

What is Sustainable Graphic Design?

My lecture is called "What is sustainable graphic design?" I'm presenting you with arguments and definitions to help curate a space where visual designing and sustainability overlap meaningfully. I'm going to walk us through some theories and a few case-studies dealing with "what Sustainable Aesthetics might look like." We'll talk materials, aesthetics, forms, processes, semiotics, and philosophies.

Quick background

In my twenty year role as graphic designer I've designed books, record sleeves, magazines, logos, websites, exhibition graphics, and built digital tools. Regardless of final forms, if its client-based or self-initiated, I treat all my designs as opportunities for intellectual inquiry and self-expression.

Sustainability has also been a key aspect of my work. I was making biodiesel, converting old Mercedes Benz to run on vegetable oil, building renewably powered websites, and ecologically considered print pieces since 2006.

A place to start

The sustainabilitist principles is an inflection point.

Example: the sustainabilitist principles???

The Sustainabilitist Principles is a modular manifesto; a collection of my ideals for designing as a Sustainabilitist; the ways of thinking to create sustainably as considered in 2009. The goal: create an object whose form embodied the principles it conveyed.

The Sustainabilitist Principles started out as the books on my desk, I was wondering where "sustainable designing" lay within them... mapping connections between these ideas... then writing about and

illustrating the principles; the interconnections over time and space of similar ideals... finally, how to clarify access to the ideas for the next designer.

The final output of this direction brought necessary pieces together in an intentional, ephemeral form for an exhibition. I did not need to make another book or a poster series to explain these principles: the objects themselves could do it if put together correctly! The books were my actual books. The screen printed definitions, they were printed on title pages and front matter of found paperback novels. The embroidery floss interconnecting things was used in the longest possible pieces to maximize reuse of the thread afterward.

So, this was what I felt was my first really successful piece of "sustainable graphic design." It was also my sort of final "answer" to a question in grad school that we'll be looking at today: "What does Sustainable Graphic Design look like?"

What does SGD look like?

This question continues to fascinate me.

As a grad student I had works that I felt fell into 3 main kinds of answers, and then a 4th wild card...

- Sustainable Graphic Design Looks The Same
- Good design is good design. If you pick the right materials or processes sustainable design doesn't need to look or be any different.
- Sustainable Graphic Design Looks Eco-Friendly
- Clearly wearing one's environmental and social activism on one's sleeve. Renewable energy, plant motifs, brown paper, natural dyes, etc.
- Sustainable Graphic Design Looks Innovative
- Sustainability brings with it new ways of thinking, new tools, new technology; and so visuals should be new and innovative too...

- Sustainable Graphic Design Does Not Exist!

Sustainable Design does not exist

"Sustainable design does not exist" was at first pessimistic. Is design all just trash? does design create waste period, so nothing is sustainable? Anything we make is unmaking so much else; so all design is unsustainable.

But! "Sustainable design does not exist" came to signify an alternative; it didn't exist because it was ephemeral! because it reused existing objects in a new way! that it left no trace! that it was part of a vernacular process! suddenly this felt like a prompt for new works; new questions! A useful constraint for future work.

Define Sustainability? Define Sustainabilistis?

Sustainabilistis take over where environmentalism left off, moving from the realm of the environment into all realms. We must allow our designs, strategies and methodologies to evolve and adapt to new ideas, new hybrids — accept and deal with a constant flux between nature, society, economy — everything.

Sustainability charts... The triple bottom line - separate but additive; and then Economy within Society within Nature — holistic; what buckminster fuller was talking about when he said we live on "spaceship earth"

Sustainabilist Aesthetics

What comes to mind when you hear the phrase "sustainable graphic design?"

- Is there a particular style?
- Is there a particular client?
- Is there a particular material?

- Is there a particular visual trope? a color? a pattern?
- Is there a particular message?

A Place to Start: Define Sustainable Graphic Design

The key to doing something about sustainability is that you first have to say what it is that you want to sustain. — John Ehrenfeld, *Flourishing: A Frank Conversation about Sustainability*

To define sustainable graphic design we must first define what it is we are sustaining.

Here are some competing definitions of sustainability...

If sustainable graphic design is design in service of what we want to sustain — how do you decide what's worth sustaining? (if we want to sustain the status quo, then that is what sustainable graphic design is — hmmm!?).

Ehrenfeld wants to sustain “that all humans and other life should flourish.”

Designer Bruce Mau has a similar description for the goals of *Massive Change*: “Our project is the welfare of *all life* as a practical objective.”

So, this is what we'll use as our definition of Sustainable Graphic Design for the remainder of the talk:

sustainable graphic design is “graphic design in support of all life flourishing,” or, “graphic design for the welfare of all life.”

Sustainable Graphic Design is DIFFERENT

Sustainable Graphic Design defined this way is *different* than status quo, or "regular," cultural production. All life flourishing is not the traditional goal of business, culture, and design.

"different" throughout western art and design history has often correlated with new thinking and new tools and those subsequently launched new aesthetic outcomes.

Sustainability brings with it all manner of new technologies, new social structures, new tools.

Should Sustainable graphic design then carry with it additional new forms and aesthetics?

Ideological, Critical, Beautiful

"all design is ideological, the design process is informed by values based on a specific world view." — Anthony Dunne and Fiona Raby, *Design Noir: The Secret Life of Objects*

If our new world view is "the welfare of all life," how does that shift what and how we graphic design?

Dunne and Raby are proponents of "critical design," design that "provides a critique of the prevailing situation through designs that embody alternative social, cultural, technical, or economic values."

Sustainable graphic design should be critical of current social, cultural, technical, AND economic structures. All life flourishing is not the traditional goal of business, culture, and design.

->->-> An example: Critical Design: Sustainabilist design should be critical of the status quo. How does something visual do this? Include a design-a-day that fits this? Sustainabilist principles? Ecovention?
->->->

And, the visual criteria for "formal goodness" or "beauty" are part of the systems we must be critical of.

Contemporary formal goodness has evolved from modernist ideals. These were born out of western art traditions from the late 19th through mid-20th centuries. These criteria have been subsequently been adopted by business, government, and general society as "good" style.

Mid-century modernism is so embedded in culture that the "rules" of good graphic designing are just the "rules" of modernism.
— Jerome Harris

->->-> Counter example: The Bauhaus. One place to find graphic design "goodness." This is one formal outcome from a set of ideals. But, does this offer us anything once taken to the realm of the sustainable? does this say anything about the welfare of all life? // A bauhaus graphic of some kind? why are we still using this as a basis for good visual designing? ->->->

Our sense of good or beautiful design is biased towards these modernist ideals; the same formal and conceptual ideals; as we can see around us, these concepts do not lead to all life flourishing.

So, should Sustainable graphic design then carry with it additional new forms and aesthetics? probably, and we need new criteria for what formal goodness or "beauty" now are for the visual output!

A Descent Down the Beauty black hole

Sustainable designers should see the non-sustainable as the less-than beautiful.

If your design doesn't account for the welfare of all life, regardless of whatever external aesthetics wrap it, your design is ugly.

| “the hidden ugliness of traditional products.” — Edwin Datschefksi

The Non-Sustainable = The Ugly; The Sustainable = The Beautiful

So, I ask again, what comes to mind when you hear “Sustainable Graphic Design?” Something that is truly beautiful. Perhaps elegant? Perhaps constrained? Perhaps Vernacular? Perhaps reused? Perhaps eco-friendly? But always beautiful.

But, how do you define beauty? and what kind of beauty is sustainable

| “To call a work of architecture or design beautiful is to recognize it as a rendition of values critical to our flourishing. A transubstantiation of our individual ideals in material medium.” — Alain de Botton, The Architecture of Happiness

Beauty will align with your values.

However our ideals can be materialized into graphic design will yield “beautiful” graphic design.

So, Sustainable design’s form declares “humans & all life should flourish.” / And if those are the values we want to align with, then beautiful design’s form declares “humans & all life should flourish.

A design is both sustainable AND beautiful when its form declares that humans and all other life should flourish.

Sustainable Design = Beautiful Design

| Beauty is in the eye of the beholder — Margaret Wolfe Hungerford, Molly Bawn, 1878

How can both of these concepts be true?

How Does a sustainabilist account for pluralities as to what constitutes "beautiful?"

"there are as many styles of beauty as there are visions of happiness" — Stendhal

It's not a new idea that beauty isn't the same for everyone

"Beauty in things exists merely in the mind which contemplates them." — David Hume's *Essays, Moral and Political*, 1742

What new or objective criteria are there for beauty in Sustainable Graphic Design?

Or, is there a style, aesthetic, or form says "all life should flourish" the most clearly? and then that brings us to a new place of beauty? Perhaps there isn't a single visual way to frame this?

Is beauty really a useful concept?

Design critic Bruce Sterling outlines three criteria for objects worth making, owning, and keeping:

- Beautiful Things
- Sentimental Things
- Utilitarian Things

Perhaps "Beauty" as described thus far really encompasses all three of Sterling's criteria.

I might find a hammer utilitarian AND beautiful. To you, that hammer might just be utilitarian. The paintings, drawings, and houseplants I find beautiful you may find ugly. The things I find sentimental are probably unique to me.

But! we now have something objective to measure: utility — do you find a thing to work; and something individually knowable: sentimentality. There is not merely an external, abstract "beauty" ...

Biomimicry

Biomimicry is a practice that learns from and mimics the strategies found in nature to solve human design challenges

- Nature runs on sunlight.
- Nature uses only energy it needs.
- Nature fits form to function.
- Nature recycles everything.
- Nature rewards cooperation.
- Nature banks on diversity.
- Nature demands local expertise.
- Nature curbs excess from within.
- Nature taps the power of limits.

Like Sterling's criteria, Biomimicry's tenants don't imply a style, or an aesthetic, but they do give us yet more useful criteria to judge formal fitness from.

->->-> An example: Selecting a font: Should a font's appearance matter as much as the energy and material and social ills it saves? Is selecting a font that uses minimal ink the best way to select a font? Would a font that is condensed, that uses up less space (saving paper over a print run; exposure to chemicals to the printer) be better? Can we combine the these? The thinnest, most condensed, lightest ink coverage font is the most sustainable? This can easily be taken absurd lengths. This might be "Critical Design," critiquing the status quo; it tackles resultant outcomes from a resource perspective; but does it embrace "the welfare of all life?" Making choices around resource use might make "less bad" graphic design, does it make for *sustainable* graphic design? (Experimental letterforms made using 000letter <http://kielm.land/>). ->->->

Cyclical Systems?

Nature produces no waste; outputs from one system are always inputs for another. Our current design and consumer cultures do not operate in this way.

Michael Braungart and William McDonough call this concept "waste = food." Through it, Braungart and McDonough want us to understand our culture's problematic relationship with waste. We see raw materials, we turn them into things, and then they go away when we're done.

designers make garbage. Karrie Jacobs, *Disposability, Graphic Design, Style, and Waste*

Our inputs have only one output, trash! And trash must be sent away; not locally used for making more design...

Can we apply the *Cradle to Cradle* cyclical idea of *waste = food* to our graphic designing? How can creative waste from a design process become food for other designs/design processes? Is this a way to achieve beauty?

Sustainable aesthetics visualize good ethics

"There is a central quality which is the root criterion of life and spirit in a man, a town, a building, or a wilderness. This quality is objective and precise, but it cannot be named. It is never twice the same, because it always takes its shape from the particular place in which it occurs." — Christopher Alexander

The qualities that promote the welfare of all life are, like the quality without a name, ineffable.

And like the quality without a name, aesthetics that correspond with all life flourishing will shift and change with different contexts.

A wild garden, a cathedral, a monarch butterfly, a thriving farmers market.

Instead of attempting to nail things down literally or concretely, a "feeling" needs to be found instead, or a pattern that can be applied.

How might we go about realizing in form how we have aligned ourselves philosophically?

Semiotics: What aesthetics or forms convey a feeling of sustainability?

No aesthetic direction is without expression. Forms convey certain meanings. Typefaces impart different feelings. Images have different intents.

Viewers refer to visual solutions as feeling cold, sterile, corporate, warm, homey, etc. What visual solution then conveys the feeling of "all life flourishing?"

The aesthetic tropes that return when one does a web search for "sustainable aesthetics" or "green graphic design" do not necessarily convey the feeling of sustainability. Certainly just turning something green does not correspond with the welfare of all life. What then causes a design to communicate this?

When we say that design communicates what we really mean is that design signals clearly and cleverly.

How should a sustainable object signal? What should a sustainable object signal? What signals are the best signals for the welfare of all life?

Signs Signaling Sustainability

When your graphic design Makes tangible, makes understandable something about sustainability or climate change, then it is signaling sustainably.

This is doable no matter the project; no matter the prompt. There are myriad aspects of climate change and sustainability one might signal. Each in their tiny part we can think of as contributing to "all life flourishing."

This is another opportunity to find the "context" for which "beauty" becomes apparent in a design without resorting to superficial, external styling.

Here are some Signs Signaling Sustainability

Amager Bakke Vapor Ring

A concept that was never made; but that sent me down this direction: Copenhagen waste to energy plant is so clean its exhaust stack puffs only CO₂ and water vapor. Upon capturing 1 ton of CO₂, exhausts it as a smoke ring. Help you visualize this otherwise intangible!?! (Bjarke Ingels Group)

Reverberation Crosswalks

Reverberation Crosswalks are fun, brightly colored crosswalks. Just paint on cement and asphalt they still signal a sustainable vector forward. The neighborhood around this intersection is now more walkable. You can't not notice the crosswalks. They contribute to life flourishing in the city. This concept is cheap; fast; easily replicated; can be customized for region, culture, available materials, etc. (Graham Coreil Allen)

Solar.LowTechMagazine.com

Low Tech Magazine's solar powered website signals how we might visualize energy usage; how we might enable new systems of powering our tools; questions if we really need constant connection; and how aesthetic choices correlate to physical resources even in the digital sphere. (Kris De Decker & Marie Otsuka)

DC High Water Mark Project

The DC water mark project visualizes increased flooding and water level rise. The water level rings articulate "oh shit, this place might be underwater pretty frequently given our current projected future!" By signaling this, perhaps we can act accordingly and redirect our present towards a future where that is no longer true. Without *seeing* your house or office or favorite park area submerged, even symbolically, you cannot envision an alternative. (Curry J. Hackett / Wayside Studio)

Tattfoo Tan, S.O.S. Steward

Enrolled in various courses and acquired certification for sustainable/green knowledge. To flaunt new found titles, created merit patches to be worn on gray coveralls during events and gardening sessions.

<http://tattfoo.com/sos/SOSGreenStewardship.html>

FreshPress Paper

Prairie grass and agricultural waste for new paper fiber sources! These papers end up being very low carbon, or even carbon negative, in their footprints. (Eric Benson)

Bike Pool Noodle Hack

Foam pool noodle rubber banded to a bike rack... That's real utilitarian graphic design. <https://www.are.na/block/4299163>

Carbon sequestering book!?

As a concept, imagine a book. Now, when you open that book, all the pages are blank. But! what if they aren't blank — they're just not yet pigmented! What if by merely sitting in the air, your book slowly air captures carbon dioxide until the places that have been "printed" turn carbon black!

I pitched this idea to Eric Benson: using his Fresh Press paper I wanted to start making books — carbon sequestering books. Prairie grass stores carbon in soil over time, his paper is an important part

of the idea. Now to find ink to that direct air captures carbon too!
The book text would slowly reveal itself as carbon was drawn into the ink.

So this sequestering book focuses on "visualizing CO2" and how that relates to "the welfare of all life."

Conclusion

In prepping this lecture I was looking for the thread that connected my works together. That thread was this question, what does SGD look like, or what is SGD?! Everything I make is a continuous, evolving attempt at answering it.

The definition of sustainable graphic design is easy and hard. Sustainable graphic design is any visual design that sustains the welfare of all life. Sustainable graphic design is hard because, well, what constitutes graphic design that sustains the welfare of all life? What is the *je ne sais quoi* that makes sustainable design different, more correct, more capable of doing this sustaining?

Our current tools, ideas, and cultural systems aren't setup to help us to understand this or to manufacture products in this vein. Part of figuring out what sustainable graphic design is means we'll also have to continue to decide what forms, tools, and new societal structures are required to realize it effectively (& help to design these too).

There is no single way that sustainable graphic design looks, nor a single "correct" way that it is made (what materials it might be, or what processes it includes can be easily sorted into good, bad, ugly, less bad, etc. — but one golden solution does not exist).

What is Sustainable Graphic Design? Anything that visualizes the caretaking of our Spaceship Earth, in any way large or small.

Anything that helps promote the flourishing of nature's interconnected systems will look correct. That doesn't require a particular style, material, or typeface

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Example: Green Acres

Green Acres: Artists Farming Fields, Greenhouses, and Abandoned Lots was a book and an exhibition that I worked on with my friend, Sue Spaid, for the Contemporary Art Center in Cincinnati, OH. Sue curated this exhibition, and it featured artists using farming as their practice.

The goal: make the resultant book "sustainable." These were sustainability focused artists, how could I represent their ecological inventiveness in the printed design?

Well, in the end the only thing that made the production of this book "sustainable" was that it was printed on demand, and used recycled, unbleached paper.

Visually, the book's design was about *critical design*; the juxtaposition of small art farms vs. giant commercial farms. These artistic field graphics over a constrained grid based on aerial commercial farmland photography was an attempt at this "criticality."

While the book intends to say something different, it generally conforms to common standards of "good" modernist layout. Other than a minor production method improvement, it's the same ... !

Do these choices make it "Sustainable Graphic Design?"

Example: MICA Grad Zine

While this doesn't completely abandon modernist design principles, this mailer for the MICA Graduate Admissions does use imagery, layouts, and a format more closely related to Zine culture. The

printing structure was designed to minimize printing waste -- the front and back of this "poster" are printed all as one plate, so the press sheet goes through the press once, then is flipped over, and goes through the press again, voila. This means front and back of the pages were able to all be printed with one plate per color instead of two or more...

Example: Ecovention Europe

A couple of years later, Sue Spaid, now living in Belgium, gets a new exhibition opportunity. She calls it *Ecovention Europe* — ecologically inventive artists specifically working in Europe — and there was to be another catalog.

In the interim since *Green Acres*, I saw a lecture by the designer Sara De Bondt, where Sara discusses the *Radical Nature* catalog her team designed for the Barbican in London. De Bondt's studio wrote a sustainable printing manifesto as part of the research for the catalog's production.

((show manifesto???)

De Bondt's "manifesto" got me thinking about what other ways design decisions could be made.

Re-examine the design choices of *Green Acres* For *Ecovention Europe*
...

How might I make yet another 8x8 book, and drastically improve the sustainability (or at least the sustainable aesthetics) this time around? How could we re-approach the design of *Green Acres*, repurposing what we had done already?

Reduce

One of the items in De Bondt's printing manifesto is "use less ink." The idea of "Using less ink" meant selecting colors more carefully and to using them more sparingly.

For *Ecovention*, No color adds up to more than 100% ink coverage. (*Ecovention Europe* uses CMYK: and color palette swatches start at 100% pure C, M, Y, or K, and then are mixed in equal percentages to keep 100% or less total coverage: 50% + 50%; 33% + 33% + 33%; etc.).

Another way I tried to reduce ink was bitmapped city maps as the decorative new section markers. The appearance of a filled area is kept (relating back to a *Green Acres* design choice), but much less ink is used as compared to a filled and full bleed grayscale or CMYK variant.

Text columns in *Green Acres* ended where a full paragraph ended to make a few things easier from a design perspective. Yes, this gave a ragged, formally-nice rhythm to text columns, but it was an inefficient use of space. With *Ecovention Europe*, I spent time reducing the amount of unused space (this also minimized superfluous decoration — In *Green Acres*, superficial decorative elements that looked nice but served no functional purpose were all blank page areas).

Reuse

Sustainable designers routinely find novel ways to reuse materials, but I felt that there was little discussion for the possibility of reusing visuals and solutions.

The grid for *Green Acres* had a lot of conceptual reasoning invested into it, and so I reused the page templates, type choices, grid setup, etc.

Printing on demand was a concept also reused.

EE Analysis?

As a conceptual exercise, this was good. But, did it actually make much of a difference? In a book like this, there are a lot of images, and the artworks didn't adhere to the same ink coverage rules.

How could this be done differently and improved upon again next time? Would a different typeface save ink and space? Are there other ways to handle image inclusion? Is there an alternative to making this book at all? (Should this exist? I didn't ask that question before we began!).

Example: ICFP Booklet Generator

Here's a utilitarian design solution that could be considered sustainable. The real "design" here is that a web app can output all this conferences materials as a printable PDF, bypassing tons of time in InDesign typesetting it all manually. This is a fairly simple thing, but is project for a client helping with important social sustainability issues... It's not drop dead beautiful, and its certainly not sentimental, but it solves a problem in a clear, repurpose-able way and saved a lot of hours.