

Jaclyn Gault, Urban Studies Department

CRADLE TO CRADLE: REMAKING THE WAY WE MAKE THINGS

By William McDonough & Michael Braungart

North Point Press, 2002

Table of Contents

Introduction: This Book Is Not a Tree

Chapter One: A Question of Design

Chapter Two: Why Being “Less Bad” Is No Good

Chapter Three: Eco-Effectiveness

Chapter Four: Waste Equals Food

Chapter Five: Respect Diversity

Chapter Six: Putting Eco-Effectiveness into Practice

Notes

Acknowledgements

The main goal of Braungart and McDonough’s Cradle to Cradle is to show the reader a viable alternative to the traditional “cradle to grave” manufacturing model, presenting instead a model that mirrors nature’s cycle in which “waste equals food.” They are strong advocates for the notion that waste, any waste be it biological or technical materials, does not have to harm the environment or be detrimental to human health. Their arguments do not stop there, however; the authors challenge the current recycling system, eco-efficiency ideas, and several policies advocated by mainstream environmentalists around the world. This controversial book presents incredibly convincing arguments, backed up by thorough research as well as personal experiences both men have designing everything from shoes to entire factories. They discuss solutions for the short term as well as the long term, acknowledging the fact that “it is going to take forever. But then again, that’s the point.” (p.186)

The book Cradle to Cradle focuses primarily on the impact that waste produced by our manufacturing and production processes has on the environment and human health. It traces the world's current situation to the Industrial Revolution, when people began to realize they needed to deal with the large amount of waste being produced from their large and "efficient" new systems. The authors claim that there are other *reasonable* ways to produce and deal with waste. The authors provide many theories, as well as real life examples of cost effective, energy efficient, and environmentally friendly methods of producing goods without harmful waste produced at all.

The authors talk quite a bit about the inadequacies of the current system; about how reduce, reuse, and recycle is simply a delaying strategy rather than a solution. They talk about the cradle to grave manufacturing cycle; why it is in place and how one could change it without reducing the quality of products. They encourage eco-effectiveness over eco-efficiency, meaning that the current system is set up for things to be made faster and cheaper, but not necessarily any better. They model their theories on the idea that nature produces "waste," but it is not seen as damaging or inefficient or needing to be contained; rather it is used in a new cycle, and they believe that humans can do the same. They discuss what we could do with toxic products now, how to manufacture goods without producing any waste in the typical sense of the word, how to improve quality of working environments, and making a product just as useful after its primary intended use is over.

Whether or not one agrees with the authors that the ideas they present are the "right" solutions, anyone reading the book must agree with them that the problem of waste is one that cannot be ignored. The system in place now is not designed to be good for the environment or human health, and is definitely not sustainable. In our manufacturing process we pollute water,

air, and soil, we take away the quality of life of the workers by making factories unwelcoming and unhealthy places to be, we produce things that are less expensive to throw away than to get fixed and have a very limited lifespan, and we produce items that contain chemicals which are known to cause everything from allergies to cancer. And when we are done with the products themselves we must either “downcycle” (as the authors like to call the current recycling system), throw it in some ever-growing landfill, or burn it and release all those toxins into the air.

Whether you buy recycled products, or attempt to be less harmful to the environment, you are still contributing to this system of “cradle to grave.”

The entire theory that the authors present is based on the environment. They do not want to have less of a negative impact on nature; they want to have a positive impact. They want human waste to promote growth and diversity and follow in nature’s footsteps. If we continue on the way we are currently, using up valuable resources in products and making it so that we can never retrieve them again, and leave behind nothing but toxins and pollutants in the air, water, and soil, eventually we will have nothing left.

*The book addresses what the authors see as the primary problems of today, but focuses mostly on solutions. They discuss design concepts, new production models, the inspiration from nature that waste equals food, and respecting diversity all as a way to “eliminate the very concept of waste” (p.15) entirely. They truly believe that this is possible and talk about factories whose water leaves cleaner than it came in and creating truly recyclable products that can be recycled indefinitely and never lose quality.*

The health issues that have resulted from our lack of good production/waste systems are the most acknowledged social problems addressed in the book. Cancer causing agents are in so many products that they discuss, it is amazing that more is not being done to stop or limit their

use. They address the use of products by children, and how many can develop asthma or other allergies from simply using the products. The book addresses the health of people working in factories, not just in the US, but all over the world. Design is pointed out as a major flaw that needs to be addressed, and the reader is given many examples of new and improved designs that enhance the quality of the workplace; whether it is in a manufacturing plant or a commercial office building.

The solutions that the authors propose for the health conditions mainly consist of having a list of “x-products” that would no longer be used at all; following those with a list of products that could be used on a limited basis, and finally products that would be encouraged to be used. Although this is incredibly straight forward, it is just as incredibly difficult to implement. It would require governmental regulation on a global scale, every country putting this “list” into their system of production. *Their ideas for design however, are much easier to implement.* Many companies choose efficiency over effectiveness due to cost, but McDonough and Braungart argue that many of these important changes will either save the manufacturer money over time or, in many cases, be cheaper right from the start. Due to regulations that are currently put in place, it would be cheaper to change the way you produce something than to try to limit the harm you are causing while doing it the same way. *The authors advocate for things like green roofs, heating/cooling systems that use daylight and heat the workers only when and where it is necessary, and architectural design that makes the place a pleasant environment (ie: places to eat, skylights, safety features, and functional windows).*

It is obvious through the entire book that the authors have done their research, citing everyone from Winston Churchill to Henry Ford, Bill Clinton to the Yakima Indians. However, their most convincing arguments come from their extensive background knowledge and the

projects that they have worked on themselves. Collectively they have worked on designing factories, packaging, shoes, heating systems, solvents, office buildings, books (like this one), green roof systems, fabrics, housing, bioremediation treatments, wind power and solar power. Currently their company, McDonough Braungart Design Chemistry, is working with Nike, Ford, Herman Miller, Volvo, and the City of Chicago to implement new design strategies for sustainability.

This book is filled with extremely valuable information and a challenging new way of thinking about the current systems. Many of the issues presented here, I had never personally given much attention. And to see them broken down to the basics, then be provided with practical solutions, makes the reader truly feel like all is not lost. The most important thing I learned is that it does not matter where you place the blame; something just needs to be done. One of the best lines in the book is “Should manufacturers of existing products feel guilty about their complicity in this heretofore destructive agenda? Yes. No. It doesn’t matter . . . Negligence is described as doing the same thing over and over even though you know it is dangerous, stupid, or wrong. Now that we know, it’s time for change. Negligence starts tomorrow.” (p.117)

McDonough and Braungart explain the economic system, the manufacturing process, and the complex history and current situation in simple and direct terms. They make the solutions feasible and explain in detail exactly how changes can be made. At times it can seem a bit far fetched, but they are only attempting to project solutions for the future, when we have better technology to deal with toxic waste that we currently cannot. They admit that will not happen overnight, which I appreciate, and they also talk about how difficult it is to change something that is so ingrained in our society. They are quite good at not blaming anyone and not talking down to the readers, even with their extensive knowledge. Only briefly did it seem “preachy” as

is my experience with many environmentalist writers, and I think that they are so passionate about their work that they make up for it with their enthusiasm.

This book should be read by everyone interested in sustainable development. Many of the ideas are practical and make you think about issues in ways you may not have before. It challenges the mentality that it is ok to simply prolong the inevitable, rather than make drastic necessary changes. Even if you do not agree with all that the authors have to say, it definitely makes you think twice about current environmental standards and proposed solutions. I have already recommended it to all my friends, and some classmates.