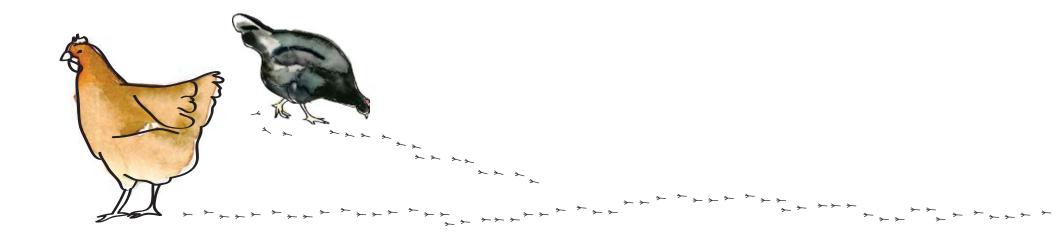


Josef Abrahamsson, Johan Marklund, Karianne Rydstrøm, Johanna Saleryd



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This is a final report at the master program MPDSD in the master studio: Ark173: Planning and Design for Sustainable Development in a Local Context. Case study: Tidaholm municipality, Sweden.
Course coordinator and examiner: Lena Falkheden, lena.falkheden@chalmers.se,
Chalmers Architecture, Gothenburg, Sweden, 2013

COURSE INFO WHAT IS THE AIM OF OUR COURSE?

The design studio Planning and Design for Sustainable Development in a Local context have this semester worked with the municipality of Tidaholm, as a result of the municipality inviting us.

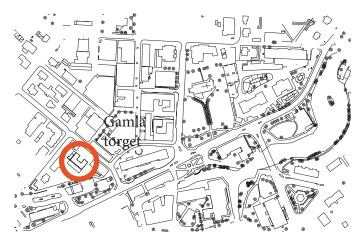
The studio started by looking at the global perspective and then zoom in to Tidaholm. During the first weeks of the course, common strategies

were developed. This project work with the following strategies:

- To the furthest extent possible, food consumed in Tidaholm, is produced organically within the region.
- Happy, healthy and diverse inhabitants.



Todays appearance:



Location building:

VISION WHAT DO WE IMAGINE NÄRPRODUCERAT TIDAHOLM TO BE IN THE FUTURE?



VISION

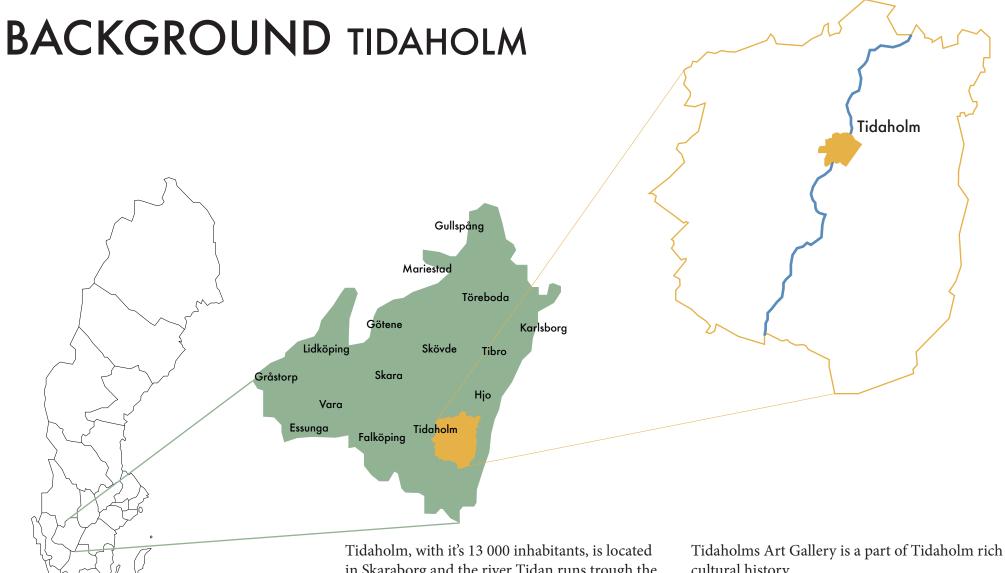
In 2022, Närproducerat Tidaholm has been active for 10 years. Since it's start the organisation has grown steaily

every year, gaining more and more members.

Two specific projects helped Närproducerat Tidaholm to reach their present position in the community: The HENS OF TIDAHOLM project and THE HARVEST FESTIVAL project.

THE CLUB HOUSE

As a celebration of the 10 year aniversary the organisation decides to become more visible in the city centre. Therefore they decides to transform an existing unused central building into a multifunctional building containing a shop and information center.



in Skaraborg and the river Tidan runs trough the city. Tidan made it possible for the early factories in Tidaholm to be established and Vulcans tändsticksfabrik by Von Essen in 1968. Marbodal and the prison is also a major employer for Tidaholm.

Tidaholms museum, lithographic art and

cultural history.

Tidaholm also has a vibrant sports climate and especially soccer but there is also many different sport clubs.

BACKGROUND HISTORY OF AGRICULTURE



Photo: Leif Sandberg http://aforum.genealogi.se

Tidaholm has to day a rich agricultural landscape, developed over thousands of years. This makes the landscape an important cultural heritage for Tidaholm to manage, together with the biological diversity. During the Bronze Age, burning agriculture was the most common way. But as the Iron Age approached, so did climate changes. Now the animals would have to be kept inside during winter, so people was forced to live more permanent, and hence farm near by their house. Now the agriculture shifted towards agriculture of

fields, to be able to feed the animals during winter. The landscape was divided into uncultivated and cultivated fields. The animals walked freely in uncultivated fields.

Its does not exists much information on the Stone Age. But probably the forest areas grew as a reaction on animals not surviving the ice age.

When we reach the 1700-century, humans have cultivated a lot of the land. And a big part of this

land was now fields.

The landscape of fields we see today, states back to the 1800-century. Here they also started to develop lakes and wetland for productive soil.

"The soil in this area is amazing and it is a mystery why we don't use more of it to grow vegetables for the local market."

-Jonas Ringqvist

BACKGROUND WHY EAT LOCALLY PRODUCED?

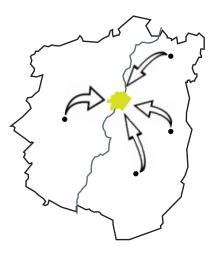


REDUCE SWEDISH IMPORT

Every year there is a lot of import and export of Swedish food. Although it is good for our relationships with other countries to trade it also creates a lot of emissions of green house gases.







LOCALLY PRODUCED FOOD TASTES BETTER

Locally produced food is tastier than food that you buy in the store. The produce is most of the times fresher and it's picked when the products are ripe instead of being picked before they are ripe to get ripe in the store.

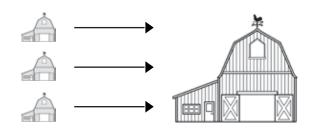
SUPPORT LOCAL PRODUCERS

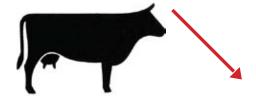
The local food producer receives more money for his/her products if they sell it directly to the consumers instead of going through a store. Also less plastic wrapping is being used.

INCREASE TIDAHOLMS' SELF-SUFFICIENCY

The municipality of Tidaholm has a opportunity to become much more self-sufficient in food production. This is important in this times of turbulence in the global economy and because food will probably get more scarce in the future.

BACKGROUND TRENDS OF FARMING IN TIDAHOLM







FARMS

In a relatively short time the farms in Tidaholm has gone from being many small ones to a few big ones.

One effect of this is that the variation of things being produced decreases and this will in turn lead to that it will be harder for the region to become self-sufficient.

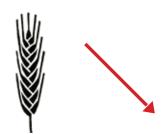
COWS

The number of cows is decreasing in the municipality of Tidaholm. Between 2003 and 2010 the number of cows decreased with approximately 500 cows.

At the same period, the number of companies that handles cows was halved to 22 companies.

PIGS

Tidaholm has had relatively big pork production. In 2003 there were nearly 500 sows in the municipality and 6000 slaughter pigs. In 2010 there were almost no sows left and the amount of slaughter pigs was halved.



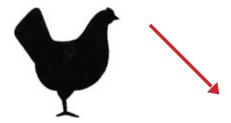


Grain production has decreased in Tidaholm the last ten years.

The grain that is produced is mostly fodder grain. count the whole region. In 2012, 5% of the grain areal could be assumed to be produced for food stuffs.

In 2005 there was a centre of the grain area of the produced for food stuffs.

In 2005 there was a centre of the grain area of the grain area of the grain. In 2005 there was a centre of the grain area of the grain. In 2005 there was a centre of the grain area of the grain area of the grain. In 2005 there was a centre of the grain area of th



EGG

The egg production of Tidaholm municipality has decreased, although it has increased when you count the whole region.

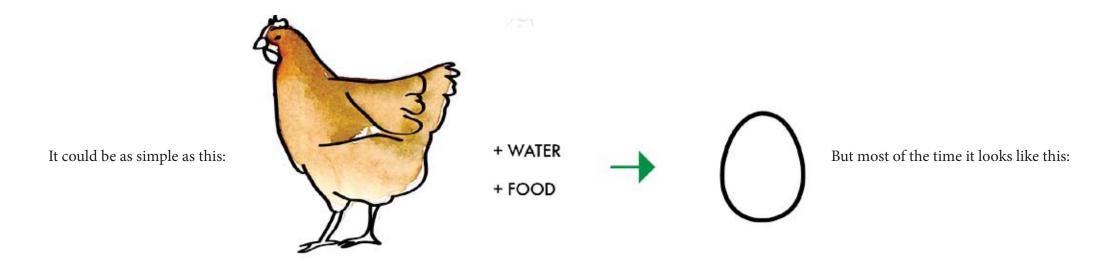
In 2005 there was a certain egg production in Tidaholm, but today it is only produced for the consumption of the households that owns the hens.

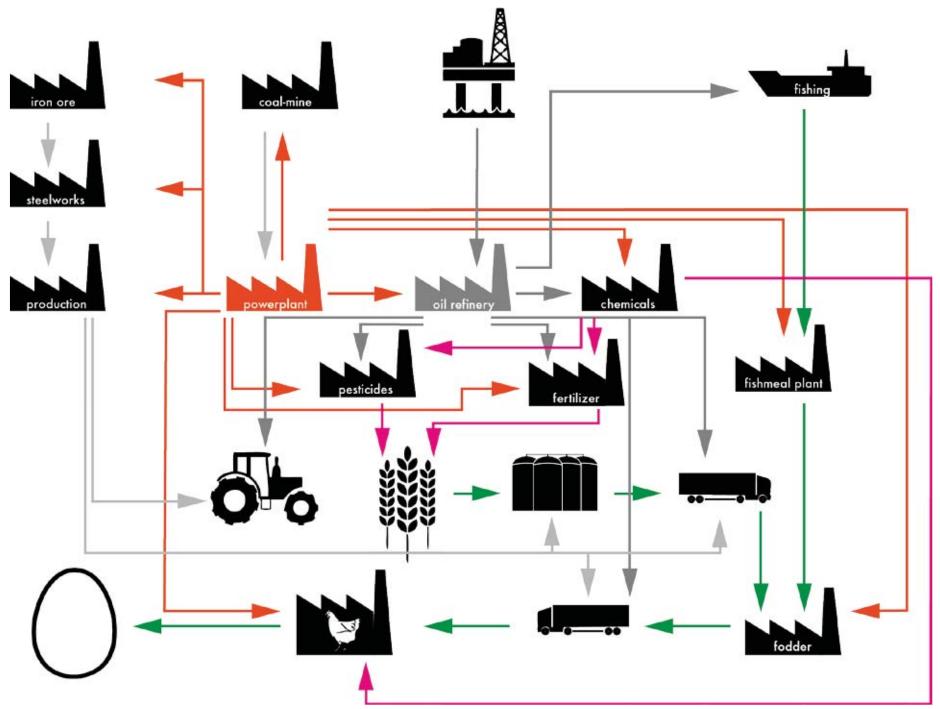




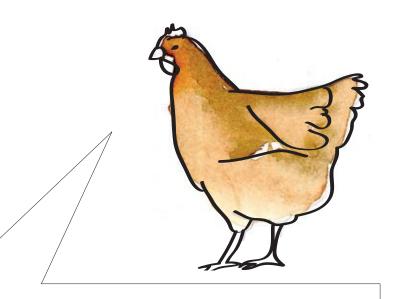
Sheep production in Tidaholm has increased slightly during the period 2003-2010. The number of sheep increased 14% while the number of businesses handling sheep increased 17%.

BACKGROUND WHY EAT LOCALLY PRODUCED?





WHAT IS ORGANIC PRODUCTION?



WHAT IS ORGANIC PRODUCTION?

Organic production strives towards using natural resources like energy, land and water in a sustainable way and to have a long-term thinking. It's important to have strong biodiversity and to give animals a healthy life with good conditions. Firstly organic production emphasizes the importance in how to handle pests and weeds. Secondly it's about how to handle crops and give them the proper nutrition. Thirdly the emphasis should be to give the animals a vital and important role in the production.

LOCALLY PRODUCED FOOD

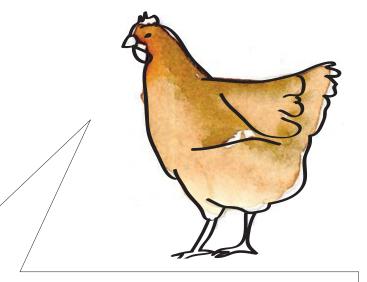
What is locally produced is defined to be food where the production, processing and distribution to consumers occur within a certain defined area. We have defined the area to include the Skaraborg-region.

WHAT IS NÄRPRODUCERAT TIDAHOLM?





- 1) Yans Gård
- 2) Västerängen
- 3) Stockuts Livsmedelsförädling
- 4) Bossgården
- 5) Kungslena Bi och Bär
- 6) Klosterholmen i Dimbo
- 7) Hökensås Charkuteri
- 8) Hökensås Bigårdar
- 9) Lindells Gårdsslakteri
- 10) Klosterholmens potatis
- 11) Franzéns Champinjoner
- 12) Inger Fogelström
- 13) Blåbärsgården



The organisation Närproducerat Tidaholm (Locally produced in Tidaholm) was formed in the summer of 2012 with the aim to strengthen the connection between the local production and the local consumption of food stuffs in the municipality. Today, there are 13 farms connected to the organisation.

They think that strengthen this connection could

create jobs within the municipality and they also think it is important for the resilience of the region in these turbulent times of uncertain future for the global economy and energy assets.

Närproducerat Tidaholm receives financial support from Leader, which is a EU-financed method of rural development.

They work with different types of events during the summer such as "farmer's day" and "food rally" in which they promote locally produced food. This has been very appreciated by the citizens.

They also work with identifying and realize possible local food chains to make the locally produced food reach the local consumers.

DESIGN THEORY THE PSYCOLOGY OF CHANGE

How do we get people more aware about locally produced food? And how can design help us reach this goal?

We wanted to get a deeper understanding of how psychology and the human mind effect our ability to change habits and relate to environmental challenges. We started out reading these texts from which we compiled the most important points to a framework to base our design upon.





SMALL STEPS TOWARDS A **GREATER VISION**

It is important for individuals to get the succession feelings of reaching small milestones for the will and behavior there is a greater chance that the behavior energy to continue, step by step, towards the greater is to be repeated. Eg. the positive feedback consist vision. A great vision can be too overwhelming and discourage and paralyze rather than inspire.



POSITIVE FEEDBACK

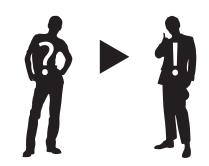
If the individual receives positive feedback on of better economy, saved time, feelings of happiness, confirmation etc.



CHANGE DISTANT GLOBAL PROBLEMS INTO OPPORTUNITIES IN THE EVERYDAY LIFE

- 'sprayed or not sprayed bananas' instead of reflecting on if it's even advisable to buy bananas in the first place.

It should be easy to make the right choice

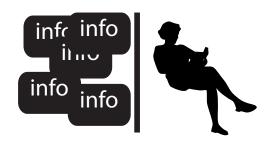


'SIX STAGES OF BEHAVIOR CHANGE'

(Per-Olov Sjödén, 1994, p.172)

- Individuals respond to the choices that are available 1. Have not thought about changing. The individual is not familiar with the problem, considering the disadvantages or think he/she are incapable of performing the task.
 - 2. Been thinking about to change. The pros and cons weigh about the same. It is common with ambivalence
 - 3. Preparations have been made for a change. The benefits of a change are of largest extent and eg. books or courses to implement the change has been acquired

- 4. Action. The individual has changed behavior, but there are risk of a return to old habits
- 5. Maintenance. The behavior has been maintained for some time and is gradually becoming part of the new lifestyle.
- 6. Termination. The process of changing a behavior is completed and the risk of returning to the old habit is small.



STRESS DUE TO OVERLOAD OF INFORMATION LEADS TO **PASSIVITY**

Information and facts about eg environmental problems The individual should feel like a valued part of a is not always the best way to achieve a change. The problems may be perceived distant, 'it's something related someone else, and complex, 'where do you start?'. is passive engagement through digital media. Resignation and stress over all that one does not manage The individuals are disconnected from their own to resolve often results in apathy and demotivation. If you are exposed to conflicting data like 'It is good for the and feel for yourself to get active caring and regain economy to consume but also bad for the environment, this. you become passive, awaiting clearer information



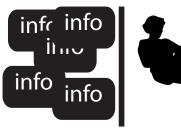
ACTIVE CARING

larger context and also have belief about himself to be able to make a difference. Much of today's society feelings and surroundings. It takes time to reflect

DESIGN THEORY DESIGN TOOLS







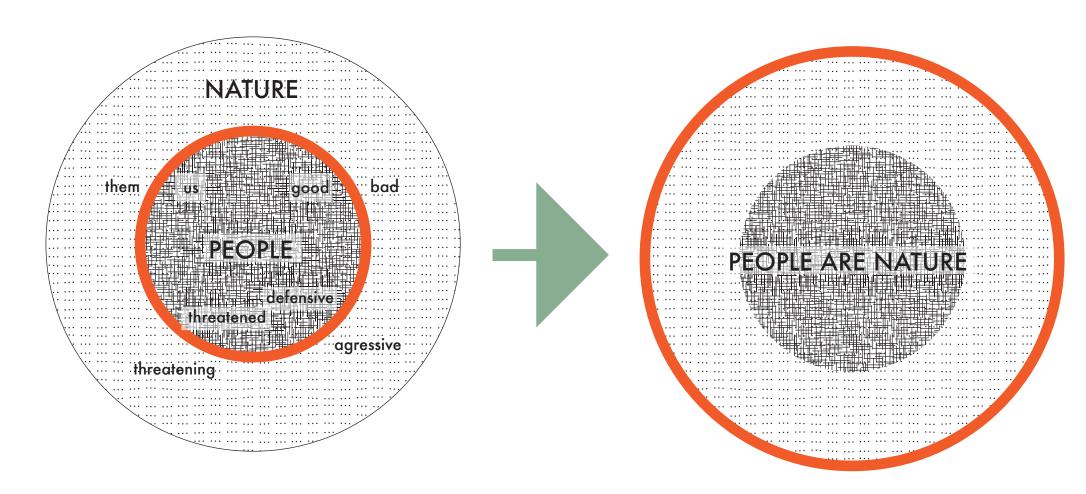


- Now we had relevant information on how people relate to change, and how we can work with, and not against, the human psych to encourage behaviour change. Through further discussion, we developed design tools from these findings. This made us able to have specific design strategies towards our goal.
- # Create an overall vision for Närproducerat Tidaholm
- # Design that controls a gradual shift towards the overall vision

- # The design results in positive feedback: for individuals, for society
- # Transform obstacles into available choices for a more environmentally conscious lifestyle. Expanding our 'in-group'
- # Through physical design make it easier and more convenient to take on new environmentally friendly habits
- # Have a local connection to appeal people from all stages of environmental commitment

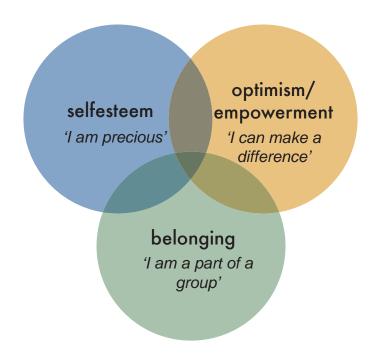
- # Essential information that is easy to accept makes it possible to focus on the design instead of environmental threats.
- # Design that enhance the individual's role, society's role and the individual's role in society
- # Design which affects and invites to Active Commitment

DESIGN THEORY EXPLANATION OF TERMS



INGROUP / OUTGROUP

Ingroup and outgruop are terms describing what we can identify ourselves with and thereby have greater empathy for. For example, you wouldn't let another people get sprayed with chemicals in the same way as a fruit or a vegetable.



THE INDIVIDUAL AND THE GROUP

Human beings are social creatures that often are better off when feeling part of a society or a group. The sense of belonging and feeling that you as an individual can make a difference makes large part in the process of making a change

- "I can play a valuable role"
- 'I am a valuable member'
- "We can make a difference"
- 'We can make valuable contributions'

DESIGN PROCESS EXPLORING OUR SENSES

ANALYSE OF OUR SENCES

During our stay in Tidaholm we choose to investigate Tidaholm with our different senses (hearing, sight, feeling and smell). We wanted to experience Tidaholm like we wouldn't normally do. The method has been uses to introduce us to our different senses.

How did we do it?

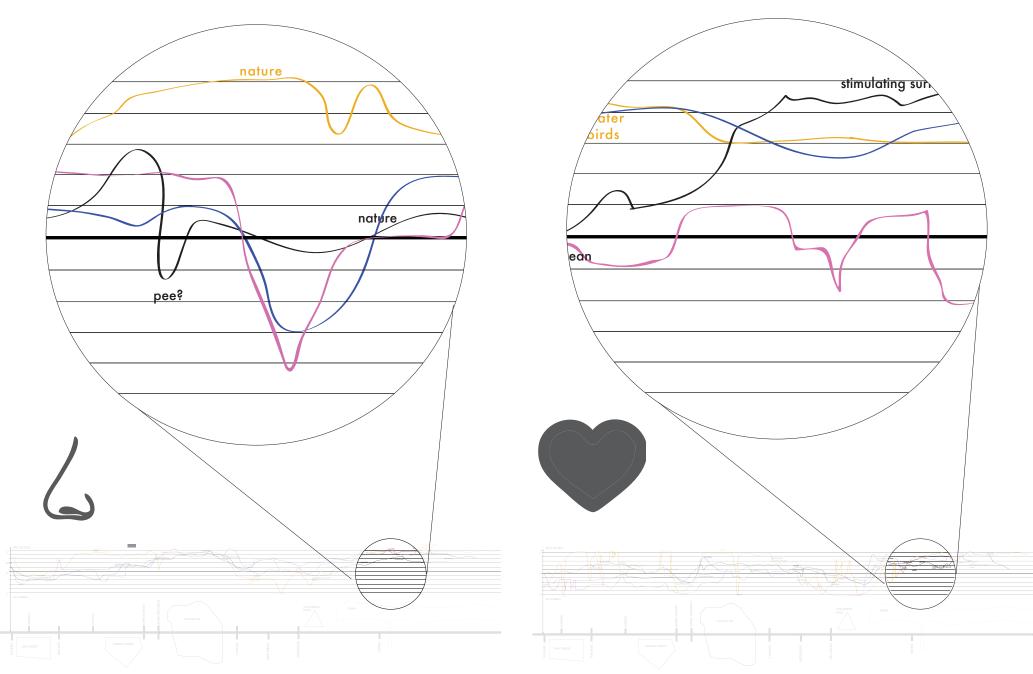
We decided upon a path in Tidaholm which went (four times) from the new square to Brogatan. We

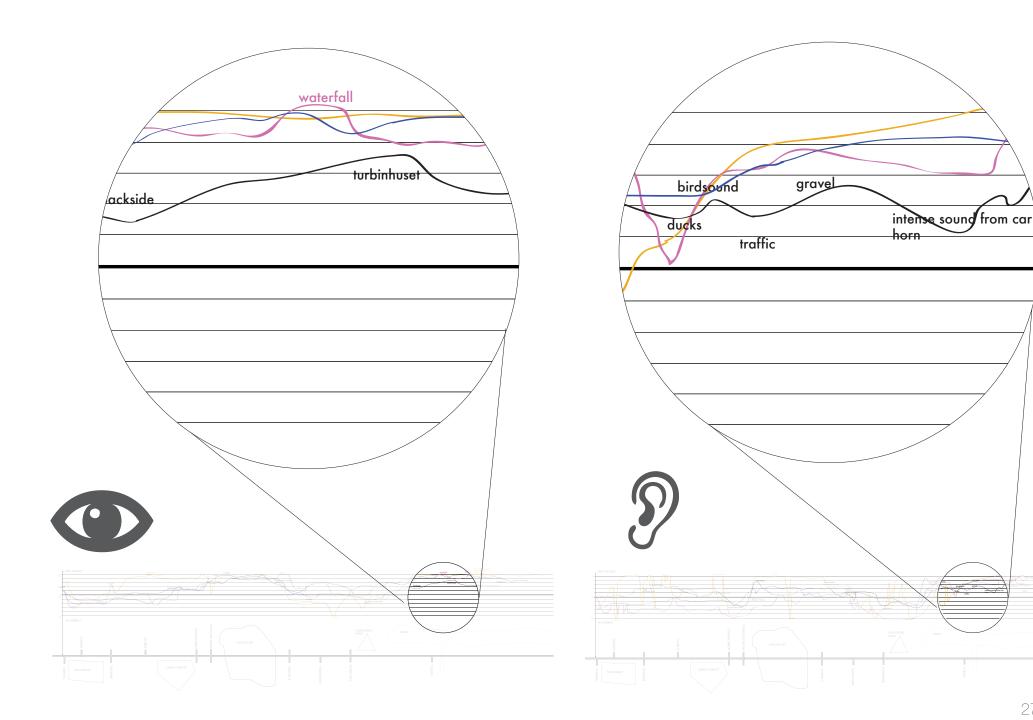
choose the path so that different parts of Tidahom where represented. For example more urban-like environment to places close to nature.

What was the result?

How we experience the place or a design differ from person to person. Which also was obvious in our analysis. However, there where some exceptions where some places were more experienced the same. What we found most obvious where some places along Tidan, which we experienced positive with all our senses. This led us to believe that contact with nature, in this case Tidan, in many cases attracts all of our senses.

We therefore want to create a design that brings us closer to nature and attracts all, or most, of our senses.





DESIGN PROCESS SURVEY

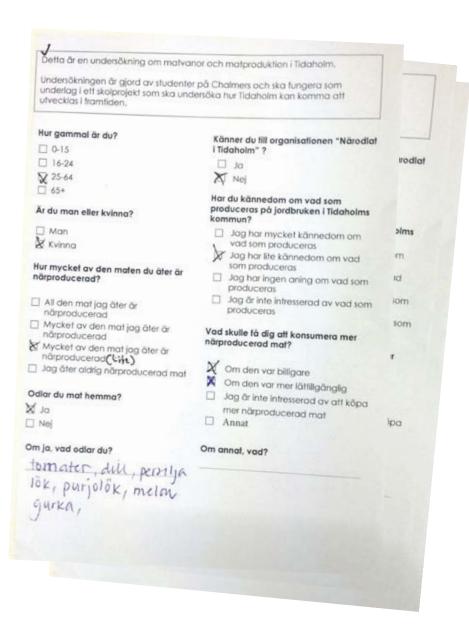
HOW DO PEOPLE IN TIDAHOLM RELATE TO LOCALLY PRODUCED FOOD?

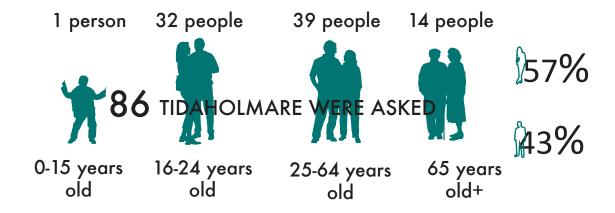
During our visit to Tidaholm, 18th-19th of November, we performed a study on food habits and food production in Tidaholm.

We asked people around the square, in shops and cafés and students at Rudbecksgymnasiet .

The survey resulted in 86 responses, from different age groups.

We have used the result as a basis for our design proposals







Better selection.

Tastier.

I buy much locally produced food already.

Prices are good, it's all good.

It's fine as it is.

I buy all the food locally.

Local producers have to get better at marketing.

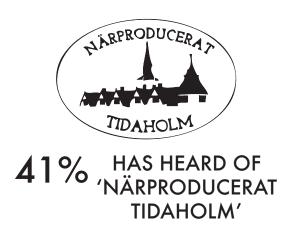
If it were visible at Coop where I do my shopping.

Have not thought about it.

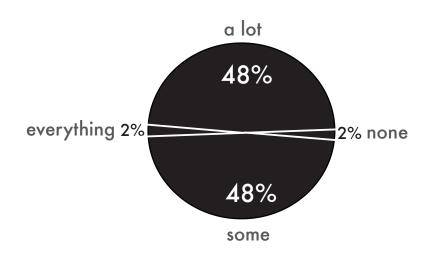
Better quality.

ARE YOU AWARE OF WHAT IS BEEING PRODUCED IN TIDAHOLMS MUNICIPALITY?

18 % "VERY MUCH"
50 % "A BIT"
18 % "I HAVE NO IDEA"
5 % "I AM NOT INTERESTED"

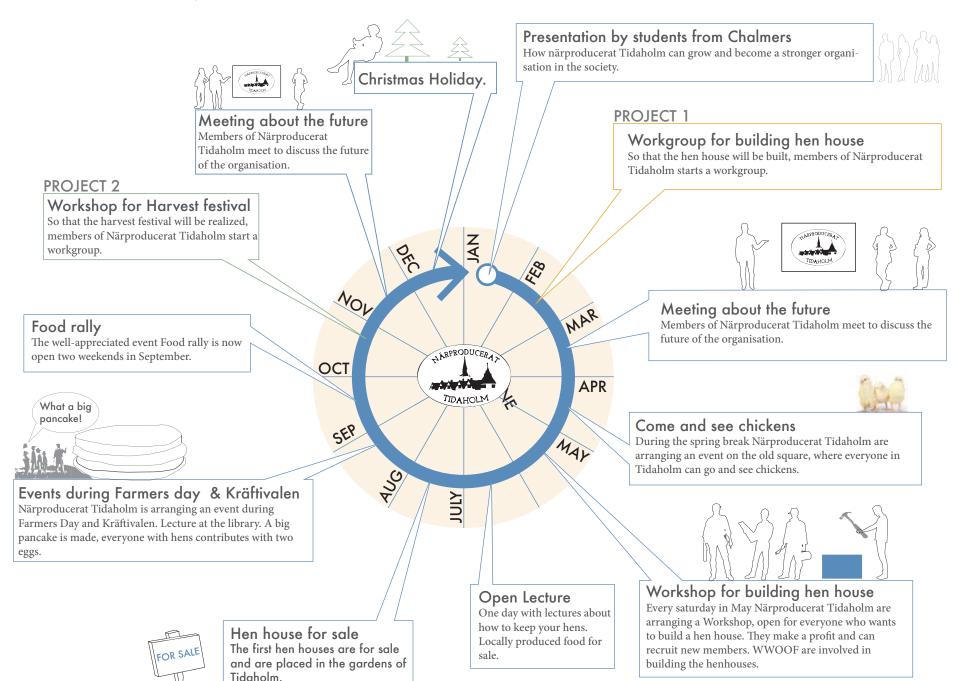




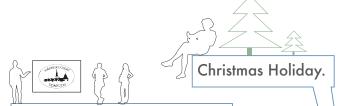


HOW MUCH OF THE FOOD YOU EAT IS LOCALLY PRODUCED?

HOW TO DEVELOP 2014



HOW TO DEVELOP 2015



Meeting about the future

Members of Närproducerat Tidaholm meet to discuss the future of the organisation.

Work with magazine

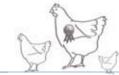
The work for the magazine in January are being prepared and worked on.

Food rally

The well-appreciated event Food rally is now open four weekends in September.

The harvest festival has come to an end

During one weekend in August crops that's been grown are now eaten + food from local producers. Local art and music is also part of this event.



Time for feedback

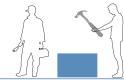
What has been good? What's been less good? Competition! Who has the finest hens and eggs?

Närproducerat Tidaholm gives out their first magazine

Containing pictures of the many hen houses that now are placed in the gardens of Tidaholm, the sucess of the harvest festival, what has happened during the past year, how many members they are now and so on..

Meeting about the future

Members of Närproducerat Tidaholm meet to discuss the future of the organisation.



Building of project 2 Starts

Närproducerat Tidaholm and other volunteers who want to learn about polytunnels are building the greenhouse.

The cultivation starts

The first gathering is for everyone who wants to grow their own food. Then they meet two times a week during the cultivation period.

Workshop for building hen house Every saturday in May Närproducerat Tidaholm are

Every saturday in May Närproducerat Tidaholm are arranging a Workshop, open for everyone who wants to build a hen house. They make a profit and can recruit new members. WWOOF are involved in building the henhouses.



NAZ

A RPRODUCERA >

MDAHOLM

DEC

Nov

OCT

SEP

One day with lectures about how to keep your hens. Locally produced food for sale.

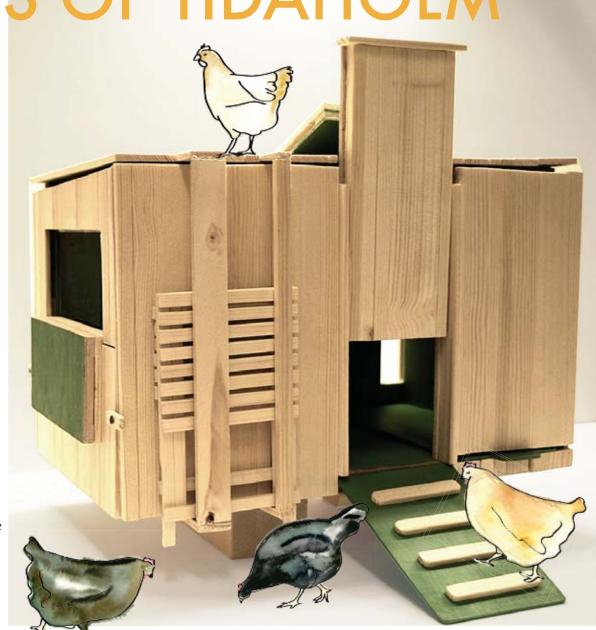
MAR

APR

MAY

PROJECT 1

HENS OF TIDAHOLM



WHAT AND WHY:

We want to make it fun and easy to reestablish the connection between humans and nature, to get nature back into our ingroup. Even though the city of Tidaholm is close to rural areas it can benefit from more high quality integration of nature inside the city border.



GOAL:

More people in Tidaholms municipality are aware of local food chains.

APPROACH:

- -Make the project realistic.
- -Create a design basert on a theoretical framework:
- -Designtools from the framework based on psycology of change.
- -Give Närproducerat Tidaholm a tool to realize this.

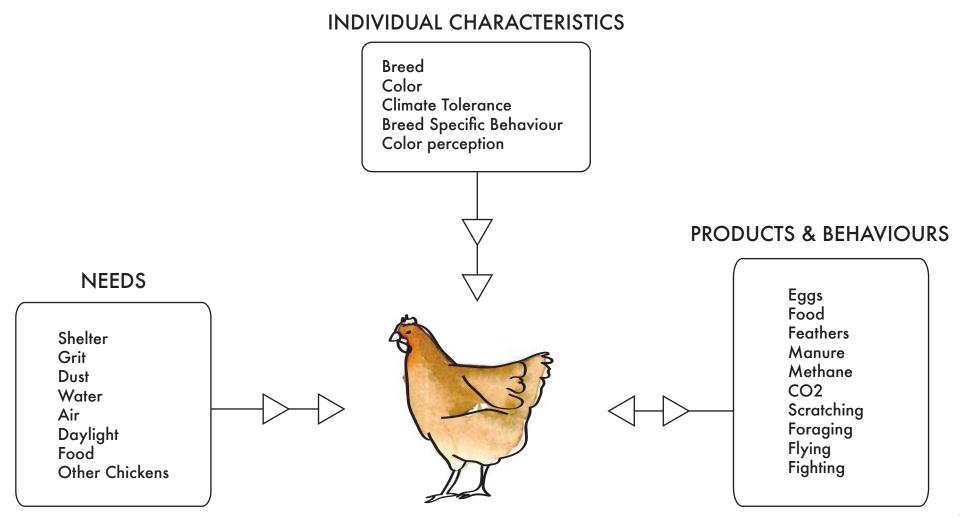
DESIGN TOOLS:

How to create a tool for Närproducerat Tidaholm that could help them to strengthen their organization, get more members and raise the awareness on locally produced food? We have developed a design using the following design tools to answer this question:

- Design that controls a gradual shift towards the overall vision
- Design that results in positive feedback for the individual as well for the community.

- Transform obstacles into available choices for a more environmentally conscious lifestyle. Expanding our 'in-group'
- Through physical design make it easier and more convenient to take on new environmentally friendly habits
- Have a local connection to appeal people from all stages of environmental commitment
- Design that speaks to your sences.

THE CHARACTERISTICS OF A HEN:





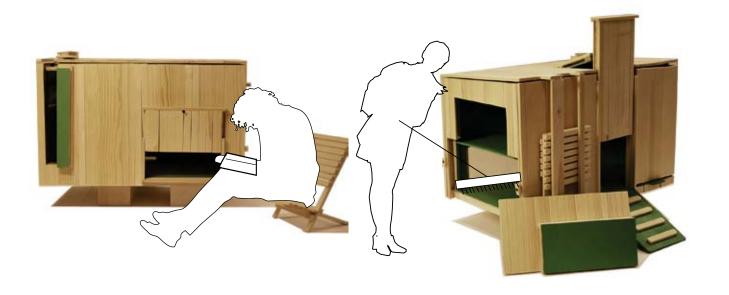
SPECIAL FEATURES



Easy to collect eggs everyday! Have a look in first and see if there are any eggs there before disturbing the hens

Easy to close the openings at night; makes it possible to have a rooster even in the city

Easy to clean the manure board and use the manure to fertilizing your garden



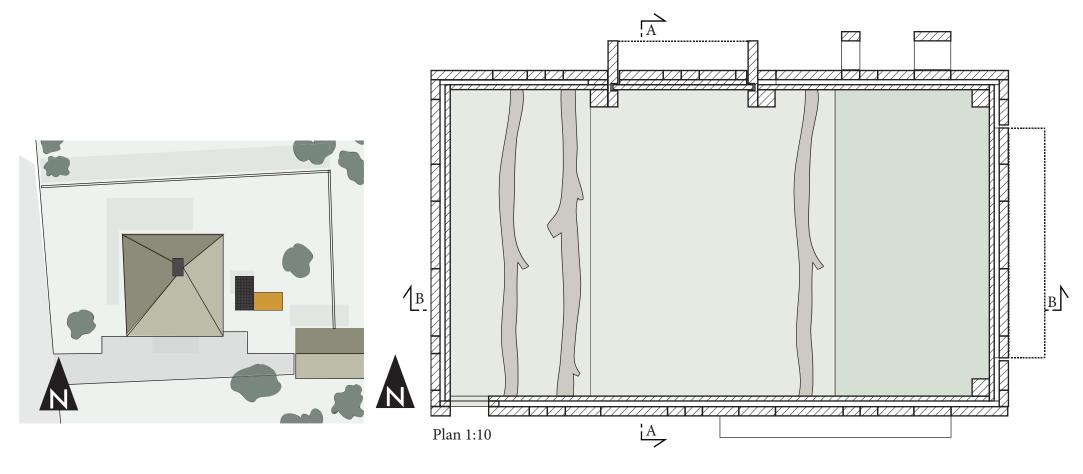


A foldable chair embedded in the facade makes it easy to sit down near your hens and enjoy the company

Easy to clean with a removeable facade

Daylight from the low window of the south facade lights up the food station and prevents unnecessary spilling. The low window also keep the nests dark - as the hens prefer

PLAN



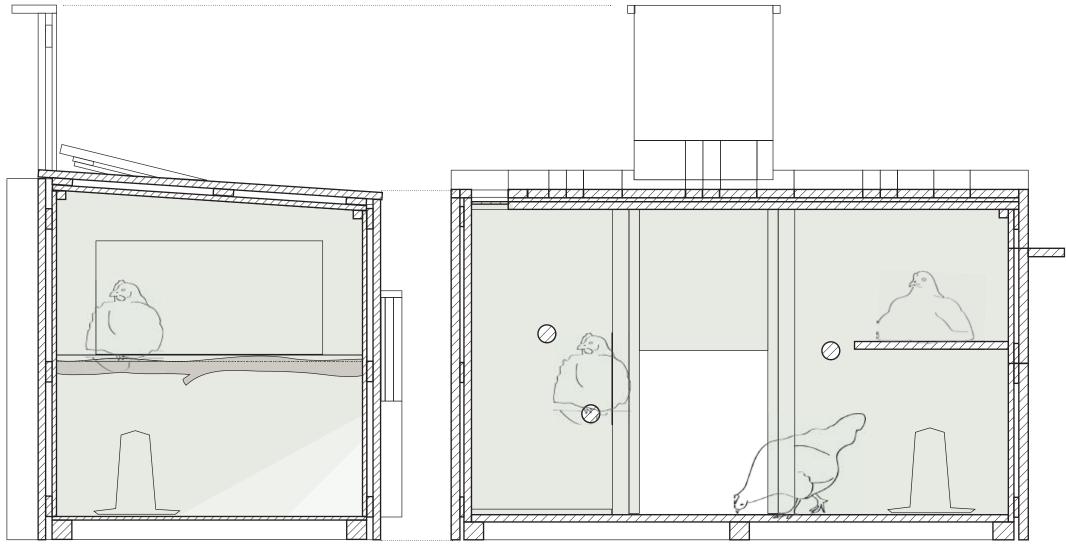
The hen house placed in a typical Tidaholm garden. In addition to the henhouse, a fenced area for the hens is build to protect the hens from predators. We do not suggest any specific design for the fenced area, but let the hen-owners decide what suits them

and their hens best. The hens might be all fenced or strolling free in the garden.

This henhouse is optimal for 5-6 hens which also is the natural size of a herd.

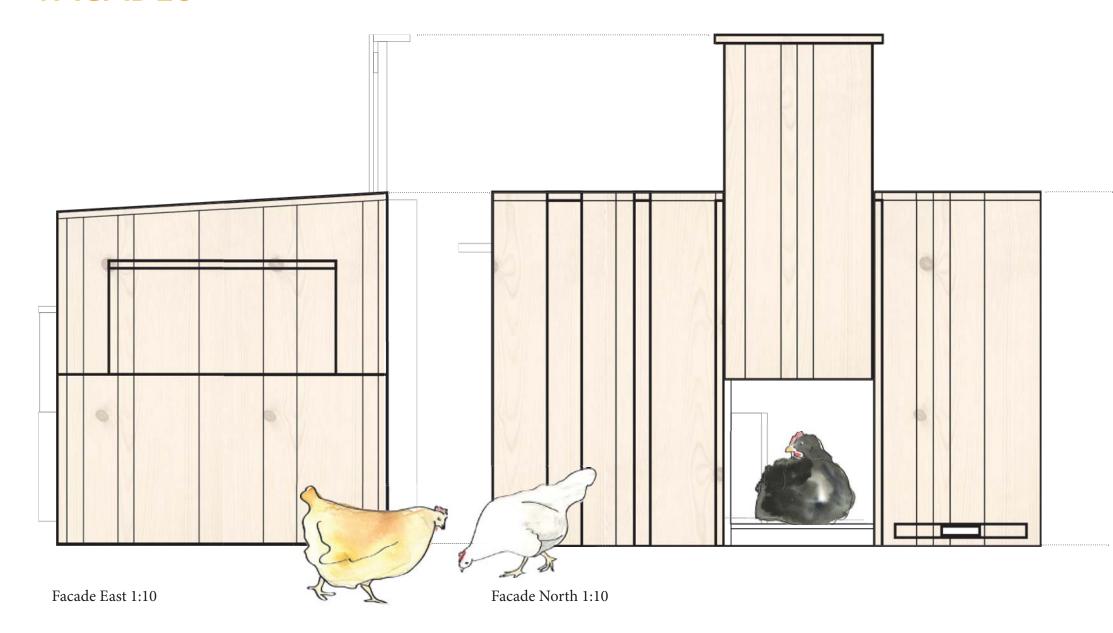
To function as designed, the entrance side of the henhouse is to be facing north. Then the sunlight is optimized for the daily rythm of a hen.

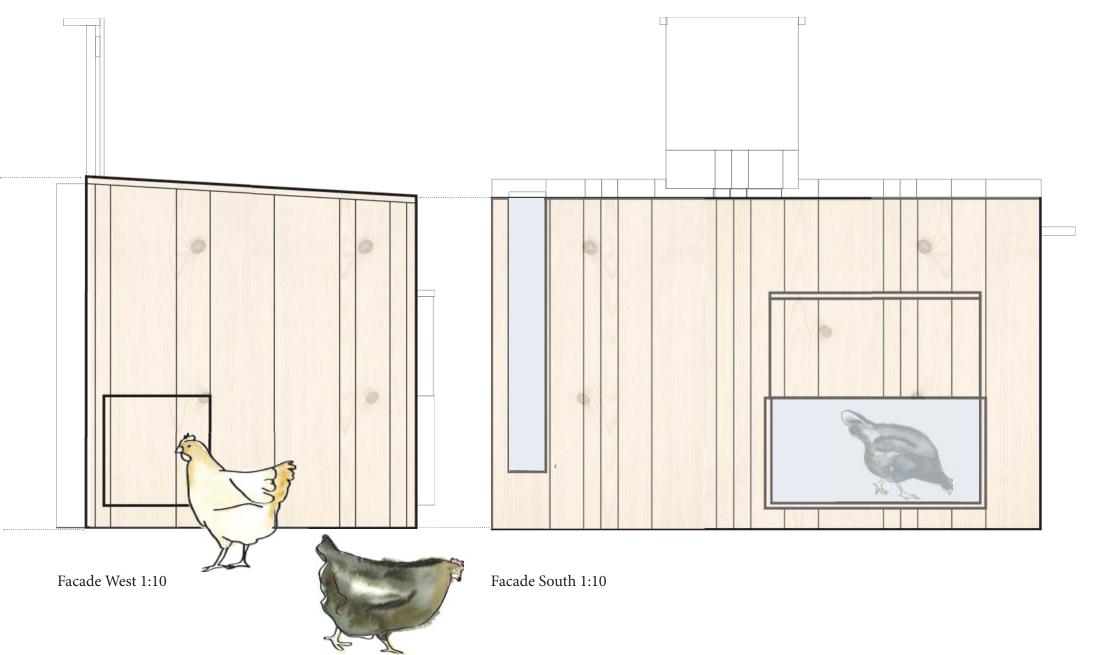
SECTIONS



Sektion A-A 1:10 Sektion B-B 1:10

FACADES

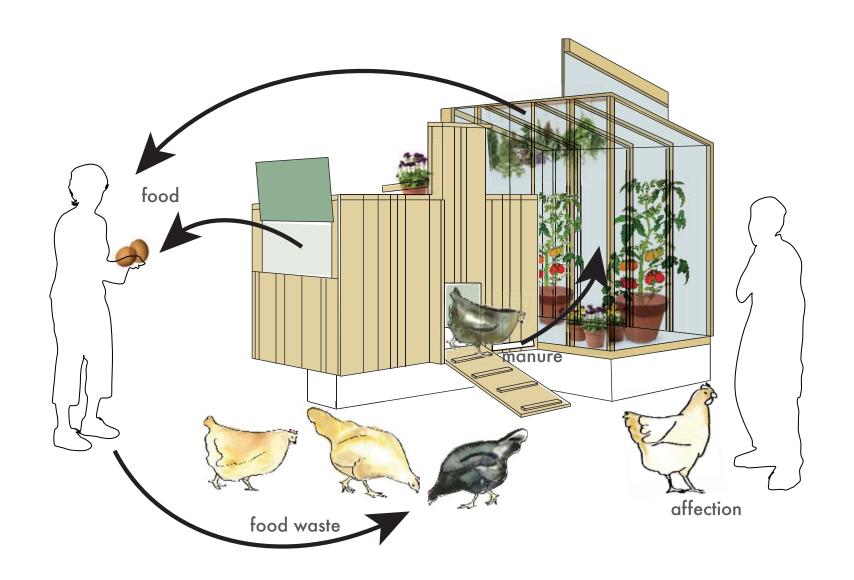




STEP BY STEP: THE NEXT STEP



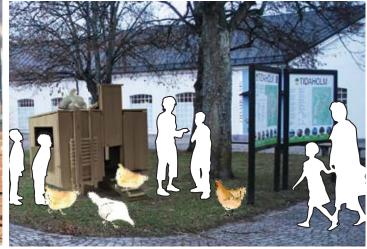
A greenhouse or growingbed is easy to attach to our henhouse by a hatch. Hens happen to work excellent together with a greenhouse or vegetable patch. They fertilize the soil with manure and releases carbon dioxide to the plants which gives oxygen back. Heat from the hens extend the growing season. You get fresh organic food, eggs and veggies, and the rests can be given back to your hens. Closed loops!



OTHER SETTINGS







Villa gardens are of course not the only place this house could fit. You might want to place one at the square to introduce hens for kids and people in the city. Or at a school in an educational purpose. Or just keep them for your self in your backyard.

PROJECT 2 HARVEST FESTIVAL



A FESTIVAL FOR TIDAHOLM BY TIDAHOLM

This is a food festival which is housed in a temporary pavilion in central Tidaholm.

The pavillion is at first a green house where anybody who wants to can help growing vegetables and fruits. By the end of the growing period, the building changes shape into a restaurant and all the food that has been farmed is prepared and eaten at a great feast. The reason for doing this project is to promote the organisation Närproducerat Tidaholm who organises the event and also to spread knowledge about how to grow food for people who are interested.

OVERVIEW



TIME LINE

The Project consists of four phases, as it is illustrated above.

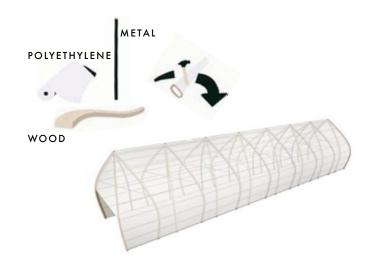
The longest phase is the growing phase which needs to be quite long in order to have everything ready in time.

In the coming pages the different phases will be more explained.

PREPARATIONS

During the preparation part of the project it's decided who wants to help with what. With a homepage this could be easily organised. On the homepage you could say if and what you want to grow, or if you want to help building the structure.

THE DIFFERENT PHASES



ASSEMBLING

During the first week of the project the structure is built. The green house is a type of "poly tunnel", which is basically a greenhouse built with polyethylene instead of glass.

By using this material the building will be relative cheap and easy to build.

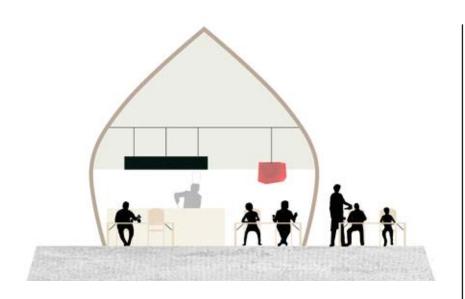


GROWING FOOD

After the building is finished the growing of vegetables and fruits can commence. The things you grow should get ready at the same time for the feast.

During this growing period everybody is organised in teams after what you grow. Every team has an experienced leader and together they meet two times a week to work and have lessons.

Those who are helping out with the growing of food is rewarded with free food during the feast.



FEAST

During the feast, all that has been grown is made into delicious dishes. The ingredients can be complemented with products from the farms in the municipality.

The price of food shouldn't be too high so that everybody no matter income can be a part of the feast.

The festival should be open for everybody in Sweden to visit, but it should have a strong local focus. During the feast, there could be performances of local musicians and there can also be a showcase of local art.



DISASSEMBLING

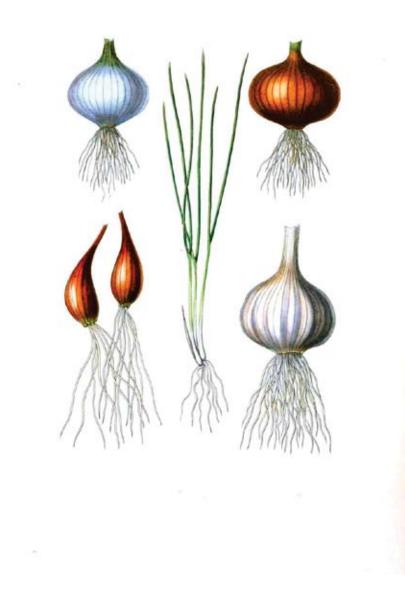
After the feast has taken place the building is dismantled and put into storage until next year when it will reappear.

FORM

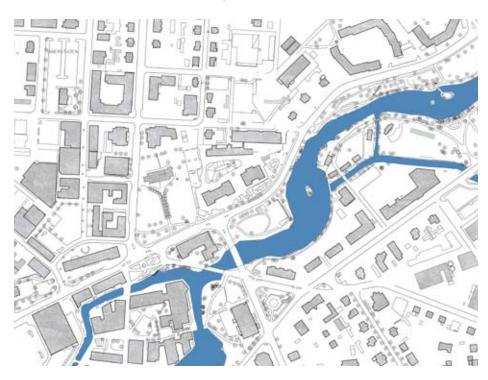
The building has a life cycle much like the vegetables and fruits that is grown within it.

Much like a plant it grows up from the ground, expands during 4 months, ripens and then put to rest until next year.

Because of this, it was interesting to let the shape be inspired from the things that are grown inside it.



SITUATION

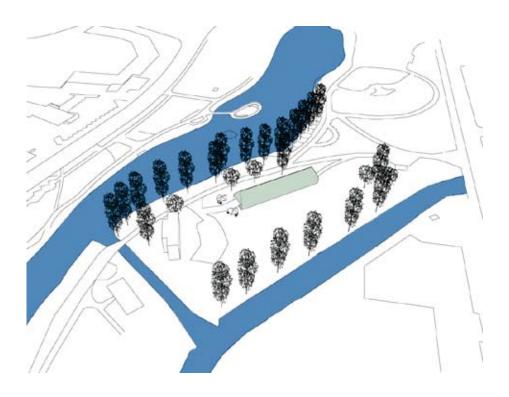


POSITION IN TOWN

The location is selected so that it is central but not too central.

By having the building in central Tidaholm, it is more convenient for people who wants to participate.

The reason it is not more central is because the experience of growing food should be peaceful and not be disturbed by noisy cars.

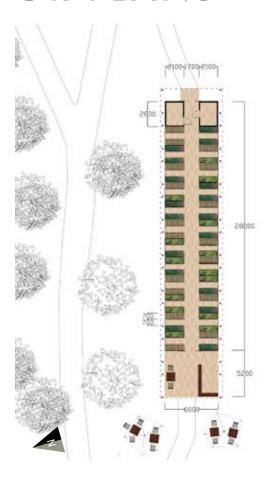


POSITION ON SITE

At the site, the building is positioned so that it connects well with existing walking and biking paths.

The position is also selected because of the topography of the site and to get good sunlight during the feast.

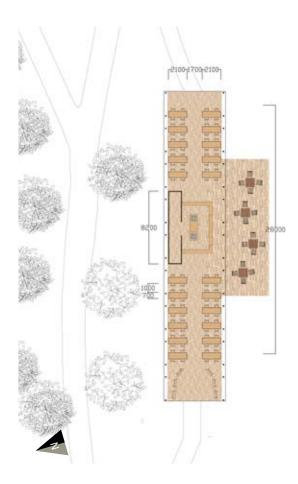
FLOOR PLANS



GROWING PERIOD

The floor plan exists of one central axis with a coffee shop at one end and a storage at the other.

The coffee shop will be open for anyone interested to know more about the project and also maybe sign up for growing something.



FEAST PERIOD

At the site, the building is positioned so that it connects well with existing walking and biking paths.

The position is also selected because of the topography of the site and to get good sunlight during the feast.



View at the building during the feast perid.

DESIGN TOOLS



How does this project relate to the design tools we have set up earlier?

EASY ACCESABILITY

One of our tools where to not create physical ostacles in order to make it more convenient to take part was involved in the festival there is a gallery of phoof the design.

In this project we show that the city environment can be a place of large scale growing of food. You don't have to go to the countryside to experience this.

For someone that's in a wheelchair it is also possible to get to the site and move around in the whole building because it's in the same hight level.

POSITIVE FEEDBACK

In order to give positive feedback to the people that tos in the entrance of building during the feast.

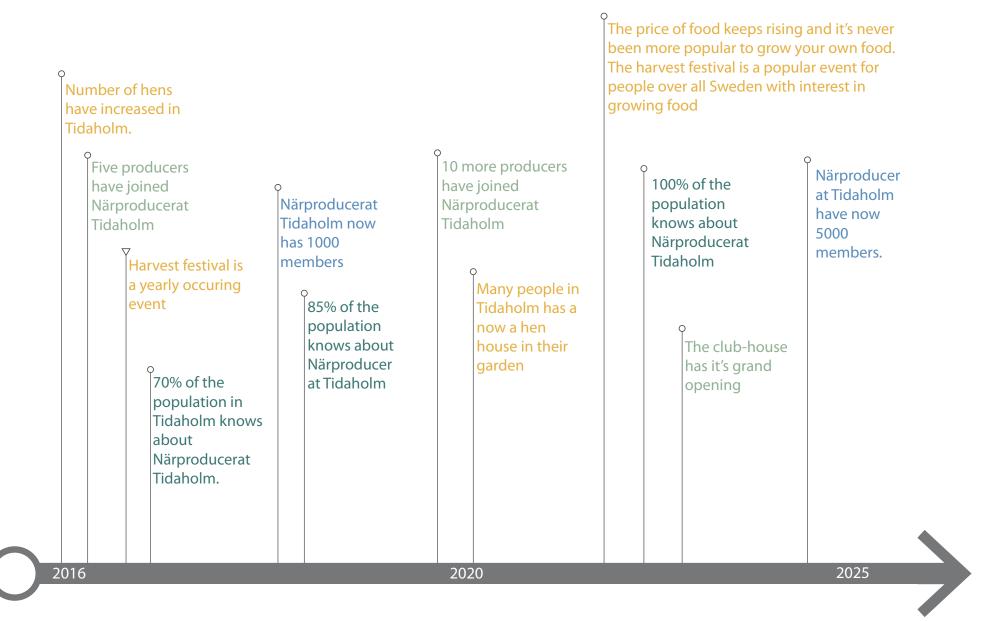
In this gallery there is photos of the people that have worked during the festival. This will make the people that was involved feel more appreciated for the work they've put in.

DIFFERENT LEVELS OF EXPERIENCE

The festival should be interesting for different people with different amount of past experience.

In this project this is achieved in that you select to grow something that you haven't grown before. Or if you know everything about farming, you can be a part of the team that build the polytunnel structure and learn how to do that.

TIMELINE FURTHER FUTURE



SUM-UP

Trough design and using theory about changing behaviour we developed a strategy for Närproducerat Tidaholm. This we believe will help Närproducerat Tidaholm to grow and to be better known in Tidaholm. Hopefully the hen house and the food festival will, in some way, be realized.

If the hen house and the food festival will influence someone to eat more locally produced food or to feel a closer connection to nature, then it shows that architecture can contribute to changing how people think and behave.

We learned that creating a long lasting change often is difficult, but in no way impossible. Our project aims to make people in Tidaholm more aware of the food produced local and that nature is part of us and we a part of nature.

We want to thank the people in Tidaholm for putting up with us. Especially Jonas Ringqvist for taking time to answer our questions and letting us visit his farm

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