

**ARK626 -
Architectural
Transformation and
Environmental care**

Fall 2021 MPARC Chalmers
School of Architecture



Site inventory

Site inventory

In this booklet you will find information about our site and island Orust regarding the geographical context, environmental analysis, cultural environment analysis, socio-cultural context, infrastructure, and resources.

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

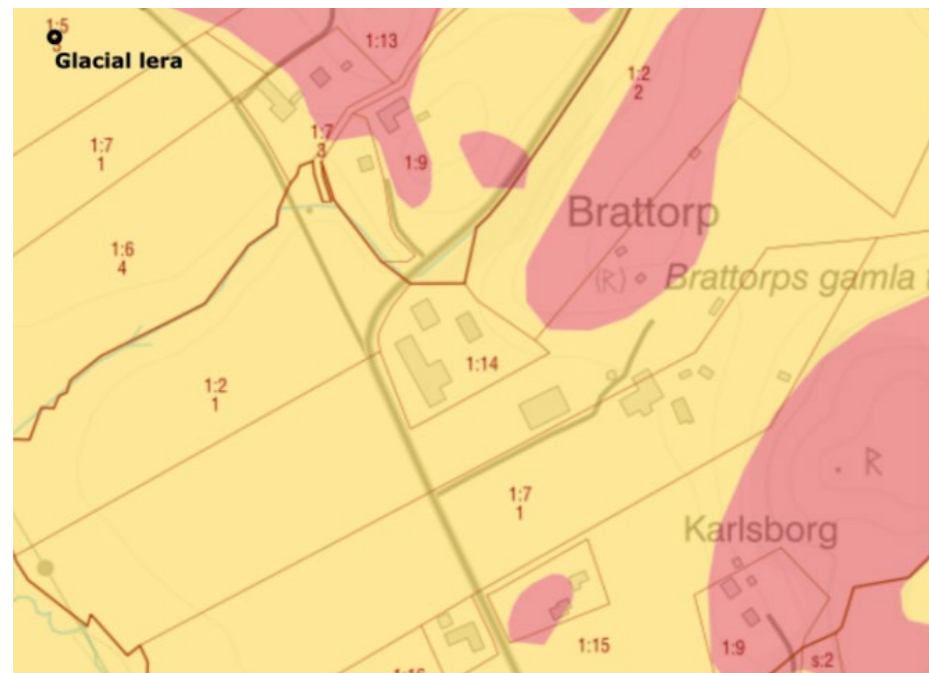
Examiner:

Joaquim Tarraso

Geographical context

Orust is the fourth biggest Island in Sweden.

The geological conditions of our site is glacial clay (yellow) bedrock (red). These are also the most common conditions around the Island.
(source: sgu)



<https://www.sgu.se/produkter/kartor/kartvisaren/>

Enviromental anlysis

THERE ARE 28 PROTECTED SPECIES ON ORUST:

Havsöring (<i>sea trout</i>)	Hasselsnok
Labbb	Tobisgrissla
Silltrut	Saltmålla
Havsörn (<i>sea eagle</i>)	Västkustros
Pilgrimsfalk (<i>peregrine falcon</i>)	Orustbjörnbär
Berguv (<i>eagle owl</i>)	Rosenbjörnbär
Gulärta (sydlig)	Krypfloka
Kärrsnäppa (sydlig) (<i>marsh snake</i>)	Kustgentiana
Höksångare	Bohusmarrisp
Törnskata	Uddnate
Hämpling (<i>lesser woodpecker</i>)	Safsa
Mindre hackspett	Pukvete
Smådopping	Smal käringtand
Stinkpadda	Apollofjäril (<i>apollo butterfly</i>)

NATURE TYPES ON ORUST

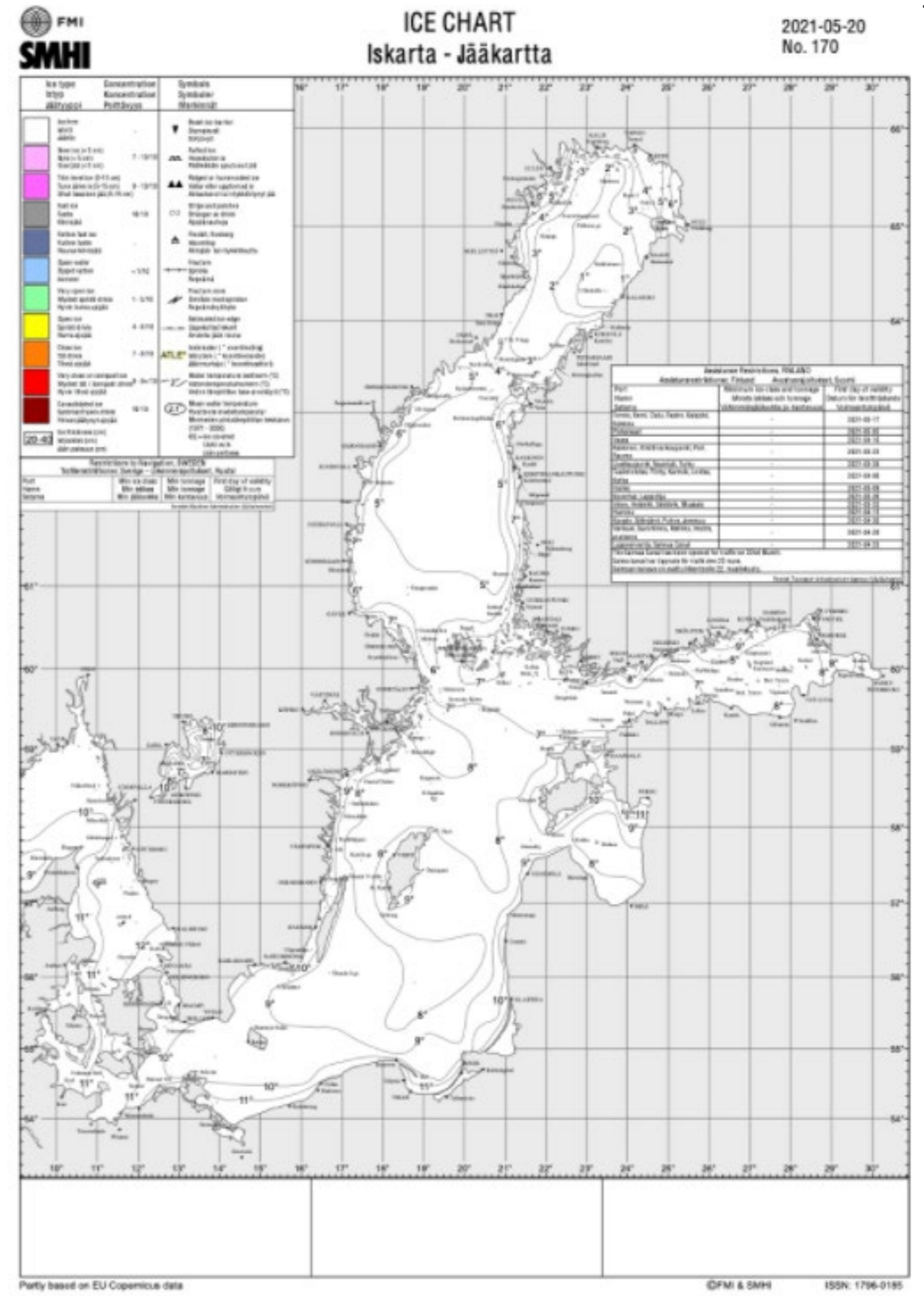
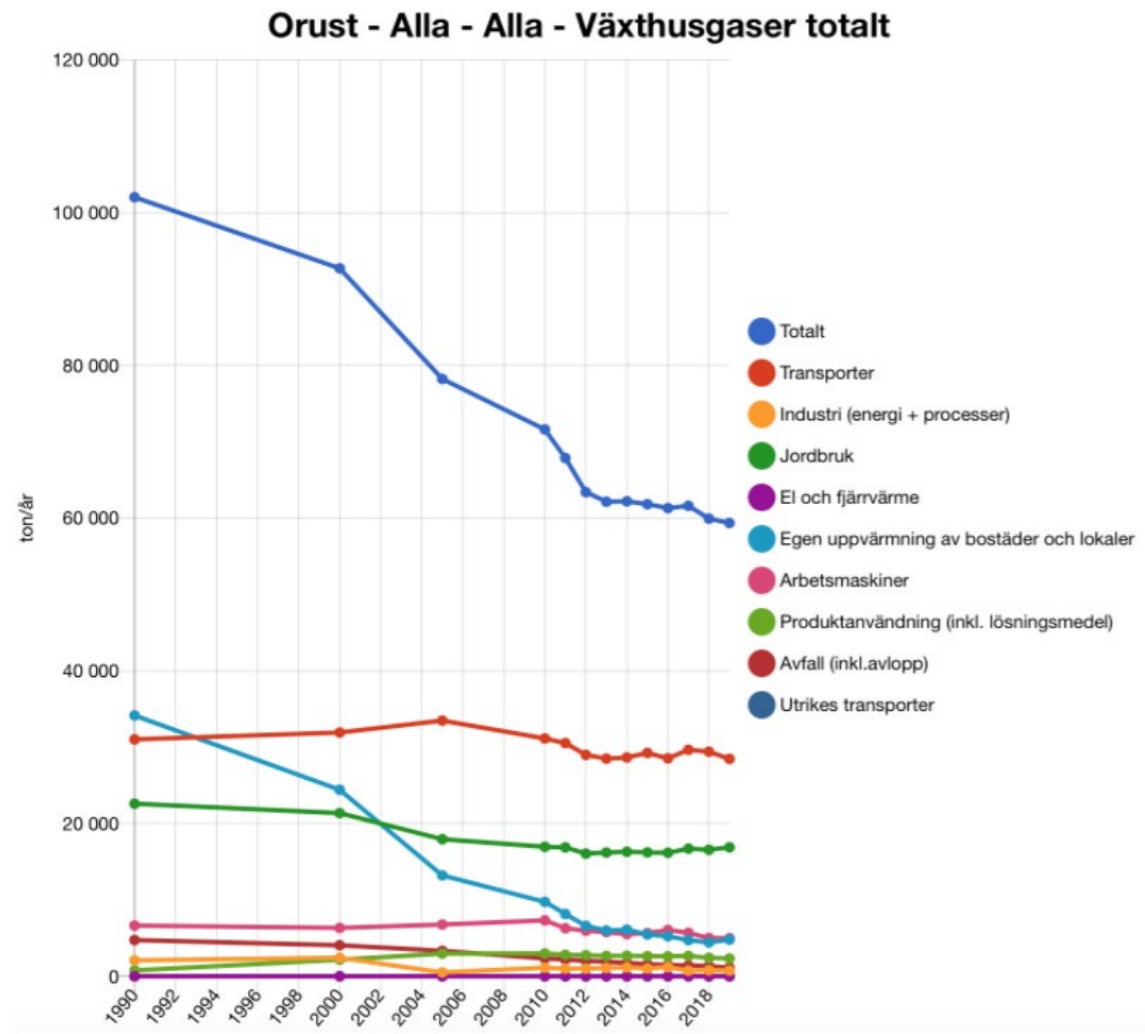
Undervattensängar med ålgräs	<i>Underwater beds with eelgrass</i>
Musselbankar på sedimentbotten	<i>Mussel banks on the sediment bottom</i>
Kustnära betesmosaiker med klipphedar, ljunghedar, torrängar och busksnår	<i>Coastal grazing mosaics with rock moors, heather moors, dry meadows and bush thickets</i>
Havsstrandängar (sältor)	<i>Sea beach meadows (salts)</i>
Vegetation på skalgrusbankar	<i>Vegetation on gravel banks</i>
Randlövsskogar	
Kustnära insjöar	<i>Coastal lakes</i>

FJORD AND WATER PROTECTION INITIATIVES ONGOING

projekt ren kust
projekt +8 fjord

<https://www.lansstyrelsen.se/vastra-gotaland/natur-och-landsbygd/hotade-arter/vilda-pollinatorer.html>

<https://www.lansstyrelsen.se/vastra-gotaland/djur.html>



Cultural Enviroment analysis

Some of the most visited places on the Island is the old fishing town Mollösund. Smaller Islands around the city are also frequently visited in summertime, such as Käringön and Härmanö (nature preservational area).

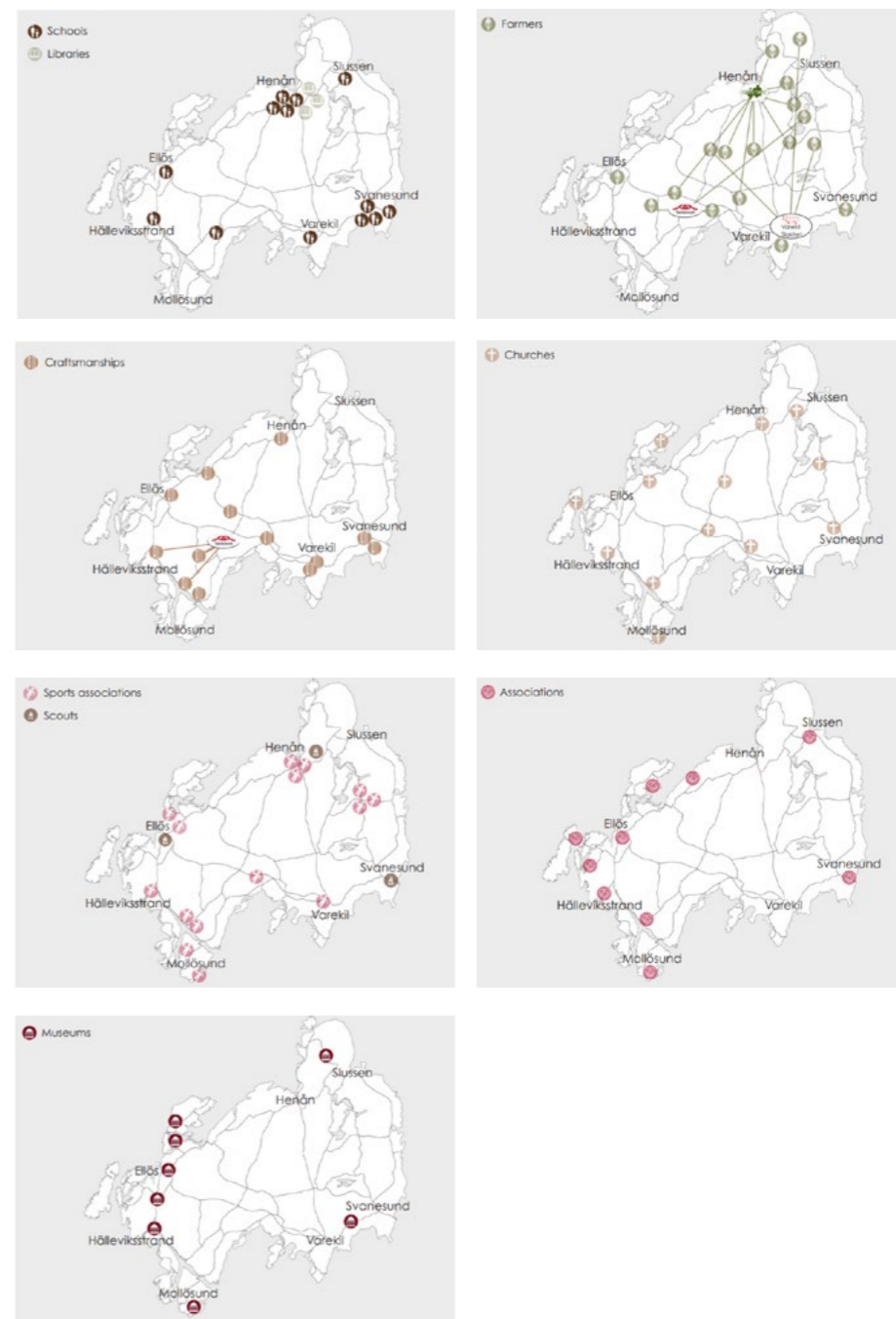
Slussens pensionat organizes concerts during summers. The Swedish artist Evert Taube lived here during periods of the 1940:s. (source: väst-sverige)

Socio-Cultural context

15 000 people in approximately 7500 households are living on Orust all year around. 60 % of the inhabitants live outside a densely built-up area.

The area with the most inhabitants is Henån located in the north. In 2019, 2310 people lived here. Most of the densely built-up areas are located close to the sea. Mollösund is one of the most visited spots during summertime. All year around there are under 300 people living there.

In summertime the average number of people on the Island is 40 000 people. There are 6000 summer houses located on the island of which around 5000 are owned by people not living permanently on the Island. The average age is 47,7 years. That's about 6 years above average in Sweden. 91,1 % of the inhabitants are born in Sweden. (source: scb, orust kommun)



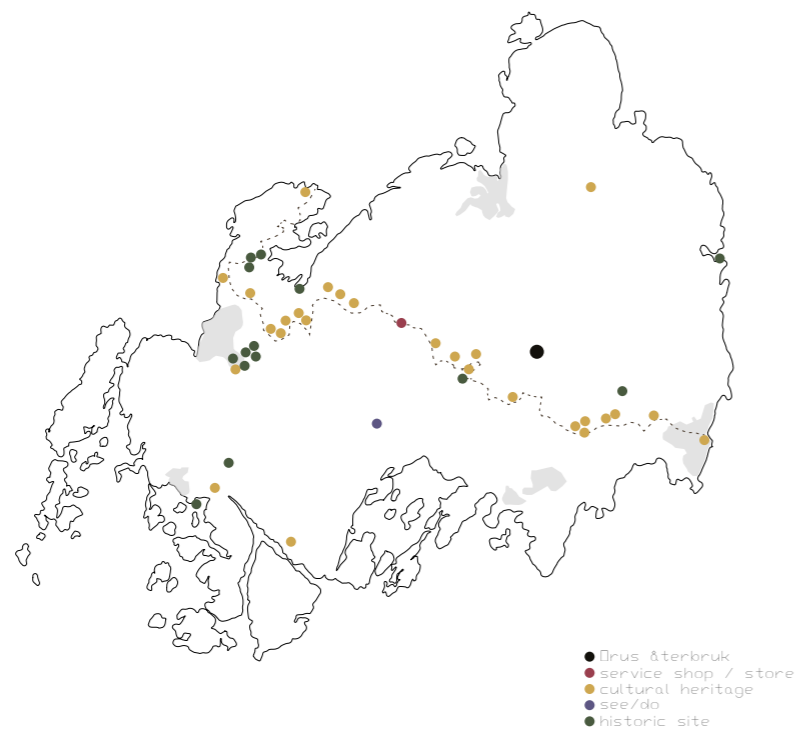
https://www.orust.se/download/18.7de757dd160d9f1861b2b88f/1516004637436/NeighbO-RUST%20Bok_.pdf?fbclid=IwAR3vc0e_CZk7z1AxeNkyEXydiRXGrx5Si3E-MZxxC0xE1iAD26jfHZQlwM

Infrastructure

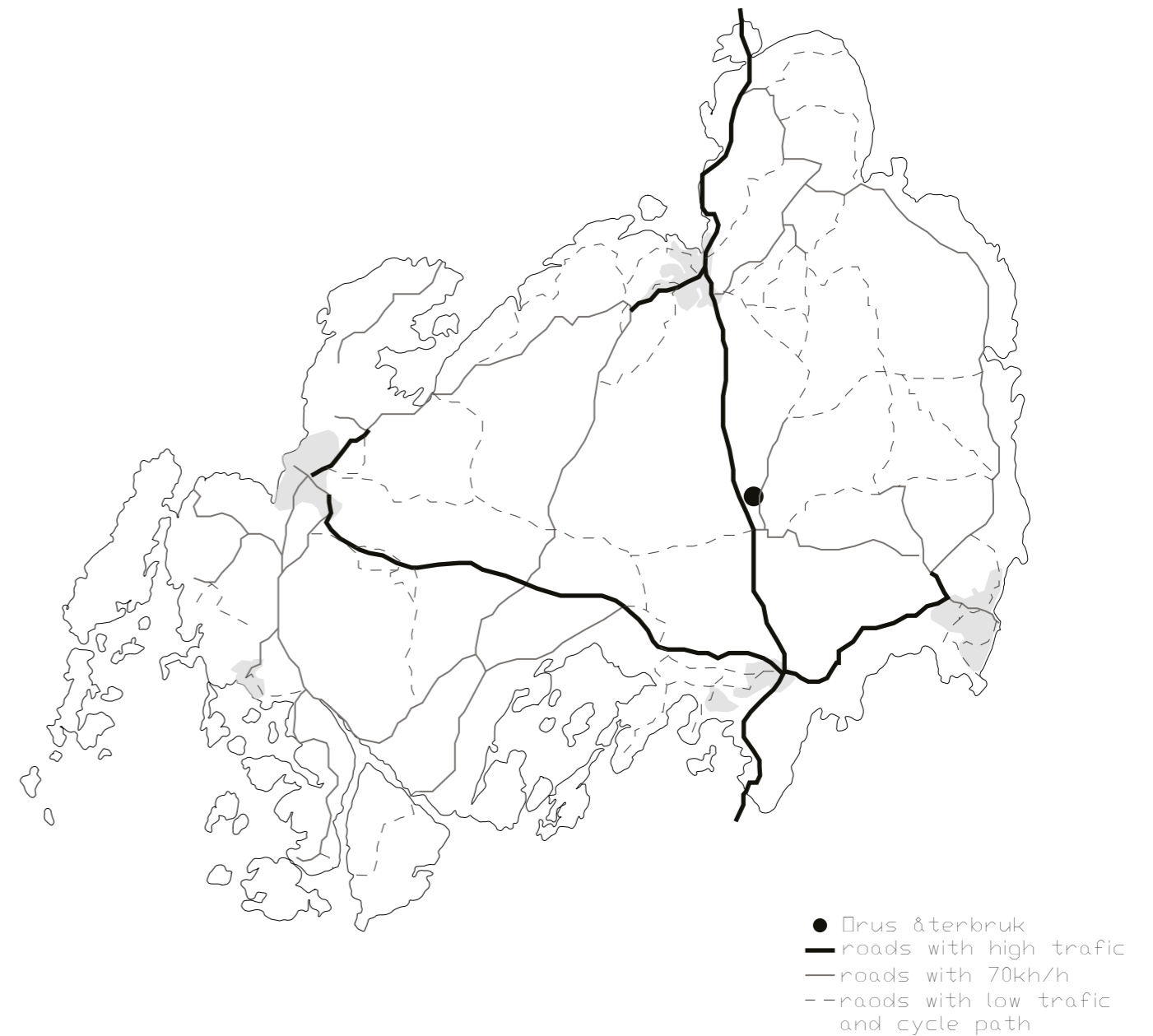
HIKE AND ACTIVITIES

The following map illustrates the hiking trail named Orust Tvärs, which can be explained as across Orust in English, and is a part of the hiking trail throughout Bohuslän. The trail stretches from coast to coast and has a total distance of 40 kilometers, with some places reaching 100 meters above sea level. The hiking trail connects 64 historical and cultural memories that together tell the story of Orust.

As illustrated in the map you can see that the old dairy industry is not included in the hiking trail, nor is it seen as a cultural heritage. Seeing the building as part of Orust's history and connecting it with the trail would mean an increased flow of people, which would benefit future activities and functions in the building.



ROADS AND CYCLE PATHS



Resources

Orust's future goal is in line with the region's climate goal and to be fossil-free independent in 2030, with a focus on reducing the largest carbon dioxide sources, transportation and energy. Transport at Orust is higher in relation to the rest of the Västra Götaland region, and the amount of eco-friendly cars are lower. Strategies are to increase the amount of renewable energy, focus on electricity / hybrid traffic and sustainable urban planning. More social and economical goals is that Orust should be an attractive place for residents, visitors and business, with collaborations over borders.

Energy resources today

- 77 % Electricity
- 2 % Petrol
- 3 % Fuel mix
- 9 % Diesel
- 9 % Oil

In 2014, 39 percent of the municipally owned premises were heated with renewable energy from district heating. There are currently five larger wind turbines and a few smaller ones on the island, located in the towns Hårleby, Mollösund and Myckelby. Plans to increase the amount of wind power have already been made. Measurements of water have been made which show that two places off the coast of Orust would be suitable for future underwater turbines and energy production. There is also a vision of increasing the energy from solar cells as a strategy in order to reach Orust climate goals.

Business - There are about 2000 on-going businesses on the island today, which employs between one to ten people. The boating industry together with the tourism business is the largest part of the island's income. For that reason, it is important to protect Orust's beautiful environment and nature in order to preserve and increase tourism on the island. The opportunity to be a tourist on the island without being dependent on a car is a concrete example that both strengthens tourism and reduces transport emissions.