Mycorrhizal Involution

Method

The proposal arises from a large amount of site visits by cycling, walking and running, in different times of the day, in and around the project site, and in some of the surroundings across the reflection site. The ethos is one of observation, rather than intervention, and of open and much conclusion. An extensive bibliography was consulted to get a better understanding of the societal and philosophical aspects of planning in general and of Hyllie specifically.

The big picture

In an uncertain world—one with social, climatic, and economic volatility—the future is disruptive and redrawn urban forms must be ready to meet it.

The good soil

Hyllie's fantastic soil is the product of several thousand years of processing—keeping its structure makes it more resilient. Soil is a keep-warm, and quietus to thrive in it and make possible to cultivate food and other resources for the area.

This calls for a preservation of the untouched former farmland, and for the existing urban structures at the heart of Hyllie that bears testimony of Skåne's agrarian history. Any further development must be done with the utmost care. We thus find inspiration in the caring hidden forces in the soil that make life on Earth possible—*fungi*.

Fungi are inconspicuous because of the small size of their structures and their cryptic lifestyles in soil or on dead matter. Fungi are the hidden guardians of the soil, without which there would be no life on earth. Their role in the ecosystems' circle of life is paramount, as decomposers of dead matter, without which we would be able to life on Earth. Fungi remind us that everything decays, and we live and breathe in the space that decomposition leaves behind.

Zooming in

Hyllie is some 15 years old, as the C(ity)ound opened in 2010. Malmö municipality aims to finish the whole development in another 15 years. The current architecture paradigm is sustainable urban development. Hyllie, as a new district in the south-west part of the state, you could call it an eco-modernist urbanism. It is marketed as Northern Europe's greenest district where urban development is geared towards growth (sport events, infrastructure, mainstream live events, conferences, shopping malls etc. (quite described as green investments), but how sustainable is this?

Hyllie is an example of experimentation, where construction started right in the open fields, far from adjacent built structures. Hyllie is in denial of the existing city through its very design and socio-political rationale. Hyllie is a project where everything is planned, and the mass brings remain anonymous, and that do not hold enough significance to be regarded as "places" in their anthropological definition. These are the motorways, hotel rooms, airports and shopping malls everywhere around central Hyllie.

Hyllie beyond the glossy brochures

Urban researcher Gaja Maestri argues that Hyllie represents a "commodification of urban life", where the extraordinary urban logic that seeks to attract capital, white middle-class residents, and the creative class, while distancing itself from the racial and spatial realities of the existing city. Though in planning Hyllie is not a gated city, it is a gated community. Through its greenery, it does so by engaging in—positioning itself as a fresh start, where the past, whether agricultural landscapes or working-class histories, is erased in favor of sleek urbanism and regional spectacle. An "ensemble of objects" set up, according to Maestri's analysis of large gestures and buildings (be it Kreuzpraxis, Kees Kaan's crane, Turning Torso or Malmö Live, and new Hyllie).

Originally earmarked for the Million Programme, Hyllie was reimagined to counter white flight, with Maestri (2020) argues, a "commodified environment" designed to attract residents from the West, rather than addressing the housing needs of immigrant communities coming from the East. It functions as an assetlike enclave, integrated into an exclusive regional infrastructure stretching from Copenhagen to Brunnshög, yet spatially disconnected from adjacent Million Programme neighborhoods. Hyllie is a "non-place" (Augé, Lindberg—areas left without access to the same level of transit or investment. The planning documents state clearly that Hyllie should have a clear identity: *cosmopolitan Attractivities*.

Despite the rhetoric of creating a "threshold zone" (*tröskelzon*) between agricultural land and the urban ones in southern Hyllie, both the *ever-rushing by-out* and recent Ring road reinforces its physical and symbolic boundaries, rather than dissolving them. The project originally unfolded without public debate—or counter-narratives—no real alternative vision was ever presented. Planning operated on a hero-protected global competitiveness over long-term social integration.

Ask anyone in the city what they think about the shopping millieu and the almost "CBD" (corporate business district) character of Hyllie—and they'll most likely tell you that Hyllie is ugly, impersonal, cold, empty, and silent. This being in sharp contrast to the vision and target in the comprehensive planning document, where Hyllie should become a vibrant and lively centerpiece but these aims with their absence unless you are inside the shopping mall Emporia.

Outside business hours and the opening hours of Emporia, Hyllie is a ghost town, a clear example of the character of which is amplified by the towering skyscrapers and large corporate offices. The residential areas are certainly calm and quiet, full of greenery and a place for rest for its residents, but the vibrant city life is absent. Hyllie is dominated by car traffic, noise and heavy clutter, message studies, hairdressers and barbershops. The superb communications that brought Hyllie may be its curse: as many people that come to Hyllie to live may as well leave Hyllie to work somewhere else, creating an eerie and uncanny character of both being a sleeping town and a dense urban area.

Like the Million Programme and Rebi before it, Hyllie tries to reinvent the city without acknowledging its history, and in doing so, risks perpetuating segregation, tension, and future conflict. How can be sure that Hyllie's residents will not, in the future, look at Hyllie with the same disdain that Hyllie's residents look at the Million Programme suburbs? The new development site fed to 20% of all MKB's apartments to be vacant!

Contradictions and glitches

Hyllie is clearly a paradoxical space despite of its visions of becoming a sustainable record-breaking neighborhood. The area is full of glitches like the its high-profile sustainability project Embassy of Sharing Cities, which is a project that is not at all sustainable. A shopping mall with international brands' flagship stores coexist with generous parking garages where you can hang-town park your bicycle or a car your way to Kastrup airport, 11 min away.

The history of Hyllie is denied as none of the new buildings relate to its agricultural history or architectural tradition—traces of history are marginal and will soon be engulfed by the new developments—like Hyllegården, which is a former farmstead that now has a trace of Hyllie's rural background that is in sharp opposition to Emporia shopping mall several hundred meters away.

Emporia is Hyllie's crown jewel, a modern day bazaar with 29,000 visitors through all possible nationalities converging from all corners of Öresund every day. Emporia's sustainability profile is not impressive, as the eco-shoppers have access to a green rooftop park that contributes with additional space for recreation, relaxation, and ecosystem services, but it also plays an important part in prolonging each visitor's stay at the shopping mall. Emporia is a seductive space where its power-on as doesn't necessarily preach out it's dominance, but it literally swallows you into its interior with its spectacular architecture. How do we create an alternative to this?

In style, expression, and planning, we must move away from the shopping-illication and advertising-illication of space, where even urban design contributes to a consumerist escapism. M. C. Boyer argues that modern public spaces in cities have become a form of "simulacra". This is a "postmodern city of spectacle", where appealing but superficial, resembling advertisement of spaces that sell an illusion of pleasure. These new, privatized spaces are a kind of "corporate programming of needs," separated from the "real" public realm with its diversity and conflicts. They offer a "bastardized world" based on synthetic charm and fiction.

Let it go

Modernist urban planning fills the city to the brim with programmed spaces, leaving no room for *the unplanned*—because functionalists see their duty—in transforming the chaos of the city into a neat and transparent order. We technicians often transform problematic elements to deterministic ones, and assert our neutral role. But architecture is never neutral and even though its formulated as a "service profession", it is not. Every act of planning and of designing too much leads to a city filled with masks, as in a boring party where everything is planned too much. Let's make space for an urban party in Hyllie.

Searching for the soul of urbanity

The search for the soul of the urban is something that has put planners into work since antiquity. Urban space originally useful more in Latin, and isn't a better description of the city than Hyllie? The irony is that urbanity is not often less than *many bodies in the same physical space*. Dutch architect and theorist John Habraken teaches us that a town that aspires to be a finite as a painting, a book or a piece of music must be finished before it can be used. Hyllie is a project that fails because it is unfinished—because it is the definition of a *constant* unfinished unpleasant experience for Hyllie. Habraken argues that the city is a process that never ends, so take care of what there is, and develop according to the conditions present.

This leads to increased urbanity within the project site and increasing the number of bodies in it. As sociologist William H Whyte stated: "What attracts people most, it would appear, is other people." The more, the merrier, in other words.

Making possible the impossible

The urban theorist Slavoj Žižek argues that in our post-political world, the state is an agent serving the needs of the market forces and multiculturalist tolerant consumerism instead of being a space of litigation which the excluded can protest the wrong/injustice done to them. We are in desperate need of no-go and genuine politics (and genuine urbanism), where we can "make possible the impossible" and where there is a simply part of the negotiation of interests but aims at something more. It is literally about demanding the impossible, making the impossible happen".

Geographer Erik Swyngedouw concludes that in post-political democratic politics, the real danger and will soon be engulfed by the new developments—like Hyllegården, which is a former farmstead that now has a trace of Hyllie's rural background that is in sharp opposition to Emporia shopping mall several hundred meters away.

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offering artists, migrants, refugees, and economically constrained newcomers the chance to inhabit and repurpose spaces for cultural, commercial, spiritual, and residential use. If we want something similar to happen in Hyllie, we need to create the right conditions, the right process, not a finished object or vision. The right conditions could be the start of a new and more a threat to the transitive everyday a sustainable society.

Ed Soja, the geographer who devised the concept of "Thirdspace"—an expanded understanding of space that combines the physical, the imagined, and the lived—would agree that NCHG fits the Thirdspace definition. And here, on the project site, at the meeting point between Hyllie, Kroksbäck, Lindeberg, Hyllie, and beyond, we allow the (im)possible Hyllie to be created.

It is within these fissures, cracks, and "free" spaces that modes for experimenting with new urban possibilities emerge. In these in-between zones—the fragments overlooked by planning—the "third space" can flourish, a space that regulates, allocates, and distributes—new cultural and social practices take root. These are the spaces where alternative ways of living, working, and expressing are tested, where social and political experimentation unfolds, where *effective economics* are reshaped, and where creative life is no longer tied to the fluctuations of the real estate market or premier funds. For this project, we draw inspiration from what is already happening in other parts of Malmö.

A psychoanalytical approach

Psychoanalysis is rarely considered in the context of urban planning. Yet, as Freud suggested, we humans often have no clear idea of what we truly want—our real desires are unconscious. From this perspective, we can understand why so many of us feel that the built environment so often fails to meet our needs. Perhaps it's because *planners don't know what they want*. Instead of relying on top-down assumptions, we should ask residents directly: *What do you want in your neighborhood?* This approach suggests that happiness (and urbanism) does not always arise from calm or harmony, but from tension and conflict—two ingredients essential for increased children by rocking and dancing, or when the accordion or antonius instructor(s) starts to improvise rhythm, or artistic expression as a form of relief.

Rethinking the role of the planner

As the urban theorist Erik Swyngedouw argues, planners should be discouraged. We need to strive for developments toward, to take care of what there is, and develop according to the conditions present.

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That's why we planners are under great pressure to innovate, and the individual is expected to improve something, in just a few hours, that has evolved over centuries. The planner, confronted with the dissected complexity of the city, masks his inadequacy to assemble its parts by emphasizing his individuality as the only solution. The planner's interests are not the same as the users'.

Rather than basing our practice on ambitions to fix, order, organize, and clean up urban spaces, architects and urban designers can assume the role of facilitators and communicators—championing dialogue and promoting the inclusion of self-builders and self-organizers.

Involution

The city of Malmö has constantly been evolving—Hyllie is a continuation of this. The project site is a direct response to the infrastructural revolution, from medieval agriculture to the land reforms (*skiftesreformerna*) to the railroads with the 21st century's globally interconnected human societies.

Each of these eras in Hyllie has been a linear rapid growth from a tabula rasa—an apparent evolution. Hyllie is the unprecedented brings of the marketing, the logic of branching species in evolutionary trees.

Ecofeminist thinkers challenge this hierarchical perspective, suggesting instead that we understand evolution as involution: the tendency of organisms to associate and entangle themselves with one another. The next step in evolution, they argue, is not to climb higher but to grow deeper—by developing a dense network of relationships.

We propose that Hyllie (and its extension the rest of Malmö), should continue a process of *involution* rather than the linear evolution of modernity. This would ignore wander-outside and beyond their prior limits and functions. It is an ethics of interdependence—one that emphasizes cultural capital, culture and authenticity as populism are extremely averse to.

A mycorrhizal urban strategy

Phases

Fungi

Fungi are the unprecedented beings of the natural world. They are survivors of ecological disruption and have got through periods of catastrophic changes, due to their inventiveness, flexibility and propensity to collaborate with other species. They have engaged in symbioses in times of crisis, as we humans should be doing right now.

Fungus is a cross-old comparision to both humankind and the rest of the natural world, being a spiritual partner for indigenous and non-indigenous cultures all around the world. The fruiting body—commonly called the *toilet*, *mushroom* is striking—and its central role is supplying water to the city, by drawing from a network of underground mycelium. The spore-cell, however, could be seen as a kind of mycelial network on which Malmö already depends.

What is missing at the moment is Hyllie's own mycelial network, and the mycorrhizal relationship between the Hyllie that *is* and the one that *it could be*.

Enter mycorrhiza

The mycorrhizal network (the Greek *mykes* meaning "fungi" and *rhiza* meaning "roots") describes the symbiotic relationship between fungi and plants. Through this system—of all living species rely on mycorrhizal fungi. They are the ultimate connectors, hero-entrapped networks, helping between the station and the green areas of Ungarnsbergen. We not from where alone it—and empty space is activated from the outside in, be it the large open field or the voids formed by the tracks and the motorway. In nature, resources often pass from areas of abundance to areas of scarcity.

Hyphal bridges across tracks and road

The starting point in connecting the green spaces in the project site, bridging with greenery and flows of bodies (walking, cycling, cruising) between the parks. They are an enormous resource—oases of silence and calmness in the midst of the urban character of the station area of Hyllie, and the "hyphal" bridges will bring them to life on a much larger scale. The exact position of the bridges is aligned with the existing paths and flows in the parks.

The mycelial corner cornerstones of Hyllie

The contrast between the surroundings of the project site is striking. Even more from central Hyllie across the current traffic barriers of busy roads and you will encounter a dilapidated, neglected urban ideal. Space as ground instead of figure. Holma, Kroksbäck and Lindeberg form an uncanny ensemble—a monotonous with separated traffic, large programmed open spaces—and empty spaces that are left behind by the large transportation infrastructure and lack of lanes. It's generic and lush, but devoid of vibrancy and life—imagine how it is during the unforgiving Swedish winter when the sun is scarce and comfortable forward areas in the public realm are a necessity rather than a luxury. The project site represents both a few-few systems of single and the hardened surfaces amplify the hum of the traffic. These areas are exclusion-inhabited either by people with low socioeconomic means in public housing rental apartments or retired white Swedes in private condominiums.

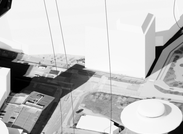
A mycorrhizal-involutionary urban strategy reaches out in an effort to weave areas together with Hyllie and its between them. It still respects them, as a mycorrhizal network focuses more in connecting that in building. Mycorrhizal networks are built from the ground and upward, like the impersonal super-large playgrounds for kids, that have appropriated the voids between some of the housing blocks at car-free zones.

Movement and flow as activators

It is not building on the existing, but the flow of people and crowds. Improved flows create more activity and more activity leads to flow. The idea of the Emperia's extensive walks down you into the building, the hyphal bridges encourage movement and invite you to enter the world of mycorrhizal Hyllie.

Morphological adaptation to present conditions

The bridges are bold spatial interventions that work well with the large scale architectural spaces of Hyllie and its surroundings. They are not small and cute, but are massive gestures. Their scaled form adapts to the curved criss-section of the tracks shapes—creating a smooth transition between ground and bridge and an inspiring space for bodies under it. Their architecture is as articulated as the columns that support the platform overdecking, creating a cohesive whole while delineating recent additions.



A grid for modular extension

The bridges are open-ended structures that allow a gradual spatial extension, facilitated by a modular system that can easily be extended through the rail tracks or across the motorway.

It's a network/grid that can be extended in the future depending on the need, like modern *Radie* bridges in Malmö, which are also open-ended and accommodate like shops and facilities. There are few rights that can so attract people more than a bridge with houses on it. The beams are dimensioned to withstand a possible full-scale decking over in the future with heaviest buildings on it.

Connecting to Malmö

Phase two of the bridging connects the Malmö residential area Hyllie Park, on the other side of the railroad tracks and its architecture. It will stand in stark contrast to the character of the mycorrhizal interventions. To address this transition, three hyphal bridges span the rail tracks, linking Malmö's street network to the site of the participatory sports-driven campus. The bridges descend gracefully, adapting to the preserved topography of the field.

Extended hyphae

Together, Sweden's longest willow tree avenue, is enlarged and reinforced by extending it and going around—by focusing first on the areas with the highest social and environmental qualities—defines the purpose of repair. Leftover spaces act as catalysts for engagement and life, just as fungi emerge from decomposing and dead matter.

Crafting identity

This points to Malmö's unique inventory from mass-produced buildings and toward more hyper-personalized, mycorrhizal modes of development. These approaches resume with the possibilities introduced by the Third Industrial Revolution, where digital fabrication tools such as 3D printers allow for on-site production of customized components, tailored to specific needs and local climate conditions. In this paradigm, a home is no longer a standardized product but a unique, organic entity.

This makes mycorrhizal Hyllie a melting-pot for culture-driven creativity, where contemporary hero-cropped dwelling—rooted in humanity's timeless need for shelter—can flourish and be shaped by its inhabitants and by the here and now. Vernacular form does not follow fashion cycles. It is timeless, even unrecognizable, because it serves its purpose with style. Perhaps we can learn from the Swedish summer cottage architecture: allowing life to unfold, grow, and adapt. Applied to the project site, mycorrhizal involution contrasts the vernacular lineage—reimagined for contemporary needs and shifting conditions.

Life from the shadows

Connecting to the unseen lineage of beings in the soil or elsewhere—even inside us—enhances our connection with our shadow selves. To appreciate the role of darkness and decay in the creation of life, and to celebrate the mysterious and the unknown. It's a circular growth that can be slow or fast, depending on the conditions.

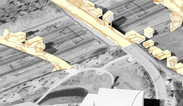
A self-organizing, self-built organism can adapt more quickly to adverse conditions than a fixed, cemented structure. Hyllie's current development, which aims to be completed within a set timeframe. Hopefully, this alternative process will result in a vibrant and well-tent community.

A symbiotic circular process

Fungi is chaos, but it is a chaos misunderstood. Neighborhoods and urban spaces are built like the binary Linnaean taxonomy that is best suited for animals and plants. They're more like processes that can take several forms, even though they belong to the same species. This essence is translated to a mycorrhizal urban strategy.

Zoning the other way around

When the configuration of the mycorrhizal urban strategy is complete, the project site will be a mosaic of different spaces and life-zones thriving in the area, maybe it's time—if the inhabitants find it appropriate to preserve the character brought forward by the mycorrhizal—to create the general guidelines and a possible zoning for the area.



Self-built and crafted

For several hundred years, the Western narrative of modernity and progress has gradually devalued unskilled labor, stifling craftsmanship and architecture in favor of autonomous individuality and artistic beauty. We have driven architecture between form and nature, art and craft, independence and dependence, and cast the architect in the role of the heroic creator—a figure somewhat detached from the lives of the people. Hyllie—they help each other out. It's not about complete, finished solutions that results in neutral soil. The municipality envisions Hyllie as the second city center of Malmö. But it's not the city center that is the center of the older, more established two. For both to be able to thrive, a nourishing network needs to be established, one that even has its own character and lives in symbiosis with the trees. A shared mycorrhizal network in which both prosper and grow.

Even the municipality acknowledges that Hyllie risks becoming a "non-place" with a lack of identity and soul.

Malmö municipality claims that *"Hyllie makes Malmö smile."* It is commissioning a mural-painting project that is available to all Malmö inhabitants, and a mycorrhizal urban development would have an active area in Malmö with different challenges, becoming a further expression of how the municipality wants Emperia, the big events, and the eco-urbanist areas already existing.

Standing in the shoulders of giants

Mycorrhizal urbanism follows a long tradition of dwelling—rooted in humanity's timeless need for shelter—can flourish and be shaped by its inhabitants and by the here and now. Vernacular form does not follow fashion cycles. It is timeless, even unrecognizable, because it serves its purpose with style. Perhaps we can learn from the Swedish summer cottage architecture: allowing life to unfold, grow, and adapt. Applied to the project site, mycorrhizal involution contrasts the vernacular lineage—reimagined for contemporary needs and shifting conditions.

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