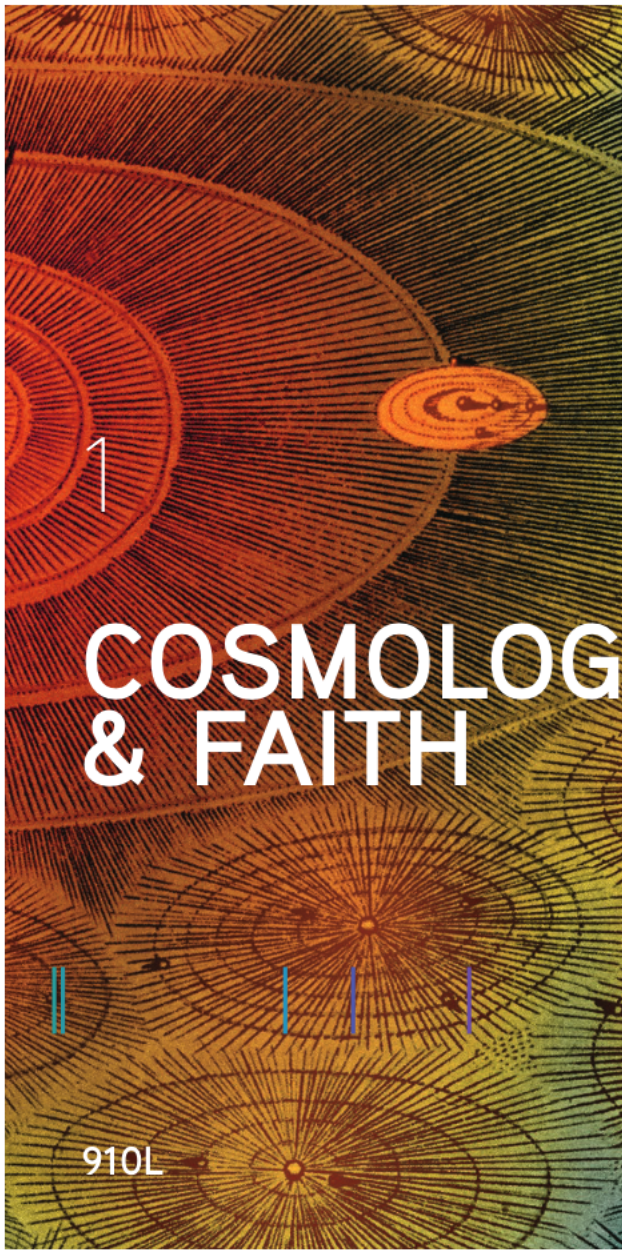
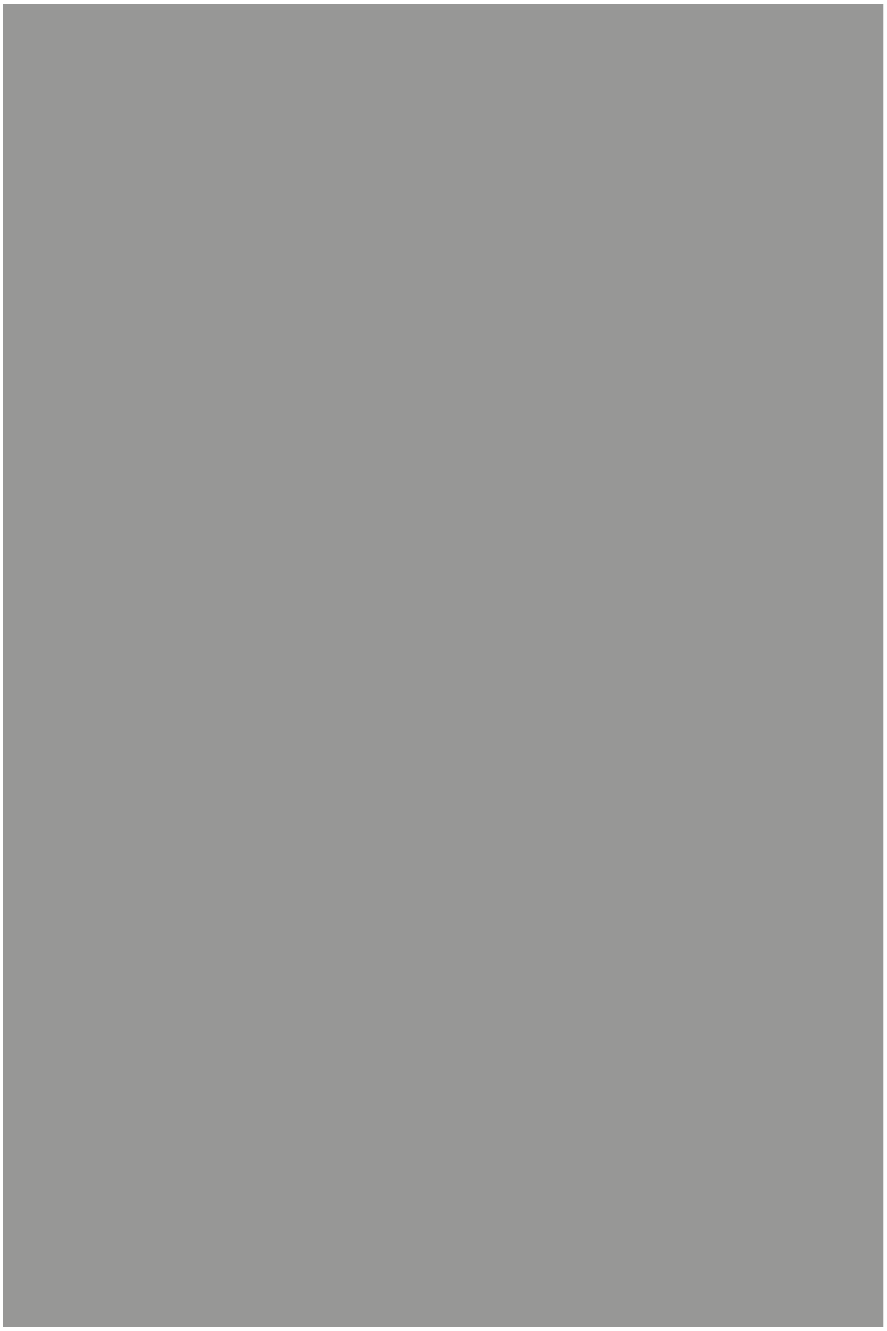


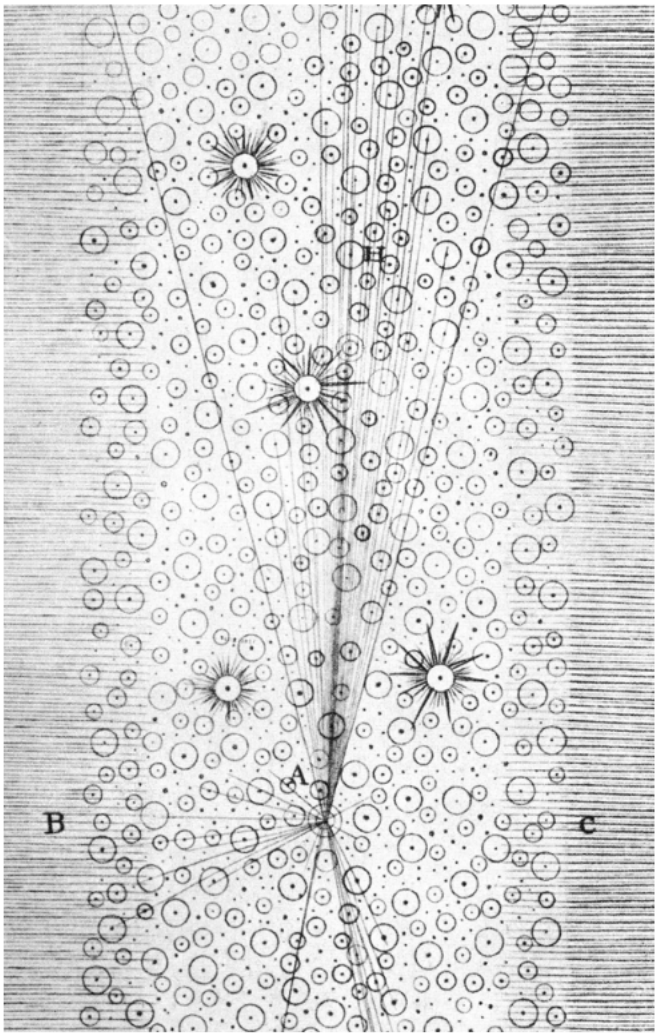
BIG HISTORY PROJECT



COSMOLOG & FAITH

By John F. Haught, adapted by Newsela

Since the beginning of human existence on our planet, people have asked questions of a religious nature. For example, what happens to the dead?



A 1784 diagram of the Milky Way by astronomer William Herschel

Human beings have always wondered how things "hang togeth
minds can't help but look for connections, and we remain restles
we find them. Nothing is really understandable unless we can re
other things.

This is why science is so satisfying. Its mathematical principles
together everything that goes on in the cosmos. Every occurren
tells us, must obey the basic laws of physics. It makes no differe
they happen. If you could travel to another galaxy in our Univer
would find that the same laws of physics and chemistry work t
Earth. The Universe is complex and varied, yet it follows the san
scientific principles.

Before modern science came along, our ancestors were not av
physical truths that tie all of nature together. Nevertheless, our
were just as interested in finding connections as we are. The ma
in which they made sense of their experience of things and ever
tell stories about them. These stories often took the form of myt
cosmic, biological, and human origins. Understanding the origi
helped reduce fear of the unknown.

We still need stories. Big History is a good example of the hum
for stories that hold our experiences together. We want to under
example, how the history of human beings on Earth is bonded to
world that gave birth to us. Science now allows us to tell a whol
about our connection to nature. Remarkably, over the last two
the natural sciences have increasingly demonstrated that the Un
has a history. Human life is just a relatively new chapter in the
We did not float in from some other world. We blossomed gradua
roots that extend all the way back to the Big Bang.

It is enormously satisfying now to be able to tell the story of hov
stars, planets, cells, organisms, and minds all came to be.

What about religion?

Science and history both try to understand how things hang together. Religions do as well. Since humans first appeared on Earth, most people have asked questions of a religious nature. For example, what happens to the dead? Are they somehow still connected to the world of the living? The book *The Broken Connection*, by psychiatrist Robert Jay Lifton, observes that science has weakened the bonds that our ancestors felt between the living and dead. In some cases, they've been completely broken. Scientifically educated people now often question the connection that religions proclaimed to find between our present life and the wider spiritual world.

Nevertheless, many of us still ask religious questions. Why, for example, does anything exist at all? Why do living beings suffer? What happens when we die? Why do human beings have a sense of right and wrong? How can we find a meaning for our lives? Can we ever find a true release from sickness, suffering, isolation, and guilt? Where can we find perfection? What is really going on in the Universe?

Responses to these religious questions have usually taken the form of myths and other stories. To most religions, the "really real" world is dwarfed by the visible one that can be studied by scientists. Religions try to connect people to this wider world. Ever since the earliest stories told around a fire, most people have had a feeling that the world includes spirits, gods, and long-departed ancestors. Religions strive to bridge the human existence to these mysterious worlds. Religions seek to mend the sense of loss that comes from meaninglessness, guilt, pain, and death.

Large portions of the planet follow the religions Buddhism, Hinduism, Judaism, Christianity, and Islam. These religions still hold out the hope that we can be saved from what holds us down. They each have answers to the toughest human reality: that everything eventually dies. It is, therefore, not hard to understand why religions have been so important to people throughout history.

Each of Earth's main religious traditions has countless offshoots. Religions are central to the history of human existence on our planet. It makes sense that they interest scientists and not just historians and religious scholars. Religions have played a powerful role in shaping the awareness of most people who have ever lived. Any survey of big history, therefore, cannot ignore that.

The question of science and faith

In the age of science, however, what are we to make of religions? What should we think about the connection they draw between our existence and a world that can't be scientifically analyzed? Hasn't science made religious symbols, narratives, and teachings hard to accept?

For simplicity's sake, we'll refer to all a religion's hopes, stories, teachings, wondering, prayers and ceremonies as "faith." The traditions of faith come from a time before humans discovered science. Can human minds shaped by faith honestly take modern science seriously? Or, if you develop a sense of big history, can you still honestly accept the teachings of a faith? Does belief in God, for example, go against science, as many educated people now argue? Isn't it hard to be both a serious scientist and a person of faith? Or is there a way of making a connection between science and faith?

Humans and their religious instincts are as much a part of nature as rocks and rivers. It is not my task to answer the question of religion. However, it is appropriate at least to take note of its existence. It raises questions about humanity. What does it say about the Universe that it has given birth to fully aware beings who want to connect their lives to worlds that science cannot see?

Many scientists, philosophers, and skeptics wish that religious faith would just go away. They'd prefer that only science would remain to fill our minds and hopes. Others, however, think that scientific discoveries still raise questions that science alone is powerless to address. For example, why does the Universe exist in the first place? What is the point of th billion-year-old cosmic story? What are we supposed to be doin lives if we are a part of a Universe that is still coming into being any solid reason for hope in the future?

There are at least three main ways of responding to questions th science raises for people of faith.

CONFLICT	The natural sciences and religious faith are incompatible
CONTRAST	Science and faith are each concerned with different kinds of questions
CONVERGENCE	Science and faith inevitably interact

Shape your own answers. Make your own connections and find own way of understanding the beginning and how things "hang For most people, these are questions that will not just slip quietl

John F. Haught

John F. Haught is a Roman Catholic theologian and senior research fellow at the Woodstock Theological Center at Georgetown University, in Washington, D.C. He established the Georgetown Center for the Study of Science and Religion and is the author of numerous books, including *Science and Faith: A New Introduction* (Mahwah, NJ: Paulist Press, 2012).

Image credits

An illustration of multiple worlds by 18th-century mathematician Leonhard Euler
© Science Source

A 1784 diagram of the Milky Way by William Herschel
© Science Source

Young Buddhist monks praying
© Scott Stulberg/CORBIS

NEWSELA

Articles leveled by Newsela have been adjusted along several dimensions of text complexity including sentence structure, vocabulary and organization. The number followed by L indicates the Lexile measure of the article. For more information on Lexile measures and how they correspond to grade levels: http://www.lexile.com/about-lexile/lexile-overview/

To learn more about Newsela, visit www.newsela.com/about.

The Lexile® Framework for Reading
The Lexile® Framework for Reading evaluates reading ability and text complexity on the same developmental scale. Unlike other measurement systems, the Lexile Framework determines reading ability based on actual assessments, rather than generalized age or grade levels. Recognized as the standard for matching readers with texts, tens of millions of students worldwide receive a Lexile measure that helps them find targeted readings from the more than 100 million articles, books and websites that have been measured. Lexile measures connect learners of all ages with resources at the right level of challenge and monitors their progress toward state and national proficiency standards. More information about the Lexile® Framework can be found at www.Lexile.com.