Madagascar Primate

Zero Waste Institute Newsletter for April 2012

When you listen to the radio in the SF Bay Area, you learn what the programmers know – the listening audience usually has more expertise than the expert you are interviewing. That surely also describes the readers of Scientific American. In the February 2012 issue, a letter writer hit a chord for Zero Waste even though he didn't use that term.

Van Snyder of La Crescenta California writes:

In 'Afghanistan's Buried Riches', Sarah Simpson discusses the availabilty of rare-earth elements which are needed for high-tech manufacturing but are in short supply. She does not however note that these minerals are present in nuclear power plant "waste".

In roughly 50 years of operation, the U.S. has accumulated about 60,000 metric tons of used nuclear fuel. Within that so-called waste stream, one can find significant amounts of cerium, samarium, gadolinium and europium, all rare-earth elements listed in the article. (Sci Am Letters, Feb 2012, p. 6)

I have written about nuclear so-called waste on the ZWI website, pointing out that there is only one solution to any "waste" problem and that is definitely not storing it in a dump or a repository. The only way to eliminate "waste" is to reuse the product perpetually. If it is consumed in use (like clothing or food) then so be it. If it changes form (like food) then use that. The fact that it is toxic or radioactive changes nothing. Use it again! But I did not realize that there are so many rare-earths available. We still need to ask whether they are too radioactive to use normally. If so, we might find uses for those isotopes. But finding new uses is the only game in town.

Leslie Corrice, in his informative website on the re-use of nuclear waste (below) recommends waiting fifty years for most of the rare-earth elements to lose their radioactivity completely. And he has uses for the rest of the mix too.

From David Pogue, October 2011:

Power cords. We've all griped at one time or another about our drawers full of ugly, mutually incompatible chargers. Every new cell-phone model, even from the same manufacturer, used to require a different cord (and car and plane adapters), racking up another $50 per phone sale per customer.

And then, one great morning, electronics executives must have confronted themselves in the mirror, filled with shame, and decided to shut down that extortionist, environmentally disastrous profit center.

In Europe, for example, all the major cell-phone makers agreed to standardize their cords. Today every phone model uses exactly the same interchangeable micro USB power cord.

Readers of these newsletters may recall that in November 2009 I hailed the introduction of the new chargers that were said to save 51,000 tons of incompatible chargers being discarded every year. I pointed out that this trick was done without any recycling whatsoever, by using a normal Zero Waste method – standardization. At that time I issued a challenge that still stands. Will the charger manufacturers now apply standardization and modularization to the chargers themselves? What this author misses is that the plugs may be standardized but the chargers are not. A single cable connection or resistor or capacitor that blows can cause an entire device to be **discarded**. For Shame! And then maybe the charging circuits inside the devices themselves can be standardized. Repairs are almost impossible. Why does saving the planet have to proceed in such baby steps? The analysis is here for all to see, yet the manufacturing world seemingly cannot bring itself to adopt intelligent design standards until they are forced to. Two and half years elapsed between the first announcement and Pogue's acknowledgement of implementation.

In this article from a San Diego newspaper we learn that:

San Diego area architects and designers can recycle unused projects or parts through a new program that helps schools or non-profit groups at the same time.

"The Zero-Landfill San Diego Project 2012 is designed to keep samples like carpets, tiles, or ceramics from ending up in a landfill.

"Anybody that needs product to create projects, have fun with, use in their schoolrooms, whatever they need samples for, we've got them and they're free," said project coordinator Paula Clark Waller."

Now this is just fine. Architects' samples can include mock-ups (models) of entire buildings or samples of curtain material or floor tiles. They are some of those many things that are so specialized you can only wonder who could possibly reuse them. Maybe this will break open the subject and they will be someday be valued as art objects and be auctioned off or displayed in museums. It's the same idea as thrift shops and used book shops which also find homes for excess used goods.

But why does the impulse to reuse always stop with the simple, the essentially meaningless in terms of bulk usage? Why is the cute and the personal always the subject of newspapers and videos? Fer chrissakes, these are designers. They design buildings! They (99%) design buildings to use new materials that are put together in ways that allow no reuse except by smashing the buildings and picking out shards of concrete or steel or bricks or plaster. They salvage a few windows, doors and piping but by and large, this stuff is at best smashed up and at worst put into a dump. Why can't they realize that buildings could be designed in standardized and reusable modules, designed to be disassembled and reused as high function modules. For more discussion see PROJECTS>BUILDINGS on the ZWI website.

Notice – an improvement in the ZWI website

I finally took care of a problem on the website that I want you to know about. Some people like to put on the dog and tell me that Zero Waste can't work because it contradicts the 2nd Law of Thermodynamics (tip: it doesn't). So I put the argument together, got some ideas on how to add some calculations and put it on the ZWI website. Look at the home page of the ZWI website and scroll down to the key word "Thermodynamics". I have tried to make the discussion accessible to non-technical readers as well.

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PLEASE PASS ALONG – PLEASE ASK TO BE PUT ON OUR EMAIL LIST

LINKS AND NOTES:

1) David Pogue's monthly tech discussion: http://www.scientificamerican.com/article.cfm?id=big-progress-on-the-little-things for October 2011.

2) Leslie Corrice, The Hiroshima Syndrome: **http://www.hiroshimasyndrome.com/nuclear-waste-is-it.html.** *However I disavow his inordinate love of nuclear power and radiation. He thinks we need more ionizing radiation than we are getting, to maintain health. And the Fukushima disaster doesn't faze him. - PP.*

3) ZWI Newsletter: http://zerowasteinstitute.org/wp-content/uploads/2010/06/November-20092.pdf