The Utility of Design Vision and the Crisis of the Artificial

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Introduction

Until recently visual communication was the province of highly trained specialists who saw little need for methodically and analytically explicit approaches to design and relied on creative sensibilities formed during their education and professional experience.[i] The historical link between design and art education has reinforced notions of design as an artistic activity.[ii] This perpetuates the myth of creativity by placing undue emphasis on the formal characteristics of design, intuition and self-expression, resulting in a pre-occupation with design intent and outcome, what is called the mimicry of attitude and action.[iii]

With the availability of cheap personal computers and graphic software the production of 'professional' standard visual communication by do-it-yourself enthusiasts is ubiquitous. Design intent and outcome is no longer the sole domain of the visual communication expert. In the past decade attempts have been made to address this problem through a renewed interest in design research. In visual communication this has resulted in the wholesale adoption of critical theory and semiotic analysis. Such tools alone, though useful in dealing with issues of meaning or critiquing ideologies, are poorly suited to the empirical dimensions of design practice. The preoccupation with intent, meaning and outcome has been at the expense of exploring the world of design use, the realm of everyday experience. This highlights the problem of importing modes of inquiry from other disciplines without addressing the differences between design practice and the disciplines it borrows from. For visual communication, as for design, the problem lies in the difference between the apparently analytical frameworks it borrows from and the synthetic framework it operates in. It is the difference between observing, documenting and understanding aspects of the world (typical of social inquiry) and transforming this knowledge into a meaningful visual communication experience, beyond a presentation of well crafted visual data with social commentary, that I am interested in.

Why Look?

Searle proposes that vision is a critical feature of human intention, outlining a relationship between how we see the world, how we perceive the world and then how we act within and upon the world.[iv] Such action, bound up as it is with intention, is the foundation of design in the broadest sense. If we accept this proposition, and that the enterprise for design now is to concentrate on the realm of everyday experience (the world of design use) as the basis for making design projections, then a considered program of inquiry needs to be framed around the role of observation. This is critical as the material world we inhabit and fashion, is flooded with information that exists primarily in the realm of the visual. As much design practice has been aimed at intent and outcome, the nature and diversity of our experience of this visual deluge has been

overlooked. It is my view that an understanding of such everyday experience is potentially one of the richest sources of information for design action. Photo-observation is well suited to capturing and eliciting the traces of those experiences for design use. However, it brings with it historical baggage that presents certain problems for design. To overcome these problems an act of translation is necessary; to do this I will go through some of the baggage and challenge assumptions contained within it.

The crisis of the real

Two key issues arising in relation to photo-observation and design are premised upon a surprisingly old fashioned view of photography and perhaps a misunderstanding of aspects of design. These issues relate to the perceived problem between the analytic inference of photographs, due to their proximity to the 'real', and the synthetic nature of design. I will deal with photography first.

Photography and anthropology came into being in the mid 1850s and photo-observation has been closely associated with ethnography since.[v] By the late 1800s anthropology was heavily influenced by biology, then primarily a science of classification, and photography was used to provide visual information to categorise human races, based upon theories of social evolution.[vi] In the relationship between photography, anthropology and science, the discourse of scientific certainty prevailed. Photographs were seen as unproblematic records of an observed reality and, as they were recorded 'mechanically', more reliable than hand produced images. The desirable proximity of the photo to the 'real' was further underscored at the time by the naturalistic tendencies of post-Renaissance and pre-20th Century European art.[vii] This proximity, coupled with photography's evidentiary capacity, made it an attractive tool for the analytical purposes of early ethnography. The function of analysis has long been attached to the photograph and though its use in fine art practice exists more in the realm of the synthetic, and there have been assaults on the veracity of photographic truth, our sense of its verisimilitude to 'reality' persists. More recent ethnographic endeavours have accommodated this, shifting away from the analytical projects of firstly content analysis, with its atomising quantitative approach, and secondly structuralist analysis, with its pre-occupation with meaning, to an interpretative application through phenomenological inquiry, with an interest in lived experience.[viii]

Phenomenological ethnography, emerging in the 1960s, acknowledges the partiality of the researcher and the 'constructedness' of the ethnographic account. Research is not about the production of an authoritative and definitive account of the state of affairs observed it is a 'dialogue' about a set of experiences. The photograph is an interpretation rather than a reflection of reality. Despite this shift, the underlying interest of much ethnography still lies in an analytic account, be it monologue or dialogue, of the world-as-seen.[ix]

A more radical approach to ethnography emerged in the 1980s, influenced heavily by post-modern philosophy. It aimed "… not to foster the

growth of knowledge but to re-structure experience …. to reassimilate, to reintegrate the self in society and to restructure the conduct of everyday life".[x] This approach can be seen as a response to several factors; these being:
- the political objectives of post-modernism in general, the restructuring of small (p)olitics
- the crisis of the real, the challenge to the notion of a knowable, objective reality
- the crisis of representation, the challenge to photography's ability to document an objective reality.

Despite the erosion of 'photographic truth' this heralds, in the context of using photo-observation for visual communication research it would seem that photography's analytic inference still holds sway and its synthetic potential is questioned. This is especially so when compared to drawing, a form of 'visual research' that dominates visual communication practice and is seen as a largely synthetic process. It is for this reason that I say there persists a surprisingly old-fashioned view of photography; it is by comparison. That aside, it is within the phenomenological and post-modern shifts that lie the basis for the translation of photo-observation from the predominantly analytical enterprise of ethnography to the predominantly synthetic enterprise of design.

Time+Distance=Space

I will now touch upon analysis and synthesis, in relation to design, to deal with perceived concerns about slippage between the analytical aspects of photo-based research and the transformation, or synthesis, of collected data into visual communications. The central role that the myth of creativity has played in design, places undue emphasis on creative intuition and design is then readily understood as a largely synthetic activity with little or no analytical framework. Though persistent, this view has been challenged, with efforts made in design's history to develop a greater appreciation of the complexity of the design process.

Now largely out of favour, Design Methods was critical in embarking upon this endeavour. It challenged the assumption that design was wholly intuitive and proposed a procedurally based approach to design that regarded analysis – synthesis as the natural order of the day. The analysis of the design problem preceded the synthesis of the design solution. The two were separate, though related, acts in a design process that was presumed devoid of prejudice, preference and prior knowledge.[xi]

In Schon's seminal case study a more complex picture of the relationship between analysis and synthesis emerges.[xii] The space that separates the reflection through observation and conversation (analysis) from sketching design possibilities (synthesis) seems non-existent and he describes them as "parallel ways of designing" .[xiii] Though this case study is narrow and doesn't deal with the influence that site visits, material availability, etc has on the design process, the inference is that the separation of the analytic (reflection) from the synthetic (designing) is itself an analytical construct.

Sufficient case studies exist that broaden the scope of Schon's work and demonstrate a similar relationship between the analytic and the synthetic.[xiv] This brings us back to the issue of slippage between the perceived analytic inference of photos and synthetic process of design. Drawing is not seen as an analytical means of representation (though it may be analysed) because of its proximity to the action of design and its distance from the real, by virtue of being hand generated. Photography is seen as an analytical means of representation (though it is also a medium of synthesis) because of its distance from the action of design, and its proximity to the real, by virtue of being mechanically generated. Our generally accepted understandings of these mediums are not accidental but historically constructed.

The problem with the use of photo-observation in visual communication appears to rest not only in its history, or its proximity to the real, but also in the space that exists between the moment of photographing an observed situation and designing based upon that observation. That space (time plus distance) is a yawning chasm compared to the space between sketching and designing and reinforces the photograph's analytical inference. As Schon and others have implied, though, the separation of analysis and synthesis is somewhat artificial anyway. Rather than seeing this space as a problem that inhibits design we should regard it as another limit, to join the others, that constrain design choice. Furthermore, we should abandon the notion of design as analysis – synthesis and regard it as a configurational 'conversation' between a range of people, things and information where preconceptions, intuition and criticality are all part of the mix.[xv] The notion of design as conversation is a well grounded and promising metaphor.[xvi]

The crisis of the artificial

Perhaps the issue of space in relation to photo-observation and design is redundant anyway, and conversations about it haven't caught up with recent technological changes. With the widespread availability of cheap digital cameras, the space between photo-imaging and designing has all but disappeared. When the dominant technology for recording images was analogue (film), the photograph became the object of critical analysis, emphasising the constructedness of the photograph as text, and signalling the crisis of representation. call this the study of the "representation-as-reference" (to the real).[xvii] They also argue that as the technology for producing images has shifted to digital, and images may no longer have their basis in the real, critical theory needs to deconstruct what they call "representation-as-design"; examining the ideologically constructed nature of the design process itself. This focus of critical inquiry signals what I call the 'crisis of the artificial' as it challenges the view, still embedded in much design rhetoric, of design as a largely natural and intuitive process.[xviii] The increasing interest in, and arguments about, design research and process indicates this shift has occurred. Concern about the analytic attributes of photo-based research in design is symptomatic of this crisis.

For critical theorists, the pursuit of this line of inquiry is to expose the ideological workings of the design process. For designers, though this is significant, the pursuit is to understand and reflect upon the process, in its diversity, to better manage it. With the vast flows of information we deal with, understanding combinatorial possibilities is a way of framing limits to better manage the production of the artificial. Given this, we are not dealing with the science of the artificial,[xix] or indeed the nature of the artificial.[xx] Instead we are dealing with what I call the 'ecology of the artificial', the study of our relationships between our design projections of the artificial world and our experience of it.

The crisis of the banal

There is currently a strong interest in the everyday and the banal in art and media, the plethora of 'reality' TV being symptomatic. Visual communication isn't immune, with numerous projects, that are primarily photo-observation, executed to document and explore the everyday.[xxi] Whilst such work is often engaging, it exists at the level of beautifully crafted visual ethnographic accounts. This is what I mean by a propensity to classify as banal observation of the world-as-found; there is little transformation of the material beyond the representation-as-reference (to the real). Visual design becomes the means of packaging the representation.

Visual packaging is a consequence of the problem of translation across the space between ethnographically informed photo-observation and visual communication design. For such translation to be successful, to avoid getting lost in that space, aspects of both need to be reframed. From my experience in using photo-observation for design, in my teaching and research, it is apparent that it is easy to become seduced by the 'content domain' in which any given project is engaged, at the expense of the design domain. [xxii] The design domain is concerned with how you tell what you know. The content domain is the knowledge of a subject area developed through inquiry. While developing such knowledge isn't itself a problem, and can usefully inform design decisions, the inherent risk for designers is the temptation to become expert in the content domain, neglecting their expertise in the design domain. If tempted, each new project presents new content and the requirement to become expert in it. This is unsustainable and results in the tendency to package representation and struggle with transformation (design).

This reframing occurs through the questions one asks. From the ethnographic:
What do I know and what is there to know about this situation and how will I describe that?

To design:
What do I know and what do I need to know about this situation and how will I transform that?

Which gives rise to a question of utility:

How am I going to use this knowledge for design?

The utility of vision

The significance of this reframing is demonstrated in the final major project of UTS undergraduate Brooke Hendrik. In 2002 Brooke proposed executing a photo-documentary project on dance, presented in book form. This had the hallmarks of an ill-conceived but well crafted ethnographic account of the Sydney dance scene. In pointing this out, Brooke was asked to think about how the documentary photographs she wanted to take might be used to communicate something visually, beyond the capturing of the banal. She then reframed her project by asking: "what do I know from what I can see, what do I need to see about dance, and how will I transform what I have seen to illustrate what I think is important to tell us about dance?"

Reframing her project revealed that she was part of the Sydney dance scene and had recently completed research on the graphic notation systems used for choreographic scoring. This research concluded that there was no standard notation system, and that those available were abstract, highly specialised and not widely used. Brooke explored her interest in photo-documentation in relation to this knowledge and conceived an image+graphic-based notation system. She used photographs to document the physical movement she wanted performed, and graphic notation to indicate where this movement fitted into the whole, plus where it was to occur in the performance space. This act of transformation involved designing both the system of notation and a dance to test if it worked.

Brooke's work demonstrated that the space between the analytic inference of the photographs and the synthetic process of design was easily bridged. Though there was time plus distance between photographing, processing, and working the photos into her schema, she manipulated them in a similar way as sketching was used in Schon's case study.[xxiii] Images were arranged, reflected upon, re-arranged and substituted until the desired result was achieved. If a sequence wasn't to her satisfaction she would take further photographs, using time plus distance to advantage. This was very much a reflective "conversation with the situation".[xxiv]

Conclusion

The use of photo-observation as a research tool is common in architectural design.[xxv] Time plus distance are acknowledged limits architects deal with. The space between the analytic inference of photographs and the synthetic nature of design can be accommodated. This space however, seems problematic for visual communication. This is so because of its' historical dominance by an ideology of unbounded individual creativity that resists transparent process.[xxvi] Against this is my view that design is about dimensions (scope of projection/imagination) and distance (position in relation to projection) between us, and the world we encounter as messages and spaces. This space needn't be a problem provided one is aware of the act of translation required to bridge it. Part of this translation requires shifting from

the simplistic binary view of design as analysis / synthesis, towards the idea of design as a conversation. In the age of excess (information) that characterises our current condition this shift conceives the designer an editor of such 'conversations' charged with the task of generating new ideas from excessive imitation (the banal). To succeed in this process strategies that show us how to see, through observation, and methods that teach us to value what we have observed, are required in order to design in the here-and-now.

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[i] Gunther R. Kress and Theo Van Leeuwen, Reading Images: The Grammar of Visual Design, (London & New York: Routledge, 1996): 2-3.

[ii] A. Blauvelt and M. Davis, "Building Bridges: A Research Agenda for Education and Practice," in *Looking Closer 2: Critical Writings on Graphic Design*, ed. M. Bierut, et al. (New York: Allworth Press, 1997):79; V. Margolin, "Introduction," in *Design Discourse*, ed. V. Margolin (Chicago: Chicago University Press, 1989):5.

[iii] M. Roxburgh and C. Bremner, "Re-Doing Design: Comparing Anecdotes About Design Research," *International Journal of Art & Design Education* 20, no. 1 (2001):67.

[iv] John R. Searle, Intentionality: An Essay in the Philosophy of Mind, (Cambridge & New York: Cambridge University Press, 1983).

[v] See Ball and Smith, *Analyzing Visual Data*; Prosser, ed., *Image-Based Research: A Sourcebook for Qualitative Researchers*.

[vi] D. Harper, "An Argument for Visual Sociology," in *Image-Based Research: A Sourcebook for Qualitative Researchers*, ed. Jon Prosser (London; Bristol, PA: Falmer Press, 1998):25.

[vii] M. Banks, "Visual Anthroplogy: Image, Object and Interpretation," in *Image-Based Research: A Sourcebook for Qualitative Researchers*, ed. Jon Prosser (London & Bristol (PA): Falmer Press, 1998):15.

[viii] Ball and Smith, *Analyzing Visual Data:*54-70.

[ix] Ibid:5.

[x] George E. Marcus and Michael M. J. Fischer, Anthropology as Cultural Critique: An Experimental Moment in the Human Sciences, (Chicago: University of Chicago Press, 1986):125.

[xi] B. Hillier, Space Is the Machine: A Configurational Theory of Architecture, (Camberidge & New York: Camberidge University Press, 1996):10-19.

[xii] D. Schon, The Reflective Practitioner: How Professionals Think in Action, (New York: Basic Books, 1983).

[xiii] Ibid:80.

[xiv] See D. Cuff, Architecture: The Story of Practice, (Cambridge (Mass): MIT Press, 1991); D. Fleming, "Design Talk: Constructing the Object in Studio Conversations," Design Issues 14, no. 2 (1998); K Henderson, "The Visual Culture of Engineers," in Cultures of Computing, ed. S. L Star (Oxford: 1995); M. Roxburgh, "Negotiating Design: Conversational Strategies between Clients and Designers," Form/Work 6, no. October (2003); H Sanoff, Visual Research Methods in Design, (New York: Van Nostrand Reinhold, 1991).

[xv] Studies in the sociology of technology provide strong theoretical and empirical evidence of these relationships. See W. E Bijker and J Law, eds., *Shaping Technology / Building Society: Studies in Sociotechnical Change* (Cambridge (Mass): MIT Press, 1992); J Law, "Notes on the Theory of the Actor Network: Ordering, Strategy, and Heterogeneity," *Systems Practice* 5, no. 4 (1992)..

[xvi] See R. Buchanan, "Rhetoric, Humanism and Design," in Discovering Design: Explorations in Design Studies, ed. R. Buchanan and V. Margolin (Chicago: University of Chicago Press, 1995); Cuff, Architecture: The Story of Practice; D. Fleming, "Professional-Client Discourse in Design: Variation in Accounts of Social Roles and Material Artefacts by Designers and Their Clients," Text 16, no. 2 (1996); S. Forester, Planning in the Face of Power, (Berkeley: University of California Press, 1989); T. Golsby-Smith, "Fourth Order Design: A Practical Perspective," Design Issues 12, no. 1 (1996).

[xvii] Kress and Van Leeuwen, *Reading Images: The Grammar of Visual Design*:234.

[xviii] I have subsequently revised my definition of the crisis of the artificial but have not included it here in order to maintain the flow of this paper. My more expansive definition of the crisis is the search to find"… simple and appropriate forms of 'language' through which we can depict complexity and speak to each other of our observations and experiences of it in order that we can imagine and manage the transformation of the artificial in a complex world, to manage and transform the ecology of the artificial." Mark Roxburgh, "Seeing and Seeing through the Crisis of the Artificial." In DESIGNsystemEVOLUTION. Bremen: European Academy of Design, 2005.

[xix] H. Simon, The Sciences of the Artificial, (Cambridge (Mass): MIT Press, 1981).

[xx] B. Hillier, "The Nature of the Artificial," *Geoforum* 16, no. 2 (1985).

[xxi] See Designers Republic and Ole Bouman, 3d > 2d: Adventures in and out of Architecture, (London: Laurence King, 2001); G. F Smith, Open Air: The Changing Landscape of Twentieth Century Signage, (Hull: Triangle, 2000); Tomato, "Graphic Remixed," IDEA, no. 286 (2001).

[xxii] See for example C. Bremner, "Real Estate Opinions or the Truth About Home," in *Invention Intervention*, ed. Michael Douglas (Melbourne: RMIT Press, 2004); Roxburgh and Bremner, "Re-Doing

Design: Comparing Anecdotes About Design Research."; M. Roxburgh and J. Lorber-Kasunic, *Looking for Limits in a World of Excess* (2004 [cited 16 April 2004]); available from http://www.agda.asn.au/education/designresearchjournal/index.html.

[xxiii] Schon, *The Reflective Practitioner: How Professionals Think in Action*:76-104.

[xxiv] Ibid:25.

[xxv] See Sanoff, Visual Research Methods in Design; J. Zeisel, Inquiry by Design: Tools for Environment-Behaviour Research, (New York: Cambridge University Press, 1984).

[xxvi] Kress and Van Leeuwen, *Reading Images: The Grammar of Visual Design*:12.