University of Reading

The typographic contribution to language

Towards a model of typographic genres and their underlying structures

Robert Waller

Thesis submitted for the degree of Doctor of Philosophy

Department of Typography & Graphic Communication

August 1987

Contents

Abstract

This thesis presents a model which accounts for variations in typographic form in terms of four underlying sources of structure. The first three relate to the three parts of the writer-text-reader relationship: topic structure, representing the expressive intentions of the writer; artefact structure, resulting from the physical constraints of the medium; and access structure, anticipating the needs of the self-organized reader. Few texts exhibit such structures in pure form. Instead, they are evidenced in typographic genres—ordinary language categories such as 'leaflet', 'magazine', 'manual', and so on— which may be defined in terms of their normal (or historical) combination of topic, access and artefact structure.

The model attempts to articulate the tacit knowledge of expert practitioners, and to relate it to current multi-disciplinary approaches to discourse. Aspects of typography are tested against a range of 'design features' of language (eg, arbitrariness, segmentation and linearity). A dichotomy emerges between a linear model of written language in which a relatively discreet typography 'scores' or notates the reading process for compliant readers, and a diagrammatic typography in which some concept relations are mapped more or less directly on the page for access by self-directed readers. Typographically complex pages are seen as hybrid forms in which control over the syntagm (used here to mean the temporal sequence of linguistic events encountered by the reader) switches between the reader (in the case of more diagrammatic forms) and the writer (in the case of conventional prose). Typography is thus most easily accounted for in terms of reader-writer relations, with an added complication imposed by the physical nature of the text as artefact: line, column and page boundaries are mostly arbitrary in linear texts but often meaningful in diagrammatic ones.

Acknowledgements

Finishing a thesis is a cause for personal celebration, but until one has achieved a critical distance from one's own work it is hard to know how much it will please other people to be associated with it through an acknowledgement. I am happily not in the position of one writer, who would have liked to acknowledge his friends but no one helped him,[1] nor, at the other extreme, of another whose debt to a friend was so great that 'he alone is to be blamed for any shortcomings this book may have'.[2]

I owe an enormous debt to my supervisor Michael Twyman, to the late Ernest Hoch, also my supervisor at the time I started work on this project, and to colleagues at the Open University, especially Michael Macdonald-Ross, Peter Whalley, and the late Brian Lewis. I have knowingly and unknowingly absorbed an untold amount of information and insight from these colleagues over many years. One never knows whether ideas which seem original are actually half-remembered from conversations with others.

I would also like to thank David Hawkridge, Director of the Institute of Educational Technology, for giving me the time and encouragement to finish. Others whose encouragement and comments I have greatly valued include Pat Costigan-Eaves, Paul Stiff, Jane Wolfson, David Wolfson and Jenny Waller, who had to put up with the traditional eccentricities and bouts of despair of the thesis-writer.

---

[1] The preface to Jan V White's Graphic idea notebook (1980) reads 'It is customary to thank the people who have been helpful in the process of book-making, How I wish I could have palmed off some of the labors onto someone else! Alas…I was stuck with doing it all.'

[2] Talbot Taylor, Linguistic theory and structural stylistics,Pergamon Press, Oxford 1981

Introduction

A reasonable common-sense definition of typography with which to start might be 'the visual attributes of written, and especially printed, language'. Like all appeals to commonsense, mine embodies certain assumptions, preoccupations and interests which will bias the way this enquiry develops.

For one thing, letterforms and layouts are not of interest to this study in a formal sense but only in so far as they exhibit that quality of difference which is at the heart of language. Although at a certain level of analysis a spoken sentence may be said to be the same as its written equivalent, it is never exactly the same in substance or effect. It has been diminished in some respect, but it has also been enhanced: writing has only a crude and unreliable version of vocal pitch, gesture and tone, but it can contribute spatial organization and graphic emphasis. Through the technology used to write, whether a biro or a computer display, written language gives its own particular clues about its origin. It is typography that has both diminished and enhanced the subtlety of the message.

There are other visual attributes of written language which have no spoken equivalent: a table, for example, contains the potential for a large number of interactions between row and column headings. A skilled reader of tables can perceive patterns in the data such as would be impossible should the information be read out aloud—in the case of a large table, a long and tedious process. In the case of the table, a fairly simple graphic system, the interface between verbal and visual language has already become blurred, and it becomes more so when we consider diagrams and diagram-like typographic layouts.

To those deeply involved with the teaching or practice of typography, such things as creativity, meaning, quality, and style are easier to exemplify than to explain. But to those outside, in so far as they are aware of them at all, such aspects of typography are something of a mystery. Engineers designing text display systems, psychologists studying the reading process, and even those researching into legibility and other typographic issues, often seem unaware of the role of typographic subtleties. There is no obvious conceptual framework within which typography can be discussed in this public domain, within which logical ties can be clearly seen between its aims, methods and effects.

'Conceptual framework' is a term we tend to use rather loosely to allude to something we want people to think is rather precise. In concrete terms it may be realized in a range of scholarly formats. It may be a taxonomy which identifies the most relevant dimensions of an issue and arranges the data accordingly; these dimensions may be abstract aspects of typography or they may be examples of typography in practice. A conceptual framework may be a set of rules thought to govern the behaviour of such components, which can be tested empirically—in the natural sciences these may be laws or theorems; in linguistic terms they may be grammars. It may consist of theoretical models such as those constructed by cognitive psychologists to explain the 'mechanisms of the mind'. Less formal explanations such as metaphors or analogies can act as organizing principles to direct our thinking about a field of study. Less formally still, slogans and catchphrases ('form is function', 'the medium is the message') can also have a unifying and directive effect. The imprecision of the term 'conceptual framework' may be helpful at this stage: it allows us to refer to something we have not yet constructed or even specified, without predetermining its status.

Many practical activities get by perfectly well without any articulated conceptual framework. Is typography any different from, say, plumbing or car maintenance, that in addition to a range of practical techniques and strategies there should be an underpinning intellectual system? In the

context of literary theory, Eagleton (1983: 198) remarks that

> 'Many literary critics dislike the whole idea of method and prefer to
> work by glimmers and hunches, intuitions and sudden perceptions. It
> is perhaps fortunate that this way of proceeding has not yet infiltrated
> medicine or aeronautical engineering.'

No one has died from a poorly constructed novel, we may hope, and we
hear of few accidents involving poems, but bad typography actually can
have quite serious consequences—for example, if instructions or signs are
ambiguous. Typographers have their own response to anti-intellectualism
in this apt, if somewhat condescending, remark from Stanley Morison's
preface to the second edition (1951) of First principles of typography:

> 'The act of organizing a piece of printing so that its correct presentation
> may be achieved requires, in the first instance, a sense of method. To
> be valid this method must conform to right observation, thinking and
> reasoning. All men are able to think, but not everyone is willing to
> train and exercise that faculty. The process of thinking is, in fact, often
> so painful that many prefer to ignore this essential means to the right
> solution to the problem.'
> (p. 22).

Morison probably overestimates the ability of traditional articulated
reasoning to cope with multi-faceted problems: the apparently unthinking
reliance of craftsmen and women on aesthetic judgements about 'balance'
and the like may actually represent the only way of expressing a kind of
reasoning that, being so complex, is impossible, or simply tedious, to
express in language.[3]

Nevertheless, it is one aim of this study, at the outset at least, to try to
suggest a framework within which typography can be discussed and
criticized—but in reasonably everyday terms without the need to dress
one's thoughts in the full regalia of semiological classification schemes.

---

[3] This issue is taken up in more detail in Chapter 2.

Several broad arguments for the development of a conceptual framework may be suggested:[4]

Typographic education: as it is usually taught at present, typography primarily involves visual judgement, manual dexterity and holistic problem-solving ability. These practical skills are taught experientially through project work, criticism and apprenticeship. But it is also a facet of literacy, being concerned with the use and interpretation of language. Those practising it should be literate people skilled in the handling of ideas. Editors, who also fulfil a mediating role in the publishing process, are recruited from the graduates of mainstream university disciplines and given a minimal training. The manual and visual skills required of typographers, though, are too great for the same system to work: their intellectual training must therefore grow out of their practical training. It can be additionally argued that typographic education needs a sounder conceptual base in order to counteract the strong gravitational pull of the more glamorous parts of the graphic design world, which many design students aspire to but few are destined to enter. It should also enable designers to adapt the specific skills they learn at college to new technologies as they emerge.

Typographic research: typography has frequently been shown in experiments to affect the legibility and understanding of texts. But for research to show exactly how this happens—for hypotheses to be generated and tested—a coordinating framework is needed. There is also a general cynicism among practising designers about the worth of such results: partly because given the lack of a conceptual framework it is hard to generalize from the 'laboratory' to the real world, and partly because their own working method is more instinctive than cerebral.

Design management although the word 'design' describes every aspect of

---

[4] Many of these points were first raised by the Working Party on Typographic Teaching (set up by the Society of Industrial Artists and Designers and the Society of Typographic Designers) in their 1968 interim report, a version of which was published in the Journal of Typographic Research (since renamed Visible Language), 1969, volume 3, 91–102.

the planning of a product, the word (and the process it refers to) has eluded easy definition. While typography might be said to be present in all written texts, whether produced by people termed 'typographers' or not, it frequently forms one element of a production process that takes place in an institutional environment. Like any other aspect of institutional life, it must be managed: scheduled, fitted into other processes, explained, or in some other way articulated. Creativity is regarded as difficult to coordinate within an industrial process. The unfortunate reputation designers have acquired is highlighted by a recent advertisement for a computer graphics product which promised 'a complete studio at your fingertips—with no delays, no tantrums, no egos'.[5] One of the problems may be that designers and their clients lack a common language.

The de-skilling of printing: the production of typographic displays is no longer in the hands of a few trained specialists, but available to all. Technologies that were once complex—typesetting, offset litho, video and computer displays—are now standard office or even domestic equipment. Our concept of literacy should be extended to include a wider range of communication skills, including typography.

The design of communication technologies: the fast growth of the new communication technologies is involving numerous engineers and software designers in the design of typographic features and capabilities. Typographers are often brought in, if at all, only after important decisions have been taken. For example, Twyman (1982) reports the initial assumption that only upper case would be necessary on videotex systems. A conceptual framework might help typographers communicate with systems engineers, and would make typographic concepts accessible to engineers who do not have typographers at hand to consult.

Discourse studies: As will emerge from this study, neighbouring

---

[5] The quotation is from an advertisement for the 'Sweet P' graph plotter which appeared in Byte magazine for several months during 1984. Computer users will smile wryly at the implication that computers display none of these characteristics.

disciplines such as linguistics, bibliography and cognitive psychology are starting to notice more aspects of typography as they converge on the context-sensitive fields of reader-relations and discourse studies. Typographic scholars can usefully contribute to this process.

The linguist FW Householder made a half-serious but useful distinction between 'hocus-pocus' and 'God's truth' theories. This study is unashamedly of the former kind: it does not claim to discover the 'real' nature of typographic phenomena, but suggests structures that may be usefully applied for the sorts of practical purposes discussed above.

I am painfully aware of the dangers of multi-disciplinary study and my foolishness in attempting it. I have tried to steer a course between the naïve positivism of pop psychology and the exaggerated relativism of what Lakoff & Johnson (1980a) call 'café phenomenology'. And although I have sometimes referred to historical examples, I have tried to bear in mind Eisenstein's (1979) warning that 'where historians are prone to be over-cautious, others are encouraged to be over-bold' (p. 39).[6] I have therefore tried to keep a respectful distance, referring to history only in so far as the published conclusions of major writers throw light on current practice through precedent or analogy.

_____

[6] However, my reading of Eisenstein herself, and others too, leaves me with the impression that many historians of this subject are not particularly reticent about identifying turning points in civilization—in evolution, even: candidates include writing itself (Gelb 1963), alphabetic writing (Havelock 1976), word separation (Saenger 1982), printing (Eisenstein) and engraving (Ivins 1953).