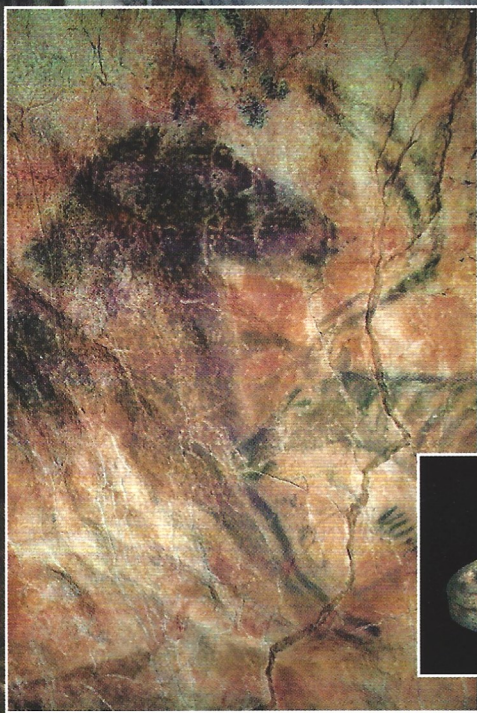


The Tito Bustillo Cave

one of the most outstanding
prehistoric legacies



Ramón M. Capín-Rama



Contents

Introduction 9

The Cave 11

Research 15

The rock art 22

Last word 40

Bibliography 44

Introduction

Research carried out in the places used by primitive people allows us to study their way of life, their anatomy, the animals and plants they lived with and much more. Archaeologists agree on the nomenclature for prehistoric times. According to the tools found on archaeological sites, a division exists between the Stone Age and the Metal Age; the former subdivided into Paleolithic ('carved stone') and Neolithic ('smoothed stone'), the latter into the Bronze Age and the Iron Age. Man appeared on Earth around 3 million years ago, and started the first episode of human life, the Paleolithic, which was split into Lower, Middle and Upper periods.

The inhabitants

The point of our interest is the Upper Paleolithic, for it is mainly within this period that the *Tito Bustillo* cave was utilised. It started some 35,000 years ago with our most recent ancestor, the 'homo sapiens sapiens' or Cro-Magnon Man (name taken from Les Eyzies, France) and lasted around 25,000 years. This being was about 1.70 m tall, strong, with a prominent chin and a high forehead.

With the Cro-Magnon Man started a new era for humankind. For reasons that have escaped human understanding so far, he was the first to depict figures on rocks: cave walls were decorated with paintings and engravings spread throughout caverns often in the darkest and most remote places.

The climate

This human race lived during the second part of the last Ice Age: the Würm. Huge masses of water became ice and the sea level lowered more than 130 yards. This influenced fauna and flora. In northern areas the tundra spread with frozen ground covered with lichen and moss, in southern areas steppes and forests with deciduous and evergreen trees.

Besides the present fauna, Europe had species now extinct like the mammoth, the woolly rhinoceros, the aurochs and the bison of the steppes, but also other species now living in other latitudes like the antelope, the horse of the steppes, and the reindeer too now limited to the coldest parts of Europe.

The climate affects the living conditions. With such an inhospitable prospect, people lived in small communities of about 20 or 30 members. They settled in

cave entrances mainly, where they sometimes built huts in order to feel more sheltered from rain, snow and cold. They looked for caverns situated near places suitable for hunting, fishing, collecting seafood and the picking of edible wild fruit and roots. The cave entrance was used as the only living area, though they walked in with the help of torches to 'decorate' walls. Obviously, cabins were also built in the open air but there are sparse remains of these buildings left. We cannot say that these people were nomads, though they moved around preferably within a particular territory where they knew the resources.

The tools

The Upper Paleolithic saw a great development in the making of tools. Stone, bone, antler and ivory, together with wood, were the raw materials for making spears, harpoons, spearthrowers, scrapers, burins and flint blades; also a small sharp rod cut from antlers probably used as a spear end. Very often, these tools appear decorated with geometric and animal engravings.

It is in this context that those cave-dwellers from Ribadesella (Asturias) lived, or rather tried to do so, thousands of years ago. Those people, whose life expectancy would not be beyond 30 or 40 years, were the first settlers of this town that has become a beautiful resort nowadays.

The various materials found on archaeological sites have made prehistorians divide the Upper Paleolithic into four main periods: the Aurignacian, the Gravettian, the Solutrean and the Magdalenian.

DIAGRAM OF PREHISTORY

YEARS BC	HUMAN RACE	PERIOD	MAINTOOLS	ROCK ART
about 3 million	'homo habilis'	Lower Paleolithic	broken pebble	none
about 500,000	'homo erectus'	Lower Paleolithic	stone chip	none
about 100,000	'homo sapiens neanderthalensis'	Middle Paleolithic	stone chip and blade	none
about 35,000	'homo sapiens sapiens'	Upper Paleolithic	stone, bone and antler tools	first depictions inside caves
about 10,000	present	Epipaleolithic or Mesolithic	microlithic industry	depictions outside caves
about 6,000	"	Neolithic	pottery and wheel	other kinds
about 4,000	"	Bronze Age	wheel and sail	"
about 1,100	"	Iron Age	strong sword and shield	"

The Cave

Before looking at t
we should take a glance

The discovery

The cave was dis
Torreblanca. The practi
last century bringing a
the *Tito Bustillo* cave.



The Cave

Before looking at the outstanding legacy that is being researched in the cave, we should take a glance at some aspects which make up the relevant background.

The discovery

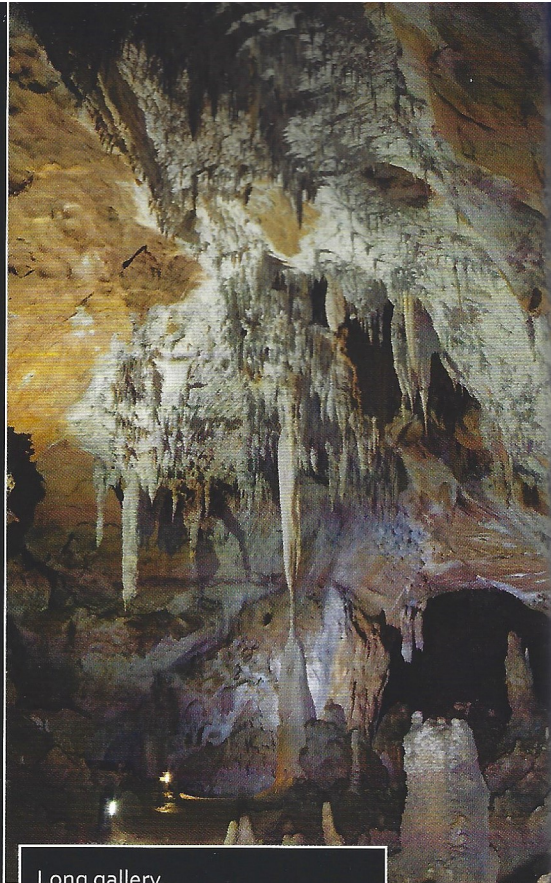
The cave was discovered in April 1968 by a group of potholers named *Torreblanca*. The practice of potholing increased considerably in Spain in the 60s last century bringing about the finding of lots of prehistoric sites. One of them is the *Tito Bustillo* cave.



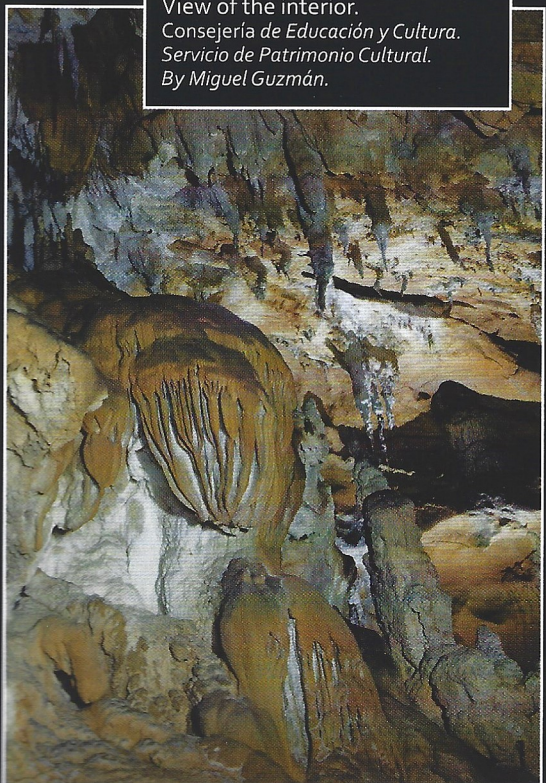
General view of the interior.
Consejería de Educación y Cultura.
Servicio de Patrimonio Cultural.
By Miguel Guzmán.



Long gallery.
 Consejería de Educación y Cultura.
 Servicio de Patrimonio Cultural.
 By Miguel Guzmán.



Long gallery.
 Consejería de Educación y Cultura.
 Servicio de Patrimonio Cultural.
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View of the interior.
 Consejería de Educación y Cultura.
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As the members of *Torreblanca* were climbing down the 130-yard jagged natural chimney linking the cave to the outside above, they could not imagine that they were about to find one of the most remarkable remains from prehistoric times. The climax came after the group had been exploring amazing galleries of wonderful stalagmites and stalagmites for hours. Adolfo Inda Sanjuán, one of the members (born in Ribadesella) called to his mates and told them he had just seen paintings. They did not believe him in the beginning, until they went over and saw the figures themselves. Further explorations were carried out, and many other figures were found throughout the cave.

The name

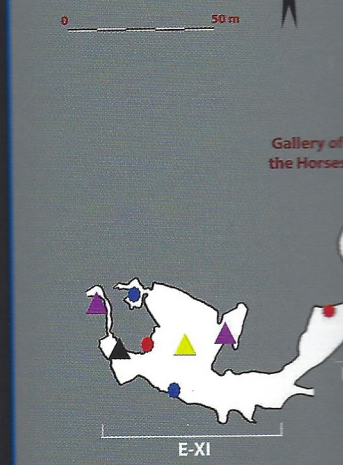
The denomination was to follow a tragic event: an 18-year-old boy nicknamed *Tito Bustillo* during explorations, died in a cave after him. Notwithstanding, the name honors the Spanish heritage.

The formation

The *Tito Bustillo* cave is located in Ribadesella. Its formation is the result of the action of river San Miguel. Nowadays a stream flows through the cave for visitors next to river.

Sometimes, in periods of high water, the cave paths under water, as it probably did long ago. The climate, and it has thus

Plan of the cave
 by Balbín-Behrmann, de R.,
 Alcolea-González, J. J.
 and Alcaraz-Castaño, M.



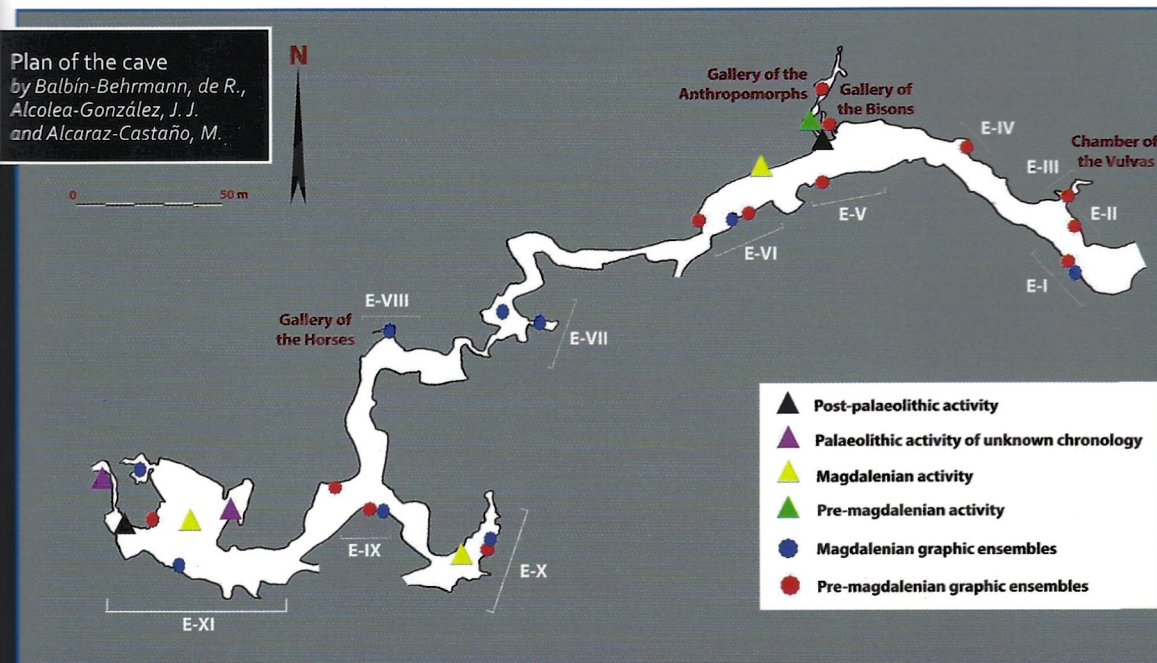
The name

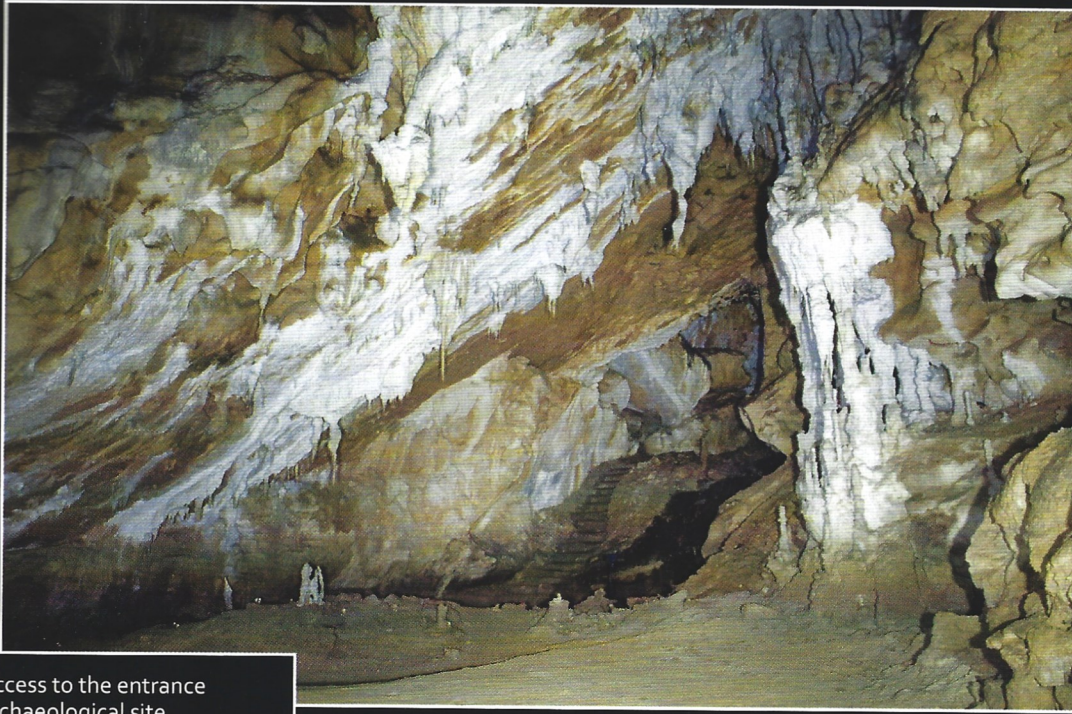
The denomination by which the cave would be known all over the world was to follow a tragic event. A few days after the discovery, Celestino F. Bustillo, an 18-year-old boy nicknamed *Tito Bustillo* who had taken part in the first cave explorations, died in a mountain accident; sometime later, the cave was named after him. Notwithstanding his short life, he had contributed to the increase of the Spanish heritage.

The formation

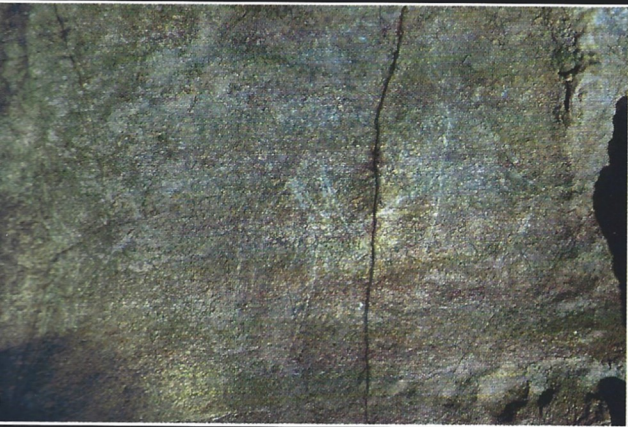
The *Tito Bustillo* cave is inside the Ardines massif, very near the town of Ribadesella. Its formation started in carboniferous limestone by the erosive action of river San Miguel more than two hundred million years ago. This river is nowadays a stream flowing underneath the cave towards the present entrance for visitors next to river Sella's mouth.

Sometimes, in periods of heavy rain the river still rises to its old bed leaving the cave paths under water. Fortunately, the floods do not reach the rock figures as it probably did long ago. River San Miguel is a natural means to maintain the climate, and it has thus contributed to the preservation of the rock art.

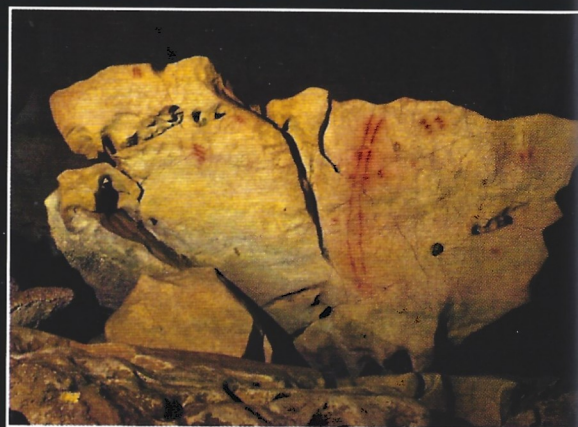




Access to the entrance
archaeological site.
*Consejería de Educación y Cultura.
Servicio de Patrimonio Cultural.
By Miguel Guzmán.*



Engravings.
Courtesy of R. de Balbín Behrmann.



Red signs.
*Consejería de Educación y Cultura.
Servicio de Patrimonio Cultural.
By Sergio Ríos González.*

The cave has a Y-shape (the two upper branches joined by a link. The left polychromatic paintings with its original entrance; the longest gallery was the cave was inhabited.

The cave is therefore the only possible way in ages until 1968, when the

We may say that walls long ago have suffered either were not taken care could be caused, or were treasures kept inside. For as since the beginning legacy.

Research

Three archaeological the main panel of painting a third one in a rather hison bison representations.

The main panel

Unlike the entrance to assume that a certain a small stratum between others above and below

Below the paintings traces of greasy purple burins, spatulas, chun remains and the burin but to painting and en

The cave has a Y-shaped ground plan: two galleries some 110 and 220 yd long (the two upper branches of the 'Y') and a longer one of about 550 yd; all three are joined by a link. The left-hand side gallery leads to the main panel with the famous polychromatic paintings, the right-hand side one goes to the primitive living area with its original entrance which collapsed long after the cave stopped being used; the longest gallery was also blocked by a huge rock fall most likely long before the cave was inhabited.

The cave is therefore blocked at its ends, the above mentioned chimney being the only possible way in. This is the reason why the cavern had been ignored for ages until 1968, when the *Torreblanca* group dared to climb down.

We may say that we are lucky for so late a discovery. Prehistoric sites found long ago have suffered the consequences of ignorance and barbarism. They either were not taken care of by the authorities, as nobody knew the damage that could be caused, or were broken into by people who did not respect the cultural treasures kept inside. Fortunately, our cave has never suffered such misfortunes as since the beginning every means has been used to preserve this invaluable legacy.

Research

Three archaeological sites have been found in *Tito Bustillo*: one is placed at the main panel of paintings, another one at the original entrance of the cave, and a third one in a rather hidden and narrow side passage with anthropomorphic and bison representations.

The main panel archaeological site

Unlike the entrance this site used to be flooded by river San Miguel. It is easy to assume that a certain amount of archaeological material was swept away. Only a small stratum between 1 and 2 inches deep is left, but there may have been others above and below which there is no trace of.

Below the paintings wall, archaeologists have found charcoal, ochre and traces of greasy purple paint. Furthermore, flint, worked bones and stones, burins, spatulas, chunks, bone chips and ashes are among the finds. The paint remains and the burins seem to prove that this area was not devoted to living but to painting and engraving exclusively, which is quite logical if we think of the



Horse-engraved spatula.
Courtesy of R. de Balbin Behrmann.

discomfort of being in complete darkness for a long time with the only help of some limestone lamp. According to the dating, all this material would correspond to the highest strata of the living area.

The entrance archaeological site

The primitive mouth is completely blocked by a landslide that happened long after the cavern stopped being utilized, and parts of a human skeleton (around 8,500 years old) half buried by the landslide have been found among the debris. Consequently, the archaeologists are working on a site that remains fairly pristine. That is a fortune very rarely enjoyed nowadays. Either because of floods or by the hand of ignorance, many archaeological sites are ruined elsewhere: strata are found intermixed, and a great deal of material for study is lost forever.

No research has been carried out under the collapsed rocks yet. Since the human skeleton is placed on the inner slope, it seems likely that other human remains might be unearthed in due time. However, digging in a large mass of rocks is a dangerous and difficult task. It requires much care and it is very expensive. Research has been centred upon the zones uncovered by the rocks, so far being successful enough to keep at it. The outer side of the rock collapse shows traces of inhabitation too: a few remains were dug up that belong to a more recent time than the ones of the inner side.

The tools

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One object is well
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Needles.
Courtesy of R. de Balbin Be

The tools

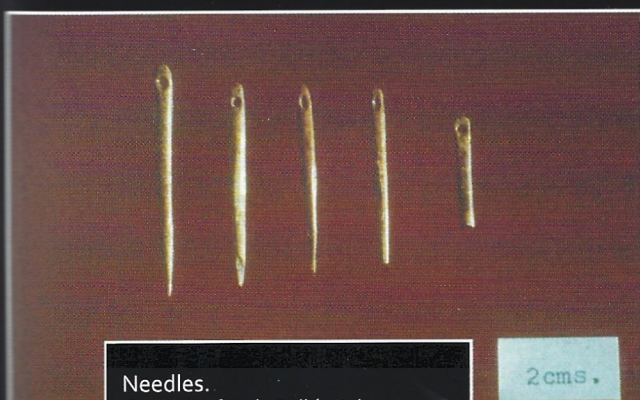
There are two well-defined layers in the entrance site, each of them in turn is divided into several strata of occupation. The raw materials were flint, quartz, antler and bone. Amongst the lithic material unearthed the following predominates: cores, chunks, flint blades, scrapers, burins and piercers, as well as a microlithic industry typical of the last phases of the Magdalenian thus hinting at later periods.

The bone and antler industry has yielded harpoons with a single row of barbs, needles for sewing fur, spatules, knives, spear points, also a pierced baton maybe used either as a sign of rank or to straighten up antlers after heating them. In most cases the material is adorned with geometric decoration.

Black stains have appeared as traces of hearths, together with stones covering large parts of the ground. Apparently, *Tito Bustillo's* craftsmen arranged their living area in order to make it smooth and comfortable.

Whether or not it is related to rock art (little is known about those people's real beliefs and practices) portable art works are also present. The Cro-Magnons seemed to work nearly everything that fell into their hands. Besides the above mentioned tools, they also shaped and decorated stones, bones, antlers and shells in order to make pendants, pierced batons and all kinds of amulets. The themes were geometric motifs as well as horses, deers and bisons. An extraordinary amount of stone plates have been found; their particular animal decoration has provided a lot of useful information for the dating of some of the rock art by revealing parallel styles.

One object is well worth mentioning: a piece of antler carved into the shape of a goat head. About 2.8 inches long it shows every sort of detail: nostrils, mouth

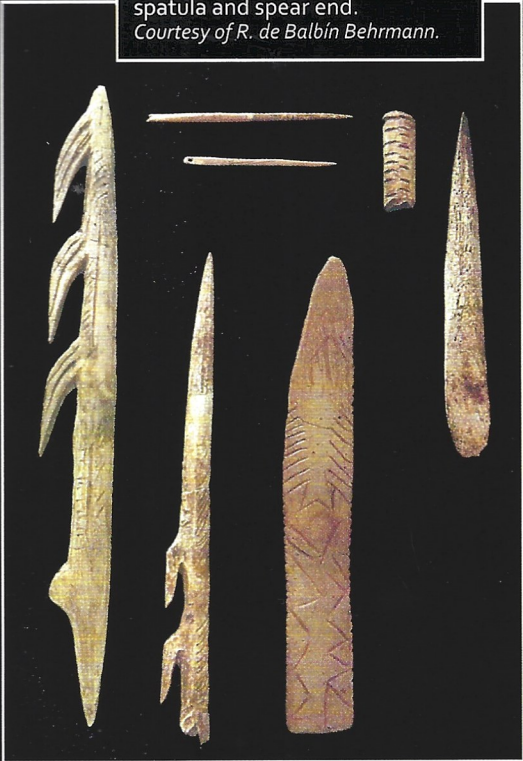


Needles.
Courtesy of R. de Balbín Behrmann.



Animal-contoured pendant.
Courtesy of R. de Balbín Behrmann.

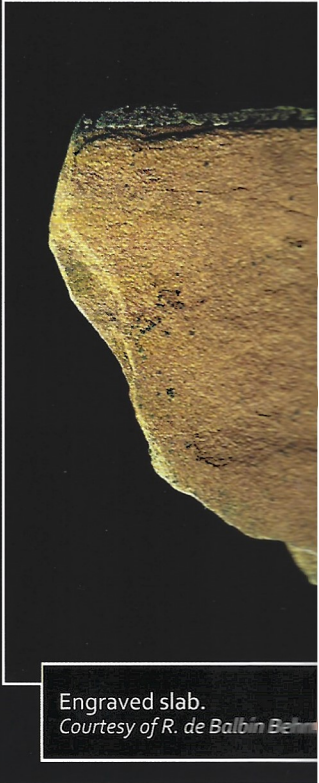
Needles, harpoons, spatula and spear end.
Courtesy of R. de Balbín Behrmann.



Harpoons.
Courtesy of R. de Balbín Behrmann.



Engraved slab.
Courtesy of R. de Balbín Behrmann.



Spatula.
Courtesy of R. de Balbín Behrmann.



Hyoid bone pendant.
Courtesy of R. de Balbín Behrmann.

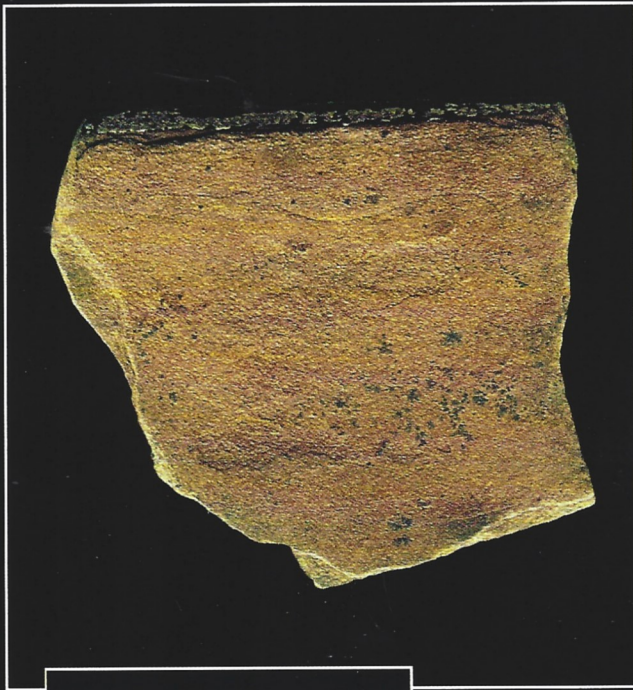
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The food

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Seafood gathering c
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Engraved slab.
Courtesy of R. de Balbín Behrmann.



Venus figures.
Courtesy of R. de Balbín Behrmann.

and eyes are carefully carved, the horn rings are clearly visible, and the ears are joined together and pierced to form a pendant.

The food

Refuge, water and provisions were the cornerstone when it came to choosing a settlement. Extreme cold and lack of food decided the flight to somewhere else, though cave-dwellers used up all possible resources of the piece of land they settled on.

The entrance archaeological site is rich in marine life. The collection of sea creatures must have been a frequent activity probably in times of shortage of meat. Limpets and winkles abound, and there are also mussels, clams and cockles as well as remains of crustaceans and trout bones. Some shells were decorated, sometimes pierced by drilling and rubbing and later threaded to be used for personal embellishment.

Seafood gathering did not need any specialization or strength, only knowing the tide cycles, picking and transporting. It may have been done by women and children, thus causing a sexual division of work: men for hunting, women for fishing.



Horse-engraved slab.
Courtesy of R. de Balbín Behrmann.

Goat-shaped pendant.
Courtesy of R. de Balbín Behrmann.



Some molluscs require cooking, as is the case of winkles, to pull out the edible part. Since there was no pottery at all, it seems likely that cave-dwellers either put molluscs into leather bags and held them near the fireplace or else they placed hot stones inside the bags for cooking.

A careful study of the limpets and their breaches show that they were pulled off the rocks by levering, which requires very hard and sharp tools. On the Spanish coast limpets breed between March and May, so their size allows us to find out their age. The kind of limpets found in *Tito Bustillo* helps us to conclude that most of them must have been picked up in springtime, summer and autumn, probably the seasons of the main settlements.

Marine life supplied proteins, minerals and vitamins. Either as a substitute in times of shortage or as a varied nourishment in association with meat and vegetables, seafood must have played an important role in the life of *Tito Bustillo's* cave-dwellers.

Nevertheless, they devoted a long time to the herds around the quantities of food for to nourish the whole tribe.

The mammals' remains also other animals like and seal. We should not part of the world, for Würm; therefore, they in cold zones today.

As for the red deer Iberian Peninsula flees (often covered with enough pastures to remains found in the

A huge number of hunters would prefer deer is known to be it comes to finding of teeth of fawns found of the year when the

Tito Bustillo's where they would w important in those straighten up antlers well how to make f rubbing two dry sticks

The flora

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Nevertheless, they were primarily hunters. The research carried out proves they devoted a long time to the making of tools for hunting. They would follow the herds around their territory as their main activity since meat provided big quantities of food for a certain time. One or two good pieces of game would nourish the whole tribe a number of days.

The mammals' remains found in the cave show they mainly ate red deer, but also other animals like reindeer, goat, roe deer, bison, ibex, horse, wolf, fox, lynx and seal. We should not be surprised at the existence of reindeer and seals in this part of the world, for we are talking about the last period of the last ice age, the Würm; therefore, there were animals in Spain like the reindeer or the seal that live in cold zones today.

As for the red deer, on the one hand their migration to southern areas of the Iberian Peninsula fleeing from the cold was often hindered by the Cantabric Range (often covered with snow during the Würm). On the other hand, they would find enough pastures to stay in the North of the Peninsula, all of which explains the remains found in the cave.

A huge number of young animals appeared on the archaeological site: our hunters would preferably attack female herds with young creatures. The red deer is known to be born between May and June, which is a helpful date when it comes to finding out in what season the animals were hunted. Thanks to the teeth of fawns found it has been possible to know their age, and thus the time of the year when they were killed: mainly in June and July.

Tito Bustillo's hunters used to live round a fireplace at the entrance where they would work their tools and cook. Obviously enough, fire was very important in those days: it gave out heat and light, was probably utilised to straighten up antlers, and was used for cooking. Those hunters knew perfectly well how to make fire either by hitting two stones to produce sparks or by rubbing two dry sticks.

The flora

The flora of the place was not as different from today's as we may at first think. In spite of the extreme cold, snow would not fall too heavily on areas so near the coast; and when it did, it would thaw quickly because of the sea wind. The analysis of prehistoric pollen proves this by giving examples of alder, pine, birch, hazel, holm oak, ash, lime, and willow trees, all of them common trees in the North of Spain nowadays.

Age

It has been said earlier that the original mouth of the cavern is blocked. Therefore the main living area is covered by tons of rocks, leaving buried what will no doubt be the richest part of the archaeological site. The area that is being unearthed is some 22 yd from the primitive mouth. It is a place that, in spite of being in semi-darkness, would have been much used. The lowest strata have not been reached yet, though further research can still provide lots of information about those predatory people.

Similar carving techniques have been observed through the different strata. Tools and portable art seem worked by people whose skills were very much alike, which proves that akin groups were using the cave for a long time.

Archaeologists use two methods to figure out the age of the settlements: uranium-thorium radioactive isotopes and radiocarbon dating. The archaeological material not only provides information about where and how *Tito Bustillo's* people lived, but also about when they settled in the cavern: the datings are circa 14,000; this refers to the top strata of the cave mouth site, which coincides with the age of the main panel's unique stratum.

The anthropomorph and bison archaeological site

Here the archaeologists have found two small walls built with rocks and stalagmitic slabs by the inhabitants. Also pigment, charcoal, crushed bones and flat stones were unearthed. The age of all this material is around 30,000 years, which shows the oldest human utilisation bearing on some of the most ancient decorations of the cave.

The rock art

There are over 500 either painted or engraved figures in *Tito Bustillo*. The rock art covers a long period from Aurignacian up to Magdalenian times, more precisely from circa 35,000 to 14,000 years. Thus the cavern was in use for most of the Upper Paleolithic.

The animal species mostly represented in the cave is the red deer, followed by the horse, the goat, the bison, the reindeer and the aurochs. It is easy to assume that these artists would depict those species existing across their territory at the time of utilising it. Even though they moved away because of the weather or because

of animal migrations, represent some of the easy to grasp their ideas of animals they hunted and the selection of them

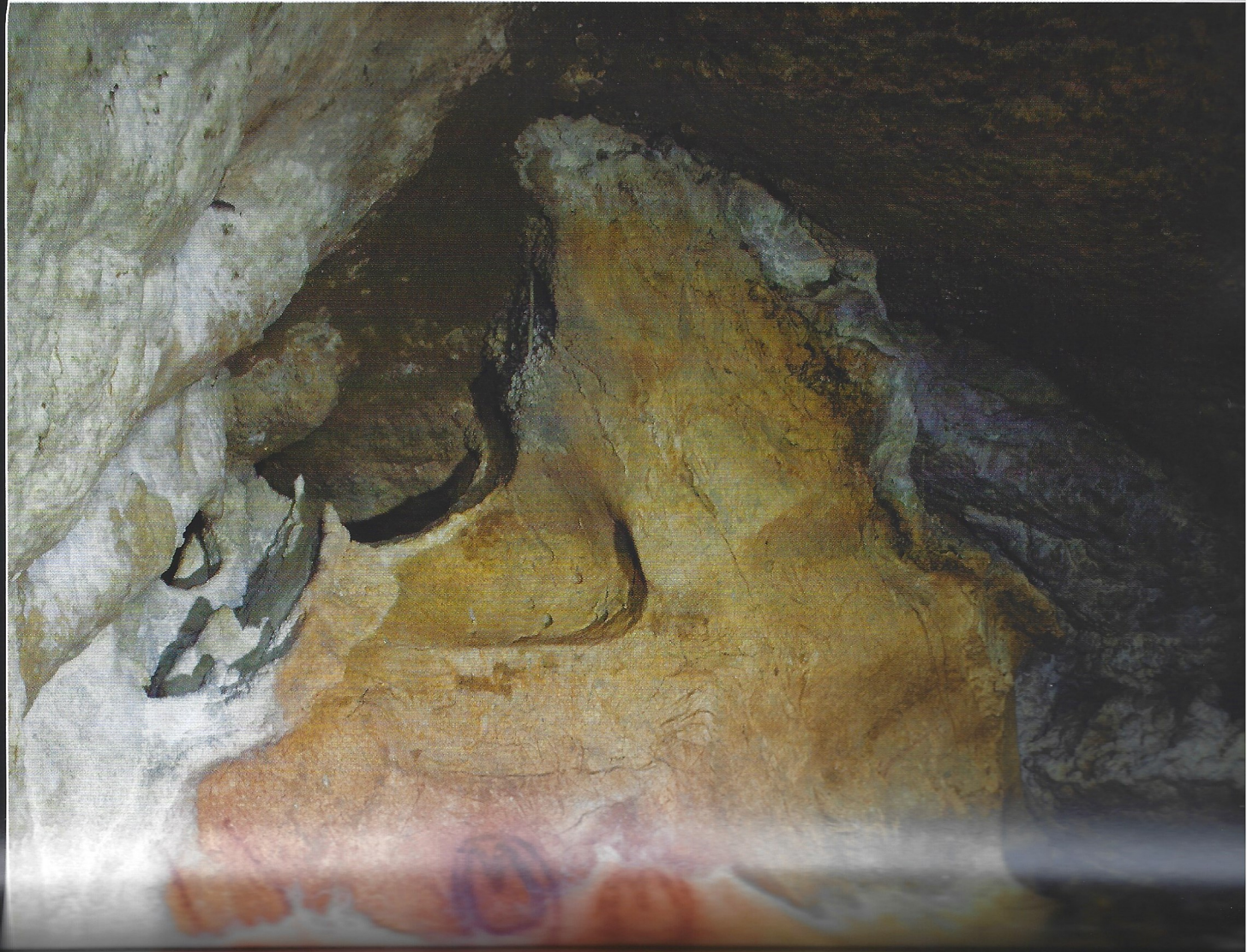


Negative-painted hand.
Consejería de Educación y Cultura
Servicio de Patrimonio Cultural
By Miguel Guzmán.

of animal migrations, their journeys were not very long; their rock decorations do represent some of the existing fauna within a certain area. However, it is not so easy to grasp their ideas when it comes to classification. They did not draw all the animals they hunted or fished whatsoever but only some of them. The criteria for the selection of themes do not seem to be conditioned by their means of survival.



Negative-painted hand.
*Consejería de Educación y Cultura.
Servicio de Patrimonio Cultural.
By Miguel Guzmán.*





Purple horse.
 Consejería de Educación y Cultura. Servicio de Patrimonio Cultural.
 By Miguel Guzmán.



Anthropomorp
 Courtesy of R. de

It has often been argued that the pictures inside a cave are associated to each other forming a whole. Although not everybody agrees about this, however there seem to be hints at some sort of connection. The late Mr Aurelio Capín -in charge of the cave for a long time and discoverer of an impressive group of engravings in *Tito Bustillo*- used to say that when looking for depictions he used to watch out for traces of coloured spots on the walls of the cave, as a possible signal of a nearby rock art block. The system worked for his searches were often successful.

Apart from the depictions of the Grand Panel, there are several groups of paintings and engravings spread all over the long gallery on different walls and side points. Although most of these figures are just outlined, sometimes there are shaded areas inside the animal figures showing either hair or different parts of the body. Besides some antropomorfic signs and a hand painted in negative, the red deer, the bison, the horse, the aurochs, the goat and a cetacean are the animals depicted in various numbers, together with signs like groups and lines of spots, loops, and also grill-shaped, club-shaped and quadrangular signs.

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Anthropomorphic figures.
Courtesy of R. de Balbin Behrmann.

An outstanding side cavity is worth mentioning with a group of five red paintings generally interpreted as vulvas. They have the shape of a circle with a small vertical line sometimes forked into two on the lower part. Two of them are surrounded by a sort of U-shaped line. One of these *vulvas* appears inside what seems to be a human outline with the head and feet missing.

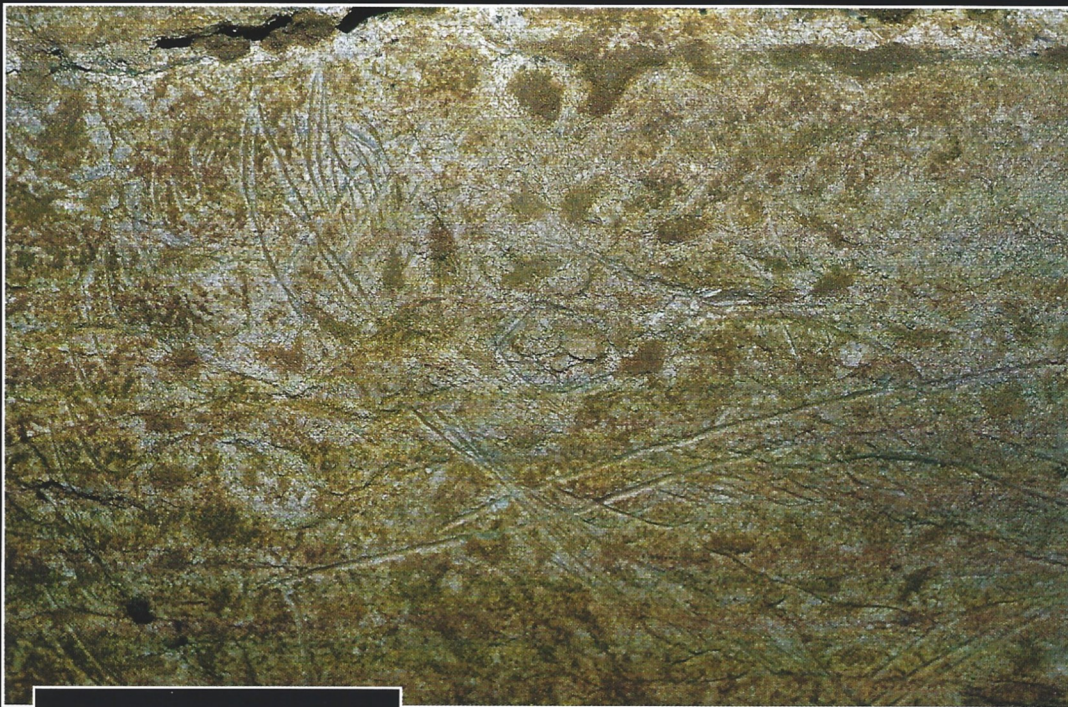
Very close to the junction splitting the cave into three galleries, there is a red-painted rectangular sign, and also a large violet-coloured horse of similar characteristics to the big paintings of the Grand Panel, as a sort of notice of what we can find onwards in the cave. At the entrance, nearby the archaeological site, are red stains on the walls and two painted small bulls.

Two small galleries, one with anthropomorphic and another with bison figures, have more recently been discovered. They are situated in lateral passages rather deep into the cave.

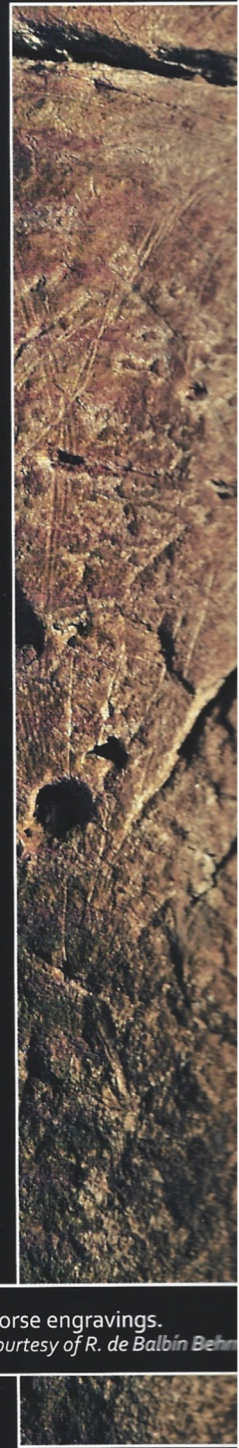
The Gallery of Horses

This group of engravings is worth special mention. Discovered by Mr Aurelio Capín, it is situated in a small cavity with a narrow and difficult access. It contains several depictions of horse as the main theme, though there is also an aurochs, a reindeer, a possible bison and two other figures of dubious identification.

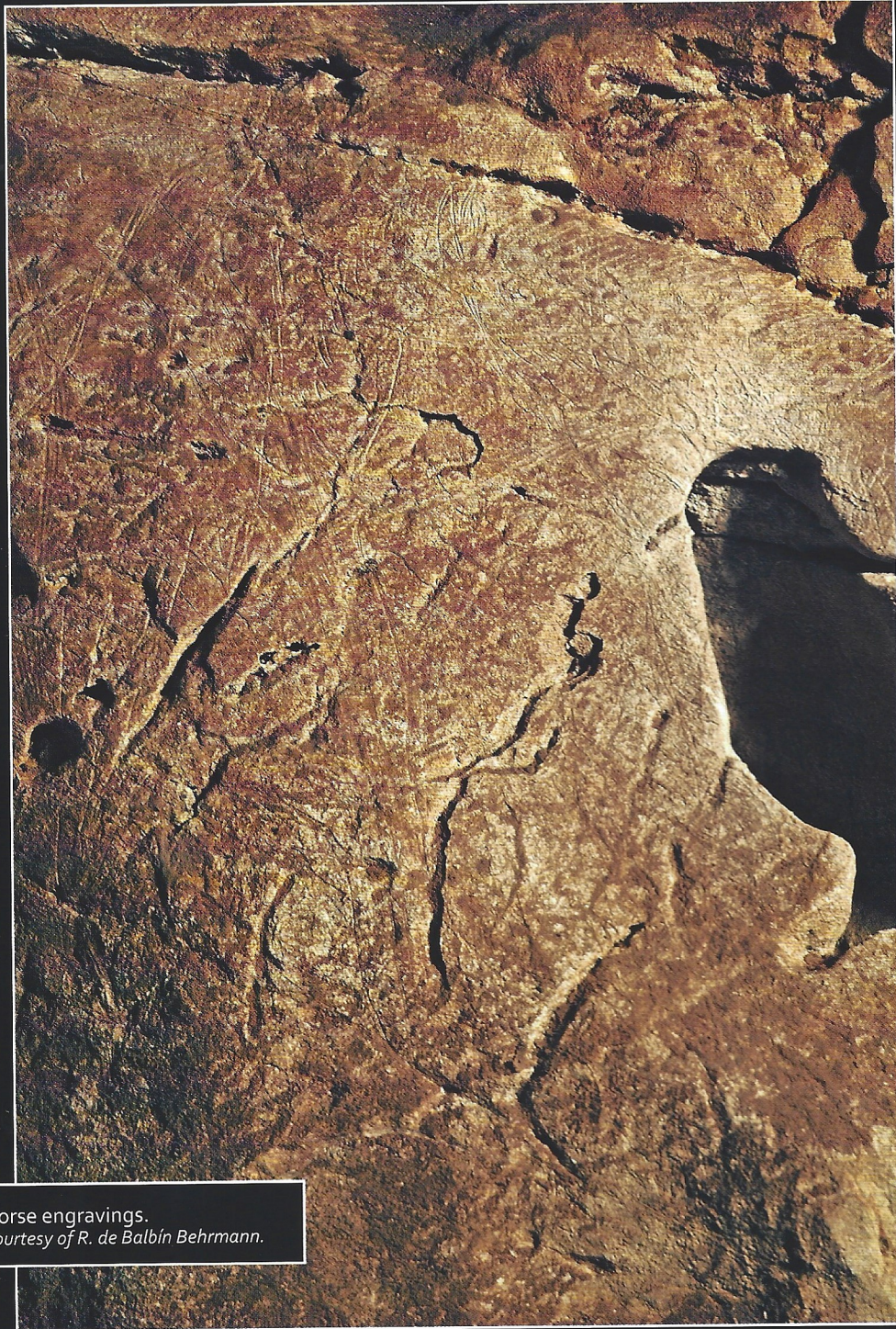
The Magdalenians who drew these figures must have been very skilled to be able to do so with such a degree of realism. They used the natural shape of the rock for depicting some parts of the body, and they also drew eyes, nostrils, mouth, mane and the lower jaw hair. The same technique was used for all animals which hints at the same time of realization. Style and themes seem to be related to some of the latest phases of the paintings in the Grand Panel.



Engraved horse.
Courtesy of R. de Balbín Behrmann.



Horse engravings.
Courtesy of R. de Balbín Behrmann.

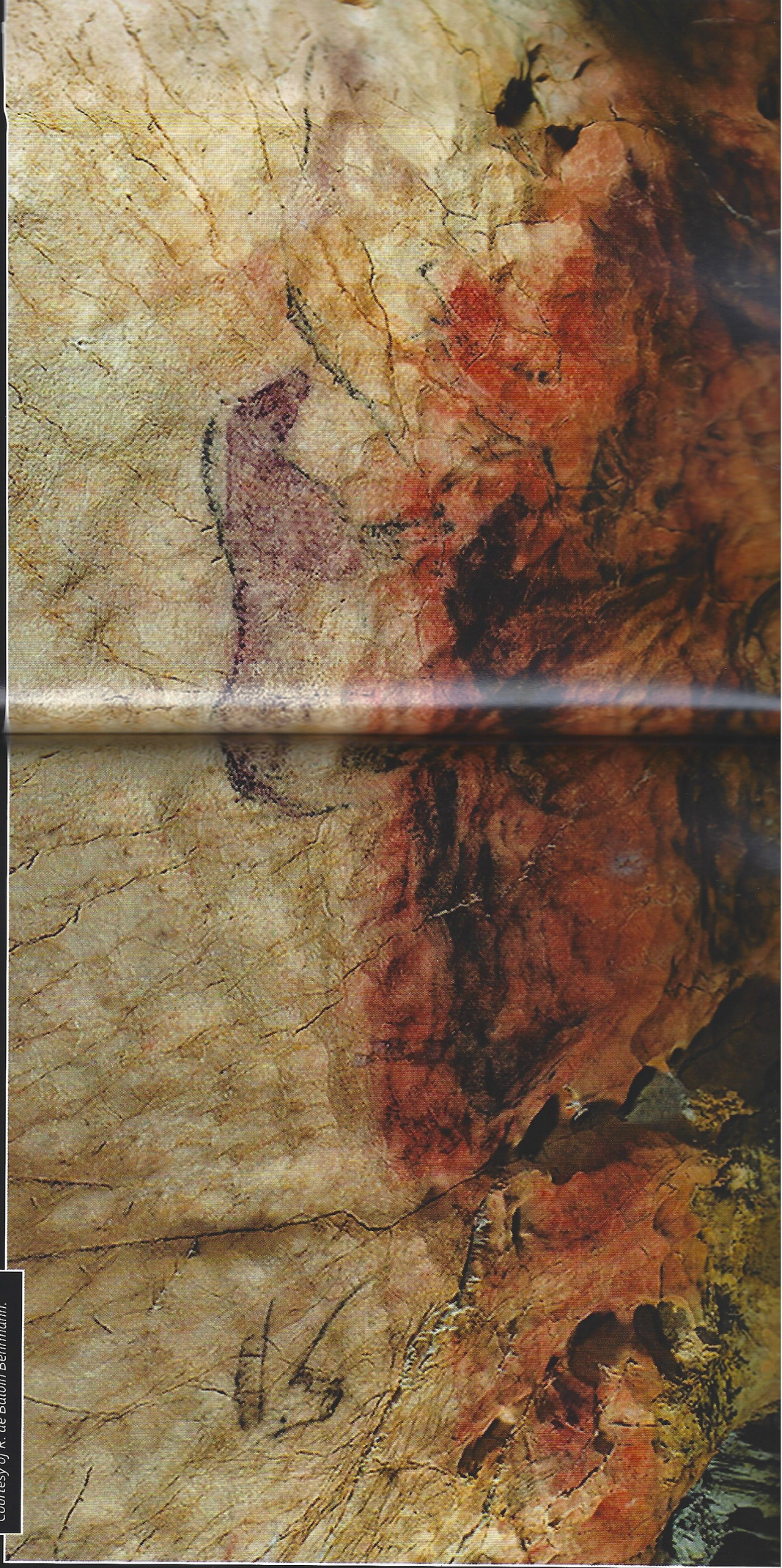


Horse engravings.
Courtesy of R. de Balbín Behrmann.

The Grand Panel

This is one of the most overwhelming friezes of cave art throughout the Upper Paleolithic. It contains a mixture of themes and techniques, with big polychromatic animals covering other paintings and engravings of earlier times.

Main panel panoramic view.
Courtesy of R. de Balbín Behrmann.



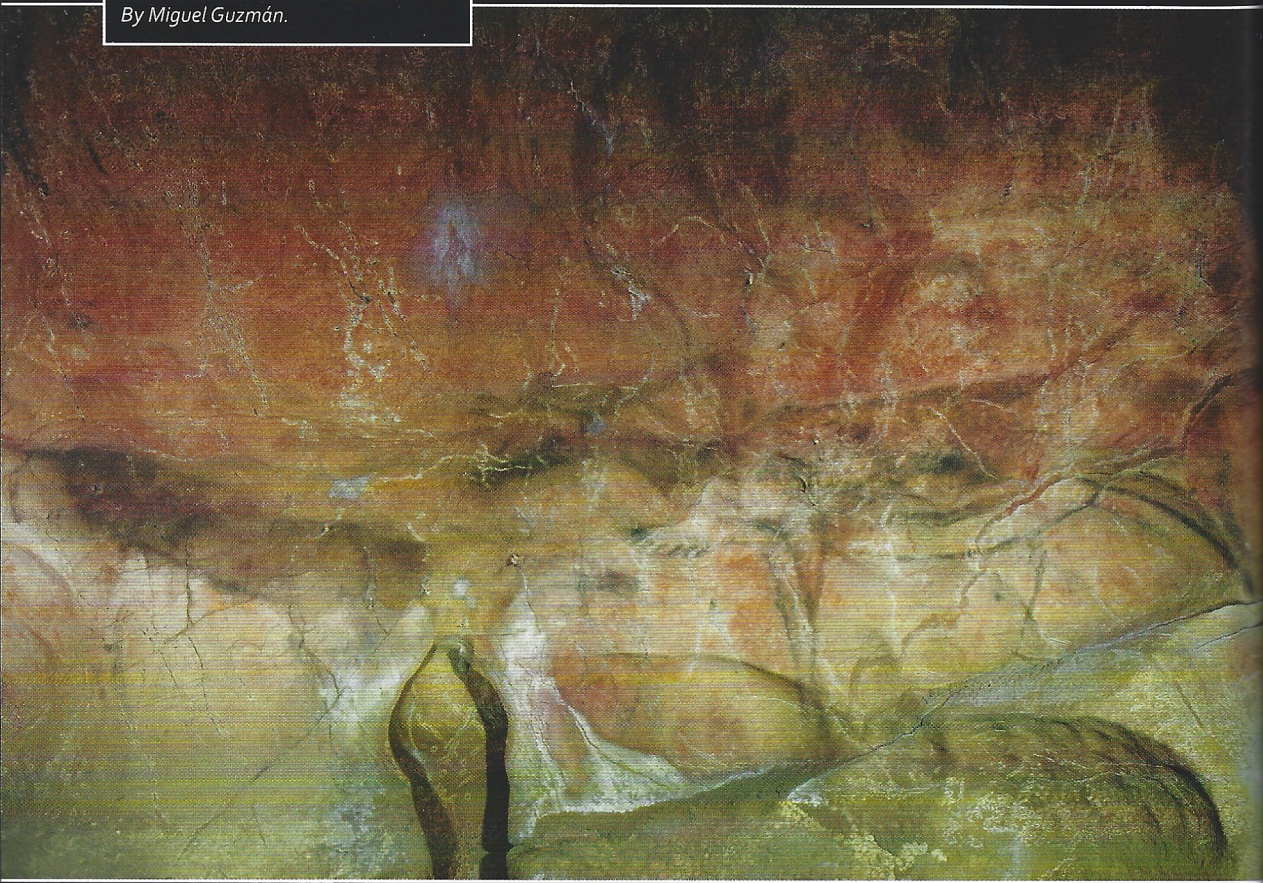


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 Servicio de Patrimonio Cultural.
 By Miguel Guzmán.



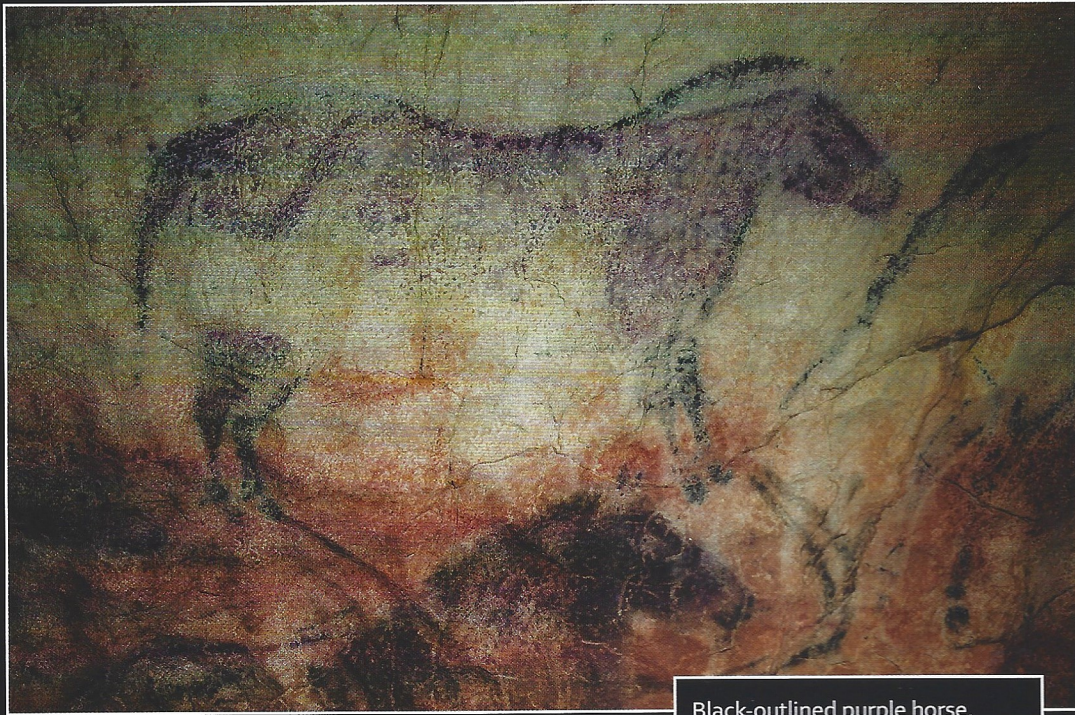
Horse head.
 Courtesy of R. de Babín Behrmann.

Reindeers.
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Horse and reindeer.
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Black-outlined purple horse.
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Horse and reindeer.
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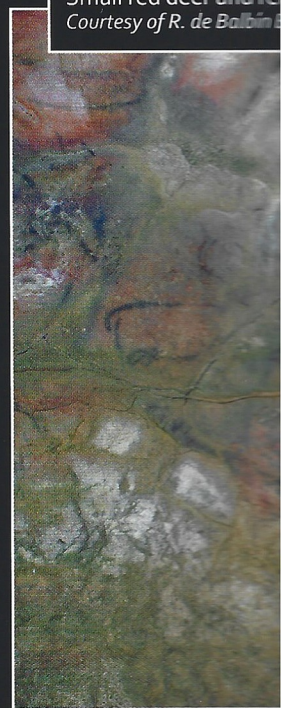
Black-outlined purple horse.
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Small red deer and re
 Courtesy of R. de Balbín Behrmann.



Horse.
 Courtesy of R. de Balbín Behrmann.





Grey horse.
Courtesy of R. de Balbín Behrmann.

Small red deer and reindeers.
Courtesy of R. de Balbín Behrmann.



There seem to be two phases: an older one with four different stages of figures, after which a large red covering was painted over, and a newer one with another four stages showing the impressive big figures that can be admired by visitors. The earlier figures seem to have been partially concealed in order to paint the visible large animals.

Within the old phase are red stains and signs, together with black depictions of red deer, reindeer, aurochs, bison, and some engraved heads of hind. The new phase shows the famous polychromatic paintings of horses and reindeer. There is often association of two colours in one figure, one for the outline and the other for the body.

Sometimes the outline was scraped in order to make the animals stand out of the red background above mentioned. Nevertheless, this is not visible now for the paint has been running down through ages thus covering the scraped zones. Reliefs of the rock were also used in order to give a three-dimensional effect. This was often reinforced with an irregular use of the paint by washing or scraping, thus showing different depths in the hair colours.

Together with the animal depictions, the panel abounds in signs. Square, oval, shield-shaped signs and series of zig-zag lines within both the old and the new phases end up the depictions of the Grand Panel.

Scenes can be appreciated sometimes. Two big reindeer facing each other, two horses one behind the other, a line of small reindeer. All of which shows that sometimes there seemed to be an idea of depicting a scene and not just isolated animals.

The pigments

Large amounts of paint have been falling off the walls throughout thousands of years. However, the use of mineral substances for the colours together with full darkness and a constant climate, contributed to the preservation of paintings and engravings for ages. They used iron, manganese and charcoal to get the red, purple and black colours that can be seen on the walls.

Visitors can observe these pigments only in the 'Grand Panel' since the rest of the figures are not accessible. Either placed very high or in too small cavities, most of the pictures in *Tito Bustillo* cannot be seen. Nonetheless, the public is never disappointed. The magnificence of the polychromatic paintings of the 'Grand Panel' are a most special sight that cannot be enjoyed frequently.



Red points.
Courtesy of R. de Balb





Red points.
Courtesy of R. de Balbín Behrmann.



Loops.
Courtesy of R. de Balbín Behrmann.

The age of the pictures

It has been possible to establish relations between the rock art of the new phase in the Grand Panel, the engravings in the Gallery of Horses and the decorations on tools and portable art of the archaeological sites. Parallel techniques and styles have been observed by the archaeologists in both wall and portable art; and they have also found coloured stones within the same strata of the decorated tools and pendants. Therefore, by knowing the age of the different strata of inhabitation, and taking into account the similarities of art, the age of some of the rock pictures can be figured out.

The above mentioned new phase of the Grand Panel, the Gallery of Horses and the one horse painted nearby the junction of the cave seem all to have been painted by those cave-dwellers using the last strata of the entrance site. This was about 14,000, i.e. Magdalenian times.

There is not enough information to know with precision the age of either the old phase of the Grand Panel figures or the depictions spread all over the long gallery. Both techniques hint at an earlier period, probably between 20,000 and 30,000 years, which situates them in the final Aurignacian or beginning of Solutrean periods.

Last word

The meaning of paintings

Since Jacques Boucher de Perthes started studying primitive tools in France in the 1840s, thus converting prehistory into science, there has been a great deal of interpretation over the use of rock art. The first attempt, and for that reason probably the least consistent, assumed that in paleolithic times game abounded. An inherent human inclination to art would thus have moved those people to decorate their dwellings, for they would have been able to enjoy long hours of leisure.

Later, it was thought that animal figures were used as a means of making hunting easier. Rites would have been carried out in order to influence the animals represented. This view soon became associated with totemic practices: the animals drawn would represent the tribe. The great French scholar abbot Henry Breuil followed this magical-totemic view, yet first of all the caves with decorations were religious sanctuaries for him.

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Professor Peter 30,000 years ago, a the paleolithic 'etho

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The caves in

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These hypotheses, and many others not mentioned here, were drawn from studies about aboriginal tribes. This is generally looked on as a mistake nowadays though. The fact that the living conditions of the 'primitive' peoples of nowadays and those of the Cro-Magnon Man share certain similarities, does not necessarily mean that both shared the same beliefs. By establishing ethnographic parallels we risk drawing wrong conclusions.

More recently, Professor André Leroi-Gourhan said that there was either a female or a male principle behind every figure, no matter whether it depicted an animal or a sign; even the shape of the rock had a meaningful (male or female) relationship with whatever figure drawn upon it. He carried out a series of associations centred upon these bases, and stated that all figures in a cave were linked to one another in some way. Structuralism as well as Sigmund Freud seem to have had some influence on him. Eventually, Leroi-Gourhan himself would withdraw from his views publicly.

Some have hinted that paintings could have been used to tell old stories, so passed on from parents to children. For others drawings were used to teach boys (i.e., future hunters) how to catch game, in other words, how to be able to preserve the life of the tribe.

Maybe each aspect: animals, signs and drawings suggesting human figures should be given a particular interpretation separated from the others. Different tribes may have had slight differences as to their own beliefs, and it might be a mistake trying to draw generic conclusions.

Professor Peter J. Ucko considers that since paleolithic cultures started about 30,000 years ago, any supposition in the sense that we can know what concerns the paleolithic 'ethos' (sic) is fully groundless.

The only thing that seems obvious is that everything points to religion. We are probably in front of the origins of what would in due time become full religious philosophies. What does not seem that obvious is what kind of religion it was. The actual reasons why caves were decorated throughout the Upper Paleolithic period escape human understanding.

The caves in Ribadesella

This must have been a place with good living conditions in primitive times, for there are traces of Upper Paleolithic inhabitations in several caves around Ribadesella. Besides *Tito Bustillo* there are other caves some of them with just a few drawings some with an archaeological site only: *La Cueva*,

La Cueva del Tenis, Les Pedroses, El Cierro, Cova Rosa, San Antonio and, finally, *La Lloseta* which has a narrow communication with *Tito Bustillo* -though not easily accessible to people either in prehistoric times or now. All these caves are of minor interest and are not open to visitors.

Since paleolithic hunters moved round an area of which they knew the resources, it is possible that members of the same tribe would use some or all of these caves as dwellings when searching for game.

Preservation

One of the main concerns of the people in charge of decorated caves is rock art preservation. What we can admire now is just a small part of the drawings left by the authors: floods, rock falls and the growing of stalactites and stalagmites have been causing the disappearance of rock art for centuries.

But we ourselves can also cause a damaging effect. Sometimes caves are not sufficiently protected and people just go in, often neglecting their own lives, and spoil this wonderful inheritance. It is quite common to visit caves where graffiti is clearly visible next to original primitive paintings.

Even caves that are protected risk suffering damage. Temperature, humidity and carbonic gas can fluctuate, and often do so, as a consequence of visits. These alterations in the microclimate together with the use of light end up causing what has been called the 'white harm' and the 'green harm'. The former is characterised by the crystallisation of the limestone on which paintings are placed, the latter by the appearance of green areas or areas of vegetation. Moreover, paint and limestone surfaces may fall off the walls.

In order to prevent these irreversible losses, the microclimate of those caves visited is frequently controlled. The visitors are reduced to a small number -according to the conditions of each place- and the public goes into caves in limited groups always with a guide.

Our cave

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Our cave

In *Tito Bustillo* these protective measures have been taken since the cave was opened to public visits. In 1969 a small tunnel was excavated nearby the primitive entrance, and some groups could visit the cave in July and August for the first time.

It was in 1970 that the present access started being used. It is a 180 yd long artificial tunnel that communicates the long East gallery of the cave with the outside. Opening a new mouth would most certainly have caused draughts (remember the natural chimney at the other end and an underground gallery where the stream flows), and this would have altered the natural conditions of the cave. Inside the tunnel visitors have to walk through several doors installed to keep the original climate inside.

Only a limited number of people are allowed to enter daily and the cave is held open only a few months a year. The lights are reduced to a minimum, particularly those which illuminate paintings, in order to prevent the appearance of algae.

Obviously enough there is a team of guides who accompany the visitors and give all necessary explanations. John E. Pfeiffer says: "The official custodians of the art, the guides who conduct visitors, laymen and experts alike, through passages leading to remote chambers, represent a rich and largely untapped source of information. They spend more time exploring the caves than anyone else, and know the locations of as yet unreported figures, many of which they themselves have discovered".

Tito Bustillo has been a privileged cavern. So late a discovery (1968) was really lucky, for it made it possible to use new methods of study that provide lots of information with the help of approaches that were not available only a few years before, e.g., prehistoric pollen analyses as a means of knowing the flora of primitive times. Furthermore, it also allowed for new systems to protect the amazing rock art which had been confined inside the *Tito Bustillo* cave for thousands of years.

The lessons learned from other caves, where ignorance caused incurable damage, have been applied here. The result is the preservation of an invaluable legacy in the same state it was when the cave was found. In 2008 *Tito Bustillo* was declared as a World Heritage Site by UNESCO.