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The House is on Fire

The first essay in this month's Museletter, 'The House is on Fire,' is a wake-up call for any who may be inclined to slumber in these pivotal times. A second piece focuses on the problem of waste in an economic system that's designed to produce ever more of it.

The House is on Fire

A: The house is on fire!

B: You sound so shrill. Can't you say something witty or insightful?

A: How about this: The house is on fire!

C: We're never going to be able to do anything about the house until we defeat capitalism first.

A: But the house is on fire NOW! If we don't do something right away, we'll all die!

D: You liberals are always saying the house is on fire. Fire is what makes our house economy work. Putting out the fire would be bad for business, and business creates jobs. Just simmer down.

A: But it's really true! Can't you feel the heat?

E: The world is so unfair. Underprivileged people are always the first ones to feel the heat. We should devote all our efforts to overcoming prejudice and inequality. That's the most important thing.

A: But can't we do that WHILE we do something about the fire?

F: You're just scaring everyone. I've lived in this house all my life and we've had problems, but we always overcame them. The most important thing is to have an optimistic attitude.

A: Ack! I'd leave, but so many people are blocking the door. We're all in this together, and the house is on fire! Can't somebody do something?

G: It's really tiring to hear you bleat on about fire. Nobody's going to

listen to you until you find fire solutions that offer everyone tangible benefits in their lives—more jobs, a stronger economy, higher corporate profits, better national security. It's your negative framing that's the problem.

A: No, the problem is that the house is on fire! Maybe there's a window I could get to, if only there weren't so many people in here. Seems like it's getting more crowded all the time.

H: Have you seen Engorged? It's the new streaming channel with 200 billion hours of entertainment—movies, music, sports—that lets you peer through other people's devices to watch them watching whatever you're watching. It's so cool!

A: I think there's a window over there... but I'm getting awfully hot. And it's so crowded I can't move.

* * *

Life in the early phases of civilizational collapse is filled with absurdities that beg for artful satire. Where is Franz Kafka when we need him? Surely, he could offer a better metaphor than my hackneyed image of a house fire. But maybe it will do for now.

Of course, fire in this scenario is a stand-in for climate change—and actually for much more as well, as I'll discuss in a moment. First let's unpack the more obvious meanings.

My [recent co-author](#) (and go-to energy guru) David Fridley reminded me the other day that nearly everything we use represents a little fire somewhere—usually several of them. Your smart phone? Little fires drove the machines that extracted the raw minerals. Bigger fires smelted the metals. Little fires fueled the vehicles that transported all the parts, sometimes for thousands of miles. More little fires heated, cooled, and powered the various warehouses and assembly plants involved. Pick any object: unless it's a tree or other feature of the natural environment, a fire is implicated. The same is typically true for services—keeping us warm, cool, and provisioned with food, health care, and education. We even need fires to make solar panels and wind turbines (for example: 3,000-degree-Fahrenheit furnace fires that run 24/7 are used to make pure silicon wafers for photovoltaic panels). Granted, over its lifetime a PV panel will entail less fire than a coal or natural gas power plant producing the same amount of electricity. But if we wanted to make a hell of a lot of PV panels right away in order to replace all our coal or gas power plants, enormous short-term fires would have to be stoked.

The bind we're in is this: it is the economy—made up of all those billions of fires—that is causing climate change. Reconfiguring the economy so that it doesn't cause climate change is currently almost completely a matter of theory, and, even if it is practically possible, represents a job of unprecedented scope and scale that would require nearly unheard-of political solidarity and almost incalculably massive investment and sacrifice (those "affordable energy transition" studies notwithstanding).

Meanwhile, most people are directly dependent on the economy for

their survival. Thus, economic contraction or collapse (resulting either from climate change, or from efforts to avert climate change by radically reducing energy use, or from depletion of resources like oil, or even from some entirely foreseeable socioeconomic calamity like a massive debt default or terminal political dysfunction caused by increasing levels of inequality) would itself be traumatic. And for many people (certainly not all!), economic trauma might come sooner and be more direct and devastating than trauma from rising seas, droughts, floods, wildfires, and the other anticipated consequences of global warming.

So, of course, most people are cautious. They hesitate to go along with bold climate "solutions"—which might only somewhat blunt the climate crisis even if they were fully implemented—even though, by not taking climate action, they are further ensuring economic collapse by a different route. Although the house is on fire, very few people are willing to contemplate the kinds of bold programs that would be needed to douse the deadly conflagration. And meanwhile there are so many distractions to amuse, confound, and enrage us!—including political intrigue, seductive new technologies, and entertainment options up the wazoo.

This is the very definition of a wicked problem. I wish I had a nice solution.

As mentioned above, the problem extends beyond climate change. These days one should be just as concerned about [vanishing biodiversity](#)—the latest, and in some respects most worrisome symptom of which is the "[insect apocalypse](#)." A recent series of studies informs us that insect populations that have been studied are losing about 2.4 percent of total biomass annually, with about 40 percent of all insects already gone. A paper by [Sanchez-Bayo and Wyckhuys](#) concludes that climate change is only one of four major causes—which also (and more critically) include habitat loss due to expansion of industrial agriculture, pollution from synthetic pesticides and fertilizers, and biological factors such as pathogens and introduced species. If the insects go, we all go, eventually—as a result of ecological, economic, and ultimately social impacts and feedbacks.

Then there's the [deoxygenation of the oceans](#); the buildup of [synthetic chemical pollution](#) (partly from the breakdown of plastics) in the tissues of animals, including humans; [phosphorus depletion](#); [deforestation](#); and still the list goes on.

Under the circumstances, anyone who is even dimly conscious should be yelling, "The house is on fire!" And more people are doing so all the time. The latest example is the "[extinction rebellion](#)," an international social movement that aims to use nonviolent protest to drive radical change, with the goal of averting climate change and further [students are striking school](#) for climate action—ditching classes and attending climate change demonstrations instead. After all, why sit obediently in rows to learn how to live in a civilization that's doomed?

So, what are we who are yelling "fire" trying to persuade everyone else to do? Some activists say we need to get rid of capitalism, but

that effort has been under way since the mid-19th century and shows little sign of progress. Others say we need to create plans for ending climate change that would also simultaneously create jobs, more social equity, and corporate profits. Such plans are relatively easy to reverse engineer: start with the happy ending, then work backward. But all the ones that I've seen so far rely on major inputs of pixie dust and magic in order to achieve their goals.

The only sure solution is to start putting out fires—which, in terms of our metaphor, would mean shrinking the economy. That further translates to reducing the number of people on the planet (gradually—no genocide!) as well as the per capita rate of consumption (efforts along these lines would concentrate on the high-consuming countries). Our goal would be a sustainable and equitable level of consumption for all. But the constituency for doing that is tiny. And doing it without unleashing utter economic bedlam would require rethinking everything about how the economy currently works.

We at Post Carbon Institute have settled on the strategy of helping build [community resilience](#) in the face of impending civilizational collapse. I have colleagues outside of PCI who say that national and global action is essential to avert the worst; they still hope to convince the plutocrats and bureaucrats of the world to stage some spectacular intervention. But if the latter effort doesn't work, then grassroots community resilience building truly is the last, best fallback strategy. Theoretically, if done well (using permaculture principles), it could aid with reforestation and biodiversity protection. But at this late date there can be no guarantees.

All we know for sure is that the house is on fire.

What a Waste

Our modern industrial economy traces a straight line from resource extraction to manufacturing to sales to waste disposal. Since Earth has finite resources and limited ability to [absorb pollution](#), the straight-line economy is unsustainable; it is designed for eventual failure.

Why not make the economy circular, with waste from one process feeding into other production processes, thus dramatically reducing the need both for resource extraction and for the dumping of rubbish? We should mimic nature: it's a central ideal of the ecology movement, with roots in indigenous wisdom worldwide. Doing so requires that we reduce, reuse, repair, and recycle—and replace nonrenewable resources with renewables wherever possible.

The circular economy is needed now more than ever. America alone currently produces almost [235 million tonnes](#) of waste per year from homes and businesses, which works out to almost 4 kilograms per person per day. But that's only 3 percent of all the solid waste in the US economy; the other 97 percent is generated by agricultural and industrial (e.g., mining and manufacturing) processes. If the total US waste stream (including wastewater) is allotted on a per capita basis, each American is responsible for 1.8 *million* kilograms of waste per year.

Only about a third of waste from homes and businesses is recycled; the rate for industrial waste is much lower, with only [2 percent](#) of the total waste stream currently being recycled. Meanwhile, the 2,000 active landfills in the US that hold the bulk of household trash are [reaching their capacity](#). The US is among the highest waste-producing nations of the world on a per-capita basis, and the federal government has no strategy for dealing with the problem.

Americans should recycle more. Doing so would reduce pollution, slow climate change, and mitigate resource depletion and habitat destruction from mining and logging. But, sadly, the recycling industry faces problems. Prices for scrap metals and paper have declined in recent years (though Trump's trade war has helped domestic scrap metal prices [recover somewhat](#)), and [China is no longer interested](#) in accepting metal and plastic waste from the US.

The bigger, systemic challenge is that collecting waste in tiny, mixed amounts; transporting it to a handling facility; sorting it; cleaning it; repackaging it; and then transporting it again almost always costs more and requires more energy than just discarding the stuff into a local landfill.

Waste is what economists call an externality: it's never an intended, and often not a priced component of the production process, though it does inevitably impose costs—which are often borne by society as a whole. Manufacturers' mandate is to produce more, and this translates to the strategy of planned obsolescence—making products that are meant to be replaced quickly rather than being endlessly reused and repaired.

What's needed to circularize the economy? Two things.

First, an overall systemic commitment to the project. That means buy-in from industry, government, and citizens. Make things in such a way that recycling is easier. Focus on extending [producer responsibility](#). Automobile manufacturers, for example, already use a wide range of [recycled materials](#) in their products, and like to [take credit](#) for doing so. But making the auto industry truly circular will require participation throughout the entire supply chain, support from government via incentives and regulation, and consumer education. Other industries, such as consumer electronics, lag far behind the auto makers, so there is truly an enormous task ahead.

But the other thing we need to do will be an even bigger challenge: we need to ditch the growth imperative. As long as profit maximization and overall growth are the implicit goals of the economy, recycling will remain a boutique industry driven largely by relatively rich people who can afford to assuage their ecological consciences.

If we are to have a truly ecological materials flow, we must start with [Natural Step](#) principles. No using renewable resources at faster than replenishment. No drawing down nonrenewable resources. No polluting ecosystems with products or byproducts of industrial processes.

A truly circular economy will be one in which all industrial processes are harmless to people and nature. That means that all “growth” will have to occur in the cultural sphere rather than in flows of materials and energy. We must focus on human happiness rather than GDP; on rates of participation in education and the arts rather than quarterly sales figures.

Currently, we are far from having a circular economy, and that gap is embodied in overflowing landfills and giant barges of trash with nowhere to go—as well as a [plastic gyre](#) the size of Texas in the Pacific Ocean. Will the monuments to our civilization consist of mountains of refuse? We can certainly do far better, but that will require us to make a systemic commitment to building a circular, steady-state economy whose aim is beauty and happiness rather than growth for growth’s sake.