

Cradle-to-Cradle: Sustainable Property Management

By James Dieter, CPPMCF



We are in the midst of a paradigm shift in attitudes toward the environment that will likely affect us in ways we cannot yet understand. What can we in the profession of property management do to assure that we as individuals, and as representatives of a wide assortment of organizations, stay abreast of developments and optimally position our organizations? How can you, and your organization, make a difference?

LET'S START AT THE END...

- Take it away...
- Give it away...
- Throw it away...
- Make it go away ...

When we don't want "stuff" anymore, we just want it to go...

AWAY.

How did we get to this mindset? It was called the Industrial Revolution.

Some of the unintended consequences of the Industrial Revolution include:

- Billions of pounds of toxic material put into the air, water, and soil every year.
- Some materials produced are so dangerous they will require constant vigilance by future generations.
- Enormous amounts of waste.
- Valuable materials dumped in landfills and dumps all over the world, where they are not reused or recycled.
- Thousands of complex regulations – not to keep people and the environment safe, but rather to keep them from being poisoned too quickly.
- Productivity is measured by how few people are working.
- Prosperity is created by digging up or cutting down natural resources and then burying or burning them.
- Diversity of species and cultural practices has been eroded. ¹



But now we see that "Away" has gone away. Actually, "Away" is like Oz, it never really existed at all. And if "Away" has gone away, what about Cradle to Grave? Clearly, to property professionals, "Grave" = "Away." So, it appears "Cradle to Grave" is (or soon will be) a concept of the past. Perhaps we as property professionals need to rethink "the asset management lifecycle?"

Rethinking Acquisition

Environmentally Preferable Purchasing (EPP) is a US Government initiative to make smart choices in the acquisition process. And they get smarter, and better at it, every day. Check out the EPP website at <http://www.epa.gov/epp/index.htm>.

On the EPP website, you will also find a reference to Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management (PDF)." (<http://www.epa.gov/epp/pubs/products/epeat.htm>). The Council on Environmental Quality and the Office of Management and Budget issued the Implementing Instructions for E.O. 13423 (PDF). Among other actions, this order directs Federal Agencies to use EPEAT, the Electronic Product Environmental Assessment Tool. EPEAT was developed using a grant by EPA and is managed by the Green Electronics Council (GEC). EPEAT is a system to help purchasers in the public and private sectors evaluate, compare and select desktop computers, notebooks and monitors based on their environmental attributes. EPEAT also provides a clear and consistent set of performance criteria for the design of products, and provides an opportunity for manufacturers to secure market recognition for efforts to reduce the environmental impact of its products. EPEAT-registered computer desktops, laptops, and monitors must meet an environmental performance standard for electronic products - IEEE 1680- 2006.

William McDonough and Michael Braungart in their influential book

"Cradle to Cradle: Remaking the Way We Make Things" detail a new approach to ownership of "stuff" - as a product of service: Manufacturers would retain ownership.

"Instead of assuming that all products are bought, owned, and disposed of by "consumer," products containing valuable technical nutrients – cars, televisions, carpeting, computers, and refrigerators, for example – would be reconceived as services people want to enjoy." ²

In such a future, products could be designed to be disassembled. Although longevity in us and our stuff is a positive, especially when the stuff remains productive, nature does not design things to last forever. Maybe your kids will not want that orange lamp. Manufacturers would have permanent responsibility for storing and reusing hazardous materials. No useless and potentially dangerous waste, as the manufacturer reuses raw materials and manufactured parts. Savings of billions in raw materials is experienced as we diminish the extraction of raw materials. There will be little need for landfills and dumps in this future.

Key Concepts in rethinking acquisition include:

- Rethink ownership relationships.
- Plan and design for end of life.
- Manufacturer is/will be responsible for their entire "value chain."
- Longevity becomes a key characteristic.
- Packaging and shipping are important factors.

Actions for Property Managers in rethinking acquisition include:

- Become an expert and become involved in your organization's purchasing process.
- Stay current, as there is new and better information every day.
- Reutilization should be the first source of supply.

- Consider what rights to acquire – lease or a product take back program?
- Plan for use – Energy Star, EPEAT, etc.
- Purchase for quality and longevity.

Rethinking Use

“All the ants on the planet, taken together, have a biomass greater than that of humans. Yet their productiveness nourishes plants, animals, and the soil. Human industry has been in full swing for a little over a century, yet it has brought about a decline in almost every ecosystem on the planet. Nature doesn’t have a design problem. People do.”³

First and foremost, eliminate the concept of waste. “90% of materials extracted to make durable goods in the US become waste almost immediately.”⁴ It is the grocery store plastic, or paper, bag taken from the micro to the macro. Why not a reusable canvas bag? Why not reusable packaging? Why does a bottle of aspirin come in a box? Why do earphones and other consumer electronics come in impenetrable plastic containers?

Maintenance becomes a much more important factor. Do you repair the clothes dryer or replace it? I recently faced this question in a rental property. My first reaction was that it didn’t make financial sense to spend \$200 to fix an older dryer, when a new one could be bought for \$500. Then I realized that I hadn’t considered the true cost comparison, as I hadn’t considered the cost to dispose of the old dryer. And even then, that charge doesn’t begin to cover the true cost of such a big piece

of metal and machinery in a landfill, or being crushed for remanufacture as low grade metal. I changed my mind. Let’s get it fixed.

And of course, whatever the topic, we are never far from semantics as a part of the issue. Consider typical dictionary definitions of “Sustain.”

Sustain:

1. To keep in existence; maintain.
2. To supply with necessities or nourishment; provide for.
3. To support from below; keep from falling or sinking; prop.
4. To support the spirits, vitality, or resolution of; encourage.
5. To bear up under; withstand: *can’t sustain the blistering heat.*
6. To experience or suffer: *sustained a fatal injury.*
7. To affirm the validity of: *The judge has sustained the prosecutor’s objection.*
8. To prove or corroborate; confirm.
9. To keep up (a joke or assumed role, for example) competently. - The Free Dictionary by Farlex

Sounds like a pretty good description of a property professional! “Sustainment” fits equally as well, but then we would have DoD Logistics folks tell us that “sustainment” is their word for supporting weapons systems.

Key Concepts in rethinking use include:

- Longevity becomes a key characteristic.
- Minimize energy usage (Energy Star).
- Carbon footprint calculator.
- Upgrade equipment rather than replace.
- Toxin awareness.

Actions for property managers in rethinking use include:

- Optimize usage of assets.
- Reduce: Use less through better Inventory management (How many copiers?).
- Schedule: Day to day, program to program.
- Prevent loss.
- Recycle batteries, toner cartridges.
- Identify and report lifecycle cost elements, calculations, and results.
- What are the consequences of telecommuting for property managers?

Rethinking Disposition

Wal-Mart CEO Lee Scott:

“If we throw it away, we had to buy it first. So, we pay twice – once to get it, once to have it taken away. What if we reverse that? What if our suppliers send us less, and everything they send us has value as a recycled product? No waste and we get paid instead.”⁵

Disposition and disposition planning have long been the property management mechanisms for making stuff go “away.” It seems it may be time for a new hierarchy of preferable disposition options. Perhaps:

- Reuse – internal
- Product take back
- Reuse – external

Disposition is easy with a lease or product take back program. Of course, the valuable insight from property professionals is that if you need to send it back, you need to know where it is! You need to manage the asset the entire time it is

in your possession – at least in accordance with ASTM E2608-08, Equipment Control Matrix (ECM) Standard.

So, what about recycling? How come we haven't talked about that? Environmentalism = Recycling, right? Recycling is good, right? Actually, not nearly as good as we would like to think. Better than the landfill? Yes. But, typically recycling is down-cycling. In the dryer story previously mentioned, if the discarded dryer was broken down into components or similar types of materials/metals, much of the dryer could return to the "value stream" at the same level, rather than at the level of lower grade metal achieved by crushing it all together with copper and plastic, etc. Also, "often recycled products, for example carpet and paper can have more negative toxic impacts than new materials. And can be more expensive."⁶

Key Concepts in rethinking use include:

- Plan and design for end of life during acquisition.
- Packaging and shipping are important factors.

Actions for Property Managers in rethinking use include:

- Reutilization as first source of supply.
- Product take back program – simple!
- Segregate industrial scrap for reuse as raw material.

Away

So, "Away" has gone away, or soon will. Cradle to Grave? The same.

Grave = Away = Landfill or worse

It's time for a new paradigm – Cradle to Cradle! Cradle to Cradle is the concept of the present and the future. First we need to rethink our lifecycle and then impact the way our entities perceive the way stuff is used and consumed by the entity. Finally, we need to change our actions and the actions of our organizations.

We need to move from the linear concept – lifecycle:

- Asset Management Lifecycle
 - Acquisition
 - Use
 - Disposition

Linear Concept Lifecycle



And move to the Asset Management Life Circle:

- Acquisition
- Use
- Disposition

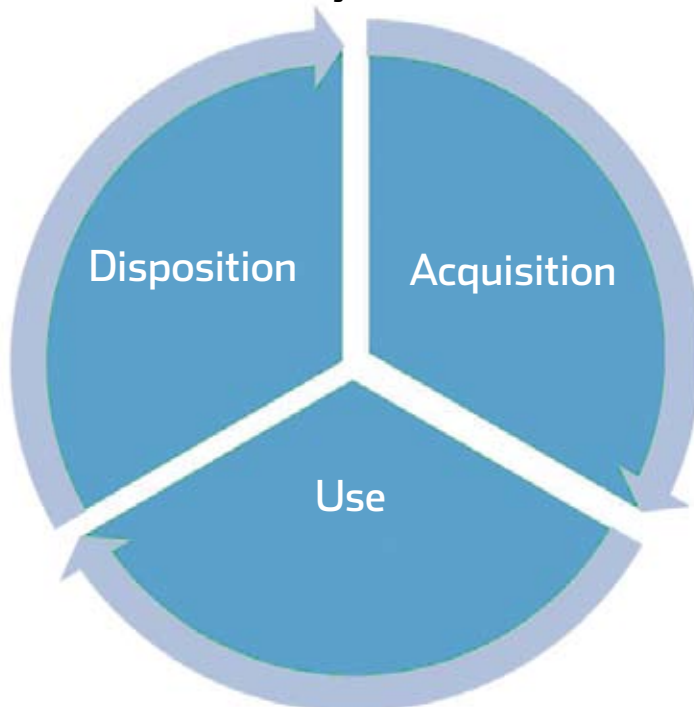
Revisiting the Unintended Consequences of the Industrial Revolution

Why don't we create:

- "Buildings that, like trees, produce more energy than they consume and purify their own waste water.
- Factories that produce effluents that are drinking water.

- Products that, when their useful life is over, do not become useless waste, but can be tossed on to the ground to become food for plants and animals and nutrients for the soil; or alternately that can return to industrial cycles to supply high-quality raw materials for new products.
- Billions, even trillions, of dollars worth of materials accrued for human and natural purposes each year.
- Transportation that improves the quality of life while delivering goods and services,
- A world of abundance, not one of limits, pollution, and waste."⁷

Asset Management Life Circle



Sustainable Property Management

The "Tipping Point" as described by Malcombe Gladwell has been reached on this issue. From a variety of different authors with wildly divergent points of view and interests, going green is now good business.

- "Sustainability has ecological, economic, and equity components that are no longer viewed as competing, but rather as complementary."⁸
- "I am convinced that economic self-interest – whether it is achieved by saving, earning, or both – is the most powerful, if not the only, force capable of bringing about the future we need in time to make a difference to the well-being of Mother Earth."⁹
- "Creating sustainable value is a way for companies to advance their business priorities, drive innovation, and achieve competitive advantage. Doing so in today's competitive context requires leading companies to carefully consider the social and environmental dimensions of their business activities."¹⁰

THE BEGINNING

Fittingly, as we started with the end, we end at the beginning. It's the beginning of a new way of doing business. And property managers have a key role to play. ■

ENDNOTES

- ¹ Cradle to Cradle, McDonough and Braungart, Pg. 18
- ² Cradle to Cradle, Pg. 111
- ³ Cradle to Cradle, Pg 16
- ⁴ Cradle to Cradle, Pg 27
- ⁵ Stirring It Up, Gary Hirshberger, pg. 148
- ⁶ Cradle to Cradle, Pg. 59
- ⁷ Cradle to Cradle, pg. 90
- ⁸ Living Green, pg. 145
- ⁹ Stirring It Up, pg. xii
- ¹⁰ Sustainable Value: How the World's Leading Companies Are Doing Well by Doing Good, Chris Laszlo, Pg.119

REFERENCES

- Hirshberg, Gary; "Stirring It Up: How to Make Money and Save the World": Hyperion, 2008
- Horn, Chris; "Living Green: A Practical Guide to Simple Sustainability": Freedom Press, 2006
- Jackson, Wes; "Becoming Native to This Place": Counterpoint, 1994
- Laszlo, Chris; Sustainable Value: How the World's Leading Companies Are Doing Well by Doing Good": Stanford Business Books, 2008
- McDonough, William and Braungart, Michael; "Cradle to Cradle: Remaking the Way We Make Things": North Point Press, 2002

BIOGRAPHY

Jim Dieter, CPPM CF is the Director of Strategic Programs for Sunflower Systems™, a leading provider of asset management solutions and software, where he works to ensure that these tools meet current and evolving future needs of government property managers and enterprise asset management programs. Previously, Dieter was the Manager of Government Property and Transportation at Northrop Grumman IT, and was the Chair of the Northrop Grumman Property Council. He is an At-Large Executive Committee Member of ASTM Committee E53 on Property and Asset Management Standards, and has chaired various ASTM subcommittees and task groups, including leading the task group that developed the Equipment Management Process Maturity (EMPM) Model standard. Jim has been an NPMA member for over 20 years and in 2005 was honored with the Jack E. Griffiths Memorial Award as the NPMA Property Person of the Year.