“Sustainability means living on nature’s income rather than its capital.” — Murray Gell-Mann, Nobel Prize Winner

“Sustainability is an economic state where the demands placed upon the environment by people and commerce can be met without reducing the capacity of the environment to provide for future generations. It can also be expressed in the simple terms of an economic golden rule for the restorative economy: leave the world better than you found it, take no more than you need, try not to harm life of the environment, make amends if you do.”

Principles of Sustainability

/ Low-impact materials: choose non-toxic, sustainably-produced or recycled materials which require little energy to process
/ Energy efficiency: use manufacturing processes and produce products which require less energy
/ Quality and durability: longer-lasting and better-functioning products will have to be replaced less frequently, reducing the impacts of producing replacements
/ Design for reuse and recycling:“Products, processes, and systems should be designed for performance in a commercial ‘afterlife’.”[3]
/ Biomimicry:“redesigning industrial systems on biological lines ... enabling the constant reuse of materials in continuous closed cycles...”[4]
/ Service substitution: shifting the mode of consumption from personal ownership of products to provision of services which provide similar functions, e.g. from a private automobile to a carsharing service. Such a system promotes minimal resource use per unit of consumption (e.g., per trip driven).[5]
/ Standardization and modularity: standard, modular parts allow products to be repaired rather than replaced and promote interoperability so that systems can be upgraded incrementally rather than wholly scrapped and replaced.
Green Graphic Design

Considerations:

/ Material and energy usage
/ Considering lifecycles
/ Design for recyclability, reusability, and recoverability
/ Consider materials production impact
/ Optimize production techniques
/ Lower impact packaging and distribution
/ Maximize length of product’s life
/ Use environmentally aware printers
  w/ sustainable practices
Green Graphic Design Principles

What can we do: *The choices we make.*
- Overall Design Solutions
- Paper
- Inks
- Other Printing Solutions
- Packaging
- Numbers
- Business Choices
Consider Overall Design Solutions

/ Communicating with lowest amount of impact
/ Focusing on the right audience
/ Crunch the numbers
/ Don’t be afraid to consult your client on poor choices
/ Communicate your client’s sustainability awareness
/ Educate yourself ...
  http://www.designcanchange.org
  http://onehundredthings.wordpress.com/
  http://themightyodo.com
Consider Paper Options

- Fibers: Bamboo, Cotton Linters, Sugarcane Bagasse, Hemp
- Post Consumer Waste
- Other Certifications to look for:
  - FSC (Forest Stewardship Council)
  - SFI (Sustainable Forestry Initiative)
  - CSA (Canadian Standards Association)
  - EPA
- Avoid such processes as bleaching
  - look for EFC (Elemental Chlorine Free)
  - or PCF (Process Chlorine Free)
  - or TCF (Totally Chlorine Free)
- Energy use: Hydroelectric, Wind, Hydropower
Consider Ink Choices

- Avoid VOCs (volatile organic compounds), non-renewable resources, and heavy metals.
- Renewable resources include inks made from soy, vegetables, linseed, etc.
- Avoid inks with pigments that leech out dangerous chemicals like cadmium, lead, etc.
- Ask about reusing inks.
- Use less ink coverage.
- If using a coating look at better options.
- Water-based aqueous.
- Lamination is an issue, emitting VOCs.
Consider Finishing Options

- Glues, bindings, labels
- Recyclability of foils, scratch-offs, etc.
- Up-to-date mailing list
- Communicate recycling options
Packaging Considerations

- Does it make the planet or us sick?
- Renewable resources and energy use
- Efficiency (logistics, materials use, recyclability)
- Does it protect, inform, and sell with an added bonus of restoring some of the resources we’ve already wasted as well as increase positive consumer perception?
- Learn more: www.sustainablepackaging.org
Printer Considerations

/ Paper and ink options
/ Commitment to environmental stewardship
/ Fuel and energy use
/ Water use
/ Air emissions
/ Solid waste recycling and disposal
/ Toxic emissions
/ Transportation and storage
/ Environmental violations
/ Community involvement
/ Innovative use of clean technologies and sustainable business practice
/ Learn more: http://www.pneac.org
Advise your client

- Client is aware and wants to display CSR (Corporate Social Responsibility)
- They’ll be asking for it
- Counsel on both content and form
- More concerned with CSR than cost savings
- Fortune 500 environmental reports