bolstered by mass-production, standardization and rapid scientific discoveries in every domain, led to a similarly exponential population growth (S. S. Fainstein, 2024) especially in urban areas (T. Baudin & R. Stelter, 2022; S. S. Fainstein, 2024). This process gave birth to various adaptations and plannings of the urban fabric such as the zoning plan. Latter on, the globalization of industry led to the use of such Urban Planning practices, especially in a context of export through colonialism. The second major factor for this European importance comes from another major aspect of its history is found in European colonialism. While this major aspect is not the subject of this work, it is important to stress out that the exportation of the Western-culture through colonization processes has led to the globalization of European Urban Planning traditions (P. M. Guerrieri, 2020) explaining the weight of Europe in Urban Planning had in the period.
While Europe seems to have had a seemingly common Urban Planning trajectory as a response to the issues it faced during its industrial area (S. S. Fainstein, 2024), it is important to stress out that there does not appear to be a European Urban Planning tradition but more a collection of national practices with ties of variable importance between each other (S. V. Ward, 2023). These ties can generally be linked to processes happening at a supranational scale, and, in the recent years, these global processes have led to shifts in urban planning practices, especially in European countries.

Environmental concerns are not new, in fact, some can be dated back to the very beginning of the Industrial revolution and while some of these concerns were addressed, a major part was silenced under the pressure of productivism (S. Marot, 2019). Similarly, while the ongoing climate crisis and its extent have been known for decades, the silencing of the issue has led to a dramatic delay in the needed response to this existential crisis (G. Supran et al., 2023). As urban areas are generally more prone to structural impact of climate change, especially in terms of locally human-caused warming such as

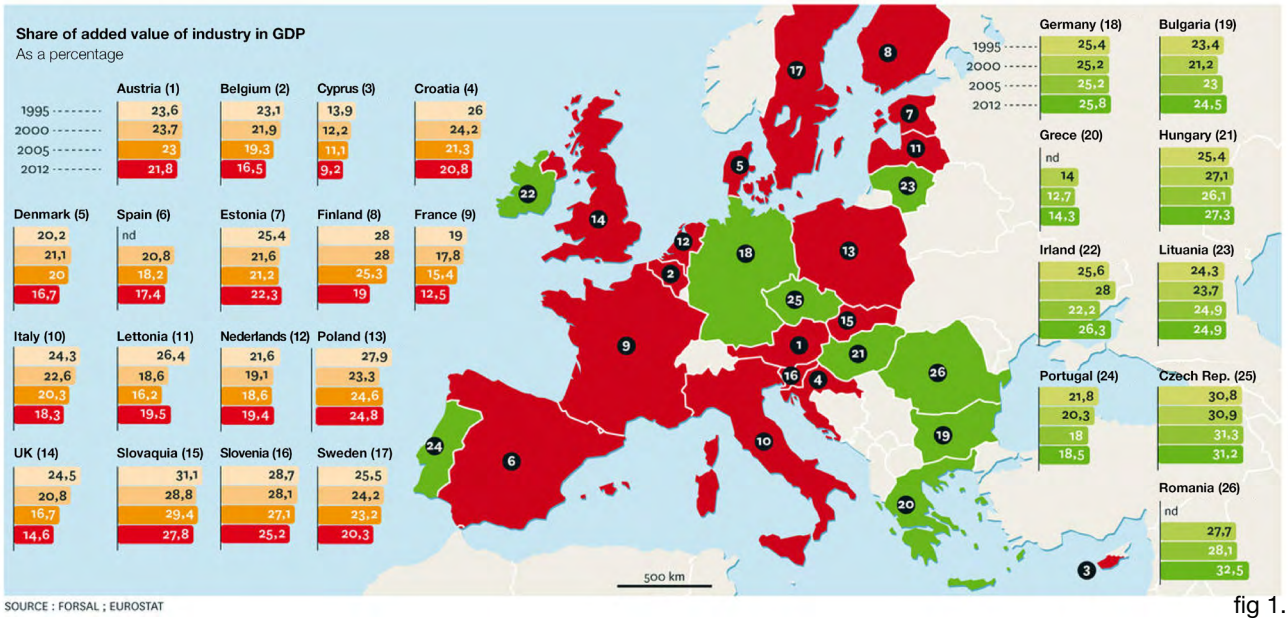
Urban Heat Island effect, while being of critical importance to address the climate crisis (IPCC, 2023), some shifts in urban planning have to be done, and some are already happening. A good example of that can be found in the case of the redevelopment of the area of Frihamnen in Gothenburg, Sweden from an industrial dockland to a mixed-use area. Here, the planning process integrated a preliminary assessment of the impact of vegetation cover and building density on local heat stress that compared different planning strategies in order to make some recommendations to reduce heat stress within the area (F. Lindberg et al., 2015).
Similarly to this kind of top-down approach, some societal changes are also tending to create a shift in urban planning practices such as the progressive decrease of automobile use (M. Lydon & A. Garcia, 2015) calling for an increase of pedestrian streets. This tendency has already have some impacts on the urban fabric, particularly in European cities where the car-free street network is generally the most extensive (A. Bartzokas-Tsiompras, 2022). Still, a further increase of these pedestrian street is still called for as well as their systematic and extensive implementation within urban planning practices (E. Mendzina & K. Vugule, 2020).
Finally, one major shift observed in European urban planning resides in the terciarization of the European economy. This phenomenon of the gradual increase of the proportion of service oriented jobs resulting in the decrease of the shares of the primary and secondary sector (agriculture, industry, construction) has been ongoing in Europe at a significant pace since the 1970's and has noticeably impacted the industry sector (M. Deleidi et al., 2019). This economic shift needs to be highlighted as it was one of the main driver of the progressive disappearance of industries in European cities, which came with some major consequences on the urban fabric.

Before discussing some of the consequences the shrinkage of industry had on European cities, it seems important to make a brief stop on the tremendous impact industry has had on Europe until the 1970's. While a lot of place all around the world have seen some degrees of mechanization for various types of activities through windmills or watermills for example, what propelled Europe has the first industrial power of the world resides in the use of new energy sources such as coal or petroleum during the industrial revolution (C. More, 2000; The editors of Encyclopaedia Britannica, 2024). This generated a boom of industries and of their production, that was initiated in the United-Kingdom in the 1830's and spread to the rest of Europe in the following decades. This generated a new and unprecedented scale of growth for many existing processes. Machine density, industry density and urbanization rates among others, rose at a seemingly exponential speed leading to the growth of personal income correlated with population growth, something that was entirely new to this extent (C. More, 2000). In parallel to population growth, rural exodus became an increasingly important phenomenon, bolstering even more urbanization rates (T. Baudin & R. Stelter, 2022). However, it is important to note that the industrial areas that appeared during this period were not spread evenly throughout each nations or cities. On the contrary, they went through a process of sectoral clusterization, generating highly specialized areas (P. Hudson, 2009), as well as spatial clusterization, generating the so-called industrial areas (R. Hassink & S. Dong-Ho, 2005). These processes made industry one of the foundations upon which Europe built its urban fabric for decades, even after the spread of industrial revolution worldwide. However, the progressive disappearance of industries from Europe in the second half of the 20th century turned the impacts of

industrial revolution on the urban fabric to issues of similar impact.

As pointed out before, in the second half of the 20th century and even more after the 1970's, Europe has seen a gradual terciarization of its economy as well as a shrinkage of its industry (M. Deleidi et al., 2019). While happening on the economic plane, this shrinkage of industry brought spatial tenets of similar scale through the delocalization of production facilities in more attractive areas of the globe (M. Fontaine & X. Vigna, 2019). However, while these dynamics meant the progressive fading of industry from Europe, it did not meant the end of the built industrial infrastructure. More their abandonment. Therefore, as industry in Europe had developed in urban areas, bring people and activity, in highly specialized and specific areas through their clustering (C. More, 2000); its fade generated abandoned areas, as leftovers of the old activities. These areas, devoid of a large share of its former life, sometimes all of it, became seemingly ghost areas in which the aftereffects of the fade tended to create the optimal conditions for the rise of major issues, especially in the realm of criminality (A. Fraser & A. Clark, 2020).

The issues brought by the disappearance of industry from an urbanistic and social standpoint are now well known. As a matter of fact, the cycle of rise, fall, and restructuring has been quite common in Europe even though the process has tend to accelerate since the industrial revolution (R. Hassink & S. Dong-Ho, 2005). Municipalities and politics have therefore been well aware of the issue and a lot of what formerly were industry-driven cities have undergone some drastic restructuring projects in order to recover from the hit of the disappearance of what was their main driver (A. Power & J. Plöger, 2010). The examples of such processes are now plentiful across the old continent and, while being generally grounded to their unique context, allow to pinpoint a few general development tendencies partly due to the supranational processes that tend to link European urbanism practices (A. Power & J. Plöger, 2010; S. V. Ward, 2023). One major spatial aspect of this kind of restructuring project lies in the construction of mixed-use areas on the former industrial grounds as highlighted by various projects such as Vastra Hamnen in Malmö, Sweden; the Titanic quarter in Belfast, Norther Ireland; the Quartier de l'île de Nantes in Nantes, France; or the Gåsebäck district in Helsingborg, Sweden.



SOURCE : FORSAL ; EUROSTAT

fig 1.

These projects also highlight two other dimensions of the development tendencies: one of time and one of governance. In terms of governance first, these projects are done through a top-down approach where the planners create and present a proposal to decision-makers who can approve or reject it (T. Semeraro et al. 2020), something overwhelmingly common in European urban planning. This type of approach, even though not completely bad, tends to generate conflicts between the stakeholders leading to delays in the planning process as well as, to some degree, a disconection of the complete project from its context (T. Semeraro et al. 2020).

In terms of time then, these projects are taking a considerable amount of it to be completed. Vastra Hamnen, started in the early 2000, is now close to being complete and so is the first phase of the Quartier de l'île de Nantes, but the Titanic quarter, started as well in the early 2000, is still far from completion, and the Gåsebäck district, because of its integration within the bigger endeavor of the H+ project, has not really started its restructuring. This means that the completion of the project might take place in a context where the dynamics are not the same as they were at the time of the beginning of it. Furthermore, as the construction of buildings does not magically bring life into an area, the final state of the project might be as empty as the former industrial area it is supposed to regenerate. Very few attempts have been made to solve this 'meantime' matter, the Quartier de l'île de Nantes project has tried to accompany its conversion through a plan-guide, but this method was abandoned for the latter stages of the project even though it had not failed its objectives (L. Dietrich & C. Dahl, 2016).

These time and governance dimensions are common in that kind of restructuring projects and do not necessarily mean that the final state of the project will fail its objectives. However the issues are real and momentum, especially social emulsion, can easily be lost due to the length of the process and the conflicts between stakeholders (Spacescape, 2023). Because of that, both practitioners and people have made calls for a bigger consideration of bottom-up approaches, where the local communities drive the project, in urban planning practices, either as a standalone or as an integration to the traditional top-down approach (M. Lydon & A. Garcia, 2015; T. Semeraro et al., 2020; A. Gattupalli, 2023). However, these calls are not always considered by the decision-makers. This led some, tired of the length of the processes and the inaction, to take matters into their own hands and solve the urban planning issues they felt the decision-makers were not addressing. This led to the rise of modern Tactical Urbanism.

Tactical Urbanism is not a new approach per se. However, its formulation is rather recent and has been motivated by the rise of what can be called its modern form. While not the firsts to address the subject, Mike Lydon and Anthony Garcia give a very throughout overview and definition of what Tactical Urbanism is.

> Tactical Urbanism is an approach to neighborhood building and activation using short-term, low-cost, and scalable interventions and policies. Tactical Urbanism is used by a range of actors, including governments, business and non-profit, citizen groups, and individuals. It makes use of open and iterative development processes, the efficient use of resources, and the creative potential unleashed by social interaction. (M. Lydon & A. Garcia, 2015)

From this definition, it is clearly understandable that Tactical Urbanism as an approach is, in fact, quite old as it can be interpreted as an answer to our instincts as humans: enhance our general livability (M. Lydon & A. Garcia, 2015). As humans are by nature, social animals (Aristotle, n.d.; K. Marx, 1859), this instinct tends to find it materialization in public placemaking and maintenance. A good example of that can be found in what is considered as the first street in Khirokitia, a settlement of the Neolithic era, where the public space was already planned, maintained and altered (S. K. Kostof, 1999). Furthermore, this instinct leading to placemaking can also be seen as an awakening of the inert. In the case of Tactical Urbanism, especially in contexts where immobility proves unbearable, this instinct leads to a practice the place, giving birth to a novel and hopeful story of it, creating a space of Tactical Urbanism (M. De Certeau, 1984). For the individual people, whether alone or in informal groups, Tactical Urbanism is the tool by which the public space can be altered without any delay (M. Lydon & A. Garcia, 2015). For more traditional stakeholders such as developers, planners, or governments, Tactical Urbanism creates a fast and relatively low-cost way to gather knowledge through experimentation that could, down the line, pave the way for a more perennial state of the project which might require a bigger, and justified, investment (M. Lydon & A. Garcia, 2015; K. VanHoose et al., 2022).

As the various issues posed by urban mobility and livability, in which leftover areas such as old industrial areas take a non negligible part, have increasingly called for new ways of planning and envisioning the future, experimentation, and street experimentation in particular, are now acknowledged to be a major force to plan more sustainably for the upcoming times (L. Bertolini, 2020; K. VanHoose et al., 2022).

In this context, Tactical Urbanism is gaining momentum and planners are now starting to use its knowledge-bringing potential to plan more thoughtfully (L. Pfeifer, 2013). However, this way of designing and planning the public space does not consist in only one approach would be missing a considerable part of it. Tactical Urbanism is, by nature, an intentional and flexible response to an issue or a set of issues that conventional planning processes have usually failed to address, a response that breaks free of these usual planning processes through incremental projects oriented towards their long-term goals (M. Lydon & A. Garcia, 2015).

Because of this nature, any project done under the scope of Tactical Urbanism can be done through three main approaches: a citizen-led approach (or bottom-up), which can be sanctioned or unsanctioned, and an institution-led approach (or top-down)

which is, by default, sanctioned.
For the citizen-led approach, it is important to note that the unsanctioned side and the sanctioned one are often two sides of the same coin. Sometimes, people might bring the project they want to do before the planning institutions and face refusal or a lack of consideration of their issue and decide to do the project anyway in a form that would take advantage of some loopholes in the local regulations. More often, citizen-led approach is a way for citizens to exercise their right to the city as defined by Henri Lefebvre as the legitimate right of the people truly inhabiting the urban space to govern and shape it, over the market forces which, he argues, no longer inhabit the urban space (H. Lefebvre, 1968). Here the reasons for citizen to prefer unsanctioned action can be either as an expression of civil disobedience or as a way of bypassing the public process and municipal regulations, often seen as outdated, inefficient, lengthy, and disconnected from the reality of the people (M. Lydon & A. Garcia, 2015).
On the side of the institution-led approach, the use of Tactical Urbanism can be generally explained by two arguments. The first one lies in the experimental and incremental aspect of Tactical Urbanism. As it allows for rapid and low-cost knowledge gain through flexible experimenting, institutions can see it as a test phase of a project that will precede a more definitive form and a bigger investment (M. Lydon & A. Garcia, 2015; L. Bertolini, 2020; K. VanHoose et al., 2022). The second argument is found in the potential of public engagement during all the project phases the approach has. Involving the general public in a project allows to gain valuable insights on the project area as well fostering inhabitants approval, two aspects that are of considerable importance for the good completion of modern urban planning projects (L. Pfeifer, 2013; C. S. Costa et al., 2021).
While these three main approaches might look more or less separated from each other (especially in the case of citizen-led vs institution-led), it is important to understand that they are oriented towards similar goals of long term change, even though for different reasons. Moreover, one approach can sometimes be the evolution of another one as in the case of a citizen-led raising the necessary interest that can spark a related institution-led approach.

A particularly interesting example of such progression of a Tactical Urbanism project starting from unsanctioned action becoming sanctioned and sparking institution interest can be found in the district of Gåsebäck in Helsingborg, Sweden. This area, filled with a rich heritage, is, as many other old industrial areas in Europe, symptomatic of the aftermaths of the disappearance of industry from the continent. The factories that used to produce surrogate coffee, yeast, or bicycles among other things, have left the area and only a fraction of the past activity still remains, mostly pivoted towards other types of businesses such as car repairs or paint production (Helsingborg Conservation Plan Committee, 2012; Gestaltad livsmiljö, 2021). In this area, an old and unused fire-station that was to be demolished ended up going in a completely different direction. Daniel Elgaard, a musician and roofer who was working in Gåsebäck for 20 years, did not want such an important building for the area to be demolished. Instead, he and Helena Taps, a municipal planning architect supporting the initiative, contacted the municipality of Helsingborg to ask to rent the premises for 10 years in order to create a cultural meeting place they felt Gåsebäck lacked. While the municipality granted their demand, they also made it clear that the project would not receive funding so as not to 'burden the municipal economy'. Everything had to be

done cautiously, and be preferably low-cost. The project started anyway, led mostly by citizens as the distrust in the municipality officials is high in Gåsebäck, and creatives started to gather. This was particularly visible during a workshop where a tunnel passing under the railway going through the district was renovated by the creatives of Gåsebäck. The graffiti scene is quite big in Gåsebäck and, probably for that reason, 'the Doomsday project', as it was called by the people in the workshop, also included a repainting of the inside of the tunnel as well as of 40 of the pillars of the bridge over it, each one being painted by a different graffer. This workshop, as a lot of cultural projects done in Gåsebäck for Gåsebäck, was not done through municipality funding. It was an initiative of the people, by the people, and for the people. The workshop and the fire-station sparked public interest as well as, to a certain point, a politicians one (D. Lindman, 2019). The involvement of the people who wanted the fire-station to remain has paid off, the comprehensive plan for the restructuring of the Gåsebäck district incorporates it and it is pointed out as an important place for the area. Similarly, the graffitis that where done during the workshop where allowed to remained and the area now incorporates walls where graffitti is allowed to be done, something that was not the case until then.
Even though the project is still ongoing and the long-term impact of it remains rather unknown, it appears quite clearly that this project illustrates what a citizen-led Tactical Urbanism project can do, to the point of initiating an institution-led approach. Some obstacles remains in the area for the full acceptance of institution-led approach such as the distrust in the municipality officials that raises concerns for the future of the area (Spacescape, 2023). This points out the necessity of public involvement and experimentation on future projects in this dynamic, especially in terms of urban greening, something the municipality seem to want to push for in the Gåsebäck district (Helsingborg City Planning Committee, 2024).

The question of urban greening is a common theme within Tactical Urbanism approaches under the scope of Tactical Greening. The reason for that lies in the considerable loss of vegetated areas in cities over the last decades which has deeply impacted the living conditions in the urban areas (N. B. Grimm & al., 2008; C. Haaland & C. K. van den Bosch, 2015; A. Loder, 2020; M. Pezzagno et al., 2021). Facing the disappearance of urban greenery and the slow reaction of institutions, citizens are, as in many cases where Tactical Urbanism project are undergone, taking the matter into their own hands and do the work they feel the planners should have done (L. Pfeifer, 2013; M. Lydon & A. Garcia, 2015; A. Loder, 2020). Where Tactical Greening differs from other Tactical Urbanism projects is in their higher practical complexity and, in a paradoxical way, in the generally more positive outcomes it tends to have. This is mostly due to the fact that, while vegetation is generally perceived as a positive thing by people, the way it is implemented by traditional planning practices tends to generate tensions with the local population (A. Loder, 2020). In the case of Tactical Greening projects, this issue is non-existent has the project does not come from 'the outside' but from 'the inside' of the area. People know what they want to do and they do it. This dynamic is now quite recognized and has encouraged processes of co-creation with the locals when it comes to nature-based solutions, a necessity in urban areas (European Commission, 2023).

Vegetation and vegetated areas in the urban environment are now widely recognized as a necessity (N. B. Grimm et al., 2008; C. Haaland & C. K. van den Bosch, 2015; F. Lindberg et al., 2016; A. Loder, 2020; M. Pezzagno et al., 2021; IPCC, 2023). In urban environments, vegetation is beneficial on two major components: climate and people.

On the urban climate, the benefits of vegetation are increasingly well-known. On the matter of temperature regulation, vegetation and trees in particular are known to provide considerable benefits, reducing the Urban Heat Island effect through their albedo, the evapotranspiration process, and the shadow coverage they provide (F. Lindberg et al., 2016; Y. Depietri & T. McPhearson, 2017; European Environment Agency, 2020). Similarly, vegetation plays an important role in pluvial and river flooding mitigation through their capacity to intercept water and the pervious land they require (Y. Depietri & T. McPhearson, 2017; European Environment Agency, 2020). To a certain extent, vegetation also plays a role in carbon capture and air quality improvement (Y. Depietri & T. McPhearson, 2017; S. Fawzy et al., 2020).

On the urban human population, the beneficial effects of vegetation are of similar importance, related, in part to the concept of biophilia. As presented by Kellert and Wilson in the analog title, the biophilia hypothesis suggest that there is an innate human tendency to seek connection with nature, emphasizing the need for humans to have regular contacts with nature (S. Kellert & E. O. Wilson, 1993). While biophilia as a genetic-related characteristic is still a contested matter (K. Rogers, 2023), increasing evidence suggest that nature and as such vegetation, have a strong potential to reduce stress in humans, as opposed to an urban environment (K. Beil & D. Hanes, 2013). Furthermore, vegetation as part of green infrastructure is considered beneficial for the safety perception of an area, thus encouraging more sustainable and healthy modes of transportation such as walking or cycling (C. W. Thompson, 2017; L. Sturiale & A. Scuderi, 2019; J. Im, 2019).

The matter of vegetation in the urban environment is not new per se, but the way it is perceived and planned is taking new turns. From Renaissance gardens to the City Beautiful movement that gave birth, among others, to Central Park in New York, USA, bringing vegetation into the urban landscape has mostly been a matter of control, aesthetics, and prestige (C. C. L. Guest, 2019; A. Loder, 2020). While these epochs have had less prestige-oriented practices such as les jardins ouvriers (the worker's gardens) in France, the overwhelming majority of the planned vegetation was done more as works of art and less as supports to the city. In parallel, the ever increasing pace of the urbanization processes as well as the urban densification has considerably reduced the amount and diversity of urban vegetation (N. B. Grimm et al., 2008). In the context of climate change, this decline of urban greenery, which has already led to serious consequences in the cities, has sparked an urgent need for renaturation projects and strong increases of green infrastructure (N. B. Grimm et al., 2008; C. Haaland & C. K. van den Bosch, 2015; F. Lindberg et al., 2016; A. Loder, 2020; M. Pezzagno et al., 2021; IPCC, 2023).

While the calls for more vegetation in the cities are now plenty and widely acknowledged, some issues remain in the location of such projects. The urban densification and development practices have led to a lack of available space, and while reducing the amount of space for cars is often an option of considerable interest (J. Furchtlehner & L. Licka, 2019; J. Furchtlehner et al., 2022), some complements

to this should not be overlooked. On that matter, leftover areas, and especially old industrial areas, seem of particular interest. While rather untouched by the densification of the urban fabric, they offer the opportunity to develop urban vegetation projects with less possibility for conflict and more available space than in denser areas. Furthermore, when this kind of declining industrial area is still, at least partly, used by some people, preliminary urban greening projects have the potential to generate public involvement and can participate in a regain of interest in the area, both from outsiders and locals (J. Im, 2019; K. VanHoose et al., 2022) which could, as other kinds of projects, create a public momentum and support the redevelopment phase of the area (M. Lydon & A. Garcia, 2015; D. Lindman, 2019; K. VanHoose et al., 2022).

Feeding the Cities

In a very similar way to urban planning, agriculture as the act of cultivating the soil, producing crops and harvesting them, animal breeding, and the processing of plant and animal product (B. T. Shaw et al., 2023) is not something new. Very interestingly, urban planning and agriculture are intertwined and have affected each other throughout history (S. Marot, 2019). However, where agriculture differs from urban planning is in the fact that its beginning time is commonly known and considered as one major event in the history of humanity: the Neolithic revolution, also called the first agricultural revolution, began approximately 12 000 years ago (P. Bellwood, 2005; S. Marot, 2019; K. Nair et al., 2024). While the reasons for the birth of agriculture are still debated, the stabilization of the climate at the end of the Pleistocene / beginning of the Holocene, particularly in tropical and temperate zones, appears to have had a significant importance (P. Bellwood, 2005), emphasizing the importance of a stable climate for the stabilization of agricultural practices. Even though through time and human migrations, agriculture spread all around the world, it did not mean the immediate abandonment of hunter-gatherer practices, in fact, these practices broadly coexisted until fairly recently and still do in some local contexts (P. Bellwood, 2005, K. Nair et al., 2024). While the apparition and spread of agriculture was an element that enabled the geographical fixation of human societies and cities (P. Bellwood, 2005; The editors of Encyclopaedia Britannica, 2016; S. Marot, 2019), this first agricultural revolution did not result in increased population growth levels (H. J. Zahid et al., 2015).

However, this is not the case of the more recent second agricultural revolution that started in the United-Kingdom in the 18th century. The enclosure act, turning vast but not productive open-fields into more compact farms domestically owned, the introduction of new crops, and the development of the Norfolk four-course rotation, all increased the yield of the agricultural land (D. Richards & J. W. Hunt, 1983). Combined with an increased efficiency of transportation systems and the spread of train transportation, this agricultural revolution generated a sharp growth of the population in the British Isles first, and then in the rest of the world through its spread, while also being a determining factor enabling the first industrial revolution (D. Richards & J. W. Hunt, 1983; S. Marot, 2019; The editors of Encyclopaedia Britannica, 2024). This revolution was closely followed by the third agricultural revolution in the 20th century. Over the course of the century, the general mechanization and electrification of agriculture tools, the widespread use of pesticides and fertilizers, the selective breeding of crops and animals, as well as improvements in irrigation systems, allowed for an exponential and unprecedented rise of agricultural yield (P. B. R. Hazell, 2009; D. Gollin et al., 2021; A. W. Gray et al., 2024). This led to a large set of related outcomes. Food availability and security improved drastically, adult and infant mortality sharply declined, GDP per capita saw an overall rise, and population growth became even more exponential (P. B. R. Hazell, 2009; D. Gollin et al., 2021). As conservation and transportation technologies improved significantly at the same time as the agricultural yield did (P. B. R. Hazell, 2009; D. Gollin et al., 2021), the cities became increasingly able to sustain large amounts of population and agriculture became largely globalized (J. Wang & C. Dai, 2021). Similarly, the increase of productivity by worker in the agricultural sector first (D. Richards & J. W. Hunt, 1983; D. Gollin et al., 2021), and then in the industrial sector (M. Fontaine & X. Vigna, 2019), allowed for a sharp increase of the service sector, leading to the terciarization of most western economies, bolstering rural exodus and the increase of urban population (M. Fontaine & X. Vigna, 2019; M. Deleidi et al., 2019; T. Baudin & R.

Stelter, 2022).

The various agricultural revolutions humanity went through, especially the third agricultural revolution, have shaped what agriculture is today. Highly productive, highly complex, and for the most part, disconnected and unsustainable. The increases of agricultural yield brought by the third agricultural revolution heavily rely on fossil fuels and unsustainable practices, both in transport and in natural resources management (P. B. R. Hazell, 2009; A. W. Gray et al., 2024) putting agriculture as the fourth biggest emitter of greenhouse gases in the world as well as in Europe, before even accounting food transportation related emissions (Eurostat, 2023; Climate Watch, 2023). In a context of climate crisis where the sharp loss of biodiversity, increase of the climate instability, and increasing loss of arable land, are becoming widely noticeable, the current agricultural system is not only showing its limits, but also its significant unsustainability for both humans and ecosystems (H. W. Kindall & D. Pimentel, 1994; P. B. R. Hazell, 2009; FAO, 2023; FAO et al., 2023/2; IPCC, 2023).

This unsustainability of current mainstream agricultural practices appears even more clearly when looking at it from the cities, especially European ones. While 75% of the European population lives in urban areas (UN, 2019), the overall continent is not self-sufficient in the production of some of the main food products such as sugar, vegetable oils, or protein crops (Eurostat, 2023). Furthermore, the vast majority of consumed food products, even when produced in Europe, have to travel more than 50 km on roads before reaching the consumers (Eurostat, 2023/2), without even taking into account sea and air transport. This emphasizes an alarming fact: agriculture is now far from the urban populations in Europe, it was pushed out of the urban areas.

How agriculture was pushed out of the urban areas

We pointed out before that agriculture enabled the existence of cities (L. R. Brown, 2001; P. Bellwood, 2005; The editors of Encyclopaedia Britannica, 2016; S. Marot, 2019). However, it is important here to emphasize that agriculture did not create the urban society and the exponential rates of urbanization that we have seen in the past century (L. R. Brown, 2001; H. Lefebvre, 2003). It was, in fact, quite the opposite: the heavy industrialization of the cities which led to the explosion of urban populations, particularly in Europe, enabled at the very least the third agricultural revolution, a necessity to provide food to a space that could not provide it for itself (L. R. Brown, 2001; H. Lefebvre, 2003; P. B. R. Hazell, 2009; D. Gollin et al., 2021). Intensified by the processes of rural exodus, the cities grew exponentially during the last century and this growth is not predicted to stop anytime soon (L. R. Brown, 2001; N. B. Grimm et al., 2008; UN, 2019; T. Baudin & R. Stetler, 2022). This growth in population has been accompanied by a growth in occupied area, the urban sprawl. Supported by the increases of affordability and diversity of transportation modes, especially the car, as well as an overall amelioration of transportation infrastructure and their integration into urban planning practices, the cities spread in their surroundings, eating the adjacent land at the pace of urbanization and sub-urbanization (L. R. Brown, 2001; N. B. Grimm et al., 2008; N. A. Phelps, 2017).

As a result of this growth comes a set of concrete and rather alarming consequences. First, while cities only cover 2% of the surface of the globe, they accounted for 60% of residential water use, 76% of wood used for industrial purposes, and 60% of carbon emissions for the year 1999, thus putting an increasing tension on provisional infrastructure and productions systems (L. R. Brown, 2001; C. T. Yeh & S. L. Huang, 2012; S. Anderberg, 2012). Given the ongoing trends in urbanization, the current

numbers might be even more staggering. The second set of consequences is spacial. The spatial expansion of cities progressively takes up adjacent land which is always natural land and often agricultural land, thus reducing the available agricultural land as well as degrading natural ecosystems durably (L. R. Brown, 2001; N. B. Grimm et al., 2008; C. T. Yeh & S. L. Huang, 2012). Similarly, the spatial expansion of urban areas means that food and water, two necessary resources, are produced further and further from the places they are consumed (L. R. Brown, 2001; Eurostat, 2023/2). Overall, while the cities are needing more and more resources, among which agricultural products are of critical importance, they have and are still continuing to push agriculture further from them. Combined with the densification of the urban fabric, this seems to perpetuate the old astu/khôra opposition and takes the risk of going in the same destructive direction (N. B. Grimm et al., 2008; M. Tawa, 2019).

This dismissal of agriculture from urban areas and their immediate proximity entails various impacts on agrifood systems that are bound to take an even more preponderant place as the climate crisis and urbanization progress.

One of the most obvious ones lies in the overall environmental impact of food production and transportation to the urban areas. Maintaining and augmenting the production output of the current mainstream agricultural practices, especially in an increasingly unstable climate, comes at the cost of a heavy use of fertilizers and pesticides which, not only are produced through fossil fuels, but also generate a high amount of soil pollution while heavily degrading the soils (H. W. Kindall & D. Pimentel, 1994; P. B. R. Hazell, 2009; IPCC, 2023). In terms of environmental impact, the deforestation practices to gain more surface to cultivate also is to be pointed. While many factors motivate farmers to remove forested area in order to gain agricultural ones (S. Polyzos & D. Minetos, 2012; P. Prochazka et al., 2023), an important one to underline lies in the progressive loss of agricultural yield of one parcel of land due to poor management (H. W. Kindall & D. Pimentel, 1994; P. B. R. Hazell, 2009; S. Polyzos & D. Minetos, 2012), calling for an increase in exploitation size in order to maintain the production per farmer, as well as the revenues. However, deforestation practices impact significantly the environment in many aspects: not only the removal of woodland causes a significant loss of biodiversity and species habitat, it also means losing a potential for carbon sinking that the trees provide, thus increasing even more the greenhouse effect contributing to global warming (V. S. Manoharan et al., 2012; S. Fawzy et al., 2020; FAO et al., 2023/2; IPCC, 2023). Additionally, the deforestation processes negatively impact the local climate and the quality of the soil, leading to inferior agricultural yields of the land in the beginning and their progressive degradation over time (R. Mawalagedara & R. G. Oglesby, 2012; A. Kranjc, 2012).The transportation of the agricultural production also accounts as a major environmental impact, generating an additional amount of greenhouse gases, emphasized by the distances food is transported on as well as the complexity of the international food trade networks (J. Wang & C. Dai, 2021; Eurostat, 2023/2). The transport infrastructure, while generally not solely dedicated to food transport, also generates a high impact on nature by fragmenting and disturbing ecosystems (E. O'Brien, 2006; M. K. Psaralexi et al., 2016).

Another significant impact on agrifood systems lies in the food itself. In terms of quantity and quality, while it is recognized that urbanization is associated with a diversification of diets with an increase in consumption of food that can be linked to a healthy diet, it is also clear that the same process leads to the spread of ultra-

processed foods, energy-dense, high in fat, sugar and salt, contributing to adverse health effects (L. Elizabeth et al., 2020; FAO et al., 2023/2). Similarly, almost everywhere in the world, the supply of fresh fruits and vegetables is insufficient to guaranty a healthy diet for every one (FAO et al., 2023/2). The heavy use of fertilizers and pesticides, combined with preservation techniques to ensure the transportation of food over long distances, also has an adverse impact on food quality, and ultimately human health, by diminishing its micro-nutritional value as well as by increasing the concentration of chemicals within food products (S. K. Amit et al., 2017; N. Dhankhar & J. Kumar, 2023). Lastly, one major point to emphasize regarding agrifood systems is the almost complete lack of food self-sufficiency in many parts of the world and in Europe in particular (Eurostat, 2023/2). While urban areas are, by nature, hardly self-sufficient food-wise, it is important to recognize that the recent urbanization processes have generally pushed the small amounts of agriculture that were done within the cities and their immediate proximity further from them, to the countryside or even to other parts of the world, increasing even more their external dependence (L. R. Brown, 2001; N. B. Grimm et al., 2008; C. T. Yeh & S. L. Huang, 2012; P. Kinnunen et al., 2020; FAO et al., 2023/2; Eurostat, 2023/2).

Another set of aspects of significant importance entailed by the dismissal of agriculture from urban areas and their immediate proximity is social, and impacts both urban and rural populations.

Behaviorally speaking, urbanization combined with the global food trade efficiency has led to a disconnection between urban populations and agriculture, thus modifying eating habits. As we saw before, urbanization has greatly contributed to the spread of fast-foods and ultra-processed foods, which are recognized to have adverse effects on human health (L. Elizabeth et al., 2020; FAO et al., 2023/2). But more than that, the increasingly frequent consumption of these foods, now routed in the habits of many especially in occidental countries (P. Baker et al., 2020; Toluna Harris-Interactive, 2024), combined with the globalization of food importations, has led to a decrease in the consumption of local and seasonal raw products (J. I. Macdiarmid, 2013; P. Baker et al., 2020; J. Wang & C. Dai, 2021; Toluna Harris-Interactive, 2024). Furthermore, while the decrease of the consumption of local and seasonal raw food products has implications from an environmental standpoint (J. I. Macdiarmid, 2013), it also has a significant impact on food awareness and knowledge, particularly on younger generations (Toluna Harris-Interactive, 2024). A good example of that lies in the results of a Tolune Harris-Interactive study done in 2024 for the french ministry of economy, finances, and industrial and digital sovereignty where the respondents between the age of 15 and 24 were not able to recognize a courgette in 20% of the answers and were not able to recognize a grapefruit in 13% of the answers (Toluna Harris-Interactive, 2024), even though these products are among the most popular in France (FranceAgriMer, 2021).

On a more rural perspective, the dismissal of agriculture from urban areas and the subsequent isolation have caused a contraction of rural communities, among which farmers are taking the heaviest burden, confronted to an increasing loneliness. While the long working hours and the lone-working of the farmers is an important factor of that, it appears as evident that the geographical isolation, intensified by urbanization processes, plays a significant role in farmers' isolation and loneliness (R. Wheeler et al., 2021). But these factors are not entirely new and are not enough to explain the growing loneliness of farmers. On the contrary, what can be brought forth

to explain this phenomenon is a cultural shift induced by urbanization. As the rural exodus has marginalized farmers, even among their shrinking community, and led to an overall disconnection of the public from farming, especially in urban contexts (R. Wheeler et al., 2021). Furthermore, because of this disconnection, farmers tend to feel victimized and pressured by the policy makers and the general public through heavy regulations and being held responsible for climate change and pollution (R. Wheeler et al., 2021). All of these factors, emphasized by urbanization, have led to a significant increase in the feeling of loneliness among farmers (R. Wheeler et al., 2021), leading not only to adverse mental health effects (E. G. d. O. Santos et al., 2021), but also to adverse physical health effects (J. Hold-Lunstad, 2017).

Since the intensification of the urbanization processes brought by the industrial revolutions in the Occident, agriculture has been pushed out of the cities, further and further from it. This has led to a disconnection between the general public, especially in urban areas, and agriculture itself, entailing a considerable set of negative effects on the environment and human populations. In the face of these issues, a tendency has emerged in many places and at various levels. One tendency of bringing agriculture back in the urban areas.

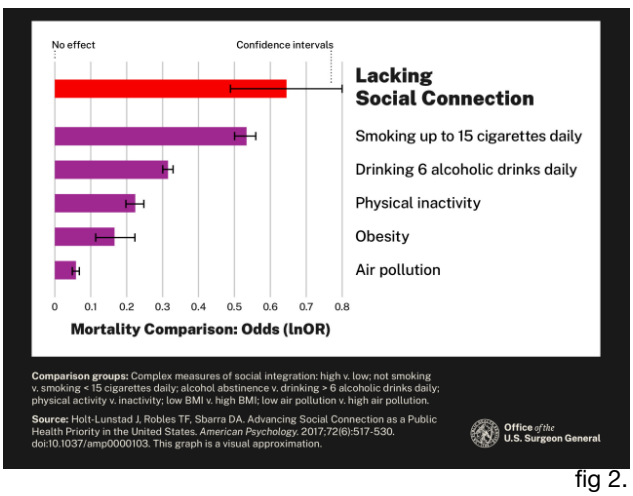


fig 2.

Seeing the emergence of the tendency of bringing agriculture back in the urban areas, one might wonder if efforts to achieve this have not been done earlier at some point since the beginning of the industrial revolution, especially in Europe where the dynamic historically started. While examples of long lasting agricultural endeavors in an urban context are scarce, as opposed to the sheer amount of parks that were done under the city beautiful movement (C. C. L. Guest, 2019; A. Loder, 2020), one particularly interesting example to look at is the one of the *jardins ouvriers*, or *workers' garden*, that started in France in 1896.

Like many other allotment garden project in Europe, the *jardins ouvriers* were born at the end of the 19th century in a context of accelerating urbanization bolstered by the industrial revolution that was challenging the stability of the food supply to the cities (A. Björklund, 2010; J. N. Consalès, 2018; E. P. Larsson & K. G. Nygren, 2024). However, where they differ from the other allotment gardens in the rest of Europe is in the scale and speed at which they spread, reaching 910 000 collective allotments and 2,2 million of isolated ones in 1944, as well as in the similar speed at which they shrunk after reaching their peak to reach the amount of 150 000 collective allotments just 30 years after (B. Cabédoce, 2018; M. Mennessier, 2019). During the expansion of the *jardins ouvriers*, the parcels were created in any available space available in the periphery of the cities or in the cities themselves following the terrianistic idea according to which everyone should have a piece of land to grow food on (J. N. Consalès, 2018; M. Mennessier, 2019). This idea ultimately led to an infiltration of agriculture in the cities, particularly the highly industrial ones from where the movement originated until its peak (M. Mennessier, 2019).
From that example, we can point out that,

even though the *jardins ouvriers* tried and, for a time, succeeded to put agriculture in the developing urban areas of the time, they were ultimately pushed out of the cities by the intensification of urbanization post World War II (L. R. Brown, 2001; N. B. Grimm et al., 2008 B. Cabédoce, 2018; M. Mennessier, 2019). However, the story of the *jardins ouvriers* does not end here. Over the last 20 years, similarly to other allotment gardens in Europe, they have regained interest and popularity among urban populations, expressing a need for some form of reconnection to the nature, to a more sustainable lifestyle, in the form of these spaces between city and countryside (G. Melin, 2013; P. Vanderbroucke et al., 2017; E. P. Larsson & K. G. Nygren, 2024). As a result, municipalities, churches, and even private real estate developers have been increasingly supportive of the planning and creation of new allotment gardens and started including them in the urban planning process not as a way to fill some holes in the urban fabric, but as a true urbanistic entity, beneficial to the city and its inhabitants (P. Vanderbroucke et al., 2017). Furthermore, the *jardins ouvriers* are, and have always been, directed almost exclusively towards food production without a commercial goal even though they ultimately produce some economic benefit for the farmers (G. Melin, 2013; P. Vanderbroucke et al., 2017; M. Mennessier, 2019). However, through the individual consumption of the production and through its exchange inside of the allotment farmers' community, the jardins ouvriers, similarly to other allotment gardens in Europe, generate a social cohesion as well as an alternative form of local food circuit, whose importance is only bound to grow in the near future (G. Melin, 2013; J. Smith & P. Jehlicka, 2013; M. Mennessier, 2019; E. P. Larsson & K. G. Nygren, 2024).

As the ongoing climate crisis is putting an increasing pressure on agrifood systems, effectively showing their limits (H. W. Kindall & D. Pimentel, 1994; P. B. R. Hazell, 2009; IPCC, 2023), rethinking the food supply chain as well as the mainstream agricultural practices appears as a necessity (L. R. Brown, 2001; S. Marot, 2019; J. Wang & C. Dai, 2021; B. Dale et al., 2023). While this does not mean that the current globalized food supply chain must be entirely abandoned, especially given its efficiency in preventing localized climate-induced food shortages, it is becoming evident that sustainable and local food circuits are essential in order to effectively tackle the current and upcoming issues (P. Kinnunen et al., 2020; A. J. Stein & F. Santini, 2021; J. Wang & C. Dai, 2021; B. Dale et al., 2023).

In the case of cities globally, it is important to understand that, even though agriculture has been pushed further out as urbanization progressed, agricultural production of urban and peri-urban areas in particular is not nonexistent (F. T. Payen et al., 2022). Overall, it is estimated that urban and peri-urban conventional agriculture amount for around 15% to 20% of the global food production, allowing to feed 30% of urban populations (P. Kinnunen et al., 2020; F. T. Payen et al., 2022). However, this fact faces three major drawbacks. Firstly, the share of food produced in urban and peri-urban environments is subjected to high variations depending on the geographical context, where lower income countries will tend to have a higher share of urban and peri-urban production while higher income ones will have a lower share (P. Kinnunen et al., 2020; F. T. Payen et al., 2022). While there is an actual agricultural production in urban and peri-urban areas, it can then be argued that being able to supply only one third of the local population is quite far from self-sufficient and sustainable (F. T. Payen et al., 2022). Even though the data only refers to

conventional agricultural practices and thus does not encompasses alternative ones such as allotment gardens, which are notoriously overlooked (J. Smith & P. Jehlicka, 2013), the limits of the food supply chain it shows should not be overlooked. One last thing to understand about this urban and peri-urban agricultural production is that its locality does not necessarily more sustainable. Its proximity to cities, potentially diminishing the impact of transportation, does not actually diminishes the impacts of conventional agricultural practices such as the management of soils through chemicals and of the many other aspects accounting for the emissions of agrifood systems, even when local (A. J. Stein & F. Santini, 2021; Eurostat, 2023/2). Thus, it is important to understand that, as written by B. Dale et al. (2023), "local food is not enough, we need a sustainable transition in food systems".

Considering this, one might wonder why sustainable local food circuits are essential for a sustainable future, especially in urban contexts. Similarly to the negative impacts of the pushover of agriculture out of the cities that we saw before, the answer to that can be expressed through the tenets it has on different aspects and at various scales.
As pointed out before, the environmental impacts of local food production is generally similar to the one of non-local ones, the only difference being in the transport distance (A. J. Stein & F. Santini, 2021). What is important to emphasize here is the need for sustainable agricultural practices with a local paradigm. Through the diminution of the use of chemicals in the production first, and without the use of chemical preservation due to the short transportation distance, a sustainable local food circuit can ensure a seasonal supply of fresh unpolluted products (S. K. Amit et al., 2017; A. J. Stein & F. Santini, 2021; N. Dhankhar & J. Kumar, 2023; B. Dale et al., 2023). It is also important to note that when a local food circuit does not exist at a sufficient scale in one given place, it has to rely only on the global food trade to ensure its subsistence, which poses an evident threat on its resiliency facing adverse conditions that are bound to increasingly happen in a context of climate instability (A. J. Stein & F. Santini, 2021; IPCC, 2023). Having multiple and varied ways to ensure food supply is vital for any given place and as such, sustainable local food circuits are to be considered (A. J. Stein & F. Santini, 2021; B. Dale et al., 2023).
However, where the need for sustainable and local food circuits hold the most significance does not lie in its direct environmental impacts, but in its social tenets. Food, its production and its consumption, has always been, and still is, a central part of human societies and relationships (C. Steel, 2009; S. Marot, 2019). While agriculture enabled the settlement of human activities during the Neolithic revolution (P. Bellwood, 2005; S. Marot, 2019), food is rooted way more profoundly in human social structures as its gathering and sharing among humans can be considered an innate trait of our specie (I. Alger et al., 2023). From these two facts we can conclude that, first, food is a universal language and as such, has a significant power of social unification (L. Silow, 2019; I. Alger et al., 2023), and, second, agriculture is a social aggregator, even though its potential on the matter has been heavily undermined by the current mainstream practices (L. R. Brown, 2001; N. B. Grimm et al., 2008; R. Wheeler et al., 2021). Therefore, sustainable and local food circuits have the potential to unite people, both spatially and socially. Generally speaking, the locality of a food circuit can bolster an attachment to the local landscape and the food it produces, creating a 'terroir' people can take pride in (E. Shmitt et al., 2017). At a smaller scale like in the case of allotment / community gardens where people grow their own food and potentially exchange

it among each other, the attachment come from the satisfaction of the work coming to fruition, highlighting a re-appropriation of the means of production (J. Smith & P. Jehlicka, 2013; E. P. Larsson & K. G. Nygren, 2024). Similarly, these practices also entail some non-negligible financial benefits, both in the case of the professional farmer and in the case of the allotment gardener where self-provisioning allows for substantial savings on food expenditure (J. Smith & P. Jehlicka, 2013; M. Mennessier, 2019; A. J. Stein & F. Santini, 2021; E. P. Larsson & K. G. Nygren, 2024). Furthermore, sustainable and local food circuits hold a considerable potential for promoting healthier food and activity behaviors as well as for the necessary education on agricultural practices and food (G. Melin, 2013; A. Wezel et al., 2018; A. J. Stein & F. Santini, 2021).

Local food circuits hold a considerable potential in both environmental and social aspects, even through their current dynamics. Through a sustainable lens, these practices, especially when community-led, have the opportunity to become the catalysts that can enable a sustainable redefinition of food circuits and bolster cities' resiliency towards the limits of the mainstream practices.

While the environmental impacts of local food circuits are often evaluated as similar to those of the non-local ones (A. J. Stein & F. Santini, 2021), it is important to emphasize that this is only considering the cases of local food circuits within the scope of mainstream agricultural practices. But, as we pointed out, rethinking the food supply chain as well as agricultural practices is a necessity, and local food circuits are not exempt from this statement (A. Wezel et al., 2018; B. Dale et al., 2023). At this point, an interesting aspect to consider is the fact that, whether edible or not, plants are plants and thus can benefit the urban environment. As we have seen before, urban vegetation provides a vast amount of environmental benefits such as a significant reduction of the Urban Heat Island effect, a potential in mitigating pluvial flooding, to some extent, an amelioration of the air quality, among others (F. Lindberg et al., 2016; Y. Depietri & T. McPhearson, 2017; European Environment Agency, 2020). Similarly, urban vegetation contributes to human well-being, participating to relieve stress, bettering the perception of the area it lands in, and encouraging healthier and more sustainable habits (K. Beil & D. Hanes, 2013; C. W. Thompson, 2017; L. Sturiale & A. Scuderi, 2019; J. Im, 2019). Interestingly, this means that urban agriculture, when talking about food plants cultivation, could, to some extent, provide the exact same benefits as the more ornamental vegetation. Moreover, it can be assumed that urban agriculture, especially in the case of local food circuits and community initiatives, could bring the additional benefits such practices entail (J. Smith & P. Jehlicka, 2013; A. J. Stein & F. Santini, 2021; E. P. Larsson & K. G. Nygren, 2024).

Therefore, it seems safe to state that the need for urban greenery and the need for sustainable and local food circuits overlap at some point. This point is of considerable importance as it involves that, in a context where rethinking the way we eat and produce food is a necessity, urban greening can be envisioned through the lens of agricultural practices.

The aggravation of the climate crisis has given birth to a renewed interest in urban greening and renaturation projects to the point that these types of projects are now commonly seen, at least in Europe (N. B. Grimm et al., 2008; C. Haaland & C. K. van den Bosch, 2015; F. Lindberg et al., 2016; A. Loder, 2020; M. Pezzagno et al., 2021; IPCC, 2023). However, even though

ecosystem services are increasingly taken into account, the mainstream urban greening projects tend to give little to no room for urban agriculture. This issue is, in the current context, worrying to say the least as the need for more local and sustainable food circuits is, as we saw, a necessity. However, this does not mean that urban agriculture projects have not been undergone recently. Even though their existence is scarcer than urban greening project and despite facing some challenges in establishment and continuity, among which socio-institutional factors tend to constitute the highest threat (L. Knapp et al., 2016), these kind of projects exist and highlight a general interest in rethinking agricultural practices in almost every social strata.

Local food circuits are bound to become increasingly relevant in the agrifood systems in the upcoming years (S. Marot, 2019; A. J. Stein & F. Santini, 2021; B. Dale et al., 2023; E. P. Larsson & K. G. Nygren, 2024). Because of that, it is important to make sure these circuits will grow towards an environmental and social sustainability in order not only to ensure their relevance in the food supply system, but also to make a full use of their social potential (A. J. Stein & F. Santini, 2021; B. Dale et al., 2023). The exact form these circuits would take if generalized and fully incorporated in the planning processes is hard to define, as emphasized in the book Agriculture and Architecture: Taking the Country's Side where a synthesis is drawn of "the competing directions that the dialectics of city and country, as well as agriculture and architecture, might take" (S. Marot, 2019). However, recent urban agriculture projects are not nonexistent and can provide interesting insights on the current state of local food circuits as well as the direction they might take.

Here, two different urban agriculture projects have been investigated. Born in Europe but not necessarily limited to it, these projects can be considered as an interesting representation of directions that agriculture within an urban context can take, and the outcomes they can yield.

Planteringar utan Gränser in Helsingborg
Location: Helsingborg, Sweden
Approach: Top-down

The Planteringar utan Gränser project was launched in 2010 by the municipality of Helsingborg as a form of community gardens with the objectives of creating attractive, safe and well attended meeting places that would contribute to breaking down social isolation and loneliness in the project areas while increasing interest in cultivation. Initially born in Stadsparken with a temporary installation, the project was latter moved and fixed to four other locations: in the Planteringen district in 2011, in the Drottninghög district in 2012, and in the Husensjö and Närlunda districts in 2013. Formally, each project site is located on a publicly accessible green area and received a variable amount of low-lying rectangular shaped wooden planters. While each project areas are relying on public participation in order to run properly, the municipality of Helsingborg has been the leading stakeholder of the project, especially in its beginning through the participation in the construction and maintenance of the project as well as by providing seeds, plants and knowledge provided by municipality employed gardeners. Other parties have been involved in the project such as the Church of Sweden or the social housing company Helsingborgshem.

Evaluated in 2014 by Tim Delshammar, Rebecca Averdal and Ulla Berglund, the Planteringar utan Gränser project appeared as an overall success, reaching a wide array of people of various social, educational, ethnic and class backgrounds, as well as contributing to the development and strength of the social network of the areas it has landed in. Furthermore, the project has created safe and attractive places by the nature of the activity practiced in it and has facilitated dialogue between the municipality officials and the residents of the areas (T. Delshammar et al., 2014).
Additionally, the project evaluation pointed out the importance of the location of the operations in places with a central role and existing movement without excessive demarcation in the success of the project (T. Delshammar et al., 2014).

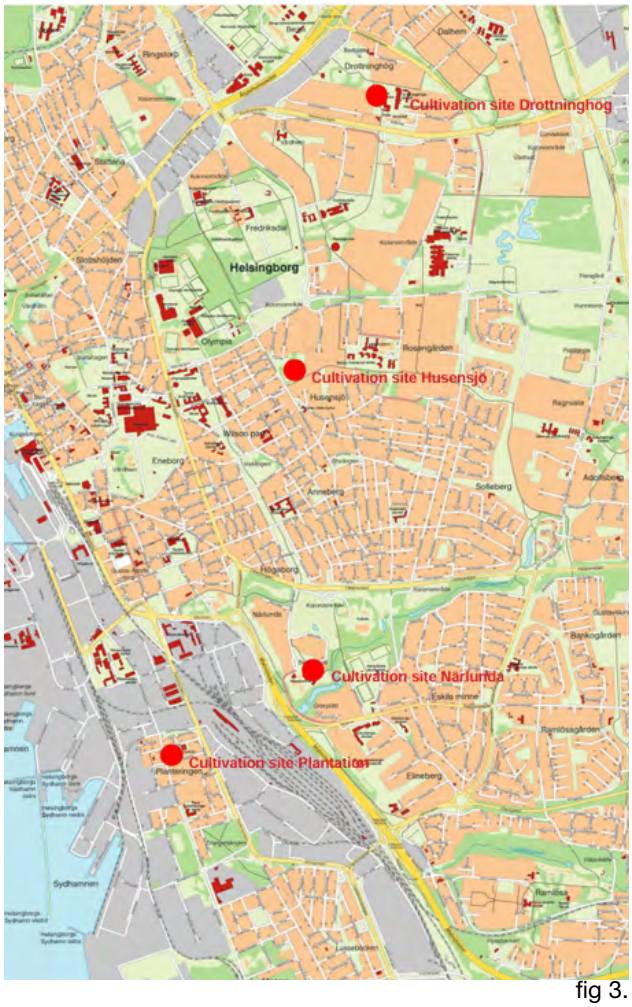
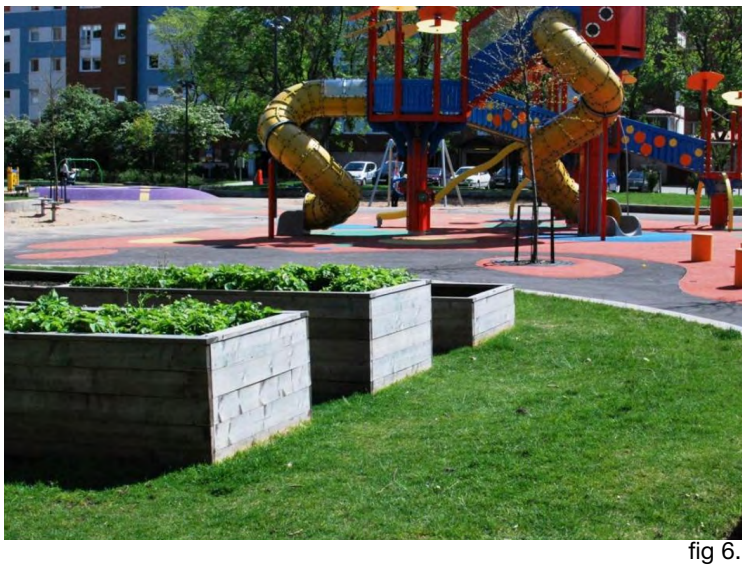


fig 3.


fig 4.

fig 5.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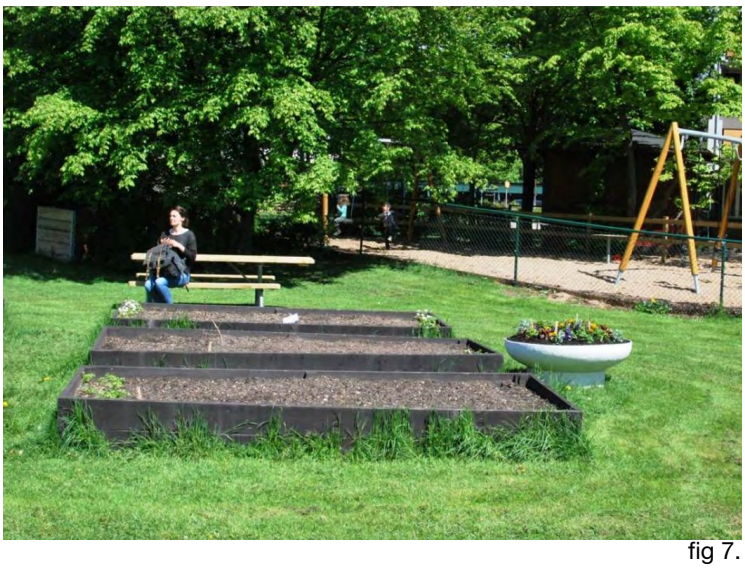


fig 7.


fig 8.


fig 9.


fig 10.

The Incredible Edible Network

Location: first in Todmorden, UK; network worldwide
Approach: bottom-up

Incredible Edible Todmorden was born in 2008 from the initiative of a group of volunteers in Todmorden, UK, sharing hopes about what they envisioned for the town. Focusing on small scale agricultural plantings done within the public space with close to no institutional involvement, the group began to grow food on existing vegetated spaces and in small planters done for the occasion, strengthening the social connections between the growers and allowing anyone to take the grown food with the idea of "if you eat, you're in" putting food and the growing process of it as a common language. Started as guerrilla gardening, the project soon became formally approved by the local authorities, allowing it to gain stability and grow further as emphasized by the creation of the Incredible farm in the countryside of Todmorden as well as of the Aqua Garden, an aquaponic farm. While the initiative spread to the town of Ramsbottom, UK, the following year effectively starting the Incredible Edible Network, it was in 2012, with the TED talk done by Pam Warhurst, one of the original co-founder of Incredible Edible Todmorden, that the network began gaining international visibility. In 2016, the network was made of 600 groups globally and has continued expanding ever since. However, it is important to understand that this expansion is not a consequence of an action of the original Incredible Edible Todmorden but rather an effect of the interests it triggered in other communities who ended up adopting a similar approach. The execution of this approach, by people and groups of people was facilitated by the creation of an online toolshed providing a comprehensive set of information sheets on various themes ranging from plant selection to the placement and making of planters.

Due to its evolution in popularity over the years, the outcomes of the Incredible Edible Network, and of the Incredible Edible Todmorden in particular, have been evaluated on multiple occasions, providing a comprehensive view of the project's consequences.
In the case of Incredible Edible Todmorden, research has shown that the project has proven to be be one of the most successful urban agriculture project in the world to date (M. Hardman et al., 2019). Overall, the project has shown a great potential in improving social well-being by connecting people through food, generally strengthening the community, improving food-justice through accessibility, and promoting local food consumption (A. Farrier et al., 2019). Similarly, Incredible Edible Todmorden has used food to connect people and landscape through urban agriculture and education, leading to increased interests in ecology and sustainability while stimulating the public involvement in place-making in both urban and rural context even though the latter has been less prominent (A. Farrier et al., 2019).
However, it is important to point out that, despite the overwhelmingly positive outcomes the projects has had, it still is facing, to an extent, some of the issues urban agriculture projects, and guerrilla gardening projects in particular, tend to present generally. The negative aspects of the Incredible edible Todmorden identified by Hardman et al. (2019) consist in the following: a lack of a clear understanding of the purpose of the project from the people not involved in it; a criticism of the untidiness of the planters in terms of plants layout as well as concerns in both the planter's maintenance and placement on the public space; the existence of social norms preventing people from taking the vegetables; and finally the concerns surrounding fruits and vegetables produced in an urban environment regarding the planters' exposition to pollutants and vandalism.

Similarly to Incredible Edible Todmorden, the Incredible Edible Network carries the same potentials for success and similar potential drawbacks. However, a potential additional issue it could face compared to the initiative in Todmorden is to be found on the degree of application of the methodology provided, leading to potential urban agriculture project being part of the Incredible Edible Network in name only (A. Farrier et al., 2019), even when accounting for the necessity of an adaptation of the framework to the context it is deployed in.

fig 11.

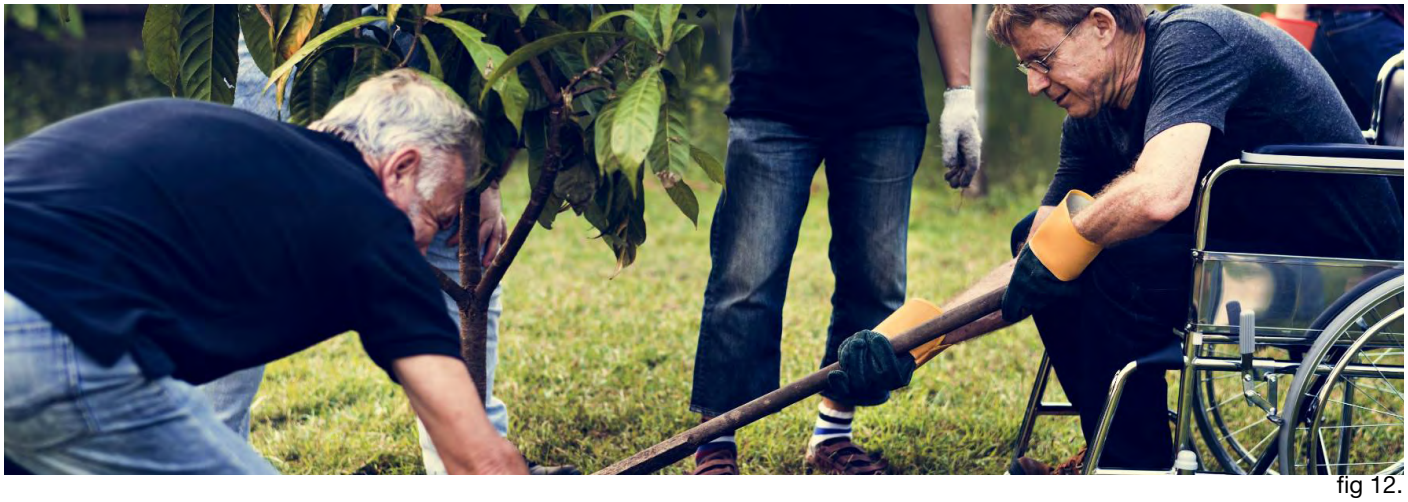


fig 12.


fig 13.

The previous examples as well as the existing research together point out towards the following fact: urban agriculture has a strong potential both socially and environmentally (J. Smith & P. Jehlicka, 2013; E. Shmitt et al., 2017; EPRS, 2017; G. N. Yuan et al., 2022). However, another aspect highlighted by the same researches and by the projects, among which only one has been initiated by a municipality, is the existence of challenges that can delay or even impede the realization of urban agriculture projects, especially in the case of citizen-led initiatives (EPRS, 2017; N. J. Kennard & R. H. Bamford, 2020; G. N. Yuan et al., 2022). An important set of challenges that can be identified lies in the legislative aspects these projects involve in terms of potential food safety issues, adequation with existing urbanism and development plans, and compliance with national and European legislations regarding competition in the case of for-profit initiatives in particular (EPRS, 2017; G. N. Yuan et al., 2022). On a similar matter, as urban agriculture projects, whether non-profit or for-profit, tend to rely heavily on public funding to ensure their survival due to the general ambition they have of producing local food at a reasonable price, they often need to go through the local authorities and decision-makers in order to get their project approved and funded (EPRS, 2017; N. J. Kennard & R. H. Bamford, 2020; G. N. Yuan et al., 2022; Incredible Edible C.I.C., 2023). The consequences of this challenge are in the length of the administrative process, especially when considering the frequent lack of consideration of policy-makers towards urban agriculture, which can ultimately impede the momentum these projects need to be conducted; and in the potential power the authorities can exert on the projects even when completed, effectively making them vulnerable to redevelopment plans (EPRS, 2017; N. J. Kennard & R. H. Bamford, 2020; G. N. Yuan et al., 2022). Overall, the lack of enthusiasm and dynamism of institutions regarding urban agriculture projects does not seem to show any sign of positive evolution despite the considerable amount of incentives given by researches and previous experimentations (J. Smith & P. Jehlicka, 2013; E. Shmitt et al., 2017; P. Vanderbroucke et al., 2017; F. T. Payen et al., 2022; B. Dale et al., 2023; E. P. Larsson & K. G. Nygren, 2024). For that reason, individuals and groups of people are more and more tempted to take the matter into their own hand, to exercise their right to the city (H. Lefebvre, 1996; M. Lydon & A. Garcia, 2015) through a practice of urban agriculture, ultimately generating spaces of agriculture within the cities (M. De Certeau, 1984). And some already have as in the case of the Incredible Edible Network, who even made the concept evolve through the definition of The Right to Grow (Incredible Edible C.I.C., 2023) that can be, to some extent, seen as an extension of the terrianistic idea that gave birth to the jardins ouvriers and other community gardens in Europe more than a century ago (J. N. Consalès, 2018; M. Mennessier, 2019).

Interestingly, this dynamic of people exercising their right to the city in a form of a right to grow is very similar to the idea of Tactical Urbanism. In fact, even though the Incredible Edible Network does not claim to be a tactical urbanism project, the way it has been created, developed, and the long term change it initiated, are perfectly in line with the definition of what a tactical urbanism project is (M. Lydon & A. Garcia, 2015). However, the project cannot exactly be defined as a tactical urban greening project, as it seems to have been primarily oriented towards an agricultural use of already existing green areas even though the development of the project has seen the increased use of planters (P. Warhurst, 2012; Incredible Edible

C.I.C., 2018). Moreover, the initiative seems to be quite general in its recommendations, without giving any advice on identifying opportunities sites that would make this kind of intervention suitable (L. Pfeifer, 2013; M. Lydon & A. Garcia, 2015; Incredible Edible C.I.C., 2018; A. Loder, 2020). While this does not diminish the importance of the project nor its impacts, it raises concerns towards potential local tensions and conflicts that could arise due to a misplacement of one operation in the public space, ultimately diminishing the impact of the initiative.

In the current context, where renaturation projects are getting increasing interest and momentum, and where bottom-up greening projects are being widely recognized and pushed in urban areas (L. Pfeifer, 2013; M. Lydon & A. Garcia, 2015; A. Loder, 2020; European Commission, 2023), not only does tactical greening constitute a powerful tool for fast, low-cost, and flexible experimentation and place-making. Furthermore, as it was pointed out before, both the agricultural plants and the more traditional streetscape greenery, provide very similar benefits and carry a similar potential for urban environments.

In the light of these elements, it thus seems possible to state that urban agriculture can be done through the lens of tactical greening, that local food circuits can be established while greening the streetscape, and that it is possible to do so in a way that will bolster social involvement, experimentation and food safety, all of that at a relatively low-cost. Under that paradigm, such operation could be though as Tactical Urban Agriculture.

This brings out an important question: What is Tactical Urban Agriculture?

While some elements of the answer have already been evoked, it seems important to give a more straightforward definition of the idea in order to be able to develop it latter on. As tactical urban agriculture is inscribed in a tactical urbanism framework, its definition can take from the words of Mike Lydon and Anthony Garcia (2015) used to define tactical urbanism and be expressed as such:

Tactical Urban Agriculture is a polyform response to the unmet need for a return of agriculture in urbanized areas. It is an approach to neighborhood building and activation using short-term, low-cost, and scalable interventions oriented towards sustainable and local food production. Tactical Urban Agriculture can be used by anyone: individuals, groups of people, non-profit and for-profit organizations, as well as governments. It makes use of open and iterative development processes, the efficient use of resources, and social interaction to produce creative solutions to identified issues in their context.

Because of the tenets it inherits from the frameworks it invokes and the answers it provides, Tactical Urban Agriculture holds a considerable potential for urban areas and populations on both social and environmental issues.

The potential of Tactical Urban Agriculture should however be nuanced as, even though urban greening and urban agriculture are quite similar overall, they each have some specificities that are important to consider in order to assess the potential of a site for one or the other as well as the method to employ.

The most important thing to consider here is the potential soil pollution if the project aims to be done on bare grounds for example. In this case, while research has pointed out that the amount of soil pollution constitutes a major issue in the environmental crisis and that plants are an effective tool for their depollution through phytoremediation (D. Hou et al., 2020; P. R. Yaashikaa & P. Senthil Kumar, 2022; E. van Genuchten, 2023), it

has also pointed out that food cultivation on such soils contaminates the products and can lead to health issues (R. Santo et al., 2016; D. Hou et al., 2020; P. R. Yaashikaa & P. Senthil Kumar, 2022). For that reason, while tactical greening projects conducted on bare land can be done in almost every situation and generate positive results, an urban agriculture one, tactical or not, must take into account the potential hazards of the bare ground it aims to land in entail. It is important to note that, in the case of a project done in an area where bare land is not a factor, the differences of considerations between tactical greening projects and tactical urban agriculture ones are more shallow environmentally speaking and lie elsewhere.

An other specificity to consider is the fact that, contrary to tactical greening, Tactical Urban Agriculture ultimately produces food. Even though the type of cultivated food and the scale of the project might have a non-negligible influence on the extent of that outcome, it is an important thing to consider. Being subjected to some of the social weaknesses of more conventional urban agriculture projects (R. Santo et al., 2016), tactical urban agriculture projects need to carefully assess the extent of the public support and involvement in such project, as the plantation, watering, and potential harvesting might require a certain amount of implication. Similarly, such project requires, to some degree, some kind of education and information for both urban farmers and general public on basic agricultural practices, in harvesting in particular, in order to ensure the realization of the project all the way to the harvesting and consumption of the food (P. Warhurst, 2012; R. Santo et al., 2016).

The cultivation of food in an urban context as a Tactical Urban Agriculture endeavor appears to be a double-edged sword. The potential outcomes that can be envisioned through such framework are promising and invite for application. It is also important to note that this kind of initiative carry inherent potential risks which, if not assessed thoughtfully, seem to be in capacity to lead to an ultimate failure of an attempt. However, neither the relative uncertainty of the extent of the positive outcomes or the potential risks are impeding to the making of this kind of project. On the contrary, it could be argued that this relative uncertainty is what drives experimentation, in which tactical urbanism and thus tactical urban agriculture have a strong potential for knowledge making (M. Lydon & A. Garcia, 2015). Therefore, it seem essential to envision a Tactical Urban Agriculture experiment on a suitable site in order to assess more clearly the possible outcomes of such project.

Gåsebäck in Helsingborg: a shifting district in a broader dynamic

Helsingborg can be considered as one of the oldest cities of the Nordic region, with its first recorded mention dating back to the 21st may 1085 in a donation letter to the cathedral of Lund from the Danish king Knut IV "den Hellige". Alternating between Danish and Swedish ownership through the times, the city definitively came under Swedish control in 1679 with the session of Skane from the Danish kingdom. In 1857, the passage fee through the Öresund strait was abolished which enabled the full development of Helsingborg as a port and latter favored the development of its industry (Nordisk Familjebok, 1922). The city and its industry gradually developed over the 20th century and in 1971, the municipalities of Kattarp, Mörarp, Vallåkra and Ödåkra merged with Helsingborg. The municipality saw similar processes of disindustrialization as a lot of European cities in the end of the 20th century which made its economy pivot. Nowadays, Helsingborg maintains itself as an important passage-point for goods and people in Sweden and Scandinavia through the E4, E6, and E20 highways, its train infrastructure, and its merchant port ranked as the 6th biggest in Sweden. The city also seems to have taken an important shift towards being an innovation-driver since the beginning of the 21st century. This is emphasized by the opening of a branch of Lund university in Helsingborg in 2001, by the progress of Helsingborg Innovation District and by the nomination of the city to the 2nd place of the European Capital of Innovation Awards 2020 for the H22 initiative (European Commission, 2020; Helsingborgs kommun, 2023).

In parallel with its shift towards being an innovation-driver, Helsingborg municipality also presents itself as strongly committed to a more sustainable future. For that reason, the city is engaged in the EU's Cities Mission as well as in the Swedish Mission Climate Neutral Cities 2030 which both are aiming towards the transition of cities to environments of neutral climate impact by 2030 (Viable Cities, 2022; European Commission, 2024). As a result, the municipality and its partners have conducted climate neutral oriented experiments and initiatives. One experiment consisted in 300 voluntary citizens switching from car commuting to bicycle commuting for a period of 6 weeks, and proved to be beneficial in both quality of life and climate aspects (M. Johansson et al., 2023). Similarly, the city has been deploying electric vehicles charging stations towards a 3000 units goal for 2030 as well as pushing for the installation of solar panels for individuals (Helsingborgs Kommun, 2023). Food-wise, Helsingborg also has taken steps to diminish waste and food-related climate impact by adopting new school meals that reduced the environmental impact by 25% over four years while decreasing food waste in the schools from 75g/meal to 38g/meal in the same period of time (Helsingborgs Kommun, 2023/2). Moreover, through the Sustainable Food Waste app, an additional 130 tonnes of temperature-controlled food was saved, reducing the climate footprint of the food circuit in Helsingborg by more than 2000 tonnes CO2eq (SFW, 2023). In terms of vegetation, the municipality is also pushing for more trees in the city, planting 7266 new trees in 2022 for example (Helsingborgs Kommun, 2024).

However, the significant amount of climate-positive actions that have been undertaken by Helsingborg does not mean that the city is exempt from issues regarding its objectives for climate-neutrality and good quality of life (Helsingborgs Kommun, 2021). One major issue it is facing is the overall low amount of green cover in share of the total land. While the European average of vegetated areas amounts to 42% (European Environment Agency, 2023), Helsingborg sits at 37% of green areas, not only being below the European average, but also ranking 27th out of the 29 most

populated cities in Sweden in terms of share of green areas over the total land (Statistics Sweden, 2015). Furthermore, the municipality still appears to overshoot its carbon budget, even considering the sharp decrease that can be observed, and will most likely not meet the carbon reduction target to be in line with the Paris Agreement's 1.5 degrees target (Klimatkollen, n.d.). Similarly, while the use of electric vehicles has been pushed, the amount of fossil fuels used by the transport sector has remained generally stable since 2009 (Helsingborgs Kommun, 2021). While this might be considered as positive given the population and car ownership increase in the municipality (Statistic Sweden, 2023), it shows a general lack of consumption reduction in oil fuels quantities in transport as well as in car ownership patterns. The importance of that observation is underlined by the fact that the general consumption patterns of Helsingborg and its residents qualifies as over-consumption in regards to the earth resources balance (Helsingborgs Kommun, 2021).

The importance of innovation and sustainability in Helsingborg's recent and ongoing developments appear to have had a positive effect on the city's attractivity for both businesses and people (Helsingborg, n.d.). As a result, the population is predicted to increase sharply in the upcoming years from 152269 inhabitants in 2023 to 173563 in 2040, representing an additional 21294 people or 2.4% of Sweden's total population increase for the same period of time (Statistic Sweden, 2021). In order to accompany this growth while continuing to support sustainability and quality of life, the municipality has launched several projects, either as innovation supporting initiatives such as the previously mentioned H22 initiative, or as development plans such as the H+ project, a major urban development plan within the municipality.

First adopted in 2011, the H+ project was originally encompassing the southern parts of the center of Helsingborg constituted by the areas of Oceanpiren, Sodra Hamnen-Knutpunkten, Söder-Universitetsomradet, Hussaromradet, and Gåsebäck (Helsingborg Kommun, 2011). Aiming to develop a dense and attractive city center in which the different district would be interlinked, the H+ project started with the ambition of turning these old industrial areas into mixed-use areas, effectively creating 5000 to 6000 new housing units while conserving some of the old buildings in order to preserve the heritage of the city and serve as a support for the creation of the new characters of the areas (Helsingborg Kommun, 2011). In line with these objectives, the H+ project also aimed at developing considerably the public transport network through Helsingborg central station and Ramlösa station for the train infrastructure and a design primarily oriented towards pedestrians, bicycles and public transport, as well as the green infrastructure through the blue-green connection among other. The 600 hectares encompassed by the project were set to be completed by 2035 and promote a healthy, sustainable, and innovation-driven city with diverse areas of characters and cultures (Helsingborg Kommun, 2011).

Since the adoption of the H+ project plan in 2011, the area of Oceanhamnen has risen in the district of Oceanpiren and the area of Gåsebäck has timidly started its transformation (Helsingborg Kommun, 2021). However, since the adoption of this plan, the direction towards which the development of Helsingborg is heading as well as the conditions for it have changed. The Agenda 2030 adopted by the UN in 2015 and the Paris agreements signed the same year have led to new guidelines and to a need to rethink urban development projects,

among which the H+ project. Similarly, the regional plan for Skane 2022-2040, the Climate Neutral Cities 2030 initiative and the Green City Accord have given new directions for the city's development in a context of accelerating climate crisis. In light of this considerable evolution of the overall context and of some technical considerations regarding the 2011 plan, a new comprehensive plan, encompassing not only the original H+ project area, but the entire southern part of Helsingborg, was drawn up with the year 2050 as a new target for completion (Helsingborg Kommun, 2021). This new development plan, seemingly far more ambitious than the previous comprehensive plan for the H+ project, continues the ongoing developments and works on the southern center of Helsingborg and keeps a notable part of the H+ objectives for the future of the area. The development of the south of Helsingborg still aims at producing a varied, unique cultural environment, in an innovation-driven city where sustainability, social and environmental, is the backbone of everyday life (Helsingborg Kommun, 2021). However, where this plan seems to differ from the H+ project, besides in terms of encompassed area, is in two major proposals for the city in order to make it even more 'future-proof' (Helsingborg Kommun, 2021). Firstly, the container port of Helsingborg, element of primary importance in the ancient and recent history of the city and currently the second largest container port of Sweden, is to be relocated further south even though its exact location is still under assessment (Helsingborg Kommun, 2021). The second major proposal is in the ongoing study for a potential fixed rail and road connection through the Öresund strait between Helsingborg, Sweden and Helsingör, Denmark, in order to diminish the reliance on the ferry line between the to cities as well as on the Öresundsbron between Malmö and Copenhaguen. Effectively creating a redundancy in the road and rail infrastructure, this connection is also seen as a new development axis for the Öresund region and as a stress reliever for the Öresundsbron (Helsingborg Kommun, 2021).

Overall, the new development plan for the south of Helsingborg introduces new ambitions and objectives, but, for the areas originally encompassed by the H+ project plan, these new aims do not represent a drastic change from the already ongoing dynamics at work but more of an update considering the evolution of the context, both global and at the scale of Helsingborg. These areas have, for the most part already been through extensive transformations as shown by the current state of Oceanpiren with the Oceanhamnen district, Sodra Hamnen-Knutpunkten with the recent work and ongoing quays extension of Helsingborg C train-station, Söder-Universitetsomradet with the growing importance of the University and its increasing connection with the public transport network, bound to increase even more with the extension of the quays of Helsingborg C train-station (Helsingborg Kommun, 2021). The preservation of the heritage of each site, as well as of their cultural identities, have been largely emphasized by both the planning documents and the built projects themselves and have led, partly, to disparities, predicted and not predicted, in the speed at which each area went through their redevelopment. In that context, the area of Gåsebäck, a district with a rich history, quite representative of the heritage and cultures the city of Helsingborg is trying to preserve in the redevelopments seems of particular interest.

Gåsebäck is an area with a history almost as long as the one of Helsingborg itself whose spatial origins are two fold. The part north of the current Rågångsgatan used to be part of the Södra Förstaden area which was, until the beginning of the second half of the 19th century, part of the city's fallow land (Helsingborg Conservation Plan Committee, 2012). The city's development plan adopted in 1878 started the urbanization of the area and, as it did not stipulated any land-use recommendations, both industrial and residential buildings were erected during that period depending more on the will of the private owners more than of the city (Helsingborg Conservation Plan Committee, 2012). However, in the first half of the 20th century, the area became progressively dominated by industries, partly due to the presence of the train and railway infrastructure (Helsingborg Conservation Plan Committee, 2012).

South of Rågångsgatan, the area used to be related to the Gåsebäcken river with Gåsebäck's mill, which later on gave its name to the area (Helsingborg Conservation Plan Committee, 2012). The mill was used from inconsistently, sometimes unused for long periods of time, and in 1846, the land was bought by Otto Daniel Krook who had what became known as Gåsebäck's castle built in 1850, as his and his wife Euphrosyne permanent residence, as well as an orphanage in the mid-1860's. The property was sold to Helsingborg municipality, and in the 1960's, the construction of Malmöleden road led to the demolition of the former orphanage and of Gåsebäck's castle (Helsingborg Conservation Plan Committee, 2012).

The intensification of the Swedish industry output in the mid-1950's led to a further extension of the Södra Förstaden area towards the south and it progressively absorbed the former Gåsebäck domain to form the industrial district of Gåsebäck. Following the construction of the Södergats viaduct in 1964, most of the remaining residential buildings were demolished and the area became a fully industrialized district. However in the 1970's, similarly to other industrial area around Europe at the time, the Gåsebäck district began seeing a slow and progressive disappearance of activity as highlighted by the demolition of several industrial building in the Persien quarter at the end of the 1970's (Helsingborg Conservation Plan Committee, 2012; M. Deleidi et al., 2019; M. Fontaine & X. Vigna, 2019). In the 1990's, a few other industrial buildings were demolished and replaced by office buildings, marking the end of most of the construction-demolition dynamic in the area.

Since then, Gåsebäck has not seen any other major building projects and has been gradually decaying. An important proportion of old buildings and lots are abandoned, unused or in disrepair while the area awaits for its major transformation. However, it would be wrong to call Gåsebäck an abandoned area as the current state of it, even though quite far from the emulsion of its peak, retains some level of activity and of has a unique culture and identity, especially at the scale of Helsingborg.

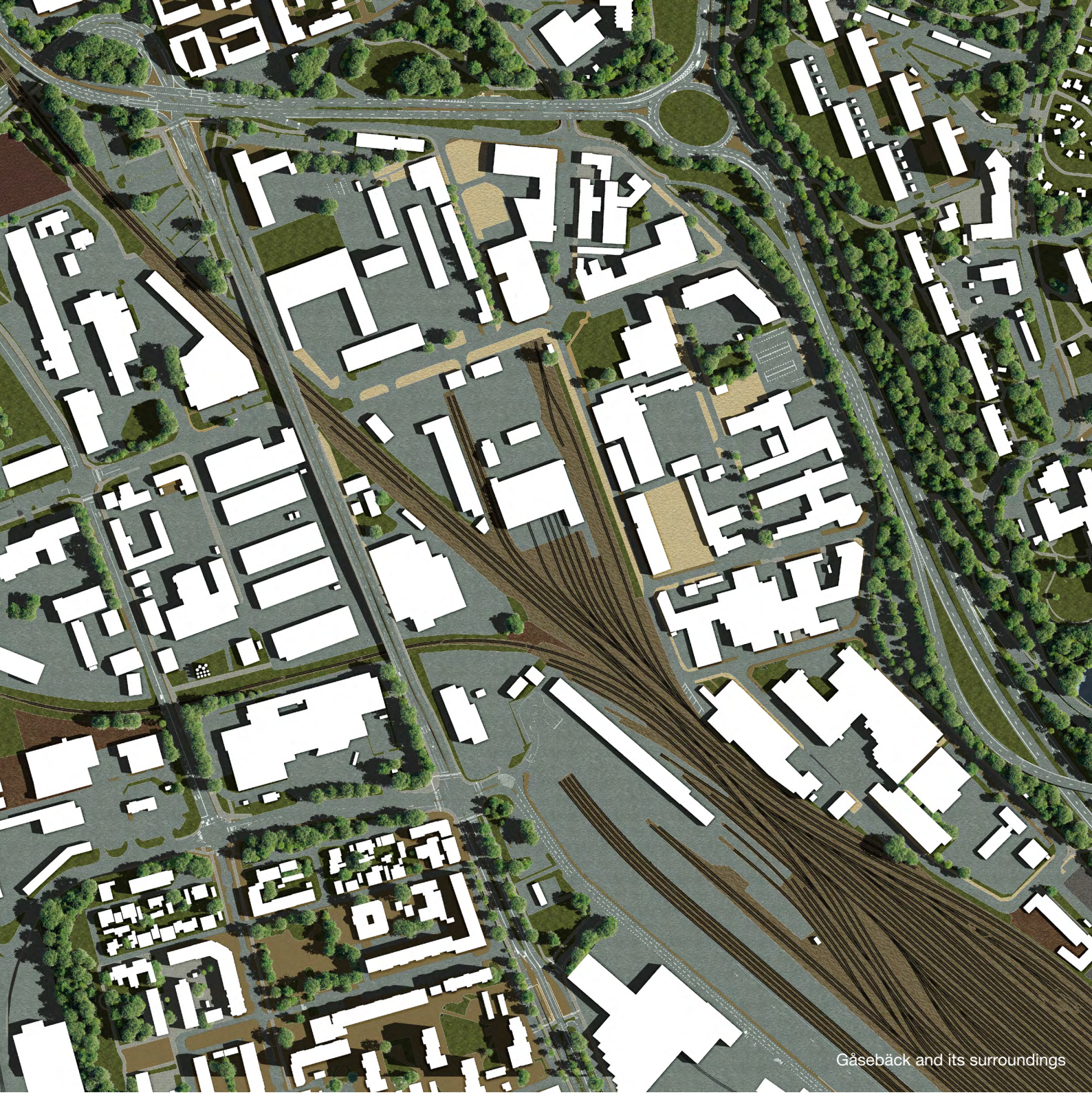
In terms of traditional businesses, the district of Gåsebäck has seen an increasing amount of car workshops, tire shops and car washes, added over the years (Helsingborg Kommun, 2024), and has led to its general perception as 'the place where you change your tires' for many people in Helsingborg (H+ project Helsingborg, 2023). Creative fields are also quite represented in the area, especially through the Gåsebäck Fire Station, a cultural center/incubator for entrepreneurship where spaces are used by various activities such as weaving studios, ceramics, painting studios among others, and Jutan, an activity house home not only to sport facilities, but also

to rehearsal rooms, a scene, and a recording studio (D. Lindman, 2019; Helsingborg Kommun, 2022; Spacescape, 2023). The graffiti scene is also important in Gåsebäck as shown by the graffiti festival that saw a large proportion of the pillars of the Söder viaduct being repainted during an informal graffiti festival in 2018 and led to the emergence of Sweden's largest graffiti park for free painting in the area close to the Fire Station. Similarly, the associative life in the area is developed to a significant extent which is even more emphasized by the absence of housing on the area until 2022 (Helsingborg Kommun, 2024). This is further emphasized by the Vagnhall 16 food-court in the Gåsebäck Fire Station where food, music, and events, are mixed together aiming at creating a vibrant place of community life (Vagnhall 16, n.d.).

These activities are of structuring importance in the current dynamics at work in Gåsebäck. However, it is also important to note that the area is subjected to various issues that impede its good perception by outsiders and potentially hinder its development. The major issue found is that the area is overwhelmingly perceived as unsafe, both from a general perspective and on the matter of traffic safety in particular. Furthermore, the lack of greenery, and of pedestrian and bicycle infrastructure, combined with the enclosing highways and train tracks, make the area feel isolated and unwelcoming to pedestrians and cyclists (Spacescape, 2023). The lack of significant amount of housing also participates to the unwelcoming feeling of the area due to the pendular pattern of activity dominating the district, apart from the newly built and still partially occupied residential building near the Fire Station. An other factor adding to the perceived insecurity in the area is the seemingly high amount of drug/criminal-related activities in the area (Spacescape, 2023).

All combined, these dynamics at work in Gåsebäck, both positive through the unique cultural and associative life, and negative with the low amount of care the infrastructure is receiving and the ramping insecurity feeling in the area, make the district a unique place in Helsingborg and in Europe in general even though a lot of these dynamics can be found to some extent in a lot of old European industrial areas. However, more than an observation on what Gåsebäck currently is, these dynamics appear as important considerations for the future of the area. The redevelopment of the district into a mixed-use area will have to preserve the uniqueness of area while solving the current issues of security and lack of adapted infrastructure. An endeavor that can hardly, if only it can, be solved through hardscape construction alone. The existing social structure of Gåsebäck, made by its local community through associative life and activities among which the food-court and creative fields make a significant impact (D. Lindman, 2019; Helsingborg Kommun, 2022; Spacescape, 2023), is a necessary element to ensure a socially sustainable transition of the area towards a mixed-use district (J. Anderson et al., 2016).

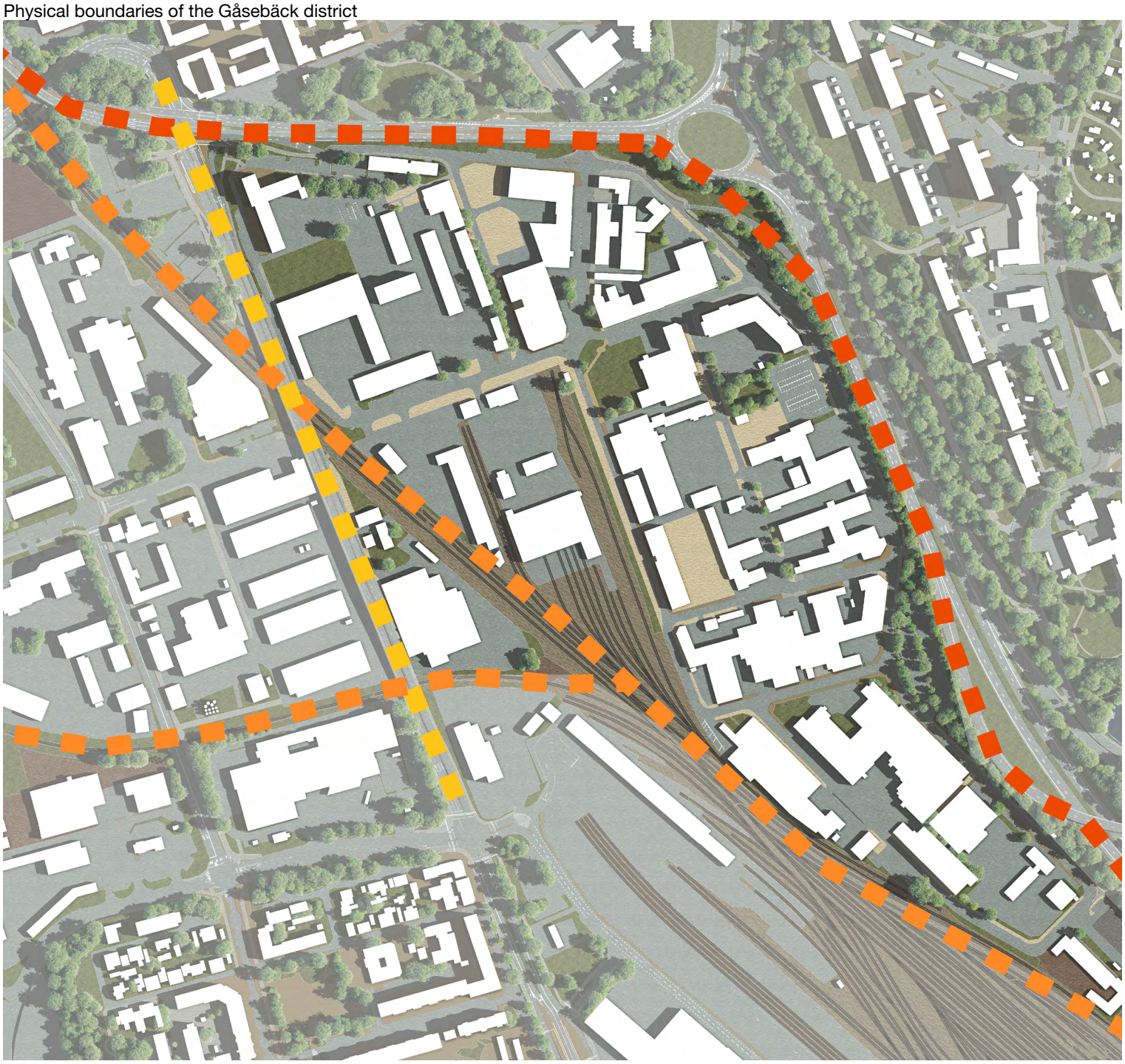
Based on the dynamics at work in Gåsebäck, both positive and negative, related to its hardscape and it softscape; the issues encountered in its current state that might impact its future evolution; and the need for a re-connection of the area to the rest of the city of Helsingborg without undermining its inherent uniqueness praised by its local community (Spacescape, 2023); it seems safe to state that the district of Gåsebäck is a site suitable for a community based project done through the scope of tactical urban agriculture. Furthermore, it can be argued that not only is the district suitable for such a project, but it would also greatly benefit from it both socially and environmentally.



Gåsebäck and its surroundings

Understanding Gåsebäck

Physical boundaries of the Gåsebäck district

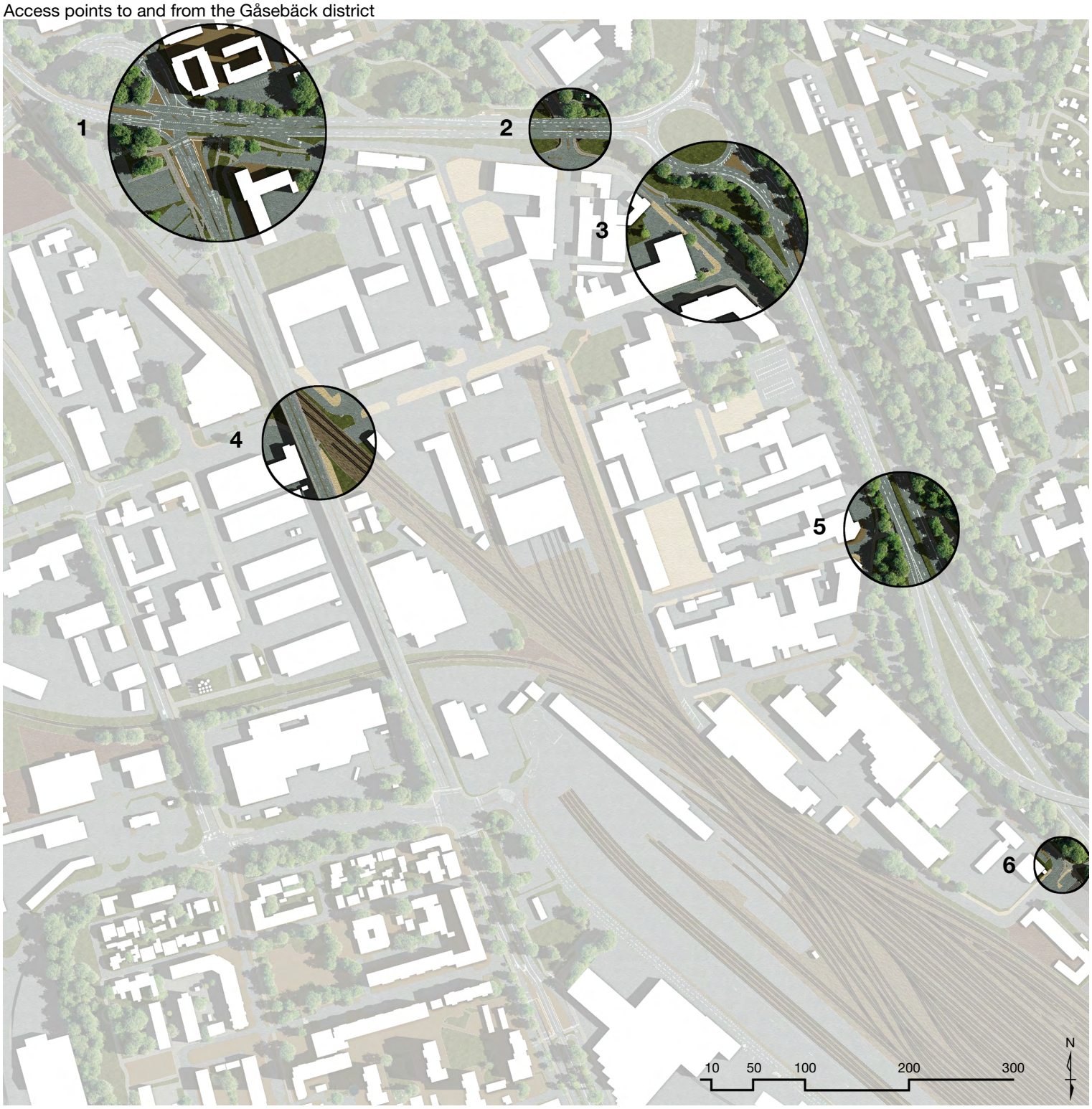


The form of the site

As we are to understand the district of Gåsebäck, the first major issue that can be stumbled upon lies within what its spatial form is in the first place. While the reasons for the fluid form of the area's formal boundaries might have to do with its history and evolving social context, the consequence of this are clear. The definition of what is the actual form of Gåsebäck in the available sources is almost ever-changing (Helsingborgs stad, 2011; Helsingborg Conservation Plan Committee, 2012; Spacescape, 2023; Helsingborgs stad, 2024), especially when defining the boundary between it and the Husar area due to a proximity in their history and apparent character (Helsingborg Conservation Plan Committee, 2012; Spacescape, 2023).

Therefore, in order to be able to clearly set the spatial extent of the Gåsebäck area in the context of the project that is to be envisioned, the various extents of the area have been studied and have resulted in a definition of Gåsebäck as the area bordered by Södergatsviadukten at its western border, by Malmöleden at its northern and eastern border, and by the heavy network of train tracks at its southern border.

Access points to and from the Gåsebäck district



The borders of the Gåsebäck district effectively act as physical barriers impeding an easy access to the area. The amount of access points to and from the area is limited to only six mostly located in the north of the area. These points do not systematically allow every kind of transportation modes to go through them and are, in some cases, limited to only entering or leaving the area. This is especially true when looking at the area from a car user perspective where only three access points, all located in the north of the area, allow to enter or leave the area, and among which only the access point n°2 allows to go in both directions. This leads to difficulties for car and truck traffic as well as a generally increasing isolation of the area when going towards its south. Overall, bicycles and pedestrians have more options when it comes to access the area with respectively four options for bicycle users and five for pedestrians. However, these access points are in most cases narrow and with an almost systematic obligation of passing under a bridge or through a tunnel adding to the overall isolation of the area. The only exception to this can be found in access point n°1 which also is the only point directly linked to a bus stop.

1

Access possible in and out by: public transportation, bicycle, foot
Access possible by car, only to enter the area

2

Access possible in and out by: car, bicycle, foot

3

Access possible by car, only to leave the area

4

Access possible in and out by: foot, bicycle if carrying the bike

5

Access possible in and out by: bicycle, foot

6

Access possible in and out by: bicycle, foot

Bus, pedestrian, and cycling infrastructure in the Gåsebäck district and its surroundings

If taking only into account the access points for each transportation modes, it could be assumed that the Gåsebäck district is generally more oriented towards pedestrians and bicycles. The situation is, in fact, quite the opposite.

While the access points by car are quite limited, it still is, due to the industrial history of the area, the method of transportation that has the most developed infrastructure in Gåsebäck not only in terms of built roads, but also in terms of services for car users to the point of Gåsebäck being commonly know as the place 'where you change tires' (H+ Helsingborg, 2023) by outsiders.

On the contrary, cyclists and pedestrians have limited available infrastructure to use. The few bicycle lanes existing often overlap with the adjacent pedestrian paths and do not appear to be effectively done as a way to navigate within Gåsebäck but more as a way of going through it. The effectively built and maintained pedestrian infrastructure is sparse and with limited continuity, an observation that can be emphasized by the lack of bus itineraries within the area. Except from the Gåsebäck bus stop in its north-west corner, no bus stop allow for an easy access to the district.

Pedestrian infrastructure in the Gåsebäck district and its surroundings

As pointed out before, the built and maintained pedestrian infrastructure in the Gåsebäck district is sparse. The few sidewalks are old, patched and discontinuous throughout the whole area leading to difficulties navigating. In general, the spaces that can be used by pedestrians are not, per se, sidewalks, but leftover spaces tucked in between the roads, the parking lots, and the buildings. Moreover, these leftover spaces are often used as parking spaces by cars, contributing to the overall chaotic state of the available and safely walkable infrastructure. Generally speaking, Gåsebäck seems unwelcoming to pedestrians, with a sparse infrastructure turned towards itself that hinder a smooth circulation for both locals and outsiders.

Cycling infrastructure in the Gåsebäck district and its surroundings

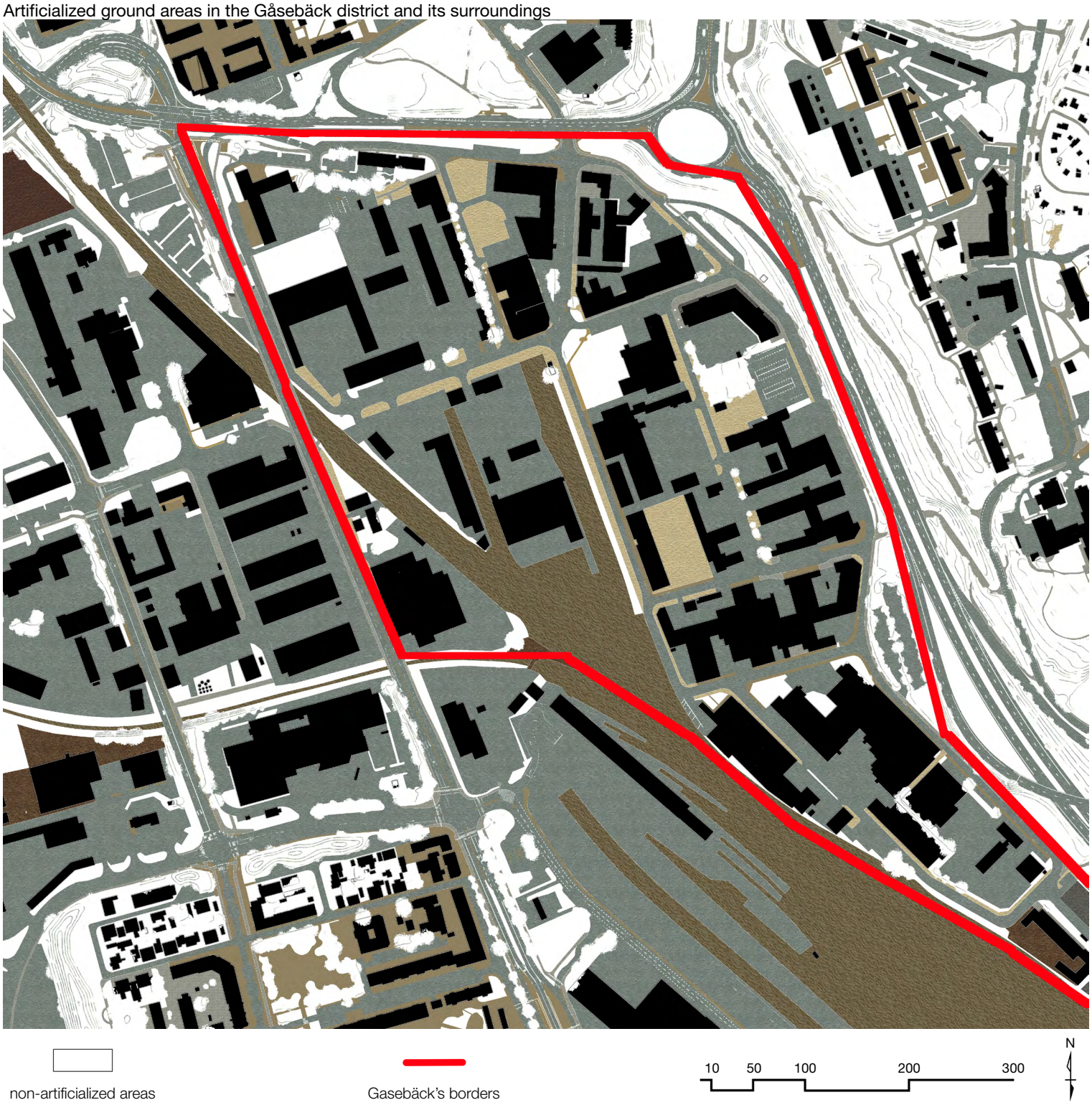
The case of bicycle lanes emphasizes even more the remoteness of the Gåsebäck district. The amount of built paths is very limited with a short strip located in the north-west access point and a cycle path going along the eastern border of the area. However, this bicycle path does not appear as being done for the Gåsebäck district as a way to navigate within it, but more as a way to efficiently and safely go through it.
This path, coming from the Ramlösa train station in the south, effectively acts as a bicycle connection between this station, the center of Helsingborg, and the residential neighborhoods adjacent to Gåsebäck especially in the east and north.

Bus routes in the Gåsebäck district and its surroundings

While the public transport network is quite developed in Helsingborg, Gåsebäck appears to have been mostly cast out of it. The bus lines generally follow the boundaries of the area without ever going inside of it. While this might have to do with the previously mentioned difficulties to access the area by car despite the area being heavily oriented towards this transportation mode, it only further intensifies the isolation of Gåsebäck from the rest of Helsingborg.

However, it is important to point out that the situation seems to be acknowledged by the municipality as, similarly to the east bike lane, the Gåsebäck bus stop has been the subject of renovations in the recent years.

Artificialized ground areas in the Gåsebäck district and its surroundings



What was part of Helsingborg's fallow land in the beginning of the 19th century has, over the course of the last 150 years, turned into a heavily artificialized land that leaves one wondering of how Gåsebäck was, at some point, a natural area. The industrial heritage of the district is obvious in this case, dominated by asphalt, bricks, concrete, compacted soil, and train tracks, leaving close to no space to trees and even less to green areas. This is further emphasized by the adjacent vegetated areas that can be found when crossing the northern and eastern borders of Gåsebäck. The vegetation there increases the isolation of the Gåsebäck district, adding to the barrier of the Malmöleden a vertical layer acting as a visual wall, particularly on the eastern side.

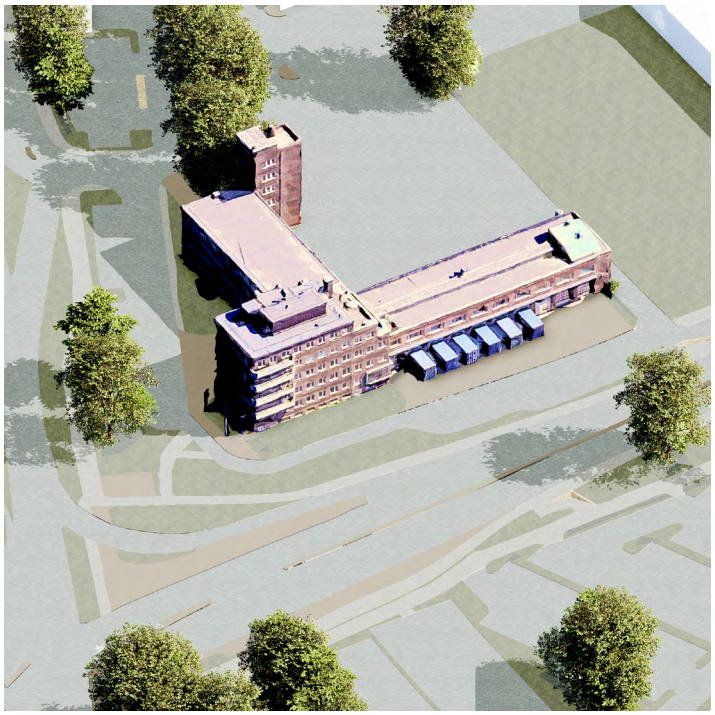
Within Gåsebäck, only a parcel of grassland and a small park sit as some form of green area in the industrial environment. The first one is located in the north west corner of the area, adjacent to the old fire station building and hosts part of the graffiti allowed area of Gåsebäck. The latter one consist of a large patch of grassland, mostly inaccessible, where a few trees and bushes populate the area on the sides of a small compacted ground path with a few benches.

Buildings of important historical value in the Gåsebäck district according to Helsingborg Conservation Plan Committee (2012)

More than the lack of greenery in the area, the industrial heritage of Gåsebäck is loudly expressed by its buildings. Over the course of its artificialization, the fabric of the district saw various architectural visions that reveal a significant part of its rise and decline. Understanding this, the conservation planning committee of the municipality of Helsingborg mapped the different buildings in the area on 3 different scales of value for the built environment in 2012, giving guidelines on what should be preserved in Gåsebäck going forward, both in terms of construction/demolition, and on the matter of renovations (Helsingborg Conservation Plan Committee, 2012). However, it is important to note that these considerations do not appear to have been binding as, in Gåsebäck, one building considered of high value was demolished after the publication of the report, and the old fire station barely escaped this fate thanks to the actions of individuals (D. Lindman, 2019).

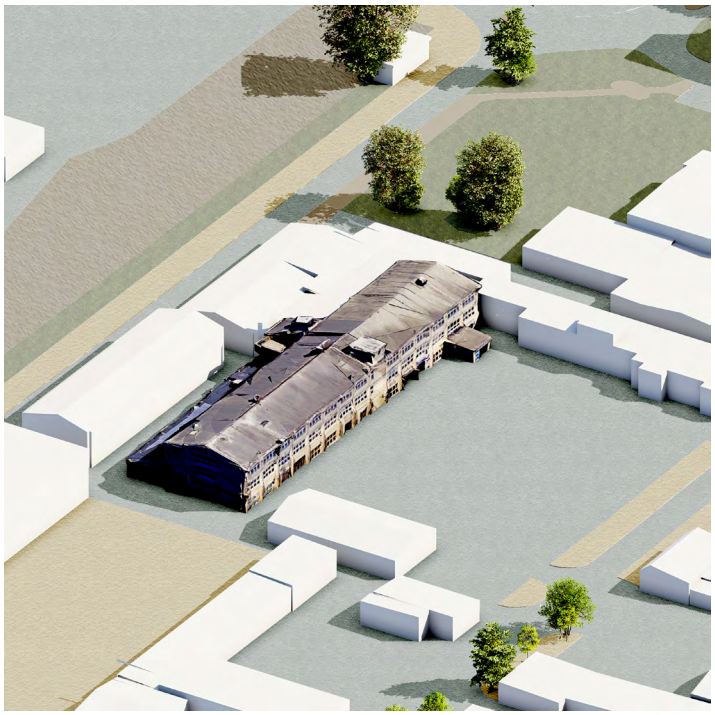
Overall, it is interesting to note that the old fire station and Jutan, two of the most valuable buildings of Gåsebäck are now home to a consequent part of the district's associative life, increasing their weight in the area's identity beyond the architectural facade.

Jutan:
Year of construction: 1896-1897
Architect: Helsingborgs Mekaniska Werkstad
The jute fabric of Skånska Jutefabriks AB, now known as Jutan, is one of the best conserved industrial buildings in Helsingborg as well as the oldest factory building of Gåsebäck still existing. The form of the building is synonymous with the industrial architecture from the end of the 19th century, with brick facades and a sawtooth roof maximizing the amount of vertical light in the interior of the factory. The building saw various changes over the years following the evolution of the jute factory, which at its peak employed 350 people mostly women, before shutting down around 1964. The property then came under the control of Helsingborg municipality in 1967 and alternated between being leased for various commercial activities and prolonged periods of vacancy. This came to an end in 2007 with the conversion of the factory building into an activity house where indoor skate-park, boule courts, parkour hall, recording and rehearsal studios now cohabit as a new center of the associative life of Gåsebäck.

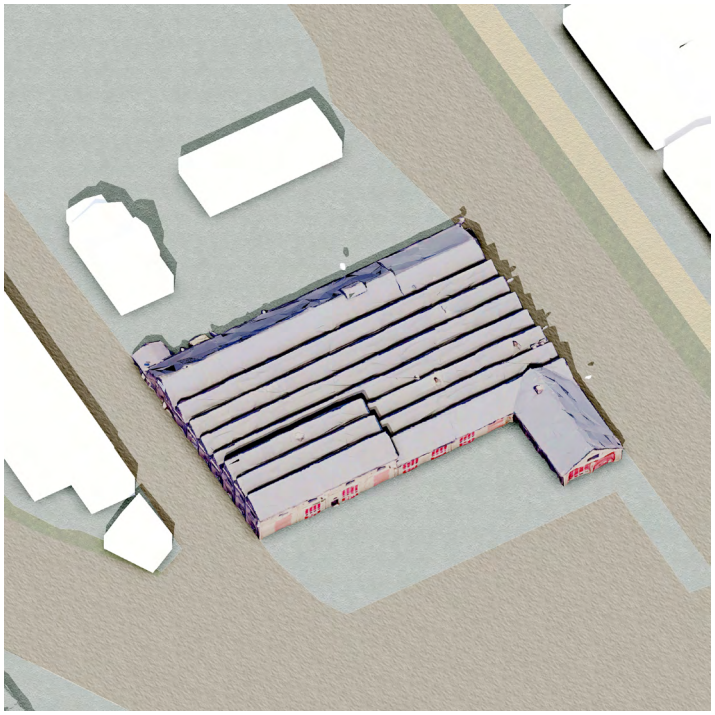


The fire station:
Year of construction: 1940
Architect: Mogens Mogensen
The fire station building might one of the most recognizable buildings in Gåsebäck. Following a call for proposal made in 1937 won by Mogens Mogensen, the fire station in Gåsebäck was constructed in order to house a permanent fire brigade that was, until that time, located in a converted residential building on the town hall square. Following the tenets of functionalist architecture with clear building bodies emphasizing the use of each part, the fire station is nonetheless drawing references from its context. The facades are made out of bricks and the regularity of its openings echoes the repetition of the windows found in the surrounding architectures. The building served its original purpose until 2009 without undergoing any major change and was granted a demolition permit in 2012.
However, this demolition project was shut down by the initiative of locals who saw a potential in the fire station, leading to the creation of one of most important hubs of associative and creative life of Gåsebäck (D. Lindman, 2019).

Portugal 6, Kvarnstensgatan 5:
Year of construction: 1922-1923
Architect: Ola Anderson
Built for the company AB Helsingborgs Konst-Kvarnstenfabrik during its expansion, the building on Kvarnstensgatan 5 marked a shift in the fabric of Gåsebäck at the time of its construction. More than its brick facades, already typical of the industrial architecture of the district, it is the building's layout on its two stories, with a lower factory part and an upper floor housing showrooms, offices and a residential part, that marked the beginning of a layout that latter became common of Gåsebäck's architecture. Seeing minor changes over the years with the shifts of uses of the premises, the building is still used today as a tire workshop after a period of disrepair.

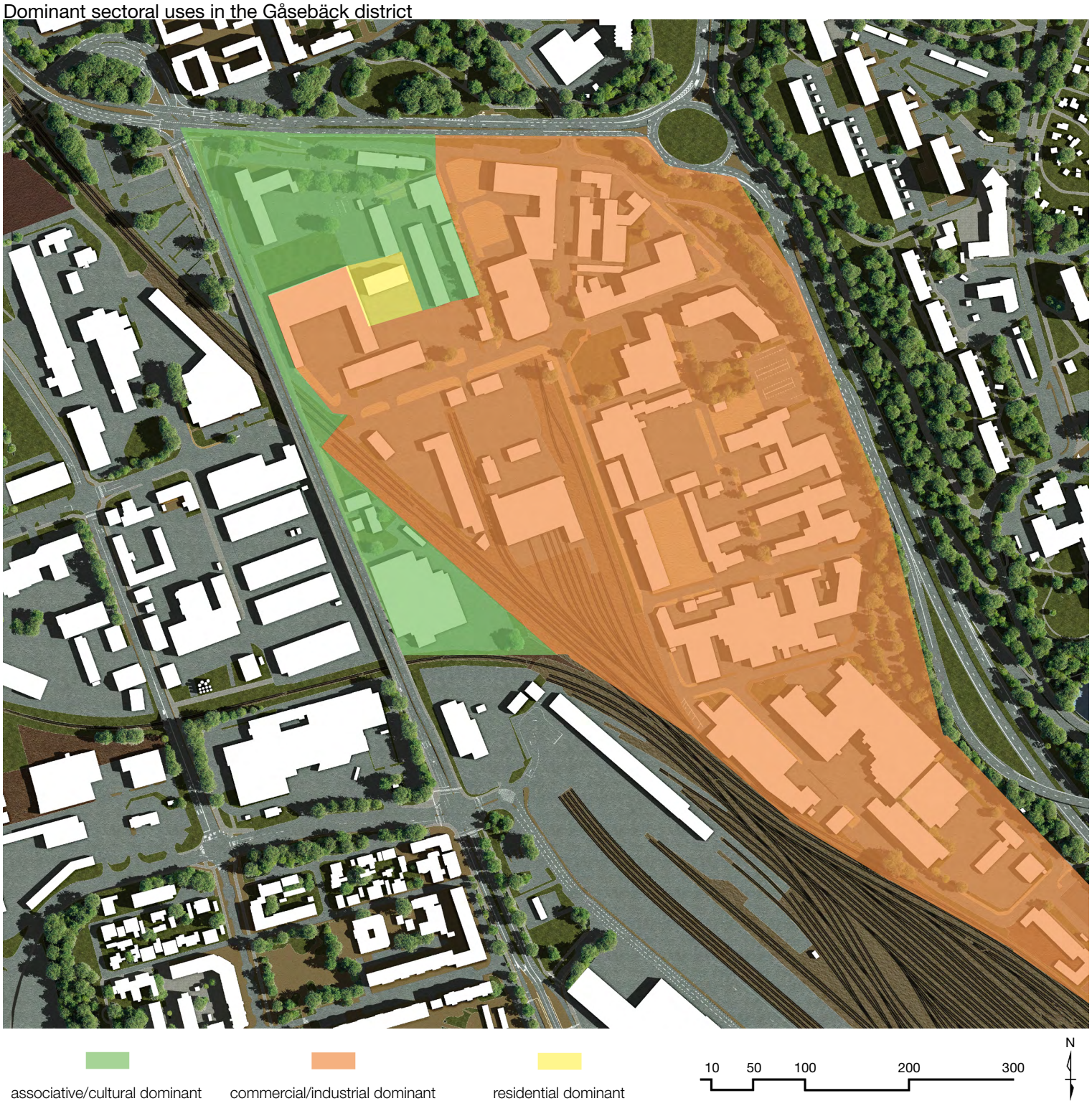


Asien 17, house A, Kvarnstensgatan 15:
Year of construction: 1917-1918
Architect: Looström & Gelin konstruktionsbyrå
The house A in the Asien sector is one of the most prominent buildings in Gåsebäck, recalling the short industrial venture that gave birth to it. Its architecture, marked by the apparent concrete structure and repetitive facade, embodies the industrial tenets of modernist architecture. After only a few years serving its original purpose as a steel foundry, the building shifted towards car wholesale, inaugurating an era of frequent changes of usage, housing various activities such as sport facilities, chemical manufacturing or food processing without any major changes and thus still retains most of its original character.



Söder, house A:
Year of construction: 1915-1916
Architect: not specified
As the only preserved railway building from the industrial past of Helsingborg, the house A of Söder sector reflects the architecture of its time. Similarly to Jutan, its roof has a sawtooth shape and its facades are marked by its bricks and cast-iron windows. Built following the 1875 opening of the railway section between Helsingborg and Hässelholm and the further expansion of the railway in the following decades, the building was envisioned as a warehouse for trains storage and maintenance. In 2012, the building was partly used for goods wagon maintenance but it is unsure if the building still hosts any activity today.

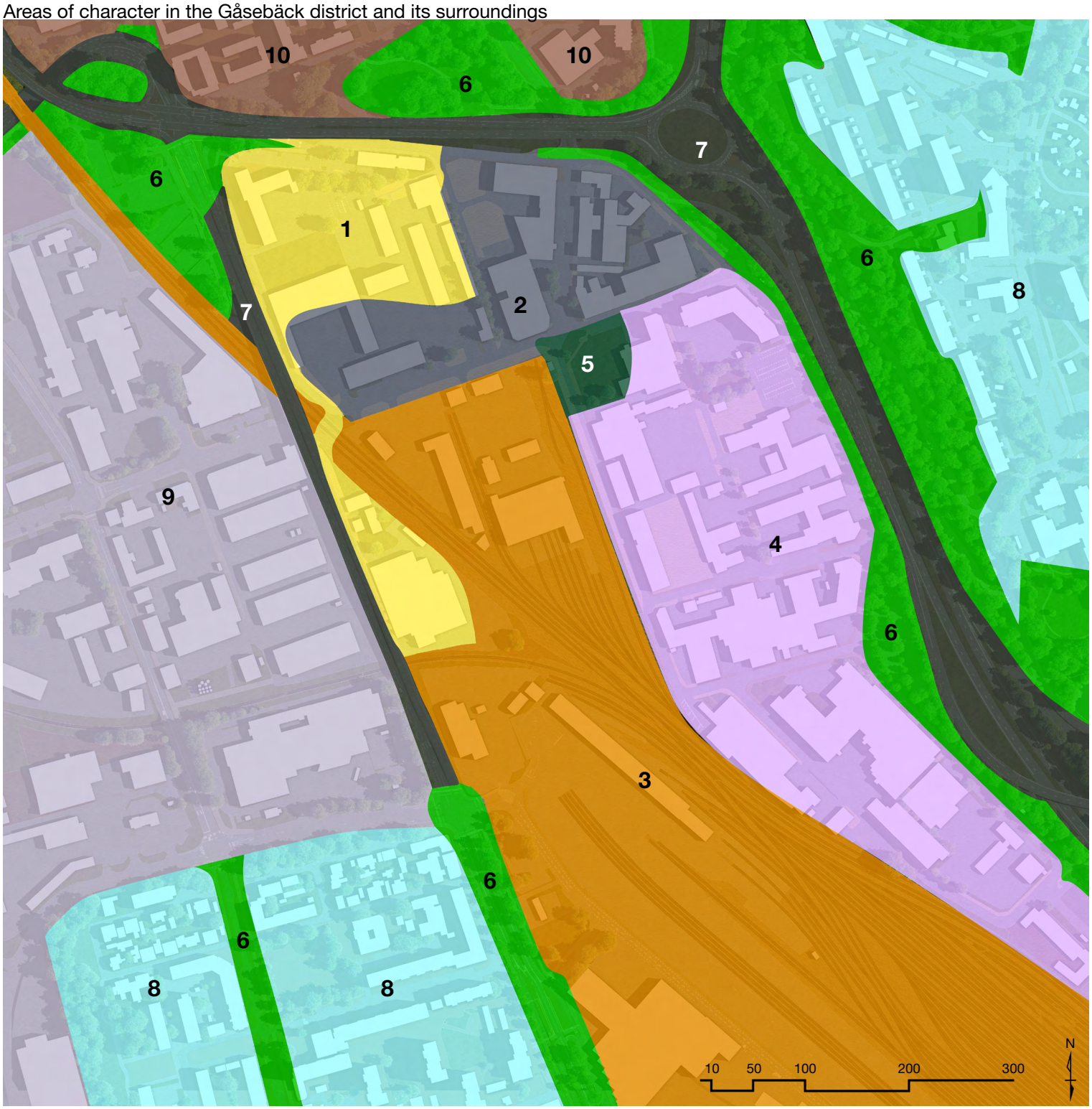
Dominant sectoral uses in the Gåsebäck district



The characters of Gåsebäck

As we previously saw, the Gåsebäck district has been and is still moved by complex formal, historical, and social dynamics that influenced its evolution and will shape its future. One good example of these dynamics and what they imply on the area can be found in the rather sharp spatial division that can be observed in the dominant uses of areas. Currently, Gåsebäck can overall be divided in three major uses: associative/cultural, residential, and commercial/industrial. While the later has been the backbone on which Gåsebäck developed over the last century and still constitutes the major part of the area, it is interesting to note that the associative/cultural category takes up a significant portion of the area and em compasses two of the most culturally valuable buildings of the district that are Jutan and the fire station. The residential part, still limited to one building due to its rather new (re)emergence in the area since the beginning of the 2020's, is still to be noted as it is at its dawn and is bound to develop in the upcoming years. It is also interesting to note that, despite its importance to the area, the associative/cultural category is mostly confined along the borders of Gåsebäck.

Areas of character in the Gåsebäck district and its surroundings



Within Helsingborg, Gåsebäck is unique. Its history, its remoteness, the significant presence of associative and creative life, to sum up: what it lacks and what it has; all of these elements have created an environment with a unique identity. This identity is particularly reflected in the various characters found within it. Whether they can be perceived positively or not, these characters, even at the scale of Helsingborg, are unique to Gåsebäck. It is also important to observe that they are, for most, valuable indicators of the direction of the dynamics at work within the area and consequently of the potentials that might be revealed by adapted projects.

Overall, it is interesting to note that the various characters found within Gåsebäck tend to follow the spatial division of the dominant uses of areas, and seem to be influenced by the amount of access points and open green areas in their immediate proximity. Similarly, the borders of the district mark a significant break in the character areas. While this can also be observed with adjacent areas such as in the case of the Husar area or Planteringen, it is important to note these two areas encompass less character areas than Gåsebäck.

1

The cultural life of Gåsebäck

The area encompassing the fire station, its surroundings, and Jutan, at first glance, looks like a condensed history of Gåsebäck as an industrial district through these two buildings and immediately present the architectural form of what the district was and still is in some regards, emphasized by the Södergatsviadukten at the border. In contrast to the rest of Gåsebäck, this area, while still feeling relatively chaotic, appears as being alive not solely in a nine to five time-frame. The consequent amount of graffiti on some of the walls and pillars of the bridge hint a development of the area through individual creativity and a will of connection between Jutan and the fire station.

2

The lower Gåsebäck

Located on the northern side of Östra Sandgatan, what can be felt as a lower Gåsebäck is, in some regards, a more approachable part of the district. Benefiting from most of the car access points, comparatively smaller buildings and more open streets, this part of Gåsebäck, while retaining some of the architecture of the area, offers a better accessibility for outsiders than the south of the district. Consequently, a shear amount of walk-in shops can be found, mostly oriented towards car maintenance. This perceivable life, even if bound to a nine-to-five time-frame, combined with a sense of openness, create an area that, while not completely welcoming, feels safer than its southern neighbor.

3

The train buffer

The vast fields of train tracks that can be found in Gåsebäck have, since the dawn of its industry, been a significant part of the district and have shaped its history. Still heavily relied upon today, the area is filled with a complex network of old and recent tracks and buildings. The south west of it houses a goods terminal where containers create heavy walls in between which long train convoys can often be seen. The rest of the area is more marked by passenger trains regularly breaking the general quietness. While such an area could give an impression of a place filled with heavy noises, its reality is more the one of a slowly beating heart with long silences before heavy contractions.

4

The industrial desert

South of Östra Sandgatan, the Gåsebäck district shifts into what can be perceived as an industrial desert by the passerby. However, this does not mean that this area is devoid of activity. This impression of desert is, in fact, more induced by the sheer emptiness of the streets and the overall silence that reigns. Combined with the size of the buildings, significantly bigger than in the rest of Gåsebäck, and the extreme inaccessibility beyond the streets due to walls and barriers, the area feels unsafe, almost stifling. Overall, like a giant deeply asleep, the area seems to be waiting for future times where its spatial potential could, in many regards, express itself and gain a newfound vitality.

5

An unexpected encounter

Being one of the few green areas in Gåsebäck and the only one that, to some extent, feels like a small public park, the green area at the intersection of Östra Sandgatan and Kvarnstensgatan is truly an unexpected encounter in such an artificialized district. While the vegetation in the area amounts mostly to a few trees and bushes in a grassland, and a significant part of it remains inaccessible, the area still feels like an oasis of greenery in the district. The small indian restaurant along it as well as the few benches emphasize the importance of the area to the everyday life of the district, being at the convergence of mid-day break for anyone working here.

6

A greener Helsingborg

These areas, while not formally similar, share a common direction, one of a greener Helsingborg. Composed by parks, streets, parking areas and small forested spaces, what can be felt as a greener Helsingborg is, in fact, a patchwork of areas oriented towards greenery and sustainability. The use of green mobility appears to be highly encouraged and public investment in this direction is obvious, especially in the cases of the bus stops in these areas and of Planteringsvägen and Industrigatan. An even more interesting observation lies in the presence of such areas within Gåsebäck as well as close to it, hinting a potential for development within and for the district.

7

Full gas no brakes

Formed by the Södergatsviadukten and Malmöleden, this area is solely and entirely devoted to car traffic. Large motorways storm through the city, cutting the urban fabric as scars in the landscape. While their importance for Helsingborg as a major urban area as well as a major shipping point could not be understated, these motorways divide abruptly the spaces they go through. Due to their size and to the speed of the vehicles on it, crossing feels unsafe and burdening. Being a formal border impacting heavily Gåsebäck, the car infrastructure is a deterrent to anyone willing to go to the district and a catalyst of remoteness for it.

8

Within the city, towns

Quite distant from the center of Helsingborg, these areas, mostly residential, act as smaller towns composing the bigger city. While this does not mean neither a formal or a social resemblance between each other, the global sentiment coming from these areas could not be thought as something else than ‘towns’. A calmer pace and higher degree of openness are at work here, creating areas that, while still in Helsingborg, do not feel like the Helsingborg one would find right outside the central train station. Vegetation is also more diluted in the landscape, leading to an impression of being surrounded by it, a feeling that is emphasized by the sheer amount of parks and forested areas.

9

The industrial jungle

Extremely similar in shape to the Gåsebäck district, this area, mostly made by the Husar area, differs widely in the impressions it generates. The streets are wide and open, the cycling and public transport infrastructures is more developed, and green spaces are noticeably present. This creates an area with a relatively good feeling of safety, especially when considering its industrial orientation. Moreover, despite the scale of the buildings, in some regards comparable to the industrial desert area in Gåsebäck, the area feels more alive. Overall, the area seems to have an inclination towards Gåsebäck even while being separated by the train tracks and the Södergatsviadukten.

10

Living blocks

The living blocks of the Söder district can be considered as the southern tip of Helsingborg’s center. Therefore, they are formally closer to the typical urban fabric of denser cities. Residential buildings with shops on the ground floors grouped by lots along which pass two way streets with curbs are here the norm and create an area. The area is therefore filled with activity, life, and could be felt as safe for an outsider. However, the Söder district is heavily marked by crime (E. Johnsson, E. Herdberg, 2020) and the resulting tensions in the public space can be felt even when violence is unseen.

Effectively accessible spaces in the Gåsebäck district

Looking at Gåsebäck, it appears that the general perception of it as unsafe tends to find variations in its intensity. Mostly dependent on the accessibility and what could be described as the amount of life found within the different areas identified before, another significant factor leading to this feeling can also be pointed out: the openness of the areas. This factor, well known for its impact on the feeling of safety within an area (J. L. Nasar & K. M. Jones, 1997), is characterizing Gåsebäck by its scarcity. Apart from the surroundings of the fire station, the whole district is highly inaccessible and while the building density plays a significant role on that matter, the sheer amount of fences and barriers acts as a catalyst of the phenomenon, effectively limiting accessibility to the streets. When overlapping the different areas of character and the effectively accessible areas of Gåsebäck, the importance of this factor is even more apparent with a strong link between the feeling of safety of an area and the degree of openness it presents, the fire station and its surroundings being a clear example of that.

Spaces of potential in the Gåsebäck district

Overall, the Gåsebäck district faces a very complex set of issues, with some being tied to its history as a former industrial district, and a consequent prolonged decay that has led to the increase in both number and reach of these over time. This made Gåsebäck an outcast at the scale of Helsingborg, an island largely left unchecked where a certain extent of chaos thrived for years. However, this process and chaos have created a district where some potentials can express themselves more than in any other part of the city, and a district with some spatial potentials are still largely left untapped.

The district has a complex, multiform and largely unique character leading to a strong identity of the district and its locals. The distrust in the municipality is also strong in the area which is an aspect that should not be unconsidered nor underestimated (D. Lindman, 2019). However, this does not mean that nothing can be done within the area. The fire station, Jutan, and other projects have been done in Gåsebäck with a globally positive impact, and while the bottom-up approach appears to be the most present and successful here, it does not mean that the municipality has no role to play.

The form of the Gåsebäck district as well as its characters have been driven by its history, both as a site and in relation to Helsingborg. However, it would be wrong to think of Gåsebäck as of some ghost district with timid social places and businesses due to the almost complete absence of inhabitants. The district's life, considering its state, thrives, particularly on the associative and creative fields. There are complex dynamics at work in Gåsebäck; and while we now have a perspective on the ones coming from within the district, one major component of the present and future life of the district has yet to be considered: the H+ project as part of the comprehensive plan for the development of the south of Helsingborg.
For the Gåsebäck district, this comprehensive plan means a significant amount of change in the fabric of the area, even more so when comparing what is supposed to be done to what has been done in the last 30 years. The area is planned to go from a mostly industrial district to a mixed-use one in the next 26 years, seeing vast amounts of changes in the buildings it houses but also in the transport infrastructure, no matter the type of transportation mode (Helsingborgs stad, 2024). As we looked at the current state of the Gåsebäck district earlier, it seems safe to state that this process will require a high amount of work at every scale, especially when accounting the intention of preserving the unique character of Gåsebäck (Helsingborgs stad, 2011; Spacescape, 2023; Helsingborgs stad, 2024).
As we are about to go through what is currently planned by Helsingborg municipality for Gåsebäck and the South of the city in general, it is important to state that the documents used to provide that description, while carrying a good degree of certainty regarding the upcoming changes, do not describe in high detail the changes in the areas. Furthermore, these documents might be subjected to a future revisions as the current comprehensive plan underwent public consultation between 05/02/2024 and 07/04/2024 aiming to produce a final version of the comprehensive plan, planning to be adopted in 2025 (Helsingborgs stad, 2024).

Conceptual diagram defining a mixed-use area fig 14.

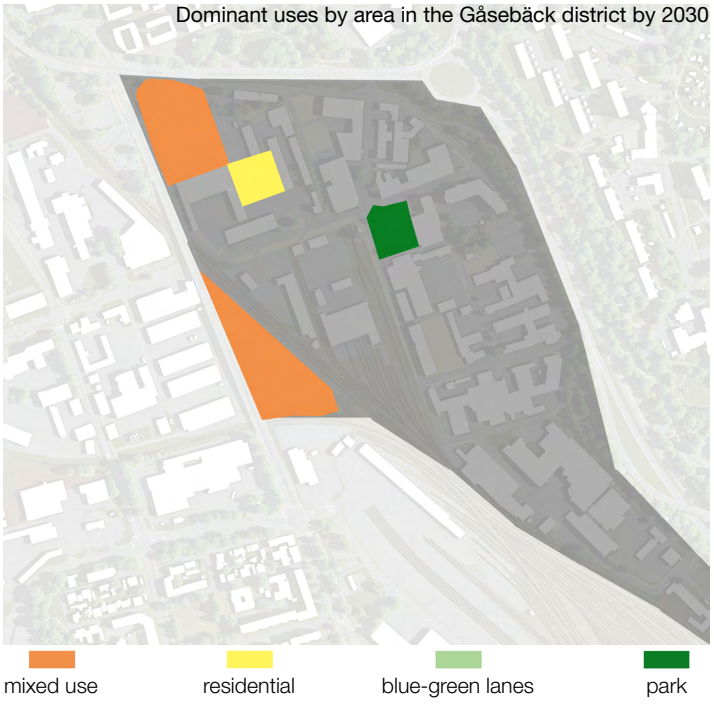
The comprehensive plan for the south of Helsingborg plans to bring significant changes for the Gåsebäck district among which the most important and unprecedented one is its transformation from a semi-abandoned industrial district into a mixed-use one. Gåsebäck as a spatial area has, since its rise more than a century ago, always been oriented towards industry, and, even though residential buildings have been present in the area, they never have constituted a significant part of it (Helsingborg Conservation Plan Committee, 2012). When talking solely about housing units, the comprehensive plan aims to attain approximately 650 built by 2050 (Helsingborgs stad, 2024). This emphasizes the sheer scale of the shift of uses in this district where, in 2050, residential buildings, shops, offices and public infrastructure will constitute almost the entirety of the occupied land (Helsingborgs stad, 2024).
Considering the importance of the upcoming changes as well as the current shape and character of the Gåsebäck district, the development of the area is planned to be done progressively with objectives respectively set in 2030, 2040, and 2050. In terms of housing density, the planned 650 new dwellings are bound to be spread throughout the district at an average density of 60-80 dwellings per

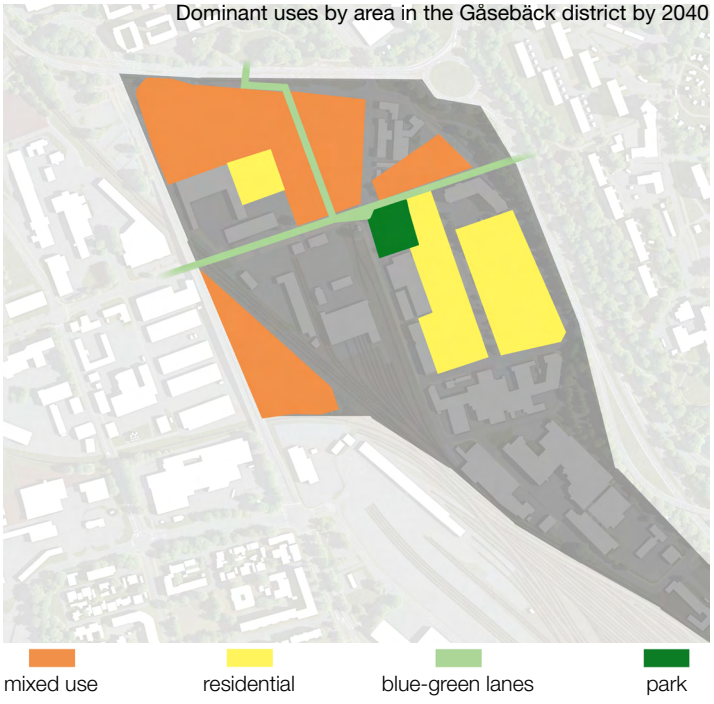
hectares, the lowest density of newly built buildings under the comprehensive plan in order to accommodate the existing urban fabric and businesses of Gåsebäck (Helsingborgs stad, 2024).

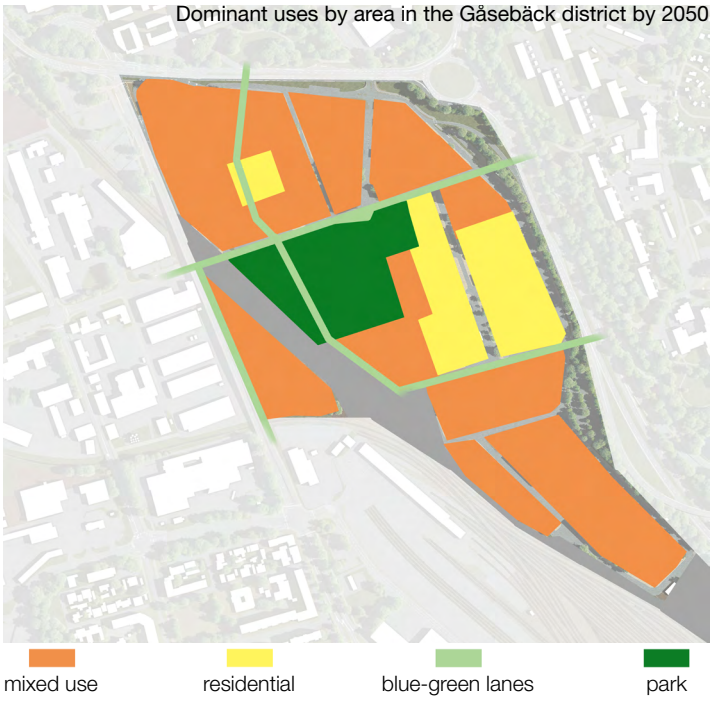
Conceptual diagram of the future dwelling density in Gasebäck fig 15.

Looking at the proposed timeline, it is interesting to consider that this progressive redevelopment of the district into a mixed-use area is not planned to start until at least 2030. While other changes will happen in the meantime, the upcoming 6 years will not see any uses shift beyond what is already existing in Gåsebäck, with only one residential building, the fire station and Jutan acting as the only mixed-use fabric within the district. This is potentially due to the transport infrastructure work and buildings demolitions that will happen in this timeframe, and to the necessary period needed for preserving the social structure of the district while preparing it for the shift. Most of the changes will happen in the two following decades with the implementation of mixed-use areas and residential buildings spreading progressively from the north of the district towards its south. Similarly, these decades will see the expansion of the green infrastructure in Gåsebäck starting with vegetated streets, and culminating with the creation of a large park by 2050.

When considering the buildings with high historical value, while the fire station and Jutan are bound to remain in the area and the house A of Söder sector seems to be envisioned as a part of the future park area, the two other buildings do not appear to be mentioned in the comprehensive plan, casting doubts on their future preservation.







The profound modification of the transport infrastructure, especially of the train and car built network, is the aspect of the comprehensive plan that will impact the Gåsebäck district the sooner. The redevelopment of the train and car infrastructure can overall be broken down in three major operations: the construction of new roads and tunnels for car traffic, the demolition of the Södergatsviadukten, and the expansion of the train infrastructure capacity. The first one will have a limited spatial footprint over the Gåsebäck district, even more so when considering that the construction works will be spread over the course of the next 26 years. However, the latter two major operations will most likely be done in the next 10 years, deeply impacting the district.

The demolition of the Södergatsviadukten is the closest operation to come, estimated to happen before 2030, and will potentially shut down the Gåsebäck bus stop, currently the only bus stop allowing an easy access to the district by public transport. Similarly, the demolition work is bound to impact both Jutan and the adjacent homeless shelter, disturbing their operations at best, even though a clear assessment of the amount and scale of these impacts is hard to draw, especially due to the uncertain amount of time the operation will require.

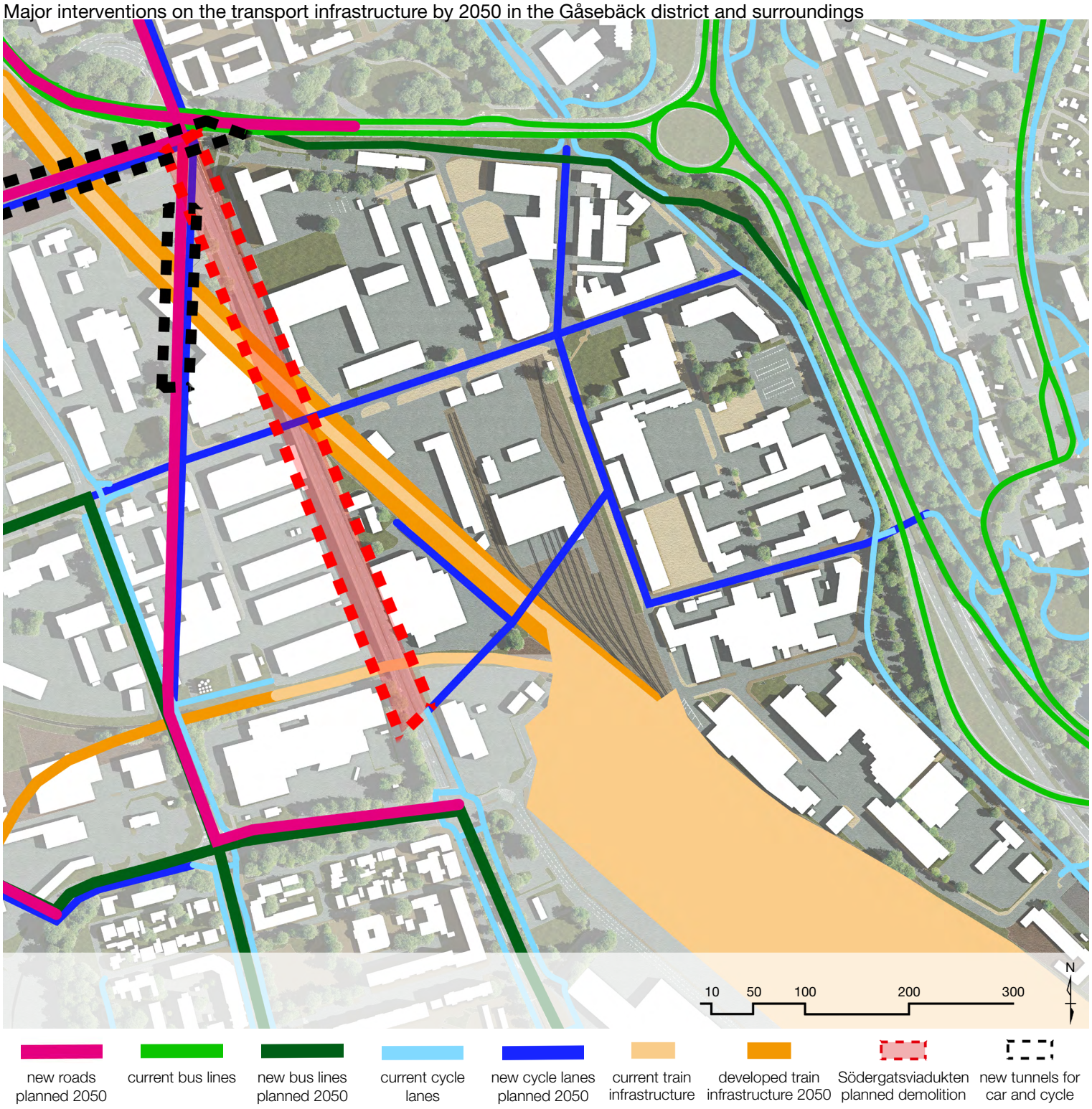
The expansion of the train infrastructure capacity, adding an additional two train tracks to the two existing ones will also have a high impact on the area due to the duration of the construction work and to the permanency of the result. However, the impacts of this operation will, contrary to the demolition work, have a long lasting aspect. The train tracks are one of the biggest barriers of the Gåsebäck district and this expansion could thicken it even more. Furthermore, while the demolition of the Södergatsviadukten will remove a visual barrier to the area and some passages are planned to be implemented, it seems reasonable to raise some concerns relative to the accessibility of the district until the creation of the mentioned passages, currently not envisioned to be done before 2040.

Another aspect of the redevelopment of the transport infrastructure lies in the local, more sustainable mobility. In direct relation to the general aim towards climate neutrality and sustainability of the city of Helsingborg, as underlined by its participation to the EU Climate-neutral and Smart Cities initiative as well as to the Green City Accord (Helsingborgs stad, 2024), the comprehensive plan includes a development of the cycling infrastructure and a redefinition of the bus lines. Even though its impacts will be potentially lighter than the car and train infrastructure refitting, this redevelopment is bound to impact more directly the Gåsebäck district.

The new cycling lanes that will cover the district, in particular, will for the first time be present in the area as a way to move within it and not through it while providing one more access point to the district at its south west side, and renovating one of the current ones. This operation will directly connect the larger part of the Gåsebäck district, Jutan, and the south-west of Helsingborg together in an overall seamless manner, potentially diminishing greatly the remoteness of Gåsebäck, especially for cyclists and pedestrians.

The redefinition of the bus lines that will take place by 2050 will bring public transportation into the district, benefiting its accessibility. However, as the planned line will only go through the northernmost part of Gåsebäck, partly due to the absence of road connection in the south of the area, bringing a limited amount of options for the area regarding bus stops. In the eventuality of the current Gåsebäck bus stop not being put back in its original location after the demolition of the

Major interventions on the transport infrastructure by 2050 in the Gåsebäck district and surroundings



Södergatsviadukten, this displacement of a bus line slightly into the district could only be a way to relocated the Gåsebäck bus stop, limiting even more the impact of public transportation within the area.

Furthermore, it is interesting to note that, contrary to most of the car and train infrastructure redevelopment, the operations regarding cycling infrastructure and public transportation do not appear to have a defined timeline for implementation. This absence, while unsurprising due the variables potentially affecting the beginning of the construction work, still leaves interrogations regarding the potential disruptions their absence will cause on the accessibility of the district and on its social structure, especially while and after the major train and car infrastructure development takes place.

Overall, the redevelopment of the transport infrastructure, while being heavy on train and car infrastructure constructions, seems to be pushing, in the case of the Gåsebäck district, for a slower and quieter pace of mobility.

On the matter of green infrastructure, the comprehensive plan for the south of Helsingborg presents a strategy aiming towards a vegetated network encompassing the whole south of the city through an array of parks linked together by 'blue-green lanes' that complete the action of the parks and bridge the barrier effect created by the Västkustbanan and the Malmöleden (Helsingborgs stad, 2024). It also plans the return of vegetation in the Gåsebäck district which has been, as we saw, almost devoid of it for the last 150 years.

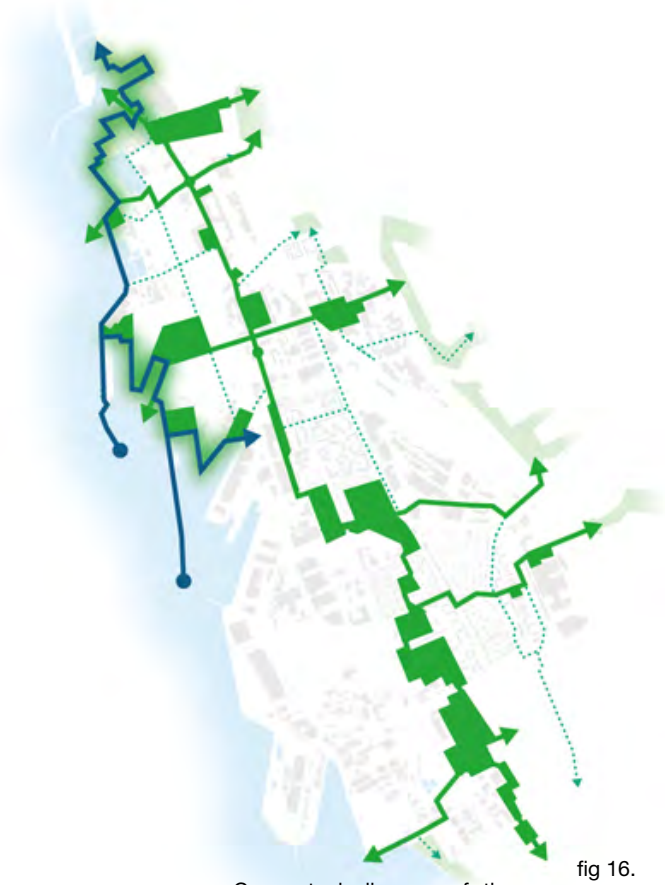
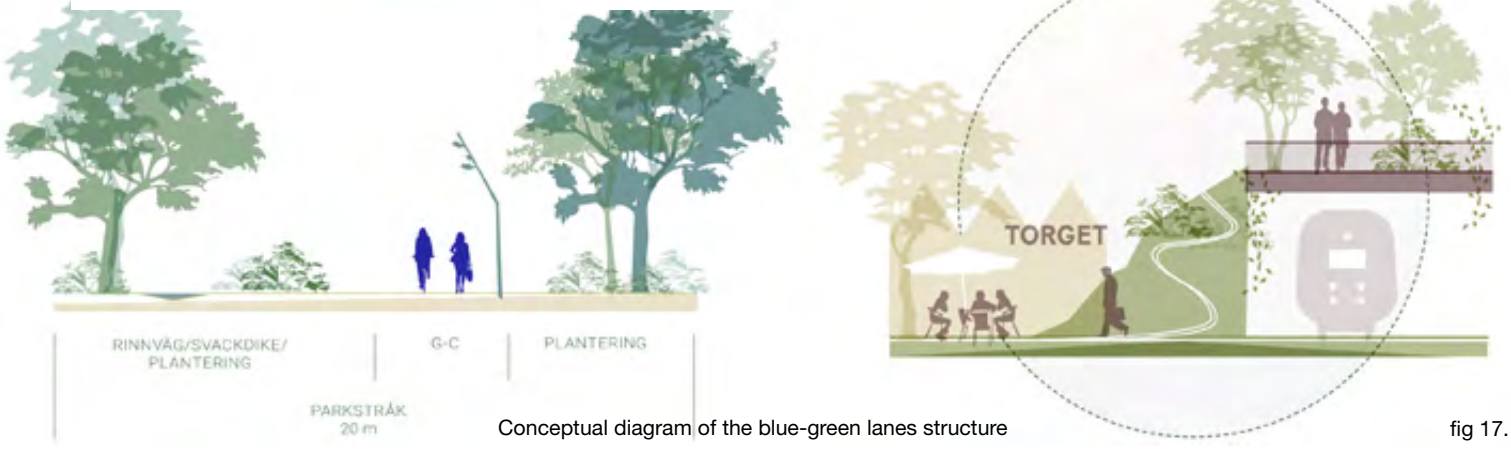


fig 16.
Conceptual diagram of the new green infrastructure in the south of Helsingborg

Regarding the timeline, the implementation of the new green infrastructure will start by the creation of blue-green lanes in the northern half of the district, with one cutting through it in a west-east direction and a second one going from the only currently existing park within Gåsebäck towards the north and the Söder district. Their span will then be progressively extended further south through a new park and towards Jutan by 2050. Generally speaking, these lanes are aiming at providing attractive spaces for walking, cycling, and gathering while implementing vegetation, especially flowering and fruit-bearing plants of local species, potentially strengthening the ecosystems (Helsingborgs stad, 2024). As such, the blue-green lanes created in Gåsebäck can be seen as a complementing layer to the upcoming cycling infrastructure even when cycling lanes are not explicitly planned to be constructed along their path.

Another important component of the planned green infrastructure lies in the park that will rise within the district by 2050. Located on the area currently occupied by train tracks, and a few buildings including the house A of Söder sector, a building of high historical value, the upcoming park plans to make use of the elements of the industrial history of Gåsebäck in order to create a vegetated area with an identity routed in its context and emphasizing a narrative of nature reclaiming the land. Due to its central position

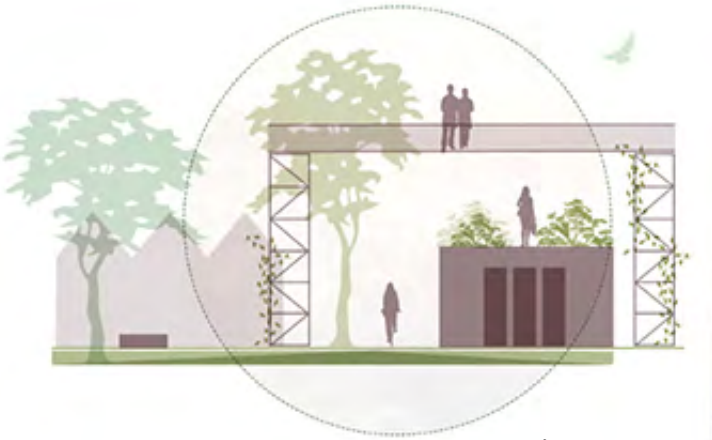


Conceptual diagram of the blue-green lanes structure

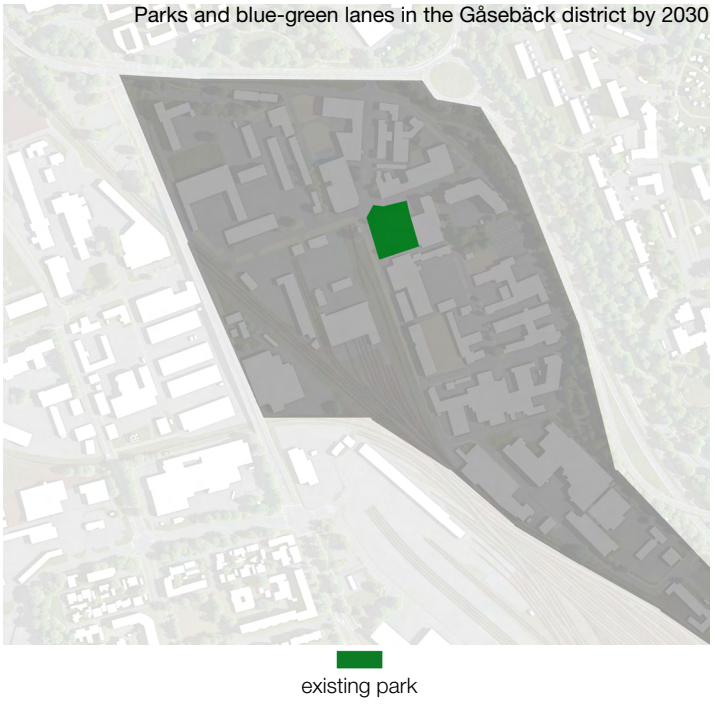
fig 17.

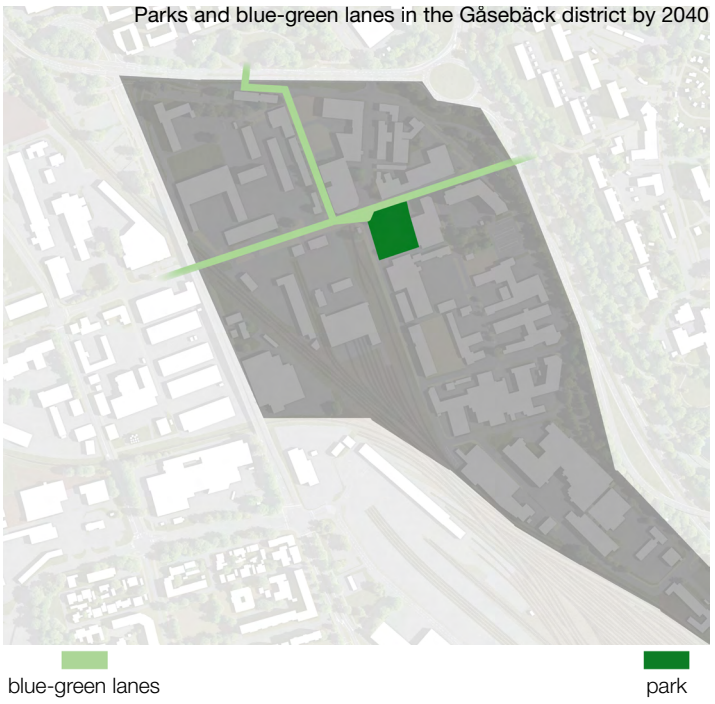
within the district and its integration to the green infrastructure through the blue-green lanes, the park seems to be envisioned not only as a way for nature to reclaim land as its narrative positions it, but also as a backbone of the new life of Gåsebäck strongly linked to its surroundings, participating in breaking the remoteness the area currently experiences. Through the unique identity brought by the potential re-use of the train warehouse and the train tracks, the park also ought to act as an attraction point for outsiders, especially for locals of the Husar area, and in a lesser manner with the districts in the south of the area, which will become interlinked to Gåsebäck thanks to the blue-green lanes granting a possibility of direct access which is, currently, almost impossible.

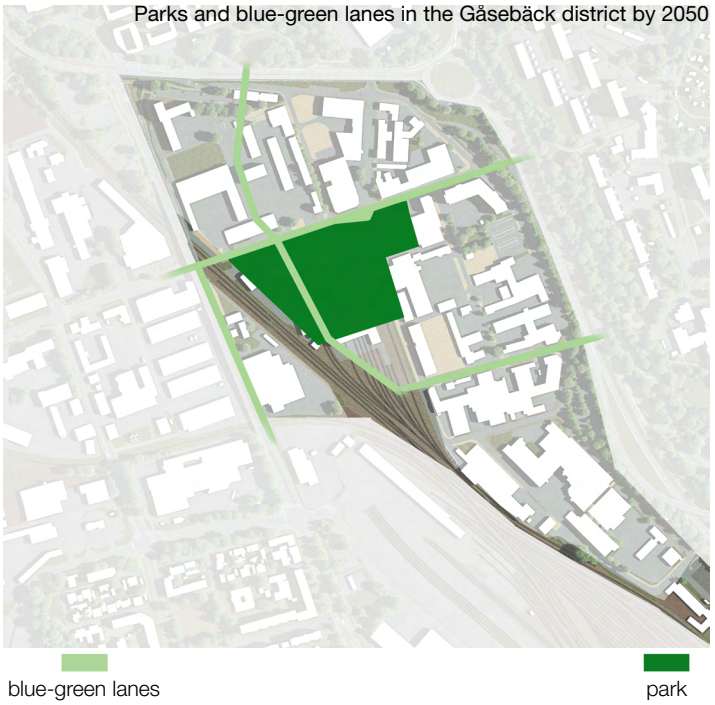
However, similarly to the shift of uses from an industrial dominant area towards mixed-use area, the implementation of both the blue-green lanes and of the park in Gåsebäck are not scheduled to start until at least 2030. In the case of the park, the beginning of the project is even further in time with a start, at best, around 2040. While the reasons for this delay are roughly the same as for the shift in uses, the late scheduled implementation of the blue-green lanes and of the park could become an impacting issue for the attractiveness and social life of the Gåsebäck district during the development phase, especially when considering its current perception and state.



Conceptual diagram of the park area in Gåsebäck fig 18.







In the light of all these elements, the state of the Gåsebäck district as an outcast full of potential appears even more blindingly. This area which was, until now, largely disregarded both by the municipality and the inhabitants of Helsingborg, not only has managed to have a vibrant social life, especially given its local population and reputation, but has also seen the rise of a unique identity.

Gåsebäck is going to evolve.

In 2050, the district will have a significantly different shape than it has today. The uses will shift, the population will increase, vegetation will be back and, hopefully, the very soul of Gåsebäck, the one of a creative district with a complex heritage, will still be here.
With this future in mind, it is of particular importance to remind that the redevelopment of an urban district does not automatically break the idling of the area and, when it does, tends to be a driver of gentrification of areas (Q. He et al., 2018; H. V. S. Cole et al., 2021), a potential future locals already fear (Spacescape, 2023). In order to avoid these two potential bleak conclusions, the transition of the district of Gåsebäck and the evolution of its perception should be accompanied and not just presented as a *fait accompli* in 2050. Furthermore, it seems important to point out here that, due to the importance of preserving the soul of Gåsebäck, avoid gentrification processes, and generating a long-term dynamic, the accompanying process should involve the general public of Helsingborg with a high emphasis on the locals (A. Earley, 2023; G. Velasco, 2023).

In order to achieve a smooth transition of the Gåsebäck district, it seems important to make use of one of the most defining aspects of the area in the last decade: the potential and the interest of the local social life of Gåsebäck for placemaking. While examples of this practice are plenty within the district, the two most visible are the pillars of the Södergatsviadukten as well as the 'downfall' underpass, painted around 2018 during a graffiti festival (D. Lindman, 2019), and, in a more apparent manner, the fire station and its immediate surroundings.
These projects and their progression in spacial and time scales in particular, are examples of bottom-up approaches to placemaking, and even of tactical urbanism projects to a certain extent, which, in the context of Gåsebäck had a significant impact. The case of the fire station also holds a secondary interest that is to be considered: for this project more than for others in Gåsebäck, the locals and the municipality worked together, even with a high degree of citizen control (P. J. Ellery & al., 2020) on the project, to generate one of the most vibrant aggregator of creativity and social life of the Gåsebäck district.
In short, the current population of the Gåsebäck district, even when not living within the area, is a significant driving force of the area and has to be included in the measures accompanying the transition of Gåsebäck, if not in the transition itself. As bottom-up approaches close in form to tactical urbanism projects have already shown to be efficient within the district, the probability of a tactical urban agriculture presenting favorable outcomes appear high; a potential further emphasized by the existence of an urban farming association in Gåsebäck close to the fire station (Helsingborgs stad, 2023c).
Finally, in order to guaranty the persistence of the pertinence of a potential tactical urban agriculture project done with the objective of accompanying the transition of the district, a particular focus on adaptability, ease of public involvement, and experimentation should be adopted (M. Lydon & A. Garcia, 2015; T. Semeraro et al. 2020; K. VanHoose et al., 2022).

Due to the nature of such project, it is important to point out that, for it to maximize its potential for success, the context from which it will emerge from plays a significant role. Even if it aims towards high adaptability, this does not mean that it could be done anywhere in the Gåsebäck district but that it has to take into account which places offer the highest potential.

While some places of potential were identified earlier in this analysis, their mapping did not take into account their potential for tactical urban agriculture projects nor the transition of the built environment of the Gåsebäck district. Even if, overall, all the previously mentioned places of potential present opportunities for this sort of project, some adaptations to the list have to be made. The space under the Södergatsviadukten should be taken out of the list due to the imminent demolition of the bridge itself. Furthermore, the associative hubs of the district, the train warehouses and surroundings, and the intersection park may benefit from being considered as one place currently divided more than different places due to their spatial proximity and future evolution. The abandoned parking lot remains the only place of potential that is its own system, being spatial distinct form the other places of potential, surrounded by a different character, and being surrounded by a higher amount of uncertainty regarding its future.

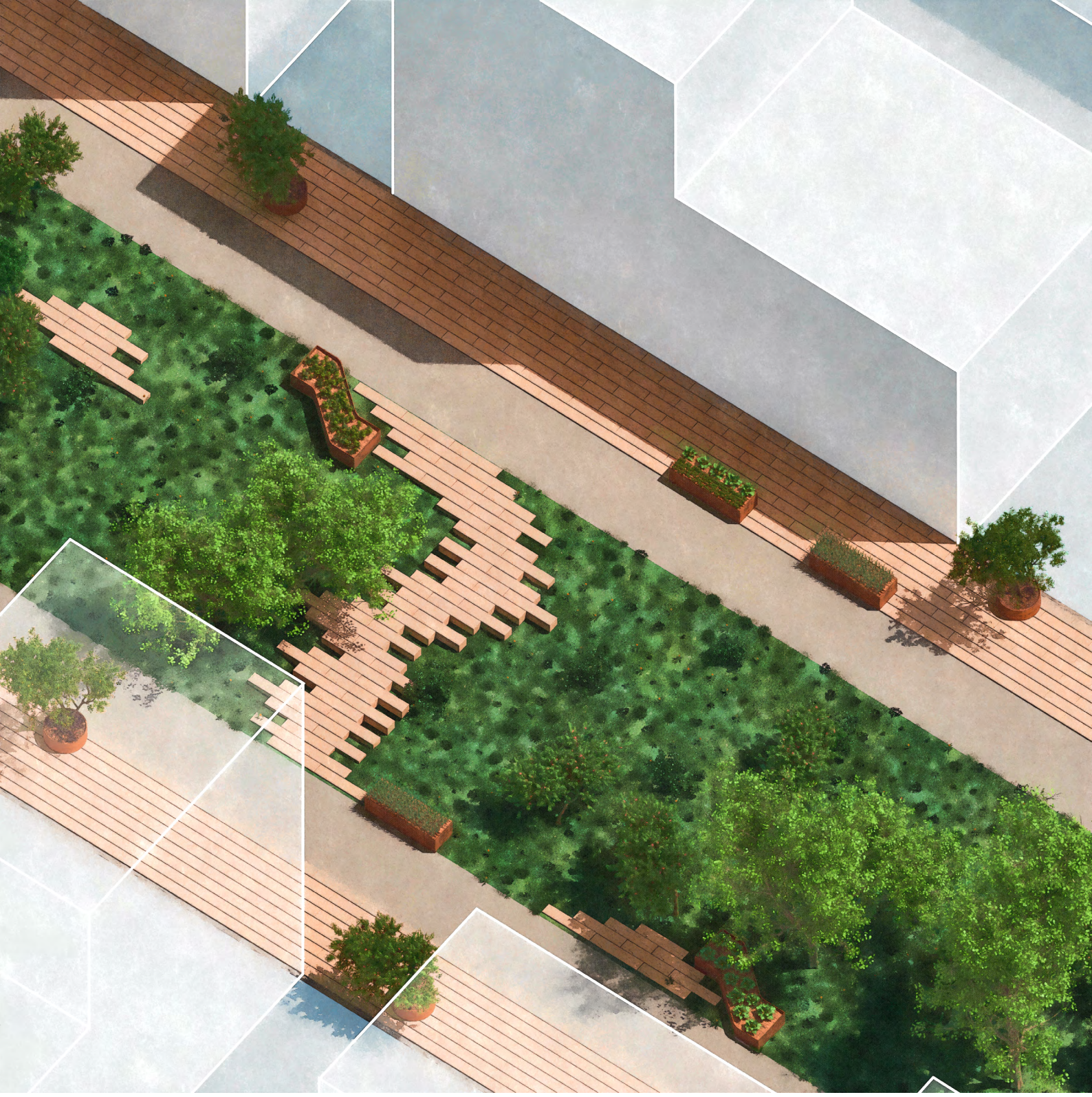
As the places of potential also encompass most of the buildings of high historical value of the Gåsebäck district, it seems important to point out that, out of the five identified buildings, only the train warehouse mapped as the house A of the Söder sector presents an untapped potential for a tactical urban agriculture project. This can be linked three major factors. Firstly to the situation of Jutan and the fire station, already having uses of their own that stand out as particularly valuable to the area. Then the architecture of the house A of Söder sector, similarly to Jutan, makes it particularly efficient for agriculture as its sawtooth roof allows for a high amount of direct and reflected light and warmth to enter the building (A. Mandala et al., 2021). While sometimes being an issue in the case of Jutan (Spacescape, 2023), this could emerge as a significant advantage in the eventuality of an agriculture-oriented use (E. Ozkaynak, 2013). Finally, the two remaining buildings, mapped as Portugal 6 and Asien 17, do not appear as they would express their highest potential through a tactical urban agriculture project. Their architecture, one as a small factory with living quarters and the other as a linear concrete building with multiple floors, seem to lean more towards a residential or mixed-use re-purposing rather than towards agricultural use, especially in the context of the transition of Gåsebäck district.

With all the elements that have been developed in the previous pages, it could be assumed that the analysis done of the district allows for a generally high understanding of it, and while some degree understanding of it has been reached, high is not how it can be qualified. The area has a chaotic nature, has been a victim of a general lack of public interest during the previous decades, and similarly, researches on key issues the district and its redevelopment are and will be facing such as the absence of comprehensive study on soil pollution of the area despite a high degree of probability of contamination are lacking (Helsingborgs stad, 2024). The understanding we have gained of the Gåsebäck district allows to look beyond its current state and plan relevant actions and designs, but it is important to highlight that these should be thoughtfully approached in order to remain relevant over the course of the upcoming years.

The realization of a tactical urban agriculture project within the Gåsebäck district presents

a potential way of addressing this issue. The nature of such project, being highly oriented towards low-cost experimentation, would allow to generate knowledge in a short amount of time and while keeping the costs of research relatively low. This cycle of experimentation through design, being tightly linked to public participation, would also allow to gain insiders knowledge on the district while engaging a conversation between the municipality and the locals, showing that the lost momentum in Gåsebäck can be regained (M. Lydon & A. Garcia, 2015; T. Semeraro et al. 2020; L. Bertolini, 2020; Spacescape, 2023).
By experimenting through design, learning from potential failures, and perenializing successes, a tactical urban agriculture project in the Gåsebäck district could navigate through the uncertainties surrounding the area and its evolution while conserving relevance throughout its existence.

Because of the objectives such project would carry and the uncertainties it would have to navigate through, the form and scale it would have could not reach their maximum extent in a short term. Proceeding as such would entail a high cost in materials, finances and spaces, as well as potentially generating tensions with the locals and the upcoming operations, all while increasing the risk of the impossibility of doing a second iteration, were the first one to fail. Therefore, it seems reasonable to argue for a gradual and informed increase of spatial and temporal scale of the project throughout the transition of the Gåsebäck district. Starting from small scale and temporary arrangements strategically paving the way for growth and perenialization in case of positive feedback, and favoring the feasibility of a new iteration in case of negative feedback.



On the Fertile Heritage: Growing Horizons

The following part aims at presenting and developing a tactical urban agriculture project in the Gåsebäck district that would be able to accompany its transition process to a mixed-use area. As mentioned before, in order to maintain the flexibility of the project during the earlier years of its launch as well as to increase the probability of its adoption, its development will follow a gradual increase in spatial, social, and material scale. Three major phases are presented, following this progression, and showcase the major expected features of such project. However, due to the uncertainties surrounding Gåsebäck and its future, the presented phases, especially the latter ones, are bound to development states rather than clear dates and rely on assumptions informed by the redevelopment plan for the south of Helsingborg (Helsingborgs stad, 2024) regarding the state of the urban fabric and of the progression of the construction work. Furthermore, due to the nature of the project, being grounded in public participation, and the constraints it is facing, the form and locations of the various operations presented should not be understood as clear and definitive results but as a possible scenario.

General tactic

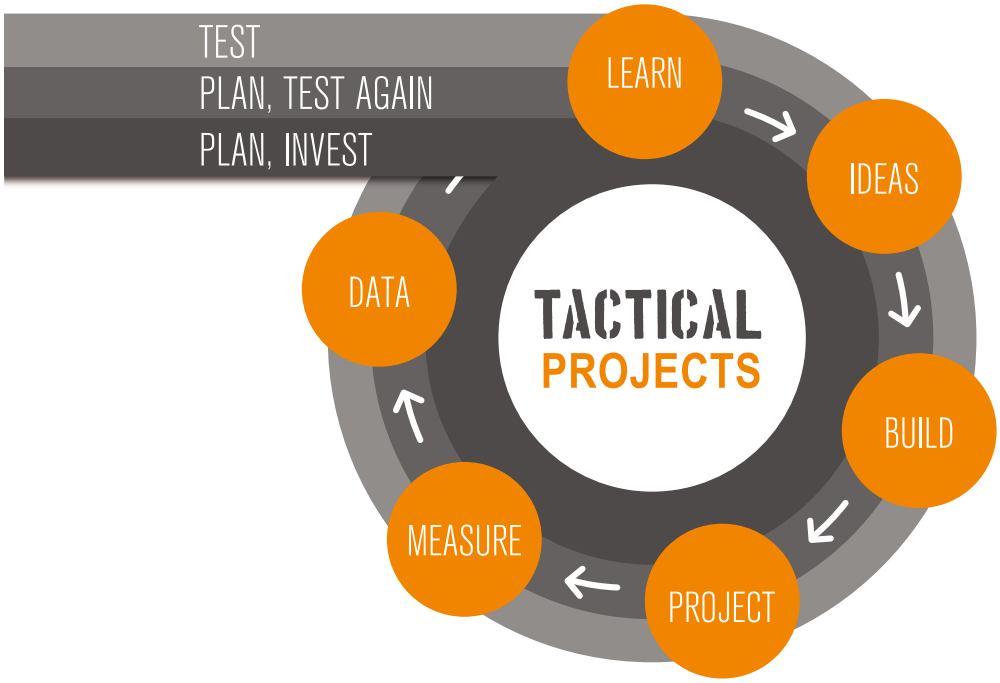
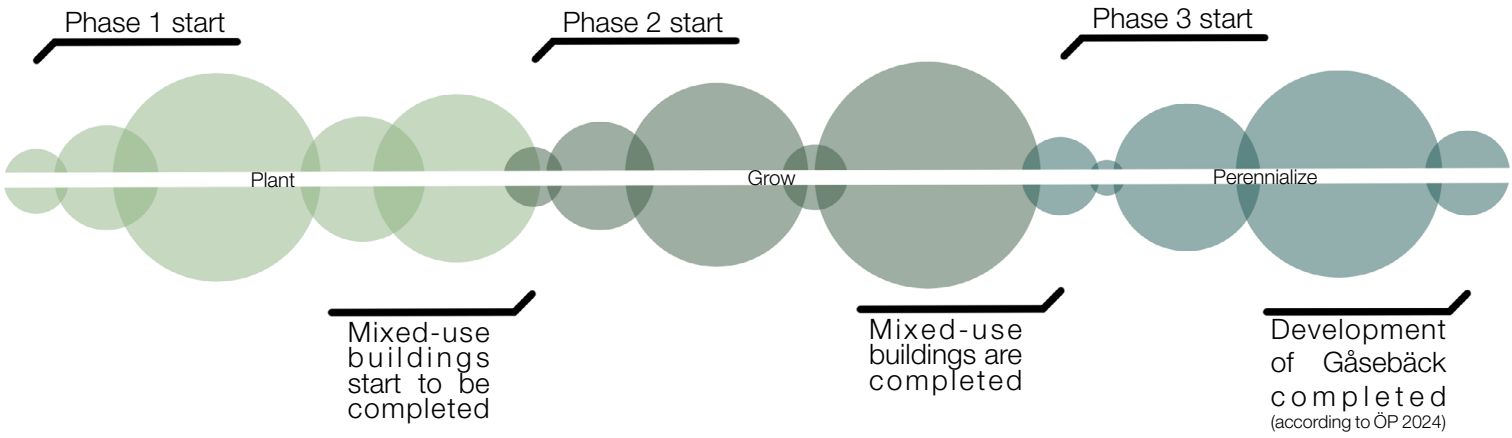


Diagram of the design framework used in tactical projects (M. Lydon & A. Garcia, 2015) fig 19.

General timeline



Approx. year 2030-2040 2040-2050 2050-2060

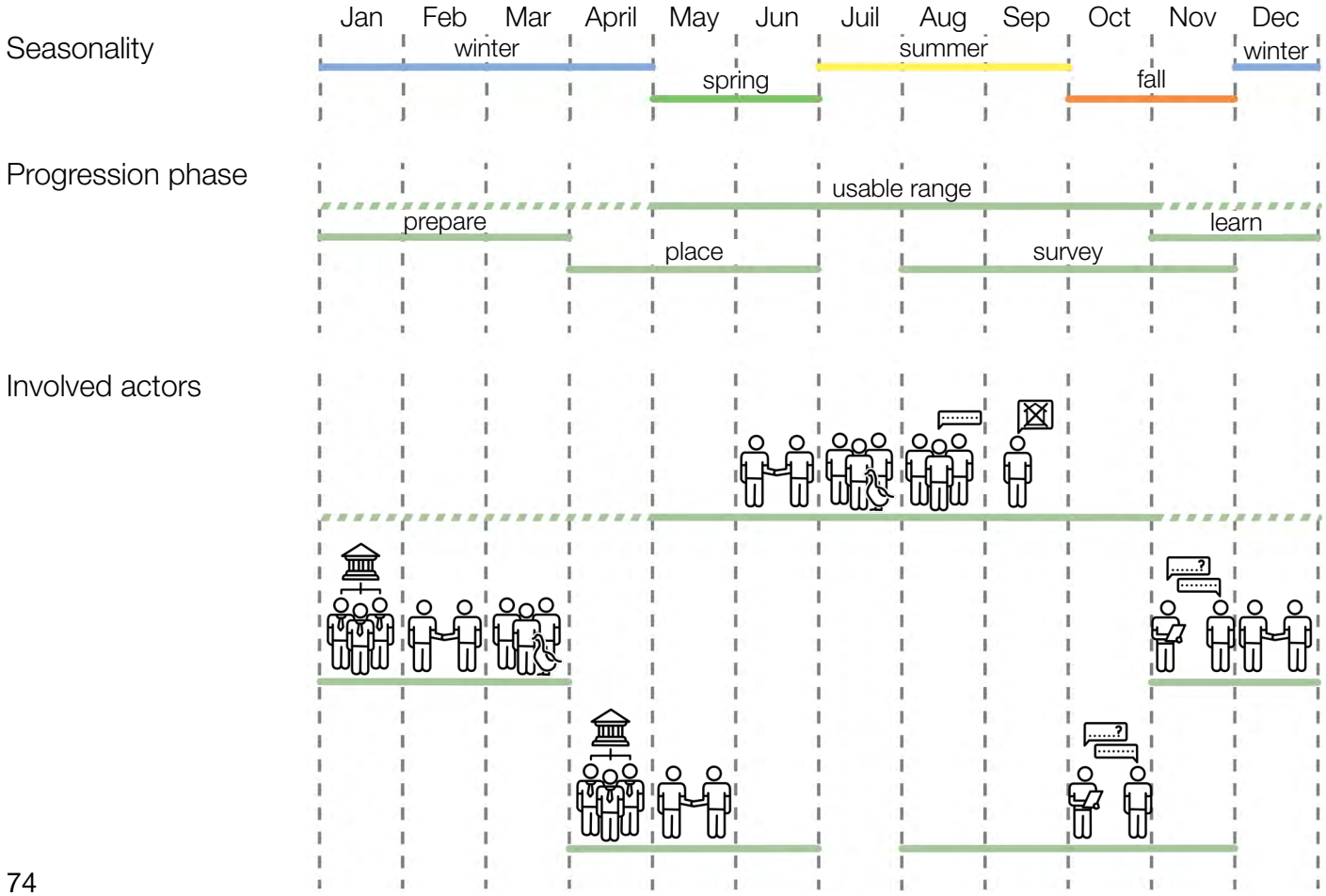
General tactic

The first phase of the project is, materially speaking, quite light in regard of the spatial scale of its deployment. However, it is at the same time the one that carry the heaviest weight in terms of significance, being the foundation for the whole operation.
Its objective is to plant.
Plant the typologies within the area while at the same time allowing for their movement and growth in an almost rhizomatous manner. But more importantly, plant the seeds that will allow for the emergence of Gåsebäck practiced through tactical urban agriculture spaces. As such, this phase envisions to create a new conversation (or at least begin to do so) in the Gåsebäck district through and as agriculture. Eventually establishing the practice as a common language between every actors of the project.

By establishing this common ground, this phase provides a mean for people to extract themselves from their everyday context as an outlet, a leisure, an experience. This opportunity is of particularly high interest as this would allow every actor, regardless of nature, to engage with each other, fostering a sense of community and inclusion (P. Hutchison & J. McGill, 1992). Moreover, these Tactical Urban Agriculture practices would also create a sense of empowerment within the community, increasing the cohesion of the whole and the well-being of each (P. Hutchison & J. McGill, 1992; M. C. Nussbaum, 2006).

Therefore, this phase ought to create and be the diffuse structure upon which the actors will aggregate around and towards an agricultural practice of Gåsebäck. Following this aim, this first phase places a high emphasis on allowing a broad and informed public participation while acknowledging the few yet necessary limits needed in order to benefit Gåsebäck and integrate within the existing practices and future evolutions.

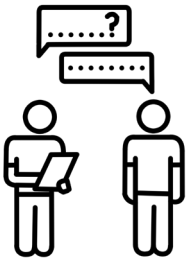
Type year timeline



Actors

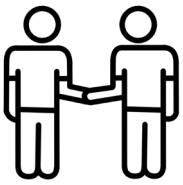
Helsingborg municipality

During the first phase of the project, the role of the municipality of Helsingborg would overall be twofold: one of an enabler and one of coordinator. As an enabler, it would sanction and fund the project, allowing it to come to reality as well as participating in the preparation and placement of the typologies. As a coordinator, it would also allow the project and the other actors to move with the construction works in Gåsebäck.



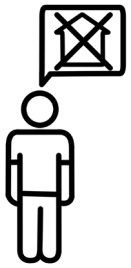
Researchers and surveyors

The role of researchers and surveyors during the first phase is vital to the good evolution of the project. They would gather and compile data (through interviews and observations) in order to assess the pertinence of the placement of typologies and the outcomes of the project phase, potentially in order to move towards phase 2. At a general scale, they would evaluate the potential change in the perception of Gåsebäck.



Associations

The associative actors of Gåsebäck (the pentcoastal church, the homeless shelter, the growers association...) would, during this phase, help with the preparation and placement of the typologies. Similarly, they could help with plantation and maintenance during the life of the typologies and act as the main interlocutors during the 'learn' period due to their high potential for a broad representation of Gåsebäck.

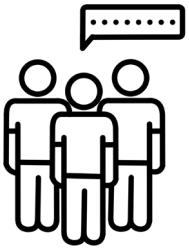


Homeless people

Either living in the streets or in a temporary shelter, homeless people should be considered as actors within the project. While they could be represented by the pentcoastal church or the homeless shelter, opportunity should be given to them to count as people of Gåsebäck and participate accordingly. However, as the specificity of their situation should not be overlooked, they are mostly envisioned as helpers during the life of the typologies.

People of Gåsebäck

The people directly linked to Gåsebäck (either through work, leisure or living) should be able to participate to the preparation of the project by giving feedback and suggestions on the proposed locations of the typologies and their nature. Similarly, they could help with plantations and maintenance during the life of the typologies.



General public

The people not directly linked to Gåsebäck (living in other parts of Helsingborg or just passing through the area), while not having a direct role in the project preparation or placement could help with plantation and maintenance of during the life of the typologies.

Operations and typologies

As previously pointed, the first phase of the project aims at planting the foundations for an agricultural practice of Gåsebäck in the context of its transformation. Therefore, as its tactical and experimental experimental nature mean a cycle of spatial and quantitative refinement of the operations, and as the district itself is bound to change and move significantly in the upcoming years, envisioning the typologies composing this first phase through their capacity to accompany such aspects is necessary.

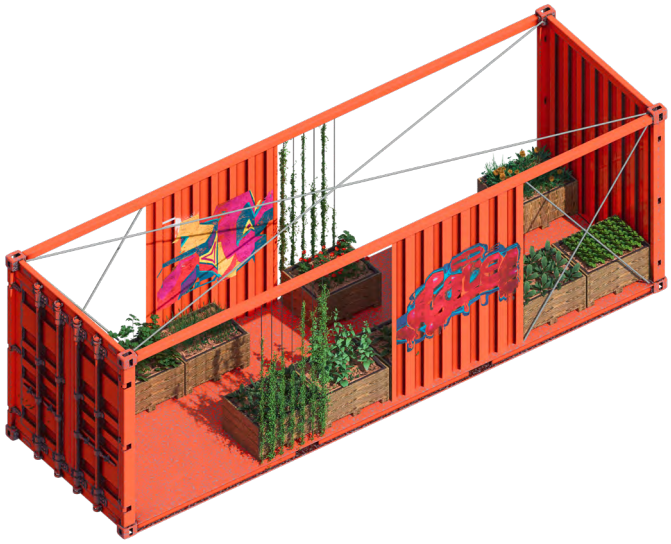
Understanding that, the typologies implemented during the first phase need to be defined by a general nature of ease.
They need to be easy to identify, easy to build, easy to move, easy to maintain and repair. And all of this while being affordable and providing sufficient space for cultivation.
In order to attain these practical objectives while providing a certain degree of visual impact of the project, the typologies employed during this phase have been limited to two: the wooden planter and the shipping container. However, it is important to note here that while the typologies are limited, the amount deployed is not.

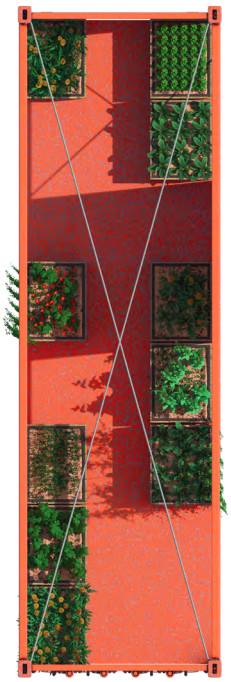
The first typology, the simplest in fabrication and quantitatively the most important, as well as the practical basis upon which agriculture would penetrate Gåsebäck is the wooden planter.
Made from simple wooden planks for its shape and structure and lined with landscape fabric, this typology is of the simplest nature. The use of wooden planks would allow an easy maintenance as well as a comparatively light weight, even when filled with dirt and planted crops. Furthermore, its dimensions of 100cm – 90cm – 45cm (L-W-H) would permit an easy building and maintenance process. The general affordability and malleability of wood combined with the possibility to re-cut damaged longer planks into smaller ones ensures a contained cost and a relative ease of maintenance, even by people with basic woodworking skills.

The wooden planter typology

The second typology deployed during the first phase, the shipping container, differs from the wooden planter in many aspects while being closely entangled to it.
Consisting of a refurbished shipping container reworked in order to remove its roofing panel and most of its sides, this typology is, due to its size and comparative complexity, bound to be deployed in a lesser amount while holding a punctually higher visual impact. While its structural integrity ought to be preserved through the use of cables allowing it to be moved, it is important to note that, contrary to the wooden planters, their displacement is bound to require solutions of comparatively heavier nature and cost.
In terms of use, while the typology by itself does not allow for agricultural practices, it enables, through the wooden planters it can house, for a concentration of cultures in specific spots within the Gåsebäck district. This aspect, in addition to the initial visual impact of the typology, contributes to the generation of centers of gravity in the area occupied by the project, emphasizing not only the project itself but also the spaces within which this typology lands in. An additional use of this typology permitted by its capacity to house up to 24 wooden planters side-by-side is the transportation of multiple wooden planters (used inside the container or not) should the need arise as during the demolishing process of the Södergatsviadukten among other possible events.

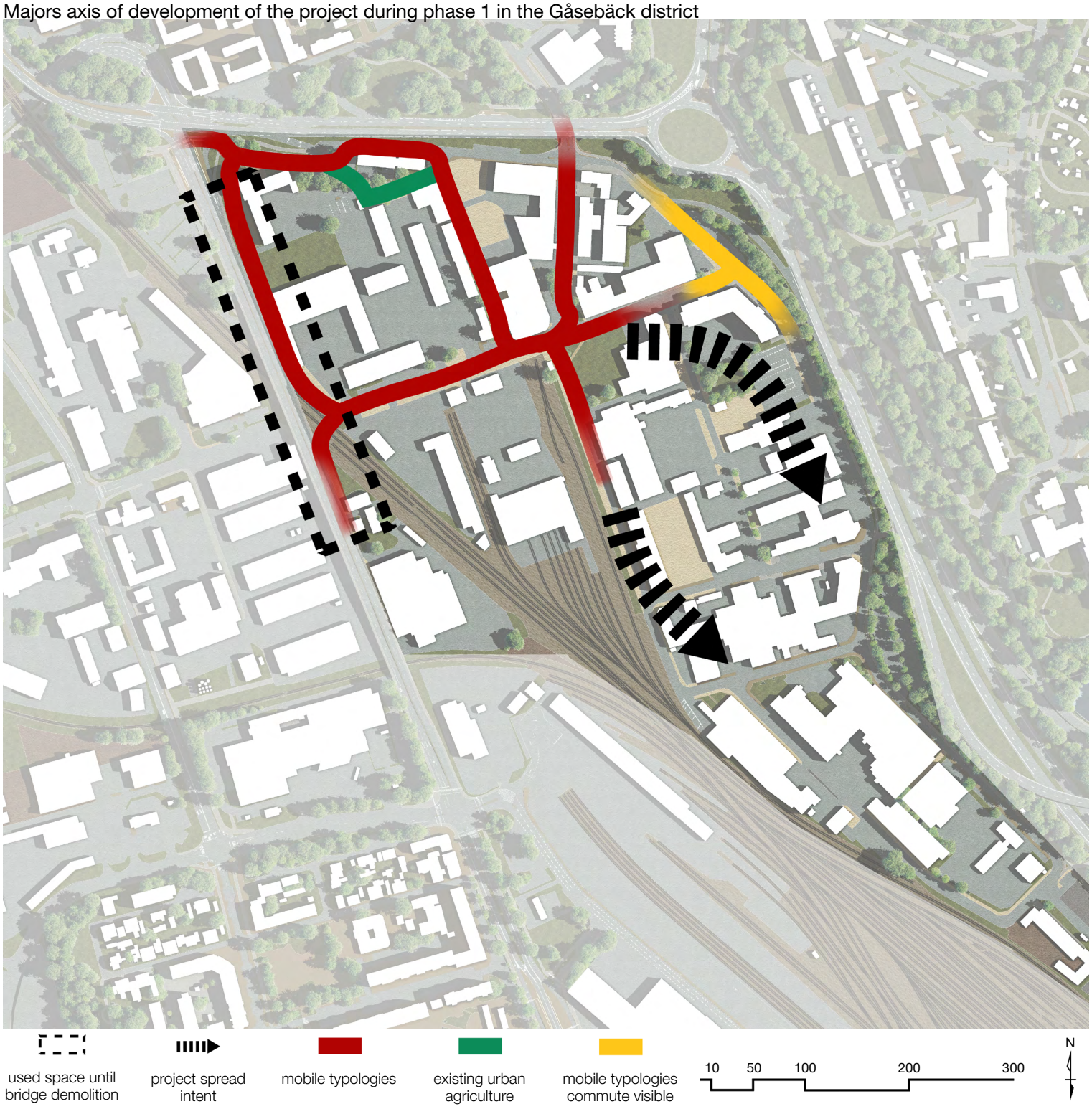
As a side note, while shading conditions will vary throughout the district and depend on the typology, thereby influencing what can be grown, it is worth noting that a wide range of edible plants, including some leafy greens (e.g., spinach, kale), herbs (e.g., mint, parsley), and fungi (e.g., winter chanterelle, Agaricus bitorquis), thrive in shade to part-shade conditions. As such, shading conditions are not seen as a limitation to the project, but instead as a minor influence that could prove to be an opportunity for plant diversity, adaptive cultivation tactics, and education on site-specific growing conditions.





The shipping container typology

Majors axis of development of the project during phase 1 in the Gåsebäck district



Spatial tactics

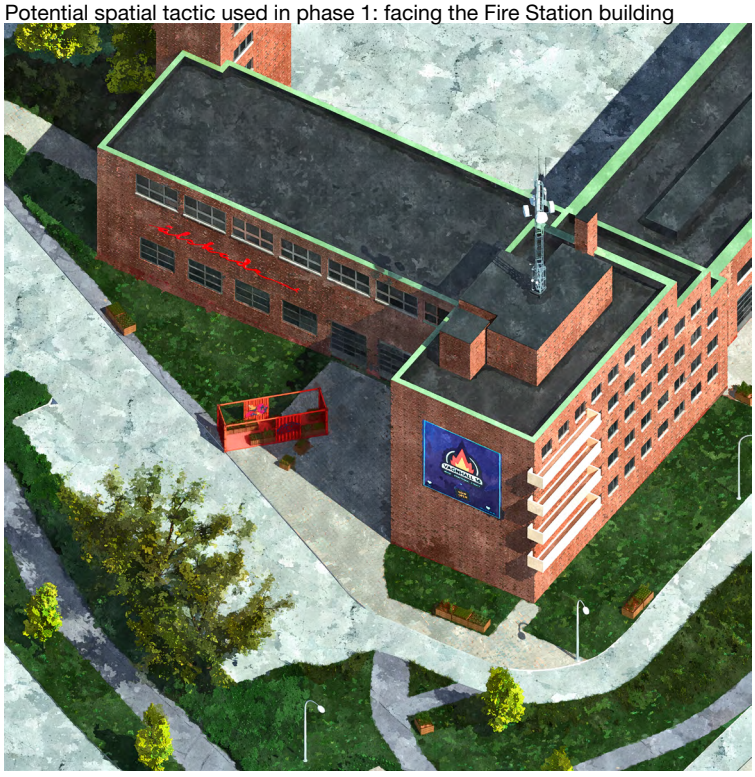
In order to create an agricultural practice of Gåsebäck in the context of its transformation, the spatial deployment of the project's typologies needs to be done following the directing tenets of the site.

For that reason, the first phase means to create an entangling space. Linking the associative hubs of the district such as the Fire Station, the existing urban agriculture association, the pentcoastal church or Jutan, to the existing park, holding a central position within the area, the wooden planters are deployed creating paths of urban agriculture weaving these nodes together. This new fabric, leaning on the north of Gåsebäck, also makes itself known to the outside, enticing it to a closer look.

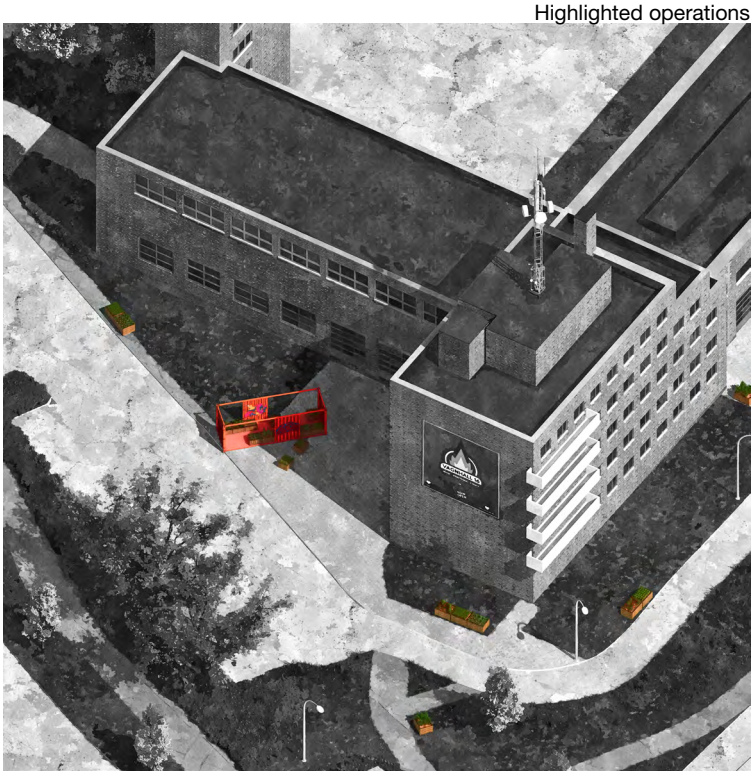
The shipping containers, visually significant, are placed on nodes such as the Fire Station, facing the north of Helsingborg, and on the existing park, as the crossroad of the district.

Along the envisioned paths, the typologies are mobile, the wooden planters even more so. They can be placed everywhere they are deemed to provide interest or contribute to the entanglement. The shipping containers, due to their significance and material impact, should however be placed carefully if put

Potential spatial tactic used in phase 1: facing the Fire Station building



Highlighted operations



outside of the expected nodes.

While during the first iteration of the first phase, this placement will not be backed by survey results, it is of particular importance to point out that, during the following iterations, specific locations of the planters and containers ought to be backed by the results of the learning period in order to be relevant. As the transformation of Gåsebäck will make the context itself fluid and the center of gravity of the area move, it will be important to adapt the spread of the typologies to it as to minimize disturbance and conserve relevance.

As the project aims to participate in the change of perception of the district by creating a new practice of it, a certain degree of visual attractiveness and invitation to discovery is necessary. While the shipping containers hold a major role in enticing the passerby for a journey through the district, they are not the sole mean to achieve this. The wooden planters, with a deployment along part of the existing cycle path from the Ramlösa train station also ought to generate such interest. Inviting for a temporary stop along the way, eventually leading to a discovery of the district, they also state the shift of Gåsebäck towards a more vegetated nature. The paths created by the wooden planters within the district, although shy in that matter, also participate in this statement by generating spots of vegetation in an otherwise arid area.

Potential spatial tactic used in phase 1: populating the existing park

Highlighted operations

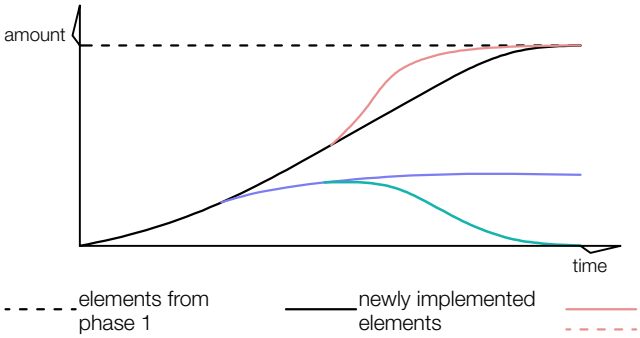
General tactic

Growing from the success of the first phase of the project, the second phase, benefiting from the knowledge acquired during the previous iterations, aims at expanding the practice of tactical urban agriculture now established in the Gåsebäck district.

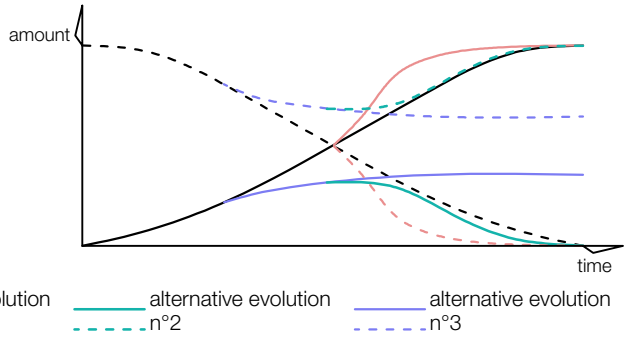
The form of the site, experiencing the completion of its first mixed-use buildings and a progressive influx of new inhabitants, is now noticeably different while still being in a transition stage. Given the importance of this shift for a district that, in the beginning of its transition, was home to almost none, the new phase of the project should start by ensuring that what was attained during the first phase remains.

In this changed and changing urban fabric, the implementation of blue-green streets, marking a major step in the transition is to be used as a way of strengthening the agricultural practice of Gåsebäck. In order to do so, new typologies, marked by a lesser mobility, are progressively implemented, replacing in part or totality the typologies deployed in the blue-green streets areas during the first phase. The typologies inherited from the first phase, not abandoned, are used throughout the rest of the district, stating their presence and expanding the agricultural fabric created within Gåsebäck at the pace of the constructions, adapting themselves when needed. Similarly, this phase ought to explore the potential of an intensification of the agricultural practices where they are already well established.

Amount of elements in Gåsebäck

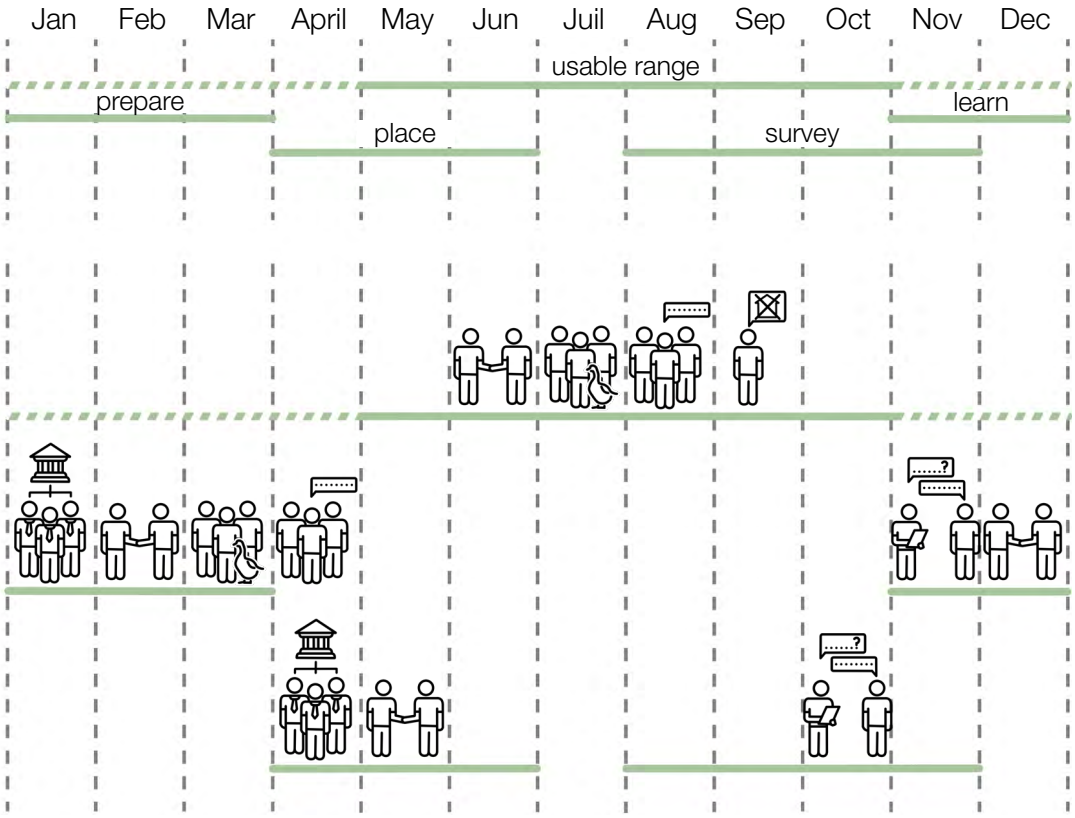


Amount of elements in the blue-green streets



Type year timeline

Progression phase

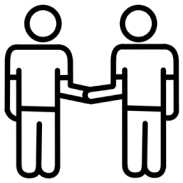


Involved actors

Actors

Helsingborg municipality

While the role of enabler of the municipality of Helsingborg, mostly unchanged, might require a higher degree of financial involvement, it is its role of coordinator that will be experiencing an increase in importance from the previous phase. In line with the previous phase, the municipality will act as a coordinator between the project and the construction works. As major shift will come with the establishment of new inhabitants within Gåsebäck, the municipality will need to act as a mediator between the 'old' people of Gåsebäck and the 'new' ones to facilitate dialogue and remaining in line with the initial objectives.

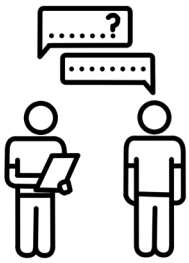


Associations

Continuing on their central role from the first phase, the associations would experience a significant increase of importance in the decision-making process within the project. Their expected presence from the begging of it, expected to be maintain in the long run, would put them as a stable actor especially when compared to the 'people of Gåsebäck'. As such, accumulated with their relevance in the representation of homeless people, they could act as a supporting representation of the 'old' people of Gåsebäck. Their position as intermediaries between the municipality and the homeless people could similarly gain a further degree of importance.

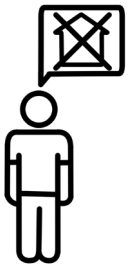
People of Gåsebäck

The role of the people of Gåsebäck would largely remain unchanged during the second phase of the project. However, due to the expected significant change in its composition and number of people, a high emphasis should be placed on facilitating dialogue between 'newcomers' and 'old-timers', taking in account and pondering each point of view in order to mitigate the risk of conflicts, especially in the preparation period.



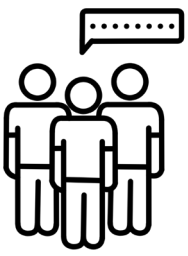
Researchers and surveyors

The role of researchers and surveyors does not significantly change during this phase. The insights provided during the first phase will allow to direct the further spread and potential densification of the typologies. A more specific evaluation will however be necessary in the blue-green streets in order to direct an increase, decrease, or stabilization of the newly implemented typologies.



Homeless people

The role envisioned for homeless people does not significantly change in the second phase of the project. However, the momentum gained during the first phase could allow for the possibility of employment through the associations within the district in order to help with placement and eventual maintenance.

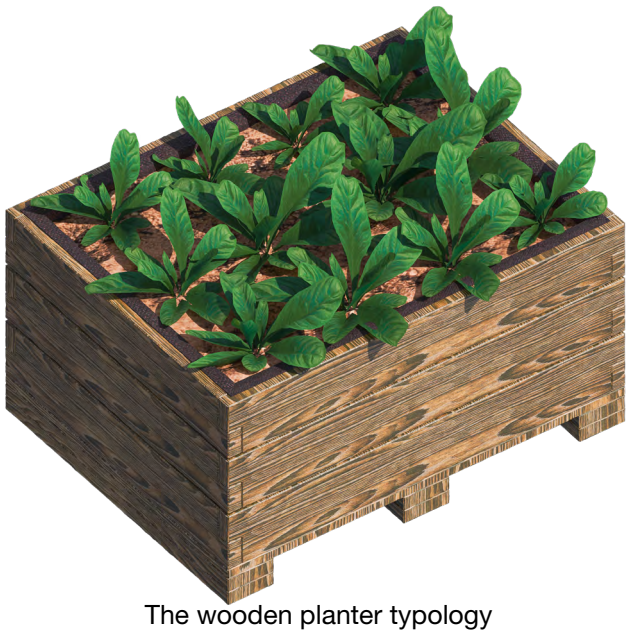


General public

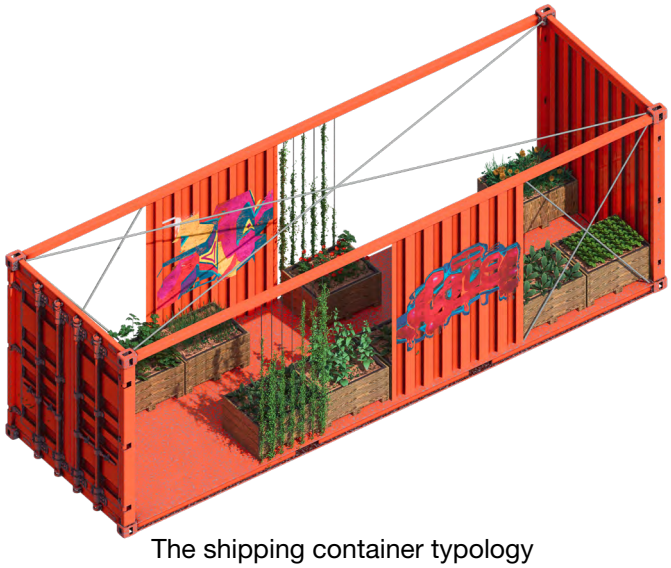
The general public would, during this phase, be able to gain a higher degree of involvement in the project and participate to its preparation. In doing so, the project expects not only to increase interest in the placemaking opportunities the area offers, but also to motivate the establishment of dwellers, associations and businesses with a sensibility towards the project.

Operations and typologies

Growing from the agricultural practice of Gåsebäck established during the previous project phase, this second step aiming for an expansion and intensification of it, makes use of the previously deployed typologies of the wooden planter and of the shipping container. However, due to the objectives it carries, the amount of these 'mobile typologies' will probably need to be expanded in order to maintain a coherence of the agricultural fabric.
Moreover, due to the progression of the construction works in the Gåsebäck district, the shipping container typology might, in some cases, need to be adapted as to remain visually impacting and significant in the definition of the nodes of the agricultural fabric.
Similarly, the use of new typologies marked by a lesser degree of mobility will begin in the emerging blue-green streets in order to root the agricultural practice of the district in a longer term.



The wooden planter typology



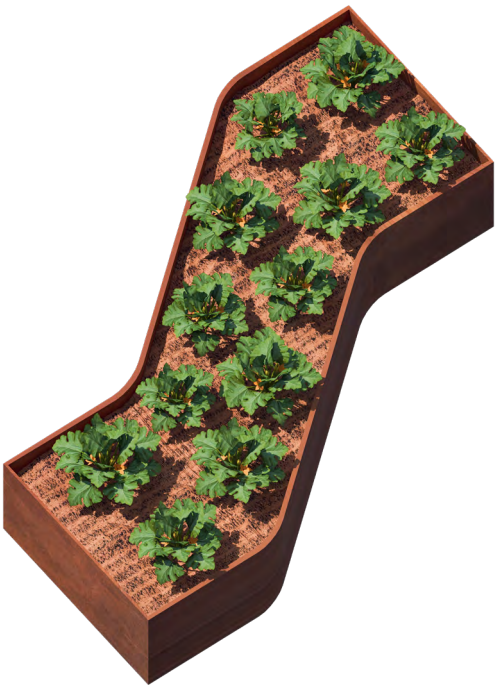
The shipping container typology

The adaptation of the shipping container typology, used to answer either the need of a higher visual impact in one or multiple nodes, to act as a way to move one container from an area required for construction works, would lead to a new typology deployed during the second phase: the stacked containers. Consisting in two stacked shipping containers linked by a set of stairs, either temporarily or definitively placed on one of the longer sides, this typology would create an almost 'building-like' place of urban agriculture in the area it is deployed in. The elevation permitted by such typology would, additionally to its high visual impact, allow for the emergence of a seemingly higher point of view over the Gåsebäck district reminding to a lesser extent of the Södergatsviadukten, demolished before the beginning of this phase.
While the visual impact of this typology

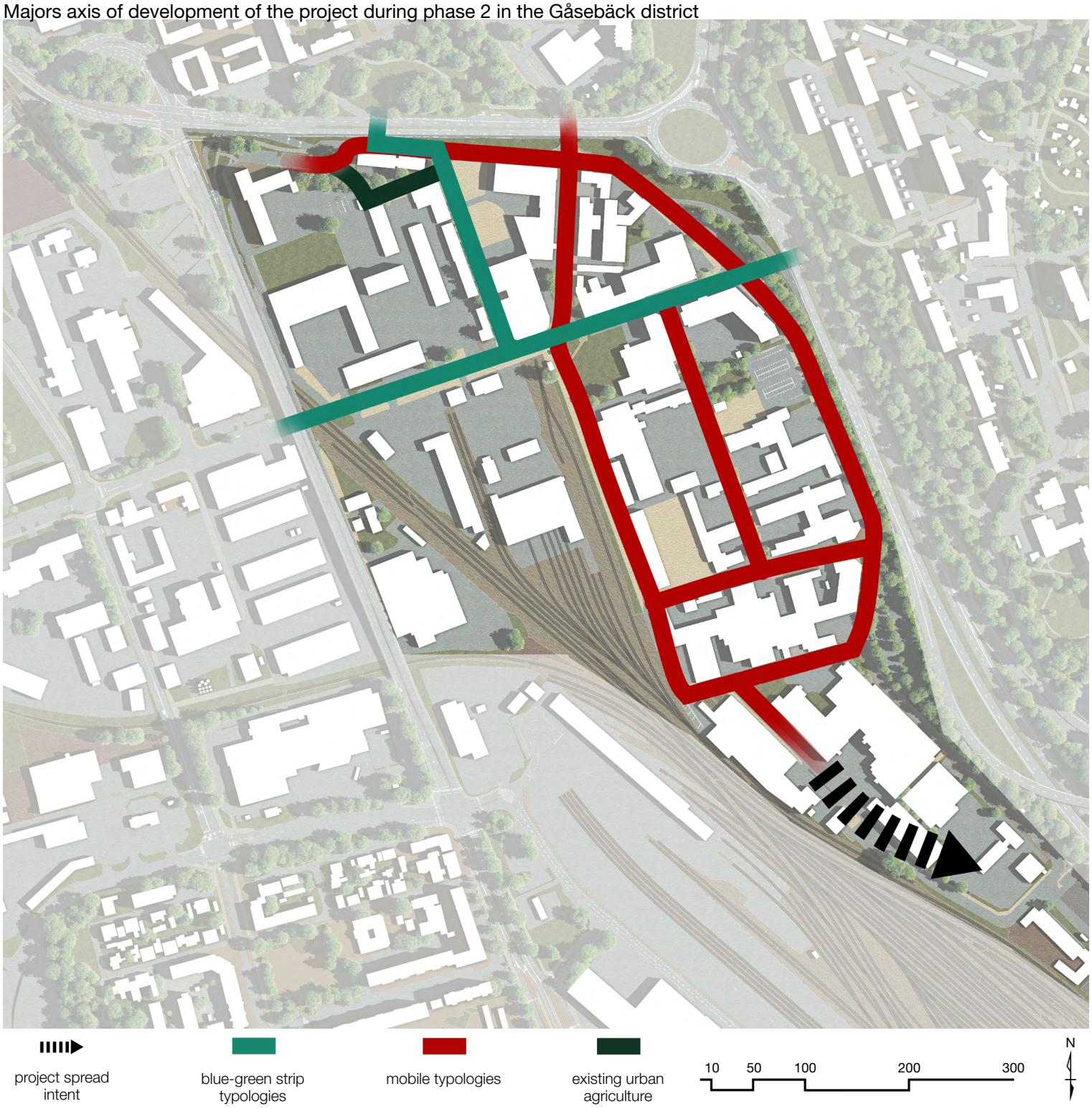
The stacked containers typology

could benefit the agricultural fabric deployed within the district, its technical and resource-intensive aspects call for prudence in its realization.

With the emergence of the blue-green streets would come the emergence of entirely new typologies within the project marked by a lesser degree of mobility and a seemingly higher cost than the previously used ones: the corten planters.
Imagined as an agricultural use of corten planters commonly found in Malmö and Helsingborg itself including within the Gåsebäck district, these typologies could consist in the re-use of planters from other areas of Helsingborg or as new implementations alike. These typologies, comparatively bigger than the wooden planters used until this point, would allow for the addition of fruit trees within the agricultural fabric of Gåsebäck. This addition, completing the smaller plants used until this point, would increase the visual impact of the project without appearing too showy in the context of blue-green streets. The use of the corten planters emphasizes this intention of blending seamlessly in the transformation of the area due to their already established presence although with different uses. This aspect, combined with the proposed variations in shapes, would create a variety of objects and emphasize the blending of agriculture in the Gåsebäck district, contributing to cement the practice as a 'new normal'.
In a similar manner, the use of this type of planters would allow, should the project requires it, for an easy downscaling of their agricultural presence and use through a shift in planted species and a potential relocation.



Majors axis of development of the project during phase 2 in the Gåsebäck district



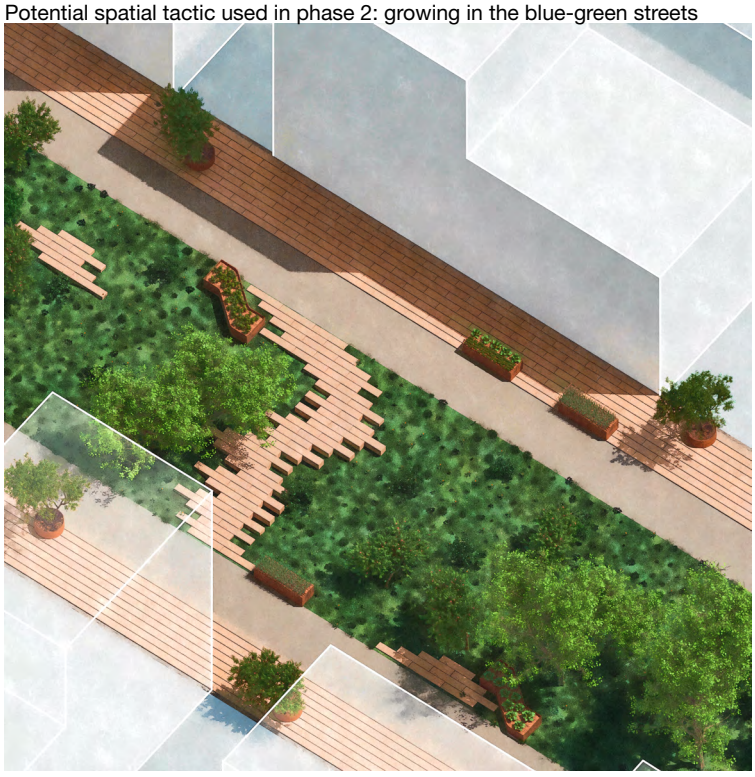
Spatial tactics

As the transformation of the Gåsebäck district advances and the influx of new inhabitants starts to become significant, the tactic guiding the now established agricultural practice of Gåsebäck is to be adapted in order to conserve relevance in this new environment.

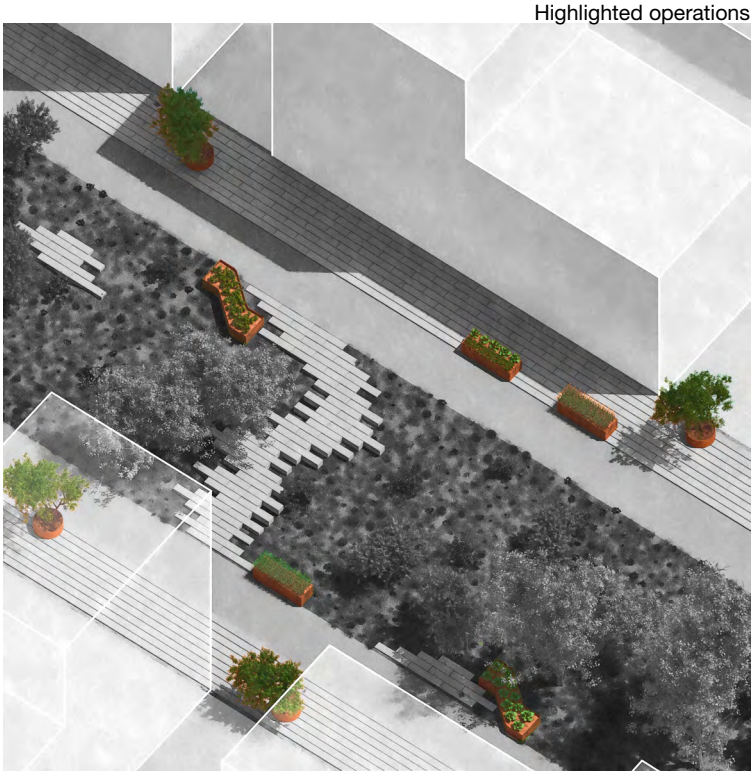
As it is now an integral part of Gåsebäck, the agricultural fabric deployed and cemented during the first phase should be the starting point for a gradual increase in typologies' density in order to intensify the weight of the overall project, especially where buildings, new or refitted, start to be completed. This process of intensification of the project should however be done with care as to avoid a full spatial clusterization of the typologies that would diminish the weight of the nodes in the agricultural fabric or, in the contrary, put too much emphasis on them, diminishing the project's intention to blend in district.

In line with this objective of blending in already developed during the first phase of the project and reaffirmed by the typology of the stacked containers previously presented, the second phase ought to continue to adapt the spatial deployment of the typologies to

Potential spatial tactic used in phase 2: growing in the blue-green streets



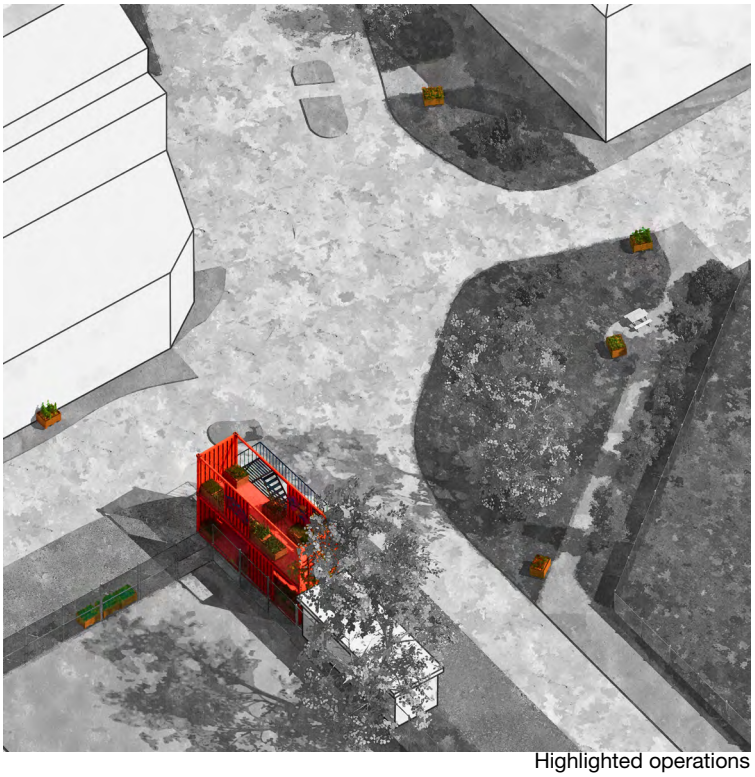
Highlighted operations



the advancement of the construction works. However, as the transformation of the Gåsebäck district will see, at this point, the emergence of the blue-green streets, a new dimension of this adaptation to the transition is to be added in the progressive deployment of the corten planters typologies specifically on the blue-green streets. Furthermore, as the redevelopment of the district might see the emergence of new and therefore currently unsuspected nodes in the urban fabric, the need may arise for a subsequent adaptation of the spatial tactics.

Similarly to the first phase, the deployment of the typologies is not to envisioned to reach its expected full spatial extent directly after the transition from the previous to the current phase. This growth of the occupied area, informed by the results obtained from the first phase and by the ones it will generate itself, is to be progressive. As it needs to be able to adapt itself to the construction works in the area, a temporary halt, or even light shrinkage in spread, should be accepted and not seen as a complete failure of the project phase. Finally, once the full spatial extent of the deployment of the typologies will be reached and stabilized, further spreading within the district could present an interest, especially if moving towards the third phase of the project.

Potential spatial tactic used in phase 2: growing in the existing park



Highlighted operations

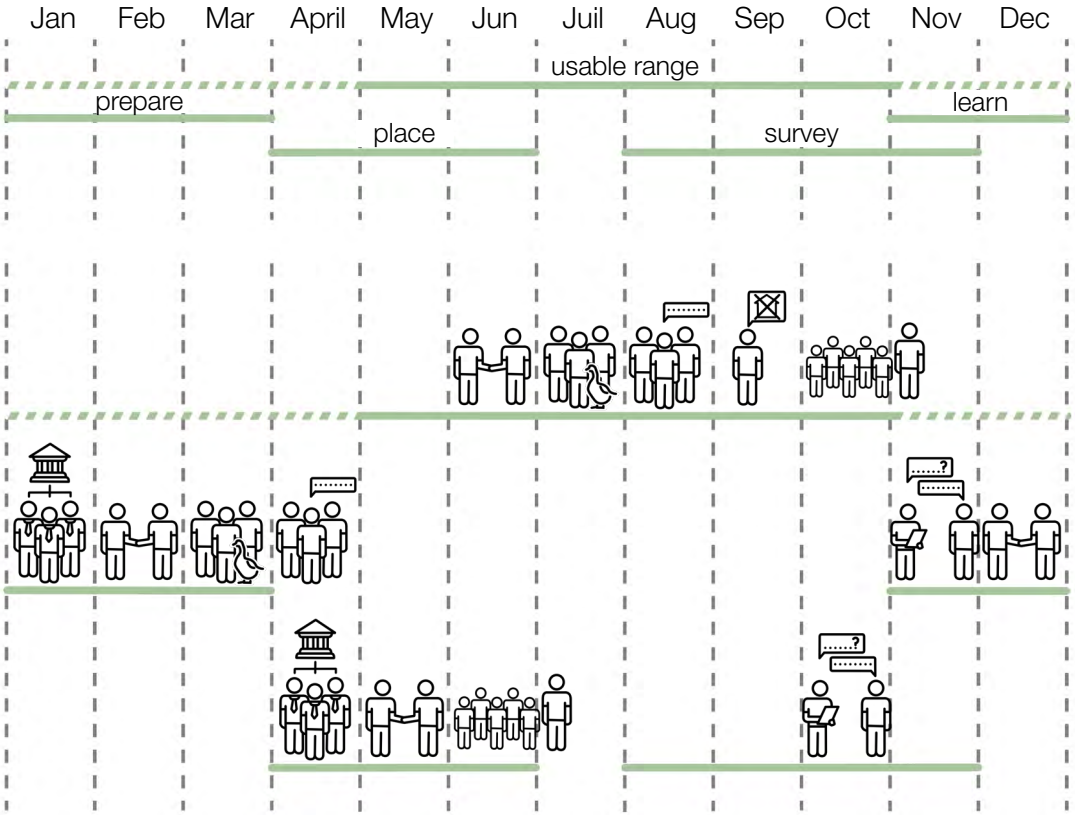
General tactic

Aiming at perennializing the success of the previous project's phases, the third phase, taking advantage of the knowledge gathered during the previous iterations, is to be deployed in a transformed Gåsebäck district where, at this point, most of the active redevelopment operations are close to being completed. But more than perennializing the success of the previous phases of the project, it is the agricultural practice of the Gåsebäck district that ought to be cemented here.
In a similar manner to the second phase, the increase of housing capacity through new building leading to an increase of new inhabitants will necessitate that the new phase starts by ensuring the conservation of the objectives attained during the previous phase. However, due to the intel gathered during the beginning of this shift during the second phase, this process should prove easier to realize.

As the need to adapt to the construction works in Gåsebäck diminishes progressively, the specific adaptations done during the second phase, especially the stop or shrinkage in occupied area according to the previously applied spacial tactic should aim to be reversed. Moreover, this diminishing need of adaptability to the active transition will call for a move of the project intent towards a solidification of the agricultural practice while maintaining a degree of adaptability to more localized and more social shifts.
In order to ensure this, the focus of this phase of the project, not aiming for an increase in variety of typologies, should shift towards ensuring a seamless merge of the agricultural fabric with the new urban fabric. While spatial adaptations to this new form might prove necessary, they will not lead to a significant increase in typologies varieties.
The social structure of Gåsebäck, during the third phase, will have been subjected to important changes brought by the high increase in inhabitants and the variety of their profiles, especially in the latter stages of the transition of the district. Therefore, while still relying on the same foundational actors, this phase of the project will explore possibilities of deepening the established link between the social structure of the district and an agricultural practice of it more intensely , hoping to preserve the 'old' Gåsebäck in more than architectural remnants.

Type year timeline

Progression phase



Involved actors

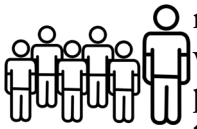
Actors

Helsingborg municipality

The role of the municipality of Helsingborg during this phase remains largely unchanged especially their position as enablers, although less present. Similarly, the role of mediator begins to be shared more with the Associations as the shift in population and the potential tensions are now more known. Their involvement in the decision making process diminishes following the end of the construction works, increasing the degree of autonomy of the project from the municipality.

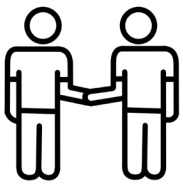
People of Gåsebäck

During the third phase of the project, the people of Gåsebäck would continue to see an increase in numbers potentially leading to conflicts. However, the dialogue established during the previous phase would allow to mitigate them, offering pathways for conflict resolution. Therefore, while still keeping a high emphasis on dialogue, the weight of the people of Gåsebäck in the decision making should drastically increase towards taking a leading role in the project.



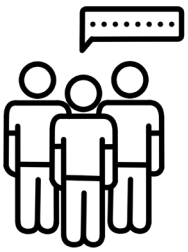
Schools

Schools, expected to be present in the district at the end of the redevelopment, are a new actor with a high potential within the project. Envisioned to help with the plantings at first, potentially as a pedagogical project, their role could be further expended to be included in the preparation stage. By organizing planting, visiting and harvesting workshops with associations for example, the schools could become a powerful medium for inter-generational inclusion and environmental awareness.



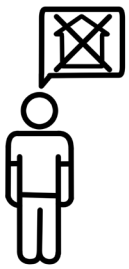
Associations

The associations while conserving the role it had during the previous phase of the project, would see an increase of importance in this third one. The progressive transmission of the mediating role from the municipality combined with a stable position throughout the project would see their weight in the decision making process increase.



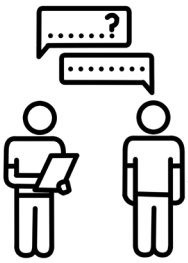
General public

The role of the general public during this phase would not significantly change compared to the previous phase. Although participating in the decision making, their weight would remain minimal. However, their presence should still be encouraged, especially in the event of an expansion beyond the Gåsebäck district.



Homeless people

The role of homeless people during the third phase of the project would not significantly change compared to the previous one. Similarly to the second phase, hope is that the momentum of the project could open and/or keep open the possibility of employment through the associations, especially considering the increase in spatial scale.



Researchers and surveyors

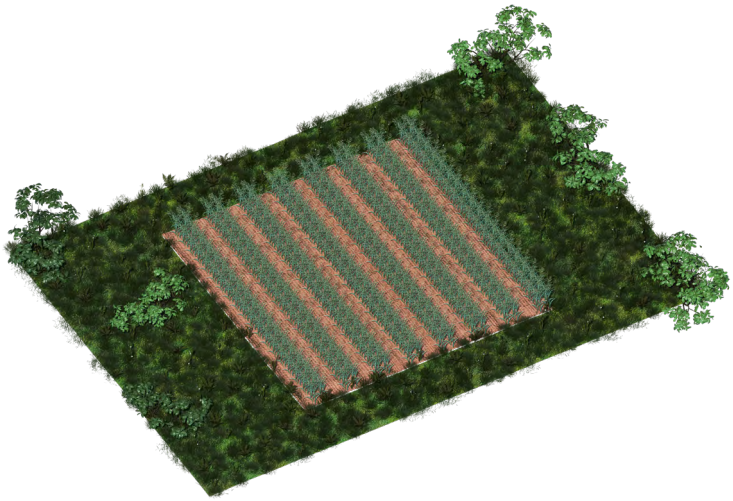
In line with the role they had in the previous phases, the researchers and surveyors continue to inform on the outcomes of the deployment of the typologies. At this point however, it is expected that sufficient data will have been gathered to provide a holistic evaluation of the whole project, determining its general impact and potentially allow for a further spread of the project beyond Gåsebäck.

Operations and typologies

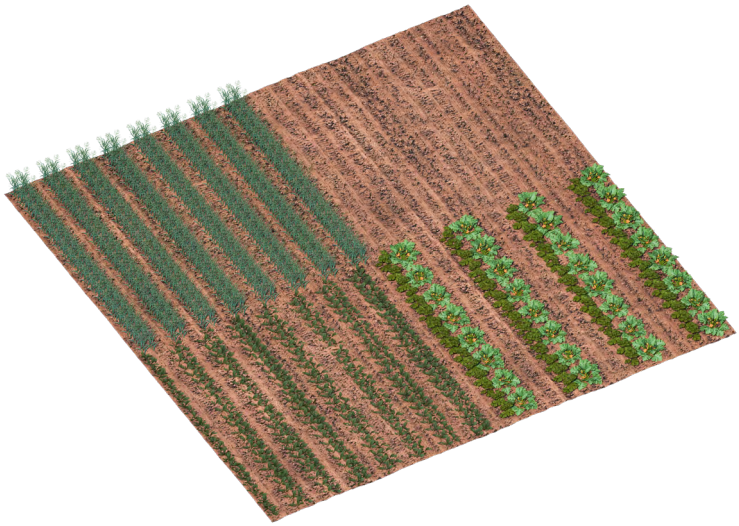
Perennializing the agricultural practice of the Gåsebäck district established and grown during the previous project phases, this third step aims to reach a stable and sustainable state of typologies amount and deployment while still presenting some degrees of adaptability. Therefore, it keeps relying on the previously deployed typologies of the wooden planter, the shipping container and its stacked variation to keep its fluidity, as well as the various corten planters in the blue-green streets. While the amount of deployed typologies is likely to continue growing until the full completion of the redevelopment, the diminishing impact of it on the public space entail a probable halt in typologies increase before the full completion of the construction works.
While this could be considered as the end of the project's deployment, it should instead be considered as the end of its growth within the Gåsebäck district. The typologies especially the ones inherited from the first phase, will continue to move within the district along with its life.
The finalization of the redevelopment does however present some opportunities of going slightly further in the exploration of the agricultural practice of Gåsebäck. The stabilization of the population, after a comparatively exponential growth, will allow for more specific operations within the social infrastructure, deepening the link of the inhabitants to agriculture. Similarly, if the approval and involvement towards an agricultural practice of Gåsebäck is high and if the conditions allow to proceed, a more engaged type of operation could be envisioned where food would grow directly on the grounds of the district.

Planting on the ground of the Gåsebäck district would be, by far, the most engaged and heavy intervention possible within the scope of the project. Converting a parcel, even small, within the district, probably in the blue-green streets or in the new park, would direct durably its use and require certainty in its placement as well as in its usage.

As the industrial history of the district entails a potentially heavy yet largely undocumented soil pollution of the whole area, envisioning planting operation directly on Gåsebäck's soil would require a thorough evaluation of the issue, the subsequent depollution at least of the areas used for planting, and the establishment of regular controls of the soil quality to ensure a safe consumption of the planted food crops.
While highly hypothetical due to the difficulty of assessing and solving a soil pollution issue under an agricultural prism, this type of operation could be a way of bringing back a denser, more 'traditional' agriculture into the city. Similarly, it could serve as a testing ground both regarding agricultural practices on urban grounds, and on the social dynamics such operation could generate or modify, especially in the realm of sustainable practices.



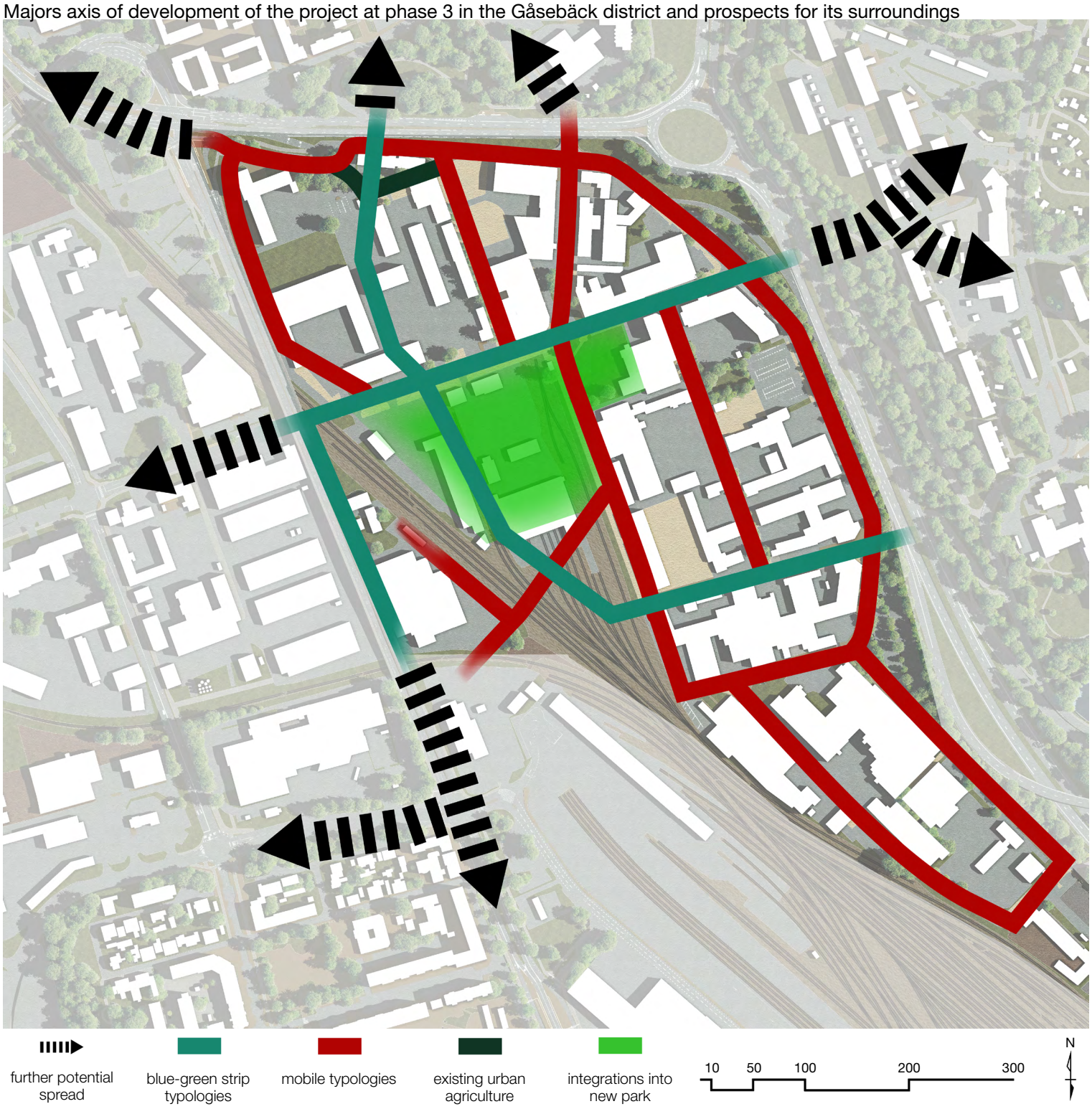
Plantings on bare ground operation (integrated in context)



Plantings on bare ground operation (crop rotation)

This project is, generally speaking, an operation within the social infrastructure of the Gåsebäck district. While its general direction of changing the perception of the district through an agricultural practice of it remains in focus, the end of the construction work, the arrival of new inhabitants and the hopeful persistence of the project until this point would entail that this objective has, mostly, been reached. Therefore, in order to capitalize on that and deepen the link of the inhabitants to the agriculture of Gåsebäck, more specific operations could be envisioned. On that matter, the role of schools and associations, briefly mentioned before, would be of primary importance. Organizing workshops where children would plant, harvest and potentially cook food grown within the district, could not only be a vector of education but also a vector of empowerment of the children, fostering involvement with their environment, inviting a sense of care, and increasing their role as agents of change, especially if the activities are done with the participation of multiple generations of people (B. Percy-Smith & D. Burns, 2013).

Majors axis of development of the project at phase 3 in the Gåsebäck district and prospects for its surroundings



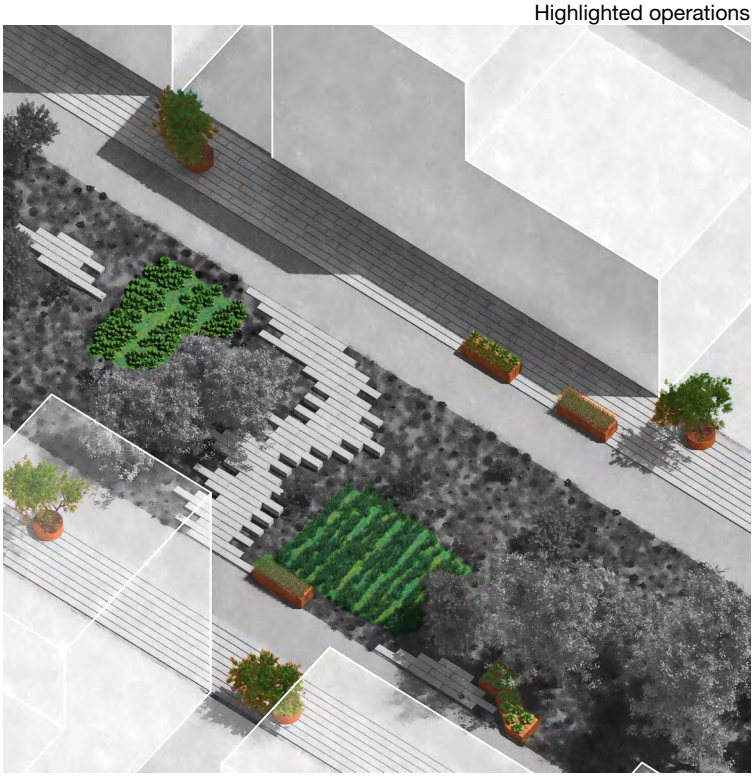
Spatial tactics

The finalization of the transformation of the Gåsebäck district and its consequent stabilization, bringing an additional layer of spatial complexity to the area, calls for an adaptation of the project in its spatial deployment. While this phase is not expanding as much as the previous one, it presents a new dimension in its spatial spread, more oriented towards stabilization within the area than towards an accompanying vector.

Continuing on the general trend of the project, the spatial tactic at work during this phase still puts an emphasis on merging seamlessly the typologies within the context. However, the arrival of a new park in the district, unique in nature and scale, calls for specific tactic regarding it. Trying to avoid some sort of 'over-deployment' while still being of significance within it, the typologies would be deployed mostly along the streets bordering it as well as on the blue-green street passing through it. In an analog manner, while bold stances on the agricultural practice of Gåsebäck such as planting on the ground of the district, should be encouraged if possible, they should not break the continuity of the urban fabric neither should they be done in clusters.

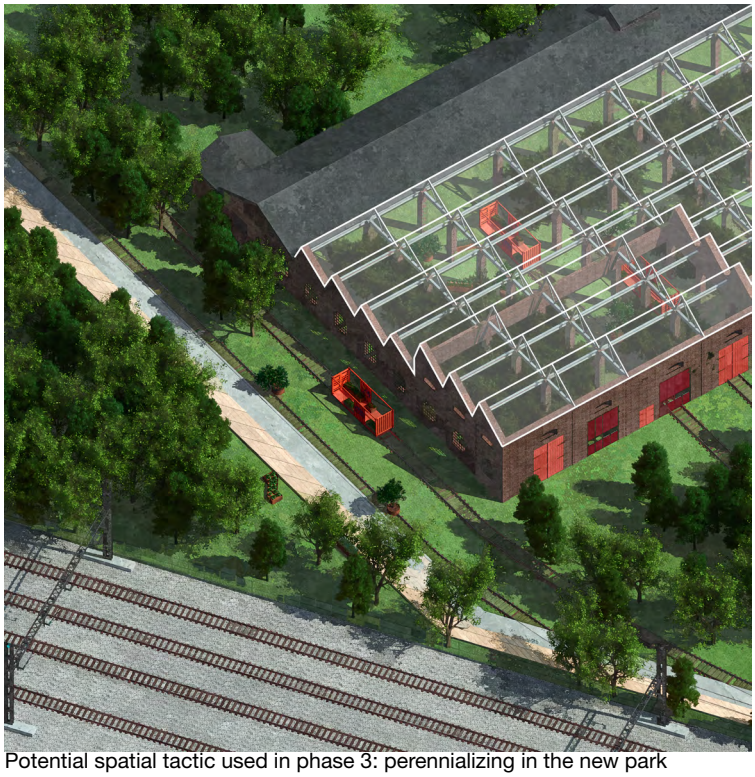
Potential spatial tactic used in phase 3: perennializing in the blue-green streets

Highlighted operations



Similar to the hypothesis of cultivating directly on the ground of the district and emphasizing the establishment of an agricultural practice of Gåsebäck, the integration of the typologies within the existing park could include the old train warehouse. Through the integration of this valuable building as an integral part of the park as well as of the agricultural practice of Gåsebäck, the project could find a vocation of linking the heritage of district to its present beyond the preservation of a building as some sort of monument.

As the full spatial spread of the project within the district is to be reached quite early during this phase, and as consequent feedback on the project should have been gathered at this point, it seems interesting to envision new possibilities pushing the horizons of the project beyond the limits of the Gåsebäck district. Pushing the project in other parts of Helsingborg, either in direct continuity with the project in the neighboring districts, or as new projects, spatially disconnected from Gåsebäck. Doing so would establish the whole project done in the district as a first phase of the deployment, in Helsingborg, of tactical urban agriculture as a practice of the city.



Potential spatial tactic used in phase 3: perennializing in the new park

Highlighted operations

While the project is set to deploy in the Gåsebäck district and thus could be thought as 'a project in Gåsebäck', it would be more appropriate to state that it is, at its core, a project of Gåsebäck. The establishment of the project within the district is, due to its aim to accompany its transition towards a mixed-use area through a Tactical Urban Agriculture framework, more a process of self remediation than an addition to an already established place. This generates practice of Gåsebäck as a space of Tactical Urban Agriculture instead of solely implanting urban agriculture in the district.
As this ambition of a remediation of the soft infrastructure of Gåsebäck is a focal point of the project, it seems important to present the key aspects towards that goal that, not bound by phases, spread over the whole project.

As pointed out before, the project aims at putting the Gåsebäck district as a space practiced through Tactical Urban Agriculture. However, this does not mean that it aims at becoming the dominant vector of the district. Doing so, especially in the earlier years of the project, would almost certainly lead to a public rejection of this remediation. It instead ought to blend with its context in a seamless manner. To land in the district softly, as an addition at first, and then to embed itself in it. Overall, the goal is to establish a practice of Gåsebäck, one that could be envisioned in the long run as an almost unconscious structuring framework of the everyday life of the inhabitants of the district.

As such, this progression of the project, from short term actions towards a long term trend, could be interpreted as wanting to establish, in the long run, some sort of new habitus (P. Bourdieu, 1980). In order for this hoped practice of Gåsebäck and of the subsequent habitus emerging from it to be a vector of integration and of remediation of the Gåsebäck district, it needs to take fully into account the existing social fabric of the district, not just the parts of it deemed 'interesting' or 'worth keeping'. Would it fail to do so, it could, at best, fail to properly accompany the transition of Gåsebäck, and at worse, likely become a vector of gentrification as often seen in the redevelopment of districts (H. V. S. Cole & al., 2021) and as feared by the people of Gåsebäck regarding the more general transformation of the district (Spacescape, 2023).
For these reasons, the project needs to be inclusive. It needs to preserve the existing culture of Gåsebäck. It needs to encourage. It needs to be thoughtful.

In order to achieve this needed thoughtfulness and increase the probability of favorable outcomes, key principles ought to be followed during the whole course of the project.

The first of these aspects is one of non-imposition. The project must not be forced on the people of Gåsebäck as they are the very backbone of it. As such, it should begin by a dialogue with the people involved with it, directly or not, in order to ensure that, not only is the project considered relevant by the people of the district, but is also wanted by them, not necessarily as an existing active demand, but more as something that would generate their involvement. While more important at the very beginning of the project, the capacity to gain the approval and to work with the people of Gåsebäck is to be a defining factor in the very existence of the project.

While approval has been set to be a determining factor, it seems important to point out, as another key principle, that tensions are unavoidable and should be managed, not feared. As seen with the Incredible Edible Todmorden, the emergence of a Tactical Urban Agriculture project is

something that generates strong reactions (M. Hardman et al., 2019) and the project of Gåsebäck is unlikely to constitute an exception. While aiming to minimize tensions during the realization of the project is important, it should be understood that, if correctly evaluated and discussed, they could prove to be valuable feedback on the project and lead to its growth as a tactical initiative.

Considering these factors as well as the objectives of the projects leads to identify the associations currently operating within the district as the most suited actors in facilitating, and even enabling, the whole process. Their prolonged and established presence in the district has allowed them to gain a knowledge of the place and the trust of various categories of people. They similarly constitute the only way to create a contact with the homeless people living within the district. This puts them as the only actor in the project with the capacity to gather, inform, and represent people. Their legitimacy also positions these associations as a trustworthy actor both for the general public with no ties with the Gåsebäck district and for the municipality of Helsingborg. As a consequence, they are the only actor able to create debates and discussions, ultimately mitigating conflicts among both people and actors. Furthermore, through the persistence of their operations within the district, the associations would not only ensure the continuity of the project, they would effectively be the actor able to steadily follow the project, witnessing the whole transformation of the district, and providing feedback of critical importance. As such, it is vital to preserve the associations of Gåsebäck during and beyond the project.

Understanding that the involvement of homeless people could prove beneficial both for them and the project, the deployment of Tactical Urban Agriculture in the Gåsebäck district puts them as actors similarly to the associations or the people of Gåsebäck. While it could reasonably be argued that the homeless people living and working in Gåsebäck are, factually, people of Gåsebäck as are their non-homeless counterparts, the specificity of their situation is not to be overlooked. It is of particular importance here, due to the general perception of homeless people by the public (J. Petit et al., 2019) and to some extent by the authorities, that homeless people are envisioned as actors within the project, not as assets or elements to be managed. As any other actor, they should not be forced into the project and their approval should be considered.

Aiming to create a practice of Gåsebäck through Tactical Urban Agriculture is, as previously evoked, not solely a matter of physical and spatial operations, and should take into account the existing social fabric. Therefore, various operations of a more soft nature and spanning over the whole life of the project are described here. Tightly linked to the physical operations, they enable each other and cannot be envisioned separately.

As a first step into these social operations, it seems interesting to look at possibilities regarding the project itself with planting, harvesting and cooking days. Organized as recurring events and potentially advertised through social media, newsletter, or printed posters, they would act as a convivial moment making the project known to the public.

The planting days, taking place mostly right after the deployment of the physical operations, would, through the intermediary of one or multiple associations, invite people to plant food crops in the available planters. The harvesting days, taking place when the crop become ripe for taking, would invite the people to take a stroll through the Gåsebäck district and harvest the plants grown through the project. The participants could then chose to either take back what they collected

home, give it to other potentially as a trade for other harvested plants, or keep them for the cooking days.

The cooking days, ideally happening in continuity with the harvesting days, would invite people to cook the plants harvested in the district and eat together. As a collective activity, it would serve not only as a convivial moment but could also be a way of teaching new recipes with ingredients growing locally. It is important to note here that the food court located within the fire station could, if participating in the project, provide the amenities for this type of event to occur. By extension, the cooking days could be seen as a way to promote local food circuits beyond the scope of the project.

While these events are envisioned as highly beneficial both for the project and for the Gåsebäck district as a whole, it should be pointed out that, due to the possibility for the people to harvest the vegetables and fruits outside of the events and to the limited amount of food grown within the district especially in its earlier years, the amount of available food to harvest might not be sufficient to enable these activities at any given time creating irregularities in their potential schedule. This should not however be perceived as an issue given that such scenario is envisioned as a probable and suitable outcome of the project.

Another way to integrate the project within the social fabric of Gåsebäck lies in authorizing graffiti to be done on the physical typologies deployed for the project. Graffiti is a defining aspect of the existing culture of the district (D. Lindman, 2019), and the tactical nature of the project relies on similar processes as graffiti and the informal graffiti festival that took place in the Gåsebäck district (D. Lindman, 2019). Therefore, it appears natural not only to plan for graffiti to happen on the typologies deployed, but also to encourage such thing to happen as a way to blend the project as an integral part of the district, hopping to gain legitimacy in the process.

While the previously presented operations do provide additional dimensions to the project beyond its physical typologies, they do not answer one major issue a project done within a Tactical Urban Agriculture framework might be confronted to: the reluctance of people to pick up the food growing within the district. This issue, identified in Incredible Edible Todmorden, can be linked mainly to the existence of social norms preventing people to take the vegetables and to some form of distrust regarding the quality and safety of food grown in an urban environment (Hardman et al., 2019) outside of what would be perceived as a formal and dedicated infrastructure, perceived as a shield from outside pollutants. While this issue does not appear to have impeached Incredible Edible Todmorden to continue existing and develop, this issue is, in the case of a project in the Gåsebäck district, a major point of concern and should be mitigated as much as possible to ensure the perennity of Tactical Urban Agriculture in the district.

Appearing as a good solution to manage this issue, a form of non-constraining 'give-and-take' system is to be put in place in direct relationship with the physical typologies, in the form of information panels deployed along them, increasing the potential for awareness. These panels, containing information regarding the planted crops and in particular how to maintain and harvest them, would succinctly explain the project, emphasizing on the possibility to take the ripe fruits and vegetables, and propose some service as a form of 'payment' for taking something. These services could, depending on the necessity and willingness of people, take various shapes such as:

- a light cleaning of one or multiple planters and of their surroundings
- watering the plants if needed

- removing potential invasive plants that would have developed in the planters
- coming back at a latter time to repair a damaged planter

As these potential services are not necessary in order to get the planted food, it is assumed that they will not be systematically done. It is however hoped that the amount of services to the project done will be sufficient to ensure its correct maintenance overall.

This kind of system does serve multiple purposes. The possibility to give some form of 'payment' for the food establishes what can be perceived as a transactional relationship. Making the production cost something, even though not in the form of money, is expected to remove, at least partly, the perception of it as some sort of charity. Consequently, someone harvesting some fruits or vegetables would not be perceived as living in poverty and therefore negatively considered both endogenously and extraneously (G. Inglis et al., 2023), but instead as someone earning their food through action, someone involved in the life of the Gåsebäck district and interested in sustainable practices of the space. At the same time, this 'give-and-take' system would allow for a higher frequency of cleaning and maintenance of the plantations compared to relying solely on the municipality or the associative actors. As a consequence, it can be assumed that, not only the planters will be cleaner leading to an effectively better quality of the production, but that the people will be more willing to take the fruits and vegetables by understanding that the plantations benefit from frequent care. A final benefit of such system lies in the possibility it would give to easily monitor the areas within the district where the project is the more used through an assessment of the degree of care for the plantations. While it should not be considered alone but put relation to other aspects, it is expected to provide valuable insights to inform spatial expansion or densification of the typologies.

Finally, as a more general social operation and also as an important aspect of the project overall, it appears important to advocate here for the creation of an association dedicated to Tactical Urban Agriculture in the Gåsebäck district. While it would not aim to replace or supplant the other associative actors, it could coordinate and mediate between the various actors of the project as well as represent the project itself in order to facilitate dialogue with actors outside of the district. It is also important to point out that the creation of such association should not be done prior to the beginning of the project itself, but emerge as a consequence of it as a general approbation of the pertinence and interest of the project. Alternatively, the role of representing the project could be endorsed by an existing association within the district as an extension of an existing related activity, putting the existing urban agriculture association in Gåsebäck as an ideal candidate for such role.

Aiming to accompany the transition of the district and to establish a practice of Gåsebäck as a place of Tactical Urban Agriculture are objectives that are strongly rooted in time. The project will need time to be deployed and shift the social fabric of the district. The transformation of the district through demolitions and reconstructions will need time to be completed. The project will need time to evolve relative to itself and its surroundings and reach its full potential.

In order to ensure a relevant evolution of the project, to fully beneficiate from its tactical nature, and to make sure that it impacts the area positively, the creation of a feedback loop monitoring and informing each phase as well as its general progression is of primary importance. This role would be taken on by the actor designated as 'researchers and surveyors', encompassing volunteers from

the associations, people working for the municipality or even people from academia. Observing and surveying the Gåsebäck district as well as its surroundings, they would gather and generate important insights in determining the progression and impacts of the project.

The most important aspect of the project's progression this feedback would enable is the move towards a new phase within the project, determining the right time and process for this move, and most importantly if it should happen at all.

As the feedback provided would also allow to understand the impact of the project on the perception of the Gåsebäck district, it seems important to highlight that measuring this change solely through the scope of the amount of people going to Gåsebäck would risk to be misleading as it could potentially be an expression necessity. In order to assess it in a relevant manner, the nature and extent of the engagement of the people with the district should be measured. This engagement of the people with the place is believed to hold a significantly higher value compared to amount of people alone, and ultimately be what a Tactical Urban Agriculture project in the Gåsebäck district can contribute the most to.

Results

The project of Gåsebäck presented before, aiming for an integration of Tactical Urban Agriculture within the district, presents, due to its nature and to the way the study was carried out, a certain amount of uncertainties regarding its potential results. While some of these are obtained as a consequence of informed interpretation, other aspects and results of the project are surrounded with a high degree of certainty. Therefore, it seems important, before moving towards the end of this study, to highlight the results with high certainty as well as the outcomes expected at each project phase, understanding that the degree of uncertainty increases with each phase.

High certainty outcomes:

- The typologies deployed in the first and second phase are easy to build, deploy and move in a short time-frame.
- The wooden planter and corten planters typologies, using objects already used in the Helsingborg municipality, benefit from an existing supply chain.
- The typologies are not bound to an agricultural use and can be reused and repurposed for a negligible cost.
- The project is easy to scale up or down depending on need.
- At the scale of the Gåsebäck district, the project increases significantly and within a short time-frame the amount of vegetation at a comparatively low cost.

Phase 1 expected outcomes:

- The deployment of Tactical Urban Agriculture within Gåsebäck shifts the public perception of the district from 'an empty space awaiting transformation' to 'a place of community-driven activity'.
- More people occupy the streets taking care of the plantings.
- The area gets livelier and feels safer.
- The agricultural practice of Gåsebäck fosters a strong and diverse community of growers who care for the place.
- The participant's knowledge regarding sustainable living and their awareness on sustainable and ecological food consumption increases.
- The collaboration between the local associations and the municipality builds a mutual understanding and participates in a regain of trust.
- The agricultural practice of Gåsebäck provides an opportunity for people with limited financial means to access fresh fruits and vegetables.

Phase 2 expected outcomes:

- The perception of the district progressively shifts towards 'a place where you can grow your food' and starts to embed itself within Gåsebäck's identity.
- The agricultural practice of Gåsebäck expands and becomes a normal aspect of the district
- The area feeling safe in the district expands and its perceived security increases.
- Ecological awareness and sustainable practices permeate beyond the participants of the project and impact the entirety of the inhabitants of the Gåsebäck district.

Phase 3 expected outcomes:

- The perennialization of the agricultural practice of Gåsebäck creates a strong and inclusive community of growers and makes it be perceived as 'a growers district'.
- The district's identity as an inclusive and sustainable place where people's initiatives are encouraged and where associations can thrive is now established and solidified.
- The agricultural fabric generated by the project is tightly linked to the social fabric of the Gåsebäck district
- The project is a common meeting point for people from various backgrounds,

ages and professions

- The extent of the cultivated surfaces and the amount of deployed typologies makes urban agriculture common within the district generates a significant amount of food.

Discussion

Navigating on the current urban tides, where feeding the cities has become an increasingly preoccupying matter, this study has focused on the Gåsebäck district in the city of Helsingborg. This thesis has explored the potential of small scale agriculture projects to support the transition of former industrial areas, reshaping public perception while respecting their heritage. Additionally, it has examined how such projects can provide opportunities for spatial experimentation and enhance public involvement, fostering long-term change.

The district of Gåsebäck was analyzed, revealing challenges common to most of the formerly lively industrial districts in Europe. The issues encountered, such as a negative public perception, the lack of vegetated areas, as well as a general insecurity and emptiness despite a comparatively vibrant associative life, necessitated solutions. Furthermore, the district's imminent transition towards a mixed-use area demanded more than fixing the identified issues; the proposed solutions had to be able to support and facilitate this shift.

Having understood the issues faced by the Gåsebäck district, the need for exploring new pathways of food production in urban areas, and in relation with the efforts and objectives of the municipality of Helsingborg, it was decided to orient the solution towards urban agriculture. Given the identified potentials and specificities of the district, designing the solution through a Tactical Urbanism framework appeared to be the most suitable option. As a result, the project was designed to be highly adaptive, deploying pouches of agriculture within the district in multiple phases of informed implementation. Furthermore, stemming from the objective of fostering public involvement, the project of the Gåsebäck district as a space of urban agriculture was envisioned through the various types of actors it would involve such as the municipality, the associations and people of Gåsebäck, and the general public.

While adaptive approaches have already been explored in the transition processes of former industrial areas to mixed-use areas, this study differentiates itself in its reliance on urban agriculture through a Tactical Urbanism framework, defined in this study as Tactical Urban Agriculture, to achieve its objectives. Additionally, this work aimed to contribute to the understanding of Tactical Urban Agriculture by offering a clear definition derived from the established one of Tactical Urbanism. While elements of Tactical Urban Agriculture frameworks were identified in some other cases, it would appear that this concept and subsequent interpretation are unexplored in the current literature.

By using this uncommon approach, the Tactical Urban Agriculture project presented in this study has created possibilities beyond resolving the lack of vegetation within the Gåsebäck district. It has introduced a fluid structure upon which a new vegetation has become the support for a common practice, a gathering inviting anyone to maintain the space and be sustained by it, seeing the district in the new light fostered by connection. It has created a dynamic environment where social cohesion and ecological enrichment coexist and vibrate at the pace of Gåsebäck's transformation.

The project of the Gåsebäck district offers many opportunities regarding the matters investigated in this report. The results pointed out previously, while surrounded by uncertainty for some, highlight four defining aspects of the deployment of Tactical Urban Agriculture within the district and their subsequent implications.

The first potential this project presents lies in its capacity to be an adaptive response fostering experimentation. As both

the nature of Tactical Urban Agriculture and the reliance on typologies such as the wooden planters and the corten planters, already used for other purposes in Helsingborg, allow to use existing supply chains and scale-up or down the amounts of deployed typologies depending on the needs of the project. This high adaptability of the project, especially in its early phases, makes it malleable to the transformations of the district while enabling experimentation in a short term and at a low cost. This aspect, added to the other potentials of the project, makes it akin to a no-regret measure (S. Hallegatte, 2009).

Another potential this project has demonstrated is its capacity to accompany the transition of Gåsebäck's urban fabric not only through physical operations, but also through strengthened community. Benefiting from the recognized potential of urban agriculture in facilitating social interactions and community organization (R. Santo & al., 2016), the project positions itself as an agent for strengthening the community while facilitating the integration of newcomers. By relying heavily on the associations, making local actors identifiable and recognized in the dialogue, the project participates in their preservation and facilitates the building of trust, particularly between associations and municipality. Paving the way for future joint initiatives, the associations would act as transition intermediaries supporting the municipality in its role of facilitator not only regarding the project, but also in relation to the transition of the district (M. Soberón et al., 2023).

By strengthening the existing and future community, the project would not only facilitate the transition of the district, it would also open a path for a shift in the perception of Gåsebäck through a renewed local identity. By progressively embedding agriculture in the fabric of the district, by making it visible and open to everyone, and by facilitating public involvement and interaction, the project fosters a sense of belonging and agency, first in its actors and ultimately in the general public. Renewing the local identity of Gåsebäck as a place of inclusion, initiative and sustainability, the project participates in a change of people's interactions with the district (Y. Shao et al., 2017). Through a progressive increase in the amount of people in the public space, even before the arrival of new inhabitants in the district, practicing what can be perceived as a leisure activity, taking care of the plantings and therefore of the place, the project participates in making the district more lively and consequently feel safer (M. De Nadai et al., 2016).

The final potential expressed by the deployment of Tactical Urban Agriculture within the Gåsebäck district is its capacity to foster ecological and sustainable practices beyond agricultural practices in the people involved in it (C. Tapia et al., 2021; P. Pradhan et al., 2024), and by extension and to a lesser extent to the public in contact with the project, ultimately contributing to a more sustainable living. In taking care of the plantings, the people involved with the project not only gain a sense of agency, but also a sense of pride in the plantations (C. Tapia et al., 2021), leading to more sustainable practices overall (C. Wamsler et al., 2022). Regarding the people in contact with the project but not participating in it, such as the people passing through the district, the people working in it but not willing to participate in the project, and in the long run, the future inhabitants of Gåsebäck, the deployed pouches of agriculture does still affect them. The appearance of a street and, by extension, of a district, has various effects on people's perception, well-being, and subsequent behavior (K. Beil & D. Hanes, 2013; M. De Nadai et al., 2016) including environmentally responsible behaviors (Z. Wu et al., 2024; J.

Yu et al., 2024) especially when a support of community-led actions by public authorities is felt (C. Wamsler et al., 2022). The project of Gåsebäck, promoting a sustainable approach towards food production and consumption, contributing to increase the amount of urban vegetation, and indicating a support of bottom-up initiatives, positions itself within this dynamic and therefore contributes to influence the behavior of people not involved but in contact with the project, participating in the establishment of more sustainable habits in the long run.

While these four potentials do offer an overall compelling view on the project, it is of particular importance to mention that they are all heavily reliant on a successful establishment and maintenance of the project. Comprehensive studies on the factors facilitating the successful launch and persistence of an urban agriculture project are scarce, and it is believed that identifying these factors in the specific case of the Gåsebäck district could constitute a whole research by itself. However, from the literature, it is possible to highlight that the successful establishment and persistence of such project, while context-dependent, is heavily influenced by socio-institutional factors (L. Knapp et al., 2016), emphasizing the importance of the municipality of Helsingborg as an enabler. Furthermore, while the matter of typologies maintenance has been discussed within the project, it is important to point out that the project will likely not be able to 'maintain itself' during its earlier times thus needing, to some degree, support from the municipality as the associative actors might not be able to shoulder the entirety of the workload. While this should not be envisioned as something that would last in the long run as it could not only clash with the non-imposition sought by the project but also diminish the capacity of the project to produce data, it highlights the importance of the municipality in enabling the project and supporting its persistence (L. Knapp et al., 2016).

The results anticipated from the deployment of Tactical Urban Agriculture within the Gåsebäck district, as pointed out before, describe what can be understood as significant benefits for the district and its transition. However, given that this study was carried out without a real world experimentation, these outcomes were derived through interpretations grounded in a theoretical framework as well as by two selected case studies of urban agriculture projects. Chosen for their relevance to the themes explored in this report, these cases provide a valuable basis for comparison. Therefore, it seems important to put the projected outcomes of the project of Gåsebäck in dialogue with the results observed in these two selected projects to gain a better and more grounded understanding of its potential impacts.

Conceptually speaking, the case study closest to the project of Gåsebäck, especially of its first phase, is Incredible Edible Todmorden, as both of these project can be categorized within Tactical Urban Agriculture. While the approach of Incredible Edible Todmorden differs from the one in Gåsebäck due to the bottom-up approach of the former and the overall context leading to the emergence of both, the similarities they present in the deployment of the planters and in the reliance on public participation allows to extrapolate similar results regarding Gåsebäck in terms of public involvement, agriculture and ecological awareness. However, understanding that the similarities in these projects might potentially lead to comparable drawbacks, the project of Gåsebäck has been developed in order to mitigate these, generating notable differences. Taking into account that lack of information regarding the project as well as social norms might prevent people from picking up the

fruits and vegetables (Hardman et al., 2019), the project of Gåsebäck plans informational campaigns, on-planter signage, and association-led events such as the 'harvesting days'. Additionally, it envisions a 'give-and-take' system, expected to mitigate the issue. This system is also expected to contribute to the mitigation of concerns such as planter maintenance, vandalism, and untidiness of plantings even though the latter may remain partially unavoidable. Similarly, while the risk of pollution of urban-grown produce is an acknowledged concern and might be of higher magnitude in the Gåsebäck district, targeted communication efforts aim to build public understanding and confidence.

Lastly, it is important to point out that the concern of plantings placement on the public space, identified as an issue in the case of Incredible Edible Todmorden (Hardman et al., 2019), is expected to be not only mitigated, but also a source of valuable feedback in the case of Gåsebäck by informing and motivating for a redeployment of the identified typologies.

By integrating these considerations, the project of Gåsebäck builds on Todmorden's lessons and adapts its approach to suit its different objectives as well as its unique context.

As the respective contexts in which both of the previously discussed projects are deployed vary significantly, concerns could be raised regarding the extrapolation of the results of Incredible Edible Todmorden to the project of Gåsebäck. Addressing this concern, this study has examined Planteringar Utan Gränser, a small-scale urban agriculture initiative within the Helsingborg municipality. This case provides context-specific insights that support the anticipated results of the project of Gåsebäck.

Although Planteringar Utan Gränser was implemented in Helsingborg, it differs in some ways from the project of Gåsebäck, most notably in deploying planters exclusively within existing public green spaces. Furthermore, this project, compared to the one of Gåsebäck, employs a different spatial strategy by creating four distinct clusters of planters of small individual scale. While these two aspects limited the spatial reach of the clusters, it also provided a pre-existing community anchor, which contributed to its success. In contrast, the tactic employed in Gåsebäck aims to connect different nodes of activity, ultimately creating a coherent structure with broader impacts.

Despite these differences, the use of a typology of planter akin to the wooden planter typology used in Gåsebäck, and the emphasis on community involvement establish key similarities between these two projects, positioning Planteringar Utan Gränser, to some extent, as a precursor of the project of Gåsebäck. Consequently, it is believed that the outcomes observed by T. Delshammar et al. (2014) such as the creation of safe and attractive places, the strengthening and development of the social structure surrounding the project, and the facilitation of dialogue between the municipality and the inhabitants of the concerned areas, can be similarly expected in the case of the Gåsebäck district. Furthermore, the observation highlighting the significant influence of the location of the operations in places with a central role in the success of Planteringar Utan Gränser (T. Delshammar et al., 2014) supports the spatial tactic of node creation employed in the project of Gåsebäck.

While this study has been carried out in order answer the issues faced by the Gåsebäck district in face of its imminent transformation, the proposed solution and its underlying concept, Tactical Urban Agriculture, are believed to offer broader implications for urban studies. The transformation of the decaying industrial district of Gåsebäck

district is a crossroad in that regard, and so is the project explored in this report. Located at the intersection of urban transformation, greening, agriculture, and participatory place-making, Tactical Urban Agriculture represents a new framework for addressing some of the contemporary urban challenges.

In terms of theory, the formalization of Tactical Urban Agriculture is believed to be the most significant contribution brought by this study. Building on the tenets of Tactical Urbanism, Tactical Urban Agriculture formalizes a new way of envisioning urban agriculture through temporary, flexible and low-cost solutions with long term inspirations. By merging urban greening and agriculture and reframing them as adaptable practices, it challenges the traditional frameworks and enriches the discourse on responsive urban interventions. Moreover, by positioning itself within the broader discourse on the right to the city and participatory urban transformation, promoting experimentation and community engagement to generate socio-ecological benefits, Tactical Urban Agriculture enriches the discussion regarding the potential of urban agriculture to foster social cohesion, ecological awareness, and urban identity. This, combined with the framing of the project of Gåsebäck in a decaying industrial district, is also believed to contribute to the discourse on adaptive reuse of urban spaces, and ultimately, to the central discussion on urban resilience.

Additionally, Tactical Urban Agriculture has implications from a methodological point of view. Through its focus on temporary interventions, modular elements like the planters, and adaptability, it provides a clear and actionable framework for bringing agriculture back in cities. These elements Tactical Urban Agriculture focuses on also allows it to promote iterative processes, enabling stakeholders to test and refine scalable solutions at a relatively low cost. This aspect of the proposed framework holds a particular importance in transitional urban contexts where uncertainty is present to some degree as well as in contexts where long-term plans are undefined, especially when taking into account the current climate crisis. While this study applied the framework to support Gåsebäck's transition, it is believed that Tactical Urban Agriculture is a methodological tool that, similarly to Tactical Urbanism, is applicable in various urban settings as a versatile and efficient strategy for advancing urban agriculture.
Lastly, regarding the project of Gåsebäck specifically, this study, recognizing the limits of unaccompanied urban transitions, builds upon the methodology of the plan-guide by arguing for Tactical Urban Agriculture initiatives as an effective way to accompany these transformations, therefore making it a replicable model for other transitional urban contexts.

In the light of the anticipated outcomes for the project of Gåsebäck and of the advancements made within the literature in the formalization of Tactical Urban Agriculture, it appears that this study and the outcomes it presents answer the objectives defined in its beginning. However, in order to ensure an informed reception of its findings, it seems important to point out both the strengths that are believed to make it relevant as well as the limitations it faces. Similarly, as this research envisions initiate the discourse on Tactical Urban Agriculture rather than be a whole encompassing study on it, it appears relevant to highlight potential paths for further research on the subject.

Regarding the strengths of this study, it is believed that the early chapters of the thesis have allowed for a good understanding of the explored issues and have led to a relevant and informed formalization of Tactical Urban Agriculture. In a similar manner, the multi-

scalar analysis of the Gåsebäck district and of its relationship with Helsingborg have led to a satisfactory comprehension of the area and allowed for an informed planning of the project of Gåsebäck. Additionally, this project develops a wide range of relevant aspects and operations, proposing a solution with high potential to the area.

While these strengths support the realization of the project and the relevance of the study, it is also important to highlight the limitations it faces. In regard to the formalization of Tactical Urban Agriculture, while the definition provided is informed by literature and is believed to hold relevance, its derivation from the definition of Tactical Urbanism, and subsequent high degree of resemblance, could undermine the key aspects brought by the aspect of food production differentiating it from its parent concept. Similarly, the limited amount of case studies and the application of Tactical Urban Agriculture on the specific case of the Gåsebäck district might limit its immediate potential to be more broadly generalized.

The deployment of Tactical Urban Agriculture within the Gåsebäck district also faced some limitations, mostly due to the absence of real world testing of the project. This lack of experiment, even when accounting for the exploration of relevant case studies and the insights from the literature, limited significantly the production of results to informed extrapolations carrying varying degrees of uncertainty. Similarly, while an urban agriculture initiative has been identified within the Gåsebäck district, it has been impossible to neither determine to which extent it impacted the district or the demographics and amount of participants involved; shedding doubt on the potential for public approval the project of Gåsebäck could gather as well as in its potential for successful establishment.

Being aware of its limitations but also of what it brings to the discourse, this study aims to be a relevant foundation upon which both the Gåsebäck district and Tactical Urban Agriculture will grow and therefore presents here potential directions for these future development.

As the definition given to Tactical Urban Agriculture in this report has been drawn from a limited amount of case studies and ultimately derived from the definition of its parent concept, Tactical Urbanism, it is believed that further research could be done in order to refine the definition and make it encompass fully the unique aspects that distinguish it from Tactical Urbanism. Furthermore, both the results of Incredible Edible Todmorden and of the project of Gåsebäck suggest that Tactical Urban Agriculture presents potential in various urban contexts. As such, further research on the potentials and outcomes of Tactical Urban Agriculture in other urban district types and socio-cultural context should be envisioned.

Through the limitations observed regarding the development of the project of Gåsebäck, it is possible to extract two major recommendations moving forward with the project. Firstly, conducting a survey within the people involved with the Gåsebäck district measuring their potential interest in such a project specifically could provide valuable insights informing the potential realization of the project and the initial scale of deployment. Finally, due to the potential of the project of Gåsebäck to support and foster experimentation, it is believed, almost as a contradiction to the previous recommendation, that implementing the project, even at a limited scale, could be the most notable potential further development in researching ways to accompany the transition of the Gåsebäck district.

Conclusion

As this thesis concludes, it seems interesting to reflect on the journey undertaken to address its central research questions:

- How can small scale urban agriculture projects accompany the transition of an industrial area and participate in the change of its perception while not disregarding its heritage?
- How to make these small projects a catalyst for experimentation and public involvement in order to generate long-term change?

As these research questions span across multiple domains, mainly of urban transformation and agriculture, it appeared evident that a sufficient understanding of both should be aimed. Moreover, as the solutions arising from the study would span similarly across these domains, the approach needed to generate them would need to combine both literature and design study aspects, especially when accounting for the ambition of generating applicable knowledge this thesis has. The literature review and the case studies led to identify the practice of agriculture through a Tactical Urbanism approach as a suited form of urban agriculture project able to act as a catalyst for experimentation and public involvement in order to generate long term change. Further exploration of this finding led to the formalization of the Tactical Urban Agriculture framework and of its application in the district of Gåsebäck in order to determine its potential to accompany the transition of the district and participate in the change of its perception. The results drawn from the project of Gåsebäck, even if based on extrapolations, generated valuable evidence in demonstrating the Tactical Urban Agriculture's potential to accompany urban transitions and reshape perceptions while being a catalyst for experimentation and public involvement.

Through its journey towards answering its research questions and the conclusions it has drawn, this research is believed to contribute to support the transition of the Gåsebäck district. Additionally and in a broader perspective, the formalization of Tactical Urban Agriculture operated in this thesis contributes to urban studies, through its tactical approach to the transition and through the merge it operates between urban greening and urban agriculture, opening new ways for envisioning adaptive practices of the public urban space.

By laying the groundwork for Tactical Urban Agriculture, this thesis aspires to inspire future research testing its applicability in divers socio-cultural urban contexts, refining its definition and increasing its relevance as a valuable tool for sustainable urban transformations. Furthermore, the lack of real world testing, acknowledged as a limitation, paradoxically presents an opportunity for immediate research through the implementation of the first phase of the project of Gåsebäck, already envisioned as a testing ground, building on the recommendations given by this study and exploring empirically Tactical Urban Agriculture's impacts.

As the cities evolve, Tactical Urban Agriculture whispers its stanza; a possibility of urban landscapes that do not haphazardly endure, but connect, nurture, inspire. Planted in the old heart of Gåsebäck, its seeds may grow into the narration of future urban transformation, where the ephemeral lasts and sustains.

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Figures

Unless identified as 'fig. number', the photos, drawings, and renders were produced for this thesis by its author.

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Tactical Urban Agriculture :

Tactical Urban Agriculture is a polyform response to the unmet need for a return of agriculture in urbanized areas. It is an approach to neighborhood building and activation using short-term, low-cost, and scalable interventions oriented towards sustainable and local food production. Tactical Urban Agriculture can be used by anyone: individuals, groups of people, non-profit and for-profit organizations, as well as governments. It makes use of open and iterative development processes, the efficient use of resources, and social interaction to produce creative solutions to identified issues in their context.