



Geoparks and Landscapes in the province of Bohuslän, Sweden

Lennart Bornmalm

Case study: Geoparks and Landscapes



The Bohuslän archipelago is unique in many ways - but from a scientific perspective, the landscape is associated with its mountains, and beautiful sharpened slabs. However, once upon a time, Bohuslän was completely smooth. Wind, water, ice sheets and powerful movements in the earth's crust have shaped the landscape as we can see it today. The Bohus granite was formed when the Baltic rock shield collided with a slab under the sea about 900 million years ago. The oldest rocks in the landscape were formed 1.8 billion years ago, from weathered material from a former continent, and from volcanic activity. This is especially for Sweden that Precambrian bedrock is exposed, when it on the continent can be tens to hundreds of meters below sedimentary rock and soil layers.

Bohuslän



Bohuslän

PLATFORM

BERGGRUNDEN

1:1 500 000

— Fonosteng, krit- eller torstingbergart

M Mylonitoner

L Lofotitoner

Legbergartar och gångbergarter

Dubbel, kritpartyr (ca 250 milj. Å)

Metakalkes (t ex glinrar på Koster och Gotska Sandön)

Ytbergarter

Linsiter (skär)

Kalkes (rocksilur)

Linsitker med alunsilfer-kiselkalk (rocksilur)

Sandsten (kambrium)

Sandsten och sliffer (Väringiabergen, ca 700 milj. Å)

Sedimentär bergart, mörk vulkanisk bergart (Väderöberggruppen, ca 1 200 milj. Å)

Sedimentär bergart, grusig och lösad (från Le-Holmöndögården, ca 1 600 milj. Å)

Ljus vulkanisk bergart och sedimentär bergart, vandringsgnejsiga (ca 1 620 milj. Å)

Mörk vulkanisk bergart och sedimentär bergart, gnejsiga (ca 1 800 milj. Å)

Djupbergarter

Oxit (bråtagent, ca 820 milj. Å)

Gabbro (ca 316 milj. Å)

Pegmatit (ca 1 000 milj. Å)

Granit, gråsig, ofta mörkgrå (1 010-1 220 milj. Å)

Granitocit, gråsig - lösad (ca 1 600-1 800 milj. Å)

Granitomofit, lösad, ofta banded (1 700-1 870 milj. Å)

Granitvarvslit, vandringsgnejsiga (1 440-1 600 milj. Å)

Gabbro, dikt, grågrå



Bohuslän

The business community in Bohuslän has been dominated by roughly four livelihoods:

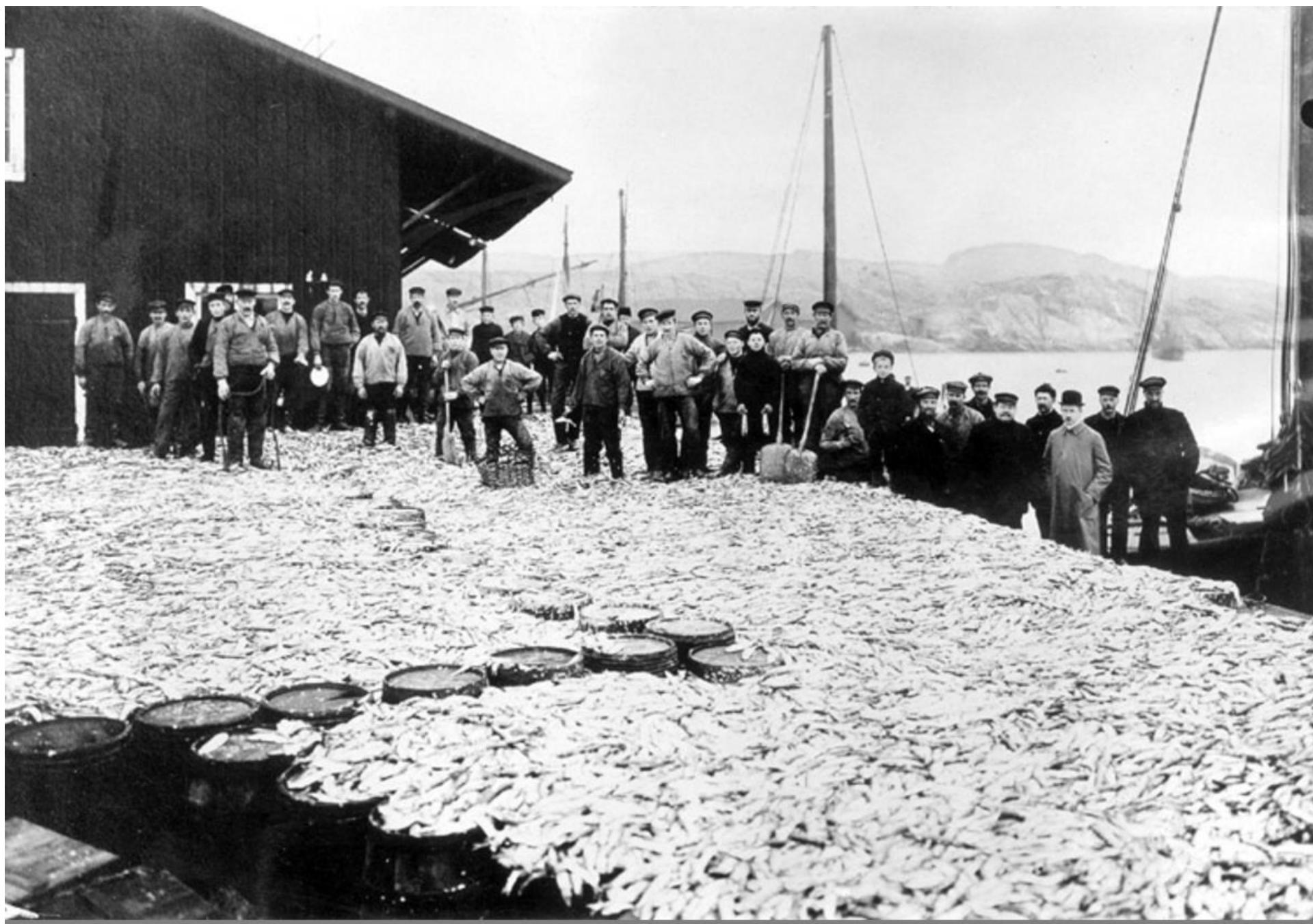
1. Fishing (Herring fishing periods)
2. stone industry
3. shipping
4. agriculture
5. Beach resorts

Herring fishing periods 1747-1809



Herring fishing







Bohuslän





Bohuslän



Stonemasonry



Bohusläns museum



Foto: Gullers, K W

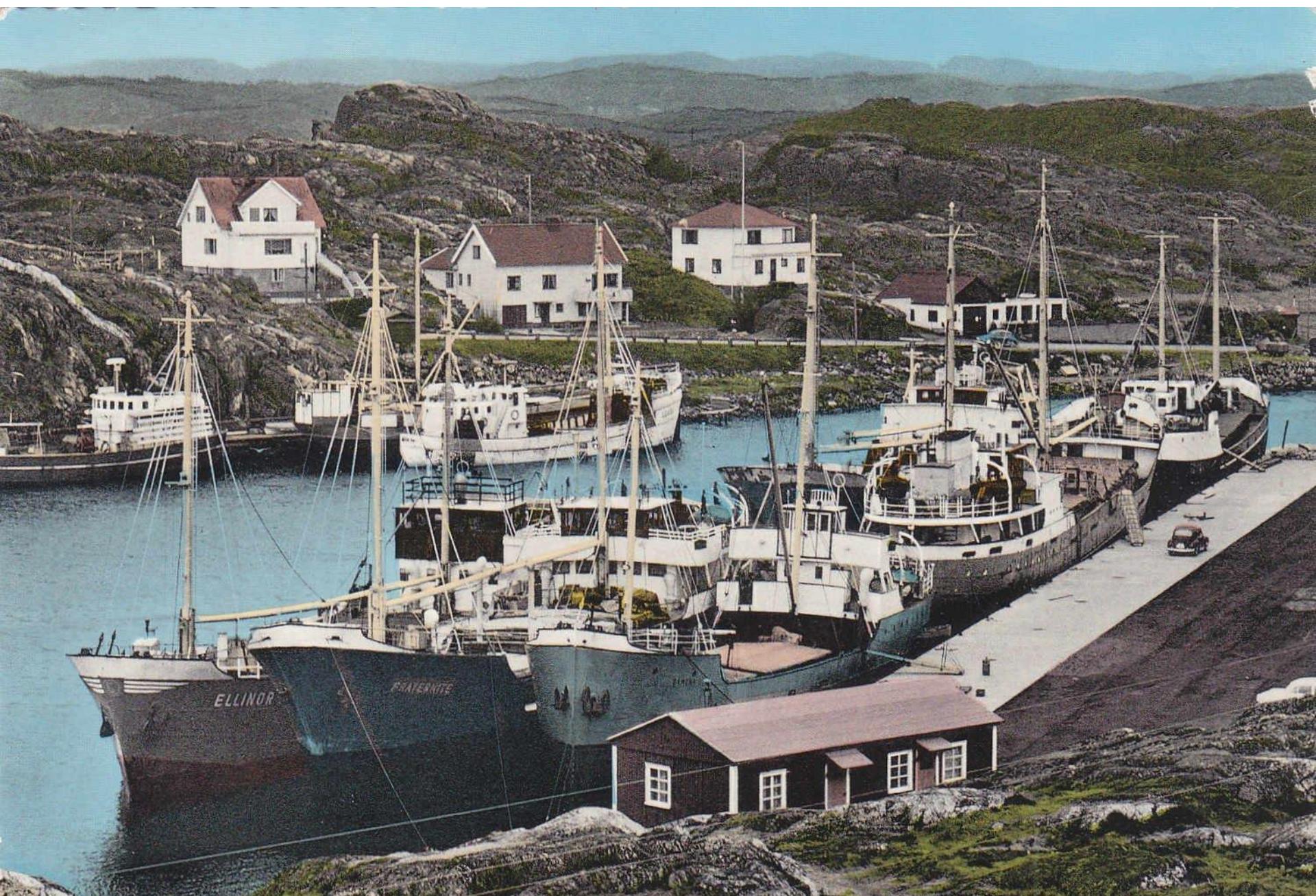
Bohusläns museum

Foto: Evers, Ralf

Stonemasonry



Shipping



Agriculture



Bohuslän

3





Bohuslän - Smögen



Skärhamn today



Bohuslän - Smögen



Bohuslän - Skärhamn



Question at issue:



If sensitive parts of the Bohus coast is not managed with a sustainable landscape perspective, e.g. as Geoparks, what consequences would it entail for future developments in 10-50 years?

A general case study regarding Geopark functions and importance for Landscape development

Geopark Goals

**Geo-Heritage Awareness and
Preservation**

**Cultural Heritage Awareness
and Preservation**

**Landscape Socio-economic
Sustainability**

Geopark Landscape components

Protection reserves

Industry

Agriculture

Tourism

Service sector

Regional infrastructure

Population (permanent)

Seasonal residents

NGOs

Gov. offices (county)

**Is there an optimal combination of components
that facilitates the Geopark Goals?**



Case studies

- Each case study needs to have a summary (c. 1 page) to be posted on the website.
- The proposer needs to have a good idea of the conceptual modeling process in order to lead the work with the specific case study *and including others in this process*.
- Think about the possibilities for SGEM papers related to the case study
 - Abstract deadline – late May
 - Paper deadline – June
 - The presentations could use a poster format (see Rod's examples)
- PLATFORM aims to cover the conference fees for those who are presenting papers related to our project goals and that will be used to support the conference PLATFORM workshop.