

thought to follow its own story imprinted in plastic arts, images, and rock combined. The sequence of chambers, their distance from daylight, total obscurity, oppressive dampness, and low temperature condition are the soul for the reception of founding myths as to the justification of the group and the mysteries with which all conscious existence is confronted. The solutions were there, revealed as soothing, real with respect to the dangers of the path taken into the cave, and unreal with respect to the secrets of life, all combined in a dazzling of physical and spiritual senses. Gothic windows do nothing other than seduce in order to convince. And the temples of Science are even more suspect of soliciting, with their columns, tympanums, porticos and statues from Antiquity.

The revelations contained in the depths of damp dark caves harnessed the suspended conscience, by adolescence as much as by the dangers overcome. But the solutions were there, in the trembling illumination on the damp walls with bright vivid colors. Their harmony, linked to the scale of forms, gigantic and dancing figures, came literally out of the darkness and anguish. The revelation of the mysteries of existence was accorded by the seduction stimulated by the rhythms, color, and strangeness. Paleolithic art, like man who overcame the challenges of earthly life, also contributes one of the culminating points in the spiritual adventure of civilization.

## Cross-References

- ▶ [European Upper Paleolithic Rock Art: Sacredness, Sanctity, and Symbolism](#)

## Further Reading

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## Europe: Prehistoric Rock Art

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## Introduction

In its broadest sense, the term prehistoric rock art covers the whole of graphic manifestations affixed by prehistoric humans on rock surfaces of all kinds. The surfaces can be rocks out in the open air, walls protected by shallow rockshelters, or deep cave walls in total darkness. For deep cave situations, the term “parietal art” is often used, but these two terms cover the same reality. The phenomenon is widespread throughout the world, as it meets the basic needs of preliterate human societies. In Europe, prehistoric rock art extends from northern Norway to Andalusia and covers more than 30,000 years, from the Upper Paleolithic to the Roman conquest. As a result, it responds to an infinite number of motivations depending on beliefs, systems of social organization, and types of subsistence economies. In formal terms, it uses a wide range of techniques (engraving, sculpture, finger strokes in clay, line drawings, monochrome or polychrome painting) and a wide range of styles (from figurative naturalist art to schematic and to geometric abstraction). Although the word art is sometimes criticized because of its contemporary connotation, it is difficult to escape the idea that the human groups

who made rock art were pursuing, in addition to the basic motivations that animated them, an undeniable aesthetic quest, even if it sometimes diverges from our own criteria.

## Historical Background

In the nineteenth century, there was little acceptance of the aptitude of prehistoric people to paint and engrave images onto rock. The idea of the “primitive savage” perpetuated for a long time and prevented the acceptance of the full intellectual capacities of societies before history. The remarkable bison paintings on the ceiling of Altamira, discovered in 1879, were not officially recognized as a prehistoric work until 1902. There is no doubt that the aesthetic, naturalism, and polychrome character of these figures impeded this recognition. It was not until the second half of the twentieth century that paleoanthropological approaches to rock art meant that rock art study could acquire the status of a scientific discipline within prehistoric archaeology. Today, rock art is considered a precious tool with which to address the cultures and the ideological and symbolic universe of hunter-gatherer, then herders and farmers societies who succeeded on the European territory. The need to leave a lasting mark of one’s culture on monumental mediums is universal. Only the forms and locations that were selected to practice this exercise change with the subsistence economy and the prevailing systems of thought.

In a report presented to UNESCO in 1984, the number of individual rock art graphics in Europe was estimated at four million (Anati 2003). This number has easily been surpassed today. Paleolithic art alone counts for more than 360 sites, with recent discoveries of major scientific interest in France (Chauvet in 1994), Portugal (Foz Côa in 1994), and Spain (La Garma in 1995). The debate is no longer about the authenticity but rather about the chronocultural attribution of these works, given the difficulty of absolute dating.

## Key Issues

### Paleolithic Rock Art

#### General Points

Paleolithic rock art occurs throughout the Upper Paleolithic, beginning c. 35,000 BP (or earlier) (with the arrival of *Homo sapiens sapiens* in Europe) and ending around 12,000 BP, shortly before the end of the glacial period. The oldest figurative works, attributed to the “Aurignacian” culture, are the statuettes of Swabian Jura (Germany) and the parietal paintings and engravings on the caves of Fumane (Italy), dated between 32,000 and 36,500 14C BP, and of Chauvet (France), between 30,000 and 32,000 14C BP (radiocarbon dating strongly underestimates calendar ages).

Paleolithic art is fundamentally an art of animals: human representations are rare and are most often caricature-like, in contrast to animals which achieve a sometimes striking realism. Numerous nonfigurative drawings or “signs” complete the iconography. Deep caves, invested since the beginning of the period, remained the most popular places until the end, to the extent that we sometimes speak of “cave art,” even though engravings and sculptures also decorated occupied rockshelters, and that rocks exposed to the open air have also recently been discovered in Spain and Portugal.

An in-depth examination reveals deep regional thematic and stylistic differences and significant changes over time across Europe. Several models of relative chronology, based on archaeological data, superpositions, and stylistic sequences, have been proposed. Those of Henri Breuil (1952) and André Leroi-Gourhan (1965) are the better well known, but new methods for direct dating by accelerator mass spectrometry and also recent discoveries like the Chauvet Cave have forced a reconsideration of the chronostylistic models based on the assumption of a linear evolution leading from an original schematic form toward better controlled realism. Some advances and setbacks, phases of invention, and regression have crisscrossed over these 20,000 years and provided a more complex schema.

## Iberian Peninsula

In the extreme southwest of Europe, the Iberian Peninsula retains evidence of intense graphic activity during the Upper Paleolithic, with more than 200 parietal assemblages distributed in all regions, not including the many portable art objects (Bicho et al. 2007). The most important concentration is that in the Cantabrian region, a narrow strait between sea and mountain, open at its eastern point toward the southwest French region, which contains around 120 decorated caves covering all the periods of the Upper Paleolithic (Collective 2002; González Sainz et al. 2003; Ríos González et al. 2007). Centers, such as Peña Candamo, Altamira, El Castillo, and La Pasiega, have played an important role in the history of research on Paleolithic rock art. Other regions on the peninsula, which had practically no parietal evidence around thirty years ago, today present important concentrations. We can cite among others the spectacular rock outcrops in open air in the Duero valleys (Domingo García, Siega Verde, Mazouco, and specially the 27 sites along the Cõa River), Tagus (Ocreza), and Guadiana (Molino Manzániz) (Baptista 2009). To these open-air sites, several caves need to be added: Escoural in Portugal, Maltravieso in Extremadura, and in the interior of the peninsula, some cavities in the foothills of the Central and Iberian systems (La Griega, Los Casares, La Hoz, El Reno, etc.). In the Mediterranean area, today several small ensembles can be counted (Meravelles, Cova Fosca, the group of Cieza, El Niño) and isolated parietal representations (Parpalló, Reinós), without forgetting the engravings in daylight of the En Melià shelter (Castellón) (Mártinez-Valle 2006). Finally, in the extreme south, Andalusia has about twenty parietal sites in caves or rockshelters: La Pileta, Ardales, Malalmuerzo, El Morrón, Ambrosio in the interior; El Moro and Palomas near Tarifa; Nerja, Navarro, Victoria on the coast of Málaga; and a single open-air site (Piedras Blancas).

Figurative graphic activity spread in the Iberian Peninsula like an oil stain, affecting diverse territories and subject to highly variable environmental conditions and resources. The

phenomenon began with the Aurignacian (at least in the north: La Viña rockshelter, early phases of Castillo) and is present at the southern end (Tarifa group) from the Gravettian (Fig. 1). Paleolithic art from the Iberian Peninsula is fully integrated with that of Western Europe and presents the same two formal conceptions of the animal figure, a conceptual naturalism, minimalist, in the early phases (figures reduced to a contour with very few details and internal elements) and, from 17,000 BP, a more visual naturalism, attentive to anatomical details, with a more successful treatment of volume (infills and internal details, correct perspectives of limbs and horns). However, art from the Iberian Peninsula shows notable singularities such as engraved rocks in open air in the valleys of Atlantic rivers with large-size figures produced by pecking (Fig. 2). With few exceptions, paintings are only preserved in deep caves. Additionally, more temperate climatic conditions than in the northern regions of Europe brought about a distribution of rich fauna including horses, aurochs, stags, does, and ibex with a gradient from north to south: in the Cantabrian region, in addition to this fauna, bison and reindeer (mostly during the Magdalenian) and some very rare mammoths and megaloceros can be found. By contrast, bison and reindeer are exceptional in the two sub-plateaus and completely absent from Levant and Andalusia.

The strong compartmentalization of the territory due to the mountainous character of the peninsula presents other differences that cannot be explained by climatic reasons, such as the distribution of abstract signs (particularly abundant in the Cantabrian region and Andalusia) or the proportion of stags and does, which is very contrasted depending on the region. Similarly, the stylistic changes during the Upper Paleolithic do not follow the same models in all regions. The case of the Cantabrian region is very distinct in this respect because of its interactions with southwestern France, particularly intense during certain periods (central and final phases of the Magdalenian; cf. Fig. 3), and more restrained during others (during the



**Europe: Prehistoric Rock Art, Fig. 1** Parietal art of the Upper Paleolithic in Spain. (a) Santo Adriano (Asturies). (b) Castillo (Cantabrie). (c) La Garma (Cantabrie).

(d) Covalanas (Cantabrie). (e) La Pileta (Málaga). (f) Nerja (Málaga) (Photos: G. Sauvet (a, f); C. Fritz and G. Tosello (b); C. González Sainz (c, d); J.L. Sanchidrián (e))

glacial maximum and its extension in the older Dryas where the Cantabrian region showed a high artistic personality). Other peninsular regions (Levant, Atlantic face, and even Andalusia) present a greater continuity from the graphic point of view, with less modification over time. In these regions, the Gravettian and Solutrean conceptions continued with very

little change in the Magdalenian. These regions show some similarity in the graphic conventions, which indicate real interactions between them. These are also confirmed by the extension of some elements of the lithic weapons such as the stemmed and eared arrowheads, which are known in the Solutrean of Levant and Portugal.



**Europe: Prehistoric Rock Art, Fig. 2** Paleolithic art on rocks in daylight on the Iberian Peninsula. (a–b) Foz Côa (Portugal). (c–d) Siega Verde (Salamanca) (Photo: G. Sauvet)

Decorated objects (portable art), during the Upper Paleolithic, are strongly associated to rock art but their distribution is strongly conditioned by the conservation of organic material, more favorable in caves (Cantabrian region, Ebro valley, and north of Catalonia) where a diversified and conventional portable art is known. On the Atlantic coast, in the northern sub-plateau and on all the Mediterranean coast, mostly objects in stone can be found such as the collection from Parpalló (Valencia) including thousands of engraved and painted plaquettes distributed throughout a long sequence going from the Gravettian to the Magdalenian and, consequently, with a great interest to conduct a diachronic and comparative analysis with the regional rock art (Villaverde 1994).

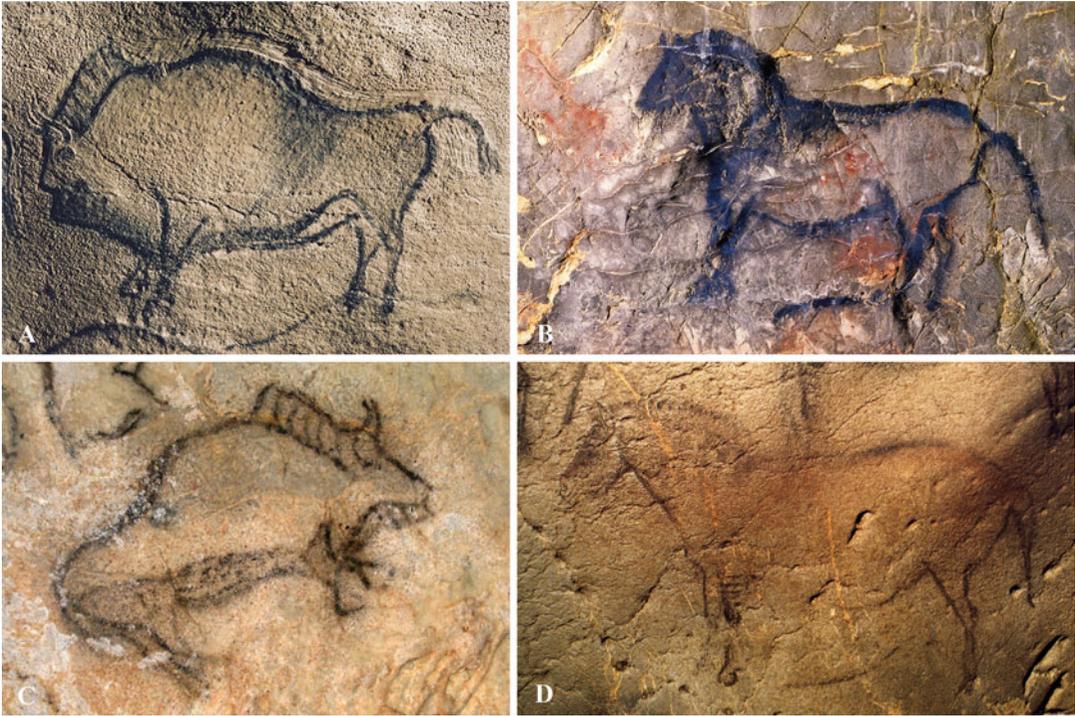
#### France

France is home to 167 caves and shelters attributed to the Upper Paleolithic. Animal motifs constitute the larger group of representations. In general, herbivores dominate (equines,

bovines, caprine, cervid); carnivores (bears and felines) are more rare as are humans and anthropomorphic figures. The proportions vary from those of consumed fauna, as it involves iconography linked to myths and beliefs and not directly related to daily life.

The sites related to the first culture of the Upper Paleolithic, Aurignacian, are very rare and often reduced to a state of relics. This makes the discovery of the Chauvet Cave (Ardèche) even more exceptional. The technical quality and the conservation of these painted and engraved representations (felines, rhinos, mammoths, horses, bison, ibex, bears, etc. in descending order) have cast doubt on their age despite the argument of the eight consistent direct radiocarbon datings. In Dordogne, it is more than likely that parietal art must have flourish in shelters that have unfortunately collapsed (Blanchard and Castanet rockshelters).

The following period, known as Gravettian, sees the rock art phenomenon increase and extend from the north of the Loire (Mayenne-Sciences,



**Europe: Prehistoric Rock Art, Fig. 3** Parietal Paleolithic art in Spain, attributed to the Magdalenian. (a) Covaciella (Asturies). (b) La Garna

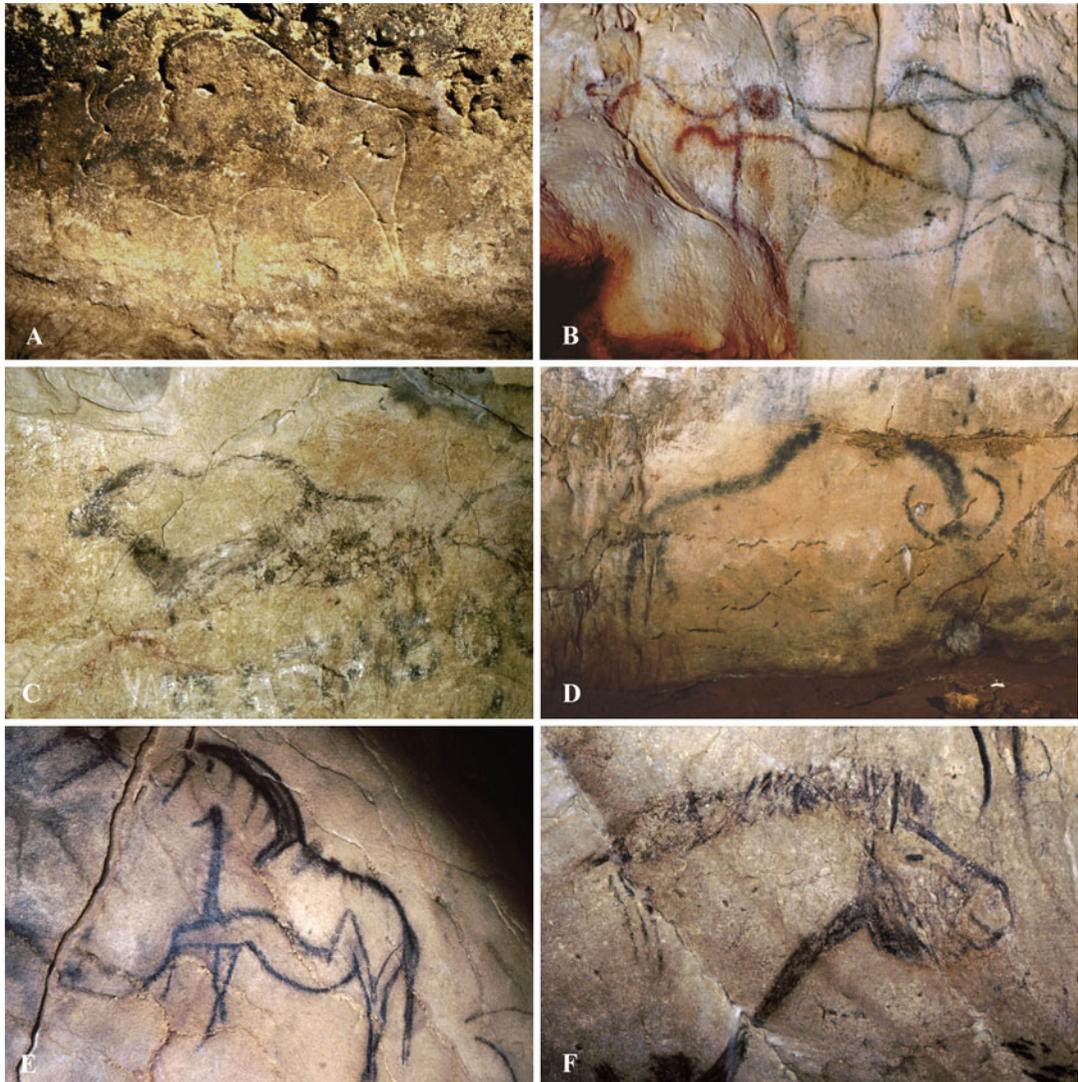
(Cantabria). (c) Santimamiñe (Viscaye). (d) Ekain (Guipúzcoa) (Photos: J. Fortea Pérez (a); C. González Sainz (b, c); P. Diaz de González (d))

Arcy-sur-Cure) to the Pyrenees (Gargas) passing by Dordogne (Cussac) and Quercy (Pech-Merle, Cognac) (Fig. 4a–d). The Cosquer cave, today immersed under 30 m of water near Marseille, belongs to this formal universe. The represented fauna are again more or less the same as in Aurignacian: mammoths and megaloceros are omnipresent. Apart from exceptional representations of “wounded” men struck by multiple strokes (Pech-Merle, Cognac, Cosquer), humans are represented by the bas-reliefs of Laussel, with the famous “woman with a horn” which is related to the immense trend of feminine representations with opulent forms whose hundreds of statuettes have circulated in Europe between 25,000 and 23,000 BP. Another original theme, typical to this period, is that of negative hand stencils produced by blowing pigment around the hand applied to the wall. This motif saw a considerable expansion from the Yonne valley (Arcy-sur-Cure) to Andalusia (Ardales), through Extremadura (Maltravieso), the

Cantabrian region (Castillo, Fuente del Salín), the northern and southern slopes of the Pyrenees (Gargas, Tibiran, Fuente del Trucho), Quercy (Pech-Merle), Provence (Cosquer), and even Italy (Paglicci), to name only a few major sites.

The Solutrean, the culture following the Gravettian, is very original in terms of lithic industries, but left few unmistakable traces in terms of parietal creation. The most remarkable are sculptures in bas-relief (Le Roc de Sers, Charente and Le Fourneau du Diable, Dordogne). Several caves in the Rhone valley have been attributed to this period but without certainty (Chabot, Ebbou, Oulen, Les Deux-Ouvertures).

The Magdalenian, the last material culture of the Upper Paleolithic, saw a real explosion in rock art and portable art (Fig. 4e–f). In France, Lascaux is certainly the most famous Paleolithic cave because of its monumental polychrome frescos and its thousands of entangled engravings, but its belonging to the Magdalenian world is still debated (without doubt Lascaux belongs to



**Europe: Prehistoric Rock Art, Fig. 4** Paleolithic parietal art in France attributed to the earliest periods (a–e) and to the Magdalenian (e–f). (a) La Grèze (Dordogne).

(b) Cougnac (Lot). (c) Mayrière supérieure (Tarn-et-Garonne). (d) Marcenac (Lot). (e) Le Portel (Ariège). (f) Niaux (Ariège) (Photos: G. Sauvet)

a very early stage of the Magdalenian or even previous to this one). In the area of line drawings and paintings, authentic works of art were produced in many Magdalenian sites (Font-de-Gaume in Dordogne, Niaux in the Pyrenees). At the same time, the art of engraving reached its heights as much in Dordogne (Les Combarelles, Teyjat) as in the Pyrenees (Les Trois-Frères, Le Tuc-d'Audoubert, Fontanet). Sculpture in rockshelters also reached a remarkable level (Angles-sur-l'Anglin in Vienne, Cap-Blanc in

Dordogne); it finds an equivalent no less remarkable in the Pyrenees in the form of a sculpture in the round modeled in clay (bison from Tuc-d'Audoubert, bears from Montespan). Among the original motifs from Magdalenian in its final phase, it is appropriate to signal the new type of female representations, reduced to a simplified outline with no head or extremities. This model known in several caves in Dordogne and Quercy (Pestillac, Carriot, Fronsac, Les Combarelles) saw many transpositions in portable art. These female

silhouettes were also engraved on plaquettes (Lalinde in Dordogne, Gönnersdorf in Germany) and exported all over Europe in the form of figurines and pendants carved in stone, bone, antler wood, lignite, and even flint. This shows the difficulty in separating rock art from portable art for this period in prehistory.

Along with figurative motifs, the Paleolithic artists elaborated multiple conventional forms, which are called “signs.” These drawings range from simple (punctuation fingerprints, large blown discs, alignment of sticks) to complex forms with evocative, but simplistic names: tectiforms (roof shaped), claviforms (club shaped), aviforms (bird shaped), etc. These signs were sometimes considered as territorial markers representative of human groups despite their vast dispersion.

#### The Rest of Europe

For a long time, Paleolithic rock art was circumscribed to the “French-Cantabrian” domain, and this remains the reference point today, even if caves in Andalusia like La Pileta and Ardales have been known since 1911 and 1918 respectively.

Nonetheless, a comparable art is known in the south of Italy (Romito, Romanelli) and Sicily (Addaura, Niscemi, Levanzo). Animal art in these rockshelters, most of them discovered in the 1950s, recalls by its formal characteristics the art of the final Magdalenian on the Mediterranean border, which confirms the dating of neighboring archaeological sites belonging to the final Epigravettian and the Romanellian. The Paglicci cave (Puglia) deserves a special mention, as it is probably the oldest decorated cave in Italy (apart from Fumane in Venetia), its belonging to the Gravettian world being confirmed by the presence of negative hands.

Much more recent discoveries have considerably extended the domain of Paleolithic parietal art in Europe. This is the case for the Church Hole cave in Creswell (Derbyshire, England) in 2003. Despite some uncertainty about its iconography, it seems that there are several animal engravings of Paleolithic type, which is not surprising given that several final Paleolithic deposits, named here Creswellian, are known in this region.

In 2006, some engravings were observed for the first time in a German cave (Mäanderhöhle, Bavaria). While not figurative, their association with speleothems evoking breast or phallus brings them closer to the Paleolithic way of doing. Even more recently (2009), the site of Coliboaia in Romania was signaled. This extremely important site is similar to Chauvet in its bestiary (rhinoceros, feline, bear, bison, horse) and by its style. A recent dating confirms an age close to that of Chauvet, which is not surprising as Aurignacian settlements are abundant in Romania. It is only a matter of time before other discoveries are made in this region of Europe.

#### The Meaning of Paleolithic Art

At the beginning of the twentieth century, bathed as we were in ethnographic accounts, we imagined the “primitives” randomly drawing on the walls of caves the image of their game to kill them in effigy. Fortunately, the majority of specialists today recognize that rock art is the fruit of coherent and structured thought which expressed a “symbolic construction” (D. Vialou) complemented by a “figurative syntax” (A. Leroi-Gourhan). Some people think that Paleolithic thought has remained relatively constant for all its duration and others that it has been affected by a profound evolution. Without entering into this debate, we rightfully note that, despite its longevity and expansion, and despite its formal diversity, Paleolithic rock art presents undeniable structural constants which confer upon them some unity. Among these is the expert use of the irregular morphology of the walls of caves. In addition to the fact that these reliefs increase the visual salience of these works, they establish a close relationship between the underground mineral world and the animals depicted by man. This sought-after osmosis may in part explain the preference for caves. Another motif that seems a constant in Paleolithic thought is female sexual signs, which have played an important role since the Aurignacian (Chauvet, Castanet, La Ferrassie), and continues without interruption to the Magdalenian (Bèdeilhac) through the Solutrean (Micolón, Spain). To this can be added the very significant tendency

concerning the assemblages of distinct animal species, which persist throughout the Paleolithic.

These formal constants must correspond to ideological constants. Over time, all kinds of theories, more or less inspired by ethnology and drawn from the history of religions, followed one another, periodically resurfacing due to lack of consensus. Art for art's sake, hunting and fertility magic, totemism, and shamanism have in turn been highlighted. Given the difficulties of ethnographic comparative method and the impossibility to interpret works coming from another culture of which we know nothing, the tendency among specialists of prehistoric art is currently to divert questions of interpretation to make rock art a tool in the service of social and cultural paleoanthropology.

### Post-Paleolithic Rock Art

At the end of the Paleolithic, with a change in the conditions of life, the form and function of rock art changed. It is difficult to link with certainty rock manifestations with the Mesolithic period (such is the case of geometric signs engraved in sandstone massifs in Fontainebleau, France) and to set apart local innovations from various influences coming from the east Mediterranean and the North Atlantic coast. During the Neolithic and in the zones under the influence of megalithism, a trend in schematic and geometric art developed and became the dominant form with the introduction of metallurgy (Chalcolithic, Bronze Age, Iron Age). Thousands of rock works are known in rockshelters and caves, but mostly on rocks in the open air. Only the most important sites, the most original, and the most representative ones will be mentioned here. Their relative chronology and their reciprocal influences are very difficult to establish.

### Levantine and Macroschematic Art

Levantine art is a manifestation of rock art whose center is located on the Spanish Mediterranean side (Beltrán Martínez 1968). The most significant sites are Prado de Las Olivanas, Val del Charco del Agua Amarga in Aragon, El Cogul in Catalonia, Cavalls, Civil, Remigia, La Araña in Valencia, La Sarga in Alicante, Minateda,

Torcal de las Bojadillas in Albacete, and La Fuente del Sabuco in Murcia (Fig. 5). These are rockshelters exposed to daylight and rain as well as to contact with animals that used these shelters as protection, which explains why the conservation is unequal and some rockshelters are sometimes very faded and deteriorated.

The main color is red, with various hues. Black and white paint also exists, but white is only important in some regions like the Albarracín sector (Teruel). In the majority of cases, the pigments employed are iron oxides or manganese. Some examples of engravings are also known to exist.

Generally, we associate Levantine art with representations of archers, who are often illustrated in hunting scenes. However, humans appear in a wide variety of themes including representations of groups in movements, scenes of collecting honey, and executions or warlike confrontations.

In terms of style, the human figure is more useful to conduct classifications than animals. Indeed, the human figure presents marked differences allowing the definition of different graphic horizons succeeding one another in the whole domain of Levantine art. Among others these differences concern the proportions of the body; the degree of naturalism, movement, decorations; the way to represent weapons; and the type of scene in which figures are involved. In general, archers are dominant and definite representations of women are rare. The naturalism of the human representation extends from figures with legs and arms modeled with certain anatomical details, even though these are subject to marked conventions with respect to bodily proportions, to linear figures, very simplified and devoid of individuality.

Only a few animal species are represented. Basically, these are deers and wild goats and some bulls, horses, and wild boars, but these latter species are concentrated in certain regions, which allows for some regionalization to be established. Other species such as canidae, birds, or insects are in very small number.

Pictorial painting techniques used for animals range from solid infill with biangular perspective formulae for the legs and horns to parallel lines infill or simple linear contours, with the exception of the head, but this latter technique is very underused.



**Europe: Prehistoric Rock Art, Fig. 5** Post-Paleolithic art of Levantine Spain. (a) Cinto de Las Letras (Valencia). (b, c, d) Cingle de la Mola Remigia (Valencia). (e) Prado

de las Olivanas (Teruel). (f) Solana de las Covachas (Albacete) (Photos: V. Villaverde (a–e); G. Sauvet (e–f))

In some sites, notably in Sarga (Alicante), Levantine art appears superimposed to other graphic manifestations called *macroschematic* which presents a clear relationship with figurative motifs of Neolithic ceramic, thus enabling the establishment of a Neolithic chronology of Levantine art. Macroschematic art is characterized by the absence of figurative zoomorphic motifs and the predominance of human representations of a relatively large size, created with the help of wide red strokes. They frequently show

lifted arms and are associated with meander-like motifs finishing with some kind of hands. The range of macroschematic art is limited to the north of the Alicante province, a major focus of the early Neolithic.

#### Schematic Art

The so-called schematic rock art comprises paintings under rockshelters and exceptionally in caves and engravings on rock surfaces in the open air. This art spans more than three



**Europe: Prehistoric Rock Art, Fig. 6** Post-Paleolithic schematic art in Europe. (a) Los Letreros (Almeria, Spain). (b) Porto Badisco (Pouilles, Italy). (c) Campo Lameiro (Galicia, Spain). (d) Naquane (Valcamonica,

Italy). (e) Domingo Garcia (Ségovia, Spain). (f) Tanum (Bohuslän, Sweden) (Photos: G. Sauvet (a–e); Sven Rosborn (f) (Figure is licensed under the Creative Commons Attribution 2.0 Generic license))

millennia, from the early Neolithic to the Bronze Age. Its duration and geographic extension explains the large diversity in technique, style, and form (Fig. 6).

**Schematic Rock Paintings** Schematic rock painting is a figurative phenomenon that occupies practically all of the Iberian Peninsula and even extends to the southeast of France (Acosta 1968).

The latest research suggests that these graphic manifestations have a chronocultural framework beginning in the early Neolithic (c. 6,500 BP) and finishing in the Chalcolithic (c. 4,000 BP).

Schematic rock painting essentially consists of drawings created with the help of liquid paints. The dominant colors are in descending order: red, black, and white, with different hues caused by conservation issues and/or saturation of the

pigments used. White is only used as a supplement to illustrate certain details. To apply paints, any instrument producing broad strokes a centimeter wide can be used (the crushed plant sprig, small wad of hair, or just a fingertip end). The loading capacity of these technical processes is very limited, making it difficult to make lines of a certain length; this determines the form and conditions the usual sizes to around 10–30 cm, the largest figures not exceeding 50 cm.

With these techniques and figurative means peculiar to schematism, highly stereotyped patterns based on simple linear features were represented: full-frontal human figures and side-on quadruped animals, that is, minimal elements of identification. Next to these anthropomorphic figures of varied typology and the animals often appear drawings resembling suns (stelliforms) in ancient phases and the so-called *oculated idols* (idols with eyes) in the later phases.

We most often find schematic paintings in the rockshelters, which easily allows daylight, or simply on unprotected vertical crags, standing out in the landscape. The lithology of mediums is very diverse: limestone and sandstone are predominant, but examples in the quartzite or granite outcrops are also known. Much more exceptional are paintings in deep caves in complete darkness like the Spanish cave of La Pileta (Malaga) or the Italian cave of Porto Badisco (Otranto) with black figures (coal in the first case or bat guano in the second). However, the specificities of these two cavities attributed to the Bronze Age mean that we must consider them as marginal in comparison to schematic paintings treated here.

**Engraved Rocks from the Metal Age** With the diffusion of metals, we encounter across Europe large concentrations of rocks in the open air engraved by pecking, probably corresponding to places of cultural significance.

Mont Bego (Alpes-Maritimes, France), more than 2,000 m above sea level, was a place of pasture between 2,500 and 1,700 BCE (the Chalcolithic and Early Bronze Age). Agricultural activities are illustrated (plots, plows, schematic bovines called *corniforms* (*horn shaped*) and

metal weapons (daggers, axes, halberds)). These very stylized and repetitive graphic representations (nearly 40,000 counted engravings) are probably related to the seasonal cycle of transhumance, through sun worship or worship of the bull (De Lumley 2011).

In Valcamonica (Lombardy, Italy), on the sides of a 70 km long valley, rock art was practiced for over 4,000 years, which explains its wide variety found in over 250,000 engravings. The earliest phase refers to the Neolithic scenes of everyday life. A second phase seems contemporary to Mont Bego with similar motifs to the exclusion of *corniforms*. The greatest number of figures belongs to the most recent periods (Late Bronze Age, Iron Age, and even Roman epoch) and consists mainly of dynamic human representations (dancing and fighting, etc.).

Another very rich zone in rock art is in Scandinavia. In the region of Tanum (west coast of Sweden), rich in megalithic relics, nearly 10,000 engravings, engraved on slabs of granite, are attributed to the Bronze Age, from the second millennium BCE. Hunting scenes, agricultural scenes, ships, and men armed with swords and spears constitute most of the iconography with signs (cups, suns, spirals). Along the Norwegian coast and close to the Arctic Circle (Alta), there are also many engravings. An early phase abundant in animals (elk, reindeer, bears, whales) is attributed to a culture of hunters, while the most recent phase is comparable to that found in Sweden and Denmark.

All along the Atlantic coast, from Ireland to the Portuguese coast, a megalithic phenomenon has developed which is largely widespread in the interior; it is, in this sense, difficult to separate it from Iberian schematic art, as shown by some motifs (axes, daggers, halberds, sun signs, snakes) that are found in both the megalithic funerary monuments, rocks in the open air, caves, and shelters.

The Atlantic coast in the Iberian Peninsula has large concentrations of engravings in the open air. More than 500 such sites are known in the region of Pontevedra (Galicia). There are granite rocks with schematic engravings

attributed for the large part to an early phase in the Bronze Age. The main motifs are geometric signs (cup marks, concentric circles, spirals, zigzag) and schematic animals among which the deer plays an essential symbolic role (male cattle, bellowing males, hunted animals, etc.). Men and weapons (spears and daggers typical to the Early Bronze Age) are rare. Some swastikas and horse riders could indicate a long stretch in the Late Bronze Age.

Schematic rock carvings attributed to the Bronze Age also exist in caves in Spain (Flint Gallery, in Atapuerca, Kaite II in the karst complex of Ojo Guareña) and in France (Les Fraux, Dordogne).

## Current Debates and Future Directions

### Prehistoric Rock Art and the Evolution of Research

The study of rock art has long been restricted to establishing patterns of evolution of forms and styles from a cultural-historical perspective, most often based on linear trajectories taken from the History of Art (formative period, maturity, degeneration). Almost all theories responsible for explaining the place of rock art in prehistoric societies have a functionalist background, because they view art as designed to solve problems related to the functioning of society. As the processes that manage and change cultures rely on communication tools, of which graphic arts form part, their study easily came under the processual paradigm of New Archaeology in the 1950s. In the 1990s, post-processualism, born in reaction to the excesses of processualism, had the main effect of bringing archaeology and cultural anthropology together and taking into account human beings. In the field of art, the individual artist, the creator, has finally been fully acknowledged.

### Conservation and World Heritage

Prehistoric rock art is an extremely fragile world heritage. Many European sites have been classified by UNESCO as having outstanding universal

values (1979, Valcamonica and decorated caves in the valley of Vézère; 1985, Altamira; 1994, Tanum; 1998, the Côa valley (and subsequently Siega Verde) and rock art in the Mediterranean basin of the Iberian Peninsula; 2008, 17 caves in the Cantabrian region). Cultural parks and the setting-up of similar replicas today enable the control of public access to their exceptional heritage, but irreversible damage has been committed by vandalism and urbanization. The conservation of the Côa valley, threatened by the construction of a dam, is a remarkable example, but cannot counter other irredeemable losses. In 1974, tens of thousands of engravings belonging principally to the Bronze Age, but some could have belonged to the Epipaleolithic, were drowned by the waters of a hydroelectric dam in Fratel in the Tagus valley (Portugal). More recently, the same drama has been repeated in the Guadiana valley (Alqueva dam) on the Spanish-Portuguese border.

## Cross-References

- ▶ [Altamira and Paleolithic Cave Art of Northern Spain](#)
- ▶ [Archaeology of Art: Theoretical Frameworks](#)
- ▶ [Art Studies: Normative Approaches](#)
- ▶ [Côa Valley Rock Art Sites](#)
- ▶ [Iberian Mediterranean Basin: Rock Art](#)
- ▶ [Mobiliary Art, Paleolithic](#)
- ▶ [Portable Art Recording Methods](#)
- ▶ [Rock Art Recording Methods: From Traditional to Digital](#)
- ▶ [Rock Art, Forms of](#)
- ▶ [Siega Verde Rock Art Sites](#)
- ▶ [Style: Its Role in the Archaeology of Art](#)
- ▶ [Techniques of Paleolithic Art](#)
- ▶ [Valcamonica Rock Art](#)

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### Further Reading

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## European Association of Archaeologists (EAA)

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### Basic Information

The European Association of Archaeologists (EAA; <http://www.e-a-a.org>) is a membership-based, not-for-profit association which is open

to all archaeologists and other related or interested individuals or bodies. It is fully democratic, and is governed by an Executive Board elected by full members of the Association. A Nomination Committee ensures that the Board is representative of the different regions of Europe and the different sectors of the profession. Its membership covers most European countries, but also includes residents of all other continents interested in European Archaeology.

The EAA was established in 1994 at an Inaugural Meeting in Ljubljana, Slovenia, where its Statutes were formally approved (Cleere 1995; <http://www.e-a-a.org/statutes.htm>). These stipulate that the EAA was created:

- To promote the development of archaeological research and the exchange of archaeological information
- To promote the management and interpretation of the European archaeological heritage
- To promote proper ethical and scientific standards for archaeological work
- To promote the interests of professional archaeologists in Europe
- To promote cooperation with other organizations with similar aims

The EAA has held Annual Meetings since the first conference in 1994; sessions cover topics varying from the interpretation of material culture through theoretical perspectives to cultural heritage management. These conferences have been held in a range of different European cities: Santiago de Compostela, Spain (1995); Riga, Latvia (1996); Ravenna, Italy (1997); Göteborg, Sweden (1998); Bournemouth, UK (1999); Lisbon, Portugal (2000), Esslingen am Neckar, Germany (2001), Thessaloniki, Greece (2002), St. Petersburg, Russia (2003), Lyon, France (2004), Cork, Ireland (2005) Cracow, Poland (2006), Zadar, Croatia (2007), Valletta, Malta (2008), Riva del Garda, Italy (2009), The Hague, Netherlands (2010), Oslo, Norway (2011) and Helsinki, Finland (2012).

The EAA has published a journal since 1993: originally the *Journal of European Archaeology* 1993–1997, since 1998 the *European Journal of Archaeology* (EJA) (Chapman 1995; Pearce 2002). It also publishes