Praise for the first edition

reading images

GUNTHER KRESS and THEO van LEEUWEN

THE GRAMMAR OF VISUAL DESIGN

SECOND EDITION

reading images

This second edition of the landmark textbook *Reading Images*
builds on its reputation as the first systematic and
comprehensive account of the grammar of visual design.
Drawing on an enormous range of examples from children's
drawings to textbook illustrations, photo-journalism to fine art,
as well as three-dimensional forms such as sculpture and toys,
the authors examine the ways in which images communicate
meaning.

Features of this fully updated second edition include:

* new material on moving images and on colour
* a discussion of how images and their uses have changed
  through time
* websites and web-based images
* ideas on the future of visual communication.

Reading Images focuses on the structures or 'grammar' of visual
design – colour, perspective, framing and composition – and
provides the reader with an invaluable 'tool-kit' for reading
images, which makes it a must for anyone interested in
communication, the media and the arts.

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University of Technology, Sydney. They have both published
widely in the fields of language and communication studies.

Praise for the first edition

'*Reading Images* is the most important book in visual communication since Jacques Bertin's semiology of information graphics. It is both thorough and thought-provoking; a remarkable breakthrough.'

Kevin G. Barnhurst, *Syracuse University, USA*

'Fresh and stimulating. The sociocentric approach is by far the most penetrating approach to the subject currently available.'

Paul Cobley, *London Guildhall University*

'A useful text for all students who are involved in areas which rely on both language and visual images for their expression and articulation of ideas.'

Catriona Scott, *Middlesex University*

'This is the best detailed and sustained development of the "social semiotic" approach to the analysis of visuals. Clear, informative and theoretically developmental.'

Dr S. Cottle, *Bath HE College*

'Excellent – wide ranging – accessible – tutors' "Bible".'

Jan Mair, *Edge Hill University College of Higher Education*

'Extremely attractive and well laid out. Very useful bibliography.'

Dr M. Brottman, *East London University*

'Very clearly written – it makes good connections between different areas of visual practice – especially useful for students from a variety of backgrounds attempting "mixed" coursework.'

Amy Sargeant, *Plymouth University*

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Preface to the second edition

The first edition of *Reading Images* has had a positive reception among a wide group from the professions and disciplines which have to deal with real problems and real issues involving images. This has gone along with a broader agenda of concern with 'multi-modality', a rapidly growing realization that representation is always multiple. We do not think for a moment that this book represents anything like a settled approach, a definitive 'grammar' of images, and at times we have been worried by attempts to treat it in that way. We see it as an early attempt, one among many others, and we would like to see it treated very much as a resource for beginning to make inroads into understanding the visual as representation and communication – in a semiotic fashion – and also as a resource in the development of theories and 'grammars' of visual communication. In that spirit we want to stress that we see everything we have written here simultaneously as our fully serious and yet entirely provisional sense of this field.

When we completed the first edition of this book we were aware of a number of 'omissions' – things we felt still needed doing. Some of these we have taken up in other ways, for instance in our attempt to develop a theory of multimodality; others we have tried to address in this second edition. Foremost among these have been the quite different issues of the moving image and of colour. The first of these has been constantly raised by those who have used the book, and rightly so. We hope that what we have said here can begin to integrate the field of moving images into our social semiotic approach to visual communication. The issue of colour was less frequently raised, yet constituted for us a kind of theoretical test case, as much to do with the issue of colour itself as to do with a theory of multimodal social semiotics much more widely considered. Here, too, we feel that we have provided just a first attempt for a different approach. In addition we have added a number of new examples from CD-ROMs and websites, domains of visual communication that had hardly begun to develop when we wrote the first edition, and are now of central importance for many users of this book.

One persistent criticism of the first edition from a group of readers has been that the book was (too) linguistic. The first comment we would make is to say that for us 'formality' in the domain of representation is not in any way the same as 'being linguistic'. So to some extent we think that that criticism rests on that kind of misunderstanding. We also think that there is a difference between explicitness and formality. We certainly have aimed for the former, and often (but not always) for the latter. Nor do we think that either explicitness or formality are the enemies of innovation, creativity, imagination: often all these latter rest on the former. It is the case that our starting point has been the systemic functional grammar of English developed by Michael Halliday, though we had and have attempted to use its general semiotic aspects rather than its specific linguistically focused features as the grounding for our grammar. As Ferdinand de Saussure had done at the beginning of the last century, we see linguistics as a part of semiotics; but we do not see linguistics as the

discipline that can furnish a ready-made model for the description of semiotic modes other than language. Then we had thought, in our first attempt, that to show how visual communication works in comparison to language might be helpful in understanding either and both – but that, too, was misunderstood maybe as an attempt to impose linguistic categories on the visual. We have therefore tried to refine and clarify those sections of the book that deal with the relation between language and visual communication, and to delete or reformulate material which we think might have given rise to these misunderstandings, hopefully with no loss of clarity. A careful reading of this second edition of our book will show, we trust, that we are as concerned to bring out the differences between language and visual communication as we are the connections, the broader semiotic principles that connect, not just language and image, but all the multiple modes in multimodal communication.

In our growing understanding of this domain, reflected in the reworking of this book, we owe a debt of gratitude for support, comment and critique to many more people than we can mention or even than we actually know. But the names of some friends, colleagues, students, fellow researchers and critics who were not already acknowledged in our preface to the first edition have to be mentioned. Among these are Carey Jewitt, Jim Gee, Ron Scollon, Paul Mercer, Brian Street, Radan Martinec, Adam Jaworski, David Machin, Klas Prytz, Teal Triggs, Andrew Burn, Bob Ferguson, Pippa Stein, Denise Newfield, Len Unsworth, Lesley Lancaster and the many researchers whose work has both given us confidence and new ideas, and extended our understanding of this field – and of course, and crucially, we acknowledge the support from our publishers and editors at Routledge, Louisa Semlyen and Christabel Kirkpatrick.

Preface to the first edition

This book grew out of discussions about visual communication which spanned a period of seven years. Both of us had worked on the analysis of verbal texts, and increasingly felt the need of a better understanding of all the things that go with the verbal: facial expressions, gestures, images, music, and so on. This was not only because we wanted to analyse the whole of the texts in which these semiotic modes play a vital role rather than just the verbal part, but also to understand language better. Just as a knowledge of other languages can open new perspectives on one's own language, so a knowledge of other semiotic modes can open new perspectives on language.

In 1990 we published a first version of our ideas on visual communication, *Reading Images*, with Deakin University Press. It was written for teachers, and we concentrated on children's drawings and school textbook illustrations, although we also included examples from the mass media, such as advertisements and magazine layout. Since then we have expanded our research to other fields of visual communication: a much wider range of mass media materials; scientific (and other) diagrams, maps and charts; and the visual arts. We have also made a beginning with the study of three-dimensional communication: sculpture, children's toys, architecture and everyday designed objects. The present book therefore offers a much more comprehensive theory of visual communication than the earlier book.

In Australia, and increasingly elsewhere, our work has been used in courses on communication and media studies, and as a methodology for research in areas such as media representation, film studies, children's literature and the use of illustrations and layout in school textbooks. The present book has benefited greatly from the suggestions and comments of those who have used our work in these ways, and of our own undergraduate and postgraduate students, initially at the University of Technology and Macquarie University in Sydney, later at the Institute of Education and the London College of Printing in London, and also at the Temasek Polytechnic in Singapore.

We began our work on visual communication in the supportive and stimulating environment of the Newtown Semiotics Circle in Sydney; discussions with our friends, the members of this Circle, helped shape our ideas in more ways than we can acknowledge. If any two people from that first period were to be singled out, it would be Jim Martin, who gave us meticulous, detailed, extensive and challenging comments on several of the chapters of the earlier book, and Fran Christie, who had urged us to write it. But here we would also like to make a special mention of Bob Hodge, whose ideas appear in this book in many ways, even if not always obviously so.

Of those who used our book in teaching and research, and whose comments on the earlier book have helped us rethink and refine our ideas, we would like to mention the research team of the Disadvantaged Schools Programme in Sydney, in particular Rick Iedema, Susan Feez, Peter White, Robert Veel and Sally Humphrey; Staffan Selander,

through whose Centre for Textbook Research in Härnösand our work came to be taken up by researchers in the field of textbook research in Sweden and several other European countries; the members of the 'Language and Science' research team at the Institute of Education, Isabel Martins, Jon Ogborn and Kieran McGillicuddy; Philip Bell; Basil Bernstein; Paul Gillen and Teun van Dijk.

Three writers influenced our ideas in different and fundamental ways. One is Roland Barthes. Although we see our work as going beyond his seminal writing on visual semiotics in several ways, he remains a strong inspiration. There is not a subject in semiotics on which Barthes has not written originally and inspiringly. He has provided for us a model of what semiotics can be, in the range of his interests, in the depth of his work, and in his engagement with the social and cultural world. Equally significant for us is Michael Halliday. His view of language as a social semiotic, and the wider implications of his theories, gave us the means to go beyond the structuralist approach of 1960s Paris School semiotics, and our work is everywhere influenced by his ideas. Then there is Rudolf Arnheim. The more we read his work, the more we realize that most of what we have to say has already been said by him, often better than we have done it, albeit it usually in commentaries on individual works of art rather than in the form of a more general theory. He is commonly associated with Gestalt psychology: we would like to claim him as a great social semiotician.

We would like to than our editor, Julia Hall, for her encouragement and invaluable help in producing this book. Jill Brewster and Laura Lopez-Bonilla were involved in various stages of the book; their encouragement and help made the work possible and enjoyable.

Acknowledgements

Introduction: the grammar of visual design

The subtitle of this book is 'the grammar of visual design'. We hesitated over this title. Extensions of the term 'grammar' often suggest 'rules'. In books with titles like *The Grammar of Television Production* one learns, for instance, about the rules of continuity; knowing these rules is then what sets the 'professional' apart from the 'amateur'. What we wish to express is a little different. In our view, most accounts of visual semiotics have concentrated on what might be regarded as the equivalent of 'words' – what linguists call 'lexis' – rather than 'grammar', and then on the 'denotative' and 'connotative', the 'icono-graphical' and 'iconological' significance of the elements in images, the individual people, places and things (including abstract 'things') depicted there. In this book, by contrast, we will concentrate on 'grammar' and on syntax, on the way in which these elements are combined into meaningful wholes. Just as grammars of language describe how words combine in clauses, sentences and texts, so our visual 'grammar' will describe the way in which depicted elements – people, places and things – combine in visual 'statements' of greater or lesser complexity and extension.

We are by no means the first to deal with this subject. Nevertheless, by comparison to the study of visual 'lexis', the study of visual 'grammar' has been relatively neglected, or dealt with from a different perspective, from the point of view of art history, or of the formal, aesthetic description of composition, or the psychology of perception, or with a focus on more pragmatic matters, for instance the way composition can be used to attract the viewer's attention to one thing rather than another, e.g. in such applied environments as advertising or packaging. All these are valid approaches, and in many places and many ways we have made use of the insights of people writing from these different perspectives. Yet the result has been that, despite the very large amount of work done on images, not much attention has been paid to the meanings of regularities in the way image elements are used – in short, to their grammar – at least not in explicit or systematic ways. It is this focus on meaning that we seek, above all, to describe and capture in our book. We intend to provide usable descriptions of major compositional structures which have become estab-lished as conventions in the course of the history of Western visual semiotics, and to analyse how they are used to produce meaning by contemporary image-makers.

What we have said about visual 'grammar' is true also of the mainstream of linguistic grammar: grammar has been, and remains, 'formal'. It has generally been studied in isolation from meaning. However, the linguists and the school of linguistic thought from which we draw part of our inspiration – linguists following the work of Michael Halliday – have taken issue with this view, and see grammatical forms as resources for encoding interpretations of experience and forms of social (inter)action. Benjamin Lee Whorf argued the point in relation to languages from different cultures. In what he called 'Stand-ard Average European' languages, terms like 'summer', 'winter', 'September', 'morning', 'noon', 'sunset' are coded as nouns, as though they were things. Hence these languages

make it possible to interpret time as something you can count, use, save, etc. In Hopi, a North American Indian language, this is not possible. Time can only be expressed as 'subjective duration-feeling'. You cannot say 'at noon', or 'three summers'. You have to say something like 'while the summer phase is occurring' (Whorf, 1956).

The critical linguists of the East Anglia School, with whom one of us was connected, have shown that such different interpretations of experience can also be encoded using the resources of the same language, on the basis of different ideological positions. Tony Trew (1979: 106–7) has described how, when the Harare police – in what was in 1975 still Rhodesia – fired into a crowd of unarmed people and shot thirteen of them, the *Rhodesia Herald* wrote, 'A political clash has led to death and injury', while the *Tanzanian Daily News* wrote, 'Rhodesia's white suprematist police ... opened fire and killed thirteen unarmed Africans.' In other words, the political views of newspapers are not only encoded through different vocabularies (of the well-known 'terrorist' vs 'freedom fighter' type), but also through different grammatical structures; that is, through the choice between coding an event as a noun ('death', 'injury') or a verb ('kill'), which for its grammatical completion requires an active subject ('police') and an object ('unarmed Africans').

> Grammar goes beyond formal rules of correctness. It is a means of representing patterns of experience.... It enables human beings to build a mental picture of reality, to make sense of their experience of what goes on around them and inside them.
>
> (Halliday, 1985: 101)

The same is true for the 'grammar of visual design'. Like linguistic structures, visual structures point to particular interpretations of experience and forms of social interaction. To some degree these can also be expressed linguistically. Meanings belong to culture, rather than to specific semiotic modes. And the way meanings are mapped across different semiotic modes, the way some things can, for instance, be 'said' either visually or verbally, others only visually, again others only verbally, is also culturally and historically specific. In the course of this book we will constantly elaborate and exemplify this point. But even when we can express what seem to be the same meanings in either image-form or writing or speech, they will be *realized* differently. For instance, what is expressed in language through the choice between different word classes and clause structures, may, in visual communication, be expressed through the choice between different uses of colour or different compositional structures. And this will affect meaning. Expressing something verbally or visually makes a difference.

As for other resonances of the term 'grammar' ('grammar' as a set of rules one has to obey if one is to speak or write in 'correct', socially acceptable ways), linguists often protest that they are merely describing what people do, and that others insist on turning descriptions into rules. But of course to describe is to be involved in producing knowledge which others will transform from the descriptive into the normative, for instance in education. When a semiotic mode plays a dominant role in public communication, its use will inevitably be constrained by rules, rules enforced through education, for instance, and

through all kinds of written and unwritten social sanctions. Only a small elite of experimenters is allowed to break the rules – after all, breaking rules remains necessary to keep open the possibility of change. We believe that visual communication is coming to be less and less the domain of specialists, and more and more crucial in the domains of public communication. Inevitably this will lead to new, and more rules, and to more formal, normative teaching. Not being 'visually literate' will begin to attract social sanctions. 'Visual literacy' will begin to be a matter of survival, especially in the workplace.

We are well aware that work such as ours can or will help pave the way for developments of this kind. This can be seen negatively, as constraining the relative freedom which visual communication has so far enjoyed, albeit at the expense of a certain marginalization by comparison to writing; or positively, as allowing more people greater access to a wider range of visual skills. Nor does it have to stand in the way of creativity. Teaching the rules of writing has not meant the end of creative uses of language in literature and elsewhere, and teaching visual skills will not spell the end of the arts. Yet, just as the grammar creatively employed by poets and novelists is, in the end, the same grammar we use when writing letters, memos and reports, so the 'grammar of visual design' creatively employed by artists is, in the end, the same grammar we need when producing attractive layouts, images and diagrams for our course handouts, reports, brochures, communiqués, and so on.

It is worth asking here what a linguistic grammar is a grammar *of*. The conventional answer is to say that it is a grammar of 'English' or 'Dutch' or 'French' – the rules that define English as 'English', Dutch as 'Dutch', and so on. A slightly less conventional answer would be to say that a grammar is an inventory of elements and rules underlying culture-specific forms of *verbal* communication. 'Underlying' here is a shorthand term for something more diffuse and complex, more like 'knowledge shared more or less by members of a group, explicitly and implicitly'. This brings in subtle matters of what knowledge is and how it is held and expressed, and above all the social question of what a 'group' is. That makes definitions of grammar very much a social question, one of the knowledges and practices shared by groups of people.

We might now ask, 'What is our "visual grammar" a grammar *of*?' First of all we would say that it describes a social resource of a particular group, its explicit and implicit knowledge about this resource, and its uses in the practices of that group. Then, second, we would say that it is a quite general grammar, because we need a term that can encompass oil painting as well as magazine layout, the comic strip as well as the scientific diagram. Drawing these two points together, and bearing in mind our social definition of grammar, we would say that 'our' grammar is a quite general grammar of contemporary visual design in 'Western' cultures, an account of the explicit and implicit knowledge and practices around a resource, consisting of the elements and rules underlying a culture-specific form of visual communication. We have quite deliberately made our definition a social one, beginning with the question 'What is the group? What are its practices?' and from there attempting to describe the grammar at issue, rather than adopting an approach which says, 'Here is our grammar; do the practices and knowledges of this group conform to it or not?'

In the book we have, by and large, confined·our examples to visual text-objects from 'Western' cultures and assumed that this generalization has some validity as it points to a

communicational situation with a long history that has evolved over the past five centuries or so, alongside writing (quite despite the differences between European languages), as a 'language of visual design'. Its boundaries are not those of nation-states, although there are, and very much so, cultural/regional variations. Rather, this visual resource has spread, always interacting with the specificities of locality, wherever global Western culture is the dominant culture.

This means, first of all, that it is not a 'universal' grammar. Visual language is not – despite assumptions to the contrary – transparent and universally understood; it is culturally specific. We hope our work will continue to provide some ideas and concepts for the study of visual communication in non-Western forms of visual communication. To give the most obvious example, Western visual communication is deeply affected by our convention of writing from left to right (in chapter 6 we will discuss this more fully). The writing directions of cultures vary: from right to left or from left to right, from top to bottom or in circular fashion from the centre to the outside. Consequently different values and meanings are attached to such key dimensions of visual space. These valuations and meanings exert their influence beyond writing, and inform the meanings accorded to different compositional patterns, the amount of use made of them, and so on. In other words, we assume that the elements, such as 'centre' or 'margin', 'top' or 'bottom', will play a role in the visual semiotics of any culture, but with meanings and values that are likely to differ depending on that culture's histories of use of visual space, writing included. The 'universal' aspect of meaning lies in semiotic principles and processes, the culture-specific aspect lies in their application over history, and in specific instances of use. Here we merely want to signal that our investigations have been restricted, by and large, to Western visual communication. Even though others have begun to extend the applications of the principles of this grammar, we make no *specific* claims for the application of our ideas to other cultures. Within Western visual design, however, we believe that our theory applies to all forms of visual communication. We hope that the wide range of examples we use in the book will convince readers of this proposition.

Our stress on the unity of Western visual communication does not exclude the possibility of regional and social variation. The unity of Western design is not some intrinsic feature of visuality, but derives from a long history of cultural connection and interchange, as well as now from the global power of the Western mass media and culture industries and their technologies. In many parts of the world, Western visual communication exists side by side with local forms. Western forms might be used, for instance, in certain domains of public communication, such as public notices, sites of public transport, the press, advertising, and the visual arts, as well as in somewhat more 'private' domains, in the home, and in markets and shops, for instance. Often the relation is hierarchical, with one form overlaid on another (see Scollon and Scollon, 2003; Kress, 2003), and often – as in advertising, for instance – the two are mutually transformed and fused. Where Western visual communication begins to exert pressure on local forms, there are transitional stages in which the forms of the two cultures mix in particular ways. In looking at advertisements in English-language magazines from the Philippines, for instance, we were struck by the way in which entirely conventional Western iconographical elements were integrated into designs following the

rules of a local visual semiotic. In advertisements on the MTR in Hong Kong, some advertisements conform to the 'Eastern' directionality, others to the Western, yet others mix the two. As with the Filipino advertisements, discourses and iconography can be 'Western', mixed in various ways with those of the 'East', while colour schemes can, at the same time, be distinctly non-Western. The situation there is in any case complicated (as it is, differently, in Japan) by the fact that directionality in the writing system has become complicated in several ways: by the adoption, in certain contexts, of 'Western' directionality and the Roman alphabet alongside the continued use of the more traditional directionalities and forms of writing. And as economic (and now often cultural) power is re-weighted, the trend can go in both or more directions: the influence of Asian forms of visual design is becoming more and more present in the 'West'. Superimposed on all this are the increasingly prominent diasporic communities – of Greeks, Lebanese, Turks, of many groups of the Indian subcontinent, of new and older Chinese communities (for instance, Hong Kong Chinese around the Pacific Rim) – which seemingly affect only the members of this diaspora, and yet in reality are having deep influences well beyond them.

Within Europe, increasing regionality counterbalances increasing globalization. So long as the European nations and regions still retain different ways of life and a different ethos, they will use the 'grammar of visual design' distinctly. It is easy, for example, to find examples of the contrasting use of the left and right in the composition of pages and images in the British media. It is harder to find such examples in, for instance, the Greek or the Spanish or the Italian media, as students from these countries have assured us and demonstrated in their work – after trying to do the assignments we had set them at home during their holidays. In the course of our book we will give some examples of this, for instance in connection with newspaper layout in different European countries. However, we are not able to do more than touch on the subject; and the issue of different 'dialects' and 'inflections' needs to be explored more fully in the future.

In any case, the unity of languages is a social construct, a product of theory and of social and cultural histories. When the borders of (a) language are not policed by academies, and when languages are not homogenized by education systems and mass media, people quite freely combine elements from the languages they know to make themselves understood. Mixed languages ('pidgins') develop in this way, and in time can become the language of new generations ('creoles'). Visual communication, not subject to such policing, has developed more freely than language, but there has nevertheless been a dominant language, 'spoken' and developed in centres of high culture, alongside less highly valued regional and social variants (e.g. 'folk art'). The dominant visual language is now controlled by the global cultural/technological empires of the mass media, which disseminate the examples set by exemplary designers and, through the spread of image banks and computer-imaging technology, exert a 'normalizing' rather than explicitly 'normative' influence on visual communication across the world. Much as it is the primary aim of this book to describe the current state of the 'grammar of visual design', we will also discuss the broad historical, social and cultural conditions that make and remake the visual 'language'.

A SOCIAL SEMIOTIC THEORY OF REPRESENTATION

Our work on visual representation is set within the theoretical framework of 'social semiotics'. It is important therefore to place it in the context of the way 'semiotics' has developed during, roughly, the past 75 years. In Europe, three schools of semiotics applied ideas from the domain of linguistics to non-linguistic modes of communication. The first was the Prague School of the 1930s and early 1940s. It developed the work of Russian Formalists by providing it with a linguistic basis. Notions such as 'foregrounding' were applied to language (e.g. the 'foregrounding', for artistic purposes, of phonological or syntactic forms through 'deviation' from standard forms, for artistic purposes) as well as to the study of art (Mukarovsky), theatre (Honzl), cinema (Jakobson) and costume (Bogatyrev). Each of these semiotic systems could fulfil the same communicative functions (the 'referential' and the 'poetic' functions). The second was the Paris School of the 1960s and 1970s, which applied ideas from de Saussure and other linguists to painting (Schefer), photography (Barthes, Lindekens), fashion (Barthes), cinema (Metz), music (Nattiez), comic strips (Fresnault-Deruelle), etc. The ideas developed by this School are still taught in countless courses of media studies, art and design, etc., often under the heading 'semiology', despite the fact that they are at the same time regarded as having been overtaken by post-structuralism. Everywhere students are learning about 'langue' and 'parole'; the 'signifier' and the 'signified'; 'arbitrary' and 'motivated' signs; 'icons', 'indexes' and 'symbols' (these terms come from the work of the American philosopher and semiotician Charles Sanders Peirce, but are often incorporated in the framework of 'semiology'), and so on. Generally this happens without students being given a sense of, or access to, alternative theories of semiotics (or of linguistics). We will compare and contrast this kind of semiotics with our own approach, in this introduction as well as elsewhere in the book. This third, still fledgling, movement in which insights from linguistics have been applied to other modes of representation has two sources, both drawing on the ideas of Michael Halliday, one growing out of the 'Critical Linguistics' of a group of people working in the 1970s at the University of East Anglia, leading to the outline of a theory that might encompass other semiotic modes (Hodge and Kress), the other, in the later 1980s, as a development of Hallidayan systemic-functional linguistics by a number of scholars in Australia, in semiotically oriented studies of literature (Threadgold, Thibault), visual semiotics (O'Toole, ourselves) and music (van Leeuwen).

The key notion in any semiotics is the 'sign'. Our book is about signs – or, as we would rather put it, about sign-making. We will be discussing forms ('signifiers') such as colour, perspective and line, as well as the way in which these forms are used to realize meanings ('signifieds') in the making of signs. But our conception of the sign differs somewhat from that of 'semiology', and we wish therefore to compare the two views explicitly. In doing so we use the term 'semiology' to refer to the way in which the Paris School semiotics is generally taught in the Anglo-Saxon world, through the mediation of influential textbooks such as the series of media studies textbooks edited by John Fiske (Fiske and Hartley, 1979; Dyer, 1982; Fiske, 1982; Hartley, 1982; O'Sullivan et al., 1983). In doing this we do not seek to repudiate those who went before us. We see a continuity between their work

and ours, as should be clear from our main title, Reading Images, which echoes that of the first volume in Fiske's series, Reading Television (Fiske and Hartley, 1979).

We would like to begin with an example of what we understand by 'sign-making'. The drawing in figure 0.1 was made by a three-year-old boy. Sitting on his father's lap, he talked about the drawing as he was doing it: 'Do you want to watch me? I'll make a car . . . got two wheels . . . and two wheels at the back . . . and two wheels here . . . that's a funny wheel. . . .' When he had finished, he said, 'This is a car.' This was the first time he had named a drawing, and at first the name was puzzling. How was this a car? Of course he had provided the key himself: 'Here's a wheel.' A car, for him, was defined by the criterial characteristic of 'having wheels', and his representation focused on this aspect. What he represented was, in fact, 'wheelness'. Wheels are a plausible criterion to choose for three-year-olds, and the wheel's action, on toy cars as on real cars, is a readily noticed and describable feature. In other words, this three-year-old's interest in cars was, for him, most plausibly condensed into and expressed as an interest in wheels. Wheels, in turn, are most plausibly represented by circles, both because of their visual appearance and because of the circular motion of the hand in drawing/representing the wheel's action of 'going round and round'.

To gather this up for a moment, we see representation as a process in which the makers of signs, whether child or adult, seek to make a representation of some object or entity, whether physical or semiotic, and in which their interest in the object, at the point of making the representation, is a complex one, arising out of the cultural, social and psychological history of the sign-maker, and focused by the specific context in which the sign-maker produces the sign. That 'interest' is the source of the selection of what is seen as the criterial aspect of the object, and this criterial aspect is then regarded as adequately representative of the object in a given context. In other words, it is never the 'whole object' but only ever its criterial aspects which are represented.

These criterial aspects are represented in what seems to the sign-maker, at the moment of sign-making, the most apt and plausible fashion, and the most apt and plausible representational mode (e.g. drawing, Lego blocks, painting, speech). Sign-makers thus 'have' a

Fig 0.1 Drawing by a three-year-old child

meaning, the signified, which they wish to express, and then express it through the semiotic mode(s) that make(s) available the subjectively felt, most plausible, most apt form, as the signifier. This means that in social semiotics the sign is not the pre-existing conjunction of a signifier and a signified, a ready-made sign to be recognized, 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 the signified (the meaning) are relatively independent of each other until they are brought together by the sign-maker in a newly made sign. To put it in a different way, using the example just above, the process of sign-making is the process of the constitution of a sign/metaphor in two steps: 'a car is (most like) wheels' and 'wheels are (most like) circles'.

Putting it in our terms: the sign-maker's interest at this moment of sign-making has settled on 'wheelness' as the criterial feature of 'car'. He constructs, by a process of analogy, two metaphors/signs: first, the signified 'wheel' is aptly represented by the signifier 'circle' to make the motivated sign 'wheel'; second, the signified 'car' is aptly represented by the signifier 'many wheels' to make the motivated sign 'car'. The resulting sign, the drawing glossed 'this is a car', is thus a motivated sign in that each conjunction of signifier and signified is an apt, motivated conjunction of the form which best represents that which is to be meant. This sign is thus the result of a double metaphoric process in which analogy is the constitutive principle. Analogy, in turn, is a process of classification: x is like y (in criterial ways). Which metaphors (and, 'behind' the metaphors, which classifications) carry the day and pass into the semiotic system as conventional, and then as naturalized, and then as 'natural', neutral classifications, is governed by social relations of power. Like adults, children are engaged in the construction of metaphors. Unlike adults, they are, on the one hand, less constricted by culture and its already-existing and usually invisible metaphors, but, on the other hand, usually in a position of less power, so that their metaphors are less likely to carry the day.

It follows that we see signs as motivated – not as arbitrary – conjunctions of signifiers (forms) and signifieds (meanings). In 'semiology' motivation is usually not related to the act of sign-making as it is in our approach, but defined in terms of an intrinsic relation between the signifier and the signified. It is here that Peirce's 'icon', 'index' and 'symbol' make their appearance, incorporated into 'semiology' in a way which in fact contradicts some of the key ideas in Peirce's semiotics. The 'icon' is the sign in which 'the signifier–signified relationship is one of resemblance, likeness' (Dyer, 1982: 124) – i.e. objective likeness, rather than analogy motivated by 'interest', establishes the relation. The 'index' is the sign in which 'there is a sequential or causal relation between signifier and signified' (Dyer, 1982: 125); that is, a logic of inference, rather than analogy motivated by 'interest'. The third term in the triad, 'symbol', by contrast, is related to sign production, as it 'rests on convention, or "contract" ' (Dyer, 1982: 125), but this very fact makes it 'arbitrary', 'unmotivated', a case of meaning by decree rather than of active sign-making.

In our view signs are never arbitrary, and 'motivation' should be formulated in relation to the sign-maker and the context in which the sign is produced, and not in isolation from the act of producing analogies and classifications. Sign-makers use the forms they consider apt for the expression of their meaning, in any medium in which they can make signs. When

children treat a cardboard box as a pirate ship, they do so because they consider the material form (box) an apt medium for the expression of the meaning they have in mind (pirate ship), and because of their conception of the criterial aspects of pirate ships (containment, mobility, etc.). Language is no exception to this process of sign-making. All linguistic form is used in a mediated, non-arbitrary manner in the expression of meaning. For children in their early, pre-school years there is both more and less freedom of expression: more, because they have not yet learned to confine the making of signs to the culturally and socially facilitated media, and because they are unaware of established conventions and relatively unconstrained in the making of signs; less, because they do not have such rich cultural semiotic resources available as do adults. So when a three-year-old boy, labouring to climb a steep hill, says, 'This is a heavy hill', he is constrained by not having the word 'steep' as an available semiotic resource. The same is the case with the resources of syntactic and textual forms.

'Heavy', in 'heavy hill', is, however, a motivated sign: the child has focused on particular aspects of climbing a hill (it takes a lot of energy; it is exhausting) and uses an available form which he sees as apt for the expression of these meanings. The adult who corrects by offering 'steep' ('Yes, it's a very steep hill') is, from the child's point of view, not so much offering an alternative as a synonym for the precise meaning which he had given to 'heavy' in that context. Both the child and the parent make use of 'what is available'; it happens that different things are available to each. But to concentrate on this is to miss the central aspect of sign-making, especially that of children. 'Availability' is not the issue. Children, like adults, make their own resources of representation. They are not 'acquired', but made by the individual sign-maker.

In 'semiology', countless students across the world are introduced to the terms 'langue' and 'parole', with 'langue' explained, for instance, as 'the abstract potential of a language system . . . the shared language system out of which we make our particular, possibly unique, statements' (O'Sullivan et al., 1983: 127) or, in our terms, as a system of available forms already coupled to available meanings, and with 'parole' defined as:

> an individual utterance that is a particular realization of the potential of langue. . . .
> By extension we can argue that the total system of television and film conventions
> and practices constitutes a langue, and the way they are realized in each programme
> or film a parole.
>
> (O'Sullivan et al., 1983: 127)

We clearly work with similar notions, with 'available forms' and 'available classifications' ('langue') and individual acts of sign-making ('parole'), and we agree that such notions can usefully be extended to semiotic modes other than language. But for us the idea of 'potential' (what you can mean and how you can 'say' it, in whatever medium) is not limited by a system of 'available meanings' coupled with 'available forms', and we would like to use a slightly less abstract formulation: a semiotic 'potential' is defined by the semiotic resources available to a specific individual in a specific social context. Of course, a description of semiotic potential can amalgamate the resources of many speakers and many contexts.

But the resulting 'langue' (the langue of 'English' or of 'Western visual design') is in the end an artefact of analysis. What exists, and is therefore more crucial for understanding representation and communication, are the resources available to real people in real social contexts. And if we construct a 'langue', a meaning potential for 'Western visual design', then it is no more and no less than a tool which can serve to describe a variety of sign-making practices, within boundaries drawn by the analyst. It follows that we would not draw the line between 'langue' and 'parole' as sharply as it is usually done. Describing a 'langue' is describing a specific set of semiotic resources available for communicative action to a specific social group.

Here are some antecedents of the car drawing. Figure 0.2 is a drawing made by the same child, some ten months earlier. Its circular motion is expressive of the child's exuberant, enthusiastic and energetic actions in making the drawing. In figure 0.3, made about three months later, the circular motion has become more regular. The exuberance and energy are still there, but the drawing has acquired more regularity, more interest in shape: 'circular motion' is beginning to turn into 'circle'. In other words, the meanings of figure

Fig 0.2 Drawing by a two-year-old child

Fig 0.3 Drawing by a two-year-old child

0.2 persist in figure 0.3, transformed, yet with significant continuity: figure 0.3 gathers up, so to speak, the meanings of figure 0.2, and then transforms and extends them.

Figure 0.4, finally, shows a series of circles, each drawn on a separate sheet, one circle to each sheet. The movement from figure 0.2 to figure 0.4 is clear enough, as is the conceptual and transformative work done by the child over a period of fourteen months (figure 0.4 dates from the same period as figure 0.1). Together the drawings show how the child *developed* the representational resources available to him, and why circles seemed such an apt choice to him: the expressive, energetic physicality of the motion of figure 0.2 persisted as the child developed this representational resource, so that the circular *motion* remained part of the meaning of circle/wheel. But something was added as well: the transformation of representational resources was also a transformation of the child's subjectivity, from the emotional, physical and expressive disposition expressed in the act of representing 'circular motion' to the more conceptual and cognitive disposition expressed in the act of representing a 'car'.

Children, like all sign-makers, make their 'own' representational resources, and do so as

○ **Fig 0.4 Drawing by a three-year-old child**

part of a constant production of signs, in which previously produced signs become the signifier-material to be transformed into new signs. This process rests on the *interest* of sign-makers. This transformative, productive stance towards sign-making is at the same time a transformation of the sign-makers' subjectivity – a notion for which there was little place in a 'semiology' which described the relation between signifiers and signifieds as resting on inference or objective resemblance, or on the decrees of the social 'contract'.

We have used children's drawings as our example because we believe that the production of signs by children provides the best model for thinking about sign-making. It applies also to fully socialized and acculturated humans, with the exception of the effects of 'convention'. As mature members of a culture we have available the culturally produced semiotic resources of our societies, and are aware of the conventions and constra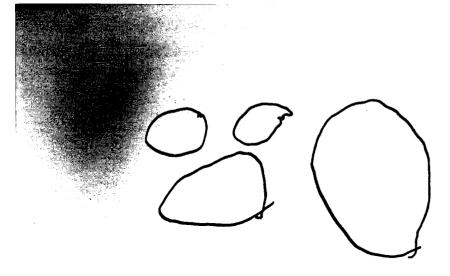ints which are socially imposed on our making of signs. However, as we have suggested, in our approach adult sign-makers, too, are guided by interest, by that complex condensation of cultural and social histories and of awareness of present contingencies. 'Mature' sign-makers produce signs out of that interest, always as transformations of existing semiotic materials, therefore always in some way newly made, and always as motivated conjunctions of meaning and form. The effect of convention is to place the pressure of constant limitations of conformity on sign-making; that is, the way signifiers have been combined with signifieds in the history of the culture, acts as a constantly present constraint on how far one might move in combining signifiers with signifieds. Convention does not negate new making; it attempts to limit and constrain the semiotic scope of the combinations.

This, then, is our position vis-à-vis 'European' semiology: where de Saussure had (been assumed to have) said that the relation of signifier and signified in the sign is arbitrary and conventional, we would say that the relation is always motivated and conventional. Where he had seemingly placed semiotic weight and power with the social, we wish to assert the effects of the transformative role of individual agents, yet also the constant presence of the social: in the historical shaping of the resources, in the individual agent's social history, in

the recognition of present conventions, in the effect of the environment in which representation and communication happen. Yet it is the transformative action of individuals, along the contours of social givens, which constantly reshapes the resources, and makes possible the self-making of social subjects.

One of the now taken-for-granted insights of socially oriented theories of language is the variation of language with the variation of social context. The accounts of this variation differ, ranging from correlation ('language form x relates to social context y') to determination ('language form x is produced by social actors y or in social context y'). A social semiotic approach takes the latter view, along the following lines.

(1) Communication requires that participants make their messages maximally understandable in a particular context. They therefore choose forms of expression which they believe to be maximally transparent to other participants. On the other hand, communication takes place in social structures which are inevitably marked by power differences, and this affects how each participant understands the notion of 'maximal understanding'. Participants in positions of power can force other participants into greater efforts of interpretation, and their notion of 'maximal understanding' is therefore different from that of participants who do their best to produce messages that will require a minimal effort of interpretation, or from that of participants who, through lack of command of the representational system, produce messages that are harder to interpret (e.g. children, learners of a foreign language). The other participants may then either make the effort required to interpret these messages or refuse to do so, whether in a school or in a railway station in a foreign country.

(2) Representation requires that sign-makers choose forms for the expression of what they have in mind, forms which they see as most apt and plausible in the given context. The examples above instantiate this: *circles* to stand for *wheels*, and *wheels* to stand for *cars; heavy* to stand for *significant effort*, and *significant effort* to stand for *climbing a steep slope*. Speakers of a foreign language use exactly the same strategy. They choose the nearest, most plausible form they know for the expression of what they have in mind. The requirements of communication are no different in more usual circumstances, they are simply less apparent. The interest of sign-makers, at the moment of making the sign, leads them to choose an aspect or bundle of aspects of the object to be represented as being criterial, at that moment, for representing what they want to represent, and then choose the most plausible, the most apt form for its representation. This applies also to the interest of the social institutions within which messages are produced, and there it takes the form of the (histories of) conventions and constraints.

APPLICATIONS

In the previous section we have focused on the theoretical background of our work, but our aims are not just theoretical. They are also descriptive and practical. We seek to develop a

descriptive framework that can be used as a tool for visual analysis. Such a tool will have its use for practical as well as analytical and critical purposes. To give some examples of the former, educationalists everywhere have become aware of the increasing role of visual communication in learning materials of various kinds, and they are asking themselves what kind of maps, charts, diagrams, pictures and forms of layout will be most effective for learning. To answer this question they need a language for speaking about the forms and meanings of these visual learning materials. Within the media, visual design is less and less the province of specialists who had generally seen little need for methodical and analytically explicit approaches, and had relied instead on creative sensibilities honed through experience. But where media forms are relatively recently introduced – as is the case, for example, with advertising in Eastern Europe and parts of Asia – there is no such resistance to combining systematic analysis and practice. And with the advance of easy to use software for desktop publishing, the production of diagrams and charts, image manipulation, etc., visual design becomes less of a specialist activity, something many people will do alongside other activities. This has already led to rapid growth in the number of courses in this area – and designing such courses requires more of an analytical grasp of principles than learning on the job by example and osmosis. Last, and maybe at bottom at the root of much of this change, is 'globalization', which – maybe nearly paradoxically – demands that the cultural specificities of semiotic, social, epistemological and rhetorical effects of visual communication must be understood everywhere, since semiotic entities from anywhere now appear and are 'consumed' everywhere.

Analysing visual communication is, or should be, an important part of the 'critical' disciplines. Although in this book we focus on displaying the regularities of visual communication, rather than its ('interested', i.e. political/ideological) uses, we see images of whatever kind as entirely within the realm of the realizations and instantiations of ideology, as means – always – for the articulation of ideological positions. The plain fact of the matter is that neither power nor its use has disappeared. It has only become more difficult to locate and to trace. In that context there is an absolute need in democratic terms for making available the means of understanding the articulations of power anywhere, in any form. The still growing enterprise of 'critical discourse analysis' seeks to show how language is used to convey power and status in contemporary social interaction, and how the apparently neutral, purely informative (linguistic) texts which emerge in newspaper reporting, government publications, social science reports, and so on, realize, articulate and disseminate 'discourses' as ideological positions just as much as do texts which more explicitly editorialize or propagandize. To do so we need to be able to 'read between the lines', in order to get a sense of what discursive/ideological position, what 'interest', may have given rise to a particular text, and maybe to glimpse at least the possibility of an alternative view. It is this kind of reading for which critical discourse analysis seeks to provide the ways and means. So far, however, critical discourse analysis has mostly been confined to language, realized as verbal texts, or to verbal parts of texts which also use other semiotic modes to realize meaning. We see our book as a contribution to a broadened critical discourse analysis, and we hope that our examples will demonstrate its potential for this kind of work.

Our examples include 'text-objects' of many kinds, from works of art to entirely ordinary, banal artefacts such as maps, charts, pages of different kinds, including those of websites, etc. We have included works of art not just because of their key role in the history of conventions and constraints, hence in the formation of the 'grammar of visual design', but also because they, too, articulate ideological positions of complex and potent kinds, and they, too, should be approached from the point of view of social critique.

As is perhaps already obvious from what we have said so far, we believe that visual design, like all semiotic modes, fulfils three major functions. To use Halliday's terms, every semiotic fulfils both an 'ideational' function, a function of representing 'the world around and inside us' and an 'interpersonal' function, a function of enacting social interactions as social relations. All message entities – texts – also attempt to present a coherent 'world of the text', what Halliday calls the 'textual' function – a world in which all the elements of the text cohere internally, and which itself coheres with its relevant environment. Whether we engage in conversation, produce an advertisement or play a piece of music, we are simultaneously communicating, doing something to, or for, or with, others in the here and now of a social context (swapping news with a friend; persuading the reader of a magazine to buy something; entertaining an audience) and representing some aspect of the world 'out there', be it in concrete or abstract terms (the content of a film we have seen; the qualities of the advertised product; a mood or melancholy sentiment or exuberant energy conveyed musically), and we bind these activities together in a coherent text or communicative event. The structure of our book reflects this. Chapters 2 and 3 deal with the *patterns of representation* which the 'grammar of visual design' makes available, and hence with the ways we can encode experience visually. Chapters 4 and 5 deal with the *patterns of interaction* which the 'grammar of visual design' makes available, and hence with the things we can do to, or for, each other with visual communication, and with the relations between the makers and viewers of visual 'texts' which this entails. Chapter 6 deals with the 'textual' function, with the way in which representations and communicative acts cohere into meaningful wholes. Chapter 7 deals with the materiality of visual signs – the tools we make them with (ink, paint, brushstrokes, etc.) and the materials we make them on (paper, canvas, computer screens, etc.); these, too, contribute to the meaning of visual texts. Chapter 8 extends the previous chapters into the domain of three-dimensional visuals and moving images. Again we assume that there is something like a Western 'grammar of three-dimensional visual design', a set of available forms and meanings used in sculpture as well as, for instance, in three-dimensional scientific models, or in children's toys – and a Western 'grammar of the moving image'.

We will begin, however, by discussing some of the broader themes we have touched on in this introduction.