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Op-Ed

Unlearned lessons from Chernobyl and Fukushima

Do we collectively care about our planet, our home, this Earth, or don't we? When the economic bottom line rules decision-making, losses elsewhere can be staggering.

By Henry Shukman

April 3, 2011

As far as I could tell from the advertising at the hotel where I stayed in Kiev last year, Ukraine's chief export these days is brides. But it wasn't always that way. Twenty-five years ago this month, Ukraine's best-known export was a whole lot of radiation.

After Reactor No. 4 blew up at Chernobyl power station on April 26, 1986, the resulting disaster took two years and 650,000 people to clean up. Except it will never really be cleaned up. Nuclear fallout and waste can be moved and sequestered, but not deactivated. Even today the meltdown at Chernobyl leaks radiation through cracks in the vast "sarcophagus" of steel and concrete that was intended to seal it. The whole area around it is still deeply, if unevenly, contaminated.

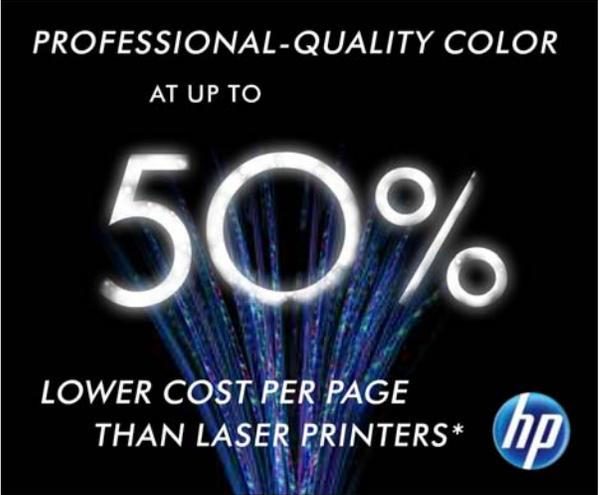
And that contamination isn't confined to Ukraine. A quarter-century later, there are farmers in Wales whose lamb is too radioactive to sell, and just last summer thousands of wild boar hunted in Germany were declared unfit for human consumption for the same reason.

In 1973, the ecological prophet E.F. Schumacher wrote, "No degree of prosperity could justify the accumulation of large amounts of highly toxic substances which nobody knows how to make safe and which remain an intangible danger to the whole of creation." He was talking about nuclear waste from the relatively young nuclear power industry. To pursue nuclear power, he declared, meant "conducting the economic affairs of man as if people really did not matter at all."

Does anyone still read Schumacher's "Small Is Beautiful"? It came out nearly 40 years ago, but it might as well have been written last year for its relevance today. Its central thesis is that we have allowed economics to overtake philosophy, religion and morality as the dominant ideological force in our world. Does it make sense to do X or Y? The answer will be found in the numbers, in the bottom line. No other concerns need be considered.

Do we collectively care about our planet, our home, this Earth, or don't we? If we've spent our whole life

advertisement



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The advertisement features a black background with glowing blue and white text. The central focus is a large '50%' with a percentage sign, where the '0' is formed by a fan of light rays. Above it, the text reads 'PROFESSIONAL-QUALITY COLOR AT UP TO'. Below the '50%', it says 'LOWER COST PER PAGE THAN LASER PRINTERS*'. The HP logo is in the bottom right corner.

in the concrete jungle and don't know what mountains, lakes and forests truly are, it may be hard to know just what exactly there is to care about. As long as the refrigerator runs and the lights go on when you flip the switch, you may never stop to ask where all that power actually comes from.

Last year I went to Chernobyl to visit one place that was demonstrably treated "as if people did not matter at all."

[Photo gallery: Aftermath of the meltdown at Chernobyl](#)

At the time Schumacher was writing his tract against economics as philosophy, a nuclear power station was being built in Ukraine that the Soviets hoped would become the largest in Europe. But just 13 years later, while its fifth reactor was being built (out of an expected total of eight) the fourth one blew up. Cesium, strontium, uranium, plutonium and untold amounts of other radioactive material were spewed out. A 2,000-ton slab of concrete was shunted from horizontal to vertical by the force of the blast, like a piece of balsa wood. A column of blue light shone into the sky for two days — ionized air. Locals left their houses to gaze at the sight, not knowing they were exposing themselves to tremendously high doses of radiation, having been assured by authorities that nothing had gone seriously wrong at the plant.

The aftereffects of an energy release that great don't just get cleaned up and go away. Chernobyl may never be cleaned up. The half-lives of cesium and strontium are about 30 years each — comparatively short (uranium's is 4 billion years) — but that still means it would take hundreds of years for cesium and strontium to lose enough radioactivity for the area to be safe for humans.

Just as they've done around the Fukushima Daiichi plant in Japan today, authorities set up an exclusion zone, to contain the uncontainable, and evacuated 100,000 people, as well as 135,000 cows. Today, the Chernobyl exclusion zone has turned into a vast wildlife refuge. Thousands of boar, deer, elk, bison and hundreds of wolves, eagles, lynx and bear have moved back and proliferated. As has the forest. Roads, houses, schools, synagogues — all are overgrown, with trees piercing old roof beams and young birches sprouting from balconies and terraces. The city of Pripyat, built to house workers at the nuclear plant, has turned into one huge birch grove, with mildewed, skeletal concrete apartment blocks rising up in its midst.

The message seems to be clear: Move the people out, and nature will bounce back, even after a nuclear disaster. Some may see this as cause for optimism. But it's not so simple. It's true that the more complex and thin-skinned an organism, the more sensitive it is to radiation, and that by and large wildlife is not as sensitive as we humans are. Nevertheless, recent studies suggest that genetically, the newly reestablished ecosystem at Chernobyl is far from healthy.

Sure, there are no mutant lizards, giant worms or three-headed cats. But there are albino swallows, and mice with inherited radiation-resistance, and genetically damaged birch trees that grow without central trunks and look like feathery bushes. No one knows how healthy the large animals are genetically. Some researchers have found damage to their genomes, but how widespread this is, no one is sure.

Only one thing seems certain: Disasters like those at Chernobyl, Three Mile Island and perhaps now Fukushima make it clear that nuclear power is not the fantastical free lunch of limitless, clean electricity promised by the industry. A big part of the solution to our energy needs lies not with supply but demand. As a child I used to roll my eyes when my parents nagged at me to switch off the lights when I wasn't in a room. I liked the extravagant blaze of light on a dim winter's day.

But they were surely right. If only each of us would do our small part, and turn out the unneeded light, we could make a difference. We could indeed find that less is more, that small is truly beautiful.

Henry Shukman is a poet and novelist who lives in New Mexico. His most recent work is the novel "The Lost City."

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