Recycling 4.51

Module 4.51: waste reduction and recycling
Reduce, reuse and recycle: 3 R's
Source reduction: see also Tesla manufacturing: "best part of any car is the part you can delete" also reusable containers, buying in bulk (e.g. health food store)
Reuse: easiest example is shopping bags, also cups here at the elab
Recycling: can be closed loop (carpet, asphalt) or open loop (PET bottles in to garments or decking-TREX)

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- Tough ones: glass and paper
- Glass needs to be melted to be reused, we don't do this in Hawaii, so there is a carbon footprint to transporting it to be recycled
- Paper is easier, but uses water to recycle, and again, has a carbon footprint for transport in Hawaii.
- Amazon boxes are a prime example...
- Composting: degrading naturally: if just paper, good for worms (e.g. Willie's garden)
- If food, can be a rodent issue (e.g. VC garden)
- Both are aerobic processes, so need to be well ventilated or "turned"
- Egg farm downhill from HPA: another example

LIfe cycle analysis:
Cradle to grave or cradle to cradle (William McDonough) Integrated waste management:

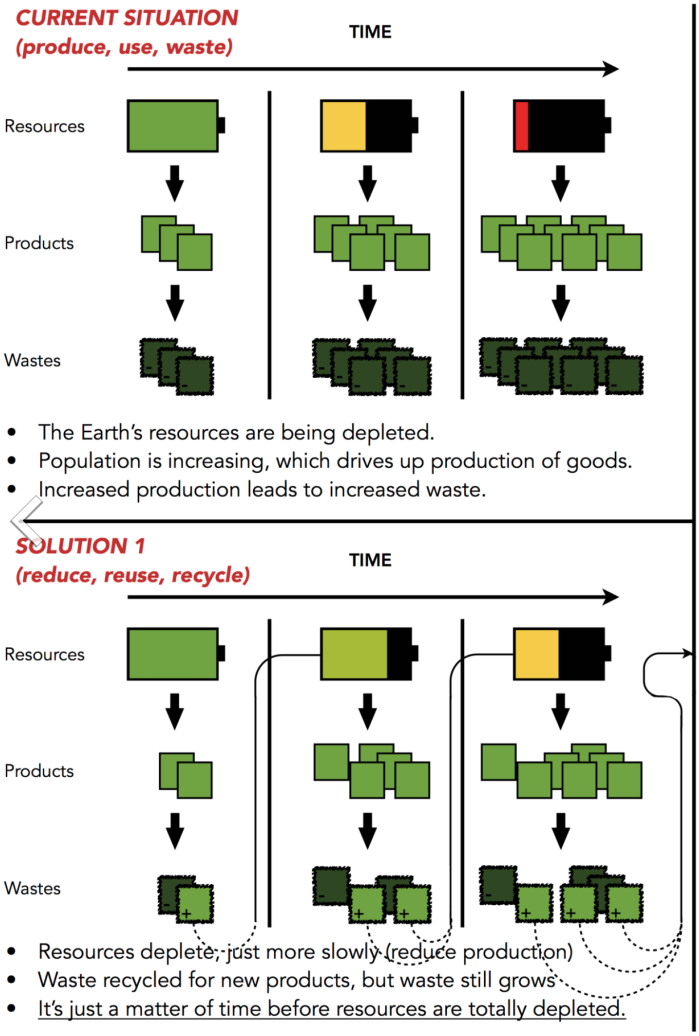
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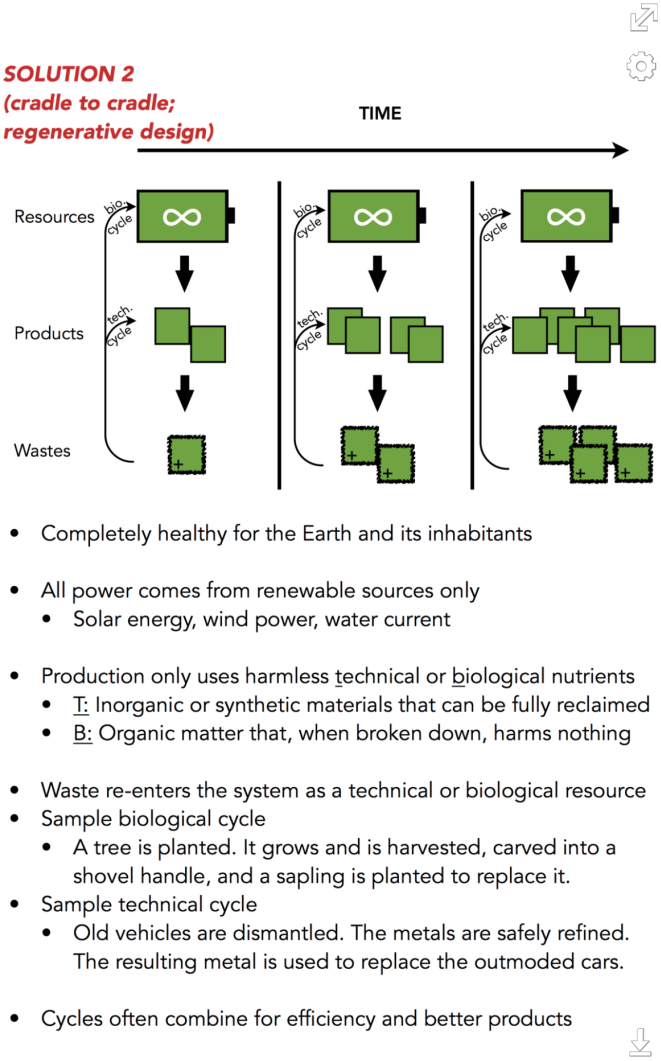
Designing for reuse: cradle to cradle design

https://www.youtube.com/watch?v=QMsF1P-_vWc

https://elab.hpa.edu/apes/videos/Introduction%20to%20Cradle%20to%20Cradle.mp4

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