Fire on the fringe

For the past two decades fire agencies have grappled with a seemingly new and intractable problem. Like the return of smallpox or polio, an issue they thought had vanished reappeared in virulent form. Year by year, the unthinkable became the undeniable: all across many industrial nations settlements began to burn.

The earliest formal study followed the 1983 Ash Wednesday fires that swept through southeastern Australia [1]. That report remains definitive: nearly every subsequent inquiry has reaffirmed its conclusions about how houses actually burn and what remedial measures could counter the destruction [2, 3]. In many respects these insights simply adapted to nominal ‘wildlands’ the lessons long learned for urban fire protection. Ban combustible roofing. Plug openings where embers might enter buildings. Establish defensible spaces. Provide firefighters.

The larger concern was that wild landscapes and cityscapes were being intermixed in dangerous and unprecedented ways, like some kind of environmental matter and anti-matter. That mingling assumed two different forms. One was typical of developed nations with extensive wildlands in which suburban (or exurban) sprawl pushed against reserved landscapes. In 1987 researchers with the US Forest Service coined a name for this variant, the awkwardly labeled ‘wildland/urban interface’ (WUI) or I-zone [4]. The second pattern found its best expression in Mediterranean Europe. Here agricultural lands were being abandoned, and then partially reclaimed by exurbanites [5]. The upshot for both was an explosion of fuels, houses (and communities) not built according to standard fire codes, and the absence of formal fire brigades [6].

The solution seemed obvious: install standard fire protection measures. More broadly, remove the houses or remove the wildlands. The apparitional fires would vanish as had urban conflagrations before them. In effect, define the problem as one that existing engineering, or techniques upgraded by further research, could solve. The drivers behind sprawl were fundamentally irrational: they resided in such inchoate urgings as aesthetics, a desire to ‘live in nature’, a longing for personal privacy and social isolation. Correction required the imposition of science-based reason onto the scene, which argued for research.

What you propose as a solution depends on how you define the problem. Houses were burning and residents too often dying; this was clearly a threat to public safety, an incitement for political action, and an incentive for research. But what were the causes? Scholarly disciplines and national traditions defined it differently. Europeans thought the issue fundamentally social. The breakdown in the old landscape created a disorder of which free-burning fire was a manifestation. This was in keeping with a long heritage of European thinking that identified fire with unrest and that argued that fire control was primarily a matter of social control. People needed to reassert their presence on the land.

Those countries with large public estates such as Australia and the US conceived the problem in a converse way. At issue was the unwise (and unwarranted) encroachment of people into the bush. An ideal response would be to banish people from the fringe regions. Fire is ‘natural’ and belongs in wildlands: it is people who upset the order of things. While government has a duty to shield its citizens from harm, it should not allow such measures to destroy nature preserves or the capacity of fire to propagate through them. People have to learn to ‘live with’ fire.
In both cases the prevailing assumption is that science will identify solutions, which society will apply. Yet here we have a case of countries implicitly pointing their national sciences in different directions because of their distinctive histories. It would seem that history as a discipline might also have something to contribute to this discourse both in terms of tracking land use and of explicating ideas about how people and land ought to coexist. And along with history one might add those other scholarships that analyze cultural values, beliefs and mores, and the relation of institutions—science among them—to their sustaining societies.

They are not there. An intellectual border, a kind of WUI, divides them. Grudgingly, research has accommodated some sociology and economics, partly in the hope that they will help agencies educate the general population about the proper way to cope, that is, they might bring some rationality, as the agencies understand it, to an issue awash with free-floating folly. As for other disciplines, they belong on the other side of the fringe. Yet they too might redefine the topic in ways that add practical heft to our understanding.

One might, for example, compare the contemporary wave of migrations to previous ones. For countries like the US and Australia, the anomalous interface becomes a replay of earlier colonization. Then, the dynamic was an agricultural frontier that chewed up landscapes, cast fire about, and saw combustible settlements burn lethally to the ground. Now, the process involves an urban out-migration that stuffs landscapes with exurban enclaves and regrown vegetation, that unwisely tries to ostracize all fire, and that is witnessing a macabre reburning of new communities. Industrial countries, that is, are recolonizing their once-rural landscapes, and as long as that process continues, so will wild fires.

The older frontier went aflame where land use, informed by prevailing economies, met a favorable climate. Today’s frontier is likewise most active where a global climate meets a globalizing economy. The older frontier was not equally dangerous; some sites suffered repeatedly, and some not at all. So, today, the worst outbreaks are regional: southeastern Australia, especially the Victorian mountains; California, which accounts for nearly 85% of America’s losses; northwest Iberia, particularly the mountains of Portugal and the overgrown paisaje of Galicia. While international in scope, the real hazards reside in particular places, and while telegenically graphic, the economic losses elsewhere are no worse than those caused by tornadoes. The pressures for the earlier frontier were deep, and often damaged both land and settlers, but until the momentum had exhausted itself, there was little reform possible. So it may take the Great Recession, or worse, to stem the flow of money that has underwritten the colonization of subprime landscapes. Besides, sprawl is interbreeding with whatever hazard it meets. Fire in the I-zone is less damaging than sprawl in floodplains, coastal plains, or earthquake zones.

Over the past 20 years, the responsible agencies have largely succeeded in learning how to protect people and houses when fires break out. The tenets of Fire Wise, Fire Safe, and Community Fireguard are widely known. A new kind of landscape is emerging. The worst hazards reside in the older communities that need retrofitting. A fatal plague is becoming a seasonal nuisance. But an appeal to other scholarships might—still can—illuminate the powers and limits of the proposed remediations, which ultimately rely for their success on cultural acceptance.

Fire is about context: it synthesizes its surroundings. Yet the only research context allowed is a universalist science, such that the science of south Australia can join that of Catalonia and of Missoula, Montana. It does not mingle with other scholarship. In this way we have come to understand in marvelous detail how houses burn, but not why houses are there in the first place. We understand how to prevent roofs from igniting during ember attacks, but not how to cope with sprawl’s attack on the landscape. So long as we leave fire on the fringe of scholarship, it will roar through the fringes of our new-settled countryside.
References

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