

What you have here on this website <http://zerowasteinstitute.org/> is a description of how all commerce and industry will be designed in, let's say, a hundred years. There is no alternative. We cannot continue to design in the most wasteful way we can find, just to sell more widgets when the first, shoddy ones are thrown away. If you give some assistance and join in the project, perhaps this will become the dominant paradigm much sooner - maybe in ten or twenty years. If the Occupy movement is successful in eliminating purposeful wasting, maybe sooner rather than later. What we are doing today is not sustainable.

There's that tricky word again. At one time, sustainable seemed to have a simple meaning. Can we keep doing what we are doing into the foreseeable future and still deliver a working system (planet, economics, social system) to our children? If we are going to run out of resources or collapse the economy or destroy ourselves in a nuclear holocaust, then it isn't sustainable. But the definition has become muddled because many people need to dumb it down so that they can call completely wasteful practices by this high-sounding word in a process called greenwashing. The unfortunate result is that this reasonably well defined word is now viewed with distrust by the public.

Not everyone takes the same view of sustainability. There is a cadre of extremely rich people who are used to skimming the best of everything and hoarding it for themselves, what the Occupy movement calls the one percent though they may actually include the top ten or twenty percent. These people do not look at the entire planet the way others do. They have shown that they can build ski slopes in the deserts of Qatar so climate change doesn't worry them. No matter how the surface of the earth twists and distorts from heat and currents and cyclones, somewhere on earth they will find a calm, lovely place where they will build a gated community that the 99% can never enter. The last tail of fossil fuels will last this small group for a thousand years. They will find everything they need and their society will be eminently sustainable -for them. And those outside of that closed community? They can serve the elites or die - two good choices.

Is this a wild, unrealizable dream? Can they impose it on a wounded earth? In any case, it is not my dream and it is not where we draw our inspiration for sustainability. True, the elites, in their infinite greed, have decided that nothing will be done to stop climate change so long as they can make money by immoderate squandering of the earth's resources in war against everyone that is not them. But we continue to have hope that the garbage mentality that now rules, that now seizes even the unthinking public, can be turned into a conservation mentality before it is too late.

Some very formidable opponents are arrayed on the other side. The Garbage Industry is politically powerful. They have wormed their way into the hearts of every city council with the argument that never fails - money and power. In many or most cities of the US, garbage service is assigned as a monopoly franchise to a single company. There is no logical reason for this franchise, but there is a political one. The franchised companies are often granted unbelievable contracts of a type that are found nowhere else, called "evergreen" because they never expire. They are signed, by the city treasurer, for ten or twenty years. Every year, they are renewed for ten or twenty more years. So if the city wants to look for another company or to put its contract out for competitive bidding, it can't. It has to buy out ten or twenty years of fat contracts first. As if this were not enough, it is common for the franchised garbage company to kick back a portion - ten or fifteen percent - of its collection fees to the city council for a slush fund that is very useful to councilpeople. I estimate that in California, the kickback is \$300 million to \$500 million a year for all cities. The numbers are hard to find. There is no legal reason for this unusual kind of kickback. It is a tax on the citizenry, disguised as something else. The cities are so

eager for this rich freshet of unearned money to continue that they often pass a law that elevates garbage collection to a height enjoyed by no other utility. Every citizen is forced to hire the garbage company whether they want to or not. And if they don't pay their bill, the city will pay the bill for them and then put a lien on the citizen's property, forcing the citizen to pay or jeopardize his property.

In recent decades, the garbage industry has found an amazing new way to greenwash its operations. The environmental movement discovered the enormous flow of garbage headed for dumps in the 1960's and desperately searched for a solution. Theirs was the first one that came to mind; try to find uses for all that garbage. The result was called recycling and at first it made sense. But it relied on a fact that could not quickly be changed, namely that the flow of garbage was a given. Today, Zero Waste analysis offers an alternative to maintaining the flow of garbage so recycling no longer makes logical sense. The flow of garbage is not a given, but a disaster that can be changed. Has this made recycling disappear as a solution? Not at all. The garbage industry realized decades ago that recycling is a gift from heaven to their destructive propaganda. They support recycling to the hilt, providing money for recyclers' salaries, for conferences, for political campaigns and for everything needed by a powerful industry that has discovered a powerful lobbying technique that pays off like a slot machine. Today, recycling means something quite different. It means that garbage is wholesome and fragrant because after something is worn down, thrown away and handed over to the garbage company for a hefty fee, it can still be recycled. The garbage can be jumped on, shredded, smashed to bits and a few pieces of glass or copper can be extracted and held up for the world to see. "Look world, no more garbage!" While behind the scenes, the flow of worn out, obsoleted, shoddy goods continues to flow into the dumps and incinerators in gigantic rivers.

That is the struggle of the Zero Waste Institute. To turn around the deceptions, the propaganda and the institutionalized immobilization of will felt by the public. To shine a light in the dark and reveal the outlines of a beautiful theory of remaking industry, commerce and society so that the garbage goes away. The public resists - because the propaganda for perpetual garbage creation is relentless. But it all has to change. Join us in this struggle.

This introduction conceals a hidden challenge. To you, the reader. You have the ability to learn from the new designs that are offered in the pages called PROJECTS. You can look at the pages called PRINCIPLES and see what are the motivations behind the kinds of design being offered. CAN YOU PROVIDE SOME DESIGNS TOO? Don't just be a reader, a consumer here. Pick a product and redesign it using Zero Waste methods. Only that will make you feel comfortable with the approach. Go to CONTACTS and email me your ideas. I will be happy to discuss or critique or praise it. Here are the projects.

Sometimes I get Registrations coming to me from readers but they say nothing except an email address, usually because they are bogus advertising messages. I do want to hear from you. Please, if you want to contact me at zwi@sonic.net, write a note with some substance, such as who you are, where you are and what is on your mind. Bare registrations are just deleted.

In recent decades there has been a strong effort to improve the way we do and make certain goods and efforts. The organic food movement and the Transition Town movement (see below) are two examples. There are community gardens and a vastly better way of growing plants called Permaculture. Michael Pollan, in his book *The Omnivore's Dilemma*, describes a beautifully organized way of farming applied by Joel Salatan in North Carolina. I take notice of what these efforts all have in common. They are primarily

directed at food production. Is this sufficient to motivate a new revolution in production? Hardly? As the scientists would point out, for our survival, food is necessary but not sufficient.

Of course if you are reading this at all, you are probably using a computer or a smartphone. You may be in a house with a refrigerator, a microwave oven, plumbing for incoming and outgoing water, electrical wiring throughout your house and plaster, wood or ceramic walls, floors and rooves. This is just the beginning of the devices and modern industrial products you depend on. If you go outside, you have cement walkways and streets, you have cars, buses, trains and airplanes. The list could go on forever. None of these fall under the rubric of "food". If we get into social or industrial trouble of some sort, are you willing to give up all of these many things and fall back on just eating better grown food? I doubt that anyone, even the most ardent permaculture adherent, would answer "yes". We live in a technologically and industrially complex world. Some of it is excessive but most of it is immensely attractive on some important level. We couldn't even go back to life without buildings if we wanted to. Ninety percent of we humans would need to die, or vanish, to live primitively on the land. The foodie movement simply does not deal with more than a tiny proportion of what we modern humans depend on for a decent life. Yet when you bring up the questions of how technological and industrial products need to be redesigned for a new way of integration into modern society, most people look at you blankly. Food changes are normal, common and accepted. Industrial product changes strike people as uncommon, not widely discussed and frightening because our interaction with them is not personal in the same way that food is. Even personal clothing, medicine and appliances, though we use them directly, are not accessible to simple redesign since they mostly come to us from distant or unknown places. Hand tools may be made by blacksmithing as the Transition Movement urges, but mostly it is food which absorbs the bulk of the redesign effort.

I am describing a failure of thought. We are not going to redesign our societies in a revolutionary or conservative or sustainable way unless we deal directly with ALL of the products of our lives, not just our food. Our production methods are failures at the effective use of resources across the board. It all has to change. Zero Waste theory addresses the ways in which our entire way of production and usage can be upgraded. Food is included but only as a first example.

There are other problems with the theoretical analysis of resource usage. Two such are the introduction of recycling and the locus of wasting. Neither one of these is really the way they superficially seem. People everywhere are taken in by simplistic assertions which give them the false impression that they understand everything they need to understand about products. But this is a very complex field which includes extraction and transportation worldwide. Every aspect of production extends globally today. All of our products, even the ones that seem to be unitary or simple, include large numbers of parameters and assumptions, far beyond the obvious. At all levels there are complex economic and political connections. No one knows the whole story without a good deal of study.

Recycling is dealt with at length throughout this website so I will not address it here except to say that it is an explicit and well understood scam by means of which the garbage industry seeks to blunt any criticism of design for garbage creation. The recyclers, like their sponsors, the garbage industry, would like the public to accept the simplistic notion that wasting occurs when some good or material is

physically discarded into a dump, or ultimately destroyed like by putting it in an incinerator. This locus for when wasting occurs is very convenient for the whole garbage dependent world because it then leads to the corollary that if you can interfere with that final step, with the throwing and discarding, then you eliminate waste. This whole notion is dead wrong! The waste inherent in making an inferior product begins when you make the decision to design for low quality and short life, but it is truly effectuated when you invest substantial resources in creating the inferior product. This is where you use up the raw materials, the employee hours, the engineering, the energy to run the machinery and you have to pay all the people who work on the product to buy homes, raise children, drive cars, eat and the rest. After this, the ultimate fate is already decided. Simply capturing a small fraction of the bare materials at the last minute does not avoid any wasting worth mentioning. The wasting took place long before that final step of discard.

This idea includes some subtlety. You should be starting to see how subtle and non-obvious this whole area can be. Changing the way society designs, creates and uses its goods is not trivial. It entails a revolution in production. Fortunately, it does not require that a whole society be turned over at once. There are many ways to upgrade individual products and individual usage modes in one corner or another of the industrial/consumer juggernaut. This revolution can be approached somewhat piecemeal, so long as one does not encounter global and fierce resistance to the whole notion of reuse. That resistance may in fact exist somewhere but in the world of business, there is a good deal of freedom to invent any product you want and market it and use it in any way that makes sense. The revolution in product design and usage can be introduced to the consumer marketplace one product or product class at a time. There is a groundswell of appreciation for environmentally conservative methods and so a new introduction of a superior product has a ready market. One critical need is for the marketing to explain clearly why the new product is superior and more protective of planetary health. There is no need to dominate markets. As products are introduced, a very small market share will be more than adequate for business success. This revolution may be both televised and advertised.