

The Anthropocene epoch that isn't—what the decision not to label a new geological epoch means for Earth's future

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For almost 15 years, scientists have debated whether the Anthropocene should be an official geological epoch marking the profound influence of humans on the planet. Then in March, an international panel of scientists formally [rejected the proposal](#) for a new Anthropocene epoch.

In this episode of The Conversation Weekly podcast, two scientists give us their different opinions on whether that was the right decision and what it means for the future use of the word Anthropocene.

The term Anthropocene was coined in 2001 by the Nobel-winning atmospheric chemist Paul Crutzen to describe the huge impact that humans are having on the planet and its environment.

"It is collectively the effects of all the things we do that are changing the atmosphere, the oceans, the biosphere," explained Jan Zalasiewicz, a professor of paleobiology at the University of Leicester in the UK. He says the change has been "extraordinarily rapid," particularly since the mid-20th century, a time known as the great acceleration.

An Anthropocene Working Group was established in 2009 to explore whether the Anthropocene should be declared an official geological epoch, different to the Holocene, which began around 11,700 years ago. A new epoch would mean that a distinct change could be seen in the [fossil record](#) with geological strata distinctive from those below and above it.

Zalasiewicz is convinced that the Anthropocene fits this category.

"There's so much evidence now that the Earth's operating system is different from these thousands of years of relative stability of the Earth. Climate is a major driver... Those changes are geology ... The repercussions will carry on for many thousands of years, even millions of

years. And the biological repercussions, the scrambling of the Earth's biology through species invasion and extinctions, that has permanently altered the course of biological history."

An epoch or an event?

But other scientists disagree that Earth has moved into a new geological epoch. Erle Ellis, a professor of geography and environmental systems at the University of Maryland, Baltimore County, resigned from the Anthropocene Working Group in 2023 because of the direction of travel it was taking. Ellis said, "What I saw happening is that it ended up in this very narrow track of breaking Earth's history into two parts. A part that is considered to be transformed, and a part before it where things are natural or untransformed. That narrative is regressive and harmful politically."

For Ellis, the Anthropocene is better described as an event, rather than an epoch. "An epoch in the [geologic time scale](#) is defined by a clean planetary break in time. That means there's a before and an after. But the events don't assume that the entire planet changes all at once. Events can roll out at many different scales at many different times in many different parts of the planet and kind of build up into things like a planetary change."

Neither Zalasiewicz nor Ellis took part in the final vote on whether to label the Anthropocene an epoch, but both agree—the term isn't going anywhere. Zalasiewicz says, "It's a shame the chance was missed to formalize and stabilize the Anthropocene in its original and primary meaning. But the reality doesn't go away, so we have to keep on working with that reality."

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