



Design by Fire

Resistance, Co-Creation, and Retreat in the Pyrocene

Emily Schlickman and Brett Milligan

‘Any relationships we now make with fire – even if it attempts to be completely hands-off – will still bear a heavy imprint of our agency, which is why design by, and with fire, is so important. We have, and always had, so much choice in what nascent, fiery landscapes can be.’

Overview

Across the world, the risks of wildfires are increasing and expanding. Due to past and current human actions, we dwell in the age of fire – the Pyrocene – and the many challenges and climate adaptation questions it provokes. Exploring our past and current relationships with fire, this book speculates on the pyro futures yet to be designed and cared for.

Drawing upon fieldwork, mapping, drone imagery, and interviews, this publication curates 27 global design case studies within the vulnerable and dynamic wildland-urban interface and its adjacent wildlands. The book catalogs these examples into three approaches: those that resist the creative and transformative power of fire and forces of landscape change, those that embrace and utilize those forces, and those that intentionally try to retreat and minimize human intervention in fire-prone landscapes. Rather than serving as a book of neatly packaged solutions, it is a book of techniques to be considered, tested, and evaluated in a time of fire.



Stewarding change

The book begins with describing how the behavior of wildfire is changing around the world due to management practices, climate, and land use. It details the history of fire suppression in the American West as told through the example of Yosemite National Park in California. The chapter explores different conceptions of fire, including the Pyrocene – the age of fire – and related concepts of wilderness, nature and the urban. It concludes with a summary of the structure and sequence of the book: an atlas of fire-altered landscapes, a glossary of fire-related terms, a collection of illustrated design case study approaches for designing with fire from around the world, and scenario-based speculation on what pyro-based futures we might inhabit.

Approaches to designing with fire

Resistance – taking a stand against the creative and transformative propensities of fire and forces of landscape change.

To resist in this context, is to try to control, or to maintain a desired status quo of landscapes and how they are used and occupied. In contemporary applications, resistance is often characterized by the continuation and augmentation of established design, policy and management techniques that are increasingly challenged by the effects of past efforts (whether intended or not), as well as new and emergent challenges brought about by a rapidly changing climate and pervasive landscape alteration. Resistance includes techniques such as *foil wrapping*, *firebreak cutting*, and *ring tending*.

Co-Creation – embracing and utilizing landscape forces, while also trying to intentionally guide them.

A co-creative approach is one of give and take and feedback between people and landscapes. It's an approach that understands that landscapes cannot be controlled, but can be stewarded, cared for and collaborated with. Co-creation implies a lack of clear and distinct authorship of these techniques, as agency is broadly shared and distributed across landscape assemblies, people and climates. Co-Creation includes techniques such as *infrastructure shadowing*, *block burning*, and *firestick farming*.

Retreat – the intentional, coordinated movement of people, buildings, communities and infrastructures away from areas and landscapes of perceived high risk.

It is most commonly understood and discussed in relation to flood risk and sea level rise, but is increasingly applicable across a wide and increasing range of environmental risks, such as drought, excessive heat, toxicity, and wildfire. In contrast to resistance approaches, retreat is an intentional 'letting go' of perceived control or dominion of a landscape; of giving it over to itself to evolve and become. In most contexts, retreat is the very opposite of maintaining the cultural and ecological status quo. Retreat includes techniques such as *development limiting*, *incentivized relocating*, and *fire surrendering*.

Pyro futures

The authors conclude the book by speculating upon what pyro-based futures we might inhabit. This horizoning work begins with a synthesis of influential and interrelated factors to consider in the future of fire: global warming and accelerated landscape change, property and land use, management and stewardship, ecocultural restoration and indigenous sovereignty, insurance and liability, investments, policy and governance, and sensing, access and education. It ends by exploring how these factors could play out in future scenarios specific to California, including a future where things largely continue along current trends, a future where more proactive and adaptive measures are taken to beneficially live with fire, and a future where institutional change leads to major changes in indigenous sovereignty and land-fire stewardship public education. Whatever the future will be will contain some blend of resistance, active co-creation and retreat, varied across situations and contexts.





Stephen Pyne, ASU, author of *The Pyrocene*

“It’s no longer enough to live with fire. We have to live with a fire age. That requires new thinking, novel classifications, fresh metaphors and models, a vision of what can happen where fire, town, and country converge, so it’s great to see what landscape architects have to say. *Design by Fire* is a welcome contribution to an urgent problem.”

Alexander Robinson, USC School of Architecture, author of *The Spoils of Dust: Reinventing the Lake that Made Los Angeles*

“*Design by Fire* is the essential guidebook and atlas for the pyro-future that is already here. Whether homeowner, concerned citizen, designer, or policymaker, you will find in these extraordinarily researched and illustrated pages a foundation for understanding – and living in – the world to come.”



Miho Mazereeuw, MIT, Director of the Urban Risk Lab

“*Design by Fire* is a necessary book for all landscape architects and planners. The insightful interviews, succinct strategies, and emphasis on co-creative approaches structure the book, while the authors challenge us to grapple with current practices. They help us imagine a future in which reparations can bring traditional ecological knowledge to the forefront and imbue us with a culture of stewardship.”



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