The cave of Lascaux is one of the most fascinating rock art sites I have so far seen. But most importantly it is the best preserved prehistoric painted cave in Europe. It is situated in south western France on the banks of the Vézère River close to the town of Montignac in the Dordogne Province. Due to its specific geology the surrounding area has hundreds of caves and rock shelters. Some caves in the region are rather small and short, others extend to a few kilometers underground.

There are over 100 prehistoric decorated caves in France and Spain alone. In the Dordogne Province or as local people say the Périgord about thirty caves and over a dozen rock shelters. They have been used by prehistoric man as cultural sites and have been decorated in antiquity with amazing animal paintings, which show a high level of artistic skill. Interestingly these caves were not used for human settlement, nor by animals as hiding place to rear their offspring.
But who were these ancient men creating such incredible paintings? Lascaux has a proven age of 17,000 BP. But experts believe, that it is much older. The Altamira Cave in Spain was decorated at the same time and has some 930 depictions.

But let’s look at the big picture. Around 40,000 BP there was an explosion of artistic development in Europe with first figurines and musical instruments being created by our ancestors. But recent discoveries of 300,000 year old spears in Germany – see my Schöningen article – have shown that our ancestors were already rather sophisticated hunters at that early time.

Now back to Lascaux where the so-called Cro-Magnon Man lived between 40,000 to 12,000 years ago. He is a homo sapiens like us, but was only called after a rock shelter site in the region, where his first remains and culture was discovered.

Cro-Magnon Man
First human settlements in the area date back to 400,000 BP. But it was the Cro-Magnon Man, who invented cave drawings around 35,000 BP along the Vézère and Ardèche rivers. His motifs were animals, hand prints, as well as male and female genitals. The Cro-Magnon Man in comparison was taller, his skull was less rounded, his jaw bones were longer and he had a much shorter life expectancy. He was a semi nomadic hunter-gatherer and lived in comfortable huts, but not in caves.

He was living in families or group of families with a permanent base and mobile seasonal hunting camps. An organized social culture with beliefs and rituals was important to him. This is where the cave paintings and burials with jewelry come into the picture. His staple diet was reindeer meat, marrow and offal, plus fish, berries, leaves, roots, acorn, walnut, and hazelnut.

His elaborate flint tools consisted of blades, lamellar blades, scrapers, burins and piercers. As weapons he used spear heads, spear straighteners, spear throwers and possibly also bows. Interesting are the bone needles with eye found in the cave.

Climate
Let’s complete the environmental picture and look at the climate at the
time. The average daily temperature was only about five degrees cooler than today. The winter average day temperatures were around plus ten degrees and the summer average reached twenty degrees. But winters were longer and summers rather short.

Spring and autumn did not really played a role. The annual rain fall was lower with 500-700 millimeters per annum. During summer horses, aurochs, deer, ibex, wild boar, brown bear, hare, rabbit, dormice, hedgehogs, frogs and bats roamed the area. In winter and during cooler periods woolly rhino, bison, musk ox and reindeer were also present.

**Importance of Reindeer**

Reindeer roamed in large herds and was Cro-Magnon Man’s main stable food. These animals weight reached up to 300 kilograms, enough for a large family for some days. As specialized hunters they used every part of the reindeer’s body. Meat, fat, marrow and offal was good food stuff. Horns were prepared as spearheads, bones as sewing needles and tubes, hide for cloths and shoes, tendons as sewing threads and the tallow for burning lamps. But around 10,000 BP reindeers moved further north with the warming up climate.

**Lascaux Discovery**

A rather small entrance hole in the ground discovered by seventeen year old apprentice mechanic Marcel Ravidat with help of his dog in 1940. As the hole was too small to enter, he returned with three friends four days later. They immediately became aware of the importance of their discovery. So they told their teacher Leon Laval and priest Henri Breuil of the painted walls. The cave was documented and primitive excavations took place under local leadership.

In 1948 the cave was first opened to public and Marcel Ravidat became guide and guardian of Lascaux. 1957 he detected the “green disease”, which started to cover the walls. Therefore the cave was closed to public in 1963 after over one million visitors had passed through.

Their breath and body transpiration has created the problem in the same way, as it effected the royal tombs in the Valley of Kings and Queens in Egypt. A complex ventilation and climate control system was installed. Finally in 1979 the still closed original cave was declared UNESCO World Heritage Site.

**Lascaux II Project**

Over the years it became clear, that the cave could never be reopened to the public without further
damage. Therefore in 1972 the replica project “Lascaux II” was started and was completed ten years later. It was constructed only 200 meters away from the original cave. It really is an exact replica with regards to size, rock coloring and most importantly the ancient animal images.

It has been done so perfectly, that even experts are amazed and often think it’s real. Lascaux II consists of two galleries the bull’s chamber and axial gallery. They represent about 25% of the original cave and are 250 meters long. These two galleries actually contain most of the painted and engraved animal images.

**Lascaux Information**

The original cave has approximately 600 paintings plus 1,500 engravings. The flint flakes and spearheads found in the cave confirm the age as falling into the Early Magdalenian Period. The cave is tunnel like formed from ancient water streams with a level difference of about thirty meters.

The reproduced paintings are with regards to color strength identical to the original cave. There most visitors ask, how is it possible, that these pre-historic paintings look so brilliant and like being created yesterday?

The paintings survived so well, because the marl stone roof of the cave protected them against any water seepage. In addition an early rock fall closed off the entrance and protected the whole cave from outside climatic influences and wear and tear so to speak. This is also the reason why at Lascaux no stalactites, stalagmites and damaging calcite flows on walls, which is so typical for caves in the area, happened. The cave walls are Coniacian yellow rock rich in iron, which changes to reddish color, when exposed to heat. This makes the light colored walls an ideal base for paintings and engravings.

**Painting Details**

The pre-Historic artists of Lascaux had a clear sequence of importance in the creation of their compositions of animal images. Horses came first, followed by aurochs and bison painted on the large main panels in the first chamber of the cave. They were surrounded by smaller other species, but smaller animals were not included in the repertoire. Secondary animals depicted were lion, bear and woolly rhino, but these only towards the end of the cave.

Rarely humans are shown and only as very simplified images. Nevertheless there is an astonishing image I will later describe in detail. Finally various geometric symbols are to be seen everywhere. They were not yet deciphered and leave much to our imagination with regards to their meaning and context they are found in. It is surprising, that cave decorations were rather stereotyped during the Magdalenian Period.

**Lascaux Images**

Most experts believe these paintings are not trance induced works from few magical practicing shamans, but an organized collective effort reflecting true religious beliefs. The reasons for that can be summarized.

Firstly the animal images are limited to few large species with the same animal hierarchy in all caves in the area. Secondly the human figures and geometric signs were part of the galleries. And finally it was the work of professional painters.

The pre-historic creators were real artists with undoubtedly talent to draw. Only few errors have been detected and they used for the time highly developed painting techniques. These included lightly or strongly colored lines, flat tints and well chiseled engravings.

We can assume with certainty that the Cro-Magnon Man invented also the engraving-painting-engraving technique. In addition we see also animation
images of moving animals in various scenes. This suggests that their creators were men. This can be implied, because all depictions of hunters were men and never women.

The artists needed daily contact and a watchful eye to capture the various animal movements, behavior and anatomy. Only in this way they were able to add the artistic views to their paintings with the eye of a hunter and the hand of an artist.

In all images horses, aurochs, bison and deer are depicted potbellied even the males. Heads were shown elongated, but the legs are rather sturdy and short. The image perspective is often slightly twisted with the body in profile, but the two horns shown in angle. This specifically for all aurochs depictions.

The Famous Bull’s Chamber
It is the first chamber when entering the cave. With a length of seventeen, a width of six and a height of seven meters it is also the largest chamber. As already mentioned Lascaux is more tunnel like and this we will see further on. The most important paintings are situated here.

Starting with the so-called “unicorn” on the left wall with a length of 2.4 meters. It is a composite animal with woolly rhino body, bison shoulder, lion head, horse tail and is extremely potbellied. Uncommon to a unicorn it has two straight long horns. It could possibly represent fertility, because of extreme pot belly and the two horns possibly giving it a divine meaning. The unicorn is superimposed on two smaller red horses, plus we can see a brown horse in front of it.

The Four Large Bulls
The first large aurochs is a bull and the figure is three meters long. Only the front part is finished. The bull is depicted in black outline only with no body filling colors. Its head and front body are covered with many small black dots in regular fashion. To the black outlined horns an additional red line gives it some perspective. Between the horns a striped hair tuft is crowning its head.

Below its body two small brown horses are moving and above them superimposed on the bull’s body a larger red horse with brown head is galloping with them in the same direction as the bull.

The first and second bull confront each other with same space between them. This space is filled with a group of four or more red deer. The figures have
a size of about seventy centimeters. The deer heads are slender, but they carry huge antlers with approximately ten endings. Legs are painted in galloping mode and give the group a fast moving somewhat fleeing imagination.

Yes in this cave it is all about imagination and pre-historic storytelling. The whole Lascaux ensemble has an important message to tell, only that we can’t fully understand it yet.

The second large aurochs bull measures 3.5 meters in length and it is a typical Lascaux depiction. His body is like the first bull only painted black outline with no body filling colors. Again he has a few black points around eye. The neck is thick, the legs are short and the hoofs rather big. The body is painted in profile and horns again in angle view. A small red deer is situated in front of him, plus a small red bison is superimposed over and under his belly line.

On the opposite wall we find the third aurochs bull. Like the others it was painted in black outline with no body filling colors and its head and front body too is covered with many small black dots. The only difference is the straighter forward pointing long horns.

Number four of the aurochs bulls is the largest and measures 5.5 meters. It was painted in the same style, black outline with no body filling colors and head covered with many small black dots. Below it we can see a red cow with calf running in opposite direction.

Axial Gallery
Following after the “bull’s chamber” comes the tunnel like axial gallery also full of animal figures. A red cow with black head has a length of 2.8 meters. Its large body was fully colored in red, nevertheless it has a slender head and neck, thin horn and a long tail touching ground. Thereafter we see a three meter long black aurochs bull. His body was color filled and he was depicted with two overlapping smaller red cows.

A red horse measures 2.4 meters and was painted in galloping movement with front and hind legs stretched and head pointing forward. At the end we see a falling horse painted on the ceiling. It is one of the few images painted on the ceiling. The so-called leaping cow is with 1.7 meter smaller and shown in a fast running mode with both hind legs fully raised above its belly line. Below it the ancient creators painted a row of five small horses plus others in front. To this composition a scene of two fighting ibex was added.

Now follow three of the so-called “Chinese” horses. The other three are painted on opposite wall. The figures about 1.5 meter long, have huge body with pot belly, typical they are shown with thick neck and small head. The mane is upstanding and they sport a long tail.

Possibly it represents a stallion following a mare. The stallion
has a darker shadowed coat and the mare has been painted with a light pale reddish coat. Let’s not forget the red cow around 2.4 meters long situated in between horse two and three.

**Side Gallery**
The entrance is situated on the right side of the “bull’s chamber”. It is a twenty meter long passageway with no images, leading into the widened “apse” followed by the twenty meter long “nave” or ship. This cave portion is ending into the very narrow twenty meter long “feline gallery” where the lion images are situated. The “apse” is leading downwards into the so-called “pit”. Only the “apse”, “nave” and “feline gallery” have many engravings some combined with paintings.

**“Apse”**
Here we find the imprint gallery, as well as the black cow panel. Most interesting here is the depiction of the two famous back to back bison. Finally there is the red deer panel with various deer images with different huge antlers.

**The “Nave”**
Here the five meter long red deer frieze is found. It is a line with five red deer heads with huge antlers with multiple horns. The heads without bodies are painted in black outline.

Next to it we see black cow panel. The animal outlines were engraved and the huge potbellied body was color filled. But the head was depicted smaller in proportion, same as the slim legs.

Behind we see two smaller engraved and painted horses. One horse has a smaller horse superimposed inside its body, which could be assumed to represent a foal, either born or unborn.

Two horse heads are just emerging from the cow’s back. This black cow is actually superimposed on a row of smaller horses.

Another interesting composition is that of two bison bulls. They are standing back to back with raised tails. Their bodies are fully colored and show a rather fluffy winter coat. One animal was painted in two tone, indicating he is busy casting his winter coat. Here the detailed depiction is amazing. It is sophisticated prehistoric and true artistic work.

**The “Pit”**
The pit is situated in the deepest corner of the cave. It might have served as a water hole, as the ancient artists might have slept and eaten here during their painting sessions.
This small area has in my opinion one of the most intriguing images of all in the Lascaux cave. I am always fascinated by the depiction of true human interaction with animals. What did their creator wanted to tell?

The composition is that of a bison and men. The bison figure is about 2.5 meters long and the image shows a spear injured animal with blood leaping out of his belly. The bison's head and horns are lowered in attack towards the man lying on the ground in front of it.

The human figure represent a hunter with bird mask and erected genital. Lying on the ground next to him is a stick with bird head, possibly a decorated spear thrower.

This image has been created at the furthest end of the cave and its meaning leaves it to our imagination to be interpreted rightly or wrongly.

But one fact is rather remarkable, the bird mask the hunter is wearing. Pretending to be a bird hiding in the grass, the hunter could approach the bison at close range and use his spear thrower, also decorated with a bird head. This hunting strategy has been long used by tribal Africans in the past, who were excellent mask creators for many ritual purposes.

But that leaves another question open. Why did he went on a dangerous bison hunt, when his main diet consisted of reindeer? But possibly this was the message of the image. Bison is dangerous - don’t even try!

**Summary of Motifs**

Now let's look at the different painted and engraved motives. They include in sequence of importance horse, aurochs, bison, red deer and ibex. But despite its importance as main food supply only one reindeer was depicted in the Lascaux cave.

It is important to note that the animals depicted at Lascaux were all not stable...
food for their creators the Cro-Magnon Man and were therefore not hunted. Another surprise is, that only few human figures are to be found in the cave.

But there are many enigmatic geometric symbols often found in context to the animals. They can be categorized in three groups: firstly full signs like rectangular and oval symbols, secondly thin signs like sticks with or without lateral extensions and finally dots and lines of points.

One expert remarked “in Lascaux man came very close to writing”. This is an interesting statement and only further research and archaeological luck might proof this appealing thought some time in future.

**Paint Manufacture**
Experts found during their investigations a large quantity of colored powders, small blocks of pigments, pallets and crushers in the cave. Here are some details.

Red was produced from ochre, iron oxide and red haematite. The shades were ranging from red to dark reddish brown. Yellow was gained from goethite and clays with paints ranging from pale yellow to brown.

Black was won from manganese dioxide, black iron oxide and charcoal ranging from olive grey to deep black. White was easily received from calcite.

Colors were produced very simply without complex mixing or heating. All paints were directly applied with fingers, brushes made of animal hair and vegetable fibers. The blowing of color as known from other caves was not a common technique at Lascaux.

**Horse Details**
They were the predominant animal in Lascaux depictions. Horses were smaller as today with thicker neck and larger head. They moved in timorous herds with many mares with one stallion. Their mane was upstanding with a back ridge stripe and their tails were up to one meter long. The coat was red or yellow brown and thicker and lighter colored in winter.

**Primitive Ox or Aurochs**
The bulls could weigh up to one ton. Cows were about twenty five percent smaller and lighter.

Despite its huge rather large ringed and curved horns, which easily reached a length of one meter, ibex only were around 150 kilograms heavy. They live in separate male and female herds.

Big cats appeared in the Lascaux depictions less than ten times and were painted without much detail. Possibly they were cave lion without mane and a weight of up to 250 kilograms.

The brown bear was very rare and I saw only one image at Lascaux. At the time the animals

**Bison & Musk Ox**
Weighing an average of one ton, bison were really heavy for their compact impression. With sixty centimeters their horns were shorter than those of aurochs. Typical for bison the head was low hanging with beard and head hair tuft. Bulls and cows were living in separate herds.

The musk was a smaller ox weighing only 300 kilograms. Its horns ended in a helmet like base. But their thicker and longer coat was making them look much larger and similit to a small bison.

**Other Animals**
The red deer was a very common animal in southern France during the Cro-Magnon Man Period. The males reached a maximum weight of up to 300 kilograms and lived alone or in small male groups.

The brown bear was very rare and I saw only one image at Lascaux. At the time the animals
in southern France reached a weight of up to 700 kilograms.

The two ton heavy woolly rhino is today extinct. One of its two horns reached a length of up to 1.5 meter. Males and females were forming one herd roaming together.

**Excavated Objects**

A site always reveals more, when looking at the small items found and trying to put them into their context. This was not different at Lascaux, where these items told experts an interesting story about their creators and the way they did paint these amazing animal images.

Over 100 lamps were discovered, some were still lying on a small ledge in the cave, as if they were left there yesterday. Some lamps were even skillfully decorated for example with a double herringbone motif fitted one into the other.

In addition over 400 flint pieces were recovered, some with rubbed off corners from engravings on the walls. Also twenty eight bone tools were found in the floor sediments.

Other telling items found there were cords, timber pieces and holes in the floor and side walls for the scaffolding erected in the process. Experts are unsure about the presence of spear heads, which were also decorated with a six point star, elongated saltire cross or plain lines.

From burials at the time we already know that the Cro-Magnon Man loved jewelry. So fifteen shell pieces possibly from an amulet, plus one shell form produced from sandstone to be worn as pendant, did not surprise experts.

**Similar Sites**

The Gabillou and Villars caves both in Dordogne date from the same period and their rock art is very similar to Lascaux.

The Rouffignac cave in Dordogne has about 250 petroglyphs, 150 mammoth, bison, horses, ibex and rhino all dated some 3,000 years after Lascaux.

The Laussel, Oreille d’Enfer and the Poisson rock shelters all three situated also in Dordogne date from the Gravettian Period between 25.000 to 20.000 BP.

Another important cave is Chauvet in Ardeche with 470 animal images. Here depictions with structured compositions were developed by ancient man already around 35.000 years ago.

**Comments**

If you are visiting Lascaux you will find a small museum at the cave entrance and an informative visitor center at the town of Le Thot nearby which is worthwhile visiting.