visual communication

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The subject of painting: works by Barbara Walker and Eugene Palmer

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ABSTRACT
This article looks at some examples of recent paintings by black British artists in relation to postmodern notions of the decentred and fragmented self. If the so-called unified self is no longer present in contemporary culture, how are we to understand the continuing presence of (self) portraiture and portraiture of selves in contemporary artworks? The author investigates some of these issues in relation to works by Barbara Walker and Eugene Palmer. She also looks into some of the issues raised by postmodern critiques of notions of subjectivity, the self and agency in relation to artists whose work engages with lived identities and histories of people who are still recognized by themselves and others as members of oppressed social groups. The article concludes by suggesting that although notions of the self/subjectivity are complex and problematic in the paintings and discourse of these two artists, they do not conform to postmodern notions of the self, nor do they support arguments for ‘the death of the author’.

KEY WORDS
Barbara Walker • black • Eugene Palmer • painting • portrait • self • subject

In this article I want to look at some examples of recent portraits and other figurative compositions in relation to notions of the self. According to certain postmodern and poststructuralist theories developed from the work of thinkers such as Derrida and Foucault, modernist and/or Enlightenment concepts of the self (or subject) have been discredited as ideological totalizations of white, male and middle-class subject positions, and the self should now be recognized as contingent, fragmented, decentred and hybrid (Hall, 1997: 55–6).

However, members of socially oppressed groups such as women and black people have not welcomed the demise of the supposedly unified and
coherent subject without serious reservations. For example, Nancy Hartsock has correctly pointed out that:

Somehow it seems highly suspicious that it is at the precise moment when so many groups have been engaged in ‘nationalisms’ which involve redefinitions of the marginalized Others that suspicions emerge about the nature of the ‘subject’, about the possibilities for a general theory which can describe the world, about historical ‘progress’. Why is it that just at the moment when so many of us who have been silenced begin to demand the right to name ourselves, to act as subjects rather than objects of history, that just then the concept of subjecthood becomes problematic? Just when we are forming our own theories about the world, uncertainty emerges about whether the world can be theorized. (Hartsock quoted in Ebert, 1996: 251–2)

While it is true that many creative artists and writers find the notion of the multiple self stimulating in relation to the production of imaginative works, many others, especially women and black artists, also want to preserve a notion of the self/subject as a conscious agent interacting with a wider social community. Allan de Souza goes so far as to assert that ‘It is the desire for reconstruction of Self, whether of an individual, group or nation, that is the prime condition of the post-colonialist artist’ (de Souza and Merali, 1992: 7).

In addition, theories of the ‘death of the author’ at their most extreme write the author/artist out of existence and give precedence to the engagement of the reader/viewer with texts and images. This can result in the abstraction of a work from its creative process and context, which may disadvantage female and black artists disproportionately. The benefits of authorial death (in theory) are not so apparent for these groups of artists. For many years excluded from histories and exhibitions of modernist culture, it is disheartening for these artists to find that notions of history, authorship and subjectivity have been theorized almost out of recognition, and that the canon of modernist art is no longer available for participation and appropriation. As Debra P. Amory has written:

Doesn’t it seem funny that at the very point when women and people of colour are ready to sit down at the bargaining table with the White boys, the table disappears? That is, suddenly there are no grounds for claims to truth and knowledge any more, and here we are, standing in the conference room making all sorts of claims to knowledge and truth but suddenly without a table upon which to put our papers and coffee cups, let alone to bang our fists. (Quoted in Shohat and Stam, 1995: 11)
The self/subject continues to figure importantly in works by contemporary artists, as do other important aspects of modernism and modernist painting. I have discussed extensively elsewhere the debates over modernity and postmodernity in relation to the work of black artists (Doy, 2000). What I want to do here is to look at how notions of the self/subject relate to particular choices of subject-matter in paintings, the artist as subject, and the subject of painting itself. From different clusters of meanings around concepts of the subject, we can, I hope, begin to tease out further developments of the tensions between the painted image as a representation of a subject, an ‘expression’ of the subject who made it, and the embodiment of painting itself as a subject of our contemplation. I argue that the notion of the subject/self is far from dead, but persists in constantly developing forms in the works of contemporary artists and elsewhere. Indeed there is something of a theoretical retreat from, and reassessment of, the notion of the playful, fragmented self constructed by discourses such as consumerism, diasporic identities, or sexualities. Critiques of such over-optimistic views of the liberatory selves constructed in the play of discourse can be found in Teresa Ebert’s excellent book *Ludic Feminism and After: Postmodernism, Desire, and Labor in Late Capitalism* (Ebert, 1996); some recent approaches to the self/subject emphasize the importance of situating the self in a community where dialogue and inter-action take place (Perinbanayagam, 2000; Schrag, 1997).

The relationship of self/subject and community is of major importance to the two artists whose work I want to discuss here, and in focusing on their work I want to try to answer the following questions. How are we to understand the continuing popularity of (self) portraiture (and picturing of selves) in the work of these contemporary British black artists? Is this simply a concern of artists who are ‘old-fashioned’, who have not turned to new media, or are uninterested in postmodern theories of subjectivity? What do contemporary portraits and paintings of groups of subjects mean to their producers, the models and the viewers? What do portraits embody in terms of the artist’s ‘self’ and the ‘selves’ represented in the works? What is particularly significant about painted portraits as compared to photographic images? In order to investigate these questions, I will be contextualizing and analysing figurative paintings by Barbara Walker and Eugene Palmer. Without wanting to make generalizations about black or women artists – as I do not believe there is a black painting style or a recognizable women’s way of painting – I see it as essential to attend to the various meanings of self/subject in relation to the lived identities of artists and subjects whose experience is rooted in culturally rich, but still socially oppressed, communities.

**APPROACHING THE SUBJECT OF INQUIRY**

I want at this point to make some general points about my research methods in working on this article. My first contact with Barbara Walker came about through receiving a leaflet through the post at work from the Usher Gallery.
in Lincoln, which publicized exhibitions and events for the first half of the
year 2000. A detail of a portrait by Barbara Walker was on the cover. The
leaflet featured some text and a group of four images – three were portraits
(in colour) by Barbara Walker, and one was a photo of the artist in black and
white. There was thus a clear difference in the mode of representation and
the status of the images made by Walker, and the image of Walker herself.
Later, when I spoke with the artist, she told me that she was not particularly
keen on the idea of including her photograph in publicity about her work as
she felt that her paintings should be of interest in their own right, not
because of her identity as a person, which includes aspects of identity as a
woman and a black artist. I had to confess to her that I was initially drawn to
visit the exhibition of her work in Lincoln precisely because of her
photograph, which showed me an important aspect of her visual and cultural
self (I would have known she was a woman from her name, but not known of
her African-Caribbean background). I had recently published a book on
works by black artists and was interested to see her paintings. This does point
to an important issue for black artists, and for women artists. Most artists,
though not all, want to be appreciated for their work, not because of the fact
that they could be classified as belonging to a particular sub-group of artists
e.g. gay, black, female or disabled.

Both Barbara Walker and Eugene Palmer made it clear to me that they
had no ideal spectators in mind when they painted. Their works are intended
for anyone who is interested in seeing them, and thus the spectator is
conceptualized in a very abstract manner. In different ways, their works are
open to various readings on the part of the viewer, which may or may not
correspond to what the artist thinks the subject and meanings of the
paintings are. Both artists are happy with this, and both of them also resist
categorization as black artists, or as portrait painters. I found the latter
surprising, though not the former, since most of the works I had seen by
them were portraits. I will return to this later, when I discuss possible
meanings for portraiture in contemporary art, and why pictures that seem to
be portraits are not necessarily what they appear to be.

I also wanted to visit the two artists and talk to them about their
work, which they were both kind enough to agree to, making me very
welcome. While most art and cultural historians would now agree that
intentionalism is inadequate as a means of understanding art works (i.e. you
find out what the artist’s stated intention is, and this is what the work
means), it is still very helpful to speak to artists about what they want to do
with their paintings, and during the act of painting. True, the artist's words
are one discourse among many relating to the works, but this discourse is
delivered from a position of privileged knowledge, and thus, I would argue,
of a different order than various critical, explanatory, or publicizing
discourses written or spoken by others. Clearly I am not sympathetic to
theories of the ‘death of the author’! Also, without a named identity for the
artist it is often difficult, especially regarding works by younger artists
starting a career, or contemporary artists such as Barbara Walker, to find out about their work. Students wanting to write an essay on contemporary women artists, for example, may be looking for a specific category of work, but they need names as well as keywords to look up databases of written material and images.

The artist’s self/subjectivity is complex and necessitates negotiation with outside agencies such as art galleries and academic institutions, whose concerns for publicity and/or the pursuit of knowledge and training will not necessarily facilitate the same constructions of subjectivity as desired by the artists themselves. In the Usher Gallery leaflet, for example, the work is presented as clearly related to, but not the same as the image of its maker. Walker herself stresses the way in which her own experiences and thoughts relate closely to the choice of subjects and the making of her works, but this does not mean that she necessarily wants a visual image of herself on display. At first, she did not intend to picture herself, and agreed to produce a self-portrait for the Usher Gallery only after the suggestion emerged from her residency there. The artist wrote:

The choice to do a self-portrait as the commissioned piece for the gallery was not my idea. It came about as a result of the interest of people coming to see my work. I was frequently asked whether I had done a self-portrait. The answer was that I had not – in fact, I had actively avoided doing one since the early years of my art training. In the event, I found the process extremely challenging. It was maybe the hardest project I had ever worked on. There were a variety of reasons for this: Some emotional and some technical. The technical difficulties included the problem of trying to keep an identical view of my head at the same time as actually painting. In the end I solved this by working from photographs ... On the emotional level, looking at myself intensely for such a long period of time felt uncomfortable. (Walker, 2000: 2)

Similarly, Eugene Palmer’s paintings are very much about him and his own subjectivity, yet are not self-portraits. We should be aware that there is a difference between an artist picturing him or herself in the work as a means of linking the self to the subject of the painting, and the engagement of the self with the work in other ways.

**Barbara Walker**

Barbara Walker is a Birmingham artist in her late 30s, who left home at the age of 14, and soon found herself with three children to support as a single parent. She worked as a nursery nurse and a waitress before starting to train as an artist about 8 years ago, and currently teaches and paints. The body of work she has produced so far comprises portraits of single subjects, some of which are quite large; major figure compositions; and photographs, which
she views as part of the process of picture making rather than as works in their own right. Walker sees herself not as a portrait painter, but rather as a commemorator of the histories and experiences of people she knows and the Birmingham community in which they live. Subjects such as young women at a dancehall, a baptism in church, and a barber’s shop (Figure 1) are executed on a large scale, mainly in oil paint. In some senses, Barbara Walker is a contemporary history painter, and enjoys the hard work of producing large oil paintings, which she sees as essential to her development as an artist. In comparison, she feels that photography does not offer her the technical challenge of the paint medium as a means of recording and celebrating the black community in her locality. Yet some of her large subject paintings remind me of the photographs of Vanley Burke, whose perceptive black and white photographs have documented and celebrated the experience of black communities in Birmingham for several decades (Sealy, 1993).

However, the colour, size and the medium of oils gives Walker’s subjects a different kind of presence from photographic works. Perhaps significant here is the fact that for many centuries black subjects were denied central positions in images, even when those images represented scenes of slavery where black subjects were central to the meaning of the work. For example, the painter and critic Nicolas Auguste Galimard published his comments on a painting by Biard representing the liberation of slaves in the French colonies, which was exhibited in Paris in 1849. He was of the opinion that the painting was more morally correct than pleasant to look at, adding that ‘these Negroes, to whom it was no doubt right to restore freedom, will always show up badly as principal figures in a picture’ (Galimard in Honour, 1989: 172).

Figure 1
In works by Barbara Walker such as the painting set in the barber’s shop, black subjects take pride of place, and the entire picture space is theirs. This work, *Boundary 11*, 2000, 183 cm x 122 cm, was made from photographs taken in a local barber’s shop, after some initial difficulties in other establishments where the artist was not allowed to photograph. Certain barriers had to be broken down before the men were comfortable with a woman entering the essentially male world of the barber’s shop. In fact one of Walker’s concerns is to tackle subjects which we would perhaps not expect women artists to engage with. As well as barriers of gender, and the different subjectivities lived by men and women, there were also barriers of what are essentially differing class experiences of the state, and of those employed by the local and national state organizations. Although the artist is from the same social background as her subjects, they did not automatically trust her; some people felt she could be an undercover police woman, or a representative of the Department of Health and Social Security who had come to spy on them, perhaps with a view to ensuring that any benefits they claimed were stopped. The artist was helped by the fact that some of the men at the barber’s shop knew her brother.

Having overcome these initial difficulties, Walker then constructed a clearly articulated spatial composition, where the men are engrossed in the process of haircutting. The painting is done in sepia tones to give an impression of age, tradition and persistence in the presence of a ritual that has a long history. Younger and older men are present, which enhances the impression of continuity. Talk in barber’s shops often relates to boundaries, hence the title of the work – this can refer to the boundaries between male and female, or the boundaries evoked when the older men talk about Jamaica, and the boundaries between city life and the Jamaican countryside. The familiarity of the artist with the scenes she paints is important in her aim to produce artistic documents in a difficult and traditionally prestigious visual language, in order to offset the media images which still persist of black people as violent, threatening, or potential criminals.

**Representing the self**

Writing in 1990, curator and artist Eddie Chambers remarked that:

> A Black self-portrait is nothing short of being an unequivocal statement of one’s presence, one’s existence, and above all, one’s right to exist, one’s right to struggle, in a world in which, more than ever the white race dominates, controls, and sees itself as the pinnacle against which the pigments and efforts of all other races must be judged. (Chambers, 1990: 5)

This correctly points to the racism which literally ‘colours’ the perspective that many white viewers, especially in the past, had of art and material culture, and the subjects that produced it. However, the question is not only
one of race. We also need to attend to the
effects of gender on the construction and
representation of the self/subject, and it is
with this in mind that I want to consider
the commissioned self-portrait painted by
Barbara Walker for the Usher Gallery,
Lincoln (Figure 2).

The artist had great difficulty with
this portrait, re-working it several times.
She changed the general tone of the work,
which was originally darker, and it now
shows her against a pale green background
wearing a light pink top. Her reluctance to
paint a self-portrait is, she feels, ultimately
connected to her self-image as an
adolescent, when she felt undervalued.
Consequently, when she decided to paint a
picture of her daughter at the age of 14,
titled *Attitude*, she felt that she was also
painting aspects of herself and her adolescent past. The portrait of her
daughter Daniella shows the young woman with downcast eyes, looking
serious, thoughtful, perhaps even sullen. This large composition shows the
head and shoulders as monumental, taking up almost all of the picture space.
Light and shade play on the surface of the skin, intended to indicate the
different aspects of Daniella Walker’s personality and emotional conflicts.

Issues of subjectivity and objectivity are crucial for the understanding
of women’s (self) portraiture. As is the case with many black artists, women
artists often take care to avoid objectifying their sitters, since they themselves
have been subjected to objectification in the past. In discussing recent
women’s photographic portraiture, Durie (1998) argues that examples of
such work ‘can be taken to be exploring the possibility of a non-objectifying
portraiture’ (p. 38).

Walker’s difficulties with her self-portrait were not, it seems to me,
primarily of a technical nature, and arose from other factors concerning her
psychic self-image. This is interesting in relation to the perceived importance
of self-portraiture for diaspora artists. As Kobena Mercer (1995) has written:

> Self-portraiture has been a key preoccupation of diaspora artists in
the West, not least of all because it has been a structurally impossible
genre for black artists to occupy within societies which once regarded
blackness as a sign of the absence or lack of selfhood.

Representations of the self also seem to me to indicate the importance of
gender issues, which some male critics have tended to overlook, as we have
noted above.
Writers on black subjectivity and identity, such as Stuart Hall, have tended to return to the German philosopher Hegel and his concept of the master/slave relationship to analyse the construction of subjecthood, objecthood and domination of the Other (Hall, in Read, 1996: 28–9). In a useful article, Malcolm Bull points out that Hegel attributed the rise of slavery to the fact that Africans lacked self-consciousness – ‘the basic principle of all slavery is that man is not yet conscious of his freedom, and consequently sinks to the level of a mere object or worthless article’ (Bull, 1998, quoting Hegel: 107). Bull then states that this powerful sense of self has since the time of Aristotle ‘been seen as a privilege confined to a social elite’ (p. 131).

It could be then that self-portraits, especially those by women and black artists, should be seen as complex negotiations between objectifying (making an object through labour) and subjectifying (allowing the subject to become visible). This is a dialectical relationship, embodying tension and struggle, and thus not always an easy task. As Veronica Slater has written, her work as a painter, and the actual physical process of making art, was involved with a process of questioning in relation to her self-recognition and lesbian sexuality: ‘For me, this is an important means of self-recognition. In negotiating representation, I am empowered’ (Slater, 1996: 127). Labour is an important factor in the constitution of our subjectivities, whether the labour has an alienating effect, or an empowering one.

For Barbara Walker, the opportunity to train as a painter and to make images outweighed the disadvantages of becoming a student at a mature age and the consequent lack of economic security. The sense of accomplishment and enjoyment she gains from the creation of her work is therefore also part of her self, and, like Veronica Slater, she speaks of a sense of fulfilment and plenitude while negotiating the making of technically and emotionally challenging paintings. While many discussions on subjectivity consider philosophical writings by French scholars like Lacan or Foucault, for example, little attention is paid to the important factor of work in the construction of a fulfilled or alienated sense of self (Casey, 1995).

The Hegelian master/slave relationship (in which subjectivity depends on the objectification of another who recognizes our subjectivity) was also influential on the thinking of Frantz Fanon in his analysis of how black people often internalize their own objectification in racist societies. However, Fanon sees the underlying cause, the basis of the master/slave relationship, pointing out that ‘What [the master] wants from the slave is not recognition but work’ (Fanon, 1993: 220). The work the master wants is not a fulfilling kind of work which develops the subject, but an oppressive and alienating kind of work which objectivizes the person forced to carry it out. Thus I would argue, in opposition to writers such as Stuart Hall, that it is not inevitable that the recognition of ourselves as subjects depends on the objectification of an other/Other, but becomes so in particular circumstances where power is socially important, whether economically or culturally.
This brings me back to Barbara Walker’s painting of her daughter. She does not present or envisage her daughter as an Other – she sees in her daughter aspects of herself: her daughter is Barbara Walker’s self, yet not herself, at the same time. Now it could be argued that this is because parents often tend to see themselves in their children, but this may not be always be the case, and even if people are not our relatives we can identify with their experiences and reactions in ways which do not necessarily depend on us objectifying them. We also have to consider the different contexts in which subjectivity evolves. Adolescence is a period when a subject struggles to develop autonomy from the family and figures of authority, thus a picture of this emergent self is a difficult undertaking for the artist (and in this case the mother). However, in developing countries, physical adolescence is divorced from the development of subjectivity as very young children are often orphaned when their parents die of preventable diseases, or are forced to eke out a living from a young age, just as if they were fully mature adult subjects, only paid even less. The subject/object relationship and the development of subjectivity are not timeless, abstract philosophical concepts as we are sometimes led to believe, but real social relationships in material circumstances. Also we need to remember that an image of the self is not the same as the self/subject.

**EUGENE PALMER**

Eugene Palmer was born in Kingston, Jamaica in 1955 and arrived in Britain as a teenager. He has committed himself to in-depth training as an artist, and has exhibited and lectured at a wide range of venues and institutions. The figure and the face are central focal points of his work, yet, like Barbara Walker, he resists the category of portrait painter. Facial images seem to be so powerful in his work, yet the old term of ‘face painter’ (by which portrait painters were known in previous centuries) is not applicable here. Although Eugene Palmer paints his family and friends, he does so by choice, not because they are his patrons and commission works from him. His independence to choose what he wants to paint is important to him, as he sees this as a major difference between portrait painters and the kind of painter he seeks to be.

Leaving college in the 1970s as a non-figurative painter, Palmer wanted to bring tangible contact with the real world into his work, and for this reason he turned to the painting of people. However, he feels there is little interaction between himself and his models, and he generally uses photographs to paint from. He claims that there is no sitter in his work, and though his works happen to depict people, they are, in his view, primarily paintings. We might be tempted to read this as the disappearance of the modern subject/self. But this process is accompanied by the artist’s stated return to the world of material reality, and rejection of non-figurative painting, so Palmer’s development is a complex and sometimes
contradictory process. Of his own painted self-portrait, he states that it was a true (self)-portrait, by which he means that a confrontation occurred between the artist and the person whose image he was painting – in fact a split in the subject appears to be necessary in order for a self-portrait to be painted. After all, something of the subject must be objectified in the production of a discrete image – a painted image rather than a photograph, which has at least some material link with the subject whose image is fixed by light on the film. For Eugene Palmer, his other paintings are images of black people, but not really portraits. I will return shortly to some examples of his most recent work, but first I want to look briefly at an example of an earlier painting from 1993, *Index*, 213 cm x 152 cm, oil on canvas (Figure 3).

Although the figure in this painting is the artist’s mother, the title does not identify or personalize her, and indicates that the work is a sign, something to direct us to other things, rather than a description of a particular person’s appearance. Elegantly wearing a black dress and grey gloves, the artist’s mother stands, surrounded by pieces of artistic debris – the usual (or perhaps not so usual?) paraphernalia of ‘grand manner’ portraits from the 18th and 19th centuries. To the left, bright red, maroon and patterned draped curtains hang, and on the floor is a large fragment of a classical statue representing a female draped figure. Other items are piled up on the floor, including what appears to be the case for a musical instrument. Behind the standing figure, large sculpted African masks are placed. The classical references to high culture, elite taste and ‘civilized’ values are juxtaposed with the supposedly ‘barbaric’ African masks and the young black woman. The fact that the artist’s mother was painted from a photograph taken soon after her arrival in Britain is also significant, since the photographic image belongs to a different visual register from oil paintings and marble classical statues. Photographic portraits of black people who were proud of their achievements in Britain, and eager to send photographs back to the Caribbean or to South Asia, did entail negotiations between photographers and the sitters. Many excellent examples of these can be seen in the Dyche photographic collection at Birmingham Central Library (Doy, 2000: 127–36). The status of this painted image is quite different from the ‘high street’, popular visual mode of photographic studio portraits, and part of its meaning is to indicate how black subjects were previously excluded from high art, or were included as marginal signs of the power of white patrons/owners. The inclusion of the artist’s mother does not just mean she is included as a figure in the composition, but that a whole cultural heritage comes into view along with her.

However, Eugene Palmer felt that the painterly style necessitated by this type of work with its references to grand manner portraiture was culturally coded as too emotional for his liking. The artist now feels that the expressive and fluid brush-work of his earlier canvases was open to interpretation as too revelatory of his own feelings and involvement. He did not wish to show so much of himself in the painterly language that has
Figure 3 Eugene Palmer, 1993, Index, oil on canvas, 213 cm x 152 cm. Courtesy of the artist.
become a sign for self-expression. His more recent works, therefore, are painted in a much cooler, more detached way, in order to signify a self which is controlled, thoughtful and cerebral. The artist took this decision partly in order to counter stereotypes of black artists, particularly men, as emotional and given to outpourings of uncontrolled feeling. The more recent works can be read as an attempt to minimize the presence of the artist’s self, by a remote manner of painting, or, as a strategy of painting images which signify a different kind of subjectivity on the artist’s part. Paradoxically, the recent works focus on large painted images of a subject/self, at the same time as minimizing the expression of the artist’s self. The paintings now work as if they were linguistic signs – as the artist puts it, ‘the way it’s said is important but not who said it.’

**Six of One**

An example of Eugene Palmer’s most recent work is the series of six large oil paintings, each 97 cm x 100 cm, *Six of One*, made in 2000 (Figure 4). Though once again these are based on a photograph of a member of the artist’s family, the artist maintains that they are not examples of portrait painting. So what are these paintings about? Why does the facial image of this human subject engage us so much at the same time as it questions individuality, uniqueness and selfhood?

The title, *Six of One*, refers literally to the six paintings of one photograph. Minute changes can be discerned in each picture as the viewer begins to sense the time and care devoted to the painting of this face, which...
takes on an increasing intensity accentuated by the scale and powerful ‘in your face’ composition. There is little hair visible, nothing to distract us from the intense contact and confrontation with the subject’s features. Even the pleasures of colour are absent, as the paintings are executed tonally in grey, black and white. Yet the title also brings to mind the expression ‘six of one, half a dozen of the other’, with its meaning of ‘it doesn’t matter’, ‘it’s all the same really’, ‘there’s no difference’. This could suggest that the pictures are all the same, that black faces are all the same, that black people are ‘other’, or perhaps that there is no difference after all between the self and its supposed ‘other’ – between the subject of the paintings and the spectator.

The seriality of the six works recalls Warhol’s strategies in his screenprinted/painted portraits, though here all the works are painstakingly executed by hand by the artist himself, not by assistants as Warhol’s often were. Thus the works ironically preserve the ‘aura’ of originality and authenticity at the same time as they seem to deny it by repetition. In Walter Benjamin’s important essay of 1936, ‘The Work of Art in the Age of Mechanical Reproduction’, he argues that mechanical means of visual reproduction, including photography and especially film, undermine the ‘aura’ of the unique, original artwork, and disturb the notion of its special place in space and time: ‘The authenticity of a thing is the essence of all that is transmittable from its beginning, ranging from its substantive duration to its testimony to the history which it has experienced’ (Benjamin, 1982[1936]: 218).

Eugene Palmer’s concern for painting works to preserve the authenticity of the picture, while repeating it almost as a celebration, rather than a denial of its presence. His concern for painting as a medium is apparent in the catalogue of the recent exhibition where these six paintings were shown (Foil, 2000). While a number of contemporary artists have been engaged in art work creation using new technologies and photographic software, Palmer sees the act of painting as essential to the construction of his subjectivity as an artist. This can sometimes cause problems for black artists (and indeed others). As Eddie Chambers has pointed out, artists who do not produce works with new media, for whatever reasons, are seen as old-fashioned and not suitable for exhibition in avant-garde gallery spaces. This can lead to artists being penalized because they are painters. As Chambers writes:

I thought the attitude of the Spacex gallery, which has been repeated in other galleries including Kettle’s Yard, Cambridge, seems to be very typical of a lot of spaces: These spaces are quite interested in working with African Caribbean artists, or South Asian artists, as long as it involves modems and computer link-ups and video projections and so on and so forth. If it is paintings on canvasses they are not really interested. (Chambers, 1996: 20)
In his discussion of how ideology interpellates (calls to) individuals as subjects, the philosopher Louis Althusser argued in 1969 that ideology had no history. By this he meant that all societies need ideology as a kind of glue to hold individuals together, whatever kind of society and whichever historical period we consider (Althusser, 2000). In fact, he argues that people are made into subjects by ideology, that it constitutes individual people as subjects – ‘all ideology hails or interpellates concrete individuals as concrete subjects, by the functioning of the category of the subject’ (Althusser, 2000: 33). Althusser’s notion of interpellation has been utilized for the analysis of advertising images and their consumption, but less commonly for the study of the ways in which paintings work to address the viewer as a subject. Judith Williamson’s (1978) book on advertising is an example of this approach.

How might we understand the interpellation of the subject in these six paintings? The address to the viewing subject comes not from one, but from six apparently identical sources, which disturbs the notion of the unified subject straightaway. The force of the address is there, and seems to demand a response from the viewer, but what subjectivity is constituted for the viewer thus interpellated? Is the viewer addressed as a black viewer, or as another sort of viewer? What kind of ideology is constructed in the paintings with which to address the spectator? If there is really nothing present in the images other than painting, it is doubtful that the ideological thrust they embody is particularly strong. Does this then mean that the spectator of these works is not addressed as a subject, according to Althusser’s view? I would argue that there is definitely a difference in approach to the spectator as subject in these later works as compared to the earlier painting Index. The artist has spoken of addressing his paintings to ‘a part of an individual that I’d like to reach – a thoughtful part where the work can test ideas and theories, for myself and my audience’ (interview with author, 2001). However, it seems to me that although the artist has changed his subject matter and mode of painting, the issue of black subjectivity is still a crucial element in his work. Perhaps what he is doing is succeeding in painting black subjectivity, including his own, in a way which seeks to avoid ideology, and reach a ‘thoughtful part’ of each individual viewer.

It is also important that, for Eugene Palmer, the ownership and control of the painting process and the image rests with the artist, not the sitter or the patron, though clearly he sells some of his work to make a living. It is primarily this shift from older relationships of painter and sitter in portrait painting that makes him insistent that he is not a portrait painter. For Palmer, the artist needs the freedom to choose how to paint his own subjectivity, even if, in the end, that means an effacement of signs of subjectivity from the mode of painting employed, as embodied in the coolness and detachment of Six of One.
CONCLUSIONS

It is almost 50 years since Fanon published *Black Skin, White Masks* (1993[1952]), in which he analyses how the black person’s sense of self is distorted and alienated under the social, cultural and economic relations of colonialism. Fanon, as a socialist, believed in the possibility of freedom through political action, accompanied by bringing into existence a human, non-alienated self, free from racism and oppression. Attempts have been made to recreate Fanon as a postmodernist devoted to the study of fragmented and hybrid selves detached from their social and economic contexts (for example Hall and Bhabha in Read, 1996). It is clear from Fanon’s comments on the self that he does not conceptualize the self as a fiction, but as a site of conscious agency and human potential. He writes:

Sealed into that crushing objecthood, I turned beseechingly to others ... But just as I reached the other side, I stumbled, and the movements, the attitudes, the glances of the other fixed me there, in the sense in which a chemical solution is fixed by a dye. I was indignant. I demanded an explanation. Nothing happened. I burst apart. Now the fragments have been put together again by another self. (p. 109)

He concludes: ‘It is through the effort to recapture the self and to scrutinize the self, it is through the lasting tension of their freedom that men will be able to create the ideal conditions of existence for a human world’ (p. 231). A new self is possible once the alienated self has been burst open and re-formed.

However, it is clear that the context in which Fanon was writing 50 years ago has changed. Notions of the self are different in a postmodern age, driven by global capitalism and consumerism on a wider and more crisis-ridden scale than in Fanon’s day. The validation of subjectivity through the identification with, and purchase of, goods, is perhaps more insistently present now. Yet it is evident that for many of us, the self as a site of agency and interaction with others in a non-exploitative way (not the self/other relationship) remains important. Thus subjectivity and its representations may have altered since Fanon’s time, and it is clear that with changes in society this is inevitable, but they remain a central focus of artists’ concerns. This is especially true, I would argue, in works by black and women artists, who still remain disadvantaged in terms of society in general, and the art world in particular.

This article has attempted to open up a discussion of aspects of the representation of subjectivity in recent paintings of people made by younger figurative painters who are black. There is clearly more to be done on this topic in relation to notions of ‘race’, gender and class as they engage with, and help to constitute, our social and cultural selves. It is important, however, while concentrating on the subject/self, that we do not lose sight of the wider context in which subjectivity and its representations exist. In an interview
with the artist Sonia Boyce, Manthia Diawara asked about representations of self and identity in her work, and who was being spoken to in her images. Boyce replied ‘First and foremost I speak to myself. Which isn’t as solipsistic as it sounds: I speak to myself because of what’s going on around me.’ She then went on to say how important it was for her to move beyond the self:

Am I only able to talk about who I am? ... Are we only able to say who we are, and not able to say anything else? ... I want to find out what other things I can talk about. I no longer want to describe who I am ... the arena is much bigger than that. (Boyce and Diawara 1996: 308–9)

For many black and women artists, it is impossible to conceive of the self as a concept isolated from a wider context, because that wider context is so significant for the formation of the self and its meanings, and because that self acts upon the wider context. Even if the figures and faces in the paintings seem visually detached and fixed in a moment in time, the way they are made and the way viewers read them exists in a different kind of time and place where subjects and selves are always changing and developing.

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**Biographical Note**

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Increasingly the conventional boundaries of academic disciplines are being crossed. No longer do we need to restrict ourselves to particular viewpoints or methodologies in order to analyse, interpret and understand the visual world around us. Rather, by exploring the potential that is found when disciplines cross over (or, sometimes, collide!), new ways of looking and seeing emerge. It was with this basic premise that Visual Communication was begun. As editors we came to the field from a range of different disciplines – fine art, design, media, sociology, semiotics and linguistics. Despite these different backgrounds we shared many of the same enthusiasms, interests and concerns. Where we had differences and disagreements we often found them productive in bringing about new ways of thinking about visual communication. It is this spirit we hope to make visible in our journal: shared interests and concerns, distinctly different voices and approaches.

Interdisciplinary work is not unique to visual communication, but it is nevertheless particularly common in the field, perhaps in part because within many of the most relevant traditional academic disciplines (anthropology, sociology, education, linguistics, etc.) it has, at least until now, been a relatively marginal concern. All the more reason for those who work in visual communication against the background of these various disciplines to work together. In this editorial we want to highlight three areas in particular: the field of language and communication, the field of design theory and practice, and the field of visual anthropology and sociology.

For many people working in the field of language and communication, visual communication has now become of central relevance. In this context, an interest in language as an autonomous object has moved to an interest in communication, in texts and communicative acts as social and cultural
practices; and an exclusive interest in verbal language has moved to the realization that all communication is multimodal and needs to be studied as such. Consequently those of us working in this field have begun to develop theories and methods for analysing both the language and the visual elements of spoken, written and audio-visual communications, and for showing how these communicative modes work together in texts and communicative events. This work draws on previous studies in linguistics as well as in art theory, visual semiotics, etc., but it also creates new theories and methods, not least because it has new objectives – objectives which are not necessarily only theoretical but also practical, for instance in relation to education (Kress et al., 2001) and workplace communication (Iedema, 2000), or critical objectives, for instance in relation to analysing racist imagery (Van Leeuwen, 2000) or non-verbal political rhetoric (Fairclough, 2000).

Since the early 20th century a great deal of theoretical thinking has taken place in the context of design practice, and today this is increasingly taken up and developed in the context of academic research. Moreover, in the field of design studies there is not only an increasing amount of critical analysis, but also of critical practice. In other words, at the same time as the study of language and communication has become more openly oriented towards practical problems, the practice of designing visual communications has become more openly allied to research, and it is for this reason that we think this area of work on the visual can make a major contribution to the development of the field of visual communication in general, and to this journal in particular.

While the fields of visual sociology and visual anthropology have traditionally focused on the use of visual data in social research, those working in these fields have also published ideas about society and culture in visual, or rather, multimodal form (e.g. Pink, 2001) – something which has of course been done for a long time by documentary photographers and filmmakers, but is relatively new in the context of academic research. Publishing work of this kind is yet another example of the way in which we hope to bring research and design together in this journal. We also feel strongly that visual communication research (indeed any form of communication research) needs to be set in the context of social and cultural theory to be practically and critically relevant, and therefore needs sociology and anthropology.

Alongside the benefit of exploring the potential links between those working in visual communication within the major disciplines outlined above, there is benefit in exploring visual communication at an international level. The international focus of the journal, reflected in our editorial advisory board, and in the papers we will publish, is a crucial part of exploring how the visual is realized and examined in different cultural contexts.

Given our multidisciplinary and international approach to visual communication, it follows that we are especially interested in three kinds of papers.
First, papers which develop methods for analysing visual communications and their interpretations in relevant, principled and explicit ways. In this issue, Sigrid Norris’s article on the transcription of multimodal communicative events is an example of such a paper, as is the article by Christian Heath et al. on the interactive exploration of a mixed-media installation by gallery visitors. This kind of work is equally important for the practice and the critique of visual communication: for practice, because it contributes to an understanding of the conditions necessary for ‘getting a message across’ visually; and for critique, because it can help formulate the basis for common understandings without which it is not possible to hold communicators responsible for what they are communicating.

Second, we welcome papers focusing on the role of visual communication vis à vis other modes of communication, whether in relation to contemporary western visual communication, or in relation to other periods or cultural formations. It is clear that different periods and different cultures do different kinds of things with the visual and it is equally clear that our own period is witnessing significant changes in this regard. In this issue, the article by Fiona Ormerod and Roz Ivanič shows how children use a wide range of semiotic modes and media in their schoolwork. Although this is not a new phenomenon in education, until recently it was for the most part confined to the very early years of schooling, and seen as a creative activity for its own sake. Today such multimodality has ‘moved up’ into curriculum areas which formerly only used writing, or, at best, only highly formalized ‘scientific’ forms of visual representation.

Third, we especially welcome papers which critically investigate how visual communication constructs, represents and contests the social world, and papers which use critical reflection on visual communication to propose innovative practices, new ways of doing visual (and indeed, multimodal) communication. Gen Doy’s analysis of the self-representation of black artists (which also, on behalf of these artists, delivers a critique of the ‘death of the author’ theory) is an example of the former. An example of the latter is the article ‘Rethinking Sitting’ by the Norwegian designer Peter Opsvik: one way in which the journal will link research and design is through publishing both visual work by researchers and reflective writing by practitioners. Another is through reviewing, not only books on visual communication (of which there are increasingly many), but also of key exhibitions and other visual works, as in the case of Paul Overy’s review of the Tate Modern and Catherine McDermott’s review of the Science Museum’s work in exhibition design, both in this issue.

Our key interests, then, can be summed up as developing methods of visual analysis, reflecting on the historically changing and culturally varying roles of visual communication, the use of principled and explicit forms of visual analysis for the critical investigation of important aspects of social and cultural life (including education), and the interface between theory, analysis and practice. Throughout we will adopt a broad view of the visual, including
still and moving images, graphic designs, visual phenomena such as fashion, professional vision, posture and interaction, the built and landscaped environment and, last but not least, multimodality; that is, the interaction between visual communication and other modes of communication such as language, music, sound and action. Clearly our focus and interest on the visual will overlap with other areas, such as art history and theory, and non-verbal communication, if only because work on visual communication, in the sense in which we use the term here, necessarily draws on the resources of these more established fields. In the main, however, we will publish work in the relatively new areas of work on the visual which we have described here, rather than in areas which are already well served with journals and other publication outlets.

Much of the practical and theoretical work in the area we have mapped out here is done by new researchers – doctoral students and post-doctoral researchers. We hope the journal will provide a forum for their work, and we want to encourage new researchers and designers, as well as those who are more established, to engage with it. We also want to actively support contributors who live and work away from the Anglophone centres of academic power.

In short, Visual Communication will address not a unified and well-institutionalized academic discipline but a varied group of people from a wide range of fields who share, nevertheless, a common interest in visual communication and its role in society. We hope we will succeed in creating an exciting new forum for this group.

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Crafting participation: designing ecologies, configuring experience

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ABSTRACT
There is a growing interest amongst both artists and curators in designing art works which create new forms of visual communication and enhance interaction in museums and galleries. Despite extraordinary advances in the analysis of talk and discourse, there is relatively little research concerned with conduct and collaboration with and around aesthetic objects and artefacts, and to some extent, the social and cognitive sciences have paid less attention to the ways in which conduct – both visual and vocal – is inextricably embedded within the immediate ecology, the material realities at hand. In this article, we examine how people in and through interaction with others, explore, examine and experience a mixed-media installation. Whilst primarily concerned with interaction with and around an art work, the article is concerned with the ways in which people, in interaction with each other (both those they are with and others who happen to be in the same space), reflexively constitute the sense and significance of objects and artefacts, and the ways in which those material features reflexively inform the production and intelligibility of conduct and interaction.

KEY WORDS
design • galleries and museums • social interaction

They [these lectures] will begin with aspects of invention and design that express the artist’s responses to the assumed presence of the spectator. These reactions develop in a way that can be presented schematically in three stages: from awareness and acknowledgement, to the spectator entering the artist’s subject and completing the plot, and finally from that kind of involvement to its exploitation, the artist assuming, now, the complicity of the spectator in the very functioning of the work of art. (Shearman, 1992:17)
INTRODUCTION

In an influential monograph, *Only Connect*, Shearman (1992) suggests that from the early Renaissance onwards, the visual arts demand a more engaged spectator. Paintings and sculpture become increasingly ‘transitive’, encouraging the spectator to enter the subject, to help complete the plot, and to become more complicit in the functioning of the art work itself. He discusses the ways in which art is designed with regard to the presence and involvement of the spectator, and how the immediate ecology of the work and the occasion of its viewing animate the spectator’s experience. For example, the glance of a figure of an altarpiece may be directed towards the image of a saint in the roof of the chapel in which it is located. Or, in paintings of the Entombment, the body of Christ appears about to be gently laid on the actual altar in the chapel below. Or, the painting on a dome may be configured so that the relationship between the figures is seen in one way by the spectator who enters beneath it and is viewing the painting with an initial glance, and in another way by members of the confraternity who sit and meditate below it at every Mass. Shearman powerfully demonstrates how the painters and sculptors of the High Renaissance were not only sensitive to the location where the painting was sited, the placement of other artefacts in the local setting and the likely positioning of the spectator, but also to the experience of different kinds of spectators as they approach the image and how through engagement with the painting, familiarity and expectation, the spectator can understand the ‘genealogy of the moment’. The active spectator becomes engaged with a sequence of moments portrayed in a single image.

Correggio’s altarpiece for the Confraternity in Modena (see Figure 1) provides a powerful example of the transitive character of Renaissance painting, its ability to incorporate and animate the spectator. Here the viewer is drawn into the scene of action by the surrounding figures of John the Baptist and St George, whilst simultaneously the Virgin, by the presence of the viewer, is encouraged to return the gaze of the spectator.

The painting becomes intelligible by virtue of its interrelationship with the ecology in which it is located. It demands the engagement and complicity of the spectator, the viewer’s, active involvement in interweaving the figures and scene of the painting with its location within the Church. Features of the painting are transposed to the immediate environment, just as features of the Church become part of the art work and provide the spectator with an inclusive and unique experience.
Shearman's remarkable treatise raises some important issues for our understanding of visual communication. It directs our attention towards the idea of an 'active spectator' who constitutes the sense and significance of objects and artefacts. It points to the relevance of the ecology or setting in which a painting or sculpture is positioned, and to the ways in which the spectator actively 'connects' features of the object to action within the local milieu; a connection which is critical for constituting the sense and significance of conduct and its environment. Perhaps most importantly, it raises important questions concerning the circumstances or occasions on which objects and artefacts are viewed and of the competencies that people bring to bear in their recognition and interpretation. Surprisingly perhaps, these aspects of conduct and experience have remained relatively underdeveloped in research concerned with visual communication in the social and cognitive sciences. Despite the burgeoning body of research concerned with language and with gesture (see, for example, McNeil, 2000), studies of social interaction remain curiously dislocated from the material circumstances in which it is accomplished.

In this article, we would like to draw upon Shearman's thesis to explore how people, in interaction with each other, constitute the sense and significance of an art work. We are concerned therefore with how people in ordinary circumstances constitute the sense and significance of aesthetic objects through their interaction with others. In this particular article, we discuss how visitors to a contemporary arts and crafts fair in central London collaboratively explore, examine and experience a mixed-media installation. We address the ways in which visitors discover the installation, how they assemble the sense and significance of the different components, and how the piece is used to engender curiosity, surprise and laughter. Whilst primarily concerned with interaction with and around an art work, the article is concerned with the ways in which people, in interaction with each other, both those they are with and others who happen to be in the same space, reflexively constitute the sense and significance of objects and artefacts, how the engagement with the artefact emerges in different ways for different participants, and the ways in which those material features, and the ecology in which they lie, reflexively inform the production and intelligibility of conduct and interaction.

In recent years there has been a growing commitment amongst artists, designers, curators and educationalists to enhance the ways in which people participate and collaborate with and around installations, exhibits and art works. In different ways, digital technologies have provided resources with which to represent and transform conventional materials in order to engender new forms of interaction and experience. So, for example, designers have created exhibits, which require visitors to touch and manipulate objects and receive ‘feedback’ and information. In a rather different vein, artists are increasingly experimenting with computing technology, largely conventional workstations and monitors, to create new forms of image, which in some
cases encourage the viewer to configure and ‘interact’ with particular scenes, arrangements and figures. These are important developments which, undoubtedly, in the longer term, will transform the creation and experience of different forms of art work and exhibits. As yet however it is not at all clear that they serve to engender new forms of participation and collaboration.

There is a substantial body of research concerned with conduct, and to a lesser extent, interaction, in museums and galleries. These studies are not primarily concerned with visual communication though they implicitly deal with a range of issues which bear upon how people experience museums and galleries. With a few exceptions (e.g. Diamond, 1986; Hensel 1987; McManus, 1987) that explore how people made sense of exhibits in interaction in the past decades, research has increasingly focused on cognition and on the ways in which particular forms of exhibit, exhibition, and displays of accompanying information may enhance educational opportunities (see, for example, Serrell, 1996; Cox et al., 1999). There are relatively few studies of the ways in which people both alone and with others respond to exhibits (such as pictures and sculptures) in museums and galleries, and almost no studies of collaboration and participation with and around new forms of mixed-media interactive art work and installation. Given the turn to rezeptiongeschichte in the arts in the past few decades (see, for example, Iser, 1986; Todorov, 1990; Baxandall, 1992), it is perhaps surprising to learn that there is little research concerned with how participants themselves, or to use Shearman’s term, ‘spectators’, explore, examine and experience art work in museums and galleries, that is in ‘naturally occurring environments’.

In the light of these and related issues, we have initiated a programme of work concerned with the analysis of conduct and interaction in museums and galleries (see, for example, Vom Lehn et al., 2001b). We are particularly interested in the ways in which people experience exhibits in and through their interaction with others, both those they are with and others who happen to be ‘within perceptual range of the event’ (cf. Goffman, 1981). This programme of work involves video-based field studies in museums and galleries including major institutions of arts and applied arts, science centres and galleries dealing with contemporary work. The programme of work also includes participation in the design and deployment of exhibits, in particular mixed-media art works. Our particular interest is in exploring the ways in which people ‘respond’ to these works and especially how they serve to facilitate, engender and encourage particular forms of participation and collaboration. In this article, we discuss interaction with and around one such piece, a mixed-media installation, known as Deus Oculi, exhibited at the Chelsea International Crafts Fair in September 1999. Throughout the duration of the exhibition we gathered data, video-recordings and field observations of how people responded to the piece. We address three main themes: how people configure their experience of the installation; the ways in which they ‘uncover’ its qualities and functionality through their interaction with others; and how the actions of a range of people who happen to be
within the immediate ecology feature in the discovery and experience of the piece. In a way, we are concerned with the ways in which visitors and viewers are, and can be seen to be, active and engaged spectators.

**DEUS OCULI**

The artist in our team, Jason Cleverly, has a long-standing commitment to creating aesthetic automata from well-worn materials; automata which engender curiosity, surprise – and not infrequently – laughter. Cleverly uses the concept of interaction to drive forward ideas which include the production of sound-activated sculpture, radios and figurative automata. Another strand to his work which is, in a sense, more formally interactive but similarly visual and tangible, are the cupboards, mirrors, lights and other prosaic artefacts given a surreal or augmented treatment. The use of ‘low-tech’ materials provides the possibility of creating artefacts which are designed to engender interaction and participation, whilst retaining a strong commitment to enhancing the aesthetic experience of those in the locale of the exhibit. We were particularly concerned with how we can interweave digital media and tangible objects and artefacts to enhance interaction with craft works and engender interaction and collaboration around craft works.

Through our collaboration we have adopted an approach which differs from those typically taken in the digital arts. Rather than replace material objects with digital displays, we are keen to explore the ways in which we can ‘augment reality’ (cf. Weiser, 1991). In particular, we wish to consider the ways in which we can take ‘low-tech’, tangible objects and refashion or augment them to engender interaction and co-participation.

*Deus Oculi* is based on the use of re-cycled imagery. It consists of three parts: a main picture on which is displayed a tranquil Renaissance scene and two false ‘mirrors’ (see Figure 2).

The picture is devised by combining elements from three separate paintings and rendered in cold enamels and water-soluble pencil directly on wood. The picture, which is framed by a wooden box, includes the faces of two individuals, a man to the right and a woman to the left; each face is on a little door which can be opened up to reveal a small CCTV monitor. The hand-held mirrors to either side of the picture each contain a CCTV camera. Indeed, although they are designed to imitate the general form (if not scale) of a hand-mirror, they actually display a painting of an eye, behind which the hidden CCTV camera is located. The image from the left mirror appears on the right monitor behind the woman’s face, and the image from the camera in the right mirror appears on the monitor behind the man’s face. The three pieces are connected by wires. Thus, if a door is opened and someone is standing next to the mirror or holding the mirror up to their face, their image will appear embedded in the picture (see Figure 3). The aim of the piece is to provoke curiosity, surprise and amusement, and it has certain similarities to cut-out pictures found at the seaside or at fairs. But in this case
one is momentarily immersed in the scene as if part of the work of some long-dead master.

Deus Oculi was exhibited at the Chelsea International Crafts Fair – a major event for displaying contemporary arts and crafts. The exhibition space enabled us to display the piece on the whole of one wall, bounded by a door opening and a passageway (see Figure 4). Therefore, the piece could stand alone, independently of surrounding work. The location of the space, towards a restaurant, also guaranteed passing traffic as well as visitors actually looking carefully at the various pieces in the exhibition space.

When exhibited we decided not to give any written instructions, rather to let the participants discover for themselves, or others, the nature of the work. Occasionally, however, there was some verbal encouragement and demonstration. We collected data for most of the period of the exhibition (a week). We undertook field observation, discussed the exhibit with visitors and with other artists and designers exhibiting at the fair and also undertook

**Figure 2** Deus Oculi: the main picture is on the left; one of the ‘mirrors’ that are positioned either side of the picture is on the right

**Figure 3** When someone looks at the hand-held mirror, their face appears in the central painting on the shoulders of one of the figures.
extensive video (and audio) recording. The video-camera was positioned to one side of the exhibit attached to a nearby doortframe so that we could record what people did with and around the exhibit.

**SHAPING EXPERIENCE**

Amongst Florentine doctors, there is an illness, a diagnostic category, known as Stendhal’s syndrome. It was first used in the 19th century and applied to young ladies, in particular from England, who, on first seeing the beauties of Florence would be overcome by the experience and faint. Sadly, such aesthetic exhaustion has now become relatively rare. Curators and museum managers are often disappointed by the absence of emotional response to art, and it is perhaps not ironic that recent contemporary art has once again become preoccupied with creating sensation.

One conventional view of aesthetic experience, indeed the pleasure that people gain from museums and galleries, is characterized in cognitive terms; an individual’s emotion arising primarily through a psychological process through which the unique qualities of an art work are contemplated and internalized. Exhibits themselves are thought of as having ‘stopping power’ and the interest and pleasure that people gain arises through their individual engagement with the art work. As we have suggested elsewhere, this individualistic understanding of behaviour and experience in museums and galleries stands in marked contrast to the conduct and interaction of visitors; visitors who are often with others, friends, family and the like, and who reveal an extraordinary sensitivity to the conduct and experience of others – both those they are with and others who happen to be in the same space (Vom Lehn and Heath, 2000; Vom Lehn at al., 2001a). Indeed, what people choose to look at in a museum or gallery, how long they spend with an exhibit, and how they look at and experience particular objects and artefacts may well arise in and through interaction with others – not just those they may be with but others who happen to be at perceptual range of the event (cf. Goffman, 1981).

Certainly, in the case of Deus Oculi, participants go to some trouble to create dramatic experience for both themselves and others. Indeed, the very discovery of the piece, the seemingly haphazard assembly of artefacts, and the very ways in which the piece is perceived and enjoyed, arises in and through the interaction of those who happen to be in the same space.

Consider the following example. Two women, Susie and Julia, are looking at the ‘mirror’ on the right-hand side of the installation attempting to work out what it does and its relationship to the main body of the piece. Susie then asks Julia to “just stand there a moment”. Julia adopts a rather
severe pose, and raises herself directly in front of the mirror as Susie moves the centre of the installation. She opens the little door to the monitor. A moment later, Susie bursts out laughing. Still laughing, Susie turns towards Julia whilst preserving her bodily orientation towards the monitor and holding onto the small door. She turns back and looks at the monitor. Whilst retaining her pose, Julia glances at the open door, the monitor, and bursts out laughing uttering “oh I see”.

Fragment 1

Susie Julia

Susie's sudden and dramatic response to the installation emerges in and is preserved through interaction with her friend; indeed Julia’s pose is critical to the character of the object in question. The outburst however is systematically designed to have Julia see for herself what has happened and why it is funny. It renders the referent, the object, at which Susie is laughing problematic; it poses a puzzle for Julia and encourages her to figure out what has happened.

Susie’s laughter not only reflects her personal enjoyment of the piece, but is designed to encourage Julia to understand what the installation does and why it is funny. Susie’s response, her laughter and bodily orientation towards the object, coupled with her glance to Julia and back, is designed both to encourage Julia to glance at the object, and to ‘connect’ herself to the object in question. Her actions render the object noticeable and funny and invite Julia to look towards it and discover, for herself, what has happened. Susie's response displays and sustains the element of surprise, whilst displaying a potential connection between what is seen and Julia. Both Susie’s initial response and the ways in which her laughter is articulated and doubly oriented towards her friend and the ‘object’ within the installation allow Julia to discover for herself what has happened; that she, herself, is part of the object and the source of amusement.

In the case at hand, therefore, through the ways in which she fashions her response, Susie not only encourages her co-participant to look at something, but to create a connection between what is seen and her own conduct and appearance; this allows Julia to transpose herself into the object of amusement.

We can begin to see therefore how an individual’s response to the art
work may not simply consist of a direct personal reaction to the qualities and character of the piece. Rather, the very response may be designed to facilitate and engender particular forms of co-participation, and to enable others to see and experience what you have seen in the ways that you saw it. The encounter with the work is not simply collaboratively accomplished, but rather the aesthetic response, within the very course of its production, is designed to display and encourage a way of seeing, of making sense, of experience by others.

With regard to the installation in question, participants may attempt to configure what is seen and experienced. We have discussed elsewhere how participants through their talk and visual conduct attempt to animate exhibits, highlight particular elements and dramatize certain features and operations (Vom Lehn et al., 2001b). Parts of the exhibits are selectively rendered visible through gesture, bodily comportment and talk, so that a co-participant momentarily experiences the object in particular ways. So, for example, we have noted how in science museums, children may exaggerate the operation of a particular process by vocalizing the movement of a liquid, or in an art gallery the inscribed canvas of a painting may be revealed through a series of ‘exaggerated’ curvaceous gestures. Deus Oculi, with the ways in which it incorporates and re-frames images within the installation, provides rather different opportunities for shaping how others experience the piece. And indeed, as many other instances in our corpus of data show, visitors go to some trouble to use the installation to engender an experience for themselves and then for the person(s) they are with.

In the case at hand, we see how the very appearance of a co-participant within the scene is configured to occasion a particular emotional reaction. Participants often do more than simply appear in the image, however carefully positioned. In various ways they attempt to animate the image and create a particular response, especially in instances where a co-participant is familiar with the operation of the system and it therefore no longer stands as a curiosity in its own right. At the moment at which the person who looks into the ‘mirror’ believes the co-participant is looking at the scene, he or she produces an action which momentarily transforms the image. So, for example, when Susie places herself in front of the camera to enable Julia to experience the sensation, she sticks her tongue out. In other instances we find people playing with the image, raising their eyebrows, pulling faces and the like, the force of the animation deriving not simply from a person’s image but from its positioning against the backdrop of a tranquil Renaissance scene. Splendidly, at that moment, these animated displays interweave conduct within the physical space with action within the painterly, mediated scene. The force and significance of the installation in part derives from its ability to incorporate actions and spaces which are ordinarily distinct and unrelated. This achievement is produced in the collaboration of the participants. They shape their own and each other’s experience in and through the installation.
CHANCE DISCOVERIES

In recent years there has been a revitalization of interest in the ways in which people discover and perceive objects and artefacts (Gibson, 1979; Norman, 1990; Gaver, 1991). Despite the methodological diversity of research concerning the ways in which people discover objects and artefacts, in particular their ‘affordances’, these studies primarily focus on the psychological and cognitive abilities of the individual. Surprisingly perhaps, the social and practical circumstances in which people encounter novel objects and artefacts have received relatively little attention, nor have the ways in which individuals may interact with others when discovering how to look at, use and experience the new.

Each area within the fair displays an assembly of similar objects, for example porcelain, furniture and the like. People enter and pass through the various exhibition spaces and can see, at a glance, the assembly of similar objects within a particular scene. In our particular case, the areas consisted of a collection of curious, crafted objects that were displayed as distinct items, and as with any conventional gallery, were items that could be and are viewed alone, independently of each other. Deus Oculi, however, demands a rather different standpoint – a visitor who examines the interrelationship between seemingly independent objects and thereby discovers their curious functionality. Various aspects of the piece engender inquiry and investigation; for example, people discover the hinges in the painting and flip the doors open, or with the doors open they try to determine what the screens behind are for. Cleverly happened to leave the wires showing which connected the mirrors to the main part of the installation and it is not unusual to find visitors tracing the path of the wires and working out the interconnection. It is interesting to note, however, that certain aspects of the piece that were designed to encourage independent viewing and collaboration – for example the ability to remove and hold the mirrors – are rarely exploited or even discovered unless shown to people. Interestingly, visitors did indeed look at the main part of the installation and recognized that they needed to do more to work out the functionality and characteristics of the piece.

The discovery of the functionalities of the piece are largely discovered in and through interaction with others, both people accompanying other people and others who happen to be in the same space. It is not unusual, however, for people to discover the characteristics of the piece by chance, even before they have begun to examine the installation. In the following fragment, two visitors – Vanessa and Simon – enter the scene. Vanessa approaches the main body of the installation whilst Simon approaches the first mirror. As he approaches the mirror, Vanessa bodily orients towards the installation and exclaims “Ooh: :look () you just popped up the(h)re:(hh)”. 
As she utters the word “look”, Vanessa begins to gesture at the monitor, pointing towards Simon. By the time the gesture arrives at its acme, the image to which it is addressed has already disappeared, as Simon moves away from the mirror. However, he does not initially turn towards Vanessa or the object at which she begins to point, but rather looks upwards as if searching for the ‘look-able’ above the mirror. As he moves, Simon begins to disappear from the image. Vanessa’s account is neatly designed to provide a sense of what is ‘noticeable’ and of continuing relevance (not simply his appearance but the fact that he did appear), and she holds her pointing hand at the monitor until Simon turns and looks at the (changing) object in question. Vanessa’s actions therefore transform, as the image transforms, the thing which is being pointed out. Whilst the gesture is held, Simon turns and looks at the monitor. Securing his orientation, Vanessa then realigns her pointing gesture, and orients to the mirror, providing Simon with a sense of the potential connection between the object and main body of the installation. He immediately peers back into the mirror and begins to describe what he can see – “there’s an eye” – as Vanessa returns her gaze to the monitor. A few moments later they exchange places and he then sees what Vanessa saw, or at least sees where he appeared.

In the case at hand, we can begin to see how the issue for the participants becomes not what the installation does, but how it is done. The shifting scene within the installation not only serves to catch Vanessa’s eye,
but provides the resources through which she begins to assemble the relationship between different artefacts within the space. It is not simply the co-participant’s appearance, but the very action in which he is engaged at that moment, as accessed both through the installation and his physical presence alongside hers, which allows her to configure the relationship. Whilst the action disappears as quickly as it emerged, she is able to demonstrate the interrelationship between the two parts of the installation by having Simon see the monitor and see the current scene on the monitor. Retrospectively, he is able to recover what she saw, and how she saw it, and then use the piece as a resource for subsequent investigation and entertainment.

We can begin to see therefore how the qualities and functionality of objects may be discovered through social interaction. In the case at hand, the installation transposes the location of action and re-presents it within the painterly scene. Its re-presentation serves to engender practical inquiry concerning what happened and how it happened. The transposition and its noticing occasion interaction between the participants, in particular the series of actions through which individuals determine and exploit the qualities of the piece, just as the initial noticing arises, by chance, in and through their interaction with each other. Their very co-presence, their continuing conversation as they examine the two pieces alongside each other engender the very transformation which serves to engender talk and interaction.

It is not only through the conduct of people one is with that one might be encouraged, or even happen, to notice some thing or action within the local milieu. Rather, the ways in which others traverse, orient to, glance at, even comment upon, the objects and artefacts within the local milieu may encourage people who just happen to be in the same space to notice some thing of interest, of curiosity, some thing ‘noticeable’ (cf. Sacks, 1992). This may be quite a distinctive way of considering Shearman’s ‘transitive’ relationship between the artefact and the active spectator. Objects and artefacts and their occasioned sense and relevance, in particular, can become visible through the actions and activities of others. The ecology ‘emerges’ in highly selective and interested ways by virtue of the conduct of people who are with you and those who just happen to be ‘within perceptual range of some event’.

Consider the following fragment. Four visitors enter the scene and begin to walk past Deus Oculi. Al turns the corner first, closely followed by Jean, Anne and Doug. As Al walks past the piece he opens one of the windows and finding nothing but a monitor, walks on. As Doug nears the installation, he exclaims “Ooh look, look look”.

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The characteristics of the piece, which pass unnoticed to Al, are revealed by Doug. His exclamation is accompanied by a series of gestures. The gestures begin by briefly pointing at the mirror/camera and then the monitor, demarcating a connection between the objects which is then glossed within the subsequent explanation. Simultaneously they serve to reconfigure the participants’ conduct – Jean arresting her progress and reorienting first towards the mirror/camera and then the monitor. They also encourage Anne to look at the monitor and Al to arrest his progress. He assembles the relationship between the components for his friends, and momentarily configures their location and orientation to enable them to see how they become relevant within the experiential framework of the installation. Indeed, by reconfiguring their orientation, he once again has Al and Jean appear in the monitor and provides them with what he had seen moments before.

Doug’s actions, and the conduct of his friends, do not pass unnoticed by others within the local milieu. Looking at the objects on the opposite side of the exhibition space are Tim and Mary, and as they laugh at one of the exhibits, Tim appears to overhear Jean saying “can you touch this” and turns and looks, not at Al, but at the door that Al is holding open. Tim begins to re-orient towards Deus Oculi as Mary continues to look at the mirrors on the far wall.
A few moments later, Tim turns around further towards Deus Oculi. He momentarily opens and closes his mouth as if about to speak. Mary turns round to look at whatever he is looking at (and on the verge of talking about). Al and Jean move on with Anne and Doug close behind. A moment later (as Jean happens to walk past the left-hand mirror), Doug exclaims “Oh look” and, almost simultaneously, Mary cries, “Oh::no::::”. For Tim and Mary, the installation becomes noticeable by virtue of the actions of others who enter the space. Jean’s initial query, coupled with Al’s opening of the door and inspection of the scene behind, has Tim reorient, not simply to what Al is doing, but rather to the object that he is examining. The ecology, and in particular the installation, become visible by virtue of the others’ conduct. In turn, Tim’s reorientation, coupled with his unvoiced utterance, serve to encourage Mary to inspect the scene to determine what has been noticed. Mary’s orientation to, and experience of, Deus Oculi emerges in the light of the conduct of Tim and those who are looking at the installation, just as Mary’s exclamation serves to encourage further inspection of the piece by Tim and, one suspects, Doug and his friends. A number of people therefore, some of whom are with each other, and others who just happen to be in the same space, notice and experience a momentary event within the immediate environment, by virtue of the actions of others, and in particular noticing others notice some thing within the scene. The ecology, and in this case the installation, becomes visible and intelligible in a particular way by virtue of other people looking and seeing.

As Mary and Tim notice the changing image on the screen, they immediately glance at the left-hand monitor to see the source of the
changing image. Doug too connects the scene and points out to the others how the installation works. Tim, followed by Mary, immediately turns back to the displays they were looking at earlier, to see whether the mirrors on their wall are connected into the piece, either as cameras or monitors. A moment later they turn back to the installation to see whether the mirror on the right-hand side is also a camera and connected to the face in the painting. The event, therefore, noticing the changing image on the monitor, encourages Tim and Mary to re-inspect the scene and in various ways to explore the potential relationship and the affordances of different objects within the immediate ecology. Once again, the interaction of the participants, and all those who happen to be in the same space, provides resources for inspecting and seeing features of the immediate environment; just as the immediate environment provides the participants with the ability to interrelate and make sense of each other’s conduct.

A feature of the world is progressively discovered by virtue of one person noticing someone else notice something. The objects, their character, interdependence and functionality are assembled then and there by virtue of how others selectively orient and respond to the world in which they are located.

**PASSING ENCOUNTERS: LEGITIMIZING CO-PARTICIPATION**

The conduct of others within the same space can feature in how people orient, what people choose to look at and how they experience particular objects, artefacts and events. In one sense, people become sensitive to the surrounding environment and its occasioned relevancies by virtue of the action and activity of others, and can make sense of the conduct of others by discovering, determining, connecting, its relationship, or potential relationship, to particular features of the local milieu. In this and other ways, the conduct of others comes to feature in action and activity to which, at first glance, it seems unrelated, and can play an important yet unobtrusive part in the very interaction of people who are together in the same space. These seemingly fluid boundaries of social interaction within public space are of increasing practical relevance to museum curators and exhibition designers, and encourage the growing interest in developing exhibits which facilitate and encourage co-participation and collaboration even amongst those who may simply happen to be in the presence of others. It should be added that this commitment to encouraging co-participation and collaboration in museums and galleries derives in part from developments in education, with its growing emphasis on situated cognition and informal learning.

It is relatively rare in galleries and museums – even those which house objects and artefacts designed to facilitate co-participation and collaboration – to find strangers coming together to explore and discuss particular exhibits. Curiously, however, we find that *Deus Oculi* does occasion passing encounters
and even conversation amongst strangers who happen to be in the same space. Consider the following instance: a fragment in which a young lady, Beatrice, followed by her boyfriend, Paul, approaches the installation. She points to one of the portraits, chuckles and exclaims “visual art”. Behind them, looking at the pieces on the opposite wall, are Jo and Allan. As Beatrice inspects the piece and looks for a potential connection between the mirrors either side, Jo turns and approaches the camera to the left of the installation.

Fragment 5

<table>
<thead>
<tr>
<th>Beatrice</th>
<th>Paul</th>
<th>Jo</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Beatrice" /></td>
<td><img src="image2" alt="Paul" /></td>
<td><img src="image3" alt="Jo" /></td>
</tr>
</tbody>
</table>

B: Oh I see it’s you:::

J: Oooo↑oooooh

As she looks at the monitor in the installation, Beatrice suddenly exclaims “oh I see it’s you” as she notices that she is looking at the woman (Jo) to her left. As she produces the utterance, Beatrice turns from Jo back to the monitor and then back to Jo, pointing to her as she utters “you”. Her actions not only voice the surprise, both for her boyfriend and Jo, but provide them with the source of “it’s” as she glances momentarily at the monitor. It appears as if the utterance is produced in such a way that it presumes that Jo, who is appearing in the monitor, knows what she has done, as if it has been done to Beatrice. Whatever, finding that Jo is not familiar with her part in the action and the operation of the installation, Beatrice reconfigures their respective positions to provide the experience. She suggests that they swap places and points to the monitor uttering “if you stay there”. Jo repositions herself and looks at the screen in the picture, as Beatrice goes to peer into the mirror.

Beatrice suddenly thrusts her face into the mirror. Jo produces a loud exclamation “Oooo↑oooh” and grabs her mouth in surprise. The response has all the hallmarks of the section on surprise and wonder in Darwin’s (1872) famous treatise on the expressions of man and animals.

Jo’s exclamation is exquisitely designed and curtailed with regard to the circumstances at hand and in particular Beatrice’s emerging conduct. Even though she would see an image of Beatrice’s face before it fills the monitor, the onset of the exclamation is delayed until her co-participant has achieved the appropriate position. The exclamation, whilst loud and dramatic, is audible to those who gather around the piece – in particular, Beatrice and her boyfriend, but not beyond. The sudden gesture to the
mouth, coupled with the open eyes and raised brows, help dramatize the response, and yet simultaneously circumscribe its domain of relevance. Beatrice occasions and fashions Jo's experience of the installation and Jo exquisitely tailors her response to provide her co-participants with the unanticipated surprise and awe. In turn, Jo's response provides resources for further discussion about the installation, how it could be happening, a vehicle for the co-production, and escalation of mutual awe and appreciation.

The very appearance of another within the installation therefore can provide the resources with which to engender talk and interaction between people who just happen to be in the same space. It is not that in looking at someone in the piece, you are looking at someone at a distance, in a voyeuristic manner. Rather, the person who appears in the installation is standing next to you, and is looking out at you; in a curious way, the viewer becomes the recipient of another's gaze, just as in looking at the piece you find yourself looking at someone. It is not simply that 'seeing you looking out at me' provides a 'ticket for talk' (cf. Sacks, 1992), but that failing to remark upon another's appearance within the work may itself be potentially accountable. Either way, these occasioned appearances make talk appropriate and relevant between apparent strangers in as much as they legitimize talk concerning the operation of the piece and why things have occurred in the way that they have. They also provide a responsibility, to give the other a sense of the very experience that you have experienced, so that they can see for themselves how they appeared. The very asymmetries that pervade the piece provide the foundation to a 'my turn your turn' structure to the ways in which people interact with the piece and each other.

The movement from preliminary interaction into mutually focused talk and discussion can be a delicate and complex matter, and in many cases a sensitivity to another's conduct at the exhibit, even a passing remark, may go no further than just that. The ways in which people who happen to be in the same space, especially third parties who witness the actions of others, progress from co-orientation into focused interaction remain largely unexplored in studies of visual communication – despite their potential importance to our understanding of human sociality and interpersonal relations (see Goffman 1971, 1981; Sacks, 1992). It is worth noting, for example, that it is not unusual to find ‘third parties’ entering the space and watching, for example, a couple explore the exhibit together. For instance, as Julia and Susie examine the piece and Susie poses for Julia (sticking her tongue out), a woman standing behind smiles at the image on the screen and holds that smile so that it is visible to the protagonists. Indeed, Julia returns the smile and the woman moves to one side.

Though of little lasting significance, the discussion of the fragment begins to reveal that in some instances people may begin (attempts) to participate in a particular activity, and become included within the framework of emerging action and activity. In the case at hand, we find a critical juncture within the emerging event; a shift from witnessing and being

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seen to witness the activities of others, to responding to their action and having them respond to yours. The moment of an action almost embodies the principle concerns of those interested in ‘peripheral participation’ and related matters. The transition point, from periphery into the principal strip of activity, hinges not on the spatial distribution of the participants, or even simply on the character of the conduct, but rather through the ways that actions are treated as sequentially responsive and prospectively relevant. In the case at hand, we find a microcosm of the sorts of tensions and difficulties which arise in social life, not infrequently amongst couples when they are socializing with others. Through no fault of their own, or anyone else’s (necessarily), a moment’s exchange can engender a curious intimacy between two of the participants – in this case, literally behind another’s back.

**DISCUSSION**

Galleries, museums and exhibitions provide an important opportunity for those with an academic interest in visual communication. They are settings par excellence that provide people with things to see and with ways of seeing and experiencing objects, artefacts and events. They are committed to engendering new ways of seeing and experiencing objects, of providing people with the ability to discover, learn and understand, and with the ability to reflect upon both the unusual and the mundane. Galleries and museums are institutional environments committed to a large extent to providing an opportunity for, and facilitating, visual communication. In this light, it is interesting to note that the pervasive model of the visitor or viewer, in museums and galleries, and amongst artists and designers, would appear to remain the individual, alone, perhaps with others, contemplating and experiencing objects, artefacts and events. Even centres and museums designed to encourage more active involvement in issues and collections, and committed to introducing new technologies and the like, often enhance an individual’s ‘interaction’ with, and experience of, an exhibit at the cost of co-participation and collaboration. Social interaction in galleries and museums, and the ways in which it informs what people choose to look at, how they examine and experience particular exhibits, and the conclusions they draw, remains a neglected field of study.

In the case at hand, one can begin to see how the discovery and experience of an exhibit arises in and through the interaction of the participants, both those who are together and others who happen to be in the same space. We see, for example, how people take it upon themselves to configure how they use and experience the installation, aligning a co-participant to enable them to see and encounter the scene in a particular way. Similarly, we find participants positioning themselves so as to become an object in part of the scene, and, in figuring their appearance, occasioning surprise and delight from the person they are with. In these and other cases, participants not only organize themselves or others within the scene, but
coordinate their actions with those whom they are with to produce, at the point at which the other looks at the scene, the relevant action and thereby engender response. The installation is used to occasion surprise, curiosity and delight from others; and these emotional reactions are carefully and systematically configured to provide the relevant appearance at just the moment the other enters the pictorial scene. Action is embedded, cast into the scene, by virtue of the timeliness and character of the other's appearance within the scene. It may simply involve aligning yourself to the camera, but even this involves orienting to how your appearance might appear in the scene elsewhere. It often involves specific attempts to animate the image, to pull faces and the like; the force of the action deriving not simply from its appearance elsewhere, but from the way in which the individual's image and action jars with the scene in which it is located. In other words, this is a splendid illustration of the ways in which participants may orient to the 'perspective of the other' and design actions to occasion a particular response which, independently of their appearance in the other’s scene, would seem out of place and out of time.

The conduct of the participants points to the ways in which emotional reaction not only emerges within interaction but is carefully designed with regard to the concurrent and prospective conduct of the participants. For example, consider the ways in which Jo's shock is not only timed to respond to Beatrice's emergence within the pictorial scene, rather than the initial appearance, but is tailored with regard to both the ways in which the wonder of the piece has been intimated, and with respect to the location and orientation of her co-participants. The hand placed over the mouth is indeed an exquisite way of revealing shock whilst displaying appropriate decorum within the circumstances at hand. Similarly we find in other instances the ways in which emotional reaction is systematically articulated with regard to the interactional constraints at hand, and produced even in cases where it is elicited and the object to be reacted to is already familiar. These expressions have many of the characteristics discussed by students of the motions and bodily behaviour, and yet here we can discern the ways in which these emotional reactions are tailored, even within the very course of their articulation with regard to the presence and participation of others. As we have suggested elsewhere, the very objects that are used to express sudden emotional reaction, such as “oohs”, “arghs” and laughter, coupled with their bodily counterparts, are themselves devoid of lexical commitment and can be extended and foreshortened at will and in particular ways that the moment demands (Vom Lehn et al., 2001b).

It is surprising that the substantial body of research concerned with how people discern and discover the functionality and affordances of objects remains principally concerned with the cognitive abilities they bring to bear in perception rather than with the social circumstances in which objects and artefacts are seen and discovered. Deus Oculi, and the conduct and interaction which arise within its auspices, raises some interesting issues in this regard,
and in particular points to the ways in which action and co-participation provide a vehicle for the discovery and experience of the installation. As we have suggested, for example, people may discover the functionality of the piece simply by observing others using it, or by chance, when someone walks in front of the camera and momentarily appears on the monitor. It is interesting to note that when participants do indeed undertake an investigation of the piece, then a principal concern of their practical inquiries is directed towards discovering the relationship between different objects, not simply with regard to their spatial juxtaposition, but rather with regard to potential relations between the actions that they may afford. In other words, the inquiries are directed towards discovering what it is that happens in one domain, with one object, which might engender, encourage and facilitate action that occurs elsewhere.

In his lectures on High Renaissance art, Shearman (1992) suggests that, in the work of Michelangelo, Solario, Raphael, Pontormo, Correggio and others, we can see a way that the assumption that such visual art is concerned with portraying just a single moment need not hold. Rather, by exploiting the expectations of the spectators with the narratives portrayed, their familiarity with related pieces and the location of the piece, painters were concerned with drawing the viewer through a ‘sequence of moments’ (p. 82). With more modest designs, Deus Oculi draws spectators into active engagement with the piece. But through analysis of interactions around the installation we can consider quite different sequential relationships between the conduct of spectators and art works. The analysis suggests ways in which the installation provides or supports sequential relations between the actions of viewers, where what those actions might be is opaque. Spectators through their moment-to-moment conduct, for example, when endeavouring to discover how it ‘works’, display a sensitivity to how others are viewing and orienting to the piece. Indeed, there are multifarious ways in which ‘sequences of moments’ emerge in the viewing of the art work through the conduct of various participants, whether they are with each other or just in the perceptual range of a viewing. In this regard, it is worth noting that, once discovered, then the activity becomes one party producing actions which are designed to engender sequentially related conduct from another. It is as if the foundational organizing feature of human conduct and sociality, namely sequence-in-interaction, provides the ways of investigating and perceiving the properties of artefacts.

The installation, and the interaction it occasions, points to some interesting issues with regard to the relationship between conduct and the immediate environment. We can see, for example, how through interaction participants discover and reflexively create the sense and significance of the installation and its various components, their playful actions and activities giving a flavour or character to the piece and the surrounding artefacts. Indeed, as people enter the scene and see others exploring and playing with the piece, they not infrequently adopt a particular demeanour, a low smile
that pervades their inspection of the various pieces on display and glances at others within the same space. More importantly, however, the installation provides participants with ways of making sense of ‘reading’ the conduct of others. Their bodily comportment, their orientation, exploration, investigation, manipulation and the like become sensible, by virtue of their ‘connection’ to the installation. Indeed before it is known, or its functionality is discovered, the piece can serve as a resource in rendering the actions and activities of others within the space intelligible, and critically, as a resource for the organization of one’s own conduct and interaction. This may entail no more than providing the ‘elbow room’ to enjoy the piece for themselves, as arrangements for getting in line for one’s own turn, or it may provide ways of recognizing what the piece does and how it can be played with when space becomes available. The immediate ecology therefore is a critical part of the production and coordination of conduct, just as it provides ways of making sense of the actions of others; their actions pointing to (literally in some cases) the very occasioned sense and relevance of objects which make their conduct intelligible and recognizable to others.

In this regard, it is interesting to contrast Deus Oculi with many of the interactive exhibits that one increasingly finds within museums and galleries. They are largely PC-based and even in cases where they involve more sophisticated technologies, the display is provided through a conventional monitor; consider for example many of the exhibits in the new Wellcome Wing in the Science Museum (see Design Works, this issue: 93–6), London. Many of these exhibits are highly entertaining and provide complex forms of ‘user interaction’. One difficulty, however, is that when someone is looking at the screen and interacting with the system, it is difficult for others (either those they are with or people within the same space) to see the scene or realm of action to which their actions are designed and addressed. Such display technologies (and one suspects also the nature of the interaction the systems engender) undermine the mutual or public visibility of conduct; it is difficult not only to see what others are doing, but the very material foundations on which action is based. It is interesting to note that many conventional exhibits in science centres and museums, even where they are highly complex, such as large-scale mechanical objects, provide others with ways of seeing the scene of action, whereas digital systems and displays often undermine mutual availability and visibility. Removing the visibility of the scene of action from the view of others not only undermines co-participation and collaboration at the exhibit itself, but removes the possibility of others seeing and making relevant sense of what people are doing elsewhere within the scene. The relevant ecology of action is largely denied to those who happen to be within the same space. In contrast, it is worth adding that even those who design for fairgrounds and similar venues have long recognized the importance of making their displays visible to a ‘gathering’, allowing others to participate in various ways in the scene of action. Deus Oculi plays with the ecological configuration of conduct within
the space, but does provide people with ways of seeing the scene that forms the basis to the actions of others. It is designed to render actions and material foundations visible, albeit in a dislocated fashion.

The import of considering how people actually respond to, and participate through, exhibits such as works of art or scientific displays may be relevant not only to those with an interest in design or curatorial practice. It may also have a bearing on contemporary issues and debates within particular disciplines that bear upon our understanding of visual communication. Take, for example, the history of art and the importance of the writings of Baxandall to recent debates concerning the form and focus of critical analysis. An important part of the force and influence of Baxandall’s argument derives from its concern not simply with production but with the circumstances in which works were/are received and the competencies, intelligence and other skills that spectators brought to bear in experiencing painting, sculpture and other art works (see, for example, Rifkin 1999; Baker, 2000).

The maker of a picture or other historical artefact is a man addressing a problem of which his product is a finished and concrete solution. To understand it we try to reconstruct both the specific problem it was designed to solve and the specific circumstances out of which he was addressing it. This reconstruction is not identical with what he internally experienced: it will be simplified and limited to the conceptualizable, though it will also be operating in a reciprocal relation with the picture itself, which contributes, among other things, modes of perceiving and feeling. (Baxandall, 1985: 14–15)

The thrust of Baxandall’s argument concerns the ways in which the production of objects and artefacts is fundamentally sensitive to the ways in which they will be, and are, received. In part, by virtue of its historical focus, the critical analysis of art has largely disregarded the ways in which works are experienced within the practical circumstances and constraints of museums and galleries. Cognitive perceptual models have been developed, and of course there is a substantial body of research concerned with ‘visitor behaviour’; and yet neither of these traditions attach much significance to the social and interactional organization of looking at, discussing and reflecting upon art work. In some sense, the very practice of looking at and seeing art work has remained epiphenomenal, and yet the arguments of Baxandall and others place the situated and socially organized experience of art work at the heart of the analytic agenda. We believe that detailed naturalistic studies of aesthetic practice can provide a unique yet complementary approach to understanding art, in particular by placing the spectators, their conduct and experience at the forefront of investigations.

Returning to Shearman’s treatise, we can perhaps begin to see why it may well be of relevance to studies of visual communication and more
generally the analysis of human conduct and interaction. Our understanding of visual aspects of human communication – of seeing, gesture, bodily comportment and other significant features – has largely been conceived in terms of a face-to-face model principally involving interpersonal communication. Not surprisingly, the critical nature of language use and discourse pervades this model and has provided a vehicle both for analysis and conceptualization of visual communication. The material circumstances in which interpersonal communication is conduct have largely been disregarded, and even when they have been considered, they are largely treated as the ‘framework’ in which conduct and interaction take place. How objects and artefacts come to feature in the production, coordination and intelligibility of conduct remains largely disregarded in our understanding of human communication, and yet such communication is recognized as having a profound impact on what we do and how we do the things that we do. In taking visual communication seriously, therefore, we need to increasingly transgress the conventional models of visual conduct and interaction and to direct analytic attention towards the ways in which occasioned features of the local ecology reflexively inform, and are constituted through, social action and activity. Domains such as galleries and museums, with their institutional concern with visual communication, even small-scale naturalistic experiments, provide interesting opportunities for developing these analytic and substantive concerns.

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**BIOGRAPHICAL NOTES**

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'Century City: Art and Culture in the Modern Metropolis', the first major show held at Tate Modern, received almost universal critical condemnation. Such blanket censure almost inevitably creates a desire to find something good to say about the exhibition, or at least to make some attempt to offer an explanation or analysis of why it appears to have been such a monumental failure. Organized by the Tate Modern's first director, Lars Nittve – who subsequently resigned to become director of the Moderna Museet in Stockholm – with the then head of exhibitions and collection displays, Iwona Blazwick (now director of the Whitechapel Art Gallery), and employing individual curators for each city section, the show was clearly intended as an international blockbuster that would define the new museum’s curatorial practice. What was so disastrously wrong about the conception and realization of this exhibition reveals a good deal about both the virtues and limitations of Tate Modern as a museum of modern art.

The notion of organizing exhibitions around cities – or the relationships between cities – has been common curatorial practice for at least the last 25 years and was a particular feature of the first major shows organized at the Pompidou Centre in Paris in the late 1970s and early 1980s. There, the strategy employed was to explore the supposed umbilical links between world cities in the development of both the avant-garde and modernism in the 20th century, with Paris always represented as the prime element in the two-term equation and a major European or American city as the second (Paris–Berlin, Paris–Moscow, Paris–New York, etc.) The construction of the megastructural Pompidou Centre (and the vastly increased purchasing power given to the Musée nationale d’art moderne it housed) can be seen as a concerted attempt by the French to steal back the idea of modern art from New York, a strategy which proved highly successful – at least in terms of the exhibition and reception of modern art if not its production. While the ‘Paris + Another City’ formula for temporary exhibitions seems in retrospect a clever if perhaps too obvious prescription for recuperating and
consolidating the reputation of Paris as epicentre of early 20th-century modernism, and only partly succeeded.

When ‘Century City’ was announced, the immediate reaction was to assume a slightly more sophisticated, or at least more complicated, curatorial stratagem. The ‘cities of modernism’ recipe is one which has often been employed as an educational ploy in the teaching of history and art history (especially in British art schools) and as a marketing tactic in art and architectural publishing, an attempt to repackaging traditional modernist surveys of art ‘movements’ and ‘isms’ in apparently more ideologically acceptable forms. In the formula adopted by the organizers of ‘Century City’, each city was linked to a short time period, the narrative progressing more or less linearly through the 20th century, although with some overlaps. From the pre-opening publicity it appeared that this was intended to culminate with the grand finale of London in the 1990s, while at the same time tempering what would have been predominantly a history of the European and North American avant-garde with the injection of ‘postmodern hybridity’ through the Rio de Janeiro, Lagos and Bombay/Mumbai sections (see Figure 1) to forestall charges of Eurocentrism and modernist bias. However, once the exhibition was installed, it became obvious that any attempt to foreground London as the culmination of a ‘century of progress’ had been undertaken so half-heartedly as to totally misfire. An uninspiring selection (by Emma Dexter) of artists and works was scattered through an easily missable series of mezzanines and marginal spaces by the cloakrooms on the ground floor that seemed detached from the rest of the exhibition and which many of the visitors almost certainly failed to visit.

Of the cities representing the early part of the 20th century, only Moscow (curated by Lutz Becker), with its reconstructed Lissitzky *Proun Room*, dynamic propaganda and film posters, photographs, photomontages and projection of Dziga Vertov’s *Man with a Movie Camera*, managed to capture the excitement of ‘the historical avant-garde’. By comparison, Paris and Vienna appeared dull and uninspiring (apart from the ‘installation’ of Freud’s couch in the Vienna section), confirming what was already apparent in the initial displays from the permanent collections when Tate Modern opened in the summer of 2000: that the Brobdignagian scale of a converted power station cannot possibly be a sympathetic environment for works in traditional mediums that must be hung on walls or displayed on plinths and which depend on being carefully and sympathetically lit. The exhibition made abundantly clear that Tate Modern’s major spaces are designed for the kind of large-scale installation or video work in favour today, and neither these nor the smaller rooms in the gallery are suited to showing the majority of early 20th-century modernist works in the collection which are relatively small paintings, drawings, collages or sculptures.

Subsequent temporary exhibitions such as the ‘Arte Povera’ and Morandi shows have demonstrated this equally clearly (the ambience and lighting sympathetic to Arte Povera but not to Morandi’s small-scale
paintings). For Bankside is essentially a building conceived by both architects and curators as a Museum of Contemporary Art, scaled to the showing of enormous projections of video work or housing huge installations, or work that is installational (and institutional?) in scale and conception like the gigantic Louise Bourgeois and Juan Muñoz sculptures commissioned for the Turbine Hall. Geared to the constantly changing window displays now favoured by modern curatorial practice, this is a space that functions as a Kunsthalle rather than as a museum of modern art. Instead of splitting the Tate’s functions between ‘international’ modern art at Bankside and British at Millbank, it would surely be better to ditch the national/international split altogether and turn the Millbank building and its new additions into a traditional Museum of Modern Art, a repository of both international and
British work from 1900 to 1960, 1970, 1980 or 1990 (or whatever might be considered a convenient cut-off date), reserving Bankside for the Museum of Contemporary Art it has de facto become, to show continually changing displays of the work of the last decade(s) in the dominant ‘new’ mediums that are suited to its industrial spaces and ambience.

Jules Lubbock (2001) has claimed that the success of Tate Modern is due to the winning combination of Nicholas Serota’s mastery of the media as cultural showman (or, one might gloss, as cultural shaman) allied to the particular suitability of the building to displaying video and installation work, and has compared the fetishization of ‘place’ in current urbanist orthodoxy to that of ‘installation’ in current art practice. Jon Thompson (2001), on the other hand, has argued that the siting of Tate Modern immediately across the Thames from the financial institutions of the City of London – to which it will be connected umbilically by the so-far non-operational ‘Wibbly-Wobbly Bridge’ – both crudely displays and vulgarly affirms the links between commerce and culture. I would argue rather that the crude juxtaposition of fine art and finance of Tate Modern is especially appropriate to the display of work that is ‘contemporary’ rather than ‘modern’, while work from the ‘modern’ period (i.e. the first half or three-quarters of the 20th century) needs to be given some kind of institutional ‘distance’ for its proper reception in the early 21st century. Here the civic, constitutional and parliamentary associations of the Millbank site seem appropriate to the presentation and historical documentation of 20th-century British and international painting and sculpture, whereas the brash juxtapositions between capital and culture, new media and new mediums, that characterize Tate Modern, create the necessary ambience for new or recent work which is still deeply enmeshed with and embedded in fashion and contemporaneity. Thus Bankside should operate as the gigantic Kunsthalle that in practice it is, while Millbank should fulfil the proper function of an international museum of modern art which to some extent it already does. (The Tate library and archives are, and are intended to remain, at Bankside, where they will occupy part of the new extension.) All that needs to be done is to transfer the historic early modern collection of international art back to Millbank and free up Bankside for yet more spectacular installations and video presentations.

NOTES

1. ‘Century City: Art and Culture in the Modern Metropolis’ was at Tate Modern from 1 February to 29 April 2001. For further information, see the catalogue (Blazwick, 2001).

2. For an interesting discussion of the scale of Tate Modern and the relationship of this to the works displayed in it, see Wollen (2000).
3. I use ‘media’ here to signify the means of communication common to modern industrial society, ‘ mediums’ as the specific means employed by artists.

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ABSTRACT
This article develops Kress and Van Leeuwen’s insight that material features combine with visual and linguistic features to convey meaning, showing how this is particularly true of the meaning-making practices of children. Taking examples from a corpus of project work by children aged 8–11 years, we identify the sorts of material resources they were drawing on and categorize the examples according to the types of meaning they carry, linking this categorization to Halliday’s three macro-functions of semiotic resources. We then provide examples of the ways in which physical characteristics provide traces of decision-making processes in the construction of a meaningful message, and of importation and adaptation of semiotic material from elsewhere. We end by suggesting that the practices we have observed represent a fast-changing period in the development of technologies of literacy and that awareness of the materiality of children’s meaning making may contribute to an understanding of the richness and complexity of literacy development.

KEY WORDS
literacy practices • materiality • meaning making • semiotic resources

A text is not just a form of visual and verbal representation but also a material object with distinct physical features which are, in themselves, semiotic and which, at the same time, interact with verbal and visual semiosis in multi-modal meaning making. We propose that these physical characteristics can be examined in two ways. First, as we have already shown (Ormerod and Ivanč, 1999), a text can be seen as a ‘material’ object which, through its physical features, reflects processes associated with its physical production and life experience so far and also indicates how it is expected to be handled by the reader. Second, as explained in this article,1 it can be seen as a ‘textual’ object which, through its linguistic, visual and physical characteristics, carries meaning about a topic and reflects the author’s meaning-making processes.
In the main part of this article we extrapolate from our study of the physical characteristics of 8–11-year-old children's school projects to propose five categories for studying how the physical characteristics of texts contribute to meaning, showing the sorts of insights that can be gained into a literacy artefact's history as a 'textual' object, produced by a set of meaning-making practices which draw on a range of semiotic systems. First, we suggest that physical characteristics can carry direct meaning about the topic, the writer's attitude to the topic, and the text: for this we use Halliday's (1994) framework to distinguish between ideational, interpersonal and textual meaning. Second, we show how such characteristics may tell us about aspects of meaning-making processes which lie behind the final content; we focus here on alterations to inscription and on intertextual features. Throughout, we make connections with Kress's (1997) observations of younger children's transformatory processes. We conclude by discussing the social nature of the literacy practices we are identifying. The specific activities of each of these children can be seen as individual instantiations of culturally recognizable and historically situated practices which, as Kress (1997) points out, are embedded in broader social goals, patterns of dominance and power relationships.

To begin, though, we provide a brief overview of the research in which this study of physical characteristics is located, in order to place it in its context as part of a more broadly based study of literacy practices.

OVERVIEW OF THE RESEARCH

The research is a longitudinal study of 37 children, in one year-group at primary school, from year 4 to year 6. The children live in the same predominantly middle-class neighbourhood in a small town in the northwest of England and the majority have been in the same class together since they started school. We are interested in the changes over time in the literacy practices and products associated with their independent 'project work', when they are given a completely free choice of subject matter or a broad field such as 'animals', from which to select a topic and are then expected to study this subject in their own way, over a set period, often in their own time as well as at school, and to produce a 'written' outcome: a 'project'.

We find 'project work' interesting because it seems to engage the children's own interests and enthusiasm, it spans the divide between home and school, it puts the children more in control of their own work, and it allows for a much greater variety of approach than more traditional schoolwork or learning from published materials. In constructing their intended meaning, the children choose from a range of semiotic systems (written sentences, maps, diagrams, pictures, etc.), materials (surfaces, substances and tools) and technologies, depending on what is available to them and on what they consider to be most suitable for the task. As a result,
each project has its own distinct characteristics, making it both similar to and different from other projects by the same child and those by other children.

In our research, we begin by looking closely at the finished projects. Our observations of the linguistic, visual and physical characteristics provide a starting point for interviews with the children, in which we find out more about the events, processes, thoughts and feelings surrounding their work. We are using our data to draw comparisons between the children, and to record how their individual and group practices change over time. Our specific focus in this article is on how the physical characteristics of the projects – what Kress and Van Leeuwen (1996) and Van Leeuwen (1998a) call the ‘materiality’ of the texts – carry meaning to do with ‘content’: that is, the various ways in which they contribute to the representation of the topic.

**THE SEMIOTIC POTENTIAL OF THE PHYSICAL CHARACTERISTICS OF TEXTS**

The ‘semiosis’ of texts was until recently interpreted quite narrowly to refer to the meaning-carrying properties of the language of the text and, as a result, much attention has been given to their linguistic structure. Recently, Kress (in various publications, including Kress, 1996; Kress and Van Leeuwen, 1996; Van Leeuwen, 1998b) has extended the concept of semiosis to include the visual characteristics of texts; the analysis of visual compositional features is also a developing area of interest. Kress and Van Leeuwen (2001) locate multi-modal communication processes within broader aspects of social theory and theorize the media and processes of production, interpretation, preservation and distribution to be in themselves semiotic. Van Leeuwen has drawn attention to some of the ways in which the physical properties of objects carry meaning (Kress and Van Leeuwen, 1996: ch. 7; Van Leeuwen, 1998a) and Kress (1997) has shown how very young children ‘act multi-modally’ in switching between different forms of representation. However, as yet, little has been said about the physical characteristics of texts as a component of intersemiotic meaning making. A recent special issue of the journal *Language and Education*, entitled ‘Language and Other Semiotic Systems in Education’ (Lemke, 1998), was concerned with the way in which language interacts with other semiotic systems in pedagogic processes, but there were no articles specifically addressing the way in which linguistic and visual meanings are carried and enriched by the materiality of textual artefacts.

In accord with Kress and Van Leeuwen (1996, 2001), we propose that the physical characteristics of a textual object can in themselves convey meaning, and can also contribute to our understanding of how the writer has deployed linguistic and visual resources for meaning making. Using the children’s projects as our focus, we suggest that there are five aspects to this (outlined in Table 1). There are three ways in which physical characteristics can carry meaning directly in relation to the presentation of content; these
correspond to Halliday’s (1994) distinctions between ideational, interpersonal and textual meaning: (i) they may, in themselves, communicate information about the topic (ideational meaning); (ii) they may convey something about the author’s attitude towards the topic (interpersonal meaning); and (iii) they may carry meaning in relation to the text, signalling how it should be read (textual meaning). In addition, they may sometimes tell us about the meaning-making processes of research and representation which lie behind the final content, first by providing traces of decision-making processes in the construction of the linguistic or visual message, and second by pointing to connections between this message and others in the wider semiotic environment.

Table 1 Types of meaning carried by physical characteristics of texts

| 1. CARRYING MEANING ABOUT THE TOPIC           | 1.1 Representation through ‘real-life’ examples |
| 1.2 Representation through three-dimensional construction |
| 1.3. Representation through two-dimensional construction |
| 2. CARRYING MEANING ABOUT ATTITUDE TOWARDS THE TOPIC | 2.1 Expression of attitude through the physical construction of pictures |
| 2.2 Expression of attitude through the physical construction of words |
| 3. CARRYING MEANING ABOUT THE TEXT            | 3.1 Physical distinctions between verbal and other elements |
| 3.2 Physical distinctions between types of visual image |
| 3.3 Physical distinctions between areas: space and framing |
| 3.4 Physical indications of emphasis |
| 4. PROVIDING TRACES OF DECISION-MAKING PROCESSES IN THE CONSTRUCTION OF A MEANINGFUL MESSAGE | 4.1 Physical evidence of changes to wording |
| 4.2 Physical evidence of changes to spelling |
| 4.3 Physical evidence of changes to visual images |
| 4.4 Physical evidence of changes to layout |
| 5. POINTING TO CONNECTIONS BETWEEN THIS MESSAGE AND OTHERS IN THE WIDER SEMIOTIC ENVIRONMENT | 5.1 Physical features of imported textual artefacts |
| 5.2 Physical evidence of importation |
| 5.3 Physical indications of new ‘ownership’ |

In the following sections, we discuss the ways in which specific physical properties of the children’s projects can be seen to carry these different kinds of messages and how linguistic, visual and physical aspects of a text can interact in communicating meaning. We use examples from our data to illustrate each of these categories; some of these are reproduced visually (Figures 1–6). It should be remembered, though, that we, like the
children, are bound by the limitations of available technologies: in reproducing purely visual images of the children’s work, here on a two-dimensional page, the material form is totally changed; we inevitably lose the very physical features of the original that we are trying to describe.

1. How physical characteristics carry meaning about the topic

In some of the children’s work there is a strong sense in which they are using physical features, rather than language or visual semiosis, to carry ideational meaning. In such cases, the physical quality of the materials and the manner in which they are used – whether in the form of an actual ‘real-life’ example or through two- or three-dimensional construction of a visual or physical representation of the original – convey in a very direct sense the children’s understanding of the object represented.

1.1 Representation through ‘real-life’ examples

The most direct way in which children deploy materiality to convey meaning is where objects are included in their actual original material form. Some children include ‘natural’ objects: for example, in her project on birds, Denise attached feathers and broken egg shells to the pages, and in their nature project, Kyrah, Melanie and Louise included a plastic bag containing various autumn leaves and berries, collected from the bottom of the garden and all beginning to decompose by the time we got to look at them. Others include manufactured objects or substances which they use, or come across, in their everyday lives: for example, on one of the pages of his project on aggressive blading, Robbie carefully smeared some of the blackcurrant-scented rollerblade wax which he uses to lubricate the edge of the pavement, so as to facilitate particular movements when out rollerblading with his friends (see Figure 1). Denise displays some old bent copper coins in her project on California, and Ray includes some thick card tickets in his railway project. Here the children are sharing with the reader all the physical characteristics of the original; the essential meaning they want to convey lies in the object’s material entirety: its whole physical ‘reality’.

1.2 Representation through three-dimensional construction

Some children create three-dimensional models to represent the ‘real’ thing. For example, Kyrah made a papier-mache model of a landscape for her fellwalking project and Bob constructed a fold-up cardboard model of a birdhouse. A similar but reverse process of construction is illustrated by Lucy’s project on Paddington, which includes a ‘real’ (wearable) poncho made out of fabric that she found in her mum’s box of rags, as well as some small (edible) cakes which she had baked, to represent the imaginary poncho and cakes pictured in the story. These representations each convey a clear sense of the general physical structure of the object but they all vary in the extent to which they replicate the characteristics of the original: the grass in
the landscape is painted, the birdbox is made of card rather than wood, and
the poncho fabric looks slightly different in colour and weave from the one
in the book. In our view, these differences are highly significant as they draw
our attention to the fact that the children are thoughtfully selecting particular
features for physical representation. The fact that they have clearly gone to a
great deal of trouble to construct their message in this way seems to indicate
how important and interesting they feel these selected features to be.

Through their inclusion of the kinds of items exemplified in 1.1 and
1.2, the children are choosing to share with the reader some aspect of the
subject matter which may not easily lend itself to representation in visual or
verbal form: the varied natural textures and weights of the eggshell, feathers

Figure 1 Robbie’s wax
and leaves; the smooth greasiness and sickly sweet smell of the rollerblade wax; the solid cool shiny indented surface of the coins; the warm rough light flexibility of the tickets; the solid undulating shape of the landscape; the firm hollow structure of the birdbox; the soft floppiness of the poncho; the delicate cinnamon flavour and crumbling melting texture of the cakes. Most important, in our view, they are communicating that such features are worthy of attention, important for an understanding of their chosen topic.

It is useful here to draw connections with Kress’s (1997) study of much younger children. He points out that ‘things are always more than one thing’; what is a distinguishing feature for someone in one context may be less significant to someone else with different interests. In relation to this, specific semiotic modes may be more ‘naturally’ suited to representing particular aspects of this multi-faceted ‘reality’. Very young children, he suggests, are naturally inclined to recognize this and tend to take a multi-modal approach to meaning making, making use of whatever ‘stuff’ is to hand, and mixing, for example, the use of everyday objects, models, speech, drawings and cut-outs, in a continuous ‘transformatory’ process, depending on what it is that they want to say. Similarly, in our previous examples, these slightly older children have clearly weighed up the best way of communicating their message, given the resources at their disposal; they all know how to use two-dimensional modes but have deliberately chosen, on this occasion, not to do so. Their decisions are motivated, it seems, not simply by the availability of materials (although this clearly plays a part), but by the kind of information they find interesting and relevant and wish to convey to their reader in connection with their awareness of the limitations and potentialities of different semiotic modes.

1.3 Representation through two-dimensional construction

The most common means of representation is through words and images presented on a two-dimensional surface, but many children attach cuttings and a few produce collages or embroidered images. We are including all of these modes within this category since the distinctions between them seem to us to be rather hazy. Whatever the mode, the children’s representations all have their own distinct physical features; they are produced on a variety of surfaces, using different kinds of substances and tools, which can be controlled in different ways. Children often, very deliberately, vary the materials and techniques that they use, with the result that an image or a word can be doubly semiotic, through both its visual and physical attributes.

Some children give their representation a more ‘three-dimensional’ feel by not limiting themselves to the more conventional tools of inscription. Kyrah’s butterfly collage contains wood shavings created from sharpening coloured crayons (leaving a wriggly coloured line along the edge of the wood); these are scattered across the surface of her colourful pastel drawing, communicating a sense of movement and lightly lifting the image partly out of the page into the surrounding air. Lucy created her beautiful embroidered
picture of an owl out of silk fabric and thread, using the different stitching devices on her mother’s electric sewing machine to create an impression of the delicate intricacy of the bird’s feathers.

In drawings, a specific substance may be carefully selected because it is in some way physically suited, in its own shape or texture, to depicting a particular aspect of the object represented. Denise, for example, used watercolour crayon in some of her pictures of fish. In Ray’s front-cover drawing (Figure 2), the colour, shape and nocturnal habits of bats are
dramatically expressed through the use of black felt-tip pen and pencil to create a glossy surface that shimmers against the image of the yellow moon in the starry night sky. In a chart showing the process by which bats use echolocation to hunt their prey (Figures 3 and 4), he used two different tools to depict the legs and body of the animal: thick felt-tip pen for the round fat body and biro for the delicate spindly legs.

The materiality of written language can also contribute to the construction of meaning. For example, Suzanna decided to write the words ‘prehistoric fish’ by cutting individual letters out of word-processed scrap
paper (black letters, in different fonts, on a white background), and then sticking them onto her page in an uneven arrangement so that, as she explained in the interview, “it would look like a skeleton ... kind of all in bits” (Figure 5). Another example occurs in Carly’s project on the Spice Girls, where she used thick-tipped, fluorescent orange felt-tip pen to create wide diagonal candy-stripes across the letters, in the word ‘SPICE’, so that the letters appear to vibrate, physically, like fluorescent tube lighting, right out of the page.
The examples in 1.3 illustrate how the children are retaining certain aspects of the physical as they learn to exploit the more restricted opportunities offered by a two-dimensional surface. The interaction of the visual and physical in such examples seems to show the children developing, through their choice of specific kinds of physical materials and approaches, an understanding about the meaning potential of a two-dimensional image. First, through the technologies available to them, they are learning about how to use physical materials and methods to represent both visual and physical information on a flat surface; second, they are discovering how physical and visual techniques can be made to work for them, in representing other, more abstract kinds of information (such as vibrancy, fragility or night-time). Through the interplay between the physical and the visual, we
see them learning about the potential of an image to carry different kinds of meaning, beyond the purely visual or physical.

By the age of 10 years, very few of the children are still choosing to 'represent' in the ways described in 1.1 and 1.2; most have switched almost totally to two-dimensional representation and are learning how to exploit this mode, despite its limitations. However, the distinction between two and three dimensions is not completely clear-cut, and the children's development cannot be described as a simple linear 'progression' from one to the other. Some children continue to include occasional examples of 'realia' in their projects, right through to the end of primary school. By this stage, though, it is usual to find a much smaller portion of the message being carried in this way and the children's intentions in including such objects appear to have changed.

2. Expressing attitude towards the topic

In some projects, the choice of materials and the ways in which they are used to construct images can appear to communicate, in a very subtle way, something of the child's attitude towards the subject represented. We suggest that through the physical characteristics, pictures and words can therefore carry what Halliday (1994) calls *interpersonal* meaning.

2.1 Expression of attitude through the physical construction of pictures

Those children who particularly enjoy artwork often produce images which appear to carry a strong sense of their own feelings towards the subject. For example, in Denise's project on pigeons and doves, her use of a soft pencil and gently rounded repeated strokes seems to communicate a sensual appreciation and protective fondness for the beautiful fragile creature that she is depicting. Similarly, in her drawings of butterflies and buddleia bushes, Kyrah's firm bright fibre-tip pen strokes, which seem to refuse to be contained within the outline, appear to convey the excitement that she experiences in watching the different kinds of butterflies in her garden. In Ray's centrespread pencil drawing of a bat with its wings outstretched, the broken hesitantly controlled lines seem to express his fascination with the intricate construction of the bats' wings and the mechanics of their action.

2.2 Expression of attitude through the physical construction of words

The physical properties of words, too, can sometimes appear to carry this kind of meaning. Carly's fluorescent, striped 'SPICE', for example, seems to exude excitement and enthusiasm – for the band, their music, and everything else about them. In the football project produced by Robbie and four of his friends, there is a cutting of a photo from a magazine, showing a player committing a foul, and next to it the word 'Fowl' is written boldly, in large letters, using thick black fibre-tip pen (Figure 6). This is in contrast to the other captions in the project that have been written in smaller print and in
biro. The distinctive way in which the word is written appears to communicate both confidence in the writer’s knowledge of the rules of the game and a strong sense of shock and disapproval. It is as if the child is saying: “This is the worst thing that a footballer can do; it is a really serious offence.”
The last example clearly illustrates how words, images and physical characteristics can work together to communicate different kinds of meaning: the photograph (showing what the action looks like), the meaning of the word (giving a name to the action), the visual form (size and colour) of the word (indicating that it is a particularly significant action), and the physical manner in which it has been constructed (emphasizing that it is a shocking action – and that the writers know what they are talking about) all contribute, in separate ways, to the message as a multi-modal whole.

In conclusion, the five sets of examples that we have commented on in sections 1 and 2 show that, for these children, words, pictures, and other visual features are not the only modes of representation. Specific materials can be selected and used to create a direct physical impression of some aspect of the subject matter, and the physical actions involved in the construction of the word or image can, together with the choice of materials, convey something of the writer’s feelings towards the topic. Physical aspects of the text may carry meaning about the subject represented beyond that carried by the visual and linguistic aspects of the text and physical, visual and linguistic elements can be seen to interact in communicating ideational and interpersonal meaning. We now move on to look at how physical characteristics can contribute to **textual** meaning.

### 3. How physical characteristics carry meaning about the text

Physical characteristics can also be seen to help distinguish or signal the specialized function of a particular part of the text, indicating that it carries a certain type of message and should be read in a particular way. We have divided these kinds of textual meaning into four categories.

#### 3.1 Physical distinctions between verbal and other elements

Specific materials are often used for the words, as distinct from those used for the drawings and other elements. For example, Ray uses biro for all the words in his project but other tools and materials for the graphic elements. Some children divide their pages into two sections with, for example, the top half containing words in one material and the lower half containing some kind of drawing in another; others arrange the text into a series of smaller units consisting of either words or pictures. In such cases, the different units are presented as physically, as well as visually, distinct. Elsewhere, words in one material may be combined with pictures in another so that they work together in a single unit; for example, a diagram or cartoon strip may contain a drawing in pencil and words in biro. Occasionally, a page may consist of separate physical layers of text; for example, the words of a poem may be written in biro, superimposed over a picture drawn in crayon, or a magazine cutting stuck onto a page already decorated in fibre-tip pen. The children’s use of different materials for different parts of the text highlights their awareness that knowledge can be represented ‘textually’ through different
visual systems: words and pictures have distinct visual forms and are designed to be read in different ways. At the same time, the juxtaposition and mixing of materials draw attention to the children’s understanding of the ways in which these different representational modes can interact in communicating meaning.

3.2 Physical distinctions between types of visual image

We have observed that children may consistently use different physical methods of representation for different kinds of visual images, the choice of image type, material and technique depending on what exactly is being said about the thing being described: the content ‘focus’. For example, we might contrast Ray’s use of thick felt-tip pen in his dramatic front cover drawing (Figure 2), which gives a vivid impression of the blackness and nocturnal habits characteristic of the species of bats in general, with the very precise pencil diagrams, decontextualized against a white page, in which he represents distinct types of bats (Figure 4). To indicate individual characteristics, he has used a slightly different stroke to shade the body of each bat: for the first, he uses a very light short flecky mark; for the second, a long straight upwards and downwards stroke; and for the third, an extremely light continuous circular movement of the pencil. Pencil is the only tool used here and it is exploited as far as possible. Each of these examples demands a distinct response from the reader. The detailed delicate little drawings quietly encourage us to look closely and carefully at each one in turn, whereas the dramatic shadow-like images of bats on the front cover create a strong and immediate impact without requiring or rewarding further effort. The method of representation signposts both the content focus and the reading approach.

In each of these examples, Ray has carefully selected a physical means to suit his communicative purpose. His careful choice and use of materials in constructing these very different images seem to express not just his understanding that there are both general similarities and specific differences between the creatures he is representing but also his awareness that visual images can vary in form, and certain forms are appropriate for conveying particular types of messages: on the one hand, the kind of bright colourful picture that might be found on the front cover of a story book or magazine to attract the reader’s attention and set the scene; and, on the other hand, the kind of detailed line drawing that might be found in a pocket handbook or encyclopaedia for the purpose of reference. In a published text of this type, there would be no such material variety; the distinctions would be purely visual. However, Ray is using the materials and technologies at his disposal to create the same effect. Through his use of the physical he is expressing an understanding of conventions associated with visual representation.

Stylianidou et al. (1999), in analysing interpretations of images in school science textbooks, suggest that 13-year-olds may have very clear ideas about what kind of visual representation is appropriate for a particular kind
of content focus, becoming confused and frustrated when a textbook writer 
in an attempt to be child friendly) uses what they regard as an inappropriate 
visual format (for example, a cartoon 'narrative' format to express an 'analytic' 
message about types of energy). Our own observations, as exemplified earlier, 
and those of Kress (1997), who provides examples of two very different 
drawings of a car by an 8-year-old boy, indicate that children can demonstrate 
this understanding productively (through a combination of visual and 
physical means) at quite an early age. It seems to make sense to them that 
different types of visual formats are suited to different kinds of content.

3.3 Physical distinctions between areas: space and framing
A page is often divided into different areas of space, which are clearly 
framed in some way. Frames can come in different shapes and structures: a 
picture, for example, may be framed by a ruled 'box', or a line may be drawn 
across the page to distinguish between two sections of text; the space in a pie 
chart is framed differently from that in a flow chart. A page can contain 
layers of frames within frames. Space and frame always work together: 
where there is a frame, there is space on either side of it; any background 
surface forms a 'spatial' frame, and is itself framed by its own outer edge. In 
the children's work, boundaries between spatial areas are often represented 
physically, through the use of different working surfaces or tools of 
scription.

Most commonly, a different substance may be used to draw a linear 
frame to contrast with that used for the text within it. For example, Robbie 
uses zigzag lines in thick, green felt-tip pen to frame his pencil drawings of 
rollerbladers, and pink crayon to frame the transparent rollerblade wax 
(Figure 1). Similarly, Ray uses thick black fibre-tip pen to frame the different 
parts of his chart showing the process of echolocation (Figure 3). The choice 
of inscription tool, in each case, suggests that the frame is seen as a substantial 
element, playing an important visual role in the message. The contrasting 
material quality of the frame highlights the child's understanding that it 
performs a particular function, creating a boundary between the various 
parts of the text and indicating that the components contained within it carry a 
separate part of the message, designed to be read as a single unit. It points to the 
child's own mental processes in the grouping and distinguishing of different 
parts of the message from each other.

Where a cutting has been included, as for example, Jim's glossy 
magazine photo of an owl, the cut-out edge forms a sharp physical boundary 
which, in itself, provides a literally 'clear-cut' frame. The way in which such 
items are cut out indicates very careful attention to framing; for example, in 
Jim's case, he chooses sometimes to give his cuttings a geometrically regular 
boundary (such as a circle or a rectangle) and at others to cut around the 
outline of the bird itself, so that none of the background features of the 
original photo are included; the bird is thus totally reframed against the white 
surface of the page.
Background space always provides a frame of some kind. Most children choose to present their main message on white paper but they may choose to colour-in the space, using contrasting substances, or to select different background surfaces for framing particular parts of their work. Section dividers, for example, are often made out of card. On the front cover of her fish project, Suzanna uses a piece of purple card on which to present a diagram so that the cut-out white drawing and accompanying labels stand out against the coloured surface. In doing this, she is not only showing her understanding that text on the front cover should be presented in a distinctive way, making it look different from other pages of the project, but also, in foregrounding the ’empty space’ against which the visual elements are arranged, showing an awareness of the value of such space, both as a component in the design of the page as a whole and in distinguishing one element from another.

Some children choose to use a mixture of physical methods, for example, combining a cut-out edge with a linear outline in biro and a distinctive material surface, or using different materials to build up several layers of framing. For example, in her countryside project, Louise framed her pictures by mounting them on a piece of coloured paper or card, before attaching them to the main surface. Kyrah’s projects are strikingly ‘physical’ in this sense, almost overflowing with layers of different kinds of material frames, made up of overlaid surfaces and substances, which provide an extremely complex, multi-textured spatial environment for her visual and verbal message. Kyrah is not simply expressing her knowledge, or enthusiasm in relation to the topic; she is also demonstrating, through physical and artistic means, a sophisticated awareness of ways in which space, words and images can be meaningfully manipulated.

The children’s use of different materials and techniques for background and framing, in the previous examples, indicates their understanding that the visual structure of a text involves the interaction of space as well as inscription and that framing can be achieved through the use of both line and space.

### 3.4 Physical indications of emphasis

Some children use different materials and techniques to highlight specific features of the written text, making a particular letter, word, sentence, paragraph or section stand out visually from the rest. There seem to be two reasons for this.

1. Some elements may be highlighted in order to indicate their particular textual role. For example, where most of the writing might be in blue biro, some children, such as Denise and Kyrah, often choose to alter the appearance of initial letters, punctuation marks, titles, subheadings and underlining through the use of other tools of inscription such as brightly coloured felt-tip pens, which attract attention to the selected element. Such features are not necessarily simply ‘decorative’ additions. They show
the children’s understanding that certain parts of a text, which perform a particular function, can be made to stand out from the rest, so that the message is visually segmented, making it easier for the reader to follow.

2. Other elements may be highlighted to draw attention to their meaning-carrying importance. In Kyrah’s project on snakes, all the sentences that contain information about poisons and other deadly properties are written in large letters in bright fibre-tip pen, as if to warn the reader of these possible dangers. We have already seen how the physical properties of the word ‘Fowl’ (Figure 6) are different from those of the other words in the same project, and attract the reader’s immediate attention; it is almost as if the child is saying, ‘Take note! This is the most important point in the whole project!’ In such cases the children are showing their understanding that certain techniques can be used to distinguish between different parts of the message, so that some bits can be shown to be more significant than others.

Through these four kinds of physical characteristics, we get an impression of the children’s awareness of the different presentational conventions that a reader may be expected to recognize and use in following and interpreting a ‘written’ message. Modern computer technology has made a wide range of graphic facilities available for this purpose: in published texts today, the kinds of meanings which the children are expressing physically can be conveyed through the use of a wide range of electronic effects (such as italicized or bold script, and different fonts, borders and shading). At the same time, texts still come in all sorts of shapes and sizes and vary greatly in their physical form; children are exposed to many different kinds of visual effects in the vast array of literacy material (such as billboards, graffiti, road signs, shop signs, advertisements, packaging, junk mail, leaflets and magazines, as well as school books, reference manuals, encyclopedias and ‘fact file’ cards) that surround them in their everyday life. We find the examples in this section interesting because they show how the children appear to be drawing ideas from these different sources, but are using a variety of materials rather than a unified publishing package in deciding how best to present their message. In doing so, they are demonstrating their developing understanding of complex culturally based conventions regarding the ways in which a text can be made to carry different types of meaning about a topic, while simultaneously facilitating communication of the intended message.

4. How physical characteristics provide traces of decision-making processes in the construction of a meaningful message

The physical characteristics of the projects often show evidence of drafting and earlier rejected messages through changes to wording, spelling, images and layout, which may remain visible in the final product.
4.1 Changes to wording

Alternatives and alterations to letters, words and whole sentences may be provided by scribbles, erased marks or blobs of Tippex. In the football project produced by Robbie and his friends, a letter at the end of the word ‘Fowl’ (Figure 6) has been completely obscured by a black fibre-tip pen scribble so that it is not possible to tell whether this is an alteration to the spelling or the grammar. The manner in which the alteration has been made indicates the importance attached to covering up the mistake – which is clearly not intended to be read. In Ray’s project on bats, it is sometimes possible to see the old wording beneath the Tippex. When asked, in the interview, about his extensive use of Tippex, Ray said, “I kept thinking of different things instead of what I already had” and he then made these alterations directly onto the page. The numerous alterations to the wording indicate that Ray has given considerable attention to the way in which he expresses his meaning linguistically.

4.2 Changes to spelling

Such features often indicate alterations to the spelling. On one of the pages of Lisa’s project on whales a few corrections are visible in blue ink on top of the word-processed text. She explained that her brother typed it out for her but she noticed that he had made some spelling mistakes that she then had to correct by hand. In this case, the physical characteristics point to her own very careful checking of the final text. In some projects, pencil marks in a slightly different handwriting show places where someone else has checked the child’s work and indicated where it needs to be corrected. Such examples show the importance attached to the checking and correction of the final draft, either by the children themselves or by someone else whom they trust to do the job and point to spelling, in particular, as an aspect of presentation considered worthy of attention.

4.3 Changes to visual images

Some physical characteristics show developments and changes in the children’s visual representations. The faint pencil lines of an initial draft may still remain in the final version or partially erased marks may indicate alteration to an earlier draft. For example, in Louise’s animal project, smudged erased marks indicate where she has altered the shape of an African elephant. Sometimes Tippex is used in this way; for example in Ray’s chart showing the process of echolocation it has been used to make a slight alteration to the shape of one of the bats (Figure 3). Sometimes an illustration on another piece of paper may be cut out and stuck on top of the earlier version, completely hiding it from sight. Such features provide evidence of stages in the construction of visual images and show the care that the children have taken in the accurate representation of shape, proportion and detail.
4.4 Changes to layout

Physical characteristics can also indicate changes to the layout. In his chart showing the process of echolocation, Ray used Tippex to alter the position of one of the bats (Figure 3). Similarly, erased marks on the front cover of Edward’s project on tigers show that he put a great deal of thought into its design. He explained that he produced a rough draft, but didn’t like the layout, so he decided to rub out the word ‘TIGER’ and write ‘THE TIGER’ instead, to fill up more space on the page.² This concern for a ‘balanced’ page layout (particularly on the front cover, but also elsewhere) is shared by other children. Although they find it difficult to express verbally (or consciously?) what it is that makes a particular arrangement more satisfactory than another, tending just to say “it looks better”, their critical comments on their own experiments in this area convey an awareness that the layout of the text is important in contributing to communication of the message (a point already raised in section 3.2).

The physical traces of alteration, discussed under the previous four headings, are testimony to the thought that the children have put into the visual and verbal aspects of their meaning making and presentation. They do not simply provide evidence of developments and changes in the construction of a meaningful message; they also indicate the child’s understanding that ‘writing’ is a complex activity, involving much careful drafting and redrafting; in addition, they may point to the involvement of other people at some point during this process. Not all projects display such evidence; in cases, for example, where a child has used a word-processor or deliberately rewritten a ‘perfect’ version by hand, there may remain no visible signs of alteration. Those traces that do exist, to which we draw attention here, are therefore especially valuable.

5. How physical characteristics point to direct physical connections between this message and others in the wider semiotic environment

Some of the physical characteristics of children’s projects provide direct evidence of the ways in which the children are constructing their message from an ‘intertextual patchwork’ of representations found in other sources. The distinct physical features of different components of the patchwork identify them as coming from elsewhere, reveal the ways in which they have been ‘imported’, and indicate the ways in which the children have made them their own. From these examples, we can see that not all source material is ‘imported’ in its exact original form and children ‘import’ information in different ways.

5.1 Physical features of imported textual artefacts

Imported textual objects can take the form of magazine cuttings, pieces of tracing paper containing images from other sources, photocopies, CD-ROM
printouts, leaflets, postcards and other kinds of two-dimensional texts, containing words or pictures, or some kind of mixture of the two, or they may be a very different kind of object, such as a video recording in which meaning is communicated through spoken words, music and moving images. These materials often have their own distinctive material features. This is most obvious in the case of a video, but two-dimensional texts can also have very different physical properties. Magazine cuttings may be quite different in their surface texture from the material on which they are mounted (as, for example, in the colourful glossy picture of an owl that Jim glued onto his lined A4 paper). Similarly, photocopied texts are recognizable from their unmistakably uniform monochrome quality, and CD-ROM printouts from the ‘fuzziness’ of the visual image. It is worth pointing out that at the time the children were working on these projects (1996–7) scarcely any of them or their families knew how to ‘import’ such images electronically.

5.2 Physical evidence of importation
Such texts may be included as whole objects or as complete pages, sometimes loosely inserted in plastic sleeves, so that they are physically separate and detached from the other pages of the project, or they may be cut out, positioned and attached very carefully to the children’s pages. Some imported texts may be attached in a very obvious way, for example, with Sellotape or staples. Glue may not always be visible, but it may cause the surface material to go soggy and, as it dries, to crease or bend. In addition, the corners of the cutting might be creased or starting to curl up. Such features draw attention to the fact that these texts are separate bodies coming from different places, with their own histories as textual and material objects.

5.3 Physical indications of new ‘ownership’
Texts of this kind can be incorporated into the child’s text in different ways, with varying degrees of reappropriation. At one extreme, they may be left to stand alone, as if to speak for themselves, sometimes as a complete A4 page with no evidence of the child’s appropriating their content other than the decision to include it. As a minimal sign of appropriation, individual sheets may be numbered by the child, using pencil, biro or felt-tip pen, as if to show that they do actually belong in the project, forming an integral part of it. Ray includes a good deal of material of this kind in his enormously heavy steam engines project, which is bursting at the seams with a very wide range of imported documents.

At the other extreme, texts are often very carefully chosen to mesh with other aspects of the message, and may be titled by the children, or altered in some way, to ‘make them their own’. The football project produced by Robbie and his friends is made up largely of cuttings of magazine pictures showing players in action with handwritten captions telling the reader something about the pictures (Figure 6). By cutting out pictures in shapes of
their own choosing to suit their purpose and by adding words, the children can make imported images express their own message in a very powerful way. At a more sophisticated level, in his project on tigers, Edward includes a photocopy of a map of the world in which he has used two different coloured crayons to indicate the areas in which tigers currently live and those where they used to live but are now extinct. He explained in his interview that the information in the map came from two different sources: the map was photocopied from an atlas, and the information in the coloured areas copied by hand from another book. He points out that he didn’t copy this information exactly; he felt that because the information “was copyright” he “had to make it rather unexact”. He has made a deliberate effort, through a mixture of copying and alteration, to make the information from the two source texts his own in some way.

The kinds of physical characteristics which we have observed specifically in association with ‘imported’ texts may be very common in home-made literacy artefacts but tend to appear less frequently in published uses of literacy. Likewise, we notice that some of the children produce totally handwritten or word-processed texts, in which there is no physical distinction between their ‘own’ words and images and those imported from other sources. In such cases we are left with no physical evidence of the children’s intertextual processes. We feel, therefore, that the kinds of imported texts in these examples, found and deliberately selected by the child for inclusion in their projects, are especially interesting since they retain, at least to some extent, the physical characteristics of their original form and point clearly to the children’s intertextual practices in constructing their meaning.

Such examples show, in a very obvious physical way, that ‘reading’ and ‘writing’ are closely interconnected since the imported text has been produced by the original author, ‘read’ in some way by the child and now, in its present form, is a part of the child’s own written work. In incorporating such texts into their projects, the children are demonstrating their understanding that ‘research’ involves drawing on information from a range of different sources, that ‘writing’ consists to a large extent of appropriating linguistic and visual representations originating from these other sources but that not all source material is imported in its exact original form: information can be imported in different ways. Those children who have made a deliberate effort to alter the imported texts in some way are showing their desire to make them their own, and an awareness that certain cultural conventions exist regarding the use of semiotic material that is the property of another author.

**THE MATERIALITY OF TEXTS IN A WIDER SOCIAL PERSPECTIVE**

In Table 1 we proposed an analytical framework for the study of the physical characteristics of children’s meaning-making practices. We have shown how
some features of the projects contribute directly to the representational ‘landscape’ of the text and others carry traces of decision making concerning the conventions of linguistic and visual representation. By studying the physical characteristics of their projects, we gain insights into the ways in which the children are learning to express their knowledge and understanding through a range of semiotic resources and meaning-making processes that are situated individually and socially within living and learning environments and which are themselves part of a broader social and political context.

While studying meaning-making processes contributes much to our understanding of the children’s literacy practices, it represents only one half of the story; literacy also involves social and physical processes. In the companion article to this one (Ormerod and Ivanič, 1999), we discuss how the physical characteristics of the projects carry traces of these processes and their significance in relation to our understanding of the children’s literacy practices in a broader sense. The argument we develop across these two articles is that physical characteristics of a literacy artefact are doubly semiotic, carrying meaning both about the ‘content’ of the text and about the socially situated ‘processes’ (mental, physical and interactional) of its production.

The literacy practices we have observed are both similar and varied. The decisions which we see embodied in the physical characteristics of the children’s work appear to reflect shared and individual attitudes, beliefs and approaches regarding the types of materials and semiotic systems that are appropriate to draw on and the ways in which they can or should be used. We have noticed that there are similarities between the children in the physical characteristics of their work, which situate it within a recognizable shared area of literacy activity. At the same time, we have noticed that there are many different ways of representing meaning and many different kinds of meaning to be represented. We have observed, like Kress (1997), that these children are acting creatively, designing their messages within a given semiotic and physical environment, their work the product of both innovation and convention. In a few of the projects, we feel that there is still a strong sense of a ‘unity’ of body and mind, a relationship between materials, space and ideas which suggests that the author is still thinking, experiencing and acting multi-modally. However, as the years pass, we notice increasing evidence of adherence to convention and the sidelining of ‘alternative’ approaches, as representation is ‘reduced’ to the limitations of two dimensions.

Clearly, the practices we have observed are not static. First, at a micro level, we are observing changes in individual children’s ways of working. In the many varied situations which the children describe to us, we get a sense of the ways in which project work involves them in a continuing process of informal sense making, in learning about their chosen subject and in learning about the kinds of semiotic resources and practices which are
regarded as relevant and appropriate to the production of this kind of literacy artefact. As they learn about the uses of the many different kinds of textual artefacts which exist within the cultural context in which they are growing up, as new materials and technologies become available to them, as they study their chosen subjects in greater depth, and as they perceive the need to find new ways of expressing their newfound knowledge and understanding, their literacy practices change. Their experience of engaging in this kind of work has consequences for their identity as writers, changing the meaning-making resources and literacy practices available to them as part of their repertoire of representational resources for future use (cf. Ivančić, 1998; Kress, 1996).

In addition to observing these individual changes, we are also noticing changes in the group as a whole, from year 4 to year 6. Situating these observations of a specific group of children within a broader socio-historical context, we may be observing more generalizable changes in ways of working and capturing some practices that are dying out. We do not have data for explaining these changes but can speculate about the effects of the technologization of communication in the wider social context, of changing concepts of time and changing relationships between the body and the environment. We are prompted to ask about the future of the kinds of texts that we have been examining: will other primary school children in the future continue to produce texts of this type, or will new technologies sweep aside the varied physical characteristics we see here? Are we documenting a dying set of practices?

We see the range of practices that we have identified in the work of these 8–11-year-old children as a continuation of the multi-modal meaning-making practices which Kress (1997) observed in the work and play of younger children. Children continue well into their school years to creatively recombine all resources to which they have access. Studying their uses and reproductions of those resources also gives us an insight into the wider semiotic environment. It might be argued that mass production – particularly electronic communication – radically changes and to some extent eradicates the potential of physical characteristics to convey meaning. But even where a text is inscribed electronically, the choice of surface material is always important and the choice of ink, or material, for signs can also be varied. It is also interesting to note what appears to be a current trend for ‘physical’ effects of the kinds we have observed in the children’s work to be reproduced in mass-produced texts (for example, to give the impression of a collage, or ‘home-made’ quality to book illustrations, advertisements or greeting cards). In addition, we would argue that the meaning-making principles to do with visual communication (framing, layout, etc.) which the children are learning about and expressing through the use of different kinds of materials can usefully be transferred to other media.

In our view, an explicit awareness of what the children are doing physically, in their approaches to meaning making in the context of school
project work, can shed light on the complexity of the decision-making process facing any writer, whatever their choice of medium. As new technologies widen the effects available, providing increasingly more potential for choice regarding two-dimensional and ‘virtual’ representation, we might well ask how adult writers in different contexts make their decisions, given the potentially vast array of techniques at their disposal. By looking closely at what children are doing, we are not just highlighting the enormity of the task facing the ‘apprentice’, but also revealing what it means to be an adult writer or reader, juggling the verbal, visual and physical tools of representation. More generally, we may ask: what does it actually mean to be ‘literate’ in Britain today and what will it mean to be a writer or reader of the future?

In looking ahead, Kress (1997) argues that although two-dimensional representation is likely to remain a significant mode (particularly in the corridors of powerful institutions, such as the law), other modes will assume much more importance in many domains. In his view, adults of the future will need to be able to switch rapidly between modes depending on their communicative purpose; we are moving to a point where ‘the rediscovery of synaesthesia as a desirable characteristic ... will be essential’ (pp. 157–61). From this perspective, we would argue that what the young people in our own study are doing, in creatively manipulating linguistic, visual and physical modes, is potentially extremely valuable and demands to be taken seriously, not just by academics, but by parents, teachers and educational policy makers.

If we choose to do so, we might learn from what very young children do ‘naturally’ and see our way to providing a ‘holistic’ learning environment – one which might break free of what Kress (1997) describes as traditional left/right brain conceptions of approaches to learning, embodied in notions of the ‘creativity’ of the infant class or the segregation of ‘media studies’ or ‘technical design’ at secondary level – in which the tendency towards ‘synaesthesia’ might be nurtured right across the curriculum. Then, as they grow up, all young people might at last experience some chance of feeling at home wherever they find themselves in the kaleidoscopic semiotic landscape, neither restricted nor excluded by dated modes of representation, but instead contributing comfortably, confidently and creatively to communicational ‘systems’ which, like themselves, are never either ‘complete’ or fully ‘knowable’ but in a constant process of ‘becoming’.

In conclusion, the similarities and differences between the physical characteristics of the children’s projects draw attention to culturally and historically situated values and practices surrounding the written representation of meaning. At the same time, they point to the fact that the practices we have observed are fluid, dynamic and ever-changing, both for the individuals themselves and for the socio-cultural environment that sustains them, representing a fast-changing period in the development of technologies of literacy. At a more practical level, we hope that this examination of the materiality of children’s meaning making may contribute to an understanding of the richness and complexity of literacy development.
NOTES
1. This paper is developed from one entitled 'Children's Use of Material Resources for Meaning-Making in Topic Writing' , first presented at the Multimodality Colloquium at Sociolinguistics Symposium 12, March 1998.
2. We had imagined that Edward might have been experimenting with ways of making generic reference, perhaps recognizing the distinction between the more evocative title 'Tiger' and the scientific convention for referring to a species, 'The Tiger', but when asked the reason for this change his explanation was entirely concerned with layout.

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The implication of visual research for discourse analysis: transcription beyond language

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ABSTRACT
This article identifies some limitations of discourse analysis by analyzing interactions between five boys in which the TV and the computer are featured as mediational means. The incorporation of several modalities into transcripts and a shift in focus from primarily language to human action facilitate a better understanding of the multi-modal interaction involved. The use of conventional transcripts with a focus on language demonstrates that movie- and computer-mediated interactions appear fragmented; by contrast, an inclusion of images into the transcripts, representing central interactions and/or images of a movie or computer screen, demonstrates the significant visual modes that are imperative to the ongoing talk. Just as written words correspond to the oral language, images can exemplify the global interaction among the participants, or they can represent the images on the screen. In addition, viewing an image is much faster than reading a description, so that these images also display the fast pace of the movie- and/or computer-mediated interaction.

KEY WORDS
computer interaction • discourse analysis • mediated discourse • multi-modality • transcription • visual communication

INTRODUCTION
This article explores sociolinguistic transcription conventions by analyzing the interactions among five boys watching a movie and playing a computer game: Will (3 years), Rick (5 years), Gary (7 years), Louis (8 years) and Ken (8 years). The data for this study consist of participant observations of 37 play dates over a period of 6 months among the five boys studied; 12 hours of video data of interactions among the five boys during these play dates; and detailed transcriptions of particular sites of engagement. The observations of
the 37 play dates among the five boys show that the children move from one situation to the next as a group. Employing the video camera as the means of recording data and drawing on discourse analysis, mediated discourse theory and semiotics, I argue that current transcription conventions resulting from the use of audio recorders inadequately capture discursive interactions involving technologies like the TV or the computer. Since transcription practices inevitably involve theoretical perspectives, this article takes into consideration: (1) the technology used to record the data; (2) the theoretical notions involved; and (3) the resulting transcriptions.

This article begins with two interactions using conventional socio-linguistic transcripts, relying on the audio recording and discourse analysis with a primary focus on language to examine them. The focus is then shifted from language to action and three alternative multi-modal transcripts of the same interactions are proposed, relying on the video recording and resorting to mediated discourse theory (MDT) as the bases for analysis. I demonstrate how video recordings considered within the perspective of an action-based theory result in multi-modal transcripts that give insights into the interaction among the five boys that the conventional audio-based transcripts and discourse analysis are unable to provide. Although my main concern in this article is transcription and not theory, the argument would be flawed if I did not take the underlying theoretical assumptions into consideration. Therefore, I briefly summarize the main theoretical notions that the two means of transcription in this article reflect.

THEORY

Discourse analysis, as heterogeneous as the field is, can be perceived as the study of language beyond the sentence, with a focus on naturally occurring language. Mediated discourse theory is focused on action with a primary concentration on discourse. Both approaches discussed in this article take the interactional model of communication as their underlying theoretical concept. While some components of the two theoretical notions do not differ greatly, they differ in one major assumption. Discourse analysis takes the text (or discourse) as its unit of analysis and assumes that language is used in order to accomplish actions. Conversely, mediated discourse theory takes the mediated action, defined as the ‘social action taken with a mediational means (or cultural tool)’ (Scollon, 2001a: 7) as its unit of analysis and focuses on ‘discourse as a kind of social action as well as upon discourse as a component of social action’ (p. 3). The term ‘mediational means’ is adopted ‘for any semiotic object used to mediate social action’ (p. 4). In this view, all interactions are mediated by mediational means, and are social actions that are undertaken by people in real-time moments. MDT bases social action in the habitus (Bourdieu, 1977, 1990), necessitates that an action is communicated and requires that shared meaning derives from a common history. Mediated discourse is an integrative theory, drawing on several non-
linguistic and linguistic theories, including discourse analysis. Discourse analysis, as Schiffrin (1994) puts it, ‘views language as an activity embedded in social interaction. It is thus interactive activity that mediates linguistic and sociocultural knowledge’ (p. 415). This stresses the context dependence of discourse, which encourages the analyst to go beyond language, considering not only linguistic forms, but also social and cultural meanings as well as interpretive frameworks or schemata.

While discourse analysis invites the analyst to focus on the naturally occurring language among the five boys in the study, MDT directs the analyst to investigate the social actions among the five boys. These social actions are produced at the intersection of practice, discourse and technology. Additionally, we can take into account the common history and shared systems of language, gestures and objects using the theoretical notions of MDT. However, since MDT draws on several linguistic and non-linguistic theories, I would argue that this article is well grounded throughout in discourse analysis by analyzing naturally occurring interactions, conversational inferences, real-time processing in social interaction, contextualization and metacommunication, and playback methodology (Gumperz, 1981; Tannen, 1984). Thus the only point of divergence between discourse analysis and MDT in this article is one of focus.

This study takes the ‘site of engagement’ (Scollon, 2001a), which is similar to a moment in time or encounter (Goffman, 1981), as the substantive unit instead of using the broad label ‘conversation’, which Goffman had suggested to be premature. The argument builds on Goffman, and assumes that a social interaction is bracketed by a clear opening and a clear closing of the interaction among the participants. Goffman stresses the importance of face-to-face encounters where people bodily address one another, so that speaker and hearer are in a position to see each other during the interaction. While gaze is an important component of most social face-to-face interactions among the five boys in this study, the movie and computer as cultural tools constrain the boys, inhibiting them from looking at each other while talking. Thus, the appropriation of these mediational means can override the fundamental positioning of speakers and hearers in this kind of social interaction.

The study uses ethnographic methodology and particularistic as well as comparative analysis. Here, the analysis builds upon work by Gumperz and Hymes (1972), working in the framework of the ethnography of communication. I conducted ethnographic research of play dates in 25 American and European middle-class families, investigating the social practices and the organization of these get-togethers, and found that they are distinctively structured.

Mediated action theory (Wertsch, 1991) views cultural tools as carriers of culture with affordances and constraints (Wertsch et al., 1995), and the study explores the affordances and constraints of the movie, which the children are watching, and the computer game, that the five boys are
playing. Lave and Wenger’s (1991) notion of community of practice is that of learning through participation. The concept of a community of practice presupposes a legitimate peripheral participation. Lave and Wenger ‘assume that members have different interests, make diverse contributions to activity, and hold varied viewpoints’ and ‘participation at multiple levels is entailed in membership in a community of practice’ (Lave and Wenger, 1991: 98). The five boys are viewed as belonging to a kind of community of practice. They come together frequently, and it is shown later in the analysis that there is learning going on within this group of children.

PLAY DATE AND SITE OF ENGAGEMENT
A typical play date among the five boys begins with free play, which can take on various forms like playing outside, playing inside with toys or on the computer. Free play is a social practice in itself, which the children have acquired: it is governed by rules that the children adhere to. The free play is followed by a snack or dinner, depending upon the time of day. Snack or dinner is also a social practice that has been acquired by the children. The dinner table, for example, builds the basis for this social practice to take place. The children know how to eat their snack or dinner within the frame of this social practice. After the snack or the dinner there may be more free play, which is then almost always followed by a movie. The movie, just like all other parts of the play date, constitutes a social practice that is governed by certain rules. Sometimes the children have a few moments of free play after the movie; at other times, the visiting children leave as soon as the movie is over.

In the following analysis, I focus on specific, real-time sites of engagement within specific, real-time play dates. A ‘site of engagement is the window opened through the intersection of social practice in which participants may appropriate a text for mediated action’ (Scollon, 1998: 11), and is understood to be unfinalizable and particularistic just as moments in time (Goffman, 1974). Sites of engagement ‘focus on real-time processes and practices to avoid reification or the study of reified entities not otherwise available to the participants’ (Scollon, 1998: 12). A site of engagement, like a moment in time, can be very short or quite long, depending on the focus of the study. In this study, each site of engagement is a specific moment in which social practices intersect and make the cultural tools under investigation (movie and computer) available for appropriation by the five boys. The sites of engagement in this study consist of 35 and 18 minutes, respectively.

The interactions among the five boys come about with an opening, when the children come together to interact, and the interactions are terminated with a closing, when the children disperse in different directions, engaging in other kinds of play. Thus, the sites of engagement are unrepeatable real-time interactions that were constituted by the social practices of play
dates within one community of practice. The two sites of engagement discussed in this article were recorded on two different days, and were chosen as representative interactions among the children.

**ANALYSIS**

First, the audio recording of the interaction and the transcription conventions described in the Appendix are utilized in order to analyze the data relying on discourse analysis:

**Five boys watching a movie**

Goffman (1981) points out that the opening of a social encounter is 'typically marked by the participants moving together and bodily addressing one another'. He argues that sight is of great importance for:

... the management of turn-taking, in the assessment of reception through visual back channel cues, in the paralinguistic function of gesticulation, in the synchrony of gaze shift, and in the provision of evidence of attention. (pp. 130–1)

According to this view, the children are not fully engaged socially while watching a movie. The boys move close together, do not face each other but face the monitor. Thus, the TV restrains social interaction starting at the opening frame, by constraining their gaze to the monitor.

**Background**

Discourse analysis assumes that all language is context-specific, and that language reflects the context which it also helps constitute (Schiffrin, 1987). The focus of discourse analysis is on discourse that 'forms structures, conveys meaning, and accomplishes action' according to Schiffrin (1987: 6). In the following example, the children have come together and are settled in a big chair and a sofa next to each other facing the TV. They are sitting in a row from left to right in the following order: Gary, Louis and Will (sitting on a sofa), and Rick and Ken (sitting in a big chair). Bodies are aligned facing the TV monitor. The children sit close to one another and watch the movie. Will, Rick and Ken only talk a few times during the movie, while Louis and Gary talk quite frequently. Some instances of talk consist of Wh-questions and 'I like'/'I don't like' utterances, but the largest number of utterances are direct comments on what is seen in the movie. Will, Rick and Gary have watched the movie before, while it is new to Ken and Louis.

A typical sequence of talk during this site of engagement is this 45-second interaction. All children intently watch the screen. The background music of the movie sounds threatening while the picture sequence shows how the main character is taken by a machine and placed in a dark box-like space. At this point, this utterance sequence takes place:
Louis: I wouldn't take that
in that place
that dark yucky place
would you?

Gary: I wouldn't like that place

Louis: would you?

Gary: I wouldn't like that place

Ken: It's a faster way to get down!

At the beginning of this short excerpt, Louis apparently identifies with a character on the screen in lines 1–4. He comments on what he sees in the movie, presupposing that the listener knows exactly what he is referring to, which can be seen in his choice of specific demonstratives “that” in lines 1, 3 and 4. Then, we see a short exchange between Louis and Gary in lines 5 and 6:

Louis: would you?
Gary: I wouldn't like that place

It is apparent that Gary had been listening to Louis, because he answers Louis’ question without a perceptible pause. Gary also refers to the images they are talking about with the specific demonstrative “that”. The exchange itself is only possible at this very moment and can only be interpreted by the children because they are watching the same picture sequence on the monitor. This short exchange is followed by a 5-second pause. At this point, the children see the main character smiling broadly on the screen, which in turn is followed by Louis’ question in line 8:

Louis: Why does he like that?

Ken: It’s a faster way to get down!

This question follows the prior talk in content (“I wouldn’t take that”, “would you?”, “I wouldn’t like that place”, “Why does he like that?”), word choice (repetition of “like” and “that”), and rhythm (resulting from the repetition of “that”). Yet, there seems to be a discontinuity because of the 5-second pause prior to the question in line 8 and the even more substantial 11-second pause following it in line 9. Although both pauses are filled with picture sequences on the screen, we cannot be sure that the question “Why does he like that?” actually follows the prior utterance sequentially, or if Louis again only comments on what he sees. Also, when Ken says in line 10, “It’s a faster way to get down!”, the utterance could contextually be an answer to Louis’ question. However, because of the very long pause, it is not clear whether Ken is
actually answering Louis’ question, or if he only exclaims the utterance because he saw something he had not expected. The long pauses, adding up to 16 seconds, in this short interaction (of only 45 seconds) seem to disrupt the sustained involvement among the children, giving an impression of disintegration, when we try to interpret this example as a conversation. Conversely, if we viewed the example as a coordinated task activity, ‘an open state of talk that is commonly found in connection with an extended joint task’ (Goffman, 1981: 143), we would not expect the utterances to be sequentially relevant to each other, but to be relevant with respect to preceding or succeeding actions.

**Five boys playing on the computer**

For this analysis, the study looks at an 18-minute site of engagement of the five children playing on the computer. Again, this example employs theoretical notions from discourse analysis, focusing on the spoken discourse. Like the TV, the computer constrains the children’s gaze to the screen, inhibiting them from being socially fully engaged according to Goffman. Thus, the computer also constrains social interaction from the opening frame to the closing of the interaction.

**Background**

Will has settled in front of the computer, playing an educational interactive game, fostering meticulous observation and logical association. The game called ‘Fripple Shop’ lets the child ‘help a customer at the door (auditory and visual), on the phone (auditory only), or by fax (visual only)’ (Edmark: Thinkin’ Things User’s Guide, 1994). The customer asks for a fripple with certain attributes that the child then has to deliver to the door.

The other four boys have followed and settled around Will. Ken sits to the right of Will, Louis to the left, Rick is standing on Louis’ chair and Gary sits next to Louis. The children sit very close to one another in order to be able to see the screen. Will is using the mouse. The children talk mostly in imperatives and often follow or precede the imperatives with a deictic gesture, pointing to the screen.

**Qualitative analysis of an excerpt of talk**

During playback, the older children explained that Will was too little to understand “click this”, and therefore, they had chosen to use the term “press this”. In the following transcript, I only include the spoken utterances in order to present the potential and limitation of an audio recording. The audio recording of this coordinated task activity is similar to an activity described by Goffman (1981) where two mechanics jointly repair a car. He says that:

> ... such talk might be very little interpretable even if we know about cars. The tape would contain long stretches with no words, verbal...
directives answered only be mechanical sounds, and mechanical sound answered by verbal responses. (p. 143)

Nevertheless, I demonstrate that discourse analysis can still give us some insight into the ongoing interaction. The following is a typical sequence of talk during this site of engagement:

1. Louis: and press that
2. Ken: press, press the phone
3. Louis: press the phone
4. Gary: press this
5. Louis: and press the telephone
6. press this press this
7. Gary: press this press this
8. Will, Will, Wi, Wi Wi Wi Wi Wi Wi
9. Louis: press this
10. Ken: Will, you can press the telephone if you want to
11. and press this
12. and press this

The excerpt shows that the children speak very fast. Most of the utterances are latching, and the imperative “press this” is repeated eight times in this short sequence of talk. Furthermore, the transcript illustrates how the children repeat and build on each other’s utterances, when we look at lines 2, 3, 5 and 10:

2. Ken: press, press the phone
3. Louis: press the phone
5. Louis: and press the telephone
10. Ken: Will, you can press the telephone if you want to

At first, Louis repeats Ken’s imperative “press the phone”, then he changes “phone” into “telephone” and next Ken repeats Louis’ “telephone” and builds it into a conditional statement. Thus, we see a shift from imperative plus short form of a noun through imperative plus long form of the noun, to a complete conditional statement with address.

Looking at Ken’s utterance in line 10, “Will, you can press the telephone if you want to” from a different perspective, it also could be a second part of a question/answer adjacency pair. Yet, Will did not say anything and there is no question preceding Ken’s apparent answer. From this angle, the utterance seems odd in the excerpt of talk and somewhat unrelated.

The coherence that we can see in this excerpt is caused by the repetition of the imperative “press this”, and by the alteration of the imperative plus noun into a full conditional statement. Other than that, the children’s
talk lacks noun phrases, and complete sentences in 8 out of 12 lines. They seem to be engaged with the computer, rather than with each other, and the interaction among them seems to stem from the fact that Will uses the mouse and the other four children also want to manipulate the game in some way. “This” and “that” are specific demonstratives, identifying some distinctive subset from the set of possibilities that can be chosen. “This” and “that” also refer deictically to ‘some kind of proximity to the speaker’ (Halliday, 1985: 160). Although the language is bare and fragmented, we know that they are also pointing to the screen, and therefore understand that the children mean specific items viewable on the screen. The utterances seem related to the computer game, repeated by the children for prosodic reasons and in order to manipulate the game.

**TAPE RECORDING, VIDEO RECORDING, THEORY AND TRANSCRIPTION**

Due to the use of tape recording as the main means of recording data, transcription conventions like the ones used here have been developed and have become a myth in our field of study over approximately the last 30 years. Myth, according to Barthes (1999), ‘is a second-order semiological system’. When we transcribe spoken language, the word being itself a sign made up of the signified (the concept) and the signifier (the mentally acoustic image), we reduce the spoken language to a pure signifying function. Barthes calls the second-order semiological system ‘metalanguage’, because it is a second language, in which one speaks about the first (Barthes, 1999). He states that: ‘Myth does not deny things, on the contrary, its function is to talk about them; ... it establishes a blissful clarity: things appear to mean something by themselves’ (p. 58).

Thus, due to history, transcription conventions like the ones used here have become an appropriate method of describing spoken discourse in discourse analysis. Many scholars, who have been working with visual data, are using conventional transcription methods, adding gestures, gaze or long descriptions to portions of a transcript.

Now that the video recorder is gradually becoming the device to record data, the transcription conventions that came about because of the tape recorder are cumbersome to describe the ongoing interactions that can be recorded with a video camera. Also, the theoretical notions of discourse analysis with a mainly mono-modal focus on spoken discourse (and I stress mainly mono-modal, because discourse analysis has always been multi-modal to some extent) can to some degree be ineffective when analyzing multi-modal video data. Therefore, developing multi-modal transcription methods of video data are a prerequisite to any adequate multi-modal analysis. Kress et al. (2001) utilize tables to show how the ‘actional, visual, and linguistic resources worked together’ (Kress et al., 2001: 33), when they analyze multi-modal action in the science classroom.
Standard transcription conventions overlook the importance of images on the screen when trying to convey the ongoing interaction while the children are watching a movie. These conventions and the focus of discourse analysis on language appear to be lacking even more information when analyzing the interaction of children playing a computer game. At the same time, the audio recorder seems to be lacking in constructing the data necessary in order to achieve a suitable analysis of such interactions. This seeming circularity is not surprising if we consider that the standard transcription conventions would not have come into existence without the theoretical assumptions of discourse analysis, the focus on language, and the use of the tape recorder to construct objective data.

Multi-modal discourse analysis, which is often based on the video camera as the means to construct objective data, is relevant to the visual as well as the audio. Therefore, a multi-modal transcript could reflect this interest visually by including images as well as written words. However, the form of a multi-modal transcript needs to be linked to the need of the analysis, which may differ from interaction to interaction and from one focus of analysis to the next. While discourse analysis with its primary focus on language could give us a fairly reliable understanding of the first example when the children are watching a movie, the understanding that discourse analysis was able to provide for the computer mediated interaction was somewhat limited. However, discourse analysis did afford a great deal of information about the coherence of the excerpt by focusing on the detailed linguistic composition. The question that remains is: what would a multi-modal transcript add to the two analyses?

**Five boys watching a movie**

A theoretical shift towards mediated discourse theory will alter the primary focus from language to a focus on action. First I analyze the movie-mediated interaction from this theoretical position, then I offer two possible ways of transcribing and analyzing the computer-mediated interaction. From here on, I follow Scollon (2001a), who views language as action, and also Kress et al. (2001), who say ‘language is not absent ... nor is it central. It is present among all other modes’ (p. 8). Thus, from here on, I try to analyze all communicative modes that are relevant to the interaction, including gaze, gesture and visual images of the screen, as well as discourse.

**Context**

The children have come together and are settled on a small sofa and in a big chair next to each other facing the TV. They are sitting in a row from left to right in the following order: Gary, Louis and Will are sitting on the small sofa, arms and/or legs touching; and Rick and Ken are sitting in a chair to the right of the sofa, their bodies also touching. The children are aligned facing the TV monitor.
Quantitative analysis

The quantitative data of gaze shift, instances of talk and pointing give insights about the amount and mode of interaction during the movie. Three-year-old Will almost never moves during these 35 minutes; Rick, the second youngest, moves very little; Ken, Louis and Gary move frequently. According to Gesell (1974), it seems amazing that a young 3-year-old does not shift his attention from one activity for 35 minutes. Will’s attentive gaze on the monitor suggests that he is frozen in his pose, unable to do anything else but watch. Watching a movie thus inhibits the child from moving about in his natural, age appropriate way. Likewise, it is interesting that a 7-year-old and two 8-year-olds are unable to sit still for that amount of time. Gary, Ken and Louis shift their bodies and gazes quite often and they talk for a considerable part of the movie.

Gaze shift away from the TV monitor happens 53 times, whereby Will is the one looking away the least with only 5 times, Rick looks away 8 times, Gary 7 times, Ken 10 times, and Louis 23 times. However, gazes never meet. The children shift their gazes to other persons entering the room; they look at the dog, which moves in and out of their sight; they shift their gaze to the window and back to the monitor; rarely does the children’s gaze shift towards another child watching the movie – Louis (twice), Gary (twice), and Will (once). There are 89 instances of talk during the 35 minutes, which range from single words to whole utterances. Will and Rick talk the least during the movie with only two utterances each. Ken talks 9 times and gives back channel cues like nodding and saying ‘mm’ 5 times, Gary talks 34 times, and Louis 42 times. Some instances of talk consist of Wh-questions and “I like”/“I don’t like” utterances, but the largest number of utterances are direct comments about what is seen on the screen.

Qualitative analysis

Looking at the transcript again, we notice that during this excerpt none of the children shift their gaze from the monitor, and they are all frozen in their pose. The background music of the movie indicates heightened tension and the picture sequence shows how the main character is being put in a dark box-like place. Adding images to the transcript illustrates the relevance of each utterance, as well as the coherence of the interaction, and verifies the context-bound assumptions discourse analysis would have to make about the rather long pauses between some utterances, if the interaction had been analyzed as a conversation. Therefore, I incorporate relevant images into the transcript, assigning them lines in the interaction. However, I do not illustrate the image sequence as pauses in the transcript, because I believe that the image sequences that take up the time between the utterances cannot be viewed in the same way as pauses in a conversation.
Louis: I wouldn't take that
I wouldn't get put in there
in that place
that dark yucky place
would you?
Gary: I wouldn't like that place

Louis: Why does he like that?

Ken: It's a faster way to get down!

This transcript incorporates some of the images that the children are watching on the screen. Here we see that the images become part of the discourse, clearly participating in building coherence across the utterances.

During this exchange the children do not look at each other, but look at the TV monitor. When Louis starts out in line 2 “I wouldn’t like that place”, he comments directly on certain images on the screen, using the specific demonstrative “that”, referring to a dark box-like place into which
the main character is stuck by a machine. When Louis asks in line 5 “Would you?”, neither Gary nor anybody else looks at Louis. But at this very moment, Louis is playing with a tiny piece of string, moving his hands and then his right arm. At the point when he says “you”, his arm touches Gary’s leg ever so slightly, and Gary answers without a perceptible pause – line 6 “I wouldn’t like that place”. Here, touch and proximity are of great importance for the flow of the exchange. The other three boys do not provide any sign that they felt that Louis could be asking them.

This exchange is followed by a 5-second image sequence, which in turn is followed by Louis’ next question in line 8 “Why does he like that?” During the silence between the utterances, I included a drawing of the main character, smiling. In fact, the facial expression of the main character is the visual clue for the children to realize that the character is not afraid of this dark box-like place. Yet, the facial expression is in stark contrast to the rather alarming background music. This contrast of expression in the visual and the music mode and the resulting ambiguity are revealed by Louis’ question in line 8. Louis’ question “Why does he like that?” in turn is followed by a longer image sequence, during which the children watch how the character sits down and then finally glides along a slide-like area, at which point Ken answers Louis’ question in line 10 “It’s a faster way to get down!”. Here, Ken actually ‘latches’ with the images on the screen, by giving the answer as soon as he has discovered that the character is sliding down.

This transcript shows that the ongoing interaction runs smoothly, very much like any other social interaction. Images take the function of noun-phrases, such as the image in line 1, which Louis then refers to with the specific demonstrative “that”. Similarly, images take the function of long explanations, as in line 8, where we see the main character smiling, or in line 10, where he glides down a slide-like area. Thus, the images in the transcript show how each utterance is related, not only to the prior and the next utterance, but also to the images that are seen on the screen. By including visuals in the transcript, we can see that the images are performing the cohesion that seemed to be lacking in the conventional transcript. Also, it now becomes apparent that the long pauses cannot be equated with pauses of the same length in a face-to-face conversation. The pauses during the movie-mediated interaction are filled with image sequences. They are not empty spaces in the interaction, but are rather spaces during which a mutual understanding among the participants is being established. Therefore, when Ken exclaims “It’s a faster way to get down!” in line 10, he is not speaking after an 11-second pause as much as he is actually latching with the image sequence of the movie. As I have shown, the interaction is mediated by the movie – in other words, the images on the TV monitor. The discourse is particular to this site of engagement and can only be interpreted by the participants as well as the analyst, because the images build the mutually constructed knowledge. In other words, as Schiffrin (1987) explains, ‘language is potentially sensitive to all of the contexts in which it occurs, and ... language reflects those contexts because it helps constitute them’.
Only with mutually constructed knowledge can the interaction during this site of engagement be understood as successful. The talk is coherent as long as the cultural tool *movie* is mediating it. An outsider to this activity, who is not watching the movie, might find the talk fragmented, lacking noun phrases, giving no insight into what is being referred to. Here, the images in the movie, which become the mutually constructed knowledge that this interaction is built on, constitute the affordances of the cultural tool *movie*. The necessity to focus their gaze on the screen, and the resulting movement restriction, however, constrain the children when watching a movie.

The closing frame is initiated by Gary, who has seen the movie before. He jumps up from his seat about 30 seconds before the movie is over and turns on a light. The rest of the children take this as their cue and everyone jumps up and runs out of the room, Louis first, before the movie actually ends. Louis has taken over leadership of the group, although the cue for the end of the movie came from Gary. There is lots of talk about what to play next; not one word, however, about the movie.

Closing frames, according to Goffman (1981), are displayed by the 'departing in some physical way from the prior immediacy of copresents' (p. 130). Although the play date continues for a while longer, the children have moved from their physical proximity. They disperse into two separate rooms, Gary and Ken playing in one, and Louis, Rick and Will in the other.

**Five boys playing on the computer**

With a slight shift in focus, the computer-mediated interaction is now analyzed again. This analysis also focuses on action, rather than language, and language is understood as a social action.

**Context**

Will, the youngest child, has come in from outside and announced that he is bored. The adult suggested that he play on the computer. Will has settled in front of the screen, and the adult let him choose a game. He has just started to play, when Rick comes in and asks where Will is. After finding out that Will is playing on the computer, Rick takes off his shoes, ready to join Will. At that time, the older three boys also come in asking for Will and Rick. Rick tells them excitedly that Will is playing on the computer, and they all take off their shoes and join Will in front of the screen. Ken sits to the right of Will, Louis to the left, Rick is standing on Louis’ chair and Gary sits next to Louis. The children sit very close to one another in order to be able to see the screen. Will is using the mouse.

**Quantitative analysis**

The quantitative analysis entails all of the children’s actions that have communicative meaning, giving insight into the amount and mode of interaction during this site of engagement. During the 18 minutes of this
encounter, the boys point 155 times to the computer monitor. Ken points 62 times, Louis points 53 times, Gary points 34 times, and Rick points 6 times. There is very little other movement during this 18-minute site of engagement. Gary moves more than the others, twice trying to take over the mouse. Interestingly, the youngest boy Will, who according to Gesell (1974) should have an age-appropriate attention span of about five minutes per activity, is attentive for the entire site of engagement and probably would have continued to be so even longer, had he been permitted.

Gaze-shift away from the computer monitor happens 15 times. Will shifts his gaze away from the monitor once, Rick also shifts his gaze once, Gary shifts his gaze 4 times, Louis shifts his gaze 6 times, and Ken also shifts his gaze 6 times. Only once do gazes meet. At this instance, Gary tries to take the mouse away from Will and Will resists. Non-verbal interactions, like pointing and leaning forward or back, take on great importance during this computer-mediated interaction, while language, as discussed earlier, seems to be bare, fragmented and often unrelated. There are 137 instances of talk. The instances of talk are very short, usually consisting of only one to four words. The most frequent talk is “press that” with 34 instances, “press play” with 24 instances, and “press this” with 15 instances.

**Qualitative analysis**

Adding hand/arm gestures to the transcript, which outnumbered the utterances, illustrates the importance of these gestures in the ongoing interaction. The deictic gesture *pointing* is italicized in the transcript, the object that is pointed at is given in *script*, and the utterances are given in regular font:

1. Louis: *pointing yellow fripple* and press that
2. Ken: *pointing phone* press, press the phone
3. Louis: *pointing phone* press the phone
4. Gary: *pointing phone*
5. Louis: *pointing phone* and press the te telephone
6. press this *pointing phone* press this
7. Gary: *pointing purple fripple* press this press this *pointing purple fripple* Will, Will, Wi, Wi Wi Wi Wi Wi
8. Louis: *pointing door* press this
9. Ken: Will, you can press the telephone if you want to
10. and press this *pointing green fripple*
11. and press this *pointing door*

The frequency of “press this” is 15 times in the 18 minutes of this site of engagement, and this transcript shows that the imperatives are clustered, which can be found throughout the data. The deictic gesture *pointing* in this transcript has the same salience as an utterance. The transcript shows that “press this” and “press that” could not be understood by Will or the other
children in the group, if the boys did not point at the picture on the monitor. The deictic feature is explainable upon closer examination of the video. In line 1, for example, when Louis says “press that”, Louis, who sits to the left of the monitor, points to a yellow fripple, which is located to the right on the monitor. In other words, Louis points to something that is furthest away from his own position. When he uses the form “press this” in line 6, Louis points to the phone, which is located at the left-hand side of the monitor, in other words closest to him. Also, pointing happens at different times. Sometimes, a child points before he says “press this” or “press that”, and sometimes the pointing follows the words. According to McNeill (1992), hand/arm gestures of this type slightly precede verbal expression of the same thought. Thus, when a child first points, and then follows this hand/arm gesture with an utterance, the child conveys the same thought in two modes of communication. This can be seen in lines 1–5 and in line 9:

1  Louis:  pointing yellow fripple and press that  
2  Ken:  pointing phone press, press the phone  
3  Louis:  pointing phone press the phone  
4  Gary:  pointing phone  
5  Louis:  pointing phone and press the telephone  
9  Louis:  pointing door press this

In line 4, Gary actually expresses his thought only in the gesture mode, while in all other instances the children use gesture, followed by language.

Pointing more than once during an utterance, as can be seen in line 7, has a persuasive function in this interaction:

7  Gary:  pointing purple fripple press this press this pointing purple fripple  
8  Will, Will, Wi, Wi, Wi Wi Wi Wi Wi

This excerpt shows that Gary wants Will to click on something other than the telephone. His double pointing in the same utterance coincides with double voicing “press this” in the same intonation unit (Chafe, 1994) and shows his insistence in line 7. Then, in line 8 when Gary calls out Will’s name emphatically and he then goes on saying “Wi, Wi, Wi, Wi, Wi” with high pitch, this insistence is further verbalized. There are other instances, however, when a child speaks first and then points, as Ken does in lines 11 and 12:

11 and press this pointing green fripple  
12 and press this pointing door

This utterance/gesture sequence, is different than the gesture/utterance sequence explained above. Here, Ken is teaching Will how to play the game. By prefacing the imperative with “and”, Ken reveals the continuity of the action (Schiffrin, 1987). Then he stresses the deictic expression “this” by
immediately following it with a deictic gesture *pointing* at the image on the screen.

In order to illustrate and understand this computer-mediated interaction better, I have devised a multi-modal system of transcribing the ongoing actions. Any transcript will display something as more salient than something else, and the multi-modal transcript that I propose in order to analyze this excerpt of the computer-mediated interaction among the children is no different. In the transcript under discussion, hand/arm gestures and language are salient, while other modes are not taken into consideration.

**MULTI-MODAL TRANSCRIPTION**

In this new transcript, the visual image becomes more salient than language or gesture. Salience derives from the interaction as well as the theoretical assumption. The reading path of this transcript is linear and strictly coded, following western ideology. Kress and Van Leeuwen (1996) state that ‘such reading paths begin with the most salient element, from there move to the next most salient element, and so on’ (p. 218), where ‘next’ implies chronologically sequential. Thus, the trajectories of the reading path in this multi-modal transcript are most salient to next most salient, and also top to bottom and left to right. Instead of organizing the transcript by lines, this multi-modal transcript is organized by images. The location of the images in the transcript is relative to the speaking direction, or relative to the position of talk that is being emphasized. Instead of employing punctuation marks to indicate intonation, the multi-modal transcript visualizes the rising and lowering of intonation. By transcribing sound as curves, and pitch by size and boldness of letters, we can fit greater detail into less space. Furthermore, this elucidates that spoken language is not marked by punctuation and illustrates the actual flow of spoken discourse. Overlap is indicated by utterances touching in the transcript. With the reading path top to bottom, we can always know who started to talk, and who started second, and so on. Short pauses are indicated by spaces between the written words relative to the pace of speech, and longer pauses are indicated by the lack of speech in or around one or more images. In order to illustrate such a transcript, I now analyze the utterance and utterance/gesture sequence from lines 10 to 12.

**IMAGE-BASED TRANSCRIPTION**

Using image-based transcription first obligates the analyst to acknowledge that there is an action prior to line 10, which was left out completely in the transcript that focused on language as well as in the transcript that focused on language and deictic gesture. The action is the move of the mouse that Will is manipulating.

Figure 4 shows how the children are all intently watching the computer monitor. Ken sits to the right (far left in Figure 4) of Will, who is manipulating the mouse. Will hesitantly moves the mouse towards the
telephone, and Ken interprets this action as a question, which he answers with “Will you can press the telephone if you want to”. So, here we actually have an adjacency pair of hesitant action (interpreted as a question) and the following verbal answer. During playback, Ken explained that he thought that Will was not sure if he should click on the telephone, and that Will was asking for advice by his hesitant move of the mouse.

The reading path directs the viewer first to the large image of the five children playing the computer game. Due to the size, this image becomes most salient. Next, the reader is guided to focus on the image of the telephone on the little table and the bold white arrow, representing the move of the mouse on the screen, to the left of the computer monitor. Since the reading path follows western ideology, Ken’s utterance is located lower than the telephone and the bold arrow to indicate that the utterance follows Will’s action of moving the mouse towards the telephone. The curved utterance only indicates proximate value of stress and pitch, and the closeness of the two words “you” and “can” as “youcan” indicates the natural flow and contraction of this section of talk. The black arrow specifies the speaker of the utterance.

Even though Ken reassured Will that he could click on the telephone, Will actually clicks on an image of a door. This action is not verbalized, and cannot be understood without observing the screen.

Figure 4 The move of the mouse as communicative action.
Here, the transcript shows that the door has opened and a woman has appeared saying “I like green and spots, please”. The speech bubble shows a patch of green color, followed by the word ‘green’; and a patch with spots, followed by the word ‘spots’. As soon as the woman has appeared, and has made her request, Ken says “and press this”, with rising intonation, following his imperative with a deictic gesture, pointing at the green fripple with spots on the monitor. Will moves the mouse towards the green fripple with spots.

In Figure 5, the reading path directs the viewer from the large image of the children to the top left image, representing the image on the screen. ‘Green and spots’ is emphasized, since one of the learning objectives of this particular game is to ‘recognize, compare, and contrast attributes and learn the relationships described by AND, OR, and NOT’ (Edmark: Thinkin’ Things User’s Guide, 1994: 15).

In Figure 6, Will has clicked on the green fripple that Ken has pointed out, and Ken says “and press this”, lowering his intonation at the end of the utterance, following it with a deictic gesture, pointing at the door. Will moves the mouse over to the door and clicks on it. Here, the reading path directs the viewer from the children to Ken’s utterance; then to the image of the door and Ken’s stretched out arm and his pointing finger on the screen.
When incorporating all actions as well as utterances and relevant images of the computer screen into the transcript, we can see that Ken is leading Will through the game sequence, speeding up Will’s ability to find the requested fripple and move it to the correct destination. The fact that Ken leads the computer-mediated interaction, again shows that there is a clear group relation that is being adhered to, the community of practice. Within this community of practice, the youngest boy, Will, learns in this example from the older boy, Ken. Thus, this excerpt displays that there is learning going on among the five boys, very much in the sense of Lave and Wenger (1991).

The computer-mediated interaction is particular to that site of engagement. The interaction can only happen and can only be understood by the participants in front of the computer. Close proximity of the participants, gestures and talk show that the five boys are engaged in social interaction. Their discourse is mediated by the images on the computer monitor, and the pictures on the monitor communicate the mutual knowledge that is necessary for the discourse to be successful. When reviewing the complete excerpt of this computer-mediated interaction with image-based transcriptions, one realizes that the children’s utterances and pointing, taken together with the movements of the mouse and proceedings on the screen, produce a visual–verbal semiotic interaction.
Thus, the instances of talk and gestures as well as the movements of the mouse, all mediated by the computer, display the mediated actions as an active process, which stipulates a particular contextualized use of the cultural tool *computer*. These chained mediated actions are constructed in the boys’ community of practice and build the mediated discourse of which the analysis presented here is just one small, but representative selection. The analysis of this site of engagement shows that the cultural tool *computer* shapes the children’s activities. The boys’ discursive interaction is constrained by the computer monitor, requiring close proximity of the children to the monitor. At the same time, the computer facilitates the kind of discursive interaction that was analyzed in this article.

The closing frame is initiated by Gary at minute 14 of this site of engagement. Gary is eager to use the mouse. First, he shifts frequently on his chair, then his gaze shifts several times back towards the supervising adult, before he gets up and tells the adult in a questioning, whining tone that he needs to have a turn now. He is told that he will have a turn in five minutes. Gary moves back to his seat, waiting unengaged for his turn, while the other four children pay no attention to him. At minute 16, the supervising adult tells Will that he only has 5 more minutes. All boys look at the adult and there is an immediate disengagement with the monitor visible through body shifting, Gary announcing that it is his turn next, and Will starting to whine that he does not want to give up his turn. The adult ends the closing frame by picking up Will from his chair and explaining that he has to take turns, while Gary has taken Will’s seat and there is a repositioning for the next site of engagement.

**CONCLUSION**

At the beginning of this article, I argued that audio recordings and standard transcription convention deriving from discourse analysis do not succeed fully when analyzing the interactions among the five boys watching a movie and playing a computer game. The utterances in an interaction, mediated by visual mediational means, especially the computer, at best seem to be related through repetition and prosody, and at worst seem bare, fragmented and lacking coherence. The analyses employing visual research methods and multi-modal transcriptions, relying on mediated discourse theory, reveal the intricacy of the interactions among the boys. Focusing the study on action, rather than language, allows us to analyze the complex interactional phenomena that involve visual mediational means. The children employ the communicative modes gesture, talk and images, creating a meaningful interaction among themselves. The meaning, especially of the computer-mediated interaction, cannot be understood without video-recorded data. Furthermore, the interaction cannot be successfully explained without the help of multi-modal transcripts.

Multi-modal transcripts facilitate an appreciation of the complexity
of these visually mediated interactions. As demonstrated here, the visual images become more salient than language or gesture in these image-based multi-modal transcripts. This salience derives from the interaction, which for a considerable duration is shaped by the visual images as well as the group relations among the children. The reading path of these transcripts is linear and strictly coded, following western ideology. Although the western reading path is adhered to in these transcripts, it is not likely that the reader immediately moves from the most salient to the next most salient image (or sign), and from top to bottom and left to right. When reading complex semiotic signs like these image–utterance–vector aggregates, the reader most likely first views the sign as a whole, scanning it, before starting to make sense by applying ideological systematicity, employing the western reading path.

The claim that the movie-mediated and, even more so, the computer-mediated interactions among the children are much more intricate than audio data of the communication can demonstrate is also supported by a recent study conducted by Whalen et al. (2001). They studied the work practices of sales representatives in a major office-equipment company, and showed that the audio transcripts of sales phone calls display coherent, competent and efficient calls. However, audio transcripts are unable to shed light on the actual ‘performance’ (Goffman, 1959) of the sales representatives, which ‘is organized through an improvisational choreography of action involving not only the turn-by-turn interchange with customers on the telephone but also the concurrent utilization of a variety of tools and artifacts’ (Whalen et al., 2001: i).

In conclusion, this article raises the issue of looking at interaction from the point of view of actions that carry communicative meaning, rather than viewing communication as primarily verbal. In order to analyze such intricate multi-modal interactions as the ones studied here, we need to extricate ourselves from the current mythic transcription conventions that are insufficient to explain these image–gesture–utterance aggregates, which are so very common in our everyday lives.

NOTES
1. While the children’s names are assumed, their ages are accurate. I want to particularly thank the five boys, without whom this study would not have come about. Furthermore, I would like to thank Carlos Alfaro for the drawn illustrations in Figures 1–3, the Edmark Education Company for the permission to reprint the images of the ‘Fripple Shop’ for this article and especially Andrea Fullerton for all her help; I would also like to thank Ingrid de Saint-Georges, Tom Randolph, Cecilia Castillo-Ayometzi and Andy Jocuns for their insightful comments. I would particularly like to thank Ron Scollon for his supportive discussions.
2. For ease of terminology, interactional sociolinguistics are perceived as discourse analysis.
3. Although, I cannot describe this study in detail in this article, a brief description of a typical play date among the five boys will be given before the actual analysis.
4. Some of the scholars that use visual research methods and follow conventional transcription methods, adding gaze, gesture and/or descriptions are Goodwin, 1981, 1986; Goodwin and Goodwin, 1992; Erickson, 1990; Ochs and Taylor, 1992. I would like to stress that transcription not only reflects the theoretical grounding and structures the analysis, transcription is an analytical tool that is employed to illustrate the ongoing interaction. When focusing primarily on language, transcription conventions are very helpful in constructing mutual understanding between writer and reader.
5. Time, I believe, is perceived differently when watching a movie than when people interact face-to-face. Lemke (1999) discusses issues of time in detail.

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**APPENDIX**

The auditory details of conversation were transcribed using conventions from various sources, including the system designed by Gail Jefferson (Sacks et al., 1974: 731–3) and Tannen (1984):

a. Punctuation reflects intonation, not grammar.

b. Brackets show overlap:

   Two voices at once.

c. **Bold** indicates emphatic stress.

d. Numbers in parentheses ( ) indicate length of pause in seconds.

e. Latching is indicated by such brackets.

**BIOGRAPHICAL NOTE**

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Entering into a new age of museology:
London’s Science Museum

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For those of us who knew the Science Museum in the mid-1980s it was usually as a place to avoid. The classic visitor profile was father and son trying out some educational quality time and repeating a pattern of visits that focused on the same objects, like the Van der Graaf generator and the colliery model where boys could glimpse the reality of post Industrial Revolution lives. The only museum café – the Tea Bar – is remembered, by anyone who found it, as a grim place with no view. It was positioned on the uppermost floor at the back, as far away from the front entrance as you could possibly get; in those days you had to earn your lemonade and bun after a long, long walk through all the galleries.

Over a decade later the Science Museum has now transformed itself not just into something half decent but into a museum that sets agendas within museology, debates around purpose, function and use. Crucial within this context are the proceedings of the museum’s Here And Now conference (1997), which opened up the whole debate of how science museums should tackle contemporary science and the follow-up publication, Museums of Modern Science, edited by Lindqvist (1999). These publications highlighted a remarkable conversion from archaic Victorian temple to an institution whose use of design, display and technology is widely regarded as the most radical in London. Not only is this profile reflected in increasing visitor figures but also by a plethora of peer-nominated awards including the Design Week award for the best permanent exhibition. The museum has also won the prestigious D&AD Silver Award to Casson Mann for their work in the Wellcome Wing as well as the rare and coveted Gold, and most recently in July 2001, the Science Museum beat off the London Eye and the Tate Modern for the London Tourist Board’s nomination as a top London attraction.

When I talked to staff in curating, design and marketing about these achievements, they stressed the team effort but there are (inevitably) some individuals who require an introduction. The first is the Design Department led by Tim Molloy; his appointment in 1993 underpinned the importance of design and the fact that it is the only museum in London in which the Head of Design has a senior management role within the institution. Molloy’s design team helped produce a rare thing, an example of building and content...
being mutually supportive as a consequence of an intelligent design strategy. Tim Molloy has emerged as an important figure in his field. He studied interior design and then architecture at the RCA but his mantra is collaboration. Molloy considers the creative process of collaboration as a design discipline in its own right, something which should be developed both within museums and the educational system. He fights the notion of discipline boundaries and the reality of designer egos – for Molloy the interest is always in the crossover points, the perimeter of subjects. His approach connects him with the writings of American colleagues such as Ralph Rugoff (1995) who also explores a similar vision in an essay entitled ‘Beyond Belief: The Museum as Metaphor’.

Molloy is a fierce advocate of the non-specialist, proud of the fact the Museum selects, by creative pitch, designers without conventional museum experience. Dinah Casson and Roger Mann are the best example: they are now completing several high-profile projects, including the long-awaited V&A British Galleries, but before designing the Wellcome Wing they were little known. These creative partnerships, in which the museum matches its expertise with design teams who have had virtually no gallery experience, have become something of a Science Museum hallmark. It was the Science Museum who famously helped break down the idea of exclusive access with its sleep-over programme for children and it was the Science Museum who set the ball rolling with the new Children’s Basement galleries in 1995 headed by interior designer Ben Kelly. The brief asked for a Hacienda for children, a reference to Kelly’s ground-breaking Manchester nightclub of 1983, without the drugs and rock’n’roll, but stylish and in touch with young people. The gallery might have remained an interesting experiment but for two things. The first was the successful lottery bid to build the new Wellcome Wing. The second was the Science Museum’s determination to use the opportunity to tackle its single and most important problem: how do you exhibit the world of contemporary science and technology?

How do you show people DNA or the ideas of chaos theory or particle physics as conventional objects? The fact is that the ideas and the inventions of the contemporary world of science are so often displayed through ineluctable black boxes or software programs. The Science Museum confronted a sacred taboo that entertaining displays means dumbing down. The same issues were also explored in two essays in The Politics of Display, one by Sharon MacDonald (1998), titled ‘Supermarket Science? Consumers and the Public Understanding of Science’ and the other, Jim Bennett’s (1998) ‘Can Science Museums Take History Seriously?’ These texts raised the idea that without visually interesting objects to represent science, museums had to revert to something else to create the memorable. That something else meant the museum looked to the world of art, the world of poetry and film to express and interact with the world of science. In this sense, the Science Museum’s rationale cannot provide a model for all museum collections but it should be viewed against other high-profile positions, including that of Charles Saumarez Smith, Director of the also superbly transformed National Portrait Gallery, and his powerful warning that if you lose or undervalue the object, you lose the purpose of the museum.
In July 2000 that sense of purpose was expressed by the new £50m Wellcome Wing, led by Director, Heather Mayfield. The new wing was a bid to lead the world in the presentation of contemporary science and the changing needs of the museum audience. High on the agenda, not only in South Kensington but also across museum studies, was the use of interactive displays. Tim Caulton’s (1998) publication *Hands-On Exhibitions: Managing Interactive Museums and Science Centres*, is a seminal exploration of the issues. The Science Museum approach was underpinned by a simple concept, to make content innovative and appropriate to an audience of any combination of family, adults and children. Take the example of ‘In Future’ on the third floor. It is a social area that encourages groups to work together. Tilted tables allow for 3-year-olds and adults to work and interact with each other. This approach is the idea of ITCH, a small UK team of IT specialists, who Mayfield describes as ‘brilliant conceptualists’. Museological innovations also included another important element, socially interactive feedback within galleries designed to respond to news as it happens. This allows visitor views to be polled, documented onto separate web sites and used as an ongoing information resource. When the Science Museum asked focus groups for key issues, they cited concern about the future and their role within that future. It was an important signal and one solution was to offer people an opportunity to display their thoughts via ‘Comment’, the
illuminated worm wall that curves the full length of the 30m-high blue wall and dominates the Wellcome Wing.

Another creative breakthrough is the Museum’s longstanding commitment to integrate commissioned art projects within a science environment. It claims more site-specific commissioned art pieces in a non-art gallery space than any other museum in the world. However, why would a science museum commission art? The answer is simple: it is another way of presenting interesting complex scientific issues. So often science does not have any objects – for example, the ‘Who Am I?’ exhibit, which explores DNA sequences. The object that achieves this astonishing breakthrough is visually dull, yet partnering this with a contemporary art programme enmeshes it into another creative context. The Science Museum programme, now in its seventh year, has commissioned and purchased the work of 14 artists for the wing, ranging from artists Mark Quinn and Antony Gormley to a video sculpture installation by Gary Hill called ‘5 Years HanD HerD – Variation’, which transformed a bleak Orwellian stairwell connecting the galleries into something quite amazing.

The Wellcome Wing also tackles another central issue, which is the integration of commercial interests into the cultural sphere. Admission to museums may be free at the point of entry but we will be paying through the nose everywhere else, including add-on extras to the experience, exhibitions, more shops and more retail opportunities. Because the conditions of their grant meant that the wing had to be self-financing, the Wellcome Wing offered the Science Museum an opportunity to test-run this future. Their business plan to support the project into the future had to include cash cows, such as the Deep Blue Cafe and the Imax Theatre but the curators and designers developed the space as a whole and designed the commercial elements to be part of, and not isolated from, content. Eating lunch in the Deep Blue Cafe you become part of the experience and, as a girl who got no science at school, I couldn’t help thinking that it wasn’t perfect but it was a pretty impressive start.

REFERENCES
BIOGRAPHICAL NOTE

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This book is a collection of 11 articles assigned to three parts, ‘Rethinking the Visual in Contemporary Theory’, ‘Rethinking the Visual in Art: The Challenge to Contemporary Theorizing’ and ‘Towards an Ethics of the Visual’. An introduction by the editors lays out the themes of what they term an ‘emergent research field of visuality’, and an appendix is a ‘schematic “map”’ circulated to the contributors, who are lecturers in fine art, sociology and philosophy, to orient their thinking about thought and research in visuality and visual culture.

The field of ‘visuality’ is seen by the editors as a convergence of debates in contemporary critical theory, postmodern philosophy, aesthetic theory, deconstruction and cultural studies,

... a veritable explosion of interest in the phenomenological, semiotic and hermeneutic investigation of the textures of visual experience and, more broadly, in a new appreciation of the historical, political, cultural, and technological mediations of human visual perception in the context of a more ‘holistic’ and ‘reflective’ theory of the human condition.

The editors call for a hermeneutics of the modern European ‘hegemony of vision’ or ‘ocularcentrism’, a socio-cultural and historical analysis of viewing and visualization that triangulates social history of perception, arts of observation, and technologies of visual culture. What they call ‘the increasing centrality of visual culture’, mediated through advanced imaging technologies, they claim, has encroached upon the familiar territory of logocentric debate.

In this rapidly developing field of inquiry, the collection of articles seeks to open a dialogue involving diverse theoretical as well as practical concerns such as writing, art, aesthetic criticism and critical pedagogy. The essays explore the ‘hermeneutic’ turn which has followed on the heels of the
‘linguistic turn’, seeking to broaden hermeneutics to include visual as well as textual dimensions in a more diverse, dialogical and open sense than has hitherto been customary.

The first group of essays discuss different aspects of the status and role of the visual in contemporary theory, asking ‘What, indeed, should we signify by the turn towards visual culture?’ Noting the plethora of visual metaphors in our language, they explore visual phenomena as a topic for sociohistorical investigation, as a resource in organizing inquiry, and as occasion for self-reflexive inquiry to change conventional modes of thought. They toy with a ‘grammar’ of visuality by which they mean a privileging of visual perception and disembodied seeing in an episteme which places vision at the top of a hierarchy of the senses, arguing that such a language constitutes a historical rhetoric of visual representation rather than a reflection of human experience.

Nicholas Davey, in ‘The Hermeneutics of Seeing’, seeks to expand hermeneutics to include attention to visual, aural and tactile modes of perception, citing Gadamer with his paradigm of conversation in critiquing works of art and arguing that the resonance in the mind of the hearer or viewer occurs whether communicated by words, images or musical phrases. He contends that ‘our understanding of art is as discursive or dialogical as our understanding of language.... Far from subordinating image to word, hermeneutical aesthetics is concerned with the sensitive use of words to bring forth what is held in an image’ (p. 10). He concludes that ‘Hermeneutical aesthetics contends that art achieves its proper provenance in the metaphoric translation and cross-wiring of ideas and sensible particulars’ (p. 23).

‘Specular Grammar: The Visual Rhetoric of Modernity’ by Barry Sandywell is a critique of ‘logological’ Cartesian philosophy. Unlike the grammar of visual images of Kress and Van Leeuwen (1996), ‘specular grammar’ is an ‘outline of the intellectual history of specular conceptions of consciousness, knowledge and identity in the formation of modernity’ (p. xiii). During the Renaissance, he argues, ‘knowledge was refigured as an order of visual representations located in a cognitive subject’ (p. 32). These representations are abstracted from concrete human perception in a ‘videological sensibility’ that is crucial to the rhetoric of modernity. The reflectivity of Cartesianism, he suggests, has been replaced by the reflexivity of a more dialogical view of ontology and epistemology.

Michael Gardiner in ‘Bakhtin and the Metaphorics of Perception’ sketches with excerpts from the early writings of Bakhtin what a postocularcentric paradigm might look like. The reflective Cartesian view of the ‘intentional knowing subject’, rooted in vision, in its touting of reason is destructive of ‘otherness’, he asserts. Bakhtin’s work gives us an image of an embodied, intersubjective form of reason that engages all of the human senses, but without denigrating the visual register, in a manner that privileges an open, mutually enriching and ethically responsible relationship between self, other and nature (p. 71). Bakhtin, with his depiction of intercorporeality, lays the groundwork for a multimodal hermeneutics.
Chris Jenks in ‘Durkheim’s Double Vision’ seeks to reconcile the mechanical solidarity of Durkheim’s early oeuvre with the organic epistemology of his later work, arguing against postmodern assertions that make Durkheim ‘ideologically passé’. In what he regards as two visions or forms of life, he argues that Durkheim shifts from phenomenalistic positivism, in which ‘observation’ relates theorist to object, to concern with non-observable, non-material realms of epistemologies and cosmologies. Durkheim turns his attention to the ‘incessant variability of the categories of human thought from society to society’ (p. 89) which are nevertheless accepted as universal and necessary within any one society, forming a ‘super-individual reality’. Jenks asserts that the order of the organic form of life derives from interpretation and reflexivity.

The second group of chapters examine the theoretical and critical discourses which interpret, explain and evaluate visual art, contesting ‘ocularphobic’ critical perspectives that shy away from direct engagement with specifics of color and form in works of visual art. Nigel Whiteley’s ‘Readers of the Lost Art’ laments the lost art of ‘critical looking’, a synthesis of ‘old’ criticism’s fixation with form and ‘new’ criticism’s preoccupation with content. His use of the word ‘critical’ goes against its sense in critical theory, critical linguistics, and critical discourse analysis, as he disapproves of feminist criticism which glosses over visual form in commentary on the artist’s intent.

This section includes the only two chapters that consider the visual impact of specific works of visual art. Michael Phillipson and Chris Fisher in ‘Seeing Becoming Drawing’ discuss Bonnard’s obsession with the everyday, offering four line drawings to show ‘how the hand becomes something other than just a prosthetic of the eyes’ (p. 131). Diane Hill in “The ‘Real Realm’: Value and Values in Recent Feminist Art’ endeavors to counter the implicit belief in the primacy of content reflected in a statement made by the feminist art critic Griselda Pollock that in visual art ‘the real realm is not that of optics, but graphics’. She analyses four paintings, two by Rebecca Fortnum and two by Emma Rose, as products of ‘real human reverberation’ (p. 150). Unfortunately the colours and textures she describes are not visible in the black and white reproductions.

John A. Smith in ‘The Denigration of Vision and the Renewal of Painting’ attacks Lyotard, Derrida and others for imprisoning art within a discursive frame, arguing for a distinction between ‘visuality’ and ‘visual art’.

The last section addresses ethics in relation to the visual. In ‘My Philosophical Project and the Empty Jug’, David Michael Levin proposes that we relate perception to bodily processes of touching and feeling by reflecting on an empty jug. ‘Learning how to release the jug into the hollow embrace of the invisible, the philosopher’s gaze would learn what it means to take into care beings as a whole’ (p. 198).

Ian Heywood contends that acute perception in everyday life as well as in art is crucial to ethical action, suggesting that attending to issues like the quality of perception, particularity and the connections between art and
virtue might facilitate a more reflexive, dialogical relationship between theory and practice. J.M. Bernstein, in 'Aporia of the Sensible', begins by describing installations made of jello, evanescent works of art that dissolve and disappear, leaving traces only in discourse about it that 'can overwhelm, over-reach and become independent of the piece itself, the work then becoming a mere illustration of a general theory' (p. 219). The conventional resources of art, he argues, have been eroded by mechanization, commodification and the rationalization of values, leading toward the ascendency of the abstract.

The book thus ends where the aims of this journal begin: to critically investigate how the social world is constructed, represented and contested in visual discourse. Only two chapters give the reader anything but text to contemplate, text within the confines of a narrow tradition of hermeneutics. The program of opening up to the 'voice' of the Other – other speakers, cultures, traditions, etc. – and investigation of visual technologies in their historical, sociocultural, multi-modal contexts of use – part of the ambitious sketch laid out in the appendix, remain for readers of and contributors to this journal.

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A critical guide to the main historical approaches that have been used to interpret visual culture – Marxism, semiology, iconology, iconography, formal and stylistic, feminism and so on – this is a stimulating book but readers taking their first steps in visual culture are in for a hard, though rewarding, read. The reward comes in many forms, in particular in response to one of Barnard’s basic questions: ‘Why should anyone want to understand visual culture?’ (p. 3). The answer lies in the intellectual empowerment that an understanding of understanding brings: thus by acquiring ‘analytical and critical insight into the workings of our understanding of the subject’ (p. 4), readers will find their way more easily in the mass of interpretations of visual culture provided by the press and TV. All this is fair enough, but the price to pay is that readers are, at times, left gasping for a respite, particularly where, in keeping with the book’s title, Barnard applies a further ‘abstracting’ premise whereby the study of the cultural and social functions of visual culture will be downplayed (p. 2). The result is that the analysis of specific visual texts, objects, etc. tends to be skimpy. While the intended readership is undeclared, this book may be best seen as an introduction – as suggested by the (very useful) Further reading sections at the end of the main chapters.
Barnard’s ‘philosophical’ type of approach allows him to answer a major question: ‘What is understanding?’ (p. 12), a matter resolved by interpreting each of the approaches studied in terms of two overriding traditions: the hermeneutic and the structural. By adopting such a broad canvas, Barnard is able to entertain a wide notion of visual culture as ‘including material that is often overlooked or ignored by the histories of art and design’ (p. 3) and to guide the reader by pointing out where specific critics lie on the map of ideological positions that Barnard sketches. Thus, for example:

Both Hebdige and Polthenus are concerned with how the internal structures of visual culture, what might be called ensembles, create and communicate meanings. To this extent, then, they are both following a structural approach. (p. 193)

As such, Barnard’s framework constitutes a really useful tool, through which readers can interpret manifestations of visual culture that do not appear in the book – though the wide range of examples of visual culture (facial expressions, tattoos, furniture, magazine, films, domestic interiors, Uccello’s paintings) is one of the book’s plus points. Moreover, this framework has the merit of allowing Barnard to describe many ideological approaches in the book in a wealth of scholarship.

In this way, Barnard convincingly prepares the ground for his conclusion that each of the approaches mentioned actually contains a different mix of elements of the individual and social with the result that each can be plotted on a cline with the individualistic, hermeneutic interpretations at one end and the socially oriented, structural approaches at the other. This, of course, includes the possibility of understanding specific authors and/or ideological movements differently according to your point of view and according to the specific circumstances. Moreover, the chapters very successfully look at the strengths and weaknesses of particular ideological movements as systems of understanding. All this allows Barnard to close the book with a nice tidy QED: ‘Each of the approaches covered in this book has both structural and hermeneutic aspects: each, to a greater or lesser extent, stresses first the individual pole and then the structural pole of the spectrum’ (p. 199).

This is possibly too tidy and not entirely in keeping with the laudable premise that ‘understanding cannot be one single thing, or activity ... there are many ways of understanding visual culture, with its own strengths and weaknesses’ (p. 18). The best parts of the book are where the emphasis is placed on simultaneous co-presence of approaches in understanding and interpretation recognizing the need to understand life, and hence visual culture, as multiple and often contradictory experiences. Too much has been left out in this respect.

Take the (fascinating) discussion of Italian scooters (pp. 50–5,
99–100), which, following Hebdige’s gendered explanation (the scooter is feminine and the motorcycle is masculine), Barnard first ascribes to the structural tradition. He then argues that scooters can also be understood in terms of the hermeneutic tradition since ‘visual culture is generated by individual consciousnesses, with their own ideas, beliefs, hopes and fears concerning the world’ (pp. 50–1) and proceeds to reconstruct the interpretations of individual consciousnesses (actually groups of people such as engineers, advertisers and marketers) from Hebdige’s account, concluding that: ‘It is a set of ideas and beliefs in the minds of the advertisers that is the basis for the public’s understanding of the Vespa and Lambretta scooters’ (p. 54).

But how can this be? The basis for all interpretations are not minds but texts, whether advertisements, tattoos, engineers’ reports, jam-jar labels or scooters. Yet Barnard writes ‘the fourth [representation given by Hebdige] centred around the actual image of the Innocenti factory in the early Lambretta advertisements. These images need not be pursued in detail here’ (p. 54, emphasis added). Why not? They are surely a more direct source than Barnard’s report about Hebdige’s report of what the Italians were thinking. Indeed, the one complete text that is produced in the scooter discussion, a Vespa advertisement (p. 51), remains uncommented and unanalysed as if actual manifestations of visual culture were a kind of appendage to manifestations of an otherwise predominating verbal culture which alone establishes what the minds of the advertisers were concerned with (purportedly, dematerialization, femininity and fashion, international tourism). Yet a close analysis of the Vespa ad leads to the conclusion that either the artist who drew the advert did not respect the advertisers’ ‘intentions’ or that the advertisers had a different view of the domestic Italian market as compared with the one Hebdige claims they had (presumably linked to the international market). The advert, in fact, highlights quite different beliefs about the relationship between Italians and their scooters, expressing the paradox of the need for continuity with previous generations despite an equally strong but contradictory need to break with the past.

This split is expressed visually by the existence of a horizontal line one third of the way down the page (a visual metaphor for the separation of the experience of society in terms of different ages) with a male cyclist from a different age appearing above the line and a female Vespa rider appearing below the line. The people, their clothes and means of transport, though from different epochs, share a grace and elegance that is part of ageless Italian fashion and certainly not just female. A continuity of a deeper kind is crucially expressed in the fact that the cyclist and scooter rider are objects of observation construed, in their respective eras, as ideal role models: this somewhat narcissistic notion is explicitly made present by a group of onlookers admiring the 19th male bike rider, while the female scooter rider is also cast as being admired by onlookers: she is represented as looking, smiling and waving directly at the reader. Movement is a crucial linking resource: although bike and scooter are represented as going in opposite
directions (a disjunctive element), their owners are both (a conjunctive element) represented as riding off out of our visual frame into the unknown, gaining the onlookers’ admiration and curiosity in the process. Is the advert prioritizing continuity? Is it intimating a break with the past? In my opinion it is proposing an understanding of life as a set of multiple experiences and perspectives whose potentially conflictual nature can only be resolved through explicit recognition of the contradictory nature of life, in the case in point by superimposing two partially conflicting, partially conciliatory interpretations. The advert is thus playfully suggesting that the scooter as a product can reconcile and solve the contradictory trends in Italian society of the 1960s.

This kind of analysis foregrounds such questions as: How are intertextual relationships, such as voices from the past, integrated into specific manifestations of visual culture? How do visual and verbal culture orient towards each other in particular texts? How can specific instances of essentially visual texts such as advertisements relate to the hermeneutic–structural cline that Barnard proposes?

These kinds of questions seem to me important but are not properly answered in this book, which essentially provides a guide to the understanding of the ideological aspects of visual culture and not to its representation of relationships between people, objects, processes and circumstances and the resources used to capture these relationships. This side of the picture is, at the very least, under-represented, whence the conclusion suggested at the beginning of this review: a good introduction but to be read in conjunction with other books, such as the ones Barnard himself indicates.

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**Book reviews**


Much has been written recently about the proliferation of images in contemporary culture, and these writings have appeared in various academic fields from communications studies to art history. Mitchell (1994) even suggests that the metaphor of the world as text may have been replaced by the world as picture. In this review I take a critical look at some of these questions raised by two recent publications: *The Visual Culture Reader*, edited by Nicholas Mirzoeff and *Visual Culture: The Reader*, edited by Jessica
Evans and Stuart Hall. I attempt to situate their contributions in the current context of concerns with visual culture and assume that, as both purport to be Readers, they have a didactic concern, each presenting a particular view of the area in question; in a certain sense they may each be said to represent stakes in the rush to establish Visual Culture as a (new?) discipline.

Following Bhabha (1994) and Mignolo (2000), I consider it of utmost importance to declare my locus of enunciation and situate my reading of these works. I write from the hybrid vantage point of a reader situated within/ across the disciplines of Applied Linguistics, Semiotics and Post-Colonial Theory; I also write from the perspective of what Mignolo (2000) defines as ‘coloniality’ located within and from a Latin American institution.

Evans and Hall’s Reader is a collection of 33 articles by various authors organized in three main sections (Culture of the Visual, Regulating Photographic Messages and Looking at Subjectivity), each with a brief critical introduction by the editors of the volume. It speaks clearly from the perspective of cultural studies, and its focus is on the mechanically or technically reproduced image, which the editors see as the principal semantic and technical unit of contemporary popular culture and the mass media.

Apart from this (not exclusive) emphasis on the photographic or filmic image, the selection of the articles in the volume seems to reflect the preoccupation of the editors to convince their readers of the necessity of looking at visual culture as discourse, here defined as having ‘an emphasis upon the integral relations of meaning and use’, rescuing one ‘from the solely textual concerns of a semiotic analysis’ (apparently the vice of the art historian’s perspective on visual culture) and also allowing one ‘to check the slide into older “productionist” models which provide a limiting view of practices of meaning and cultural construction’ (p. 3).

Evans and Hall’s apparently wholesale indictment of the semiotic perspective seems unjust to analyses of the visual undertaken, for example, by Gross (1985), Worth and Gross (1981), Ruby (1995) and Noth (1995) who analyse visual texts semiotically, also taking into account their insertion in social contexts.

Following this seemingly evolutionary project, where the selected readings are organized from the productionist to the semiotic to the discourse model, Evans and Hall also interestingly point out the limitation of the cultural studies perspective in relation to visual culture; according to the editors, this perspective tends to homogenize all cultural products as texts, leading to a lack of consideration and attention given to the specificity of visual texts. It is in an attempt to recuperate this specificity of the visual that Evans and Hall defend the discourse perspective.

Given the importance of this (didactic?) proposed discourse perspective underlying the organization of their Reader, the editors unfortunately appear to dedicate more space to a criticism of the limitations of the semiotic and narrowly linguistic perspective on visual culture (mainly in Evans’ two short sectional introductions) than to an in-depth discussion of a discourse...
perspective per se; though, in Hall’s extremely short sectional introduction, some fleeting notions of discourse are briefly but importantly mentioned.

In spite of their problematizing of the methodological approaches to visual culture, away from the semiotic and the cultural, and the mention of the contemporary pervasiveness of the visual, there seems to be no real discussion of the problems involved in defining visual culture. On the contrary, one is given to understand paradoxically that the object of visual culture exists independently of the methodological stance taken: how best to think of the various components of visual culture? The image, which stands at the centre-point of contemporary visual culture, presents itself as a simple, singular, substantive entity – a sort of ‘fact’ or punctuation point (p. 4).

Though the image may be analysed variously according to the methodological perspective one follows, the basic unit of analysis seems unquestionably to be the image itself. In other words the question of vision or visuality – the process which produces images – is clearly not the preoccupation of this Reader. Moreover, this emphasis on the image, the product of a discourse or discourses, seems to contradict the editors’ declared intention to move away from a productionist perspective to a discourse one. Also apparently contradictory, given the editors’ criticism of the homogenization implicit in the cultural studies perspective of visual culture, is their privileging of the image which may be seen as a homogenization of visual culture as product rather than as process or both product and process. This bias may be explained by the priority given to technologies (as product-makers) in what appears to be the editors’ only definition of visual culture in the Reader: ‘a culture which is pervaded at all levels by a host of cultural technologies designed to disseminate viewing and looking practices through primarily visually mediated forms’ (p. 7).

Rather than an emphasis on images and products of visual culture, one would have expected from proponents of a discourse perspective on visual culture a greater analysis of properties of visual systems or networks of discourses, their conditions of interpretation and the relation of these to the social and political processes of which they are a part (see Morphy and Banks, 1997).

The danger to avoid here is exactly the slippage back into a productionist perspective which would produce what Morphy and Banks call a ‘reverse Saussureanism’ (p. 2), which has tended to characterize recent studies in visual anthropology where the discovery of the diversity of representational products and processes led to an atomization of attention to the specificity of particularities and away from the insertion of these in discourses or systems of collective socio-cultural representational processes.

Fairclough (1999: 203–5) defines four reasons for analysing texts within a collective socio-cultural framework of discourse. First, texts constitute an important form of social action; they may be seen as occurring at a micro level in relation to social conditions and resources at a macro level; the macro conditions permit and are constituted by the texts at the micro
level. Second, texts as social actions are the major source of evidence for the existence of social structures, relations and processes. Third, texts as social actions, embedded as they are in a macro level of particular social conditions, provide good indicators of social change and the redefinition of social relationships and identities. Finally, as it is increasingly through texts that social control and domination (and we may add resistance) are exercised, they offer themselves as an important political resource.

For Fairclough, then, the discourse perspective shows how texts are produced and interpreted, drawing on existing networks, genres and discourses available within a particular social context; this highlights the importance of focusing attention on the relationship between ‘the texture of texts and their social contexts’, and the need to avoid an excessive particularization and atomization which may lead to a reductive focus on the image as visual object and product.

Given Evans and Hall’s criticism of the art history perspective of visual culture in favour of a discourse perspective, and considering their location within the field of cultural studies and a defence of a discourse perspective, it is refreshing to look at the Visual Culture Reader edited by Nicholas Mirzoeff, written from within Art History, and preceding Evans and Hall’s Reader by a year. Like the Evans and Hall volume, it purports to be a ‘Reader’; it is organized in six parts (each with a brief sectional introduction) with 44 different readings by various authors. Though four authors (R. Barthes, R. Dyer, M. Foucault and M.L. Pratt) co-occur in both Readers, only one – Barthes – appears with the same text in both (Barthes’ text in the Evans and Hall volume is more complete than in Mirzoeff’s Reader, where it suffers from lack of clarity).

Whereas in the Evans and Hall Reader the editors make their presence felt, albeit indirectly in their selection of the texts included rather than in an expressive contribution in their introduction, Mirzoeff’s Reader has a more extensive and elaborate introduction, where much space is given to, and familiarity demonstrated with, configurations of visuality and visual culture. Like Evans and Hall, Mirzoeff also wishes to steer clear of productionist and purely semiotic readings of visual texts.

Counter to Evans and Hall’s apparent preference for the image as product, Mirzoeff seems to prefer visuality as a process extending from the production to the reception of images with, however, a clear preference for the reception pole of the process:

Visual culture is concerned with visual events in which information, meaning or pleasure is sought by the consumer in an interface with visual technology. (p. 3)

Visual culture does not depend on pictures but on this modern tendency to picture or visualise existence. (p. 6)

Visual culture directs attention away from structured formal viewing settings like the cinema and the art gallery to the centrality of visual experience in everyday life. (p. 7)
Note that, in spite of the preference for the reception pole of the process, the object of analysis is *visuality* comprising events, practices and also products. Like Fairclough's discourse perspective, this focus on *visuality* rather than on *images* may be seen as valuing the 'texture of texts and their social context'.

Like the cultural studies perspective which (albeit reluctantly) colours the Evans and Hall volume, Mirzoeff also prioritizes the visual in everyday as opposed to canonical culture. Though Mirzoeff does not adopt a declaredly discourse perspective, he also sees visual culture as dynamically and historically changing its relationship to 'reality'.

Where Evans and Hall propose a discourse perspective, Mirzoeff proposes what he calls an interdisciplinary perspective, which consists of 'creating a new object which belongs to no one' (p. 6). Like Mirzoeff, Walker and Chaplin (1997) also see visual culture as an interdisciplinary enterprise, but they fear that because it draws on a multiplicity of disciplines, it runs the constant risk of lacking coherence as a discipline. Paradoxically (in spite of making efforts to highlight the multidisciplinary nature of visual culture), in this desire for coherence and the reassurance of identifiable (albeit new) disciplinary boundaries, Walker and Chaplin make a distinction between Visual Culture as a discipline and visual culture as an object of study.

Mirzoeff, however, does not appear to regret the loss of a stable disciplinary identity for visual culture; on the contrary, embedded in his interdisciplinary proposal is an awareness of, and a desire not to repeat, the fate of Cultural Studies as becoming just another discipline, extending and adding to, instead of challenging the existing academic and cultural canon.

Complementing the interdisciplinary perspective, Mirzoeff also defends a transcultural perspective in visual culture. This implies a perception that previous well-defined borders become confused and overlap (p. 287), requiring new histories and new means of representation. The transcultural perspective demonstrates the editor's critical awareness of the situatedness of his own discourse across ('trans') a multiplicity of disciplines, an awareness therefore of his own cultural locus of enunciation.

Paradoxically, in spite of Evans and Hall's defence of a discourse perspective, they do not seem to be aware of their own locus of enunciation. This apparent lack of awareness results in unsuspecting and unreflected (though perhaps not necessarily hegemonic) Eurocentric perspectives of theorizing, even though they include in their volume key texts on otherness, subjectivity and identity politics.

The lack of a transcultural perspective could result in the universalization or homogenization of crucial aspects of Eurocentric visuality and the extension of these to visuality on a global scale. If this occurs, then the original anti-canonical, anti-hegemonic perspective of cultural studies in relation to Eurocentric culture could be uncritically transformed (given its homogenizing, normatizing tendency) into a hegemonic and canonical perspective in relation to visuality in non-Eurocentric cultures.
Mignolo (2000) refers to a similar phenomenon in recent history where, as a result of colonialism and economic-cultural hegemony, European ‘local’ discourses (scientific, philosophic, academic, etc.) through their 'global designs' became ‘universal’ discourses.

It is against this backdrop that Mirzoeff proposes the study of visuality as a tactic where, following de Certeau (1984), tactics are defined as localized cultural practices necessary to avoid defeat by hegemonic norms. This is the realm of what Bhabha (1994) would call local or popular performative insurgency in the midst of national pedagogical hegemonies:

Visual culture seeks the points of resistance in the crisis of information and visual overload in everyday life ... so will visual culture explore the ambivalences, interstices and places of resistance in post-modern everyday life from the consumer's point of view. (p. 8)

Given my own locus of enunciation, as declared at the beginning of this article, it is because of this 'tactical', transcultural and interdisciplinary perspective (besides the emphasis on visuality rather than on the image) of the Mirzoeff Reader that I see it as a greater contribution to the study of visuality than the Evans and Hall volume.

In blatant support of this preference are the two introductory articles by Rogoff and Shohat and Stam in Mirzoeff's Reader, both of which reiterate the emphasis on visuality and a critical transcultural perspective. Rogoff (p. 22) focuses on the field of vision, rather than on images, as the object of analysis of visual culture, and critiques the recent surge of literature regarding vision as being excessively 'learned' and reproducing 'a tedious and traditional corpus of knowledge and tells us how each great philosopher and thinker saw the concept of vision within an undisputed philosophical or other paradigm' (p. 21).

Rogoff may almost be referring literally to another volume of studies on visual culture, Heywood and Sandywell's (1999) edited book Interpreting Visual Culture: Explorations in the Hermeneutics of the Visual, also reviewed in this issue, which contains 11 articles of a clearly abstract philosophical nature approaching visual culture from a so-called hermeneutic perspective. In their introduction the editors define hermeneutic as designating an analytic attitude towards the field of visual experience seen as a 'socio-historic realm of interpretive practices' (p. xi). In spite of this claim, the authors of the texts in the Heywood and Sandywell book seem to speak from an Art History and Philosophy perspective, different from the cultural studies/discourse perspective of Evans and Hall, and from the transcultural/interdisciplinary perspective of Mirzoeff.

The authors in the Heywood and Sandywell book seem nearer to the semiotic perspective, but with an emphasis on abstract theoretical analyses rather than on the analysis of particular texts. The contribution of this book to the study of visual culture is its focus on vision in terms of its epistemological
and ontological constructions rather than on textual analysis. Some of its texts
do indeed recall Rogoff’s comments of being ‘tedious’ and excessively ‘learned’,
though Gardiner’s chapter on ‘Bakhtin and the Metaphorics of Perception’
contains a refreshing discussion of little-known aesthetic concepts of Bakhtin.

Rogoff’s introductory chapter in Mirzoeff’s Reader also calls attention
to the illusion of transparency which has sustained the field of vision, and
which a study of visual culture should seek to decry: ‘what the eye
purportedly “sees” is dictated to it by an entire set of beliefs and desires and
by a set of coded languages and generic apparatuses.’ This is normally
demonstrated by a discourse perspective which rejects a natural attitude to
language as neutrally and innocently reflective (hence transparent) in favour
of an appreciation of the opacity or materiality of language as constituted in
the thick of an ideologically dense sociocultural context (Fairclough, 1999:
204). Rejecting the illusion of transparency, Rogoff reiterates the need to
reformulate knowledge in the face of highly contested realities, steering clear
of the risk of ‘divesting oneself of self-location’ and stressing the importance
of ‘having a position from which to speak’ (p. 23).

Like Mirzoeff’s tactics, from this stance of contestation, Rogoff
proposes to ‘unframe’ and reconstitute the traditional discussions and objects
of analysis of visual culture, now from an ‘arena of representation of situated
knowledges’ (p. 17). In this spirit, Rogoff quotes Spivak: ‘it is the questions
we ask that produce the field of inquiry and not the body of materials which
determines what questions need to be posed to it’ (pp. 16–17).

In the third introductory text in the Mirzoeff Reader, Shohat and
Stam also reinforce the need for a transcultural perspective and a critical
awareness of one’s locus of enunciation, given the heterogeneous multiple
nature of contemporary visual culture. Like Mirzoeff and Rogoff before
them, they warn against the dangers of again unsuspecting Eurocentric
theoretical postures (such as that of Evan and Hall in their Reader) and
favour what they define as a ‘polycentric, dialogic and relational’ (p. 46)
posture in the analysis of visual culture in a supra or transnational context.

In short, it is the three introductory ‘provocation’ articles (by Mirzoeff
himself, by Rogoff and by Shohat and Stam) that make the Mirzoeff Reader
by far the most creative and innovative introduction to the field of visual
culture.

Mirzoeff’s edited Reader has a companion volume (Mirzoeff, 1999) of
texts authored solely by Mirzoeff himself, where the concepts of inter-
disciplinarity, transculturalism and the global/local dialogue are more
extensively and profoundly developed in the analysis of visual culture.

In conclusion then, the contribution of the two Readers edited
respectively by Evans and Hall and by Mirzoeff, and the rest of the texts on
visual culture briefly considered in this review, give a clear picture of the not
so clear field of visual culture and the current debates plaguing it, ranging
from the methodological options between semiotic, linguistic, discourse and
cultural studies and tactic perspectives, to the various definitions of visual
culture itself as visuality, vision, or image. Whichever of these options is available – and to avoid focusing on visual culture for its own sake as yet another merely academic pursuit, it is important to remember how far-reaching the phenomenon currently is – in the words of Shohat and Stam (1999), ‘The visual is simply one point of entry, and a very strategic one at this historical moment, into a multidimensional world of intertextual dialogism’ (p. 45).

NOTE
1. See for example hooks’ text in the Mirzoeff Reader where, indicting white ethnicity, she says: ‘To ignore white ethnicity is to redouble its hegemony by naturalizing it’. Thus by ignoring their situatedness within the Eurocentric cultural studies domain, Evans and Hall naturalize it and redouble its hegemony.

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When I start working with a chair or sitting device intended for long-term sitting, I am mentally on it or in it – as opposed to visualizing it from the outside. What you sit in is something you do not see that much of, but you feel and sense it all the more. Of course later on in the development process the aesthetic form becomes important, and that necessitates visualizing it from the outside. But I always start from the inside – and move out.

The reverse is the case for chairs where the expression is more important than the application, because they are created to be used for short-term sitting.

To start by sensing the object as opposed to seeing it can obviously result in entirely different forms than the generally accepted ones. Many of my chairs are mobile and meant to function as an extension of the dynamic human form. This will often result in entirely different forms of expression than the sitting devices where the first drafts are made, not with the human body in mind, but with the objective of finding a form that fits into the architectural environment.

**BODY IMPULSES AND CIVILIZATION**

Why is it that while humans have spent 99.9 percent of their time on earth varying their use of the body and with the body postures we call ‘sitting’ taking up only a minimum of time, we have ended up stuck in some kind of seat? Why has *homo sapiens* become *homo sedens*?

Many of us actually spend much of our waking hours, much of our lives in fact, in a single unaltered sitting position. The human body is not intended to stay in one position for great lengths of time, and certainly not when seated. The best body position is always the next one. Long-term sitting is a major cause of many of our muscular and skeletal complaints, and it is this category of sitting that I felt it important to rethink.

Two obvious solutions spring to mind. One is to spend less time sitting, the other is to vary your postures while sitting. Although the first solution would have been the best one, in my profession it is the latter
solution(s) I have been most concerned with, developing chairs or sitting devices that inspire and support moving between a variety of postures.

The body is constantly signalling that we should change position. Even while sleeping, we are constantly shifting to another position. Children are a case in point – they obey their body signals – and it is entirely unnatural for them to ‘sit still’.

The term ‘civilization’ can mean a lot of things. One meaning is a learned pattern of behaviour, as opposed to a natural, ‘untamed’ type of behaviour: the more of the ape’s behavioural traits we remove, the more civilized we become. All civilizations have codes or norms of behaviour deemed appropriate or ‘civilized’ in various social circles or settings. The civilized codes also apply to body posture and movement.

Since the late 1970s I have felt that it is important to break down our stereotypical sitting habits and to design chairs that could initiate a greater degree of movement and variation of posture while sitting.

However, a chair which initiates movement and variation in posture is of little use if people from the western world are to comply with the conventions of sitting nicely and sitting still. The civilizatory codes also apply to body posture and movement; rules of etiquette and custom are factors which can hamper us in acting on signals from our body. If we listened to more of these signals and acted on them to a greater extent, we would move more freely and use postures that are more natural to us, not least while sitting.

**MOVEMENT AND VARIATION**

In the 1970s many experts on ergonomics were fighting to define the correct, the one and only sitting posture. My solution has been to grant everyone their due and to create products where it is possible to shift among a large variety of postures while using the same chair (see Figure 1).
These are not ordinary rocking chairs. Flattened sections of the runners provide rest in several positions. Sitting in a rocking chair like this gives the impression of sitting in a wheel. The wheel easily generates movement.

To think creatively, the feet ought to be higher than the head.

(Tage Foss)

**DYNAMIC MAN, STATIC ENVIRONMENTS**

The human body is soft and dynamic. The buildings and structures we stay in, on the other hand, have to be hard and static so as not to collapse. When the dynamic human is in a static structure, we can question how close to the body we want this transition from the dynamic to the static to take place.

We wouldn’t like this happening close to our skin. Stiff clothes of wood or steel would hardly gain any popularity outside catwalks or photo studios. The body is mobile and we like our clothes to be mobile. However, outside our clothes, most of us ‘wear’ a chair or sofa of some sort – often for as much as 80 percent of our waking hours. And in our homes and offices, these chairs are often static, like the building.

In Europe, the well-to-do started upholstering furniture some 100 years ago. This was done to make the meeting between the body and the chair or sofa less brutal. Upholstery serves to distribute the pressure against the body over a greater surface. This feels comfortable, but is not intended to inspire the body to move; on the contrary – it sedates ...

What I am suggesting is that the chairs we ‘wear’ should be neither as soft or flexible as our clothes, nor as hard and inflexible as our buildings; the chair could work as an intermediary between the dynamic body and the static architectural surroundings. The piece of furniture that is closest to our
body for long periods of time should offer adequate support to the various parts of the body, while also catering to the body’s need for movement and variation. To achieve this means expanding the dynamic area around the body at the expense of the static.

SWING

What is it that fascinates us about sitting on a swing? It gives us a sense of freedom. No other kind of seat allows us such freedom of movement as one suspended from ropes. A pendulum clock can keep going for weeks on the small amount of force generated by the spring, proving the efficacy of this principle.

The force of gravity constantly attempts to draw the human body towards the centre of the earth, the ground and the floor. Perhaps we are fascinated by situations in which we escape the effects of this force, as when we are swimming, bungee jumping, or sitting on a swing. The movements of suspended bodies are soft and rhythmical, soothing to mind and body alike. Perhaps such movements spark associations to the time when we floated effortlessly in the womb?

Since the 1970s, I have designed chairs which inspire and initiate movement and variation of posture in different ways – for instance using chair frames which move on rockers or a pivot or spiral springs on the floor or which are suspended from above.

When the human body is suspended from ropes, it is particularly difficult to sit still. The smallest twitch of a muscle is enough to set the body in motion in a natural rhythm or frequency corresponding to the body’s needs and the requirements of the task in hand. By applying this principle, I have therefore found a device which helps the user allow the body to move naturally.

If the ceiling has the necessary structure for suspension, Swing 2 can be used as a working chair without a stand. The base lift and tilting mechanism of conventional working chairs can be omitted. The suspended chair will be

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**Figure 2**
Swing 2
(Cylindrā AS, 1999)
able to tilt backwards and forwards and achieve a swinging motion thanks to its suspension.

**BIOGRAPHICAL NOTE**

PETER OPSVIK is a Norwegian furniture designer. He has been awarded many prizes for his work, and his furniture-objects have been exhibited around the world. Most recently ‘movement – Peter Opsvik’ was shown in the Museum of Decorative Arts and Design (Ghent), The Lighthouse (Glasgow), The Design Museum (London) and the Museum of Decorative Art and Design (Gothenberg). He is also a jazz musician.

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