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Multimodality, resemiotization: extending the analysis of discourse as multi-semiotic practice

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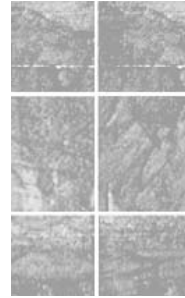
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ABSTRACT

This article has the following two overarching aims. First, it traces the development of multimodal discourse analysis and sets out its main descriptive and analytical parameters; in doing so, the article highlights the specific advantages which the multimodal approach has to offer and exemplifies its application. The article also argues that the hierarchical arrangement of different semiotics (in the way common sense construes this) should not be lost from sight. Second, and related to this last point, the article will advance a complementary perspective to that of multimodality: resemiotization. Resemiotization is meant to provide the analytical means for (1) tracing how semiotics are translated from one into the other as social processes unfold, as well as for (2) asking why these semiotics (rather than others) are mobilized to do certain things at certain times. The article draws on a variety of empirical data to exemplify these two perspectives on visual communication and analysis.

KEY WORDS

discourse analysis • materiality • multimodality • recontextualization • resemiotization

INTRODUCTION

This article looks at the current mutation of discourse analysis into what is now referred to as the study of 'multimodality'[1] (Kress and Van Leeuwen, 1996, 2001; Kress and Ogborn, 1998; Van Leeuwen, 1999). In providing some of the historical background to this development, the present article looks especially at what the study of multimodality accomplishes, and how it has enhanced the description of social semiotic processes. At the same time, the emphasis on multimodality is presented as providing an important counterbalance to monomodal approaches to meaning making, such as those which

consider only language when talking about the interpretation of texts and practices (e.g. Du Gay, 1996; Boje, 2001), or those which consider visual meaning largely in isolation from material manifestation (e.g. Rogoff, 1998; Mirzoeff, 1999).

While the article is concerned to foreground the crucial importance of a multimodal approach to meaning making, it will also present the argument that multimodal analysis should be complemented with a dynamic view on semiosis. Often oriented to finished and finite texts, multimodal analysis considers the complexity of texts or representations as they are, and less frequently how it is that such constructs come about, or how it is that they transmogrify as (part of larger) dynamic processes. Thus, on the one hand the article underscores the importance of a multimodal approach to the analysis of interaction, film, sound, computational 'texts', museum displays and the like. At the same time, the article advocates that the inevitably *transformative* dynamics of socially situated meaning-making processes require an additional and alternative analytical point of view. This alternative view favours the social-processual logic which governs how material meanings mutually transform one another (Douglas, 1994), and is referred to here as *resemiotization* (Iedema, 1997, 1999, 2000a, 2001[2]).

FROM DISCOURSE ANALYSIS TO MULTIMODALITY

Since its advent as an offshoot of sociological linguistics, discourse analysis has undergone a number of important transmutations. In origin, and drawing on its early links with traditional sociolinguistics, discourse analysis concerned the study of language use 'above the sentence', and focused predominantly on talk and interaction (e.g. Hymes, 1972a, 1972b; Coulthard, 1977; Berry, 1981; Tannen, 1984; Sinclair and Coulthard, 1992; Schiffrin, 1994). In another incarnation, discourse analysis focused on cohesion in longer written texts under the banner of 'text grammar' (Halliday and Hasan, 1976; Van Dijk, 1977; De Beaugrande and Dressler, 1981). I note that for the purposes of this account I privilege work that converged upon and arose from Halliday's linguistic/semiotic theory, thereby ignoring discourse analytical work as it unfolded elsewhere.[3]

These two analytical orientations – the one centring on talk and the other focusing on cohesion in writing – found a common purpose in the work of the Critical Linguistics group at East Anglia (Fowler et al., 1979; Hodge et al., 1979). Inspired by both neo-Marxism (Althusser, 1971) and Critical Theory (Adorno and Horkheimer, 1993), Critical Linguistics saw Halliday's systemic functional grammar (Kress, 1976) as a means to ground its social critique in a close attention to the grammar of language (Hodge and Kress, 1993). This grounding became possible thanks to four important linguistic insights, proposed by the linguist Michael Halliday (Halliday, 1973, 1978), and already proven powerful for the coordinated analysis of social and linguistic patterns in the work of Basil Bernstein (Bernstein, 1973, 1975).

Halliday's insight included first a *tri-functional* conceptualization of meaning (as ideational, interpersonal and textual). Second, Halliday gave pride of place to Morris' original *tri-stratal* conceptualization of meaning making (as co-articulation of phonology, lexicogrammar and semantics, with Halliday describing each level as 'realizing' the next; Morris, 1946; Halliday, 1973; Rossi-Landi, 1992). Third, Halliday saw the metafunctional components of language as realizing related components of context, such that what the language was about ('linguistic ideation') was not arbitrarily related to any kind of context, but would reflect a specific context's *fields*. By the same token, how the language used positioned people ('linguistic interpersonality') would reflect a context's *tenor*, and how the language unfolded as structured ritual ('textuality') would reflect a context's *mode*. Fourth, and most importantly perhaps, Halliday's work moved linguistics from a focus on the sentence (as was de rigueur in the Chomskian tradition) towards a focus on 'text' (Halliday, 1978). Rather than purely and simply an analytical object, text, in Halliday's conceptualization, constituted first and foremost a *mode of social action* (Halliday, 1984).

Halliday's work enabled the analysis of 'language as social semiotic' to go beyond applying syntactic criteria to structures 'above the sentence'. On the basis of the metafunction hypothesis, the stratification hypothesis, the text-context hook-up, and the focus on whole social processes as texts rather than on isolated sentences, analytical methods were devised which did justice to texts' socially meaningful role. At the same time, and taking its cue from the ideology critique of Critical Linguistics, texts' features could be systematically linked to those of their social and institutional contexts, as well as to the politics, the 'ideologies', or the worldviews that informed and shaped those contexts.

But most importantly, it was the systemic-relational principle under-pinning Halliday's depiction of language which ultimately proved to be the most fruitful connection: semiosis not analysed in terms of discrete building blocks or structures, but in terms of socially meaningful tensions and oppositions which could be instantiated in one or more (structural) ways. In this sense, Halliday's work fused Firth's proposal for language analysis in terms of systems of oppositions (Firth, 1957, 1968) and Hjelmslev's (1961) view of meaning making as both stratified (content plane/expression plane) and instantiating (system/instance).

With Jim Martin's synthesis of work in the area of what he came to call 'discourse semantics' (Martin, 1992), discourse analysis had moved far beyond the original notion of text as re-exploiting sentence or clause resources at the paragraph and multi-paragraph level. Martin provided intricate methods for analysing textual features, and for linking these to ideology or worldview. Around the same time, Fairclough (in early essays later published as Fairclough, 1995) emphasized the fruitful connections that could be made between Hallidayan discourse analysis, French philosophy (Foucault, 1972; Pêcheux, 1982) and Russian literary analysis (Bakhtin, 1981,

1986). Finally, Lemke (e.g. 1989, 1990) helped ground the emerging new field of discourse analysis in the communication theories of Gregory Bateson (1973) and Wilden (1980, 1987), while Thibault brought insights from, among many others, the work of continental authors such as Rossi-Landi and Prodi (e.g. Thibault, 1991a, 1991b).

It was not until the mid to late 1980s, however, that Hallidayan discourse analysis began to take serious note of meaning making other than language. While the semiologists on the continent had been struggling to make De Saussure relevant to the analysis of film and photography (Metz, 1974, 1977; Barthes, 1977), and in America Peircean semiotics and sign-theory was flourishing with the work of Thomas Sebeok (Sebeok, 1994; *Semiotica*), the connection between an explicitly systemic-relational approach to meaning making and the analysis of semioses other than language was only just about to be made. Initial evidence of this was the focus on the intonational aspects of linguistic speech in Van Leeuwen's work (e.g. Van Leeuwen, 1984), and in his application of systemic-functional notions to sound and music (Van Leeuwen, 1999). More or less simultaneously, related work inspired by the systemic-functional framework moved in the direction of the analysis of visual representation (Hodge and Kress, 1988; Kress and Van Leeuwen, 1990), and of visual art, sculpture and other kinds of spatial construction (O'Toole, 1990, 1991, 1994).

Much of this early cross-semiotic or 'multi-modal' work came together in the journal *Social Semiotics*, whose first issue appeared in 1990. In the original version of this journal, a wide variety of articles was brought together exploiting this confluence of systemic-functional theory and socially oriented forms of linguistic, visual, audial and spatial analysis. 'Social semiotics' (the title of Hodge and Kress's original book, 1988) thus became the rallying point for those interested in analysing aspects of texts which included but also went beyond language. Social semiotics took discourse analysis beyond oppositions which traditionally separated language-oriented research, Saussurean semiology and sign-system-oriented semiotics.[4] Social semiotics, then, proclaimed to be about the analysis of not static sign systems or text structures, but of *socially situated sign processes* (Lemke, 1988; Thibault, 1991a).

In recent years, the work reviewed so far appears to have pursued two different analytical directions. On the one hand, there is the critical theoretical work inspired by Fairclough's 'reworking' of Foucault and Bakhtin (Fairclough, 1992; Fairclough and Wodak, 1997). On the other hand, there is the work of Kress and Van Leeuwen (1990, 1996; Van Leeuwen, 1999) which is becoming increasingly definitive of approaches to text analysis and meaning making, and where the discourse analytical term 'multimodality' originates (see Van Leeuwen and Jewitt, 2000). It is to this latter development that we now turn.

MULTIMODALITY

The term multimodality was introduced to highlight the importance of taking into account semiotics other than language-in-use, such as image, music, gesture, and so on. The increased ubiquity of sound, image, film, through TV, the computer and the internet is undoubtedly behind this new emphasis on and interest in the multi-semiotic complexity of the representations we produce and see around us. Moreover, this development is accompanied and rendered more complex by yet another. Apart from our increased reliance on meaning making other than 'language-in-isolation' (as in the mass-produced book), we are faced with sound and image taking over tasks associated with the role of language since the invention of the printing press, and thus to some extent *displacing* language.[5] One example of this is the way in which Apple™ has changed its instructions about how to use one of its computers (see Figures 1 and 2 below; and Stenglin and Iedema, 2000, for further analysis).

Comparison of these two illustrations shows that the representation of meaning in mundane things like manuals is shifting away from using language towards using and privileging alternative semiotics, like image, but also colour, page layout (from portrait to landscape), and document design (from book-shaped manual towards manual as fold-out brochure) for the realization of procedural meanings. I comment in more analytical detail on these images when the argument of the article has been fleshed out more fully.

In general terms, the trend towards a multimodal appreciation of meaning making centres around two issues: first, the de-centring of language as favoured meaning making; and second, the re-visiting and blurring of the traditional boundaries between and roles allocated to language, image, page layout, document design, and so on.

This blurring of boundaries among the different semiotic dimensions of representation has been linked, on the one hand, to changes in our 'semiotic landscape', and, on the other hand, to analysts' realization that our human predisposition towards multimodal meaning making, and our own multi-semiotic development or ontogenesis, requires attention to more than one semiotic than just language-in-use.

With respect to the first argument, our semiotic landscape is becoming more and more populated with complex social and cultural discourse practices. Here, the influence of electronic communication, the globalization of trade and commerce, and the increasingly political–cultural mix of the countries in which we live mark important facets of this changing landscape.

> The new realities of the semiotic landscape are ... primarily brought
> about by social and cultural factors: the intensification of linguistic
> and cultural diversity within the boundaries of nation-states, and by

Turn your computer on

How you turn on your Macintosh depends on which model it is. For specific information, go to the setup book that came with your computer.

△ **Important:** If an external hard disk or other external devices are connected to your Macintosh, turn on those external devices before you turn on the Macintosh. △

■ If your Macintosh is the Macintosh LC or it does not have a separate monitor (like the Macintosh Classic®), press the on/off switch on the back of your computer.
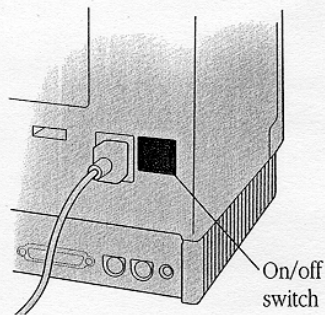
On/off switch

❖ *If the Macintosh LC monitor doesn't turn on,* make sure that the monitor's on/off switch is on. (If you don't know where the switch is, go to the manual that came with your monitor.) ❖

■ If your computer is one of the Macintosh II models (such as the IIci or the IIfx), press the Power On key on your keyboard.

Power On key

Power On key
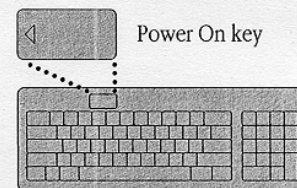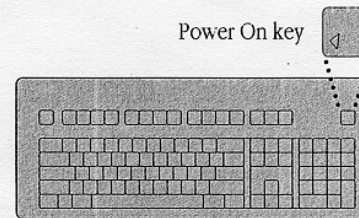
❖ *If the monitor doesn't turn on,* make sure that its on/off switch is on. (If you don't know where the switch is, go to the manual that came with your monitor.) ❖

■ If your Macintosh is a portable model, press any key (except Caps Lock) on the keyboard.

Figure 1 iMac Manual: Chapter 1: Turning the Macintosh On and Off. Copyright © 1992 Hunter Freeman USA. Reproduced by permission of Apple™ Australia.
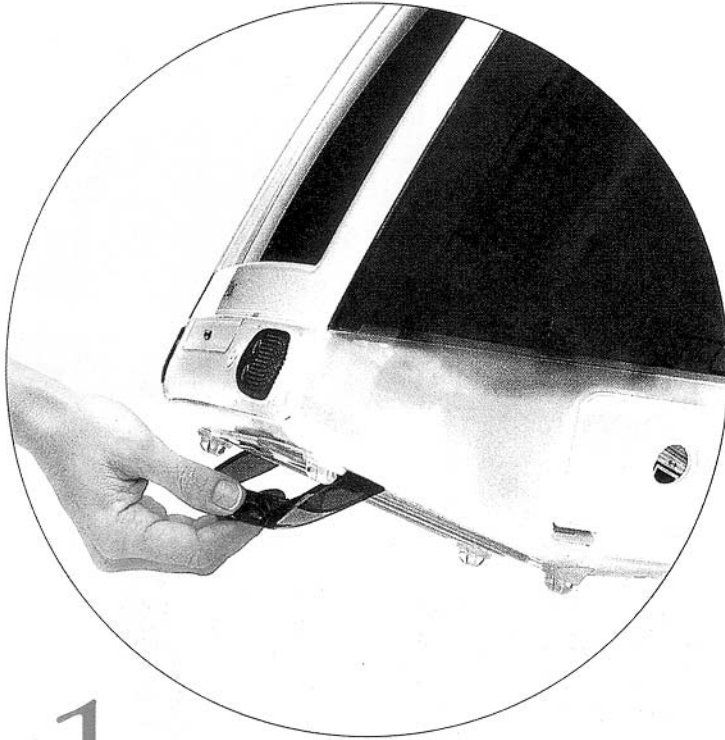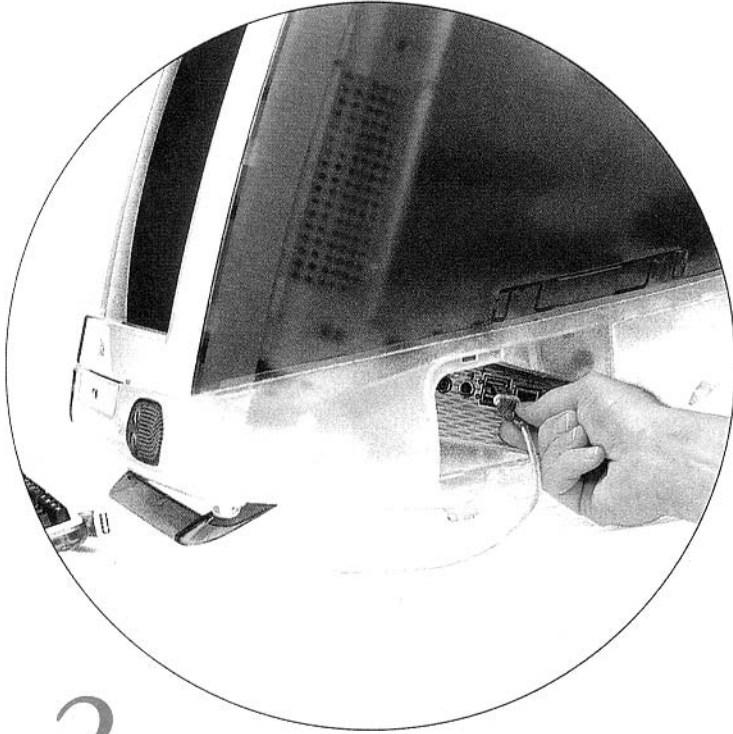
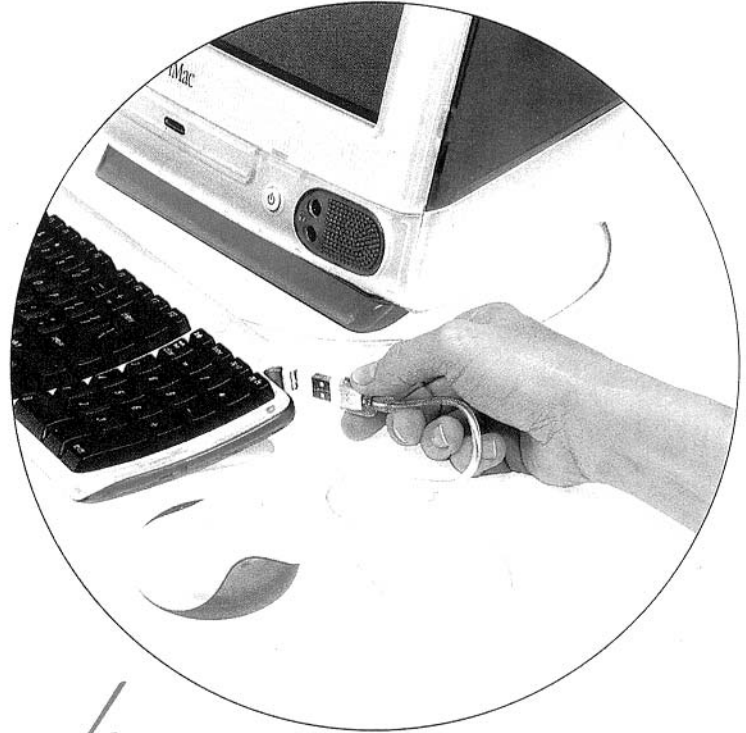1. Place the computer on a desk.
Swing out the foot.

2. Plug in the power cord.

Figure 2 iMac Installation Text: Installing the Macintosh. Copyright © Hunter Freeman 1999. Reproduced by permission of Apple™ Australia.
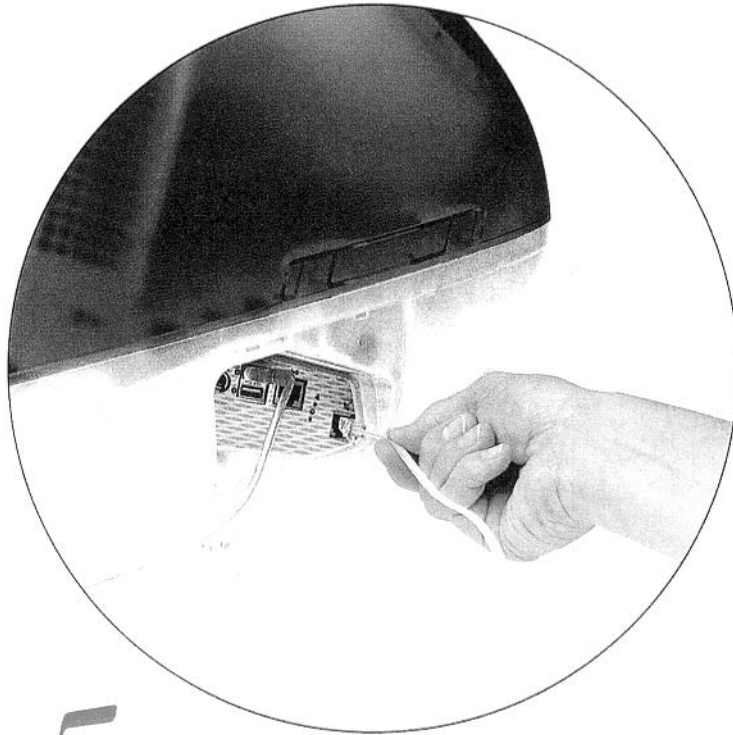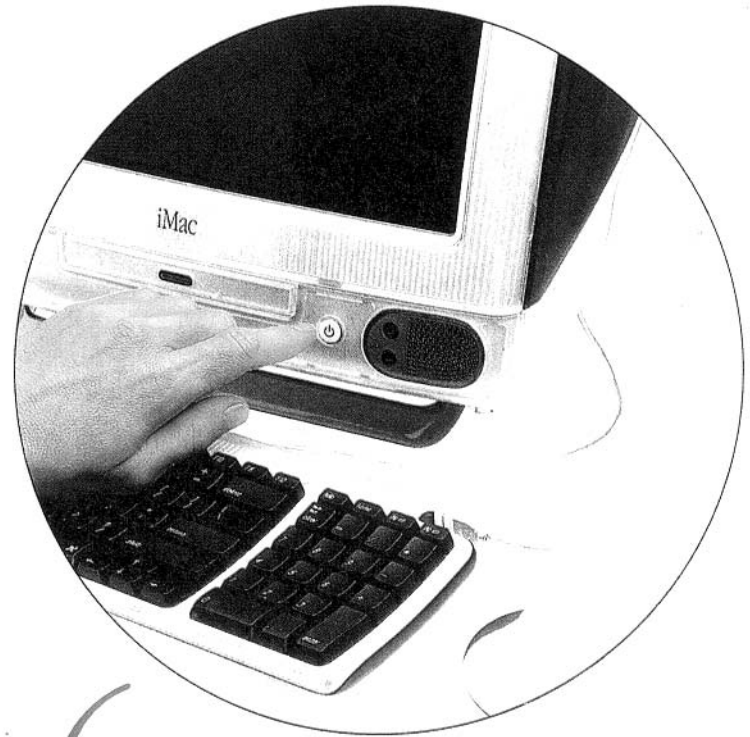
3. Plug in the keyboard.

4. Plug in the mouse.

5. If desired, connect a phone line to the modem.

6. Turn on the computer.

Figure 2 continued

the weakening of these boundaries, due to multiculturalism, electronic media of communication, technologies of transport and global economic developments. Global flows of capital dissolve not only cultural and political boundaries but also semiotic boundaries. (Kress and Van Leeuwen, 1996: 34)

This blurring of cultural categories and contents, or 'de-differentiation' in Lash's terms (1988), is manifest in how representational practices are increasingly being redefined and cross-referenced. This is true for magazine design, as well as television and film production, architecture and so on. In each of these areas, the rules as to 'what goes with what' and 'what can signify what' are constantly challenged and changing. Challenges and changes to the established representational order have of course always affected how we make meaning, but in our time they appear to have graduated from the margins to become persistent features of common representational practices. This is true to the point that any current 'state-of-the-art' definition of a practice, genre or field serves rather as a point for creative and innovative departure than as a simple and straightforward blueprint for action, design, or execution.

The essence of this first argument, then, is that the logics of linear progression and causal or temporal contiguity such as associated with language and linguistic expression are seceding in part to more disparate, non-linear, non-hierarchical, more freely recombinative, circular and serialized kinds of representation (Eco, 1990: 83). Within the area of magazine design, for example, this has meant that 'within the last decade designers have increased their efforts to ... produce fluid fields of image' (Butler, 1995: 91). These new styles of meaning making have become especially visible of course in multimedia and cyberspace design.

The new realm of multimedia ... does away with the dominance of the alphabet, fully reintegrating the audio-visual with the written. Cyberspace emerges here as a strategically significant component of these shifts, because it both introduces new forms of communication and provides a fantastically complex application of multimedia. (Jordan, 1999: 159)

The computational sphere is clearly a very influential engine behind the renegotiation of what different semiotics are made to do, with its ability to digitally represent and thus fuse into a single medium spoken and written language, image and sound. But the extent to which formal bureaucratic and corporate organizations have adopted multimodal ways of (self-) representation is remarkable too. Their formal documents and organizational reports appear to be increasingly deploying a 'post-modern' mixing of visual and design resources. One example of this is the Australian 'Stolen Children' report (Wilson, 1997). This government agency commissioned

report integrates historical accounts of how Aboriginal children were taken from their parents throughout much of the 20th century with individuals' statements adorned with Aboriginal designs. Another striking example is the new Dutch passport, which, while serving in the first instance as a bureaucratic document, visually emblematizes on each of the passport's pages a particular aspect of the history of the Netherlands. Other examples can be readily found in the form of organizations' annual reports, their newsletters and public brochures.

The second argument addresses not in the first instance the changes of our 'postmodern' environment but the essentially multimodal nature of all human meaning making. Multimodality, here, is about recognizing that language is not at all at the centre of all communication.

> The project of multimodality is an attempt to make the point overtly and decisively that an interest in representational modes other than speech or writing is essential and not merely incidentally interesting; that it is central to actual forms of communication everywhere, and not simply a kind of tangential or marginal concern which could be taken up or not, but which leaves language at the centre of communication. The proposal rests on the hypothesis that all [practices] are always multimodal, and that a theory has to be developed in which that fact is central, and a methodology produced for forms of description in which all modes are described and describable together. From an occasional interest in other semiotic modes this project moves to a norm where all texts are seen as multimodal and are described in that way. Language is likely to be a part of these semiotic objects – though it might not – and often it might not be the dominant or most significant mode. (Kress and Ogborn, 1998)

The term multimodality, as used here, is a technical one aiming to highlight that the meaning work we do at all times exploits various semiotics. In talk, we mobilize language as sounded speech, and we further 'mean' through gestures, posture, facial expression, and other embodied resources such as physical distance, stance, movement or stasis. By netting in all these aspects of meaning making, the term multimodality aims to offer a way of talking about, for example, how gesture and talk co-occur[6] (Martinec, 2001), how language and image work together (Kress and Van Leeuwen, 1996, 1998; Eggins and Iedema, 1997), or how image, language and sound are coordinated (Iedema, 2000b; Thibault, 2000). Most excitingly, it will enable us to talk about how 'design' principles re-appear across different semiotics and how they traverse radically different domains of social life (Sellers, 1995; Williamson, 1995; Van Leeuwen, 2000).

Multimodality, then, provides the means to describe a practice or representation in all its semiotic complexity and richness. Importantly, a

multimodal account does not a priori privilege any one semiotic over another, although the practice itself may of course foreground one particular one. The foregrounding of one is often accompanied (or achieved) by the backgrounding or 'automatization' (Halliday, 1982) of other semiotics, to the point where they appear so normal and natural as to become 'invisible'. Confronted with a representation such as this article, a multimodal perspective would emphasize that its language-in-use does not occur on its own, and that it is integrated with and heavily dependent on other forms of meaning making. For example, this article foregrounds printed language, but does so thanks to its visual dimensions (font, colour, page layout and so on) being very strictly constrained; that is, 'automatized'. In this way, the meanings made through font size, colour, etc. can become taken for granted, and attention shifts to those aspects of the meaning-making process that are somewhat less strictly circumscribed, such as the semantics of the discourse. In this second argument, then, the perspective of multimodality offers a means of analysing such co-occurrent semiotics and their respective roles in great detail.

But while the first argument speaks about increasing representational complexities and the multimodality argument emphasizes the 'always already' (*Überhaupt*) multi-semiotic nature of meaning making, neither argument appears to pay consistent attention to a collection of issues which are perhaps more a concern for the meaning maker herself.[7] Here I include the choice of material realization of meaning (and the resources required for such materialization), or the social dynamics that shape our multimodal meanings as they emerge. It is to these latter issues that we now turn.

RESEMIOTIZATION

Whether conceived as post-modern phenomenon or as emergent analytical orientation, multimodality is concerned with the multi-semiotic complexity of a construct or a practice. In this section, I begin by asking questions which are not so much to do with the semiotic complexity of particular representations as with the origin and dynamic emergence of those representations. Also, I ask why essentially multi-semiotic practices and constructs, like written text or architectural design, are often perceived from a common-sense point of view in quite simplified terms.

That is, I want to do two things. First, I aim to contextualize complex, multi-semiotic representation within the practices, social rules, resource availabilities and 'moral habitats' (Rose, 1999: 104) that bear on how we are able to mean, and on how our meaning makings unfold. This perspective is about historicizing meaning. It asks how, why, and which meanings become recontextualized (Bernstein, 1990: 60, 192). Second, I aim to reason from a common-sense point of view, and view the semiotics mobilized in social practice as manifesting a logical relationship to where a practice is up to.

Introduced earlier, the term *resemiotization* is used here for orienting

the discussion. Resemiotization is about how meaning making shifts from context to context, from practice to practice, or from one stage of a practice to the next. Within the context of an 'ordinary' bureaucratic process, Mehan (1993) describes how a teacher's initial interaction with a student-child leads to the teacher's formal recording of the child's deviant behaviour. This then leads (by means of an organizational procedure) to a reconstruction of the child as a test result which finally ends up as a report in a file. Put in these terms, the handicapped student is progressively 'recontextualized' to the point where the child becomes a social category – 'intellectually disabled':

> ... after a teacher and students interact in the classroom (discourse), the teacher fills out a form (text). That text is introduced into the discourse of the School Appraisal Team (SAT) meeting. From the discourse of the participants in that meeting, another piece of text is generated, this time a 'summary of recommendation', which instructs the school psychologist to begin educational testing. The administration of the educational test transpires as face-to-face interaction between tester and student. Based on that discourse, the tester writes a report. That text is sent to the placement committee, where it becomes part of the file, which, representing the child, becomes the basis of the final placement decision. (Mehan, 1993: 246)

It is upon the basis of these textual recontextualizations that ultimately decisions are made regarding the child's 'status':

> Such texts, generated from a particular event in the sequential process (e.g. a testing encounter), become the basis of the interaction in the next step of the sequence (e.g. a placement committee meeting). These texts become divorced from the social interaction that created them as they move through the system, institutionally isolated from the interactional practices that generated them in the preceding events. (Mehan, 1993: 246)

Mehan is concerned here with the 'construction of reality' as it traverses and exploits a range of realizations and practices. As the construction unfolds, original statements 'become divorced from the social interaction that created them'. Significantly, with each step the process reconfigures the situation which it posited as its origin: an increasing number of people become involved; relevant meanings are committed to minutes, reports and files; letters and other forms of correspondence summarize and thereby 'authorize' those meanings, and so on. Thanks to that increasing distance from its origin, each recontextualization adds to the 'weight', the institutional importance, the authority, in short, the 'facticity', of what is said and written.

Mehan's example concerns a range of processes revolving around

different uses of language: classroom talk, writing in a file, formal talk at a meeting, and so on (cf. Sarangi, 1998). It is important of course to regard this dynamic from the perspective of how the child is progressively institutionally 'categorized', and how the meaning 'disabled' is made increasingly incontrovertible. To bring out the incontrovertibility of the child's categorization, however, we cannot afford to merely point to the meanings borne out by the filed information. We also need to take account of the personnel involved, the time spent on the case, and, last but not least, the ways in which the meaning-making process begins to co-opt different *material realizations*. Thus, the process develops from situated and quite 'local' kinds of talk, via more formal and ritualized forms of interaction involving different and perhaps more people, towards increasingly durable – because written, multiplied and filed – forms of language use.

While Mehan's work provides an example of how talk ends up as written file, Bruno Latour describes the semiotic history of a few mundane artifacts, such as an automatic door closer, a speed bump and a meat roaster. Latour coined the terms 'shifting out' and 'delegation' to capture what is at stake in the shift of meaning from, for example, someone asking those arriving to shut the door behind them, to a written notice saying 'please keep this door closed', to a hydraulic door-closing device (Latour, 1992: 250ff). This 'delegation' concerns the translation of some original concern into increasingly exosomatic, mechanical and therefore context-like realities (Latour, 1993, 1996). Important for our concerns, Latour's focus is on the intersemiotic shifts, or resemiotizations, at the heart of this displacement from talk, to writing, to technological device. Central also to Latour's account is the issue of how an increased number of financial, industrial and productive resources are required to realize such shifts. I come back to this resource issue in a moment.

A third example is provided by the dynamics of a health facility planning project (Iedema, 1997, 2000a, 2001). This project ended up weaving people, their meanings and behaviours into increasingly reified, complex and obdurate semiotics, enabling them to create 'new realities': the (re)organization of social space. The project manifested three major – but not chronologically discrete – resemiotizing moves. As a first step, the planner's report (his Project Definition Plan) constituted a written summary of the agreements reached during the face-to-face meetings. Essentially, the shift from talk to writing was one where the original face-to-face interaction becomes rematerialized in a less ephemeral way as printed writing. An important consideration here is that the meanings presented in printed written text are generally harder to challenge, not only because the writer is often not present to answer questions, change formulations or accept additions, but also because written registers are generally more abstract and generalizing than spoken ones (Clanchy, 1993; Halliday, 1994; Olson, 1996).[8]

To return to my account of the planning project, once the architect-planner's summaries of engineers' statements, bureaucratic regulations and

user wants and needs were 'accepted' (Iedema, 1997, 2000a) by those who attended the planning meetings, the architect-planner's design proposals rendered the compromise understandings achieved in talk and in writing into architectural design form. With the inception of the design phase, the project reached what the architect-planner called 'the point of no return'. On entry into the design phase, architectural changes can only be made at extraordinary cost due to the resource-intensive nature of such designs. For these reasons, then, the trajectory from talk into print and from print into design appeared to be punctuated by specific near-irrevocable transitions. These transitions embedded the project's progress in an increasingly durable and expensive – and therefore *resistant* – materiality. It is this chained interplay between specialized practices, social rules and scarce resources that I have in mind when pointing to the 'resemiotization logic' of meaning making.

In the case of the health facility, this resemiotizing logic provides a practical basis for marking progress. Without the kinds of transitions just referred to, the project would have seemed rudderless. And there were clear tensions between the bureaucrats on the one hand, and the engineers, architects, materials suppliers and planners on the other, because the bureaucrats wanted the project to progress and get wrapped up faster than was practically and technically possible (Iedema, 1997, 2000a).

In any case, as a result of the resemiotizations achieved, constraints built up around the negotiability of outcomes. Put in terms of individuals' contributions, project stakeholders favoured (or were forced to accept) specific outcomes and 'signed off on them'. Once something had been signed off, such as the preliminary building contents report or the favoured design option, more material-semiotic investment was brought to bear on realizing the next transition. Concomitantly, the growing investment of resources and costs associated with what was produced increasingly precluded the outcomes from renegotiation and change (Iedema, 1997). In that sense, resemiotization coupled to resource investment construes not only importance, but also 'manufactures consent'. The project achieved not only an expanded mental hospital facility, but also a reification of a set of social and discursive relations in the form of a resource-intensive physical construct: '[Physical structures] embody social relations in materials more durable than those of face-to-face interaction' (Law and Mol, 1995: 281).

The three resemiotizing processes described thus far all move from relatively negotiable and readily available towards increasingly durable, resource-intensive and scarce semiotic materialities: student files as part of an elaborate information management system, industrially produced mechanical devices, multi-functional buildings housing complex organizations.[9] But resemiotization is not necessarily restricted to dealing with the reification of meanings. Resemiotization is also manifest in what Bourdieu simply calls 'scheme transfer', a principle that creates homological patterns across different spheres of social life. In Kabyle sociality, he notes,

'the whole of human existence [is] the product of the same system of schemes' (Bourdieu, 1990: 259), creating an efficiency of meaning making.

> Practical logic owes its efficacy to the fact that, through the choice of the fundamental schemes that it applies and through its exploitation of the polysemy of the symbols that it uses, it adjusts in each case to the particular logic of each area of practice. (Bourdieu, 1990: 261)

The work of design history researchers such as Jack Williamson (1995) and Susan Sellers (1995) bears out a similar concern with the propagation of semiotic features, but focusing on western popular cultural products and constructs. In her work, Sellers considers the semiotic commonalities among abstract modernism ('International Style'), and *Harper's Bazaar*'s magazine design: '*Bazaar* brought the visual language of museum and the boardroom into women's homes' (Sellers, 1995: 31). For Sellers, the commonalities she uncovers between European art and architecture on the one hand, and *Bazaar*'s page design and *Funny Face*'s filmic unfolding on the other, all point to the ways in which a 'regulatory ideal' governing being modern (as a woman) began to pervade 'ordinary' and cheaply available popular cultural constructs.

Sellers' view is that the white space in *Harper's Bazaar*'s pages is 'the typographic equivalent of ... open-plan design, exposed structure and natural materials that projected a kind of formal "honesty"' (Sellers, 1995: 21). I would query the 'equivalence' Sellers posits between open-plan design and typographic white space,[10] but the hypercorrective impulse (Labov, 1970[11]) behind this resemiotization seems unmistakable. The new architecture of the wealthy and its avant-garde normativity governing the use of social space are in this way re-rendered for the wider public's vicarious enjoyment.

For his part, Williamson delineates a 'historical visual narrative'[12] which enables him to read *semiotically* (that is, read as sharing patterns with other social phenomena) design modalities such as the hollow cylinder or 'streamform' (used in sculpture, painting and in the design of cars, ocean liners and museums) and 'stepform' (used in skyscrapers, radios, phones and women's attire). For Williamson, these design modalities realize very different perspectives on life. He sees stepform as manifesting the optimistic trust in incremental, linear and certain progress. The streamline form, by contrast, popular during and shortly after the Great Depression, he sees as signalling 'withdrawal', 'turning-inwards' or 'frustration'.

> The very process of [social] withdrawal goes hand-in-hand with the concept of the armored, detached surface. The hard, protective shell of so many streamlined forms in transportation design ... express the ideal of the impervious façade. (Williamson, 1995: 56)

Having elaborated on resemiotization as a principle that appears to

buttress a range of social-organizational processes, I now return to the two Apple™ illustrations already referred to above (Figures 1 and 2). I want to use their (hypothetical) genealogy to round off my main points.

Figure 1 (from the 1992 IISI manual) presents a page composed of black text and white background, as well as rather abstract drawings of computer parts using black outlines, grey shading and lines connecting the drawings with words ('on/off switch', 'Power On key'). This is an example of what Kress and Van Leeuwen refer to as an analytical visual process (1996: 89). The writing is about 'turning your computer on'. But 'how you turn your computer on depends on which model it is', and the text contains a series of 'if ...' clauses, with the rather scientific drawings positioned nearest the language that pertains to them.

In this arrangement, the writing is put in charge of explaining that there is a range of products, each of which has a different 'on' button. In the way the page layout is done, the visuals elaborate the written text. First, the visuals appear below the language that pertains to them (in Kress and Van Leeuwen's [1996: 193] terms, the text is Ideal with the visuals Real). Second, written structures like 'press the on/off button at the back of your computer' are elaborated visually by an arrow pointing to a diagram portraying the back of a computer and its on/off switch. Equally, 'press the Power On key on your keyboard' is subsequently replicated visually by magnified 'on' buttons, and the dotted lines link them to where they can be located on the different keyboards. The technicality of the different computer models and switch-on procedures is a 'pattern' that could be said to reappear visually in the diagrammatic nature of the black and white drawings, and in the serious looking nature (and size) of the manual as a whole.

Figure 2, the coloured (in original) iMac manual, shows a very different set of patterns. Here, the visuals are big, coloured and realist (photographs rather than abstract drawings), positioned above single lines of writing (the visuals are Ideal, and the writing Real), and reproduced against a large, white background. In contrast to the visuals in the IISI manual, the iMac visuals predominate over the writing, which is relegated to the role of providing captions. The large, coloured numbers in front of each of the sentences are quite visually prominent, and clearly serve to guide our reading path. Finally, the iMac manual is organized horizontally as a 'one size fits all', read-me-sideways fold-out brochure that projects accessibility, ease, friendliness.

In the (analytical) transition from the 1992 IISI manual to the 1999 iMac, we can sum up the differences as follows. In the IISI manual the language is most prominent (the 'Ideal'), while in the iMac manual the visuals are most prominent. In the IISI the language does most of the work (with the visuals elaborating selected bits of spatial information), while in the iMac the visuals do most of the work (Stenglin and Iedema, 2000: 210). The IISI manual is a black and white, functional-abstract, linear text, while the iMac is a simple, coloured brochure.[13] The IISI page presents a rather

complex and elaborate procedure, while the iMac brochure appears to aim for simplicity and accessibility. The IISI is constructed from the perspective of the computer company (its product range and the model differences), while the iMac is constructed from the user's perspective (viz. 'the hands in the visuals are mine').

The question that arises at this point is why Apple™ shifted from a linguistic-technical towards a visual-simple form of self-projection. Apple™'s project has of course always been to provide computers that were user-friendly and task-oriented, and this may go a long way towards explaining the user-centred choice of the more recent manual design. Underpinning the iMac's design choice(s), however, is a semiotic focus that differs substantially from that which informed the earlier manual's design, and which does not necessarily parallel the iMac manual's aims of accessibility and simplicity.

As seen, a principle that informs the design of the IISI manual is that of 'redundancy', or the replication of specific meanings in both language and image. Here, the location of the on/off switch and the Power On key is not only repeated linguistically and visually, but is also pointed to by means of arrows and magnifications which again have their own labels. In this case, the linguistic explanation ('press the on/off switch at the back of the computer') is bridged to the diagram of the back of a computer, by means of a linguistic-visual construct which says 'here it is' (label+arrow, and magnified button+label).

While redundancy also informs the relationship between image and language in the iMac manual, it has a different focus. Here, actions not locations are replicated in both language and image. The language of the 'place on', 'plug in' and 'turn on' instructions is visually replicated in the shape of the hands that act as visual pointers or vectors. By contrast, information to do with 'what', 'where' and 'what with' is rendered only visually. In the context of a procedural text, the adequate specification of 'what with', 'where', 'in what way' and 'how' is crucial, since it is these 'circumstantial' indicators which are often central to a procedure being carried out successfully (Stenglin and Iedema, 2000: 198). The centrality of such circumstantial information may be why the iMac images have got the hands as prominent pointers, and why the relevant locations and plugs are placed at or near the heart of each image.

This cursory analysis shows that the transition from the IISI manual to the iMac manual involves more than a translation of one kind of meaning into another. Clearly, the iMac manual privileges the visual; it foregrounds processual meanings; it deploys a more life-like or 'realist' modality of (visual) representation, and it is framed within a user-oriented economy of meaning making. But so far I have only commented on issues affecting the translation of linguistic into visual representation, and on the user-oriented ethos that appears to motivate this shift. The question that I want to entertain now is what does the iMac manual gain from privileging the visual over the linguistic?

From the point of view of resemiotization, our explanation of the shift from the IISI to the iMac manual is not exhausted by merely stating that visual representation suits Apple™'s new user-friendly ethos. We need to explore *why* visual representation so adequately realizes 'the new Apple™ image', and why linguistic representation is being backgrounded, if not marginalized. On one level, the answer has to do with the way that the iMac manual is able to downplay the necessarily imperative nature of the procedural linguistic text. What is most prominent is coloured pictures of someone doing something to a nicely coloured computer, rather than vertically-arranged lists of recipe-like instructions. At another level, the iMac manual is able to transform its own significance as meaningful construct. The coloured visuals set against a lot of white space and accompanied by captions are more akin to the kinds of brochures that depict and offer descriptions for a range of (real) items for sale, than to a technical manual calling for (irrealis) actions on my part as novice computer owner.

For Saint-Martin (1995: 393), each semiotic has its own specific (systemic) constraints and (material) affordances. In her view, the things we can do with language, for example, cannot all be done in visual representation, and vice versa (Saint-Martin, 1995: 387; cf. Kress and Van Leeuwen, 1996: 37). She notes too that the visual semiotic is generally continuous, sensorial and spatial, while language is abstract, discontinuous, linear (temporal) and governed by strict syntactic conventions. This might suggest, then, that the resemiotizations under focus here do not merely comprise shifts in ideational semantics, but also involve privileging different domains of human experience, in particular those concerned with the sentient dimension of reading visuals. As Burnett emphasizes in relation to photography:

> ... photographs encourage the viewer to displace the conventional parameters of language use in order to create a new context for the articulation of meaning. A radically different conceptual framework may be initiated that does not, in and of itself, permit the easy use of either the verbal or the written for descriptive or interpretive purposes. The conflation of language into the image (proposing that the photograph 'speaks', for example) may inhibit the discourse that might reveal the differences between language and image. (Burnett, 1995: 44)

As this suggests, a semiotic is hard-pressed to provide an unproblematic, transparent and 'direct' translation for meanings made in another semiotic (cf. Latour, 1992; Law and Mol, 1995). Transposition between different semiotics inevitably introduces a discrepancy that 'goes or points beyond' (metaphorical) the original. Such transposition is not just a matter of finding 'semiotic equivalents' for specific discourse participants in the other semiotic. From my perspective, such equivalence is tenuous, since

rematerialization requires new resource investments; restructuring derives from different expertises and literacies, and resemiotization opens up different modalities of human experience. The iMac manual does not just displace language by visualizing its meanings, but reconfigures the domain of novice computer use into a discourse, a semiotic complex, that manifests transparency, accessibility, ease and perhaps even desirability, pleasure.

As the argument above sought to clarify, and as the Apple™ manuals have helped illustrate, it is socio-semiotic histories and transitions which resemiotization as analytical perspective seeks to trace. Overall, the research program proposed here divides into two branches. One foregrounds the multimodal nature of the semiotic construct itself, and enquires into its semiotic complexity, and perhaps into the ways in which it is taken up in practice (Van Leeuwen, 2000). The other foregrounds the unfolding of meaning making across practices, and enquires into its material consequences. This is about asking how and why what we confront as 'real' has come about, or 'by which networks of transmission and forms of organisation a given cultural legacy was constituted' (Debray, 2000: 99). I am not advocating the complementarity of multimodality and resemiotization here in the name of a more truthful or adequate approximation of a real, however. Rather, I seek to balance the objective–analytical intent of multimodality with one that favours socio-historical exploration and understanding of the complex processes which constitute and surround that which is our focus of interest.

CONCLUSION

This article has contrasted the project of multimodality with that of resemiotization. It has set out the prerogatives of multimodality under the following headings. Multimodality:

1. is concerned to include in its analyses of representations and give proper recognition to semiotics other than language;
2. focuses on the relationships between these different semiotics, and on the 'division of labour' between them in particular representations;
3. aims to understand and describe in 'phylogenetic' terms the displacement of some semiotics by others (e.g. the displacement of the linguistic by the visual);
4. links the potential of the different semiotics deployed to how they affect (enable and constrain) interaction and the formation of subjectivity. (Kress and Van Leeuwen, 1996: 39)

While multimodality is crucially and explicitly concerned with the materiality and history of representation, resemiotization centralizes these foci of the multimodal framework in a number of ways. First, resemiotization focuses on how some meaning makings harbour a general

accessibility and negotiability (such as ordinary talk, gesture and posture), while others require and embody considerable investments of resources (such as expensively produced brochures, films, architecture, machines, scientific technologies) and mobilize radically different spheres of human experience.

Second, aside from the logogenetic question about how a representation unfolds through time (a documentary or a museum display), resemiotization enables us to pose 'supra-logogenetic' questions about how documentaries or displays themselves come about as semiotic constructs through the deliberations of writers, filmmakers, planners and builders. It is this kind of perspective which is important for revealing, describing and understanding representation *as a truly multimodal construct*, embodying not merely the sounds and images which we see, but also all the semiotics, the coincidences and the compromises which played a role in its inception.

Third, while the semantic-discursive ('content') dimension is of course crucial to our analysis of representations, the material logic (the level of 'expression') is equally important for understanding how it is, for example, that face-to-face behaviour is considered to be the appropriate mode of interaction in some settings, while only writing or other kinds of signs and symbols will do in other settings. Here, we are not purely concerned with the advantages of, for example, using music rather than vision when seeking to evoke a particular sentiment, seeing that music plays an important interpersonalizing role (Van Leeuwen, 1999). Rather, we are interested in how specific social practices – say, 'producing visual images' – not only move through a content history ('the design process'), but also have a material and rematerializing history (Gumbrecht and Pfeiffer, 1994). Therefore, at the heart of the project of resemiotization are the questions:

> What precisely is the material substance of the image under consideration (how are its traces conserved)? Which material procedures produced it? What was its function? ... Does it look to be an object that is to remain hidden or on the contrary exhibited, touched, thrown, or carried? Is it suited for framing, dressing up, placing under glass, or displaying in fresh air like an everyday object? (Debray, 2000: 109)

We ask these questions because:

> ... the efficaciousness of the image as a symbolic operation that puts the looker into some kind of relation to something cannot be considered apart from the image's status as a *technical product*, that is, the operative chain of causes in which it is set. (Debray, 2000: 110;[14] original emphasis)

Fourth and finally, multimodality runs the risk of a somewhat objectifying view on the representations under consideration, insofar as

analysts situate themselves such that the whole representation or representations become and remain visible. Resemiotization, in an attempt to compensate for that, takes the 'meaning-maker's perspective'; that is, stays with the social unfolding of the processes and logics of representing. We are now talking about building the building; we then write about it, design it and then we build it. It is from this socially situated vantage point that the resemiotization problematic gains its significance.

In sum, if we regard meaning making as constituting the social construction of reality, then resemiotization thinks not so much in textual representation as in *social construction*. Our earlier examples bore that out. Focus was not primarily on the multimodal complexity and intricacy of the face-to-face interactions, of the written plans and reports, or of the designed constructs, but on the dynamics which resulted in socially recognizable and practically meaningful artifacts: the child's institutionalization as disabled student; the door's hydraulic closing device; the planning project's renovation of south Sydney's mental hospital facilities; *Harper's Bazaar*'s incorporation of visual elements reminiscent of 'high culture' art and architecture; and the iMac manual's appearance as department store brochure.

In closing, resemiotization is crucially interested in how materiality ('expression') serves to realize the social, cultural and historical structures, investments and circumstances of our time. In this way, resemiotization contributes to displacing analytical attention from discourse as structured meaning towards practice as material affordance (Bremmer, 1991; Müller, 1994; Schatzki, 1996). In the way that multimodality re-emphasizes the multi-semiotic nature of representation, resemiotization seeks to underscore the material and historicized dimensions of representation. Taken together, these perspectives comprise a powerful toolkit for doing socially relevant, multi-semiotic discourse analysis.

ACKNOWLEDGEMENTS

NOTES

1.   I use the term 'semiotic' even though the term 'multi-modality' would require me to use 'mode'. The difficulty that arises when referring to writing as a 'mode' due to its multi-modal nature is not circumvented by using the term 'semiotic', but I do not have the space here to address and resolve this terminological issue.
2.   Another term proposed for this perspective is 'mediology' (Debray,

2000). Bourdieu has used the term 'scheme transfer' (1990: 250), and De Certeau refers to it as a 'tactic out of its own orbit' (cited in Harvey, 1996: 262).

3. For an overview of discourse analytical work on the continent, see Titcher et al., 1998. Renkema, 1993, offers a wide-ranging introduction including both continental and American work.

4. There had been a respectable tradition in the area of semiotics which had ways of talking about gestural, bodily, animal and other non-linguistic ways of meaning making (Eco, 1976, 1984; Sebeok, 1994), while in the French strand referred to as 'semiology' (Barthes, 1977; Metz, 1974, 1977) a concern with images and film had for quite some time been prominent. The relevance of Barthes' and Eco's work for what came to be termed 'social semiotics' is very evident in, for example, Thibault's and Van Leeuwen's work.

5. As I note later, the 'automatization' of the visual and material dimensions of language-in-print contributed to the common-sense impression that printed publications are about language meanings. Pre-print publications were 'less good' at standardizing their visual and material dimensions, and therefore less able to privilege language as (complex) mode of meaning making.

6. There is important work showing the primacy of gestures over language (Heath, 1984; Kendon, 1990).

7. Kress and Van Leeuwen themselves make the point that 'transcoding between a range of semiotic modes, represents, we suggest, a better, a more adequate understanding of representation and communication' (1996: 37).

8. Another reason for the durability of print is, of course, that its 'longevity is guaranteed no longer merely by the written "monument" itself but rather by the numerous institutions that select the constantly growing reservoir of writings and allow them to become effective' (Müller, 1994: 44); in this case the government bureaucracies that demand public (published) evidence of their own practices. Müller suggests that print 'not only is more permanent than speech, but also, strangely enough, has a stronger effect on the senses' as a result of its physical/spatial manifestation and multiplicatory essence (Müller, 1994: 38). He cites de Bury, who says: 'For the meaning of the voice (*virtus vocis*) perishes with the sound; truth latent in the mind (*mente latens*) is wisdom that is hid and treasure that is not seen; but truth which shines forth in books desires to manifest itself to every impressionable sense (*omni disciplinabili sensui*). It commends itself to the sight when it is read, to the hearing when it is heard, and moreover in a manner to the touch, when it suffers itself to be transcribed, bound, corrected, preserved' (De Bury, 1960: 19, cited in Müller, 1994: 38). Müller's exposition on the shift from interaction to writing is exemplarily multimodal.

9.　　… a building or a city might be considered as a quasi-permanent record of behavioural stage-directions or scorings, a rich, multi-channel set of directions suggesting culturally appropriate spatial behaviours, orientations and interactions. (Preziosi, 1984: 52)

10.　　I think the open plan/white typographic space relationship is more metaphorical than equivalent. The architectural absence of boundaries (a spatial issue) is resemiotized into not just a 'freer' page layout but a particular colour (white) to mark 'openness'.

11.　　One of the most solidly established phenomena of sociolinguistic behavior is that the second-highest status group shows the most extreme style-shifting, going beyond that of the highest status group in this respect. (Labov, 1970: 71)

12.　　A serious problem when treating design issues outside of their historical frame is that to do so automatically privileges present (and equally historically rooted) interests which, when projected onto earlier historical periods, severely distorts the nature of phenomena studied. (Williamson, 1995: 43)

13.　　It would be tempting at this point of course to link the IISI's angular and the iMac's circular representations to Williamson's claims touched on earlier regarding stepform and streamform.

14.　　Let us think for example, within the supposedly homogenous domain of photography, about the changes of style and consciousness ushered in by the handheld camera, with its new tripodless portability, and, after that, by the Leica camera before the war. With this new piece of equipment are born instantaneousness, the scoop, atmosphere, street photography, and images taken clandestinely. … The materiality behind the camera's picture taking determines the operations of our looking. (Debray, 2000: 110)

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