

Fatwood friends (Fetvedens vänner)



A union with approx. 150 members in northern Europe.

The main objective is spreading the knowledge about artificial aging of trees.

Both for producing durable building materials and also tar.

Our goal is also being a natural place to exchange ideas regarding fatwood.



My name is Mikael Edström

I'm an object and building preservationist with a huge passion for older buildings and I'm also a tradition bearer in old building techniques. Especially loghomes and other building constructions.



The beginning of Fatwood Friends, If elks can do it so can !!!

Here we see a 4" thick log that has been injured and felled by an elk.

We can clearly see that in the debarked areas fatwood has been produced and also signs of an increasing heartwood is visible.

In the uninjured areas, where the bark was still intact, discolored wood (pioneer fungi) has developed in the sapwood. This is proof that the method of systematically debarking a tree actually works.

In Jokkmokk, Sweden 180 trees were injured in various ways and extensive tests were done. It showed that "STRIPEBARKING" (Randbarking) was the best method and the durable fatwood material that could be harvested was 7 times more on the trees that were properly Stripbarked.



Classic rot injuries on logbuildings

But through systematically injuring of the trees we impregnate the sapwood with natural resins with a high concentration of Pinosylvin, which is the most rot resistant content that can be produced.



Urnäs stavechurch, in Norway from the 13th century

In this church it is said that the staves are produced from treetopped trees where only a small part of the crown was kept on. The trees then stood for another 15-20 years before they were felled, followed by the production of staves that ultimately were incorporated into the church.



Urnäs stavechurch, in Norway from the 13th century

Here we see the oldest portdoor which is from the year 1050. Here they have chosen to use materials with a high concentration of resins which makes it very hard. This has made it possible to handcraft these fantastic and thin ornaments.

800 years old shingle on a stavechurch in Norway

**If you use material with a high
quality, standing annual rings
and a high concentratin of resin
(fatwood) then it will last for
many hundred years.**





Yghärbret dated to year 1315 -16, Hälsingland , Sweden

By using burned wood in the buildings you increase the durability and get a formstable material.

Today, wood burned like this, would sadly be classified as useless.

Cottagepillars with rodentshields Hälsingland , Sweden

Another example where burned wood has been chosen because they wanted rotresistant cottagepillars.

These cottagepillars stand on the sill-log (bottom log) and on top of these are rodentshields to prevent rodents from entering the cottage where the food is stored.





Cabion from the 17th century, Härjedalen, Sweden

Here someone has deliberately spotbarked the, to naturally produce the resins in the wood, which is to increase the rot resistance. It happened many years before the tree was felled



Cabin from the 17th century, Härjedalen, Sweden



Cabin from the 17th century, Härjedalen, Sweden



Ocular pioneer fungi test

This tree fell over by the wind 1,5 years after it was stripebarked. It was then left on the ground in the forest to see how the stripebarked sides protects the tree from rot and pioneer fungi. The positive effect of the stripebarking is pretty obvious

Barking principals for hewn timber

Here we can see how the principals of 2-sided barking (stripebarking) makes the sapwood impregnated with resin in the mosstrack and the top of the log.



The "Barking" must be done in the "savningstiden"

**"Savningstiden" (end of the
springtime, mostly june) varies
both geographically and in which
height above the sealevel the
tree is growing.**

**When the trees start developing
3 inch shoots, it is the right time
to start the barking process.**

**It's very important to remove all
the innerbark (cambium),
otherwise no resins/fatwood will
be produced.**

**Th tree in the picture is barked
specifically to produce church-
shingles in a traditional way with
standing annual rings, by axe.**



The tools that are used for barking.

From the left

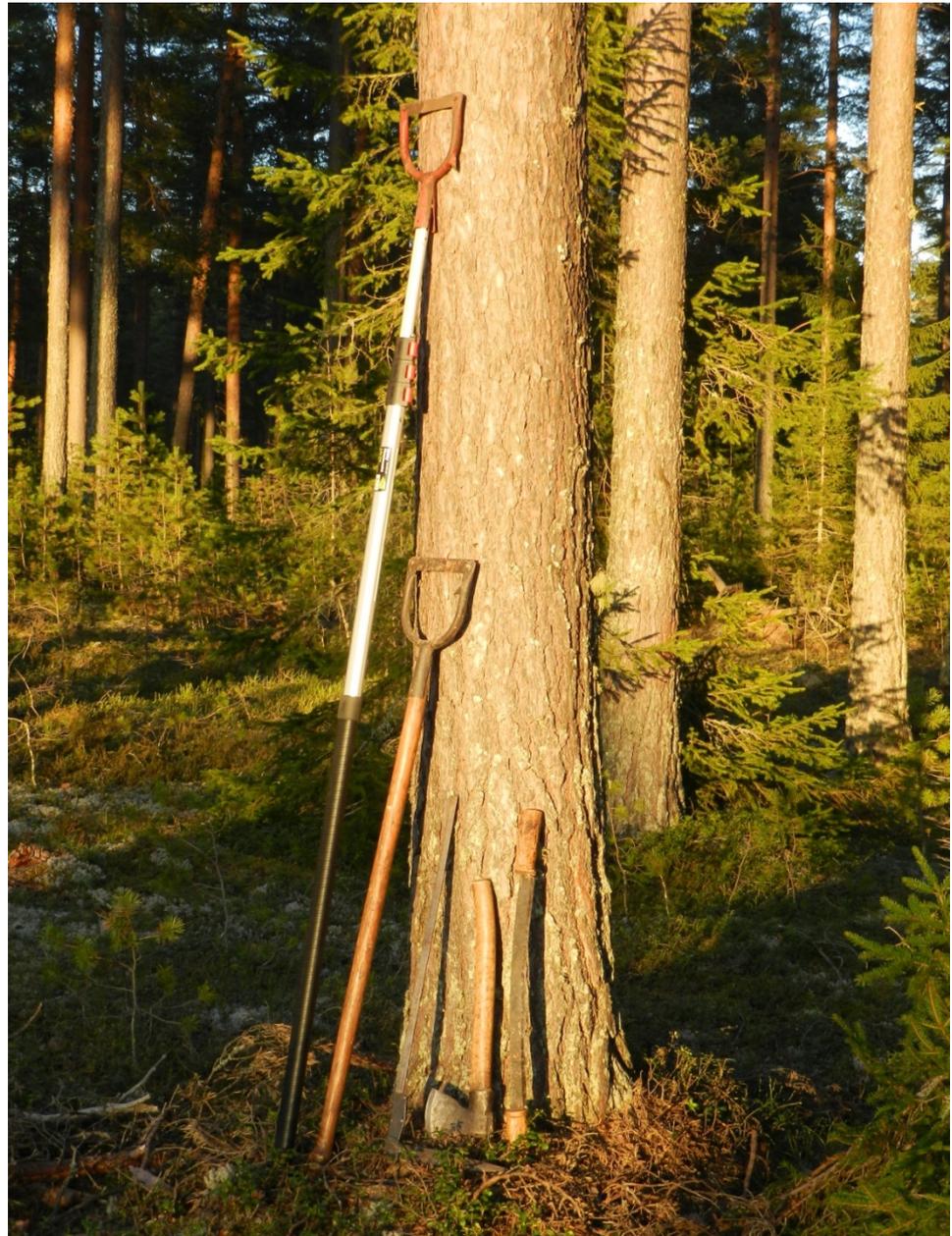
Telescopehandle 6,3 meters long with a EIA barkingiron, so one can reach approximately 8 meters high.

Normal barkingiron of the EIA type

Tree caliper, to document the diameter of the barked trees. These numbers are registered and kept for future reference.

Axe, for chopping of the bark as high as possible.

And a bandknife which is used in the same way as the axe.



Barking the first year

Here it is barked on both sides with 7-8cm (3 inches) wide stripes that are approximately 8 meters high

A similar stripe is barked on the exact opposite side.





Widening of the previous years stripebarking

It is very important to remove all the innerbark (cambrium) so that the tree realizes that it's been injured and starts producing resins to "close the wounds" and protect the tree from the outer elements.

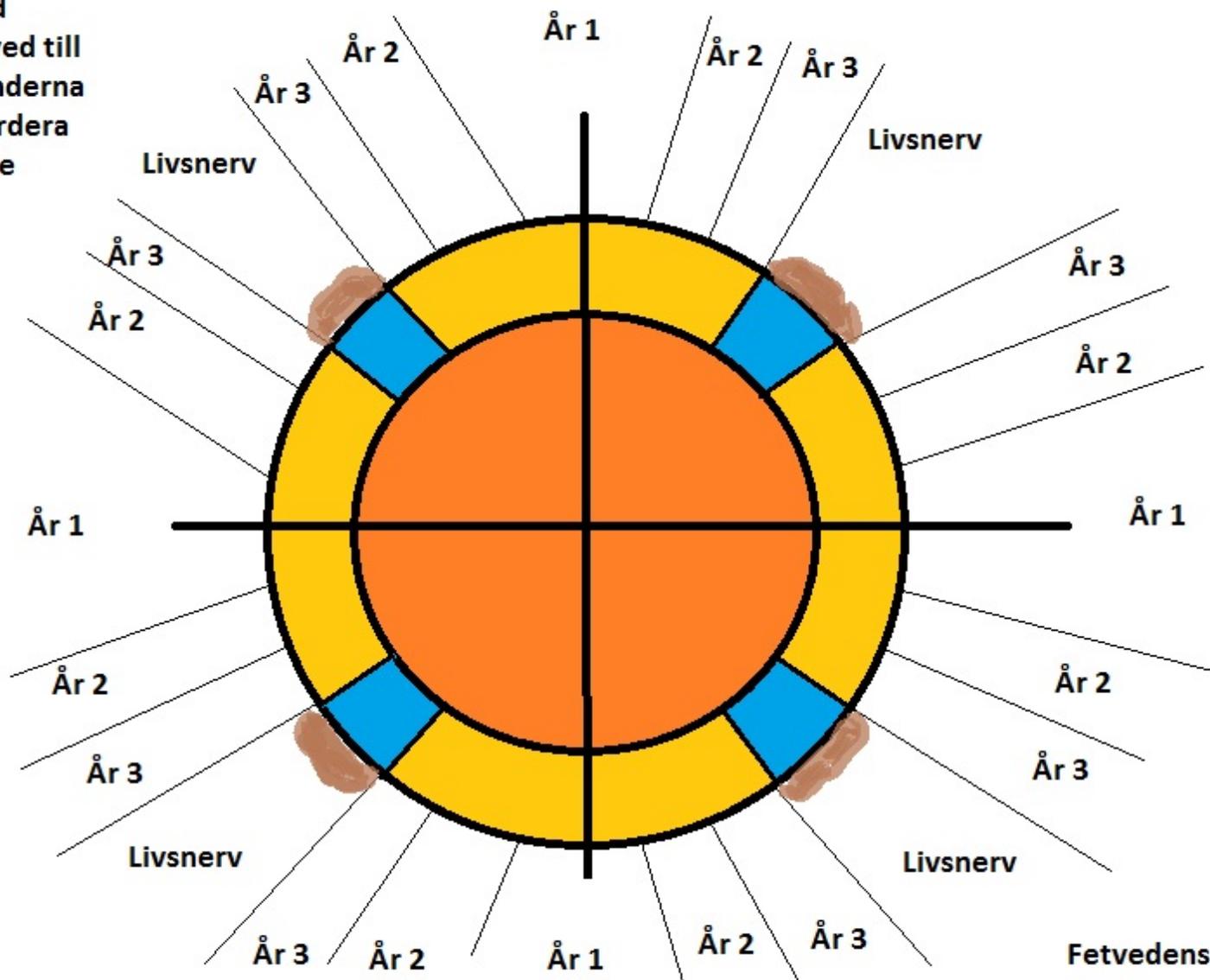


The 2nd year of barking

This is what it looks like, on one side of the tree, after the second year of barking

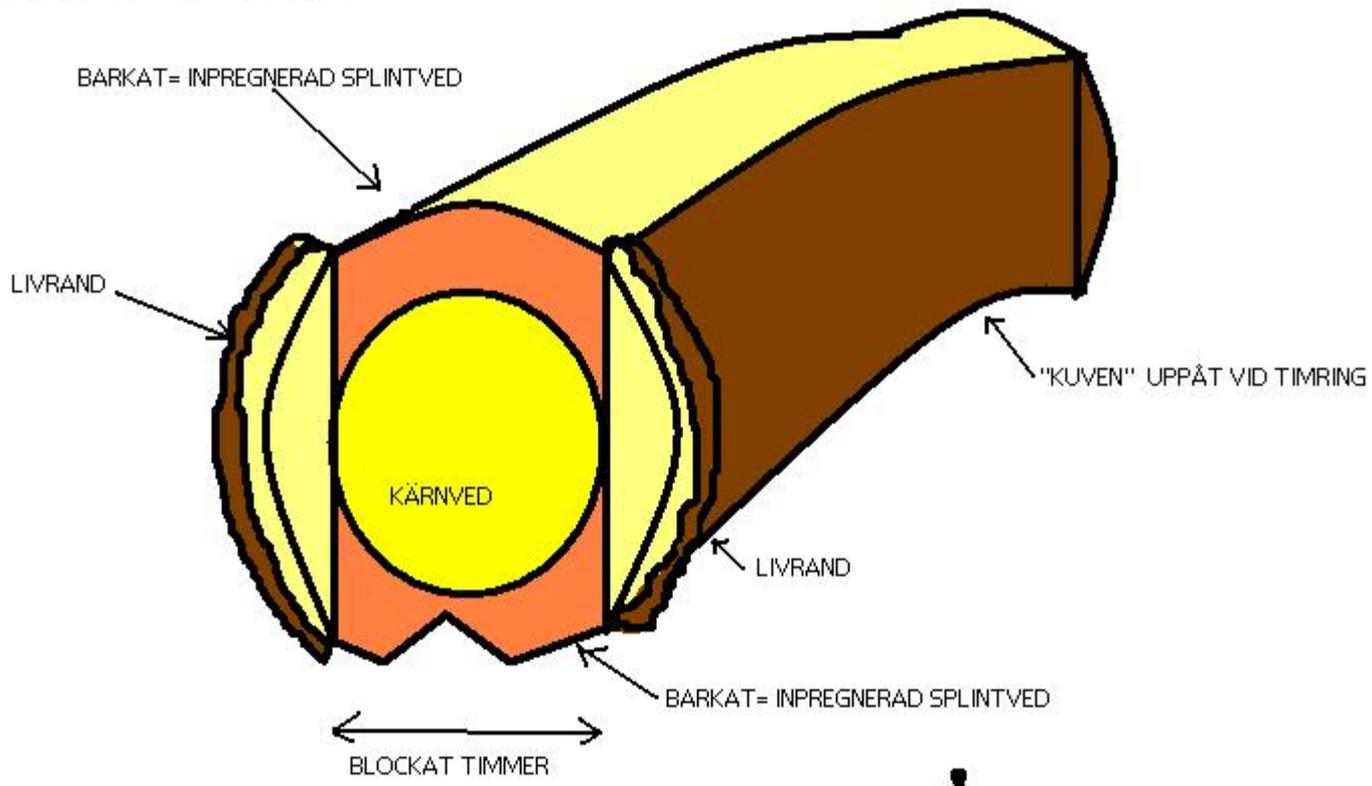


Barkningschema vid framställning av fetved till kvarterssågning. Ränderna breddas årsvis på vardera sidan om den tidigare barkningen.

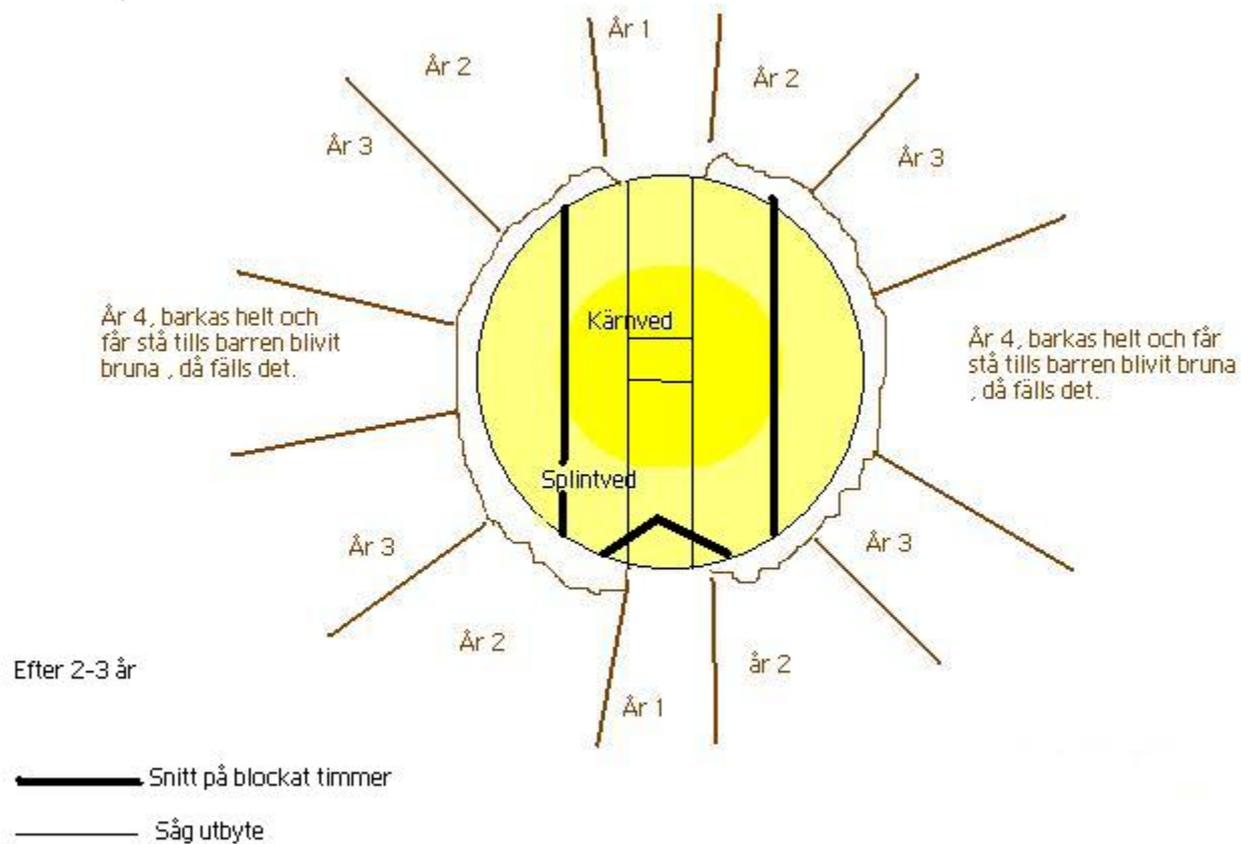


Fetvedens vänner
2017

TVÅSIDIG BARKNING AV TALL, SOM KAN BLOCKAS TILL
TIMMER ALT SÅGAS TILL PLANK ELLER BRÄDER



Suggestiv barkning av tallar på rot.
Principskiss



Efter ca 5 år finns det möjlighet till att ta ut mer sågutbyte

The woodcell

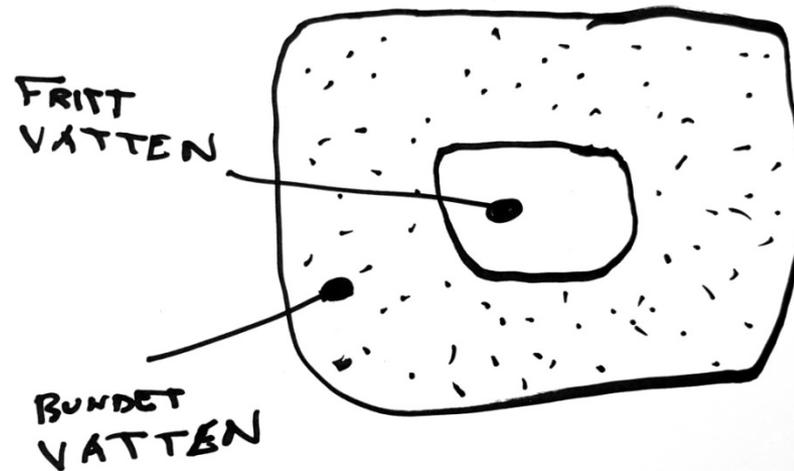
The cells walls consist of cellulose which sucks up water and binds it very slowly.

The water is contained in the center of the cell and fills up and drains rapidly.

The material deforms as a result of these changes.

When you bark an unfelled and live tree these cells are impregnated with resins and other rotresistant substances which results in a formstable and hydrofobic material with a very high resistance against rot.

VEDCELL



Fatwood for tar-burning

- The tree is completely barked except for one lifeline on the north side
- This is done 2 meters high each year
- The 3rd year the lifeline is removed





Treetopping 2005

In 2005, we treetopped 14 trees with a small part of green (the crown), approximately 30%, still left on top. After 8 years we took root tests and became disappointed in the results as it showed that the rotresistant substances did not develop as we had hoped for.

One of the topped trees

When treetopping it's important to top the tree right above a branch. This is to prevent rot in the cutted surface since the resin canals operate horizontally.





Treetopped tree that was felled after 2 years

By treetopping the annual rings grow considerable less.

Even after 8 years the tests showed that the rotresistant substances produced were a lot less than we had expected.



Treetopped with reduced diameter growth

The 2nd and 3rd annual ring is significantly reduced after the treetopping. But the most outer ring has increased its thickness. Most probably because of increased greens in the crown.

Treebank

We register all our trees in our treebank so one can easily find the appropriate timber for ones project.

We also have a fatwood buy & sell group on facebook.

The one can also find other buildingmaterials.



Dripping resins

Our earliest stripbarkings were done with 15-20 cm wide stripes and this resulted in that the resins "bleed" out of the tree and drips down. This also develops drying cracks in the wood.

We prefer to have the resins stay inside the tree.



Infoboard

We put up informationboards about our business by the trees that we have barked.

This helps spread the knowledge and increases the curiosity about fatwood.





Tree nr. 2 in 2002

In 2012 we chopped off this spot with an axe to see how it had developed after 10 years. The results were very positive.

**A forge from 1801,
Rengsjö , Sweden**

**Fatwoodtimber is waiting to be
incorporated into this forgecabin.**

**The barked trees have been
standing for 5 years after the
barking started before eventually
felled.**





Sinds the barkingstripes were to wide on these trees the pioneer fungi has gotten the chance to develop in some parts.









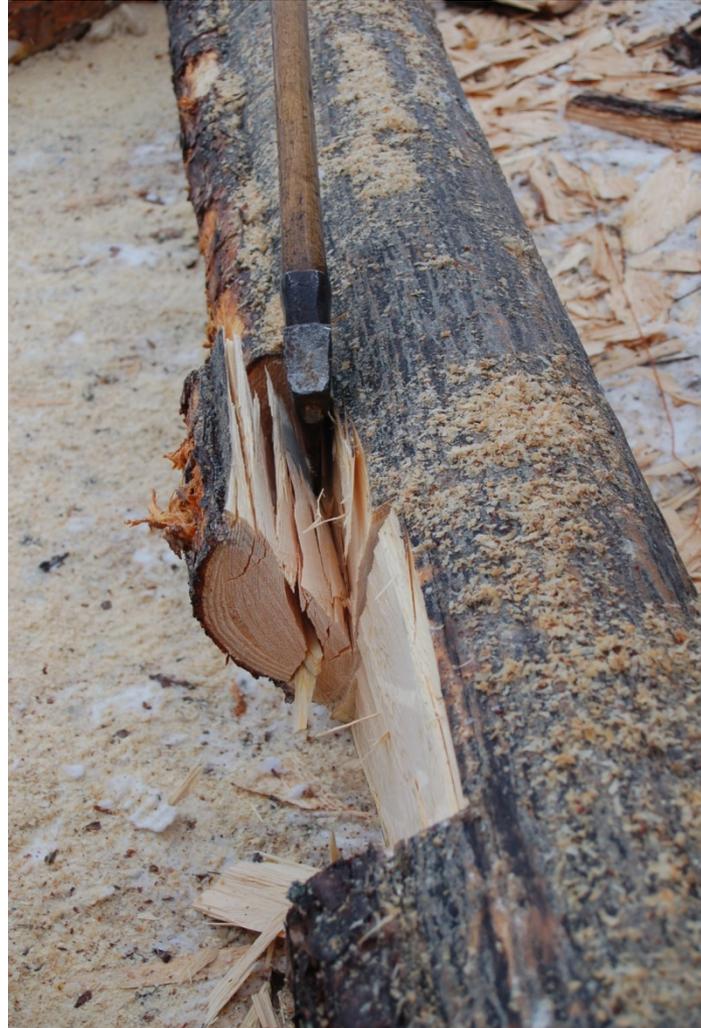
An ugly surface kan hide some fine qualities

**This log had certain rotdamages,
but the damage was not as much
as one would expect based on
the exterior view.**



Hewing the timber

Traditional method for hewing 6” timber.





Fineadjustments of a fatwood log with a bandknife.

Fineadjustment of the knothead

The old knotheds where chopped by an axe so the new ones were done in the same manner.





Fitting the sill

Here it's important to keep the door threshold with all its wear and tear to preserve the history of this forgecabin. If it would be completely replaced with a new one, an important historical piece of the puzzle would be lost.







Incorporated fatwoodlogs

In traditional logging one has always aimed to have knots in the knoheads. This is also done in restoration works.



Window from the 1980's

The last quality windows were made in the 1950's and are still good today.

The windows in the picture are made of bad quality that attract moist and makes the wood swell. The paint also cracks and water gets in.



Newly made window of fatwood

The frame is constructed with standing annual rings in all directions and is mounted together using traditional joinery locked in place by wooden plugs.

Moulding planed frame

By making sure the wood has standing annual rings you will get a formstable and strong framwork.





**Fatwood is an excellent choice for exterior carpentry
Here old rotten parts are renewed using high quality fatwood.**



Wooden wedge made of fatwood for for example gates

Gates and other carpentry items are exposed to harsh weather and winds so it's important to choose good quality materials to reduce the risk of rot.



Footscape made of fatwood

This shoescape is wonderful and is found in most farms in Hälsingland, Sweden.



Flagpole

This is what most flagattachements look like, but by barking the tree you impregnate the wood instead and make it more durable.

In Hälsingland, Sweden there is a flagpole which was barked and put up in 1902 and it still stands today.









Fatwood battens

This fatwood material we buy from modern windowproducers. They are too fat with resins so they cannot glue them together.

We sell them to oldschool window craftsmen and others that are interested in high quality materials and that paint using traditional paints.



Timber with a high heartwood content

This type of wood is getting more scarce and our wood production is becoming faster and faster and the sapwood content is increasing.

As a result of this we get lesser quality wood to build houses, but through applying various methods of natural impregnating (artificial aging) we can still get a higher quality wood.



Quality differences

On the left we have quality wood with standing annual rings which are tight and slowly grown.

To the right we have a modern pressure impregnated wood which is rapidly grown. It's also clearly visible that the heartwood cannot be pressure impregnated. This method uses several toxic chemicals to make the wood more rotresistant



Modern sawmilled product

Here you can see a classic and bad example of sawmilled products to be used as panels.

These panels will deform differently in changing weather and moist conditions.

You must always choose the smiley side upwards and outwards.



FETVEDENS VÄNNER (Fatwood Friends)

Believes in a future with increased durability in building materials for traditional crafts that will last for generations.

We must build durable and sustainable, using the least resources possible, to preserve the environment.

By continuously bark trees we build a treebank with high quality materials for all kinds of projects.

We continue to spread our knowledge on

www.fetvedensvanner.com

Facebook, "Fetvedens vänner"

We also administer a facebook page, "FETVED köp o sälj" where both buyers and sellers can find fatwood and other building materials.