

A stylized, grey-toned graphic of a tree with a thick trunk and several branches, set against a light grey circular background. The tree is positioned on the right side of the page, partially overlapping the title area.

Fire Creature, Fire Planet: An Interview with Stephen Pyne

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Our interviewee Stephen Pyne is a simple man, elegant, and well-spoken. Due to the vast knowledge, he has acquired in his trajectory with the history of fire, he narrates direct answers to our questions with propriety and confidence. His rich simplicity reflects the behavior of someone who is aware of his intellectual capital, but who still feels encouraged to continue learning. Our contact with Professor Pyne was always marked by cordiality and serenity, characteristic of those who are aware of their role in the world, but who, at the same time, know how to deal humbly with the recognition of their peers and their community in general.

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Steve Pyne is currently Professor Emeritus at Arizona State University, an institution at which he has researched and taught since 1985. He completed his undergraduate degree at Stanford University and his graduate degree at the University of Texas, Austin. Much of his research interests and academic life reflect his experiences outside of academia, especially with regards to contact with fire. Since the age of 18, Stephen Pyne has served as a firefighter in the North Rim area of Arizona. In November 2018, during his retirement luncheon, Pyne said that the creative tension he experienced during his years putting out fires around the Grand Canyon and elsewhere in the North Rim, has underwritten everything he has done since. After his doctorate, the previously divergent experiences of his academic life and his activity as a firefighter found a fruitful coalescence. Yet the perplexity and disquiet of the creative tension between both experiences persists to this day: “Everything that has engaged my mind - everything I've written about - stems from those years on the Rim. Recreating that originating shock by going to Antarctica, to all the seven continents, to the shores of the seven seas, to firescapes from Ghana to Siberia renewed that tension. It's there still”⁴ :

Stephen Pyne is a prolific author with many published books. Most of his publications are about the subject of fire, including surveys in America, Australia, Canada, and Europe. However, he has also written about other topics of interest such as Antarctica, the Grand Canyon, and the Voyager mission, and, with his daughter Lydia V. Pyne, he published a book on the Pleistocene⁵. Pyne has also received major awards for his publications. His book *The Ice: A Journey to Antarctica* was included in the New York Times Top 10 List of 1987,⁶ and his book *Fire in America: A Cultural History of the Wildland and Rural Fire*⁷, was nominated as the best books published between 1981-82 by the Forest History Society. In 1995, he received the Los Angeles Times' Robert Kirsch Award for his contribution to American letters.

⁴ Pyne, Stephen. Scholar on Fire, Soul on Ice. What I've Learned. Comments at retirement luncheon - November, 2018. <https://www.stephenpyne.com/bio.htm>

⁵ Pyne, Lydia and Pyne, Stephen J. *The Last Lost World: Ice Ages, Human Origins, and the Invention of the Pleistocene*. New York: Penguin Random House, 2012

⁶ Pyne, Stephen J. *The Ice: A Journey to Antarctica*. London: Weidenfeld & Nicolson, 2003

⁷ Pyne, Stephen J. *Fire in America: A Cultural History of Wildland and Rural Fire*. Seattle: University of Washington Press, 1997

We hope that HALAC readers will enjoy this fascinating interview with one of the world's foremost environmental historians and a pioneer in the fascinating, controversial, and thought-provoking topic of fire.

INTERVIEW

Image 1. Stephen Pyne and a group of firefighters, North Rim of Grand Canyon National Park, 1967.



Source: Courtesy of Stephen Pyne

- 1. I'D LIKE TO START BY ASKING ABOUT THE AUTOBIOGRAPHICAL CONTEXT FROM WHICH HISTORICAL RESEARCH EMERGES, AS MANY OF THE MOST RELEVANT WORKS IN ENVIRONMENTAL HISTORY HAVE EMERGED FROM PERSONAL EXPERIENCES WITH THE NATURAL WORLD. YOUR STORY IS A MAGNIFICENT EXAMPLE, BECAUSE, BEFORE BECOMING A DEDICATED FIRE HISTORIAN, YOU SPENT SEVERAL SEASONS AS A FIREFIGHTER IN THE GRAND CANYON NATIONAL PARK, BETWEEN THE 1960S TO THE 1980S. HOW HAS THIS PERSONAL EXPERIENCE SHAPED YOUR CHOICES AS A HISTORIAN?**

Everything I've written about comes from my experiences at the North Rim, not just fire but the history of geology, exploration, and the cultural creation of value for landscapes. I even met and married my wife on the Rim. Growing up in a Phoenix, Arizona suburb and being educated at a Catholic (Jesuit) high school and then having to do manual work on a fire crew – that shock has stayed with me. I had a similar experience when I spent a field season in Antarctica.

- 2. WOULD YOU PLEASE TELL US ABOUT YOUR EXPERIENCE IN ANTARCTICA? HAS DEALING WITH ICE SOMEHOW INFLUENCED YOUR WAY OF THINKING ABOUT THE HISTORY OF FIRE AS WELL?**

My doctoral dissertation (and first book) was a biography of the American geologist G.K. Gilbert. I was interested in the history of geology and exploration, so the opportunity to spend a field season in Antarctica was a return to my academic origins. An Antarctic Fellowship sponsored by the National Endowment for the Humanities required that I spend 1-3 months on 'the ice.' I took all 3 months, spent Christmas at the South Pole and New Year's at Dome C in East Antarctica, joined geology projects in Northern Victoria Land, and returned on an icebreaker by way of the Strait of Magellan to Punta Arenas, Chile.

It was an immersive experience. I had to completely revise my project after I actually, spent time in Antarctica. Everything connects to the ice. Turning that insight to literary purpose, I learned how to make ice an informing principle in a narrative. When I turned to Australia for a fire history, I saw fire in Australia as similar to ice in Antarctica.

3. STUDYING FIRE IS STILL VERY CONTROVERSIAL AMONG THE ENVIRONMENTAL HUMANITIES, AT LEAST IN LATIN AMERICA. IN BRAZIL, FOR EXAMPLE, THE INTERDISCIPLINARY CHARACTER WITH SCIENCES SUCH AS ECOLOGY STILL RAISES CONCERNS AMONG THOSE WHO ADHERE TO MORE TRADITIONAL DISCIPLINARY BOUNDARIES. IN YOUR OWN CAREER, ESPECIALLY IN YOUR FIRST STUDIES WITH THE HISTORY OF FIRE, WERE YOU EVER QUESTIONED ABOUT YOUR RESEARCH? WHEN YOU FIRST BEGAN YOUR RESEARCH, WAS THE HISTORY OF THE FIRE A RECOGNIZED HISTORIOGRAPHICAL SUBFIELD? AND HOW DID THIS FIELD EVOLVE IN THE UNITED STATES DURING THESE YEARS?

I think no one quite knew what to make of my original work. My fire histories were recognized as ‘environmental history,’ but they did not connect with what most scholars regarded as history. At the same time, they were not science, and I have never claimed that I was doing science. Only very recently have other historians begun to study fire. As my biology colleagues might put it, the organism was flourishing but not reproducing. I think the issue is that I did not begin my fire histories with historiography or the topics that concerned historians at the time. I did not begin with contemporary history and use fire to illustrate themes of importance to historians. I began with fire and built a history for it. My books were not taught; they did not fit into existing curricula or themes.

Image 2. A photograph of Stephen Pyne removing a tree that obstructed the view from a fire lookout tower, North Rim of Grand Canyon National Park, 1970s.



Source: Courtesy of Stephen Pyne

- 4. DR. PYNE, THIS OBSERVATION OF YOURS IS UNDOUBTEDLY FASCINATING. I REMEMBER, FOR EXAMPLE, HOW WILLIAM CRONON ELOQUENTLY PRAISED YOUR WORK IN THE “CYCLE OF FIRE” COLLECTION. AND THINKING FROM THE POINT OF VIEW OF ENVIRONMENTAL HISTORY, WE WOULD LIKE TO KNOW HOW YOUR WORK WAS RECEIVED BY THIS HISTORICAL SUBFIELD SINCE YOUR FIRST BOOKS?**

Environmental historians received me as a legitimate member of their fraternity. I have even served as a president of the American Society for Environmental History. They did, not, however, know what to do with my fire books. The books seemed to exist in their own world, disconnected from the prevailing themes of the field. Yet scholarship is a social endeavor. The ideal is to inspire a group of colleagues or young scholars to take up and elaborate the subject you announce.

Instead, I appeared to live in a world I invented. As I kept writing, I may have made it difficult for someone else to enter the subject. That was not my intent. I simply found fire fascinating, and since no one else was seriously investigating it, I just kept going. I now find a younger generation attracted to fire – now that I have retired from teaching!

5. FOLLOWING UP ON THIS LAST QUESTION, WE WOULD LIKE TO KNOW, WHAT WERE THE MAIN THEORETICAL AND METHODOLOGICAL CHALLENGES THAT YOU FACED DURING YOUR CAREER AS A FIRE HISTORIAN? WHAT WERE YOUR SOURCES OF INSPIRATION (THEORETICAL AND METHODOLOGICAL) TO STUDY THE FIRE FROM A HISTORICAL PERSPECTIVE?

For a decade I lived two lives, each of which did not overlap with the other. When I was at the university, I studied, and fire had nothing to do with what I learned (I've never taken a formal course on fire; none were taught at the time). When I was on the North Rim, I had nothing to do with scholarship. Eventually, after I received my Ph.D in 1976 and was unemployed as a scholar, I decided to bring the methods I had learned as a historian to the subject of fire. In some ways I continue to pursue two intellectual themes. My fire books are the larger contribution, but my non-fire books have more critical and commercial success. With *The Pyrocene* I have more or less brought all the pieces together.

6. IN THE “CYCLE OF FIRE,” YOU PRESENT A COMPELLING STORY ABOUT THE ASSOCIATION BETWEEN HUMANS AND FIRE INTERACTING TO SHAPE THE EARTH. IN THIS APPROACH, FIRE IS THE PROTAGONIST, AND HUMAN BEINGS ARE CONSIDERED “FIRE CREATURES”. THE HISTORY OF FIRE, THEREFORE, IS IN PART A NATURAL HISTORY, BUT ALSO HAS ELEMENTS OF CULTURAL HISTORY (OR ENVIRONMENTAL HISTORY, IF WE CONSIDER THAT IT TAKES

PLACE IN THE RELATIONSHIP BETWEEN SOCIETY AND NATURE). THINKING ABOUT THESE COMPLEX RELATIONSHIPS, IN YOUR EXPERIENCE, WHAT EXACTLY DOES THE HISTORY OF FIRE CONSIST OF?

Good question. I conceive of “fire history” in two ways. One is the chronicle of fires, fire practices, and so on. The other uses fire to illuminate human history; it bonds fire to cultural, social, political, and other aspects of human life. It speaks to what it means to be human because we are the only creature that uses fire in such ways. So I address humanities questions through an unusual lens. I think my choice is justified because of the powerful way human existence has bonded with fire.

Image 3: Stephen Pyne in, Northern Victoria Land, Antarctica, 1981-82.



Source: Courtesy of Stephen Pyne

- 7. THESE ARGUMENTS OF YOURS ARE SIMPLY MAGNIFICENT, AND THEY EXPRESS A LOT YOUR PERSONALITY AS A RESEARCHER INVOLVED WITH YOUR SUBJECT. AND WHEN WE LOOK AT THE VOLUME OF YOUR PRODUCTION, WE UNDERSTAND THAT THIS REFLECTS AN ALMOST TOTAL COMMITMENT TO THIS TOPIC. WHAT MAKES YOU FEEL MOTIVATED TO EXPLORE AND FURTHER EXPAND YOUR WORK ON FIRE?**

When I completed *Fire in America*, I decided to further the subject through comparative study rather than drill deeper into the American story. That means that, for me, fire was never the same: it expressed the history and culture of the society I was exploring. All of my fire books thus have different organizations; they each express a common theme but one manifest differently according to the particulars of place and culture. So, I was always learning new things and never tired of the subject, although from time to time I did return to exploration as a topic. I wrote a book on the Voyager mission to the outer planets, and recently a conceptual survey of exploration with *The Great Ages of Discovery*. But fire always called me back. What has changed is the world. The growing presence of fire in all its forms, including industrial combustion, has granted my books a context they did not have before.

- 8. YOUR FIRST BOOKS ON THE HISTORY OF FIRE DATE BACK TO THE 1980S. LOOKING BACK ON YOUR CAREER AS A RESEARCHER, HOW MUCH HAS YOUR ANALYTICAL PERSPECTIVE CHANGED SINCE THEN? WHEN DID YOU DEVELOP THE CONCEPT OF THE “PYROCENE” AND WHAT EXACTLY DOES THIS IDEA CONSIST OF?**

I was methodically naïve when I started. I just wanted to put fire at the center of my chronicle. My problems were more literary than methodological. Later, after I learned how to make a natural phenomenon into an informing literary principle (which I did with *The Ice*), I became better at shaping a narrative around fire, or more properly the human-fire alliance. Meanwhile, I have always been interested in how industrialization changed the mutual-assistance pact between humanity and fire.

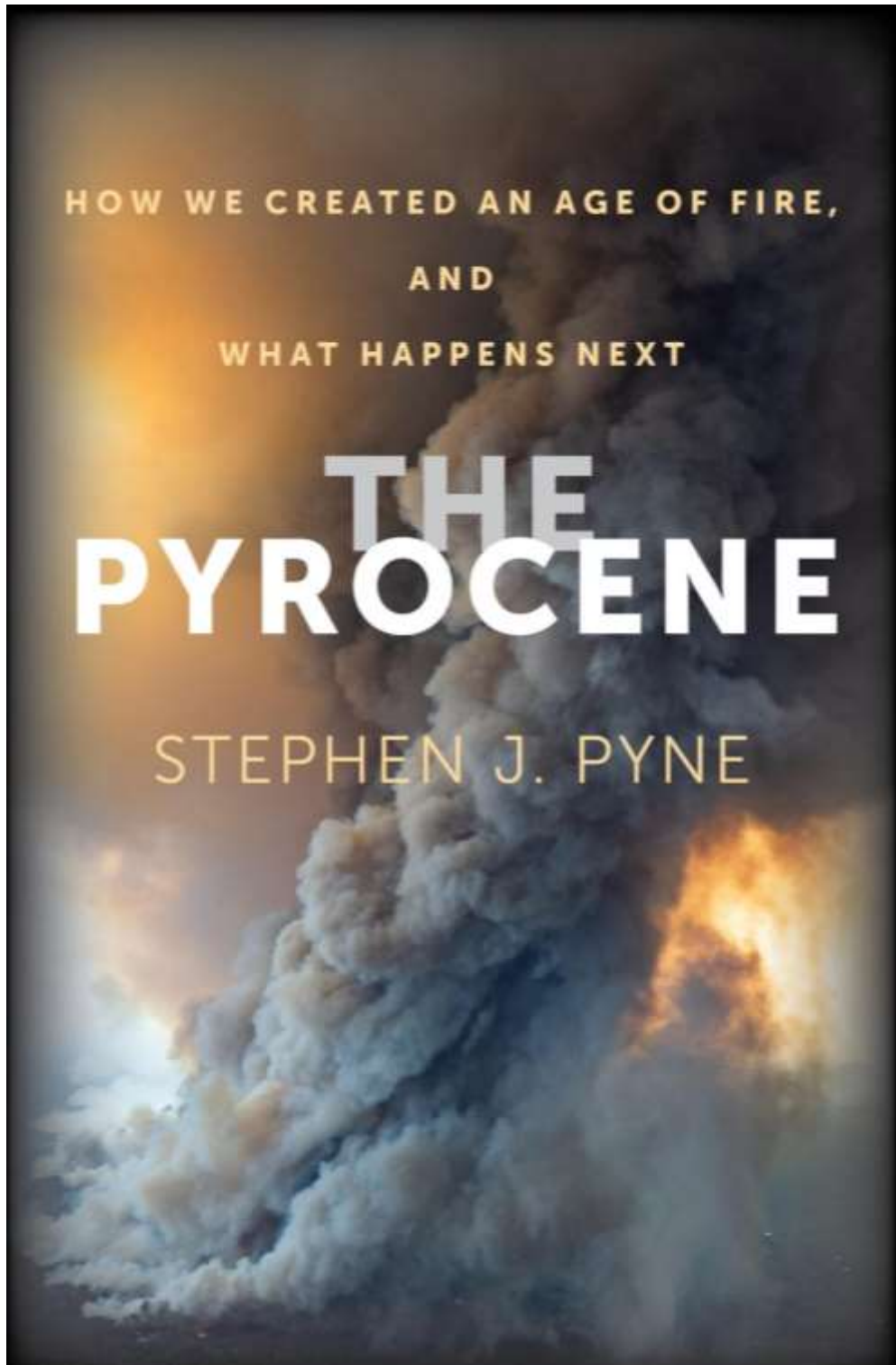
I began to trace fire's presence beyond wildlands and see how it informed so much of human life. I consolidated my ideas into *Fire: A Brief History* 20 years ago. Six years ago, after converting a TED Talk into an essay, I coined the term "Pyrocene." Since then I have used the concept to organize many essays on how fire is expressing itself in the world. The dialectic between living landscapes and lithic landscapes is fundamental. The Pyrocene distills these notions further. For me, climate history is now a sub-narrative of fire history.

I like a long Anthropocene – we should rename the Holocene as the Anthropocene. The Pyrocene is my way of attributing to fire the source of our environmental power. Burning fossil fuels put the process on afterburners, but it was underway as soon as a fire-wielding creature met a fire-receptive world at the end of the last glaciation. The Pyrocene is my reply to those commentators who say the future is so strange that we have no narrative by which to connect it to the past and no analogy by which to guide us. With fire we have a great and continuous narrative, and in a fire age we have an apt analogy.

9. THIS IS, INDEED, A POWERFUL ANALOGY. AND REFLECTING NOW ON THE MEGAFIRES THAT IN 2020, HIT BRUTALLY THE PLANET, AFFECTING DIFFERENT ECOSYSTEMS AND CLIMATE ZONES, WE ASK IF PYROCENE COULD BE A FUNDAMENTAL CONCEPT TO ALSO ADDRESS GLOBAL WARMING AND CLIMATE CHANGE?

Yes. Global warming and climate change are the outcome of humanity's fire practices – the use of fossil fuels and landclearing with fire. The concept of a Pyrocene gives us a narrative that connects what is happening to our long history of fire. The idea of a 'fire age' brings together many of the topics involved in global change. It also provides a different perspective (perhaps 'sideways') to climate change because it puts fire at the center. It makes us discuss the topic in ways that do not flow into the usual ruts.

Image 4: Stephen Pyne's new book, *The Pyrocene: How We Created an Age of Fire, and What Happens Next* (University of California Press, 2021)



10. IN LATIN AMERICA, AS IN OTHER PARTS OF THE WORLD, FIRE IN NATURAL AREAS HAS BECOME MORE FREQUENT, MORE INTENSE, AND OF GREATER EXTENSION, WITH CONSEQUENCES FOR THE SUSTAINABILITY OF ECOLOGICAL SYSTEMS. CONSIDERING THAT THE HISTORY OF FIRE AND HUMANITY ARE INTERTWINED, WHAT IS CAUSING THIS AGGRAVATION AND WHAT CAN WE EXPECT ABOUT THE FUTURE OF FIRE ON THIS PLANET?

We have changed landscapes and even climate before we began to burn fossil fuels at a high rate. But burning 'lithic landscapes' altered not only the pace of change but its character. When we burn in living landscapes, we must operate within an ecosystem of checks and balances. When we burn lithic landscapes, those constraints are gone. We can burn day and night, winter and summer, through wet and dry. The problem shifts from sources (finding more stuff to burn) to sinks (where to put all the effluent). We have unhinged the Earth. Whatever actions we take to stabilize the climate, we face a world of more fire.

11. THESE CONCEPTS YOU JUST MENTIONED (LIVING LANDSCAPES AND LITHIC LANDSCAPES) ARE PART OF AN IMPORTANT DEBATE PRESENT IN YOUR LATEST WORK "THE PYROCENE". COULD YOU GIVE US A BRIEF DESCRIPTION OF THESE HISTORICAL PROCESSES IN WHICH HUMANS ARE DESCRIBED AS CREATURES OF FIRE?

Lithic landscapes are once-living, now fossilized biomass. Humans have extracted that matter and burned it as a source of direct and indirect power. This burning, however, comes with no landscape-scale limits. We can burn day and night, winter and summer, through wet or dry. The byproducts of such burning have overwhelmed the planet, of which climate change is one consequence. This burning can only exist because of humans. With such combustion (and other products derived from fossil biomass), we are remaking the Earth into a 'third nature.'

**Image 5: Stephen Pyne and his daughter on the North Rim,
Grand Canyon National Park, 1981.**



Source: Courtesy of Stephen Pyne

12. SOME GLOBAL ECOSYSTEMS, SUCH AS NEOTROPICAL SAVANNAS, HAVE THEIR EVOLUTIONARY HISTORY ASSOCIATED WITH FIRE. ARCHEOLOGICAL RECORDS GIVE STRONG EVIDENCE THAT EARLIER HUMAN INHABITANTS OF THESE SAVANNAS, SUCH AS THE BRAZILIAN CERRADO, USED FIRE IN THEIR RELATIONSHIP WITH NATURE. EVEN TODAY, SOME INDIGENOUS AND MAROON COMMUNITIES USE FIRE IN SOIL AND PASTURE MANAGEMENT PRACTICES. WHAT CAN THE HISTORY OF FIRE TEACH US ABOUT THE RELATIONSHIP BETWEEN HUMANS AND FIRE AND THE CONSERVATION OF NATURAL ENVIRONMENTS?

Fire is our ecological role – what we do that no other creature does. The crisis developed when we no longer operated within ecological boundaries, when we treated fire as raw power. Our fossil-fuel power plants are the combustion analogue to factory farms. Fire is no longer something for which we are a steward, or a companion on our journey, but just a technology that we use to acquire power.

13. IN THE LATE 1980S YOU VISITED THE BRAZILIAN CERRADO, WHICH IS ONE OF THE MOST THREATENED NATURAL ENVIRONMENTS ON THE PLANET. FOR DECADES, THE CERRADO WAS GOVERNED UNDER A “ZERO-FIRE POLICY”, WHICH RESULTED IN LOSS OF BIODIVERSITY, MORE SEVERE FIRES, AND CONFLICTS WITH RURAL COMMUNITIES. SINCE 2014, AN INTEGRATED FIRE MANAGEMENT POLICY HAS BEEN IN PLACE IN THE CERRADO’S NATIONAL PARKS, A PRACTICE THAT HAS BEEN AROUND FOR DECADES IN OTHER PARTS OF THE WORLD TO REDUCE THE OCCURRENCE OF MEGA-FIRES. IN YOUR OPINION, ARE THESE PRACTICES EFFECTIVE? HOW HAVE FIRE MANAGEMENT ACTIONS BEEN USED THROUGHOUT HISTORY?

I toured Brazil in 1989, and later returned for short conferences in 1990 and 1991. Amazonia had created international concerns in 1988 – not really a fire problem,

but a fire-enabled problem. I was astonished at how much burning occurred, especially the practice of the “queimada para limpeza,” yet fire was universally condemned by intellectuals. The Cerrado is very similar to North America’s tallgrass prairie; in both fire is essential. To denounce fire in the Cerrado seemed to me crazy. Later, as I learned more about Europe’s fire history, I understood better this disconnect between what ordinary people actually did (and how fire functioned in landscapes) and how elites and authorities regarded fire. Europe’s elites have long considered fire as an emblem of primitivism. A ‘rational’ or modern society should find alternatives. These notions still persist, although there is revived interest in traditional or cultural burning.

14. DR. PYNE, WE ARE GRATEFUL TO HAVE LEARNED MORE ABOUT THE HISTORY OF FIRE FROM SOMEONE WHO HAS LONG BROUGHT BOTH ENTHUSIASM AND PERSISTENCE TO THE SUBJECT. THANK YOU FOR YOUR TIME WITH THIS CONVERSATION, AND I HOPE WE WILL HAVE THE CHANCE FOR AN IN-PERSON LECTURE AT A FUTURE SOCIEDAD LATINOAMERICANA DE HISTORIA AMBIENTAL (SOLCHA) EVENT.

Thanks for a fun conversation.

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