ERLE ELLIS 05.06.09 2:40 PM

STOP TRYING TO SAVE THE PLANET

NATURE IS GONE. It was gone before you were born, before your parents were born, before the pilgrims arrived, before the pyramids were built. You are living on a used planet.

From the Fields is a periodic Wired Science op-ed series presenting leading scientists' reflections on their work, society and culture.

Update: Erle Ellis has written a response to Wired Science commenters, "Save the planet? From who?"

Erle Ellis studies the ecology of human-managed landscapes and their changes at local, regional and global scales at the University of Maryland-Baltimore County. He has been investigating long-term environmental changes in rural China since 1992 and in urban and suburban Baltimore since 2000. His recent work characterizes global patterns of anthromes: human-altered ecosystems. He's the director of the Laboratory for Anthropogenic Landscape Ecology.

If this bothers you, get over it. We now live in the Anthropocene — a geological epoch in which Earth's atmosphere, lithosphere and biosphere are shaped primarily by human forces.

Yes, nature is still around — back-seat driving, annoying us with natural disasters from time to time, and everywhere present in the background — but definitely in no position to take the wheel. That's our job now. Don't blame nature for global warming, sea level rise, invasive species, mass extinctions, crop failures and poverty. That's our thing.

Society needs to learn from recent scientific efforts to explain changes in greenhouse gases and the biosphere during the Anthropocene. Three lines of evidence demonstrate that we live on a planet reshaped by humans for thousands of years.

The first evidence dates back to the beginnings of science itself, when amateur scientists stumbled across the bones of massive, long-extinct mammals like the mastodon, giant ground sloth and saber-toothed tiger. The last glaciation can't explain their disappearance 10,000 years ago, because they survived many preceding glaciations.

Current theory holds that prehistoric hunters drove these species to extinction. A few human-driven extinctions might seem like just a sad historical footnote, but it's far more than that. The species that humans eliminated were keystone species whose lifestyles, like those of elephants in Africa today, tended to profoundly shape and sustain ecosystem form and function by their feeding habits.

Nature just hasn't been the same since well-armed hunters came on the scene.

And what of the wild forests of Amazonia and North America that we think of as pristine? Think again. The second line of evidence — from archaeology, paleo-ecology and even epidemiology — that humans lived all over these lands is growing. Man burned down the forests millenniums before Columbus, first to enhance hunting for the wild species attracted to the regrowth, and later for agriculture.

While probably never cleared in their entirety, areas long believed to be the wildest places on Earth are almost certainly still recovering from human alterations that are evident from earthworks, artifacts, anthropogenic charcoal and the sediment record.

Finally, the geologic evidence. About 7,000 years ago, levels of carbon dioxide and methane began rising. During every previous similar interglacial period, of which there are at least seven, greenhouse-gas levels fell.

To explain this, palaeoclimatologist Bill Ruddiman formulated the "early anthropogenic hypothesis," which holds that the source of these gases was land clearing and flooding for rice production by prehistoric farmers beginning 8,000 years ago. While this hypothesis still ruffles the feathers of many a climatologist, there remains no better evidence explaining the Holocene greenhouse-gas anomaly.

It is even possible that global warming caused by prehistoric farmers has delayed the onset of the next ice age, which is due right about now.

So there you have it: Ours is a used planet. Thanks to us, Earth has become warmer, less forested and less biodiverse for millenniums.

So what now? First of all, we've got to stop trying to save the planet. For better or for worse, nature has long been what we have made it, and what we will make it.

And it's time for a "postnatural" environmentalism. Postnaturalism is not about recycling your garbage, it is about making something good out of grandpa's garbage and leaving the very best garbage for your grandchildren. Postnaturalism means loving and embracing our human nature, the nature we have created to feed ourselves, the nature we live in. What good is environmentalism if it makes you depressed about the future?

This is about recognizing that our farms, and even our backyards and cities, are the most important wildlife refuges in the world and should be managed as such. We can keep people out of places we want to think of as wild, but these places will still be

changing because of global warming and the alien species we introduce without even trying.

If we want these places to look like they did before us, we will have to constantly recreate them. It will be a huge job for us humans to keep nature "wild."

Instead, it's high time we saved ourselves — and not from nature. It's true that prehistory is littered with the remains of failed civilizations, but *Homo sapiens* is not going away. Indeed, we humans can totally trash the planet and still survive. We already have in many ways.

Don't like it? Stop trashing it!

Use renewable energy. Clean it up. Repair it. Get to work. There is plenty more mileage left in this spaceship Earth. Think about that while enjoying a trip to your local zoo or arboretum — the most biodiverse places that ever existed on Earth.