

Book Review: *Fire: A Brief History. Second edition*

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Reading a book about fire would seem a strange way of consoling oneself when a patch of native vegetation within a public reserve that one has nurtured for 20 years has just been decimated by fire, but this is in fact what happened to me last year. The Landcare patch was still black when I received a copy of the book to review.

This second edition of *Fire: A Brief History* is the most condensed in a series of five works collectively entitled 'Cycle of Fire' by prolific author Stephen J. Pyne. All his books explain in a 'scientific' manner that fires and humans (for which he uses the term "hominins" to include our earliest ancestors) are mutually linked and have now (page 182) "blurred into an almost biological symbiosis" dating back to the dawn of hominanity. Pyne makes it clear from the outset of this book (page x) that "Fire is widely recognized as a defining presence on Earth and an informing principle of the Anthropocene." Indeed, Pyne terms the present age the "Pyrocene" geological epoch.

This book takes the broadest view that fire is a force with which we are now inextricably tied. Pyne says (page 195) "We emerged out of the ice ages in the past, but we have created a fire age for the foreseeable future." Therefore, I took consolation in realising (page xv) "Fire is unique to earth and our seizure of it unique to humanity." Now fire is everywhere, and we humans *need* it to be everywhere. Indeed, Pyne extends his co-evolutionary concept in arguing that fire actually directed ancient human evolution when it made food accessible that was otherwise too toxic or too tough to consume (e.g. page 24) "It released the skull from having to brace the enormous muscles required to chew uncooked foods, thus perhaps allowing the skull to swell." Down the evolutionary pathway, Pyne considers (page 49) "A properly burned land was the emblem of human stewardship."

However, after reading this book, my initial comfort was replaced with a sense of discomfort about several matters.

The first is that Pyne has himself become so entwined with fire over his long career, that he now anthropomorphises it (e.g. page 19) "Anthropogenic fire has had to understand itself in ways natural fire never has."

The next is that the language itself renders the book distant from its message. Some sentences are overly florid (e.g. page 15) "Fire has prowled through the landscape of

Earth's history as a bear might search out berries, grubs, and fish; roaming or hibernating with the seasons, growing fat and thin with the yearly offerings.” and (page 30) “Charcoal is the spoor of early hominins.” Whereas incongruously, others confront like a university text wherein the student needs a dictionary for every word (e.g. page 197) “In a sense they resemble non-Euclidian geometries, each yielding complete explanations based on their assumed axioms.”

My next concern is the way Pyne views fire as a ‘necessary’ process for ecological landscaping. This may be so, but its benefits need to be balanced against the (human and wildlife) losses it brings. Pyne argues that organisms adapt to fire regimes, which they probably do as an entire species, but today organisms also face multiple other threats that, when combined with fire, could easily push them to extinction.

The next is Pyne’s oft-repeated view that lands long-deprived of fire somehow degenerate when a closed climax forest is attained (e.g., page 62) “Here the abolition of aboriginal fire has caused coniferous woods to thicken, the prairie to contract, and aspen groves to collapse, smearing a once dappled landscape into a common green gunk.” The message is that closed climax forest isn’t patchy. However, this “common green gunk” supports a far greater diversity of plants and animals and ecological processes than land subject to frequent fire does. Indeed, fire is not the only process that creates openings in climax forests – landslides, death of massive trees, and tree falls caused by cyclones and megastorms also create openings in climax forests.

My last concern is Pyne’s decidedly unscientific disdain for those park managers who have advocated for the exclusion of fire. He demeans them as “academic foresters” again and again. For example (page 196): “The only fire department at a university is one that sends emergency vehicles when an alarm sounds”, and (page 196) “Yet coming out of temperate Europe, they hated and feared fire and sought to learn about it only in order to eliminate it”, and (page 196) “Instead they strove to exclude fire as fully as possible, and even suppressed experimental data that suggested fire’s value.” From his own theoretical co-evolution with fire, Pyne now evidently holds a strong view that fire is paramount to maintaining biological diversity and, as a corollary, its exclusion is a really bad idea for conservation management. For example (page 171) he says “In naturally fire-prone areas or places that have long known anthropogenic fire, removing all fire, the good as well as the bad, has trashed biotas and made suppression self-defeating.” Personally, I think these managers must have been well-intentioned; perhaps they had other motivators – such as landcarers wanting to nurture the richness and beauty of a majestic, intact, old-growth forest.

Reference

Pyne S.J. (2019) *Fire: A Brief History*. Second edition. University of Washington Press, Washington, U.S.A.