

# CAVE ART RESEARCH

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## Cave art and perceived abilities of the ancients

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The greatest single difficulty experienced in the archaeology of the Ice Ages has stemmed from its inability to accept the cultural, cognitive or technological sophistication of the people of the Pleistocene. This is well expressed in the history of the initial discovery of Palaeolithic cave art, particularly in the rejection of the palaeoart of Altamira, culminating in Emile Cartailhac's famous *mea culpa* in 1902. His steadfast scepticism is understandable, in the context of the late 19th century, and to some degree even justified, although the same cannot be said about his refusal to examine the evidence. Here I will explore the structural reasons for the reaction to Palaeolithic art, and I will propose that they determine the epistemology of the discipline still today just as much as they did then.

The existence of Palaeolithic cave art had long been known, probably always since the Ice Age (Pleistocene cave visitors often found rock art that had been created millennia previously, and many have recorded their reactions to it). In 1458 Pope Calixtus III decreed that the religious ceremonies held in 'the Spanish cave with the horse pictures' had to cease. We cannot know which cave he referred to, but it was almost certainly a cave with Palaeolithic art. However, while many people of the ten thousand years after the Pleistocene were probably familiar with the ancient art, nobody had told the archaeologists about it. This factor should have serious consequences for Don Marcelino Santiago Tomás Sanz de Sautuola (Fig. 1). In due course it would destroy his life.

In 1868 a hunter, Modesto Cubillas, opened up a hole on de Sautuola's property in northern Spain and found a large cavern. This was mentioned to the land's owner years later, in 1875, and he decided to explore the cave. He found a large quantity of split bone upon digging in its floor deposit, some of which he took to show a geologist friend, Juan Vilanova y



Figure 1. Don Marcelino Santiago Tomás Sanz de Sautuola, 1831–1888.

Piera at Madrid University. Vilanova recognised the bones as being of extinct species, and that they had been fractured by humans. In 1878, de Sautuola visited the World Exhibition in Paris, which included an exhibit of stone tools and bones recently excavated in caves of the French Périgord. De Sautuola remembered his own cave, and in the spring of the following year began in earnest to excavate part of the Altamira cave. Mixed with the bones of animals and oyster shells, he found the typical stone blades of the Magdalenian period in large quantities. Deeper in the cave, a complete skeleton of a cave bear was encountered, and the explorer also observed black markings on the cave wall, but gave them no further thought at that time. It was his 12-year-old daughter Maria, who played in the cave as he was digging, who first noticed that there were animal pictures on



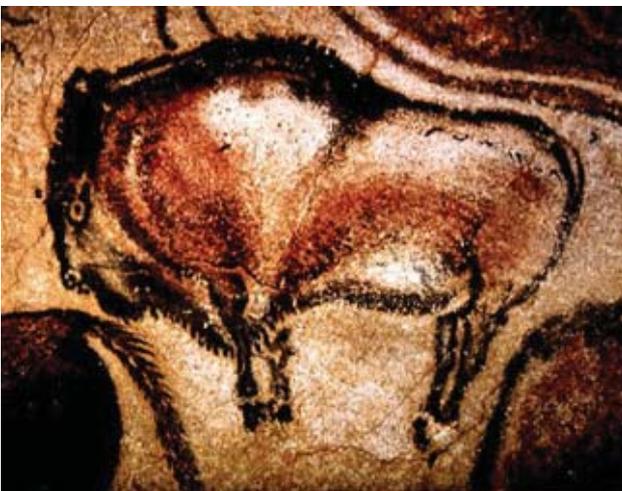
*Figure 2. De Sautuola's daughter Maria.*

the ceiling (Fig. 2). This was in November 1879, after he had worked in the cave for quite some months.

It was at once clear to de Sautuola that the incredible gallery of bison paintings he now began to see was probably the work of the same people whose debris he was digging up, partly because he had already observed sea-

shells full of paint pigment, and some of their debris occurred right on top of the floor deposit. He reported this incredible discovery immediately to Vilanova, who came to inspect the find. Vilanova agreed with his friend that the many paintings were ancient. He gave a lecture in Santander, the discovery made headlines across Spain, and King Alfonso XII visited the Altamira cave. In 1880 de Sautuola produced a publication, describing the paintings and the occupation strata, but cautiously avoiding the claim that the two forms of evidence necessarily needed to belong to the same time. It was a sober treatise, entirely lacking in flamboyant claims. For the illustrations he employed a destitute and dumb French painter he had befriended earlier, and this turned out to be a fatal mistake.

The publication was greeted with considerable disapproval, which soon built up to ridicule and anger. The discipline decided collectively that de Sautuola was either a charlatan, or at the very least he had been severely duped. At the International Congress of Anthropology and Prehistory in Lisbon, Vilanova presented the discoveries in Altamira, strongly defending de Sautuola. One of the most influential French delegates, Professor Cartailhac, walked out



*Figure 3. Section of the ceiling of Altamira.*

in disgust, and later roundly declared the paintings to be a fraud, without even bothering to see them. In fact all other experts refused to examine the site initially, and the French decided that the whole affair was a plot by Spanish Jesuits to undermine the credibility of pre-History as it was emerging at the time. Eventually Édouard Harlé was chosen to examine de Sautuola's outrageous claims, and he promptly discovered the involvement of the dumb painter (who in the meantime had disappeared). No further investigation was needed, the case was clear enough to him.

Vilanova tried in vain to use his academic prestige to promote acceptance of the find, he was judged to have been the first to have been duped by the charlatan of Altamira, and unable to concede that. De Sautuola, for his part, did not respond to the accusations, but we know that he suffered greatly. He tried to present his case at a French conference in Algiers in 1882 and submitted a self-funded booklet to another conference, in Berlin, but both endeavours were ignored. Six years later he died at the age of fifty-seven, a broken and bitter man, in the full knowledge that he had made one of the greatest discoveries in the history of archaeology. He also knew that he had failed in effectively conveying this knowledge to a thoroughly hostile academic world. His death weighs heavily on archaeology, particularly as he was judged without trial.

A French schoolteacher, Léopold Chiron, had found engravings deep in the cave of Chabot already in 1878, i.e. the year before the discovery of the Altamira cave art, and in 1890 in another site, Figuer. In 1883 Francois Daleau excavated engravings on a wall in Pair-non-Pair that had been covered by Ice Age sediments (Fig. 4). In 1895, a bison engraving was discovered in the French cave La Mouthe, and



*Figure 4. Engraving in Pair-non-Pair Cave.*

Emile Rivière, who had actually seen the Altamira paintings, found more rock art in La Mouthe, and four years later a Palaeolithic lamp. The evidence in favour of Palaeolithic rock art began to mount. In 1897 Cartailhac still refused to publish the report of a new discovery of cave art, but in 1902 he published his famous '*Mea culpa d'un sceptique*', in which he accepted that he had been monumentally wrong.

What had probably most influenced Cartailhac was that he could not imagine how people with a primitive stone tool culture could possibly have



Figure 5. Boucher de Perthes, 1788–1868.

produced artistic masterworks. This conceptual encumbrance has been a persistent feature of Pleistocene archaeology right up to the present time, as has been the rejection of any other corrections by amateurs to ensure the continuation of its false dogmas. This trend began in the 1820s to 1840s, with the stone tools found by Jacques Boucher de Crèvecœur de Perthes (Fig. 5), Casimir Picard, Marcel-Jérôme Rigollot and Edmond Hébert in France, and by William Pengelly in England. As late as 1858, at an archaeology congress, the Acheulian stone tools were unanimously rejected as 'a worthless collection of randomly picked up pebbles'. Also rejected was the notion that humans had co-existed with Pleistocene fauna. This was both careless and embarrassing, because by that time, Scandinavians had already established the existence of a Stone Age in Europe, and British geologists Hugh Falconer and Joseph Prestwich had begun to validate Boucher de Perthes' claims. They published their findings in the following year, the year of Darwin's *Origin of the species*.



Figure 6. Johann Carl Fuhlrott, 1803–1877.

In that very same year, 1859, Johann Carl Fuhlrott reported the discovery of the remains of an extinct human in the Kleine Feldhofer Cave in the Neander valley of Germany (Fig. 6). With the notable exception of anatomist Hermann Schaaffhausen, every commentator rejected Fuhlrott's view that this was a Pleistocene human. The remains were variously attributed to a Mongolian

Cossack, a Celt, a Dutchman, a Friesian, and an idiot. The bone architecture was attributed to various bone diseases, the curved leg bones to a life of riding horses. Even the discovery of similarly odd-looking mandibles in La Naulette Cave in France and Šipka Cave in Moravia were explained away. It took almost thirty years, and the discovery of two substantially complete human skeletons in a cave at Spy, near Namur, Belgium, to accept that all the experts of the time had been wrong. Found together with numerous stone tools and the bones of extinct animal species, even these specimens failed to change the dogma in Germany, where it took to 1901 to have the original Neanderthal remains accepted.

Eugène Dubois, a Dutch physician who had decided to look for the 'missing link' in Indonesia, fared no better (Fig. 7). He succeeded in excavating the first remains of *Homo erectus* in 1891, only to discover that they soon became the subject of a raging academic controversy. By 1928, no less than fifteen different interpretations of the hominin remains had been published. Moreover, they had become 'irrelevant', because in 1912, the remains of



Figure 7. Eugène Dubois, 1858–1941.

the 'real' intermediate form between ape and human were discovered in a Sussex gravel pit at Piltdown. Although it must be said that there were sceptical voices right from the start, they were easily drowned out by the believers, and the question of the cradle of humanity seemed solved at last. It took forty-one years to expose the fraud by scientific tests, which is truly amazing. After all, the forgery was so crude that it can hardly be called that, and almost certainly it was a hoax rather than a fraudulent attempt to mislead science. This is emphasised by the later planting of more 'finds', including a bone shaped into a cricket bat, clearly intended to show the discerning observer that this was simply a prank by a person with a great sense of humour, but was meant to be exposed.

Unfortunately the gullibility of the experts was much too great, and this fake fossil overshadowed the genuine article. When Raymond Dart, yet another non-archaeologist, reported in 1924 the remains of a creature that seemed about half-way between ape and human, his report was greeted with scorn and contempt. European and especially British archaeologists and physical anthropologists were in no mood to seriously consider such a competing counter claim. The infant from Taung, in Bophuthatswana, was ignored for decades, in favour of the Piltdown hoax (Fig. 8). This same blundering pattern continued to the present. In the middle of the 20th century, the introduction of radiocarbon dating shook the very



Figure 8. Raymond Dart with the skull of the Taung child.

foundations of archaeology, because the chronological structures that had been built began to be tested by scientific methods. Many archaeologists objected to this vigorously, just as in recent years some archaeologists have vocally objected to attempts to estimate the ages of rock art by scientific means. This is well illustrated by the Côa controversy in Portugal in the late 1990s, which is in part concerned with the perception of some archaeologists that scientists 'are trying to take over archaeology'.

One of the most recent controversies shows that, as a discipline, we have learnt nothing from the mistakes made in the past. In 2004, the bones of a very small adult human were excavated in the cave Liang Bua in western Flores, Indonesia. Named *Homo floresiensis*, the tiny creature, only about a metre tall, immediately became the object of a controversy resembling so many similar previous ones. Interpretations of it ranged from microcephalic modern human to gibbon. What this extreme spectrum of opinions shows is that experts lack the ability of identifying human remains reliably at the species level. This is an all too familiar pattern, and the ability of the discipline to repeat previous mistakes is disconcerting.

This applies equally to the conceptual encumbrance of Cartailhac's contemporaries, of finding it impossible to attribute to Palaeolithic people the ability to create art. Having grudgingly accepted that Upper Palaeolithic people did produce sophisticated art, archaeologists now began emphasising how much the 'primitive' hominins of the earlier Middle and Lower Palaeolithic lacked such abilities. The new myth was that all advanced human abilities were restricted to 'anatomically modern' people, and that these people from Africa replaced all other humans by about 30 000 years ago. The subconscious driver of this model remains the same as it was in the 19th century: the fixation of humanity's dominant societies on emphasising the primitivism of other societies, be they of recent times or of the Pleistocene. This ethnocentrism finds many manifestations, for instance in



Figure 9. Replication of sea crossing by *Homo erectus* in Indonesia about 850 000 years ago, conducted by the author in 2004.

diminishing cultural complexity of ethnographically studied groups, which in recent centuries justified colonialism and slavery; or in the current paradigm of replacement of the Neanderthals, which extols the virtues of competition and explains and rationalises genocide as a historical phenomenon and as an inevitable process. This ideology underpins Western hegemony, applying its models of reality and its self-conscious measures of sophistication, which in the case of the capabilities of humans of the distant past are determined by archaeology. When consistent evidence is presented that these hominin abilities were very significantly greater than archaeological dogma could possibly concede, that evidence is still today explained away or discredited, and its presenters are treated with precisely the same contempt as were the pioneers of Pleistocene archaeology, such as those listed above.

Let us consider some current examples of this phenomenon. There is a great body of data suggesting that seafaring was practised throughout the Middle and Late Pleistocene, in various parts of the world, and that it first emerged roughly one million years ago in what today is Indonesia (Fig. 9). Clearly, colonisation by navigating *Homo erectus* is as unacceptable to the dogma as cave painting was to Cartailhac, because it implies a cultural complexity that would annihilate the establishment dogma. Seafaring demands the use of reflective language, of planning ahead for at least several months, of technologies such as cordage, knots and the ability to carry drinking water at sea. And yet, the proof is irrefutable: at least twenty islands and one continent were colonised by maritime people with Lower or Middle Palaeolithic technologies. This new heresy has been



fended off by desperate endeavours to preserve the notional primitiveness of the human groups concerned. Recently it was argued that they must have crossed on land bridges at lower sea levels (in all cases considered, the landmasses concerned were never connected to others), that they could have floated across on naturally accumulated plant drifts (yet all the sea straits so crossed have strong transverse currents and cannot be crossed by floating; and this would not explain why only humans and elephants ever crossed in some cases), and one archaeologist even proposed that *Homo erectus* must have crossed by riding on swimming elephants.

This is already very reminiscent of the inane alternative explanations the above pioneers had to contend with, but the new origins myth of the replacement of Europeans 30 000 years ago offers an even better example. This myth first emerged in the 1980s, spawned by a series of datings of human remains by a German professor of archaeology. Recently it has emerged that all of his datings were fraudulent, and that many other human fossils had also been misdated. In fact it has now become evident that modern physical traits have only been dated back 27 700 years in Europe, but that the Upper Palaeolithic traditions began very much earlier (40 to 45 000 years ago). The Early Upper Palaeolithic period has only yielded human remains of robust people (Neanderthals and post-Neanderthals, their descendants). The most complex palaeoart of Pleistocene Europe, however, predates the earliest appearance of remotely 'modern' humans, and it now appears that the ultra-sophisticated rock art of Chauvet Cave (France, probably between 35 and 38 000 sidereal years old) or the figurines from Galgenberg (Austria) and Hohlenstein-Stadel (Germany) are all the work of Neanderthal-like people (see CAR 6, 2006). Moreover, the numerous intermediate humans, combining robust and gracile skeletal features, and the general trend towards gracility are not unique to Europe, they are found in all continents then settled. That trend occurs gradually over tens of thousands of years, and this gracilisation and the accompanying foetilisisation of

the human species are universal processes, occurring in Australia as much as in Europe. But in Australia, a Middle Palaeolithic mode of technology continues right up to the middle of the Holocene, and in Tasmania until European contact. Yet we know that these 'Middle Palaeolithic' Tasmanians were as intelligent as we are, and even though their material culture was primitive, their spiritual culture was more advanced than ours. Only last year have we discovered that they had mountaintop ceremonial sites, which surely are not the sign of a primitive society. And let us remember that they had correctly deduced that humans descended from other animals, an observation it took an intellectual giant such as Darwin to re-discover for Europe. Primitiveness, certainly, is in the eye of the beholder. For all their material sophistication, Europeans have yet to discover what to replace their own primitive constructs of reality with — constructs relying on such false premises as those of time and space. It could well be the case that the constructs of reality of traditional and Pleistocene people were more valid than ours. If we were seriously interested in the human past, rather than in perpetuating false histories invented by archaeology, it would be useful to consider that technologies are not a measure of cognitive or intellectual competence. It would also be relevant to remember that humans created palaeoart hundreds of millennia ago. In India and Africa rock art was made in the Lower Palaeolithic, as were beads and pendants in Europe and Africa, and portable engravings in Europe. The Upper Palaeolithic cave art of France and Spain is the most spectacular of the Pleistocene, but certainly not the most numerous. In Australia alone, there are hundreds of thousands of petroglyphs of the Ice Age, and all of them were made by people with Middle Palaeolithic technologies. Indeed, there is far more Middle Palaeolithic art in the world than Upper Palaeolithic.

The archaeological dogma has thus been wrong most of the time in both the 19th and the 20th centuries; whether it can change in the current century remains to be seen. Its past performance inspires no confidence.