

Midden

by David Lindsay

I'm thinking about establishing a midden here on our farm. Not the dung-pit type, of course. I was raised in a devout composting family, and the very notion of mixing organic with non-organic waste triggers a wave of revulsion deep in my gut. No, what I have in mind is a thoroughly modern and hygienic home-based garbage dump, mostly comprising food and beverage containers, since that is the primary source of our household waste. Granted, it won't really be a kitchen midden until sometime in the distant future, when the site is excavated for the sake of gleaning clues about the consumptive habits of 21st century LaHave Drumlin dwellers. So at this point it's kind of a legacy project.

The idea came to me because there has lately been much consternation and debate about the economics of recycling. Specifically, some Canadian municipalities are complaining that it just doesn't pay to sort glass and ship it off to be melted down and made into new mustard jars and wine bottles. They want to go back to the time-honored practice of dumping glass at landfill sites.

To people who are unwaveringly devoted to recycling, as a matter of principle, this is abhorrent. Until recently I would have counted myself among these high-minded recyclers. The first time friends invited me to sail offshore in a small vessel, I was shocked to learn that seemingly civilized boaters habitually toss glass containers over the edge. "It's just sand!" they told me. "What do you think's at the bottom of the ocean?" I didn't have a good counter-argument. Still, that carefree nautical heave-ho felt wrong. It went against my programming.

Glass is great stuff. It is 100 percent recyclable, it can be recycled endlessly with no diminution of quality, and new glass can be manufactured using up to 95 percent recycled content. It would be the perfect material for recycling, except for that thing about sand; the virgin feedstock is readily and cheaply available. And although the energy requirement for making glass is reduced in relation to higher proportions of recycled feedstock in the mix, these energy savings are modest; you still have to get the furnace temperature up to about 2700 degrees F. This means that recycled glass – even after it has been cleaned and sorted and busted up into the commodity known as "cullet" – just isn't worth very much. If you have to truck it great distances, the economics get pretty sketchy.

Market forces also deter the recycling of plastic. There are many types of plastic, varying widely in chemical composition, so the assorted plastic containers in your average blue bag would have to be shipped to several different plants – some likely halfway across the country. And it's not just a matter of melting down yogurt tubs and reforming the goo into new yogurt tubs. Recycling plastic usually results in a lower-value material, for which some new use must be found – so the term "downcycling" is sometimes used as a more accurate description of the process.

HEAT AND POWER

A few years ago I was fortunate enough to get a guided tour of the Ljungby energy plant in Southern Sweden, which not only produces power for the electrical grid, but also pumps hot water through underground pipes to heat about 80 percent of the homes in this community of 14,000 people, in addition to providing heat for local industries. (This dual-function approach stands in sharp contrast to our power plants here in Nova Scotia, coal and biomass alike, which waste most of the steam energy

once it has served its primary function of spinning the turbines). It's a very impressive facility. But in the control room, amid all the computer monitors and high-tech gizmos, I was shocked to see a worker in a Thin Lizzy t-shirt using a remote joystick to grapple giant fistfuls of household garbage. Looking through the window into the cavernous fuel delivery bay below, we could see this material being deposited on a conveyor destined for the boiler fire. I couldn't believe that these seemingly civilized Swedes were still burning their rubbish. "What do you think plastic's made of?" asked the Swedes rhetorically. "It's just oil!"

Burning garbage is taboo here in Canada (although the practice persists in the hinterland, for ceremonial purposes). In Sweden, landfilling garbage is taboo, but incineration is a source of national pride. Of course they separate non-combustible garbage – especially metal, which can be recycled economically. But plastic is chock full of BTUs, and apparently it can be burned cleanly if the flue gasses are passed through precipitators and scrubbers, keeping emissions well below EU limits. So if plastic has to be transported a considerable distance to be recycled, burning it for energy is deemed to have greater monetary and environmental merit. (The Swedes also burn lots of wood chips, sometimes at the same plant, as is the case at Ljungby.)

The problem with this utilitarian policy is that demand tends to drive supply, and pretty soon the fundamental principles of resource management go up the chimney. Nova Scotia's huge forest biomass plant, in Port Hawkesbury, is a case in point. As for Sweden, this eco-nation is now importing garbage from elsewhere in Europe to help meet its fuel needs. In this market environment, there's not much incentive to reduce consumer packaging. (Can't wait to get my hands on those Ikea lightbulbs, sealed in finger-lacerating clear plastic cases.)

Similarly, there's not much incentive to increase recycling capacity. And if some recycling plants close, shipping distances increase and the economics get worse for municipalities. To make matters worse still, the recent drop in oil prices is depressing the price of recycled plastic, which means municipalities can barely give the stuff away.

I recently heard a CBC interview with Mark McKenney, an industry consultant in B.C., who said low-cost oil has spurred increased production of virgin plastic in the U.S., the Middle East, and Asia. "People are swimming in cheap resin," he remarked – perhaps not intentionally referring to that vast garbage gyre in the North Pacific, although he may as well have been.

CATEGORIES

In my midden – my artisanal garbage dump – I will make an effort to separate different materials, even though this was not the agrarian custom. When we bought this rundown old farm we found many refuse piles, roughly categorized as household garbage and mechanical garbage (likely reflecting the gender of the dumper). Back in the woods we found a lot of car parts, including remnants that confirmed local lore about a previous resident who drove an Austin – a source of great curiosity. (Its rubber floor mat, bearing the BMC logo, found a new home in our privy.) We also came across the frame of a motorcycle; a manual typewriter with the poignant appearance of having been punched in the teeth; and a rusty DDT can, which disabused us of any notions about this land having always been pristinely organic.

Closer to the house we found the kitchen garbage. The cans continue to rust away, but the glass glistens. That's the great thing about glass; it does not disintegrate. Amazingly, many bottles remain intact, and with each spring thaw new ones are heaved out of the duff. It turns out that blue glass, which I always associated with Noxzema or Harvey's Bristol Cream, was once quite common. (Inevitably, we assembled a row of these cobalt jars on a window sill.) At a more discreet location beyond the field, I found a pile of identical clear bottles, the small type that almost certainly contained vanilla extract – more interesting for the story of illicit tipling than for the artifacts themselves.

I'm convinced we should try to switch to glass for food and beverage packaging. It's inert, and it's environmentally benign. Glass is heavier than plastic, so transport costs are higher, but it's not as heavy as it used to be. In a sane economy, glass containers in a few standard sizes and shapes would be returned for deposit and re-used. We have mostly given up on that model, in favor of wildly diverse single-use jars and bottles, so it's just as well manufacturers have made them about 40 percent lighter over the past 30 years.

When I cannot avoid plastic garbage, I'll cache it in the barn – the same way people who grew up during the Depression save bread bag ties. It might be needed sometime in the future, to make something that really requires plastic, like medical supplies (or under desperate circumstances, process cheese slices).

The glass can be stashed outdoors, which is what makes it a midden. Contemplating this, I'm recalling a trip I took when I was in my 20s – didn't even own a car at that time, much less a farm – when I visited the underwater archaeology museum in Bodrum, Turkey, which houses artifacts recovered from an 11th century shipwreck in coastal waters nearby. The vessel contained three tonnes of cullet, clearly destined for recycling in one of the glass centres in the Byzantine Empire. Those people had sand aplenty. I wonder if they suspected what we know now: there is nothing so abundant that it cannot be squandered and depleted through human endeavor.