

30,000 Years Ago: The Way the World was Then A personal view¹

Jean M. Auel
Portland, Oregon 97201

Abstract: *The author describes how she became interested in the Paleolithic. Having seen numerous important Paleolithic sites and original finds, she creates her personal view, how the world may have looked some 30,000 years ago and she illustrates, how she describes this world in the books of her 'Earth's Children'® series. One important topic is the question, in which way the Neanderthals differed from Anatomically Modern Humans and why, finally, only modern humans survived.*

Keywords: *Paleolithic, Neanderthals, Anatomically Modern Humans, Scientific Fiction*

Vor 30.000 Jahren: Wie die Welt damals war. Eine persönliche Betrachtung

Zusammenfassung: Bei dem Beitrag handelt es sich um die Textversion eines öffentlichen Vortrages, den Jean Auel am 20.10.2003 auf Schloss Hohentübingen gehalten hat. Die Autorin beschreibt, wie sie nach ihrer Heirat und ihrem Abschluss in Betriebswirtschaft (MBA = Master of Business Administration) dazu kam, sich mit der Altsteinzeit zu befassen und sie schildert, wie ihre Recherchen in ihren Romanzyklus 'Earth's Children'® eingehen, der in Deutschland unter dem Titel 'Die Kinder der Erde' veröffentlicht ist. In mehreren Jahrzehnten hat sie zahlreiche bedeutende altsteinzeitliche Fundplätze besichtigt, Originalfunde gesehen, selber an einer Grabung teilgenommen, und sie besucht regelmäßig archäologische Fachkongresse. Hauptperson ihrer Bücher ist Ayla, im ersten Buch der Serie noch ein junges Cro Magnon-Mädchen, dessen Heranwachsen und Heranreifen und die Abenteuer, die sie dabei erlebt, in der Buchreihe vor dem Hintergrund archäologisch gesicherter Fakten und Details geschildert werden. Ein wichtiger Punkt, der thematisiert wird, ist die Frage, in welcher Weise sich Neandertaler und anatomisch moderne Menschen voneinander unterscheiden und warum am Ende nur die modernen Menschen überlebt haben. Es entsteht so die persönliche Sicht der Autorin, wie die Welt im Jungpaläolithikum vor 30.000 Jahren ausgesehen haben könnte.

Schlagwörter: Paläolithikum, Neandertaler, Anatomisch Moderne Menschen, Wissenschaftsfiktion

I am always delighted to see the wonderful ancient artifacts and sites of prehistory, and I have seen many of them while researching my 'Earth's Children'® series. In fact, many of the places mentioned in the books actually existed, and still do, but they have changed in 30,000 years. Some of the sheltering overhangs in cliffs and the mouths of some caves have collapsed since then; Mother Earth can get a little restless sometimes. But it is a wonderful escape from the tensions of the modern world to go back in time, perhaps some 30,000 years ago, and think about the way the world was then.

Why did I decide to write about a time so long ago? That is a question I am often asked. Writing novels is challenging and fun, but it wasn't something I planned to do. As is probably true for most people of my age, life has taken some twists and turns that were totally unexpected; but I suppose, it's what you do with unanticipated changes, and a little luck, that can make the difference. I'd like to tell you a little about my life just to illustrate what can happen.

I was born in Chicago, the second of five children. My grandparents were Finnish immigrants and my parents were born on farms in northern Michigan and met in Chicago

¹ Written version of a public lecture held by Jean Auel in Hohentübingen Castle, October 20, 2003. © Copyright Jean Auel.

when they moved to the big city to find work. They were intelligent, but they were working people. Advanced education was never stressed. My mother's goal for me was the same as that of most mothers of teen-age daughters in the 1950s: get married and have children. In truth, it disturbed her when I turned out to be a bookworm who was always reading, and then learned typing and shorthand so I could have a career as a secretary. That was a bit too independent for the 1950s.

But, in 1954, shortly after graduation from high school, I did get married. I was 18 years old. My husband, Ray, was 19 – we will soon be celebrating our 50th wedding anniversary. He was in the Air Force – it was the Korean War then. In 1956, when he was discharged, we decided to make a start in a new place, and with one child and expecting another, we moved to Oregon.

Ray went to college on the GI Bill – funds made available to veterans by the Government for education – and worked full-time to support a growing family. I worked at temporary and part-time clerical jobs to help out, and had more children – five before my 25th birthday. I now have 15 grandchildren and two great grandchildren.

My world was rather limited in those days. I needed more than children and house to engage my mind. I always loved fiction, but I began reading more extensively, often my husband's text books – psychology, history, philosophy, science – not following any class plan, but out of interest and a desire to learn, and when I was 28, in the early 1960s, 'the times, they were a-changing'.

I decided it was my turn for more education, and what I decided to study was physics. Why physics? I already knew that I could learn from reading. I decided that if I was going to go to school, I wanted to learn something I didn't know, and I didn't know how things worked, that wasn't part of what women learned when I was growing up. I defined physics as the science of how things work; to learn physics, I needed math.

But a large family has large expenses, so I got a full-time job in the billing department at an electronics company, Tektronix, and began evening classes in algebra. That set a pattern for the next 12 years. Eventually, I came to realize, that one doesn't become a physicist going to night school.

But after several years of algebra, trigonometry, analytical geometry, differential and integral calculus, differential equations, physics, electronics, I also learned that one can overcome a culturally-informed aversion to math and science and along the way gain enough confidence to begin applying for higher-paying technical jobs within the company.

I first transferred to marketing as a statistical typist, then to a beginning position in engineering, designing printed circuit boards. That was something everyone had to learn on the job, there were no schools to teach it, as it was too new. After several years I wrote an instruction manual for trainees and my boss asked if I'd like to become a technical writer, translating schematics and engineering jargon into instruction manuals for customers.

Then I found out about a program the company had developed with the University of Portland – a Catholic University that often exchanges instructors with the University of Notre Dame. The original intent was to give managers, who had gained experience

working their way up, the benefit of the knowledge of an advanced degree in business. People could be admitted directly into the MBA program if they secured various letters of recommendation, had a meeting with the dean of the college of business and, most importantly, if they passed the Admission Test for Graduate Study in Business. Though graduates with Bachelor degrees also had to pass the test, and some people with degrees were in the program, mostly engineers, to be admitted into the MBA program without an undergraduate degree, you had to score at least 50 points higher.

Neither my husband nor I had an undergraduate degree, though we had both taken college courses. We got the necessary letters and met with the dean, only after we took the test and passed it with the higher score. We were both accepted. Four years later, in May 1976, we both received MBAs from the University of Portland. I was 40 years old, and by then, after going through a management training program at the company, I was a credit manager.

So how did I go from a reasonably successful business career to writing novels set in the Ice Age? It began with discontent. Circuit board design had been fun, it was puzzle-solving for pay, but though the company had paid for my business education, the MBA, I discovered there was no place for me to grow. I kept running into a brick wall when I wanted to move up – nowadays it's called a "glass ceiling." In November 1976, a few months after getting my MBA, after 12 years with the electronics company, I quit. I planned to look for some other wonderful, exciting job in business.

I spun wheels applying for jobs, trying to decide what I wanted to do. Then, one day in late January 1977, I got an idea for a story about a young woman, who was living with people who were different, not just superficially – colour of hair, or eyes, or skin – but substantially different. Of course, they thought she was different and viewed her with suspicion, but they allowed her to stay because she was taking care of an old man with a crippled arm.

I do not know where that thought came from, I can not tell you any more than any other writer can where ideas come from. Most writers do not know, though if pressed, they may think of something in hindsight to satisfy questions. I had been writing poetry for about ten years, but not fiction. But I began to wonder, could I write a short story like that? That's how it began: I wonder if I can write a short story?

Late that evening I decided to try, and discovered that it was fun, but frustrating because I did not know what I was writing about. I was kind of thinking prehistory, but I was not sure, it could have been some other place or time. I am not an anthropologist, or an archaeologist, though I have always been interested in science and history, and read magazines and books aimed at the layman. I am sure I read something about Neanderthal and Cro Magnon at some time, but not then.

Creative writing teachers often stress to aspiring writers that they should write about what they know. I think it is more important to know what you write about, and you can find out about other times and other places. It is called research, and I knew how to do library research. You do not write a research paper for every single class, every single term of a master's degree program, without learning how to research. I needed to know who these people were that I was thinking about. What did they look like? What did they wear? Where did they live?

If you write a contemporary novel you can say, "He got in his car, drove into the city, and had lunch." It does not matter if you live in New York or Tokyo or Cape Town, or Laramie, Wyoming, you do not need any more explanation. But what kind of character is a "cave-man"? And where did he go to have lunch?

I began with my Encyclopaedia Britannica, and ran into my first problems with archaeological jargon. I found terms that were not defined, like Aurignacian, Mousterian, Pebble Culture, *Rangifer tarandus*, and I did not have the faintest idea what they meant. I do now; then I struggled with the material. But I was determined, and I pulled out dictionaries and other reference books trying to decipher the language. I had once learned how to interpret engineering jargon and schematics well enough to write instruction manuals, there was no reason why I could not learn the meaning of these words.

I did find out that most specialists believed there was a time in our prehistory when two different kinds of humans shared the cold ancient land of Ice Age Europe, and one of them was us, Cro Magnons. The others were the ones we call Neanderthals. I learned some other terms – Upper Paleolithic, Late Pleistocene. Though I did not know exactly what they meant, it was enough to get started. The next day I got myself off to the library and came home with a couple of armloads of books.

Those first 50 or so books I read included anthropology textbooks and studies about people who lived as hunters and gatherers in more recent times, like the Aborigines of Australia, the Ainu of Japan, the Dogon, the Massai, the Ik, the Pygmies, and the Bushmen of Africa. I learned about the Arctic Inuit, Aleut and Chukchees, about the Athabaskans, the Mohawks, Dakotas, Sioux, the Kwakiutl and Tsimshian of the Northwest coast, the Mayans and Incas, the South American natives of the Equator and the Tierra Del Fuegians of the southern tip.

I also read non-fiction books about adventurers who lived in Africa or on the Yukon, I found books about Ice Age animals and their modern counterparts. I read about geology, glaciers, climatology, paleoethnobotany, wild foods and herbal medicines. I read Jan Jelinek's 'Encyclopaedia of the Evolution of Man', Semenov's microscopic studies of stone tools, Bjoern Kurten's book about Cave Bears, Marshack's 'Roots of Civilization', and Ralph Solecki's book about his dig at Shanidar Cave in Iraq, back in the 1950s, when it was possible to do archaeology in Iraq.

It was not especially easy reading, but it absorbed me. Some books were exciting and fascinating, many were deadly dull and boring, and I did not understand everything I read, but I plowed through, and in the next few days I discovered a world that I had not known existed. Before I was through, I did more than library research. I needed some 'hands-on' experience so I could write about my characters convincingly. I took a class from an expert in arctic survival, where we built a snow cave and spent a night on the snowy slopes of a nearby mountain (Mt. Hood) to learn how to survive in cold conditions.

From another class I learned how people can live off the land, how to make stone tools and cordage, how to use a digging stick to get roots, and how to process a deer hide into buckskin using the animal's brains. I have taken wild plant identification classes, and have collected and cooked wild foods, all to gain a sensitivity of the way of life of those Ice Age ancestors who lived off the land, and drew their sustenance from the Great Mother Earth.

But the more I read and learned, the more the story grew. The short story quickly became a novel, 'Earth's Children', a huge sprawling saga in several parts. But after writing the first rough draft I realized there was too much for one book, and it became a huge, sprawling EARTH'S CHILDREN® series.

In order to keep things right, I continued to stay abreast of new developments. Over the years I have travelled to Europe several times visiting many sites from the Atlantic seaboard to the Central Russian plain. I have seen many of the Cro Magnon painted caves, including the original Lascaux and Altamira, and may see some of the newer discoveries soon. I have become acquainted with many of the top paleoanthropologists and archaeologists in the field, and I can now talk archaeology jargon with the best of them, though I have not formally studied in a university setting; I never sat in an anthropology classroom.

In the process of gaining all this knowledge, I learned that Hollywood had it all wrong. They, and most of us as a consequence, still think about "cave-man" the way antiquarians of the early 1900s thought about them, not the way paleoanthropologists and archaeologists of 2000 understand them. Neither of those prehistoric people, who sometimes lived in caves, were savages grubbing for a bare existence, and in spite of Fred Flintstone, there were no pet dinos! They died off 65 million years ago, while these people lived around 35,000 to 25,000 years ago.

Cro Magnons were modern humans like ourselves, and Neanderthals were not far from it, and during the last Ice Age, those two different kinds of people lived in Europe and shared that cold ancient land for at least 10,000 years. It fired my imagination. It was a time of continent-spanning glaciers, woolly mammoths, cave bears, cave lions, and the first art in the history of humanity. What a perfect setting, I thought, for new, fresh and exciting fiction, and that became the story I wanted to tell. Between the lines of the dry and turgid texts and scientific papers, I began to see people who dreamed and hoped, grieved and sorrowed, loved and hated, and lived in the diverse, complex, fascinating, and sophisticated world of our Paleolithic (Old Stone Age) ancestors.

Let me give you an example. One of the first books I read was about a cave in Iraq called Shanidar. In the 1950s, Drs. Ralph and Rose Solecki headed up an excavation, and the first Neanderthal skeleton they found was of an old man who had died in a rock fall. Skull damage and subsequent re-growth indicated that in life he was blind in one eye, and lame – he walked with a limp. One of his arms had been amputated at the elbow – not broken off, amputated. My first thought was: here's my old man with the crippled arm! He really existed!

From the bone atrophy of his arm, shoulder and leg on one side, it was likely that he was handicapped from an early age. The teeth of most Neanderthals have an unusual characteristic wear-pattern, but his teeth were even more worn than usual. Was he using them in place of his missing arm?

Not many people realize that the average cranial capacity of Neanderthals was larger than the average of people today. Though the range is between 1200 and 2000 cc, 1400 cubic centimetres is today's average. The capacity of this crippled man was 1700 cc.

Many questions occurred to me. How did a half-blind, one-armed, lame Neanderthal caveman survive to be an old man? He was not hunting woolly mammoths! Who took care of him when he was a crippled kid? Perhaps someone who loved him? And when he grew to be a man, who gave him food and clothing? Was his society advanced enough to have compassion for him? Did they care for their weak and wounded?

What about survival of the fittest? Is it possible that compassion is a necessary survival trait for the fittest human beings? If his society did so much for him, what did he give back? What did he have to offer? A large brain.

And who healed his eye? Amputated his arm? Stopped the bleeding? Controlled the shock? Several other Neanderthal skeletons have been found in other places, many buried with purpose and ritual, and some showing serious accidental injuries that had healed well with little or no sign of infection. Their bone injuries were comparable to the bones of modern rodeo competitors – their method of hunting must have been pretty up close and personal – but there was no evidence of warfare, and very little evidence of interpersonal violence.

One of the other Neanderthal skeletons from Shanidar Cave ended up in a laboratory in France that did a pollen analysis of the soil surrounding it. They found clusters of pollen of several different flowers that had been buried with that Neanderthal, not pollen uniformly mixed as it would be if blown in by the wind. Those flowers had two things in common: they were rather large, showy flowers, and every one of those plants has today a known medicinal value! Were they acknowledging someone who knew something about herbal medicine?

None of this proves anything, but to a novelist it is very suggestive. To me, conclusions were clear. Neanderthals were intelligent, compassionate human beings, who cared for each other, were capable of complex activities, must have communicated in some manner and, possibly, had a spiritual sensitivity about an afterlife. They utilized their environment well, may have had a sophisticated herbal medical knowledge and, understanding the role that filth plays in infection, they may well have been clean.

That is a lot of information to get from bones and stones. What about the savage Neanderthal? The brutal, murdering, semi-human beast? Perhaps "red of tooth and claw" is not an appropriate way to describe those enigmatic human cousins. But if Neanderthals were so human, why aren't they still around? What happened to them?

We did – *Homo sapiens sapiens*, Cro Magnon, early modern humans. Scientists are not absolutely certain where we came from. Originally Africa, but how many waves of migration there were, and how long ago, is in question. About two million years ago *Homo erectus*, with rather tall modern bodies but brains about half our size, began to find their way to other parts of the world.

Many people think that anatomically modern humans, with perhaps not yet fully developed human characteristics, began another migration perhaps 200,000 years ago, with a long stop-over in the Middle East. They apparently co-existed with Neanderthals for 60,000 years around Israel, and probably went all the way to Asia. Others think the original *Homo erectus* evolved independently in various parts of the world, with a constant infusion of genes from the edges of their territories.

What we do know is that somewhere between 35,000 and 40,000 years ago, fully developed modern humans moved into Europe. The character I call Jondalar is based on one of the skeletons found at the site called Cro Magnon. He was a fraction short of 6 feet, 6 inches tall.

We do not know what happened then – the debate among the specialists is rampant and vociferous – but 10,000 to 15,000 years after we appeared in Europe, the Neanderthals were essentially gone. Some say we completely replaced them, leaving them a dead end, others that we interbred, but the more prolific Cro Magnons tended to swamp them out, perhaps saving some of their genes. There are various other theories (a new one refers to a Diffusion Wave).

A recent piece of evidence is the skeleton of a four-year old child with characteristics of both modern humans and Neanderthals that was found in Portugal, dated to about 5,000 years after the last Neanderthals were supposed to have died out.

What about those first modern humans, those Cro Magnon cavemen, were they "living on the edge of savagery, groping towards humanity"? If the bones and stones of Neanderthals draw a tantalizingly human picture, the skeletons and artifacts of Cro Magnons leave no doubt. The Upper Paleolithic epoch was a time of unparalleled creativity and innovation. Most of the discoveries mentioned in the *Earth's Children*[®] series first made their appearance then.

Needles, for example. Some people suggest that because needles have never been found in Neanderthal sites that they did not sew, but that is not necessarily true. They could make sharp-pointed stone tools, and some bones have natural sharp points, particularly those from the foot of certain deer and some small animals. They could have poked holes in leathers or softened barks or materials made of grasses or other fibres and pulled cordage or sinew through them and tied knots.

But needles with eyes that can be threaded mean much tighter seams, windproof and nearly waterproof. In winter the Cro Magnons probably wore clothing that resembles the clothes of Eskimos or Lapps of recent times. Why are they always portrayed with a leopard skin over one shoulder? Doesn't the other shoulder ever get cold?

In *The Shelters Of Stone*², Ayla has brought with her a wedding outfit given to her by Nezzie in *The Mammoth Hunters*³, covered with hand-carved ivory and amber beads that were sewn on. Researchers have unearthed skeletons of individuals, including children, who had each been buried with more than 3,000 hand-carved beads that were sewn onto their clothing. If these were savages, grubbing for a mere existence, when did they have time to hand-carve and sew on beads that would be hidden in a grave?

In Eastern Europe, scientists have uncovered the ruins of dwellings, semi-subterranean permanent shelters on the almost treeless Ukrainian steppes that were constructed of mammoth bones architecturally arranged in aesthetically pleasing patterns.

² German title: Ayla und der Stein des Feuers (editor's note).

³ German title: Ayla und die Mammutjäger (editor's note).

Nearly every hard object mentioned in any of the books is based on actual artifacts. Stone axes and beautiful, thin spear points and knives were made by those early modern humans, who also developed new hunting techniques and weapons such as the spear thrower. Fire-making with flint and iron pyrite (Ayla's firestones) can be traced to that early time of the Cro Magnons, and there are hints that the earliest taming of wolves and horses may have occurred then.

Early modern humans were the first to fire clay into ceramic, but not for making pottery. They made figurines of animals and women; art came first, not utility. Musical instruments such as flutes that date back 35,000 years have been found, and mammoth bone percussion instruments with tonal variations – perhaps not as much as a xylophone, but with distinctive tones – were made by those first anatomically modern humans in Europe.

Those early ancestors of ours also created the first and most enduring works of art. They carved and sculptured objects out of stone, ivory and bone, and probably wood, though none have survived. Almost every tool and implement they used had carvings on it. Some were figurative, others had notations and signs and symbols that may have been the beginnings of counting and writing.

Mortars and pestles that were used to grind and mix mineral colors have been found, perhaps to dye clothing, but certainly to paint on the walls of caves and living sites. The art on the walls of caves in Western Europe is remarkable; some of it dates back over 35,000 years. Not all of it is beautiful, like us they were individuals with different levels of skill, but some is stunning, at least the equal of any made by the most skilled artists alive today. Photographs do not begin to do the artwork justice. It can't be captured on a flat piece of film.

I visit the sites I write about to get a feel for them, even though conditions are different now. I even worked for a short time at an archaeological dig so I could understand where the information comes from and how the scientists find it. I have attended archaeology conferences, and have become acquainted with many of the professionals in the field, and have been shown some extraordinary sites, including painted and engraved caves and living sites that are seen by no more than 20 people a year.

I will never forget my first visit to the original cave of Lascaux. It was such a powerful experience, I suddenly found myself holding my breath, with tears in my eyes. I felt an incredible connection with the people who had created that beautiful sanctuary filled with magnificent art, much more than I ever imagined I would.

I do not cry in every cave I visit, but I did again three years ago, when we visited many of the remarkable caves and sites in Spain for the first time. In a cave called Ekain in the Basque region I was again overwhelmed. The sheer perfection of the paintings of horses on a certain wall caught me by surprise, and I was literally moved to tears.

Could the people who produced the sensitive, skillful paintings on cave walls be savage ape men? You will never convince me of that. We are physically the same as them, and the same in every other way. Those early modern humans were our direct ancestors, our many times great grandparents.

Whatever speech facility, emotional sensitivity, psychological trait, intelligence, talent or physical ability that we attribute to ourselves, we must grant them.

Cro Magnons were no different from anyone alive today, except for the world they lived in. It was a newer, rawer, colder earth, but richer with life, and I could feel characters growing out of the research, almost living and breathing. Those old fossil bones were fleshing out in my mind, and the story was growing and expanding. I began to sense that not only was it possible to write fiction about that period, but that fiction was perhaps the only way their real story could be told.

I started to put the pieces together: people as we know and understand them in a more natural world, living closer to the earth, and began to get a sense of a different time, a younger, more innocent time. A time of playfulness, a time of the childhood of the human race when we were Earth's Children.



Jean Auel and her husband Ray together with Michael Bolus in front of the southern entrance of Vogelherd cave, October 2003. Photo: H. Floss.

Jean Auel und ihr Mann Ray zusammen mit Michael Bolus vor dem Südeingang des Vogelherd im Oktober 2003. Foto: H. Floss.