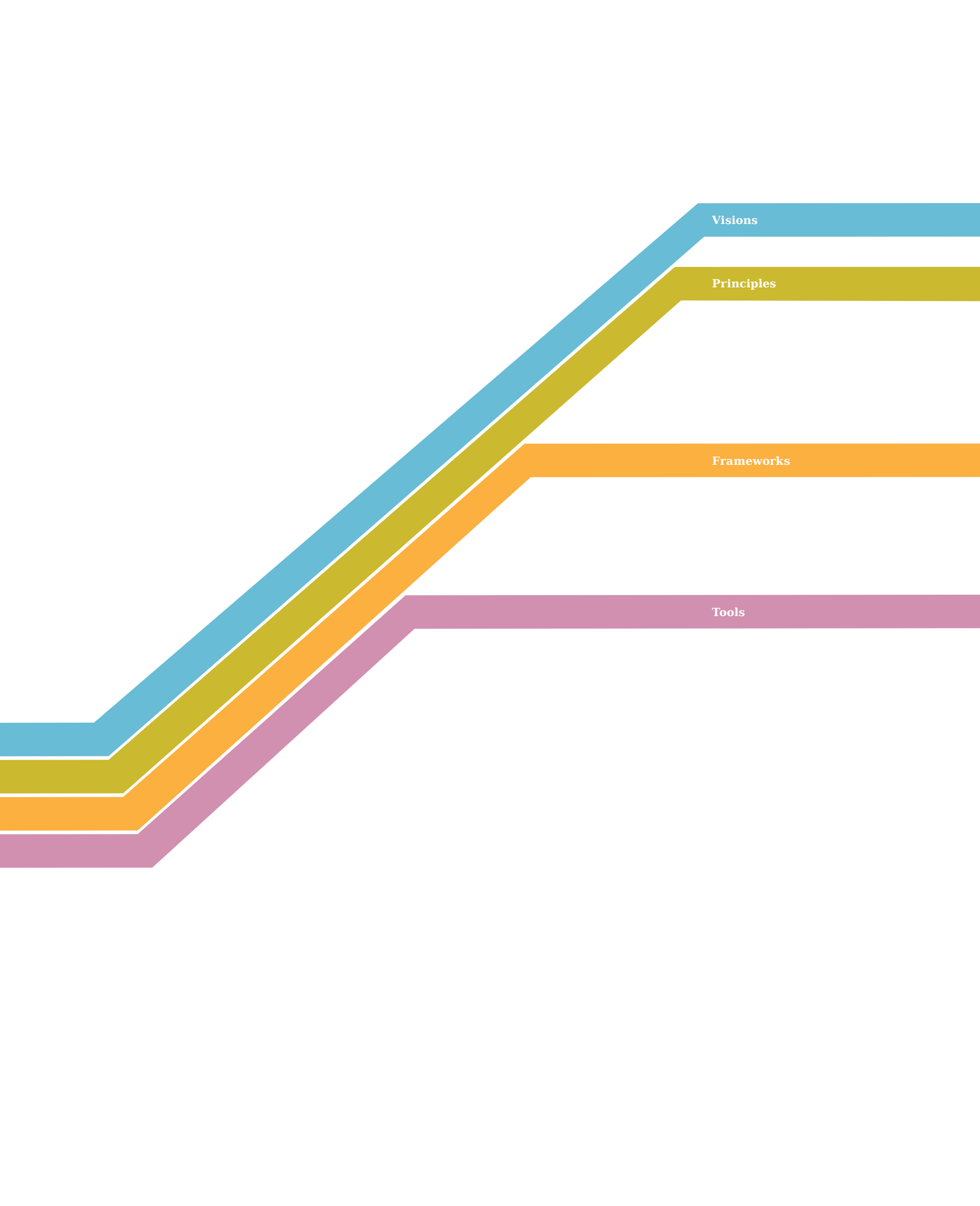




Resources›



6	First Things First <i>Ken Garland » 1964</i>
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31	Total Beauty™ <i>Edwin Datschevski, Biothinking » 1994</i>
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33	Natural Capitalism <i>Paul Hawken, Amory Lovins and Hunter Lovins » 2002</i>
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48	Design Can Change <i>Eric Karjaluoto and smashLAB » 2007</i>
49	11 Design Questions <i>Chris Hacker, Johnson & Johnson » 2007</i>
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53	Labels and Certifications



Visions

First Things First

Ken Garland » 1964

Vision

Written by Ken Garland in 1963, the manifesto was signed by 22 designers and first published in The Guardian newspaper in January 1964.

We, the undersigned, are graphic designers, photographers and students who have been brought up in a world in which the techniques and apparatus of advertising have persistently been presented to us as the most lucrative, effective and desirable means of using our talents. We have been bombarded with publications devoted to this belief, applauding the work of those who have flogged their skill and imagination to sell such things as: cat food, stomach powders, detergent, hair restorer, striped toothpaste, aftershave lotion, before shave lotion, slimming diets, fattening diets, deodorants, fizzy water, cigarettes, roll-ons, pull-ons and slip-ons.

By far the greatest efforts of those working in the advertising industry are wasted on these trivial purposes, which contribute little or nothing to our national prosperity.

In common with an increasing number of the general public, we have reached a saturation point at which the high-pitched scream of consumer selling is no more than sheer noise. We think that there are other things more worth using our skill and experience on. There are signs for streets and buildings, books and periodicals, catalogues, instructional manuals, industrial photography, educational aids, films, television features, scientific and industrial publications and all the other media through which we promote our trade, our education, our culture and our greater awareness of the world.

We do not advocate the abolition of high-pressure consumer advertising: this is not feasible. Nor do we want to take any of the fun out of life. But we are proposing a reversal of priorities in favour of the more useful and more lasting forms of communication. We hope that our society will tire of gimmick merchants, status salesmen and hidden persuaders, and that the prior call on our skills will be for worthwhile purposes. With this in mind we propose to share our experience and opinions, and to make them available to colleagues, students and others who may be interested.¹

¹www.kengarland.co.uk/KG%20published%20writing/first%20things%20first/index.html

First Things First 2000: A Design Manifesto

1999

Vision

This update of First Things First was published concurrently in Adbusters, the AI GA journal, Blueprint, Emigre, Eye, Form and It ems with 33 signatories. We, the undersigned, are graphic designers, art directors and visual communicators who have been raised in a world in which the techniques and apparatus of advertising have persistently been presented to us as the most lucrative, effective and desirable use of our talents. Many design teachers and mentors promote this belief; the market rewards it; a tide of books and publications reinforces it.

Encouraged in this direction, designers then apply their skill and imagination to sell dog biscuits, designer coffee, diamonds, detergents, hair gel, cigarettes, credit cards, sneakers, butt toners, light beer and heavy-duty recreational vehicles. Commercial work has always paid the bills, but many graphic designers have now let it become, in large measure, what graphic designers do. This, in turn, is how the world perceives design. The profession's time and energy is used up manufacturing demand for things that are inessential at best.

Many of us have grown increasingly uncomfortable with this view of design. Designers who devote their efforts primarily to advertising, marketing and brand development are supporting, and implicitly endorsing, a mental environment so saturated with commercial messages that it is changing the very way citizen-consumers speak, think, feel, respond and interact. To some extent we are all helping draft a reductive and immeasurably harmful code of public discourse.

There are pursuits more worthy of our problem-solving skills. Unprecedented environmental, social and cultural crises demand our attention. Many cultural interventions, social marketing campaigns, books, magazines, exhibitions, educational tools, television programs, films, charitable causes and other information design projects urgently require our expertise and help.

We propose a reversal of priorities in favor of more useful, lasting and democratic forms of communication—a mindshift away from product marketing and toward the exploration and production of a new kind of meaning. The scope of debate is shrinking; it must expand. Consumerism is running uncontested; it must be challenged by other perspectives expressed, in part, through the visual languages and resources of design.

In 1964, 22 visual communicators signed the original call for our skills to be put to worthwhile use. With the explosive growth of global commercial culture, their message has only grown more urgent. Today, we renew their manifesto in expectation that no more decades will pass before it is taken to heart.²

²www.emigre.com/Editorial.php?sect=1&id=14

World Economic Forum

Council of Designers at WEF Summit Dubai » 2008

Vision

When the World Economic Forum met in Dubai in November 2008, a council of designers was asked:

- 1) What is the state of the world on this issue [design thinking] and how is the economic crisis impacting this issue?
- 2) What should be done to improve the state of the world on design and by whom?

The response is a manifesto that hues closely to messages of AIGA.

On Design

Throughout history, design has been an agent of change. It helps us to understand the changes in the world around us, and to turn them to our advantage by translating them into things that can make our lives better. Now, at a time of crisis and unprecedented change in every area of our lives – economic, political, environmental, societal and in science and technology–design is more valuable than ever.

The crisis comes at a time when design has evolved. Once a tool of consumption chiefly involved in the production of objects and images, design is now also engaged with developing and building systems and strategies, and in changing behavior often in collaboration with different disciplines.

Design is being used to:

- » Gain insight about people's needs and desires
- » Build strategic foresight to discover new opportunities
- » Generate creative possibilities
- » Invent, prototype and test novel solutions of value
- » Deliver solutions into the world as innovations adopted at scale

In the current climate, the biggest challenges for design and also its greatest opportunities are:

Well-being

Design can make an important contribution to the redefinition and delivery of social services by addressing acute problems such as ageing, youth crime, housing and health. Many designers are striving to enable people all over the world to lead their lives with dignity, especially the deprived majority of the global population—"the other 90%" who have the greatest need of design innovation.

Sustainability

Designers can play a critical role in ensuring that products, systems and services are developed, produced, shipped, sold and eventually disposed of in an ethically and environmentally responsible manner. Thereby meeting—and surpassing—consumers' expectations.

Learning

Design can help to rebuild the education system to ensure that it is fit for its purpose in the 21st Century. Another challenge is to redefine or reorient the design education system at a time of unprecedented demand when thousands of new design schools are being built worldwide and design is increasingly being integrated into other curricula. Designers are also deploying their skill at communication and visualization to explain and interpret the overwhelming volume of extraordinarily complex information.

Innovation

Designers are continuing to develop and deliver innovative new products at a turbulent time when consumer attitudes are changing dramatically thereby creating new and exciting entrepreneurial opportunities in the current crisis. They are increasingly using their expertise to innovate in new areas such as the creation of new business models and adoption of a strategic and systemic role in both the public and the private sector.³

³www.businessweek.com/in-novate/NussbaumOnDesign/archives/2008/11/world_economic_1.html



Principles

The Ceres Principles

Ceres » 1990

Principle

Ceres (pronounced 'series') was founded in 1989 with the mission to integrate sustainability into capital markets for the health of the planet and its people. Its national network of investors, environmental organizations and other public interest groups work together to address sustainability challenges such as global climate change. The principles have been endorsed by 50 companies, including 13 Fortune 500.

Principle #1

Protection of the Biosphere–We will reduce and make continual progress toward eliminating the release of any substance that may cause environmental damage to the air, water, or the earth or its inhabitants. We will safeguard all habitats affected by our operations and will protect open spaces and wilderness, while preserving biodiversity.

Principle #2

Sustainable Use of Natural Resources–We will make sustainable use of renewable natural resources, such as water, soils and forests. We will conserve non-renewable natural resources through efficient use and careful planning.

Principle #3

Reduction and Disposal of Wastes–We will reduce and where possible eliminate waste through source reduction and recycling. All waste will be handled and disposed of through safe and responsible methods.

Principle #4

Energy Conservation –We will conserve energy and improve the energy efficiency of our internal operations and of the goods and services we sell. We will make every effort to use environmentally safe and sustainable energy sources.

Principle #5

Risk Reduction–We will strive to minimize the environmental, health and safety risks to our employees and the communities in which we operate through safe technologies, facilities and operating procedures, and by being prepared for emergencies.

Principle #6

Safe Products and Services–We will reduce and where possible eliminate the use, manufacture or sale of products and services that cause environmental damage or health or safety hazards. We will inform our customers of the environmental impacts of our products or services and try to correct unsafe use.

Principle #7

Environmental Restoration–We will promptly and responsibly correct conditions we have caused that endanger health, safety or the environment. To the extent feasible, we will redress injuries we have caused to persons or damage we have caused to the environment and will restore the environment.⁴

⁴www.ceres.org/Page.aspx?pid=416

The EIDD Stockholm Declaration[©]

European Institute for Design and Disability » 2004

Principle

The EIDD Stockholm Declaration[©], or Design for All Declaration, was endorsed by AIGA.

Across Europe, human diversity in age, culture and ability is greater than ever. We now survive illness and injury and live with disability as never before. Although today's world is a complex place, it is one of our own making, one in which we therefore have the possibility-and the responsibility-to base our designs on the principle of inclusion.

Design for All is design for human diversity, social inclusion and equality. This holistic and innovative approach constitutes a creative and ethical challenge for all planners, designers, entrepreneurs, administrators and political leaders.

Design for All aims to enable all people to have equal opportunities to participate in every aspect of society. To achieve this, the built environment, everyday objects, services, culture and information - in short, everything that is designed and made by people to be used by people-must be accessible, convenient for everyone in society to use and responsive to evolving human diversity.

The practice of Design for All makes conscious use of the analysis of human needs and aspirations and requires the involvement of end users at every stage in the design process. The European Institute for Design and Disability therefore calls on the European institutions, national, regional and local governments and professionals, businesses and social actors to take all appropriate measures to implement Design for All in their policies and actions.⁵

⁵www.designforalleurope.org/Design-for-All/EIDD-Documents/Stockholm-Declaration/

The Hannover Principles

William McDonough and Michael Braungart » 1992

Principle

The Hannover Principles were formulated by Michael Braungart and William McDonough for Expo 2000 in Hannover, Germany. “[The Principles] are a set of maxims that encourage the design profession to take sustainability into consideration. They are descriptive of a way of thinking, not prescriptions or requirements.”⁶ They provide a context for architects and other designers to reconcile conflicts between economic gains, human health and the well-being of the environment (people/planet/profit).

1. Insist on the right of humanity and nature to coexist in a healthy, supportive, diverse and sustainable condition.
2. Recognize interdependence. The elements of human design interact with and depend upon the natural world, with broad and diverse implications at every scale. Expand design considerations to recognize even distant effects.
3. Respect relationships between spirit and matter. Consider all aspects of human settlement, including community, dwelling, industry and trade, in terms of existing and evolving connections between spiritual and material consciousness.
4. Accept responsibility for the consequences of design decisions upon human well-being, the viability of natural systems and their right to coexist.
5. Create safe objects of long-term value. Do not burden future generations with requirements for maintenance or vigilant administration of potential dangers due to the careless creation of products, processes or standards.
6. Eliminate the concept of waste. Evaluate and optimize the full life cycle of products and processes to approach the state of natural systems, in which there is no waste.
7. Rely on natural energy flows. Human designs should, like the living world, derive their creative force from perpetual solar income. Incorporate this energy efficiently and safely for responsible use.
8. Understand the limitations of design. No human creation lasts forever, and design does not solve all problems. Those who create and plan should practice humility in the face of nature. Treat nature as a model and mentor, not as an inconvenience to be evaded or controlled.
9. Seek constant improvement by the sharing of knowledge. Encourage direct and open communication between colleagues, patrons, manufacturers and users to link long-term sustainable considerations with ethical responsibility and to reestablish the integral relationship between natural processes and human activity.⁷

⁶www.mcdonough.com/writings/principles_practices_and.htm

⁷www.mindfully.org/Sustainability/Hannover-Principles.htm

The Wingspread Statement on the Precautionary Principle

Science and Environmental Health Network » 1998

Principle

“When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, should bear the burden of proof. The process of applying the precautionary principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action.”⁸

The Precautionary Principle has been a major tool for shaping environmental and public health policy in europe (reaCh, for example) and more recently in Canada. in the us, the science and health Foundation (seh) has been its leading proponent. The seh was founded in 1998, following the Wingspread Conference on the Precautionary Principle, where it was articulated by 32 scientists, policy makers and philosophers. in 2003, the City of san Francisco adopted it as the basis of all its environmental policies.

⁸www.sehn.org/wing.html

IDSA Eco Design Principles and Practices

The Industrial Designers Society of America » 2001

Principle

The idsa ecodesign section distilled these practices and principles which were adopted by the idsa executive Committee in november 2001.

IDSA Recognizes The Following Ecological Principles:

Human society and the biosphere are interdependent.

Nature can survive without humanity but society is dependent on the biosphere for crucial services. Society's systematic destruction of the biosphere threatens nature's health and its capacity to sustain human society.

Our biosphere requires protection on several levels.

Destructive substances from the Earth's interior must not accumulate in the biosphere (toxic metals, CO2 from fossil fuels, etc.). Persistent synthetic substances must not be allowed to accumulate in the biosphere (PCBs, CFCs, radioactive isotopes, and so forth). The Earth's major habitats, productive natural cycles and biological diversity must not be destroyed.

Meeting society's basic needs and reducing consumption is necessary.

Enabling people in less industrialized societies to meet their basic needs is required to slow population growth and to protect habitats. Fair and efficient use of resources can enable all people access to water, food, shelter, basic health care and education. Environmentally friendly technologies can be developed to both meet basic needs in all societies and to reduce resource consumption in more industrialized societies.

DSA Recommends The Following Ecodesign Practices

Use ecodesign strategies appropriate to the product

- » Reduce overall material content and increase the percentage of recycled material in products.
- » Reduce energy consumption of products that use energy.
- » Specify sustainably grown materials when using wood or agricultural materials.
- » Design disposable products or products that wear out to be more durable and precious.
- » Eliminate unused or unnecessary product features.

- » Design continuously transported products for minimal weight.
- » Design for fast, economical disassembly of major components prior to recycling, and
- » Design products so that toxic components are easily removed prior to recycling.

Perform comprehensive environmental assessment

- » Consider all of the ecological impacts from all of the components in the products over its entire life cycle, including extraction of materials from nature, conversion of materials into products, product use, disposal or recycling and transport between these phases.
- » Consider all ecological impacts including global warming, acid rain, smog, habitat damage, human toxicity, water pollution, cancer causing potential, ozone layer depletion and resource depletion.
- » Strive to reduce the largest ecological impacts, and
- » Conduct life cycle impact assessment (LCA) to comprehensively identify opportunities for improving ecological performance.

Encourage new business models and effective communication

- » Support product 'take back' systems that enable product up-grading and material recycling.
- » Lease the product or sell the service of the product to improve long-term performance and end-of-life product collection.
- » Communicate the sound business value of being ecologically responsible to clients and commissioners.
- » Discuss market opportunities for meeting basic needs and reducing consumption, and
- » Present superior product quality claims ('energy saving', 'contains less toxic waste', etc.) along with other performance features.⁹

⁹www.idsa.org/whatsnew/sections/ecosection/principles.html

American Institute of Architects Sustainable Architectural Practice Position Statement

AIA » 2005

Principle

Sustainable Architectural Practice

The AIA recognizes a growing body of evidence that demonstrates current planning, design, construction, and real estate practices contribute to patterns of resource consumption that seriously jeopardize the future of the Earth's population. Architects need to accept responsibility for their role in creating the built environment and, consequently, believe we must alter our profession's actions and encourage our clients and the entire design and construction industry to join with us to change the course of the planet's future.

Explanation

Altering current practices of design and construction to realize significant reductions in the use of natural resources, non-renewable energy sources, and waste production and promote regeneration of natural resources will require a multiple-year effort in conjunction with clients, industry partners, and concerned organizations. To achieve these changes, the AIA will act through all its Board Committees, Knowledge Communities, Task Forces, Working Groups, and related activities to:

1. Promote sustainable design including resource conservation to achieve a minimum 50 percent reduction from the current level of consumption of fossil fuels used to construct and operate new and renovated buildings by the year 2010, and promote further reductions of remaining fossil fuel consumption by 10 percent or more in each of the following five years;
2. Collaborate with other national and international organizations, the scientific research community, public health community, and industry leaders engaged in issues related to sustainable / restorative design to facilitate the dialogue, share knowledge, and accelerate the rate of change for all those seeking to improve the industry's current practices and utilize integrated approaches to achieve a sustainable future;
3. Develop and promote the integration of sustainability into the curricula for education of architects and architectural students to enhance their design skills;
4. Develop standards for the architectural profession that incorporate greater sustainability into design, education, management, and licensure standards and provide resources to assist integrating these standards into the daily practices of all architects;

5. Promote documentation of the measurable contributions resulting from implemented sustainable design and construction approaches to the health of humankind and the planet to promote the value and achievements of increased use of sustainable design;
6. Promote research by industry, scientific, and governmental entities to provide the design and construction industry with full life cycle assessment data for all products and assemblies used in the construction of the built environment at every scale in order to facilitate decision-making and communicate benefits to all;
7. Promote the AIA's building performance design targets to local, American Institute of Architects Sustainable Architectural Practice Position Statement state, and national governments;
8. Communicate possible beneficial economics of environmentally responsible design to both public and private sector clients; and
9. Assume a global role as advocates for sustainable design freely sharing knowledge and actively promoting sustainable practice throughout the world.¹⁰

¹⁰www.aia.org/advocacy/federal/

The Designers Accord

Valerie Casey » 2007

Principle

Launched in 2007 by Valerie Casey, the designers accord is “a global community of design thinkers and problem solvers.” as of June 2009, 528 design firms, 22 corporate entities and 24 educational institutions had adopted the designers accord. 9a in addition to its website which encourages collaboration and co-opetition and provides resources for practitioners, the fast growing organization has a new online presence at FastCompany.com 9b where ideas and case studies are shared. design Firms adopt the accord at Core77’s designdirectory.com.

Vision And Mission

The vision of the Designers Accord is to integrate the principles of sustainability into all aspects of design practice and manufacturing. Our mission is to catalyze innovation throughout the creative community by collectively building our intelligence around issues of climate change and social justice, and tackling those challenges together with optimism and creativity.

Basic Code Of Conduct

Do no harm. Communicate and collaborate. Keep learning, keep teaching. Instigate meaningful change. Make theory action. Guidelines for the three types of adopters are roughly the same, but they are tuned to the industry orientation.

Design Firm Adopters

1. Publicly declare participation in the Designers Accord.
2. Initiate a dialogue about environmental and social impact and sustainable alternatives with each and every client. Rework client contracts to favor environmentally and socially responsible design and work processes. Provide strategic and material alternatives for sustainable design.
3. Undertake a program to educate your teams about sustainability and sustainable design.
4. Consider your ethical footprint. Begin by measuring the carbon/greenhouse gas footprint of your firm, and pledge to reduce your footprint annually.
5. Advance the understanding of environmental and social issues from a design perspective by actively contributing to the communal knowledge base for sustainable design.

Corporate Adopters

1. Publicly declare participation in the Designers Accord.
2. Provide strategic and material alternatives for sustainable design of products and services, and pledge to help customers reduce their negative impact.
3. Undertake a program to educate your teams about sustainability and sustainable design.
4. Consider your ethical footprint. Begin by measuring the carbon/greenhouse gas footprint of your firm, and pledge to reduce your footprint annually.
5. Advance the understanding of environmental and social issues from a design perspective by actively contributing to the communal knowledge base for sustainable design.

Educational Institution Adopters

1. Publicly declare participation in the Designers Accord.
2. Initiate a dialogue about environmental and social impact and sustainable alternatives with every student and colleague in your educational program. Rework curricula and assignments to emphasize environmentally and socially responsible design and work processes. Provide course content, lectures, and assignments that focus on strategic and material alternatives for sustainable design.
3. Undertake a program to educate your colleagues about sustainability and sustainable design, and plan the integration of these concepts into course curricula.
4. Consider your ethical footprint. Begin by measuring the carbon/greenhouse gas footprint of your institution, and pledge to reduce your footprint annually.
5. Advance the understanding of environmental and social issues from a design perspective by actively contributing to the communal knowledge base for sustainable design.¹¹

¹¹www.designersaccord.org

Kyoto Design Declaration

Yrjö Sotamaa and Cumulus » 2008

Principle

By signing the Kyoto design declaration on march 28, 2008, the 124 members of Cumulus committed to sharing global responsibility for building sustainable, human-centred and creative societies. The declaration has received support from the international Council of societies of industrial design (ICSID), BETA, AIGA, and EIDD.

A statement of commitment by the members of Cumulus to sharing the global responsibility for building sustainable, human-centered, creative societies.

Proposing new values and new ways of thinking

All the people of the world now live in global and interdependent systems for living. We continue to enhance the quality of our lives by creating environments, products and services utilizing design. Design is a means of creating social, cultural, industrial and economic values by merging humanities, science, technology and the arts. It is a human-centered process of innovation that contributes to our development by proposing new values, new ways of thinking, of living and adapting to change.

An era of human centered development

A paradigm shift from technology driven development to human centered development is underway. The focus is shifting from materialistic and visible values to those which are mental, intellectual and, possibly, less material. An era of “cultural productivity” has commenced where the importance attributed to modes of life, values and symbols may be greater than that attributed to physical products. Design thinking stands steadfastly at the centre of this continuum. Simultaneously, this development highlights the importance of cultural traditions and the need to extend and revitalize them.

The imperative for designers to assume new roles

Global development and an awareness of the growth of related ecological and social problems are posing new demands and offering new opportunities for design, design education and design research. Design is challenged to redefine itself and designers must assume new roles and commit themselves to developing solutions leading to a sustainable future.

Seeking collaboration in forwarding the ideals of sustainable development

The members of Cumulus, representing a global community of design educators and researchers, undertake the initiative outlined in this, ‘The Kyoto Design Declaration’, to commit themselves to the ideals of sustainable development. Furthermore, the members of Cumulus have agreed to seek collaboration with educational and cultural institutions, companies, governments and government agencies, design and other professional associations and NGOs to promote the ideals of, and share their knowledge about, sustainable development.

From education to global responsibility

In order to fulfil its declared mission to contribute to sustainable social, environmental, cultural and economic development for current and future generations, and to contribute to an environment and culture that makes harmonious and healthy life possible, the Cumulus members make this declaration. Members will commit themselves to accepting their part in the further education of our youth within a value system where each of us recognizes our global responsibility to build sustainable, human-centered, creative societies.

The power to make fundamental improvements to our world

Human-centered design thinking, when rooted in universal and sustainable principles, has the power to fundamentally improve our world. It can deliver economic, ecological, social and cultural benefits to all people, improve our quality of life and create optimism about the future and individual and shared happiness.

Implementation

The signatories of this Declaration agree to submit annually a Sustainability Report to Cumulus Secretariat informing of the actions they have taken to implement this Declaration. The reports will be published on the Cumulus website and through this they are available to all interested parties.¹²

¹²www.cumulusassociation.org/index.php?option=com_content&task=view&id=308&Itemid=109

Graphic Design Canada's Sustainability Principles

2009

Principle

The society of Graphic designers of Canada (GdC) has created a working definition of sustainable communication design, supported by a set of principles and values, to guide its membership. it was unanimously endorsed in 2009 at the GdC's annual general meeting in Winnipeg, Canada.

Definition

Sustainable communication design is the application of sustainability principles to communication design practice. Practitioners consider the full life cycle of products and services, and commit to strategies, processes and materials that value environmental, cultural, social and economic responsibility.

Principles And Values

Encourage the evolution of the GDC and the graphic design practice by:

- » acknowledging that we are part of an interdependent world;
- » accepting responsibility for the consequences our actions have on our natural environment;
- » developing and building sustainable strategies and practices;
- » participating with the international design community in developing global best practices
- » working to create products and services that are re-usable and/or provide long term value;
- » and by purchasing recycled, local and non-toxic materials wherever possible.

Demonstrate our commitment to improve the natural environment by:

- » sharing these principles through our Icograda network;
- » collaborating with other design organizations worldwide to promote and develop best practices for sustainable communications design;
- » integrating environmental criteria into all design processes and organizational decision making;
- » employing accountable and transparent processes and procedures;
- » reviewing our environmental impacts regularly and continually working to reduce them;
- » adopting practices that use materials in continuous cycles;
- » seeking suppliers who use sustainable practices;
- » acting as community and industry advocates for environmentally responsible design practices;
- » and by developing and providing products and services that improve the quality of life of all beings and support the health and well-being of the planet.

Raise and foster awareness of sustainable communication design practice by:

- » promoting the intrinsic and greater value of sustainable communication design;
- » encouraging clients to integrate sustainable principles into their communication projects;
- » providing education and information resources to our members and the community at large to inform environmentally responsible design decisions;
- » and by championing sustainable communication solutions for our communities.¹³

¹³www.gdc.net/designers/index/articles659.php



Frameworks

The Natural Step™

Dr. Karl-Henrik Robèrt, Sweden » 1989
Framework

Developed by Swedish oncologist Dr. Karl-Henrik Robèrt and physicist Dr. John Holmberg in the early 1990s, The Natural Step™ framework (TNSNS) addresses what and how we take, make, and maintain the earth’s resources and systems while meeting humanity’s needs now and in the future.

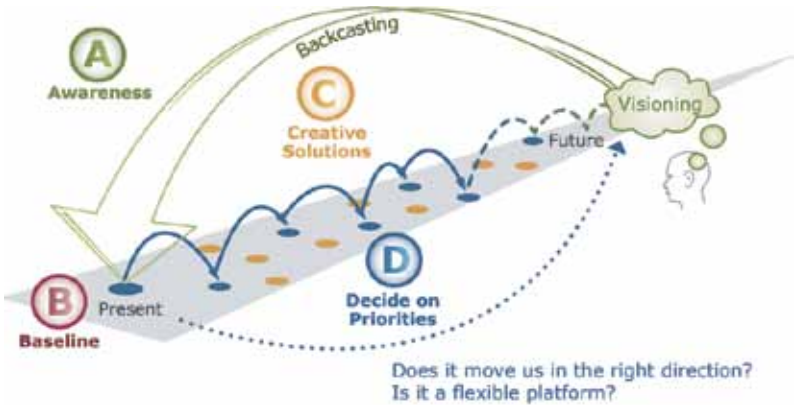
The Four System Conditions...	... Reworded as The Four Principles of Sustainability
In a sustainable society, nature is not subject to systematically increasing:	To become a sustainable society we must...
1. concentrations of substances extracted from the earth's crust	1. eliminate our contribution to the progressive buildup of substances extracted from the Earth's crust (for example, heavy metals and fossil fuels)
2. concentrations of substances produced by society	2. eliminate our contribution to the progressive buildup of chemicals and compounds produced by society (for example, dioxins, PCBs, and DDT)
3. degradation by physical means	3. eliminate our contribution to the progressive physical degradation and destruction of nature and natural processes (for example, over harvesting forests and paving over critical wildlife habitat); and
4. and, in that society, people are not subject to conditions that systemically undermine their capacity to meet their needs	4. eliminate our contribution to conditions that undermine people's capacity to meet their basic human needs (for example, unsafe working conditions and not enough pay to live on).

Source: www.naturalstep.org/the-system-conditions

To apply the framework, The Natural Step™ has developed a strategic process known as back-casting, which allows looking at a current situation from a future perspective. The process has four steps:

- A. Awareness Developing a common understanding of the situation within an organization
- B. Base-line mapping Mapping current operations of an organization in terms of the four system conditions
- C. Clear vision Creating a vision and identifying measures that take an organization from where it is now to where it can be in a sustainable future
- D. Decide on priorities Prioritizing measures for achieving the organization’s vision that move it toward sustainability. TNS recommends organizations to tackle easy things first and reach for the ‘low hanging fruit’.¹⁴

¹⁴www.naturalstep.org/en/abcd-process/



Source: The Natural Step, www.naturalstep.org/~natural/applying-abcd-method

Total Beauty™

Edwin Datschevski » 1994

Framework

Edwin Datschevski redefines the “beauty” of design by calculating the total impact of products and services in five categories:

Cyclic—closed loop material sourcing (recyclable or recycled, compostable, organic or sourced sustainably)

Solar—uses safe, renewable sources or renewable energy both during the manufacturing process and during use

Safe—non-toxic (i.e. does not affect negatively plant, human, animal life and the environment in general)

Efficient—requires 90% less materials, energy and water than 1990 standards (i.e. improved by a factor of ten over 1990 standards)

Social—manufactured under fair labor conditions, overall supporting human rights and ‘natural justice’

The ‘total beauty’ of products or services is calculated as an equation for each category except for “social” because products and services that rate poorly on the social scale should not be considered any further. The scoring includes ‘ugly points’ which are taken out for poor performance, certain materials use, and energy inefficiency.

Datschevski finds that 99% of all environmental innovation for products resides in 11 categories.

1. Cyclic mined—increased recycled content or recyclability
2. Cyclic grown—increased compostability
3. Alternative energy in use
4. Alternative energy in manufacture
5. Substitute materials—replace with non-toxic ones
6. Stewardship sourcing—increase safety and habitat preservations with sustainably sourced materials
7. Utility—increased efficiency with multi-function
8. Durability—make it last longer
9. Efficiency
10. Bio-everything—using biomimicry techniques or live organisms
11. Communication—changes the behavior of users¹⁵

¹⁵www.biobiothinking.com/btintro.htm

Biomimicry

Janine Beynus » 1997

Framework

In her 1997 book Biomimicry¹⁶, Janine Beynus invites us to reframe our thinking about innovation and argues that we should look at nature as a model, mentor, and measure. “Biomimicry (from bios, meaning life, and mimesis, meaning to imitate) is a new science that studies nature’s best ideas and then imitates these designs and processes to solve human problems. Studying a leaf to invent a better solar cell is an example of this ‘innovation inspired by nature’.”¹⁷

The Design Spiral is a visual representation of a Biomimicry inspired design process.



¹⁶Janine Beynus, Biomimicry: Innovation Inspired by Nature, William Morrow & Co., 1997

Source: The Biomimicry Institute, www.biomimicryinstitute.org/about-us/biomimicry-a-tool-for-innovation.html

¹⁷www.biomimicryinstitute.org/about-us/

Natural Capitalism

Paul Hawken, Amory Lovins and Hunter Lovins » 1997

Framework

In this seminal text which introduces the idea of eco-efficiency, Hawken, Lovins and Lovins describe a framework for a new economy that rethinks social and natural resources and values sustainable design. The framework recognizes four types of capital: natural, human, manufactured, and financial.¹⁸

To achieve eco-efficiency, four shifts are required:

1. Radical resource productivity (designing more efficient solutions while using less energy to design them)
2. Ecological redesign (turning to nature as a model)
3. Service and flow economies (shifting the emphasis from products to services)
4. Investing in natural capital¹⁹

¹⁸www.natcap.org/sitepages/pid5.php

¹⁹Nathan Shedroff, Design is the Problem:
The Future of Design Must be Sustainable,
Rosenfeld Media, 2009

Cradle to Cradle®

Michael Braungart and William McDonough » 2002

(Design framework and certification system)

Framework

Swiss architect Walter Stahel first used the term “cradle back to cradle” in 1982 to describe what he saw as the only path to a sustainable economy, one in which durable goods are used in continuous loops as opposed to relying on end-of-pipe solutions. Around the same time, the chemist Michael Braungart promoted material recycling as a “cradle back to cradle” loop, again as a reaction to the end-of-pipe issue of “cradle to grave.”²⁰

The Cradle to Cradle® framework Braungart later developed with architect William McDonough further

develops the concept of eco-effectiveness, which “seeks to design systems that emulate the healthy abundance of nature”^{20a}, as opposed to eco-efficiency, which aims to fine-tune the systems to “do less bad.” The key principles of eco-effectiveness are based on the Intelligent Product System that was developed by Braungart and his colleagues at EPEA between 1987 and 1992.

In addition to the elimination of toxic materials and the use of “upcyclable” materials, the Braungart and McDonough’s C2C Design model is based on three principles:

1. Waste equals food (redefining our perception of waste)
2. Use of the current solar income²¹ of energy
3. Celebrate diversity

The C2C Certification system is based on the following:

1. Product/material transparency and human/environmental health characteristics of materials (including toxic materials and processes)
2. Product/material reutilization (including use of recycled materials and well-defined material recovery, such as a take-back program)
3. Production energy (including the use of renewable energy for product manufacturing and product uses)
4. Water use at manufacturing facility (including the implementation of conservation and discharge measures at the manufacturing plant)
5. Social fairness/corporate ethics (including whether the organization provides a CSR and makes other decisions transparent and whether these materials are audited by a reputable third party)²²

²⁰<http://www.product-life.org/en/cradle-to-cradle>

^{20a}www.mbdcc.com/c2c_ee.htm

²¹the amount of solar energy that literally falls on us during the day

²²Nathan Shedroff, *ibid*

The Sustainability Helix

Natural Capitalism Inc, The Natural Edge Project (TNEP), Global Academy,
the TABATI Group, and MBA candidates at the Presidio School of Management » 2005
Framework

The Sustainability Helix is a strategic tool for businesses and organizations to “drive sustainability into their DNA”²³, evaluate their commitment and monitor their progress. The Sustainability Helix covers three domains of sustainability: social, environmental, and financial.

There are five stages to achieving sustainability:

0. Unsustainable
1. Exploration
2. Experimentation
3. Leadership
4. Restoration

In six categories of business

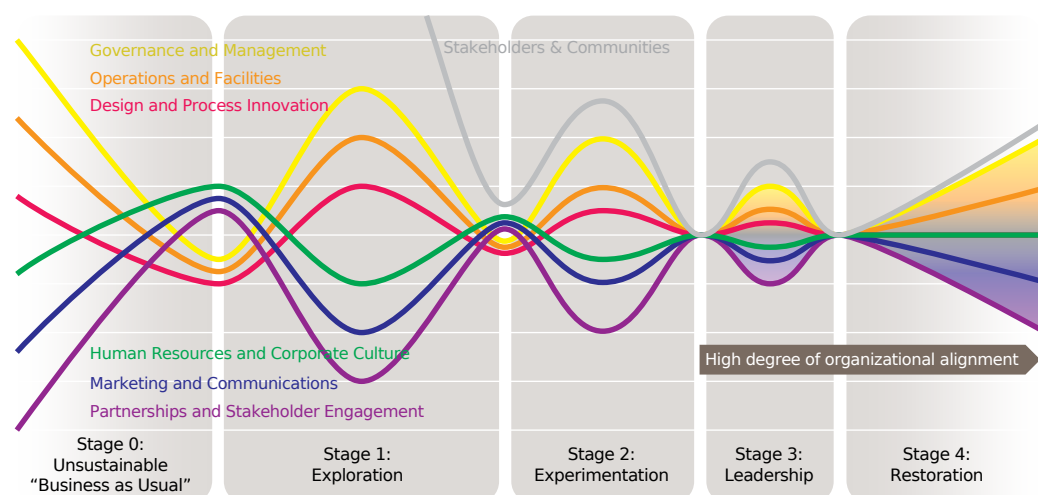
- A. Government and management
- B. Operations and facilities
- C. Design process and innovation
- D. Human resources and corporate culture
- E. Marketing and communication
- F. Partnerships and stakeholder management

Each category provides a long list of strategies. Under design process and innovation, developers/designers are encouraged to utilize:

- » whole systems design strategy: address the full life cycle of products and services; engage all stakeholders in research and innovation to reduce risk
- » product/service design strategy: readdress the value chain (design for use, disassembly, dematerialization)
- » process design strategy: to better understand processes and achieve more sustainable solutions
- » testing strategy: to ensure solutions have reduced impacts and are in fact more sustainable²⁴

²³www.sustainabilitydictionary.com/s/sustainability_helix.php

²⁴Nathan Shedroff, ibid



The Presidio Model

Nathan Shedroff, with Nicola Acutt and Hunter Lovins » 2008

Framework

Developed by Nathan Shedroff, with Hunter Lovins and Nicola Acutt from the Presidio Graduate School, this comprehensive model for design is based on principles that transcend disciplines and build upon existing sustainability frameworks. It also highlights specific tools easily usable in the design process and lists a range of design strategies for more sustainable outcomes. The Presidio Model is extensively described and illustrated in Shedroff's book, *Design is the Problem: The Future of Design must be Sustainable*, Rosenfeld Media, March 2009.

Principles

Systems Perspective
Diversity = Resilience
Centralization & Decentralization
Competition & Cooperation
Social, Cultural, Economic, and Environmental Vitality
Multiple Stakeholders
Customer-centric Engagement

Frameworks/Perspectives

Natural Capitalism
The Natural Step™
Cradle to Cradle®
(including both Stahel's original approach and McDonough & Braungart's later one)
Holistic Management

Design Tools

Sustainability Helix
Biomimicry Design Spiral
LCA (Life Cycle Assessment)
Total Beauty™ Metrics
SROI (Social Return on Investment)

Design Strategies

Reduce

Design for Use & Meaning

Dematerialization (Materials, Energy, & Transportation)

Substitution (Energy, Materials)

Localization

Transmaterialization (Products into Services)

Informationalization (Products into Digital Products)

Reuse

Design for Durability

Design for Reuse

Recycle

Design for Disassembly

Closing the Loop

Design for Effectiveness

Restore

Redesign Systems²⁵

²⁵Nathan Shedroff, *ibid*



Tools

Life Cycle Assessment

1960s

Tool

Developed initially by engineers in the 60s, 'Life Cycle Assessment' ('LCA', also known as 'life cycle analysis', 'ecobalance', and 'cradle-to-grave analysis')²⁶ is the investigation and valuation of the total environmental and energy impacts of a given product or service from raw material production, manufacturing, distribution, use and disposal and all transportation involved during the product's existence.

²⁶en.wikipedia.org/wiki/Life_cycle_assessment

LEED

USGBC » 1998

Tool

LEED is an internationally recognized building certification system. Developed by the U.S. Green Building Council (USUSGBC), LEED provides architects, designers, building owners and operators a concise framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.²⁷

²⁷www.usgbc.org/DisplayPage.aspx?CMSPageID=1988

Social Return on Investment (SROI)

REDF » 1997

Tool

SROI tools are attempts to measure the socio-economic impact of a business or organization, or an investment's ability to produce social value in a community and in broader society. This assessment tool was initially developed in 1997/1998 by the non-profit RED F in San Francisco.²⁸

²⁸www.redf.org/learn-from-redf/publications/119

The Sustainability Scorecard

Brian Dougherty, *Celery Design* » 2008
Tool

Brian Dougherty and the Celery Design Collaborative initially came up with the Sustainability Scorecard to help their designers evaluate materials and processes. The system, which is also used with clients, is based on the product packaging scorecard that Michael Brown developed for the suppliers of Norm Thompson Outfitters in 2002.

It looks at three factors:

- 1. Source
- 2. Energy Impacts
- 3. Destiny

Options are ranked in three categories:

- » Green products (preferred) are made from sustainably harvested, recyclable, non-toxic materials, with renewable energy, and are fully recyclable or compostable.
- » Orange products (caution) are made from conventional renewable resources, with non-renewable energy (but with low embodied energy), and are compatible with incineration.
- » Red products (avoid) are made from non-renewable sources and materials which have known toxic impacts, with non-renewable energy. They have high embodied energy and go to landfill.²⁹

²⁹Brian Dougherty, *Green Graphic Design*, Allworth Press, 2008.

PAPER	PAPER	SOURCE	ENERGY	DESTINY
	Post-consumer recycled fiber	<div></div>	<div></div>	<div></div>
	Pre-consumer recycled fiber	<div></div>	<div></div>	<div></div>
	FSC certified virgin fiber	<div></div>	<div></div>	<div></div>
	Conventional virgin fiber	<div></div>	<div></div>	<div></div>
	Alternative agricultural fiber	<div></div>	<div></div>	<div></div>
	Agricultural waste fiber	<div></div>	<div></div>	<div></div>
	Plastic laminated paper	<div></div>	<div></div>	<div></div>
	TCF / PCF bleaching	<div></div>		
	ECF bleaching	<div></div>		
	“Wind-powered” paper		<div></div>	

Source: Celery Design, www.celerydesign.com/eco-tools/

The Sustainable Packaging Coalition (SPC)

2005

Tool

A project of the Cradle to Cradle® inspired non-profit institute GreenBlue, the SPC's mission is to "advocate and communicate a positive, robust environmental vision for packaging and to support innovative, functional packaging materials and systems that promote economic and environmental health through supply chain collaboration."³⁰

For the SPC, sustainable packaging:

1. is beneficial, safe & healthy for individuals and communities throughout its life cycle;
2. meets market criteria for performance and cost;
3. is sourced, manufactured, transported, and recycled using renewable energy;
4. maximizes the use of renewable or recycled source materials;
5. is manufactured using clean production technologies and best practices;
6. is made from materials healthy in all probable end of life scenarios;
7. is physically designed to optimize materials and energy;
8. is effectively recovered and utilized in biological and /or industrial cradle to cradle cycles.³¹

In addition to extensive design guidelines and checklists of strategies, other tools and resources available to designers include:

- » CompassSM: an online software tool to assess the human and environmental impacts of packaging design³²
- » The Essentials of Sustainable Packaging: a course designed for packaging designers and corporate professionals seeking a deeper understanding of sustainability and how sustainability criteria can be effectively integrated into the packaging development process to enhance the lives of people, lower environmental impact and reduce costs³³
- » The Packaging Design Library: an online library to showcase packaging innovation and solutions that implement sustainable attributes³⁴

³⁰www.greenblue.org/

³¹[www.sustainablepackaging.org/
about_sustainable_packaging.asp](http://www.sustainablepackaging.org/about_sustainable_packaging.asp)

³²www.design-compass.org

³³[www.sustainablepackaging.org/
essentials/index.html](http://www.sustainablepackaging.org/essentials/index.html)

³⁴[www.spcdesignlibrary.org/
pages/about](http://www.spcdesignlibrary.org/pages/about)

The PHAROS Project

PHAROS » 2006

Tool

The goal of PHAROS is to define a vision of green building materials for consumers in line with principles of environmental and social justice. The project has created tools: the “Pharos lens” illustrates the environmental and social impact of products for consumers and designers; and the “Pharos roadmap,” provides a searchable database of products bearing the “Pharos label”.

The Pharos Project is governed by the following principles:

The Right To Know

We have a right to know what is in the products we specify, buy and use.

Precautionary Principle

Take precautionary actions based upon the weight of available evidence and in the face of uncertainty.

The Responsibility of the Manufacturer

Manufacturers possess the most information about the contents of their product and have a responsibility to be accountable for things they make.

Transparency

Share all assumptions, methodology, data and analysis. Reward manufacturers who fully disclose contents and processes to allow for meaningful analysis.

Optimism

Acknowledging that our goals are ambitious and difficult to attain, we believe they are within the grasp of committed professionals working in good faith.

Define the Ideal

It is an act of optimism to set an ideal goal representing how we believe our products can be good for the world, rather than just issue prohibitions on what is less-bad.

Coalition and Consensus Building


The sheer magnitude of tools, standards and ratings is now confusing and becoming counter-productive in the market place. Pharos seeks consensus in establishing green materials standards.

Accessible Presentation

Mindful of the complexity of the work we undertake, Pharos will provide accurate summary materials that are elegant, informational and user-friendly.

Life Cycle Thinking

Assess impacts along the entire life cycle of the material from extraction to disposal using a wide range of tools.³⁵



Pharos

ENERGY: kWh/kg
WATER: L/kg

PRODUCT:

FUNCTIONAL UNIT:

Embodied Energy Content:

Embodied Water Content:

Recycled Content: PC % PI %

Biodegradable: Recyclable:

Currently Recycled: %

Life Expectancy:

Decomposition Time:

Warranty Period:

Take-Back Program:

Rapidly Renewable:

Animal Testing:

Made in:

CONTAINS:

Pharos Label



Pharos Lens

³⁵www.pharoslens.net/

Source: www.pharoslens.net/about/label and www.pharoslens.net/

Okala

*Okala Philip White, Louise St. Pierre and Steve Belletire with Eastman Chemical,
Whirlpool and the IDSA/EPA Partnership » 1992, 1997*

Tool

Okala is a curriculum of course modules developed as an introduction to ecological and sustainable design for a range of design practitioners.

The latest edition, Okala 2007, emphasizes usability and includes:

- » Updated Lifecycle Impact Assessment methods that include use of the newest environmental impact characterization methods and normalization data from the US EPA, as well as the newest weighting values from the National Institute of Standards and Technology (NIST)
- » Okala impact factors (incorporating the aforementioned methods) for 240 materials and processes which enable estimation of the ecological performance of any product or system
- » Global climate change values (in CO2 equivalents) for the same 240 materials and processes
- » State of the art design guidelines for disassembly and recycling
- » Expanded explorations in environmental ethics, biomimicry, and design to stop climate change
- » Additional references to socio-economic relationships
- » New Green Marketing data and Product Life Cycle costing analysis³⁶

³⁶www.idsa.org/whatsnew/sections/eco-section/okala.html

Design Can Change

Eric Karjaluoto and smashLAB » 2007

Tool

Design Can Change, by smashLAB in Vancouver, is a collective and community of designers who share the value and goal of being environmentally conscious in their professional practice.

Designers are asked to take the following pledge:

In my professional practice, I will endeavor to:

Learn Engage in the topic and seek to understand the issue

Think Make a sustainable mindset second nature

Act Put my knowledge to use in my daily work

Inform Share information and build awareness for sustainability

Unite Spark change through collective strength³⁷

Design can Change provides a Sustainability Checklist to guide designers to make “greener” choices (the more check marks, the “greener”).

³⁷www.designcanchange.org/#act/pledge

Sustainable Design Checklist

Keep your projects green by using this handy checklist to audit your decisions throughout the design process. The goal is to get as many checkmarks as possible.

Strategy

- ☐ Best serves the client's needs
- ☐ Employs an effective message
- ☐ Fulfills the objectives
- ☐ Serves multiple purposes
- ☐ Doesn't require subsequent or parallel efforts to support it
- ☐ Has limited environmental impact throughout its lifecycle

Execution

- ☐ Will unlikely benefit from additional strategy
- ☐ Uses the most appropriate format
- ☐ Maximizes space on the press sheet
- ☐ Uses of recycled materials
- ☐ Is easy to recycle
- ☐ Considered paperless options
- ☐ Uses as few materials as possible
- ☐ Raises awareness by displaying environmental specs
- ☐ Limits ink coverage and areas of solid colour
- ☐ Maximizes shelf life
- ☐ Can be proofed on screen
- ☐ Uses die-cuts or embossing rather than an additional ink
- ☐ Combines many components for maximum efficiency

Production

- ☐ Is on target with our print quantities
- ☐ Uses local vendors and sourcing local materials
- ☐ Minimizes transport and shipping
- ☐ Uses vendors that use renewable energy

Printer

- ☐ Can proof on screen
- ☐ Doesn't require film; it can go from digital to plate
- ☐ Utilizes an environmental management system
- ☐ Manages their waste responsibly
- ☐ Has environmental certification

Paper

- ☐ Is smaller and lighter
- ☐ Contains post consumer waste fibre (PCW)
- ☐ Is recycled

- ☐ Uses tree-free fibres such as kenaf, hemp, and bamboo
- ☐ Was produced with renewable energy (Green-e certification)
- ☐ Is FSC-certified
- ☐ Was processed chlorine free (PCF)

Packaging

- ☐ Eliminates adhesives by using an alternative binding or tabs
- ☐ Avoids labels by printing directly on the packaging surface
- ☐ Does not require secondary and tertiary containers
- ☐ Minimizes the gauge of the materials
- ☐ Is robust, reducing the amount of protective materials
- ☐ Is refillable
- ☐ Nest and stack well for efficient transport
- ☐ Does not contain toxic substances such as PVC

Inks

- ☐ Are not specialty metallic or fluorescent inks
- ☐ Are vegetable or soy-based inks
- ☐ Do not require a protective surface coating

Post Press

- ☐ Avoids solvent-based adhesives in the bindings and labels
- ☐ Limits use of staples
- ☐ Avoids foilstamping, thermography, and lamination

Distribution

- ☐ Has mailing lists that are up to date
- ☐ Accurately targets our audience
- ☐ Avoids shipping by air
- ☐ Avoid use of labels by printing addresses directly on the piece

End-of-useful life

- ☐ Can be recycled
- ☐ Can be reused
- ☐ Minimizes the de-inking process
- ☐ Is biodegradable

So, how did you do? Can anything be done about the unchecked boxes? For more information on sustainable graphic design, visit: www.designcanchange.org

DESIGN CAN  CHANGE

11 Design Questions

Chris Hacker, Johnson & Johnson » 2007

Tool

1. Do we really need it?
2. Is it designed to minimize waste?
3. Can it be smaller or lighter or made of fewer materials?
4. Is it designed to be durable or multifunctional?
5. Does it use renewable resources?
6. Is reuse practical and encouraged?
7. Are the product and packaging refillable, recyclable or repairable?
8. Is it made with post-consumer recycled or reclaimed materials? If so, how much?
9. Are the materials available in a less toxic form?
10. Does it come from a socially and environmentally responsible company?
11. Is it made locally?³⁸

³⁸www.psfk.com/2007/10/johnson-johnsons-11-questions-before-you-design.html

The Designer's Field Guide to Sustainability

Lunar Design » 2008

Tool

Lunar Design developed a visual roadmap for sustainable product development and the product life cycle. The model is centered around four questions and strategies to guide the development process:

What is it trying to accomplish?

- » question the premise of the design
- » make it less complex
- » make it more useful

How is it brought to life?

- » reduce material variety
- » avoid toxic or harmful chemicals or materials
- » reduce size and weight
- » optimize the manufacturing process
- » design packaging in parallel with products

How is it used?

- » design for upgradability
- » create durable and high quality designs
- » design for life after death

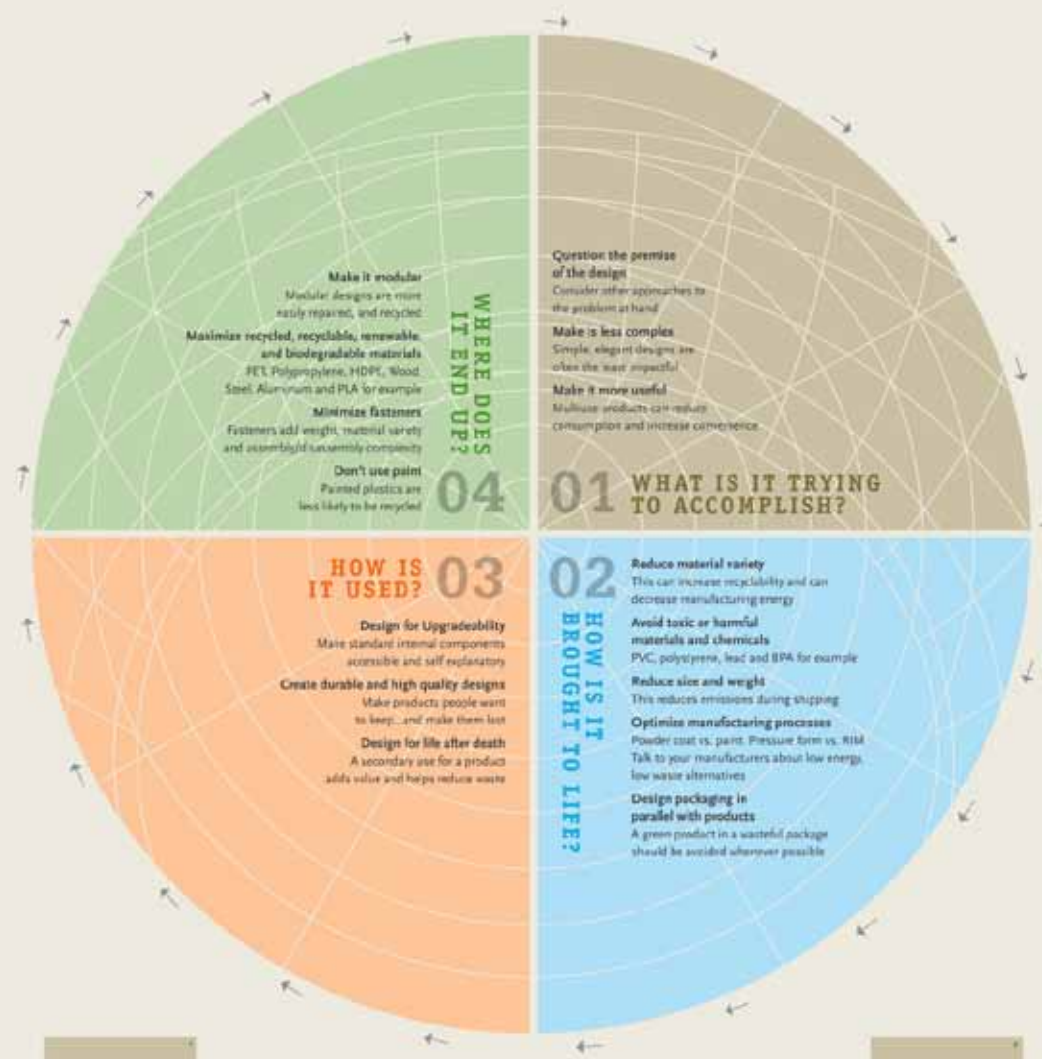
Where does it end up?

- » make it modular
- » maximize recycles, recyclable, renewable, and biodegradable materials
- » minimize fasteners
- » don't use paint³⁹

³⁹www.lunarelements.blogspot.com

THE DESIGNER'S FIELD GUIDE TO SUSTAINABILITY

an overview of sustainable product development and the product life cycle



Source: www.lunarelements.blogspot.com

Re-nourish

Eric Benson, Yvette Perullo, and Jess Sand » 2006–2009

Tool

“Re-nourish is dedicated to helping the graphic design community grow into a more sustainable industry.”⁴⁰ The website provides information to expand designers’ knowledge, and four tools to work more sustainably: Project Calculator, Paper Finder, Green Printer Finder (printers must meet a set of Sustainable Standards specific to printers in order to be listed), and Green Your Studio (a list of best practices).

Re-nourish has standards for the certification of design studios and projects in three categories: print, packaging and digital. The certification criteria, which are three-tiered, are tailored to the specific issues involved in the given medium, and include geographic considerations throughout a project’s or studio’s supply chain.⁴¹

⁴⁰www.lunarelements.blogspot.com

⁴¹www.re-nourish.com/?l=casestudies_standards

Labels and Certifications

Tool

Countries and regions have developed their own label and certification systems to guide manufacturers and producers, and to inform consumers.

They fall in three main categories: seals, certification words, and numerically comparative labels.

Here are a few that you may recognize:

Type-I (seals)

AENOR Medio Ambiente (Spain)

<http://www.aenor.es/desarrollo/certificacion/productos/tipo.asp?tipop=2#1>

AFNOR Certification (France)

<http://www.afnor.org/en/certification/dd001>

Blue Angel (Germany)

<http://www.blauer-engel.de/en/index.php>

Designed for the Environment (DfE-U.S.)

<http://www.epa.gov/dfe/>

Environmental Choice EcoLogo (Canada)

<http://www.environmentalchoice.com/redirect.asp>

Environmental Choice (Australia, New Zealand)

<http://www.geca.org.au/>

Ekologicky Setrany Vyrobek (Czech Republic)

[http://www.ekoznacka.cz/___C12572570032F2DB.nsf/\\$pid/MZPMSFIV17VH](http://www.ekoznacka.cz/___C12572570032F2DB.nsf/$pid/MZPMSFIV17VH)

Eco Mark (Japan)

http://www.ecomark.jp/english/n_kekka.html

Ecomark (India)

<http://envfor.nic.in/cpcb/ecomark/ecomark.html>

EnergyStar (US)

<http://www.energystar.gov/>

European Union Eco-Label (the EU Flower)

<http://ec.europa.eu/environment/ecolabel/>

Fair-Trade

<http://www.fairtrade.net/>

Forest Stewardship Council (FSC)

<http://www.fsc.org/>

Green Label Singapore

<http://www.sec.org.sg/>

Green Label Thailand

<http://www.tei.or.th/greenlabel/>

Green Seal (U.S.)

<http://www.greenseal.org/>

Good Housekeeping (nutrition labels, U.S.)

<http://www.goodhousekeeping.com/health/nutrition/new->

Hong Kong Green Label

<http://www.greencouncil.org/eng/index.asp>

HUAN Eco-Label (People's Republic of China)

<http://www.sepacec.com/cecen/labelling/>

Korea Eco-Label

<http://www.koeco.or.kr/eng/index.asp>

Marine Stewardship Council

<http://www.msc.org/get-certified>

Nordic Eco Label (the White Swan) (Scandinavia)

<http://www.svanen.nu/Default.aspx?tabName=getlabelled&menuItemID=7076>

PETA's Leaping Bunny (animal rights)

http://www.peta.org/mc/factsheet_display.asp?ID=96

Qualidade Ambiental (Brazil)

<http://www.abnt.org.br/default.asp?resolucao=1920X1200>

Sustainable Forestry Initiative

<http://www.sfiprogram.org/newsroom/?p=103>

TCO (Sweden)

<http://www.tcodevelopment.com/>

UL (U.S.)

<http://www.ul.com/global/eng/pages/corporate/aboutul/ulmarks/>

Type-II (certification words)

Organic (U.S.)

<http://www.ams.usda.gov/AMSV1.0/>

Type III (numerically comparative labels)

EnergyGuide (US, for appliances)

<http://www.ftc.gov/bcp/edu/pubs/consumer/homes/rea14.shtm>

Fuel Economy Rating (U.S.)

<http://www.fueleconomy.gov/FEG/ratingsNewSticker.shtml>

Tesco /Carbon Trust Carbon label (on food and products in Tesco stores)

http://www.tesco.com/greenerliving/greener_tesco/what_tesco_is_doing/carbon_labelling.page

Oeko-Text® (textiles, Japan, Europe)

http://www.oeko-tex.com/OekoTex100_PUBLIC/index.asp

Timberland Footprint label

<http://www.timberland.com/shop/ad4.jsp>

Pharos (material selection)

<http://www.pharoslens.net/about/label>



Printed on Neenah Environment Mesa White 80t Smooth (50% Alternative Fiber and 50% Post-Consumer Fiber) and Neenah Environment White 80c Felt (80% Post-Consumer Fiber) (Cover)



Center for Sustainable Design