

Good vs. Great Design

by CAMERON MOLL



<http://howconference.com/>

DESIGN IS PROBLEM FINDING, NOT JUST PROBLEM SOLVING



“The technical problem,” related Anton Fokker (1890-1939) during World War I as he wrestled with the challenge of mounting a machine gun directly in the pilot’s line of sight, “was to shoot between the propeller blades, which passed a given point 2,400 times a minute, because the two-bladed propeller revolved 1,200 times a minute. This meant that the

pilot must not pull the trigger or fire the gun as long as one of the blades was directly in front of the muzzle.”

And then the young Dutchman made this remarkable observation: “Once the problem was stated, its solution came to me in a flash.” Within three days, Fokker had invented the ‘interrupter gear’ that made it possible for a machine gun to fire directly through the aircraft’s propeller without striking the blades—the first practical solution to a problem unsuccessfully confronted by several other inventors of the day.¹

Fokker’s determination to discover, understand, and clearly define the problem led to the solution emerging in parallel. So it is with design. “It has often been suggested that design is as much a matter of finding problems as it is solving them,” writes Bryan Lawson in *How Designers Think*. “Design problems and design solutions are inexorably interdependent. It is obviously meaningless to study solutions without reference to problems and the reverse is equally fruitless.”

GREAT DESIGN YIELDS MEANINGFUL COMMUNICATION

Inevitably any student of graphic design has heard this phrase at some point in their education: *Design is fundamentally communication*. Historically I’ve believed this

principle to be true. However, in recent years I've found myself wondering if the wording isn't a bit shallow.

Consider this: What if the result of great design were *meaning*? I think there's a deficiency in stating design is merely communication. We're bombarded by a slew of communication, in every form, on a daily basis. Thus, perhaps a suitable replacement for the oft-quoted phrase is the following: *Great design yields meaningful communication*. It is through *meaningful* communication that we are enabled to cut through the clutter, to make decisions, and to further our knowledge.

Some estimates indicate that the average American is confronted with 3,000 advertising messages per day.

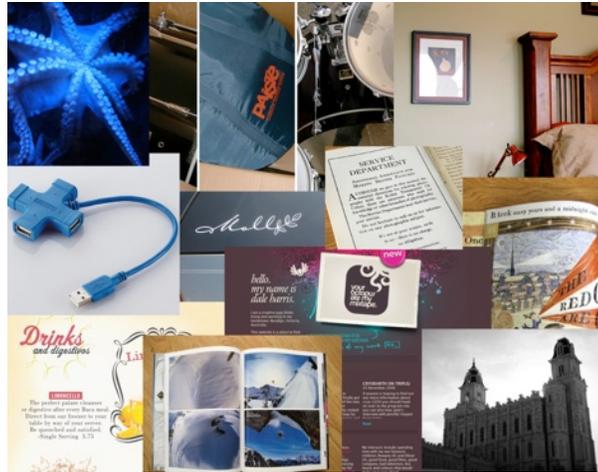
INFLUENCE IS BORROWED, INSPIRATION IS EARNED

A reader once emailed me to ask, "Where do you look for inspiration when designing new sites? I am looking to redesign a personal site and I keep getting stuck. Mental block and the like." (Sound familiar?)

My reply was also a question: "Are you referring to 'inspiration' or 'influence'?" I went on to describe that I interpret *influence* as being something readily available in design annuals, on award websites, and the like. Influence is immediate and free for the taking. Because of this, its utility is often short-lived. At times it may even serve as little more than a platform for duplication.

Inspiration, on the other hand, is an on-going journey in which one continually seeks to heighten his or her awareness of design in its many shapes and forms. It is an understanding of the interplay between design and the cultural, social, and economic facets of society. Inspiration is not always immediate, and it has to be earned. Its utility is nurtured and harvested over time—months, even years—through personal experiences. Often it is the catalyst of true creativity.

In *The Elements of Typographic Style*, Robert Bringhurst writes, "Instinct . . . is largely memory in disguise. It works quite well when it is trained, and poorly otherwise." I translate 'instinct' as being that moment when you sit down, you have an epiphany, and memory kicks in. Your months and years of harvesting inspiration immediately feed you with ideas in the very moment they are needed. You already prepared for that moment many times over.



Some of the sources of my inspiration.

GOOD TYPOGRAPHY BEGETS KNOWLEDGE

Perhaps the most significant summary of typography I've come across thus far in my career comes from Jan V. White in *Graphic Design for the Electronic Age*. He writes, "Typography is not an esoteric art form; it is a tool to be used to make information accessible. Information is neutral material. Only when it is transformed into knowledge does it have value." To the extent that one believes great design yields meaningful communication, one must be willing to fully embrace typography as a vital instrument through which meaning is produced.

Robert Bringhurst would appear to agree with White, while ensuring the role of typography still receives the acclaim it deserves. "Typography exists to honor content," writes Bringhurst in *The Elements of Typographic Style*. "In a world rife with unsolicited messages, typography must often draw attention to itself before it will be read. Yet in order to be read, it must relinquish the attention it has drawn. Typography with anything to say therefore aspires to a kind of statuesque transparency. Its other traditional goal is durability: not immunity to change, but a clear superiority to fashion. Typography at its best is a visual form of language linking timelessness and time." Simply put, "Well-chosen words deserve well-chosen letters."

VISUAL HIERARCHY YIELDS IMPORTANCE AND CORRELATION

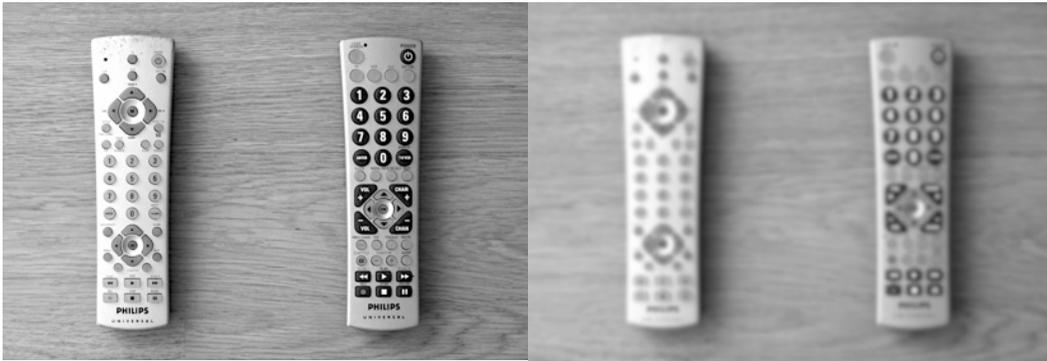
Among the many definitions you've likely encountered for the following design principle, I offer one more: Visual hierarchy is the emphasis and classification of elements according to a) relative importance within the composition as a whole and b) parent, child, and sibling relationships. Luke Wroblewski offers a similar definition: "A balanced hierarchy provides not only a clear path for recognizing and understanding information, it also helps unify the disparate elements within a page layout into a cohesive whole."²

It is difficult to talk about hierarchy exclusively without mentioning other design principles—proportion, proximity, position, alignment, contrast, relativity, dominance, and color, all of which can play a role in classifying elements and emphasizing those elements that need emphasis.



Print ad for Dyson vacuums.

Good hierarchy isn't always achieved by eliminating complexity, but by managing it. Imagine the pilot's cockpit in a Boeing 747 aircraft. To you and me, the interface is probably terribly complex. However, the principles mentioned in the previous paragraph all play a role in organizing the instruments precisely how they need to be for the user, in this case a trained pilot.



As the photo above is blurred, the differences in visual hierarchy between the two controllers becomes only more pronounced.

Unfortunately, in my experience working with many other experienced and novice designers, it has become clear that visual hierarchy is one of the most ignored and underutilized principles of design. We would do well as design craftsmen to thoroughly study and apply the principle of visual hierarchy.

THE CREATIVE PAUSE

There's something about showering that tends to spawn new ideas which may not occur otherwise. And the frequency with which this occurs seems to suggest that perhaps the occurrence isn't merely happenstance, but instead a decent model for what has been called "creative pause"—the shift from being fully engaged in a creative activity to being passively engaged, or the shift to being disengaged altogether.

Edward de Bono, who may have first coined the phrase, describes creative pause as a deliberate, self-imposed pause to consider alternative solutions to a problem — even when things are going perfectly fine — for "some of the best results come when people stop to think about things that no one else has stopped to think about."³ He suggests these pauses can be as short as 30 seconds.

In his paper for International Journal of Psychoanalysis, Professor Lajos Székely describes creative pause as follows: "The 'creative pause' is defined as the time interval which begins when the thinker interrupts conscious preoccupation with an unsolved problem, and ends when the solution to the problem unexpectedly appears in consciousness."⁴

These two descriptions of creative pause suggest that deliberate interruptions, whether short or an unknown period of time, may be helpful to problem-solving. Aside from the obvious that showering is a pause to another activity, following are some additional observations about why showering often yields unexpected ideas and creative thinking, and why it may be an ideal model for creative pause in general.

There's little opportunity for distraction. The confinement produced by the physical environment of a shower results in isolation from work materials, digital devices, and social interaction.

Minimal mental engagement is required for the task at hand. The monotony and nearly subconscious nature of scrubbing, rinsing, and washing frees the mind to focus on things other than the physical activity of showering. You become preoccupied with entertaining yourself mentally.

Showering creates a "white noise" effect. Water that is sprayed from a nozzle and falls to the ground may result in a white noise-like environment.

A change of scenery sets the stage for the unexpected. Merely changing your view and perception of things sometimes results in new thinking. With showering, the change is the location, temperature, attire (or lack thereof), and the addition of water.

Of course, few of us enjoy the convenience, time, or even desire to hop in the shower any time we're struggling with a challenging problem or want to think about the problem differently. But these observations suggest a model for other activities that may yield similar results if similar criteria are at play: 1) distractions are minimized, including noise; 2) the body is engaged in a monotonous, mundane, or repetitive activity, freeing the mind to think about other things; 3) the environment is changed. What kinds of activities do these criteria spring to mind?

Coincidentally, the solution for positioning mirrors on the Hubble Telescope during a 1993 servicing mission was conceived by electrical engineer James Crocker as he was showering and observed "European-style fixtures [that] included a showerhead on an arrangement of adjustable rods" (*The Hubble Space Telescope Servicing Mission*, Joseph N. Tatarewicz).

¹ "The invention of air forces," Donald and Thomas Sensing, <http://www.donaldsensing.com/2005/02/invention-of-air-forces.html>

² "Visible Narratives: Understanding Visual Organization," Luke Wroblewski, http://www.lukew.com/resources/articles/visible_narratives.html

³ *Serious Creativity: Using the Power of Lateral Thinking to Create New Ideas*, Edward De Bono, Harper Business Press.

⁴ "The Creative Pause", Lajos Székely, *International Journal of Psychoanalysis*, 1967.

Excerpts from *How Designers Think*

BRYAN LAWSON, AUTHOR

THERE ARE NO OPTIMAL DESIGN SOLUTIONS

“Design almost invariably involves compromise.... Rarely can the designer simply optimise one requirement without suffering losses elsewhere.... There are no established methods for deciding just how good or bad solutions are, and still the best test of most design is to wait and see how well it works in practice. Design solutions can never be perfect and are often more easily criticised than created, and designers must accept that they will almost invariably appear wrong in some ways to some people.”

DESIGN SOLUTIONS ARE A CONTRIBUTION TO KNOWLEDGE

“Once an idea has been formed and a design completed the world has in some way changed. Each design, whether built or made, or even if just left on the drawing-board, represents progress in some way.... Thus the completion of a design solution does not just serve the client, but enables the designer to develop his or her own ideas in a public and examinable way.”

THE PROCESS INVOLVES FINDING AS WELL AS SOLVING PROBLEMS

“It is clear from our analysis of the nature of design problems that the designer must inevitably expend considerable energy in identifying the problems. It is central to modern thinking about design that problems and solutions are seen as emerging together, rather than one following logically upon the other.... [B]oth problem and solution become clearer as the process goes on.”

DESIGN IS A PRESCRIPTIVE ACTIVITY

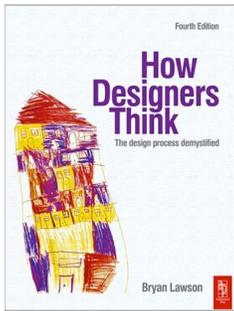
“[D]esign is essentially prescriptive whereas science is predominantly descriptive. Designers do not aim to deal with questions of what is, how and why, but, rather, with what might be, could be and should be. While scientists may help us to

understand the present and predict the future, designers may be seen to prescribe and to create the future, and thus their process deserves not just ethical but also moral scrutiny.”

DESIGNERS WORK IN THE CONTEXT OF A NEED FOR ACTION

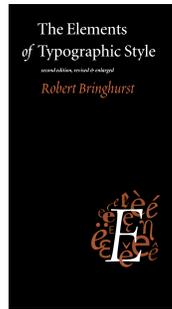
“Unlike the artist, the designer is not free to concentrate exclusively on those issues which seem most interesting. Clearly one of the central skills in design is the ability rapidly to become fascinated by problems previously unheard of... Not only must designers face up to all the problems which emerge they must also do so in a limited time. Design is often a matter of compromise decisions made on the basis of inadequate information... Designers, unlike scientists, do not seem to have the right to be wrong. While we accept that a disproved theory may have helped science to advance, we rarely acknowledge the similar contribution made by mistaken designs.”

Recommended Reading



How Designers Think
Bryan Lawson

A book devoted to the idea that design thinking is a skill, and as such it is something that can be improved.



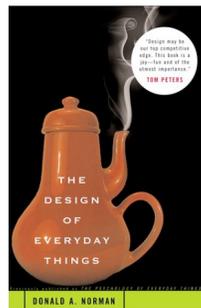
The Elements of Typographic Style
Robert Bringhurst

A complete study in typography, from the broadest concepts to the smallest details.



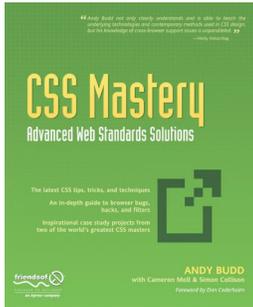
Universal Principles of Design
William Lidwell, Kritina Holden, Jill Butler

A reference of vocabulary and examples from the disciplines of graphic design and user interface design.



The Design of Everyday Things
Donald A. Norman

An extensive investigation of the interplay between design and living.



CSS Mastery

Andy Budd, Simon Collison, Cameron Moll

The best-selling reference and tutorial resource for CSS tips and techniques for creating extensible, elegant, and accessible websites.



Mobile Web Design

Cameron Moll

A web standards approach to delivering content to mobile devices.

About the Presenter



Co-author of *CSS Mastery* and author of *Mobile Web Design*, Cameron Moll strives to create meaningful designs that harmonize utility and presentation. His work or advice has been featured by *HOW*, *Communication Arts*, Forrester Research, National Public Radio (NPR), and many others. He speaks on design at conferences nationally and internationally, and amid all this craziness he still finds time to play ball with each of his boys.

Cameron is currently employed as Principal Designer for the LDS Church, helping manage the many websites and applications of a organization with more than 13 million members worldwide. Cameron resides near Salt Lake City, Utah with his wife Suzanne and four sons.

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- vimeo.com/user267370

