Seeking to build graphic design theory from graphic design research

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Seeking to build graphic theory
*from* graphic design research

Robert Harland

**Introduction**

Graphic design is a popular subject in art and design higher education, yet it does not have a research culture of its own. Other disciplinary perspectives provide an extended context for graphic design to borrow from but these seldom acknowledge the investigational craft skills associated with conceiving, planning and making graphic objects. They often apply a distant different disciplinary perspective that adds complexity and confusion in language use. For example, semioticians use of the word “sign” and “image” in critical theory and cultural studies is similarly ambiguous. Where there might be close graphic synergies with geography, mathematics and engineering, these are overlooked.

In this section, I explore some of the issues that may contribute to establishing a foundation for graphic design research. The aim is to differentiate between theory *for* graphic design and theory *from* graphic design by challenging assumptions that graphic design has no meaningful belief system. Two definitions of graphic design are exposed as offering not much more than a generic name for an integrative activity. These have insufficient depth and overlook the core of the subject.

The nature of visual images as discussed in visual culture is compared with discourse about graphic images in critical theory, leading to an attempt to define the graphic object from a design rather than art perspective. The graphic object within an ensemble of form and context provides a final focus on the distinctive qualities that determine graphicness. This provides the basis for recommending that graphic design research should seek to understand the relationship between form and context by utilising research into, through and for graphic design.

**The inauguration of graphic design research**

Nearly one hundred years after graphic design’s “baptism” as “a suitable blending of common sense with artistic talent” (Dwiggins, 1922, in Beirut *et al.* 1999: 14–
its potential for generating new knowledge as well as products is dawning. The inception of the name ‘graphic design’ is widely attributed to W. A. Dwiggins in 1922 in an article published in a special supplement of the *Boston Evening Transcript*. His intention was to raise the awareness and standards of graphic artisans and artists working for commercial clients by encouraging the fulfillment of their own artistic need in the face of what Dwiggins called a ‘mechanical revolution’. Significantly, he referred to ‘advertising art’ as a ‘form’ of ‘graphic design’, without stating explicitly what the others might be. In this sense, graphic design is not merely about persuasion and commerce, but also other forms. Since then, with the exception of a few projects that acknowledge the “formal” use of research towards graphic designed objects, graphic design and research have been distant entities.

One example of how the process of graphic design has integrated research is the British road sign system by Jock Kinneir and Margaret Calvert. Tests by the Road Research Laboratory and the practicalities of “illumination, construction, maintenance, siting and clutter” led to approval of the system in 1964 (Baines, 1999: 32). This is an exception and the correlation between graphic design and research is only now being recognised as graphic design matures (Davis, 2012: 234) and the need to add research to the traditional skills associated with training graphic design students is gaining in recognition (Heller, 2006: 10–13).

![Figure 1: Examples of the British Road Sign System. Author's photograph.](image)
A simple definition of research is what Ellen Lupton states as ‘looking for something in a focused and systematic way’ (Bestley and Noble, 2011: 7). This suffices as a description of something graphic designers do as a part of professional practice: research for graphic design (after Frayling, 1993/4: 5). A few examples of what this may comprise aligned with academic research (see Denscombe, 2007) include picture research (e.g. fieldwork observation), typeface evaluation (e.g. empirical observation and measurement, documentary research), scrutinising client briefs (e.g. interviewing, content analysis), analysing market research (quantitative and qualitative data analysis) and generating images (e.g. image-based research). But research in the context of a client relationship has no obligation to disseminate results beyond the boundary of the project. A difference between research done for this purpose, and research undertaken in a university, is that the latter is usually disseminated publicly. Traditionally, industry has required products from graphic design. Research in Universities requires the production and dissemination of knowledge, derived not only from practice but also from asking questions in a systematic way that leads to theorizing and inquiry (Friedman, 2005: 7). For graphic design to prosper in academia it must grasp this tradition for more reasons than simply acquiring a new skill. It must also explain with theorizing ‘to speculate and construct explanations about the world and our relationship with it’ (Crouch and Pearce, 2012: 35).

In recent years, four books proffer a wide range of considerations that link graphic design, research and theory: Design studies: theory and research in graphic design (Bennett, 2006), Graphic design theory: readings from the field (Armstrong, 2009), Visual Research: An Introduction to Research Methodologies in Graphic Design (Bestley and Noble, 2011), and Graphic Design Theory (Davis, 2012). From the wider discipline of design studies, Bennett (2006: 21) aspires to “instil in graphic designers a research orientated practice”. Armstrong (2009) takes an evolutionary approach charting the theoretical importance of Futurism, Constructivism, the Bauhaus, the International Style, Modernism, New Wave and Postmodernism, and Contemporary Design. Bestley and Noble (2011) introduce concepts and methods in the guise of visual research and in the most recent and largest tome, Davis (2012) provides that widest array of theoretical perspectives. All offer excellent insight into theory related to graphic design and much material is drawn from other disciplines, for example, gestalt theory from cognitive psychology (Bestley and Noble, 2011: 28–29, Davis,
2012: 62–66). Other phrases also feature such as communication design and visual design (Bennett, 2006), and communication models (Davis, 2012). Bestley and Noble integrate the widest ranging examples of graphic design output with an emphasis on “making and doing” whilst others emphasise more “reading and writing” (2011: 7).

These books give the impression of an interdisciplinary research field wishing to add social, cultural, and political awareness to the technical, economic and historical contexts already known. Davis claims graphic design to be “inherently interdisciplinary” and “still exploring the extent of its domain,” evident in her acknowledgement of a link to humanities and social science (2012: 234). However, despite a significant acknowledgement of other disciplinary perspectives, there remain notable omissions such as graphacy, a key method in geography, graph theory from mathematics, or the engineer’s use of graphical statics. Davis concludes by questioning if graphic design “will meet its contemporary challenges by borrowing from other disciplines or by constructing its own paradigms and theoretical knowledge” (2012: 234). From this can be deduced that a shift from theory for graphic design to theory from graphic design may strengthen its disciplinary credentials. For this to happen, we must ask what is at the core of the subject that might provide a unique perspective that other disciplines do not.

**What is at the core of graphic design?**

Graphic design is difficult to define due to the “conflicting descriptions” of practice (van der Waarde, 2009: 7–12). It is said to have “no ideology of its own” (Moles, 1989: 122), suggesting a borrowed system of ideas and ideals. Yet, it is in itself an evolved idea from the “cradle of civilisation” and the development of early Sumerian pictographic writing, aligned to the emergence of the city in Mesopotamia in the fourth millennium BC (Meggs and Purvis, 2006: 6). Social, cultural, economical and political forces indirectly “shape” graphic communication, to the extent that now representations that emerge from graphic design touch “on nearly every aspect of communication, from film and television titles to street signs and soup cans” (Blauvelt and Lupton, 2011: 9). As a system of representation, graphic design is a system of thought and expression of beliefs that do not exist without “visual” representation.
“Representation” here is a borrowed term from Cultural Studies (Hall, 1997). It is therefore not surprising that two definitions of graphic design, written in the midst of a significant period of change for the subject with the advent of digital technology, make no mention of representation.

Generic term for the activity of combining typography, illustration, photography and printing for the purposes of persuasion, information and instruction. (Livingston and Livingston, 1992: 90)

... the generic title ‘graphic design’ is understood to apply to the broad range of specialisms contributing to visual design for communication media, whether printed or electronic, [end page 89] [start page 90] static or time-based. The media include print (e.g. books, magazines and promotional material) and electronic media (e.g. computer graphics and video). The technical specialisms include illustration, typography and photography. Its applications may be informative, persuasive or recreational, and include information design, advertising design, corporate identity design, packaging design and publishing design. (CNA, 1990: 13)

The first of these describe graphic design as a combination of tangible object and intangible subject. Typography, photography and illustration attempt to define its properties, printing is the medium and persuasion, information and instruction the function. The second is clearly more expansive, not media specific, still identifies illustration, typography and photography but as “technical specialisms,” and frames its purpose as application through design categories. Both generalise the subject and lack the subtlety that distinguishes, say, typography from lettering. They omit any reference to artistic taste (one of the overlooked key aspirations for Dwiggins). Neither description fully acknowledges the role of “function.” Graphic design is offered a genus that groups a diversity of activities that in professional terms have been categorised as “visual elements,” “visual goals” and “effects” (van der Waarde, 2009: 19–27). See Table 1. These may all contribute to shaping the graphic object, technically, intentionally and strategically but none can claim superiority over another.
This range of diverse activities suggests graphic design cannot have a single disciplinary perspective. It is not typography, though may be typographic. It is not animation, though may be animatic. It is not marketing, though may use marketing. This clearly makes any aspiration for a research culture difficult to fathom, more so because definitions of this kind also overlook the subjects origin in drawing and writing (graphein) allied to planning and organisation. This is the commonality between the visual elements, visual goals and effects. Without the physical manifestation of what Mitchell (1986) refers to as “graphic image” (1986: 9–14), thoughts, and therefore meaning, remain in our heads.

A critical distinction to introduce here is what Hall (1997: 17–18) calls “systems of representation,” of which there is said to be two. The first he describes as “mental representations” (original italics) by which we connect “all sorts of objects, people and events” in our heads as

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Table 1. The essence of the professional field of graphic design (adapted from van der Waarde, 2009: 19–27).

<table>
<thead>
<tr>
<th>Visual elements</th>
<th>Visual goals</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illustration</td>
<td>Film production</td>
<td>Marketing</td>
</tr>
<tr>
<td>Photography</td>
<td>Website design</td>
<td>Communication strategy</td>
</tr>
<tr>
<td>Typography</td>
<td>Graphic art</td>
<td>Usability</td>
</tr>
<tr>
<td>Copywriting</td>
<td>Spatial design</td>
<td>End user research</td>
</tr>
<tr>
<td>Image processing</td>
<td>Advertising</td>
<td>Visual research</td>
</tr>
<tr>
<td>Animation</td>
<td>House style design</td>
<td>Visual strategy</td>
</tr>
<tr>
<td>Audio-video</td>
<td></td>
<td>Concept development</td>
</tr>
<tr>
<td>Programming</td>
<td></td>
<td>House style management</td>
</tr>
<tr>
<td>Author</td>
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<td>Project organization</td>
</tr>
<tr>
<td>Infographics</td>
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<tr>
<td>Font design</td>
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<td>Desktop publishing</td>
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“concepts and images” representing the world. This provides the means to “refer to things both inside and outside our heads.” He uses the phrase “conceptual map” but this has also be referred to as “cognitive map” or “cognitive collage” (Tversky, 1993: 14–24). A second system of representation involves the exchange of “meaning and concepts” through what Hall calls “common language,” a wide ranging reference to “written words, spoken signs or visual images” collectively known as “signs” (original italics).
These distinctions are insufficient for our purpose here because the first emphasizes the cognitive relationship between entities and the second is concerned with transference. Neither explicitly deals with the creation of new ways to represent thoughts and feelings as ideas and concepts. That said the reference to visual images provides some scope for discussion. Visual image implies sighted object. Interpreted through the lens of visual culture:

Sight is never experienced in the pure state as something that might be called “the” visual but is always rendered as vision, involving not just sensory data but the modulating frames of psychology, whether in terms of the conscious or unconscious mind” (Mirzoeff, 2009: 4).

Visual images are looked at, but studying these in “visual culture” is more a comparative than object-based pursuit, and said to be everywhere and nowhere (Mirzoeff, 2009: 1). Everywhere, visual images appear as “screens on computers, games consoles, iPods, handheld devices and televisions ... cameras” as “visual media” (Mirzoeff, 2009: 2). Rose (2012) calls these “visual technologies,” and lists “photography, film, video, digital graphics, television, acrylics” as “TV programmes, advertisements, snapshots, Facebook pages, public sculpture, movies, closed circuit television footage, newspaper pictures, paintings” (2012: 2). Two- and three-dimensional static and dynamic visual images are ubiquitous.

Today images seem to inhabit every part of our lives, and everything seems to be or have an image. Our eyes are bombarded by visual images, most obviously those produced and disseminated by commercial entertainment and information media, from advertising billboards, newspaper photography, the internet, television, films and computer games. The urban environment is replete with the visual displays of architectural design, interior décor, landscape, shop and business fronts, and traffic signals. Print culture has gradually expanded its ability to include many visual images along with text at relatively low cost, in technical instruction manuals, educational publications, tourist brochures, magazines and shopping catalogues, to name but a few. (Manghani et al. 2006: 1).
Visual culture is also considered nowhere; suggesting visual images are equally elusive as multimedia composites. “All mediatized representations are mixed,” meaning that film is usually accompanied with a soundtrack, or a painting or sculpture embody haptic qualities from the artist (Mirzoeff, 2009: 3). The existence of image as a concrete phenomenon is undermined when questioning what image stands for. Mitchell lists “pictures, statues, optical illusions, maps, diagrams, dreams, hallucinations, spectacles, projections, poems, patterns, memories, and even ideas as images...” (1986: 9). That said, his analysis of institutional discourse about different usage offers a family tree. See Figure 1. Within this the graphic and optical image stand for the “real, proper” kind but any further clarification of what the graphic image is beyond the “pictures,” “statues” and “designs” studied by art historians lack clarity, reinforcing the complexity of the matter. [end page 91] [start page 92]

Figure 2. W.J.T. Mitchell’s family of images. Source: Mitchell, 1986, 10 (redrawn by the author).

The graphic image is object-based and, like the optical image, an external entity. It has a tangible materiality more concrete than the other four categories. We may further imbue “graphic” with an aspiration towards “visual art” depicting “clear and vividly explicit details” (Soanes and Stevenson, 2005: 755). This suggests a heightened sense of “visual” experience than the everyday associated with visual culture’s interpretation of the visual image. Within the discourse on representation image can mean an internal mental or external material construct that depicts or envisions. Image may stand for object, language, sign, idea, concept, thought or feeling (Hall, 1997: 1–30). The ambiguity associated with this leads us to think graphic more as a tangible “object,” purposeful and focused, in preference to language and its obvious association with literacy, or sign and its adoption by semioticians.
What is a graphic object?

In the art of Mira Schendel, graphic objects combine paper, lettering, poetry, acrylic laminate mounts, transparency, and philosophy in “abstract aesthetic” rather than “readable, meaning making” compositions (Williams, 2013). These are art objects. By comparison, graphic design is more concerned with the latter. Like the universality of images studied in visual culture, Jessica Helfland (2001) incorporates an assorted array of tangible and intangible objects, relationships and intentions reflecting the pervading influence of graphic design on human behavior.

Graphic design is everywhere, touching everything we do, everything we see, everything we buy: we see it on billboards and in Bibles, on taxi receipts and on Websites, on birth certificates and on gift certificates, on the folded circulars tucked inside jars of aspirin and on the thick pages of children’s chubby board books. Graphic design is the boldly directional arrows on street signs and the blurred, frenetic typography on the title sequence to ‘E.R.’ It is the bright green logo for the New York Jets and the monochromatic front page of The Wall Street Journal. It is hang-tags in clothing stores, playbills in theatres, timetables in train stations, postage stamps and cereal box packaging, fascist propaganda posters, and junk mail. It is complex combinations of words and pictures, numbers and charts, photographs and illustrations that, in order to succeed, demand the clear thinking of a particularly thoughtful individual who can [end page 92] [start page 93] orchestrate these elements so they all add up to
something distinctive, or useful, or playful, or surprising, or subversive, or in some way truly memorable. Graphic design is a popular art, an applied art and an ancient art. Simply put, it is the art of visualizing ideas. (2001: 137)

And what about the proliferation of graphic objects that feature as part of extraordinary displays of human endeavour? The ‘stars and stripes’ flag in photographic images of the first moon landing in 1969. The ‘stop and stare’ stainless steel Art Deco motifs that adorn New York’s Chrysler Building (Moore, 2012). What about the skyline of New York itself as a graphic object. The yellow jersey worn by the leader of the Tour de France. Christmas lights on Oxford Street, London. An ice cream van. Alan Moore’s *V for Vendetta* protest mask. Amy Winehouse’s eye make-up! These are all vivid examples of graphic objects, but not all have communication as their primary objective. For example, a flag’s primary function is communication, whereas a building must first shelter people.

The function of the graphic object is part of a system of objects that incorporate what Jean Baudrillard refers to ‘discourse-as-object’ in the context of advertising ([1968] 2005: 178–215). By this he means how advertising is a cultural object for consumption as well the intended consumption of objects it seeks to promote. However, the function of the graphic object is not limited to persuasive communication. The graphic object has many functions invariably listed as identification, information, presentation & promotion, referential, emotive, connotative, poetic/aesthetic, metalinguistic, phatic, persuasion, education, administration, decoration, magic, representation, orientation and systematic (van der Waarde, 2009: 23). Abraham Moles recognises this when he suggests that symbolic graphic representation of things or actions exemplifies how communication achieves supremacy over materiality in a legible world. His interpretation of the functions of graphic design list: information, propaganda, social consciousness, consonance of humans with their goals, and an autodidactic function, conveyed through an [a]esthetic message. Whichever of these functions one chooses to prioritise, the variations provide ways to understand the motives of graphic objects as a discourse that influences human behaviour through graphic affect.
One possible answer to the question *What is a graphic object?* might therefore be: any product, system or action that privileges communication over materiality through graphic affect. For example, consider a photograph of a people assembled to watch a carnival parade. See Figure 3. In the picture two barriers constrain the crowd. One permanent barrier in black in the bottom right corner of the image, supports a road sign attached directing motorists to Corby. The road sign is a typical graphic object known as a product of graphic design and part of the system of road signs designed by Kinneir and Calvert, as noted earlier. A second type of barrier is temporary and extends the permanent structure to follow the kerb around the bend in the road. These are coloured red with black footings. This is an untypical graphic object. The temporary barrier privileges communication over materiality in that the barrier could easily be overturned by the crowd standing behind it but they do not. There is a perceived rather than physical restriction. Psychologists call this *affordance* (Norman, D. A. [1988] 2002: 9–12) that “result from the mental interpretation of things, based on our past knowledge and experience applied to our perception of the things about us” ([1988] 2002: 219). Clearly in the case of the temporary barrier, the public utilise their prior knowledge to influence their behaviour. Graphic objects influence their behaviour.

![Figure 4: Temporary barriers as graphic objects privilege communication over materiality by restraining a crowd who possess the ability to disregard the structure and overcome it if necessary. Author's photograph.](image)
Graphic objects influence behaviour. But they must be designed to communicate intentions by arranging and combining different visual elements. These include line, shape, tone, colour, texture, form, scale, space and light (Cohen and Anderson, 2006: 9) as “visual appearance properties” that when held in a “configurational pattern,” help connect the mind to the world (Pylyshyn, 2007: 19). This is at the core of graphic design and it is the infinite number of possible permutations that provides the impetus and desire to experiment and contextualize permutations. These – experimentation and contextualization – are arguably the first and second principles of graphic design research in an academic sense. Benefitting from Frayling’s (1993/4: 5) categories of research in art and design, the first can be called research through graphic design and may comprise “material research,” “developmental work” or “action research.” The second is more research into graphic design and may include “historical research,” aesthetic and perceptual research or “research into a variety of theoretical perspectives ... –social, economic, political, ethical, cultural, iconographic, technical, material, structural” and more.

By comparison with architecture, the difference between the first and second principles relate to what Christopher Alexander (1964) calls this a relationship between “form” and “context.” “The form is a part of the world over which we have control, and which we decide to shape while leaving the rest of the world as it is. The context is that part of the world which puts demands on this form; anything in the world that makes demands of the form is context” (Alexander 1964: 18–19). In this paper, the graphic object is the form, and it may be designed to “fit” or “misfit” with context depending on the need for harmony or discord. See Figure 4. Together, form and context comprise an ensemble (Alexander 1964: 16–17). Graphic objects each have an unknown set of infinite relations between form and context that determine the extent of fitness. Alexander describes the difference between the two using the metaphor of a tie: “one tie goes well with a certain suit, another less well” (1964: 16). Conversely, “If a man wears eighteenth century dress today, or wears his hair down to his shoulders, or builds gothic mansions, we very likely call his behaviour odd; it does not fit our time [1964]. Yet it is such departures from the norm which stand out in our minds, rather than the norm itself” (1964: 22). The continuum between fit and misfit represents the degree to which a graphic object is understated or overstated in its intention.
Discussion

Graphic designers have traditionally used their knowledge, understanding, cognitive skills and practical skills – allied to project management – to build a portfolio of project work. Throughout the second half of the twentieth century they identified and developed systems that allowed a practice to grow in size and popularity to combined craft, culture and commerce on a global scale. This unprecedented growth did not allow much time for critical reflection and the development of theory, although a history of graphic design has established itself and continues to evolve. Rarely, if at all, has graphic design incorporated research for the purpose of building theory, more often preferring to adopt the work of other disciplines such as communication theory from telecommunications or semiotics from linguistics and philosophy, to illuminate processes and products.

Such theories developed in the twentieth century, as did graphic design. These are classified by Meredith Davis (2012) as ‘graphic design theory’, a title that may be construed a misleading if some believe it to mean theory generated by graphic design. These are theories for understanding graphic design, but not theories that originate from graphic design. This is an important distinction because theory that might have the potential to emerge from an understanding of graphic design poses the challenge to generate theory from within, a desirable aspiration for a University taught discipline. This has not historically been the intention of education in graphic design.

Similarly, research has been a neglected pursuit in graphic design. Yet, the prevalence of research driven data in the form of graphical images in the service of research and theory development presents much opportunity for the graphic designer wishing to follow a different career path in a subject that has an
increasingly elevated position in academia, professional practice and everyday life.

‘Graphical devices’ are said to be a third component for theorising, alongside ‘language’ and ‘mathematics’. This suggests that in the way writers and mathematicians theorise, graphic designers can also. The question therefore arises about whether graphic design can develop a capacity for research and theorising that leads rather than follows. It was suggested earlier that experimentation and contextualisation might be the first and second principles of graphic design research. This coupling links the core properties of graphic design to the context within which it resides. To see these two activities as stages of development, as Andrew Blauvelt suggests is to deprive graphic design research of the thing that makes it distinct: the investigational craft skills associated with the properties of making graphic objects: line, shape, tone, colour, texture, form, scale, space and light. Blauvelt (2008) suggests “After 100 years of experiments in form and content, design now explores the realm of context in all its manifestations — social, cultural, political, geographic, technological, philosophical, informatic, etc.” A concern with this is that not only are the number of permutations associated with form giving infinite (Alexander, 1964: 24–25) exploring the realm of context is also endless. Alexander states “... when we speak of design, the real object of discussion is not form alone, but the ensemble comprising the form and its context” (1964: 16). The same may be said of graphic design research.

**Conclusion**
Graphic design as it exists in art and design higher education does not yet appear to have a research culture, despite the imposition of theory from other disciplines and in some cases the claim of graphic design theory. The subject is yet to offer something back to other disciplines and on that basis is arguably not yet even in its infancy. This is in part due to the ambiguity of language use and definitions that position it as an integrative or interdisciplinary activity, often overlooking its image making and organisational capacities that define it as method for professional practice as well as tool for research. Allied to this, the combination of common sense with artistic talent has rarely been recognised, and therefore devalues its aesthetic power as a potential motive for research. Graphic design, graphic art and graphic science (Harland, 2012) are prevalent across the academy
and graphic devices are acknowledged as a central component in theorising. This suggests a foundation is already in place for graphic design research and the building of graphic theory.

References


