

A Practice-Based Evaluation of
Ambiguity in Graphic Design,
Embodied in the Multiplicities of X

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Declaration

I declare that the research contained in this thesis, unless otherwise formally indicated within the text, is the original work of the author. The thesis has not been previously submitted to this or any other university for a degree, and does not incorporate any material already submitted for a degree.

Signed

Dated

Abstract

Ambiguity can arise from indecision, unintended confusion or as the intentional evocation of several meanings in the same image, object, situation or idea. Intentional ambiguity enables multiple interpretations of a message, increasing richness of meaning, while adding pleasure through uncertainty and surprise. In disciplines such as literature and fine art, ambiguity is perceived as not only desirable, but inherent to the value of the work of art or idea, and its interpretation in the mind of the viewer. Yet, the possibilities of ambiguity remain under-explored in graphic design, a discipline predominantly (conventionally) concerned with the clear communication of a message.

In this practice-based study, ambiguity is proposed as a catalyst for envisaging new ways of thinking about graphic design in addition to the functional imperative of the discipline. Design ambiguity is analysed in a new way in this research by using the multiplicities of X in a convergence of *form, function, concept* and *context*. Framing the design process itself as a research strategy, the values of ambiguity are developed through practice, embodied in three original designed outcomes, which form a material critique. The first type of practice focuses on ambiguity as an inherent component of the design process in my adaptation of a research diary: *Ambiguity: A Design Process*. My second type of practice demonstrates evidence of ambiguity embodied in the multiplicities of X, a graphic sign for potency, individuality, love, death and the unknown in *The A to Z of X*. In my third type of practice ambiguity is proposed as a brand concept in graphic design and X is employed as its visual identity: *Branding Ambiguity* is presented as a speculative script for action, a mini manifesto for the potential of ambiguity in the discipline. In a synthesis of theory and practice design is framed *as* research in this study: from initial ideas to designed outcomes design is, thus, employed as both a process and a product.

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A Practice-Based Evaluation of Ambiguity in Graphic Design, Embodied in the Multiplicities of X

This is a brief guide to my research submission and how to approach the relationship between the written thesis and the three practice-based design artefacts:

Chapters 1 to 4: these chapters constitute the major written component of this thesis. They aim to theoretically underpin my practice-based research and responses, which form a synthesis of theory and/in practice (see below).

Chapter 5: explains the design process as my practice-based research methodology in this study and is most effectively read alongside my first type of practice: *Ambiguity: A Design Process*.

Chapter 6: is most effectively read alongside my second type of practice: *The A to Z of X*.

Chapter 7: is most effectively read alongside my third type of practice: *Branding Ambiguity*.

Chapter 8: consolidates the theoretical and practice-based design outcomes by concluding my research findings.

Chapter One // Introduction

1. Introducing ambiguity in design

Intentional ambiguity enables multiple interpretations of a message, increasing richness of meaning whilst gaining pleasure through uncertainty and surprise. Here, ambiguity is defined as a written or visual statement, concept and/or theme that can be interpreted in more than one way: it offers a multiplicity of meanings to the reader, audience or end-user¹. In disciplines such as literature and fine art, ambiguity is perceived as not only desirable, but inherent to the value of the artwork or idea and its interpretation in the mind of the viewer. In advertising, a field of design that is infused into commercial culture, ambiguity is exploited to form closer relationships between the consumer and product. In this context value is attached through a process of creating structures of (deeper) meaning. In the social realm, ambiguity operates as an integrated mode of augmenting communication, mediated by wit and humour in the form of conversation and newspaper headlines². Yet, the possibilities of ambiguity remain under-explored in graphic design³, a discipline predominantly concerned with the clear communication of a message.

Based on my experience as a design lecturer and practitioner, I argue for a development of reflective modes of graphic design, facilitated by the space of ambiguity, with the aim of asking questions more consistently through practice. Ambiguity is explored and explained in this thesis⁴ in a synthesis of theory and critical design practice, which seeks to forge new discourses between the designer and viewer (end-user). Anthony Dunne & Fiona Raby (2013: 35) define critical design as, “critical thought translated into materiality. It is about thinking through design rather than through words and using the language and structure of

¹ In this thesis *reader* refers directly to the reader of this thesis but may also concern the reader of poetry and literature; *viewer* is predominantly employed in relation to fine art; *audience* is a generic term referring to a group of readers or viewers across the arts, literature and design; *end-user* is used to identify the recipient of a designed message or product; *consumer* is used in direct association with the commercial transmission and reception of messages and products.

² In the cultural context of the UK in particular: the representative focus for this research. Each culture perceives design in its own terms so this research acknowledges the inherent limitations of a western narrative of design and the perspectives of this audience. The particular emphasis of ambiguity in graphic design is focused on English-speaking cultures in which the role of X is framed. The author’s knowledge base therefore exploits a familiarity with the nuances of visual language, wit and word play in this context. In this thesis ‘context’ refers to the vehicles and platforms of design, the geographical location of its production and the socio-cultural milieu in which it is interpreted

³ *Design* is used in this thesis when the issues of ambiguity bring common benefits to related disciplines, across product design, service-design, exhibition design and interaction design. *Graphic design* is used when ambiguity concerns the particular activities and thinking of this field, requiring a distinct term.

⁴ *Thesis* is used as a term to refer to the written component of this research, while *project* identifies my practice-based processes and outcomes: *research* and *study* refer to a synthesis of the two.

design to engage people.” From a theoretical perspective Johanna Drucker & Emily McVarish (2009: xxi) argue that a critical approach enables new ways of thinking about graphic design to be considered. In this way the underlying social, cultural, economic, technological and political forces that influence aesthetic⁵ trends, material production and the role of ambiguity in design can be exposed and evaluated. Thus, while the context and significance of this research is described in the written component of this thesis, a fuller articulation of themes around ambiguity is developed through my three designed outcomes – *Ambiguity: A Design Process*, *The A to Z of X* and *Branding Ambiguity*. These artefacts, which accompany chapters Five, Six and Seven, are realised through practice because this is the arena in which graphic design is conceived and encountered.

Conventional graphic design is commonly perceived in terms of problem-solving: in this design research, a problem-*finding* rather than problem-solving approach is employed to capture a spirit of explorative discovery revealing new knowledge, through design practice. For Brian Lawson (2005) in *How Designers Think: The Design Process Demystified* this dimension of research has many parallels with the delivery of design education⁶: a method of learning by doing, where students are encouraged to ‘find’ problems in which the capacity of design can be tested, anticipating future possibilities for the discipline (Lawson, 2005: 7). As such, though situated on the edges of design practice, pedagogic perspectives offer significant insights into ambiguity from graphic design’s history.

I will be looking at what visual and material *form* ambiguity takes in art, design and advertising and its relationship to *function* in this study: this is extended to include the lexical or oral ambiguity of politics and everyday conversation. I examine the role *context* plays in provoking audience engagement with the work of art or designed message because graphic design is a fundamentally context-dependent activity. As a *conceptual* resource ambiguity is considered as a mode of facilitating new ways of thinking about creative production,

⁵ For Nöth (1995: 421) aesthetics was originally the study of beauty in works of art or/and the natural world developing, after Plato, into the beauty of objects. A semiotic analysis of beauty is not attempted in this thesis because there are so many branches and contingences to consider in relation to graphic design and the subject is not a key component of this study. In semiotic theory all images and artworks are signs (or texts) to be constructed and interpreted in a process of semiosis. Design does not absolutely depend on beauty to fulfil its purpose any more than the contemporary artwork: when beauty features in design criticism (as we shall see in the postmodern era of design, Chapter Two) it is as a subjective value judgment in a cultural context. Therefore, ‘visual language’ is used in this thesis to refer to the construction of a design suitable to the task set, context and audience (among other factors).

⁶ For further reading on the role of ambiguity in design education: Austerlitz, *et al.*, (2008) ‘Mind The Gap: Expectations, Ambiguity and Pedagogy Within Art and Design Education’ <http://www.adm.heacademy.ac.uk/links/group-for-learning-and-teaching-glad/glad-conference-2008/mind-the-gap-expectations-ambiguity-and-pedagogy-within-art-and-design-higher-education/>

communication and perceptions of design. These four inter-related categories of ambiguity – *form, function, context* and *concept* – are proposed as analytical criteria throughout this thesis and my project.

To illustrate and steer this research I employ X as a sign and symbol in typographic and image-based forms, this enables more abstract notions of ambiguity to be accessed in concrete form. An uppercase⁷ typographic X is used throughout this thesis to represent generic instances of the sign rather than specific applications⁸, such as the lowercase x (as a letter in a word, within this thesis) or the italic *x* (commonly associated with an unknown constant in maths). Because X is so rare as the first letter of a name⁹ (in the English language) the uppercase X also embodies ideas of identity and anonymity in this study. X is not presented as the only method of analysing ambiguity in graphic design but it is proposed as a new way: a critical tool that forms the basis of my project. New tools and strategies are important to the evolution of graphic design thinking and practice, appropriate to the changing circumstances of the discipline. For Dunne & Raby (2013) critical design tools help push research discourse in new directions, challenging perceptions of the discipline’s social, economic, political and cultural roles in context.

The newness of X (as a critical tool) resides in its continuous reinvention as a graphic icon in divergent contexts of meaning. X transcends conventional boundaries of graphic design providing multi-disciplinary perspectives on design ambiguity. X is not tied to any period in design’s history (unlike the swastika, for example), aesthetic form, or technological contexts. X is (simultaneously) precise yet elusive, universal¹⁰ and particular; it marks the spot on a map that anticipates buried treasure but also signifies love and maybe death. Its fluid status occupies a borderline territory on the margins of diverse disciplines: in this research X represents a liminal space in which meaning is negotiated with an audience. The disparate interpretations of X are not resolved here in order to establish absolute conditions for ambiguity in (graphic) design but are employed as evidence of multiplicity (great number

⁷ *Uppercase* (capital letters) and *lowercase* (small letters) are terms derived from the early days of printed typography when all the capital letters of a typeface were stored in one tray or case while the small letters would be kept below.

⁸ The nuances of visual and material form are highly significant components in visual communication and graphic design as a context-dependent activity (as this research goes on to demonstrate). Where particular forms of the sign need to be distinguished in more symbolic modes of communication X is employed.

⁹ Malcolm X is a notable real life exception. Single-letter names can be found in popular culture where M and Q are character names in the James Bond film franchise, while Kafka’s protagonist in *The Castle* is known as K. The lead character in Pauline Réage’s (1954) *Histoire d’O* (*The Story of O*) is referred to as O.

¹⁰ In the sense that X is found as a sign and symbol around the world.

and variety) in the contemporary visual landscape. Inspired by the apparent paradox the sign's contradictions and multiplicities present for graphic design, my research poses the question: if a graphic sign, such as X, can do and mean more than previously thought (facilitated by ambiguity) why can't graphic design? Four research questions are devised in this study as a guide to the development of my designed outcomes (three printed publications). They are:

1. How can ambiguity be re-envisioned in graphic design in light of its value in art and advertising?
2. How can the multiplicities of X be used as an exemplar of ambiguity in graphic design and a tool for exploring its future potential?
3. How can the design process be used as a research methodology to reveal the attributes of ambiguity through practice?
4. How does the graphic artefact facilitate understanding of ambiguity in design research?

The motivation behind this research comes from a concern, shared by design educators (Crow, 2003; 10) that design's cultural activities are increasingly perceived as indistinguishable from its commercial roles. Why is this problematic for graphic design? In striving for mass appeal Jessica Helfand (2001a: 45) argues in *Screen: Essays on Graphic Design, New Media and Visual Culture* that contemporary economic pressures limit the conceptual status of the discipline to a predominantly service-orientated activity. The reductive tendencies of conventional commercial design also limit the scope of text and image to do and mean more. This position is challenged in this thesis by looking a little closer at graphic design's history where we can see that design strategies and tools have been used to do far more than carry information or sell products.

The term 'design' is described as fundamentally ambiguous by Dilnot (1984: 3) in 'The State of Design History, Part II: Problems and Possibilities,' in relation to "a process (the act of designing)... the results of that activity (designed objects and images)...[and] value." He goes on to contextualise this statement: "the most significant aspect about design is that it is produced, received, and used within an emphatically *social* context" (Dilnot, 1984: 14). Design is, therefore, susceptible to political and philosophical forces as well as economic and technological change, leading to its activities being extended or revised, unconstrained by established rules. As this thesis seeks to demonstrate, it is this mutability that enables unexpected dimensions of practice as well as new knowledge to be revealed. As a consequence of this fluidity, the visual language of graphic design is also constantly shifting, while advances in technology change the way we experience the world and define our place

in it. For Hollis (1994b: *np.*), technology has “transformed the way we make and see images and the way they are reproduced.”

The source of (graphic) design’s ambivalence to ambiguity is examined, here, in the context of the conflicting drives to form rational systems applicable to all problems, on the one hand. As John D. Berry’s (2010: *np*)¹¹ argues in *Dot-Font: Talking About Design*, design’s purpose is “to give clarity and form to the shapelessness of everyday life —or at least to create some structures that help us navigate within the everyday chaos.” By contrast, ambiguity has been exploited in a purposeful extension to notions of the discipline, reflecting the ambiguities of everyday life.

1.2. Design and/as Research

In this practice-based study the design process is proposed as a versatile research methodology and an object of design discourse. However, this is not a well-established research method and graphic design is relatively new as a subject for doctoral research (Durling, 2002: 80). Therefore, from a theoretical perspective, Christopher Frayling’s (1993) ‘Research in Art and Design’ is referred to for three valuable but limited classifications for design research; research *into* design, research *for* design and research *through* design practice¹². To put these categories in context briefly, Chapters Two and Three of this thesis concern research *into* design while my accompanying designed outcomes (accompanying Chapters Five, Six and Seven) aim to reflect research *for* and *through* design. The nature of (my) practice-based study in (graphic) design at doctoral level is considered more closely here because Frayling’s paper offers (limited) practice-based examples against which to assess value, appropriate to context. There is also no single model of the design process to follow, due to the fluctuating conditions of the discipline and its disparate range of tasks, audiences, tools and aims.

This thesis draws on Linda Candy’s (2006) *Practice Based Research: A Guide* to clarify the relationship of theory and practice in this study by briefly comparing two definitions. For Candy (2006: 01) practice-based (design) research is: “an original investigation undertaken in order to gain new knowledge... Whilst the significance and context of the claims are

¹¹ The abbreviation *np* refers, in this thesis, to a text with no pages, especially a web-based reference; *n.pag* refers to printed sources that are without page numbers, such as in a foreword.

¹² These categories are adapted from Herbert Read’s (1943) *Education Through Art*.

described in words, a full understanding can only be obtained with direct reference to the outcomes.” This is compared to the results of practice-led research, which “may be fully described in text form without the inclusion of a creative work” (*ibid.*). In the context of my study I am adapting the design process to the analysis of ambiguity in graphic design in order to fuse theory within the act of design thinking and the artefacts that develop as a consequence of this process. As a reflective process practice-based design research is described by Seago & Dunne (1999) in ‘New Methodologies in Art and Design Research: The Object as Discourse’ as a material critique. The authors employ this term to describe how design mechanisms¹³, processes and products can be used as research tools to *embody* the research question itself: “by stretching established conventions, whether physical, social, or political, rather than simply affirming them, [design] takes on a radical critical function, a material critical theory” (Seago & Dunne, 1999: 16).

Hugh Dubberly’s (2005) comprehensive collection of (over 100) design process models (diagrams) in *How Do You Design? A Compendium of Models* is dominated by mechanical engineering, software or industrial design. Although many components are applicable across design disciplines there is little attention given to the particular contexts and shifting concerns of graphic design. This field of design differs from, for instance industrial design or fashion design, by incorporating concrete statements designed for longevity, ephemeral commercial messages consumed in the everyday cultural landscape and communications systems developed through user-centred discourse. Dubberly’s (2005: 6) stated aim in this collection is to “foster debate about design and developmental processes” with the practical goals of reducing risk and uncertainty. But what if a model of the design process could be found that led to clear outcomes while also *embracing* the “intriguing, mysterious and delightful” (Gaver, *et al.*, 2003: 271) attributes of ambiguity?

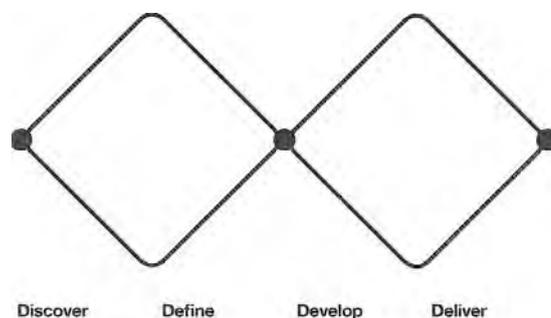


Figure 01: The Design Council’s (2007a) *Double Diamond*

¹³ Design and production tools, such as typography or page layout, but also design structures and systems.

In response, I am adopting and adapting the four cyclic stages (*discover, define, develop* and *deliver*) of the Design Council's (2007a) *Double Diamond* model to this research because it allows me to frame the ambiguities of design within a commonly employed structural device. Visually explained in a clear concise diagram (fig.01), this mode of the design process is employed by in-house design groups for big commercial companies and adaptable to studio-based research in design education. The value of the Design Council's (2007a) *Double Diamond* model to my thesis and project is that it has been tested: it is based on commonalities observed in the design practice of eleven leading companies¹⁴. These aspects were then brought together in a visual guide to provide insights into the way good¹⁵ design can be used to gain a commercial advantage (Design Council, 2007b: 3). The capacity of this model to stretch and encompass diverse design contexts or focus on particular audience needs and tasks is precisely what is so valuable to its application in commercial design practice and doctoral research. Chapter Five and my accompanying original artefact *Ambiguity: A Design Process* help elucidate this versatile¹⁶ process, applying the *Double Diamond's* four stages (*discover, define, develop* and *deliver*) as developmental markers.

1.3. A Critical Context for Design Ambiguity

The relationship between (graphic) design theory and practice is framed in this study as mutually beneficial, a material critique which seeks to push forward the profession through greater awareness of design's role in the cultural, economic and social domain. In his 'Keynote Address at the First Symposium on the History of Graphic Design: Coming of Age' in 1983 Massimo Vignelli laments the absence of critical debate in the discipline. He calls for a cultural structure for design aided by increased awareness of technology, history and philosophy: "As designers we have to continuously sift the past and the present so that the things that remain at the top are the important ones" (Vignelli, 2012: 7). More recently, in *Graphic Design: A User's Manual* Adrian Shaughnessy (2009: 83), currently a graphic design tutor at the Royal College of Art, continues the demand (as yet unrealised) for more sustained "healthy scrutiny" to "create a new climate of critical discovery."

¹⁴ Alessi, BSKyB, BT, LEGO, Microsoft, Starbucks, Sony, Virgin Atlantic Airways, Xerox, Whirlpool, Yahoo!

¹⁵ 'Good' is framed as commercially efficient and productive rather than ethical in this context.

¹⁶ Necessarily so, to serve the diverse demands of contemporary design in context in response to individual needs, corporate clients, public institutions and pop culture, as Chapter Five goes on to demonstrate.

Conceptual frameworks developed in educational institutions¹⁷ such as the Bauhaus and HfG (Hochschule für Gestaltung) at Ulm (Germany), the New Bauhaus in Chicago and the Cranbrook Academy of Art (USA) form significant sources of design theory in this thesis. These academic contexts represent a nexus of ideas and processes in which design ideologies have been articulated through design programmes, manifestos, aesthetics, and technologies. As Gui Bonsiepe (2006:27) argues in 'Design and Democracy' the academic institution offers an environment in which to "pursue those questions that normally would not be addressed in professional practice, with its pressures and contingencies." The intellectual space to explore and test new ideas through practice is what makes studio-based research in academia so valuable to the future possibilities of the discipline.

The proclamations of early designer-educators such as Laszlo Moholy-Nagy (1925) and Jan Tschichold (1928/1995) help articulate key principles of an emerging mode of 'modernist' practice: in their case, this takes the form of an explicit rejection of (visual) ambiguity in design. This didactic position was formulated during the early 1900s at a time of radical cultural and political shift in which design was conceived as an activity that embodied progress and economic benefit to society. It is at this historical convergence of design education's value as a subject of study and the socio-economic impact of its products that my analysis of ambiguity in the discipline begins. At this time neutral functional forms were deployed in a rational system of design to communicate efficiently across cultural divides at this time. I will then consider responses to the formal constraints associated with the modernist design paradigm¹⁸ of certainty, uniformity and a universal visual language, which emerged in the latter part of the century. This shift was inspired by a combination of post-structuralist theory and an architectural¹⁹ critique of the contemporary (vernacular) cultural landscape. Under the leadership of Katherine and Michael McCoy at Cranbrook (1971-1995) the experimental possibilities of design's new theoretical basis were integrated into the curriculum, facilitated by new technologies and expressed in a complex aesthetic code.

¹⁷ The relative value given to the theory of practice can vary widely depending on the legacy, pedagogic principles and philosophy of each country, culture and institution in which design is taught. As an example; http://www.heacademy.ac.uk/events/detail/2013/24_April_2013_GLAD; <http://www.shu.ac.uk/sia/glad2015>; <http://altshiftual.com>.

¹⁸ Paradigm shift is another term applied to the conceptual and productive changes in design: a paradigm is understood as a typical example or pattern, a model or archetype, a world view underlying the theories and methodology of a particular subject (OED).

¹⁹ Graphic design has commonly been addressed as a form of 'low' or pop culture whereas art and architecture have been regarded as 'high' culture an issue tackled in Poynor's (2005) essay for *Icon* magazine, 'Art's Little Brother.' This hierarchical relationship was disrupted during design's exploration of post-modern ideas during which time (graphic) design shifted to occupy a space *between* high and low culture, according to Jobling & Crowley (1996).

The (digital) technologies and tools of design production evolve constantly over time to meet new audience needs and communications systems: the relationship between the tool and visual form of design is close but not fixed. By digging beneath the stylistic tropes²⁰ associated with ambiguity during design's modernist and postmodern contexts this thesis seeks to reveal ambiguity's underlying value in current design thinking and making. So, although graphic design is superficially infused into historical artefacts and modes of production, this thesis proposes that the attributes of ambiguity need not be.

1.4. Political Dimensions of Design Research

Design is far from a neutral activity: a political bias often forms an underlying motive for many (but by no means all) designers, influencing the pragmatic choice of typeface, technology or colour. In challenging 'The Rhetoric of Neutrality' Robin Kinross (1989: 143) argues that, "visual manifestations emerge from particular historical circumstances, [and] that ideological vacuums do not exist." There is a political dimension to this study, which is motivated by a desire for more consistent critical debate and a more widespread acknowledgement of graphic design's intellectual substance. The political component of a design may be subtly embodied in its visual and material form while forums for political expression, such as the manifesto, are exploited to make explicit claims for the discipline. As a genre, manifestos offer a critical insight into designers' reflections on the discipline in the civic and commercial sphere by enabling the intentions behind processes and outcomes to be contextualised in cultural and historical terms. For instance, as a provocative statement of intent and an alternative voice for graphic design's ideological status, Ken Garland's (1964) *First Things First* manifesto emerged from ethical frustrations and perceived limitations of commercial design at the time of its publication²¹.

²⁰ Design writers Noble & Bestley (2011) describe the term 'trope' as an image, object or event that embodies a prevailing trend held in common by a group or community while Scott (1994) analyses the role of the trope in advertising as a method of breaking through habit, boredom or resistance to the commercial message.

²¹ First published in *The Guardian*, the *CND Journal*, *Design*, the *SIA* journal, *Ark* and *Modern Publicity* (1964/65): Rick Poynor's revised *First Things First* was published in *Émigré* magazine in 2000 and then *Adbusters* magazine.

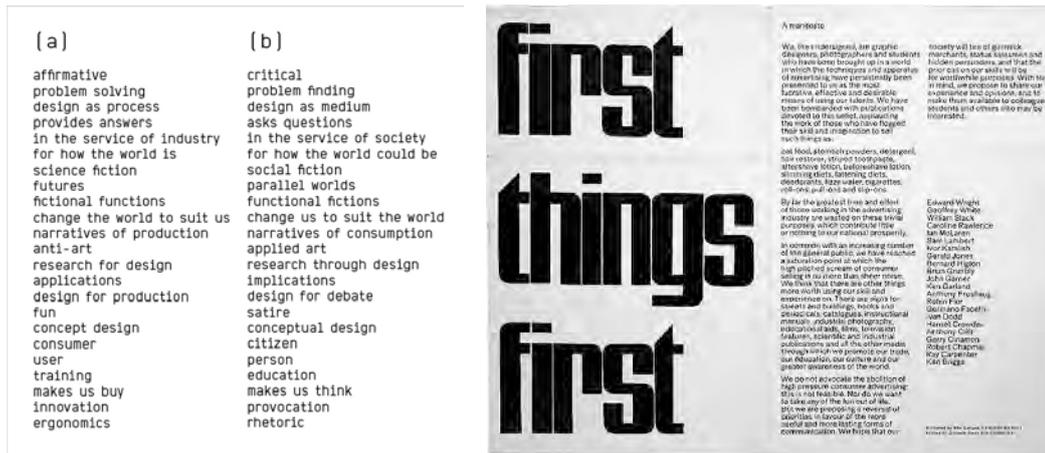


Figure 02: Dunne & Raby (2009) *a/b manifesto*; Garland (1964) *First Things First* manifesto

Taking the form of a comparative list Dunne & Raby’s (2009: *np*) ‘a/b’ manifesto (on the designers’ website) positions their practice and research in relation to how most people understand design (fig.02). In my project the manifesto genre is manipulated in a synthesis of theory in practice to pose questions about ambiguity in graphic design.

1.5. Establishing a Theoretical Framework

In design education the need for critical reflection is increasingly infused into programmes alongside the pragmatic skills of designing, yet practitioners have a tendency to avoid theorising their processes and purpose, as mentioned previously in this thesis. Due to a combination of the speed of its production and consumption and the increasingly integrated nature of design products in consumer culture, (graphic) design’s critical status has failed to make a significant impact on the public consciousness. For Helen Armstrong (2009a: *np.*) in ‘Graphic Design Theory?’ the fluidity of design, “coupled with a discipline-wide pragmatic streak, makes it difficult to establish a defined body of graphic design theory.” As a consequence, perceptions of design are persistently dominated by commercial issues and a functional imperative and defined by its material products. For Margolin (1989: 8) “Design holds the same promise for critical reflection as art and literature, but has yet to attract widespread attention because practitioners and scholars have not produced a persuasive argument for its centrality to social life.”

Armstrong (2009a) argues that design theory is drawn from three sources: *making* (such as at

the Bauhaus): *research*, and *thinking* drawn from tangential disciplines²² such as history, philosophy, science, art, semiotics, gender studies, psychology, anthropology and sociology. In this study I will draw information and inspiration from all three modes of design research. Starting with the pragmatics of making, operational mechanisms in graphic design such as the mathematical Communication Theories²³ were developed in the 1950s²⁴ and applied to the construction of design systems and products. In this context the definition of meaning is sought *before* transmission (yet is always open to cycles of interpretation, as semiotic theorists argue). Notions of predictability and choice are important in understanding the process of receiving and decoding a visual message in this theoretical context, described by Fiske (1990: 10) as *redundancy*²⁵ (what is predictable and conventional) and *entropy* (unpredictable and high on information). These ideas are pertinent to the scope of this thesis because they have been integrated into the tuition and evaluation of (graphic) design, contributing to a scientific basis for the discipline. They form a significant mode of evaluating ambiguity by offering practical insights into the linear material transmission of messages. This theoretical framework has also been adapted to analyse visual rhetoric in advertising where it helps to differentiate between the values of predictability on the one hand and surprise and ambiguity on the other.

In addition to ideas about design from practitioners a predominantly semiotic mode of design analysis is employed to evaluate ambiguity in this study. There are many branches of semiotics, both theoretical and applied, concerning culture, multimedia, anthropology, sociology and folklore (Nöth, 1995:3-6). Semiotic resources are used in this thesis to help identify the inter-related roles of the designer (producer), the audience (receiver) and everyday resources in the co-construction of meaning in visual communication. Incorporated into this study as an analytical framework rather than a recipe to follow, semiotic ideas are employed to help analyse how visual tools operate as conveyors of meaning in graphic design, photography and advertising²⁶.

²² For Cross (1999) and Quraeshi (2002) this scope reflects the multi-dimensional nature of design's processes and contributes to notions of the discipline as an agent of change.

²³ Communication Theory, Information and Communication Studies are capitalized here to distinguish between particular theories developed in the early twentieth century around mathematical and scientific modes of communication and more general approaches to communication.

²⁴ Based on ideas developed in telephone communications systems and engineering by Shannon, C., & Weaver, W. (1949) in *The Mathematical Theory of Communication* University of Illinois Press, Urbana and Chicago

²⁵ See *glossary* for comparative definitions of redundancy and entropy in common use.

²⁶ To which Barthes (1977) adds cinema. Film theory draws many parallels with design in terms of collaborative work and authorship (Rock, 1996) but this mode of visual communication is not commonly included in the same analytical contexts as design unless it features motion graphics and so has not been incorporated into this thesis.

This thesis initially draws on Roland Barthes' (1977) 'Rhetoric of the Image' in *Image, Music, Text*, which introduces two analytical distinctions of the visual sign: denotation and connotation. Denotation refers to literal (material) descriptive meaning, such as the image of a person in a photograph. Connotation is less direct but embodies associated emotions, values and beliefs that connect an individual to a cultural context. For Barthes the arrangement of visual components forms meaning in a rhetorical act. Visual rhetoric is examined further, later in this thesis, as a mode of influencing audience's attitudes, opinions and beliefs (Helmets & Hill, 2004: 2) in the context of design and advertising.

Barthes' (1977) 'The Death of the Author' introduces ideas of authorship²⁷ and meaning as (infinitely) open, enabling multiple interpretations of meaning in the mind of the reader. This poststructuralist notion of 'authorship' helped form a theoretical base for design pedagogy at the Cranbrook Academy of Art where the McCoys encouraged the development of each individual student: "their vision and their voice in design" (McCoy, K. & M., 1990: 4). As a pedagogic principle the McCoys sought to challenge the "sterility of 'universal design'" through a rich studio-based discourse in "a visual transaction that parallels verbal communication" (McCoy, K. & M., 1990: 15). With this approach in mind, my study can be interpreted as an example of reflective authorship, a mode of open-ended design discourse developed through practice.

All (visual) signs are open to multiple interpretations, defined in *Mythologies* by Barthes (1993, originally published, 1957) as polysemic, operating in an ambiguous signifying chain, which he calls myth or *metalanguage*. In this order of signification Barthes suggests a sign can reflect major culturally variable concepts underpinning a particular worldview, such as masculinity, femininity, individualism or Englishness. The sign is identified here as ambiguous: "intentional and irrepressible, artificial and natural, manufactured and discovered" (Barthes, 1993:28). The multiplicities of X are considered with these multi-layered possibilities in mind and representing a conscious component of the designer's construction of meaning in visual form.

Judith Williamson's (1983) *Decoding Advertisements: Ideology and Meaning in Advertising* (first

²⁷ Authorship in context; Benjamin (1934) *The Author as Producer*; Foucault (1969) *What is an Author?*

published, 1978) develops Barthes' theories of the sign to consider the construction of individual and collective identities through consumer products. As an inherently ambiguous (yet directed) mode of visual communication advertising employs a semiotic framework of sign-orientated communication to construct and convey meaning in a coded form of myth-making. In the preface to the fifteenth impression of her book Williamson (2010: 6) describes the role of advertising as "to attach meanings to products, to create identities for the goods (and service-providers) they promote: a process today described as branding." Advertising²⁸ shares common aims and visual devices with graphic design providing opportunities for comparisons in aspects of presentation and promotion (Hollis, 1994: 10). More evocative than instructive, advertising exploits ambiguity to connect a consumer with values of desirability, trust and love: Williamson (1983) uses the term 'aura'²⁹ to describe the value of ambiguity in visual culture, which I am adapting to graphic design in my research.

Umberto Eco's (1989) literary notion *The Open Work* (first published in 1962) focuses on the author-reader relationship (in the context of abstract gestural painting from that time). Eco suggests that the author or artist should *intentionally* construct the artwork as a space for open-ended interpretation aimed at a reader "who is awake to the possibilities that the work contains" (Crow, 2003: 167). This perceptual awareness leads, for Eco, to added pleasure in the process of interpretation and richness of meaning as a result: qualities that are embodied in ambiguity. The theory of the open work is included in this thesis because it helped form the basis of visual expression in graphic design at Cranbrook, evoking multiple readings of a design artefact³⁰.

More concerned with social meanings constructed through a wide range of semiotic resources (signs and symbols in the everyday), social semiotics is defined by Hodge & Kress (1988:161) as "the processes and effects of the production and reproduction, reception and circulation of meaning in all forms, used by all agents of communication." This more contemporary mode of semiotic theory is important to this study because it prominently cites design's transformative active role in shaping (new) meanings in the contemporary socio-cultural landscape. By considering design as an activity that looks forward to imagine

²⁸ The reader should note that the creative employees of graphic design and advertising inhabit similar but separate working communities, despite much common ground.

²⁹ Rather than Walter Benjamin's (1999: 237) notion of aura in reference to the originality of art as a cult object based on distance, 'The Work of Art in the Age of Mechanical Reproduction' in *Illuminations*.

³⁰ Subsequent texts by Bruinsma (1999), Crow (2003) and Blauvelt (2000, 2006) acknowledge the critical value of open-ended graphic design in the cultural sphere.

a possible future social semiotic theory has many parallels with speculative design³¹ in a critical dimension of practice.

1.6. Thesis structure

The anticipated readership of this study includes design students and practitioners, educators, researchers and members of the public with an interest in design in everyday life. The terms in which graphic design is described in the public domain³² – mediated through the popular press – rarely feature the principles or processes that inform commercial or social outcomes. Therefore this thesis starts by describing key historical concepts of graphic design, which remain as traces in aesthetic trends and educational programmes. The language used in this study aims to form a bridge between academic and more popular discourses around design. As a consequence, certain phrases or terms are employed in ways that may seem unusual in more conventional academic contexts³³ but are informed by design thinking and practice: the domain of this research. When differences in terminology occur, the reader is directed to the *Glossary* at the back of this thesis, where brief explanations are offered.

Unlike art and architecture, ‘design’ (alongside ‘writing’³⁴) is defined as both a noun and a verb, reflecting its etymological roots: it is the thought and reflection that contributes to the process of designing, and the material outcome of that activity. In a conscious reflection of this synthesis Chapter Two (graphic design history) and Three (definitions of ambiguity) aim to theoretically underpin the ‘why’ (critical context) of this study while Chapter Three and Four (evidence and analysis of ambiguity and X) establish the ‘what’ (idea of ambiguity and as a critical tool). Chapter Five develops these components in the ‘how’ stage (research

³¹ For Dunne & Raby (2013: *np.*) design is a means of speculating about how things could be, a process of imagining possible futures by posing ‘what if’ questions that are intended to open debate about the kind of future people want.

³² Drucker & McVarish (2009: 100) define the public domain as a “virtual arena where opinion is created” rather than a particular physical location adaptable to the needs of the audience and message.

³³ In theory the problem-solving and problem-finding research methods of design in educational institutions may be described in terms of heuristics, a term that is rarely employed in studio-based contexts of design but is applicable to the particular processes of trial and error employed in the search for new knowledge and my project.

³⁴ Writing and image-making share common historical roots and perform similar functions (Meggs, 1983; Drucker, 1995; Morley, 2003), inhabiting both physical and conceptual spaces. Like design, ‘writing’ is a verb and a noun, an act and a product. As modes of information image and text have operated independently and in synthesis throughout history and have often been considered identical. In ancient Egypt and Greece, for instance, this is evident in the Egyptian word *s-sh* and the Greek *graphein*, which embody both meanings (Diringer, 1948).

methodology), converging studio-based processes with more academic insights into the ambiguities of X. My designed outcomes develop ideas of ambiguity in practice through the processes of design then as evidence of ambiguity in the diverse forms of X. Finally, ambiguity is proposed as an indeterminate space in which speculative modes of design can be imagined. In order, *Ambiguity: A Design Process*, *The A to Z of X* and *Branding Ambiguity* accompany Chapters Five, Six and Seven.

One of the main aims of this thesis is to demonstrate how design can be used and presented as research and this unconventional thesis structure seeks to embody this approach. Practice and theory are, thus, developed in synthesis: each chapter updates the relationship between ideas on ambiguity, X and graphic design as the impact of new knowledge reconfigures the visual, material and theoretical components. Literature reviews are embedded in each chapter in a mode of research-in-action or knowing-in-action drawn from Donald Schön's³⁵ (1992) theories, which help to establish the context of each component as it emerges while new insights are discovered and reflected on. The parameters and nature of my designed outcomes were not fixed at the beginning of this project but emerged as a consequence of this research process. In this way, neither the visual form of X, nor the particular design vehicles employed to articulate its ambiguous potential were (or could be) set at the beginning of this study.

Chapter Two establishes a critical context for my design research by drawing on influential and authoritative histories of graphic design from Meggs (1983), Hollis (1994a) and Drucker & McVarish (2009). Particular attention is given to the impact of society, technology and politics on design's underlying principles while design's tools of production are examined as expressions of ideology in educational and commercial contexts. In this way, attitudes for and against ambiguity are initially evaluated in reference to Modernist design ideas and aesthetics (at the Bauhaus) and design's response to post-structuralist ideas on language in a 'post-modern' era of design practice (at Cranbrook).

Chapter Three develops the semiotic ideas and communication theories incorporated into design education from the early twentieth century to examine the value of ambiguity across art, design and advertising. My four analytical categories – *form*, *function*, *context* and *concept* – are employed here to compare the value of ambiguity in these disciplines. The

³⁵ Trained as a philosopher and then worked as an educator at MIT in the USA in the 1970s.

socio-cultural contexts of ambiguity are extended to include conversational humour and puns thus drawing parallels between a linguistic base of communication and visual wit in graphic design. From the design field of computer related design and Human-Computer Interaction (HCI) ambiguity is considered as a conceptual resource and material critique (Seago & Dunne, 1999). How these ideas might be adapted to graphic design is developed in relation to the ambiguous X: a graphic sign that is proposed as a critical tool of design discourse in the next chapter.

Chapter Four introduces X as a visual and conceptual anchor to help locate the elusive issues of ambiguity in (graphic) design focusing on X as a letter of the alphabet, logo, mythical symbol, sound and gesture. This chapter extends my four analytical criteria (*form, function, concept* and *context*) for this purpose in two ways, first, as evidence of the sign's ambiguity in visual culture and across diverse disciplinary contexts. This is initially established by observing the sign's dual roles as an abstract universal symbol and alphabetic sign in the (English) alphabet. I will explore how its multiplicities can be collectively framed as evidence of ambiguity in graphic design in visual, material and conceptual terms in a social semiotic framework. The typographic character³⁶ of X and the philosophical notion of the trickster are considered as visual and intellectual aids in this argument. This is extended through practice in the next chapter to absorb ideas of visual identity and branding to embody new perspectives on ambiguity in graphic design in a range of voices transcending conventional design boundaries.

Chapter Five outlines how the design process forms the basis of my practice-based research methodology: a reflective mode of design that is best read alongside my first type of practice: *Ambiguity: a Design Process*. Ambiguity is identified as not only advantageous to but inherent in the development of (at least the initial stages³⁷ of) the design process: conceiving an idea, exploring a wide range of possibilities and then developing an outcome as a process of making tacit knowledge concrete. The significance of design as research draws on theoretical resources including Frayling (1993), Schön (1983, 1992), Buchanan (1992) and Seago & Dunne (1999). The Design Council's (2007a) *Double Diamond* provides a flexible yet simply illustrated model of the design process, which I use to structure and explain the (four)

³⁶ *Character* intentionally converges meanings relating to “the combination of qualities that makes up a person's nature or personality” and denotes a typographic form: “a letter, number or other written or printed symbol. 14c: Latin, from Greek *charakter* engraving tool, hence a distinctive mark impressed on something.” (Chambers dictionary, 1996).

³⁷ Also known as the ‘fuzzy front end’ of design (Design Council, 2007b).

generic stages of my practice-based project. I use the term *focused wandering* to introduce a research method that embraces chance in the discovery, identification, collection and review of intentional ideas and accidental formations of X in a mode of social semiosis. This chapter and design outcome lead through controlled tests to my second and third types of practice, outlined in the following chapters.

In **Chapter Six** my second type of practice – *The A to Z of X* – demonstrates evidence of ambiguity in a focused illustration of multiple manifestations of X. A representative (alphabetic) scope of examples relating to X are visually collected, classified, evaluated and embodied therein. Design mechanisms and structural tools are applied to encourage active engagement in the multi-layered ambiguities of X in the form of a book. This printed artefact is framed as a (relatively) conventional graphic product containing an unconventional idea: a material *object* and *concept* of ambiguity. Ideas of identity and anonymity, the universal and particular, are developed in relation to X while the stylistic trends associated with modernist and post-modern graphic design are avoided. This is the first time the ambiguities of X have been conceived and constructed in this way to analyse evidence of ambiguity in graphic design. In response to the inherent limitations of print (images and ideas captured in time, through material production) a digital proposal is developed to facilitate ever-evolving interpretations of X. As a more fluid design platform³⁸ this chapter introduces the *Museum of X*: an additional practice-based response to my research questions, conceived as an online forum for participation in and debate around the issues arising from ambiguity across the territory of design.

My third type of practice – *Branding Ambiguity* – considers ambiguity as a brand concept employing X as its visual identity. **Chapter Seven** proposes a more speculative notion of graphic design in the contexts of manifestos and branding. The radical manifesto-like *Blast* magazine of the Vorticists (Lewis, 1914/2009) represents duality as a playful tool expressed in a dynamic visual language exploiting wit as an ambiguous visual language. By comparison, Dunne & Raby's (2009) *a/b* manifesto employs duality as a critical design tool. Corporate brand guidelines are used as comparative resources that provide ambiguously crafted promises alongside precise directions for use. Branding is a field of design that operates on multiple levels infusing ideology with promotion while the artists' manifesto

³⁸ In terms of design *platforms* are understood as any situation/context that provides access to an audience and that can be exploited to convey a message; a *vehicle* is something used as a means of communicating ideas and opinions, such as a newspaper, book, website, etc.

helps form a politically infused position from which to pose questions about the value of ambiguity. In a playful reframing of Brand X (the non-brand by which all others are judged more favourably) X is transformed into a sign for our times³⁹ and the means by which ambiguity can be re-envisioned in graphic design.

Chapter Eight concludes this thesis by reviewing my research aims and how my project has made these responses manifest. My practice-based responses do not aim to define ambiguity or to form new aesthetic codes but re-envision ambiguity as a conceptual resource and material critique of graphic design thinking, praxis⁴⁰ and products. In this way this study seeks to extend notions of the discipline and its activities, engaging both designer and audience in this process. Communicable results are articulated through my three designed outcomes in order to make manifest the results of these discoveries transferable to academic, pedagogic and commercial contexts. Through increased debate it is hoped that future debate around design and its role in contemporary culture, education, society and commerce will encompass the possibilities of ambiguity. X is framed as the mediator between idea and outcome, the individual design audience and its producer, in this process: a new critical tool that enables diverse audiences access to design issues to be explored from everyday, creative and intellectual perspectives.

³⁹ This thesis and project argues that X captures the zeitgeist of contemporary culture of which graphic design is a significant component: this topicality is valuable to the relevance of my research but also represents an inherent limitation to the context (place and time) in which the value of X is discussed.

⁴⁰ Design praxis is described as the process of practice and theory in synthesis, applied to a problem or situation in the political, educational or social domain. The term is derived from philosophy (Aristotle) as one of three types of knowledge including theory and production.

2. 1. Introducing Graphic Design

Graphic design⁴¹ is a broad-based activity infused into almost every aspect of modern life, yet only a few decades have passed since its activities were perceived as strange⁴², operating beyond the gaze of the general public. Now ‘page layout’, ‘font’, ‘point size’ and ‘format’, have entered the everyday lexicon due to our exponential dependence on the home computer and the design software contained therein (Garfield, 2010: 12). Yet, widespread access to the (digital) tools of graphic design has not been accompanied by cognition of the discipline’s conceptual scope or its ability to act as an agent of change. Reductive notions of graphic design persist in the cultural landscape: a commodity distinguished only by the vehicles used to deliver a message, such as TV, smartphone, street billboard, poster, website and magazine. As the ingredients of design evolve, so do the terms with which design is defined and perceived. Therefore, in order to evaluate contemporary design in context, it is essential to sustain critical debate around its methods and impact. For instance, while empowering a new collective authorship, Armstrong (2009: 11) argues that digital technologies also reconfigure notions of universal communication as a socio-cultural discourse.

This chapter critically analyses ambiguity in graphic design in a new way, not by (re)defining the discipline, but by examining some of the interdependent factors that have contributed to its principles and processes. These include *social*, *technological*⁴³ and *aesthetic* issues but also cultural and political factors. In this way, a greater understanding of the tacit or explicit roles ambiguity has played in visual communication is sought through which to consider its possibilities for today’s design practitioners and educators.

⁴¹ Graphic design has been referred to as commercial art, applied art, graphic art, visual communication and communication design over the past two centuries, reflecting the expansion of communication media beyond the realm of the graphic arts. Typically two-dimensional, this has included printmaking, lithography, typography, calligraphy, photography and book arts but now embraces websites, apps, experiential, user-centred and interactive design in an exponentially expanding field of design discourse.

⁴² For instance, typography has been termed a ‘black art’ (Meggs, 1983; Armstrong, 2009).

⁴³ The term ‘technology’ in the context of my thesis refers to the manual, mechanical or digital modes (tools) of production and communication applied to the designed artefact (Archer, 2007). These tools may include anything from pen, paper and print to the more complex range of devices employed in contemporary communication. Technology continuously alters the way we create and interpret visual messages: a process of increasing control by the producers of design, whether they be trained design practitioners or not. From electric light to newspapers, print, advertising, transport and TV, in *Understanding Media: The Extensions of Man* McLuhan (1964) argues that evolutions in technologies are extensions of human behaviour. He suggests that there are psychic and social consequences to the technologies in our lives, as they amplify or accelerate certain behaviour and our perceptions of the world.

The visual language of design includes a ‘vocabulary’ of design components, which may include line, shape, texture and colour organised by a ‘grammar’ of contrast, repetition, reversal and compliment (Lupton & Miller, 1996: 64). These ideas help design practitioners position themselves in relation to contemporary discourses. From a pragmatic perspective Hollis (1994a: 10) puts it this way: “Graphic design constitutes a kind of language with an uncertain grammar and a continuously expanding vocabulary.” Technology has played a key role in perceptions of design’s visual language, the expressive creativity of design, modes of production and its cognition in the public domain, as mentioned earlier in this chapter. Critical analysis of the role technology plays in (graphic) design is significant here because, for Dunne & Raby (2005: *np.*):

When technology is developing as rapidly as it is now, reflection and criticism are particularly important. We need to consider alternative visions to those put forward by industry. Design, being accessible, contemporary and part of popular culture, is perfectly positioned to perform this role. It is a mediator between consumer and corporation.

Narratives of design’s history and purpose are inevitably subjective.⁴⁴ The scope of design’s history appropriate to notions of ambiguity in *this* study starts with the early twentieth century. This was a time of political, social and technological change in which design strategies of functional neutrality were being formulated for socio-economic benefit. The historical circumstances in which ambiguity was rejected by modernist artists and designers is examined first, to identify the role the available tools of design played in expressing a new social vision for design. Then the principles and processes associated with post-modern design are considered in the context of a more pluralistic world, assisted by new technologies and theories. In more conceptual, ideological terms oppositional perspectives on design include “anonymity and authorship, the personal and the universal, social detachment and social engagement” (Armstrong (2009b: 9). This brief background is intended to identify the underlying conditions, which influenced an antipathy towards then an embrace of ambiguity in design.

This thesis seeks to demonstrate that the aesthetic forms, technological tools and social conditions of design have influenced but do not define the terms within which ambiguity operates or may be re-evaluated in the discipline. Thus, while ambiguity appears to operate

⁴⁴ Design history frames the work of (selected) designers to suit certain notions of the discipline, serving a social, technological, ecological, political or DIY purpose: all histories are limited, not least by the absence of client involvement, budget and time pressures or audience responses at the time.

on the margins of conventional graphic design, this thesis argues that its liminality⁴⁵ and productive uncertainty can lead to new ways of thinking about the discipline.

2.2. Literature Review: Framing (Graphic) Design History

The broad scope of (graphic) design can combine intuitive, analytical, creative and logical processes to arrive at a solution. In defining the designer's role in the world today Samina Quraeshi's (2002: 2) paper 'The Architecture of Change' adds to the (modernist) argument that good design can be a powerful tool helping to achieve economic, social, educational and environmental benefit. As an agent of change designers "see the multi-faceted nature inherent in any problem. We borrow from history, philosophy, science, art, technology, and sociology in arriving at solutions" (Quraeshi, 2002: 2). She positions these interdisciplinary skills at the centre of cultural discourse in pluralistic society as a collaborative mode of design practice. Tangential resources are employed to inform the process of designing and to help theoretically frame its socio-cultural value. As graphic design does not have its own theoretical base, resources used to analyse the discipline in this chapter reflect design's multi-layered territory. Ideas are primarily sought from semiotics, gestalt, Communication Theories, art criticism and visual rhetoric because they provide insights into the pragmatics of visual communication on the one hand and its conceptual values on the other hand.

Although not the first historical overview of graphic design,⁴⁶ Meggs' (1983) *A History of Graphic Design* represents a comprehensive historical text for students of the subject from a limited pool, at the time of its publication. He traces design's origins from a prehistoric emergence of visual language in which petroglyphs form early efforts to communicate ideas or information. In this way Meggs seeks to connect ancient image-making and writing with contemporary logo design and visual identities in a discipline defined by its material production. Graphic design's history is presented as an inventory of artefacts and production processes in which advances in technology represent benefits for society through a widespread dissemination of knowledge. Commercial design practice is conceived as a collection of activities across book design, calligraphy, advertising and typography that were first coined 'graphic design' in 1922 by US designer W. A. Dwiggins. For Meggs (1983: 491)

⁴⁵ Liminal or threshold: an in-between, on the edge space. In this thesis the boundaries of design are not only edged by fine art but by a multitude of disciplines, which are drawn on for inspiration and information (Quraeshi, 2002).

⁴⁶ Earlier examples include Josef Muller-Brockmann's (1971) *A History of Visual Communications and Theory and Design in the First Machine Age* by Reyner Banham (1960). Campbell's (1994, originally 1984) *The New Designer's Handbook* concerns the pragmatics of designing and production (in print).

the essence of graphic design is “the ability to translate ideas and concepts into visual form and to bring order to information” in a convergence of form and functional simplicity. Ambiguity is described here in terms of floating and “overlapping forms, diagonal lines” within the context of the self-absorbed, “subjective and even eccentric” aesthetic play of post-modern graphic design (Meggs, 1983: 488)⁴⁷. It is the tools and technologies of the time employed by Wolfgang Weingart and April Greiman (among others) that Meggs focuses on in this context rather than the ideas that underpinned the designers’ language.

From a more critical perspective, Hollis’s (1994a) *Graphic Design: A Concise History*, analyses national tendencies in a chronological history drawing attention to the pragmatics of production through which he reveals how visual nuances are employed to convey meaning. This narrative of graphic design is traced from the late nineteenth century: a time when advances in technology⁴⁸ and craft processes converged in the widespread development of the colour poster. For Hollis the poster represents an opportunity to discuss the synthesis of social conditions, stylistic trends and production techniques, pertinent to design’s development as a discipline: a material moment in the discipline’s history. In his historical survey Hollis attempts to separate graphic devices from the job of design, the tools of visual communication from the act of designing, an important distinction in my practice-based study of ambiguity. Three categories for graphic design are identified here as key goals; first, *identification*, described in terms of socio-cultural origin, ownership and function connecting contemporary logo design with heraldry⁴⁹. His second category of design – *information and instruction* – performs the more immediate purpose of indicating relationships in ‘direction, position and scale’ such as in maps and diagrams. The third category of *presentation and promotion* encompasses the aims of graphic design and advertising, to catch the attention of the viewer and make a message memorable⁵⁰.

Technological and pragmatic aspects of design are extended in Malcolm Barnard’s (2005) *Graphic Design as Communication* to encompass ideas of visual rhetoric and ‘magic’⁵¹. Although

⁴⁷ However, it should be noted that this first edition was published before the first explosion of experimental design practice infused with ambiguity from the 1980s (predominantly in design schools in the USA, such as Cranbrook).

⁴⁸ Due, in part, to industrial print techniques, such as lithography, in a simplified and economic aesthetic.

⁴⁹ As evidence of the signs and symbols employed in coded communication, suggesting that design’s principles were established centuries ago connecting ancient visual processes with contemporary practice, similar to Meggs (1983).

⁵⁰ Methods of enhancing memory through ambiguity are identified in design later in this chapter.

⁵¹ The magical function of graphic design is identified in early studies of alphabetic and runic script (Diringer, 1948). Notions of magic are developed as evocative modes of defining deeper levels of meaning in the context of advertising (Williamson, 1978/1983) in Chapter Three.

not identified as ambiguity, graphic design is described as having a magical function: it is transformative, hard to quantify, yet understood as added value (Barnard, 2005: 15). This notion is added to the informational aims of graphic communication (imparting knowledge), persuasion (a change of thought or behaviour) and decoration. Barnard includes metalinguistic and phatic communication devices, such as arrows or changes of perspective, which help direct a reader: modes of design that are employed in my project to draw attention to the overlooked ambiguities of X in everyday life. His critique is valuable to this thesis because it broadens the scope of design, cementing identity and meaning as core components of the discipline's role in society, commerce, culture and ideas. For Barnard (2005: 57) "graphic design is one of the ways in which [ideological] values and attitudes are constructed, reproduced and challenged." As such, ambiguity is proposed (in this thesis) as an alternative way of thinking about design, its praxis, pedagogy and integration in contemporary culture.

In *Graphic Design History: A Critical Guide* Drucker & McVarish (2009), seek to identify the cultural, historical and political conditions in which visual communication is constructed as a coded language to carry meaning and the social implications of these artefacts. As design educators and practitioners, the authors argue that (graphic) design shapes both our visual and our conceptual horizons. The book opens with a set of principles set out in the form of a manifesto and retains a political perspective on design as an everyday cultural phenomenon infused into both corporate and educational institutions. In their words, its artefacts "always serve a purpose and contain an agenda, no matter how neutral or natural they appear to be" (Drucker & McVarish, 2009: xv). The historical narrative is organized thematically to enable social and political issues to be brought to the fore, contextualised by ever-changing 'tools of the trade.'

This theoretical framework is articulated through practice with reference to the critical design work of Dunne & Raby. From an online interview on the designers' own website (2007, *np.*) they define critical design as an operation that uses "speculative design proposals to challenge narrow assumptions, preconceptions and givens about the role products play in everyday life. It is more of an attitude than anything else, a position rather than a method." This mode of design research converges social theory, politics and ideology with a reflective analysis, and forms the basis of my research methodology. The relationship between the theoretical, pedagogic and practice-based aspects of (graphic) design is observed in more detail next to identify attitudes towards ambiguity and examine them in context.

2.3. Theory in practice

As stated in the introduction, educational⁵² institutions represent valuable contexts in which to observe a nexus of design's strategies, experimental praxis and radical ideologies in an historical context of the discipline. For Steven Heller (2006), as capitalism sets design's parameters, it is hard to break meaningful ground in the discipline while simultaneously serving a (corporate) client's needs and wants. During the 1980s: "Academics argued that graphic design was more than the mere study of technique and technology, more than form and function – it was an intellectual pursuit that demanded philosophical fluency" (Heller, 2006: 11). The designer-educator and student are more able to transcend the constraints of conventional commercial⁵³ design and focus attention on the possibilities of design, pointing to what *might* be. This is an important component of design education because, in looking forward, students are encouraged to embrace the uncertain social contexts of design and propose new strategies and mechanisms.

In the introduction, three generic areas of graphic design theory were identified as pertinent to this study: a theory of *making* (design), a theory of *thinking* about design (drawing on external resources such as semiotics) and a theory of *research* (Armstrong, 2009a). Sometimes two or three of these approaches may be fused, as in the educational context where, as Sibil Moholy-Nagy (1973: 8-9) argues⁵⁴, it is "the mission of the teacher to observe what goes unnoticed by the multitude. He is an interpreter of signs" in a constantly shifting landscape of visual codes. A theory of *making* is examined first because it frames the attributes and limitations of ambiguity in (visual) communication in clear terms.

2.3.1 Communication Studies and Mechanical Transmission

Communication Theories⁵⁵ encompass a broad range of approaches in relation to graphic design in practical, operation terms. In this theoretical framework communication is defined as a linear transmission of messages by devices (or vehicles) such as the radio or telegraph

⁵² In Nöth's (1995: 221) *Handbook of Semiotics*, he identifies mutual interests and overlaps between semiotics and education that are developed in these contexts through design to investigate the communication of meaning through signs and the media (vehicles) employed to mediate these messages.

⁵³ These constraints may include pragmatic issues (time and budget), which impact on the intellectual and experimental space within which alternatives can be explored and tested within a design project.

⁵⁴ In her introduction to Paul Klee's *Pedagogical Sketchbook* first published in English in 1953 (originally in 1925 in Germany) as one of a series of Bauhaus Books.

⁵⁵ Communication Theory also falls under the more generic term Communication Studies and the related field Information Theory.

(adaptable to current digital devices). Fiske's (1990) *Introduction to Communication Studies* outlines two key components of communication here: the *transmission* of messages between senders and receivers, through media and communications systems and a *platform* for the exchange of meanings and their interpretation in the public domain. In this process of communication, meaning is produced *before* the message is received by the audience or end-user. It may, however, be disrupted by 'noise' caused by technical issues such as smudged printing, poor workmanship, a weak signal, limited internet access or faulty (digital) software, for instance (Fiske, 1990: 8). Noise can also occur through simultaneous competing information from TV, radio and public announcements or even physical discomfort while receiving the message. On a semantic level noise can also be anything that distorts meanings not intended by the sender in the communication process, including the receiver's social or peer group influences.

'Redundancy' (what is predictable and conventional) and 'entropy' (what is unpredictable: high on information and ambiguity) are employed as contrasting terms by Fiske (1990:16) who defines redundancy as "a force for the status quo and against change. Entropy is less comfortable, more stimulating, more shocking perhaps, but harder to communicate effectively." Notions of predictability and choice are important in understanding the process of the transmission and perception of information because the majority of visual communication is marked by a high degree of redundancy. This is understood as a way of checking the accuracy of any message based on what is most probable, offering the audience satisfaction because it reinforces the context and meaning of familiar ideas and images, confirming the receiver's understanding of the message. Redundancy is manifested through the deployment of rhetorical devices such as metaphor, analogy and cliché aiding rapid communication in both graphic design and advertising within cultural convention and common codes of use.

On the one hand, communication benefits from predictability (or redundancy) within a noisy channel of competing messages, by using stereotypical or familiar signs and symbols. On the other hand, entropy (interpreted here as ambiguity) in the form of visual wit in graphic design enables opportunities for re-reading⁵⁶ a message. This form of ambiguity confounds audience expectations in a game of familiarity and surprise (McAlhone & Stuart, 1996:60). The message is made more memorable for the receiver (end-user) as a result. The key difference between entropy and ambiguity may be intentionality: the entropic message

⁵⁶ Compared with speech, which disappears quickly and cannot be revisited (unless it has been recorded).

inhibits communication through unpredictability and complexity while the ambiguously framed message in design consciously deploys these aspects to add richness and meaning to the message. I will return to this theoretical framework again in Chapter Three where Communication Theories are considered in an analysis of advertising, which deliberately employs ambiguity as a persuasive tool. But first, the pragmatics of designing are analysed in the educational contexts of design.

In design pedagogy theories of making can be observed in the unified concept of art and technology on which Walter Gropius founded the Bauhaus in 1919 (in Germany⁵⁷). Emerging from the embodied ideas of avant-garde artists including El Lissitzky, Herbert Bayer and László Moholy-Nagy, objectivity replaced subjectivity and, inspired by a machine aesthetic, a modernist mode of graphic design started to take shape (Armstrong, 2009: 9). This was extended under the leadership of Moholy-Nagy (1937-1944) at the New Bauhaus⁵⁸ in Chicago to include a new more methodical science of design⁵⁹. Through this strategy, incorporating philosophical theories of communication from Charles W. Morris, design tutors sought to establish a universal language of vision in design converging Communication Theories with semiotic ideas and gestalt psychology. In this way design processes and meaning could be formally framed as a model taught within a rational framework.

The gestalt theory of visual perception, developed by German psychologists⁶⁰ in the 1920s, was adapted to academic programmes to help construct a process of visual communication *uninhibited* by cultural variance. As a universal grammar of perception, gestalt focuses on seeing as a process of ordering information: a human sense inherent to all rather than learnt by a privileged few. Principles such as similarity, continuation, closure, proximity, figure and ground relationships form visual elements, which the audience organises into a unified whole to form meaning.

⁵⁷ The Bauhaus school; Weimar 1919-1925, Dessau 1925-1932, Berlin 1932-1933 then extended through alumni-tutors to the New Bauhaus in Chicago from 1937 and the HfG at Ulm 1953-68.

⁵⁸ In Klee's (1925) *Pedagogical Sketchbook* and Kandinsky's (1926) *Point and Line to Plane*, then at the New Bauhaus in Chicago by Moholy-Nagy (1947) *Vision in Motion* and Kepes (1944) *Language of Vision*, Itten (1963/1975) *Design and Form: The Basic Course at the Bauhaus*, Hofmann (1965) *Graphic Design Manual: principles and Practices*.

⁵⁹ Swiss designers Max Bill, Emil Ruder, Josef Müller-Brockmann and Karl Gertner extended rational ideas, developing systematic grid structures in which *anonymity* and objectivity formed an International (universal) Style.

⁶⁰ Such as Max Wertheimer (1880-1943), Wolfgang Kohler (1887-1967) and Kurt Koffka (1887-1941).

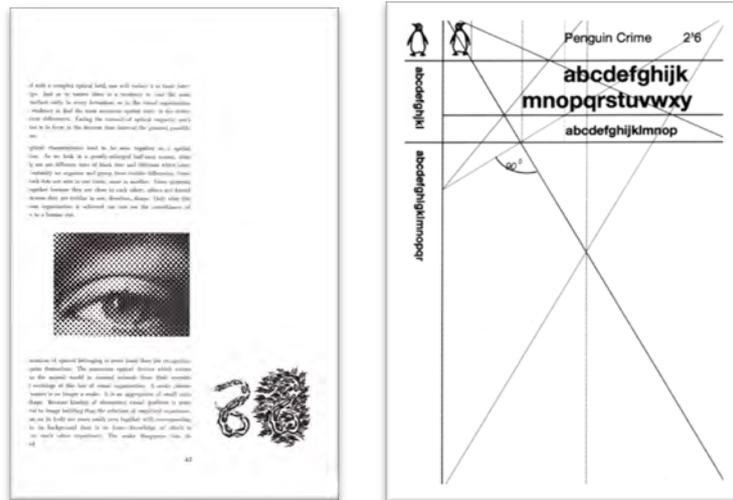


Figure 03: Kepes' (1944) *Language of Vision*; Penguin book cover layout (1960)

This synthesis of components, principally image and text, structured by an invisible grid, deployed in posters and book design (fig.03, left) form a unified message⁶¹. However, in this perceptual principle Kepes' (1944/1995) *Language of Vision* observes that the intersections of a grid, visualised here (fig.03, for example), are active as both figure and ground (frame).

Lupton & Miller (1993: 31) argue that, "In addition to its formal ambiguity, Kepes's figure is conceptually ambiguous." For instance, he also states that on the space of the designed page the elimination of every unnecessary detail to geometric forms leads the observer's eye "with an *unmistakable certainty* [my emphasis] to the essential shapes and their relationships" (Kepes, 1995: 113). Here, ambiguity operates as an active component of design through a number of *precise* elements. This example is significant in my research because it identifies examples of the inherent yet overlooked role of ambiguity in a (broadly) modernist paradigm of graphic design.

The efficacy of gestalt and Communication Theories is challenged, however, when applied to the fluctuating social contexts of design and the need to incorporate unpredictable emotions and diverse behaviour within a given culture⁶². The next section focuses on a semiotic analysis of visual communication that is adaptable to the less predictable socio-

⁶¹ This unified and integrated notion of design, 'from the spoon to the city' (Bill, 2010:9), is exemplified in the practice, writing and pedagogy of Max Bill. *Form, Function, Beauty = Gestalt* collects a number of essays from the 1940s to trace the functional, social conditions of design teaching at the Bauhaus to Bill's attempts to reshape design education at Ulm through the aesthetic aspects of form (Gimmi, 2010).

⁶² This is ironic when, as Butler (1989: 160) argues in 'Eating the Image: The Graphic Designer and the Starving Audience', the key attraction of gestalt theory for designers was that aesthetic discernment was defined as inherent, beyond conventional class and intellectual boundaries.

cultural circumstances of graphic design's activities.

2.3.2 Semiotic Frameworks for Graphic Design

Although not conceived with (graphic) design in mind, semiotic⁶³ ideas have been adapted from a linguistic base to provide designers with the ability to more consciously employ or subvert accepted forms of visual communication to convey meaning. In *Design and Semiotics* Mihai Nadin (1990: 418) extends this interpretation to suggest that design is “an unsettled field of human creativity,” and that its principles are semiotic by nature. Even if designers are not conscious of semiotic principles they apply methods of coded communication through an acquisition of knowledge absorbed into the cultural landscape.

In Chapter One, all (visual) signs were described as open to a multiplicity of meanings, yet cultural discourse is coded, operating in a system that is dependent on personal experiences, cultural myth or *metalanguage* (Barthes, 1977, 1993). Dilnot's (1984: 6) critique of capitalism on design (and advertising) explicitly refers to Barthes' notion of myth as a source of stereotypes that simplify human behaviour into consumable (redundant) concepts. The speed of design production and consumption contributes to a tendency to prefer the clear message with few additional layers of meaning: “business and design base their theories and contents on a tradition of expediency” (Burkhardt, 1989: 49). On the one hand, designers (can) actively contribute to shaping meaning through communication and, through that, social relations. Yet, at the same time, the reductive tendencies of mainstream commercial design (can) lead to superficial means of communication and a univocal visual language. Helfand (2001a: 42) is more direct in her criticism: “Minimize difference. Maximize reproducibility. Make it easy, accessible, understandable to all. This is the univernacular: ultra-homogenized and distinction-free, the international language of the status quo.”

Design's visual or material mechanisms (signs and tools) and platforms (print, digital, experiential) are continuously updated to suit the needs of an audience or user in an active mode of communication. In a social semiotic framework designers are framed as part of a multimodal discourse in which meaning evolves, and is reconfigured through familiar signs used in unfamiliar ways, new social networks and technologies (Kress & Leeuwen, 2001:

⁶³ For more detailed and expansive analysis of semiotics as a theoretical framework for graphic design, the reader is encouraged to access Crow's (2003) *Visible Signs*; Noble & Bestley's (2011) *Visual Research: An Introduction to Research Methodologies in Graphic Design*; Baldwin & Roberts (2006) *Visual Communication: From Theory to Practice*; Chandler's (2002) extensive theoretical overview *Semiotics: The Basics* and Nöth's (1995) *Handbook of Semiotics*.

120-121). As Kress (2010:11) puts it in *Multimodality*, “modes are the result of a social and historical shaping of materials chosen by a society for representation.” As a social activity graphic design can be seen as an integrated mode of articulating and defining visual meaning in the cultural landscape. In multimodal communication, meaning and form are conceived as a unified whole. Modality, derived from linguistics, is “interpersonal and *produces* shared truths aligning readers or listeners with some statements and distancing them from others. It seems to create an imaginary ‘we’” (Kress & van Leeuwen, 2006: 155). Far from a fixed or univocal code of communication, a social semiotic framework extends design discourse to encompass a more participatory process constructing visual resources, adding something new, changing social knowledge into social inter-action (Kress & Leeuwen, 2006: 5).

Participation may be enabled through a culture of interactivity, increasingly enabled by more accessible digital media but is also observed in the reciprocal exchange of visual and verbal wit. For McAlhone & Stuart (1996:20) wit invites opportunities for participatory discourse with design through a necessary process of decoding through which an audience or individual can find pleasure, while “the explicit and the unambiguous shut out the recipient.” In *Participate: Designing With User-Generated Content* Armstrong & Stojmirovic (2011:12) participatory design: “solicits content from users – visual form, thematic content, physical movement or action – and then translates it into something greater than the initial contribution. In this way, the designer provides value to users.” Here, the designer takes an active role in creating meaning or at least devising the space and components through which new meanings can be co-constructed.

In this section a range of theoretical resources, adaptable to design thinking and production, have been outlined to distinguish between a primarily linear transmission of messages and more fluid participatory modes of communication. The following section focuses attention on how these ideas have been adapted to design pedagogy and practice leading to embodied arguments for and against ambiguity. This analysis starts by focusing on the emergence of a modernist paradigm of design, which forms an antithesis to ambiguity in generic intellectual terms and more specifically through the visual and material tools of design.

2.4. Design and Modernism: Uniformity, Neutrality and Certainty

As a precursor to what is understood as modernism in the field of graphic design the

Modern Movement (1880-1910) focused debate on civic values and the role of mass-media around the structures and systems of modern life (Drucker & McVarish, 2009). Modernist design and architecture⁶⁴ developed as a broad movement from this convergence of methods and aims in the aftermath of World War One. Loosely characterized by a rejection of history and realistic depictions of the world, avant garde artists and/as designers embraced new abstract form. With a socio-political agenda Bauhaus students and staff sought a design language that would transcend national styles and cultural differences that many perceived as having led to the war (Williamson, 1989: 179).



Figure 04: Bayer's (1926) *Universal* typeface; Bayer (1926) *Kandinsky* exhibition poster (original in colour)

Tutors at the Bauhaus (Bayer, Moholy-Nagy, Kandinsky) extended the Modern Movement's critique of design by pursuing an idealistic role for design disciplines in society, articulated through visual and material form to communicate across diverse cultures in an explicit rejection of ambiguity. Abstract devices (fig.04) derived from printers' rules were preferred to representational imagery as more versatile but 'neutral' visual mechanisms through which to express new ideologies of sobriety and efficiency. Standardisation emerged as an economic imperative fusing science and technology with beauty and order (Kinross, 1989: 136). Bold new aesthetic forms⁶⁵ and page layout using a formal grid structure helped develop a 'visual grammar' of line and dot, rule lines, diagonal layout and white space. In the Bauhaus curriculum, Johannes Itten (1975/1963) formulated a *Basic Course* structure in 1923 to exploit oppositional form, such as straight/curved, heavy/light, big/small in a

⁶⁴ Modernism emerged in literature, the arts and design at different times in response to socio-cultural and economic conditions and national ideologies. Its impact can be traced to the spiritual/social dimensions of de Stijl (Holland), Suprematism and Constructivism (Russia) and the Italian Futurists. The complex interrelationships between these movements and its participating artist/designers are evaluated in more depth in relation to design by Meggs (1983), Hollis (1994a) and Drucker & McVarish (2009).

⁶⁵ Derived from the material components of print: the available tools of material production at that time. This minimalist aesthetic does not reflect the *only* mode of visual expression during the early years of modernism. Indeed, exploitation of the same 'intractable' letterpress printing tools in a malleable process of painterly experimentation by avant garde artists, anticipates the possibilities of typographic expression in the late twentieth century through electronic media (Bartram, 2005: 11).

universal code of visual communication cutting through the cultural disparity (ambiguities) of verbal language.

Kinross (1989: 135) argues that modernist design tools were deployed during this time as a form of visual rhetoric: “the choice of typeface is often telling, in that it indicates the ideas and beliefs that inform the process of design.” Here, minimal visual form included the elimination of uppercase (capital) letters: “to save labor, time and money, *and* to improve communication” (Kinross, 1989: 380). This rational aesthetic is evident in Bayer’s (1926) *Universal* typeface developed for Bauhaus publications (fig.04), which is derived from circles and straight lines within a grid. Serifs were viewed in this process as decorative elements to be stripped away in a machine aesthetic. Jan Tschichold’s (1995: 11) modernist manifesto⁶⁶ (originally published in 1928), *The New Typography: A Handbook for Modern Designers* expresses this drive for clarity through unambiguous visual form as an ideological statement developed through practice: “economy, precision, use of pure constructional forms that correspond to the function of the object.”

Beatrice Warde’s (1930) influential essay⁶⁷ *The Crystal Goblet* extends the argument that all ‘good’ typography⁶⁸ is essentially modernist, thus: “type well used is invisible as type, just as the perfect talking voice is the unnoticed vehicle for the transmission of words, ideas,” and meaning (Armstrong, 2009:41). Yet, choice of typeface forms part of a persuasive tool or ‘tone of voice’ in visual communication, infused into cultural discourse, even embodying national characteristics: it is, therefore, far from neutral. As designer Bruce Mau (2000:436) puts it: “Futura expresses the Machine Age; Franklin Gothic the open, democratic sensibility of America; Helvetica is the cool rationalism of Swiss corporate culture”. In this way, the practice-based statements of Bayer, Tschichold and Moholy-Nagy place the modernist aesthetic in historical and cultural contexts rather than stripping design of these associations in pursuit of universal concepts.

⁶⁶ The manifesto has been employed as a theoretical strategy and call-to-arms at key stages of art and design thinking from the early modernist pioneers (Tschichold, 1928) to postmodern responses (Venturi, 1972; McCoy, 1990). The shifting principles of design – and how it is perceived by designers themselves – is written into these manifestoes but often remains hidden from the public’s gaze.

⁶⁷ As a publicist for the Monotype Corporation Warde lectured and wrote extensively on typographic issues, successfully launching the typeface Gill Sans in Britain. ‘The Crystal Goblet, or Why Printing Should Be Invisible’ lecture was delivered to the British Typographers Guild in 1930 (Armstrong, 2009).

⁶⁸ Butler (1989) argues that typography has been employed as a political tool or embodied ideology since Grandjean’s ‘Romain du roi’ typeface designed for Louis XIV’s exclusive use (commissioned in 1692, first used 1702).

It was not only in typographic form that conventions of visual communication were challenged in the construction of an explicitly unambiguous language. In *Painting, Photography, Film* Moholy-Nagy⁶⁹ (1925) introduces a synthesis of photography and typography as a new kind of writing: a typo-photo. He describes the material aims of photography thus: “The unambiguousness of the real, the truth in the everyday situation, is there for all classes. The hygiene of the optical, the health of the visible is slowly filtering through” (Armstrong, 2009:33). This synthesis of type and photographic imagery is illustrated as a new way of seeing objectively in both Bayer’s (1927) magazine cover design and Müller-Brockmann’s (1953) poster (fig.05). At the Bauhaus Kandinsky (1923) investigated the psychological and spiritual impact of visual form through devices such as ▲■●, which formed central components in this grammar of visual meaning⁷⁰, and can be observed as symbolic devices in Bayer’s early design (fig.05).



Figure 05: Bayer *Bauhaus* magazine cover (1927); Müller-Brockmann *Protegez l'Enfant!* (1953) (original in colour)

In a development of the Bauhaus educational model a more scientific and pragmatic basis for design was sought at the HfG in Ulm⁷¹ extending a modernist design paradigm of neutrality, objectivity and originality to solve a wide range of problems. Rather than serving social needs design was increasingly framed within a culture of industry: a theory of making from a solid methodological base. Gui Bonsiepe’s (2010, originally published by Ulm, 1965)

⁶⁹ Taught at the Bauhaus 1923-28, then formed the New Bauhaus in Chicago, USA (1937- 44).

⁷⁰ Visual tools form part of my practice-based method of challenging ideas of universality in my project.

⁷¹ Communication and Information Theory, semiotics and ergonomics played a large part in the curriculum of the HfG at Ulm in the 1950s-60s under Tomas Maldonado (Lindinger, 1990) with contributions from the ideas of Bruce Archer (1992) and Herbert Simon (1969/1996). Information design theory brought together graphic and typographic designers, copywriters, editors, computer engineers, psychologists and linguistic scientists for Kinross (1989: 131), referencing Bonsiepe’s (1968) paper ‘A Method of Quantifying Order in Typographic Design’ in *Ulm 21*.

Visual-Verbal Rhetoric, translates verbal rhetoric to visual communication (via semiotic theories) by identifying a convergence of seduction, emotive responses to visual form and semantic categories to convey meanings. As a persuasive ‘art’ design rhetoric employs visual/verbal figures including analogy, metonym, synecdoche, comparison, fusion, metaphoric reversal and exemplification⁷². Moving away from an aesthetic intuitive basis for design, the Ulm model introduced a rigorous conceptual foundation for the systematic application of design thinking and visual rhetoric in the creation of design products.

The success of the modernist project is reflected in its widespread dispersion and, for Kinross (1989: 137), its dilution into “a common visual currency during the 1950s⁷³ and 1960s” (fig.05). However, in meeting the needs of an industrial culture, modernist design mechanisms of truth and pure form were transformed from a material social argument into stylistic tools of mass-consumption. This economic design strategy became infused into the mainstream language of commercial practice “hijacked as the corporate camouflage of international conglomerates, banks and public utilities” (Hollis, 2012: 98).

Before moving on to examine graphic design and typography in a post-modern context, this section will further challenge the terms in which ambiguity was originally framed by modernist design practitioners, and the available tools employed to express ideas. This is important because, although a modernist aesthetic has persisted since the early pioneers up to the present day, criticised as ‘zombie modernism’ in *Émigré* magazine (Keedy, 1995: *np.*), the rejection of ambiguity identified in this chapter was particular to the socio-cultural circumstances of the time. Barnard (2005: 113) argues that modernist art and design exploited the ‘paradox, ambiguity and uncertainty’ of abstract mechanisms in a reflective challenge to the flaws exposed in the certainties of political history after World War One.

⁷² Several of these same rhetorical figures are considered again in the context of advertising in Chapter Three as aiding a deeper connection with the consumer through ambiguity.

⁷³ Josef Müller-Brockmann became a leading practitioner and theorist of the Swiss Style that emerged from the 1950s (Shwemer-Scheddin, 1995). Through *Neue Grafik*, which Müller-Brockmann founded and co-edited his innovative grid designs formed an efficient method of producing “infinite variety within a rigorously uniform system of production” (Mau, 2000:439), contributing to more effective modes of communication in the social sphere.



Figure 06: Loesch (1982) *Punktum* billboard poster (original in colour)

As a reflective awareness of design's cultural and political impact increased in the 1980s visual sparseness, derived from modernist design methods, persisted and was exploited to increase rather than reduce multiple readings in an ambiguous operation. Minimal content is employed here to achieve maximum effect: a visual statement simultaneous to the new aesthetic values of layering, disruption and complexity that emerged in response to post-modern ideas (mentioned earlier in this thesis). In his essay 'Uwe Loesch: Multiple Meanings' Hollis (2012: 103) equates Loesch's "political messages stripped of aesthetic content" with that of the artist, inviting a critical response from an audience by invoking multiple meanings. In Loesch's (1982) billboard poster *Punktum*, meaning 'full stop' or 'mark!' is both the headline text and beauty spot: both image and text are deployed as precise components of visual information in a commercial context (fig.06). For Hollis (2012: 105) "This ambiguous use of the headline that appears to be a label or caption identifying the image is typical of Loesch. His way is not that of postmodern ambiguity; not 'either this or this,' but rather, 'this and this and this and this.'" Along with Kepes' (1944) notion of the active grid (fig.03), these (limited) examples demonstrate that a visual language based on a minimal number of clear components does not exclude the possibilities of ambiguity's value in graphic design.

For designers, the modernist tropes of uniformity and minimalism (manifested in geometric form and neutral fonts) over time became limitations rather than benefits to communication and were increasingly seen as being at odds with a changing society (McCoy, 1990). The post-modern response in (graphic) design embraced ambiguity, not only as an analytical tool or symbolic layer of meaning, but as a creative and intellectual strategy in its own right. Radical shifts in pedagogy during the 1980s converged with advances in technology and post-structuralist theories to form a design paradigm of flux and multiplicity.

2.5. Postmodernism: Multiplicity and Exhilarating Uncertainty

In contrast to the absolutes and universal rules of modernism, post-modern design is distinguished by “fragmentation, impurity of form, depthlessness, indeterminacy, intertextuality, pluralism, eclecticism and a return to the vernacular” (Poynor, 2003: 12).

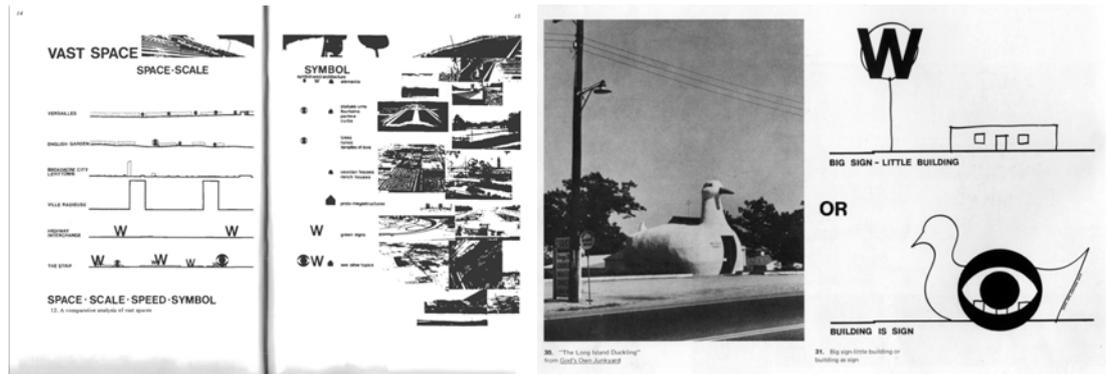


Figure 07: Venturi, Brown and Izenour (1972) *Learning from Las Vegas*, design: Muriel Cooper

Although this thesis is primarily concerned with ambiguity in the field of graphic design, architectural theory is identified with establishing new ideas based on duality and plurality⁷⁴. In his 1966 essay *Complexity and Contradiction in Architecture* the architect Robert Venturi defined post-modern themes as ‘hybrid’ rather than pure, ‘distorted’ not straightforward, and ambiguous rather than clearly articulated. Later, in *Learning From Las Vegas: The Forgotten Symbolism of Architectural Form*, (Venturi *et al.*, 1972), the modernist rational aesthetic and principle of a universal language was exposed as a style and rejected, giving greater weight to the role of vernacular design in the commercial landscape. The book’s layout (developed in collaboration with designer Muriel Cooper) subverts modernist design mechanisms within a conventional book format to embody a reflective critique of modern aesthetics (fig. 07). Marking a turning point in historical reflection, themes derived from this architectural perspective represented a significant source of theory at that time until the adaptation of (mostly French) post-structuralist⁷⁵ ideas into design thinking.

⁷⁴ Poynor (2003: 19-20) cites Charles Jenks’ (1977) *The Language of Post-Modern Architecture* as the first response to the ‘demise’ of modernist design ideas, while in graphic design Wolfgang Weingart’s “spontaneous, intuitive” projects introduced a ‘new wave’ of graphic experimentation during the 1950s/1960s.

⁷⁵ Key authors include: Jacques Derrida, Roland Barthes, Jacques Lacan, Julia Kristeva, Michel Foucault, Jean-Francois Lyotard and Jean Baudrillard.

At Cranbrook students such as Jeffrey Keedy absorbed the ideas of Roland Barthes, Hal Foster's (1983) *The Anti-Aesthetic* and Jacques Derrida's (1976) *Of Grammatology* into their design work. These theoretical sources offered graphic designers new insights into the visual language of text as a distinct mode of communication rather than as a mere transparent transcription of speech (fig.08). In a translation of semiotic theory to design practice McCoy (1990: 16) developed a *seeing and reading* teaching framework at Cranbrook: the viewer receives stimuli in both modes in a visual discourse, simultaneously intuitive and perceptual, in an extension of the gestalt process of perception. Experimental layout is employed in this context as a creative strategy to draw attention to the act of reading, leading to a more reciprocal mode of interpretation, in contrast to the (inflexible) modernist rhetoric of functional simplicity. For Lupton & Miller (1996: 23) the infusion of verbal and visual expression intensifies and directs the cultural implications of graphic design: "Spacing, framing, punctuation, type style, layout, and other nonphonetic structures of difference constitute the material interface of writing."

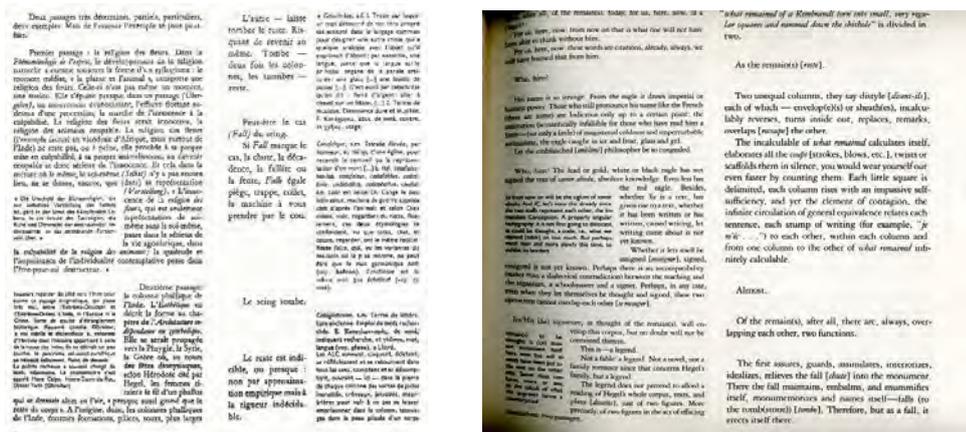


Figure 08: Derrida's (1974) *Glas*; designer Richard Eckersley's (1986) English translation

Derrida's philosophical challenge to the process of making meaning through the visual form of language (fig.08) inspired broad interpretations of his notion of deconstruction in a new aesthetic, as illustrated in Eckersley's (1986) English translation of Derrida's (1974) *Glas* (fig.08). Derrida describes deconstruction as a process of questioning (visual) language through the tools, social contexts and technologies of production and representation. The Cranbrook tutors⁷⁶ and students embraced post-structuralist notions of deferred meaning, pop culture critique, alternative interpretations and hidden narratives as a way of *enhancing*

⁷⁶ Productively assisted by the tenure of Katherine and Michael McCoy as co-chairs of the graduate programme (1971-1995) and the publications that emerged from the school, such as *Cranbrook Design: The New Discourse* (1990).

communication through practice. Marginalia and page divisions are employed in this context to disrupt the boundaries between the interior and exterior of the text, exploiting the visual potential of the page, while different ‘voices’ are expressed through diverse weights and typographic form (Lupton & Miller, 1993: 17). Theory in this context forms the *basis* of practice.

As an example of theories of thinking applied to making, students at Cranbrook interpreted several essays based on ‘French Currents of the Letter’ (fig.09) in an issue of *Visible Language* from 1978. In this exercise postmodern ideas are stretched to the limit of legibility and form to reveal the mutable rather than concrete physicality of the printed word. The designer emerges as an active mediator of meaning in this operation, articulating ideas about a changing visual culture in a new aesthetic of impurity, chaos, duality and disruption. In direct contrast to Bayer’s minimal *Universal* typeface (fig.04), *Keedy Sans* (designed in 1989 and released to the public in 1991) extends this attitude in typographic form (fig.09). Intentionally infusing two or three contradictory ideas into one typeface his designs subvert the logical and systematic aim of modernist design, as it developed at the New Bauhaus in Chicago and the HfG at Ulm, by calling attention to the flaws and artifice of the typeface’s construction.



Figure 09: *Visible Language Vol.7, No.3* designed by Cranbrook students (1978); Keedy’s (1991) *Keedy Sans*, and Brody’s (1991) *Blur* typeface (originals in colour)

In a “typically postmodern strategy” Keedy (2002: *np.*) designed *Keedy Sans* to be “bold with a strong idiosyncratic personality. I think it is a very postmodern typeface in that it included ‘high’ and ‘low’ vernacular quotation, and it is self-consciously crude and anti-aesthetic in reaction to the slickness of Modernism.” Ambiguity is framed as the dominant intellectual and visual device in this typeface, offering a greater expressive range to the designer. Neville

Brody's (1991) typeface *Blur* (fig.09) defers precise and certain meaning to embody a more ambiguous form of communication reflecting contemporary culture and identity. Poynor (1998:15) identifies the blur as a design device employed to induce mystery, which in turn keeps the audience's attention and interest longer than is usual in a more easily consumable message: mystery can be equated with entropy in this context. The text or image is never focused for the audience, who must complete the message (and meaning) themselves, or allow it to remain open (fig.10).

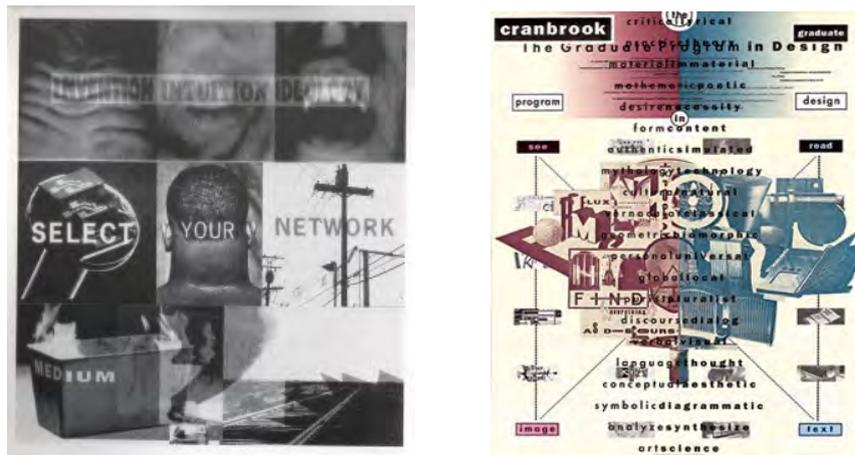


Figure 10: Makela (1990) *Select Your Network*; McCoy (1989) *The Graduate Program in Design* poster, Cranbrook (original in colour)

Design mechanisms, such as repetition, disruptive grid structure and layout converge to embody a philosophical critique of language that formed the basis of Derrida's (1976) ideas. For Barnard (2005), Derrida's oppositional relationships – 'conceptual/aesthetic', 'form/content' – are exploited in McCoy's design as a dual strategy of construction and deconstruction. For instance, her poster (fig.10) uses 'program', 'design', 'image' and 'text' as key concepts in the promotion of her graduate design programme connected in a collision of visual icons and images at the intersection. Image and text are arranged in this design artefact not to clarify meaning but to disrupt reading in a creative act, reflecting the "messiness of human experience" (K. & M. McCoy, 1990: 14). For Poynor (2003: 55) McCoy "insisted on the human value of ambiguity for audiences who were fully capable of negotiating these complexities." By exploiting the fluid potential of new electronic technologies, McCoy sought in her practice and pedagogy to bring a personal vision to the production of design, aimed at a visually literate audience with design. Thus, the visual and conceptual space of ambiguity embodies an active mode of engaging an audience. Max Bruinsma (1999: *np.*) identifies the space of ambiguity in graphic design thus:

By accepting the possibility of leaving a design open-ended, by up to a point not finishing it, the designer not only leaves room for the recipient's and reader's own interpretation of the message - an emancipatory aspect, this - he also creates the space for a personal standpoint. The design now suggests that this is how things *might be* - it opens a dialogue about the way it itself functions in the communication process of which it is a part.

Plurality and participation emerged as essential components of creative communication during the latter part of the twentieth century informed by Eco's (1989) literary notion of the 'open work'. Applied to the design programme at Cranbrook this open notion sought to provoke the audience "to actively consider multiple interpretations of the piece's meaning" (K. & M. McCoy, 1990: 16). In this way the designer or author intentionally conceives and constructs the artefact to increase opportunities for open-ended interpretation in a new design discourse. By operating on more than one level of meaning the post-modern paradigm of design thus seeks to reflect the inherently rhetorical dimension of design thinking (Buchanan, 1989; Kress, 2010). However, the graphic press reacted strongly, referring to work that was "driven by instinct and obscured by theory" (Heller, 1993: 53). Graphic design's individualistic alternative to the collective uniformity of the modernist aesthetic was criticised as a 'cult of the ugly' (Heller, 1993: 53). In response McCoy (1995: *np.*) argues, it was not visual complexity that motivated her pedagogic intentions, but layers of deeper *meaning*. Yet, in the context of graphic design, post-modern theory is criticised for being 'slippery' or 'vague' (Poynor, 2003: 8), whilst the visual mechanisms associated with these ideas were absorbed into mainstream commercial culture as a commodity.

This thesis does not presume that the modernist and post-modern design tools examined here form absolute codes of (graphic) design. Their relevance to this thesis and my project lies in their persistent presence as visual and conceptual traces in contemporary education and the artefacts of cultural production. Even in design's post-modern milieu of experimentation of the 1990s Poynor (2003: 99) identifies many practitioners' (simultaneous) urge "to eliminate extraneous information (noise) to thwart the possibility of ambiguity by reducing a design to its essentials."

Framed as a manifesto, art critic Nicolas Bourriaud⁷⁷ (2009: *n.pag.*) describes contemporary

⁷⁷ In the relational space of visual communication Bourriaud (2002: 113) frames the artist (adaptable to both DJ and designer) as a 'semionaut' who, "invents trajectories between signs" facilitating new participatory narratives and spaces for meaning collectively within a community. In *Relational Aesthetics* (originally published, 1998) participation is enabled through the 'transactivity' of the designed artefact.

visual culture as a *synthesis* of modernism and postmodernism in a global arena and assigned the term 'Altermodern'. In his development of *Postproduction*, Bourriaud (2005: 18) terms artists, designers and DJs as 'semionauts' who reconfigure knowledge from the cultural landscape creating new pathways or links between multiple sites of meaning. The 'altermodern' describes a new modernity, a multitude of possibilities available from a single route, but remains vague, alluding to a general alternative, an otherness that is not specified. Bourriaud's art critique and exhibition (Tate Britain, London, 2009) capture a sense of creative and intellectual plurality derived from the restless traveller: the source of this transitional state remains unclear with few signposts offered to the next stage of art, design and culture.

Based on the assumption that 'the postmodern' has taken a new shape, meaning and direction Vermeulen & Akker's (2010: 2) propose the term *metamodern* to describe the current co-existence of otherwise opposing paradigms of practice and ideology in a more fluid state. This idea is described as "oscillating between a modern enthusiasm and a postmodern irony... rhizomatic⁷⁸ rather than linear, and open-ended instead of closed" (Vermeulen & Akker, 2010:2). In the *metamodern* context, notions of the everyday, complexity, absence and ambiguity are identified as issues that preoccupy today's design practitioners (Twemlow, 2006: 8). Ambiguity is proposed in this way as a multi-dimensional mode of discourse enabling new notions of design, appropriate to current thinking and practice.

2.6. Summary and Conclusions

Chapter Two has sought to critically contextualize attitudes towards ambiguity in graphic design in relation to historical, social, political and economic circumstances. By focusing on the underlying conditions and motivations behind some artefacts from key periods the latent possibilities of ambiguity (hidden) beneath aesthetic codes have been examined. For instance, a neutral functional aesthetic came to represent generic modernist notions of 'good' design (and typography), communicating a message clearly by *reducing* ambiguities. Visual 'spareness' and a reductive functionality subsequently became stylistic codes forming the basis of a corporate modernism. By contrast, a postmodern embrace of richness and deeper meanings developed through a theoretical engagement with the visual language of

⁷⁸ A rhizomatic structure can start at any point simultaneously: "it has neither a beginning nor end, but always a middle (*milieu*) from which it grows and which it overflows. It constitutes linear multiplicities" (Deleuze & Guattari, 1992: 21).

communication in a “computer-driven aesthetic” (Poynor, 2003: 103). A neutral modernist visual rhetoric is identified as infused with the persuasive attributes of ambiguity as the examples of Kepes (1944) and Loesch (1982) illustrated. The same aesthetic tools employed to embody truth and uniformity through sans serif typography and photographic imagery in a rejection of ambiguity are shown in this context to enhance (the value of) ambiguity. While not wanting to reduce modernist design to stylistic trends at the mercy of capitalist forces, these examples demonstrate that ambiguity is inherently valuable (in certain contexts) of design but that it has been undervalued in mainstream commercial and educational sectors.

Informed by a more dominant theoretical basis, ‘open’ modes of design emerged based on structuralist theories forming new meanings through an inter-relationship of (mythical) images and text. In this way the designer’s experimental articulations of post-modern ideas *disrupted* visual communication in an act of intellectual engagement employing a layered or indistinct aesthetic. My project aims to avoid overt associations with stylistic trends and particular tools in order to develop new discourses around its underlying value and future possibilities. Thus, in a critical approach to design, ambiguity is proposed as an attitude as well as a design mechanism. Art and advertising are included in this analysis because both explicitly employ ambiguity as a strategy to embrace wider audiences more deeply in the communication process. The question this research goes on to explore in the next chapter is, if ambiguity is so inherently valuable to fine art, literature, philosophy, poetry and advertising, how can its associated attributes be adapted to the discipline of graphic design?

Chapter Three // Evaluating ambiguity in art, advertising and design

3.1. Introduction

Ambiguity can arise from indecision, unintended confusion or, as the intentional evocation of several meanings in the same image, object, situation or idea. This chapter analyses the role of ambiguity in non-design creative disciplines, such as art, philosophy and literature⁷⁹ in which ambiguity is already established as an intentional attribute. In this study, ambiguity is proposed as a catalyst for envisaging new ways of thinking about design in addition to the functional and immediate requirements of the discipline. To help articulate the potential of ambiguity in graphic design, I will utilise the categories of *form*, *function*, *context* and *concept*, as outlined in the Introduction, to observe how ambiguity adds value across the arts, advertising, design, Human Computer Interaction (HCI) and everyday communication (in the form of wit).

In Chapter Two the effects of homogenisation in commercial graphic design were identified as reducing humanity's natural complexity and ambiguity into simple equations and stereotypes. This is particularly true in advertising where the pursuit of clear and immediate communication is sought in a contested ('noisy') consumer landscape. Yet, in this field of design ambiguity is also identified as a purposeful device through which positive multiplicities of meaning are created (Phillips & McQuarrie, 2004:118). Communication Theory defines entropy as highly problematic in the linear transmission of a message but, when adapted to the analysis of advertising, shows how ambiguity enhances deeper meaning. Advertising shares many aims and visual mechanisms with graphic design⁸⁰ such as identity, meaning, presentation and promotion (Hollis, 1994a: 8). Examples of advertising are interrogated here because ambiguity plays a role as a persuasive tool in a fundamentally commercial operation. This chapter examines advertising as part of a challenge to the terms in which commercial pressures act as a reductive or univocal force in design.

⁷⁹ Ambiguity as a literary device is the subject of William Empson's (1984:3) *Seven Types of Ambiguity* where he asserts that the "machinations of ambiguity are among the very roots of poetry." Few of his 'types' are appropriate to graphic design thinking or practice, however, except for the two-in-one interpretation of a single word, which can be adapted to the image (Gamboni, 2002). Therefore, although significant in literary contexts, Empson's work does not form a key resource in this thesis.

⁸⁰ Although the professionals from the two fields inhabit quite separate working environments reflecting their educational contexts. Whereas advertising is described as a 'tool of capitalism' graphic design is able to embrace more philosophical and aesthetic pursuits (Heller, 1995). To differentiate graphic design from advertising when the core concerns overlap and the visual mechanisms are the same is, due to the complexity of this relationship, beyond the remit of this thesis For further reading: Heller's (1995) 'Advertising: Mother of Graphic Design' in *Eye* no.17; Poyner (1998) *Design is Advertising, #1: The Whispering Intruder*.

3.2 Literature Review: Ambiguity in Fine Art and Philosophy

The word ‘ambiguity’ comes from the Latin prefix ‘ambi’ meaning ‘both’, and ‘agere’ meaning ‘to act or do’ and may arise through a distinct idea, statement or theme presented in many different forms, or many concepts fused into the one. Yet, efforts to define ambiguity represent a cognitive paradox in philosophy, as John D. Caputo (2005:22) points out in ‘In Praise of Ambiguity’: “if a word is unambiguously clear, it has lost its suggestiveness and become a technical term.” He defines ambiguity as an *excess* or multiplication of meanings, simultaneously offering several different directions to the reader, and it must remain in a state of (intentional) multiplicity in order to fulfil its meaning. Ambiguity is identified as distinct from vagueness, which comes from the Latin ‘vagus’ for wandering and relates to thinking or articulating without clarity or precision. For Caputo (2005), vagueness is not an excess of information, but a *lack* of it.

Graphic design has been addressed as a way of making as well as a way of thinking in this thesis. Therefore, the *form* and *function* of ambiguity is analysed first in this section before its more conceptual values are considered. Two subheadings are devised to examine the category of visual *form* more closely: the first – *the oscillating image* – concerns the image as an object in which two or more meanings are made available to the viewer. The second subheading – *image and text* – considers the ambiguous gap exposed between pictorial and written communication. In this research, image and text are framed as compatible (but variable) components in a ‘seeing and reading’ operation rather than assuming the dominant role of one or the other⁸¹. In this way text can be employed as an image rather than as an ‘unnoticed vehicle’ (Warde, 1930) of information, as post-modern design experimentation demonstrated.

3.2.1 Visual Form: the Oscillating Image

In *Potential Images: Ambiguity and Indeterminacy in Modern Art* Dario Gamboni (2002) argues that all images are essentially ambiguous because visual perception is a semiotic act of

⁸¹ In ‘Rhetoric of an Image’ Barthes (1977: 38-41) terms this relationship ‘anchorage’, which fixes meaning, thus preventing multiple interpretations. In the notion of ‘relay’, text and image operate in a more complementary relationship to move a narrative forward, such as in comic strips. When verbal and visual information operates in a unified visual message, the text-based component is commonly employed to disambiguate and give precise meaning in graphic design (Hollis (1994a: 7).

interpretation incorporating (cultural) memory and the imagination. This, he describes in a later interview as an act of “selecting and confronting stimuli with memory data, and is therefore an active process with a cognitive dimension to it” (Gamboni, 2009: *np.*). He identifies an emergent interest in ambiguity at the beginning of the twentieth century, reflecting the extent to which imaginative perception as a ‘paradigm of vision’ was spreading, inspired by Freud’s (1900) writing on dream analysis and the unconscious. As an example, both ‘Duck/Rabbit’ (1901) and the ‘Necker Cube’ (1832) illustrate (fig.11), what Gamboni terms ‘bistable’ aspects of perception in which two possible interpretations are sustained without being resolved⁸². In terms of visual *form*, the detailed pictorial illustration and the geometric abstract cube both achieve the same result of ambiguity though manifested in different aesthetic codes. This two-in-one type of ambiguity is exploited in advertising as a purposeful (commonly photographic) mode of visual rhetoric, as we shall see later in this chapter.

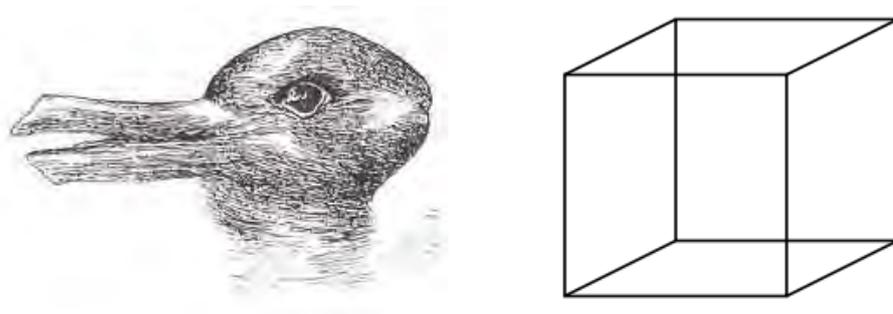


Figure 11: ‘Duck/Rabbit’ in *Harper’s Weekly* (1954), originally published in *Fliegende Blätter* (1901); Necker Cube (1832)

3.2.2 Visual Form in a Synthesis of Image and Text

The meaningful relationship between image and text is challenged by artist Rene Magritte, in a reflective exploration of sign-orientated messages by manipulating a semiotic theoretical framework. In Magritte’s artworks the certainty of meaning itself is challenged in the juxtaposition of ordinary objects pictured in unusual contexts and visual relationships, thus questioning our cognition and perception of familiar everyday things through their visual representation. For example, in his 1927 Surrealist manifesto, ‘les mots et les images’ a series of ambiguous (written) statements play with the *possible* interpretations of the related images⁸³. This approach, exploiting the uncertain gap in visual meaning, is typified in Magritte’s painting (fig.12), ‘The Treachery of Images’ (1929), which presents the image of a

⁸² Indeterminacy became a defining characteristic of surrealist and symbolist experimentation in the early twentieth century, evident in the work of artists such as Max Ernst and Odilon Redon.

⁸³ The gap between image and the text is exploited as a creative device to add more meaning or depth in illustration. Indeed, “without this ‘gap’ illustration is merely repetitive” (from an interview with George Hardie, 2013).

pipe and the words ‘Ceci n'est pas une pipe’ (‘This is not a pipe’). The hand-rendered words, expressed within the picture frame itself, seem to describe the object but operate as part of the image in a tautological relationship. Foucault (2008: 15) argues in *Ceci N'Est Pas Une Pipe* that the tensions between text and image multiply intentional ambiguities: by naming images in his paintings Magritte draws our attention to the philosophical relationship between words and objects, reality and resemblance. In this semiotic play the viewer is unsure as to the intention of the sign-orientated⁸⁴ information. The hand-rendered text may be intended as an aesthetic device (image), or a method of anchoring (Barthes, 1977) the pictorial message (as information).

The intentions of the artist may differ from those of the designer but the visual language is almost identical, here. It is significant in this context that Magritte briefly worked as an illustrator and designer of publicity material, which may have shaped his vision as an artist (Sooke, 2011: *np.*): “unlike adverts, his paintings are riddling and ambiguous – the stuff, not necessarily of nightmares, but certainly of unsettling, half-remembered dreams.”

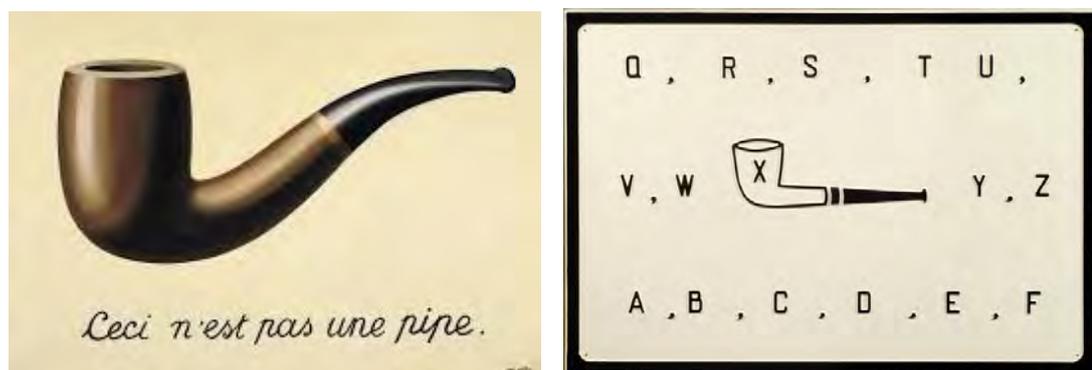


Figure 12: Magritte (1929) *The Treachery of Images*; Broodthaers (1969) *Pipe* (original in colour)

The relationship between the object and its image, the symbol and its possible meanings is developed and re-configured by Belgian artist and poet Marcel Broodthaers (fig.12) in an extension of Magritte’s word-image concepts. He does so by setting up visual contradictions, which aim to reveal the necessity of going beyond the conventional classifications and structures of art. In this play on text and image-based meaning the artist seeks to bring out the sociological reality of everyday objects through their (aesthetic) form, exploiting layout

⁸⁴ In this semiotic context, the image of the pipe is a sign, the text ‘pipe’ is a sign and even the canvas (object) the visual information is painted on is a sign. Conceptual artists, such as Joseph Kosuth played with a similar semiotic framework of meaning making: his (1965) *One and Three Chairs* represents a chair in three ways, as a 3D manufactured chair, a photograph of the same chair and a copy of the dictionary definition of ‘chair’.

and white space to challenge meaning⁸⁵. Despite employing the functional tools and materials of graphic design, Broodthaers contradicts its conventional aims in a “refusal to deliver a clear message” (Moure, 2012: 415). Broodthaers enhances the role of ambiguity as a conceptual strategy in his artistic work manipulating text and image to play with complex ideas in a functional visual language.

As a socio-political device in a conceptual operation humour is strategically employed in the work of Duchamp (1919) and is described by Bourriaud (2002: 25) in *Relational Aesthetics* as a coefficient of the artwork in ‘LHOOQ’ (fig.13). In this operation Duchamp defaces and renames a cheap postcard facsimile of an original da Vinci painting to draw attention to the ‘Mona Lisa’s sexual or gender ambiguity. When read aloud in French the title ‘LHOOQ’ translates loosely as ‘she has a hot arse’ (‘Elle a chaud au cul’) referring to the alleged homosexuality of the artist and, thus, the artist’s relationship with the sitter. The artwork demands intellectual and vocal participation by the viewer to solve the lexical puzzle in which words are manipulated to cause a humorous conflict. Duchamp intentionally exploits ambiguity to draw attention to the reciprocal nature of art as a joke prompting the viewer to question the intention of the artwork and the artist. Gamboni (2002: 148) quotes Duchamp’s own diary notes here: “a picture is not made by the painter but by those who look at it and grant their favours,” intentionally open to the possibilities of discourse and negotiation.



Figure 13: ‘Mona Lisa’ (section) Leonardo da Vinci 1503-06 and Duchamp (1919) ‘L.H.O.O.Q.’ (originals in colour) Duchamp’s ‘Fountain’ (1917)

⁸⁵ The aesthetic devices employed by Broodthaers are strongly influenced by his background as a poet and the experimental page layouts of Mallarmé who broke conventional typographic rules, employing white space as a conceptual device. In this way, he uses a very spare aesthetic, not to clarify the message in the same terms as the modernist designers described in Chapter Two, but to ask questions about visual meaning.

In this category of ambiguity participation emerges as a consequence of the open-ended space between the artwork and its meaning, and between the intentions of the artist and the interpretations of the viewer. In this process the (ambiguous) gap between the pictorial and linguistic idea is exposed as a philosophical challenge to the visual certainties of meaning and the role of the artist. In design and advertising the relationship between image and text is manipulated through visual rhetoric to create a conceptual space through which to engage the consumer or end-user in a symbolic discourse with meaning.

3.2.3. Context: Ambiguity of Place and Space

Whereas ‘LHOOQ’ relies on juxtaposition and a conflict of visual information (word and image) to create alternative possible meanings, Duchamp’s (1917) ‘Fountain’ (fig.13), relies on an incongruous *context* to achieve an ambiguous result. This (still) controversial gesture – taking a urinal out of its original context of use then placing it in the art gallery – intentionally disrupts the audience’s functional cognition of the designed object. Bourriaud (2002: 35) argues that the artist “aims to set up a certain ambiguity, within the space of his activity, between the utilitarian function of the objects he is presenting, and their aesthetic function.” In this new interpretative relationship both audience and artist are given “symmetrical, almost interchangeable roles” (Gamboni, 2002: 147) as the artefact offers several possible interpretations, simultaneously. The tension of ambiguous perception is left unresolved by the artist to evoke conceptual pleasure.

The transition from original *context* of use to gallery space as a conceptual operation does not easily translate from the field of fine art to graphic design. Once the designed artefact is removed from its (primarily) functional environment and displayed in the gallery it, too, is (often) perceived as a work of art⁸⁶ (Miller, 1993: *np.*). Thus, the designed product struggles to operate as a reflective critique of graphic design, its mechanisms and meanings in the gallery, in the same way as Duchamp or Broodthaers intend with their work⁸⁷. With this in mind Poynor (2005: *np.*) refers to Dunne & Raby’s critical design research as an example of work that has many similarities to the aim of the artist, but which avoids the autonomous spaces of art.

⁸⁶ Miller (1993: *np.*) adds that many artist-designers (such as Barbara Kruger) whose work involves design mechanisms and strategies are shown in art world contexts because there are so few non-professionally defined outlets. He calls for “a loosening of the client-defined realm of design, and also an uncoupling of the concepts of design and service.”

⁸⁷ This limitation may shift over time as more design-focused galleries open or as the boundaries of design expand to embrace more explorative and reflective critiques of the discipline.

Interpretations of design, or visual literacy, are context-dependent, whether in the home⁸⁸, at work or in the street, incorporating notions of function and purpose: therefore, the gallery is eschewed in this study as a context for disseminating my practice-based outcomes. Instead, conventional design vehicles such as the book and poster are reconfigured as artefacts through which to formulate unconventional approaches to design in my material critique of ambiguity.

3.2.4. Concept: New Ways of Thinking (About Design)

This section considers recent fine art frameworks in a development of ambiguity as a conceptual resource. Here, fluid identity forms a challenge to a redundant cognition of the female nude in photography, pornography and advertising. In *Erotic Ambiguities: the Female Nude in Art* McDonald (2001) argues that, by withholding information or offering two equally valid interpretations for the viewer to resolve themselves, ambiguity can operate as an intellectual device in art. By resisting common oppositional notions of femininity (eg. madonna/whore) a new typology of ambiguous bodies is made possible. In this way the mythical construction of the (female) erotic body is exposed as ‘performative’ and, thus, a false identity: a mythical construct. For McDonald, infusing contemporary works of art with ambiguity is a *critical* mode of provoking ideas and alternative perceptions of visual representation in creative discourse. Here, ambiguity is employed to challenge the visual forms of art to pose questions rather than provide solutions.

Ambiguity has been identified as inherent to the human condition previously in this thesis, and was deployed as a philosophical component in design strategies at Cranbrook. In this operation designed artefacts were used to explore “the possibilities of destabilized ‘open’ meaning, which provokes the audience to actively consider multiple interpretations of the piece’s meaning... and reconsider preconceptions” (McCoy, 1990: 16). Extending design’s philosophical source of inspiration, Maurice Merleau-Ponty’s (1993:103) *The Phenomenology of Perception* describes human existence as the “very abode of ambiguity” in which the search for self is aided by a desirable state of fluidity⁸⁹. These ideas offer valuable perspectives on

⁸⁸ The contexts of advertising have shifted from the single domestic TV screen to diverse products and interfaces to include diverse platforms and vehicles, such as the smartphone (and accompanying apps), laptop computer and iPad. For Dyer (1982) the insertion of advertising into TV and radio programmes, emails, and texts has created a new rhythm and perceptual awareness of the visual landscape.

⁸⁹ A notion that is also explored by Simone De Beauvoir (1976: 9) in *The Ethics of Ambiguity*: “From the very beginning, existentialism defined itself as a philosophy of ambiguity.” She argues that we should try to resolve this ambiguity but draw strength from it.

design ambiguity in the sense that perception is framed as a ‘creative receptivity’, an active mode of experiencing and interpreting the world, which unfolds as our bodies and opinions change, in relation to our environment. As a versatile activity graphic design responds to the changing conditions of the contemporary socio-cultural landscape in visual and material terms.

In folk tales and literature the notion of the ambiguous self is developed through the ‘trickster’, a character defined by constant fluctuations, whose changeability is both creative and destructive. In Sherman’s (1993: 103) essay ‘Merleau-Ponty and the Trickster: Philosophy as the Mytho-Logos of Ambiguity’ notions of fluctuating identity and multiplicity are embodied in the idea of the trickster, who “bestrides all the opposites and dances between them”. Lewis Hyde (2005: 7) develops this concept in *Trickster Makes this World: How Disruptive Imagination Creates Culture* and defines the trickster as “the mythic embodiment of ambiguity and ambivalence, doubleness and duplicity, contradiction and paradox.” This philosophical and literary concept is adapted to design and my research as a fluid concept in the typographic character, X: developed through practice in my project as a visual identity to represent ideas of ambiguity.



Figure 14: Elliman (2000) ‘Lautréamont’ posters after public interventions (original in colour)

In his essay ‘Towards a Complex Simplicity’ Andrew Blauvelt, *et al.* (2000: *np.*) argue that the manipulation or subversion of conventional design mechanisms, such as the poster (fig.14), enables an opportunity for negotiated meaning through participation between an audience, a message and a design artefact. In Elliman’s (2000) poster series (fig.14) for a conference on Lautréamont the designer inserts white boxes between the words “Image”, “Maldoror” and “Text”. These blank (literally) visual spaces enable multiple meanings to be

inscribed into the poster itself by anticipating a responsive participatory audience⁹⁰ who are open to the new material possibilities of this designed artefact. Conventional rules of poster design are disrupted in this context by employing unfamiliar visual codes to provoke new responses, in a conceptual strategy. Here, the designer integrates the end-user as an active participant in a (reciprocal) game of meaning, reconfiguring the designers' tools in alternative operations⁹¹. As Blauvelt, *et al.* (2000: *np.*) put it: "This simple gesture allows the project to generate a multitude of responses, which as an action echoes the nature of the event's interpretive agenda." A minor shift in visual devices extended the possibilities of the poster and led to a significant alternative cognition to the object and the message contained therein by a more active audience. This example helps demonstrate that new ways of thinking about ambiguity in (graphic) design do not rely on radical shifts in production or formulating a new set of visual devices.

3.3. Visual Rhetoric and Ambiguity in Advertising and Graphic Design

The study of ambiguity relating to graphic design and advertising is full of contradictions, as the analysis of Communication Theories has already illustrated, so this section seeks to clarify each discipline's applications of and attitudes towards ambiguity's forms and functions. For instance, McAlhone & Stuart⁹² (1996: 20) challenge the possibilities of ambiguity, "particularly in advertising where the pressures of committees and cost tend to favour the 'explicit', the 'unambiguous' the 'message, which just can't fail to be understood.'" Yet, they also feature an extended review of visual wit in which ambiguity is framed as a common mode of multi-layered communication, in which understanding emerges through a reciprocal game of meaning.

The apparent infinity of possibilities that ambiguity represents in fine art is compared with the more controlled space of ambiguous communication in advertising: "Contrary to art

⁹⁰ This 'open' mode of design is not without its risks however, as the genitalia and obscene language drawn onto many blank spaces on walls and signs in the public domain reveal: context is key. The success of the poster's conceptual construction and completion is reliant on interdependent relationships between the artefact encountered in the gallery of the street and its proximity to the geographical location of the conference and the anticipated engagement of the attending audience.

⁹¹ In the immediate informational contexts of graphic design, however, this level of participation can be counter-productive. For instance, in traffic signs visual mechanisms (image, colour and shape) converge in a unified message employing an extreme economy of means to get an urgent message across to an audience in a hurry. The intended recipient of this message (the car driver) is understood to have limited time to interpret too many layers of meaning and has no need to do so. In this context, therefore, ambiguity does not enhance communication but may inhibit it.

⁹² David Stuart is a founder member of the graphic design agency The Partners.

(characterized by the semiosis of uniqueness of the work to an infinity of interpretations), the pragmatics of advertisement, characterized by multiplicity, repetition, and diversity, is to bring about one interpretation” (Nadin & Zakia, 1994: 92). In *Decoding Advertisements: Ideology and Meaning in Advertising* Williamson (1983) analyses advertising as a mode of consumer discourse in social, cultural and ideological terms by developing Barthes’ (1977) interpretation of denotative and connotative sign systems. In relation to the example shown here (fig.15) denotation refers to the material qualities and context of the photographic artefact, including the content of the image and its blurred visual form. The connotations of the image are secondary meanings, interpretations that are not fixed prior to communication but determined by the reader or viewer in the act of interpretation.



Figure 15: Mateus Rosé adverts (1978) (originals in colour)

Advertising exploits visual rhetoric as a tool in which formal elements, such as word and image, are deployed to create meaning rather than just to transmit information. Rhetorical strategies⁹³ such as connection, juxtaposition, comparison, fusion and replacement that are used in graphic design as communication devices are deployed in a more ideological operations⁹⁴ in advertising to create an ‘aura’⁹⁵. Williamson (1983: 140) argues that the *gap* between ‘aura’, the mythical or symbolic connotations of the advert, and its literal (denotative) verbal meaning creates a ‘magical memory’. She illustrates indeterminacy as a communication device through the example of the blurred photo (fig.15), which results in a haze of (nostalgic) memory that is familiar yet unspecific. This informational ambiguity engages a wide audience who are able to identify with the undefined space as an open

⁹³ These strategies are identified and discussed further as typologies of visual rhetoric in advertising.

⁹⁴ Reflecting Gamboni’s (2002) evaluation of the ambiguous status of the image in fine art.

⁹⁵ Williamson’s use of ‘aura’ is distinguished from that employed by Walter Benjamin (1930) in ‘The Work of Art in The Age of Mechanical Reproduction’ to describe the loss of aura (authenticity and uniqueness) associated with the work of fine art in an age of reproducibility.

concept rather than as a historical reality. The blur was described in Chapter Two as embodying the value of mystery, in photography (fig.10) and type design (fig.09), reflecting a collective state of uncertainty and potential meanings, while in advertising the blur connotes ideas of nostalgia. Advertising does not aim to reflect the realities of everyday life so much as enable the consumer/audience to create new structures of cultural meaning through ambiguity for his/herself.

In the design field of Human-Computer Interaction (HCI) William Gaver, *et al.* (2003, 2004) have made ambiguity the focus of their practice-based research incorporating visual, material and technological issues. In ‘Ambiguity as a Resource for Design’ (Gaver *et al.*, 2003: 236) ambiguity of *information*⁹⁶ prompts the viewer to question for themselves the ‘truths’ of a situation, how valid the information source is and how to respond to its uncertainty. They refer to Magritte’s (1929) ‘The Treachery of Images’ as an example of this in fine art, identifying semiotic theory as a key component of products, their construction (design) and interpretation. Gaver *et al.* (2003) use a semiotic framework of coded discourse to evoke new responses⁹⁷ in *relation* to the digital product, in their second criterion, challenging the viewer to consider the nature of their values and attitudes. The inherent limitations of design are embraced in their approach as an opportunity to exploit the attributes of uncertainty, play and exploration. The ambiguous designed product and the context of its use are thus manipulated to encourage subjective interpretations and greater respect for the intellectual participation of the audience:

By impelling people to interpret situations for themselves, [ambiguity] encourages them to start grappling conceptually with systems and their contexts, and thus to establish deeper and more personal relations with the meanings offered by those systems. (Gaver, *et al.* 2003: 233)

As these authors point out, in the construction of commercial design products, the *elimination* of ambiguity is more commonly sought in the pursuit of efficiency and functionality. The ambiguous *context* of the design artefact aims to encourage discourse around technological genres (in particular), allowing both viewer and designer to extend, connect or reject

⁹⁶ From the work of Gaver, *et al.* (2003) ambiguity of *information* is extended in my criterion of visual *form* to embrace duality in the oscillating image and ‘bistable’ meaning in graphic design.

⁹⁷ Recalling Donald A Norman’s (2004) *Emotional Design. Why We Love (or Hate) Everyday Things* in which he identifies three aspects of design; the *visceral* (appearances); the *behavioural* (pleasure and effectiveness of use); and *reflective* design (concerning the rationalization and intellectualization of a product). By operating on divergent platforms from print to spatial and sound to digital screen, graphic design requires tangential theoretical resources to analyse its semantic value, lacking the direct association with ‘objecthood’ that product design has, for instance.

interpretations as they see fit. Gaver *et al.* (2003) do not compile an ambiguity toolkit for the construction of open-ended artefacts, instead they develop a set of aims and methods in which ambiguity is employed as a conceptual resource. In this way the designed product is reconfigured in unfamiliar ways⁹⁸ to expose new approaches to and subjects for debate about design: this, in turn, increases respect for the end-user, who is framed as a visually literate participant.

As designer-educators connecting the field of HCI with Interaction Design, Dunne & Raby (2013) may not refer directly to the attributes of ambiguity but exploit the space of productive uncertainty to construct speculative design propositions. Focusing on a new role for the electronic object in machine-based discourse, enabled by technical and semiotic functionality, *Hertzian Tales* (Raby, 2005) considers a conceptual model of (product) design. This product is not intended to question the way we live our lives, but is framed as a ‘meta-design’ or reflective challenge to the discipline of design itself. Design proposals are thus conceived as forms of social research seeking to transform the audience’s perception of their everyday environment and its relation to material culture. Dunne & Raby develop this theme to argue that their designed outcomes do not represent extensions of conventional design so much as forming hybrids of the new and traditional, familiar and unfamiliar. “We are interested in how things could be. Conceptual design provides the space for doing this” (Dunne & Raby, 2013: 12).

3.4. Ambiguity, Wit and the Everyday

This section looks more closely at witty operations in everyday contexts of ambiguous communication because this is the social sphere in which design operates. As a discipline predominantly based in the socio-cultural sphere the territory within which ambiguity is observed and evaluated in this research encompasses popular culture and the everyday (urban)⁹⁹ landscape. For Gaver *et al.* (2003: 233), “the everyday world is inherently ambiguous: most things in it have multiple possible meanings”, but in a social semiosis meaning can also be continually enriched by reconfiguring ‘old’ signs in new operations. Transformative play with meaning transcends verbal and visual communication enabling

⁹⁸ Recent adaptations of mobile phone ring tones (by end users) are cited as helping babies sleep thus demonstrating the extended (unexpected) potential of the product, its use and meanings. Such an extension of the mobile phone does not diminish its original purpose or functionality, but adds meaning and unexpected uses.

⁹⁹ This is not to imply a metropolitan prerogative but because the official and unofficial sites of visual communication, are more prevalent in the town and city than in the rural environment.

many parallels to be identified between the two, as Chapter Two illustrated. For instance, both witty design and everyday humour are reliant on local nuances of behaviour, phrases, contemporary events and cultural figures in order to connect with an audience, whether singular or collective.

Graphic design and humour are both context-dependent and it is in British graphics, newspaper headlines and advertising that wit is employed so prevalently for Kate Fox (2004: 225) in her anthropological study: *Watching the English: The Hidden Rules of Behaviour*. Combining a mistrust of all salesmen with a pervasive use and value attached to irony, advertising has emerged in the UK as a (sometimes) very sophisticated creative play with verbal and visual wit (Fox, 2004: 65). In *A Smile in the Mind* McAlhone & Stuart (1996) argue that this is because of the resonance of a structured society, shaped by the cultural power of class, and the subtle nuances of accent. The shared understanding that wit and humour bring to visual communication arguably helps connect an otherwise pluralistic society with a particular idea.



Figure 16: Lydia Leith’s (2011) ‘Throne Up’ sick bag souvenir for the UK royal wedding of William and Kate; KK Outlet, London (2011) ‘Thanks for the Day Off’ (originals in colour)

The witty rather than predictable concept is valuable to graphic design because it has the “capacity to override normal defences” (McAlhone & Stuart, 1996: 20) by overturning convention. As an example, the commemorative sick bags in *figure 16* clearly draw a line between the memorabilia desired by the palace¹⁰⁰ – “we want items that are permanent and significant” – and the more disposable humour of the common consumer (Daily Mail, 2011: *np*). In an exhibition at the KK Outlet gallery in London at the same time a blunt statement relating to the extra day off awarded to the English nation’s workforce is accompanied by a very ambiguous use of a red X: could the sign signify a kiss (genuine affection) or an ironic

¹⁰⁰ For example, branded tea towels were among the items banned by the palace (Daily Mail).

‘not’ negating the original statement (fig.16)?

For graphic design practitioners the attributes of wit include something that can ‘win time’ and ‘invites participation’. It offers the ‘pleasure of decoding,’ it ‘gives reward,’ it ‘amuses,’ it ‘gets under the radar,’ it ‘forms a bond,’ it ‘goes deeper’ (emotionally and intellectually) and is ‘memorable’ (McAlhone & Stuart, 1996). Humour may be universal but it is also reliant on (cultural) *context*¹⁰¹ (my third category of ambiguity) and requires a reciprocal relationship between participators to operate effectively. Humour is often the result of an unexpected ‘puzzle’ being ‘solved’ by the proactive engagement of an audience, which causes “an extra *frisson* when it is not planned but unexpected... context heightens pleasure even further” (McAlhone & Stewart, 1996: 24).



Figure 17: Fedex logo designed by Lindon Leader, Landor Associates (1994) (original in colour)

Ambiguity has been described as exploiting complex imagery and blurred form to offer multiple interpretations to the viewer. However, as illustrated previously in this thesis, ambiguity can also be achieved through a number of precise visual forms and design layouts. The Fedex logo (fig.17) represents an example of a two-in-one mode of ambiguity that incorporates latent meanings, in a functional design operation. Crafted in a neutral aesthetic and a sans serif typeface typical of corporate modernism, an additional signifying element is hidden in this logo by manipulating the space between the letters ‘E’ and ‘x’. “The arrow could connote forward direction, speed, and precision, and if it remained hidden, there might be an element of surprise, that aha moment” (May, 2013:2). The logo’s visual ‘spareness’ is identified as a key component of the design concept by its creator, Lindon Leader (May, 2013). Here, the original informative operation of the visual identity is unimpeded by a secondary layer of meaning. In this branded message a synthesis of recognition and surprise (entropy) is a source of reward for the audience, assisted by the reciprocal discourse of wit and humour.

¹⁰¹ Socio-cultural nuances of humorous communication are variable and context-dependent (like design), so my research focuses most attention on ambiguity within English-speaking cultures, where everyday subtleties of use can be observed and evaluated more closely. What this cultural context offers is an insight into the quotidian ambiguities of conversation in the form of wit, that Fox (2004) suggests are essentially English forms of enriching communication.

Although graphic design is commonly associated with the interplay of text and image, punning and linguistic games are employed as an extension of communication and are considered here to underpin the aural/oral ambiguities of X. For instance, the homophone is a version of lexical ambiguity in which a word is pronounced the same but differs in meaning, and is often used to create puns. This is a deliberate form of ambiguity – double-meaning, punning, literary or historical references, a cunning rhyme, amusing alliteration – frequently employed in English tabloid newspaper headlines (fig.18) (Fox, 2004: 225).



Figure 18: examples of *The Sun* newspaper headlines (2010) (original in colour)

The oronym is used to describe a misheard statement or phrase, which is then (accidentally or intentionally) translated into an entirely new piece of text. Constructing a situation in which accidental ambiguities (oronyms) are framed as intentional consequences can be found in many song lyrics, radio and TV shows, such as the comedy sketch in English *Two Ronnies* TV show called ‘Four Candles’ (or ‘fork handles’). This extended discourse is entirely built around continuous mishearing between two characters: a customer and the proprietor of a hardware shop¹⁰². Humour, in this case, is derived from the oscillation of two possibilities being resolved in the mind of the listener: a two-in-one verbal mode of the (visual) message. This interpretative relationship anticipates the active engagement of the TV viewer as a complicit participant in a game of meaning. Also known as a Mondegreen¹⁰³ a recent BBC Radio 4 show, *Word of Mouth*, (BBC, 2013) suggests the human need to turn the vague or symbolic into something prosaic and understandable is at

¹⁰² First broadcast on terrestrial TV in 1974 on BBC1 (UK).

¹⁰³ The ‘mondegreen’ arose as a term, coined by American author Sylvia Wright in an article for *Harpers Magazine* (1954). Wright describes how, as a young girl, she misheard the last line of a 17th-century Scottish ballad, *The Bonny Earl O’Moray* which she heard as “and lady mondegreen” when the actual ballad read “and laid him on the green”. The term Mondegreen is applied when the new interpretation of the text is thought of as an *improvement*.

the root of such oral/aural ambiguities. Culturally agreed elements of surprise and the unexpected are key to this type of verbal play and represent a form of ambiguity that is often adapted into graphic design in its broadest contexts of use.



Figure 19: Potts (2007), designs for the *Superhero Supply Store*, New York (original in colour)

In concluding my comparative analysis of ambiguity in art, philosophy, advertising and design, the *Superhero Supply Store* (fig.19) is examined as an applied use of wit and parody in a *conceptual* mode of selling an idea of community-based education (2004-2009). The 826¹⁰⁴ New York shop ‘front’ (literally) creates a conceptual façade promoting a not-for-profit drop-in centre for creative writing. Exploiting the ambiguity of wit to communicate a social message, Pott’s (Burgoyne, 2008) ‘retro’ visual language and text seeks to engage a young audience by reframing fantasy as fact on a conceptual level of communication. Products such as Truth Serum, Intuition, Secret Identities, Immortality and Gravity tap into the cultural figure of the superhero in US popular culture to encourage audience participation in a symbolic form of playful discourse. Graphic mechanisms are used in the form of a pastiche, here, to create a game of meaning through wit in the social domain of design.

The examples in this section have sought to illuminate how traditional boundaries of design can be subverted through the space of ambiguity (wit, surprise and duality) to discover new ways of thinking about design. In this way commercial design products and their contexts of use can be reconfigured to embrace a more open-ended discourse between designer, consumer, artefact and message.

¹⁰⁴ This store is one of many in the same programme, all using wit and play to engage local communities in creative writing: <http://www.826national.org/stores>

3.5. Summary and conclusions:

In this chapter *form*, *function*, *context* and *concept* have been used to examine evidence of ambiguity within a broad scope of (visual) communication. The ambiguous manipulation of visual *form* (rhetoric) demonstrated how to elicit new interpretations from a message in a functional operation. This can be achieved by picturing a familiar image or idea in a new way or new place. *Context* has been identified as key to the operation of wit when integrated into everyday verbal and visual discourse as a reciprocal form of communication. Even by disrupting *context*, ambiguity helps transform aesthetic and conceptual devices, framing the receiver as an active participant in making meaning across art and design. As a *concept*, the philosophical and cultural notion of the trickster was introduced as an exemplar of ambiguous identity that reflects the dualities and multiplicities of X. This sign is developed through practice in my research as the most appropriate visual identity through which to propose possible new directions for graphic design. As a polysemic sign, X is not the only way to re-envision ambiguity in graphic design, but it is proposed as a new way in this thesis and my project.

The *conceptual* and *critical* capacity of ambiguity was examined as a method of transforming the design discipline itself through speculative proposals, new boundaries of practice and design thinking. Both Gaver *et al.* (2003) and Dunne & Raby (2005, 2013) focus their exploitation of ambiguity predominantly within the context of electronic media, interactive digital design and material culture. Although the digital realm has transformed the landscape of design and communication, my research seeks to expose the potential of ambiguity beyond the limitations of the digital realm. In a changing world design must use adaptable methods and tools to suit the demands of new audiences and conditions of communication: ambiguity is framed as the most appropriate resource for today's (design) needs.

Chapter Four // Evaluating the Ambiguous Attributes of X

4. 1.Introducing X

X has accumulated a multiplicity of meanings over time: it has transmogrified from an unknown (X-Ray) or inferior (Brand X) sign to a contemporary trope¹⁰⁵ (X-Box, X Games) becoming “one of the defining letters of the millennium” (Sacks, 2003:343) in the process. X is a visual mark that carries information and conveys meaning: it identifies a precise location (X marks the spot), represents gender identity (XX/XY chromosomes), anonymity (boy X), the experimental (X craft) and the extreme, including sex and violence (X-rating). X is simultaneously ubiquitous yet elusive in the contemporary visual landscape. It is specific yet blank, universal and particular, collective and individual. It designates but also obliterates. Even when operating as a placeholder sign, the notion of absence embodied in X “clears the way for new and creative signifying practices” (Ulrich 2003:5). The potential of X to sustain fluid and open meanings forms the basis of its role in this research and my project¹⁰⁶.

X is framed in two ways in this chapter: as evidence of ambiguity in visual communication and as a critical design tool through which to articulate new notions of ambiguity in graphic design. The signifying values of X are theoretically underpinned, by tracing its evolution from symbol to alphabetic sign, logo and brand concept. The suitability of X to the task of articulating new knowledge in design is compared with the similarly ambiguous O: a visual identity, alphabetic letter, numerical sign (zero), gesture, object and mythical symbol loaded with meaning. As a sign O embodies a multiplicity of meanings and oppositional dualities in an abstract geometric form, yet is limited (in the context of this research and my project). The limitations of O are not based on its mythical symbolism or visual form but on its strong associations with nature and the erotic body. While X is able to shed its connotations and revert to a blank status, awaiting reinvention, O is less conducive to conceptual transformation.

Ideas of ambiguity are extended and developed through X here by considering the ‘inevitable’ dichotomies of language identified by Claude Lévi-Strauss (1979) in *Myth and*

¹⁰⁵ The ‘trope’ may be understood as an image, object or event that embodies a prevailing trend held in common by a group or community (Noble & Bestley, 2005) while in advertising it is a method of breaking through habit, boredom or resistance to the commercial message (Scott, 1994).

¹⁰⁶ Some text content from this chapter is partially transcribed and also more fully explored in *The A to Z of X*, my second type of practice, which accompanies Chapter Six.

Meaning, explained here in terms of a *digital* or *analogue* code. In semiotic theory a *digital*¹⁰⁷ code (linguistic compositions of fixed units such as letters in the alphabet) refers to oppositional concepts such as black/white, soft/hard. For Levi-Strauss the linguistic basis of these relationships forms a structure, which is infused into core visual mechanisms of graphic design, as described in Chapter Two. Although the value of visual contrast has been persistently exploited as a source of invention in graphic design, its theoretical basis has also been challenged in a more fluid construction of meaning. *Analogue* differences are not so absolute in the tension between opposites, incorporating many shades of grey between black and white, in a ‘more-or-less’ distinction. It is the potential of analogue codes to reveal unknown or unexpected meanings that enables more fluid applications and interpretations of a sign to emerge. X is able to operate as a letter-based unit in the digital code of the alphabet on a functional, informational basis, and as an analogue code in a more fluid mode of mythical symbolism such as a brand identity. One of the values of X (developed in my project) is based on its theoretical status as *both* a digital and analogue sign: precise (singular) *and* ambiguous (multiple).

Previous arguments around ambiguity presented in this thesis have focused on visual and material *form*, *conceptual* devices and *contexts* of *functional* use. These analytical criteria are extended to interrogate the ambiguities of X in this chapter. Drawing on scholarly, popular, philosophical and design-based resources, X is defined as “something that is abstract and invisible but so precise that mathematicians, architects, geographers and geologists make constant use of it to indicate the exact position of a point” (Frutiger, 1998:49). In socio-cultural contexts X is considered as a ‘metasign’, taking a number of forms while remaining pervasive in all messages, continually referring to and monitoring the “social relations of semiotic participants” (Hodge & Kress, 1988:79). In the context of design practice the ‘metasign’ is comparable with the trope, which is explained as an image, object or event that embodies a prevailing mindset or aesthetic within a cultural context. In this study X is framed as a metasign in the sense that it is used to talk about the potential of all graphic signs and the discipline itself to do and mean more. X is, thus, framed as a sign and symbol infused into contemporary visual culture that captures the zeitgeist in a spirit of creative ambiguity.

¹⁰⁷ Analogue and digital are terms with quite different interpretations in design: *analogue* suggests VHS and traditional, material/mechanical technology, whereas *digital* is commonly understood to refer to all ‘new’ technology, generally framed within the digital sphere. Further descriptions are available in the glossary in this thesis.

Zeitgeist is a German word that loosely translates as ‘spirit of the times’ and refers to the particular ebb and flow of cultural taste and trends that are characteristic of a given era (and location). The term is used in the context of this research because, as Meggs (1983: *n.pag.*) puts it: “The immediacy and ephemeral nature of graphic design, combined with its link with the social, political and economic life of its culture, enable it to more closely express the zeitgeist of an epoch than many other forms of human expression.” A continual critique is cited as a studio-based dialectic for the McCoy’s (1990: 19): a method of renewing the academic zeitgeist, to establish a position in design, and to ensure that all the students at Cranbrook kept pushing the discipline forward. The territory of this research therefore draws from the everyday socio-cultural sphere in order to reflect how the current context of graphic design finds resources and presents solutions.

The following literature review sets out to identify linguistic and visual sources of the sign’s ambiguity by drawing on scholarly and semiotic analyses of X, before a more empirical evaluation of X in everyday anecdotes and environments.

4.2. Literature Review: Alphabetic Origins of X

At the time of writing this thesis the multifarious applications and interpretations of X (as a particular subject of study) have been largely overlooked in design theory. Historical alphabetic resources are examined first to identify geographic and cultural sources of X as a linguistic sign. *The Alphabet: A Key to the History of Mankind* by David Diringer (2012), originally printed in 1948, thoroughly analyses the formation of scripts from around the world. This extensive study of worldwide linguistic signs (although not intended for this purpose) provides an overview of common visual forms used across otherwise unconnected etymological sources. By contrast, Drucker’s (1995) *The Alphabetic Labyrinth. The Letters in History and Imagination* provides insights into the way alphabetic signs have been assigned *value* in political, symbolic, religious and economic systems across cultures over time. This history connects the alphabetic system and visual aspects of script with the development of typography and graphic design and is thus more valuable to the context of my research.

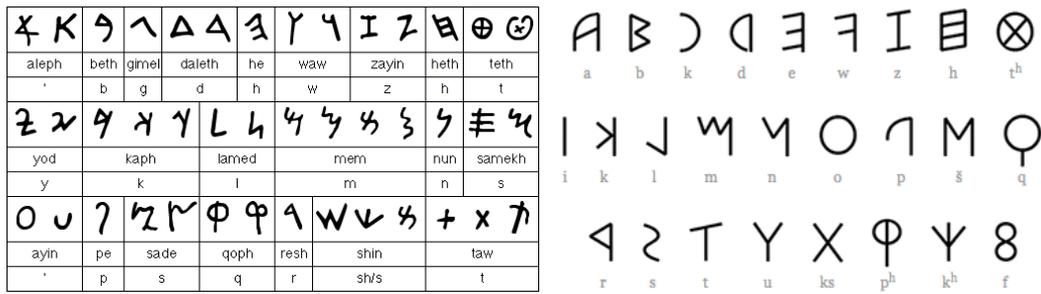


Figure 20: Phoenician alphabet, established as a writing system around 1100 BC; Etruscan alphabet (1000–800 BC)

In light of the evolutionary nature of written language and sign systems in everyday communication, populist accounts of X offer more narrative contexts to its alphabetic sign use. As this chapter aims to demonstrate, the deployments of X have continuously shifted to suit the needs of particular contexts and cultures. Thus, the disparate interpretations of X in diverse applications are emphasised rather than resolved by tracing its geographic or phonetic genealogy¹⁰⁸. Its diverse uses as a graphic sign are examined in the context of symbol source books and then the everyday applications of X are considered as evidence of its contemporary versatility. The origins of X are unknown or inconclusive, but there are early examples of X in Egyptian hieroglyphics, as maker’s marks on pottery, as a landmark sign and as a universal symbol: as an abstract mark X has entered and exited several alphabetic systems over time (Diringer, 2012). Even the visual form of X is not fixed but has been interchangeable with X and + and the *tau* cross, connected with the phonetic ‘t’ as can be observed in the Phoenician alphabet (fig. 20). In the Kabbalah (Drucker, 1995: 148) *tau* signifies grace and ugliness, the Christian cross and the phallus.

As a fusion of visual form and concept, early contradictory instances of X as a symbol rather than an oral sign can be observed by comparing the ancient Mesopotamian X, which stood for ‘protect,’ with Egyptian hieroglyphs (around 3,000BC) where it was interpreted as ‘break’ (Frutiger, 1998). Both the visual form of X and its phonetic values shifted across languages and over time until around 1100 BC when the Greeks took the ‘cockeyed’ (Meggs, 1983: 12) Phoenician alphabet and converted the whole into a ‘harmonious’ group of aesthetically pleasing forms. Through a process of homogenizing and unifying, a more efficient form of (visual) communication was sought for the purposes of increasing trade, power and control at a distance (McLuhan, 1994: 82). In *Understanding Media: The Extensions of Man* (first published, 1964) Marshall McLuhan (1994: 85) draws similarities between the military and industry: “Both are shaped by the alphabet in their technique of transformation

¹⁰⁸ Diringer (1948/2012) and Drucker (1995) provide more depth and detail than is possible in this study.

and control by making all situations uniform and continuous.” The underlying aims of uniformity for financial expediency have, arguably, remained consistent in graphic design and continue to do so today.

What examination of the scholarly alphabetic resources reveal is that few letters follow a linear evolutionary route from visual symbol to consistent linguistic glyph. For instance, in the alphabetic transference from Greek to Etruscan to Roman, X was added to represent the sound *ks*, and the numerical value for ‘ten’, and placed at the end of the alphabet. These verbal and visual relationships are identified as fluid and arbitrary and based on convenience rather than logic (Drucker, 1995: 71). Thus, rather than its meaning being refined and defined in absolute terms over time, X, like many letters, has retained traces of diverse cultures in its current pronunciations and interpretations as a visual sign and as the symbol of a cross.¹⁰⁹

X was introduced to the English lexicon by Roman soldiers and traders from around 55BC as a ‘foreign’ letter, then again through increased trade in the 1600s, but was rarely used, remaining at the end of the Roman alphabet (Firmage, 2000). The letter’s sustained rarity of use is evident in Samuel Johnson’s *Dictionary*, originally published in London in 1755, in which X is defined as a letter, “which, though found in Saxon words, begins no word in the English language” (Crystal, 2005:5). However, according to the Oxford English Dictionary there were around thirty words in use before Johnson’s time, mostly technical in nature and Greek in origin. X is still one of the least employed letters of the (English) alphabet in written communication and has been perceived as extraneous¹¹⁰ because other letters, such as ‘K’ and ‘S’ perform the same phonetic task (Firmage, 2000: 250).

Lexical ambiguity, in the form of wit, was examined in the previous chapter and is developed in the phonetic modes of X because they are far less certain than either ‘A’ or ‘O’ and can be found in the Phoenician equivalent of our letter ‘T’, but also ‘S’, ‘K’ and ‘A’ (Drucker, 1995: 71). This oral/aural flexibility provides clues to the ambiguity of X, evidence of which is identifiable in the English language today. For example, words

¹⁰⁹ The *tau* cross has been manifested over time and cultures in a variety of forms including + and X, eventually stabilising as the letterform ‘T’. The X shape is commonly known as the *Greek Cross* and is the version most strongly and consistently associated with the Christian religion, but can be found on monuments and medals long before this time (Diringer, 1948). The X cross (as distinct from T) is a symbol that can be found across diverse languages as Plain Cree in Canada, Chinese characters, Hebrew, African (Libyan or Numidian), Greek and Runic scripts (Frutiger, 1998; Drucker, 1995). The Etruscan phonetic ‘u’ takes the shape of the letter ‘Y’, interpreted as the *Thieves Cross*.

¹¹⁰ Described as ‘needless’ in Ambrose Bierce’s (1911) *Devil’s Dictionary*.

beginning with X are pronounced “z” as in xylophone and are mostly Greek in origin: the most familiar sound is “ks” as in axe, tax, etc. Pronunciation of X after a vowel includes the “gz” sound of ‘exactly’ which contributes to many word games and puns concerning “eggs” as an oronym or homophone. Roy (2001:94) identifies an ‘exoticizing’ oral signifying element of X, relating its dynamic sound with visual form: “There is excitement in its pronunciation, not to mention the seductive quality it lends to the context of the word, as with words like maximum, sexual, parallax. It retains all the connotations of speed and dynamism in such words as extreme, axis, flux.” This interpretation does not extend to words such as ‘tax’ or ‘laxative.’

The versatility of X is examined in relation to design practice by drawing on industrial designer Henry Dreyfuss’s (1984) *Symbol Sourcebook* and Adrian Frutiger’s (1998) *Signs and Symbols: Their Design and Meaning* (originally published in 1978). Dreyfuss compiles and classifies an archive of signs employed in everyday occupations and environments arranged alphabetically by their graphic form and meanings. Here, the visual form of X remains consistent while its contexts of use and conceptual values may alter dramatically. Page layout (fig.21) aids analysis of visual variance or consistency in relation to function: X is found in nearly every occupational context in this collection from accommodation to traffic controls. A selection of examples relate to crossing and meeting (*hybrid, mated with, rendezvous point, restaurant*), a cancelation or unavailability (*occupied, character kill*), but several interpretations of the same sign fail to fit in with any common characteristics and must be placed in a ‘miscellaneous’ category. These include *new trees* or *bicycle* (architecture); *venus, earth/globular cluster* (astronomy); *hip, knee, waist* (movement and dance).

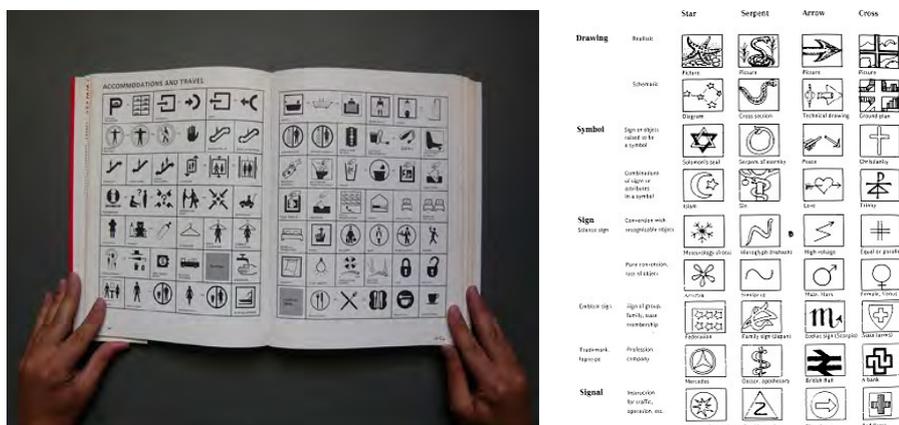


Figure 21: Dreyfuss’s *Symbol Sourcebook* (1984); Frutiger’s (1998) *Signs and Symbols: their Design and Meaning*

Frutiger (1998: 49-51) defines the cross (or X) as “the sign of signs” and the “absolute

embodiment of symmetry.” In the visual form of the rotational symbol X there are two lines of symmetry¹¹¹: the vertical and horizontal, or equal diagonal lines. Yet typographic forms of X (lowercase x in particular) are more commonly optically and not mathematically symmetrical to aid visual balance. By comparison, multiple opportunities for symmetry are found in concepts of the circle as a universal sign and symbol: the typographic O has infrequently been designed as perfect circle. Bayer’s (1925) *Universal* typeface (fig.04 & 22) is worthy of mention here as the symmetrical ‘x’ is constructed by splitting a lowercase ‘o’ in half vertically and reversing it in a reciprocal aesthetic relationship¹¹².



Figure 22: Bayer’s (1926) *Universal* typeface (originals in colour)

As an ancient universal symbol the O, or ●, or circle has been present in hieroglyphs and ideograms since 3000BC, yet its associated meanings follow a more consistent route with the ‘eye’, the sun or moon and the goddess, than X. As an abstract visual sign, the circle stands for purity and perfection, but also embodies darker meanings in a self-fulfilling loop, “a trap, or a set of recurring cyclical limits” as Helfand (2001b: 32) puts in ‘Squaring the Circle.’ The symbolic O represents an absence or space yet also embodies ideas of wholeness and circularity, unity, eternity, totality and infinity. More organic in shape than the man-made X, the meanings of O are typically grounded in the relationship of myth with nature and the body, although both signs have strong cultural associations with the erotic. In Pauline Réage’s (1954) *Story of O*, the titular sign represents an oral or genital ‘orifice’ and relates to the shape of a fetter. In this context O also stands for the lead character’s name (a reduction of Odile), embodying an absent or anonymous persona: a sexual, objectified woman. For X, the connotations of sex and danger are derived in large part from the X-rating cinema classification (1951-1980, UK), but also from more ancient associations of secrecy, mystery,

¹¹¹ The ‘Symmetry’ page in *The A to Z of X* visualizes this concept.

¹¹² The split and reversal process of creating a new letterform is developed in my project as a way of testing the boundaries of fluid form and particular meaning.

magic¹¹³ and the forbidden. Despite common interpretations as a blank ‘nothing’ O (or 0) lacks the versatility and anonymity that makes X so uniquely appropriate to my research.



Figure 23: OXO packaging (1920s) (original in colour); bicycle icon, London (2012).

A symbolic relationship exists, and is worth considering here, between X and O in everyday contexts where O is often used to signify ‘hug’ while X stands for ‘kiss’ in the XOXO mark at the end of an informal correspondence. In the game noughts and crosses X and O are deployed as equal yet opposing identities, continually battling for supremacy: whereas, by comparison, XOXO operates in a unified concept of affection. The shorter hybrid sign OXO (an extension of ox, the animal) is better known for its associations with the brand of the same name, created at the end of the nineteenth century and named in 1900 (OXO, 2014) as ‘beef in brief’ (fig.23). The ‘OXO’ spray paint image (fig.23) is also an abbreviation: this time, a visual reduction of a bicycle icon for local council workers. The sprayed sign indicates where a cycle lane is to be laid and a more complete bicycle sign painted onto the adjacent road: its visual form is significant: the hand-rendered mark is coded but temporary, notational¹¹⁴.

One of the key research methods employed in this analysis of X, as an ambiguous sign, is an empirical (direct) observation and evaluation of phenomena: defined as primary research in design practice. Drawn from everyday life these resources are used to help identify common cultural and symbolic applications of the sign (in local contexts, such as an area of a city)

¹¹³ The magical value of visual language is considered by Diring (1948/2012) where roots of the word ‘rune’ are said to embody meanings such as ‘mystery’, ‘secret’, and ‘whisper’ due to the magical associations of script when applied to armour, jewels and tombstones.

¹¹⁴ Further examples of X, gathered from primary resources across diverse cultural, intellectual and creative contexts are collected and classified in *The A to Z of X*, aiming to analyse the sign’s simultaneous applications and interpretations more closely in practice exploiting the material form and conventions of the printed book.

while exploring the underlying intellectual interpretations of X in semiotic contexts. Resources acknowledging X¹¹⁵ as a sign of *particular* value are very limited, however. Marina Roy's (2001) compendium *Sign After the X* utilises the book as a cultural artefact to investigate X as a symbol full of meaning and mystery: "a familiar graphemic signifier for the Real, the Unknown, the Other, and Sex" (Roy, 2014: *np.*). Conceived as an artists' book¹¹⁶ Roy (2014: *np.*) "weaves together form and content, image and text, into an allegory... [in which X has been used and understood as] an index or symptom for repressed desires and oppressive power structures." By examining the content of this collection, some persistent contradictions can be observed, including X as a sign of potency on the one hand and death on the other. Yet, Roy (2001:23) frames X in a collection of "random arbitrary facts" to form a list-like catalogue of discoveries and subjective responses rather than providing a rigorous analysis of the sign's ambiguities.

Marcel Danesi's (2009) *X-Rated! The Power of Mythical Symbolism in Popular Culture* offers a more comprehensive analysis of X as a semiotic device in power relationships with other visual icons in (American) pop culture such as 'V' and 'I'. He suggests that contemporary manifestations of X disrupt traditional dualities of the sacred and profane in visual culture, using X in the film classification 'X' rating as an example: a "shibboleth¹¹⁷ of pop culture" that embodies connotations of danger, violence and sexual extremes (Danesi, 2009:8). When X was introduced in 1951 in the UK as a sign warning of sexual or violent content in a film designated for over 18s only, society was far less openly sexualised than it is now. At that time the X was a (relatively innocuous) rarely used linguistic or pictorial sign. By the time the 'X-rating' was changed to an '18' film certificate in 1980 (UK) a sexual revolution had occurred (at least in the context of mass media and literature) and mass-production and pop culture had been absorbed into everyday life. The BBFC¹¹⁸ later conceded that the oral signifying value of X in 'X-Rating' contributed to sustained cultural connotations of 'extra' and 'sex'. This relationship between the oral and visual sign was, and still is, supplemented by cinema managers who promote X-rated films with the unofficial extension 'XXX' even though its original functional application is now obsolete (in the UK). For Danesi (2009: 7)

¹¹⁵ A timeline of X illustrates the cultural shift from marginal to mainstream in the *A to Z of X*.

¹¹⁶ The artist's book is a book made by and/or conceived by an artist, as a mode of self-expression, but may also include extended notions of what a book can be as an object and idea. Often produced in very small runs, the artist's book emerged as an artistic enterprise in the late twentieth century often fusing poetry with visual experimentation.

¹¹⁷ A shibboleth is defined as a word, sound or custom that identifies a foreigner or outsider due to its difficult pronunciation or unfamiliar use (OED).

¹¹⁸ The British Board of Film Classification, originally The British Board of Film Censors, was set up in 1912 to impose a sense of uniformity on an unregulated film industry.

X embodies all that pop culture represents: “youth, danger, sexual excitement, mystery, and technological savvy all wrapped into one.”

Sacks (2003: 345) suggests that the popular success of Douglas Coupland’s (1991) *Generation X: Tales for an Accelerated Culture*, and *The X-Files* TV show (1993-2002) has helped draw X in from the margins into mainstream culture. This process is a characteristic of the capitalist economy and not peculiar to X as demonstrated by the absorption of stylistic tropes from modernist and post-modern design products referred to earlier in this thesis. This social generation of meaning in visual culture enables an inferior and unknown sign, such as X, to be adopted by counter-cultural or subcultural groups, such as the Straight Edge, as a unifying identity. In Coupland’s narrative X is deployed to represent an ‘unknown generation’ as a social category: a placeholder and anti-status sign in a subcultural¹¹⁹ context. In the science fiction (sci-fi) TV show the *X-Files*, X stands for the unknown, unclassified and rejected¹²⁰.

Concepts of mystery and secrecy are infused into the X in both fact and fiction. The source of these connotations is a synthesis of the sign’s rarity of alphabetic use, ancient mythical symbolism and more recent military applications. For instance, Bletchley Park, the top-secret British code-breaking centre for deciphering the German enigma machine, was named Station X. The duties performed by Wrens¹²¹ who were drafted in to help with these intelligence roles in this context were described as ‘Special Duties X’ (Smith, 2003). Also in a military context, X-Craft was the code name given to a series of experimental Royal Navy midget submarines designated ‘X’ followed by a number: X9, X8, X5, and so on, used in World War Two. In this context, notions of the innovative, dangerous, sexual and secret converge in X: interpretations that have subsequently been reframed as desirable aspects of design and branding.

¹¹⁹ In *Visual Communication: From Theory to Practice*, Baldwin & Roberts (2006: 73) distinguish between subculture and counter-culture: subculture is defined as a cultural group with alternative beliefs or interests to a larger one within which it expresses its difference in the form of ritual and identifiable dress codes. This mode of the sign has subsequently been exploited as a marketing concept in the X Games (<http://xgames.espn.go.com>), for instance. Counter-culture has a more intellectual basis formed by “rational objection rather than a simple reaction.”

¹²⁰ But also as a sign calling for help by the Mulder character when on a windowpane (*X Files* TV show).

¹²¹ Women’s Royal Naval Service (WRNS), commonly and officially termed ‘Wrens’, formed in 1917.



Figure 24: Cummings & Michaels (2009) *X-X-X-X-X-X-X-X-X-X*

Practice-based archives of X have been just as rare as literary or theoretical resources and suffer from a noticeable lack of critical analysis, comparable to Roy's (2001) compendium. Disparate and vernacular¹²² manifestations of the sign are gathered in Cummings & Michaels' (2009) *X-X-X-X-X-X-X-X-X-X*, drawn from often unidentified locations (fig.24). The self-published book features, "visual research on the trajectory of the X symbol within (and without) underground music culture" (Cummings & Michaels: *np.*) Blauvelt (2011: 208) interprets X as a floating signifier¹²³ in the context of Cummings & Michaels' published book (facilitated by its fluidity and flexibility) by subverting meaning across the military, punk music¹²⁴, porn and corporate identities. However, the scrapbook layout, employing a punk aesthetic, illustrates how a dominant visual language can become a stylistic constraint to more open-ended ways of thinking about ambiguity.

The next section evaluates the symbolic operations of X in the context of visual identity, which is used to inform my third type of practice, which is introduced and explained in Chapter Seven: accompanied by *Branding Ambiguity*, my practice-based response.

4.3. X as Logo: From Alphabetic Glyph to (Graphic) Mythical Symbol

In the context of visual identities and corporate branding systems X is analysed as a symbolic image and idea rather than a letterform within a word. As a letter-based logo this sign is infused with ideas of ownership, identity and power. For instance, prehistoric examples of this graphic mark can be found on rock paintings, masonry and pottery from

¹²² The reader is reminded of the exploitation of the vernacular as a critical visual mechanism (Venturi, *et al.* 1972) in the postmodern challenge to traditional elitist culture and its aesthetic values in Chapter Two.

¹²³ The floating signifier was originated as a term by Levi-Strauss (1950) and alluded to by Barthes (1977) as a non-linguistic sign that is continuously open to interpretations dependent on context.

¹²⁴ Punk is described (Williamson, 1983: 8) as a mode of 'bricolage' inverting 'decoding' and reusing social meanings.

Palestine and Crete representing early modes of visual identity and ownership (Diringer, 2012). Yet, in addition to these makers' marks, representing particular craftsmen, X remains a democratic sign, a common mark of an individual's vote or generic signature. Drucker & McVarish (2009) suggests that logos embody conceptual depth through a *necessary ambiguity* that is already infused into visual culture. This enables alphabetic signs to transform into symbols within cultural conventions related to business trademarks and brand identities.

Trademarks have existed for at least 5,000 years and can range from ceramic marks to cattle branding: in *Marks of Excellence: the History and Taxonomy of Trademarks* Per Mollerup (1996) identifies social identity, ownership and the origin of the maker as key statements of these visual devices. Originally, and significantly for this thesis, the term 'monogram' was derived from the Greek for a single line or cross and usually refers to the initials of a person's name in a design or legal document. As a hand-rendered mark of authenticity X is employed as the signature of both the king (fig.25, right) and illiterate pauper, signifying ideas of individuality yet also anonymity¹²⁵. Like a pregnant pause, the blank identity of X is full of (potential) meanings. For Mollerup (1996:162) the production of meaning in this context takes place in two ways: "by the linguistic capacity of initials and by their possible picture content," often occurring at the same time¹²⁶. Multiple identities are valuable attributes in graphic design where symbols (such as X) often supersede their functional role as alphabetic letters to connote diverse concepts. It is this potential for reinvention (by the sign-maker or designer) in a social semiotic framework that enables new knowledge to be embodied in the form of a visual sign.

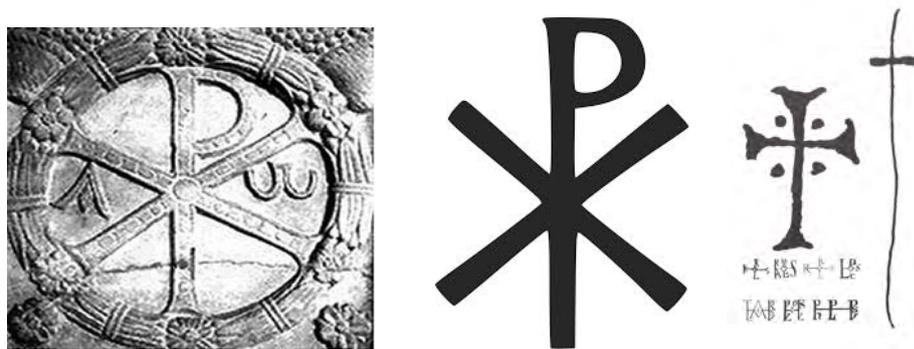


Figure 25: 'Christos' the 'Anointed One' chi-rho sign of Emperor Constantine 313AD; kings' signatures including Pepin le Bref (751-68 AD) and Thierry III (673-90) (Mollerup, 1999)

As an early example of a monogram (graphic identity) that exploits the symbolic power and

¹²⁵ Such as in the context of Malcolm X. Ref: 'Anonymous X' and 'Malcolm X' pages in *The A to Z of X*.

¹²⁶ Thus, X's 'exoticising' oral signification (Roy, 2001) and its dynamic visual form converge to enhance its meaning.

ambiguity of X this section considers Roman Emperor Constantine's hybrid sign of unified political and religious powers¹²⁷. In what now would be interpreted as a brand identity, Constantine blended ideas of the individual and state in a graphic icon to represent a collective ideology. As the self-proclaimed 'Christos' or 'Anointed One' he fused¹²⁸ notions of the mythical and sacred in an alphabetic identity by combining two Greek letters X and P (*chi* and *rho*) (fig.25) in 313AD. Despite the Roman Empire gradually diminishing from around this time, Constantine's identity remained, facilitated by trade and the Roman occupation of Britain, as mentioned earlier in this thesis. Transformed into the abbreviated 'Xmas' (derived from 'Christos') this 'brand name' has been assimilated into cultures with an English linguistic base.

Symbolic connotations¹²⁹ of graphic signs can remain as dominant or subtle undercurrents in a visual identity, transcending historical and geographical contexts of use to become infused or stigmatized in cultural discourse. "Arguably, like any symbol it [even the swastika] is only as good or bad as the ideas it represents" (Heller, 2011: *np.*). All abstract signs are without meaning until given a function in context as illustrated earlier in this thesis in the context of modernist design mechanisms. The symbolic impact of X can be examined in a recent trademark, named 'Explorer', in which the alphabetic function of 'x' has morphed into a symbol X of Christianity. In 2003 Amr Mohammed Al-Faisal describes an attempt to register the brand name 'Explorer' as a Saudi business identity but instead of reading 'x' as an innocuous letter within a word the Arab authorities perceived a symbolic Christian cross. The sacred connotations of X superseded the sign's functional operation in a linguistic context: the registration was denied due to the latent threat of the symbol to the Muslim faith. Al-Faisal (2003) goes on to ironically suggest that the comparable + and X should also be banned¹³⁰.

¹²⁷ It is worth noting the use of the first and last letters of the Greek alphabet – alpha and omega – in conjunction with the central icon to reinforce the message of universal power and eternity. Constantine established Christianity as the (Roman) state religion in 313AD and devised a new, more economical script throughout the empire.

¹²⁸ Before Constantine's application of *chi-rho* this combination had been used as the monogram of Chronos, the god of time, connecting a singular identity with a universal theme or concept.

¹²⁹ Where symbolism is considered in the context of written communication, each individual letterform has its own signifying value while also operating as part of a conceptual whole. For instance, the Greek word for alphabet, *stoicheia*, embodies a notion of cosmological totality in which each alphabetic letter represents a basic unit in a (digital) code. Recalling the symbolic totality of the alphabet, these two Greek letters are used in the Book of Revelation in the Bible to equate Jesus (or God) with everything in the world from the beginning and the end (or A to Z in English). Employing an extreme economy of means a graphic identity can, thus, embody universal concepts simultaneously as an idea, image and bearer of information. This unifying concept is developed through practice and applied to my project where it is used in *The A to Z of X* to embody a totality of ambiguity through the broad scope of X.

¹³⁰ The full article is printed in *The A to Z of X* under the title 'Banning the X.'

Despite the strong connotations of the sign, it is in the space of indeterminacy, where X remains undefined in absolute terms, that ambiguity can be employed as a critical tool facilitating new research discourse. The next section explores how visual and material form influence interpretation, to evaluate the nuances of X in diverse contexts of use.

4.4. Meaning Shaped by Material Form: From Verbal to Visual to Gestural X

In visual culture many participants may contribute to the material shaping of *concepts* in *contexts* of meaning: the material *form* of X in letterpress printing is one example. In *The Alphabet*, Sacks (2003: 344) identifies the printer's role as significant in establishing X as a sign for the unknown¹³¹ in an anecdotal reference. In the production of Descartes' mathematical work *La Geometrie*, published in 1637, Sacks says that the letters *a*, *b* and *c* were chosen to represent three known constants, while *x*, *y* and *z* were used for three unknown constants. Firmage (2000: 251) argues, in *The Alphabet Abecedarium. Some Notes on Letters*, that it was common practice in nineteenth century printing to substitute *x* for any letter that the compositor had run out of (as a placeholder sign). Thus, when the printer ran out of the letters *y* and *z* for unknown constants, he employed *x* (in this context, manifested as a lowercase italic *x*, although its interpretation as 'unknown' is not dependent on this typographic form). This, Sacks (2003) suggests, has led to popular use and cognition of *x*, rather than *y* and *z*, as a common sign for the *unknown* object, idea, person, quantity or subject¹³².

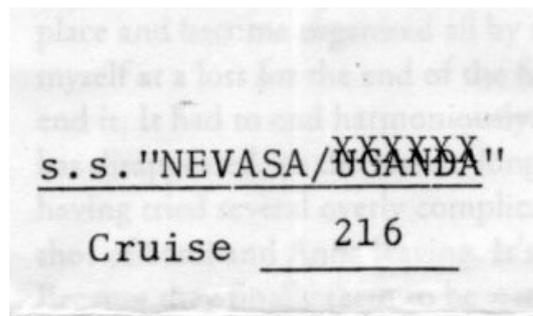


Figure 26: the 'x' key as a deletion tool on a typewriter

¹³¹ In William Roentgen's (1845-1923) investigation into the electrical discharges of cathode rays, 'X' was assigned to the X-rays because he could not identify them: these rays remain 'unknown' to this day.

¹³² Another source of X's association with ideas of the unknown is offered in *Brewer's Dictionary of Phrase and Fable* (1999) in which the mathematical source of X as an unknown sign is identified as the Arabic 'shei' (or 'thing') in algebra. Used to represent an 'unknown' 'something' this Arabic word, subsequently transcribed as 'xei' in Europe. This definition is further developed by Terry Moore in 'Why is 'x' the unknown?': "X is the unknown, because you can't say 'sh' in Spanish." (http://www.ted.com/talks/terry_moore_why_is_x_the_unknown?utm_campaign=ios-share&utm_medium=social&source=email&utm_source=email#t-214106)

The essential adaptability of alphabetic writing and the linguistic rarity of X have combined to shape the sign's meaning in print-based production and in the mechanical contexts of the typewriter. Prior to correction fluid (such as Tippex) the 'x' key (fig.26) performed the dual functional roles of a letter in a word and a mark of deletion or error. In the same form of correspondence, a typed X may also appear as a sign of affection interpreted as a 'kiss' (sometimes in relation to the O as 'hug' in XOXO). The origins of X as a sign for a kiss are commonly assigned to its role as a signature on Anglo Saxon (UK) legal documents, which would be kissed by the participants to mutually seal the agreement. As many signatories at that time may have been illiterate they were able to sign with an X: over time the association between X as a signature and the kiss as a related action has become fused into the one sign¹³³. Firmage (2000) converges ideas of X as a signature to the cross, enhanced by the phonetic 'ks'.

In a social generation of meaning, X has evolved as a fluid signifying resource with the ebb and flow of slang in a culture, rather than operating as an official authorised mark within certain boundaries of meaning. As such, there is no absolute certainty to the validity of any of these origin stories relating to the 'kiss' sign: the use and value of visual signs does not depend on academic or scholarly authenticity. Socio-cultural sign values are established over time in the process of communication: "Time tests a sign's capacity to anchor itself in the history of a people, or to transcend it and inscribe itself in our collective memory. Time turns signs into symbols" in the words of Jean (2004: 103) in *Signs, Symbols and Cyphers*.

By considering the hypothetical example of one typed letter for a moment, this common everyday (but now mostly obsolete) mode of correspondence helps us evaluate the simultaneous ambiguities of X in one context (illustrated in the typeface Courier to aid the example)¹³⁴:

1. X as an alphabetic letter in a word, such as 'tax'.
2. X as an unspecified or secret name, place or quantity:

¹³³ After extensive research no substantial scholarly sources for the X as a kiss could be found. Thus, it must be concluded that a social genesis of meaning has infused X into a number of operations in everyday visual culture.

¹³⁴ It is not only the colour of X or its placement on the page but also the choice of typeface and mark-making tool that has an impact on the interpretation of a message by a particular audience. In this way, the audience encountering a design artefact, participates in its meaning through interpretation of the embodied sign associations. Just as the verbal expression of a word or letter has variance of pitch, so does typographic character, as the experimental designs and statements from Chapter Two attest (Mau, 2000).

- 'x number', 'Station X', 'boy X'. Or in exchange for an unprintable letter/word due to legal reasons.
3. The Roman numeral X equivalent to 10 (ten).
 4. X as a mark of deletion or error overlaid onto a word or figure.
 5. X as a universal signature for the illiterate correspondent (often hand-written).
 6. X as a sign of affection at the end of the correspondence: a kiss (usually hand-written, but also now typed at the end of phone text messages and emails) in a relationship with O.

Graphic design and advertising not only rely on the page and screen as platforms for mediating messages in concrete visual form, but also incorporate sound and gesture in non-verbal acts of communication (fig.27).



Figure 27: 'Let Your Fingers Do The Walking', Yellow Pages campaign, Geers Gross Agency (1964); 'Phones 4 U' hand gesture used in adverts from 2006 (originals in colour)

Gesture is included in this chapter's interrogation of ambiguity (through X) because it not only connects writing with the body but also embellishes everyday conversation with additional layers of meaning. It is also worth restating that, like the word 'design', 'writing' is both a verb and a noun: an action and the meaningful product of that activity. The body is, thus, a medium of expression, a semiotic action or 'emblem' particular to a given cultural context (Nöth, 1995: 396). In this way, the gestural sign can articulate a design concept, social message or brand identity just as effectively as a visual (two dimensional) or oral sign. In time-based media, such as in TV/online advertising, the gestural sign can be an extremely efficient tool of communication across a range of communities. This type of sign has the potential of evolving into a meme through reciprocal exchange, similar to the participatory exchange of joke telling.

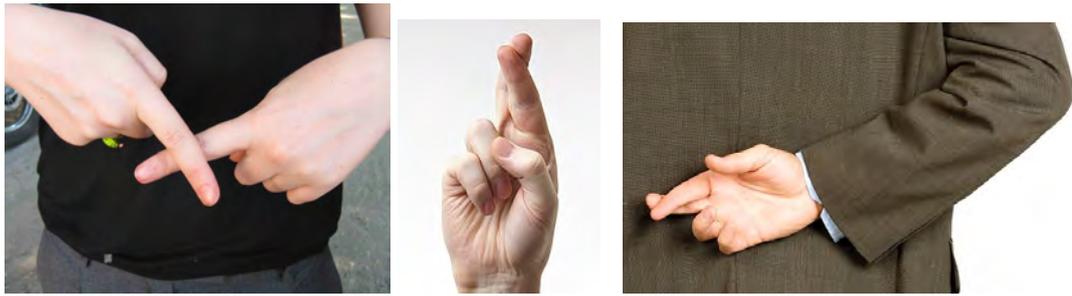


Figure 28: the Greek sign-language sign for ‘Greece’ (Cathy Gale, 2012); crossed fingers representing a ‘promise’ or ‘luck’; fingers crossed behind the back represents cancelling out the ‘promise’ (online images)

Apart from sign language (fig.28), which is acknowledged as a physical method of conveying meaning by combining hand and body movement with facial expressions, gesture accompanies most everyday conversations¹³⁵. Even in this form X embodies an oppositional duality: as a sign-in-action ‘fingers crossed’ (fig.28) may indicate a hope or wish, but can be ‘reversed’ (when behind the back) to signify a lie or truce sign indicating an escape from conventional rules of truth telling¹³⁶. This mode of discourse can be revealed to the recipient or kept hidden, although its impact is commonly reliant on *someone* else seeing the gesture, apart from the sign-maker.

Sign-orientated meaning continuously shifts in the social domain of graphic design but, as Roy (2001: 24) argues, X still “stands in for all that lies beyond the threshold of what is knowable,” on the boundary of certainty. X is a visual symbol and conceptual device that inhabits a liminal (borderline) space in communication in which meaning is fluid¹³⁷. This in-between place where meaning is more open (and ambiguity resides) is developed through practice in my project to invoke a notion of ‘magic’ in graphic design: described by Barnard (2005) as aspects of communication that are hard to quantify, yet understood as added value. It is the multiple instances of X, including its interpretations as an anonymous identity, that are identified in this research as forming an apposite exemplar of ambiguity in contemporary graphic design and this is what my project seeks to explore.

¹³⁵ Even when the speaker is not visible the receiver, such as when engaged in a (mobile) phone conversation.

¹³⁶ These rules are observed as strictly adhered to in *The Lore and Language of Schoolchildren* (P. Opie & I. Opie, originally 1959), where ‘kings’ or ‘kings and crosses’ are used as truce signs in the east of England.

¹³⁷ Google: the first entry was placed in October 2001 for the subject ‘X’, and June 2005 for ‘X (disambiguation)’. Google search 090909 “about 2,690,000,000 for x [definition].”

4.5. Summary and Conclusions

This chapter has sought to reveal how linguistic and visual applications and interpretations of X have transmogrified over time in socio-cultural and commercial contexts to embody new messages in a complex system of gesture, writing and speech and symbolic identities. Despite defined socio-cultural and commercial contexts of use, X has sustained an elusive and absent status, partly due to its uncertain origin, fluid status in several alphabets, diverse phonetic values and rarity of use. The uniformity or homogenisation of written and printed language has been identified as advantageous to expedient modes of communication across (ever more globally envisioned) cultures and communities, but has led to univocal or ‘univernacular’ forms of graphic design. Yet, such uniformity in the pursuit of commercial gain and productive expediency has failed to denude X of its intrinsic mystery and mutability.

As this chapter has demonstrated, X has accumulated functional and symbolic roles over time and cultures to stake a claim as a ‘sign of our times.’ This versatility is conducive to the multi-dimensional contexts in which design operates and the diverse roles abstract signs play in visual communication. X is, thus, framed in this research as a contemporary trope that captures the zeitgeist of contemporary graphic design, continuously open to new meanings.

As a culture we are collectively more aware of (graphic) design as a noun (product) infused into the objects and images of everyday life. Yet, the process (combining thought and/in action) of design that leads to these artefacts remains hidden to the majority of non-designers. Therefore, as a flexible yet strategic research methodology, the design process is explained in the next chapter and illustrated in *Ambiguity: A Design Process*. In this way, this study seeks to reveal evidence of ambiguity as an integral and mode of conceiving and constructing original outcomes, from initial idea to designed artefact, in a practice-based mode of critical design.

Chapter Five // The Design Process as a Practice-Based Research Methodology
Embodied in My First Type of Practice: *Ambiguity: A Design Process*

5. 1. Introduction

In this chapter the design process is outlined as the most appropriate research methodology¹³⁸ in this study, defined as a material critique of ambiguity (Seago & Dunne, 1999: 16). In the context of this study as a whole, Chapter Two (graphic design history) and Three (ambiguity) have theoretically underpinned the ‘why’ (context) of this research and Chapter Three and Four (ambiguity and X) have established the ‘what’ (problem of ambiguity). This chapter develops these concerns in the ‘how’ (research methodology) stage. In a synthesis of theory and practice this chapter and my first type of design practice – *Ambiguity: A Design Process* – interrogate ambiguity through the multiplicities of X. The efficacy and legitimacy of design practice *as* or within research is explained in the written component of Chapter Five and embodied in the original design outcome. Design is thus framed as a research process and a product: a mode of thinking through making, and X forms its most visible component.

From my first thoughts on ambiguity to the development of designed responses *Ambiguity: A Design Process* seeks to make explicit through practice what often remains tacit: that ambiguity and indeterminacy are fundamental to all design problems (Buchanan, 1995: 14). This research methodology is illustrated for the reader because, as Margolin & Buchanan (1995: *xxiii*) point out, beyond the studio: “the practice of design, as opposed to its results, has remained almost invisible to the public and scholars alike.” The process of (graphic) design is versatile, playful, strategic, purposeful, cognitive and intuitive, open-ended and precise: it encompasses new modes of production and thinking as it evolves to meet diverse audience needs (within inherent limitations). Yet, in studies of the design process little critical attention has been given to the *value* of ambiguity¹³⁹ in the transformation of a concept into a material outcome or message.

¹³⁸ A number of methods may be employed in a given research methodology, which include visual and material strategies as well as intellectual resources as insights into a problem. The design process is framed as the most appropriate research methodology in this study because of the productive convergence of theory and practice, thinking and making. The broad scope of design’s resources, identified in Chapter Two, and contemporary focus contribute to the discipline’s socio-cultural relevance.

¹³⁹ The disciplines included in the studies of the design process have tended to focus on industrial design and engineering (from the Bauhaus onwards) in which design planning and production represent more distinct elements than in the creative, intellectual, and transformative activities of graphic design. The Design Council (2007b: 3-6) suggests that the available literature is mostly inconclusive and abstract in

In Durling’s (2002) ‘Discourses on Research and the PhD in Design’ the discipline of design is described as lacking well-established research paradigms or established principles tested through designing, leading to few models to serve as the basis for doctoral study. There is also no single model of ‘best’ or ‘good practice’ because of the divergent constraints and drivers associated with each (design) problem (Design Council, 2007a: 4). Chapter Five reflects progressive stages of the design process, represented in my project as an adaptation of the Design Council’s (2007a) *Double Diamond*. This model is visually explained (below) in a diagram (fig.29), originally introduced at the beginning of this thesis, that maps four progressive stages comprising; *discover*, *define*, *develop* and *deliver*. Although constructed with business in mind, the *Double Diamond* embodies a set of common¹⁴⁰ principles that are adaptable to educational and research activities.

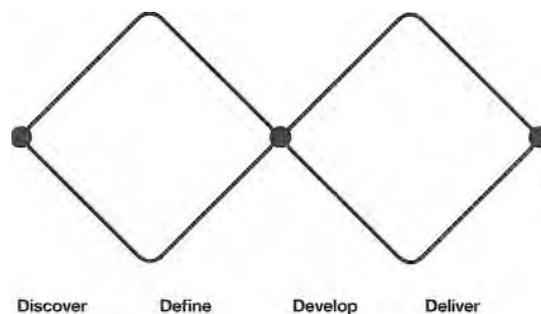


Figure 29: The Design Council’s ‘Double Diamond’ (2007a)

By applying a series of strategic stages to an otherwise open-ended notion of problem-finding this model attaches significance to all parts of the process instead of just the outcome. This process is iterative, cyclic and non-linear, enabling (or requiring) the designer to revisit and reconfigure their ideas, based on new perspectives and information, as they are discovered. There is no fixed boundary line marking where one stage starts and another ends: each is integrated and repeated in practice as a mode of defining the conceptual and creative scope of the project¹⁴¹. In *Ambiguity: A Design Process* design devices are employed to distinguish multiple layers of enquiry for the reader and to clarify the relationships between

nature citing criticism of the linear process of problem-solving in design as “a problem [that] could be solved in one go” in the *Desk Report*.

¹⁴⁰ Generic stages constitute commonalities across design processes that are modified and adapted to reflect the needs of the problem or end-user: reference, Clarkson & Eckert (2005).

¹⁴¹ Project, problem and task are largely interchangeable terms in design although project connotes something large scale (time and conceptual scope), while problem may be a particular issue within a larger project and task suggests an even more focused design. Norman Potter’s (2002: 110-111) *What is a Designer: Things. Places. Messages* (originally published in 1969) outlines common components of the design process in three stages of diagnosis; ‘finding out’: observing, assessing the facts; ‘sorting’: comparing and ordering phenomena to ‘unscramble the mix’; ‘interpreting’: evaluating potential to develop original outcomes. This text is intended as a guide to students but not in a form that is easily adapted to my study.

component parts. Pink paper inserts are used to identify and introduce each stage of the *Double Diamond*, blue paper inserts (fig.30) outline theoretical insights, and yellow inserts reflect on the visual, material and conceptual decisions made throughout the project, identified as *form, function, context* and *concept*.

One of the reasons practice-based design research is explained in depth here is due to the ambivalence of design practitioners in revealing the inner ‘workings’ of their design processes. The *AGI Open Portugal: Mapping the Process* (Ramalho & Rebelo, 2010) attempts to describe the ‘back story’ of graphic design through a combination of maps, diagrams and illustrations. Seymour Chwast’s (2010:78) contribution describes the design process thus: “The working method of a designer does not look like a monopoly board. It looks more like a salad.” In an *Eye* review of the AGI Open conference and catalogue Jan Middendorp (2010: np.) suggests that it is ‘amazing’ that many of these highly respected designers agreed to draw a map of their process in the first place: “For some it may be like giving away manufacturing secrets; for others, baring their professional (and personal) souls.” When described in this way the methods, aims and intellectual basis of the discipline may appear illogical, mysterious or evasive to the public (client and even student of design), leading to a lack of legitimacy and recognition in academic contexts. It is this cognitive conflict between design practice, theory and non-design based research methods that Seago & Dunne (1999) respond to by encouraging greater confidence in the critical enquiry of design, developed *through* practice-based processes and materials.



Figure 30: front cover *Ambiguity: A Design Process*; blue inserts identify theoretical insights (originals in colour)

As a research-based mode of design problem-finding was introduced earlier in this thesis in

an academic context: “designing and researching both draw heavily upon investigative techniques, and both are forms of educative enquiry” (Pedgley & Wormald, 2007:73). Problem-finding is developed here as the process of enquiry itself, rather than an outcome of this activity, described in terms of an iterative process leading to innovative outcomes by Noble & Bestley (2011: 9). The convergence of diverse and sometimes unlikely connections identified therein, helps reveal unexpected dimensions of practice and more expansive notions of design knowledge. Although not defined prior to embarking on my project, it was anticipated that a number of designed artefacts would make manifest my findings. Through the reflective process of design my research methodology emerged, not only as a means to an end but also as a design artefact, which could embody the role ambiguity plays in designing.

Ambiguity: A Design Process is presented as an edited compilation of research material and reflective analysis designed to capture the known, unknown and unexpected manifestations of X¹⁴² as an exemplar of ambiguity. For Nadin (1990: *np.*) “The design process, in its close relation to design products and their use, implies *design intelligence*, *cultural sensitivity*, and a critical attitude – semiotic components of many other forms of human activity.” In a practice-based extension of the *form*, *function*, *context* and *concept* of X this artefact converges studio-based processes with more academic insights. The explorative and notational sketchbook content was not originally intended for public view, therefore these four analytical categories provide supplementary modes of clarifying some of my more intuitive research choices for the reader. This additional commentary is provided in the form of a central guide taking the reader through my progressive stages of research: smaller in scale than the main document, this internal narrative also includes ideas that were excluded from the final thesis and project. Ambiguity in this chapter and artefact is framed as the diverse options (simultaneous strands of thought and action) available to the designer, in a problem-finding mode of the research design process.

5.2. Literature Review: Theoretical Resources

Ideas on design research from Frayling (1993), Schön (1983, 1992) and Buchanan (1992) are

¹⁴² This process is also considered in light of a semiotic framework in which the social domain is a key mode of the relationship between the designer, the audience and the object/image represented (Kress & van Leeuwen, 2006: 42). Cross’s (1999) *Design Research: A Disciplined Conversation* argues that design knowledge resides, firstly, in people, while the processes and products of design embody knowledge in its visual form, materiality, technology and context of use.

infused in this study to analyse how theoretical insights can help evaluate and inform design practice. From Frayling's (1993: 5) three classifications, research *into* design refers to broad explorations of design praxis itself as the object of study in the context of design's civic, cultural, material and commercial roles. This may lead to new methods, artefacts and paradigms of practice situated both within and beyond the traditions of the discipline in a more speculative operation (Dunne & Raby, 2013). Research *for* design is described as an act of gathering and evaluating historical and/or critical reference from visual and material sources with the purpose of thinking about the discipline. Research *through* design primarily concerns customising materials and technology for new uses: a form of action research in which the research diary itself embodies knowledge as a process of investigation.

Ambiguity: A Design Process initially corresponds with Frayling's (1993) notion of research *through* design practice, as a research diary, but aspects of all three of the listed categories converge in this study alongside Schön's (1992) theories of research-in-action or knowing-in-action. For Schön (1992) in 'Designing as Reflective Conversation with the Materials of a Design Situation,' the fluid status of design thinking is contextualised through studio-based reflection and the deployment of materials appropriate to each design task. In this context he makes explicit reference to ambiguity as a component of the process. Although developed within the field of artificial intelligence and cognitive design theory he provides valuable intellectual insights into design as a reflective discourse. Schön (1983: 280) argues in *The Reflective Practitioner: How Professionals Think in Action* that it is not the aim of the designer to first fix the problem as a result of objective analysis and then to search for a solution in a linear rational approach. Instead, the designer develops and refines both the 'problem space' and 'solution space' of a design project as a *consequence* of the design process. This purposeful but open research method best reflects the process-based nature of this thesis and my project.

In this context, the tools and techniques of graphic design form part of its theoretical basis, deployed to 'test' ideas and encapsulate new knowledge (such as those illustrated in *Ambiguity: A Design Process*). In Schön's (1983: 280) words "doing and thinking are complimentary. Doing extends thinking in the tests, moves and probes of experimental action, and reflection feeds on doing and its results. Each feeds the other, and each sets boundaries for the other." In an apparent contrast, but described by Nigel Cross (1999:10) in 'Design Research: A Disciplined Conversation' as a 'complimentary' method, Herbert

Simon¹⁴³ (1973) and Horst Rittel¹⁴⁴ (1973) frames design as a rational problem-solving process. In an extension of Communication Theories this linear strand of (computational) design seeks a universal approach to all design problems and has contributed to a science of design thinking¹⁴⁵. Divided into two distinct phases, *problem definition* and *problem solution* this systematic approach is described in ‘Wicked Problems in Design Thinking,’ by Buchanan (1992: 13-14), thus:

The linear model of design thinking is based on *determinate* problems, which have determinate conditions. The designer’s task is to identify those conditions precisely and then calculate a solution. In contrast, the *wicked-problems* approach suggests that there is a fundamental *indeterminacy* in all but the most trivial of problems.

For Buchanan, the *wicked problem* aims to construct a methodical precision for problem-solving in design based on a number of definitive ‘givens.’ Design is *wicked* because it has “no special subject matter of its own apart from what a designer conceives it to be” (Buchanan, 1992: 16). Yet, the social reality of designing is essentially ‘undetermined’ and ‘open’, lacking clear definition and completeness (Buchanan, 1992: 16) and is at odds (conceptually) with the linear structure of problem-solving. The design problem (task) is not fixed (or entirely known) at the beginning of the process, but susceptible to inevitable ambiguities and contingencies in practice. It is not only the design task that is susceptible to flux as a project progresses but also the designer and the political and socio-economic circumstances that he/she works in. The design process is, thus, far from a ‘stable’ methodology on which to base academic research and is commonly explained in the form of diagrams in which boxes and arrows feature strongly¹⁴⁶. Alternately, case studies in design books and journals focus on the success of particular design groups and/or products¹⁴⁷. This mode of analysis tends to overlook the underlying fusion of rigour and malleability that makes the design process such a persistently productive and innovative research tool¹⁴⁸. It also commonly overlooks

¹⁴³ With reference to John Dewey’s (1929, rpt. 1960, Capricorn Books, New York) *The Quest for Certainty: A Study of the Relation of Knowledge and Action*. Including work by Bruce Archer, industrial designer and visiting lecturer at HfG (Ulm) and researcher at the RCA (London) in ‘A Systematic Method for Designers’ (1963–1964) (Design Council, 2007b).

¹⁴⁴ Although Buchanan (1995) refers to Rittel (a former teacher at the HfG at Ulm) as independently developing the idea of wicked problems, the reference used in this thesis is: Rittel & Webber (1973) ‘Dilemmas in a General Theory of Planning’ in *Policy Sciences*, 4:2.

¹⁴⁵ Described earlier in this thesis in the context of late modernism at Ulm and the New Bauhaus, Chicago.

¹⁴⁶ Examples are included in the Design Council’s (2007b) *Desk Report* and Dubberly’s (2005) *A Compendium of Models*.

¹⁴⁷ Such as in Skolos & Wedell’s (2012) *Graphic Design Process: From Problem to Solution: 20 Case Studies; Design Diaries: Creative Process in Graphic Design* by Roberts & Wright (2010) illustrates a range of designers’ working processes in narrative form, based on case studies.

¹⁴⁸ Leading to concise commercial outcomes as well as speculative proposals in design.

the impact of client discussion (and whims), production issues, economic climate, social media¹⁴⁹, and so on.

Integrated into more formal aspects of the design process my research employs ‘focused wandering,’ a term used to describe how unexpected insights and lucky finds are sought as a conscious strategy at the *discovery* stage. This method helps identify the wider possibilities of a subject of study such as ambiguity, developed here through the multiple forms of X. Hyde (1998:131) describes the creative opportunities of chance thus: “the agile mind is pleased to find what it was *not* looking for.” He goes on to suggest that the lucky find occupies a liminal in-between space in which the fertile transformation of the happy accident leads to the discovery of new ideas, methods and designed artefacts. As a practice-based process Weingart (2000:171) describes the value of the accidental in *Typography: My Way to Typography* in this way: “Rarely did I attempt to implement preconceived ideas; instead, I navigated the process towards a result, which often led to unimaginable discoveries.” This aspect of creative discovery is ambiguous in the sense that it provides the designer with multiple simultaneous options: these are steered towards a resolved outcome through (a subjective) iterative filtering.

The methods employed by each design practitioner or researcher are as diverse as the scope of problems tackled. Therefore, there is an undeniable subjectivity to using the design process as a research methodology in an academic context. This is reflected in the title of my first type of practice: by featuring ‘a’ instead of the more definitive ‘the’ in the title, *Ambiguity: A Design Process*¹⁵⁰ is presented as *an* adaptation of the process, suitable to the particular needs of my study’s aims and methods. Rather than trying to resolve the indeterminate nature of design problems with the structure of a universal system this chapter argues that ambiguity is a key component of the (graphic) design process.

5.3. Material Resources: The Sketchbook

The resources encompassed in my project include the material – sketchbooks, a

¹⁴⁹ Reaction to the Gap logo redesign: <http://www.bbc.co.uk/news/magazine-11517129> (2010)

¹⁵⁰ Designers whose work focuses on the process of design include; the Dutch Droog (<https://www.droog.com/droog>) and Conditional Design (<http://conditionaldesign.org>); The French M/M (Paris) (<http://www.mmparis.com>).

photographic archive, accumulative ephemera¹⁵¹ – and theoretical to provide insights and guide progress. Sketchbooks, design journals and notebooks¹⁵² form repositories of ideas and, through the physical act of notational drawing and writing, help clarify an idea (Noble & Bestley, 2011: 51). Schön (1992: 8) identifies sketching as significant, if not essential, to design thinking facilitating changes of direction and content as external factors alter interpretations of the task (design problem). Drawing’s conceptual scope forms an integral part of my visual thinking process, is infused with possibilities, and is employed for this purpose in *Ambiguity: A Design Process* (fig. 31).

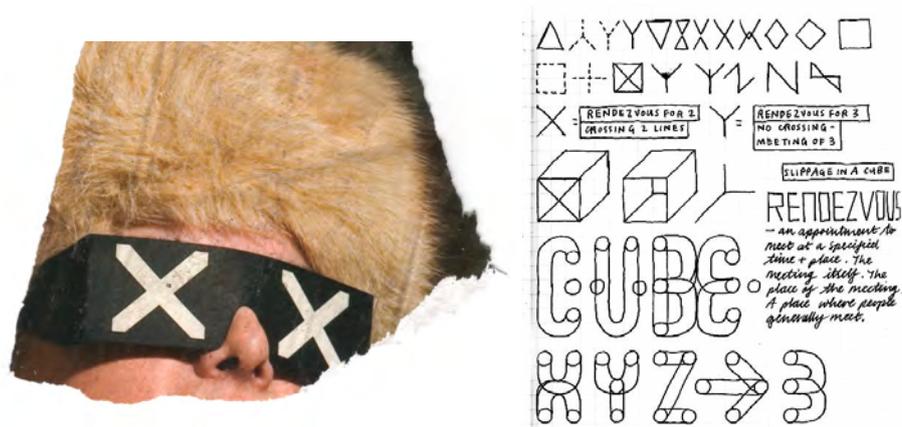


Figure 31: graphic ephemera found in the street featuring unclear functions of X (original in colour); notational sketches testing the *form* of X in *Ambiguity: A Design Process*

Graphic ephemera forms an important basis for design knowledge (in my project and research process) by exposing vernacular aspects of X in which the sign is not employed as particularly significant, but one of many possible signs in everyday cultural production. Gathered evidence of the ambiguities of X also includes newspaper articles and

¹⁵¹ Graphic ephemera extends the knowledge base of ambiguity by exploiting the notion of the ‘lucky find’ to purposeful effect (Weingart, 2000; Ramalho & Rebelo, 2010). However, as Hyde, (2005) points out, awareness of the lucky find requires the attention of a prepared mind to include vernacular extensions of design, found by chance in the street. In the words of Maurice Rickards, the founder of The Ephemera Society, ephemera is “the minor transient documents of everyday life” (The Ephemera Society, <http://www.ephemera-society.org.uk/index.html> 2014: np.).

¹⁵² As a material document of the design process sketchbooks have barely figured as objects of critical scrutiny in historical or popular contexts until recently. Recent publications include; *Graphic: Inside the Sketchbooks of the World's Great Graphic Designers* Heller & Talarico (2010) *An Illustrated Life: Drawing Inspiration from the Private Sketchbooks of Artists, Illustrators and Designers*, Gregory (2008). Sketchbooks are commonly perceived by design practitioners and clients as preparatory resources alone and rarely appear in the same context as the designed product unless as a historical artefact in an archive of significant works. When given critical attention design sketchbooks are often reframed as art, such as in Brereton’s (2009) *Sketchbooks: The Hidden Art of Designers, Illustrators & Creatives*. These sampled pages reflect a common distinction between working drawings as a (functional) means to an end and the sketchbook as a reflective artefact offering insights into the artist or designer’s mind. *Ambiguity: A Design Process* constitutes my working method as a material mode of problem-finding leading to designed outcomes.

photographic documentation in situ, collectively constituting a form of bricolage¹⁵³. The observation, documentation and classification of heterogeneous objects and ideas, connected to X, form a body of knowledge, determined by the discoveries drawn from whatever is to hand in the everyday. For Weingart (2000: 355) graphic ephemera is used in a fusion of elements in the creation of something new, forming visual relationships from the assembled pieces: “from the first collages to the final... poster, I assembled my montages into a weaving of fragmented dreams, memories and impressions.” In this transformative process everyday signs (incidental marks and intentional signs) are exploited as adaptable (semiotic) resources through which to formulate new meanings.

For Levi-Strauss (1972: 35) the mythical images and materials of the ‘bricoleur’ have *had* a use in a particular context then in a process of removal or reframing they can be *used again* for a different purpose (italics based on the author’s original use). The object’s original meaning remains, despite its redeployment in a new context of communication. By contrast in *Multimodal Discourse: The Modes and Media of Contemporary Communication*, Kress & Leeuwen (2006) argue that, in the *social* semiotic framework, meaning is not pre-destined but can (continuously) be made anew by all sign-makers from children to professional designers. Each sign-maker creates his/her ‘own’ representational resources as a part of a constant production of visual meaning:

In social semiotics the sign is not the pre-existing conjunction of a signifier and signified, a ready-made sign to be recognised, chosen and used as it is, in the way that signs are usually thought to be ‘available for use’ in ‘semiology’. Rather we focus on the process of sign-making, in which the signifier (the form) and signified (the meaning) are relatively independent of each other until they are brought together by the sign-maker in a newly made sign (Kress & Leeuwen, 2006: 13).

The fluid creative space of social semiotic theory forms the basis for reconfiguring X through practice as a critical tool to analyse ambiguity and propose alternative approaches to graphic design. So while an initial¹⁵⁴ semiotic typology including signs, things, actions and thoughts is employed as limited analytical criteria, new meanings are developed in relation to the social generation of sign-making defined by Hodge & Kress (1988) and Kress & Leeuwen (2006).

¹⁵³ In *The Savage Mind* Levi-Strauss (1972: 18-19) argues that these found objects and ideas “are ‘pre-constrained’ like the constituent units of myth” which have a determined meaning in cultural discourse: later challenged (Barthes, 1977) by semiotic theories around flux and polysemy in relation to the sign and its interpretation in (visual) language.

¹⁵⁴ This selection is limited for two reasons; first, because there is not space in this thesis to address diverse branches of semiotic theory, visual codes and conceptual structures; second, this thesis is not led by semiotic ideas of sign-orientated communication but employed as an analytical framework.

5.4. Initial Research Criteria

This chapter focuses particular attention on three of my four research questions¹⁵⁵ in a convergence of theory in practice: Question 02; how can the multiplicities of X be used as an exemplar of ambiguity in graphic design and a tool for exploring its future potential? Question 03; how can the design process be used as a research methodology to reveal the attributes of ambiguity through practice? Question 04, how does the graphic artefact facilitate understanding of ambiguity in design research? Question 02 forms the basis of Chapter Four in which scholarly enquiry is employed to examine the linguistic origins of X and its multiple instances as a sign and symbol in diverse cultures. From the insights discovered on the nature of ambiguity, embodied in the multiplicities of X, practice-based responses are developed in response to Question 03. The transformation of collected and classified raw data through a reflective process forms my initial response to Question 04. These research questions are inherently inter-related but are presented separately in this study to clarify the universal or particular roles (and values) of each component.

The *forms, functions, contexts* and *conceptual* potential of ambiguity in graphic design is given concrete form through practice in the multiplicities of X and illustrated within *Ambiguity: A Design Process*. Few constraints were set in place prior to my project in order to remain purposefully open to unexpected directions. Based on historical analysis (Chapter Four) it was concluded that, as the visual form of X (typographic and linguistic) is interchangeable with + and × (mathematical and symbolic), variations on these archetypes would be included. Thus, †, ☒, ⊗, and even ⌘ are incorporated as extensions of the (visual) X archetype to evaluate the functional and conceptual scope of the sign and its application as an exemplar of ambiguity in this study.

The following sections aim to guide the reader through my adaptation of the Design Council's (2007a) *Double Diamond* because it represents the most suitable (flexible yet structured) model of the design process in this research context.

5.5. The *Double Diamond*: Stage 01: Discovering Ambiguity in Graphic Design

The objective of the *discover* stage of the *Double Diamond* is to draw on a wide range of

¹⁵⁵ Question number one is predominantly tackled in Chapter Three in which comparative values of ambiguity are analysed in relation to art, literature, philosophy, design and the everyday.

resources, within the context of a problem, in this case the ambiguous potential of X. The Design Council (2007a: 10) defines the *discover* phase of the design process as the most critical: “the one which makes best use of the designer’s knowledge and skills” through design thinking and creative expression¹⁵⁶. Inherently open-ended, this stage allows for diverse ideas and insights to inform a greater understanding of the project’s boundaries and the methods appropriate to the task. In similar terms to problem-finding, this is a mode of asking questions, identifying patterns or anomalies through which to propose productive directions¹⁵⁷.

In response to the exponential range of contexts in which X is discovered, conceptual themes such as *space, location, sound, identity* and the *unknown* help form the sign’s territory of meaning pertinent to this stage of my research. These categories are explored independently and compared, contrasted and fused to form hybrid ideas and images in a practice-based play on possible (new) meanings. By exploiting proxemics¹⁵⁸, instances of X are visualised through notational mapping (fig.32) to induce relationships, based on the productive role contrast and connection plays in graphic design. Drawing on the common grammar of graphic design, identified earlier in this thesis, initial oppositional *dualities* of X (here/there; yes/no; love/death) are used at this stage to form a dynamic point of tension drawn from themes of location, love, choice and identity. Often taking the form of maps, these contrasts and commonalities are iterated and updated as more knowledge is gained throughout the process in an attempt to form logical creative routes. However, this limited conceptual typology of X subsequently failed to accommodate the more intriguing (miscellaneous) and elusive interpretations of the sign that emerged through the *discover* stage.

¹⁵⁶ My skills and experience as a design educator and graphic artist determine an initial range of materials and processes through which research questions are more effectively explored, explained and realized through practice.

¹⁵⁷ Although in practice, “an element of discovery takes place throughout the design process, as identified in Schön’s (1983) reflective theory of design.

¹⁵⁸ Proxemics is one of several principles referred to in gestalt theory, which has briefly outlined earlier in this thesis. When images are overlapped or closely connected they are interpreted as sharing common attributes, while “proximal but non-contacting elements are interpreted as related but independent” (Lidwell *et al.*, 2003: 160).



Figure 32: mapping themes to observe connections and idiosyncrasies; conceptual themes (original in colour)

As a placeholder sign, unknown constant, or unidentified person, X occupies a valuable status in visual communication as perpetually fluid, precise yet elusive. The capacity of the sign to be reinvented by new audiences in new contexts of meaning illustrates the potential of graphic devices to do and mean more. In response, the notion of *multiplicity* emerged as a more open-ended argument for design ambiguity reflecting the definition given at the beginning of this thesis¹⁵⁹. What the *discover* stage helped reveal through primary research was the unanticipated scope and ubiquity of X as a marginal, though loaded signifier in visual culture. The next stage of the process, therefore, necessitated a filtering of gathered resources and observations to develop more focused strategies for my project.

5.6. Stage 02: Defining Ambiguity Through X

At this stage of the research process a range of visual tools are employed in an attempt to define ambiguity in relation to graphic design, they include; mapping, photography, notational drawing, abstract graphic devices and typography, some of which were identified in Chapter Two. However, as stated (Caputo, 2005) earlier in this thesis, to define ambiguity is to constrain its interpretations and, thus threaten its ambiguous status. So, while the *discover* phase casts a wide net of resources, a more focused development of research themes is needed in the *define* stage to sort out and filter gathered material. At the same time, the creative fluidity of the design process is employed to enable the ambiguous possibilities of X to remain open. This stage incorporates self-reflective analysis, evident in the scanned sketchbooks, through which to identify areas of creative and conceptual possibility leading to focused designed tests.

¹⁵⁹ Ambiguity: a written or visual statement, concept and/or theme that can be interpreted in more than one way: it offers a multiplicity of meanings to the reader, audience or end-user.

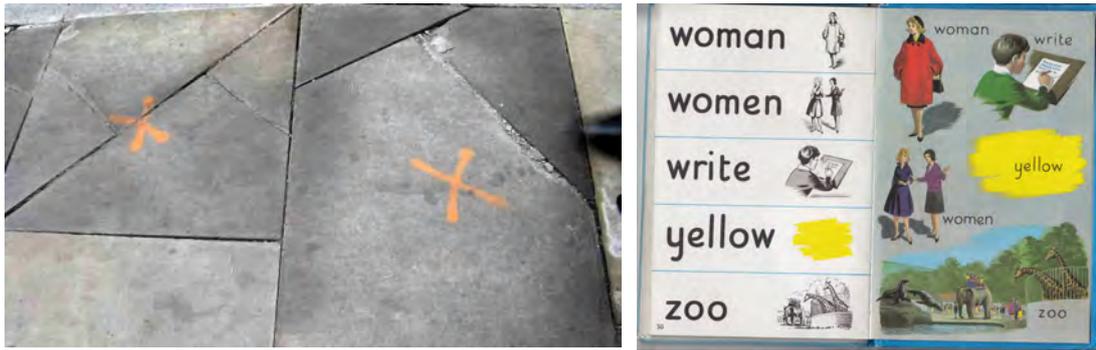


Figure 33: spray-painted X marks in the (London) street; Ladybird (1969) Picture Dictionary (originals in colour)

The first method of filtering the expanding archive of X tested here is an alphabetic system of categorisation, applied to make sense of the disparate resources collected up to this point and to try and construct connections. A more integrated deployment of *form*, *context* and *concept* is developed at this stage, by drawing on familiar design artefacts through which to view ambiguity in a new way. As an example, picture dictionaries from the UK (fig.33) and more coded systems of visual identity such as jockey's silks, flags and meteorological signs are extended to play with visual meaning. By reconfiguring alphabetic sequence and exploiting the uncertain space between the written and pictorial interpretation of a sign this research method builds on the semiotic challenge identified in the work of Magritte (1929). X-related themes and documented examples are classified under ambiguous titles to increase the signifying layers of the sign for the reader rather than to specify objective descriptions. For instance, under 'K,' an initial heading of 'Kissing the Pavement' seeks to form a connection between the concrete X-based marks on the pavement and the idea of a kiss at the end of correspondence¹⁶⁰.

In a convergence of the visual and conceptual, the signifying values of X are explored in political contexts where the sign represents an individual voter's choice in an election (a signature) and a mark of deletion/rejection in dual (oppositional) functions. Analysis and play with political ambiguity is extended to include the artists' manifesto as a visual expression of ideals beyond the conventional boundaries of graphic design. Key sites of political expression in the public domain considered here include the gallery of the street (billboard, poster, stencil graffiti) and the published manifesto. In this design strategy, I focus

¹⁶⁰ As a positional marker the X connotes the record or trace of an event (perhaps the site of a cycle accident or an ice-cream dropped?) that occurred in that place, recalling in the cliché of the chalk outline of a corpse.

on the tension between the dynamic graphic form of X and its ambiguous operations. Ideas that emerge from this research stage include anonymity, individual identity, choice and error: these are converged with ideas of social disconnection and uncertainty drawn from literary sources such as, *Generation X: Tales for an Accelerated Culture* (Coupland, 1991).

During this stage of the design process, graphic artefacts adaptable to embodying ideas around a multi-layered sign are explored and tested: the catalogue, index, archive, inventory and directory. Based on dual notions of love and death, an archive of loss is considered under the title, *Ex-Directory*, forming an initial collection of ideas relating to the simultaneous yet contradictory meanings of X. The *conceptual* scope of X and the concrete *form* of the book converge in the *context* of this cultural artefact to underpin the *Directory*. Oppositional themes comprising love/loss, identity/anonymity, choice/error are not the only investigative strands of this stage but form a generic basis for more focused tests, which the *develop* phase builds on.

5.7. Stage 03: Developing a Practice-Based Argument for Ambiguity

The develop phase refines key concepts explored during the *discover* and *define* stages of the *Double Diamond* further in the construction of more strategic tests through an iterative process that deploys or subverts conventional design mechanisms and vehicles. More focused directions are developed from a series of tests briefly outlined in this section. Test 01: develops ambiguity as a political argument and a brand concept, with reference to avant-garde manifestos, deploying X as a simultaneously concrete visual identity and elusive concept under the title: *A Manifesto for Ambiguity* (alternatively: *An Ambiguous Manifesto*).



Figure 34: sample page from *An Ambiguous Manifesto*; a visual identity for political duality

Test 02 looks at the ambiguities of typographic form: exploited and developed through practice in an *Ambiguous Alphabet*, from which the character, identity and anonymity of X is converged with the myth of the trickster, introduced in Chapter Three. This playfully destructive character is developed from its literary (cultural) origins to fuse creative destruction with positive notions of change in graphic design practice. Test 03: the archive is developed as evidence of multiple possible meanings derived from the same sign, seeking in this material context to encompass the broadest scope of X: notions of multiplicity and oppositional duality are focused on here.

At the beginning of this research the broadest territory of ambiguity was explored through the multiple instances of X. This included empirical evidence from observations in the everyday urban landscape, insights from tangential theoretical sources and non-design disciplines. Initially, the gallery as a site for exhibitions, experiential (interactive) artworks, 'performative' talks and film were considered in addition to more conventional graphic design vehicles and platforms. Through my reflective process it became apparent that new knowledge around ideas of ambiguity using a new exemplar and critical tool (X) in an unconventional vehicle would constitute too many unfamiliar points of engagement for the reader/end-user. If all points of reference/reading are new, newness is hard to gauge and the precise nature of my contribution to new knowledge could be lost in this matrix. Ideas of ambiguity are therefore articulated through more familiar designed artefacts in this study, reconfigured and extended to invite the reader into a more participatory relationship with the idea and its material form.

As Norman Potter (2002:31) puts it: "Good design is the generous and pertinent response to the full context of a design opportunity, whether large or small, and the quality of the outcome resides in a close and truthful correspondence between form and meaning." By extending traditional modes of design the reader anticipates the conventional consumption of a designed artefact (book). In its place, a deeper, less prescribed relationship with the object and message contained therein¹⁶¹ is offered. The familiarity of X helps to anchor more explorative and experimental ideas of ambiguity in graphic design.

In response to research Question 03 – How can the design process be used as a research methodology to reveal the attributes of ambiguity through practice? – design artefacts were developed as strategic material embodiments of ambiguity through a synthesis of open-

¹⁶¹ With reference to Paul Elliman's (2000) poster designs: Chapter Two.

ended research and controlled tests. The first of these outcomes emerged as a consequence of the design process and has been presented as a compliment to the written component of this chapter: a mode of research-in-action. My second and third types of practice, which accompany the following two chapters, also emerged from the design process through an explorative and structured series of tests. From *Test One* the manifesto and brand guideline manual are converged to develop precise instructions for the employment of ambiguity in design through the X as a visual identity. This is intentionally paradoxical and incorporates the mythical notion of the trickster from *Test Two* to apply a visual character to explain abstract notions of duality, explained and articulated in Chapter Seven and *Branding Ambiguity*. But first, in a development of *Test Two* and *Test Three* the archive is framed as empirical evidence of ambiguity in the everyday, leading to the designed artefact, *The A to Z of X*. The book also contains some of the tests illustrated in *Ambiguity: A Design Process* and accompanying texts from this thesis as a method of more closely connecting the written thesis and practice-based artefacts of this study.

In the *deliver* stage of the *Double Diamond* (Design Council, 2007a) final concepts are tested, evaluated and refined in context, then produced as outcomes. This final phase is described in the written component of the next two chapters and embodied in the design artefacts that accompany them: *The A to Z of X* and *Branding Ambiguity*.

5.8. Summary and Conclusions

Ambiguity: A Design Process is presented as an adaptation of the research diary and is described in this chapter as my first type of practice. The multi-layered design process has been employed as the most appropriate research method in my thesis and project, principally forming a response to question three (above) of this study. Design is framed as research in this context: a reflective material critique in which technology is customised or reconfigured to reveal new perspectives. This integrated research method draws on Frayling's (1993) categories for design research, Schön's (1983, 1992) ideas of knowing-in-action, Seago & Dunne (1999) and Dunne & Raby's (2007, 2013) notion of critical design practice. Through an iterative mode of research-in-action the inherent ambiguity of the design process has been identified and illuminated in *Ambiguity: A Design Process*. This artefact is framed in my study as an adaptation of the research diary, which "tells in a step-by-step way, of a practical experiment in the studios, and the resulting report aims to contextualise it. Both the diary and the report are there to *communicate the results*" (Frayling, 1993: 5). As a research

methodology the design process illustrates the advantages of uncertainty and indeterminacy in design thinking through/as making. Challenges have been set and explored through practice in synthesis with theoretical resources.

Infused into my reflective process the question of how X can be used as a critical tool, exemplar of ambiguity and new way of articulating ideas on ambiguity in contemporary graphic design has been developed. Aided by the four analytical criteria I devised, the *forms*, *functions*, *contexts* and *conceptual* possibilities of X were developed as pragmatic approaches to analysis and decision-making, expressed through sketchbook drawing and focused studio-based tests. X is newly proposed as a valuable critical tool in design debate because it transcends design disciplines and contexts of use enabling a broader perspective of views from beyond conventional discipline boundaries. X is conceptually blank and yet culturally significant and is framed in this thesis as a new way of analysing ambiguity in graphic design.

The next chapter seeks to extend my research process to demonstrate evidence of ambiguity in the everyday through the multiplicities of X. The response to my fourth research question (How does the graphic artefact facilitate understanding of ambiguity in design research?) extends the role of the designed artefact as embodied evidence of ambiguity in the multiple forms of X. The printed book is developed, next, as an object of critical design discourse through practice.

6.1. The Collection as a Source of Research and Knowledge

This chapter elucidates evidence of ambiguity in visual communication through my second type of practice, *The A to Z of X* (fig.35). The printed book¹⁶² is presented, here, as a graphic artefact in which I respond to the question of how the multiplicities of X can be employed as an exemplar of ambiguity in graphic design. The written component of this chapter thus extends notions of ambiguity from Chapter Three as the intentional evocation of several meanings in the same sign (X) and object (book). *The A to Z of X* is also framed as an object of design discourse, which develops an understanding of ambiguity through design strategies, such as page layout, typographic expression and footnotes, in response to my fourth research question. This is the first time, such as an extensive archive of X, has been employed for the purpose of demonstrating evidence of ambiguity in graphic design. *The A to Z of X* is proposed in this chapter as a contribution to new knowledge: a material mode of extending possibilities of the discipline through ambiguity.



Figure 35: *The A to Z of X* front and back cover (original in colour); *The A to Z of X* 'Multiplicity' page

An absolute definition of X, such as in an encyclopaedia, or dictionary is not sought here. Instead, *The A to Z of X* is presented as an index of inspiration: a non-linear sourcebook in which several perspectives on X as an ambiguous sign are provided in a synthesis of the factual and fictional. The collected evidence of X is interrogated in this chapter and

¹⁶² The development of sensual and interactive elements within *The A to Z of X* were informed by discussions on the future of the book with representatives from *Die Gestalten Verlag* publishers in Berlin (2010). They pointed to fewer, more high quality books being printed, using more concept-orientated collections and thematic approaches. With this encouragement, exploration of visual and material possibilities followed.

articulated through my project in two ways: as an extension of the *discover* phase (Design Council, 2007a) of the design process and as a designed consequence of that research approach. Insights drawn from art, design, philosophy, popular culture, the everyday, scholarly historical sources and literature are employed to theoretically underpin approaches to collecting. Collecting is framed in this chapter as a creative practice and as a way of understanding the world through the evaluation of accumulated objects and images. As a research method collecting extends Schön's (1983) notion of research-in-action to include what I have termed 'focused wandering,' a mode of embracing new and unexpected insights, intentionally aided by heightened perceptual awareness of X. This is achieved through reflective analysis of photographic documentation, scanned graphic ephemera featuring X, anecdotes and notational sketches. One advantage of the archive exploited in this context is that, by observing the same image, idea or object en masse, similarities, idiosyncrasies and new functions are discovered. In the case of X, an unexpected depth and diversity of meaning emerged as an early result of this (empirical) research method.

The A to Z of X is intentionally large in scale to physically capture the conceptual depth and multiple signifying layers of the sign. The format is based on a generic book size employed in the design of visually-led commercial publications: it is also square(-ish) to reflect the common typographic form of X rather than the symbolic ✕, which is usually articulated as a symmetrical squared cross. As a traditional graphic design vehicle in mass-production the printed book still has much to offer, despite the emergence of screen-based reading, print-on-demand and issues of sustainability. By extending the possibilities of a 'stable'¹⁶³ design object in print (book/poster) *The A to Z of X* is conceived as an open-ended mode of reading through which the reader constructs his/her own narrative of the sign. In this way, "incompleteness becomes a stimulant, driving the reader to inquiry and research" (Drucker, 2009: 72). My archive of X is unavoidably subjective and partial, but is presented as a representative range of the sign's diverse everyday applications (the context in which graphic design operates).

¹⁶³ The notion of the 'stable' design artifact is drawn from Nadin & Zakia's (1994) analysis of the printed ad in *Creating Effective Advertising Using Semiotics*, a traditional form of advertising which they argue has influenced most other types and therefore aids understanding of diverse forms. The book is framed here as a 'stable' design object that enables an evaluation of ambiguity across other, newer (digital) vehicles of design.

6.2. Literature Review: Collecting and the Collection

This review examines the role of collecting in art and design first, used as the raw materials of inspiration and as the creative outcome itself, then considers taxonomies appropriate to the organisation of disparate data (relating to X). The distinction between purposeful collecting¹⁶⁴ and accumulating is referred to in the Latin *colligere*, “to select and assemble” (Baudrillard, 1994: 22). This definition helps converge the *discovery* stage of the design process with my notion of *focused wandering*, described in Chapter Five as encompassing the tangential and unexpected in a planned mode of design research. In *The System of Collecting* Baudrillard (1994: 9) argues that, “For the child, collecting can represent the most rudimentary way to exercise control over the outer world: by laying things out, grouping them, handling them.” This material form of knowledge leads Walter Benjamin (1999: 62-64) to describe collectors as “the physiognomists of the world of objects... property and possession belong to the tactile sphere. Collectors are people with a tactile instinct.” With this broad sensory approach to research in mind, ideas of individual identity, ownership, loss and control, are explored through visual, spatial, oral and aural terms (excluding taste and smell).

6.2.1. Collecting as a Creative Act

This section compares collecting for the purpose of making art (or design) works with collecting as an artwork in order to identify common approaches and differences to the investigative method across these creative disciplines. Intellectual interpretations of collecting underpin notions the self or community that are defined through the collected objects, images, events, music and fashion of the cultural landscape (Heskett, 2002:125). For artists (fig.36), collecting is recognised as a form of creative expression and the subject of the work itself (Schaffner & Winzen, 2009), while few recognised principles of collecting can be found in design theory¹⁶⁵ or practice despite, or perhaps due to, its tacit role in the early stages of design research.

¹⁶⁴ While the archive is defined as “a collection of historical documents or records” the collection is more general and not necessarily historical in its intentions or nature (OED).

¹⁶⁵ Listing comes under scrutiny by design critics Limited Language (2010: 8) in *Limited Language: Rewriting Design. Responding to a Feedback Culture*.



Figure 36: *Deep Storage*, Schaffner & Winzen (2009); *Edward Fella: Letters on America*, Wild & Blackwell (2000) (originals in colour)

Graphic design archives tend to be constructed and used as the type of symbol sourcebooks referred to in Chapter Two (Dreyfuss, 1984; Frutiger, 1998), and popular logo or signage collections. The designer’s self-generated collection, in common with his/her design process, tends to remain hidden from public view. The archive of X aims to form significant insights into the possibilities of everyday (visual) resources in the socio-cultural domain in this study by drawing on a social semiotic framework of analysis. In this way the form, functions, contexts and conceptual values of visual signs in the everyday landscape, are examined and elucidated to reveal new possibilities of visual communication, as this section seeks to demonstrate.

For designer and illustrator Ed Fella the collection (fig.36) is used as creative and conceptual ‘fuel’: the raw materials for insight and information, informing practice as a *means to an end* (author’s emphasis): “visual material saved as raw data to use when necessary for reference” (Wild, 1991: *n.pag.*). In this way he employs the vernacular archive (started in the late 1980s when studying as a masters student at Cranbrook) as a source of inspiration and information in a direct relationship with the work at hand. Both designers and artists tend to collect the overlooked or disposable object, such as waste transformed into something exceptional: the raw material¹⁶⁶ of creativity developed through a process of collecting and classifying. In *Deep Storage: Collecting, Storing and Archiving in Art* (fig.36) Winzen (1998: 22) claims that ‘everybody collects’ but that artists situate the collected materials and archive as works of art themselves. For the artist, “collecting introduces meaning, order, boundaries, coherence,

¹⁶⁶ The majority of ideas relating to collecting and the collection refer to the material object gathered and transformed. The urge to list and save evidence of the self is a recurrent theme in the contemporary impulse to digitally document and share (Facebook, Flickr, Tumblr, Pinterest) each moment of our lives. The difference between the digital and material archive is briefly examined later in this chapter.

and reason into what is disparate and confused, without contours and is contingent or threatening” (Winzen, 1998: 23). The key difference between the artist and designer’s use of collecting in these examples is the absence of the designer’s archive, classified, named and displayed as an artwork.



Figure 37: Baines & Dixon (2003) *Signs: Lettering in the Environment*; Bohm *et al.* (2002) *Endcommercial: Reading the City* (originals in colour)

For educator-typographers Baines & Dixon (2003) the archive of environmental lettering published in *Signs: Lettering in the Environment* (fig.37) forms an observational critique of navigational signs from the UK (and beyond). This collection of photographically documented examples aims to reveal what is often overlooked in the everyday forest of signs, providing a critical evaluation of typographic language in context. Subtle but significant differences in typographic form are organised thematically: divided into ‘signing the way’ and ‘naming places and defining spaces’ to analyse the function and execution of lettering in the public domain. They aim to “identify a set of practices and traditions which are ‘living’ and adaptable to the requirements of now, and as such have much to offer the contemporary practitioner and enthusiast alike” (Baines & Dixon, 2003: 9).

In an alternative deployment of the photographic archive of the urban landscape, *EndCommercial* (Bohm *et al.*, 2002: *np*) aims to “change your sensibility for your surrounding, a change in perception of the ordinary, a shifted view on something that has become invisible by its omnipresence.” In the context of the architectural environment, a range of signs and situations are repetitively documented to form a comparative collection of similar signs and signals. In this printed collection, the nuances of difference are highlighted, but no critical analysis of the visual resources is provided for the reader. The book collection is also extended to a website in which a largely thematic arrangement is employed for this purpose, including ‘Dysfunctional Speech Act’ and ‘Property Phenomenon’ under the category of ‘system.’ In my project conceptual themes are devised to formulate initial typologies of the

overlooked and underfoot instances of X under subject headings such as *Accidental Alphabet* and *Dead Gorgeous*¹⁶⁷. The aim of *The A to Z of X* is to illuminate and evaluate evidence of ambiguity in graphic design, and is stated as such in the introduction to the book.

6.2.2. The Collection as a Mode of Knowledge

In this section, the collection is considered as a mode of (new) knowledge in design. In practice design devices such as empty space, choice of typeface, page layout, the materiality of scale and print are revealed as methods of constructing a space for discourse between the reader, the idea (ambiguity) and the social context of graphic design.

In *G1 Subj: Contemp, Design, Graphic* (Blackwell & Brody, 2000) the collection of everyday visual matter is described as a process of trying to make sense of the material landscape, seeking to give value to overlooked vernacular manifestations of graphic design (fig.38). Through the transformation of context, form and purpose relayed back into the public domain in concrete form, new meanings can be created, often as a process of re-framing the familiar in an unfamiliar way. By disrupting conventional book format and page layout in a conceptual strategy the content is revealed in such a way as the graphic messages might be found in the street. Minimal captions accompany the images while physical interaction is encouraged by inviting the reader to place names, indexed at the back of the book in the form of stickers, in the main body of the book. The components of this (conventional) design artefact are reconfigured to demand a high level of participation from the reader in a challenge to the perception of graphics. In similar terms to the experiments of the postmodern era of design, reconfiguring traditional design artefacts is employed as an intentional strategy to urge the reader to consider his/her role in the act of reading and visual communication as a mediation of meaning.

This open-ended deployment of design's visual and material mechanisms is developed in *The A to Z of X*, which also makes a direct call to the reader/end-user to participate in the book as an idea and designed object. As an integration of form and content (words and images, designer and writer, theory and populism) Marshall McLuhan's (1967) *The Medium is the Message* is acknowledged as an inspirational model to "contemporary graphic designers who are seeking to rethink the normative boundaries of profession practice" (Lupton &

¹⁶⁷ These names, developed as thematic research categories in my first type of practice, are now applied to *The A to Z of X*, combining factual titles with more emotive descriptions to reflect the examples of X.

Miller, 1996: 101). Evoking the spirit of McLuhan's ideas, Quentin Fiore¹⁶⁸ employed visual puns, repeated, juxtaposed and reframed images, and disrupted the literal dimensions of the book to draw attention to the hybrid, fragmentary nature of the book's content. In *The A to Z of X*, design techniques employed in a new generation of meaning, form the basis of the book as a material critique of ambiguity.



Figure 38: Thomson & Davenport (1980) *The Dictionary of Graphic Images*

In a more formal arrangement of content, Thompson & Davenport's (1980) *The Dictionary of Graphic Images* (fig. 38) illustrates an array of recurrent themes available to the designer from a broad stock of visual themes including *abacus*, *barrel*, *fig leaf*, *mousetrap* and *ZZZZZ*. The collection illustrates a diverse visual language employed within graphic design at that time¹⁶⁹, as an alphabetic assemblage of recurrent images and devices that become valuable clichés (or redundant images: Fiske, 1990). In the foreword George Lois (1980: v)¹⁷⁰ notes that, "while the cliché is a derogatory word in literary circles, the visual cliché is essential in the world of graphic communications." In their analysis of X "its mystery and ambiguity are reflected in its many graphic interpretations" (Thomson & Davenport, 1980:257), yet the page only features the duality of X for cancellation and affirmation, accompanied by the ostensibly precise 'X marks the spot.' The 'X-ray' examples concern an x-ray image but as a device for revealing the inner intentions of Hitler during World War Two (fig.38). This collection reveals an absence of references to danger and sexual attraction (increasingly

¹⁶⁸ Fiore briefly attended the New Bauhaus in Chicago.

¹⁶⁹It is interesting to note that Lois (1980: vi) promotes the need for *The Dictionary of Visual Language* at a time when "art directors seem to be less and less aware of the world's rich, limitless lode of imagery, and its awesome potential for communicating with spirit and style." The need to push out design's boundaries from within (the discipline's research and experimental practice) against the ever-present reductive impulses of commercial production is not just a topical concern but an always present concern for designers as stated earlier in this thesis (Vignelli, 1983; Crow, 2003).

¹⁷⁰ Termed redundancy (Fiske, 1990) in communication theories visual concepts, such as the cliché, are exploited to mediate complex messages in simple form to an audience. The immediacy of the singular concept limits the potential of deeper meaning and potential interpretations, as stated earlier in this thesis.

dominant desirable attributes in graphic design and branding), reflecting the sign's marginal (and relatively innocuous) cultural status at the time of publication¹⁷¹.

My project fuses vernacular, formal, accidental and more professional instances of X in an accessible design format by drawing on Thomson & Davenport's alphabetic approach to the analysis of visual signs in graphic design. In this way *The A to Z of X* is conceived as a (relatively) conventional design artefact extended to embody unconventional ideas about ambiguity in a reflective mode of graphic design.

6.3. *The A to Z of X: a Designed Artefact*

The book is framed in this stage of my research as a cultural artefact integrating critical analysis within the page layout, seeking to reveal multiple perspectives on ambiguity embodied in X. This chapter is designed to be read alongside (in conjunction with) the designed artefact.

6.3.1. Taxonomy

An alphabetic taxonomy is employed as the most appropriate to the large-scale body of evidence identified in relation to X. Richard Saul Wurman (1990:2) argues that, because “everybody is familiar with the Alphabet, categorizing by Alphabet is recommendable when not all the audience is familiar with different kind of groupings or categories you could use instead”. Wurman's (1990) LATCH (Location, Alphabet, Time, Category, Hierarchy) idea was developed in *Information Anxiety* with design in mind as a means of handling the barrage of information designers must quantify and reconfigure as a part of the everyday demands of the job. He developed the system to show designers how to get to the information they most needed and how to use it effectively. This section briefly identifies the particular value of the Alphabet as an organisational system in comparison to the other categories of LATCH: each category is identified in capitals to distinguish from normal contexts of use. As Chapter Four demonstrated, no common source of historical or geographical Location can be easily established for the origin of X, as a universal symbol or alphabetic linguistic sign. A ‘Timeline’ (fig.39) forms one double page spread in *The A to Z of X* to illustrate the exponential increase of X in visual and literary culture (from the 1980s in particular). However, Time is insufficient as a logical chronological narrative of X due to the sign's

¹⁷¹ Similar to that of X factor, which is considered in Chapter Seven more closely.

uncertain origins. Where should a chronological history of the universal X start in temporal or geographic terms?

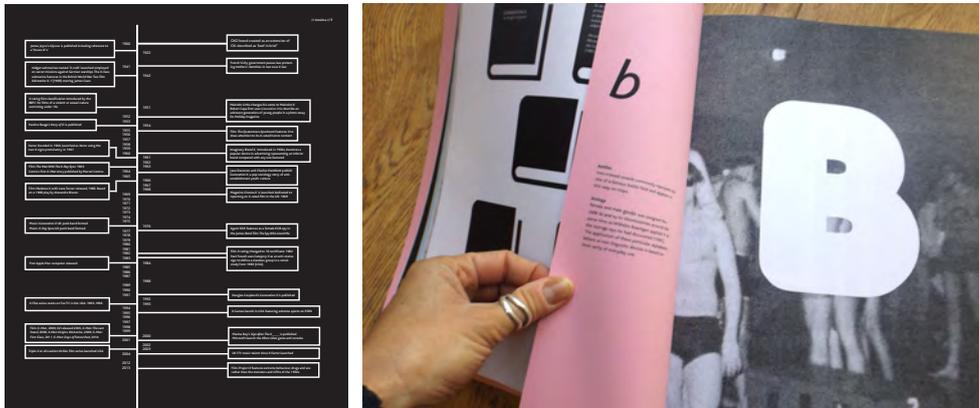


Figure 39: ‘Timeline’ page from *The A to Z of X*; reverse side of a chapter stub for section covering the letter ‘B’ (original in colour)

Hierarchy is defined as a subjective typology by Wurman (unless defined as economic value, weight, height), therefore it is left for the reader to construct his/her own hierarchy from the book’s content, converged with their own experiences of X. As Georges Perec (1999: 198) concisely observes in *Species of Spaces and Other Pieces*, “in every enumeration there are two contradictory temptations. The first is to list everything, the second is to forget something.” Gaps are acknowledged as an inevitable consequence of the sign’s multiplicities and are designed as conceptual and material space for the reader to fill: in this way the limitations of the book as a design vehicle are used as opportunities to innovate. As an example in *The A to Z of X*, the ‘Notes’ page invites the reader to add his/her own stories of X, while ‘My X’ leaves visual spaces for the reader to construct the sign’s identity.

6.3.2. Structure: How to Use the Book

The A to Z of X opens with a quote from an anonymous member of the public: “What’s the point of X? It just sits there at the end of the alphabet and does nothing.” which is the response I received from a member of the public on describing the subject (X) of my thesis and project. The content of this book endeavours to disprove this statement. As a design object with multi-layered meaning, the book’s format infuses a combination of logic, creative play, historical fact and popular anecdote to embody the sign’s ambiguous ‘character’¹⁷². Page numbers are not included, here, in an intentional deviation from conventional book design. This design strategy seeks to reflect the open-ended possibilities

¹⁷² This idea is extended to the deployment of X as a brand identity in Chapter Seven and my third type of practice, *Branding Ambiguity*.

of ambiguity in a graphic artefact. Chapter stubs (fig.39) list the contents of each alphabetic section, then on the reverse, a list of subjects that are connected to the ideas of X are listed but not included¹⁷³. As an example of how the alphabetic structure and design layout aids multiple readings of the sign, ‘Character Assassination’ (fig.40) leads to ideas on ‘Anonymous X’ drawing the reader’s attention to the positive and negative perceptions of X as a placeholder sign: a blank/ed identity. From this page key terms or conceptual threads drawn from the main body of text are then identified at the base of the page in the form of a footnote, leading to further page headings and subject themes, such as ‘Uniformity’ or ‘Multiplicity’.

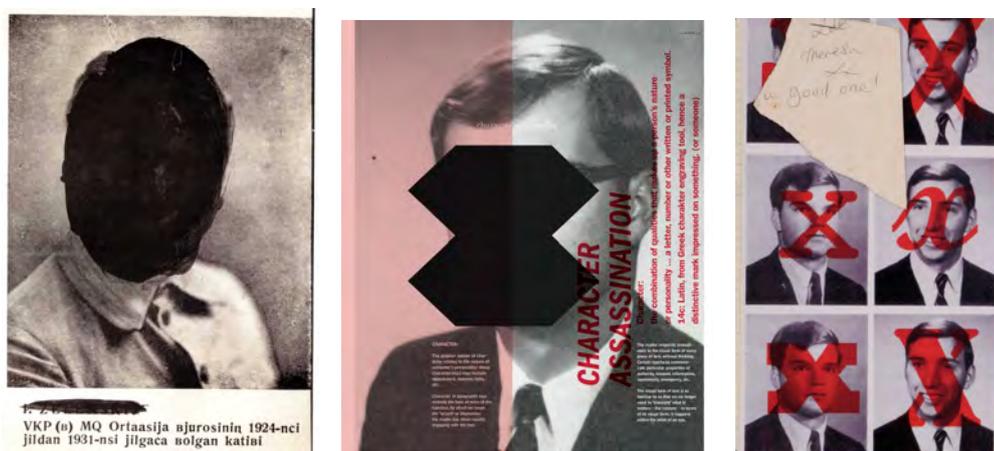


Figure 40: deleted party members from Soviet Russia, Rodchenko (originally 1934) by David King (1997) in *The Commissar Vanishes*; ‘Character Assassination’ page from *The A to Z of X*; character sketches, *Ambiguity: A Design Process* (originals in colour)

Adapting the notion of the trickster (introduced in Chapter Three) to my project, the idea of a fluid, ambiguous identity is developed through manipulating the visual language of graphic design. Among the devices employed to capture ideas of anonymity and individual identity (fig.35; fig.40) in *The A to Z of X* formal portraits of American college yearbooks from the 1960s are used. The students’ individual identities are unimportant in this application and always obscured or blurred. The yearbook portrait represents an idealised concept of a person whose future is yet to be defined: allusions to ‘Generation X’ as a social category without identity or direction are intentional. The staged formal portraits of young Americans are complimented by found photos of unidentified people found in the (London) street seek to reflect less formally constructed visual identities.

¹⁷³ For instance, Architecture and Algebra do not feature in *The A to Z of X* because these subjects require specialist knowledge beyond my experience.

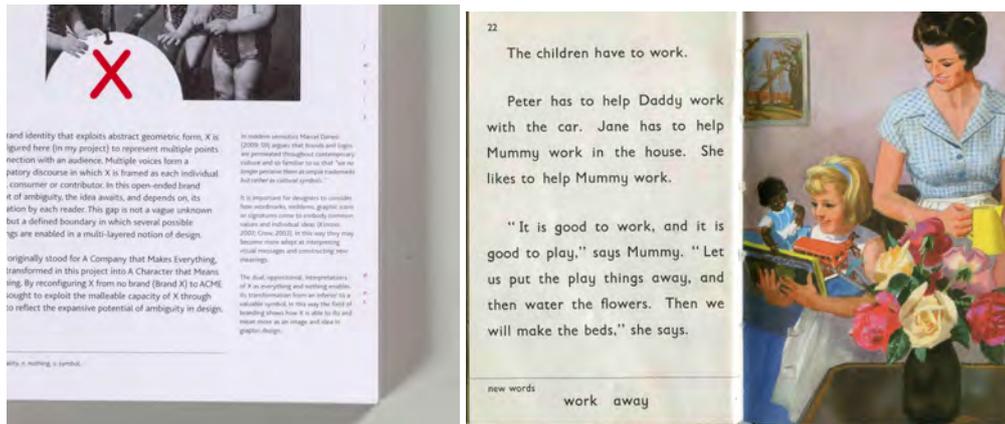


Figure 41: close up of footnote cross-referencing from *The A to Z of X*; page layout identifying key words in *4a Ladybird Key Words Reading Scheme* (1964) (originals in colour)

Navigation through the book and cross-referencing are facilitated by the use of footnotes: this structure draws on educational illustrated book devices, such as those employed in *The Ladybird Key Words Reading Scheme* (fig.41). The featured words at the base of the page highlight subjects and themes from the main body of text (or commentary) in *The A to Z of X*, indicating further connotations of the sign included therein. These design devices serve to draw attention to significant tangential ideas illustrating layers of the sign's (ambiguous) meanings. With no absolute conceptual beginning or end, the alphabetic structure of *The A to Z of X* is framed as a representative scope of the ambiguous of X, literally layered within the material constraints of a printed book. Within the boundaries of this artefact, discourse is embodied in the design by physical interaction with empty spaces, cross-stitching canvas using X as a visual unit (like a pixel) or simply discovering unexpected signifying layers of the sign.

6.4. The Museum of X (www.museumofx.org)

The *Museum of X* is also visually-led and alphabetically organised. In this embryonic project the archive is conceived as a space in which current ideas on ambiguity can be exchanged and possible meanings speculated on, as they unfold over time in the social domain. This online museum of collected subjects (from A to Z: arrows to zig-zags) responds to the material limitations of the printed book with the technological fluidity of the digital realm, offering multiple alternative discourses around ambiguity to a wider audience. In the *Museum of X* the 'X' stands for the particular subject of the collection and as a generic placeholder sign, an unnamed but specific subject of interest. Comparable to the book but not merely translating *The A to Z of X* from print into digital form, the 'museum' evokes notions of place while simultaneously offering infinite space for content, theoretically at

least¹⁷⁴. As Hal Foster (2004: 4) puts it in *An Archival Impulse*, “the ideal medium of archival art is the mega-archive of the internet.” The physical limitations of exhibiting the multiplicities of X as historical evidence mean that conceptual, philosophical and paradoxical aspects of this research are difficult to accommodate.

This project draws on BBC Radio 4’s *Museum of Curiosity*, as a conceptual resource. First broadcast in 2008 and still debating the virtues of diverse witty contributions from listeners, abstract concepts as well as images and objects can be submitted to the ‘museum’. In this way, *The Museum of X* is conceived as a conceptual and digital space containing manifestations of X that are only constrained by the uncertain boundaries of technology (memory and price equal space and functionality in this context). The digital mode does not yet - and may never - represent the totality of graphic design practice but is infused into the social realm of contemporary communication. The online-only *Museum of X* is framed in this part of my project as an active design platform synthesising familiar behaviour in the public domain with a more open-ended access to knowledge made available through the digital realm. The site is conceived as an original research proposal that responds to the limitations of material and temporal closure associated with the printed book, leading to possibilities (as yet unknown) for the future of ambiguity in graphic design.

6.5. Summary and Conclusions

In this chapter and my second type of practice, disparate examples of X have been drawn from tangential intellectual sources and documented in a broad scope of contexts and meanings. As raw research material, compiled visual instances of the sign are employed in an extension of the Design Council’s (2007a) *discovery* stage of the design process. Here, the first research phase is transformed from a mode of research *for* design to research *as* design: an object of design discourse (Seago & Dunne, 1999). The multiplicities of this sign and symbol have been applied to a printed book structured in an accessible alphabetic sequence, which has referred to Wurman’s (1990) taxonomy of diverse and deep information for designers. This design strategy has been devised to expose the ambiguities of X to closer analysis and evaluation in context.

¹⁷⁴ The conceptual space of the world wide web is theoretically vast, as reflected in the ‘www’ prefix. However, in practice, digital space is bought to house very particular amounts of information, data or functionality.

Drawn predominantly from the everyday cultural landscape, this wide-ranging evidence of X demonstrates that ambiguity is already prevalent and inherently and valuable in everyday visual communication. In this chapter, the book forms a material critique of ambiguity, conceived and illustrated as multiple layers of meaning infused in one graphic artefact. The limitations of the book are exploited offers the reader/audience more than one potential interpretation of an idea or image in the same self-contained, bound, context.

As my third designed outcome of the design process's *delivery* stage, the next chapter develops X as a multi-layered visual identity for ambiguity reframed as a brand concept in the design field of branding. While *The A to Z of X* has exposed evidence of ambiguity in the contemporary cultural landscape, the deployment of X in *Branding Ambiguity* considers the future possibilities of graphic design enabled by the space of ambiguity. By further extending the conceptual depth of X, the design field of branding seeks a more participatory relationship between the idea/product and the audience. X is proposed in this stage of the project as an ancient mythical symbol through which to envisage new notions of the discipline.

Chapter Seven // *Branding Ambiguity*: a Pocket-Sized Script for Action

7.1. Introduction:

My third type of practice *Branding Ambiguity* considers the possibilities of ambiguity as a brand concept in a speculative artefact, a mini-manifesto that plays with the possibilities of ambiguity in graphic design. This ‘script for action’, embodied in a miniature graphic object, looks forward to anticipate a new critical context for design in which ambiguity is valued in similar ways as it is in the disciplines of art, semiotics and advertising. The comparative reduction of this book’s material dimensions (in relation to *The A to Z of X*) does not correspond to a decrease of its significance¹⁷⁵. Ideas of intimacy and value are derived from the miniature scale of the designed artefact drawing each reader in a closer relationship with content in the act of reading. This adaptation of the (conventional) graphic design brand manual aims to inspire alternative modes of thinking about ambiguity in design by using paradox, uncertainty and contradiction. As Jason Little of Landor Associates (Little, 2011: *np*) puts it, “the consumer of today has a voice, is having multiple brand conversations across multiple platforms, and their user-generated content is playing an increasingly significant role.” Ambiguity is proposed, here, as an apposite mode of multi-layered expression for contemporary designers and consumers alike, and is developed through practice in *Branding Ambiguity* (fig.42).



Figure 42: sample pages of *Branding Ambiguity* (originals in colour)

This branding book is open-ended, conceived to inspire debate by challenging the terms in which graphic design is conceived and consumed. *Branding Ambiguity* aims to open up a dialogue about the relationship between the rhetoric of visual certainty in commercial

¹⁷⁵ The Bible is identified by Stewart (1993: 40) as a significant book, often chosen for miniaturisation.

contexts and the conceptual richness that ambiguity offers both designer and audience. In conventional graphic design precise imagery and clear type layout commonly give the appearance of a singular message. Yet, a world of possibilities is available embodied within the multi-layered X. As a visual identity for ambiguity, X is framed in the context of branding as a collaborative communication device that *generates* meaning, aided by a reciprocal discourse with the end-user. Here, X is conceived as an identity (signature) for each reader: the sign is both the subject of study and its concrete articulation by each person. In this operation, the reader (rather than end-user¹⁷⁶) is an essential participant, able to change roles, remain anonymous or form a consensus of opinion in a more collective discursive play with meaning. In this way X is extended as a critical tool to enable diverse perspectives on design ambiguity to be considered in addition to the (reductive) commercial deployments of visual signs. In a creative act, X locates a critical point of departure for future discourse on the “intriguing, mysterious and delightful” (Gaver, *et al.*, 2003: 271) potential of ambiguity in design. Connotations of X, identified earlier in this thesis, include mystery, attraction and danger, precisely those qualities so sought after by contemporary design and branding agencies.

The transformation of the generic Brand X from an archetype of inferiority to a symbolic sought-after essence is examined in this chapter as an example of the social generation of meaning through available resources (Kress & Leeuwen, 2001). This form of slippage from inferior or marginal to mainstream is then compared with the term ‘X factor’ in pop culture, the ‘lovemark’ is considered as a mode of forging closer emotional connections between a range of products and consumers. Although not an actual product but a strategy developed by Saatchi and Saatchi (2014), this branding concept converges calls to the heart and mind to draw the consumer into a closer relationship with everyday products (Poynor, 2006: 48). On Saatchi & Saatchi’s website (<http://www.lovemarks.com>: *np.*) consumers are encouraged to vote on whether their ‘lovemark’ ‘knows you well’ or is ‘just an acquaintance’ aiming to identify “what transforms a brand into something consumers love.” This branding value system is pertinent to my research because mystery, sensuality, intimacy and love are identified as modes of strategically building relationships with mundane design products such as shampoo, fizzy drinks, crisps (Saatchi & Saatchi, 2006: *np.*). In *Branding Ambiguity*, X is deployed as a brand identity, a concrete sign for new ideas on ambiguity in graphic design.

¹⁷⁶ Even the term end-user suggests that the consumer or viewer’s experience is the final component in an act of communication, rather than a participant.

The relationship between a brand's visual identity and the values or ideas the brand represents is significant in this chapter and my third type of practice. When considering the contemporary cognition of branding it is useful to remember its shared history in heraldry, trademark identities, material culture and semiotics. Therefore a brief analysis of X as a logo in visual culture, a democratic identity (unlike the branded use of colour), and its relationship to ideas of belonging and individuality is provided. Interpretations of the logotype (logo) as a symbolic graphic identity are considered first by recapping on critical insights identified earlier in this thesis, to help contextualise the values of X in the contemporary design field of branding.

7. 2. Logos, Individuality and Belonging:

In this stage of my research, X is considered as both a durable and flexible visual identity, a metasign, defined by Kress (2010: 82) as a unifying element that sustains both distance and cohesion, while declaring the ideology of a group. However, until quite recently, applications of X as a brand mark or logo have been scarce¹⁷⁷ due perhaps to the sign's taboo connotations, which until recently have been perceived as far from advantageous to commercial design. As an image and idea X is infused into the (sexualised) language of the cultural landscape, described as 'X-rated' by Danesi (2009: 8) earlier in this thesis reflecting amongst other ideas, a contemporary "normalisation of porn" (Poynor, 2006: 4). 'X-rated' is a term that now transcends its limited functional role as a classification for sexually extreme or violent films. However, as Sacks (2003: 345) suggests in the cultural context of 1970s X-rated films, a product name like X-Box would have seemed "laughably obscene." Yet, as this thesis has sought to demonstrate by drawing on social semiotic theory and documented illustrations, designers can continuously construct new meaning/s from visual signs and symbols.

¹⁷⁷ Xerox launched the first automatic commercial paper-based copier in 1959 (<http://www.xerox.com/about-xerox/history-timeline/1950-decade/enus.html>). The inaugural X Games were held in Rhode Island in 1995 and feature 'extreme' sports broadcast by ESPN; Microsoft's Xbox video game console was launched in 2001.



Figure 43: Coco Chanel (founded 1909); CND (designed 1954); Breast Cancer Awareness (first used, 1991) (original in colour)

In commercial design practice the logo is like a signature that closely relates to the maker's mark on clothing or products, such as in the visual identity for Coco Channel (fig.43).

Fashion houses seek to convey notions of exclusivity, individuality and style: the logo in this context provides the visual link between the consumer, the merchandise and the ideas the brand seeks to embody (Mollerup, 1996: 11). By contrast, a brand is not only always a tangible product, but can represent values and/or beliefs, such as with CND (the Campaign for Nuclear Disarmament) and BCA (Breast Cancer Awareness). The value of the BCA ribbon and CND identity lies in their ability to encapsulate a complex situation or idea and condense it into a visually economic graphic icon. For Mollerup (1996: 210) "The challenge for the designer and the client is to develop a design programme that provides both identity and enough room for variation." Aided by familiarity, in a synthesis of conceptual richness and economic visual form, X is able to convey a wide spectrum of concepts to diverse audiences of design. In speculating on the future of brands Wolff Olins (2008: *np*) suggest that, "As brands become platforms and links, they get used and abused. People want to make them their own – which means they may no longer be the same everywhere. Brand becomes not one tune, but a theme with variations."

7.3. Branded Identities:

Branding has evolved far beyond a simple visual mark of authenticity or ownership to encompass ideological, commercial, sacred and political notions in the socio-cultural sphere. However, the term 'branding' is often confused with the mere attachment of a logo onto a t-shirt, mug or trainers, as a means of promoting one product over another (often where there is little to distinguish them). In *What Is Branding?* Matthew Healey (2008:70) explains the differences in this way:

A logo is not a brand, a name is not a brand, nor is a product design, a package design, a visual identity, an advertising jingle, or a shopping experience. These things are all merely the tangible aspects of a complex sign system whose goal is to put an intangible – but powerful – brand idea or insight into the mind of the customer.

To gain insights into the potential of X to represent more conceptually defined values of independence, identity, creativity or rebellion as a visual identity, this section considers selected examples. In an extension of the logo or brand identity as a fluid idea in visual form, X as an anti-status identity for a sub-cultural group and X as an inferior brand transformed into a desirable attribute are examined.

7.3.1. Generation X:

Although not originally conceived as a brand, the X in Coupland's (1991) *Generation X: Tales for an Accelerated Culture* is described by Ulrich (Ulrich & Harris, 2003: 8) as a blank concept, a space in which “an alternative story may be written” by each reader: a place-holder sign and the undefined space for meaning created by this. In *Genxegesis: Essays on Alternative Youth (Sub) Culture* Ulrich & Harris (2003) trace the first use of ‘generation X’ in print (*Holiday* magazine 1952) to a photo essay by Robert Capa in which X is used to identify an ‘unknown generation’ of twenty-year olds. In a similar application of the sign to describe British youth culture in an early example of pop sociology, Jane Deverson's article for *Woman's Own*, applied X to describe an anti-establishment generation. Although the original written piece was rejected as unsuitable by the lifestyle magazine Deverson later published *Generation X* in the US with Charles Hamblett where it became a massive hit, according to *The Guardian* newspaper (Asthana & Thorpe, 2005: np.)¹⁷⁸. The social designation ‘Category X’ was later used by Paul Fussell in 1983, according to Ulrich (2003: 3), as an ‘anti-status’ sign to describe an intelligent, insolent, ironic, classless group in a conflicted relationship with mainstream consumer culture.

As a subcultural symbol X has evolved from a generic category of the unknown or marginalised in society into a self-appointed mark of difference and independence, adopted by groups such as the Straight Edge (featuring an XXX tattoo). In terms of branding, fluid meaning is resolved through commercial symbols that “aren't defined by rational rules;

¹⁷⁸ In 1976 *Generation X* was taken as the name of an English punk band with Billy Idol as lead singer: it is suggested that the name was inspired by a book of the same name written by Jane Deverson and Charles Hamblett, published in 1965, (Asthana & Thorpe, 2005: np.).

they're flexible and open to individual interpretation" (Walker, 2008: 36)¹⁷⁹. In contrast to a deliberately open-ended staging of X as a holding position transformed into a cultural identity, Brand X is considered next as an inferior interpretation of X that has transformed over time into a sought-after 'X factor.'

7.3.2. From No-Brand to a Contemporary Trope:

In the context of graphic design and advertising¹⁸⁰ X is considered in terms of 'Brand X', a product concept which emerged in visual communication as a convenient device to distinguish a featured brand (product) from the values of a generic inferior. The imaginary X brand, dating from the 1930s but more commonly associated with the age of mass-production and advertising in 1960s (USA) was used to blankly homogenise a product's identity. Its sole purpose was (and still is) to represent every *other* brand (fig.44), facilitated by the featured product's purposefully neutral packaging in order to avoid unintended cultural connotations¹⁸¹.



Figure 44: Brand 'X' advertising (1960) www.cigarettespedia.com; Voltarol advert employing 'Brand X' (2014) (original in colour)

In contrast to the creative opportunities that blankness offers an audience, particularly as a cultural identity, when X is deployed to represent anonymity it has had more consistently negative or marginal associations in conventional graphic design. Yet, as a *Time* magazine (1960: *np.*) archive article from 1960 claims: "Millions of dollars of free – though by no means favourable – publicity have made a household word out of a unique U.S. advertising invention called Brand X." Even in the midst of this sign's 'foolproof inferiority' an

¹⁷⁹ Adding layers of signifying power to X as a sub-cultural sign in cultural identity and social discourse. The merging of marginal ideas and creativity into mainstream commercial culture has been described as a common consequence of the capitalist context of (graphic) design (Dilnot, 1984).

¹⁸⁰ Predominantly in the UK and, even more so, in the USA.

¹⁸¹ Even though all typefaces are abstract, by association and through particular contexts of use certain fonts (like any visual sign) can become embedded in our cultural consciousness, as previously referred to in this thesis.

opportunity was grasped by advertisers in the USA to take advantage of the ‘free promotion.’ *Time* argue that this is because “Brand X has a huge reservoir of good will in TV viewers who resent loud and aggressive commercials, favor the underdog.” For example, products such as Brand ‘X’ cigarettes¹⁸² were promoted to a knowing audience in a witty subversion of desirability: ‘for the man who is satisfied with nothing less than second best’ (fig.44)¹⁸³ (*Time*, 1960: *np.*). Products from the time include; Brand X Window Cleaner, Brand X whisky, Brand X popcorn and Brand ‘X’ polishing cloth. This list exposes the role X has played in enhancing the value of mundane everyday objects.



Figure 45: logo for *The X Factor* TV show (ITV in the UK, 2011); one X used by each of three judges as a voting sign on the set of ITV TV show *Britain's Got Talent* (2012) (original in colour)

In recent years the inferior status of ‘X’ as a brand has evolved further to suggest a ‘special’ or ‘extra’ quality, converging notions of ‘hard to identify’ with desirable values: an ‘X factor’. John Potts’ (2009: 3) *A History of Charisma* makes a direct reference to X having a “mysterious, elusive quality. Media commentators regularly describe charisma as the ‘X-factor’... The enigmatic character of charisma also suggests a connection – at least to some degree – to the earliest manifestation of charisma as a spiritual gift.” However, the secular meaning of the phrase X Factor¹⁸⁴ is impossible to quantify (by definition of its use in this context) and this evasion constitutes part of its contemporary cultural value. The origins of the phrase refer to the additional payments given to (UK) army personnel for non-specific activities beyond their traditional military duties: “X-Factor is a pensionable addition to pay that recognises the special conditions of service experienced by members of the Armed

¹⁸² www.cigarettespedia.com (an encyclopaedia on the history, packaging and products of cigarettes).

¹⁸³ Documentation of Brand X from this time is rare due to its abstract status and absent identity: a non-product but clear brand concept.

¹⁸⁴ According to the OED (Oxford English Dictionary, 2008) the phrase X Factor was added as an out-of-sequence subordinate entry under the word ‘youth’ (<http://public.oed.com/the-oed-today/recent-updates-to-the-oed/previous-updates/december-2008-update/>). The timeframe within which a word is considered for entry based on general currency has been as long as eight years, but now, because of the speed of social media, is much faster.

Forces compared with civilian employment” (*Armed Forces Pay Review Body: Forty-Third Report*, 2014: 30). Until recent years there were few mentions of X factor referring to anything else but this little-known military term in the public lexicon but it has now become infused into everyday speech. By 2011 the armed forces and entertainment worlds converged when army personnel entered the *X Factor* TV talent competition themselves¹⁸⁵. In the comparative TV show, *Britain’s Got Talent* (fig.46) X is employed as an individual judgement by each of the three judges (fig.45): here, X represents a certain choice rather than mysterious essence.

With reference to the value of wit as a mode of ambiguity in graphic design, described earlier in this thesis, McAlhone & Stewart (1996: 24) draw on the term X factor to explain “the extra charge a job carries when it is real. The X factor is made up of three components – surprise, context and actuality... The X factor is bigger than we expected. It not only adds excitement, it multiplies delight.” What makes X valuable in this research and my project is the sign’s capacity to transform and embody *new* ideas appropriate to the needs of new audiences and ideas. Now that this chapter has identified the values of X as a positively ambiguous sign, design vehicles and platforms through which new ideas on the discipline and ambiguity are considered. For this purpose an argument for design ambiguity is developed in the context of the artists’ manifesto, a public statement of socio-political and creative intent, which has historically exploited available graphic media to disseminate incendiary ideas and goals. This “branded public enterprise” (E & J Lupton, 2008: *np.*) is compared with the brand guideline manual as an artefact that converges precise directions for use with more emotive and conceptual claims.

7.4. Instructional Guides and Manuals as Ambiguous Artefacts

This section explores the visual language of the artists’ manifesto and the brand guideline manual (fig.46) to identify how its aims and form can be manipulated to embody a series of open-ended questions as well as a body of knowledge in my project. The brand guideline manual is commonly interpreted as a traditional designer’s resource constructed to offer

¹⁸⁵<http://www.mod.uk/DefenceInternet/DefenceNews/HistoryAndHonour/XFactorContestantsHonourBritishServicePersonnel.htm>, 25.01.12). The ‘X Factor’ originally referred to “a percentage increase to basic pay which reflects the difference between the conditions of service experienced by members of the Armed Forces and conditions in civilian life, which cannot directly be taken into account by the job evaluation process” (<http://www.army.mod.uk/join/terms/1136.aspx> accessed: 19.08.10). Its contemporary use as a term to connote a special skill or sexual attraction is due in part to the popularity of TV shows of the same name in the US and UK and to the rehabilitation of X in popular culture.

precise “rules devised to govern the correct and consistent usage of typefaces, colours, logos, photography and graphic elements” (Shaughnessy, 2009: 45).



Figure 46: Wyndham Lewis’s (1914/2009) *Blast*; Barbican Brand Guidelines (2010) designed by North

Branding Ambiguity draws on the visual language of Wyndham Lewis’s (2009) *Blast*, first published in 1914 (fig.46), which exploits page layout to express witty criticisms of English culture in a visual tension between ‘blast and bless’ statements. The English Vorticists’ manifesto-like magazine deploys a dynamic utilitarian typographic language, reflecting the commercial promotions of street graphics. In an extended poetic publication the Vorticists sought a reciprocal discourse with the British cultural elite and public on the state of the nation and art at that time. Wit is framed in this context as a tool to invoke active engagement with a known audience. Instead of a dogmatic list of demands, a poetic debate is played out on the page requiring the reader to choose sides in an (arguably very English) understated intensity, described by Limited Language (2010: 19) as a ‘mini explosion’. The use of visual duality and comparison, juxtaposition and contradiction featured in *Blast* (1914) were identified as core design devices earlier in this thesis. Contrast can also be employed as a design mechanism in a more critical operation, such as in Dunne & Raby’s (2009) ‘a/b’ manifesto (fig.02).

The Barbican Art Centre (London) brand guidelines, designed by North (Barbican, 2010: 15) (fig.46), employ design as an integrated and explicit tool visually explicating the brand’s applications to a range of contexts in precise instructions: “rules will help you achieve optimum definition.” In a direct connection between visual form and the Barbican Centre’s brand concept, the logo is described as a universal signature across a diverse arts programme. In order to establish consistency and fix the relationship between different

design¹⁸⁶ elements, the typeface and grid are clearly identified as synthesising design devices in a process of bringing order to the page (Barbican, 2007). A very modernist sans serif typeface is employed (Futura, designed by Paul Renner, in 1928) to embody ‘contemporary and classical qualities (Barbican, 2007: 41). Not only does the contemporary brand guideline manual contain precise directions for the application of all concrete visual elements associated with a brand but also increasingly features brand values: embodied in a synthesis of the visual identity (logo), brand name, colour palette, typefaces, ideas and principles.

7. 5. Content and Form: *Branding Ambiguity*

In a development of a conventional graphic artefact used to embodying unconventional ideas in response to my research questions (Q4: how the graphic artefact can facilitate understanding of ambiguity in design research), this section extends the material opportunities of the printed book. This culturally significant design vehicle has evolved over time to operate as a functional tool and a way of constructing a concept through diverse voices, technologies and theories.

+*Rosebud* (fig.47) represents a more experimental examination of how the relationship between form and content can be explored as a conceptual object¹⁸⁷. Relying on a highly engaged reader to interpret the book as an idea +*Rosebud* (2010: *np.*) is described on the website homepage as a “design magazine that operates with the desire to explore and exhaust the possibilities and potentials that paper and 2D-structure have to offer”. As an object the ‘Blindtext’ issue of +*Rosebud* is framed more as a sculptural subversion of the book, referring more to its own construction and material form than its functional role as a means of communicating a message. The possibilities of a complimentary supplementary narrative made available by punching a miniature book out of the main artefact (fig. 47) contributed to the development of scale as a conceptual design tool in my project.

¹⁸⁶ The guideline manual is available online as a free PDF and as a printed design artifact costing £20: the desirability of the material object is identified on feedback (<http://www.designweek.co.uk/news/barbican-launches-new-visual-identity/3037167.article>)

¹⁸⁷ Although +*Rosebud* is defined as a magazine on the publication website, I will refer to the artifact as a book because its construction (form) owes more to the heritage of book design than magazine design and production.



Figure 47: +Rosebud, the 'Blindtext' issue (2001), Herms; Irma Boom (2010) *Biography in Books* (original in colour)

Irma Boom's (2010) condensed collection of her own work (Fig.47) is less experimental than +Rosebud but still extends conventional book design in miniature form. Traditional in every way except for its size, conventional readings of the book are disrupted by the slight shift in scale, which seeks to subtly create intrigue and deeper audience engagement with the product and the design projects it contains. The potential of the miniature artefact to contain a big idea forms the basis of my third type of practice. For Susan Stewart (1993: 40-41) in *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* the miniature book is an object that "encapsulates the details of everyday life," containing the social space of the body "as microcosm and macrocosm; the book as commodity and knowledge, fact and fiction." As a familiar graphic artefact, when the book is designed or constructed in an unfamiliar way it draws attention to itself by its actuality: the context in which it is read. For McAlhone & Stewart (1996: 24), 'actuality' refers to "all the incidentals of time and place that surround the experience" of graphic design. *Branding Ambiguity* is presented in this study as a mini-manifesto for graphic design: a pocket-sized introduction to the possibilities of ambiguity.



Branding Ambiguity
Our identity & our logo

- X comes in a range of styles and colours.
- X is always in your size.
- X is a space to be filled in be you!

Design ambiguity can make a difference: together with X you make the first step.

- X is not sponsored. X only as good or bad as the idea, person or place it represents and the context it's used in.

Figure 48: instructions from *Branding Ambiguity*

In my third type of practice apparently clear and concise directions converge with ambiguous claims exploiting the visual language of *Branding Ambiguity* to play on the ambiguous space between clear precise imagery and suggestive text. Rather than constraining the boundaries of X's operations, the sign's ambiguous status forms a challenge to interpretations of graphic design as a predominantly service-oriented activity. Here, in a critical design dimension, the design artefact and visual tools combine to ask questions such as: 'When is an X not an X?' No absolute answers are given here as a strategy to expose the reciprocal act of interpreting visual messages. This approach draws on the intellectual formation of the postmodern era of design without resorting to the complex stylistic devices with which it became so closely associated. The conceptual space between X and not-X must be filled by the reader who, in this process, reconfigures notions of design ambiguity in their own terms. This process is assisted by familiarity with the sign, humanised by the character¹⁸⁸ of the trickster and valued in relation to the 'lovetmark.' As Blauvelt (2011: 202) argues, branding adds a little personality into abstract corporate identities: "a logo is just a name, while a brand is an experience."

Traditionally, the role of the brand guideline manual is to precisely define use of a visual identity, and the accompanying brand values define meaning: my third type of practice sets out to question these certainties. Through its paradoxical nature *Branding Ambiguity* endeavours to re-configure ambiguity as a critical source of debate. In this context ambiguity is framed as a critical component in provoking "ideas, wonderment and feelings whether of pleasure or discomfort or anywhere in between... [the] everyday world and conversations are brimming with ambiguity," so why shouldn't design?" (Dalmau, 2003: 1-2). In my project conventional graphic design artefacts are extended to provoke debate and productive uncertainty rather than to achieve known outcomes through more prescribed design methods. In my third type of practice, ambiguity is framed as a brand concept offering more participatory intellectual discourse between the designer, the idea or message, the material artefact, the visual tools, the user (audience) and the discipline at large.

7.6. Summary and Conclusions:

My third type of practice is best understood in relation to my first and second graphic artefacts: while *Ambiguity: A Design Process* embodies evidence of ambiguity in the design

¹⁸⁸ To extend and contextualise this notion for in typographic practice: all fonts are measured by the height of the lowercase x, but each font and typeface may vary in size, width and form yet be understood as a measurable mathematical device.

process itself while *The A to Z of X* gathered evidence of ambiguity in the multiplicities of X. Without this examination of the relationship between visual form and intended meaning, the context and significance of my project would have been hard to appreciate for the non-designer. The ambivalence toward ambiguity in graphic design compared with its embrace in other areas of the arts may have seemed natural rather than having been formed by socio-political conditions.

Branding represents a multi-layered field of graphic design, which differs from conventional corporate graphic design in that it identifies ambiguity as a core value working on many levels of meaning in a conjunction with an active consumer. The nebulous notion of branding and the ambiguous status of X coincide in *Branding Ambiguity* to enable a new way of explaining ambiguity in a synthesis of pragmatic visual and ludic instructions for use. Through practice the brand guideline book is, thus, adapted in my project as a flexible genre on a par with the manifesto. In *Branding Ambiguity* the visual symbol X and the intangible notion of ambiguity merge in a number of propositions: as a brand identity, as a critical tool and narrative device employed to discover a new story of design. The practice-based methods I used for this purpose have comprised a playful tension between image and text, disrupting the anticipated univocal range of conventional messages and shifting the modes of material engagement with graphic artefacts. *Branding Ambiguity* is proposed as a material mode of articulating, but not prescribing, the terms in which ambiguity might be re-evaluated and re-envisioned in graphic design.

8. Chapter Eight // Conclusions

8.1. Summary

This practice-based research has set out to develop a reflective and critical mode of graphic design that asks questions about the value of ambiguity in the contemporary contexts of graphic design. Ambiguity has been framed in this study as an untapped resource that enables new possibilities of the discipline to be envisioned. X was introduced as the new critical tool for this purpose and employed to identify and illuminate these ideas through practice. As each of the core aspects of my research – definitions of graphic design, ambiguity and X – is open to diverse interpretations, I first outlined key notions of the discipline in relation to modernist and post-modern practices and identified attitudes towards ambiguity therein. Then values of ambiguity across creative and tangential disciplines (literature, philosophy, anthropology) were analysed to contextualise my deployment of X as an exemplar of ambiguity in design. The tools used to develop this argument focused on the multiplicities of X as a new visual, critical and conceptual tool, while the design process has been employed as a practice-based research methodology.

From a critical perspective this thesis has sought to demonstrate how ambiguity offers the discipline richness of meaning: a deeper relationship between design products, the concept and the consumer. Ambiguity enables a new space for more participatory discourse aiding memory and encompassing notions of the “intriguing, mysterious and delightful” (Gaver, *et al.*, 2003: 271) in the construction and interpretation of design practice. Using design itself as a research strategy, visual, material and conceptual components have been incorporated in this thesis and my project in a unified mode of investigation. This practice-based process was framed as a material critique with reference to design *as* research, converging contemporary critical design (Seago & Dunne, 1999) with categories of research *through* design from Frayling (1993). At the beginning of this study a number of questions were devised as a guide to the development of designed outcomes, they were:

1. How can ambiguity be re-envisioned in graphic design in light of its value in art and advertising?
2. How can the multiplicities of X be used as an exemplar of ambiguity in graphic design and a tool for exploring its future potential?
3. How can the design process be used as a research methodology to reveal the attributes of ambiguity through practice?
4. How does the graphic artefact facilitate understanding of ambiguity in design research?

This chapter responds to each question in order, rather than in the order that the projects were introduced in this thesis, because *Ambiguity: A Design Process*, in particular, emerged as an unexpected design outcome as a consequence of the design process towards the conclusion of my study. This artefact was not conceived as an outcome at the beginning of the project because it features a reflective analysis of my research process itself. Defined as thinking through making, this process has informed the intellectual direction, territory and thesis structure. Design's etymological root as both a noun and a verb has been fused in this thesis in which designed outcomes and the thinking that has led to their construction are equally significant. With these practice-based methods in mind as the most appropriate to the articulation of new ideas about ambiguity in graphic design, an unconventional framing of literature reviews was used at the beginning of each new chapter. This extension of academic convention sought to reflect the integrated nature of my research and the iterative design process. As such, new information and insights were introduced in each chapter to help develop and define the project as it progressed and evolved in response to new discoveries.

8.2. Initial responses

In response to my first research question, which asked how ambiguity can be re-envisioned in graphic design in light of its value in art and advertising, I first sought to clarify my critical approach to the attributes of ambiguity in the contemporary design. As a discipline, graphic design is commonly perceived in terms of problem-solving: a process in which the elimination of ambiguity is sought to achieve the clear communication of an idea. Nevertheless, (graphic) design has also been revealed in this study as a multi-dimensional activity that draws on tangential disciplines as sources of information and inspiration. Though not seeking to overturn the functional or informative imperative of graphic design, this thesis has set out to identify and illuminate ambiguity's importance to the discipline, and its future possibilities.

The idea of ambiguity has been examined in a modernist design context as antithetical to clear communication across diverse cultures and, by contrast, an intellectually grounded reflection of humanity's essential ambiguity in design's expression of postmodern ideas. Therefore, this thesis distinguished between the principles and the visual language employed to embody these divergent positions to identify ambiguity's underlying values to the discipline. The proposition that ambiguity is an attribute was interrogated by devising four

criteria¹⁸⁹ – *form, function, context* and *concept* – that could be applied across comparative disciplines with particular focus on art. The educational contexts of design practice and research draw on my own pedagogic practice in design. These criteria were also applied (simultaneously) to my practice-based research process and project as a way of synthesising theory and practice.

Through a number of illustrated works from design's history, substantiated by contemporaneous opinions from designers and educators, a clearer picture of the conflicting ideas about ambiguity in graphic design was illuminated for the reader. Educational insights are important to this study because they represent a historical consensus of opinion, exposing the underlying socio-cultural and philosophical forces that have influenced the discipline. The academic institution is valuable to graphic design in particular because it exposes the often tacit or overlooked principles and processes of the field as it evolved from the early twentieth century in particular. Identifiable sources of design's antipathy to ambiguity were articulated through illustrated examples of modernist design works and accompanying texts.

The teaching programmes of the Bauhaus, Ulm, New Bauhaus (Chicago) articulated the mechanics of design and formalised its praxis aided by early semiotic theories in which meaning is formed in a fixed chain. From communication and information theory ambiguity was framed as 'problematic' in a linear transmission of a message with no allowance for socio-cultural contexts and visual codes. Ambiguity in this pragmatic operation causes 'noise,' adding layers of (unnecessary) meaning. Early modernist thought articulated a clear connection between a functional aesthetic and social benefit: didactic ideas about design and its role in society and industry were inscribed into the formal grids, lowercase sans serif typefaces, abstract geometric tools and photographic images of production. However, closer examination of works and theories from this time revealed that clear communication, deploying precise imagery, need not exclude the rich possibilities of ambiguity.

Experimental expressions of post-structuralist theory during the postmodern era of design explicitly embraced ambiguity and were expressed in practice by staff and students at Cranbrook in the USA as part of an investigation into the intellectual possibilities of the discipline. Developments in post-structuralist theory by, among others, Derrida (1976) and

¹⁸⁹ These are common components of visual literacy in design practice (Noble & Bestley, 2011: 26).

Barthes (1977, 1993) led to new interpretations of written and visual messages as inherently fluid and open to multiple interpretations by the reader/viewer. Barthes' (1967, 1977) ideas on authorship and ambiguity fuelled experimentation and reflection by students at Cranbrook under the leadership of the McCoy's (1990). Aesthetic strategies such as duality, multiple typographic voices converging in the same text and blurred photography were identified in Chapter Two as intentionally ambiguous devices deployed to engage a visually literate audience in the process of making meaning. The intensity of this period of design (pedagogy) coincided with the emergence of more fluid technologies, which enabled stylistic devices such as layering, disruption and blurring to reflect the essential messiness of the human condition.

The visual economy of corporate modernism persisted however, even while design's postmodern era became associated with individualist authorship and an experimental expression. Design's embrace of mystery and disruption, in pursuit of participatory modes of communication, was subsequently obscured by visual mannerisms during the latter part of the twentieth century. These stylistic tropes were gradually absorbed into mainstream commercial culture and the value of the underlying theories of open discourse were diluted or lost: it is these visual codes that I sought to avoid in my project, while retaining the intellectual aims.

The next stage of my research focused on art, literature and the everyday where ambiguity was demonstrated as enhancing communication, engaging in deeper relationships between an idea (or product) and audiences in advertising.

8.3. Reframing Ambiguity in Relation to Graphic Design

In order to evaluate ambiguity in graphic design its comparative roles in art, advertising and the everyday were interrogated by deploying my four analytical categories: *form*, *function*, *context* and *concept*. Art, poetry and the wit of everyday conversation were defined as *inherently* ambiguous: the value of the artwork dependent on the participatory space of ambiguity, the time an idea resides in the memory and the challenge it represents to mythical (reductive and redundant) imagery. Facilitated by the mystery of oscillating (two-in-one) imagery, the viewer is invited to resolve the meaning in the act of interpretation rather than passively accepting one perspective, which is defined by the artist, designer or author.

The role of ambiguity in the design field of advertising has been observed in this study

because it has a common heritage with graphic design but also employs many of the meaningful strategies of fine art. Advertising also represents a commercially defined mode of visual communication, which provides positive responses to the criticisms of univocal design from design commentators. Semiotic theory has formed a key analytical basis for understanding (and, later constructing) advertising messages since at least Barthes' (1957/1993) *Mythologies*. Williamson's (1978/1983) development of semiotic theory was examined to identify how ambiguity has been framed as a mode of visual rhetoric in advertising. As a visual argument ambiguity is employed in this field with the aim of building deeper relationships between the products of design and the consumer, in common with postmodern graphic design practice. In this way, advertising employs an ambiguous framework to create meaning rather than just to transmit information. Ambiguity was described as being conceived and deployed in a more controlled way in advertising and design than in art in order to achieve an intended outcome rather than leading to an infinite chain of meanings. The aims may differ across art and design disciplines but the intended outcome and value to the discipline is comparable as a means of forging deeper relationships between designer, idea and end-user (audience).

In the context of conversation and newspaper headlines (in the UK in particular), wit was identified as an integral mode of ambiguous communication that enhances inter-human communication. Wit was also observed in art and design contexts as invoking participatory opportunities in more of a discourse with an audience: a creative and reciprocal mode of ambiguity in the social generation of (new) meanings. Using ambiguity in visual information anticipates more from an active end-user's cognitive abilities, and has been identified as offering a deeper respect for their role in co-constructing meaning in fine art and design. An end-user's intellectual and even physical participation with designed products is framed within the everyday ambiguities of life in which the unexpected causes delight and forms an anticipated part of the artefact's meaning. Even in overtly commercial modes of visual communication such as advertising this thesis has demonstrated how ambiguity facilitates emotive connections with brands, their associated products and values. This is not to suggest that ambiguity can be employed in all circumstances (for instance, when considered in the context of road signs), rather that it has contributed to current design thinking in an alternative to design's operational domain and could do so again.

8.4. All About X - a New Exemplar of Ambiguity in Graphic Design

X has been introduced in this research as a new critical tool in graphic design and applied

to the evaluation of ambiguity: it was described as critical because the sign is found in multiple contexts of meaning, from algebra and cartography to semiotics and philosophy, providing diverse perspectives on the possibilities of ambiguity. X was, thus, identified and illustrated in this study as a sign that is able to sustain multiple simultaneous ideas, sometimes contradictory and in the same context, and yet sustain clear meanings.

In this study I initially considered the ambiguities of X in two complimentary ways; first, through practice as photographic documentation of the sign's applications in everyday contexts; second, by investigating the possible origins of the sign's ambiguity through scholarly sources such as Diringer (1948/2011) and Drucker (1995). The source of the sign's ambiguity was also sought from a primarily (social) semiotic framework complimented by popular texts because design is conceived and communicated in the everyday socio-cultural sphere. However, no reliable evolutionary thread could be established for the story of X. Instead, I argued in Chapter Four that its ancient operations as a flexible visual and verbal sign and universal symbol have contributed to its fluctuating status in disparate contexts of meaning, and therefore its suitability to my project. For instance, while X as an 'unknown' emerged from scientific sources, many more associations and applications of the sign have emerged over time through a social generation of meaning drawn from available resources.

One mode of ambiguity made possible through X was identified as its simultaneous universal *and* particular roles, which enables a paradoxical tension between oppositional ideas to be explored. By challenging the static nature of opposites in design, such as stereotypes (termed redundancy in Communication Theory), it was argued that a more participatory construction of meaning is formed in the space of indeterminacy. The multiplicities of X were used as documented *evidence* of ambiguity in a range of different contexts, placed alongside philosophical and historical examples. In this practice-based process the ambiguity of X was illuminated as a sign that offers alternative interpretations in contemporary visual culture: a floating signifier continuously absorbing new meanings, which become embedded in cultural discourse like strata (Blauvelt, 2011). These resources can then be transformed into new meanings by all sign-makers whether designers or the public in a social semiosis (Kress & Leeuwen, 2006: 13).

Desirable yet unspecified, unknown while simultaneously marking a precise place, X was then developed through practice in a series of strategic stages through which to articulate and explain the attributes of ambiguity in graphic design.

8.5. Practice-Based Responses to Q2 and Q4

The ‘untapped potential’ of the book as a graphic artefact was developed in Chapter Six as a fusion of idea and artefact based on multiple interpretations of X: a conventional book extended to perform an unconventional role. The *A to Z of X* is intentionally extensive in scale and depth, to embody the (very) broad scope of X, drawing from insights and data examined in Chapter Four and Five. Through the process of print and production a multi-layered narrative of X was inscribed into this printed book representing a material moment in the meanings of this ambiguous sign. References and resources were drawn from a broad spectrum of personal experience, cultural theory, historical record, anecdote, visual analysis, narrative, philosophy, linguistic games and the everyday landscape because these are the contexts in which X is found.

Visual form, structure and graphic formats were illustrated and examined to reveal new perspectives on X through a process of mapping, contrast, fusion, similarity and play. Exploiting the physical limitations of the printed book, the ambiguities of X were unfolded for the reader through the diverse instances and interpretations of one sign made manifest in one design artefact. The design layout illustrates the ambiguous potential of multiple perspectives relating to one graphic sign, by using footnotes, sidebars and commentary and illustrated examples. Expressive typographic flux or complex page structures were avoided to focus on the intellectual and critical component of ambiguity. Instead, a grid structure was developed which would aid readability while offering flexibility of content: familiar design devices encouraged cross-referencing to invite more active engagement with the idea of ambiguity in the forms of X.

The A to Z of X was conceived, as a consequence of the design process, as a participatory mode of discovering ambiguity. The reader is framed in a more prominent role in this graphic artefact from the first pages of the book, which make a direct call for active engagement. Several points of narrative, visual or analytical access are designed to encourage the reader to follow their own conceptual threads in an ‘open’ structure of visual meaning (Eco, 1989). Commentary and analysis have been infused into the book’s construction with clearly framed invitations to actively co-construct meaning utilising blank spaces on the page. The book is presented as an object of design discourse by exploiting the limitations of print to capture the multi-layered meanings of X in one artefact, leading the reader through its ambiguous character through footnotes, cross-referencing and interaction. In this way, the sign X and the object of the book work in synthesis to reveal

many more possibilities in the graphic sign and graphic artefact: here, the book is framed as a material critique of design.

In response to the productive limitations of *The A to Z of X*, an online archive of evidence was developed in contrast and to compliment to the ‘captured in time’ mode of the book. The *Museum of X* does not translate or transfer the content of the printed book directly to a digital design vehicle, but was designed to exploit the interactive space of digital media. Due to the (as yet) undefined nature of the digital realm in the social and commercial spheres of design the *Museum of X* represents an alternative reading of ambiguity, an additional proposition. In this graphic context digital media are used as means of investigating ambiguity in a more fluid, interactive operation. X is situated in the title as the subject of study but also as a placeholder sign, which can be reconfigured and identified by each participant to represent any new subject of study. The *Museum of X* has been conceived as an open forum for debate around ideas of ambiguity across design disciplines, exploiting the global reach of the internet to encompass a broader critical context in which this subject can be explored. The theoretically infinite digital archive enables new operations and interpretations of X to be added over time by new audiences in new contexts of meaning.

8.6. Future Possibilities of Ambiguity: Re-imagining Brand X

Where *The A to Z of X* illustrated evidence of ambiguity through the signifying territory of X in an organic collection, the branding guideline book – *Branding Ambiguity* – was envisaged as a source of critical reflection. In response to the second part of my question, which asks how the multiplicities of X can be used as a tool for exploring the future potential of ambiguity, strategies derived from branding were developed through practice. Conversational humour, puns and visual wit have been identified throughout this thesis as ambiguous devices and were used here, through a set of subtle, playful instructions, to subvert the precise boundaries of brand application. As a brand identity for ambiguity X embodies a future for the field, identified as a theme with variations in which the end-user plays a far more proactive role interpreting and playing with meaning in more personal ways. Far from didactic in nature, my manifesto-like artefact playfully provokes the reader to re-envision and rename design in an open-ended yet purposeful design discourse.

Extending notions of the book as an idea and object referring to the examples of Boom (2010) and +Rosebud (2001) in *figure 40* this part of the project articulates notions of ambiguity as an open concept embodied in a miniature design artefact. The brand manual,

traditionally prescriptive in its original contexts of use, has been subverted in a speculative mode of questioning the “limited range of emotional and psychological experiences offered through designed products” (Dunne & Raby, 2014: *np.*). The visual language of the brand manual builds on the semiotic challenge to visual meaning made by Magritte and Broodthaers, visualised through educational flashcards in my project. Precise imagery and sans serif type is employed in a concise artefact to play with meaning by disrupting the conventional rules of brand guideline manuals. My third type of practice opens debate and asks questions through practice rather than offering easy answers. Playing a game with ambiguity rather than providing solutions or easy answers to the future potential of graphic design, X thus stands for an idea of graphic design, a speculative statement of intent that is yet to be defined.

8.7. The Design Process as a Practice-Based Research Methodology

In response to my third research question, Chapter Five and the accompanying *Ambiguity: A Design Process* sought to show how the design process has worked in this study - and can work for others – as a multi-dimensional research methodology, beyond its more empirical problem-solving imperative. One of the unforeseen opportunities of this reflective research process was to acknowledge and reconfigure the design process as a designed outcome in its own right, extending Frayling’s (1993) category of research *through* design. Ambiguity is so interwoven into the design process that it was initially overlooked as an outcome in my project, but was subsequently woven back into my development of a research diary as an outcome: *Ambiguity: A Design Process*. The process of design has been adapted from the Design Council’s (2007a&b) *Double Diamond* model as the most appropriate for the discovery of new knowledge incorporating intellectual and more pragmatic concerns of the discipline through a series of cyclic iterative stages. In this context the relationship between design and ambiguity has been embodied *in* and *through* practice because this is the context in which design is constructed and experienced.

In my adaptation of *discover* stage of the design process the raw data of information, gathered and compiled through collecting and classifying were reconfigured to reveal the commonalities and idiosyncrasies of X that only become apparent in an investigation of a subject en masse. This process has been defined in this study as a problem-finding rather than problem-solving approach to design research. Problem-finding has been framed as an open-ended mode of design, actively engaging the reader in a reciprocal discourse that breaks the prescriptive mode of conventional visual communication (Nobel & Bestley,

2005). This research method developed a visual and material argument for ambiguity through X based on the insights uncovered in Chapters Three and Four then translated through practice in relation to the sign's *form, function, context* and *concept*. Reflective commentary was provided for the reader in the designed artefact, mirroring the convergent and divergent nature of my design process. Design research, which embraces logical systems, chance encounters and unexpected applications, is a core mode of discovering new knowledge: the *Double Diamond* has given this process structure and flexibility.

In a discipline often defined by its (commercial) products, rather than by any underlying ideological and philosophical bases of design thinking, the process of design revealed how choices have been made *leading to* practice-based research outcomes. My adaptation of the *Double Diamond* was also subject to cognitive shifts in light of insights drawn from literature, adjacent disciplines and intellectual views, illuminated for the reader in *Ambiguity: A Design Process*. Multiple strands of research and visual devices are thus simultaneously available to the designer in a research process infused with ambiguities.

8. 8. Summary

The aim of this study was to re-envision ambiguity as an attribute, which adds conceptual richness, delight and mystery to the discipline of (graphic) design, as it does in the arts, literature and advertising. The main premise was that the reductive tendencies of conventional commercial design limit the possibilities of practice and the discipline's intellectual depth and socio-cultural significance. Design's role in the civic and corporate spheres requires consistent critical attention while advances in technology change the way we experience the world and define our place in it. If the design audience more regularly encounters richness of meaning through ambiguity they may be more inclined to push for greater depths of meaning and to challenge boundaries leading to a more extended notion of the discipline in the future. My key contribution to critical debate in this field has been to employ the multiplicities of X as a new critical tool through which to interrogate the value of ambiguity in graphic design and propose new ideas about the discipline. It is in the space of indeterminacy, where X remains undefined in absolute terms, that ambiguity can augment design's role in contemporary culture and sustain graphic design's relevance to technological, political, economic and social change.

This research has sought to present the value of ambiguity in graphic design by revealing the inherent layers of meaning and richness made available to both the designer and the

audience through wit, mystery and participatory discourse. In my thesis theory and practice have been integrated in a reflective studio-based mode of graphic design research that embraces but also extends the functional service-orientated roles of the discipline. By exploiting conventional design tools and vehicles in pursuit of the most appropriate contexts for articulating my outcomes, a more proactive reading of this research has been provoked and meaningful possibilities of ambiguity have been encompassed. Malleability of thought and creativity within the shifting boundaries of a design problem (task) are identified as key aspects of the design process. Critical reflection on the possibilities of ambiguity in graphic design was developed through practice to frame the design artefact as a mode of research discourse: a material mode of new knowledge. The three designed artefacts emerged as a strategic consequence of this design process: the first demonstrated the design process as a research method that is infused with ambiguity; the second has embodied evidence of ambiguity as it already operates in visual culture through X; the third has considered the future opportunities that ambiguity offers design. These three outcomes have been developed as representative artefacts through which to consider the processes, present practice and future potential of ambiguity in graphic design.

The challenge for graphic design is to sustain more consistent critical debate into the study and production of design in an ever-changing world where the tools of design are now no longer the sole preserve of practitioners. A critical challenge to design's praxis, products and place in the world is essential for the discipline's intellectual and cultural status. Through the ambiguities of X this research proposes a versatile graphic sign for our times through which new discourses are made possible. In this way a more engaged form of critical design (discourse) is made possible through ambiguity by focusing on open-ended thinking rather than a new aesthetic code. Instead, design itself is proposed as a form of ambiguous (multi-layered) research deployed to discover and share new insights into the discipline and its role in contemporary more multi-layered (meta modern) notion of society and culture.

8.9. Opportunities for Further Research

Conceived as the subject for debate and scrutiny within educational forums such as Cumulus (<http://www.cumulusassociation.org>) or ELIA (the European League of Institutes of the Arts <http://www.elia-artschools.org>) and design journals in this study, it is proposed that design's role as a social and/or economic force would be enriched by ideas on ambiguity. Ambiguity is defined here as multi-layered options rather than an oppositional duality. Within the field of design pedagogy ambiguity provides a research-orientated space

for further debate and studio-based testing of these ideas. It is hoped that young designer-practitioners will be inspired or provoked to help articulate a wider more multi-layered territory of design as a synthesis of intellectual and practice-based enquiry. By challenging the status quo of contemporary design, ambiguity forms a mode of productive uncertainty, exploration and interplay: a space for new means of communication in a reciprocal exchange of research ideas.

The dissemination, appropriation or application of this research was considered in the construction of all three types of practice: *Ambiguity: A Design Process* and *Branding Ambiguity* are framed as forming the basis for new debate and design articles, while *The A to Z of X* was designed with the possibility of publishing in mind. In this way, the formats of commercial graphic design have been exploited, through subtle manipulation and ludic subversion, to engage a wider public in ideas of ambiguity beyond specialist academic audiences. The interactive site, *Museum of X*, is being developed to extend this debate as a critical online forum across design disciplines and communities through the HEA (The Higher Education Academy: <http://www.heacademy.ac.uk>), Cumulus (<http://www.cumulusassociation.org>), and a number of educational institutions. The *Museum of X* encourages new creative and intellectual partnerships between design disciplines. The space for new audiences to contribute and challenge ideas facilitated by the digital sphere is a key component of this site's design.

In summing up, this practice-based thesis has sought to contribute new knowledge through the methods and means of designing, framing design *as* research: ambiguity has informed and is infused into design practice and interpretation of its products. Described as an attitude rather than an aesthetic (Dunne & Raby, 2014) critical design practice is adapted here as the most appropriate contemporary research approach for exploring ideas around the discipline. As such, this thesis argues that this is an apposite time to reconsider the value of ambiguity in design in more positive open terms to help the discipline envisage future possibilities.

Glossary

Analogue: in communications media analogue systems are understood as electronic or physical rather than digital. The term is used in design to distinguish between cassette tapes, VHS film, vinyl records, even, and digital modes of these systems. In semiotic theory however, analogue is used to describe a system in which all components have a certain role and order, such as letters in an alphabet.

Character: intentionally refers to personal qualities *and* typographic form. The Chambers (1996) dictionary defines character in this way: “the combination of qualities that makes up a person’s nature or personality... a letter, number or other written or printed symbol. 14c: Latin, from Greek *charakter* engraving tool, hence a distinctive mark impressed on something.”

Discourse: described by Noble & Bestley (2011: 15) as “A body of verbal or written communication, especially between two or more participants. The act of discussion between parties, often in a formal manner.”

Entropy/entropic: “a measure of the amount of disorder in a system” (Chambers dictionary). In Communication Theory entropy is interpreted in similar terms as ambiguity

Gestalt: “a whole pattern or structure perceived as something greater than simply the sum of its separate parts” (Chambers dictionary). Gestalt theory was applied to the construction and interpretation of visual communication

Glyph: derived from the Greek for carving, the glyph in graphic design is interpreted as a visual mark that could be a letter of the alphabet, a punctuation mark or even two (typographic) characters combined in a ligature. While character (above) may be framed in linguistics as a letter, it is understood as a glyph in visual and material form in design.

Hueristic: in computing this is understood as a method of trial and error employed to solve a problem: a rule of thumb involving practical methods as well as intuitive choices, rather than set of clear rules. Heuristics in design may refer to ‘finding’ or ‘discovery’ through a range of design devices, principles and practical iterations.

Metasigns: Defined in a social semiotic framework by Hodge & Kress (1988: 79-82) as “sets of markers of social allegiance (solidarity, group identity and ideology) which permeate the majority of texts” and modes of visual communication: “Metasigns take a number of forms, but typically they are pervasive in messages, and they continually refer to and monitor the social relations of semiotic participants.” Metalanguage is defined in semiotic theory as forming new terms and terminologies about another (graphic) language (Nöth, 1995: 72), therefore a metasign is a sign that is used to refer to other signs, such as in the context of a map legend.

Post-structuralism: a revision of structuralist theories of language, based on fixed chains of meaning: the post-structuralist view of literature argues that all texts are open to any number of meanings.

Praxis: the processes of practice rather than theory: “an example or collection of examples for exercise” (OED).

Redundancy: By contrast to the value of cliché and metaphor in everyday visual communication, defined as redundant by Fiske (1990) in Communication Studies and

acknowledged in advertising, common interpretations of the term refer to something that is no longer of need or use, and is superfluous.

Rhetoric: the study and technique of using visual or spoken language to persuade in an argument, applied to graphic design as visual rhetoric, in which particular visual devices are employed together in contrast or as a compliment (ref: Bonsiepe, 1965, for a breakdown of elements), to convey meaning.

Semiosis: defined by Hodge & Kress (1988:161) as “the processes and effects of the production and reproduction, reception and circulation of meaning in all forms, used by all agents of communication.”

Trope

Framed as a pictorial metaphor/riddle conveying a coded message in the context of advertising, embodying multiple meanings (Phillips, 1997). For Noble & Bestley (2011: 74) a trope refers to “an object, image or event that serves as a generic illustration of a common trend, which may be widely characteristic of a cultural group or society. Examples of tropes may include frequently occurring visual representations of common principles or messages within a group, dress codes, or styles and trends linked to a specific period or location.”

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