

**ARK626 -  
Architectural  
Transformation and  
Environmental care**

Fall 2021 MPARC Chalmers  
School of Architecture

Historical inventory and  
context



# Historical inventory and Context

Following document introduces history of an island Orust, history and evolution of the building ,as well as history of dairy production. It shows graphic visualization of building´s evolution through time and some of the historic photos.

## Students:

Clara Alexandersson Frick  
Ebba Barkfors  
Andrea Eklund  
Kajsa Engelbrektsson  
Michael Gates Carlsson  
Victor Hjalmarsson  
Lisa Johansson  
Michelle Jönsson  
Erkka Juusela  
Barbara Kraus  
Saskia Langbein  
Emma Law-Bo-Kang  
Yongting Lu  
Félix Maisonneuve  
Larissa Müller  
Ebrahim Rahmani  
Jean-Luc Robbins  
Kajsa Rosenlund Lindvall  
Karin Elisabeth Sahlin  
Alida Schultz  
Ondrej Zgraja

## Teachers:

Elke Miedema  
Oscar Carlsson  
Tabita Nilsson

## Examiner:

Joaquim Tarraso

## History of Orust

Orust has been inhabited for about 11 000 years. The first settlers came when the land masses rose from the ocean after the last ice age. They only lived there during the summer months for the fishing and moved inland during winter. Thus, the first summer residents came to the archipelago.

5000 years later the first farmers settled on the island. Different types of grain were farmed, but animals were the most important part of the settlements, cows, sheep, and goats were common, as well as a continuous fishing. Graves are the most common finding from this time.

3800 years ago, the farming had gotten more advanced, and the number of people living all year round has increased. The petroglyphs from this time depict animals used in the farming as well as large ships at sea. The settlements had grown bigger and the houses more permanent.

2500 years ago, the sea level was not very different from today, and Orust was then the one single island with the archipelago to the west as we know it today. Findings of weapons and jewellery of iron speak of a lively trade with southern and central Europe.

Due to a change in climate, it became more important to save food for the winter months, and the taking in of hay was important from this point onward, as it is now. At this point, the forests that had been spread over the island were largely taken down to make way for more farms. The name Vräländ comes from this time and has the same etymological roots as "vråla" or "to shout", most likely based on the roaring of the waves at sea in a storm.

From the year 1050 Sweden was considered Christian (although it wasn't really Sweden yet, and Bohuslän mostly belonged to Norway anyway), and the first churches started to get built. Most of them were on places that had been used for worship for a very long time. The oldest churches on Orust all have even older burials around them. The medieval power struggles between the Nordic countries were often centred around the coast and were difficult for the locals.

During the 1500s Bohuslän still belonged to Norway, that in turn basically belonged to Denmark. Sweden tried, and failed, to take the land on several occasions. During this time-period larger settlements sprung up along the coast, like Mollösund and Gullholmen. These probably came to be due to the herring periods, where schools of fish swam up close to the coast and seemed endless.

The year 1658 Sweden took Bohuslän, and kept it. However the fishing wasn't as good anymore, the forests were all taken down, and the farmlands damaged by all the fighting, the landscape was poor. The situation however was strategic, but the locals didn't like the high taxes the new Swedish lords put on them. One of the darker events at this time were the witch hunts, between the years 1670 and 1672 eight people were burned at the stake accused of witchcraft.

After a few more years of fighting between Swedish and Norwegian troops Orust once again was on its knees. The harsh treatment by the Norwegians at least made the locals like the Swedes more. After some further tax reductions and periods of peace, the island once again came back on its feet.

With the increase of the population during the 1700s the farms became numerous, and smaller. Along the coast farming was combined with fishing, sailing, and ship building to make ends meet. The people lived then at largely the same places as now, the farmers in the middle and the fishermen to the south and west. At this time almost all of the old forests were cut down, and the oaks and beech trees that were once dominant are today almost entirely gone.

In 1752 the herring came back, about 100 years after the last time. The population increased even more, and smaller fishing villages sprung up along the coast. Pickling and salting herring for commercial use became one of the bigger industries on the island.

After about 50 years the herring left, and the people with it. Those that stayed starved. A few cold winters when the ice was too thick to sail further added to the plight. However, boats built for deep sea fishing were made, and at the middle of the century plenty of oat was transported to England. It took a few years for the farming to get going again, many people had left their farms for the fishing, but once it did, Orust could sell plenty of grain from the island to the mainland or abroad.

When large parts of Sweden were hit by miss growth and around a third of the total population emigrated to America, the herring came back, and Orust survived better than most places. Since the forests had been cut down, new trees had to be planted for fuel, and even today, the fir-trees are plentiful over the island. The church was a big part of people's lives, and the priest was the most important person in the community. At this time the tourism started, it came with the steamers that sailed along the coast from Gothenburg. At first it was only the rich and wealthy, but once the law of common vacation came into being the "commoners" also enjoyed the coast. At first the locals rented out their own property, or ran hotels, but as the summer guests became numerous they built their own summer houses.

During the 1900s farming was the main source of income for people here, but with new technologies the number of workers needed reduced. People moved away from the island and in 60 years the population more than halved. By the 30's the island got electricity, which helped immensely on the farms. With the introduction of the milking machine, and the lessening of the grain export, dairy production became the biggest industry.

The wharf industry changed, and boats made of plastics were getting built, these were popular and contributed a lot to the economy. With new bridges and new industries just by them on the mainland people started to return. New schools, service houses, and other facilities have been built over the past 50 years.

*sources: <https://www.orust.se/amnesomrade/upplevaochgora/kulturhistoriakulturav/orusthistoria-ochmiljo.4.440d124c14bd2010b0c5a09c.html>*

*[https://www.orust.se/download/18.69959c3717597462136dc9/1606314030809/Kulturmilj%C3%B6er%20p%C3%A5%20Orust%20Del%201-%20Historik.pdf?fbclid=IwAR34w31aH483rS5D0kufUIOB-SggF3TRWK\\_-ildydKpr9D0pAqHtgYvBBR-I](https://www.orust.se/download/18.69959c3717597462136dc9/1606314030809/Kulturmilj%C3%B6er%20p%C3%A5%20Orust%20Del%201-%20Historik.pdf?fbclid=IwAR34w31aH483rS5D0kufUIOB-SggF3TRWK_-ildydKpr9D0pAqHtgYvBBR-I)*

*<https://kgaa.bokorder.se/sv-SE/download/a323effe-cfa8-4044-b2a0-ed0bb9d6aeef>*

## LMC Mejeri Vråland

### DAIRY PRODUCTION ON ORUST

Milk and other dairy products were once local products of bartering, but became integrated products of the dairy industry on Orust. In the mid 20th century Orust flourished with dairy farms, being the most densely populated area of cows in Sweden. The island then housed 1280 farms. The early predecessors to the modern dairy farms on Orust dates back to the late 19th century initially processing milk through bygone methods.

### DAIRY PRODUCTION AT LMC MEJERI VRÅLAND

In 1935 two larger dairy associations based in Gothenburg united to become Lantbrukarnas Mejeri Central, L.M.C. LMC pondered the question of a centralized dairy industry on Orust, although the dairy farms were considered small in scale, they established the plan for Mejeri Vråland in 1936. The factory and an associated dwelling was completed in 1938.

The Second World War affected the production and availability of resources, resulting in an initial low yield. Post WW2 the production increased, and in 1949 the production was close to twice the amount of the WW2 era. In 1950-1952 the factory was extended and the interior of the original part remodeled, expanding the capacity of the factory which then entered its prime during the decade following.

### THE WORKFLOW

Trucks picked up bottles of milk from dairy farms around Orust and Tjörn and arrived at LMC Mejeri Vråland where a "Truckboy" unloaded the trucks, and the driver delivered the bottles to the tracks, transporting the bottles into the building through a hatch. Inside the quality of the milk was assessed, its amount of fat, durability and purity. The bottles were then emptied out and the milk was weighted. The milk was then transferred through pipes to a larger tank in the basement, before it proceeded to the separator and pasteurizer. From the separator the cream continued as it were or to be churned into butter. The skimmed milk was either cultivated to cheese which was stored in the basement or bottled into the emptied, cleaned and dried bottles.

The yield of the factory was affected by the seasons and reached its heights during summer. The cows typically calved in spring and naturally grass fed during summer. In order for the factory and consumption to meet the yield the factory also produced powdered milk of the excess milk on the second floor out, where the bags also were stored. The factory housed a complimentary store with up to two labourers preparing orders back to suppliers and servicing contact customers.

### THE END

As the dairy industry developed on a national level, new larger scale factories was built which eventually affected the demanded function of the LMC Mejeri Vråland. The different productions at LMC Mejeri Vråland were one by one disused and the dairy factor became an intermediary in a larger system where the factories new main function was weighting, quality control and transport of unprocessed milk before its ultimate closing in 1977.

## Dairy Production

### THE INDUSTRIALIZATION OF DAIRY PRODUCTION

In pre-industrialized Sweden, cultivation of dairy was one of each household and typically a predominantly female labour. With the industrialisation the knowledge of dairy grew, and with it, innovation and a shift from female to male labourers.

The Centrifugal Separator

In 1877 the Swedish engineer Gustav de Laval developed the centrifugal separator, a highly effective device used when separating cream from milk. The centrifugal separator, which initially was operated manually, found its place in Swedish dairy farms within the decades following.

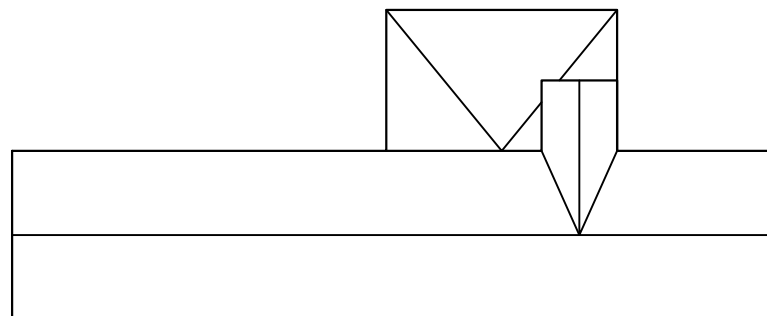
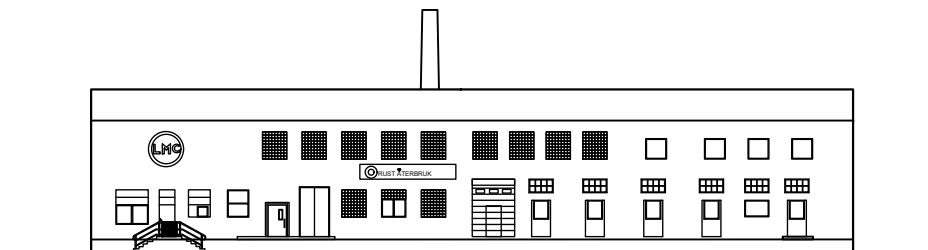
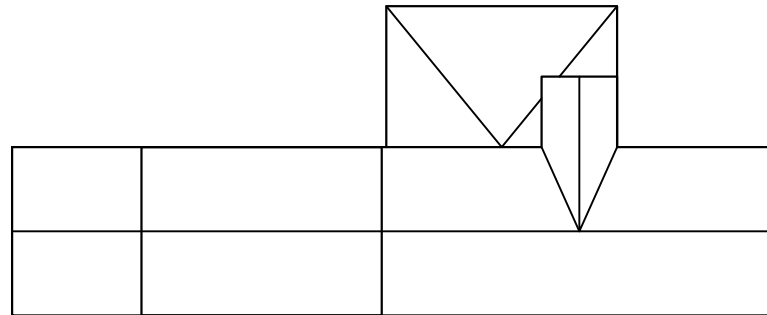
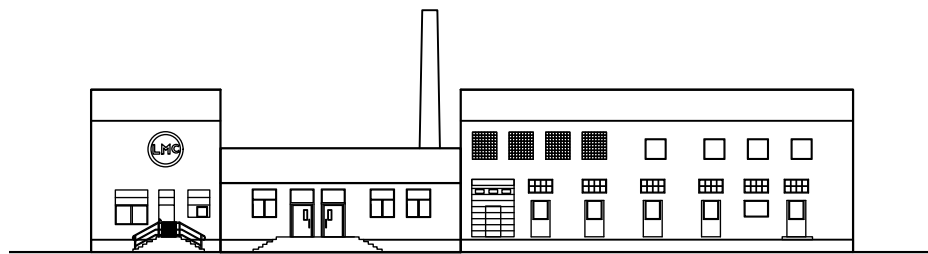
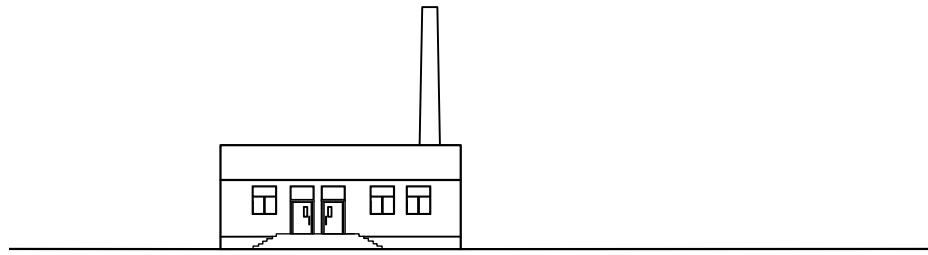
### PASTEURIZATION

Previous to Laval's creation of the centrifugal separator, the French chemist Louis Pasteur invented the pasteurization, a method of heating a food or beverage, to rapidly cool it down, in order to eliminate unwanted bacteria. The pasteurization of milk and cream was established as law in 1937 by Swedish authorities as an attempt to inhibit the spread of tuberculosis.

### THE AUTOMATED HARVESTING OF MILK

Gustav de Laval made another contribution to the industrialisation of dairy production by developing alternatives to the labour-intensive manual harvesting of milk through an early model of the milking machine patented in 1907. Adjusted versions of the milking machine were implemented in farms up until the 1970s when manual harvest was replaced altogether.

These three methods of manipulating milk developed further, becoming more effective and customized to the large-scale global production of dairy products, playing a significant part in the contemporary agricultural food industry.



**1938**

Construction of the original dairy is complete.

**1950**

Transformation started.  
Original building was added to  
before rebuilt.

**1952**

Transformation complete.

