

How Art Made the World Episode 2: *The Day Pictures Were Born*

The ability to read images is an essential part of our lives.



We live in a highly complex world, one that requires many different skills and abilities to make our way through it. One of these skills is to look at lines and shapes that we see around us and give meaning to them. This ability to read images is an essential part of our lives. If we didn't have it, life, as we know it, would be impossible; our world would be unrecognizable. But at some point in our ancient past, that's what the world was like — imageless. And then something changed. At some point in our human history, probably about 35,000 years ago, we began to create pictures and to understand what they meant. Archeologists call this period the "creative explosion." But why did people suddenly decide to start creating images of the world around them?

The discovery of the prehistoric cave paintings of Altamira gave 19th century experts a clue to this question—they first theorized the obvious - prehistoric humans painted simply to represent the world around them. But that was not a real answer, for these early artists only seemed to paint one thing—animals. And they painted their pictures in dark caves, too, well away from the eyes of admirers.

DISCOVERY OF ALTAMIRA



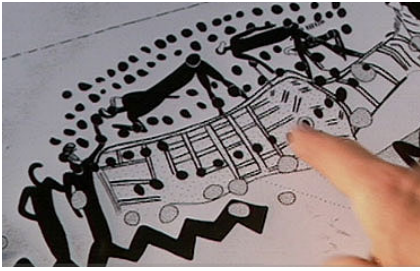
In the autumn of 1879, Spanish nobleman and amateur archeologist Marcelino Sanz de Sautuola and his young daughter, Maria, set out to explore a cave in the hillside of Altamira, not far from the family estate in northern Spain. As a gentleman scholar, De Sautuola took a serious interest in finding out more about the prehistoric past.

Like other archaeologists of the day, he assumed the ancient people who once sheltered in this area where little more than savages, hardly better than apes and certainly incapable of any kind of achievement. One day while De Sautuola was digging in the earthen floor of the cave, hoping to discover some prehistoric bones or tools, young Maria wondered off to explore on her own. It was not long before she cried out, "Papa. Look, oxen!"

She didn't realize it at the time, but Maria had just become the first modern human to set eyes on the first gallery of prehistoric paintings ever to be discovered. "I was overcome with amazement," De Sautuola wrote, "What I saw made me so excited I could hardly speak." When De Sautuola came over to see what she was looking at, he saw a ceiling dominated with dozens of paintings...but they were not of "oxen"—they were aurochs, a species of ox that had long been extinct.



THE SAN PEOPLE OF SOUTH AFRICA



Hidden high in the crags of the Drakensburg Mountains of South Africa are images on rock walls uncannily like the European cave paintings. They too feature animals and hunting scenes, but unlike the European paintings, they aren't thousands of years old. They were painted just a couple of hundred years ago.

Written accounts of interviews of San bushman from the late 19th century indicated the paintings were not just pictures of everyday life, but they were about spiritual experiences in a trance state, a type of altered state of consciousness. There is also one inexplicable feature shared by both the San and European paintings: abstract patterns overlying the image. Scientists who study altered states of consciousness tell us that the brain creates these kinds of patterns—lines, dots, grids, etc—during trance state because the brain is hard-wired to see them.

ALTERED STATES OF CONSCIOUSNESS



So what makes people separated in time and geography create the same strange patterns? The answer may lie not in the art, but in the brains of the artists. Dr. Dominic Ffytch of the Institute of Psychiatry in London treats people with a rare type of visual disorder. His patients have reported seeing peculiar shapes and patterns appearing before their eyes. But according to Dr. Ffytch, they don't have a problem with their eyes, but rather the part of their brain that deals with vision.

To investigate this condition, he designed a special apparatus that stimulates the visual part of the brain. With eyes closed, the patient wears a pair of goggles equipped with light emitting diodes. The goggles are hooked to a computer that regulates the number of flashes experienced per second. The flashes induce patterns that the patient "sees" even with their eyes closed. Paradoxically, Ffytch explains, you can duplicate the same phenomena when too little information gets into the visual system. So if an artist goes into a cave with no source of light, they just might start seeing these patterns too.

Scientists who study altered states of consciousness theorize that the answer lies in the hard-wiring of the brain. People didn't just one day decide to invent making pictures. Rather, prehistoric artists may have been experiencing sensory deprivation deep within their caves—in a sort of trance state—resulting in powerful hallucinations. These hallucinations were of such powerful emotional importance they felt compelled to paint them on the walls. According to this theory, these artists were simply nailing down their visions.



Mysterious patterns, marks and symbols found deep within prehistoric caves

