

Introduction: The Rise of Research in Graphic Design

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Graphic design is at a crossroads. Looking back, one sees designers engaged in a process where intuition informs the development of visual rhetoric intended to evoke a response from a target audience. Looking ahead, one sees them engaged in a process where research is integrated into the design of objects and experiences for and with the audience. By adopting interdisciplinary research approaches, graphic designers can both question and affirm their intuitive inclinations, and place this process in conversation with peers and even the lay public. Traditionally graphic design theory has privileged intuition and creativity over empirical research. This book seeks to provide an alternative approach to graphic design theory by surveying the best work, past to present, on research-based graphic design theory.

The question then is: what are graphic design's theories? It can be argued that the art-based principles of graphic design—including (but not limited to) contrast, hierarchy, repetition, alignment, and color—are in fact theories proven through a long history of successful experimentation in practice.¹ Indeed, graphic designers—through professional practice—have tested and retested to the point where it makes sense to refer to these theories as laws or principles. Marty Neumeier's and James Souitar's analyses of the work of John Rushworth, Massimo Vignelli,

Nancy Skolos, and Chuck Close, confirm the replicability of these principles to create aesthetics that sell ideas, products, and experiences.² Yet within the discipline of graphic design these principles are not regarded as “proven” theories because graphic design historically lacks a strong research agenda. On the contrary, graphic design—partly because of its arts affiliation—has developed a reputation as an intuition-fueled practice, based primarily on talent.³ Practitioners who do opt to inform their intuition with theory typically look to other disciplines within the humanities and sciences. Cognitive, semiotic, rhetorical, cultural, social, and literary theories have long been popular choices among graphic designers.⁴

The process of deriving theory through research is common in most disciplines within the sciences and even in some humanities. One can follow the development of theories in a discipline by reading its scholarly writings penned primarily by academics. There is an evolving intellectual oeuvre from which practitioners can retrieve, evaluate, and use the theories and methods to guide and inform their work. Within the design discipline, there are scholarly journals that report research findings and theoretical perspectives on graphic design topics. However, because of its intuitive-based nature, practitioners of graphic design have not followed the lead of its scholars. Instead what exists is an intellectual chasm between practice and research with practitioners leading the way.

INTUITION IN GRAPHIC DESIGN

Intuition—defined by Paul Rand as a flash of insight conditioned by experience, culture, and imagination⁵—is invaluable to a graphic designer. The key role of intuition in graphic design emerged in part from the work of modernist predecessors such as Rand, W. A. Dwiggins, and Bradbury Thompson, who founded, defined, and promoted the discipline as an intuitive practice that could also be used as a strategic tool for business.⁶ Graphic design is indebted to these practitioners whose creative prowess uplifted the discipline, giving it a visible, national recognition. Their individual efforts reinforced a precedent already set by the art and architecture industries. Therefore, the focus of graphic design became inevitably the development of commercial design work that wins competitions. Winning juried competitions/exhibitions sponsored by the American Institute of Graphic Arts (AIGA),

Communication Arts, *Print*, New York Type Director's Club, and the former American Center for Design, among others, has long been the determinant of a graphic designer's fame and fortune. As a result of such highly coveted recognition, the discipline's scope of knowledge has largely been published in the form of critical writings analyzing design and how-to books aiming to nurture the professional graphic designer's practical expertise. For instance, in a tongue-in-cheek yet thoughtful essay, one "famous" graphic designer, Michael Bierut, advises the neophytes who would follow in his footsteps on techniques for winning design competitions.⁷ Elsewhere, Ross MacDonald and James Victore offer "modern business tips" for use in professional contexts that involve editors, clients, and others.⁸ The AIGA's Design Archive showcases over a thousand design projects that have been juried, all of which epitomize good *visual* design.⁹ Seldom, if at all, is the actual content written by the graphic designers who produced the aesthetics, in part because graphic designers typically do not have editorial control of their work. Authorship stimulates research activity. The graphic designer-as-author is a new phenomenon, still in its infancy, that has the potential to debunk the assumption that graphic designers are non-readers and -writers since authorship requires visual *and* verbal skills, creative *and* critical thinking skills.

In recent years, many graphic designers have begun to evaluate more rigorously the issues surrounding what they create and the impact of graphic design artifacts on society at large.¹⁰ The 2000 rebirth of the "First Things First Manifesto" of 1964, though controversial, marks the start of this new wave of introspective examination.¹¹ It urges graphic designers to think more about the broader historical, political, cultural, and social issues concerning the things they design. The subsequent publication of books such as *Looking Closer 4* in 2002 and *Citizen Designer* in 2003 represent an intellectual materialization of the manifesto's tenets.¹² They can be considered proof of graphic designers' renewed commitment to social responsibility.

The "First Things First Manifesto of 2000" was a logical succession of postmodernist perspectives such as Sheila Levant de Bretteville's, which debunked modernism's tenets of universalism.¹³ Postmodernism brought about an acknowledgment of individual choice influenced by cultural preference, due in large part to a collective awakening of

multicultural awareness and appreciation (as opposed to assimilation) brought on in large part by globalization.¹⁴ It is in our contemporary society that a need to understand the audience becomes a major concern for the designer.¹⁵ This need to consider the audience and include them in the design process, particularly in regard to the design of interactive media, may be what motivated graphic design practitioners to adopt research methods instead of relying solely on their intuition.¹⁶ While we think of these innovations in terms of our present moment, it may be the epistemological equivalent of the eighteenth century's Enlightenment Era—a time to overthrow rule by church and king and replace them with reason and democracy.

VISIONARY PERSPECTIVES

The first section of this book, "Visionary Perspectives," includes theoretical positions that inspire change in graphic design. To begin, Jorge Frascara grapples with social responsibility in graphic design. He defines graphic design as an activity that organizes visual communication in society and urges designers to re-examine their craft through the lens of social science in order to measure the impact of their work on society. This is followed by Ann Tyler's "Shaping Belief," in which she advocates for audience consideration as a necessary component in the design process. She argues that the audience is an active participant because they possess cultural beliefs that influence their interpretation of visual language. Thus, the visual communicator cannot shape the audience's belief without first understanding them. Tyler's essay is based upon design theorist Richard Buchanan's philosophy that a goal of communication is to induce a belief in the audience.¹⁷ Jodi Forlizzi and Cherie Lebon build on Buchanan's and Tyler's arguments through a contemporary, real-world communication problem. Their essay describes a user-centered design process that London-based Wire Design (in consultation with Lebon) used to design a knife safety campaign for a community in South London. Elizabeth Throop, in her essay, advocates for a more rigorous research-driven design process beyond merely asking the audience what they think of a design prototype. The section concludes with "Activity Theory: A Model for Design Research," in which Judy D'Ammasso Tarbox introduces a psychology-based paradigm for design research.

DESIGN INQUIRY

Collaborative approaches to design research, like those presented in section two, “Design Inquiry,” include participatory, contextual, and other subsets of user-centered design. Each collaborative approach makes the audience a partner in the design of new knowledge.¹⁸

Collaborative design can be understood at several different levels. At one level, it suggests that the designer is freed from the arbitrary reign of intuition, and that anything—even fundamental principles—can be questioned by working with the audience throughout the design process. At another, it implies that the absolute authority of the designer can be questioned by fostering the audience’s agency throughout the design process. A third level might be the design’s social context: democratizing the design process empowers people to protect themselves from manipulation by media,¹⁹ since control of content and its visualization is shared between the graphic designer and the audience.

One can argue that the discipline of graphic design is also a microcosm of a society. Its scholars, practitioners, and students contribute to this micro-society’s knowledge of itself and its environment. But, like our own macro-society, the graphic design discipline must balance its meritocracy with a democracy that empowers all participants, including the audience—regardless of ethnicity, culture, or social stratum—with access to information and agency to contribute to the collective knowledge. In absence of democracy, success is based upon the opinions of the elite—the proverbial old boys’ network. Collaborative approaches to design facilitate a democratic design process that values diverse opinions and fosters audience participation.

In “Design Inquiry,” contributors report the findings of collaborative research projects they’ve conducted and outline their daring and rigorous research methodologies, starting with a discussion about what may be one of the first examples of empirical inquiry in graphic design history when, in 1923, Wassily Kandinsky conducted a research experiment on the relationship of color to form in human perception. He asked students and teachers at the Bauhaus to color what he saw as the three basic shapes (triangle, square, and circle) a primary color (yellow, red, or blue) and to provide an explanation for their choice of color for each shape. Kandinsky’s intent with this experiment was to determine a universal relationship between form and color in the eye of the viewer.

His findings contributed to modernism and the ontological perspective that the interpretation of visual language is universal across cultures. In 1990 Ellen Lupton and J. Abbott Miller re-conducted Kandinsky's psychological test with designers, educators, and critics. Their essay, reprinted here, reports their findings within a contemporary framework.

Zoe Strickler and Patricia Neafsey follow with their report on a user-centered research project to design an education software program for an elderly population—an audience often overlooked when it comes to design research. The data they collected assisted them in designing a visual interface more user-friendly for their audience. Paul Nini, in his essay "Sharpening One's Axe," introduces a research methodology for the design process that is based upon participatory principles of design, while Matt Cooke, a British designer based in the U.S., outlines his own structured approach to conducting user-centered research with "Design Methodologies." Australian graphic design researcher Mark Roxburgh, in his essay "The Utility of Design Vision and the Crisis of the Artificial," relays a methodology for visual communication research borrowed from visual anthropology and visual sociology. Meanwhile, Peter Storkerson argues that understanding how people think can help designers measure empirically the effectiveness of communication designs. In the last chapter of this section, Audrey Bennett and her multidisciplinary team report a graphic design research project in which they used a participatory approach to design an HIV/AIDS poster campaign for *and with* fellow Kenyans. They argue that the participants would have a better sense of the kind of visual language needed to effect behavior change among the intended mass audience—other Kenyans. Overall, the essays in this section confirm that graphic design research is feasible and necessary.

DESIGNING CULTURE

Most designers today acknowledge that individual choice is influenced by cultural experience.²⁰ Therefore, when they do not share the same culture with the audience, they can adopt user-centered methods rather than relying solely on their intuition. The underlying assumption is that audience participation in the design process will generate culturally appropriate aesthetics that resonate with the audience. The third section, "Designing Culture," crosses disciplinary and geographic boundaries with perspectives and methodologies for cross-cultural communication.

In “Design in a Multicultural World,” Katherine McCoy captures the multicultural state of American society around the end of the twentieth century. She analyzes the historical significance and future ramifications of a heterogeneous market—that which graphic designers face today. In “Encoding Advertisements,” Matthew Soar uses theoretical and empirical inquiry to investigate the “microculture” of designers in advertising agencies who influence society’s cultural masses on a macro level, using a cultural studies framework for his analysis. Shelley Evenson follows with a useful user-centered research methodology she developed, directed storytelling, that is influenced by narrative and contextual inquiry—methods used in social science research. Evenson’s method helps the designer to understand the audience without having to conduct costly, long-term ethnographic research. John Jennings, in his essay “Dezyne Klass,” comparatively analyzes design and Hip Hop cultures. He posits that Hip Hop culture can inform the design of visual language and details how in a pedagogical study. Jennings’s discussion of how a subculture can be co-opted by corporate culture is examined at a further extreme in Peter Martin’s “A Step Ahead of Praxis.” Martin takes us across the globe to the Middle East to ponder how design can help Qataris salvage their cultural identity amidst globalization. Turkish design researcher Seval Dügleroglu Yavuz, in “Mediating Messages,” argues thoughtfully about whether American advertising creates culture or mirrors it. Lastly, in “Compartiendo Sueños/Sharing Dreams,” Audrey Bennett and Toni O’Bryan converse about a project in which graphic artists in Cuba along with graphic designers in the United States participated in a computer-mediated collaboration to visually interpret the phrase “sharing dreams” using their own cultural aesthetics.

HUMAN-CENTERED DESIGN

The last section of *Design Studies* grapples with the impact of human rights, behaviors, experiences, and tendencies on graphic design for the sake of humanity. Richard Buchanan leads the section with a thoughtful intellectual reflection on human rights and design, inspired by his observations while visiting Cape Town, South Africa. IDEO designers Roshi Givechi, Ian Groulx, and Marc Woollard follow with a disclosure of their multidisciplinary teams and human-centered methods that put the people they design for first in the design process. Microsoft designers

John Pruitt and Jonathan Grudin show how the development of research-based fictional personas during the design process helps designers to better understand human behavior, and by extension who they are designing for. In “Educating Design Citizens,” Ann Tyler discusses how her cultural experience as a martial artist influenced her teaching philosophy to instill in students social responsibility. Rounding out the collection, Ann McDonald describes a design class in which students collaboratively designed an advocacy project protesting the Patriot Act. *Design Studies* concludes with a comprehensive list of bibliographic resources in graphic design-related topics such as cultural studies, anthropology, architecture, communication, and social science.

CONCLUSION

Can reasoning and intuition coexist harmoniously within graphic design? The seed of research has been planted; will it flourish perennially or wilt when the hype wears off? We know there exists a growing interest in “the visual” in interdisciplinary research, both from classical disciplines like psychology, anthropology, and education as well as cultural studies, rhetoric, technical communication, human-computer interaction, and science and technology studies. Although graphic designers have an expertise in visual matters that is useful to interdisciplinary knowledge, few can participate in interdisciplinary research, in part because of a language barrier that exists. More would be able to do so if the vernacular for graphic design broadens to include reasoning skills in addition to intuitive ones. Graphic designers must learn to speak the language of research. The objectives of this book then are to instill in graphic designers a research-oriented practice that can be useful for any project; to inspire them to adopt a design process that is more inclusive of audience input and interdisciplinary expertise;²¹ and to encourage and enable them to be members of multidisciplinary teams.

Design Studies affirms that graphic designers are producers of interdisciplinary knowledge and not just visual translators of a client’s knowledge. Its theories and methods span many disciplines from cognitive to social science, and the contributors are both seasoned and emerging design scholars and practitioners. As a group they all care about how culture influences design decisions in order for the final design object or experience to influence and shape society.

NOTES

1. There are many perspectives on what is proven theory. For instance, according to the philosopher Karl Popper, no theory can be “proven” to be true; we can only become increasingly confident as many experiments fail to falsify the theory. If theories remain standing in the face of repeated experiments, they become a “law” or “principle,” but even then they are always susceptible to critique. After centuries of success, for example, Newton’s physics fell to Einstein’s. One process of deriving a principle begins with the observation of a phenomenon. A hypothesis is then offered to explain the phenomenon. Next, an experiment is applied to test the hypothesis. If the experiment does not result as predicted, a new hypothesis is established. If the experiment does result as predicted, the hypothesis becomes a theory. The theory is disseminated to the discipline via peer-review journals and other refereed scholarly venues for replication by other researchers and practitioners. If, when replicated by others, the experiment does not result as predicted, the theory becomes controversy. However, if the replicated experiments result as predicted, the theory eventually becomes a law or principle.
2. Marty Neumeier, “Secrets of Design: Pagcraft,” *Critique* 8 (Spring 1988): 18-29, and James Souttar, “Seven Pillars of Design,” *Critique* 8 (Spring 1988); 40-47.
3. Paul Rand, *Design, Form, and Chaos* (New Haven: Yale University Press, 1993), 47.
4. See, for instance, Philip B. Meggs, *Type & Image: The Language of Graphic Design* (New York: John Wiley & Sons, 1992); Ellen Lupton and J. Abbot Miller, *Design Writing Research: Writing on Graphic Design* (New York: Princeton Architectural Press, 1996); Donis A. Dondis, *A Primer of Visual Literacy* (Cambridge, MA: MIT Press, 1973); Jorge Frascara, *Communication Design: Principles, Methods, and Practice* (New York: Allworth Press, 2004); Matt Soar, “Theory is a Good Idea,” in Michael Bierut, et al., eds., *Looking Closer 4: Critical Essays on Graphic Design* (New York: Allworth Press, 2002); and Ian Nobel and Russell Bestley, *Visual Research: An Introduction to Research Methodologies in Graphic Design* (Switzerland: AVA Publishing, 2005).
5. Rand, *Design, Form, and Chaos*, 45.
6. See William Addison Dwiggins, “New Kind of Printing Calls for New Design,” in Michael Bierut, et al., eds., *Looking Closer 3: Classic Writings on Graphic Design* (New York: Allworth Press, 1999); Meggs, *Type & Image*; and Bradbury Thompson, *The Art of Graphic Design*, 1st ed. (New Haven: Yale University Press, 1988).
7. Michael Bierut, “How to Become Famous,” in D. K. Holland, ed., *Design Issues: How Graphic Design Informs Society* (New York: Allworth Press, 2001).
8. Ross MacDonald and James Victore, “Professional Practice: Modern Business Skills for the Graphic Artist,” in Steven Heller and Marie Finamore, eds., *Design Culture: An Anthology of Writing from the AIGA Journal of Graphic Design* (New York: Allworth Press, 1997).
9. See <http://designarchives.aiga.org>.
10. See Michael Bierut, et al., eds., *Looking Closer: Critical Writings on Graphic Design* (New York: Allworth Press, 1994); Bierut, et al., eds., *Looking Closer 2: Critical*

- Writings on Graphic Design* (New York: Allworth Press, 1997); Bierut, et al., eds., *Looking Closer 3*; and Bierut, et al., eds., *Looking Closer 4*.
11. Jonathan Barnbrook et al., "First Things First Manifesto 2000," *AIGA Journal of Graphic Design* 17, no. 2 (1999); Michael Bierut, "A Manifesto with Ten Footnotes," *I.D.* 47, no. 2 (March/April 2000).
 12. Bierut, et al., *Looking Closer 4*; Steven Heller and Véronique Vienne, eds., *Citizen Designer: Perspectives on Design Responsibility* (New York: Allworth Press, 2003).
 13. Sheila Levant de Bretteville, "Some Aspects of Design from the Perspective of a Woman Designer," *Icographic 6* (Croydon, England: 1973).
 14. See Katherine McCoy, "Graphic Design in a Multicultural World," in this collection.
 15. Jorge Frascara, "A History of Design, a History of Concerns," in Steven Heller and Georgette Balance, eds., *Graphic Design History* (New York: Allworth Press, 2001).
 16. For a discussion of collaborative designing with the audience, see Paul Nini, "A Manifesto of Inclusivism," in Bierut, et al., eds., *Looking Closer 4*. For a discussion of audience research methods, see Todd Cherkasky, et al., eds., *Designing Digital Environments: Bringing in More Voices: Proceedings of the Participatory Design Conference, November 2000, CUNY* (New York: CPSR, 2000), and Stephen A. R. Scrivener, et al., eds., *Collaborative Design: Proceedings of CoDesigning 2000* (London: Springer-Verlag, 2000).
 17. Richard Buchanan, "Declaration by Design: Rhetoric, Argument and Demonstration in Design Practice" in Victor Marjolin, ed., *Design Discourse: History Theory Criticism* (Chicago: University of Chicago Press, 1989), 92.
 18. See Scrivener, et al., *Collaborative Design*; Doug Schuler and Aki Namioka, *Participatory Design: Principles and Practice* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1993); Jorge Frascara, *User-Centered Graphic Design: Mass Communications and Social Change* (Bristol: Taylor & Francis, 1997); Hugh Beyer and Karen Holtzblatt, *Contextual Design: Defining Customer-Centered Systems* (San Francisco: Morgan Kaufmann, 1998); Richard Buchanan, "Human Dignity and Human Rights: Thoughts on the Principles of Human-Centered Design," in this collection; and Brenda Laurel, ed., *Design Research: Methods and Perspectives* (Cambridge, MA: MIT Press, 2004).
 19. See Noam Chomsky, *Necessary Illusions: Thought Control in Democratic Societies* (Toronto: House of Anansi Press, 2003).
 20. See Scrivener, et al., eds., *Collaborative Design*.
 21. See Nini, "A Manifesto of Inclusion," and in John Clarkson, et al., *Inclusive Design: Design for the Whole Population*