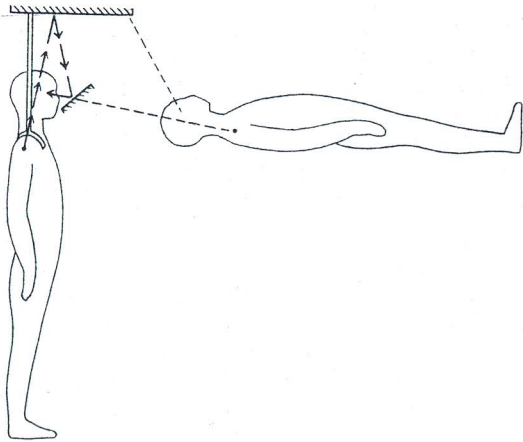


▲ Fig 5.12 Drawing by Newton (Bodleian Library)



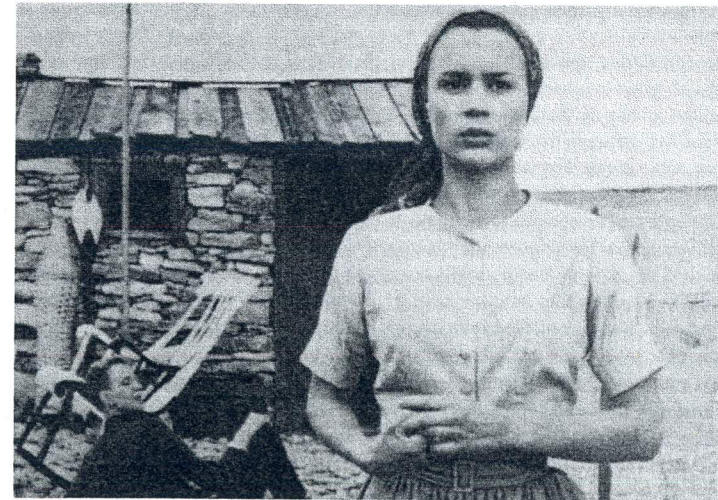
▲ Fig 5.13 Drawing of Stratton's experiment (Gregory, 1970)

from Gunther Kress + Theo van Leeuwen, Reading Images: The Grammar of Visual Design 2nd Ed 2006 (London: Routledge)

6 The meaning of composition

COMPOSITION AND THE MULTIMODAL TEXT

In previous chapters we have considered the way images represent the relations between the people, places and things they depict, and the complex set of relations that can exist between images and their viewers. Any given image contains a number of such representational and interactive relations. In figure 6.1, an image from Bergman's *Through a Glass Darkly* (1961), we see Karin (Harriet Andersson), who suffers from an incurable mental disease, and her younger brother Minus (Lars Passgard). From the point of view of representation, the shot contains what we have called a 'non-transactive reaction' (Karin looks out of the frame, at something the viewer cannot see) and a 'transactive reaction' (Minus looks up at his sister). These choices relate to the themes of the dramatic action: Karin has visions, sees things other people cannot see; Minus is caught in the here and now of his problematic relations with the other characters in the film. From the point of view of interactive meaning, the viewer is positioned closer to Karin ('medium shot') than to Minus ('long shot'); and, while Minus is seen from behind, Karin faces the viewer frontally.



▲ Fig 6.1 Harriet Andersson and Lars Passgard in *Through a Glass Darkly* (Bergman, 1960)

Clearly, the viewer is meant to be most centrally involved with Karin, and with her mental turmoil.

These patterns do not exhaust the relations set up by the image. There is a third element: the composition of the whole, the way in which the representational and interactive elements are made to relate to each other, the way they are integrated into a meaningful whole. Minus, for instance, is placed on the left, and Karin on the right. If this were turned around, the representational and interactive meanings would not be affected. Karin's reaction would still be 'non-transactive' and Minus' reaction 'transactive', and Karin would still be in medium shot, Minus still in long shot. But the meaning of the whole would no longer be the same. In other words, the placement of the elements (of the participants and of the syntagms that connect them to each other and to the viewer) endows them with specific information values relative to each other. We will discuss the value of 'left' and 'right' in the next section.

In addition, Karin is the most *salient*, the most eye-catching element in the composition, not just because she is placed in the foreground and because she forms the largest, simplest element in the picture, but also because she is in sharper focus and receives the greatest amount of light. Throughout much of the film Karin is dressed in light colours and made to bathe in light, in an almost supernatural fashion, this in contrast to the other characters. For these reasons she is also the most salient element in the shots where one of the other characters, for example her husband, is placed in the foreground. Her white clothes and the light on her pale face draw attention to her, even when she is placed in the background. To generalize, pictorial elements can receive stronger or weaker 'stress' than other elements in their immediate vicinity, and so become more or less important 'items of information' in the whole.

A vertical line formed by the left edge of the door of the shed, and continued by the dividing line between a particularly light and a darker board on the roof of the shed, runs through the middle of the picture, dividing it into two sections, literally and figuratively 'drawing a line' between the space of Karin, who can 'look into the beyond', and the space of Minus, who cannot. The world of Karin is thus separated from the world of Minus, in this pictorial composition as in the dramatic action of the film as a whole, where Minus' desire for contact and communion with his sister remains unfulfilled. There is yet another demarcation line in the picture: the horizon, which divides the picture into the zone of 'heaven' and the zone of 'earth'. In his discussion of Titian's *Noli Me Tangere*, Arnheim (1982: 112–13) describes how the staff of Christ forms a 'visual boundary' between Christ, who is already 'removed from earthly existence', and Magdalen, who is not; and how 'the lower region is separated by the horizon from the upper region of free spirituality, in which the tree and the buildings on the hill reach heavenward'. In figure 6.1, similarly, Karin straddles the two zones, half still of the earth, half already in the realm of 'free spirituality', while Minus is 'held down by the horizon into the region of the earth'. More generally, composition also involves *framing* (or its absence), through devices which connect or disconnect elements of the composition, so proposing that we see them as joined or as separate in some way, where, without framing, we would see them as continuous and complementary: there would be no visual 'directive' of this kind.

Composition, then, relates the representational and interactive meanings of the image to each other through three interrelated systems:

- (1) *Information value*. The placement of elements (participants and syntagms that relate them to each other and to the viewer) endows them with the specific informational values attached to the various 'zones' of the image: left and right, top and bottom, centre and margin.
- (2) *Salience*. The elements (participants as well as representational and interactive syntagms) are made to attract the viewer's attention to different degrees, as realized by such factors as placement in the foreground or background, relative size, contrasts in tonal value (or colour), differences in sharpness, etc.
- (3) *Framing*. The presence or absence of framing devices (realized by elements which create dividing lines, or by actual frame lines) disconnects or connects elements of the image, signifying that they belong or do not belong together in some sense.

These three principles of composition apply not just to single pictures, as in the example we have just discussed; they apply also to composite visuals, visuals which combine text and image and, perhaps, other graphic elements, be it on a page or on a television or computer screen. In the analysis of composite or *multimodal* texts (and any text whose meanings are realized through more than one semiotic code is multimodal), the question arises whether the products of the various modes should be analysed separately or in an integrated way; whether the meanings of the whole should be treated as the sum of the meanings of the parts, or whether the parts should be looked upon as interacting with and affecting one another. It is the latter path we will pursue in this chapter. In considering, for example, the picture of the train (figure 3.30) we do not seek to see the picture as an 'illustration' of the verbal text, thereby treating the verbal text as prior and more important, nor treat visual and verbal text as entirely discrete elements. We seek to be able to look at the whole page as an *integrated* text. Our insistence on drawing comparisons between language and visual communication stems from this objective. We seek to break down the disciplinary boundaries between the study of language and the study of images, and we seek, as much as possible, to use compatible language, and compatible terminology to speak about both, for in actual communication the two, and indeed many others, come together to form integrated texts.

In our view the integration of different semiotic modes is the work of an overarching code whose rules and meanings provide the multimodal text with the logic of its integration. There are two such integration codes: the mode of spatial composition, with which we will be concerned in this chapter; and *rhythm*, the mode of temporal composition. The former operates in texts in which all elements are spatially co-present – for example, paintings, streetscapes, magazine pages. The latter operates in texts which unfold over time – for example, speech, music, dance (see van Leeuwen, 1999). Some types of multimodal text utilize both, for example film and television, although rhythm will usually be the dominant integrative principle in these cases.

It follows that the principles of information value, salience and framing apply, not only

to pictures, but also, for example, to layouts. Plate 2, an advertisement for Bushells instant coffee, contains two photographs and a small amount of verbal text. The larger photo is a pictorial representation of the 'promise' of the product, and it is placed in the top section. The photo of the product is smaller, and placed below the larger photograph, together with the text. Reversing this would produce an entirely different effect, and probably result in a rather anomalous layout. Just what information values this arrangement accords to the two sections of the page will be discussed below. As far as salience is concerned, we can note that this page is not divided into two equal halves. The top section is the most salient, not only because of its size but also because the salience of the woman, who is positioned on the right and catches most of the golden glow of the light. Thus the advertisement gives greater stress to the promise of the product than to the product itself, or the verbal information. Finally, a sharp line creates a boundary between the photo and the verbal text, dividing the page into two separate sections, two spaces, reserved for two different kinds of meaning – one for the promise of the product, enhanced intimacy between lovers; the other for the product itself. Just as there is a dividing line between heaven and earth in Titian's *Noli Me Tangere*, and in the still from Bergman's *Through a Glass Darkly*, so there is, in this advertisement too, a dividing line between the world of 'what might be', the happiness the product might bring, and the world of 'what is', the product itself – and, just as in the two earlier examples, this product, the jar of instant coffee, straddles the two domains of meaning, forming a bridge between them. The home page of Sony's website (<http://www.sony.com>) has a similar structure. The top part shows the pleasure derived from using the company's products, and welcomes the user to the 'world of Sony', while the bottom part shows a range of actual products and allows the user to click on the pages from where the products can be ordered.

Early printed pages still treated text as 'visual material'. Walter Ong (1982: 119ff.) describes how sixteenth-century title pages broke up words without regard for syllable boundaries, and used different typesizes in a way that was not related to the relative importance of words, but served to create pleasing visual patterns. However, the printed page soon developed into the 'densely printed page' in which reading is linear and textual integration achieved by linguistic means (conjunctions, cohesive ties, etc.). In books of this kind it seems that the page has ceased to be a significant textual unit. The page shown in plate 2, on the other hand, is a semiotic unit, structured, not linguistically, but by principles of visual composition. In such a page verbal text becomes just one of the elements integrated by information value, salience and framing, and reading is not necessarily linear, wholly or in part, but may go from centre to margin, or in circular fashion, or vertically, etc. And this is the case, not only in contemporary magazines and websites, but also in many other contexts – for instance, in modern school textbooks, as we will show later (e.g. figure 6.6).

It should be noted, of course, that the layout of the densely printed page is still visual, still carries an overall cultural significance, as an image of progress. The densely written pages of other cultural traditions are laid out differently – as, for example in the Talmud, which has the oldest text, the Mishna, in the centre, the Gemara written around it; and later, medieval commentaries again, around the Gemara, in concentric layers. In such cases,

however, every page is still read the same way. In the case of magazine pages and the pages of modern computer screens, each successive page may have a different reading path.

This development beyond the densely printed page began in the late nineteenth-century mass press, in a context in which the ruling class, itself strongly committed to the densely printed page, attempted to maintain its hegemony by taking control of popular culture, commercializing it, and so turning the media *of* the people into the media *for* the people (see Williams 1977: 295). Their own comparable media – 'high' literature and the humanities generally – became even more firmly founded on the single semiotic of writing. Layout was not encouraged here, because it undermined the power of the densely printed page as, literally, the realization of the most literary and literate semiotic mode. The genres of the densely printed page, then, manifest the cultural capital ('high' cultural forms) controlled by the intellectual and artistic wing of the middle class, to use Bourdieu's terms (1986). Yet it is this same social group which has been instrumental in spreading the new visual literacy to those who were not, or not yet, to be initiated into the forms of literacy which constituted its own mark of distinction (the 'masses', or children), and to embrace it, for example in 'high' culture avant-garde manifestations, as an expression of their oppositional role within the middle class as a whole. As so often in the twentieth century, they turned out, in the end, to have been sawing off the branch on which they were sitting. The distinction between 'high' and 'low' forms is now everywhere in crisis, and new ways of maintaining cultural hegemony are required, for instance the development of different and differently valued ways of *talking* about forms which, themselves, are no longer differentiated in the old way (the 'discourses' of different 'audiences'). But the most highly valued ways of talking (and semiotics is one of them) remain themselves bound to methods that cannot adequately describe the new forms. If we are to understand the way in which vital text-producing institutions like the media, education and children's literature make sense of the world and participate in the development of new forms of social stratification, a theory of language is no longer sufficient and must be complemented by theories which can make the principles of the new visual literacy explicit, and describe, for instance, the role of layout in the process of social semiosis that takes place on the pages of the texts produced by these institutions – as we will try to do in this chapter.

GIVEN AND NEW: THE INFORMATION VALUE OF LEFT AND RIGHT

Many of the double-page spreads in the Australian women's magazines we used as one of our data sets when we wrote the first version of this chapter use the layout shown in figure 6.2. Their right pages are dominated by large and salient photographs from which the gaze of one or more women engages the gaze of the viewer (what, in chapter 4, we called 'demand' pictures). These pages show women in specific and sometimes contradictory roles, with which the readers of the magazine are invited to form a positive identification: a mother; a former 'soapie star' turned housewife and happy in that role; working women capable of coping with 'tough', 'masculine' jobs. Their left pages contain mostly verbal text, with graphically salient photographs on the right. The spread shown in figure 6.2 has a



Fig 6.2 Gold-diggers (Australian Women's Weekly, November 1987)

photograph on the left also, but this photo is smaller and, in contrast to the photo on the right page, it is a 'fly on the wall' photograph, which does not acknowledge the presence of the photographer, nor therefore that of the viewer. It is what, in chapter 4, we called an 'offer' picture. On such pages there often is a sense of complementarity or continuous movement from left to right, as in figure 6.2, where the photograph on the left is tilted to form a vector that leads the eyes to the photograph on the right, and where the colour gold, with its obvious connections to the theme of the story, is used as another integrating device: it occurs in the photograph as the colour of the helmets and of the liquid being poured, and is used also as the background against which the verbal text is printed.

On such pages the right seems to be the side of the key information, of what the reader must pay particular attention to, of the 'message' – whether it is the invitation to identify with a role model highly valued in the culture of the magazine or something else; for example, an instance of what is to be learned in a textbook. It follows that the left is the side of the 'already given', something the reader is assumed to know already, as part of the culture, or at least as part of the culture of the magazine. In figure 6.2, gold mining is Given, and the fact that women can engage in it, and that you, the reader, should identify with such 'tough' women, is New, the message, the 'issue'.

Looking at what is placed on the left and what is placed on the right in other kinds of visuals has confirmed this generalization: when pictures or layouts make significant use

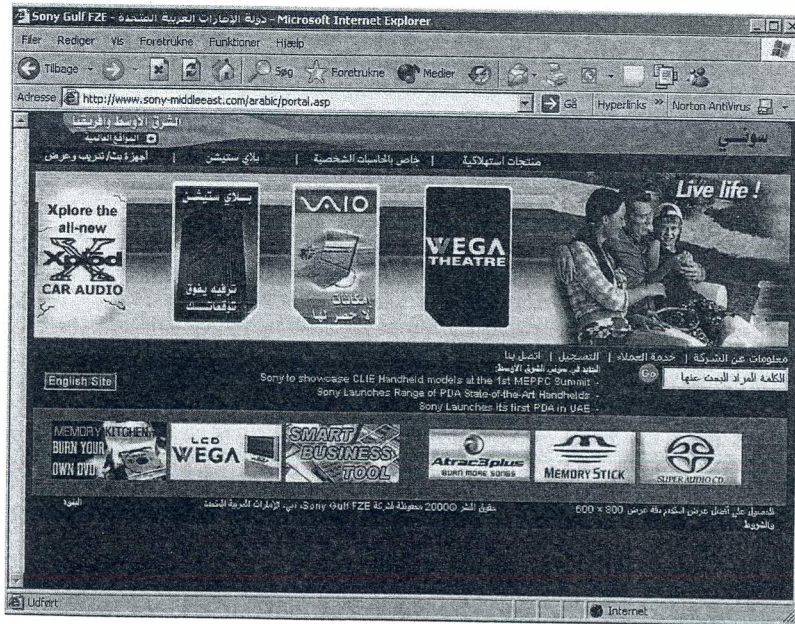
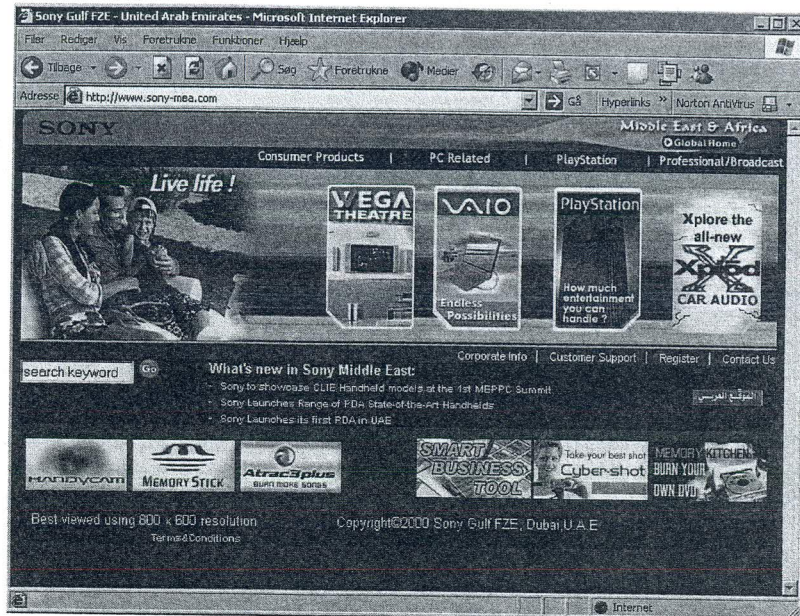
of the horizontal axis, positioning some of their elements left, and other, different ones right of the centre (which does not, of course, happen in every composition), the elements placed on the left are presented as Given, the elements placed on the right as New. For something to be Given means that it is presented as something the viewer already knows, as a familiar and agreed-upon point of departure for the message. For something to be New means that it is presented as something which is not yet known, or perhaps not yet agreed upon by the viewer; hence as something to which the viewer must pay special attention. Broadly speaking, the meaning of the New is therefore 'problematic', 'contestable', 'the information "at issue"', while the Given is presented as commonsensical, self-evident. This structure is ideological in the sense that it may not correspond to what is the case either for the producer or for the consumer of the image or layout. The important point is that the information is presented as though it had that status or value for the reader, and that readers have to read it within that structure, even if that valuation may then be rejected by a particular reader.

A similar structure exists in spoken English (see Halliday, 1985: 274ff.). As in visual communication, the structure of a 'tone group', an intonational phrase, is not a constituent structure, with strong framing between elements, but a gradual, wave-like movement from left to right (or, rather, from 'before' to 'after', since in language we are dealing with temporally integrated texts), and it is realized by intonation. Intonation creates two peaks of salience within each 'tone group' – one at the beginning of the group, and another, the major one (the 'tonic', in Halliday's terminology), as the culmination of the New, at the end. Just as in figure 6.2 we have one peak of salience on the left, in the bold headline and the red bar which separates it from the article itself, and another on the right, in the photo of the two women, so we would have one peak of salience on the syllable *gold* and another on the syllable *wo* – of *women* in:

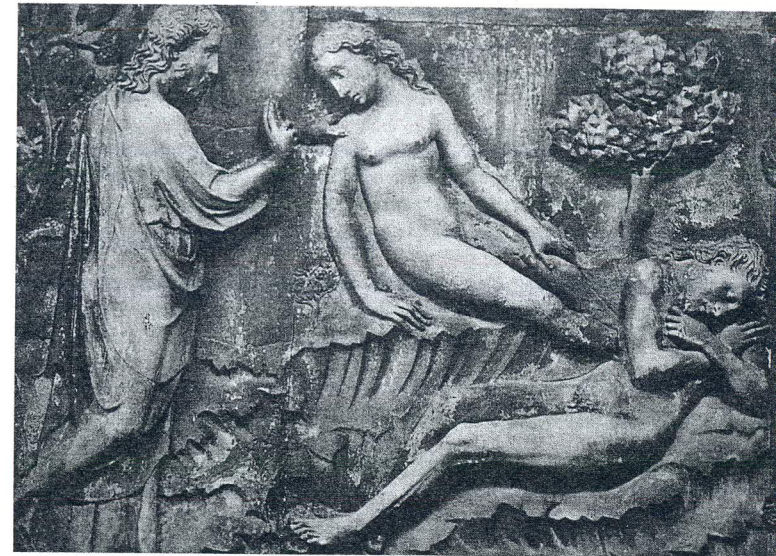
gold-digging can now be done by women

And just as the image of the two women is the New in figure 6.2, so the word *women* would be the New, the key point of the message, in the clause above. In other words, there is a close similarity between *sequential* information structure in language and *horizontal* structure in visual composition, and this attests to the existence of deeper, more abstract coding orientations which find their expression differently in different semiotic modes. Such coding orientations are culturally specific, certainly where the horizontal dimension is concerned. In cultures which write from right to left, the Given is on the right and the New on the left, as shown in figure 6.3, where the English and the Arabic language versions of Sony's Middle East website are compared.

So far we have taken a composite text as our example, but the Given–New relation applies also within an image. Figure 6.4 shows a fourteenth-century relief depicting the creation of Eve. God is the Given, agreed origin and departure point of all that exists. 'Woman', on the other hand, is New and, in the context of the Genesis story, problematic, the temptress who leads Adam into sin. Michelangelo, on the other hand, in his famous painting *The Creation of Adam* on the ceiling of the Sistine Chapel, placed God on the



▲ Fig 6.3 English and Arabic language versions of Sony's website (<http://www.sony-middleeast.com>)



▲ Fig 6.4 *The Creation of Eve* (Lorenzo Maitani, fourteenth century) (from Hughes, 1969)

right, in keeping with the new, humanistic spirit of the Renaissance. In this period God suddenly became New, and problematic. Generations of philosophers were to attempt to redefine Him in ways commensurate with the new science, and to try to prove His existence by the use of logic. In this picture the movement is no longer from God to 'Man', but from 'Man' to God. 'Man' reaches out, aspiring to divine status, and almost achieving it – but not quite.

In magazine layouts such as the one shown in figure 6.2, the space of the Given is filled by verbal text, and the space of the New, or at least a large part of it, by one or more images. But this is not always the case. A double-page advertisement for Mercedes-Benz showed, on the left, a Mercedes photographed objectively (rather than, for example, from the driver's point of view), and with the well-known Mercedes emblem in the centre of the composition. The right page contained only verbal text, with a headline saying, 'Mercedes-Benz agrees with its competitors. You should drive their cars before you drive a Mercedes-Benz.' In other words, the advertisement treated the Mercedes as an already-known, 'Given' symbol of status, and the message that 'you, too, might own a Mercedes' as the New. More generally, if the left contains a picture and the right is verbal text, the picture is presented as Given, as a well-established point of departure for the text, and the text contains the New. If the left page has text and the right page a picture, the text

contains the Given, and the picture the New. The example points to the social effects and uses of this structure. What is taken for granted by one social group is not taken for granted by another. We might expect to find, therefore, systematic differences in the dispositions of material in layout across different magazines – for instance, according to their readership.

The concepts of Given and New can be applied also to the design of diagrams. In Shannon and Weaver's (1949) communication model (figure 2.2) it might seem that the horizontal order of the elements is motivated representationally: the process of 'sending information', for instance, must take place before the information can be received. But the left does not always signify 'before', nor does the arrow of time always point to the right. A diagram from a 1990 issue of *Time Magazine* which we were not allowed to reproduce here showed, on the right, a stick figure whose very large head was a pie chart representing the composition of the workforce in the year 2000 (i.e. ten years into the future at the time of publication). Another pie chart, on the left, was superimposed on a massive office building and represented the present composition of the work force. An arrow showed that the stick figure was walking towards the door of the massive office building, i.e. that a change in the composition of the work force was gradually coming closer to the present, but it was *not* moving towards the right, because the current composition of the work force had to be treated as Given and the future additions (more women, minorities and immigrants) as New and problematic. This shows how the Given–New structure can be ideological even in diagrams. If the horizontal order of the communication model were rearranged in a similar way (see figure 6.5), it would no longer depict communication from the point of view of the 'sender', with the 'receiver' as New, and problematic (Will the message 'hit the target'? Will it have the intended effect?). Instead, the reader would become the origin and departure of the communication process, and the 'sender' ('author') problematic, as has indeed happened, for instance, in literary reception theory.

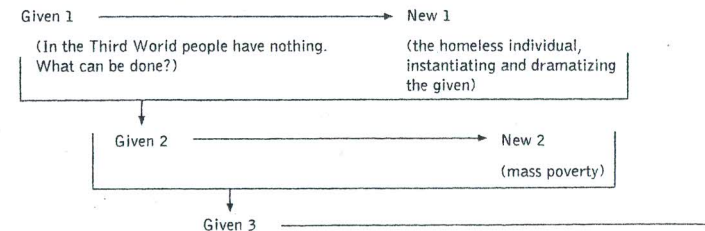
Given–New structures can also be found in film and television. Media interviews, for example, often place the interviewer on the left of the interviewee (from the viewer's point of view). Thus interviewers are presented as people with whose views and assumptions viewers will identify and are already familiar, indeed, as the people who ask questions on behalf of the viewers. The interviewees, on the other hand, present 'New' information – and are situated on the right (see Bell and van Leeuwen, 1994: 160–4). The relation between Given and New may be emphasized by horizontal camera movements ('pans'). In a current affairs item from an ABC *7.30 Report* (March 1987), the children from a Muslim Community School were initially shown as 'ethnic', 'different' from 'us', viewers –



▲ Fig 6.5 Reversed communication model

there was much emphasis on their non-Western dress, and there was Arabic music in the background. But it was the point of the programme to establish that they were, despite this, 'just like ordinary Australian children', playful, spontaneous, creative, etc. This was realized, among other things, by various horizontal camera movements: a shot which panned from children in non-Western clothes to the teacher, a young woman in a Western dress, tying a bow in the hair of a little girl; a shot which panned along a classroom wall from an Arabic sign to a picture of a clown, etc. In other words, 'difference', ethnic prejudice, was treated as Given; the fact that at least these children should be accepted as 'like us' was treated as New, and formed the message the programme was trying to get across.

In ongoing texts, each New can, in turn, become Given for the next New. The opening pages of the chapter 'In search of a straw' from the Dutch junior high-school geography textbook *Werk aan de Wereld* (Bols *et al.*, 1986) have, on the far left, a single column of text, occupying about a fifth of the page, which has a 'landscape' format, favouring a horizontally oriented layout. The text contains assertions such as 'Many people in the Third World have nothing' and questions such as 'What prospects do all these people have?' Given is, in the first place, the Third World as a problem. The remainder of the left page has a large colour photo of a man sleeping on the street, covered by a blanket (there is no indication where this photo is taken). This more emotive way of presenting the 'problem' therefore functions as New in relation to the text. The right page features a single photograph, showing a large crowd of people searching a rubbish dump, armed with cane bags and baskets. In relation to this photo, the image of the homeless man (an image now also familiar in Europe) becomes Given, while the photo itself, with its (in Northern Europe) less familiar image of shocking mass poverty, is presented as New. Together with the introductory text, the two images constitute the Given of the chapter as a whole. Thus each new item of information, once received, becomes, in turn, Given for the information which follows, as shown in figure 6.6. This pattern of the New becoming Given is characteristic of language also, both in speech and in writing.



▲ Fig 6.6 Cumulative Given–New structure

IDEAL AND REAL: THE INFORMATION VALUE OF TOP AND BOTTOM

Like many other magazine advertisements and marketing oriented websites (see Myers, 1994: 139), the Bushells advertisement (plate 2) and the Sony website are structured along the vertical axis. In such texts the upper section visualizes the 'promise of the product', the status of glamour it can bestow on its users, or the sensory fulfilment it can bring. The lower section visualizes the product itself, providing more or less factual information about it, and telling the readers or users where it can be obtained, or how they can request more information about it, or order it. There is usually less connection, less ongoing movement, between the two parts of the composition than in horizontally oriented compositions. Instead, there is a sense of contrast, of opposition between the two. The upper section tends to make some kind of emotive appeal and to show us 'what might be'; the lower section tends to be more informative and practical, showing us 'what is'. A sharp dividing line may separate the two, although, at a less conspicuous level, there may also be connective elements. In plate 2 this is created by the way the jar of coffee forms a bridge between the upper and the lower section of the ad, while in the Sony website it is created by the colour scheme which unites the page as a whole: in both the top and the bottom part of the page the dominant colours are shades of beige, with some blue and blue-grey elements added (the jacket of the girl, the pictures in the bottom part of the page) as well as some red elements (e.g. the girl's lips and the words 'What's new' in the top half, and the headings of the four sections in the bottom half). Overall, however, the opposition between top and bottom is strongly emphasized, with products placed firmly in the realm of the real, as a solid foundation for the edifice of promise, and with the top section as the realm of the consumer's supposed aspirations and desires.

In other contexts, the opposition between top and bottom takes on somewhat different values. In a fairly conservative but (in the early 1990s) still widely used Dutch geography textbook (Dragt *et al.*, 1986), the upper half of the first page of a chapter on, again, 'The Third World', is fully verbal, presenting generalized assertions and definitions such as 'A large part of the world has a low development' and 'These underdeveloped countries we call poor countries or developing countries'. This provides a more neutral and less emotive (but not less ideological) kind of idealization, a representation of the world which is divested of contradictions, exceptions and nuances. The lower half of the page is given over to a map of the world which uses colour-coding to divide the world into regions according to the average income of the inhabitants, thus providing specific and detailed evidence to support the assertions in the top half. Directions for action – for instance, coupons for ordering a product in advertisements, or assignments or questions in textbooks – also tend to be found on the lower half of the page, usually at the bottom right (hence also New).

The information value of top and bottom, then, can perhaps be summarized along the following lines. If, in a visual composition, some of the constituent elements are placed in the upper part, and other different elements in the lower part of the picture space or the page, then what has been placed on the top is presented as the Ideal, and what has been placed at the bottom is put forward as the Real. For something to be ideal means that it is

presented as the idealized or generalized essence of the information, hence also as its, ostensibly, most salient part. The Real is then opposed to this in that it presents more specific information (e.g. details), more 'down-to-earth' information (e.g. photographs as documentary evidence, or maps or charts), or more practical information (e.g. practical consequences, directions for action).

As is already evident from the examples given so far, the opposition between Ideal and Real can also structure text–image relations. If the upper part of a page is occupied by the text and the lower part by one or more pictures (or maps or charts or diagrams), the text plays, ideologically, the lead role, and the pictures a subservient role (which, however, is important in its own way, as specification, evidence, practical consequence, and so on). If the roles are reversed, so that one or more pictures occupy the top section, then the Ideal, the ideologically foregrounded part of the message, is communicated visually, and the text serves to elaborate on it.

As with the Given and New, the Ideal–Real structure can be used in the composition both of single images and of composite texts such as layouts. Figure 6.7, reproduced from one of the Dutch geography textbooks we have discussed (Bols *et al.*, 1986), includes a photo which may have been taken in India – its origin is not mentioned, but to the left of the picture, as its Given, we see a map of India. A young mother, carrying a baby, occupies, by herself, the top section of the vertically composed photo, as a 'Third World' Madonna with



▲ Fig. 6.7 Overpopulation (Bols *et al.*, 1986)

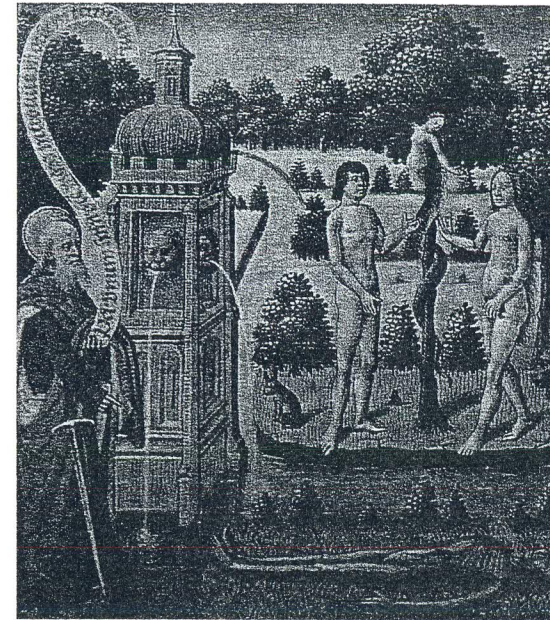
child. The bottom section shows a group of women and children, sitting on the ground, tightly packed together. The young mother looks at this group, a worried expression crossing her face. In this way the picture as a whole expresses a contradiction between the deep-rooted Ideal of motherhood and the Real of overpopulation. Immediately below the photo we find a collage of newspaper headlines ('India struggles against overpopulation', 'Unemployment nightmare in India') as Real (the newspaper as source of 'hard facts', of evidence) with respect to the more symbolic, idealized and emotive representation of the problem in the picture.

Ideal and Real can also play a role in diagrams. It is striking, for instance, that diagrams based on a vertical timeline sometimes idealize the present, sometimes the past. The already-mentioned Dutch geography textbook *Werk aan de Wereld* (Bols *et al.*, 1986) features a diagram which represents the decrease of living space per head of the population, by means of a vertical arrangement of what look like chessboards of different sizes. On these 'chessboards' stand cartoon figures. On top we see a gentleman from 1900, complete with top hat, on a large ('6285 m²') 'chessboard'. At the bottom, on the smallest 'chessboard', we see a 'punk' character from 1980. Here, as in many advertisements, the past, the 'good old days', is presented as Ideal. The other Dutch geography textbook we mentioned (Dragt *et al.*, 1986) features a 'geological calendar' in which the present ('development of vertebrates', complete with a small drawing of a naked woman) becomes the Ideal, the culmination of progress and evolution.

Many visuals combine horizontal and vertical structuring. In figure 6.8 (as in figure 6.4) God is Given, and Adam and Eve are New. But their fall from grace has introduced a (New) opposition, between the Ideal of Paradise, of the Garden of Eden, and the Real of death and decay – and the two are visually separated by the river which surrounds the Garden of Eden.

The communication model in figure 6.9 also combines horizontal and vertical structuring, in an intricate piece of visual thinking about the impossibility of knowing reality 'as it is', objectively. Given is the 'event', as it exists 'out there', separate from our perception of it. New, and therefore problematic, is our perception of the event and, at the lower level, the way we communicate our perceptions through language. Ideal is the 'empirical', the world 'as it is', and our perception of it, unmediated by communication, culture, language (which are positioned in the lower section). Real are our interpretations of these perceptions, as mediated by communication. Clearly, this diagram could have been vertical, or horizontal. But it is not. Communication is positioned *below* the 'event' and its perception. The 'empirical' world and 'pure' observation are Ideal. But this Ideal is also depicted in isolation from our 'statements' about it, and our perceptions of these statements. This is what the lower section of the diagram, the Real, tells us. Perception is secondhand, filtered through culture and language, which, as the double-headed arrows indicate, feed back into our perception of nature, and hence into nature itself. The diagram tells us that reality *does* exist, but that our perception of it can only be 'subjective, selective, variable and unpredictable' (McQuail and Windahl, 1993: 25).

Figure 6.10 is another one of our original examples from late 1980s Australian women's magazines, but it remains a good example of the combination of horizontal

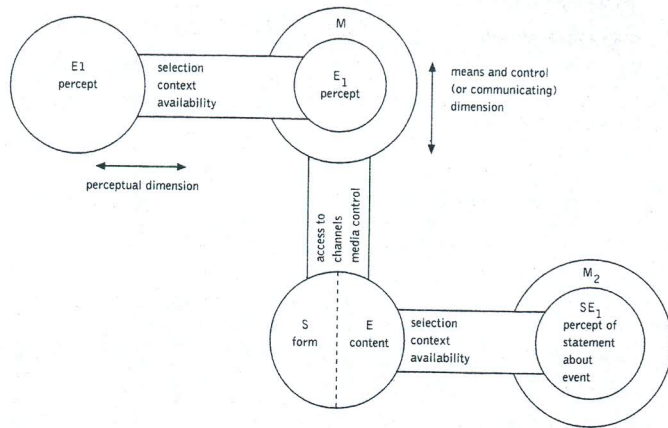


▲ Fig 6.8 *God Shows Death to Adam and Eve* (French, fifteenth-century miniature from ms. of *De civitate Dei*) (from Hughes, 1969)

and vertical structuring. Ideal is the moment, one might say, that 'marriage was made in Heaven'. Modality is 'distant', representing the 'not now', the 'out of time'. The bottom section, by contrast, represents the world of 'is', 'now', 'in our time'.

Given is the royal couple, presented as the quintessential couple, the well-established symbol of family values. New are Sydney's Gwen and Ray Kinkade, an instance, an example of these values. Hence what is Given is the pre-eminence (historically, socially, semiotically) of the royal couple as the paradigm example of the married couple. What is New is one instance of the paradigm – where many others of a set of acceptable instances would have served equally well. This distinction is perhaps sharpest in the bottom part. The two pictures in the top part become, at the safe distance of forty years, almost identical, an equation between equal terms.

In one, and a very real sense, the place of the New seems merely perfunctory: it is the place of the replication of the paradigm, of the reproduction of the existing classifications of the culture, the place where the underlying values of the culture are reaffirmed. The New



▲ Fig 6.9 Gerbner's communication model (Watson and Hill, 1980: 77)

instantiates and 'naturalizes' these values. But that very fact also makes the position problematic, for it is at the same time the place of the affirmation of what is, the place of the reproduction of social meanings, and the place where the contestation of paradigmatic values can take place, the place therefore of the constant production of social meanings (e.g. of new definitions of 'women's work' in figure 6.2), even when that production seems to be mere reproduction and hence conservative in its effects. Could there, for instance, have been a Vietnamese or Lebanese or Aboriginal couple in this position (in 1987), not to mention a gay couple? This contestation over 'established', 'Given' values may happen in one or two ways: a reader who is not Anglo-Australian will either identify with the syntagm of Anglo-Australianness, 'assimilate', in other words; or will refuse the syntagm as having no relevance or value to him or her. In the latter case there will be pressure on this place in the syntagm, and this in turn will result in pressure on the paradigm as a whole.

There is another aspect to this: while the syntagm declares itself as unquestionably established, its appearance points at the same time to a problem with the paradigm, to the need precisely for a testing and (re)affirmation of its legitimacy. Read from the right to the left, the syntagm declares that it is the willingness of readers to read it as a relation of identity (within a hyponymic structure) which gives legitimacy to the royal couple. Royalty is the established, the Given. What has to be reaffirmed anew is that subjects are still prepared to enter into this paradigmatic relation. A monarchy trying to establish itself, on the other hand, might need to utilize a structure where the power of the people is represented as Given, and the identity of the monarch is to be established – that is, the royal couple would appear on the right.



▲ Fig 6.10 Royal couple (Australian Women's Weekly, November 1987)

Thus this syntagm reveals a number of social facts: what is regarded as established and Given; what the cultural classification system is with respect to a certain feature; and whether the system is progressive or reactionary. It is above all a syntagm which does not permit deviance; or, rather, once an item is in the syntagm, it has to be read as being in the paradigm. Where it does permit deviance is on the part of the reader, who can refuse to be part of the community defined by this paradigm.

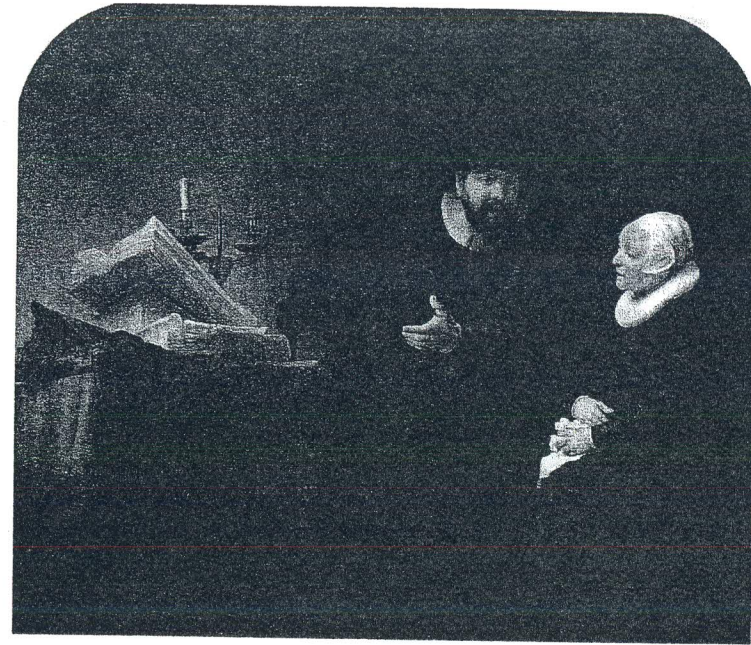
In the Western visual semiotic, then, the syntagmatic is the realm of the process of semiosis, and the top-bottom structure the result and record of semiosis, the realm of

order, the paradigm, the mimetic representation of culture (Hodge and Kress, 1988). To maintain and unsettle top–bottom structures, one has to work on the left–right structures. That this system goes back a long way in Western art can be seen in genres such as fifteenth-century Flemish diptychs, which, for instance, may have the Virgin and the Child as Given, and a donor or Saint as New, as in the diptych by the master of Bruges in the Courtauld Gallery, and polyptychs from the same period, which may parallel a Real (earthly) and Ideal (heavenly) version of the same theme in the lower and upper part of the panels, as in Bosch's *Last Judgement*, where the lower part of one of the left panels shows Adam and Eve being driven from the Garden of Eden and the upper part the expulsion of the Rebel Angels from Heaven.

As we have said in the Introduction, we are largely concerned with the description of the visual semiotic of Western cultures. Cultures which have long-established reading directions of a different kind (right to left, or top to bottom) are likely to attach different values to these positions, as shown in figure 6.3. In other words, reading directions may be the material instantiations of deeply embedded cultural value systems. Directionality as such, however, is a semiotic resource in all cultures. All cultures work with margin and centre, left and right, top and bottom, even if they do not all accord the same meanings and values to these spatial dimensions. And the way they use them in their signifying systems will have relations of homology with other cultural systems, whether religious, philosophical or practical.

We will end this section with one further example of the uses of Given and New, the way in which Rembrandt used Given and New for the expression of affective aspects of meaning, and this especially in relation to the source and direction of light and the effect produced by that. In many, perhaps the majority, of Rembrandt's paintings, whether in landscapes such as *Landscape with a Stone Bridge* or in portraits such as *A Young Woman in Bed* or *Double Portrait of the Mennonite Preacher Cornelius Claesz Anso and his Wife Aeltje Gerritsdr Schouten* (figure 6.11), the light source is outside the left frame of the picture and illuminates mainly the left part, leaving the right of the painting in greater or lesser darkness. Iconographically speaking the metaphoric range of light is wide – light can signify 'the divine', 'illumination', 'hope', etc. In these paintings light, whatever its meaning, is in the area of the Given, the taken for granted, the now/present. 'Light' is Given, 'darkness' New.

The height of the unseen light source also varies: in *Young Woman* it is on or just below the centre; in *Double Portrait* it comes from a position above the halfway mark, perhaps two-thirds of the way up; and in *Landscape* it comes from somewhere high up, near the top corner and in the near middle distance. That is, light may be in the area of the Real coming from a 'mundane' source or it may be 'divine'. In other paintings the light comes from within the painting; for instance, in *The Holy Family on the Flight to Egypt*, where it forms the (divine) light 'in the world' (there is also a second, faint light coming from outside, in the sky above). In *Belshazzar's Feast*, by a most unusual contrast, the light source (the glowing script announcing the doom of the king) is situated in the top-right quadrant – the space of the New and the 'Ideal'/divine'. The variation in the source and directionality of light thus has a complex set of meanings. It can contrast the secular/mundane and the



▲ Fig 6.11 *Double Portrait of the Mennonite Preacher Cornelius Claesz Anso and his Wife Aeltje Gerritsdr Schouten* (Rembrandt, 1641) (Staatliche Museen, Preussischer Kulturbesitz, Gemäldegalerie, cat. no. 828L)

divine/ideal; light as Given and taken for granted, and light as New and astonishing; and all these in variable combinations. In *Double Portrait*, for example, the light comes from outside the depicted world, is situated in the area of the Given (the area where the scriptures are depicted), and comes from just above the midway point between Ideal and Real, so that it could be interpreted as 'divine', yet close to the Real. One overwhelming effect is the brightness of the area of the Given, and the total darkness of the area of the New (the future?) to which the two figures have, in any case, turned their backs. Are we entitled to read from this autobiographical, affective meanings – perhaps a deep, pervasive pessimism about both the future, the New, and the present, the Real, which then contrasts with a feeling of security about what was, a faith in a divine light from the past certainty, which entails that we must turn our back on the New, on the future? If so, these affective, personal meanings are surely as significant as social and cultural meanings and, of course, related to them.

THE INFORMATION VALUE OF CENTRE AND MARGIN

Visual composition may also be structured along the dimensions of centre and margin. The most typical manifestations of this can be found in children's drawings or, for example, in Byzantine art. As Arnheim (1982: 73) notes,

In the Byzantine churches the dominant image of the divine ruler holds the centre of the apse. In portrait paintings, a pope or emperor is often presented in central position. More generally, when the portrait of a man shows him in the middle of a framed area, we see him detached from the vicissitudes of his life's history, alone with his own being and his own thoughts. A sense of permanence goes with the central position.

Figure 6.12 is an example – a Buddhist painting in which the central figure is surrounded by a circle of subordinates. Arnheim in fact makes the centre the crucial element of his theory of composition, conceiving of the visual objects in a composition as 'so many cosmic bodies attracting and repelling one another in space' (1982: 207).

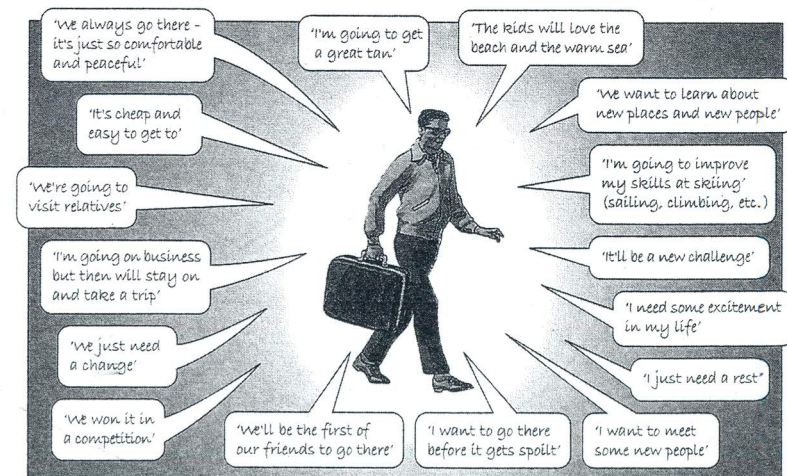
In contemporary Western visualization central composition is relatively uncommon, though here too there may be changes in train. Most compositions polarize elements as



▲ Fig 6.12 Buddhist painting (Arnheim, 1982)

Given and New and/or Ideal and Real. But when one of us was teaching on a media design course in Singapore, he found that central composition played an important role in the imagination of young Asian designers. Perhaps it is the greater emphasis on hierarchy, harmony and continuity in Confucian thinking that makes centring a fundamental organizational principle in the visual semiotic of their culture. Much of the work produced by these students had strong dominant centres, surrounded or flanked by relatively unpolarized marginal elements.

While many Anglo-Western tabloid newspapers tend to adhere to a basic left–right structure in the layout of their front pages, others place the main stories and photographs in the top section. The front pages of the business sections of the *Sydney Morning Herald*, however, for a time invariably used central composition, featuring a large photo (or, frequently, drawing) in the centre of the page: for instance, Asian students entering the neo-Gothic Quadrangle of the University of Sydney when the page featured articles on education as a money earner for the country's economy; a cartoon-like drawing of two men playing Monopoly (based on Van Doesburg's *Card-players* – see figure 5.6), when corporate takeovers dominated the news; and so on. Such pictures provided a symbolic kernel for the issues of the day, and a centre for the elements arranged around them – news stories at the top and to the left, as, still, the Ideal and the Given of the newspaper, even if now somewhat marginalized; advertisements as the Real; and a column of expert commentary as New, hence as the element to which readers should pay particular attention. Figure 6.13

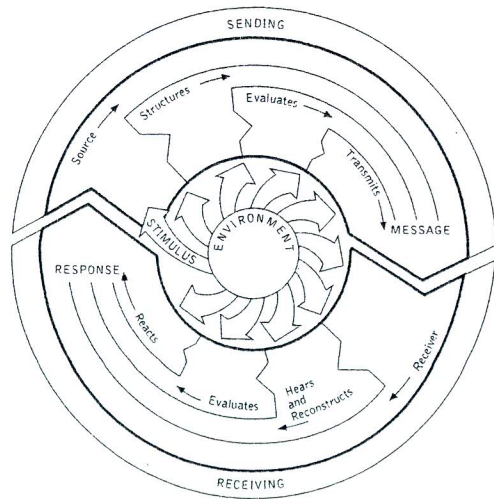


▲ Fig 6.13 Going on holiday (from Prosser, 2000: 117)

shows a diagram from a tourism studies textbook in which 'going on holiday' is the core issue, and in which a range of reasons for going on holiday is arranged around this Centre, without any sense of polarization.

To generalize, then, if a visual composition makes significant use of the Centre, placing one element in the middle and the other elements around it, we will refer to the central element as Centre and to the elements around it as Margins. For something to be presented as Centre means that it is presented as the nucleus of the information to which all the other elements are in some sense subservient. The Margins are these ancillary, dependent elements. In many cases the Margins are identical or at least very similar to each other, so that there is no sense of a division between Given and New and/or Ideal and Real elements among them. In other cases – for instance, the newspaper pages we discussed above – Centre and Margin combine with Given and New and/or Ideal and Real.

Not all Margins are equally marginal. Circular structures can create a gradual and graded distinction between Centre and Margin, as for instance in the communication model by Andersch *et al.* in figure 6.14, where the process of 'structuring' is more marginal than the process of 'evaluating'. In this model, nature (the 'environment') is Centre, origin and prime mover of communication. Compared to the dominant position of nature, communication is a marginal phenomenon, just as, in the medieval maps of cities we discussed in chapter 3, the cities themselves were placed in the centre and depicted with topographical

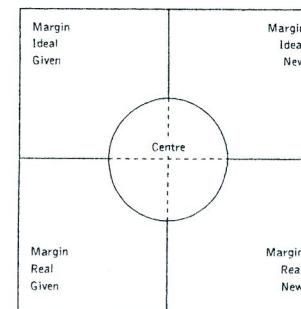


▲ Fig 6.14 Andersch *et al.*'s communication model (from Watson and Hill, 1980: 14)

accuracy, while the surrounding countryside was represented on a smaller scale, and with less accuracy. Verbal commentaries do not necessarily try to 'translate' such meanings. Watson and Hill (1980: 76), for example, say that in this model the 'message' is 'interacting with factors in the environment'. Yet, the model itself represents the relation between communication and the 'environment', not as interaction, but as a one-way process, a 'non-transactive reaction', according to our terminology in chapter 2 (there is an arrow only from the 'environment' to the communicative processes that surround it). And 'interacting' suggests greater equality between the 'message' and the 'factors in the environment' than does the centred composition of the model.

As we have seen, Given–New and Ideal–Real can combine with Centre and Margin. Dividing visual space according to these dimensions results in the figure of the Cross, a fundamental spatial symbol in Western culture (see figure 6.15). Just how marginal the margins are will depend on the size and, more generally, on the salience of the Centre. But even when the Centre is empty, it continues to exist *in absentia*, as the invisible (denied) pivot around which everything else turns, the place of the 'divine ruler'. The relative infrequency of centred compositions in contemporary Western representation perhaps signifies that, in the words of the poet, 'the centre does not hold' any longer in many sectors of contemporary society.

One common mode of combining Given and New with Centre and Margin is the triptych. In many medieval triptychs there is no sense of Given and New. The Centre shows a key religious theme, such as the Crucifixion or the Virgin and Child, and the side panels show Saints or donors, kneeling down in admiration. The composition is symmetrical rather than polarized, although the left was regarded as a slightly less honorific position. In the sixteenth century altarpieces become more narrative, showing, for instance, the birth of Christ or the road to Golgotha in the left panel, the Crucifixion on the centre panel, and the Resurrection on the right panel. This could involve some polarization, albeit subordinated to the temporal order, with the left as the 'bad side' (e.g. the transgression of Adam), the



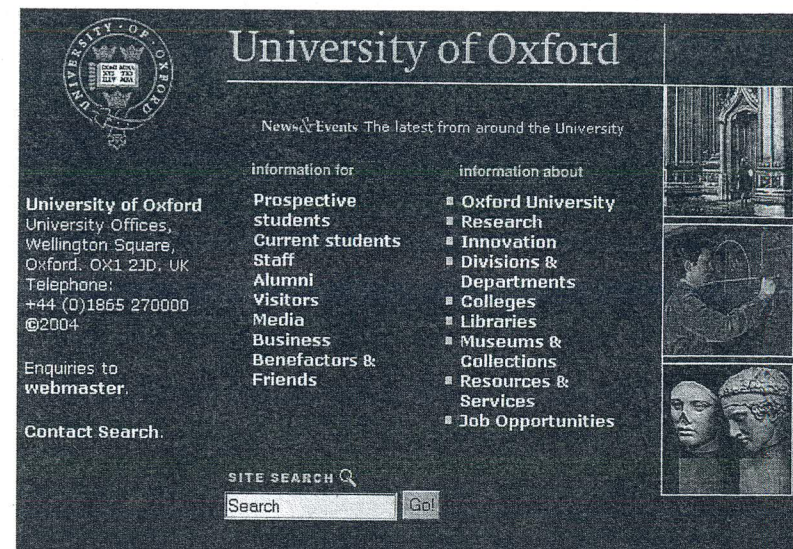
▲ Fig 6.15 The dimensions of visual space

right as the 'good side' (e.g. the Resurrection) and the middle panel representing Christ's role as Mediator and Saviour (e.g. the Crucifixion). Bosch's *Last Judgement* (and also his *Earthly Delights*) inverts this, showing on the left the Garden of Eden and on the right a cataclysmic vision of Hell in which there is no place for the 'ascent of the blessed'.

The triptychs in modern magazines and newspaper layouts are generally polarized, with a 'Given' left, a 'New' right, and a centre which bridges the two and acts as 'Mediator'. In August 2004, the top banner of Nokia's website showed on the left an image of a fashionable woman and on the right a Nokia imaging phone. The text in the Centre connected the two. In fact it consisted of two alternating texts. First we read 'Inspiringly. Welcome to London Fashion Week', then this first text made way for 'Inspiringly different. The new official imaging phone of London Fashion Week'. The concept of fashion is Given, and the Nokia imaging phone as a fashion accessory New.

Triptychs can also be used to structure diagrams. Iedema *et al.* (1994: 217) shows how the left column of the organizational chart of a local council lists that council's 'Corporate Services', so making the 'administrative and financial backbone of the organization' Given, while the council's 'Development and Environmental Services', the department which 'connects all other departments', is described in the central column, as the Mediator. In a lecture on social cognition attended by the authors, the lecturer used the blackboard (conventional blackboards also have a triptych structure!) to list, on the left panel, a number of key issues in linguistics (this was Given because most of those present were linguists and students of applied linguistics), on the right panel a number of issues in sociology (this was New, as the linguists were meeting to discuss the social relevance of discourse analysis), and on the central 'panel' an outline of his own theory of social cognition, which he presented as the necessary link between the two fields, and as an issue that should be the central concern of those present at the meeting.

Vertical triptychs are also common in websites. The triptych from the University of Oxford website (figure 6.16) can be interpreted as a simple Margin–Centre–Margin structure, though there is some polarization in that the top image is a 'long shot' and the bottom image a close up. Overall, however, the student is Centre here, while images of history and tradition surround and support her. The triptych in figure 6.17 comes from a German junior high-school politics textbook (Nitzschke, 1990). As the Ideal, we see (in colour) immigrants (*Ausländer*, 'foreigners') in high-status professions. As the Real, we see 'foreigners' in low-status professions. This Real is divided into a Given and a New, with a colour photo as Given and a black-and-white photo as New, as though, in the 1990s, the low status of immigrants should be looked at in a more sober light, and no longer as 'Given' as it once was. In the Centre we see, again in black and white, a single immigrant worker cleaning a train. The accompanying text encourages students to explore what would happen if 'one day all foreign workers had to leave'. What, it asks, would be the consequences for the building industry, the children of the workers, the owners of hostels, the workers themselves, the managers of hospitals and cleaning firms? In other words, this triptych (itself the New on the double page in which it appears) tells us that foreign workers should, perhaps, ideally be able to move into high-status positions, but in reality are needed to do 'our' menial jobs. The central image is an attempt to overcome, or at least mitigate, this



▲ Fig 6.16 Vertical triptych from the University of Oxford website (www.oxford.ac.uk)

contradiction. It shows a worker who, like the high-status immigrants in the Ideal, is depicted as an individual, and as involved in 'clean' work, but who, also like the workers shown in the Real, has a low-status job – and is shown in the sober, documentary modality of black-and-white realism.

The structure of the triptych, then, can be either a simple and symmetrical Margin–Centre–Margin structure or a polarized structure in which the Centre acts as a Mediator between Given and New or between Ideal and Real (see figure 6.18).

In this and the preceding section of this chapter, we have not drawn any parallels with language. Though spoken English has its own Given–New structure, this is not the case with the Ideal–Real and the Centre–Margin structures. This is not to say that the meanings these structures express cannot, in some form, be expressed in language, but rather that they are more readily and frequently expressed visually, and that language, unlike visual communication, has not developed 'grammatical' forms to express them. As we have emphasized throughout this book, sometimes language and visual communication express the same kind of semantic relations, albeit in very different ways, but there are also many types of semantic relation which are more often and more easily expressed visually, just as there are others which are more often and more easily expressed linguistically, with epistemological consequences of the kind we discussed in the Introduction and chapter 1.

A Wieviele Kinder ausländischer Eltern sind in eurer Schule?
Fragt sie, seit wann ihre Eltern in Deutschland sind, was sie arbeiten, warum sie hierher kamen, ob sie bleiben wollen und warum.

Stellt im Atlas fest, woher ausländische Arbeiter kommen, woher Flüchtlinge. Laßt euch erzählen, wie es dort aussieht. Lest in Erdkundebüchern oder Reiseführern nach. Achtet dabei besonders auf die Arbeits- und Lebenssituation.

H Im Sekretariat eurer Schule gibt es Zahlen über ausländische Schüler.

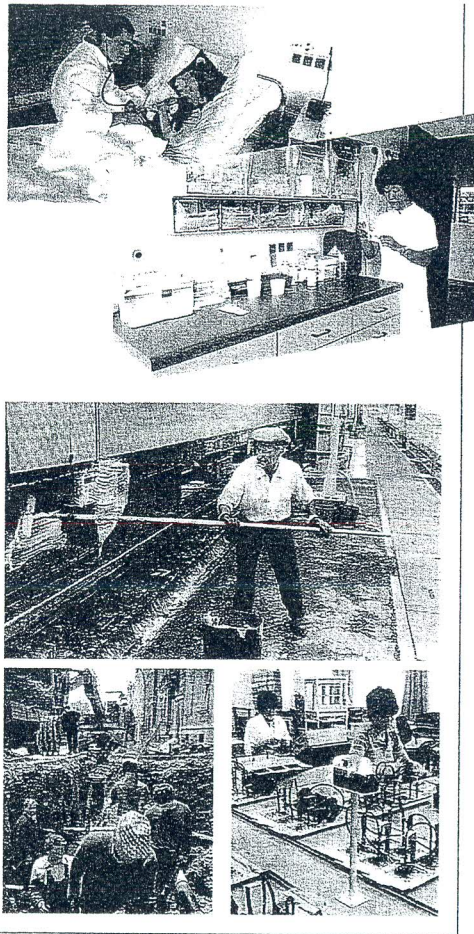
Vorschläge zum Gespräch:

- Gibt es Probleme mit ausländischen Schülerinnen und Schülern?
- Welche Lösungsmöglichkeiten seht ihr?
- Was denken ausländische Schüler über die Bundesrepublik?
- Was denken deutsche Schüler über Ausländer?

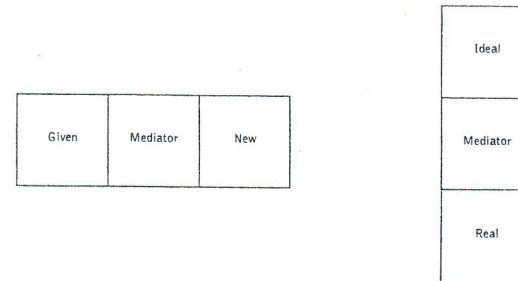
A Stellt euch vor, daß an einem Tage alle ausländischen Arbeiter die Bundesrepublik verlassen müßten. Bildet Gruppen und überlegt, was z. B.

- Bauunternehmer,
- Kinder der Arbeiter,
- Gaststättenbesitzer,
- die Arbeiter selbst,
- Leiter von Krankenhäusern,
- Leiter von Reinigungsfirmen für Probleme hätten, tun müßten ...

Tragt die Ergebnisse zusammen und besprecht sie.



A Fig 6.17 Vertical triptych from a German school textbook (Nitzschke, 1990)



A Fig 6.18 Horizontal and vertical triptychs

SALIENCE

The fundamental function of integration codes such as composition is textual. Integration codes serve to produce text, to place the meaningful elements into the whole, and to provide coherence and ordering among them. So far we have discussed how composition determines 'where things can go' and how the positioning of the elements in a composition endows these elements with different information values in relation to other elements. But the composition of a picture or a page also involves different degrees of salience to its elements. Regardless of where they are placed, salience can create a hierarchy of importance among the elements, selecting some as more important, more worthy of attention than others. The Given may be more salient than the New, for instance, or the New more salient than the Given, or both may be equally salient. And the same applies to Ideal and Real and to Centre and Margin.

The same phenomenon occurs in temporally integrated texts. Rhythm always involves cycles which consist of an alternation between successive sensations of salience (stressed syllables, accented notes, etc.) and non-salience (unstressed syllables, unaccented notes) and these cycles repeat themselves with the time intervals that are perceived as equal even when, measured objectively, they are not. The perception of salience, in speech as in music, results from a complex interplay between a number of auditory factors: the duration of the strong and weak elements of the cycle ('long'-'short'), the pitch of the strong and the weak elements ('high'-'low') their loudness ('loud'-'soft'), and in speech also the vowel colour (vowels may be fully pronounced, for instance the first 'e' in *element*, or pronounced as a 'schwa', like the second 'e' in *element*, or the second 'a' in *alabaster*). Indeed anything that can create an auditory contrast between successive sounds can serve to realize salience. And even when objective clues for salience are absent, the first element of each cycle can be perceived as 'stronger': perception imposes rhythm, waves of salience and non-salience on sound (and on movement) even when, strictly speaking, there is none.

When composition is the integration mode, salience is judged on the basis of visual clues. The viewers of spatial compositions are intuitively able to judge the 'weight' of the various elements of a composition, and the greater the weight of an element, the greater its salience. This salience, again, is not objectively measurable, but results from complex interaction, a complex trading-off relationship between a number of factors: size, sharpness of focus, tonal contrast (areas of high tonal contrast – for instance, borders between black and white – have high salience), colour contrasts (for instance, the contrast between strongly saturated and 'soft' colours, or the contrast between red and blue), placement in the visual field (elements not only become 'heavier' as they are moved towards the top, but also appear 'heavier' the further they are moved towards the left, due to an asymmetry in the visual field), perspective (foreground objects are more salient than background objects, and elements that overlap other elements are more salient than the elements they overlap), and also quite specific cultural factors, such as the appearance of a human figure or a potent cultural symbol. And, just as rhythm creates a hierarchy of importance among the elements of temporally integrated texts, so visual weight creates a hierarchy of importance among the elements of spatially integrated texts, causing some to draw more attention to themselves than others.

Being able to judge the visual weight of the elements of a composition is being able to judge how they 'balance'. The weight they put into the scales derives from one or more of the factors just mentioned. Taken together, the elements create a balancing centre, the point, one might say, from which, if one conceived of the elements as part of a mobile, this mobile would have to be suspended. Regardless of whether this point is in the actual centre of the composition or off-centre, it often becomes the space of the central message, and this attests to the 'power of the centre' (Arnheim, 1982) to which we have alluded already, a power which exerts itself even if the Centre is an empty space around which the text is organized – cf. Barthes' remarks about the 'empty heart of Tokyo' (1970: 44).

Perspective produces centres of its own, and by doing so contributes to the hierarchization of the elements in compositions. As a result viewers may relate to compositions in two ways: perspectively, in which case the composition is ostensibly based on the viewer's perspective/position; or non-perspectively, in which case the composition is not based on the viewer's position/perspective. In the former case the viewers, face-to-face with the infinite recess of perspective, become themselves the centre of the composition, thus taking the place of, for example, the deities in Byzantine or Buddhist paintings. In the latter case the representation is coded from an internal point of view, as is borne out by the fact that what is left and what is right is judged from the point of view of the represented participants rather than from the point of view of the viewer. Uspensky (1975: 33–9) has documented this with respect to icon-painting. He cites traditional guides for icon-painters which state, for instance, 'On the right, or good side, is Mount Sinai, on the left, or bad side, Mount Lebanon', and then shows how, from the viewer's point of view, Mount Sinai is on the right and Mount Lebanon on the left. He adds that this is a general feature of pre-Renaissance art, and also of primitive cartographic drawing.

In the theory of art, composition is often talked about in aesthetic and formal terms ('balance', 'harmony', etc.). In the practice of newspaper and magazine layout it is more

often discussed in pragmatic terms (does it 'grab the readers' attention'?). In our view these two aspects are inextricably intertwined with the semiotic function of composition. As we have seen, in many magazine advertisements (e.g. plate 2) the top section, the 'promise of the product', is the most salient element due to its size. This suggests, not just that such advertisements attempt to make readers notice the attractive picture first, so as to 'hook' them, but also that Ideal and Real are ranked in importance and opposed to each other in this way. Composition is not just a matter of formal aesthetics and of feeling, or of pulling the readers (although it is that as well); it also marshals meaningful elements into coherent texts and it does this in ways which themselves follow the requirements of mode-specific structures and themselves produce meaning.

Rhythm and balance also form the most bodily aspects of texts, the interface between our physical and semiotic selves. Without rhythm and balance, physical coordination in time and space is impossible. They form an indispensable matrix for the production and reception of messages and are vital in human interaction. Moreover, it is to quite some degree from the sense of rhythm and the sense of compositional balance that our aesthetic pleasure in texts and our affective relations to texts are derived.

FRAMING

The third key element in composition is framing. In temporally integrated texts framing is, again, brought about by rhythm. From time to time the ongoing equal-timed cycles of rhythm are momentarily interrupted by a pause, a *rallentando*, a change of gait, and these junctures mark off distinct units, disconnect stretches of speech or music or movement from each other to a greater or lesser degree. Where such junctures are absent, the elements are connected in a continuous flow. In spatially integrated compositions it is no different. The elements or groups of elements are either disconnected, marked off from each other, or connected, joined together. And visual framing, too, is a matter of degree: elements of the composition may be strongly or weakly framed.

The stronger the framing of an element, the more it is presented as a separate unit of information. Context then colours in the more precise nature of this 'separation'. The members of a group, for instance, may be shown in a group portrait (as in group photos of school classes or employees of a company) or in a collage of individual photos, marked off by frame lines and/or empty space between them (as with photos of the managers of a company in a company brochure). The absence of framing stresses group identity, its presence signifies individuality and differentiation. In figure 6.1, framing acquires *dramatic* significance. The left post of the door and the dividing line between the light and dark boards on the roof create a frame line which, literally and figuratively, separates Minus from his sister, expressing the communicative gap between them. In film and video a similar effect can be created by the choice between showing two or more actors together in one shot, or editing between individual shots of the actors in which each is isolated from the others by frame lines.

The more the elements of the spatial composition are connected, the more they are

presented as belonging together, as a single unit of information. In the Nokia triptych referred to above, for instance, there are no frame lines to demarcate the elements of the triptych strongly from each other. There is a sense of continuous flow from left to right. But in figure 6.16 the 'panels' of the triptych are separate units – there is a sharp demarcation here between past and present. The same applies to figure 6.17, where the empty space between the top and the central 'panel' and the colour contrast (the top panel is in colour, the middle panel in black and white) create a strong division between the Ideal and the reality of immigration. The example also illustrates the many ways in which framing can be achieved – by actual frame lines, by white space between elements, by discontinuities of colour, and so on.

Connectedness, too, can be realized in many ways. It can be emphasized by vectors, by depicted elements (structural elements of buildings, perspectively drawn roads leading the eye to elements in the background, etc.) or by abstract graphic elements, leading the eye from one element to another, beginning with the most salient element, the element that first draws the viewer's attention. In figure 6.2 the tilting of the left-hand photo forms a vector leading the eye from left to right, and the repetition of the colour gold in all the elements of the two pages provides a strong sense of unity and cohesion – visual 'rhymes' of this kind, repetition of colours and shapes in different elements of the composition, form another key connection device, often used in advertisements to stress the connection between the 'promise of the product' and the product itself (cf. also the colour-coordination in the Sony homepage).

It should finally be noted that, at a deeper level, there is also an element of framing in styles of drawing and painting. In line drawings, for instance, the outlines of objects strictly demarcate them from their environment, whereas in certain styles of painting (e.g. Impressionism) they are set apart from their environment only by subtle transitions of colour.

LINEAR AND NON-LINEAR COMPOSITIONS

In densely printed pages of text, reading is linear and strictly coded. Such texts must be read the way they are designed to be read – from left to right and from top to bottom, line by line. Any other form of reading (skipping, looking at the last page to see how the plot will be resolved or what the conclusion will be) is a form of cheating and produces a slight sense of guilt in the reader. Other kinds of pages (e.g. traditional comic strips) and images (e.g. timeline diagrams) are also designed to be read in this linear way.

The pages we have described in this chapter are read differently – and can be read in more than one way. Their reading path is less strictly coded. Readers of magazines, for instance, may flick through the magazine, stopping every now and again to look at a picture or read a headline, and perhaps later returning to some of the articles which drew their attention, and websites are specifically designed to allow multiple reading paths. Yet in many pages composition does set up particular hierarchies of the movement of the hypothetical reader within and across their different elements. Such reading paths begin with the most salient element, and from there move to the next most salient element, and so

on. Their trajectories are not necessarily similar to that of the densely printed page, left–right and top–bottom, but may move in a circle, as in figure 6.2, where the gold being poured is the most salient element, because of its extreme brightness (somewhat reduced in reproduction), the photo of the two gold-diggers the next most salient, the headline the third most salient, and the text the next most salient – but it may also be that the vector formed by the tilting of the left photograph leads the eye back to the larger photo, and so on, in circular fashion. Whether the reader only 'reads' the photos and the headline, or also part or all of the verbal text, a complementarity, a to and fro between text and image, is guaranteed. For any one reader the photograph or the headline may form the starting point of the reading. Our assumption is that the most plausible reading path is the one in which readers begin by glancing at the photos, and then make a new start from left to right, from headline to photo, after which, optionally, they move to the body of the verbal text. Such pages can be 'scanned' or read, just as pictures can be taken in at a glance or scrutinized for their every detail. We deliberately make a modest claim here and speak of the 'most plausible' reading path, for this type of reading path is not strictly coded, not as mandatory, as that of the densely printed page or the conventional comic strip. Different readers may follow different paths. Given that what is made salient is culturally determined, members of different cultural groupings are likely to have different hierarchies of salience, and perhaps texts of this kind are the way they are precisely to allow for the possibility of more than one reading path, and hence for the heterogeneity and diversity of their large readership.

As non-linear texts become more common, even densely printed pages of text begin to be read differently. The scientist, reading a journal of organic chemistry, will glance at the diagrammatic representations of organic compounds before deciding whether or not to read the paper or, when reading that only one rat has been used in the experiment, skip to find out first why this was done (Gledhill, 1994). Students preparing for their exams will use the index of the textbook to find out and highlight the passages they need, rather than read the textbook from cover to cover. The more a text makes use of subheadings, emphatic devices (italics, bold type, underlining), numbered lines of typical elements or characteristics of some phenomenon, tables, diagrams and so on, the more likely it is to be scanned, skip-read, 'used' rather than read: linear reading is gradually losing ground.

We noted that reading paths may be circular, diagonal, spiralling, and so on. As soon as this possibility is opened up, as soon as there is a choice between differently shaped reading paths, these shapes can themselves become sources of meaning. If the reading path is circular, one reads outwards, in concentric circles, from a central message which forms the heart, so to speak, of the cultural universe. If the reading path is linear and horizontal, it constitutes a progression, moving inexorably forwards towards the future (or backwards, towards the 'origin' of all things). If it is vertical, a sense of hierarchy is signified, a movement from the general to the specific, from the 'headline' to the 'footnote'. The shape of the reading path itself conveys a significant cultural message.

Sixteenth-century books of emblems explicitly described the meanings of different kinds of reading path. The reading path of figure 6.19, an illustration from a Flemish book of emblems, is a spiral, which was an emblem for the inexorable progress of time. It is also a serpent, so that the reading proceeds from the tail, a low, base element, to the head, a



▲ Fig 6.19 A page from Alciato's *Book of Emblems* (from Bassy, 1975)

superior element. Alain-Marie Bassy (1975: 303–5) explains the sequence of the emblematically expressed meanings one encounters as one follows the spiral from the centre outwards: the hand ('work'), the head ('intelligence'), the tail of the serpent (a 'base' element), the hand which holds down and imposes its will on the tail. Joining these meanings together results in the visual proposition also expressed in the title of the picture: 'Ex literarum studiis immortalitatem acquirit' ('Through intellectual endeavours I gained immortality'). Today, the study of the meaning of new kinds of reading paths has barely begun.

Analysing reading paths with students, we found that some are easy to agree on, others harder, again others impossible. This was not, we think, because of a lack of analytical ability on our part or on the part of our students, but because of the structure of the texts themselves. Texts encode reading paths to different degrees. Some, though no longer densely printed pages, still take the readers by the hand, guiding them firmly through the text. Others (we might call them 'semi-linear' texts) at best provide readers with a few hints and suggestions, and for the rest leave the readers to their own devices. In again others we can, with the best will in the world, not detect any reading path that is more plausible than any number of others. In figure 6.20, a comic strip from the magazine *Cracked*, the headline stands out and this, together with the strong vector formed by the waterslide

WATER PARKS OF THE DAMNED!



● Fig 6.20 Water parks of the damned (*Cracked*, October 1994)

on the left page, predisposes us to start our reading top left. But where the eye will move from here is difficult to predict. There is neither chronology (despite the resemblance to a flowchart) nor a clear hierarchy of salience.

Increasingly many texts (newspapers, billboards, comic strips, advertisements, web-sites) are of this kind. They offer the reader a choice of reading path and, even more so than in the case of texts where a plausible reading *can* be discerned, leave it up to the reader how to traverse the textual space. They are 'interactive' – and it is perhaps no accident that they have their clearest antecedent in the genre of the 'activities' books which offer children a choice of puzzles, riddles, colouring-in pictures, etc. for a rainy day during the holidays. This is not to say that the order of the elements on such pages is random. The comic strip, for instance, still has its 'welcome' sign at top left, and its most gruesome images in the Real, a division between depictions of holiday fun and of sadistic torture that recalls the division between the Garden of Eden and Death in figure 6.8.

Linear texts, then, are like movies, where the viewers have no choice but to see the images in an order that has been decided for them, or like an exhibition in which the paintings are hung in long corridors through which the visitors must move, following signs perhaps, to eventually end up at the exit. In non-linear texts viewers can select their own images and view them in an order of their own choosing. They are like an exhibition in a large room which visitors can traverse in any way they like. But, again, the way these exhibits are arranged will not be random. It will not be random that a particular major sculpture is placed in the centre of the room, or that a particular major painting has been hung on the wall opposite the entrance, to be noticed first by all visitors entering the room.

Linear texts thus impose a syntagmatics on the reader, describe the sequence of, and the connection between, the elements. As a result the meanings of individual elements can be less strictly coded, as for instance in documentary films, where the meaning of the individual shots can be largely determined by the editing, rather than by the intrinsic meanings of the shots. Non-linear texts impose a paradigmatics. They select the elements that can be viewed and present them according to a certain paradigmatic logic – the logic of Centre and Margin or of Given and New, for instance – but leave it to the reader to sequence and connect them. In the design of such texts there will be pressure to put more of the meaning in the individual elements of the composition, to use more highly coded images – symbolic and conceptual images, tightly written, self-contained items of information, stereotyped characters, drawings or highly structured images rather than realistic photographs, and so on. Linear and non-linear texts thus constitute two modes of reading and two regimes of control over meaning, exactly in the same way as we discussed in chapter 1, in connection with *Baby's First Book* (figure 1.1) and the page from Dick Bruna's *On My Walk* (figure 1.2).

A SUMMARY

Figure 6.21 provides a summary of the distinctions we have introduced in this chapter. The double-headed arrows (↕) stand for graded contrasts ('more or less', rather than 'either-or'). The superscript 'I' means 'if' and the superscript 'T' means 'then'. In other

words, 'if there is no horizontal polarization, then there must be vertical polarization' – the opposite follows from this. In the next section we will discuss a number of examples in greater detail.

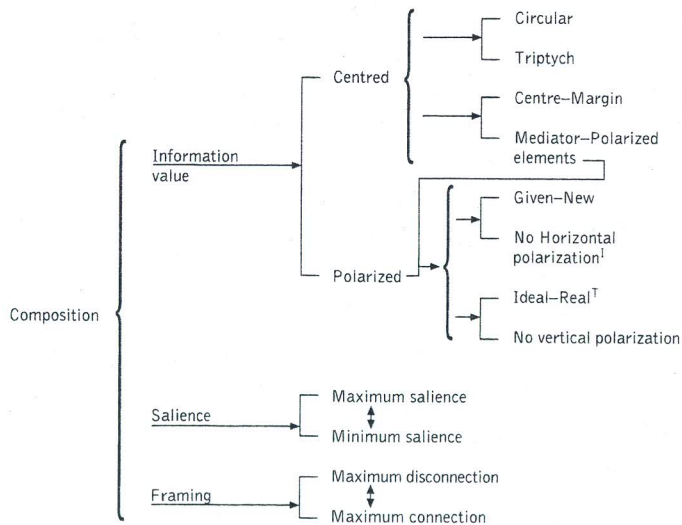
REALIZATIONS

<i>Centred</i>	An element (the Centre) is placed in the centre of the composition.
<i>Polarized</i>	There is no element in the centre of the composition.
<i>Triptych</i>	The non-central elements in a centred composition are placed either on the right and left or above and below the Centre.
<i>Circular</i>	The non-central elements in a centred composition are placed both above and below and to the sides of the Centre, and further elements may be placed in between these polarized positions.
<i>Margin</i>	The non-central elements in a centred composition are identical or near-identical, so creating symmetry in the composition.
<i>Mediator</i>	The Centre of a polarized centred composition forms a bridge between Given and New and/or Ideal and Real, so reconciling polarized elements to each other in some way.
<i>Given</i>	The left element in a polarized composition or the left polarized element in a centred composition. This element is not identical or near-identical to the corresponding right element.
<i>New</i>	The right element in a polarized composition or the right polarized element in a centred composition. This element is not identical or near-identical to the corresponding left element.
<i>Ideal</i>	The top element in a polarized composition or the top polarized element in a centred composition. This element is not identical or near-identical to the corresponding bottom element.
<i>Real</i>	The bottom element in a polarized composition or the bottom polarized element

Salience in a centred composition. This element is not identical or near-identical to the corresponding top element. The degree to which an element draws attention to itself, due to its size, its place in the foreground or its overlapping of other elements, its colour, its tonal values, its sharpness or definition, and other features.

Disconnection The degree to which an element is visually separated from other elements through frame lines, pictorial framing devices, empty space between elements, discontinuities of colour and shape, and other features.

Connection The degree to which an element is visually joined to another element, through the absence of framing devices, through vectors and through continuities or similarities of colour, visual shape, etc.



▲ Fig 6.21 The meaning of composition

GIVEN AND NEW IN CHILDREN'S DRAWINGS AND CD-ROMS

In any sequential structure, that which is about to be said or shown is by definition always New, not yet known. By contrast, what has (just) been seen, heard, discovered is, by comparison, now known, Given. In visual media, sequence can of course be represented in a number of dimensions, right to left, bottom to top, in a spiral from outside, etc. (and in medieval painting perspective can indicate sequence, with the foreground as the present and the background as the future). Such dimensions have been used throughout history, and are still used by different cultures, as primary visual sequencing orientations. The medium of the book, bringing the possibility of turning the page, adds a further means of reprinting sequence visually, the left page/right page structure and the possibility of the two-page structures (right page and following left page).

Figure 6.22 shows a double page from a book produced by a six-year-old boy while staying in Paris for half a year with his parents. It records events and experiences he was involved in, and sights and objects he encountered during his stay in Paris. Clearly, in this situation everything was New for the child, literally. He was faced with the question of how to represent new information, new ideas, new objects, without the possibility of relating them to already-established, known domains.

The book opens with the name and address of the author, on the first lefthand page. This is the Given for the book as a whole, an element of security and familiarity in the new environment. On the first righthand page that new environment is represented visually: a picture of the Eiffel Tower. It is only when this page is turned that the picture is named, commuted into language. Once named, the Eiffel Tower becomes Given, and on the adjoining righthand page the child faces the next aspect of his new environment. Thus the book continues: the new picture, too, is only identified on the next lefthand page – the Arc de Triomphe. The child obviously realized that this structure could be misunderstood, and used left-facing arrows to refer the reader to the picture on the previous page. But his impulse was to first visually represent Paris as the New, and then to master it, make it known and Given by means of language, by means of naming it. His attitude was empirical and he used language as an 'anchorage' in his effort to come to terms with his new experiences.

We will end with an example that brings all the elements of this chapter together. Figure 6.23 shows the first screen of an 'edutainment' CD-ROM for children, titled '3D Body Adventure'. The top of the screen shows a range of media on a desktop. A slide is projected on a screen. A video monitor shows an animated sequence. Half-hidden behind the monitor, a loudspeaker plays soft music. In other words, the Ideal here is what we might call 'information media', media to read, look at and listen to. The Real, on the other hand, presents things the user can do. It offers games to play, media to interactively engage with. 'Emergency', for instance, is a game which mixes laser surgery and the shooting gallery – the player zaps brain cells in a race against time ('Hurry doctor, save the patient'). And in 'Body Recall' body parts must be matched with their names. Thus the composition of the screen uses the vertical dimension to separate information-as-knowledge from information-as-action, or information-as-knowledge from information-as-entertainment.

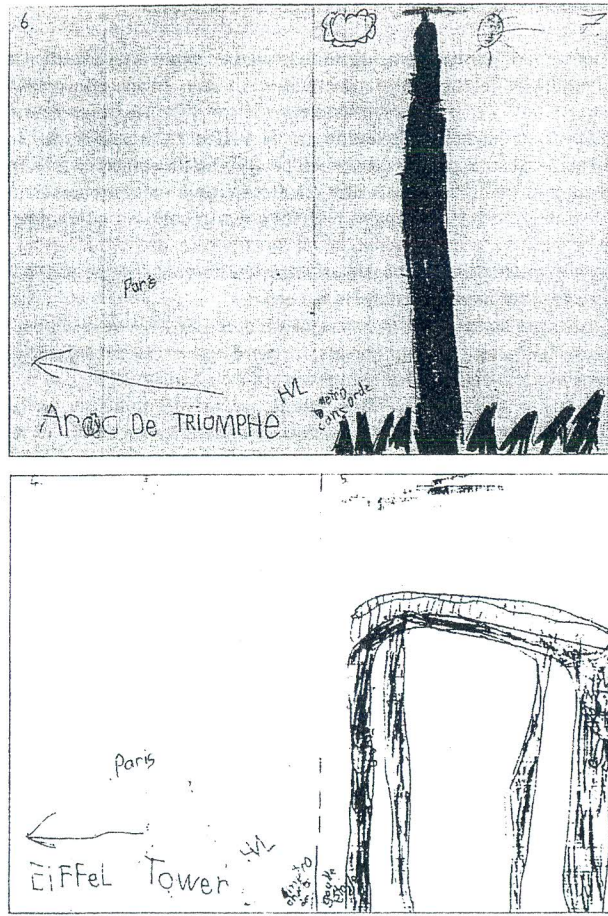


Fig 6.22 Paris diary of a six-year-old boy

And, while it continues to put the former, literally and figuratively, on a pedestal, it places real learning squarely in the zone of interactive activities. We might say that 'entertaining activities' are here represented as 'consolidating' (giving a firm 'footing' or 'grounding' to) authoritatively presented, 'high' knowledge. Reversing the two – putting the games on top



Fig 6.23 Page from 3D Body Adventure (Knowledge Adventures, 1993)

and the information media at the bottom – would create a very different meaning, perhaps something like 'knowledge provides a "foundation" for ("highly" regarded) active experiences'.

The screen also uses the horizontal dimension, and this in two ways. First, the left is the domain of the still image, and the right the domain of the animated '3D' images, of the move from two-dimensional representation to 'virtual reality'. Second, the left is the domain of what has already been formulated for the users, while the right is the domain of what users can do themselves: they can rotate the skeleton with their mouse so as to view the image from whichever angle they choose, and they can exit the screen at will. Note that the monitor straddles the boundary between Ideal and Real: like interactive games, user-activated 3D viewing has (still) some entertainment value, because of its novelty; but, like information media, it also has instruction value – the animated skeleton can serve as a stand-in for a real or reproduction skeleton and make a good learning aid for students. In other words, as we move from left to right, we move from the traditional 2D diagram to the new animated 3D diagram or drawing, and from the traditional 'passive learner' to the new 'interactive' mode of learning.

Another dimension used here is that of foreground and background. The loudspeaker is placed behind the monitor, which is congruent with the role played by sound and image in

this CD-ROM: all information is provided visually, and the soundtrack only offers soft background music.

Most salient on the screen is the monitor image of the moving skeleton, and this for two reasons: it moves, and it displays the greatest tonal contrast. Next most salient are perhaps the names of the games. Although they do not occupy much space, their colours – bright red and yellow – contrast strongly with the cool whites, blues and greys that dominate the rest of the screen. And the images (the doors of the Emergency Ward and the 'Body Recall' keyboard) are both sharper and more saturated in colour than the rest of the screen. Relative size can also establish salience, and as a result the 'slide' with the X-Ray picture of the body and the title of the CD-ROM is perhaps the next most salient element. Which leaves the loudspeaker and the 'exit' sign.

From the point of view of framing, finally, the most significant 'disconnection' is that between the space of the interactive games and the rest of the screen. The games, against a brighter, more garish blue than can be found elsewhere on the screen, insert themselves into the more traditional, naturalistic continuity (and natural palette) of the desktop. They could have been placed on the desktop. But they are not. They are represented as a quite separate, 'alien' element, disrupting the natural perspectival homogeneity of the semiotic space. Within the picture of the desktop on the other hand, there is a sense of continuity, both because of the harmony of the muted colours, and because of the way the elements form part of a continuous, homogeneous, non-fragmented space. Thus the traditional media are represented as naturalistic and complementary to each other, but also as radically different from the new 'interactive' media.

The example shows that the composition of this screen positions the component modes of the multimodal text in relation to each other, making some play a foreground role, some a background role, presenting some as complementary to each other, others as each other's opposites, and so on. It *visually* realizes a discourse of 'edutainment', and *visually* defines its characteristic relations and values, and the part played in it by different semiotic modes.