



A Landscape Is Made

The interaction between geology, people,
and nature in Platåbergens Geopark



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Global Geopark

 PLATÅBERGENS GEOPARK

A geopark is an area with a geology of international importance – something unique that you can't find anywhere else in the world.



A geopark tells the story of how geology, biology, people, and cultural history are connected. A geopark deepens our understanding of how to be the best stewards of our natural resources and our planet. But it also allows for a positive rural development, for example through developing the tourism sector and activities for children and teenagers. Platåbergens Geopark stretches across nine municipalities in the region of Västergötland: Grästorp, Vänersborg, Trollhättan, Lidköping, Götene, Mariestad, Skövde, Falköping and Skara. 2022 Platåbergens Geopark was given status as Sweden's first Unesco Global Geopark.

Find out more at www.platabergensgeopark.se

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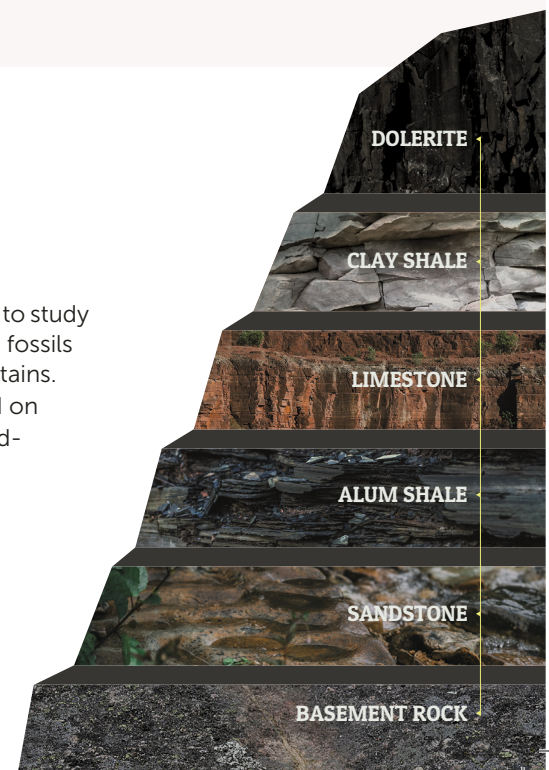
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The contents of the table mountains

The rocks here bear witness of several major geological processes that are important to study if we want to understand our planet's development. For example, you can find both fossils of extinct animals and some of the world's oldest meteorite finds in the table mountains.

The rocks in the table mountains are stratified, which means that they are layered on top of each other in the following order (from the bottom up): basement rock, sandstone, alum shale, limestone, clay shale, and dolerite.



A life-giving geology

Millions of years of geological events have created a fascinating landscape in Platåbergens Geopark. Bedrock, topography, soil conditions, and access to water provide different conditions in different places.

Formation of the mountains

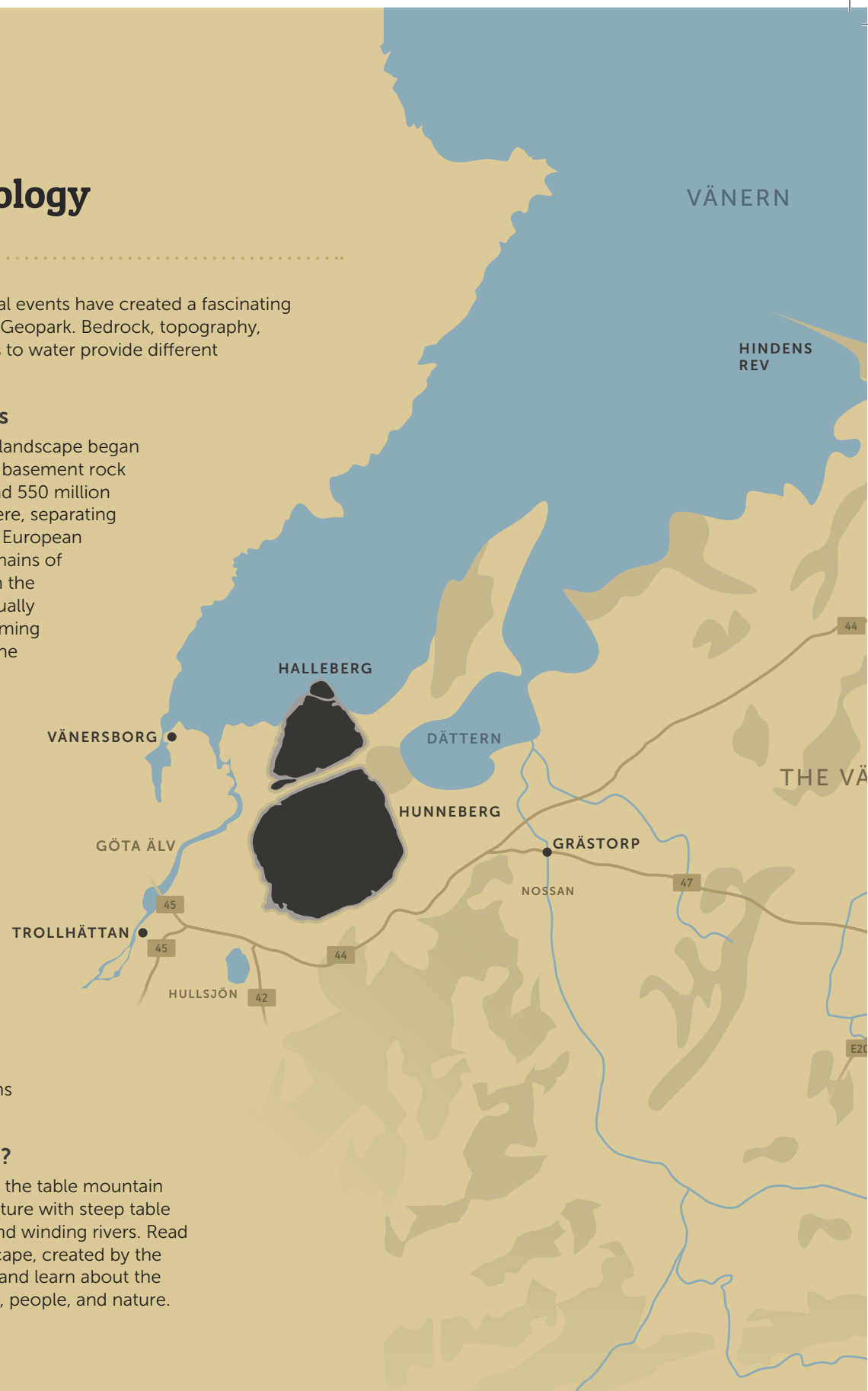
The history of the table mountain landscape began around 1.7 billion years ago as the basement rock formed. A long time later, at around 550 million years ago, there was a large sea here, separating the North American and Northern European continents. Sand, clay, and the remains of living organisms were deposited in the shallow sea. These deposits eventually hardened and turned to stone, forming the sedimentary rocks we find in the table mountains: sandstone, alum shale, limestone, and clay shale.

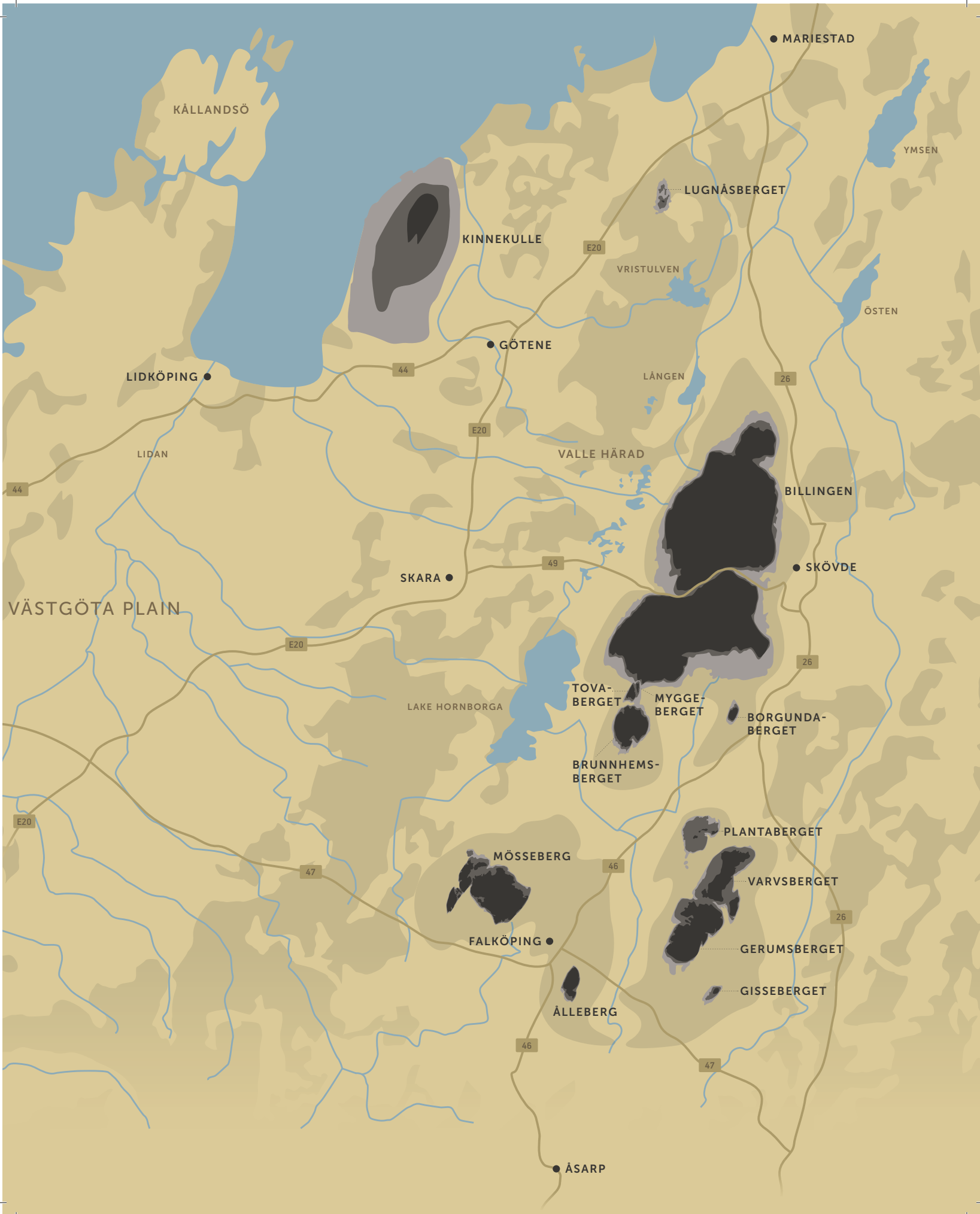
Shaped by the ice

The landscape we see today was to a great extent formed by the last ice age, which began around 115,000 years ago. An ice sheet, up to 3.5 kilometres thick, covered the area of the geopark. The enormous pressure exerted by the ice and its movement against the rock tore off boulders and stones which were then grinded into small particles in the form of gravel, sand, and clay. The landforms and materials left behind by the ice created the basic conditions for human, animal, and plant life.

Do you want to know more?

Come along on a journey through the table mountain landscape. Encounter a varying nature with steep table mountains, curious kettle holes, and winding rivers. Read more about this marvellous landscape, created by the mountains, the ice and the water, and learn about the relationship between geology, soil, people, and nature.





KÅLLANDSÖ

MARIESTAD

YMSEN

LUGNÄSBERGET

KINNEKULLE

E20

VRISTULVEN

ÖSTEN

GÖTENE

LÄNGEN

26

LIDKÖPING

44

LIDAN

E20

VALLE HÄRAD

BILLINGEN

44

SKARA

49

SKÖVDE

VÄSTGÖTA PLAIN

E20

LAKE HORNBORGA

TOVA-BERGET

MYGGE-BERGET

BORGUNDA-BERGET

26

E20

BRUNNHEMS-BERGET

PLANTABERGET

47

MÖSSEBERG

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VARVSBERGET

FALKÖPING

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GERUMSBERGET

ÄLLEBERG

GISSEBERGET

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ÅSARP

47



THE PENEPLAIN, NORDKROKEN | 58°23'15.3"N 12°24'09.0"E

The flat rock surface at Nordkroken existed more than half a billion years ago! It consists of bedrock which originally formed as part of an enormous mountain range around 1,700 million years ago. This mountain range might have been as tall as the Himalayas but it eventually eroded down, creating the flat landscape you can see today. This flat surface is known as the Sub-Cambrian peneplain.

The basement rock – flat rock surfaces and barren beaches

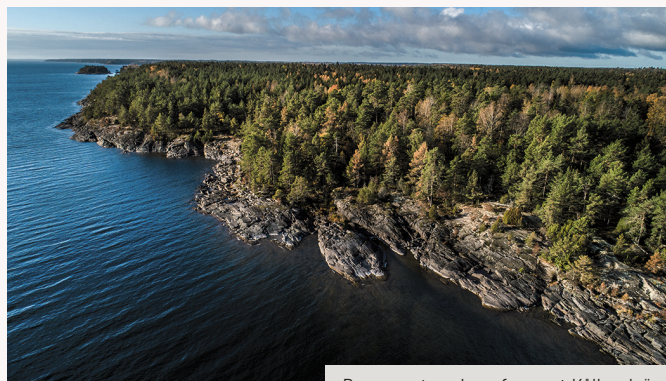
The oldest bedrock was covered by sedimentary rocks for a few million years, but when they eroded the basement rock became visible again. New sediments in the form of sand and clay were deposited during the latest ice age, and they still cover most of the basement rock. It is only where the soil cover is lacking that the basement rock is laid bare.

Around 600 million years ago, the basement rock in large parts of the geopark had eroded down to an almost flat surface – a so-called peneplain. For the main part, the peneplain is no longer visible. It has been overlaid by sedimentary rocks and loose layers of soil, but it is still visible in a few places. The largest visible area is at Nordkroken by Lake Vänern, but smaller areas can be found in the city of Trollhättan.

The vegetation is restricted to various lichens, occasional mosses, and a few hardy plants, which cling to cracks in the nutrient-poor bare rock.

Barren beaches and bedrock forests

Along the coast of Lake Vänern is an archipelago with small



Basement rock surfaces at Källandsö.

islets and bare rocks along the beaches – distinctively so out on Källandsö. Closest to the water vegetation is sparse, with bare rock surfaces, heather, brushwood, and low-growing shrubs. In the nutrient-poor forests growing on the bedrock, the trees grow slowly. Where the forest is untouched, you can find gnarly, bent oaks and pines grown into fascinating shapes.

Islands of coniferous trees among the fields

The open horizon of the Västgöta Plain is broken here and there by small forests of coniferous trees. These grow on till-covered basement rock protruding from the surrounding clay, and they give rise to a completely different kind of industry than the fertile clay soils on the plain. Instead of agriculture, forestry is the business here. Planted spruce trees and pines dominate these forests. The ground is covered by brushwood and other plants, such as lingonberry and blueberry. ♦



Lingonberries and blueberries.

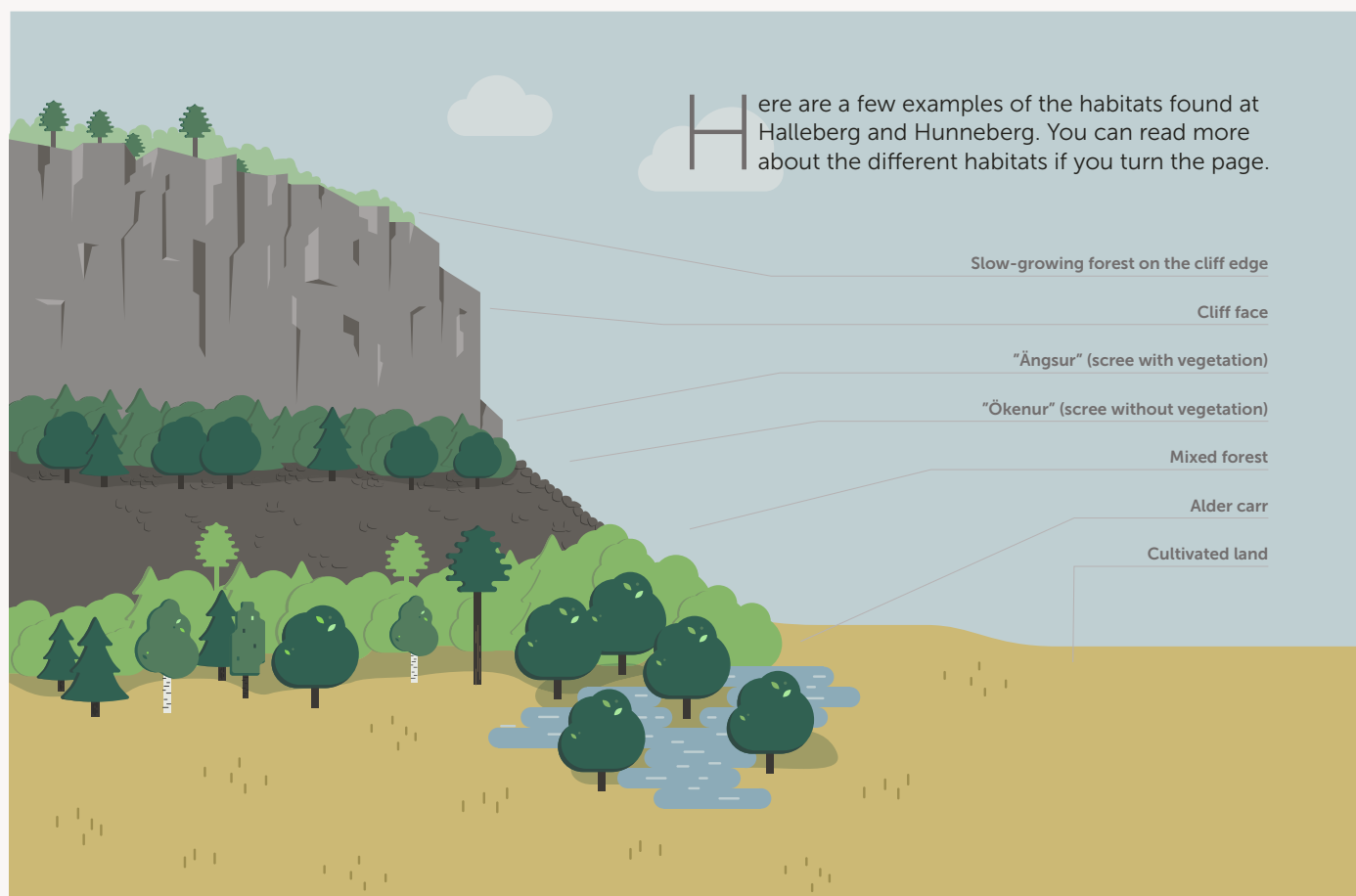
The table mountains – remains of an ancient sea

The table mountains are so-called residual mountains. They consist mostly of petrified sediments created over half a billion years ago in an ancient sea. Over millions of years, most of these sedimentary rocks have eroded into gravel, sand, and clay particles.

Only in a few places have they been preserved, thanks to magma which rose from inside the earth around 280 million years ago and solidified, creating the rock known as dolerite. The hard dolerite formed a protecting cap on top of the softer underlying sedimentary rocks, thereby creating the table mountains.



The sandstone in the table mountains used to be grains of sand on the bottom of a shallow sea, which were pressed together and eventually turned to stone.



Here are a few examples of the habitats found at Halleberg and Hunneberg. You can read more about the different habitats if you turn the page.

Slow-growing forest on the cliff edge

Cliff face

"Ängsur" (scree with vegetation)

"Ökenur" (scree without vegetation)

Mixed forest

Alder carr

Cultivated land

The forests on the plateaus

Atop the mountains, on the more or less flat dolerite plateaus, it has been easier to engage in forestry than on the steep slopes. Therefore, the plateaus are for the most part dominated by planted and more or less managed coniferous forests. The most common tree is the spruce but there are also pines and the occasional broadleaf tree. The ground is often poor in nutrients and the flora is not as rich in species as in the broad-leaf woodland covering the slopes. Natural forests occur in a few inaccessible places. A special kind of natural forest grows on the edges of Halleberg and Hunneberg; thin strips of old, slow-growing pine trees and oaks grow right above the steep cliff face.



The vertical cliff face

The steep cliff face which is exposed at some of the mountains is made up of dolerite. It is most pronounced at Halleberg and Hunneberg, where there are vertical drops of up to 60 metres. It offers a spectacular view for people and animals alike. The peregrine falcon is one of the birds who uses the protection and vantage point offered by the steep cliff face.



Alkaline fens

Where fens come in contact with limestone, the groundwater becomes lime-rich, creating so-called alkaline fens. The lime in the ground gives a high pH value. At the same time, alkaline fens are generally rather poor in nutrients, mainly due to a limited supply of phosphorus. This creates a very specialised and rich flora including many different species of orchids, sedges, vascular plants, and mosses.



Wet alder carrs

On the lower slopes, the ground is wet due to groundwater springing up. Water that has seeped through the ground and cracks in the rock create fens, springs, and swamp forests. One of the more fascinating habitats thus created is old alder carrs. Thick alder trees on buttress roots rise above dark water mirrors. The alder's ability to grow roots like this makes it especially fit to survive in this wet environment.





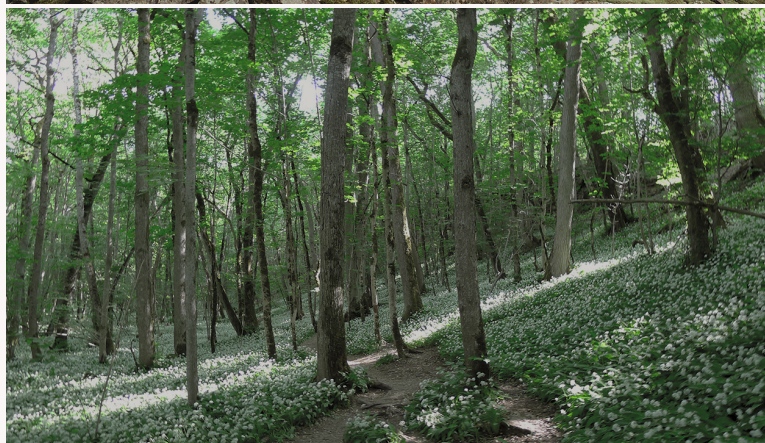
Peat moss creating wilderness

Among the characteristic habitats of the table mountains are the bogs, e.g. represented by Öjemossarna on Hunneberg and the vast Blångsmossen on Billingen. These expansive raised bogs are created by peat moss (*Sphagnum*), a genus able to grow under wet, nutrient-poor conditions. Peat moss accumulates upwards, leaving behind peat as the plant decays from the roots. Because of this, the raised bogs are elevated at a rate of around one millimetre per year. The bogs are virtually untouched wilderness with a rich birdlife.



The scree slope

Below the vertical cliff face is often a scree which is slanted at a near 30 degree angle. It is formed by dolerite boulders and stones that have fallen from the cliff face above. Geologists call this kind of scree a "talus deposit" or "talus cone". Swedish botanists define it as an ökenur, ur meaning 'scree' and öken meaning 'desert', signifying the lack of vegetation. The uppermost part of the scree is called an ängsur, where äng means 'meadow' to signify the rich flora growing in the finer material found here. There are many interesting plants here for the agile botanist to study.



Leafy groves with historical roots

On the mountain slopes are lush, leafy forests and groves with broadleaf trees like elm, ash, linden, and maple. There are lots of giant trees of considerable age. The mineral-rich bedrock provides good conditions for a rich herbal flora with many beautiful and rare elements. The old trees are important as hosts for rare mosses, lichen, fungi, and insects.

The broadleaf woodlands on the mountain slopes have often been spared from traditional forestry. Even though they are more open and have been used as hay meadows and pasture, they represent the remains of vast, ancient broadleaf forests that used to cover large parts of the table mountain landscape, for example during the Bronze Age.



Cultural landscape with fields, meadows and pastures

For millennia, people have lived on and farmed the land on the mountains. The different rocks have created different conditions for agriculture. Poor crofters were dependent on the nutrient-poor soils of the dolerite plateaus, where only small fields could be cultivated. Meadows and pastures were meagre.

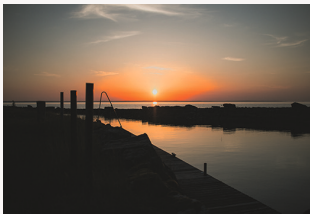
On the lower slopes of the mountains, weathered limestone, sandstone, and shale have created good agricultural soils. This is where you find the larger estates and farms with open fields, meadows, pastures, and lush oak groves.

The Flowering Mountain

With its profile resembling a volcano, Kinnekulle is a landmark visible from far away. The different rocks have created different soils, which in turn have created different conditions for vegetation and human use of the nature. The result is visible in the landscape of Kinnekulle, which is one of the 15 table mountains in the geopark.

All the rock types of the table mountains are represented in Kinnekulle: the basement rock at the bottom, followed by sandstone, alum shale, limestone, clay shale, and dolerite at the top. The illustration of Kinnekulle on these pages therefore represents the other 14 mountains as well.

The vast Vänern



To the west, the mountain meets Lake Vänern, Sweden's largest lake. The water hides most of the basement rock but it is there, beneath the vast lake. Read more about Vänern on page 18.

The sandstone



The sandstone rests on the basement rock. It is clearly visible in the form of fascinating, barren sandstone escarpments facing the beaches of Lake Vänern.

The vegetation here consists of nutrient-poor coniferous and mixed forests with lots of pine and birch. The partly inaccessible terrain has not been fit for agriculture.

Estates and old oaks

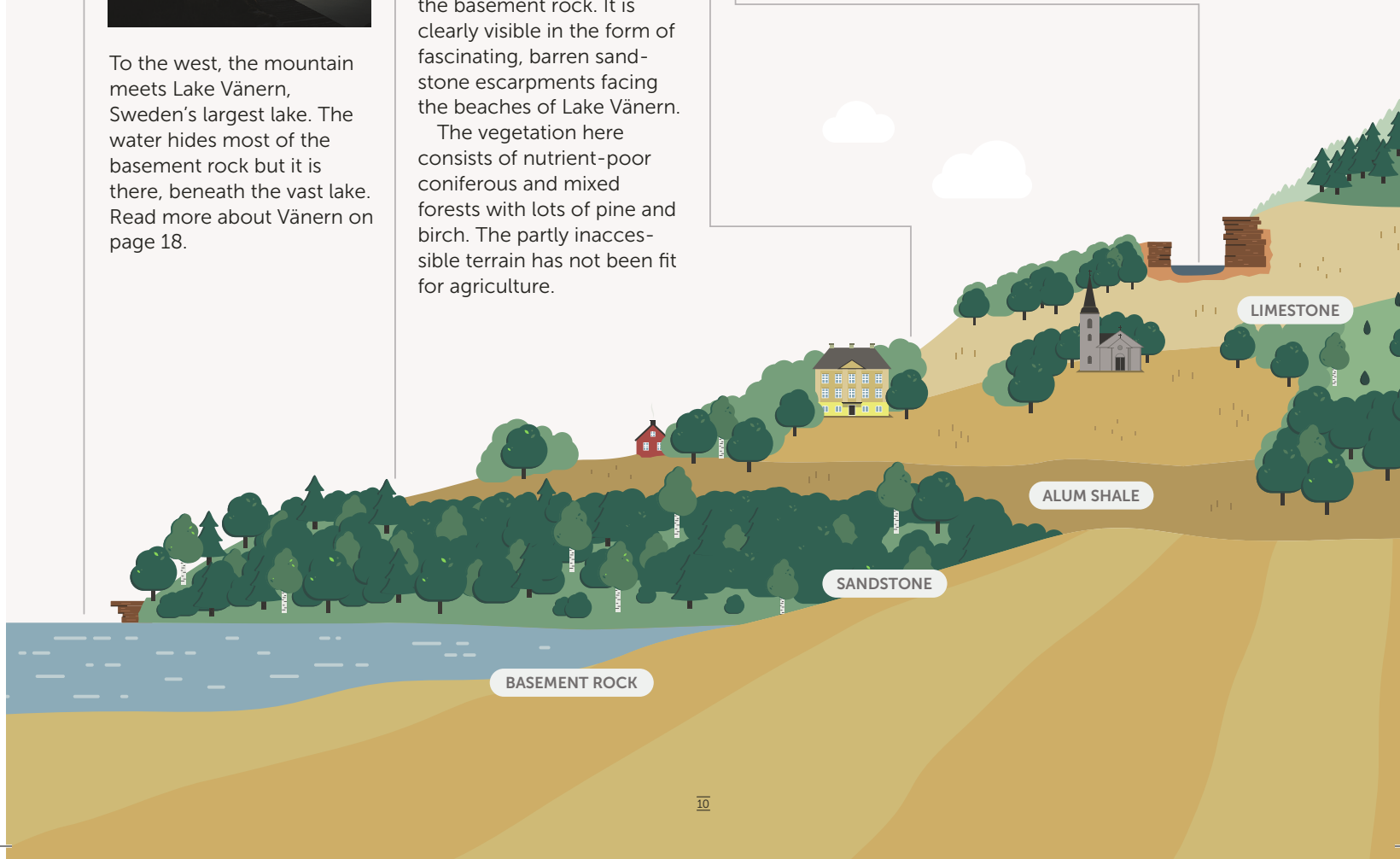
On the slopes of Kinnekulle are lime-rich soils created through the erosion of sedimentary rocks. Early in our history, the conditions for agriculture were good here, leading to the development of a beautiful cultural landscape with fields, oak meadows, manor houses, and estates.



On the west side of the mountain are close to 1,500 old oak trees that are very important for the biological diversity. The oaks house many rare and threatened species, such as the hermit beetle, a protected beetle about three centimetres in size.

Extinct animals give new life

The mighty limestone layer of Kinnekulle consists of extinct animals that lived in an ocean over 400 million years ago. Now, they provide new life for many other animals and plants. A dizzying thought!



Högekullen



The peak of Högekullen rises 263 metres above Lake Vänern. If that is not enough for you, you can climb the 19 metres to the top of the lookout tower. The view from the mountain and the tower is magnificent.

The bedrock at the top consists of dolerite, and the vegetation is mostly planted spruce forests.

The peculiar alvar

Perhaps the most peculiar ecosystem of the mountains is the grazed alvar. The soil layer here is very thin and the limestone is exposed in many places. The thin soil changes rapidly from inundated to dry. Despite the barren-looking environment, it has a rich and unique flora and fauna. The vegetation is characterised by hardy mosses and lichen, and annual herbs which bloom and bear seeds in a short time span.

Alvars can only be found in a few locations worldwide; in Sweden mainly on the islands of Öland and Gotland, but also in a few places in the table mountain region. Except for Kinnekulle, alvars can be found at Dala and Vilske-Kleva in the Falbygden area.

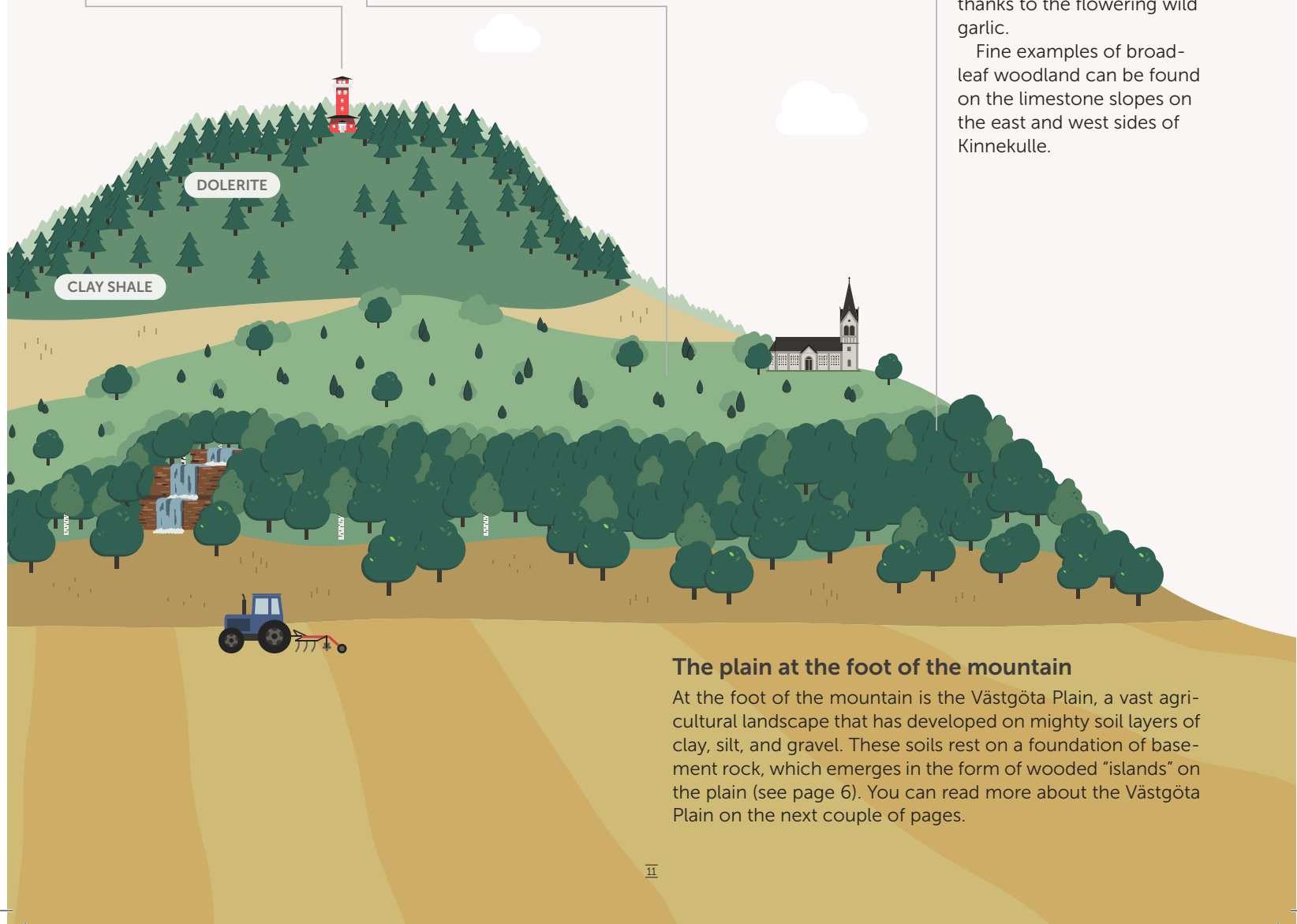


The limestone slopes



The limestone slopes are characterised by alkaline, nutrient-rich erosion soils providing good conditions for broadleaf trees like oak, ash, elm, maple, wild cherry, and beech. These groves are home to fungi, mosses, lichen, insects, snails, and birds. In the springtime there is a lush flora with many flowering herbs. In May, the ground is white in several places thanks to the flowering wild garlic.

Fine examples of broadleaf woodland can be found on the limestone slopes on the east and west sides of Kinnekulle.



The plain at the foot of the mountain

At the foot of the mountain is the Västgöta Plain, a vast agricultural landscape that has developed on mighty soil layers of clay, silt, and gravel. These soils rest on a foundation of basement rock, which emerges in the form of wooded "islands" on the plain (see page 6). You can read more about the Västgöta Plain on the next couple of pages.



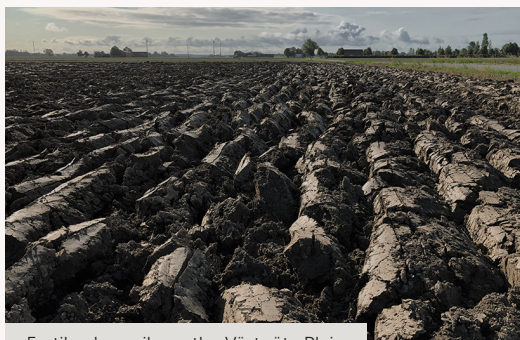
View from Älleberg of the plains in the Falbygden area.

The plain – from seabed to grain fields in 10,000 years

Beneath the melting ice sheet, a lot of water ran forth in the form of rivulets and mighty ice rivers. The water carried with it eroded rock in the form of stones, gravel, sand, and clay which eventually reached the sea. The smallest particles stayed afloat in the seawater for a long time. They slowly sank to the bottom but only after having reached quite far out to sea, far away from the ice. Billions, trillions of small clay particles created the clay soil that now covers the flat Västgöta Plain.

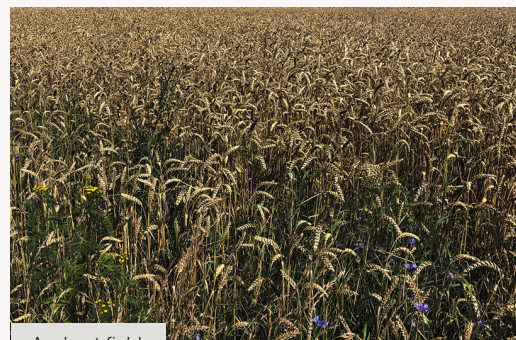
The fascinating clay particle

A clay particle is smaller than 0.002 mm in diameter. That is almost 1,000 times smaller than a grain of sand. It is so small that it cannot be seen by the naked eye and hardly even with a regular microscope. But it has a remarkable ability. It can bind water and nutrients that plants need, to its surface. This ability contributes to making clay soils perfect for agriculture. The modern large-scale food production is thus dependent on the tiny clay particle! »



Fertile clay soils on the Västgöta Plain.

Can you see the dot? Look closely! It represents the size of a clay particle, magnified by a thousand. A grain of sand magnified by the same amount would not fit on this page.



A wheat field.

Agrarian revolution reshapes the landscape

The clay soils of the Västgöta Plain are among the most productive agricultural areas in Sweden, but this has not always been the case. It wasn't until the mid-18th century that people managed to plough the heavy clay soils to a larger degree. The iron plough was a major contributor to the so-called agrarian revolution of the 19th century, when major changes took place in agriculture. Prior to this, farmers were more or less restricted to lighter soils. Drainage of wetlands and lowering of lakes were other measures taken that led to larger arable areas, but also to a complete remodelling of the landscape. The Västgöta Plain was transformed from a varied cultural landscape with a lot of wetlands, meadows, and pasture to a purely agricultural one.



The plough was invented before the Middle Ages, but it wasn't until the 19th century that it made its breakthrough in Swedish agriculture. It is different from the older tool known as an ard, in that the plough has mouldboards that turn the soil. The ard only made a furrow in which the seeds were sown. Being able to turn the soil was a prerequisite for the use of the heavy clay soils.



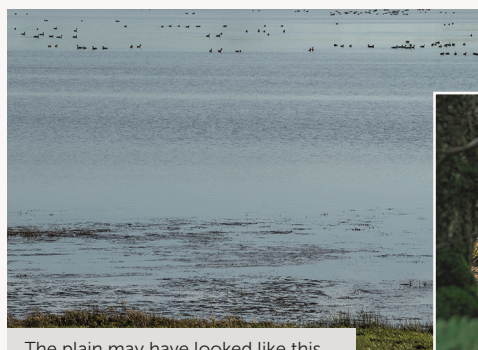
The most famous lake lowering in the table mountain region is the lowering of Lake Hornborga, which was accomplished in five stages from the early 1800s to the 1930s. By that time, the lake was almost dry during the summer. However, the result wasn't good arable land; instead, the lake began to be overgrown and turn into a marsh. Beginning in the 1980s the lake was restored and once again became a bird lake.

The pictures show the dry lakebed and a dredge in one of the canals.

The ancient plain

It can be hard to imagine what the Västgöta Plain looked like before the agrarian revolution and even further into the past. We can assume that there were lakes here during the Stone Age and Bronze Age, as well as vast wetlands and grasslands with grazing cattle. Perhaps even wet alder carrs and vast broadleaf woodland.

Human impact on the landscape was minor at first but increased with time until it reached its peak with the revolutionised and more efficient agriculture of the 19th century and the industrialisation of the 20th century. ♦



The plain may have looked like this ...



... or like this.



VALLEBYGDEN, SKÖVDE | 58°26'53.1"N 13°42'39.4"E

As the ice melted after the latest ice age, the climate suddenly grew colder for a period of time. This caused the melting to halt, and the ice margin remained over the same area for almost a thousand years – right here at Valle. The result was a multitude of landforms – kettle holes, kames, and eskers to name a few – creating the hilly landscape that we see today.

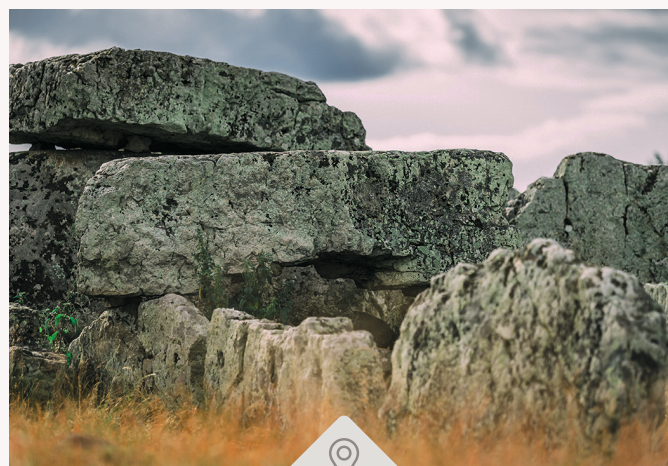
Gravel and sand – kettle holes and ridges

At the ice margin, large ice rivers discharged a lot of material from eroded rock. Clay particles were swept far out into the sea by the water, but larger and heavier particles like stones, gravel, and sand gathered into moraines, deltas, and other forms of deposits along the ice margin.

Here and there, both large and small blocks of ice were buried in the gravel. When the blocks melted they left pits in the landscape, known as kettle holes. The peculiar hilly landscape thus created is called a kame landscape.

The first farmers

Archaeological excavations have shown that people lived in the table mountain region as early as 10,000 years ago. They were hunters and fishermen. During the Neolithic, when people began to farm the land, light and sandy soils were of particular importance. These soils were easy to cultivate with the simple tools used by the first farmers, who therefore settled in these regions. The traces of these early settlers can still be seen today through the numerous graves and historical remains that can be found in areas with much gravel and sand. »



GIROMMEN AT EKORNAVÄLLEN, FALKÖPING

58°16'44.1"N 13°36'15.1"E

The grave in the picture is a passage grave from the Neolithic. It is the largest of five passage graves at EkornavälLEN, by the foot of Billingen. This grave is called Girommen, which means "the Giantess's Oven". All of the stones in the chamber are made of sandstone, except for one that is a granite erratic boulder.

Steppe-like dry meadow

The steppe-like dry meadow can be found atop a system of gravel ridges south of Falköping. The area is located south of the mountains and the sand here is rich in lime. The flora includes species such as European feather grass, *Dracocephalum ruyschiana* (a species of dragonhead), narrow-leaved lungwort, and large-flowered selfheal. These steppe-like dry meadows are unique to Falbygden and the Åtran river valley. The closest equivalent is the steppes in southern Europe.

There has been much speculation as to why this type of vegetation is only found here. It is obvious that the lime-rich soil plays an important part. It is also probable that the species of the steppe-like dry meadow for a long period of time have been connected with human agriculture, perhaps featuring traditional arable farming, crop rotation, and grazing. Perhaps they are the remains of a flora that grew in the open land-



The European feather grass flowers in June and July. It is very rare and grows only in a few spots in Falbygden, such as the Nolgården-Näs nature reserve. Despite being protected and managed, the European feather grass is disappearing. It is difficult to know why this happens, and what measures are needed to preserve this mysterious grass.



The bill of the hawfinch is so powerful that it can crack even cherry stones. The bird is picky when it comes to breeding grounds. It is plentiful in the cherry-rich areas around the table mountains, such as in Vallebygden.

scape created by the withdrawing ice sheet. Or perhaps they came here with people from the vast steppes of Russia and Hungary. Nobody knows for sure and there might be more than one explanation for the various species of the steppe-like dry meadow.

Vallebygden

The Valle region contains a kame landscape with a patchwork of gravel ridges, hills, moraines, interconnected ridges, and plateaus, surrounding small depressions with lakes or fens. Meadows, pastures, and fields alternate with lakes and broad-leaf woodland. On a small surface, around 1,100 hectares, are six nature reserves with different flora and fauna. There are no less than sixty kilometres of marked footpaths that are well worth a visit in any season, but the spring in May is extraordinary, as you can listen to an amazing choir of birds and enjoy the blossoming cherry trees. Among the lush herbal ground vegetation are species like spring pea, unspotted lungwort, and coralroot. ♦

Västtorpsåsen is an esker that formed as water beneath the ice sheet deposited large quantities of stone, gravel, and sand. When the ice had melted and the first humans settled the area, the ridge became a natural pathway where people could walk without getting their feet wet.

The ridge is still a popular place to walk, as it runs through the beautiful landscape south of the Naturum at Lake Hornborga. Atop the ridge you can find the beautiful pasqueflower, which blooms as early as April. It has found a favourable spot here. The sandy ridge has been enriched with lime from Billingen, creating a dry mineral soil with a high pH, which the pasqueflower prefers.





SILVERFALLET-KARLSFORS, SKÖVDE

58°29'40.4"N 13°44'48.1"E

Silverfallet cascades 60 metres down the mountainside. In its upper reaches, the water flows across limestone shelves and in the middle it passes the alum shale layer. The fall levels off on the sandstone shelves at the bottom.

Brooks, streams and rivers – from spring to sea

The inland ice sheet has affected the topography of the region and has thereby indirectly created the conditions for the watercourses. Because gravity causes water to flow downwards, the water will find its way to low points in the landscape. The slope of the ground and the soil types left behind by the ice create watercourses of varying shape and appearance. These might be obvious facts, but we humans never cease to be fascinated by the different expressions that water takes as it flows through the landscape.



SKÄKTEFALLET, NORDKROKEN | 58°22'44.2"N 12°24'59.4"E

Skäktefallet cascades 30 metres down the steep dolerite cliff face at Halleberg. The waterfall is known locally as The Bridal Veil.

Streamlets become waterfalls

Rain that falls on the mountains is collected in streamlets or as groundwater in crevices in the rock. Where the ground begins to slope, the water speeds up and turns into streams and rippling brooks. As the slope increases and the brooks reach the cliff edge they cascade over the edge, creating rapids and waterfalls. It is a special and beautiful environment. »



The beautiful grey wagtail breeds by several of the waterfalls in the region.



Aerial view of Lannaån, a tributary of Lidån.

Winding streams

Across the Västgöta Plain the streams run their characteristic winding courses. Such curves are called meanders. All streams and rivers naturally take on this shape when they flow across gently sloping ground and the soil consists of clay and fine sediment. This happens because the water flows more quickly in the outer bends where the soil erodes and slower in the inner bends where sediment is deposited. Under natural conditions, the water can also rise above the banks at flood tide. Such naturally flooded areas are called floodplains. ♦



The northern lapwing can often be seen on the floodplains along the Västgöta Plain's winding streams.



Göta älv is the largest watercourse in Sweden and has a very rich fish fauna. One of the species found here is the salmon. It spends most of its adult life in the Atlantic, but when it is time to reproduce it moves upstream, back to the place where it hatched.

The city of Trollhättan grew up around the roaring waterfalls that used to cascade huge amounts of water over the kilometre-long gorge. Nowadays, the water is led through large turbines in the power-plants where it is transformed into electric power. The gorge is dry most throughout of the year, but the water is released at certain times during the tourist season. Even when the gorge is dry you can enjoy the impressive landscape where steep cliffs and forested slopes plunge into the mighty river.



The lakes – fish and birds in the lowest parts of the landscape

Topography, bedrock, and soil conditions create lakes of varying size, shape, depth, pH value, and nutrient content. This in turn provides completely different conditions for plant and animal life.

The large Lake Vänern

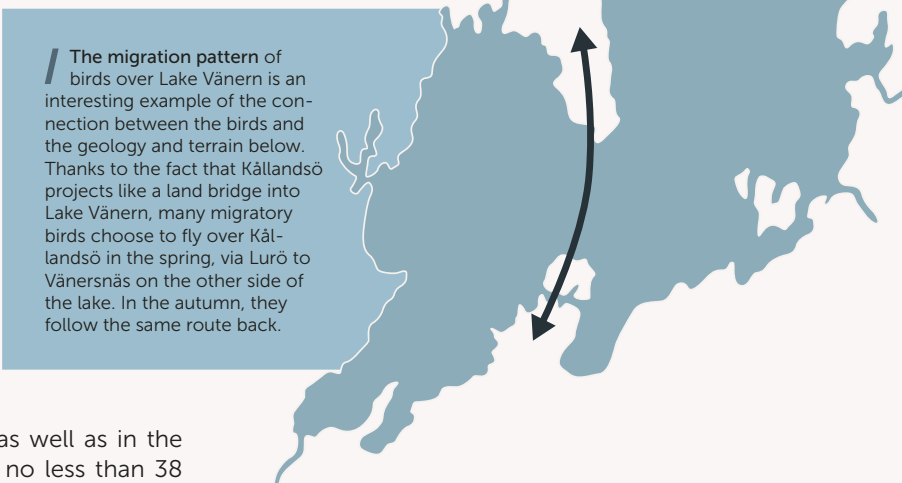
With a surface area of 5,650 km², Lake Vänern is the largest lake in Sweden as well as in the European Union. It has a rich fish life with no less than 38 different species. There is extensive fishing, both recreational and professional.

Lake Vänern is an important nesting and resting location for many bird species. The skerries and islets outside Kållandsö are home to colonies of water birds such as gulls, terns, and herring gulls.

In the shallow bay called Dättern, you can spot flocks of geese, ducks, and waders. There are also areas with reeds where the threatened Eurasian bittern nests. Ospreys and white-tailed eagles are among the birds of prey that nest and fish in the lake.



Osprey.



The migration pattern of birds over Lake Vänern is an interesting example of the connection between the birds and the geology and terrain below. Thanks to the fact that Kållandsö projects like a land bridge into Lake Vänern, many migratory birds choose to fly over Kållandsö in the spring, via Lurö to Vänersnäs on the other side of the lake. In the autumn, they follow the same route back.



The vendace is fished for its roe which is a delicacy. The fishing boats launch from Spiken at the farthest end of Kållandsö.



One of the most interesting fish species in Lake Vänern is the fourhorn sculpin, a so-called glacial relict. Such relicts are species that lived close to the ice margin during the latest ice age and were left behind when the ice disappeared.



Lake Hornborga.

Bird-rich lakes in the plains

The lakes Östen and Hornborga are both shallow and especially famous for their rich birdlife. Through the years, more than 300 different species have been observed by Lake Hornborga. This includes both nesting and resting species as well as occasional guests. Round both lakes is a well-preserved natural and cultural landscape with cropped wet meadows, broadleaf forests, marshes, meadows, and pasture. Walking trails, bird hides, and observation towers make it easy for visitors to get close to nature and experience the rich birdlife. At Lake Hornborga, there is also a so-called Naturum with information about the nature, birds, and other things of interest in the area. »

The crane dance

The crane dance is one of the most spectacular natural events in the table mountain region. Nobody knows for sure, but perhaps cranes began to rest by Lake Hornborga several thousand years ago. It is a good spot close to the table mountains, and there has always been plenty of food in and around the lake, in the form of seeds and insects.

In the 19th century, large quantities of potatoes were grown in the fields at Stora Bjurum and Dagsnäs. The cranes used to gather there to eat leftover potatoes which had remained over winter and gained a high sugar content. Today, the cranes are fed barley by the county administrative board, which manages the Lake Hornborga nature reserve.



Because of the table mountains, Lake Hornborga is situated in a depression where thermal winds are created. Thermal winds are warm and therefore rise upwards. Birds like to "hitchhike" on these winds when they want to reach high altitudes. In this way, cranes and birds of prey conserve a lot of energy.



The crane dance at the southern end of Lake Hornborga.

Cropped wet meadows with a "blue border"

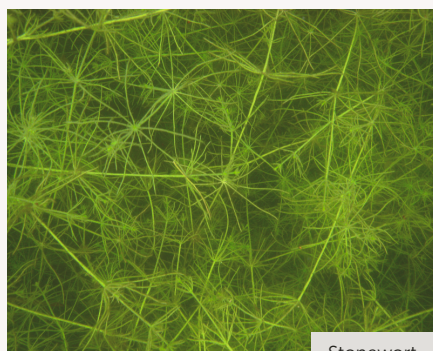
The wet meadows along the lakes Östen and Hornborga are managed through grazing cattle and traditional mowing. This creates wet grasslands with low-growing plants which benefit many bird species. There is plenty of food here in the form of insects and small animals. The grazing cattle create an open zone with shallow water along the beach – a so-called blue border. The shallow water heats up early in the spring, allowing a massive production of lake fly larvae and other insects, which is a coveted food for waders and other birds.

Geese and swans by Lake Östen

Lake Östen is a very important resting location for geese, swans, ducks, and waders. The best time for birdwatching is when the ice begins to break up in March–April, when the lake is usually visited by scores of whooper swans.



Whooper swans.



Stonewort.

Stonewort lakes in Valle

In the hilly landscape around Valle is a large number of small, peculiar lakes. They are poor in nutrients but high in calcium, and therefore have a high pH value. This creates special conditions for both plant and animal life. For example, you can find stonewort here, an uncommon class of plants which includes several rare and threatened species. ♦



Redshank.

Millions of years of geological events have created a fascinating landscape in Platåbergens Geopark. The table mountains of Västergötland provide conditions for completely unique natural environments, as the variation in rocks leads to an unusually large variation in habitats. In the landscape between the mountains, topography, soils, and access to water provide different conditions in different areas. Experience the table mountain landscape – experience the connection between geology, people, and nature.



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