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ouvre de nouveaux horizons PALÉ O SITE

SUR LES TRACES DE NEANDERTAL

# VENEZ RENCONTRER LA PRÉHISTOIRE

**Discover PREHISTORY!** 

# VISIT GUIDE

Dear visitor,

We are very happy to welcome you in the Paléosite today. The average time spent here will be about 4 hours.

The Paléosite is composed of two ways of visits.

First, the inside circuit which consists of three theatres which explain the Big-Bang, the arrival of modern men and the La Roche à Pierrot deposit. Situated alongside the reception, it takes about half an hour and the doors open automatically every 10 minutes.

After the theatres you can visit the Morpho Room at 9 on the plan. Here you can take photos and compare yourself to Neanderthal woman or man.

Then, you have all of the outdoor circuit with reconstructions including prehistoric habitats. You have also a lot of outside activities at specific times.

Finally, you can resume your visit in the Echo room.

#### Practical information:

If you want to go out: follow the small red footsteps on the floor. To come back into the hall, there is an automatic door through the Echo Room (with the skeleton) and then back in the lobby.

If you have any questions, please do not hesitate to ask us. The reception is open from 10:30 to 12:30 and from 13:30 to 19:00.

# Do you know the Paléosite?

Go back between - 15 billion years ago and -35 000 years ago! Enter to our fantastic time machine following the footsteps of Neanderthal, our origin and the history of humanity.

The Paléosite is not a real prehistoric museum. Indeed, situated in a 5 hectares park, it has a prehistoric museography and interpretation center that takes place in Saint-Césaire in Charente-Maritime that has a beautiful mixed scenography with reconstitutions and interactive modules.

Built with the help of famous international scientists, the Paléosite is chaired by two famous men: Professor Yves COPPENS, tenured Chair of paleoanthropology and prehistory of Collège de France and Professor Bernard Vandermeersch, former Bordeaux 1 University Professor and Director of old populations Anthropologist Laboratory.

## But why Saint-Césaire?

The Paléosite is situated near a place known as La Roche à Pierrot a famous archaeological site where a Female Neanderthal skeleton was discovered, in 1979.

This discovery was very interesting for the scientists because of the modern men and his association with the lithic industry and the Neanderthal extinction in the end of the medium paleolithic. Indeed the female Neanderthal skeleton, named Pierrette, provided the proof of cohabitation between Neanderthal and Modern Men, Homo sapiens and disrupted the scientific knowledge up to that point.

Nowadays, the archaeological site of La Roche à Pierrot is known to prehistorians and paleoanthropologists all around the world. Indeed, once a year, the site welcomes new archaeological excavations in June.

# Your Paléosite visit

#### The three theatres

Discover the history of humanity with our three consecutives rooms which explain the evolution.



#### The first room: the waiting room

Go back to the past and let yourself be guided by the voice of Pierrette, our female Neanderthal, she will tell you about the Big Bang and the first primates. This room is exclusively in French.



#### The second room: the amphitheatre

See the way of life of a Neanderthal tribe, their everyday life, their aptitudes, their customs and their meeting with the Homo sapiens thanks to a short film realised by Jacques Malaterre. The movie is subtitled in English.



#### The third room: the laboratory

Meet the most famous Neanderthal scientific experts in our laboratory. They will explain to you the discovery of Pierrette in Saint-Césaire. This room is an interactive space: full of screens, analysis devices and special effects. After that, you will know everything about La Roche à Pierrot discovery. This movie is available in English.

#### The interactive rooms

The rooms are free access and without time limits. For your comfort, these rooms are in English too.

#### Morpho room or the comparison room

Innovative and digitalized, the Morpho room allows you to compare yourself with your distant Neanderthal cousin. Thanks to plenty of fun and scientific interactive workshops based on the 5 senses, this room is the perfect place to learn a lot of information about the real differences between Neanderthals and us, Homo sapiens.



Here you will compare your strength and your morphology, with the integral scan as well. You can also talk to a real Neanderthal thanks to our interview screen.





Echo room or the recap of your visit

This room ends your Paléosite visit. Indeed, the Echo room allows you to deal with the different topics approached during your visit, in depth: Human beings, the fauna, the environment and the tools.

Moreover, you can see the results of La Roche à Pierrot archaeological excavations and rediscover information seen in the laboratory.

#### The prehistoric activities

#### Lance throwing

Like modern men, prehistoric men were predators. They hunted animals for food. From the upper Palaeolithic era, men started to produce bone tools. Also, thanks to these tools we know some forms of hunting: weapons such as the lance thrower, the assegai and the harpoon for example.

This is not the case of the lower and medium Palaeolithic era. Indeed, the prehistoric men used exclusively wooden weapons and they could not be preserved.

In this activity, you can practice prehistoric hunting with a real lance thrower. The aim is to reach the different targets situated on the training ground.

#### The Gloriette and the cave art



Do you know the Lascaux cave or other prehistoric drawings? There were generally paintings at the end of caves. Bisons, mammoths, horses, lions, strokes or points...these drawings are special as they are very colourful and extremely well preserved. This is due to ochre, a natural paint.

Nowadays, ochre is still

exploitable. Also, the Paléosite offers you the possibility to paint with the same pigments as real prehistoric men.

#### Fire ignition

Fire revolutionized the prehistorical man's life. It was domesticated by Homo erectus 555 000 years ago thanks to lightning, bush fires or volcanos.

Over the first phase, they tried to domesticate and conserve it. Then, they found a way to produce it on their own. We don't really know the exact date of the first manufacture of fire by man. Nevertheless, we know that Neanderthal could make fire around 250 000 years ago.

During the Prehistoric era, there were two techniques to make fire: the friction technique and the percussion technique.

#### The percussion technique:

Everyone has learned that you can create fire on striking two flints together. This is wrong! They lied to us. Indeed, you will obtain cold sparks. Moreover, the sparks stays attached to the stone and will not fall on the combustible.

Still used by the Eskimos, the percussion technique needs two specific stones: flint and pyrite or marcasite. You can easily find the last one in Charente-Maritime. It smells of iron.

The technique consists of striking the marcasite with the flint. This percussion smells like fireworks due to the high presence in iron. The sparks are deposited onto the amadou and set alight.



Amadou is eatable. It is a parasitic tree mushroom. It looks like a horse's hoof. The amadou has a specific odour: it smells like popcorn.

Little anecdote: this behaviour was used until 1914 with the amadou wick's lighter. Nowadays, the iron replaced the pyrite.

#### The friction technique:

This technique is 200 000 years old. Still used by the Pygmies and the Papuans, it consists of rubbing a hard piece of wood and soft piece of wood together. In the temperate region, we also use a fire bow which here is a belt transmission. This bow is composed of wood and animal tendons.



For this technique, you must place the hard wooden pivot on a soft wooden board. Then place a shellfish and a piece of leather above the pivot. Then, pull the bow all the way along. It will turn the pivot, creating sawdust. Stop when a sawdust pile is created. After, put the sawdust in the shellfish full of wood shavings

and blow on it. A fire will appear.

#### Flint cut

As you know, the prehistoric men needed to eat. At this time, they did not have guns or knifes. They needed good weapons. That is why they remained long hours to produce performing tools.

Be careful, all prehistoric men did not produce tools!

Indeed, the first tools were created by *Homo habilis*, 2.5 M years ago thanks to hammerstone.

Produced easily, these tools were pebble tools as:

- chopper, cut pebble in only one side
- chopping-tool, cut pebble in the two sides

These tools allow prehistoric men to cut and break bones to eat the marrow inside. They did not hunt. They were scavengers.

Sophisticated tools appear with *Homo erectus*, between 2.5 and 1.5 M years. This is the Palaeolithic industry.

The Homo erectus developed one flint tool in particular: the biface. This is a Flintstone entirely cut on botle sides. The biface is curved in the bottom and sharp at the top. The cutting edge and the point are symmetrical.

This tool can be compared to a prehistoric swiss army knife. Indeed, it could cut and if attached to a piece of wood, it could become an axe or a lance.

As with the pebble tools, the biface was cut with a hammerstone.

We could believe these tools were in perishable equipment such as wood. Unfortunately, they did not leave a trace.

Neanderthal man and Homo sapiens (the modern man), developed sliver sized tools.

The Neanderthal man cut long or oval slivers making scrapers or points. This is named Levallois cutting up. This technique appears 1 M years ago and persists beyond the Neolithic.

The Homo sapiens preferred long and thin sliver strips. These blades could be points, chisel tool or scrapers and have been shaped with soft hammerstone like reindeer antler.

Through evolution, the tools always were shaped with mineral matter as granite hammerstone and flint matter.

All tools possess a hell which is the hit point and a percussion bulb which is the tool lump. These two elements allow identification of prehistoric tools. Be careful, if you entertain yourself by cutting piece of flint, don't throw them away. One day, if someone picks them, an archaeologist could think that it is a prehistoric tool!

#### Visit of the archaeological dig site

#### The discover context

Firstly observe the caves behind you. You can see squared caves. Their forms are not natural.

Who did this? The modern man of course.



In 1970 they stopped mining and M.Lacour bought this area to make a mushroom farm in the caves because of the dark and humidity inside.

In 1975 his mushroom business was doing so well that M.Lacour decided to make a fourth cave.

At this point M.Dubigny, an amateur archaeologist, who was fishing in the Coran, a nearby river so called because of the word current in French which is "courant" walked by and noticed bits of flint and bones.

M.dubigny contacted the mayor of St Césaire, M.Boucher who contacted the RSA the Archaeological service, who sent M.Leveque a professional archaeologist who declared it a prehistoric site.

#### The excavations

Excavations started in 1976 and lasted until 1987, they lasted 11 years.

During the first few years they found mostly flint and animal remains as bisons, mammoths, deer, stag and rabbits.

The excavation site is composed of two different types:

- The grey area that has the older layer of the middle Palaeolithic period (between 300 000 years and 30 000 years)

- The yellow area is more recent and is from the upper Palaeolithic period (between 30 000 and -12000 years)

These areas were originally covered by limestone, as prehistoric man lived here in a shelter under the rock, that since they were here collapsed preserving the remains underneath



3 years after the start of the excavations they discovered E3 (Pierrette).

They discovered this skeleton curled up on herself. As you can see there were not many pieces left: the right lobe of her skull, part of her jawbone, some teeth, some leg bones and some arm bones. Her bones were then taken to a laboratory in Paris to study. To their surprise they concluded that the bones were a Neanderthal woman as she had the characteristics of a Neanderthal: the

supraorbital ridge, the reduced chin and reduced forehead.

The archaeologists didn't expect to find a Neanderthal in that layer; which is dated at around -35 000 years at that point in time they thought that only homo sapiens existed after -40 000 years.



To better understand this you have to go back into prehistoric times.

The Palaeolithic era is separated into three different periods:

- the upper Palaeolithic period
- the middle Palaeolithic period
- the lower Palaeolithic period

Each of these periods is divided into several sub-cultures based on the evolution of the tools used by the prehistoric men.

The Neanderthal skeleton was found in the "châtelperronian" layer, the first culture of the upper Palaeolithic period. Up until the discovery of Pierrette Neanderthal remains were always found in the middle Palaeolithic period (the Mousterian sub-culture) and Homo sapiens were the only remains found in the upper Palaeolithic period.

These remains were therefore an important discovery as they proved the coexistence of the Neanderthal and Homo sapiens species in Europe at the same time, this brings forward the hypothesis that the two might have met.

She was found in a foetal position. Her skull was found with an injury in it that could have been mortal. This injury gives us a new insight of the Neanderthals; as there are traces that her injury had begun to heal. This means she was looked after and cared for by the members of her clan that must have had a rudimentary knowledge of the plants around them to know which are used to heal.



This changed the impression that archaeologists had of the Neanderthals; up until then the Neanderthals were considered an uncultured people.

They think that she was found in the foetal position because she was in a grave, but this theory is still disputed as they did not find other characteristic elements that are often found buried around graves such as offerings.

This layer was dated at around -36 000 years by thermo luminescence.

Thermo lumiscence is a technique by which they heat up the sediments to see what radioactive energy comes out. They can therefore tell when the last time the earth was heated up, in this case in the Palaeolithic era.

Other elements found here were remains of bison, horse and reindeer.

The remains of two newborn twins were found in an older sedimentary level, around -40 000 years ago. They were found by a Masters student in Bordeaux who was studying remains of animals found near to the skeleton; at the time of the original excavation the archaeologists took the remains to be those of rabbits. These twins were therefore a lot older than Pierrette and can't have belonged to the same clan.

A student at the laboratory of Bordeaux studied the bones of Pierrette's hands and found one finger too many, could this be a sign of more than one individual?

## La Broche à Pierrot restaurant

Are you peckish? Don't worry, the Paléosite has a restaurant which will be happy to welcome you!

Sandwiches, salads, dish of the day, desserts, drinks and others... for a real meal or just for a snack, you will find everything you need in La Broche à Pierrot Restaurant.



#### **Openings** hours:

- everyday during the school vacation
- the week-end and public holiday outside the school vacation

#### By reservation:

You are a group of more than 15 people or a school group? The Paléosite propose you specific menus. By reservation only. More information at the reception or by phone at 05.46.97.90.92

Are you delighted with your visit? Have you got some comments? Please do not hesitate to fill in our questionnaire situated on the Hall.

We were pleased to welcome you to the Paléosite and hope you had a pleasant day.

Thank you for your visit.

