Excerpt from *Archaeology* by Kelly and Thomas

Bibliographic entry for this book:

Kelly, R. L., and D. H. Thomas. 2010. *Archaeology*. 5th edition. Belmont, CA: Wadsworth, Cengage Learning.

If you use this excerpt in a writing assignment, you can cite it within your text thus: (Kelly and Thomas 2010: 302-312).

Blueprints for an Archaeology of the Mind

Note that the two examples we have discussed so far share a couple of things. First, neither tries to interpret the exact meaning of the various symbols involved. Hall does not tell us what the raptors or other animals carved in stone on Hopewell pipes "mean." Neither do Burger and Miller attempt to explain what the jaguars, caimans, or crested eagles symbolized to those who participated in the religion and iconography of the central Andes some 2500 years ago.

Archaeologists simply cannot make the inferential leap from an ancient symbol to its past meaning based strictly on the symbol itself. Instead, we can only speak in general terms about what the symbols imply about a level of human interaction that is different from a purely material interaction with the environment.

Second, both examples rely upon solid ethnographic and ethnohistoric data. Hall's idea that Hopewell pipes were part of a peace pipe ritual was based on copious ethnographic data on such rituals among many eastern North American peoples. Likewise, Burger and Miller would have been hard pressed to generate a viable hypothesis to account for Chavín iconography without access to a rich historical and ethnographic record of the Andes Mountains.

Good researchers will always need to draw upon imagination to propose testable hypotheses. But ancient symbolic systems always pose the danger that imagination can run amok. Without some solid means to check the results of symbolic studies, archaeologists will always be in danger of what Kent Flannery and Joyce Marcus (University of Michigan) call "a bungee jump into the Land of Fantasy."

Likewise, Colin Renfrew (Cambridge University) warns of the pitfalls inherent in "new-age archaeology," insisting that cognitive archaeology proceed within the framework of acceptable scientific method. One must recognize that, at best, archaeology can capture only certain limited aspects of ancient ideas. Renfrew discourages attempts to reconstruct "worldviews" or "totalities of thought"—emphasizing the notable lack of success among ethnographers who have tried to do this (and they work with living people, whose totality of thought is very much intact).

Marcus and Flannery also suggest that cognitive archaeology can follow relatively rigorous methods, *provided ample historical and ethnographic documentation is available.* In fact, they warn that if such data are lacking, "far less success should be anticipated."

So, what do we do with truly ancient symbolic systems that have no such historically linked ethnographic data? Do we simply shrug our shoulders and turn to some other problem? To answer this question, let's examine how archaeologists have studied one of the earliest symbolic systems, Upper Paleolithic cave art of western Europe.

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Figure 12-6 Carved from reindeer antler, this bison probably served as the end of an atlatl and is an example of the artistic work that typifies the European Upper Paleolithic.

Upper Paleolithic Cave Art

You'll recall from Chapter 10 that the lineage that would eventually become *Homo sapiens* split from the rest of the primate lineage more than 5 million years ago. But the earliest evidence for artistic expression appears only in the last 90,000 years and does not become widespread until the last 40,000 years.

The **Upper Paleolithic** (40,000–12,000 BP) in Europe is distinguished by the appearance of a complex technology of stone, bone, and antler as well as wall art, portable art objects, and decorated tools—an example of which appears in Figure 12-6. Archaeologists sometimes call this an artistic "explosion," and the metaphor is appropriate. Only a handful of objects from the preceding 5 million years can be called art (and many of these may not be artifacts at all). But many, many Upper Paleolithic sites contain engraved, carved, or sculpted objects, and caves occupied by Upper Paleolithic peoples often contain wall paintings.

Cave paintings occur in 200 French caves, and still more are found in Spain. Much of the painting dates to the **Magdalenian** phase (18,000–12,000 BP). However, a new site, Grotte Chauvet, was discovered in France in 1994, and AMS radiocarbon dates on the paintings themselves (the black paint is charcoal, with fat or blood sometimes used as a binder) and some torch marks on the walls date to 26,000–32,000 BP.

Upper Paleolithic wall paintings have intrigued archaeologists for more than a century. More than simple line drawings, these are masterworks created by talented artisans who knew animal anatomy and behavior well. Careful shading shows the contours of animals' shoulders and haunches. Rutting stags lower their heads to bugle. Some animals may be pregnant. Many of the images were painted with brushes, and hand silhouettes by the hundreds cover some cave walls.

The paintings are deliberately dramatic. The artists understood the principles of perspective, and they sometimes employed the natural topography of cave walls to bring the animals to life. As you walk down one dark, narrow passage in the French cave of Lascaux, for example, two bulls appear to be running toward and to either side of you—a trick made possible by clever use of the cave's contours.

Upper Paleolithic paintings sometimes turn up in the most obscure places, difficult to locate even with modern equipment. The art is often found in the deepest

Upper Paleolithic The last major division of the Old World Paleolithic, beginning about 40,000 years ago and lasting until the end of the Pleistocene (ca. 10,000 years ago).

Magdalenian The last major culture of the European Upper Paleolithic period (ca. 18,000–12,000 BP); named after the rockshelter La Madeleine, in southwestern France. Magdalenian artisans crafted intricately carved tools of reindeer bone and antler; this was also the period during which Upper Paleolithic cave art in France and Spain reached its zenith.

recesses of caves, some at the very ends of passages, showing that a cave's entire passable extent was explored. Imagine entering one of these caves with only a reed torch or stone lamp burning tallow as your source of light. There are pits, pools, and rivers to avoid, narrow passageways to crawl through, and jutting rocks to duck under; and, remember, you have to find your way out again. At Lascaux, cave art even appears at the base of a deep pit. Not only does the descent into the darkness require a rope, but carbon dioxide accumulates at the pit's base, making breathing difficult.

Upper Paleolithic artisans clearly intended to place their art in places that were difficult to access. This remoteness strongly suggests a connection between the art and religious ritual, a suggestion supported by the occasional finds of bear teeth or ocher-covered flint blades stuffed into cracks in the cave walls, perhaps as offerings of some sort.

The content of the art is also intriguing. Human beings rarely appear, and when they do, they are poorly executed in comparison with the marvelous animal figures. Also, Upper Paleolithic art contains no actual "scenes." Although images often overlap, no one has identified a "story" or landscape. And whereas the cave art provides vivid evidence documenting the range of animals living in Ice Age Europe, certain animals are emphasized, especially horses, aurochs (wild cattle), bison, ibex, stags, and reindeer, with occasional mammoths, bears, rhinoceri, and large cats. The ancient artists sometimes painted some images on top of (or partially overlapping) previous paintings, suggesting that the act of making the art was more important than the final product.

What accounts for the particular forms that the art takes and the locations where these forms were painted?

Art or Magic?

Various nineteenth-century scholars viewed Upper Paleolithic cave art romantically, as an early expression of a growing human sense of beauty and perfection. This "art-for-art's-sake" perspective stressed what humans could accomplish in the leisure time that technology brings. So viewed, the animals had no particular meaning; they were simply artistic expressions of the things that people saw around them. The lack of scenes or stories in the art was taken as evidence that the artistic sense was in a rudimentary stage of development.

David Lewis-Williams (University of Witwatersrand, South Africa) points out the circularity in this approach: An innate aesthetic sense is inferred from beautiful art, and the presence of beautiful art is evidence of this innate sense. The art-for-art's-sake approach likewise fails to explain why the artists chose such remote locations. If art was something done in leisure time for public enjoyment, why decorate remote, dangerous reaches of caves?

Other anthropologists suggested that the cave art involves **sympathetic magic,** grounded in the principle that "like controls like." In the late nineteenth century, Salomon Reinach (1858–1932) proposed that the images were intended to promote the fertility of game animals, thus ensuring an abundant food supply for Upper Paleolithic hunters: If you draw pregnant animals, then the real animals will become pregnant and the food supply will be ensured. Abbé Henri Breuil (1877–1961) subsequently developed a similar line of thought, suggesting that the images were a form of sympathetic magic designed to guarantee the success of a hunt: If you kill the stylized animal on the wall, you will also kill the real animal out in the valley.

It is true that the artists drew some animals with spears thrust into them (although only a few may represent pregnant animals). But whereas bison and horse are the most frequently depicted animals, most of the food bones recovered from Upper Paleolithic caves in Europe are red deer and reindeer. If this art represents sympathetic magic, then it was not very successful.

The sympathetic magic interpretation assumes that the animals are literal and that they have no symbolic meaning. But other scholars view the Upper Paleolithic cave paintings as a structured code, drawing upon a theoretical paradigm known as **structuralism.** Briefly, structuralism argues that humans understand reality as paired oppositions. The concept of "life," for example, is meaningless without the opposite concept of "death." Likewise, the concept of "male" means nothing without the opposing concept of "female." From a structuralist perspective, culture—and its material expressions, such as art—is played out in terms of such paired oppositions. So viewed, the task of the archaeologist becomes discerning and interpreting these pairs of oppositions.

sympathetic magic Rituals in which doing something to an image of an object produces the desired effect in the real object.

structuralism A paradigm holding that human culture is the expression of unconscious modes of thought and reasoning, notably binary oppositions. Structuralism is most closely associated with the work of the French anthropologist Claude Levi-Strauss.

Following this paradigm, French archaeologists André Leroi-Gourhan (1911–1986) and Annette Laming-Emperaire (1917–1978) argued that Upper Paleolithic cave imagery contained binary oppositions that "stand for" male and female (although Laming-Emperaire backed away from this interpretation later in her life). Criticizing what she saw as simplistic, off-the-cuff interpretations, Laming-Emperaire advocated a more systematic approach to cave art. She sought to identify not merely the animals represented in the images, but also where in a cave particular images were found (the entrance, middle chambers, the rear), their positions (ceiling, wall, and so on), signs of use, archaeological remains, and associations among images. In other words, Laming-Emperaire did what a good archaeologist should do: She systematically analyzed both the contents and the contexts of the images.

It remained for Leroi-Gourhan to complete the work begun by Laming-Emperaire. Rejecting previous ethnographic analogies and earlier models of cognitive evolution, Leroi-Gourhan instead assumed that the minds of Upper Paleolithic people were every bit as complex as those of modern people. Based on systematic, quantitative data collected from 66 French caves, Leroi-Gourhan's maps suggested that the various cave elements clustered into four major set of images:

- Small herbivores (horse, ibex, stag, reindeer, and hind)
- Large herbivores (bison, auroch)
- Rare species (mammoth, deer, ibex)
- Dangerous animals (cat, bear, rhinoceros)

Working in the structuralist paradigm, Leroi-Gourhan associated the small herbivores with "maleness" and the large herbivores with "femaleness." He also defined two major groupings of abstract signs—a set of "narrow" symbols (such as rows of dots, arrow-like representations, and straight lines) that he believed were "male," and a second set of "wide" symbols (rectangles, upside-down Vs, and some curvilinear symbols) that he associated with "female." In this way, the abstract symbols and the animal portrayals were viewed as complementary.

Leroi-Gourhan then looked for patterning in the placement of images within cave settings. Dividing the caves into entrances, central areas, peripheral areas, and back areas, he discovered that stags (a male sign) tended to appear in cave entrances. Male signs and images (stags, horses, and ibex) were also in the peripheral areas, whereas dangerous animals and carnivores appeared mostly in the backs of the caves. The central areas contained both male and female signs (along with horses, bison, and aurochs).

To some, the presence of a male sign at the entrance might suggest that the caves were regarded as "male" places, a stag being the equivalent of an ancient "No women allowed" sign. But Leroi-Gourhan reversed the argument, suggesting instead that the caves were considered female (whether this means that only women or men entered the caves is unknown). Keep in mind that structuralism arrays the world into oppositions: If there is a male, there must be a female. Leroi-Gourhan pointed out that central areas contain male elements placed around female elements (with male elements also found in peripheral areas and at the entrance). Where is the female to balance the male? It must be the cave itself.

Armed with these inferences, Leroi-Gourhan could now interpret the "meaning" of the caves: This is where Upper Paleolithic people dealt with the oppositions and contradictions that, according to structuralist theory, are the inevitable consequence of human thought. Inside the caves, they used symbols drawn from the world of nature to create and communicate a cosmology that explained life's fundamental oppositions: male and female, nature and culture, human and supernatural, life and death.

But some empirical problems plague Leroi-Gourhan's analysis. Sometimes he used an image to determine whether a portion of a cave was "central" or "peripheral," and in others he reversed the process, assigning an indistinct painting to a particular species depending on where it was located. Both are instances of circular reasoning. And the associations that formed the baseline of his analysis have not held up as more caves are investigated. Eventually, his ideas collapsed under the very empirical standards that he had constructed; that's often how science progresses.

Of greater interest (at least today) are the ways in which Leroi-Gourhan interpreted the symbols. To pursue his structuralist paradigm, Leroi-Gourhan needed to define binary oppositions, the most prominent of which were male and female symbols. In so doing, he was required to jump from the symbol to its meaning. Because symbols take on meaning only from culture, there is always the danger that archaeologists will draw upon their own culture, rather than that of the ancient people who created the paintings. This was clearly a problem with Leroi-Gourhan's interpretation of abstract symbols of the Upper Paleolithic. Living in a world where Freudian psychology was popular, Leroi-Gourhan interpreted "narrow" and "wide" symbols as

representing male and female genitalia. We see here how a paradigm affects the way that we understand the world. It is unlikely that in a pre-Freudian world Leroi-Gourhan would have proposed that lines = penises and rectangles = vaginas.

How did Leroi-Gourhan attribute different animal species to men and women? Like most symbolic anthropologists, he looked for associations in the symbols, focusing on bison and horses. In a limited number of cave paintings and engravings, he found women depicted next to bison and men painted next to horses (although the interpretation of some figures as men or women is dubious, as is the contemporaneity of the juxtaposed images). There were also opposite associations—men with bison and women with horses—or ambiguous ones, such as men *and* women with bison *and* horses.

Recall that the same symbol can be employed in many different ways even in the same culture. Do the opposite or ambiguous associations suggest that Leroi-Gourhan is simply wrong—that bison do not really "stand for" female and horses do not "stand for" male—or are they plays on the symbolic meanings of bison and horses? Maybe the men with bison are berdaches (see Chapter 11), and the women with horses are what the Lakota called "manly-hearted women."

Or maybe this is all wrong. Maybe the bison and horses and other animals had different meanings in different caves at different times in the past. Maybe

the images are **totems,** symbols of different clans (as Laming-Emperaire eventually concluded).

That Leroi-Gourhan was influenced by Freud and structuralism does not automatically mean that his interpretation of the symbols in the paintings is wrong. The problem is that *we cannot assess whether he was right.*

The most secure way to go from symbols to their meanings is by using some historical or ethnographic information, as Burger and Miller did with Chavín art and Hall did with Hopewell platform pipes. But given that we lack any associated ethnographic data for the Upper Paleolithic, we must ask if there is anything we can do with this art other than admire its beauty and mystery.

Shamanism?

David Lewis-Williams offers an alternative explanation of Upper Paleolithic cave art that, although still speculative, is more firmly grounded in middle-level theory. In brief, Lewis-Williams argues that Upper Paleolithic cave art is evidence of shamanic trances. His explanation does not rely on an interpretation of the images' symbols, and he tries to explain multiple

totem A natural object, often an animal, from which a lineage or clan believes itself to be descended and/or with which lineage or clan members have special relations.

aspects of the art, including the particular abstract elements, as well as the locations of images in caves and their association with animal images.

Lewis-Williams begins by pointing out that virtually all hunting-and-gathering societies known to anthropology practice a form of religion that involves shamanism. **Shamans** are individuals (often men, but including women in some societies) who claim to be able to access supernatural powers, spirits, or deceased individuals and tap into the power and influence that they offer to the world of the living. They do this through trances, brought on by the use of psychotropic drugs or by fasting, dehydration, and sensory deprivation. Shamans culturally interpret the visions seen while in an altered state of consciousness as communication with the supernatural world.

The Lakota, for example, performed **vision quests** in which men would lie for days on a mountaintop until starvation, dehydration, and exposure brought about visions. These visions were a way for men to communicate with the supernatural world and locate their source of power. Africa's Ju/'hoansi used trances, sometimes brought on by hours of physically and emotionally draining dancing, as a way to contact the ghosts of deceased individuals and perform healing rituals on gravely ill members of the band.

After several decades of study, Lewis-Williams argues that much (though by no means all) of the world's hunting-and-gathering rock art is the result of shamanism. The art is a record of what a shaman saw while in a trance, a way to understand and interpret the meaning of the vision. How can Lewis-Williams say this? If anything is archaeologically inaccessible, it would seem to be what somebody saw in a trance thousands of years ago!

Lewis-Williams relies on cross-cultural psychological and neurological research to bolster his argument. According to this research, when individuals go into a trance, they go through three levels of consciousness, each with distinctive "visual" aspects. In the first stage, a person sees dots, grids, zigzags, nested curves (like rainbows), and meandering lines. These may flicker, vibrate, merge, and break apart. Known as entoptic (from the Greek word meaning "within vision") phenomena, these images appear even with your eyes closed because they are a product of the optical nervous system. Because they are a function of the brain's hard-wiring, and given that all people everywhere (and we assume in the past, too) have the same neurology, all people should see the same entoptic images. Lewis-Williams thus injects the important element of uniformitarianism, which you will recall is essential to middle-level theory.

In the second, deeper stage of trance, a person's mind tries to make sense of the entoptic images by converting them into forms that are culturally meaningful (meaning that the particular images become culturally biased). Just as a nineteenth-century Lakota might see horses with riders on them, teepees, mountains, and bison, the mind of an Upper Paleolithic shaman would convert abstract images into things familiar to that culture, including animals such as aurochs and reindeer.

Those slipping into the third and final stage of trance will sense that they are moving through a tunnel or a vortex, with entoptic images swirling around them and merging into culturally intelligible ones. Again, this experience seems to be universal, generated by human neurology.

Shamans in many hunting-and-gathering cultures talk about reaching the "other side" by moving through a hole or cave, an experience sometimes described as "dying." Upon reaching the third stage, a person is often unable to recognize any stimulus outside the visions. The images become more vivid, and although they may merge with one another and with abstract images, a person senses that they are nonetheless real. At this point, the person has entered an altered state of consciousness and no longer understands that he or she is viewing images, instead seeing the self as having become part of the image.

But does an understanding of the neurological basis of trance (and dreams) help us understand Upper Paleolithic rock art? Let's look at one especially well-known site that Lewis-Williams studied: the French cave of Lascaux.

shaman One who has the power to contact the spirit world through trance, possession, or visions. On the basis of this ability, the shaman invokes, manipulates, or coerces the power of the spirits for socially recognized ends—both good and ill.

vision quest A ritual in which an individual seeks visions through starvation, dehydration, and exposure; considered in some cultures to be a way to communicate with the supernatural world.

The Cave of Lascaux

Found by schoolboys in 1940, Lascaux is perhaps the most famous of all the European caves (see "Looking Closer: The Discovery of Lascaux"). The Paleolithic artists who painted the images inside Lascaux some 17,000 years ago would not recognize the outside of

LOOKING CLOSER

THE DISCOVERY OF LASCAUX

Like so many major archaeological discoveries, Lascaux was found by accident—in this case, by a dog. Lascaux is located in the beautiful Dordogne region of southern France, a limestone karst topography rich in caves and rockshelters, many of which our human ancestors inhabited. In the 1940s, this was a land of refugees, people fleeing the advancing German army. Life was hard and dangerous, but boys still found time to explore and look for buried treasure.

In early September of 1940, several boys were doing just that. The eldest was 18-year-old Marcel Ravidat (nicknamed "Jailbird" after a character in the novel *Les Miserables*). His dog, Robot, became lost, and the boys eventually found him in a shallow pit. Bending down to scoop up his dog, Ravidat felt cold air rising from a small hole in the pit's bottom.

The boys had heard rumors of a tunnel that connected a sixteenth-century manor house to the Montignac castle, a tunnel that locals said contained treasure (of course). Ravidat decided that the hole was an entrance to the tunnel, so he returned with three other boys—Simon Coencas, Georges Agniel, and Jacques Marsal—to explore it. Using improvised tools, they dug down, eventually breaking into a cavern. As their homemade paraffin lanterns lit the way, the boys crawled down a long pile of rubble. At the bottom, they found a pool of water surrounded by low gleaming white walls. They explored farther.

The boys, who thought they were in a tunnel, were stunned when they saw a vividly painted horse in the flickering lights. Holding their lights higher, they could see that the entire ceiling was painted. Reindeer, horses, a bear, and abstract markings covered the walls; bulls circled the ceiling. The boys just stood and stared. It was better than treasure.

They explored the cave over the next few days, finding more passages and images. Ravidat undertook the dangerous climb down into "the Well," where he found the now famous bird-man image. The boys guessed that the images were old, but they had no idea they were looking at some of the world's oldest art.

The boys informed their schoolteacher, who sent a message to Abbé Henri Breuil. Breuil was a priest and a scholar of Upper Paleolithic cave art. In fact, professionals acknowledged his expertise with the title "the Pope of Prehistory." He would later explore and document the art in Lascaux, which he called the "Sistine Chapel of Prehistory."

But with a war on there was little that could be done immediately. Breuil advised the boys to pitch camp near the cave's mouth and protect it. To their credit, the boys did exactly that. They faithfully guarded the cave, leading visitors through to prevent destruction and living in a conical log hut (after their tent burned down) heated by a woodstove through the winter of 1940–41.

But the war intensified. In the summer of 1942, Ravidat joined a resistance group, and Marsal was captured by the German army and sent to a labor camp. Coencas lost his parents, though he himself was saved by the French Red Cross. Agniel returned home to help support his parents.

And so Lascaux, the greatest of the French caves, sat until 1947, when work finally began again at the site. In 1948, it was opened to visitors, and Marsal became a guide. A ventilation system was installed in 1958, but by 1963, the steady stream of visitors had brought in more humidity and microorganisms than the system could handle, and a green fungus began to cover the paintings. The cave was closed to the public and remains closed to this day, although the fungus has been removed. Only a few people are allowed to visit the site each week, and the waiting list is several years long.

Fortunately, the French government constructed an astonishingly precise replica of the Hall of the Bulls only 200 meters from the real cave. Lascaux II opened to the public in 1983, and a reunion meeting there in 1986 brought the four friends together at the cave again.

Lascaux continues to figure prominently in analyses of Upper Paleolithic cave art, and its magnificence is enjoyed by the thousands who visit Lascaux II each year. And it all began with a lost dog.

the cave today. The schoolboys entered the cave through a sinkhole, then crawled down a long rubble-filled tunnel. Today, however, those lucky few who can enter Lascaux (it is closed to regular public visitations) walk through two airlock doors, then step into an antibacterial footbath (to remove any microbes brought from the outside), all the time listening to the hum of an expensive ventilation system designed to maintain the cave's humidity and preserve the paintings inside.

But the inside of the cave remains much as the Paleolithic artists left it. You first enter the Hall of the Bulls, whose ceiling sparkles with calcite (see the chapter's opening photo and Figure 12-7). You are struck immediately by the immense aurochs and horses, painted in red and black, that circle the roof; at 5 meters long, the bulls are the largest in all of European cave art. Smaller stags are present, some with many-tined antlers, as well as a bear. Many of the paintings take advantage of the cave's natural topography to accentuate a raised head or shoulders. One peculiar animal has two horns sprouting, unicorn-like, from its head. This painting is well executed, and Lewis-Williams suggests that the artist intended to create an ambivalent species.

A narrow natural ledge 5 to 6 feet above the floor seems to form a ground line for the animals (something rarely seen in Paleolithic art). But because the ledge is too narrow to stand on, the ancient artisans must have constructed platforms to reach the ceiling. Beneath these paintings is room for groups of people to have participated in rituals; whether they did so, however, is unknown.

Moving straight ahead, you enter the narrow Axial Gallery, which slopes more deeply into the earth. Many horses are on the walls here, with some aurochs and stags. Two of the horses have what appear to be spears or darts shooting toward them. A long line of black dots appear beneath a large stag in a bellowing posture; a horse faces the stag. Lewis-Williams sees these dots as evidence of the merging of abstract and representational images that occurs in trance.

Near the end of the Axial Gallery is one of the most intriguing images in Lascaux. Painted on a jutting piece of rock is a life-size image of a horse, upside-down and apparently falling through the air. This image is not entirely visible until you walk around the bulge in the wall, single file. Several flint blades, covered in ochre and jammed into a crack, were found near this horse image. Walking around the "falling" horse, you encounter another horse, this one upright, and then the end of the passage.

Retracing your steps, you move back through the Hall of the Bulls and to the left. Passing through a low opening, you enter the Passage—this one longer than the Axial Gallery. The original opening was even smaller than it is today, and Upper Paleolithic artisans had to crawl through it.

In the Passage, the walls bear no calcite and the stone is softer. More horses and bulls are painted and engraved on the walls, although they are not as well preserved as in other parts of the cave. Images are piled up on top of one another, and the art here seems to be less "composed" than in the Axial Gallery and the Hall of the Bulls.

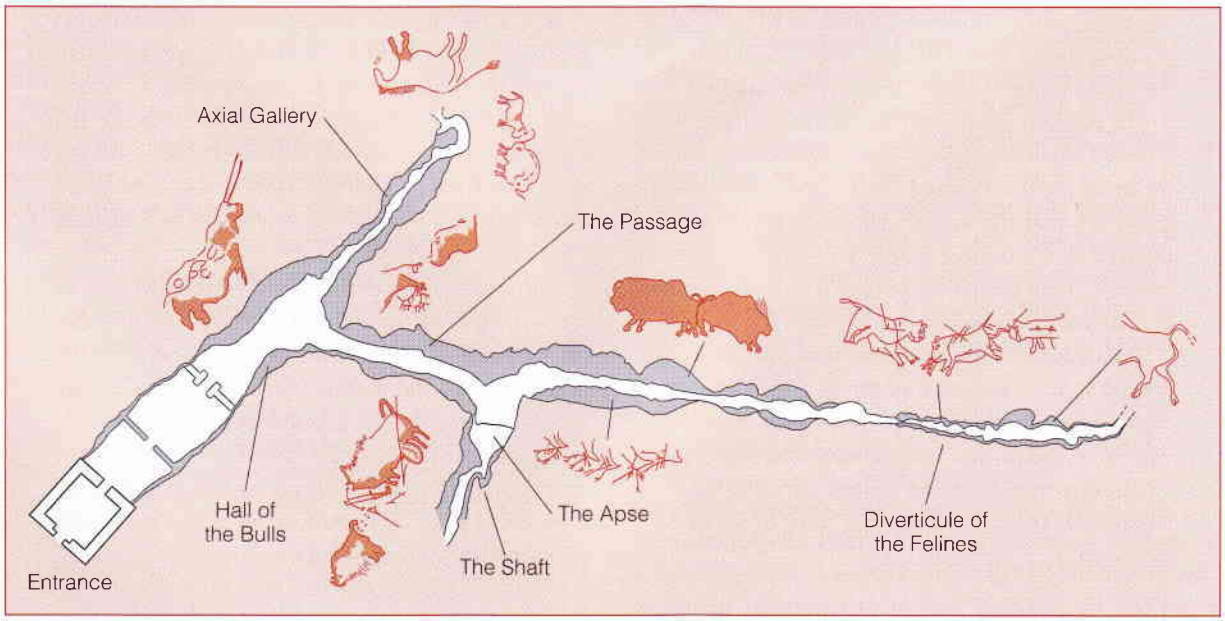

Figure 12-7 Map of Lascaux.

About 15 meters down the Passage, you encounter the Apse on your right, a small domed chamber with walls covered in engravings and a few paintings. Many different species are present—horses, bison, aurochs, ibex, deer, and perhaps even a wolf and lion. These images also overlay one another, producing a confusing jumble. Many engraved lines cut through the images.

Figure 12-8 Bison and "falling man" in Lascaux. It is not known if these images were painted at the same time (as a "scene") or at different times.

Behind the Apse is the "Shaft" or "Well," a 5-meter-deep pit. Stone lamps were found at the bottom—turned upside down, as if the users meant to extinguish them. At the bottom of the pit is one of the oddest images of Upper Paleolithic art, which we show in Figure 12-8: A bison, its head lowered in defensive posture, appears to have a spear through the body. Some interpret the lines emanating from its belly to be entrails. In front of the bison is a stick figure of a man, his penis apparently erect, who appears to be falling backward from the bison's blow. The figure only has four fingers, however, and his head looks more like that of a bird. Beneath the man is a long vertical line, with what appears to be a bird perched on its top. The meaning of this image is the source of endless speculation.

Climbing out of the Shaft, you return to the Passage and continue moving down its length. The walls contain more images for the next 15 meters or so, and then the images cease as the passage narrows and the ceiling drops. You encounter the two charging bison that we mentioned previously—the ones that appear to be running toward and around you. After dropping to your knees and crawling along the cave floor, you encounter the Diverticule of the Felines, with its soft clay walls. If you are a small person, you are crouching; a larger person might be lying on his stomach.

Here there are aurochs and horses and bison, but also large cats—panthers or cave lions. Spears pierce some, others are cut by lines or geometric markings, or they have lines emanating from their mouths and anuses. The images are well composed but seem to have been more hastily engraved than others in the cave. This section of the cave was perhaps rarely visited because otherwise its soft clay walls would not have survived so well.

What Does All This Mean?

Leaving Lascaux, you might turn to look at the Hall of the Bulls one last time, trying to imagine how the scene would appear in the flickering light of a stone lamp. Something significant obviously transpired in these dark places. The aurochs, bison, and horses painted on Lascaux's walls and ceilings were not the fleeting whimsy of a Paleolithic artist. The same images appear in many caves and were used over thousands of years.

We do not know the specific meanings of these world-famous images (and, in truth, we probably never will). Lewis-Williams thinks that this art is somehow related to altered states of consciousness, but the images themselves could not, of course, have been produced while the artist was in a trance state because one would need to be fully conscious to mix the paints, negotiate the cave's twists and turns with a stone lamp, and build scaffolding where needed. But Lewis-Williams thinks that the paintings at Lascaux and elsewhere provide firm evidence of Upper Paleolithic people trying to come to terms with understanding the meaning of altered states of consciousness—dreams and trances.

He sees the larger chambers, like the Hall of the Bulls, as places where communal rituals may have taken place, with people seeking assistance from a spirit world that existed belowground. Although the floor of Lascaux was damaged before it was investigated, the floors at Grotte Chauvet contain many human footprints, some 25,000 or more years old.

Some of the prints are big and some are small, telling us that people of all ages visited even remote portions of this cave.

Lewis-Williams also suggests that the distribution of art within a cave may parallel the stages of trances. In the front chamber are animals that figured in the lives of Upper Paleolithic people. Here, too, we find some abstract signs—the rectangles, wavy lines, and rows of dots that appear in the early stages of trance. Deeper inside the cave, the narrowing passageway mimics the movement into the deeper states of trance. Lewis-Williams suggests that the falling horse at the end of the Axial Gallery is not falling at all, but it is instead an artist's representation of the vortex that one senses in the deeper stages of trance.

Farther into the cave, we see "confused" images, such as those in the Apse and the Diverticule of the Felines. These, Lewis-Williams suggests, may represent the merging of abstract and natural images in the deepest stage of trance or efforts by one shaman to bond with the power of another by drawing an image over that drawn by another shaman. Although rare in Upper Paleolithic art (and absent at Lascaux), occasional animal images take on human characteristics. They walk on two feet, sometimes hold their front legs in a human way, or turn to stare at the observer with an eerily human gaze. These might record instances where observers entered the deepest stage of trance and were unable to see the difference between themselves and animals.

Lewis-Williams suggests that vision quests may have been held in the deepest cave recesses. Without food or water, the total darkness and silence of a cave is a perfect medium for the production of visions. Perhaps people of the Upper Paleolithic saw caves as one place to access the spirit world.

Recall that some images make use of the bumps and contours of a cave's wall; Lewis-Williams believes this is more than a clever artistic trick. Shamans in hunting-and-gathering cultures often speak of a strong yet permeable membrane between themselves and the spirit world. Lewis-Williams suggests that the nature of trance would have suggested that portions of the spirit world lie belowground. By mimicking the vortex of trance, caves are the closest a person could come to the spirit world; the rest of the journey had to be made through trance. If the cave wall is the membrane between this world and the spirit world, then paintings and engravings were perhaps ways to access that spirit world. By using the cave's contours, the artist makes the painting more a part of the cave wall itself and, in so doing, increases its power. The flints, teeth, and bones left shoved into cracks may also have been similar efforts to break through the membrane and contact the spirit world.

In sum, Lewis-Williams argues that Upper Paleolithic art is not art for art's sake; nor is it fertility or hunting magic. Instead, he argues that the art reflects humanity's effort to come to grips with the perception that their quotidian existence was not all that there was, to answer the question "What is the meaning of life?" And that fact gives us, the denizens of the twenty-first century, a strong link to the artisans who painted bulls on the ceiling of a cave by torch light thousands of years ago.

Conclusion

An archaeology of the mind attempts to move beyond the more easily accessible matters of diet and settlement patterns to religion, ritual, and cosmology. People respond to their world through culture, an integrated set of symbolic meanings that are communicated through material culture. But given that there is no necessary link between symbols and their meanings, the development of reliable middle-level theory is almost impossible, and so this crucial area of human behavior often eludes archaeologists. Successful efforts rely upon historically linked ethnographic analogies, but these are limited to the more recent prehistory of regions with good ethnographic data. More ancient symbolic systems must be studied in ways that make use of uniformitarian elements of human neurology or perhaps a few symbolic universals (though these remain to be demonstrated).

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FIFTH EDITION

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Archaeology, Fifth Edition
Robert L. Kelly / David Hurst Thomas

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Cover Images: Kenneth Garrett/Getty Images (mask), Getty Images (background)
Compositor: Graphic World Inc.

Library of Congress Control Number: 2008936192

ISBN-13: 978-0-495-60291-0

ISBN-10: 0-495-60291-4

Wadsworth
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Printed in the United States of America
1 2 3 4 5 6 7 13 12 11 10 09