

AN ANT AT THE PICNIC

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You might consider me an ant at the picnic.

Because I have written books on evolution, urban anthropology, and the relationship between science and art -- our gracious chairman, Don Reynolds, kindly invited me to speak about the "permanent monuments" or artworks that he supposed early humans must have created to commemorate their core interests in caring, love, reparation, and altruism. Because Don has a sincere and deep-rooted spiritual and optimistic nature about our species, he assumes that these concerns must have been primal and evident in humans' earliest art.

Unfortunately, I had to tell him that a talk about early artworks that celebrate caring and sharing would have to be extremely short. Because, as far we know, there aren't any! They just don't seem to exist. In fact, I can't even imagine what such prehistoric artworks might be like if they *did* exist. Can you?

So, like the proverbial ant at the picnic, I have come here for a free lunch without being able to contribute any physical or artistic evidence of what a nobly motivated and altruistic creature we have been from before the dawn of history.

Nevertheless, if we look at the earliest artistic "monuments" we do know about, there are some mighty beautiful and interesting works to ponder. Unfortunately, they celebrate not heroic altruism, but hunting, killing, magic, and sex.

There are, for example, the remarkable caves in France and Spain whose walls are decorated with the classic Paleolithic paintings of animals. In the famous Lascaux cave, whose artworks date back to 17,000 years, we see reindeer, wild horses, mammoths, aurochs or bulls, and an occasional woolly rhinoceros. Even more rarely, we see a human figure -- usually a hunter or what we imagine might be a shaman or sorcerer. If there is any love depicted there, it is in awe and admiration for the animals that surrounded the artists, and on which they depended for food and other essentials for survival. There is no lack of evidence that they had a passionate love for nature's creatures, which elicited all this remarkable and strenuous creativity.

amateur speleologists discovered a previously unknown cave decorated with spectacular Ice Age art. Although southeastern France is world-famous for its Paleolithic caves, this one proved to be unique in many ways.

Among the 400 paintings of animals at Chauvet Cave are images of such predators as leopards, hyenas, bears, an owl, and many lions, all of which were rare or previously unknown in Paleolithic cave art. Lions are especially prominent -- extinct European lions that were three times the size of their modern African cousins. Moreover, when modern methods of chronometric dating were applied to the pigments and charcoals, researchers were amazed to find that the oldest drawings are 32,000 years old, and the mere 17,000 years ago.) In other words, people went back to the same caves to do more animal drawings some 5,000 years after they had made the first ones. Do you suppose that anyone will attempt to return to the Louvre 4500 years from now to paint another Mona Lisa?

For untold thousands of years, our ancestors' art reflected their fascination with the natural world around them. Their animal drawings, painted in the dark caves, could only have been made so skillfully if they had constantly practiced in daylight with their subjects before them -- so sophisticated and well-observed are these pictures.

Another very early theme we find among Ice Age people are what have been called "portable Venuses" -- little bone or stone carved figures of women, usually corpulent and with exaggerated sexual characteristics, particularly very large breasts.

Thus, I'm sorry to report, Don, that the artistic legacy from our remote ancestors is all about hunting animals, sex and fertility-- and possibly about the magic rituals based on them. Sorry, no caring and sharing. More reminiscent of a suburban "man cave" with stuffed deer heads or paintings of fox hunts adorning the walls-- and perhaps a scattering of breast fetish magazines strewn around the room.

If there was profound love and sharing, it was nature and the animals that were clearly a shared passion for these people. According to the rock art expert Jean Clottes, "Most of the animals were recognizable as to species and sometimes even as to sex or behavior. Contrary to what can be seen in most painted caves, they seemed to be grouped into compositions." Two male rhinos seemed to be fighting; lions seemed to be courting or stalking bison. Overcome with emotion on first viewing them, Clottes "felt a deep and clear certainty that there was the work of one of the great masters, a Leonardo da Vinci of the Ice Age revealed to us for the first time. It was both humbling and exhilarating, underlining the immensity of our ignorance."

In October, 2000, when I was an editor at Natural History magazine, I asked Monsieur Clottes to escort through the cave Craig Packer, an expert on lions from the University of Chicago. He had managed the Serengeti Lion Project in Kenya, and was eager to examine the wall paintings from the point of view of a field zoologist. European lions, which became extinct about 12,000 years ago, were maneless and larger than their modern African counterparts, but Packer immediately recognized typical lion behavior in the Paleolithic sketches.

Modern male African lions, for instance, adopt a posture of hunkering down to the smaller female's height and walking closely alongside her during courtship -- a behavior clearly recorded in a Chauvet drawing. Paintings also show lions lined up as they watch a herd of bison or react to threats "Anyone who has spent time

studying and photographing African lions will be stunned by the cave artists' accomplishments in observing and recording the behavior of the big cats," Packer told me, "For the ancient artists to have made these [closeup] observations, the lions must have been very relaxed in their presence. . . . We can be sure [the artists] had courage and patience as well as a degree of curiosity that rivals that of the best naturalists of our own era."

Paleolithic art seems to support the crude and inaccurate characterization of Darwinian evolution as simple "survival of the fittest," a perpetual warfare of every individual against every other individual of its own and other species. During the era of industrial robber barons, militarism, *laissez-faire* economics and colonial exploitation, Social Darwinism became a handy excuse for ruthlessness. In the words of the Russian anarchist and naturalist, Prince Peter Kropotkin, ideologues twisted Charles Darwin's conception of nature into:

"a world of perpetual struggle among half-starved individuals, thirsting for one another's blood. They made . . . *woe to the vanquished* . . . the last word of modern biology . . . [and] raised the "pitiless" struggle for personal advantages to the height of a biological principle which man must submit to as well"

Born a prince in pre-Revolutionary Russia, Kropotkin railed against the social order that gave him hereditary privileges. After holding a variety of diplomatic and military posts as a young man, he became a writer-philosopher and, in later years, turned his full energies to overthrowing his country's rigidly stratified social system.

His early work took him to Siberia, where he became convinced that—even in such a cold, harsh environment, where one might expect competition to be keenest—survival depended more on cooperation than on competition. He observed horses forming defensive circles to resist wolf attacks, the cooperative hunting strategies of the wolves themselves, and social colonies of insects and birds.

In 1902, Kropotkin published a remarkable book, *Mutual Aid*, which was his corrective to the popular view of a "struggle for existence." Kropotkin spent years building his case for the survival value of compassion, nurturing and altruism. But it was not until almost 70 years later, with the rise of sociobiology, that the role of altruism in evolution became the new banner of evolutionary biology.

Kropotkin clearly saw the implications for human politics and eugenics programs as well. He criticized Darwin's remarks in the *Descent of Man* (1871) about the "alleged inconveniences" of maintaining what Darwin called the "weak in mind and body" in civilized society. Darwin seemed to think advanced societies were burdened with too many "unfit" individuals, Kropotkin scolded, "as if thousands of weak-bodied and infirm poets, scientists, inventors, and reformers, together with other thousands of so-called 'fools' . . . were not the most precious weapons used by humanity in its struggle for existence by intellectual and moral arms." It was Darwin himself, said Kropotkin, who had shown that "sociability" conferred an important evolutionary advantage.

As he grew older, Kropotkin became an anarchist-nihilist, doing everything he could to undermine a social system he saw as unjust, inhumane and “unnatural.” If the corrupt political and economic institutions could be dismantled, he thought, mankind would return to its more “natural” state of harmony and cooperation. We all know the dire

realm of science, as I've chronicled extensively in my underappreciated masterpiece "Darwin's Universe: Evolution from A to Z," (which took me fifteen years to create and is now available for a ridiculously low price on Amazon.) In that book, I have noted, for instance, that one of the most popular science fads has been the shift from the nineteenth century's application of "survival of the fittest" to everything from selfish genes to politics and economics to the mid-twentieth century's preoccupation with the evolutionary advantages of social support, energy budgets, kin selection and reciprocal altruism.

E. O. Wilson, the famed Harvard expert on ants, made a huge impact thirty years ago with his books on Sociobiology, including the key idea that sociality and altruism are not necessarily learned or invented, but hard-wired in our genes. It became a theme, a credo, an impassioned belief that biology supports our highest ideals of love and caring and sharing.

Of course, just before Hitler's rise to power in Germany, students were taught by Ernst Haeckel, its foremost Darwinian evolutionist, that biology's most important creative force is the perpetual struggle for survival. Haeckel even lectured that some human races were superior to others, and that his students and readers should learn to stifle their "weak" and misguided sympathy and compassion, and instead cultivate the will to exterminate inferior races. In German, Darwin's term for the "struggle for existence" or "battle for survival" is translated as *kampf*, as in the title of a bit of light reading known as *Mein Kampf*.

A few months ago, however, Professor Wilson stunned his fans and admirers by stating that he no longer believed that "reciprocal altruism" was a scientifically valid theory. After going over the mathematics of the model with geneticists and statisticians, he announced that when you "do the math," the numbers just do not crunch properly. Evolution, he belatedly concluded, cannot work that way.

Undoubtedly, it was honest of Wilson to announce this unpopular about-face, despite cries from his fans of "Say it ain't so, E. O." But why not admit that the theory was wrong – although I do wish he also added that its success was based mainly on well-intentioned wishes and aspirations, rather than good science. After all, there was no liability to Wilson. His reversal and disavowal of the doctrine for which he had become famous could not harm his scientific credibility one whit, nor will he be asked to return the big bucks he made by promoting inclusive fitness and reciprocal altruism as the keys to evolution.

What is the lesson here? It is that in science, it's perfectly permissible to build a lucrative career promoting a false or flawed theory, and then announce one day that it was all a pile of crap – and there will be no penalty. In fact, you will be praised for demonstrating, once again, that scientists can take pride for adhering to a marvelously "self-correcting method."

As a postscript, I may add that in anthropology, in the mid-sixties when I was in graduate school, an energetic and charismatic professor "discovered" an ancient

jawbone languishing in a lab drawer, and announced that he had found the pre-human ancestor that all paleoanthropologists had been seeking. He tirelessly promoted this ancestral candidate as the Holy Grail in hundreds of lectures that assured his rapid rise in the field. Then, about twenty-five years later, he publicly announced that he had been championing an erroneous conclusion. Other bits of bone from other drawers disproved well-publicized conclusions; one of his doctoral students wrote a famous article on our little ancestor's social behavior and communications systems. But by the time of his recantation, our man had achieved an unassailable, tenured niche in the academic pantheon.

In the peace and love sixties, there was also the case of the Near Eastern Neanderthal "flower children," who, during Paleolithic times, had buried their dead in graves strewn with flowers. Years later, it was found that all the impressive deposits of pollen around the old bones was probably imported there by a local species of burrowing rodent that likes to hoard flowers.

Another classic case, which made the cover of National Geographic magazine, was the discovery of the peaceful Tasaday tribe of the Philippines, who were so completely non-aggressive that they had no words for "aggression" or "war" in their language. Instantly, they achieved wide acceptance by social scientists and mass media alike as the "natural" state of humans-- free of conflict but full of gentle caring and sharing behavior. Sadly, the Tasaday was a tribe that never was ---a deliberate hoax by a corrupt politician who bribed local farmers to run around naked to fool the anthropologists and people with cameras and money.

So where does all this leave us in our quest for the nature of humans? With all our recent studies and scientific fads, we can do no better than go back to the wisdom of the eighteenth-century poet Alexander Pope, who in 1734 published his *Essay on Man*:

Placed on this isthmus of a middle state,
 A Being darkly wise, and rudely great:
 With too much knowledge for the Sceptic side,
 With too much weakness for the Stoic's pride,
 He hangs between; in doubt to act, or rest;
 In doubt to deem himself a God, or Beast;
 In doubt his mind and body to prefer;
 Born but to die, and reas'ning but to err;
 Whether he thinks too little, or too much;
 Chaos of Thought and Passion, all confus'd;
 Still by himself, abus'd or disabus'd;
 Created half to rise and half to fall;
 Great Lord of all things, yet a prey to all,
 Sole judge of truth, in endless error hurl'd;
 The glory, jest and riddle of the world.

Well, now that I've ruined your picnic of caring and sharing, Don, I guess it's time for lunch.