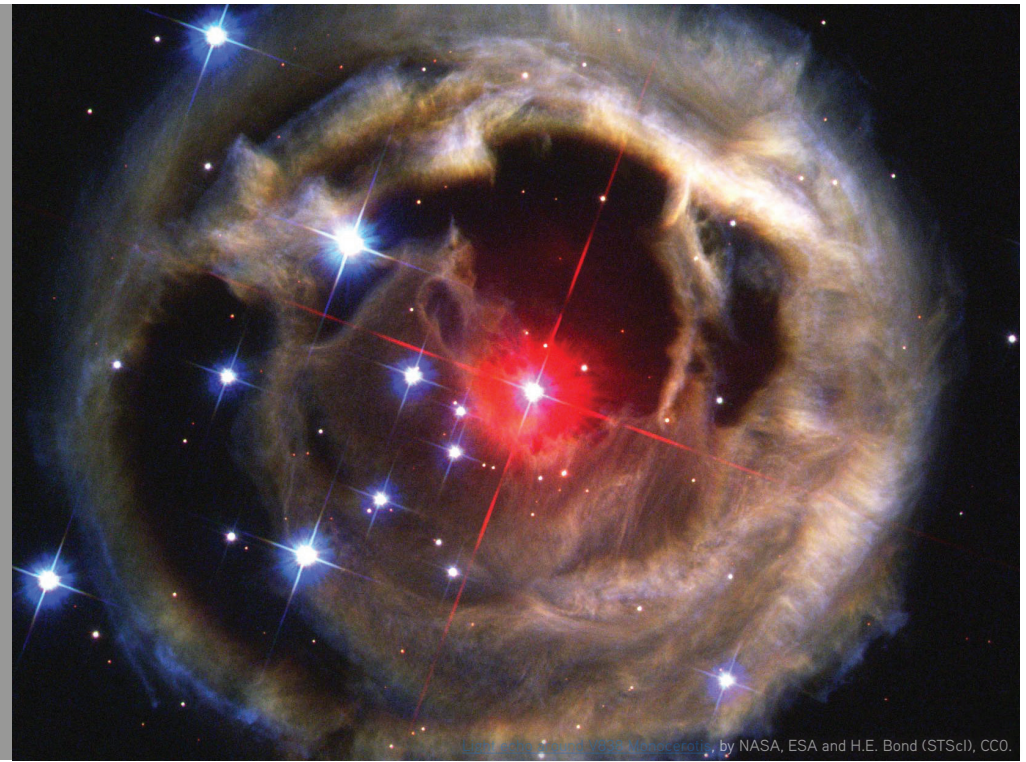


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Big History: An Overview



By John Green, adapted by Newsela.

History is an attempt to understand both our insignificance and our significance. To study history is to better understand the world and your place in it.

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BIG HISTORY PROJECT

What Is History?

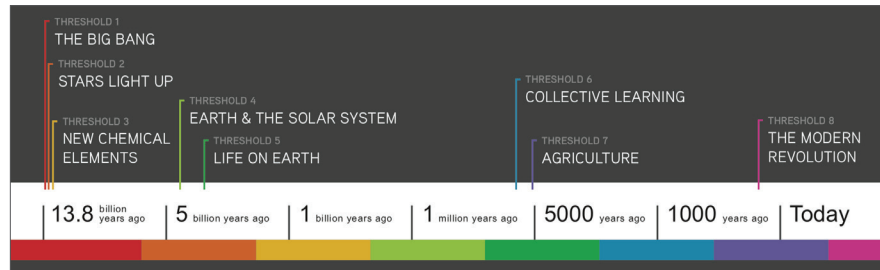
History is a way of trying to understand the world we live in. It is the story of what got us to where we are now. You and every other living human are the latest chapter of this human story.

What Is *Big* History?

Yet, there is a lot more to history than the human story. If you think of history as the story of life on Earth, almost all of it happened before we got here. After all, we've only been around for the last 250,000 years. That is less than 0.01 percent of the history of life on Earth.

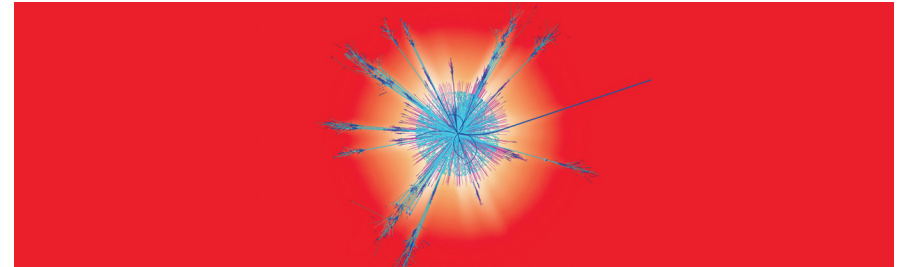
Big History places human history within the story of the Universe itself. It is a way to better appreciate the big picture.

Thresholds of Increasing Complexity



There are eight key turning points in Big History. These are called thresholds. They are moments when the Universe or our world became much more complex than it was before. Big History is organized around these turning points.

Threshold 1: The Big Bang



Big History starts with the formation of the Universe. It all began around 13.8 billion years ago with the Big Bang. In a split second, all matter expanded at enormous speed and became the Universe.

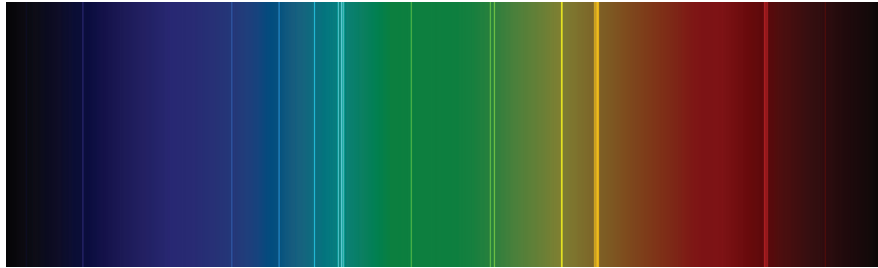
Threshold 2: The Stars Light Up



After the Big Bang, the Universe cooled. After 380,000 years, it was cool enough for the simplest atoms to form. These were hydrogen and helium. For a very long time, the Universe was almost completely made up of nothing but hydrogen and helium.

After a few hundred million years, clouds of hydrogen and helium began to collapse. This collapse produced increasing heat and pressure. In turn, this heat and pressure led to the formation of the first stars.

Threshold 3: New Chemical Elements



Stars made the Universe more complex. However, the Universe was still mostly made up of hydrogen and helium. This changed when the earliest stars died. Their death created very high temperatures and pressures. This led to the formation of more complex atoms. Planets and living things only became possible once these more complex and varied atoms existed.

Threshold 4: Earth and the Solar System



Our Sun is a star. Like all stars, it was formed from the collapse of a huge cloud of gas and dust particles. More than 99 percent of this material went to make up the Sun. However, thin bits of loose matter remained separate and orbited around the Sun at various distances. Eventually, the matter in each orbit was drawn together by gravity. Small lumps of matter were created. Over time, these lumps grew larger and larger and formed the planets. This process is called accretion. It is how our Earth was formed around 4.5 billion years ago.

Threshold 5: Life



There are cracks, or vents, on the floor of Earth's oceans. They release heat from deep underground. This heat makes chemicals in the water go through ever-changing reactions. Around 3 billion years ago, those reactions led to the formation of the first living organisms. The earliest living things were single-celled creatures. Like all living organisms, they evolved. In time, completely new species were formed.

For 2 billion years, single-celled, microscopic organisms were Earth's only form of life. The first multicellular life didn't show up until around 1 billion years ago. But slowly, life grew more and more complex. Large, multi-cellular organisms eventually spread, not only in water but also on land. They became what we call animals.

One hundred million years ago, dinosaurs ruled the land. About 65 million years ago, however, most of them died off. Now other types of large animals could take their place. In the last 65 million years, mammals have been the most successful of these. Mammals are warm-blooded animals with fur or hair. They include primates, such as monkeys, apes, and humans.

Threshold 6: Collective Learning



Our ancestors, the hominins, were primates. They first appeared between 5 million and 7 million years ago in Africa. Over millions of years, hominins evolved in important ways, both physically and socially. About 200,000 years ago, our own species, *Homo sapiens*, appeared. *Homo sapiens* means "wise humans."

Modern humans developed language. This form of communication allowed them to

share complicated ideas and pass on knowledge from generation to generation. This process is known as collective learning. It allowed human society to become far more complex.

Threshold 7: Agriculture



Our ancestors survived by hunting animals and gathering wild plants. This way of living is known as foraging. It supported early humans for millions of years. About 12,000 years ago, humans began to farm for the first time. The spread of agriculture brought major lifestyle changes. For the first time, people were able to live in settled communities. They no longer had to wander constantly in search of food. This allowed for the growth of cities and governments and the rise of new skills and trades.

Threshold 8: Modern Revolution



About 300 years ago, the speed of technological change suddenly became much greater. New inventions began to completely change the world. This change is called the modern revolution. It led to the rapid growth of the human population and the rise of our highly interconnected modern world.

What's Next?

So far, the modern revolution is Big History's final threshold. However, we know this story does not end here. History will continue. So, what's next? What might the next threshold of increasing complexity be? When you reach the end of this course, you will be able to make some informed guesses.

But first, let's really dig into what got us where we are now.



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