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THE **BIRTH** OF THE **IMAGINATION**

ONE DAY IN THE AUTUMN OF 1879 a Spanish nobleman and his daughter set out on a little adventure. They were going to explore a cave not far from the family estate at Puente San Miguel, in the Cantabria region of northern Spain. The nobleman's name was Marcelino Sanz de Sautuola, and his daughter – not yet in her teens – was called Maria. Together they made for the hillside of Altamira, which had lately been reported as a site of prehistoric occupation. To use the language of the time, Altamira was the sort of place where troglodytes or 'people before Adam' were thought to have sheltered.

As a keen amateur archaeologist, de Sautuola had high hopes of what he might find at Altamira. The bones of strange animals might be scattered around; perhaps traces of fires kindled long ago. With any luck, and close investigation of the cave floor, some rudimentary tools or implements might also be retrieved.

De Sautuola was not merely hunting for curiosities. When it came to publishing his discoveries at Altamira, he gravely noted that his ultimate motive for making the expedition with Maria was to 'tear away the thick veil that separates us from the origins and customs of the ancient inhabitants of these mountains'. Once he and Maria were inside the cave, he crouched down and began to examine the ground by lantern light. It was cool and damp in the cave, but spacious too. While her father was poking and

6 A detail of the cave paintings at Altamira, Spain, c. 11,000 BC, which Maria and Marcelino de Sautuola discovered by chance.

scraping at the floor, Maria wandered off to do some exploring of her own. It was not long before the darkness of Altamira echoed with a child's wondrous cry.

'Look, Papa – paintings of oxen!'

So a young girl was the first modern human to set eyes upon the 'gallery' of prehistoric paintings for which Altamira would become renowned (*Fig. 6*).

Being small, Maria had a better view of the cave's low ceiling than her father. However, her recognition of the animals whose images were ranged over Altamira's natural vault was not quite accurate. These were aurochs – a type of bison that had been extinct for thousands of years. Herds of them were depicted – standing, grazing, running, sleeping. And around these aurochs there were other four-legged beasts: horses, ibexes, boar. Gazing up at what his daughter had found, de Sautuola was almost speechless with excitement. He knew instinctively that this art was very old indeed; but it was more than instinct that told him so. The cave was littered with debris belonging to what would become known as the Stone Age – or, in archaeological parlance, the Upper Palaeolithic period (35,000–10,000 years ago). Moreover, de Sautuola could see similarities between the bison depicted here at Altamira and some bone carvings of animals lately discovered in caves in France.

The gentleman-scholar lost no time in communicating the news. It created a sensation, understandable even to this day, although, for reasons of preservation, visitors are now admitted only to a replica of the cave. Gazing over Altamira's rocky surfaces, the viewer soon appreciates that the word 'painting' is inadequate here. The uneven contours of the rock have been ingeniously incorporated to give the animals a bulky, almost three-dimensional presence. Big bovine shoulders loom up in the half-light: and, while the exact species of bison depicted is no longer to be seen, we cannot fail to be struck by the quality of close observation on display. How the animals stood while at pasture, how they collapsed when recumbent or wounded – the Altamira depictions are, as we should say, convincing. The colours, too, are memorable: predominantly red and black, but with shadings of form also picked out in brown, purple, yellow, pink and white. These strong organic pigments, derived from various oxides and carbons, play their part in giving the work a powerfully earthy depth and substance. All in all, it might be concluded that the paintings here are too good to be true.

Sadly for de Sautuola, many of his contemporaries thought just that. After an initial accolade from the press, royal visits to the cave and so on, doubts regarding the

authenticity of the art at Altamira began to be voiced. Nothing comparable to their scale and pictorial delicacy had been found at prehistoric sites then known to archaeological connoisseurs. One premature explanation of Altamira suggested that the paintings had been done during the Roman occupation of the Iberian peninsula. Within a year of de Sautuola's announcement of the find, however, more poisonous rumours were circulating. An artist was seen going into the cave (de Sautuola had commissioned him to make copies of the ceiling): word went round that he was the one who had painted it in the first place. At home and abroad, de Sautuola found himself mocked as a dupe, or suspected of perpetrating a hoax. He died in 1888, a deeply disappointed and widely disbelieved man. His friends said he was brokenhearted by the whole affair.

Young Maria would live to see her father's honour thoroughly redeemed. But before we lament the scepticism that brought misery to a pioneer explorer of prehistoric art, let us admit our own primary reaction to what we see at Altamira, and at other great underground sites subsequently revealed in Spain and southern France – most notably the caves of Lascaux and Chauvet. 'Amazing'; 'incredible'; 'astonishing': we reach for the clichéd language of admiration, and for once it denotes a genuine mystery. No sample of early human handiwork is more perplexing than the large-scale cave paintings of Palaeolithic Europe. What follows here is an attempt to make sense of what the images might mean, and why they were painted on subterranean walls. A particular theory is pursued, and other theories rejected – but they are theories all the same. In the end, amazement may remain the proper response. What we can establish for certain, however, is that these paintings are not localized miracles. Altamira belongs to a wider process of human development, and it is all the more exciting for that.

THE CREATIVE EXPLOSION

Radiocarbon dating of the pigments used in the Altamira paintings has established that the cave investigated by Maria and Marcelino de Sautuola was decorated between 13,300 and 14,900 years ago. This more or less confirms the notional antiquity assigned to the images by de Sautuola back in 1879. But beyond the element of forgivable surprise, why *were* the learned contemporaries of de Sautuola so reluctant to believe him?

The answer is that Altamira simply did not fit with prevailing scientific and popular views about the origin and development of the human species. Charles Darwin may have

caused theological controversy in Victorian Britain with his theory of evolution by natural selection – a process often summarized as 'the survival of the fittest', though Darwin himself did not coin that phrase – but so far as it confirmed stereotypical Western attitudes to the prehistoric past, Darwin's model was widely accepted. If evolution favoured the survival of the fittest, and humankind was set on an upward curve of progress in adapting to understand and control the world, then those humans left behind – especially those left behind many thousands of years ago – must be congenitally backward, ignorant and clumsy.

Already in 1651, the English philosopher Thomas Hobbes had fastidiously described the 'ill condition' of humans living in a pre-civilized 'state of nature'. It was a situation, he declared, of 'continual fear, and danger of violent death; and the life of man solitary, poor, nasty, brutish and short'. At the time when the paintings at Altamira were found, most people would have imagined the typical 'caveman' as some shaggy, low-browed creature, his ground-scraping knuckles clamped to a knotty club. This savage might have chased bison to fill his belly, but to represent the animal in delicate profile, with careful, sensitive hues – such fine aesthetic capacity was surely beyond belief?

So went the logic of orthodox opinion. However, even the most tenacious upholders of this view were forced to reconsider as further painted caves came to light, especially in France. In 1901, for example, two major sites near Les Eyzies in the Périgord region – Les Combarelles and Font-de-Gaume – were confirmed as bona fide. The following year, a major shift in attitudes was signalled when Emile Cartailhac, one of the French experts who had dismissed Altamira as a prank, published a penitential essay, accepting that his doubts had been in error: the paintings at Altamira, and others like them, really did belong to 'the dawn of time'. In the summer of 1902, Cartailhac joined other delegates from a scientific conference at Montauban in making a tour to inspect the several painted caves in the area. A consensus was declared: art indeed existed in prehistory, and the science of understanding it had only just begun.

Discoveries of further caves proliferated throughout the twentieth century. France yielded not only examples of painted surfaces, but also relief figures, such as the 'frieze' of animals brought to light in 1909 at Cap Blanc, again near Les Eyzies, and the two bison moulded in clay at the end of the deep cave at Tuc d'Audoubert in the Pyrenees.

Most stories of modern discovery contain a ration of drama. Appropriately, perhaps, it was while searching for a lost dog that several schoolboys came across the

splendid menagerie painted within the cave at Lascaux, near Montignac, in 1940 (*Fig. 7*). And while the finding (in 1994) of even more remarkable animal scenes in France's Ardèche Gorge came about from deliberate underground exploration, the subsequent dispute over ownership of this site – named Chauvet Cave after the potholing enthusiast who first flashed a torch beam over it – is something of a legal soap opera.

A pair of rhinoceroses lock horns for a fight; a natural event recorded with swift, confident brushstrokes. A set of feline profiles overlap, as if casually anticipating the draughtsman's rules of depth and perspective by many millennia (*Fig. 8*). Astonishing? Indeed. But not absolutely incredible – because the paintings of Chauvet Cave, firmly dated to over 30,000 years ago, provide merely the most spectacular indicators to date of what some archaeologists refer to as a general 'Creative Explosion' occurring in the Upper Palaeolithic period (*c.* 40,000–10,000 years ago). The phenomenon is not confined either to France or to continental Europe. Essentially, it marks the ascendancy of a particular biological species, *Homo sapiens*, the 'knowing human' type that has come to dominate the Earth's surface.

A summary of the background to this arrival of anatomically modern humans may be found in a separate section of this book (see page 14). Here, it is enough to observe that paintings on cave walls belong to a catalogue of telltale relics left by the ingenious and creative *Homo sapiens c.* 40,000–30,000 years ago. Among these relics are the following:

1 Flint tools, produced in such a way as to be exquisitely symmetrical. Such symmetry may have assisted their function (if, for example, axes were thrown as missiles); otherwise it exists to invest a functional object with aesthetic value.
2 Perforated teeth and shells, collected for the sake of bodily ornament. Items of jewellery, such as the necklace of shells found at Mandu Mandu in Western Australia, are sure signs of personal embellishment; possibly also indicators of social status.
3 Depositions of food and gifts along with burial of the dead. Excavated burials at the Cro-Magnon shelter near Les Eyzies and at the site of Dolni-Vestonice in the Czech Republic may not qualify structurally as tombs, but the presence of grave goods is suggestive of ritual, and some concept of an afterlife.
4 Scratchings on bone and antler that seem intentional and ordered. Several examples of such markings from the site of Zhoukoudian, near Beijing in China,

7 (top) Detail of the 'Salon of the Bulls' at Lascaux, near Montignac, France, c. 18,000 BC.

8 (above) The masterfully depicted feline faces in the 'Lion Panel' of Chauvet Cave, France, c. 32–30,000 BC.

remain open to interpretation, while an ingenious case has been made for reading notches on the handle of a tool found at Ishango, in central equatorial Africa, as a notational system of tallies that marked time according to phases of the moon.

Certain aspects of this cultural 'take-off', such as vocal communication (singing included), dance, and painting done directly on to bodies, can never be known. Much small-scale or portable art may have vanished. And in many parts of the world there are markings on rocks that simply cannot be securely dated by archaeologists. These are reasons why, in any investigation of the origins of art, attention focuses upon the cave-paintings of Palaeolithic Europe. Accepting that they are the best-preserved and most visible signs of the global creative explosion, how do we start to explain their appearance?

ART FOR ART'S SAKE?

Pablo Picasso, arguably the most illustrious artist of the twentieth century, seems to have paid a visit to the newly discovered Lascaux cave in 1941. 'We have learnt nothing!' is reported as his awed, almost indignant comment, implying that the anonymous Stone Age draughtsmen of Lascaux had miraculously anticipated the representational aims and achievements of art within modern, 'civilized' society. Uncannily (as it must have seemed to him), the prominent animals at Lascaux were bulls – favoured subjects of Picasso, and indeed, featuring in one of his earliest paintings as a boy. Also, some of the animals depicted at Lascaux have their form emphasized in thick black outline. This is also uncannily similar to a pictorial device favoured at one time by Picasso and his post-Impressionist contemporaries, some of whom would be nicknamed in 1905 as *les fauves* (the wild ones). It must have unnerved the Spanish painter, to see a stylistic invention pre-empted by many thousands of years: 'the shock of the old', we might say. Later, at a Parisian exhibition in 1953, Picasso re-created for his own work the flickering, torchlit experience of viewing a prehistoric cave – such was his empathy for ancestral comrades.

Picasso's reaction is one that many of us would share. Identifying the precise species of bison, ibex or mammoth might be beyond us. But, like young Maria at Altamira, we have little essential difficulty in seeing what these ancient artists were trying to represent.

Instinctively, then, we may want to 'update' the earliest human artists by assuming that they painted for the sheer joy of painting.

The philosophers of Classical Greece recognized it as a defining trait of humans to 'delight in works of imitation' – to enjoy the very act and triumph of representation. If we were close to a real lion or snake, we should feel frightened. But a well-executed *picture* of a lion or snake will give us pleasure. Why suppose that our Palaeolithic ancestors were any different?

This simple acceptance of cave-paintings as art for art's sake has a certain appeal. To think of Lascaux as a gallery or *salon* allows it to be a sort of special viewing place where the handiwork of accomplished *artistes* might be displayed. And at Lascaux, the evident care with which individual animals have been abstracted from any natural background or landscape makes it tempting to suppose that the painters sought to create, as it were, 'life studies' of their subjects. Plausibly, daily existence in parts of Palaeolithic Europe may not have been so hard, with an abundance of ready food, and therefore the leisure time for art.

The problems with this explanation, however, are various. In the first place, the proliferation of archaeological discoveries – and this includes some of the world's innumerable rock art sites that cannot be dated – has served to emphasize a remarkably limited repertoire of subjects. The images that recur are those of animals; and, commonly, similar types of animal. Human figures are unusual; and when they do make an appearance, they are rarely done with the same attention to form accorded to the animals. If Palaeolithic artists were simply seeking to represent the beauty of the world around them, would they not have left a far greater range of pictures – of trees and flowers, of the sun and the stars?

A further question to the theory of art for art's sake is posed by the high incidence of Palaeolithic images that appear not be imitative of any reality whatsoever. These are geometrical shapes or patterns consisting of dots or lines. Such marks may be found isolated or repeated over a particular surface, but also scattered across more recognizable forms. A good example of this may be seen in the geologically spectacular grotto of Pech Merle, in the Lot region of France (*Fig. 9*). Here we encounter some favourite animals from the Palaeolithic repertoire – a pair of stout-bellied horses. But over and around the horses' outlines are multiple dark spots, daubed in disregard for the otherwise naturalistic representation of the animals. What does such patterning imitate?

There is also the factor of location. The caverns of Altamira and Lascaux might conceivably qualify as underground galleries, but many other paintings have been found

9 The 'Spotted Horses' in the caves of Pech Merle, France, *c.* 20,000 BC, with the intriguing patterns of dark spots around the horses' outlines. The hand stencils may be later touches.

in recesses totally unsuitable for any kind of viewing – tight nooks and crannies that must have been awkward even for the artists to penetrate, let alone for anyone else wanting to see the art. For example, a painted cave adjoining Pech Merle, called Le Combel, can only be reached by squeezing through a narrow cleft in the rock and crawling along on one's stomach; there was never any room to admire the handiwork in comfort.

Finally, we may doubt the notion that the Upper Palaeolithic was a Garden of Eden in which food came readily, leaving humans ample time to amuse themselves with art. For Europe it was still the Ice Age. An estimate of the basic level of sustenance then necessary for individual human survival has been judged at 2200 calories per day. This consideration, combined with the stark iconographic emphasis upon animals in the cave art, has persuaded some archaeologists that the primary motive behind Palaeolithic images must lie with the primary activity of Palaeolithic people – hunting.

ART AND HUNTING

Hunting is a skill. Tracking, stalking, chasing and killing the prey are difficult, sometimes dangerous activities. What if the process could be made easier – by art?

In the early decades of the twentieth century, an influential French archaeologist, Abbé Henri Breuil (1877–1961), made this suggestion the basis for his theory that the cave-paintings were all about 'sympathetic magic'. The reason why Palaeolithic artists so often depicted animals was that the business of hunting animals preoccupied them and their contemporaries. And the artists strived diligently to make their animal images evocative and realistic because they were attempting to 'capture the spirit' of their prey. As Breuil stressed, these debutant human artists clearly did not draw like children. What could have prompted their studious attention to making such naturalistic, recognizable images? For Breuil, it had to come from some extraordinary belief about the power of images. If a hunter were able to make a true likeness of some animal, then that animal was virtually trapped. Images, therefore, had the magical capacity to confer success or luck in the hunt.

As with the interpretation of cave-paintings as art for art's sake, there is a general element to the theory of hunting magic that is immediately attractive. After all, anyone who has ever kissed a photograph knows that images can serve the purpose of wishful thinking. Many instances are known of societies in which images are honoured as

potential surrogates of reality. Voodoo-type superstitions, for instance, rely on the belief that sticking pins in a wax effigy of someone will make that person feel pain. Art thereby becomes a medium for magic. And while we might accept that the image of a lion or a snake does not terrify us like the real thing, it is also well documented that we are quite capable of responding to an image as if it *were* real. Being a Catholic priest, Breuil knew well enough that many people of his time could stand before a picture or statue of the Virgin Mary with all the respect due to an animate presence.

Breuil could point to further specific features of the cave-paintings that favoured his approach. In numerous images, an animal was shown apparently struck by arrows or spears, or else marked as if wounded or snared (*Fig. 10*). As for the many animals not shown as direct victims of the hunt, they could belong to art's magical purpose nonetheless. Large herds, with well-fed or pregnant beasts signified yet more wishful thinking on the part of hunters hoping for the bountiful increase of their prey. And, of course, it was the mysterious or occult function of the paintings that, for Breuil, explained why they were located deep under ground. Magic had to be performed in dark places, out of sight; it was a secret operation.

Breuil's theory appealed to those who envisaged the Ice Age in Europe as a period of hard survival, when mammoths roamed the land, and fierce bears competed with humans for rocky shelters. And the element of superstitious or irrational belief suited anyone whose view of the past was shaped by the sort of desk-bound anthropology so eloquently presented by J.G. Frazer in his multi-volume compendium, *The Golden Bough* (1907–15). Subtitled 'A Study in Magic and Religion', Frazer's work seemed, from the poet T.S. Eliot's admiring point of view, to create 'an abysm of time'. Yet the Frazerian pursuit of data from 'primitive' societies relied upon an ideal of progress characteristic of Victorian Britain. Frazer himself styled it as 'the long march, the slow and toilsome ascent, of humanity from savagery to civilisation'. Trust in magicians was, for Frazer, a key defining feature of 'savage' societies.

Anthropology has moved on from such complacency. But the main objection to Breuil's theory arises not from ideological disdain; rather from more attentive archaeological examination of the ancient debris within the caves – in particular, analysis

10 (previous page) Wounded bison from Niaux caves, near Ariège, France, c.14,000 BC.

of food remains left around hearths or in middens (rubbish dumps). If the paintings were created for the purpose of successful hunting, it would be logical to expect that the animals depicted on the cave walls were those featuring in the daily diet of the cave's inhabitants. But this correlation does not hold. At Lascaux, the animals painted were bulls, horses and red deer. Most of the bones discarded in the cave, however, were of reindeer. At Altamira they drew bison, but the associated bones were those of deer, goat and wild boar, with shellfish adding a little variety. Mammoths appear with some frequency in the caves of the Ardèche and Périgord regions, but not in the record of human subsistence at that time. As one archaeologist puts it, 'the Upper Palaeolithic painters had horses and bison on their mind, whereas they had reindeer and ptarmigan in their stomachs'.

If not propelled by hunger, why did they paint? Although the science of neurophysiology was in its infancy, Breuil and his contemporaries sensed that it was fundamentally unnatural for the human mind to produce and use representational images in the first place, citing the reported case of a Turkish Muslim who, having had no experience of pictures or drawings, failed to identify a two-dimensional image of a horse because he could not walk around it. The capacity for images, though quickly acquired, did not seem to be innate. If we need to have some mental experience or training in order to *recognize* symbols, how did we ever acquire the ability to *create* them in the first place? So the quest continued – the quest to explain how this peculiar human habit of representation began.

ART AS A SYMBOLIC SYSTEM

Anyone who considers the practicalities of interior decoration at Altamira and Lascaux will suppose that some system of scaffolding must have been erected for the painters. Experts confirm the supposition. Images were not casually scrawled on the walls, but laid out as part of a considered programme or scheme of decoration.

It is to the credit of another French scholar, André Leroi-Gourhan (1911–86), that the theory he offered as an alternative to art-for-hunting was based on an acceptance of Palaeolithic imagery as a grand project – anything but random sketches. Strongly influenced by the Structuralist school of anthropology (see page 89), Leroi-Gourhan proposed considering the cave-paintings as a symbolic system based on binary oppositions or pairings, with the essential division being that between man and woman.

Notoriously, there are very few images of humans in the caves. But what if certain animals were to be associated with males, and others with females? With reasons ranging from the elementary to the sophisticated, Leroi-Gourhan argued that horses, ibexes and deer were symbolically masculine, while aurochs and bison were feminine. His analysis defies summary: but ultimately – as might be guessed – it leads to the supposition of some kind of fertility rite staged in the caves, for which the images must serve as liturgy.

Some would say that Leroi-Gourhan's approach was music to the ears of anyone raised on the psychological doctrines of Sigmund Freud. Certainly there were Freudian overtones to the way in which Leroi-Gourhan explained the geometric motifs that recurred in the caves. Again he identified a male–female gender divide. Straight lines and dots signified male, while circular or enclosing forms were emblematic of female form. Other archaeologists had already noted certain painted shapes or graffiti suggestive of one particular part of female anatomy – the vulva – which favoured this sexually symbolic reading. Leroi-Gourhan himself, however, remained reluctant to specify the implied fertility rite.

Today it may be hard to resist being amused by the sort of interpretation that sees every straight line or spear as phallic, every circle as a womb. Yet, as even his critics agree, Leroi-Gourhan was surely right to persevere in his assumption that the Palaeolithic artists worked *intentionally*; that there was a method and a meaning to their work as a whole. But if one problem with his theory is that it depends upon a modern obsession with sexuality, then the general question arises of how we should proceed. We still need some explanation of how the knack or capacity for representation first clicked into place. Can any analysis bridge the distance between modern viewers and ancient artists?

OUT OF AFRICA

In the age of our great-grandparents – the generation for whom the work of J.G. Frazer was enlightening – there was little objection to making comparisons between the prehistoric past and communities of so-called 'primitive peoples' that had survived (by isolation) into the industrialized world. Today, it would be thought offensive and misleading to describe, for example, the existence of Australian Aborigines around 1800 AD as equivalent to the Stone Age. And yet the impulse to draw some analogies between a surviving or documented society of hunter-gatherers and the hunter-gathering

existence of people in the Palaeolithic past is difficult to resist, even if the distance is measured not only across time, but also across continents. Just such a non-judgemental explanation by analogy has lately emerged, injecting fresh energy in to the debate about the beginnings of humanity's gift for representation. The theory comes from Africa, and how it evolved is worth tracing in some detail.

The Drakensberg mountains are the main contours of southern Africa. To the east, beyond a coastal plain, lies Durban; due north is Johannesburg and the interior plateau or *veldt*; within the range, geologically, is the small, snow-topped kingdom of Lesotho. Most of the Drakensberg peaks now belong to the province of KwaZulu-Natal. In and around this area are many place-names that resonate in South Africa's modern history, sites of conflict between Boer settlers, British colonists and Zulu tribesmen: Spion Kop, Ladysmith, Rorke's Drift and more. But before the British, the Boers or the Zulus impacted on this landscape, it had been long occupied by a people whose official place in history is so uncertain that no one is quite sure what to call them. They used to be referred to collectively as 'Bushmen'; lately 'the San' has been preferred. In fact, both names have pejorative connotations, but since there is no ready alternative, we shall use the term 'Bushmen' here, for the sake of convenience and without disrespect.

The Bushmen's modes of habitation and subsistence in the Drakensberg changed very little over thousands of years. The men hunted animals, using spears and arrows tipped with poison; the women gathered plants, grasses and roots, with no other tool than a weighted digging-stick. Small communities moved from upland to lowland areas as seasons changed, making use of natural shelters where available. Like other nomadic peoples, the Drakensberg Bushmen needed very few possessions, so one might have guessed that they left few traces of their presence in this territory. This is, indeed, the case – except in the crags and crevices of the sandstone escarpment there are thousands of painted images.

Comparable in quantity to the rock art sites of the Kakadu area in northern Australia, the Bushmen paintings of the Drakensberg are not catalogued; unlike the Kakadu images, they are entirely anonymous and impossible to date. Paintings done only 200 years ago may look brighter than work done 20,000 years earlier, and certain scenes (such as men shown carrying guns) appear to be references to the colonial intruders. Essentially, however, the numerous images seem very similar and coherent within the region, and similar to paintings left in some other places occupied by the Bushmen.

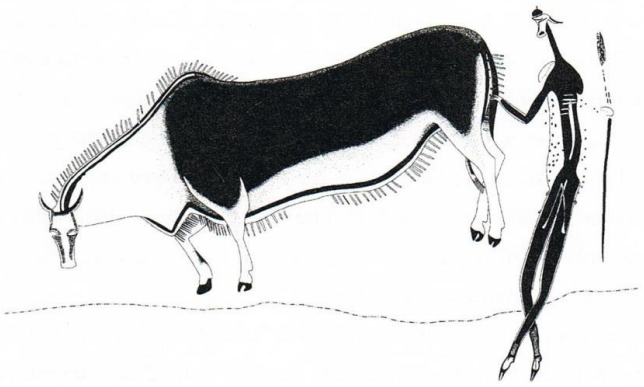
These were not always recognized for what they were. In 1918 climbers exploring the Brandberg Massif (of modern Namibia) came across rock paintings in a certain ravine. Coloured copies were duly made and shown some years later to Henri Breuil, then attending a conference in Johannesburg. The Abbé pronounced that no indigenous people had made these images, but foreigners of 'Nilotic-Mediterranean origin' – perhaps émigrés from Bronze Age Crete, whose style seemed apparent in a particular figure dubbed by Breuil as the 'White Lady'. It has since transpired that this figure is male, and typical Bushman work; but to upholders of the apartheid system – whereby white and black people in South Africa were kept apart – Breuil's verdict was welcome proof that the earliest inhabitants of this land had been Europeans. The notion was so pleasing to the country's colonial administrators that, during the Second World War, they gave academic refuge to Breuil in Johannesburg – sponsored by none other than the country's premier, J.C. Smuts.

Breuil's preposterous gloss of the 'White Lady' is perhaps sufficient indication of how little specialist attention was devoted to the images left by the Bushmen – images that were, of course, gradually fading from modern view. The neglect more or less persisted until the early 1960s, when a young local schoolmaster started to explore the Drakensberg paintings more studiously. His name was David Lewis-Williams, and what began as a teacher's pastime led first to a doctorate, then a professorial chair, and ultimately a dedicated Rock Art Institute (at the University of Witwatersrand in Johannesburg).

The conspicuous subjects of Bushmen paintings throughout the Drakensberg are animals (*Fig. 11*). Often enough it seems there is a scene in which some four-legged prey, such as an antelope, is surrounded by figures armed with bows or spears. Casual viewers might readily suppose that these were characteristic reflections of daily life among the Bushmen, to whom hunting was supremely important (their disputes with the settlers arose mostly from access to game or cattle raiding). But, as Lewis-Williams showed, one does not have to look very hard at the Drakensberg paintings before realizing that these depictions of hunting are not so straightforward as that. Some of the human figures, on closer examination, appear to have hoofs for feet, and animal heads. Other figures, seemingly realistic at first glance, have their necks represented in lines of many white stipples. A certain large sort of antelope, the eland, did indeed appear often and prominently in the paintings. But the Bushmen had many other sources of food, four-legged or not. Why so much emphasis upon the eland? As for these hybrid

11 (above) A scene from the main frieze of the Game Pass Shelter, Kamberg, South Africa. Date uncertain.

12 (right) A drawing of a detail from the main frieze of the Game Pass Shelter, showing a dying eland and a figure with hooves and an animal head.



human-animal figures – therianthropic is the official descriptive term for them – why were some of them appearing to snatch at an eland's tail?

Lewis-Williams aired all these queries, which arose from interpreting the Drakensberg images as scenes of everyday life among the Bushmen. He was also aware that while hunter-gathering peoples may seem, in Western eyes, to be leading remarkably simple lives, at one with nature, anthropological research invariably demonstrated otherwise. Hunter-gatherers around the world tended to organize their lives around very precise and prescriptive systems of ritual and supernatural belief. Why presume any less of the Bushmen?

Answers to questions about the meaning of the Drakensberg images would, naturally, lie with the Bushmen who painted them. Despite near-genocide in the past, and the more recent imposition of borders and passports, Bushmen have survived in the Kalahari Desert, especially in parts of Botswana and northwest Namibia. But the problem for those trying to track down the meaning of Bushman art is that since their displacement from the Drakensberg to the Kalahari over a century ago, the Bushmen have not been able to sustain the artistic tradition. The Kalahari is a very different terrain from the Drakensberg: it offers few rock surfaces or shelters suitable for painting. What did persist among the Kalahari Bushmen, however, was a powerful strand of religious practice and belief that could be connected to previous images; also, the rare testimony of Bushmen voices recorded during the nineteenth century and kept in an archive at Cape Town. Combining these two sources, Lewis-Williams was able to make a convincing case that the thousands of Bushmen images in the Drakensberg were far from being scenes of daily life; rather, they belonged to the surreal experience of minds and bodies in a state of ecstasy.

An eland is in the throes of death (*Fig. 12*): its head hangs heavy; its dewlap – the thick fold of skin below the neck – is sagging; and its hind legs are crossed. The Bushmen say that the crossed hind legs of the eland are a clear sign of poisoned darts taking effect. Here, however, we notice something else. The therianthropic figure holding the eland's tail in one hand, and a spear in the other, appears to have *his* legs crossed too. He has an animal's head and hoofs. Can it be, then, that he is also dying? If so, is he a figure who not only connects between the realms of human and animal, but who also interacts between the living and the dead?

Transcripts of Bushman beliefs and practices point to the reality of just such a figure in the person of a shaman: a senior individual esteemed as a healer, a rain-maker,

an inspiration for the hunt, and someone with access to the spirit world. This is not only the stuff of archives: to this day, shamans exist among the Kalahari Bushmen. Being good-natured about visits from inquisitive researchers, tourists and film crews alike, the Bushmen have repeatedly confirmed the central significance of shamanic rituals to their society. Bushman shamans have their own metaphoric ways of recounting how they experience their connection with the supernatural; they speak in terms of being stretched on ropes, lines or threads to an almighty creator or some netherworld of ancestors. But (again thanks to an open disposition on the part of those concerned) it is also possible to witness a 'trance dance', in which a Bushman shaman performs.

This was how it happened in a small kraal or village not far from Tsumkwe in northwest Namibia. At dusk a fire was lit, around which the women of the village, with their infants, sat in a circle. They began to set up a rhythm of chanting and clapping. Various of their menfolk were around, including the aged headman of the village; some began to tread around the circle, humming along with the songs. The star of the show

THE BLEEK AND LLOYD ARCHIVE

DEFINED BY one anthropologist as 'the harmless people', the Bushmen communities of southern Africa were persecuted throughout the nineteenth century by white settlers and Bantu pastoralists alike. Many were exterminated; some were kept as convicts in Cape Town. It was among these prisoners that Wilhelm Bleek (1827–75) did his research. Bleek was a philologist, with a primary interest in the clicking language of the Bushmen. Aided by his sister-in-law Lucy Lloyd, he filled numerous notebooks with transcriptions of interviews covering all aspects of Bushman life and folklore. Alas, two notebooks carrying information about Bushman painting are listed as missing from the archive kept at the University of Cape Town. Others, however, provide a rich verbatim account of hunting techniques, stargazing, medicine and so on. It is from this record that we comprehend the centrality of ritual in the lives of the Bushmen. Christian missionaries thought them irreligious. On the contrary: the most powerful figures in any Bushman clan were its spiritual leaders, its ritual specialists. They have their own local titles: to term them 'shamans' is, for the sake of convenience, at least preferable to 'witch doctors'. Whatever we call these elders, the Bleek and Lloyd papers suggest that they were very likely to have been the artists of the Drakensberg and other Bushman-painted sites.

13 A Bushman dance at a village near Tsumkwe, northwest Namibia, in the summer of 2004.

then arrived: a diminutive, sinewy old man, wearing only a loincloth and a set of rattles about his ankles. He now led the stamping around the circle; and for the next two hours or so he hardly paused as lord of the dance. Sometimes he reached for the heads of those sitting down, as if to transmit some of his energy to them. Occasionally, he staggered away into the shadows, doubled up and gasping for breath; at one point, while weaving across the circle, he fell into the fire and had to be pulled out: sand was heaped over him to cool him down. Some of the women rose up and followed him. There was no weariness from them in clapping and singing. It seemed the ceremony could go on as long as the fire glowed under the stars (*Fig. 13*).

It is in such situations that a shaman can go into an 'altered state of consciousness'. Physically, this manifests itself in various ways: loss of balance, stomach cramps, hyperventilation and nosebleeds. Mentally, it can lead to hallucinations, the intense visionary experience of travelling out of body into strange yet convincing places. No one could draw or paint while in the midst of this sort of emotional seizure. But revealing or recalling what had come into vision during an altered state of consciousness … that would be truly marvellous, and proof, as it were, of the shaman's special status.

For several decades now, David Lewis-Williams has argued the case that the thousands of Bushman images left in the Drakensberg are best explained as 'shamanic': directly derived from the hallucinatory experiences of shamans while in an altered state of consciousness. There are, to begin with, clear signs that physiological effects of the trance dance are depicted: figures doubled up with abdominal spasms; figures with red lines (blood) streaming from their noses. The marked elongation of many figures may reflect the reported sensation of being stretched.

Rock surfaces, such as the Game Pass Shelter, became interfaces between reality and the spirit world, on which the imagery of the trance was recorded and displayed. To call these interfaces 'membranes' is not inappropriate. Figures of animals might emerge from cracks in the stone (as they do), and placing a hand upon the stone, too, might give some sense of its potent access to the domain of spirits and ancestors.

No summary matches the eloquence with which Lewis-Williams has pursued and published this theory: we may simply state here that many experts worldwide accept it. Anthropologically, it is not an isolated or eccentric phenomenon. Parallels can be drawn, for instance, between the Bushman shamans and those among various indigenous tribes of North America, such as the Yokuts and Numic of California, whose use

of hallucinogenic substances can be traced in petroglyphs (rock markings) left in sites of sacred significance. Evidence also suggests that shamans or 'clever men' among the Aboriginal communities of northern Australia played a particular role in creating the millennia-old imagery of that region. European colonists may have dismissed it all as so much mumbo-jumbo, although they were happy to accept stories (and images) of a man who could cure lepers with his touch and undergo an agonizing death without dying.

What, however, has this to do with the cave-paintings of Europe in the Upper Palaeolithic period?

THE NEUROPSYCHOLOGICAL MODEL

Readers may already have guessed the next move in the Lewis-Williams argument. It is not to suggest that Bushmen, Native Americans and Australian Aborigines are *culturally* comparable to people of the Stone Age, but to point out that all anatomically modern humans – including those of the Palaeolithic – share a brain that is hard-wired (pre-programmed) in a certain way. What occurs within this brain when we enter an altered state of consciousness is therefore predictable – a common human experience, as likely to have the same visual and visible effects today as it would have done 35,000 years ago.

There are many ways of inducing the altered state of consciousness: drugs, dancing, darkness, exhaustion, hunger, meditation, migraine and schizophrenia are among them. In the Western tradition it is by no means confined to hippies and a fashion for the mind-expanding substance known as LSD. Opium takers of the Romantic period, notably the English writers Thomas De Quincey and Samuel Taylor Coleridge, were generous in providing verbal descriptions of their visions. And in our own times scientists have discovered simple procedures of sensory deprivation that enable research into the brain's function when it comes to 'seeing things'. The research goes on, but already it is clear that the human nervous system exhibits certain features of response that can be generalized – providing, for archaeologists, a so-called neuropsychological model for explaining the very beginnings of symbolic representation.

Migraine sufferers do not need to be reminded of the fact that, even in a completely darkened room, and with their eyes firmly shut, they are persecuted by flashing lights. It is a common symptom of an altered state of consciousness: the sensation of brightness,

often framed in kaleidoscopic patterns – dots, lozenges, blocks, appearing in multiple units as networks, tessellations and suchlike. These patterns may be construed as certain objects in the world – a spider's web, or a honeycomb. In addition, the subject of an altered state of consciousness may feel that he or she is airborne, or in water, or plunging through some vortex or tunnel. Patterns slide one into another, and shapes are fluently transformed; in some hypnagogic (half-asleep) or dreaming moods we may see animals appear: to follow Shakespeare's phrasing, we will think a cloud to be very like a whale, or mistake a bush for a bear.

What characterizes all these sensations is how vivid they are. The nightmare victim wakes with a scream; the LSD addict maims himself terribly, convinced that his fingers are extending over the windowsill and on to the road outside. No external reality is there. Our reaction is entirely to what we see without any direct perception of the world around us. Such images have been termed as entoptic, 'within the eye'.

The Lewis-Williams hypothesis, then, is not just that Palaeolithic cave-painting was shamanic or shamanistic in origin. It is even more momentous; suggesting that the human knack of representational imagery was itself initially triggered by this neuropsychological process. In other words, the Palaeolithic painters were not making observations of the world around them; they were transferring on to cave walls the images they already had behind their eyes. They were displaying what had come to them in an altered state of consciousness; recollecting powerful visions; trying to recapture what they had seen in their hallucinations – even when these had flashed by as a series of abstract patterns (*Fig. 14*).

The acceptance of this model does not reduce all other cave-painting theories to nonsense. In societies where shamans are or were esteemed as authorities – including not only the Bushmen and other groups already mentioned, but also the Inuit or 'Eskimos' of Canada, tribes of Amazonian South America, and nomadic societies of Siberia, where the term 'shaman' originates – shamans claim power from and over animals. The trance dance of the Bushmen may celebrate a successful hunt, or serve to bring good fortune to an imminent expedition; either way, then, a measure of 'hunting magic' is implied by the shaman's central role. From shamanic lore, too, it is evident that certain animals can be invested with extraordinary power and significance. (For the Bushmen, the eland has such special status.) Siberian shamans would say that their souls were entrusted to animal guardians, or claim some personal familiar or daemon in four-legged form.

14 Abstract cave markings in the Cueva de la Pileta, Andalucia, Spain, *c.*25,000 BC. Such markings are typical of entoptic patterns generated within the mind during an altered state of consciousness.

So it may be right to suppose that certain animals possess symbolic value, full of luck and fertility, regardless of whether they feature as regular prey. But can we claim that shamans existed in prehistory?

> 'Let me tell you how I became a lion. It was a good dance several years ago … I felt the pull of the fire … and danced while staring at it … I saw the fire become very large … I saw a lion in it. I trembled when I looked at it. Then the lion opened its mouth and swallowed me. The next thing I remember seeing was the lion spitting out another lion. That other lion was me. I felt the energy of the lion and roared with great authority. The power scared the people.'

The recorded experience of a modern Bushman shaman while in an altered state of consciousness may directly illuminate, by analogy, several three-dimensional images discovered in the Jura region, the mountainous borderland between Switzerland and France. They evidently served as pendants or amulets, and their form is therianthropic – with the bodies of humans and the heads of lions (*Fig. 15*). The material from which they were made is of an animal source – the tusk of a mammoth. At the risk of being over-fanciful, we might say that the images were 'spat out' from the mammoth.

A number of caves contain paintings or engravings that seem to show hybrids of humans and animals, or human figures with animal masks and attributes. At Chauvet, for example, there is depicted a composite creature made up of a bison's head and body, and a pair of human legs. Is this some kind of minotaur or, as the discoverers of the cave preferred to call it, a sorcerer? Abbé Breuil had used the same term for an antlered, furry figure with human legs and feet among the images in a recess of the cave complex known as Les Trois Frères, in the French Pyrenees. Since it is well documented that much shamanic practice worldwide expresses itself in just such animal guise, the temptation to suppose that shamans operated in Palaeolithic Europe is hard to resist.

Hard to resist, and hard to prove. Conceptually, however, shamanism offers a persuasive route towards the neuropsychological model. The image of a lion-man was fashioned because it had been vividly *imagined* during an altered state of consciousness. The onus is upon sceptics to produce a more plausible alternative explanation. So far, none has been forthcoming.

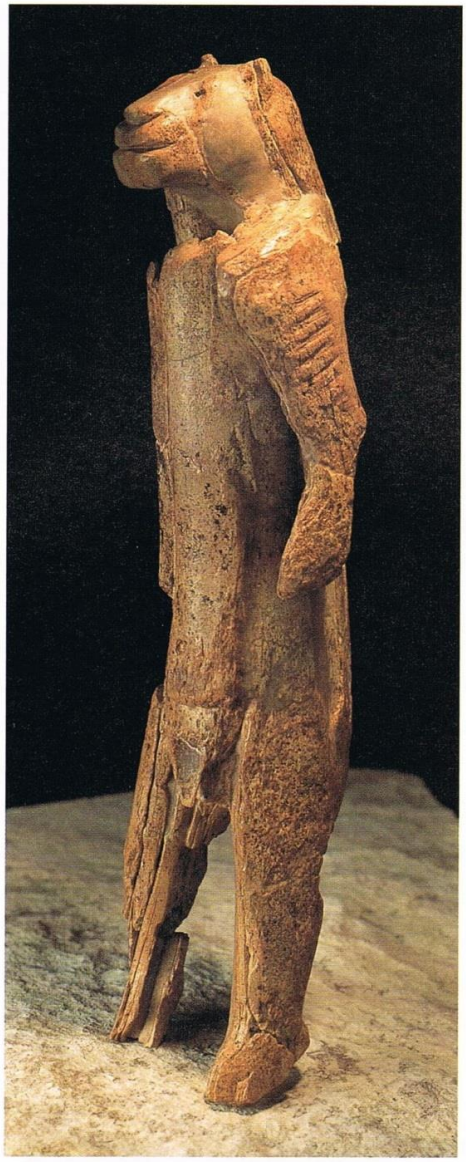
FROM ART TO AGRICULTURE

The cave-paintings at Altamira were once disbelieved because they seemed too 'early'. In turn, archaeologists who accepted the earliness of such cave-paintings were faced with a problem of succession. In Europe, at least, the practice of painting in caves apparently came to an end about 12,000 years ago. We know that the emergence, several thousand years later, of the great civilizations in Egypt, Mesopotamia and the Indus Valley, was accompanied by an increasing use of, even reliance upon, the symbolic resource of images: this book makes further reference to that process in due course (see, for example, page 61). But in the meantime, what happened to the human ability to create images?

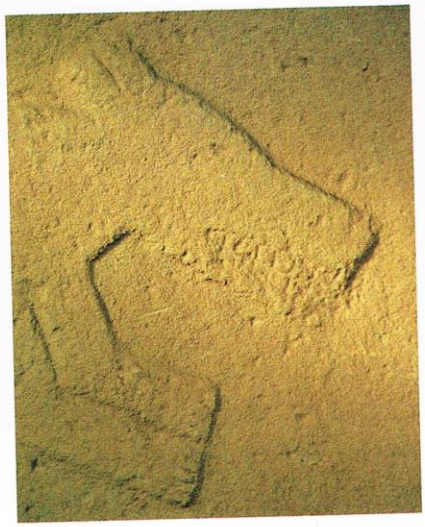
Until recently, there was no satisfactory answer to that question. It was possible, admittedly, to claim that in some parts of the world – notably Australia – the habits of representation that commenced about 40,000 years ago never lapsed. But this was impossible to prove. In terms of archaeologically stratified evidence, a definite gap existed, between the end of the Old Stone Age (the Palaeolithic) and the early phases of the New Stone Age (the Neolithic). Then a certain hilltop in southern Turkey disclosed its secret.

The Turkish-Kurdish town of Urfa (or Sanliurfa), near the Syrian border, is touristically billed as 'historic'. Here Abraham, the patriarch of the second millennium BC, venerated by Jews, Christians and Muslims alike, is supposed to have sojourned on his way from the city of Ur to the land of Canaan. But it now transpires that religious activity around Urfa pre-dates Abraham by thousands of years.

An archaeological survey in the 1960s observed in the hills around Urfa a particular site where several knolls of reddish earth arose from a limestone plateau. These knolls, and the rocky area nearby, were covered in the debris of flint-knapping – the flakes and chips of flint left by the prehistoric manufacture of tools and weapons. Some large man-made slabs of stone were also noticed, but assumed to be of much later date than the Neolithic debris. No further investigation was carried out until 1994, when Klaus Schmidt of the German Archaeological Institute visited the site and established that the knolls were not natural, but part of an artificial hill, heaped as a prominent mark in the local landscape. With experience of other sites in this ancient area of Upper Mesopotamia, Schmidt was immediately able to classify the site as a *tepe* or mound, datable to the early Neolithic phase before the use of ceramics (sometimes referred to as the Pre-Pottery



15 A lion-man statuette from Hohlestein-Stadel, south west Germany, c.32–30,000 BC, possibly used as a pendant or an amulet.



16 (top) Aerial view of a stone circle at Göbekli Tepe, Turkey, *c.* 9000 BC.

17 (above) Animal detail – probably a fox – from Göbekli Tepe.

Neolithic). He also suspected that the limestone slabs on this hill – henceforth known as Göbekli Tepe – belonged to some large prehistoric structure.

Digging into the mound not only confirmed Schmidt's intuitions, but revealed a dimension of Pre-Pottery Neolithic that no one expected.

The excavations at Göbekli Tepe are ongoing, with scope for more surprises. What has come to light so far is a series of walled enclosures, of which about 20 are built around massive stone pillars set in a circle (*Fig. 16*). Two separate pillars occupy the centres of these circles. Each of the pillars is fashioned out of solid rock into a T-shape about 7 metres (23 feet) tall. Rectangular carved doorways once provided marked or tunnelled access to the enclosures, and in the floor of one circle a small inset basin has been found, with an attached channel – possibly, as the excavator suggests, for the collection of blood. Food was consumed here, as indicated by many animal bones, but nowhere on the hillside are there signs of domestic habitation. So this was not, it seems, a place where people lived, but rather a special assembly point – some kind of sanctuary in the mountains that attracted people from a radius of settlements some 80 kilometres (50 miles) or further afield.

Like other prehistoric monuments, such as Stonehenge in Britain and the menhirs of France, Göbekli Tepe retains an enigmatic sense of unfathomed ritual significance. But not only is it much earlier than Stonehenge – by 7000 years – it is also much different in one key respect. The well-trimmed pillars of Göbekli Tepe are not just megaliths (big stones). They are *decorated* – embellished with images either engraved on to the surface or else picked out in shallow relief (*Fig. 17*).

It may come as no surprise that the principal subjects of this decoration are, once again, animals. Foxes and snakes dominate the repertoire, but gazelle, aurochs, wild boar, wild ass, cranes and a lion also feature. Spiders, too, are shown. In addition one block carries the image of a woman squatting in a sexual posture, though this may be of later date.

The pillars themselves appear schematically anthropomorphic or human-shaped, the shaft standing for legs and torso, the T-bar equating to shoulders and head. Carved arms are added to one of them, as if to confirm the intention. This in turn encourages the presumption that the images serve to harness forms of wildlife whose power belongs to these pillar-figures, or perhaps protects them. The foxes bare their teeth, the tusks of the boar are pronounced, and the snakes have been identified as venom-loaded vipers.

The possibility that the decoration of the pillars at Göbekli Tepe is shamanic has been seriously considered by the excavators. But, as they point out, the scale of structural enterprise at this site points to a society in which ritual was mediated not so much by shamans as by 'true priests'. The images, after all, were the ultimate phase, or finishing touches at least, to what had been a massive collective effort. At a small distance away from the main 'temple' area is the natural limestone amphitheatre from which the pillars were quarried. In the upper reaches of this quarry there is a marked cavity left by the removal of one T-shaped pillar much larger than any so far brought to light at the site; and right next to this space is a stone of similar size abandoned in a cracked and therefore unfinished state. Had it been successfully removed from the bedrock, it would have measured some 6 metres (20 feet), and weighed about 50 tonnes. To shift it across to the mound would have required the combined traction power of about 500 people.

Given that the mound itself is man-made, built from thousands of tonnes of earth and rock brought up from the plain below, we are bound to speculate that the measure of human organization required to build Göbekli Tepe was some way towards that required to build the Egyptian pyramids. Göbekli Tepe, in the words of its excavators, therefore stands at 'the dawn of a new world, a world with powerful rulers and a complex, stratified, hierarchical society'.

So this is a major revelation from current archaeology; and unlike the first 'reveal' of Altamira, it causes true wonder, not disbelief. And for those who like to regard art as an optional luxury in life, a pastime to be indulged only when the necessary business of survival and subsistence has been completed, Göbekli Tepe offers a particular challenge – with which we shall conclude.

For more than half a century, archaeologists have agreed that farming – the keeping of domesticated animals and the cultivation of crops – began in the Near East during the early Neolithic period, *c.* 9000 BC. Sheep and goats were the principal animals featuring in this agricultural revolution, while wheat and barley were the principal crops. Key sites providing evidence for animal enclosures and domesticated grains include Jarmo, in northern Iraq; Çatalhöyük, in western Turkey; and Jericho, in Palestine. The Jordan valley and the reaches of Upper Mesopotamia have also yielded specific clues regarding the transition from nomadic hunting and gathering to settled farming. The debate then arises about which came first: a demographic shift to settled communities, leading to a reliance

upon farming for food, or the intensive exploitation of certain livestock and cereals, leading to settled communities?

In the book of Genesis, the change occurs as a direct consequence of the expulsion of Adam and Eve from the Garden of Eden. The sons of Adam and Eve, Cain and Abel, are specified as a tiller of the soil and a shepherd respectively, fulfilling God's edict that mortals should henceforth survive 'by the sweat of their brow'. Göbekli Tepe raises an alternative possibility – that what instigated the first production of food was art.

About 30 kilometres (20 miles) south from Göbekli Tepe lies the Karacadag range. Research among these hills has shown that they are home to the closest wild relative of an early species of domesticated grain, einkorn wheat. The suggestion is that wild grain was brought from the Karacadag, and cultivated around Göbekli Tepe in order to feed all the hundreds of people building or simply frequenting the site.

So there is the momentous conclusion: that some 11,000 years ago imagery had become so powerful in the minds of human beings that it helped to bring about the greatest transformation in human history.