Deep Time and Climate Change

If you want to ask, is nature going to undo what we humans are doing to the world-- we're burning fossil fuels. We're taking the carbon out of that and putting that carbon into the atmosphere-- and that's changing things. It's changing how easily plants breathe. It's changing how well shells in the ocean can be made by clams and corals. It's changing the climate. It's changing all sorts of things.

Nature will undo that. How rapidly? And so for that, we have to go back and look at how rapidly has nature done things over deep time.

And we do know. Nature has changed carbon dioxide in the atmosphere a whole lot. The dinosaurs lived in a world that had a lot more carbon dioxide in the atmosphere than we do, and they were fairly happy in that world.

It was a warm world. There were no ice sheets at the poles. It was warm all the way to the poles. There were crocodiles almost to the North Pole, and palm trees in Wyoming, and all sorts of things.

But the change between a low carbon dioxide world and a high carbon dioxide world that nature did is 100 million years, and we're doing it in 100 years. And so, is it likely that nature is going to undo what we're doing rapidly at a time that we would notice it? No. And so one needs to understand how rapidly does the world work by itself, and how rapidly do we change things. And so knowledge of deep time comes into questions like this.