Prehistoric Cave Art in Europe  
Lecture by Bernard Smith

Today we shall embark upon the detailed section of our course by turning our attention first to the art of the Palaeolithic Cave Painters of South Western Europe. Let me first draw your attention to three books: *Four Hundred Centuries of Cave Art* by Abbé Breuil, *Lascaux: Paintings and Engravings* by Annette Laming, and the *Lascaux Cave Paintings* by Fernand Windels.

First, then, what do we mean by Palaeolithic Cave Painting? It is an art which has been revealed to modern man during the past hundred years or so by archaeologists. In 1834 some engravings of animals in bone were found in a cave near Vienne in the Rhome Valley. As the years passed other engravings on bone and ivory were discovered in other caves in Southern France. Then in 1879 a Spanish archaeologist, Saultuola, revisited the cave of Altamira in northern Spain which he had discovered 5 years before, and saw for the first time a great medley of paintings upon the low roof of the cave which he had not noticed on his first visit. Sautuola himself was convinced of the great antiquity of the paintings and claimed that they were prehistoric, but the world of scholarship remained sceptical. One French archaeologist, Eduoard Harlé, claimed that they were painted between 1875 and 1879, that is between Sautuola’s first and second visit.

It was not until 1902 that the world of scholarship became convinced that the paintings were in fact the world of prehistoric man. You will find both in Breuil and in Laming an account of the 19th century discoveries and their gradual acceptance by scholars.

Let us consider this question of the age of the Palaeolithic paintings a little more closely. The dating of a work of art is one of the most constant and frequently one the most difficult problems with which an historian is confronted. If the central task of that history is to appreciate a work within its historical context, then clearly the date is of critical importance. We should certainly not ask any of you, at this stage of your studies to attempt to establish the dates of undated works of art. We shall however expect you to memorise the dates of numbers of well-known masterpieces over the field of your course so that you will have some milestones, as it were, with which to find your way through the centuries. I shall have a word to say about this at the end of the lecture.

The great age of the cave paintings has been established by means of a variety of arguments. One such argument might be called the argument from imagery, or the argument from iconography, as the historians call the study of images and their associated meanings. Many of the animals depicted in the caves, such as rhinoceros,
mammoth, lions, reindeer and bison, are either today extinct or have migrated elsewhere ages ago. But the fact that such animals inhabited Western Europe in prehistoric times has only been known during the past century. If the paintings were not painted when such animals inhabited Western Europe then they could only have been painted during the past hundred years. But in many caves the paintings are covered by limestone concretions from the action water, sometimes these concretions obliterate parts of the paintings, sometimes the concretions are translucent. At Lascaux a fine transparent calcite skin was formed from water exuding from the walls. Many of the images were painted over the calcite skin, yet over many of the paintings calcite exudations, rather like spots of mould, have grown through many of them. Here is one simple test of their great age. But just how old is such a painting as this one*. Archaeologists use two modes of dating. One is known as **absolute chronology**, in which an attempt is made to fix date absolutely. In recent times the most favoured method for establishing an absolute chronology is by means of the carbon-14 method. This is based on the fact that organic carbon, bones, charcoal from trees, animal remains, etc. has a radioactive count of 15 but mineral carbon has a radioactive count of 12. Following the death of the organism the radioactive content decreases very slowly and the measurement of this decrease can establish the approximate date of the death of the organism. An examination of organic carbon from Lascaux indicates a date of 15 000 years, that is about 13 000 B.C., with a possible margin of error of plus or minus 900 years.

**Relative chronology** does not seek to establish age in years but to determine whether any artefact unearthed occurs earlier or later in a given sequence of discovered artefacts. The main method for establishing a relative chronology is based upon the study of geological strata, or, as it is called, stratigraphy. Primitive nomads, long before the emergence of towns and cities tended to occupy, over many generations, favoured spots, caves, rock shelters, and so on. A study of the various levels of a cave floor for example may help to establish a relative chronology for occupation in a particular cave. Sometimes fragments of a painting on the roof have fallen to the cave floor and been buried in a particular stratum. Sometime the lower portions of paintings on walls are covered by several levels of silt. This will help to establish a maximum date, that is, the picture will be at least as old as the strata to which it reaches. And remember of course, that remains found in the strata of any one cave must be compared with remains found in the strata of other caves of a similar nature. By this means a relative chronology can be evolved like a jigsaw puzzle, and the whole pattern, as it were, anchored to an absolute chronology if any part of the jigsaw can be absolutely dated, say by the carbon 14 method. Sometimes the entrance to a cave is blocked and the blockage contains evidence, flints, bones, etc. which can be dated archaeologically. This means that the paintings are at least as old as the remains contained in the blockage. Now, apart from evidence supplied by stratigraphy, the Abbé Breuil has also made use of superposition to establish a relative chronology. If we look at the black bull again* we will see faintly behind its horns the horns of an ox.
and also portion of the legs. Infrared photography reveals the earlier paintings more clearly.

So far as the general dating of the Cave paintings is concerned it is generally agreed that they belong to the last phase of the **Old Stone Age**, or **Upper Palaeolithic**.

The Upper Palaeolithic Period is itself divided into three cultures: the Aurignacian, the Solutrian, and Magdalenean. Archaeologists generally agree that the known painted caves fall within these three cultural phases. The Cave of Lascaux, in the Dordogne region of France, is generally attributed to the Aurignacian culture, while the great cave at Altamira in Northern Spain is usually considered to be somewhat later and is placed in the Magdelenean period. Well, so much for the complex problem of dating, the difficulties of which I have only hinted at. But I have discussed them first because, after all, they are a central problem for the archaeologist and for the art historian also.

Let us now consider the technical methods employed by the Palaeolithic painters. We can best begin by looking at some of the paintings at Lascaux, in our next slide.* The Cave of Lascaux is situated in the Valley of the Vézère, a rich agricultural and extraordinarily beautiful region in the centre of France. The cave was discovered by four boys in 1940, in recovering their dog, which had fallen down a hole near an uprooted fir tree. But today one enters by means of a shallow stepped entrance rather like a subway to a railway station. A little way from the opening one enters the Great Gall of the Bulls, as it is now called, 17 yards long and 10 feet high. The first figure one sees at the left is the small head of a horse. Several colours are used. The line of the back is in red ochre, the head and main are in black in a broad outline technique, and the body colour is bistre—a brownish pigment made from soot. Next we are confronted with by the strange creature which has been inaptly named the unicorn. It, too, is painted in a heavy outline technique, with massive hindquarters like a bull, a sagging conical belly, a square muzzle and ling projecting horns. The body is marked with large black oval patches. This clearly is an imaginary or mythical animal, and it is to be noted that they style is stiffer, more clumsy than the skilful portrayal of horses, cows and bulls which follow. Within the hindquarters of the animal there is a thin red outline of a horse which cannot be seen here. Un the shoulder there is a red smudge probably of another figure. Immediately before the so-called unicorn are the figures of small; black horses. They are not painted in an outline technique, but in a flat blackish wash, dappled in places. Furthermore the Unicorn’s chest is partly covered by the hindquarters of one of the horses—and curiously enough, the tail of the horse coincides within the frontal contour of the foreleg of the mythical animal.

It has been most plausibly suggested therefore, by Breuil and others, that the black wash technique is later than the outline technique, because of this overlapping. On the other hand, it has been traditionally accepted that Palaeolithic painters had no
conception of pictorial composition. If we turn for a moment to a reconstructed drawing of the ceiling of Altamira, the first painted cave to be discovered, it seems quite apparent that the Palaeolithic painters depicted their bison, wild boar, horses and so on, without any intention of bringing some kike of order into their pictorial space. And it has been assumed that what is true of Altamira is true of cave painting as a whole. Painting on a ceiling does not, however, immediately suggest a base line, where as painting upon a wall does. At Lascaux, furthermore, a horizontal ledge forming a kind of cornice which varies in width from a few inches to more than a yard around the walls of the chambers, a few feet from the ground. It is marked so in the reconstruct painting.* This dark ledge provides a base line for the cave painter. And in the case of the very beautiful frieze of small deer* at the end of the main gallery, the ledge appears to have acted as a water line as well.* We can see this ledge, a limestone cornice, more clearly in our next slide which is a view down the large hall.* Here on the left is a frieze of little black horses with heavy manes, and on the right, the large black bull which we saw in our first slide. It is to be noted that the frieze-like procession of the animals is far more marked upon the walls than upon the ceiling, where the arrangement is more haphazard, more in the manner of Altamira. It would seem plausible to argue that the ledge and vertical surface of the wall suggested a frieze-like movement of animals. Next in the Hall of the Bulls * we come to two large bulls facing one another, in outline technique with stippled effect and between them the head and shoulders of a bistre-black horse. Annette Laming suggests that the grouping of animals at Lascaux requires further consideration, for both the black bulls and the galloping horses seem to have been carefully composed. The problem of superposition then remains. Is this simply the result of the paintings being executed at different times? Yet even where animals are juxtaposed they seem to have been painted with some regard for earlier paintings.

From these paintings we may deduce that the cave painter worked in both flat-wash and outline techniques, that he used both a monochrome and bi-chrome-technique, and that his colours tended to be confined to the blacks, red and browns readily available to him. In addition to painting, rock engravings, such as this fine bison from the cave of Les Trois Frères in the Pyrenees.* There is a very large number of such engravings at Lascaux, a complete inventory of them has not yet been made. Sculpture both in low relief carved into the rock face and clay modelling was also produced. Here is a clay model from the cave of Tuc d’Audoubert of bison.*

So much for techniques employed. But what of the style in general? Palaeolithic art we can say is fundamentally realistic. Even if at times the drawing is primitive and rigid the animals are always shown in realistic attitudes: running, grazing, and leaping. Take this polychrome bison for example, from the axial gallery at Lascaux. It is portrayed with immense vitality. The Palaeolithic artist is clearly obsessed by the living presence of his animals, he does not seek to reduce them to a decorative pattern—as an artist of the succeeding Neolithic period would certainly do. Generally
speaking, the paintings at Lascaux are more realistic than the paintings at Altamira. Compare the Lascaux cow this photograph of a bison from Altamira.* This conventionalisation of the forms of animals at Altamira is considerably exaggerated in the drawings made by the Abbé Breuil, as in this bellowing bison.

I want to say one or two words now about the development of the realistic style. It may well be, as is often said, that in these Aurignacian and Magdalenean caves there has been preserved for us the final flowering of Palaeolithic art, the beginnings of which are not now available to us. The Abbé Breuil, however, has sought to establish a number of phases of stylistic development on the evidence available in the caves themselves basing his argument on such assumptions as the fact that a painting superimposed upon another must be later, and the assumption that a simpler form is likely to have developed earlier than a more complex form. There are of course difficulties in such an approach. Whether one painting was painted over another five minutes later or 500 years later is a question that often cannot be answered. And the simple does not always precede the complex. Despite such difficulties it is generally agreed that Breuil has provided a chronology of the principal stages of cave which is now indispensable as a point of departure for any serious study of it.

The first stage of development Breuil claims is to be found in the stencilled hands which are found in caves at Altamira, Gargas in the Pyrenees, Les Trois Frères and Pech-Merle. Here is a stencilled hand* from Gargas where a great number of such hands have been found, some stencilled in black, some in red. This particular hand, like a number of others in the cave appears to be mutilated. This is the only cave where such apparent mutilations appear though stencilled hands have been found in about a dozen other caves. Ethnical mutilation of hands is a common practice among primitive people. Prints of painted hands are also found in several caves, and also prints of feet.

Parallel to this primitive stage in painting are the doodling lines made with three of more fingers in wet clay to produce the meandering patterns which have been called *macaronis. They are found at Altamira, Gargas, Peche-Merle, Les Trois Frères and elsewhere. Sometimes a many-toothed instrument was used instead of fingers.

Next to these extremely primitive phases Breuil places such line drawings as these from a cave at Ardales, near Malaga in Spain.* Much of the cave is covered within meandering and festooned bands somewhat like the *macaronis we have seen, but more controlled. The animals, however, are fluently drawn and have that sense of realism and vitality which distinguish Palaeolithic animal drawing, but it will be noted that these horses possess only two legs.

Breuil places next the wide blotted outline, which is sometimes made by spots flowing into one another. This rhinoceros from Lascaux may be taken as an
example.* Here the line is so heavy as effectively to establish the mass of the beast, and we can see that the painting was never completed, for the outlines of the belly the chest and the forelegs have been sketched in black line but never filled in.

Breuil’s next stage is the bi-chrome style, a very fine example of which is this beautiful horse from Lascaux painted in brown for the back and black for the mane. Note also the splendid variation in the blotted outline, and the sense of mass and volume achieved with a great economy of means.* This horse also exhibits what Breuil has described as ‘twisted perspective’ in the drawing of the hoofs. This twisted perspective is particularly evident in some of the Altamira bison, as in our next slide.*

This sequence of stylistic development, which I have traced, Breuil calls the Aurignacian-Perogrodiann cycle. He also traces a second cycle of development which he calls the Solutrian-Magdelenian cycle. Like the earlier cycle this begins in its earlier stages with simple black line drawings, moves to wide black-blotted line drawings, thence to a black shaded style in which the suggestions of the body of animals are established by varying the tone of the paint, as in this bison from Altamira.* Lastly there comes the full polychrome style, as in this polychrome bison from Altamira. A useful summary of the Aurignacian-Perogrodiann cycle and the Solutrian-Magdelenian cycle will be found in Annette Laming’s book, together with the problems of chronology, which are still unexplained by the two systems.

Let us turn now to a brief consideration of the meaning and purpose of Palaeolithic painting. As I said at the beginning of my lecture, the paintings were only accepted by the world of scholarship as belonging to the Upper Palaeolithic period in about 1902. In the following, 1903, Salomon Reinach published the first detailed interpretation of the paintings based upon the theory of magic (“L’Art et la magie”, (Art and Magic) published in l’Anthropologie), then being developed by such anthropologists as Sir James Fraser, Durkheim and Levy-Bruhl. Since, of course, Palaeolithic paintings is pre-historic we have no written documents to guide us in seeking to understand the meaning of the paintings. Reinach turned to comparative anthropology and sought for a clue to the purpose of the paintings in the art of contemporary primitive peoples. To assume that Palaeolithic man who lived around 15 000 years ago felt and thought and acted along lines similar to contemporary primitive peoples living in the 19th and 20th centuries AD is of course a colossal assumption. Nevertheless, in the light of the universality of certain primitive institutions such as hunting magic, totemism, and so forth, the assumption has turned out to be fruitful and by no means unreasonable speculation. Reinach based his argument on information obtained from the study of Australian aboriginal communities, which had been studied by such anthropologists as Sir Baldwin Spencer of this university and Francis Gillen, the postmaster of Alice Springs who became an anthropologist. Reinach claimed that the purpose of the paintings was to put a spell on the hunted game in order to attract large numbers to the vicinity of the caves. This theory was simple enough but did contain the basic idea of
a magical purpose behind the paintings upon which later and more elaborate theories were to be based. Generally speaking, the attempts to explain the paintings today fall into two main categories: 1) those which are based on hunting or sympathetic magic and 2) those based on theories of totemism, primitive religion, belief in spirits and so on. No serious scholar today believes that the paintings were executed entirely for the cave artist’s personal enjoyment, or for the enjoyment of the tribe—the theory in other words that they are the product of art for art’s sake is discredited. On the other hand it is generally agreed that the paintings do reveal the operation of some kind of artistic impulse. Certainly a great many of these paintings provide us with a keen feeling of aesthetic enjoyment. But how much of the enjoyment springs from ourselves and how much from the caveman is a difficult.

It seems clear that most of the caves were used as sanctuaries rather than occupation sites, for very little cooking refuse and evidence of domestic occupation has been found. Furthermore, most of the paintings are painted deep in the interiors of caves which are damp, cold and dark and unsuitable for continuous occupation.* In the cave of Niaux the paintings are half a mile from the entrance.

In many cases further more, the presence of hunting magic is apparent. The cavemen subjected his image to the experience he intended for the living animal. Thus in the grotto Montespan* a horse is found incised on the clay of a wall and covered with holes made by the thrusts of javelins. And in the same cave, in our next slide, is to be found a model of a headless bear, which is also covered in javelin wounds.* Or consider this outline drawing of a bison in the cave of Niaux, upon which the marks of arrows are very clearly drawn, and an ibex below from which an arrow is sticking. Similarly the elegant Chinese horse from Lascaux has an arrow implanted in it and another flying towards it.

Although there are many such animals in the whole repository of Palaeolithic art with arrows or wounds, they only constitute a small portion of the animals represented. Hunting or sympathetic magic does not therefore explain all the depictions. Some caves contain crude representations of human figures, which are quite different in style from the realistic manner in which the animals are portrayed. Consider, for example, the strange human figure in the curious composition, in our next slide, called the pre-historic tragedy,* which lies at the bottom of a shaft at Lascaux. A bird-headed man is drawn very stiffly in black outline and is in sharp contrast to all the realistic animal figures in the cave, including the wounded bison beside him. Arms and legs are rendered by simple lines, and the hands have only four fingers. Beside him there is a bird’s head on a stick. The bison, which has been apparently wounded by the spear, seems to threaten the falling man with his bent head and horns. Its entrails are hanging out and it is thrashing the air with its tail. An object which looks like a spear thrower, that recalls the Australian Aborigine’s woomera, a throwing stick, lies beside the man. This is the only prehistoric painting that appears to portray
and actual incident, and the bird-like head of the man may possibly represent a
totemic mask. Again the so-called sorcerer in the cave of Les Trois Frères is plausibly
explained as a ritual representation of a totemic animal. There are, however, a number
of important objections to the explanation of Palaeolithic art as the representation of
totemic symbols. I cannot deal with them here but you will find a useful summary of
them in Annette Laming’s book.

Finally, Palaeolithic art provides evidence of maternity cults and love cults in the
form of modelled or engraved female figures in which the sexual characteristics are
greatly emphasized. Consider, for example, the so-called Venus of Laussel at Lausell
in the Dordogne. The hips and breasts are exaggerated. She holds a bison’s horn in
her right hand and her left is placed on her stomach, where the convex shape of the
rock suggests pregnancy. Such female figures are by no means uncommon and here
we have perhaps the Palaeolithic beginnings of those mother goddess figures that are
so common in Neolithic times and extend well down in to historical times in the Near
East.

In some of the caves, notably at Lascaux, there are a considerable number of curious
shapes like triangles or squares, the meaning of which has never been successfully
explained. They are often placed before the forefeet of the wilder animals and may
represent traps, or they may be tribal emblems. Here arguments from comparative
anthropology fail and a satisfactory interpretation still has not been found.

A great gulf separates Palaeolithic art from the earliest Neolithic cultures—only in the
lowest levels of the city of Jericho have archaeologists been able to establish some
sort of continuity of settlement between Palaeolithic culture and the earliest Neolithic
cultures. For all practical purposes the art of the cave painters are completely separate
from even the earliest of the Neolithic culture of Europe and the Near East.
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