





Era 1 Overview

History is made up of accounts of the past. Most of these accounts deal with humans. But humans emerged in an environment—our universe, the ecosystem of our planet, and other species. This environment began to form long before humans evolved, and it continues to affect our story today. Big history is an attempt to understand this environment. Archaeology gives us a way to look at the emergence of human's ancestors, like Ardi (Ardipithecus ramidus). This evidence helps us understand our past. A better understanding our past can help us comprehend the world today.



You must be Kim.

Kim Lochner and Colby Burnett

0:01

And you're Colby.

Seems like the first day of school.

Did we have school 14 billion years ago?

So we really are starting at the beginning.

Oh, we are.

A course-overview visual timeline

0:37

Photo montage of places we experience history in our daily lives: through our grandparents, national monuments, documentaries, books, and art.

1:17

Images of some of our former presidents, including President Obama and his family

1:42

The big bang; the universe; a birds-eye view of our planet; a painting of a shipwreck; a modernday truck navigating through a flood.

2:14

Animation of cows grazing

Animation of a woman harvesting food Hi, I'm Kim Lochner. In this video, Colby Burnett and I will introduce the first era of world history, Era One: Our Big History.

We live in a world full of history, because everything has a history, even though we don't often consciously think about it in those terms. But we listen to older people—like our grandparents—reminisce about when they were young. We see monuments to the past on our way to visit museums that represent the past. We watch documentaries that claim to tell true stories about the past and fictional movies that distort it for our entertainment. We read books about the past. But what connects all of these things together?

Each tells a narrative—a story about the past that has a message or a way to think about how the present came to be.

Politicians also want us to know about the past, usually the history of their particular country. Often, their interpretations conflict with each other so much that we are left wondering whether they are talking about the same country. They can't all be true. And the histories told by our grandparents, documentaries, and textbooks also need to be evaluated with evidence.

Most of the history we encounter has to do with the events and experiences of our species, *Homo sapiens*. But in this course, we begin even further back, with the creation of the universe.

Why start a course in human history billions of years ago, before humans existed?

Well, it turns out that humans aren't the only actors in the story of our past.

We live in a world that shapes who we are and what we can do. Without solar radiation from the sun, life would not have had the energy to emerge on this planet. The geography of the planet, its weather, and its resources have both restricted and assisted humans. In fact, these things still influence humanity in the present and will continue to in the future.

Humans emerged alongside many other species--plants and animals--and they, too, have played a role in our history, just as we have played a role in their history.

As we evolved, humans learned to use other living organisms for food or labor or friendship. We learned to tame wild plants and animals like wheat, cows, and dogs. This makes them part of our history. But just as we learned to use other species, they learned to use us, too, although this was unconscious learning.

2



2:43

Paintings of a farmer and a flock of pigeons; bacteria

Our galaxy, our planet earth, the night sky filled with stars

3:22

Colby Burnett

4:15

Visual timeline of the thresholds, beginning 13 billion years ago with the big bang, and ending with the emergence of Physically or Biologically modern humans, approximately 250,000 years ago. Grains, like corn and rice, used humans to successfully spread around the world. Pigeons and rats learned to use our cities for food and shelter. Bacteria and viruses learned to use us for food and reproduction.

All humans--including you and me--have lived and evolved in our galaxy, our planet, and our environment, which we have shared with countless other species. And all humans have tried to understand and explain that environment. Colby will share two examples of how humans create stories to help us figure out how we fit into the world around us.

Our first example comes from historian David Christian. It shows us that some explanations or stories that humans create cover large expanses of time and space.

Christian used the largest frame to construct a story of human history. A frame is like a lens through which we view something. It is a perspective, and Christian's perspective begins with the Big Bang over 13 billion years ago, and ends... well, it ends by considering the history of the future. He calls this history of the universe, the Earth, and all its living organisms "Big History," and supports his story with evidence drawn from the sciences and history.

Based on this evidence, Christian has developed a set of what he calls "thresholds." These are simply moments when things changed. Some of these cover vast periods of time. For example, as best we know, the universe was created through the Big Bang, about 13.8 billion years ago. About 200 million years later, the first stars and galaxies formed. After the first stars began to die, new chemical elements formed. Many of the materials humans use today were formed in this process.

About 4.5 billion years ago, our own solar system, with its sun and the planet Earth, began to form. Without these events, humans would not have a place to live or a sun to give us life. Then, less than a billion years later, around 3.7 billion years ago, life began to emerge on Earth.

Physically modern humans, by contrast, emerge at a later threshold, only about 250,000 years ago.

Other scholars use a slightly smaller frame to ask questions about how we evolved--the experiences of our most distant ancestors. They look at evidence from many places, develop and revise theories, uncover more evidence, and rethink those theories.

5:14

World map zooms into East Africa For a second example of how humans create stories about fitting into our world, we go to the Afar Depression in East Africa. Archaeologists have long believed that this part of Africa was an important homeland for ancestral humans. Then, in 1992, a team of Ethiopian and American archaeologists found just half a skeleton here, belonging to a woman who lived 3.2 million years ago. She was not a modern human, but she was probably one of our ancestors. She weighed around 110 pounds and had a smaller brain but more flexible limbs than we do. They named her Ardi, short for *Ardipithecus ramidus*.



5:51

Animated depiction of our early ancestors, like Ardi

6:34

Images of apes with the large, sharp canine teeth that Ardipithecus lacked

7:11

Kim Lochner

The discovery of Ardi's skeleton is inserted into our timeline

7:57

Books, representing the "big" stories of the past; a reconstructed skeleton of a hand

8:15

Montage of famous, monumental archways throughout the world Ardi and her species did not have some of the attributes that make us humans. They didn't have a language or--it seems--any physical culture. There were no societies with houses or tools. They didn't farm or herd animals. They foraged for food, mostly ripe fruit and insects. They couldn't communicate with each other in such a way to form communities larger than an extended family. They weren't in contact with people further away than the next family group, and didn't trade or preserve knowledge beyond their instincts.

But Ardi's community did share some attributes with ours.

Unlike even earlier ancestors of humans, Ardipithecus lacked large, sharp canine teeth. Among many apes, these teeth are used in fights between males over breeding rights with females. In these species, the largest male with the biggest canines often mates with multiple females, to the exclusion of other males. The fact that male *Ardipithecus*, like later humans, lacked these canines suggests that they probably didn't have a dominant male in the group, but rather that individuals bonded in pairs.

In other words, as different as they were from us, Ardipithecus may have been the earliest human ancestors to engage in long-term, monogamous relationships, like us.

The study of Ardi and the Big History narrative are just two examples of how historians look at and explain our history. And the ways we look at the past are always changing. Remember, Ardi's skeleton was only discovered in 1992. We immediately began to insert the evidence from her remains into our human story.

Similarly, schools have only just recently begun to teach Big History, offering ways to link the history of the universe, the solar system, and other living organisms to human history.

Do changing views of the human past affect the way we--and that includes you-think about the present? Or the future?

What do "big" stories or narrative frames of the past--like Big History--help you do? And what about more detailed and specific stories of our past, like Ardi's? What effect can they have on us? That is something we'll be asking you regularly throughout this course.

Does it make a difference what views of the past people hold? What difference does it make if we learn one history over another? Or learn many histories, even if they disagree with each other?

There's a lot about the past that has yet to be discovered and a lot that we may never know.



8:44

Kim and Colby in conversation again

Who knows how many times the narrative of our human past will be rewritten? Will you help rewrite them?

I'd love to.

I mean the students.

They'd love to. Good save.

But I mean, it does sound like a lot of work. Don't they have other classes?

It's okay, we'll start slow.