A Grammar of Multimodality

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Abstract: This paper explores the concept of multimodality and outlines a possible framework for a multimodal grammar.

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THE INCREASING MULTIMODALITY of our representational means is the consequence in part of a series of transformations over the course of the twentieth century in the means of production and reproduction of meaning, initially around photography and its derivatives, but with a substantial quickening of the pace of change since the widespread application of digital technologies to representation from about the beginning of the third quarter of the twentieth century (Cope & Kalantzis 2004).

After half a millennium or longer in which written text was a pervasive source of knowledge and power, photographic means of representation (lithographic printing, cinema, analogue television) began to afford greater power to image and comfortably overlay image with written text. The digital accelerates this process as the elementary modular unit of manufacture of textual meaning is reduced from the character to the pixel. Images and fonts are now made of the same raw materials, and more easily overlaid—hence the television screens that stream more and more writing over image, and the magazines and newspapers which layer image and text in a way that was never easily achievable in the era of letterpress printing. Parallel to this is a revival of the aural, or the use of the oral as a representational means across distances previously dominated by writing. In the first instance, it was analogue telephone and radio that allowed this possibility, then more the closely interconnected multimodality of the digital era as sound is also made from the same bits and bytes as image and character. New overlays of oral and written modes emerge as telegraph, telegram and then email stay more faithful to the fluid epistemes of speaking than the earlier literate forms of letters and memoranda, and then voice synthesis of digital text turns the readable into the hearable.

New literacies emerge, centred around the affordances of these new technologies for hybrid and multimodal textual manufacture. Modes of meaning that were relatively separate become ever-more closely intertwined. The practical consequences are enormous, as more written text appears in traditionally visual media (such as television) and truly integrated multimodal media emerge, even in traditional areas such as print. And at the creation end of the process, word processing and desktop publishing integrate the logistics of visual design into text construction, to the extent even of turning the once-obscure craft language of the typesetter's into a universal language for text visualisation—fonts, point-sizes and the like—as a fundamental basis for 'marking up' textual architectures.

COMMON GROUND

From the mid 1990s, the Internet takes this even further with its blurring of the boundaries and overlaying of written text, icon and image, as well as with its extensive use of spatial and architectonic metaphors associated with site navigation (Castells 2001; Gilster 1997; Mitchell 1995). Adding yet another layer of multimodality, the Internet and its earlier multi-media progenitors include the capacity to overlay audio because, ultimately, sound too can be made into the same digitally recordable stuff as pixels. The effect of all of these changes over the past half century, picking up pace with digitisation, has been to reduce the privileged place of the textual in western culture, progressively bringing the visual and other modes to a par. In some contexts, even, other modes are now being privileged ahead of the written-textual (Kress 2000; Kress 2003).

Numerous incisive accounts of how this multimodality works have emerged over the decades of this transformation (Arnheim 1969; Kress & van Leeuwen 1996; Mitchell 1986; Tufte 1997), although none are yet as established as the grammatical and literary accounts of written text that underlie literacy pedagogy.

What, then, are the core concepts which may be of use in developing a language of the multimodal applicable to literacy learning? Traditionally, literacy teaching has confined itself to the forms of written language. The new media mix modes more powerfully than was culturally the norm and even technically possible in the earlier modernity dominated by the book and the printed page. The following, we suggest, is the breadth of modes of meaning that needs to be encompassed in a pedagogy that goes beyond the scope of traditional literacy teaching, a pedagogy of 'Multiliteracies' (Cope & Kalantzis 2000; New London Group 1996):

- *Written Language:* writing (representing meaning to another) and reading (representing meaning to oneself)—handwriting, the printed page, the screen.
- *Oral Language:* live or recorded speech (representing meaning to another); listening (representing meaning to oneself).
- *Visual Representation:* still or moving image, sculpture, craft (representing meaning to another); view, vista, scene, perspective (representing meaning to oneself).
- *Audio Representation:* music, ambient sounds, noises, alerts (representing meaning to another); hearing, listening (representing meaning to oneself).
- *Tactile Representation:* touch, smell and taste: the representation to oneself of bodily sensations and feelings or representations to others which 'touch' them bodily. Forms of tactile representation include kinaesthesia, physical contact, skin sensations (heat/cold, texture, pressure), grasp, manipulable objects, artefacts, cooking and eating, aromas.
- *Gestural Representation:* movements of the hands and arms, expressions of the face, eye movements and gaze, demeanours of the body, gait, clothing and fashion, hair style, dance, action sequences (Scollon 2001), timing, frequency, ceremony and ritual. Here gesture is understood broadly and metaphorically as a physical act of signing (as in 'a gesture to ...'), rather than the narrower literal meaning of hand and arm movement. Representation to oneself may take the form of feelings and emotions or rehearsing action sequences in one's mind's eye.
- *Spatial Representation:* proximity, spacing, layout, interpersonal distance, territoriality, architecture/building, streetscape, cityscape, landscape.

Each of these different modes has the capacity to express many of the same kinds of things; they also have representational potentials that are unique unto themselves. In other words, between the various modes, there are inherently different or incommensurate affordances as well as the parallel or translatable aspects of the representational jobs they do.

On the side of parallelism, a grammar of the visual can explain the ways in which images work like language. Action expressed by verbs in sentences may be expressed by vectors in images. Locative prepositions in language are like foregrounding or backgrounding in images. Comparatives in language are like sizing and placement in images. The given and the new of English clause structures are like left/right placement in images (in the cultures of left to right, viewing, at least), and the real/ideal in language is like top/down placement in images (Kress 2000; Kress & van Leeuwen 1996). The process of shifting between modes and re-representing the same thing from one mode to another is called synaesthesia. Here, we define 'synaesthesia' in a way as to, though analogous with, the uses of the term psychology which refers to the overlay of sensory-cognitive modes. In the Multiliteracies theory, we are referring specifically to the switching of representational modes to convey the same or similar meanings. Representational parallels make synaesthesia possible.

Traditional literacy does not by and large recognise or adequately use the meaning and learning potentials inherent in different modes, and the synaesthesia involved in shifting between one mode and another. Rather, it tries to confine itself to the monomodal formalities of written language, as if the modality of written language could be isolated as a system unto itself. This was always a narrowing agenda. Today, such narrowing is unrealistic given the multimodal realities of the new media and broader changes in the communications environment.

However, the consequences of the narrowing of representation and communication to the exclusive study of written language (sound-letter correspondences, parts of speech and the grammar of sentences, cohesion and coherence strategies based on the peculiar genres of schooled learning such as the essay, the forms of literary works. and the like) are more serious than its still-powerful, though declining, relevance to contemporary conditions. Synaesthesia is integral to representation. In a very ordinary, material sense, our bodily sensations are holistically integrated, even if our focus of meaning-making attentions in any particular moment might be one particular mode. Gestures may come with sound; images and text sit side by side on pages; architectural spaces are labelled with written signs. Much of our everyday representational experience is intrinsically multimodal. Indeed, some modes are naturally close to others, so close in fact that the one easily melds into the others in the multimodal actualities of everyday meaning. Written language is closely connected to the visual in its use of spacing, layout and typography. Spoken language is closely associated with the audio aural? [we use audio because it has stronger productive rather than receptive (hearing) connotations] mode in the use of intonation, pitch, tempo and pause. Gesture may need to be planned or rehearsed, either in inner speech (talking to oneself), or by visualisation. Children have natural synaesthetic capacities, and rather than build upon and extend these, school literacy attempts over a period of time to separate them off, to the extent even of creating different subjects or disciplines, literacy in one cell of the class timetable and art in another (Gee 2004; Kress 1997).

The different modes of meaning are, however, not simply parallel. Meaning expressed in one mode cannot be directly and completely translated into another. The movie can never be the same as the novel. The image can never do the same thing as the description of a

scene in language. The parallelism allows the same thing to be depicted in different modes, but the meaning is never quite the same. In fact, some of the differences in meaning potential afforded by the different modes are fundamental. Writing (along the line, sentence by sentence, paragraph by paragraph, one page after the next) sequences elements in time and so favours narrative text types. Image collocates elements according to the logic of simultaneous space, and so favours the genre of display. Writing's intrinsic temporality orients it to causality; image to location. Written language is open to a wide range of possible visualisations (is the movie how you visualised things when you were reading the book?). The words have to be filled in with visual meaning. Visuals, however, require that the viewer creates order (time, causation, purpose, effect) by arranging elements that are already visually complete (Kress 2003). Reading and viewing, in other words, require different kinds of imagination and different kinds of transformational effort in the re-representation of their meanings to oneself. They are fundamentally different ways of knowing and learning the world.

This paradoxical mix of parallelism and incommensurability between modalities is what makes addressing multimodality integral to the pedagogy of Multiliteracies. In the face of the 'back to basics' movement, we would put the case that synaesthesia is a pedagogical move which makes for powerful learning in a number of ways. Some learners may be more comfortable in one mode than another. This may be their preferred mode of representation—what comes to them most easily, what they're good at, the mode in which they best express the world to themselves and themselves to the world. One person may prefer to conceive a project as a list of instructions; another as a flow diagram. The parallelism means that you can do a lot of the same things in one mode that you can do in the next, so a pedagogy which restricts learning to one artificially segregated mode will favour some types of learners over others. It also means that the starting point for meaning in one mode may be a way of extending one's representational repertoire by shifting from favoured modes to less comfortable ones. If the words don't make sense, the diagram might, and then the words start to make sense. But the incommensurability of modes works pedagogically, too. The words make sense because the picture conveys meaning that words could never (quite or in a completely satisfactorily way) do.

If the Multiliteracies agenda captures some generalities of multimodality which extend beyond the contemporary moment, changes in the contemporary communications environment simply add urgency to the call to consciously deploy multimodality in learning. We are in the midst of a seismic shift in communications, from the world told through the medium of writing on the page of the book, magazine or newspaper, to the world shown through the medium of the visual on the screen. There was a compelling linearity to the traditional page of written text. Its reading path was clear, even if you had to fill in what the referents of the words looked and felt like. The lexis of writing may have demanded some semantic filling, but its syntax provides stable blueprints for semantic interpretation. In the case of images, the elements of meaning are given (lexis) but, despite some loose reading conventions (left to right, top to bottom) influenced by the culture of reading scripts that run in this way, the reading path is more open than that of writing. The syntax is in the hands of the viewer (Kress 2003). In this regard, in the construction of the text, the balance of agency in meaning construction has shifted in favour of the viewer.

Web-pages today are full of written text, but the logic of their reading is more like the syntax of the visual than that of the written language. Reading the screen requires considerable navigational effort. Today's screens are designed for many viewing paths, allowing for diverse

interests and subjectivities amongst viewers, and the reading path they choose will reflect the considerable design effort the viewer has put into their reading. In fact, the commonsense semantics is telling—'readers' of books have become 'users' now that they are on the web. Nor is this shift only happening on the web—printed pages more and more resemble screens. The mix of image, and caption, and list, and breakout box is such that the reading paths of the image are now to be found on the page—the science textbook, the glossy magazine, the contemporary newspaper or the instruction manual, for instance. And where writing is found, visual supports allow a simplified syntax for the writing itself, in the form, for instance, of a decreasing clausal complexity. This decreasing complexity of writing, however, is compensated by an increasingly complex multimodality (Kress 2003).

The reasons for this change are in part practical and material. The conditions of digital text fabrication allow multiple modes to be made of the same materials, stored on the same media, communicated through the same channels and played on the same devices. This means that the practical business of doing multimodality is easy now, and because it is, we're using the affordances of the complementary modes to ease the semantic load that had been placed on written language. But, in so doing, we have created new complexities in multimodal representation. It is time to accord this these the same earnest attention that literacy teaching has applied to language.

For every shift away from the dominance of the written mode in the new communications environment, however, there are other returns to writing—email, SMS and blogging, for instance. None of these, however, are simply returns. They all express new forms of multimodality—the use of icon in SMS and the juxtaposition of image in MMS (sending images with text), the layout of blog pages and email messages, and the trend in all of these new forms of writing to move away from the grammar of the mode of writing to the grammar of the mode of speaking. Then there's the deep paradox of the 'semantic web', in which images, sound and text are only discoverable if they are labelled. The semantic web of the presently emerging internet is built on a kind of multimodal grammar ('structural and semantic markup', semantic schemas or ontologies) by way of running commentary on the images, sound and writing it labels (Cope & Kalantzis 2004). Whichever way we look, written language is not going away. It is just becoming more closely intertwined with the other modes, and in some respects it is itself becoming more like them.

A Multimodal Grammar

The following grammar of multimodality, illustrates the parallelisms between modes in response to five questions about meaning:

- Representational—What do the meanings refer to?
- Social—How do the meanings connect the persons they involve?
- Organisational—How do the meanings hang together?
- Contextual—How do the meanings fit into the larger world of meaning?
- Ideological—Whose interests are the meanings skewed to serve?

Dimensions of Meaning, With Some Examples

Dimensions of Meaning v	Modes of Meaning >	A Linguistic Examples	B Visual Examples	C Spatial Examples	D Gestural Examples	E Audio Examples
1. REPRESENTATIONAL: What do the meanings refer to?	**Participants:** Who and what is participating in the meanings being represented?	A1 Naming words, which make sense in terms with their relationships with nearby words and contextual pointers.	B1 Naturalistic and iconic representations, visibly distinguishable contrasts.	C1 Objects in relation to nearby objects, part/whole relationships, contrasts.	D1 Mimicry, gesture-shapes.	E1 Naturalistic representations in sound (e.g. recording of bird sounds); iconic representations (e.g. alarm sounds).
	Being and Acting: What kinds of being and acting do the meanings represent?	Processes, attributes and circumstances.	Vectors, location, carriers.	Placement, topography, scale, boundaries, location.	Direction, location, size.	Tempo, tonality, accompaniment.
2. SOCIAL: How do the meanings connect the persons they involve?	**The Roles of the Participants in the Communication of Meaning:** How does the speaker/writer mean to draw the listener/reader into their meaning?	A2 Participant relationships and vicarious observer relationships.	B2 Perspective, focal planes of attachment or involvement.	C2 More or less negotiable spaces: e.g. parks versus prisons.	D2 Visible sentiment, relationships of persons.	E2 Listening, overhearing.

	Commitment: What kind of commitment does the producer have to the message?	The kind of affinity meaning makers have to the propositions they are making, and the degrees of certainty they express—'modality'.	Contextualisation, depth, abstraction.	Emphatic (fences, barriers), or less insistent spatial designs.	Gesture as order; gesture as incidental expression of personality.	Beethoven versus easy listening.
	Interactivity: Who starts the interchange, and who determines its direction?	Agenda setting, turn taking, topic control.	Eye contact, response.	Spatially determined interchanges: audiences by a theatre, students by a classroom.	Patterns of gesture response and interaction.	Orchestra compared to cassette in car (start, volume, balance etc.)
	Relations between Participants and Processes: How are the participants connected to each other and with the actions and states of being that are represented?	Agency, or transitivity, 'nominalisation'.	Agency as represented through vectors, eyelines, perspective.	Principles of layout.	Agency: e.g. sulking compared to assault.	Mood.

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3. ORGAN-ISAT-ION-AL: How do the meanings hang together?	**Mode of Communic-ation:** What is distinctive about the form of communication, and what conventions and practices are associated with this form of communication?	A3 Spoken or written language; a part of what is going on or representing what is going on; monologic or dialogic.	B3 Still or moving images, two or three dimensional representation, representational versus interactive.	C3 Architecture topography geography.	D3 Gesture, demeanour, fashion.	E3 Natural sounds, prosody in voice, music.
	Medium: What is the communication medium and how does this define the shape and the form of the representation?	Physical medium, such as recorded or ephemeral speech.	Different media, such as oil painting versus photography.	Natural environment, building, website.	Hand gesture, facial looks, clothing.	Sound waves in the air; recorded or ephemeral.
	Delivery: How is the medium is used?	Intonation, stress, rhythm, handwriting, typing.	Brushstrokes, photographic film.	Construction.	Expression.	Intonation, stress, rhythm, pitch, loudness.
	Cohesion: How do the smaller information units hold together?	Information structure, reference, omission, conjunction, wording.	Left/right, top/bottom, centre/margins, framing, salience/gravitational pull.	Structural, aesthetic.	Rhythm, opening and closing gestures.	Notes, bars and scales; repetition, parallelism, elaborations, contrasts.

	Composition: What are the overall organisational properties of the meaning making event?	Genre, such as romance novel or doctor-patient conversation.	Genre, such as landscape photography compared to photojournalism.	Building or environment types.	Demeanour, style.	Genre, such as jazz or reggae.
4. CONTEXTUAL: How do the meanings fit into the larger world of meaning?	**Reference:** What how do meanings point to contexts and contexts point to meanings?	A4 Frame of reference, pointers, metaphor.	B4 Frame of reference, foregrounding/backgrounding, resemblance/metaphor.	C4 Location, prominence, metaphor.	D4 Setting.	E4 Where the sounds are heard; resemblance and analogy.
	Cross-reference: How do meanings refer to other meanings?	Intertextuality, hybridity.	Pastiche, collage, icon.	Motifs.	Expressive traditions.	Motifs, riffs.
	Discourse: How does the whole of what I communicate say something about who I am in a particular context?	Primary and secondary discourses, dialects, register, orders of discourse.	Imagery.	Topography, architectonics.	Persona.	Repertoire.

5. IDEOLOGICAL: Whose interests are the meanings skewed to serve?	**Indication of Interests:** How does the meaning maker declare their interests?	A5 Authorship, context and purpose of meaning.	B5 Naturalistic or stylised images.	C5 Facades, signs.	D5 Demeanour and clothing pointing to role.	E5 Where and why the sounds are produced.
	Attributions of Truth Value and Affinity: What status does the meaning maker attribute to their message?	Assertions as to the extent of the truth of a message, declaring one's own interest, representing agency.	Realistic (e.g. scientific diagrams), versus heavily authored (e.g. artistic) images.	Spatial arrangements, such as of a court room compared to a park.	Acting/mimicry compared to expressions of authenticity, inner feelings.	Intensity.
	Space for Readership: What is the role of the reader?	Open and closed or directive texts, anticipated and unanticipated readings.	Highly detailed panoramas versus propaganda.	Alternative ways of using a space, directive or allowing alternatives.	Directness versus ambiguity of expression.	Capacity to turn sound on/off, volume, balance, sampling.
	Deception by Omission if not Commission: What's not said and what's actively one-sided or deceptive—deliberately or unconsciously?	Selectiveness in foregrounding and backgrounding, non-declaration or obscuring of interests.	Foregrounding and backgrounding, distortion, perspective.	'Front' and 'back' spaces, public and private.	Using the covering of larger motions to blur small motions; social front, decorum.	Aura, such as mood music when a plane is taking off.

Types of Transformation: How is a new design of meaning created out of available designs of meaning?	Extent of creativity, degree of self-consciousness of representational resources and their sources.	Extent of creativity, degree of self-consciousness of representational resources and their sources.	New or hybrid forms of spatiality: e.g. websites, food courts.	Conscious versus unconscious behaviours.	New and hybrid forms of music, or faithfulness to received traditions of the repertoire.

Over the following pages, we re-present the dimensions of meaning summarised in the table above. The material is presented in two columns: the left hand column asks a series of critical questions about the nature of meaning, and suggests some of the kinds of concepts that might be used to describe those meanings. The right hand column provides examples of these kinds of meanings. The right hand column, however, by no means represents 'correct answers'. Depending on culture and context, the general questions will invite different concepts of meaning and different examples. The purpose of the questions is not just to add depth (analytical power) do one's understanding of meaning, but also breadth, in which it is possible to contrast and account for very different ways of making meanings according to context and culture.

A Linguistic Meaning

A1 Representational—What do the Meanings Refer to?

Meaning is always about something. The representational is the 'about what?' dimension of meaning. It is about the content of meaning or the 'goings on' the meaning refers to. And this 'about' is always differing from one cultural setting to the next. Aspects of the representational dimension of linguistic meaning include:

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Naming of Participants: Who and what is participating in the meanings being represented?	
• Naming words only make sense in terms of their relationships to nearby words and contextual pointers. These relationships are neither stable, nor shared, nor clearly demarcated—as dictionary-type definitions tend to lead us to believe. (Fairclough 1992: pp.186-190)	• For instance, enterprise can mean business (similar to 'free enterprise'), or activity of a bold or arduous type, or initiative. We can only tell which meaning is the more likely in terms of nearby words and the context in which the utterance or the text is to be found. And even, then, there may be deliberate and subtle slippages between the different meanings.

• Meanings make sense in reference to contrast or lack of contrast, words and things that are quite like and quite different to other words and things. Words denote what is included, by contrast with what is excluded. And different people include and exclude different things in what they mean by a particular word. (Gee 1996: pp.71-81)	• I mention the sofa ... Susan thinks I'm talking about a different couch in the room ... actually, she thinks I'm talking about something I would call a settee. We both mean the same thing by couch, but it seems we do not mean the same thing by sofa. For both of us, couch includes both sofa and settee. Although for me settee excludes sofa, it does not for Susan.
• Naming words are defined by their exclusion of other naming words when they are:	
- opposites or antonyms	- *mountain as compared to valley*
- make fine or not so fine distinctions	- *hill as compared to mountain*
• Naming words are defined by their inclusion of other naming words when they are:	
- related by way of subset	- *daffodils and dahlias are both kinds of flower*
- related by extension	- *head as in body, beer or company*
- related by part-whole relationship	- *wheel/car*
- related by container-contents relationships	- *bottle/drink*
- related by representative-symbol	- *queen/crown*
- related by collocation, or frequent appearance together. (Yule 1996: pp.114-123)	- *hammer/nails; table/chairs.*
Being and Acting: What kinds of being and acting do the meanings represent?	
• Processes:	
- in the external world	- The lion caught the tourist.
- in the world of consciousness	- Mary liked the gift.
- of being and relationship	- Sarah is wise. - Peter has a piano

- behaviour	- *worry, grumble, smile*
- verbal	- *says, means*
- existential	- *exists, happens*
• Attributes:	
-identity	-something/somebody is whatever
-location	-something/somebody is at, in, from wherever
-possessive	-something/somebody has whatever
• Circumstances:	
- time	- *stay two hours*
- space	- *work in the kitchen*
- manner	- *beat the pig with the stick*
- cause	- *die of starvation*
- accompaniment	- *set out with her umbrella*
- matter	- *worry about her health*
- role (Halliday 1994: pp.106-161)	- *come here as a friend*

A2 Social—How do the Meanings Connect the Persons they Involve?

Meanings connect people. Language creates the social by making the connections between the world of speakers and listeners, and the world of writers and readers. It also represents the social in the way the participants are connected with each other, and the processes in which they are involved. The meanings that are designed are always telling—of power relationships between people, of attitudes or stance, of cultural orientation, and of degree of interpersonal familiarity or intimacy. Aspects of the social dimension of linguistic meaning include:

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
The Roles of the Participants in the Communication of Meaning: How does the speaker/writer mean to draw the listener/reader into their meaning?	
• Participant relationships:	
- Statement	- *He is giving her the teapot.*
- Offer	- *Would you like this teapot?*

- Question	- *What is he giving her?*
- Order or exclamation (Halliday 1994: pp.68-71)	- *Give me that teapot!*
• Vicarious or observer relationships	• Dialogue to be read; a conversation supposed or not supposed to be overheard.
Commitment: What kind of commitment does the producer have to the message?	
• The kind of affinity meaning makers have to the propositions they are making, and the degrees of certainty they express—'modality'. (Fairclough 1992: pp.142,158-162)	• The earth *must be/could be/is/should* be flat.
Interactivity: Who starts the interchange, and who determines its direction?	
• Agenda setting, or who initiates the interaction and why.	• A patient initiates a dialogue with a doctor because they are ill.
• Turn taking, or the pattern of beginnings and ends to utterances, and the sequence of utterances.	• A doctor leads a patient in a medical examination in a way that reveals relationships of power and knowledge.
• Topic control, or the extent to which each participant determines the direction of the interaction. (Fairclough 1992: pp.138-43,152-167)	• The drift of the doctor-patient consultation is determined by the power relationships established in dialogue.
Relations between Participants and Processes: How are the participants connected to each other and with the actions and states of being that are represented?	
• Agency—or 'transitivity'. (New London Group 1996)	• *John struck Mary has more effect on Mary than John struck out at Mary, and John struck Mary has more agency than Mary was struck.*
• Turning actions, qualities, assessments, or logical connections into named participants—'nominalisation'. (Kress 1993: p.252)	• *assess becomes assessment* • *strong becomes strength* • *can becomes ability* • *because becomes reason*

A3 Organisational—How do the Meanings Hang Together?

Meanings have organisational properties and devices which hold them together. The organisational dimension of meaning involves the kind of work that is done on the medium in order to create the message. It also involves the business of putting the smaller and simpler bits of meaning together to represent a larger and more complex whole. Examining the organisational dimension of meaning gives us an insight into the special kinds of effort that go into fashioning meanings as more or less coherent wholes and making sure they hang together. Aspects of the organisational dimension of linguistic meaning include:

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Mode of Communication: What is distinctive about the form of communication, and what conventions and practices are associated with this form of communication?	• Written or spoken language • Monologic or dialogic speech • A part of what is going on or representing what is going on
Medium: What is the communication medium and how does this define the shape and the form of the representation?	
• Physical medium	• Writing on paper, or keystroke plus mouse, or sound waves in the air, or mobile phone
• Recorded or ephemeral	• Recorded speech/unrecorded conversation
Delivery: How is the medium is used?	
• Intonation, stress, rhythm, accent—'prosody'. (Gee 1996: p.96)	• whispering, shouting, pauses, emphases, pitch
• Handwriting, typing—'graphology'	• large/small, neat/untidy, forms and degrees of editing on the page or screen
Cohesion: How do the smaller information units hold together?	

• Information Structure—the theme that is given as the starting point of the message, and the new information that is the purpose of the communication. (Halliday 1994: pp.37-39)	• *The duke* [given starting point] *has given my aunt that teapot* [new message].
• Reference—a participant or circumstance that serves as a reference point for something that follows.	• *He* or *she*, referring back to a person previously mentioned. *Someone else,* referring by way of exclusion to somebody already mentioned.
• Omission—where something necessary to make meaning if a smaller stretch of meaning were to stand alone is left out because it has already been stated.	• *I believe so, Alice said thoughtfully* only makes sense because what she believes is appeared in the previous sentence: ' *if you've seen them so often, of course you know what they are like'.*
• Conjunction	• *because, next, here, yet*
• Wording—repetition, deliberate use of a synonym, part-whole relationships. (Halliday 1994: pp.308-339)	• *Algy met the bear. The bear was bulgy.*
Composition: What are the overall organisational properties of the meaning making event?	
• Genre: resemblances and differences in organisation and purpose between whole texts or meaning making episodes.	• novels compared to scientific reports • television discussions compared to discussions in class at school • counselling compared to interviewing • narratives compared to arguments

A4 Contextual—How do the Meanings Fit into the Larger World of Meaning?

Meanings point to an assumed world, and a world that is always peculiar in a cultural sense. Our assumptions about context and our experience of what meanings refer to shape what we take meanings to be. So, in order to make meaning, speakers and writers attempt to cue listeners and readers into what they take the context to be (Gee 1996: p.98). Aspects of the contextual dimension of meaning include:

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Reference: What how do meanings point to contexts and contexts point to meanings?	
• Frame of reference—locating the situation of the meaning.	• Guessing from context and using one's acquired cultural models to work out what meanings are referring to, such as likely inclusions and exclusions.
• Pointers—foregrounding or background-ing aspects of the context.	• Looking for pointers which highlight which as aspects of the context are in the foreground or the background, the this and the that, the here and the there, the now and the then.
• Metaphor—resemblance and analogy. (Fairclough 1992: pp.194-198)	• Using business metaphors in education in order create a likeness: Courses have to be packaged in modules that our clients will buy.
Cross-reference: How do meanings refer to other meanings?	
• Intertextuality is the property of texts to be full of snatches of other texts, or the ways in which meanings are made through reference to other meanings.	
- reportage, such as of speech	- "....", she said.
- presuppositions, in widely used expressions or formulations.	- newspaper headline: Soviet Threat {with all the presuppositions that come with that} a Myth.
- negations presupposing texts in the affirm-ative.	- newspaper headline: I Didn't Murder Squealer: Trial Man Hits Out.
- situating oneself above our outside of one's own discourse	- He was sort of paternalistic.
- irony, or echoes of a contrary utterance (Fairclough 1992: pp.84,118-123)	- It's a lovely day for a picnic (uttered on a terrible day).

• Hybridity—mixing established practices and conventions of meaning.	• When email mixes the conventions of speaking with the conventions of writing.
Discourse: How does the whole of what I communicate say something about who I am in a particular context?	• Ways of meaning to be 'people like us'—scientists in the discourse of science, adolescents in peer discourse, believers in religious discourse.
• Primary discourses—original, home or lifeworld discourses of first acquisition	• Ways of speaking in neighbourhoods
• Secondary discourses—learnt, adult discourses (Gee 1996: pp.viii,137-45)	• Ways of speaking as a professional or a hobbyist
• Dialects or social languages: sub-languages that accomplish culturally different whos and whats. (Gee 1996: p.66)	• Australian Aboriginal English • Working class Australian English
• Register: variations according to distinctive contexts.	• The language of a lawyer speaking in a court, compared to their private discussion of a case with a friend.
• Order of Discourse: related discourses in a particular social institution or social domain. (Fairclough 1995: p.55)	• The legal system, where the discourses of the law interfaces with the discourses of everyday narrative experience.

A5 Ideological—Whose Interests are the Meanings Skewed to Serve?

Meanings serve varied interests and cultural purposes. Sometimes these are openly declared; and sometimes they contain assertions of truth value. Other times, interests are not so clear, even to the person making the meaning; and assertions or implications of truth value are open to question. The expressions of interest to be found in meaning represent its ideological dimension. (Gee, 1996, pp.ix,21; Fairclough, 1992, pp.86-96; Hodge, 1988, pp.2-3,266-268. Aspects of the ideological dimension of meaning include:

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Indication of Interests: How does the meaning maker declare their interests?	
• Authorship: The character of the meaning maker, and clues in the various bits of their identity and roles pointing to their interest in a particular meaning.	• Speaking or writing as a doctor, or a mother, or an animal rights activist, or all of these.
• The context and purpose of the meaning—where? when? why? what for?	• In a doctor-patient consultation, at home with children, at a community meeting.
• Context and interests in reception—who are the meanings intended for? how are they received by intended and unintended listeners and readers?	• A patient overhearing a doctor's conversation with their child.
Attributions of Truth Value and Affinity: What status does the meaning maker attribute to their message?	
• Assertions as to form/extent of the truth of a message, and expressions of affinity to the message—'modality'.	• We *must/we should/perhaps we might* encourage more people to be vegetarians.
• Declaring one's own interest in the message.	• To me, as a doctor/mother/ animal rights activist, ...
• Representing agency: relationships between participants, and between participants and processes.	• Assigning agency in terms of damage and consequences.
Space for Readership: What is the role of the reader?	
• Open texts that lead the reader to imply and anticipate and closed texts that are directive. (Eco 1981)	• A detective story (leading the reader into incorrect implications that are later undone) compared to an instruction manual.
• Cultural agendas of the author in terms of anticipated readership.	• Open questioning, argument, rhetoric, propaganda
• The infinite range of unanticipated interpretations of meaning.	• Misunderstandings and divergent interpretations—accidental and deliberate

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Deception by Omission if not Commission: What's not said and what's actively one-sided or deceptive—deliberately or unconsciously?	
• Selectiveness in foregrounding and back-grounding—information structure: theme/message.	• Which messages are regarded as given, and which new.
- buried reasoning, instead of explicit conjunctions (Kress, 1993, p.248)	- Flo's training led to her win, compared to Flow won because she had trained hard.
- buried agency—transitivity	- John struck Mary compared to Mary was struck.
- nominalisation—turning processes where agency is often more explicit into abstract participants	- assess (where it is reasonably clear who is assessing whom) becomes assessment (as an abstract participant)
• Deliberate or unconscious double meanings	• Jokes, irony • Politeness • Freudian slips
• Prominent lesser truths and harder-to-see greater truths	• An advertisement, underlying which are the motifs of consumerism
Types of Transformation: How is a new design of meaning created out of available designs of meaning?	
• Extent of transformation	• Meanings that are predictable and formulaic, compared to meanings that are more inventively hybrid.
• Degree of self-consciousness of representational resources and their sources.	• The work of a professional editor or critic, compared to a speaker in a conversation or letter writer.
• Degree of self-consciousness of cultural locatedness.	• Meanings which locate their own cultural context, limitations, scope, extent—as opposed to those that generalise the local and specific as universal.
• Ethical and human reference points of meanings—within or beyond the life-world of immediate experience.	• Meanings that measure themselves up against alternative meanings in relation to the ethical issue of being human.

B Visual Meaning

There are different potentials in different modes of meaning. Written or spoken language is better than still visuals at describing actions and events over time—although, in this regard, film or video visuals are just as capable as language. Visuals, however, are better at representing both large generalisations and fine detail about location and space. There is, nevertheless a common meaning potential across the various modes of meaning. They can perform many of the same kinds of representation even if, given the nature of each mode, the meanings come out differently. So, we will ask the same five questions of visual meaning that we did of linguistic meaning.

B1 Representational—What do the Meanings Refer to?

Aspects of the 'about what' and the 'goings on' of the representational dimension of visual meaning include:

Picturing of Participants: Who and what is participating in the meanings being represented?	
• Naturalistically represented participants. (Language is mostly not capable of naturalistic representation, with few exceptions, such as onomatopoeia or sound resemblance.)	• Visibly distinguishable people, objects, places.
• Iconically, symbolically or abstractly represented participants.	• Visibly distinguishable line, colour, texture representing conventionally intelligible meanings—Australian Aboriginal 'dot' art.
• Features that make participants distinguishable between each other and from the background. - colour (hue, saturation, value) - line - form (volumes or masses)	• A car on a picture of a road, distinguishable through its colour, line and form contrasts with the picture of the road and the countryside.
• Pictured participants as defined by their visible difference from other pictured participants or participants that might have been pictured but weren't.	

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- striking contrasts, of colour, line and form	- dark or light contrasts within an image, or an image which is very dark all over contrasted with the possibility of a light or variegated image.
- just notable differences— minimal contrasts that might nevertheless still be definite and effective. (Tufte 1997: p.73)	- naturalistic representations in which participants are subtly distinguishable from each other and the background, such as the trees against the background of a forest, or one species of trees alongside another.
• Pictured participants as defined by their visible commonality with other pictured participants or participants that might have been pictured but weren't.	
- related by way of subset, such as superordinate and subordinate visual representations. (Kress & van Leeuwen 1996: p.81)	- A car icon at the head of a newspaper motoring section, and the images of the different cars to be found on the page.
- related by part-whole relationship	- The wheels that are pictured in a picture of a car.
- related by container-contents relationships	- Picturing a drink by picturing its bottle.
- related by representative-symbol	- A photo of the Queen of England and an iconic representation of a crown.
- related by collocation, or frequent appearance together.	- Pictures of a hammer with or without nails; a table with or without chairs.
Being and Acting: What kinds of being and acting are do the meanings represent?	
• Processes:	
- actions: vectors relating participants which indicate visible trajectories, tensions, dynamic forces.	- depictions of directionality of action or intent as between an actor and a goal.
- in the world of consciousness, such as visible signs of phenomena and people's reactions	- vectors formed by eyelines

- of being and relationship	- the places represented on a map, the family members in a group relationship
- behaviour	- visual signs of indicating sentiment, such as pleasure, pain
- verbal	- cartoon style dialogue bubbles; synchronisation of dialogue to visuals in film
- existential (Kress & van Leeuwen 1996: pp.47,49)	- naturalistic images with embedded analytical processes, such as the attributes of actors.
• Attributes:	
- location	- setting, and spatial relationships of the participants in an image
- possessive: carrier with possessive attributes (Kress & van Leeuwen 1996: pp.44,48-49,82,108)	- a person wearing something in particular - a map of an area possessing place characteristics
- identity	- what the presence of a participant means, stands for, suggests
• Circumstances:	
- time	- indications of time and duration, such as route maps, diagrams of the solar systems, lighting/shadow
- space (Kress & van Leeuwen 1996: p.71)	- location, indicated by foreground background, placement etc.
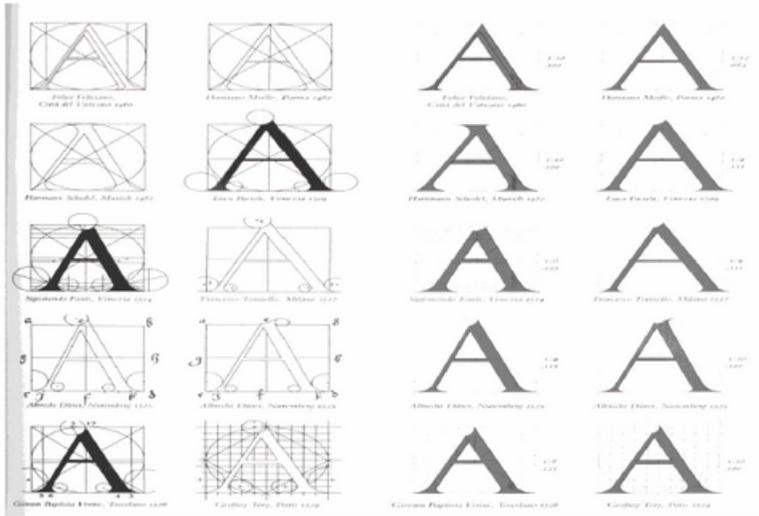
Collocation: Visible Commonality and Fine Distinctions. (Tufte, *Visual Explanations,* p.113)
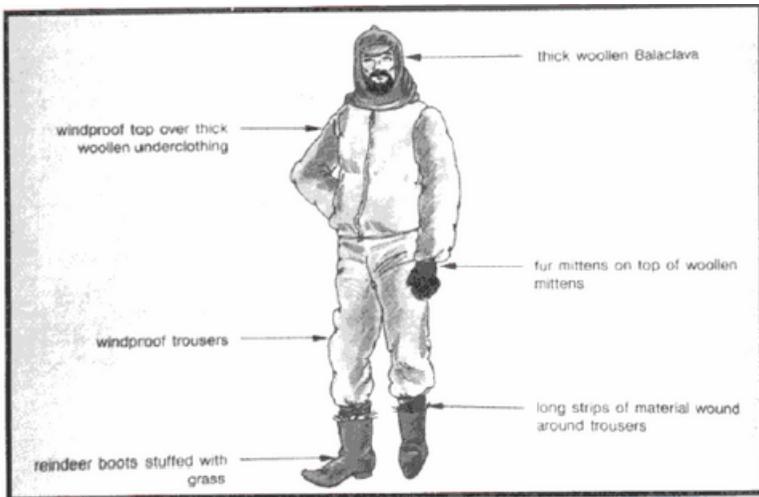
Carrier with Possessive Attributes: The Image has an Analytical Structure: it is way the Participants (the Various Items of Clothing) Fit Together to Make up a Larger Whole. The Equivalent Expression of Meaning in Language Alone would be Something Like 'The Outfit of the Antarctic Explorer Consists of a Balaclava, a Windproof top, Fur Mittens ...' etc. In this Sense, it is Rather Like a Picture of a Landscape or a Map, and not Like a Picture of Action or Behaviour. (Kress & van Leeuwen, *Visual Images,* p.48)

Circumstances of Time and Space: The Empty Streets of Prague during the 1968 Soviet Invasion of Czechoslovakia. (Tufte, *Visual Explanations,* p.13)

B2 Social—How do the Meanings Connect the Persons they Involve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
The Roles of the Imagemaker/Viewer: How does the imagemaker mean to draw the viewer into their meaning?	
• Participant relationships	
- statement: visuals are mostly in the form of a statement of information (Kress & van Leeuwen 1996: pp.123-124)	- pictorial representation of a teapot.
- order or exclamation	- warning signs
• Vicarious or observer relationships	

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- perspective: relationship of viewer to what is depicted	- audience involvement as determined by the angle of the camera, artist - looking up or down at a participant depicted in an image: high angle makes subject look small and insignificant; a low angle imposing and powerful
- focal planes of detachment/ involvement (Kress & van Leeuwen 1996: pp.41,122-126,141-146)	- oblique (detached) versus frontal (involved) perspectives - eyelines between participants and viewers, such as a television newsreader compared to watching an interview
Commitment: What kind of commitment does the producer have to the message?	
• The kind of affinity meaning makers have to the propositions they are making, and the degrees of certainty they express—'modality'—as marked by form of contextualisation, depth, abstraction etc. (Kress & van Leeuwen 1996: pp.149,161-165)	• Images that represent people, places and things as if they were real and actually existed this way, or in then form of imaginings, caricatures, fantasies: photographs versus cartoon caricatures. • Horizontal or vertical perspectives (maps, plans) versus oblique (photographs of scenes)
Interactivity: Who starts the interchange, and who determines its direction?	• A photograph on the wall, compared to a multimedia screen.
Relations between Participants and Processes: How are the participants connected to each other and with the actions and states of being that are represented?	
• Agency—or 'transitivity': are participants represented or interactive? which is actor/goal? or phenomenon/reactor?	• vectors, eyelines
• Using perspective, angle to emphasise factualness or distinct point of view; the pretence of the faithful copy versus images with attitude. (Kress & van Leeuwen 1996: pp.46,62-64,135)	• A medical photograph of the body, compared to a fashion photograph.

Roles of the Imagemaker/Viewer: Order or Exclamation. (Kress & van Leeuwen, *Visual Images,* p.123)
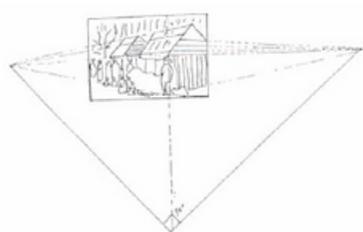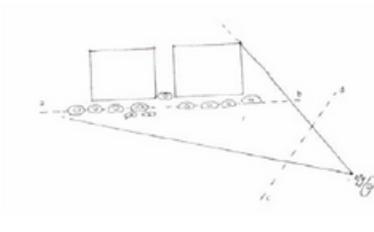
Vanishing points.   Position of photographer and subjects, aerial view.

Role of Imagemaker, Viewer: Perspective in Which the Photographer/Viewer is Viewing Aboriginal People Obliquely, Indicating Detachment from Subject. (Kress & van Leeuwen, *Visual Images,* p.123)
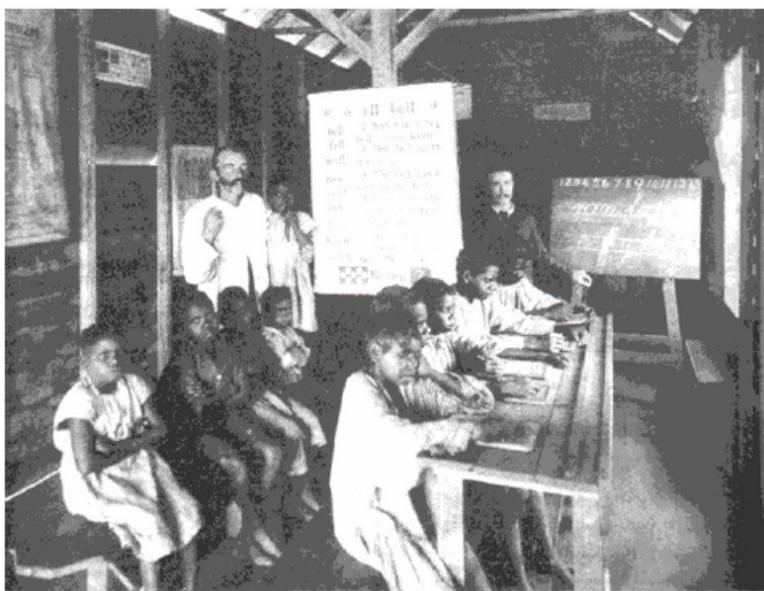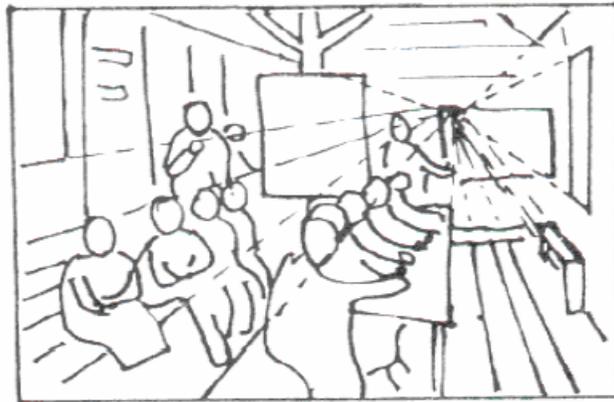
Focal Planes of Attachment and Involvement: Frontal plane of the photographer runs parallel to one set of participants—the teachers, the blackboard and the reading chart. This indicates a high level of involvement. The frontal plane of the Aboriginal children is at a 90 degree angle with that of the photographer, indicating a high level of detachment. The vanishing point is the blackboard. (Kress & van Leeuwen, Visual Images, pp.142-143)

B3 Organisational—How do the Meanings Hang Together?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Mode of Communication: What is distinctive about the form of communication, and what conventions and practices are associated with this form of communication?	• Still or moving images, where moving images add a time element as a well as a dimensional element (e.g. pans) • Two dimensional (image) or three dimensional (sculptural, modelled) representation • Representational (photography) versus interactive (multimedia)
Medium: What is the communication medium and how does this define the shape and the form of the representation?	• Oil painting versus photography • Television screen versus computer screen. • Film versus video
Delivery: How is the medium is used?	• Brushstrokes, photographic film
Cohesion: How do the smaller information units hold together?	

• Information Structure—placement of elements as an indication of salience	
- Left/right patterns	Illustrated magazine page design, in which the given or information starting point is on the left and the new information on the right.
- Top/bottom patterns	An advertisement which idealises a shampoo in a large upper image, and represents it realistically as a bottle at the bottom.
- Centre/margin patterns	Focal point of a picture in the centre, context to the margins.
- Framing	Dividing lines that define, create a boundary to the image; where the frame occurs; what belongs together in an image, and what does not.
- Salience: participants/masses with greater gravitational pull in relation to muted secondary elements. (Kress, 1996, pp.186-203,214-218)	Prominence within the image as determined by size, shape, colour, tonal value, sharpness
• Reference—relationship between pictured participants.	
- parallelism	- two images of the same thing, with notable salient difference(s): patient with/without medical condition
- repetitions	- visual expression of quantity: just two, or hundreds of, buildings or trees.
- elaborations	- image of details juxtaposed against image of whole
- contrasts (Tufte, 1997, pp.79-107)	- juxtaposition on the basis of striking difference
Composition: What are the overall organisational properties of the meaning making event?	
• Genre: resemblances and differences in organisation and purpose between whole images.	• landscape photography compared to photojournalism • impressionism compared to abstract expressionism

Information Structure: Left to Right, Text Describes the Given World of Hollywood and the Stars, and the Image is the New—the Self-Absorbed Persona of 'the Most Beautiful Woman in the World'. (Kress & van Leeuwen, *Visual Images,* p.215)

Information Structure: Top-down given/New Structure. (Kress & van Leeuwen, *Visual Images,* p.216)

Mode of Communication: Two Dimensional Representation of Three Dimensional World.

Medium: Lithograph.

Information Structure: Focus on Central Paris, Ile de la Cite, Fork in Seine.

Composition: Cross between a Map (Abstract Coding) and Realistic (e.g. Photographic) Representation. (Tufte, *Envisioning Information*)

Genre: Resemblances and Differences in Organisation of Images. (Tufte, *Visual Explanations,* p.119)

B4 Contextual—How do the Meanings Fit into the Larger World of Meaning?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Reference: What how do meanings point to contexts and contexts point to meanings?	
• Frame of reference—locating the situation of the meaning.	• Where the image is located—a women's magazine compared to an art gallery.
• Pointers—foregrounding or background-ing aspects of the context. (Tufte, 1997, pp.17-21)	• Labels, arrows. • Explicit indicators in a two dimensional image of the multivariate world to which the image is directed.

• Metaphor—resemblance and analogy. (Kress & van Leeuwen 1996: p.50)	• Straight lines, angularity and right angles in reference to the mechanical or built world; round or irregular line referring to the natural or organic world.
• Kind of referencing: naturalistic versus abstract (Kress & van Leeuwen 1996: pp.27,46)	• Relationships of apparently close resemblance, such as photographs; versus iconic, stylised or abstract representation, such as logos.
• Qualities of original compared to qualities of reproduction—'aura' (Benjamin 1970: pp.220-223)	• Contextually ascribed status of an image: original 'art' versus mass reproduced images
Cross-reference: How do meanings refer to other meanings?	
• Intertextuality, or the property of images or visual designs to be full of snatches of other images or imagery; the sense of familiarity that something looks like something else seen in another context.	• Images captured from another context and re-presented in another visual design: collage, photojournalism reproduced in history textbooks
• Hybridity—mixing established practices and conventions of visual meaning.	• Practices: digital photograph manipulation, akin 'drawing' and 'painting' • Conventions: pastiche
Imagery: How does the whole of what I communicate say something about who I am in a particular context?	
• Primary imageries—original, home or lifeworld imageries of first acquisition	• Imagery of children's books or television
• Secondary imageries—learnt, adult imageries.	• Professional imagery, of medical textbooks, or
• Social imageries that accomplish culturally different whos and whats.	• Islamic imagery

• Register: variations according to distinctive contexts.	• The imagery of real estate agents compared to the imagery of architects and engineers.
• Order of Discourse: related imageries in a particular social institution or social domain.	• Housing, in which real estate/sales and architectural/engineering imageries are integrally related.

B5 Ideological—Whose Interests are the Meanings Skewed to Serve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Indication of Interests: How does the meaning maker declare their interests?	
• The image maker: The character of the meaning maker, and clues in the various bits of their identity and roles pointing to their interest in a particular meaning. (Kress & van Leeuwen 1996: pp.26-27)	• Classic documentary in which the 'voice of god' narrator explains and interprets recorded images; versus 'direct cinema' in which control of meaning lies in the selection of images. • Apparently naturalistic images, compared to highly stylised and overtly authored images.
• The context and purpose of the meaning—where? when? why? what for?	• Science, or advertising, or 'art'
• Context and interests in reception—who are the meanings intended for? how are they received by intended and unintended listeners and readers?	• The uses of images—work, or personal interest—not always congruent with the primary purposes of the image maker.
Attributions of Truth Value and Affinity: What status does the meaning maker attribute to their message?	

• Assertions as to form/extent of the truth of a message, and expressions of affinity to the message—'modality'. (Kress & van Leeuwen, 1996, p.163; Tufte, 1997, pp.13,53)	• Form of truth: different types of imagery depict different kinds of truth and reality—a photograph of a heart which gives a naturalistic impression of what a heart looks like compared to a diagram which illustrates how a heart works. • Indications of extent of truth: labels, colour keys, reference points of scale such as a person standing beside a bridge.
• Declaring one's own interest in the message. (Kress & van Leeuwen, 1996, p.137)	• Subjective images, with clearly idiosyncratic, authored perspective compared to objective images with central or bird's eye perspective.
• Representing agency: relationships between participants, and between participants and processes.	• Clearly represented vectors or dynamic forces.
Space for Readership: What is the role of the reader?	
• Open texts that lead the reader to imply and anticipate and closed texts that are directive. (Tufte 1990: pp.37-38,50-51)	• Panoramas, prospects or vistas that provide viewers with the ability both to overview a scene and to select details pertinent or relevant to them—such as maps • Abstract and ambiguous, complex and contradictory images that allow multiple interpretations.
• Cultural agendas of the imagemaker in terms of anticipated readership.	• Propaganda, sales, art-as-ambiguity or provocation
• The infinite range of unanticipated interpretations of meaning.	• Misunderstandings and divergent interpretations—accidental and deliberate
Deception by Omission if not Commission: What's not pictured and what's pictured in an actively one-sided or deceptive way—deliberately or unconsciously?	

• Selectiveness in foregrounding and backgrounding—information structure. (Kress & van Leeuwen, 1996, p.6,51; Tufte, 1990, p.53-55,65-79)	• Vertical elongation—bias towards hierarchy. • Horizontal elongation—bias towards given/new information structure. • Which particular aspects of an image represented prominently over above other aspects? Disinformation design in revealed frontview and concealed backview.
• Non-declarations of interest or obscuring of interests.	• Deliberate distortions, clutter and lack of clarity, such as the fonts in health warnings on cigarette packets. • Suppression of context and the creation of illusions that prevent reflective analysis or seeing certain kinds of dangerous truth
• Prominent lesser truths and harder-to-see greater truths	• An advertisement, underlying which are the motifs of consumerism
Types of Transformation: How is a new design of meaning created out of available designs of meaning?	
• Extent of transformation	• Meanings that are predictable and formulaic, compared to meanings that are more inventively hybrid. • Images that are 'original' and 'authentic' compared to the various arts of reproduction.
• Degree of self-consciousness of representational resources and their sources.	• The work of a professional photographer, compared to taking a family snap.
• Degree of self-consciousness of cultural locatedness.	• Allegorical or iconic images versus naturalistic images.
• Ethical and human reference points of meanings—within or beyond the lifeworld of immediate experience.	• Meanings that measure themselves up against alternative meanings in relation to the ethical issue of being human.

Attributions of Truth Value and Affinity: The world is a simple, straightforward place, truth in the immediacy of apprehension, in pleasure, news as narrative and entertainment. (Kress & van Leeuwen, *Visual Images*, p.28)

Attributions of Truth Value and Affinity: The world place that can be comprehended intellectually, through words and analysis. (Kress & van Leeuwen, *Visual Images*, p.29)

C Spatial Meaning

Meanings are made for us in and through spaces and objects, be these natural objects or humanly made. To take the architectonic, for instance: banks represent invite different sorts of meaning and interaction to prisons. In fact, in both of these cases, the spatial positionings and flows make as much of the meaning in any interaction as the written or spoken words that might be used. And to take the geographical, meanings are made in zones, or neighbourhoods, or along routes. Or to take the ecosystemic, hunters and gatherers will make different (utilitarian as well as spiritual) meanings of a forest to city dwellers on a weekend bushwalk. Many of these meanings are ineffable—moments when we are virtually lost for words, immersed in the poetics of space, to use an expression of Bachelard (Bachelard 1969).

Spatial (as well as visual) meanings become all the more important in an era of increasing globalisation. The experience of shopping—a highly designed and a deeply intersubjective event—is increasingly dislocated from language. As a tourist, you can shop without language, taking your cues from the printed visuals of food packaging, or the complex of spatial signs that point to 'cheap' or 'exclusive' as the attributes of objects-for-sale. This requires a kind of spatial functional literacy (to use the concept literacy in a purely metaphorical sense)—in which one needs to draw on resources for meaning in one's own cultural experience (the predictable character of the shopping mall, based on the available designs of one's shopping experience) or resources for tackling a new cultural experience (the market with an unfamiliar layout, products, systems of queuing, ways of paying or ways of picking up the goods).

Shopping may seem a trite example, but the meanings of space are everywhere: the church or the mosque, the express train or the internet connection, the proportional aesthetics of a flower or an A4 page. Just as profoundly as language, the meanings of space take us across the borders of science, art, philosophy and religion—to concur with a claim made by Doczi's in a book that examines proportion in theory and practice (Doczi 1981).

Following are the five key questions we have already asked of spatial and visual meanings. This time our suggestive responses are less elaborated, partly because we have fewer of the words we might need to describe spatial meanings adequately; and partly, in turn, because the spatial is not adequately reduced to words.

C1 Representational—What do the Meanings Refer to?

The linguistic and the visual represent people as well as the world of objects. The participants who are named or pictured can answer to either of the questions 'who' and 'what'. The spatial, however, is primarily a question of what, from small objects such as drawers, to buildings, to built landscapes (neighbourhoods, routes), to natural environments. There are some difficult examples of 'whats' which are also 'whos', such as the Statue of Liberty—a represented person we can climb inside and experience as space, and a decidedly strange experience for that. Arguably, statues generally are in a similar category; as is perhaps the surgeon's encounter with another kind of natural environment, the body; and also perhaps the anthropomorphised natural topography of indigenous cosmology. Nevertheless, we can draw a distinction between objects as representational and the social (in subsection 2, below) as their humanly designed character and patterns of interpretation and use.

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Participating Objects and Spaces: What objects and spaces are participating in the meanings being represented?	
• Objects making sense in terms of their relationships to nearby objects; making sense in terms of contextual pointers.	• A tree in a cityscape compared to a tree in a forest.
• Exclusions: features that make participating objects distinguishable from the background and each other.	• Architectonic: boundaries, facades, insides/outsides.
• Contrasts or lack of contrast.	• Pattern forming processes: polarity (includes joining), duality/dichotomy (not joining), synergy (Doczi, 1981, p.3)
• Part/whole relationships.	• Differentiated internal spaces, such as the house and its parts, the cellar to the attic. (Bachelard, 1969, p.8)
Being: What kinds of active presence do the objects and spaces represent?	
• Processes	
- being and relationship	- placement, topography, scale
- vectors: tensions, dynamic forces	- the visibility of the bank in the shopping centre, the parking area in relation to the destination, roads and cables, routes
- existential	- boundaries, outside surfaces, points of entry (front doors, home pages)
• Attributes	
- location	- in the middle of the city, at the edge, in the suburbs
- possessive	- doors, windows, ornament, signage
- identity: what the object stands for	- the bank building for finance, the church for religion
• Circumstances	

- space: surroundings	- juxtaposition, setting, background
- time: distances, speed	- ten minutes drive, three days' walk, modem speed (time-space compression) (Harvey 1996: p.242)

C2 Social—How do the Meanings Connect the Persons they Involve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
The Roles of the Imagemaker/Viewer: How does the imagemaker mean to draw the viewer into their meaning?	
• Participant relationships	
- statements	- architectural statements: parks, squares, public edifices
- orders or exclamations	- architecture designed to be relatively non-negotiable: road safety barriers, prisons
• Vicarious or observer relationships	
- perspective: relationship of viewer to object	- an audience in a theatre voyeuristically looking down onto the stage; a person dwarfed as they enter a large and imposing public building
Relationships between spaces and intended or possible uses: How is the nature and form of the social interchange structured by the space?	• The design of a theatre or a lecture hall compared to the design of a shop; being part of the audience in a theatre compared to browsing in a shop. • An older house with the kitchen in an enclosed space outside or at the back, compared to a newer house with the kitchen in an open space in the middle of the house.

Vicarious or Viewer Relationships: First Order—Within the Image; Second Order, the Photographer/Viewer of the Photograph. (Whyte, *Social Life of Small Urban Spaces,* p.101)

Relationships between Spaces and Intended or Possible Uses: How Space Structures Meaning and Communication. (Whyte, *Social Life of Small Urban Spaces,* pp.14,51)

C3 Organisational—How do the Meanings Hang Together?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Mode of Spatial Arrangement: What is distinctive about the form of space, and what conventions and practices are associated with representing or designing this form of space?	• Architecture • Geography • Travel
Medium: What is the spatial medium and how does this define the shape and the form of meanings the space conveys?	• Natural environment • Building • Website construction and hyperlinks
Delivery: How is the spatial medium is used?	• Positioning of nature (tree, park, wilderness) • Constructional materials
Cohesion: How do the smaller information units hold together?	• Structural: engineering • Aesthetic: proportion, symmetry
Composition: What are the overall organisational properties of the object?	• Building types: palaces, castles, offices, theatres, prisons, hospitals, libraries, factories (Pevsner 1976) • Environment types: mountainous, seascape, savannah.

68. Physiognomy of a typical casino sign
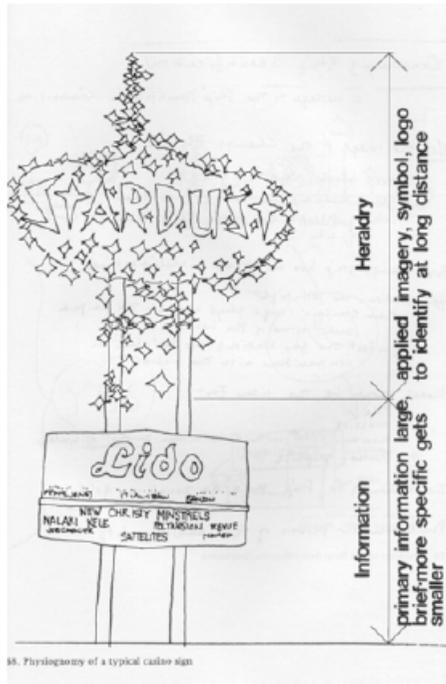
Information Structure: A Las Vegas Casino Sign. (Venturi, *Learning from Las Vegas,* fig.68)

C4 Contextual—How do the Meanings Fit into the Larger World of Meaning?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Reference: What how do the objects point to contexts and contexts point to meanings?	
• Frame of reference	• Where the object is located: on the table or in the city; the meaning of an building in the fabric of a city, or an object in relation to the uses of a room, such as a knife in a kitchen, a dining room or a workshop.
• Pointers—foregrounding and backgrounding	• Objects that dominate and objects that play a supporting role.

• Metaphor	• The prisons that look like castles or battle-ments. (Pevsner, 1976, p.289) • The shop or the restaurant that feels like a home. (Weishar 1992)
Cross-reference: How do meanings refer to other meanings?	
• Intertextuality, or the property of objects to be full of meaning-snatches from other objects.	• Motifs of styles from captured from one context and used in another: the government building with the Greek columns. (Solà-Morales 1997: p.5)
• Hybridity—mixing of established spatial practices and conventions.	• The incorporation of traditional Japanese motifs in modern architecture—'intercultural architecture' (Kurokawa 1991); the incorporation of popular cultural motifs in postmodern architecture (Venturi et al. 1977); garden cities, where urbanism also recreates natural environment.
Imagery and Territoriality: How does the whole of an object or space say something about what it is, what it stands for and its territorial character in a particular context?	• Islamic architecture; a web browser; the topography of nation (border posts, the tourist-feel of a country or region).

Imagery: Caesar's Palace, Las Vegas/Piranesi's Pantheon, Rome. (Venturi, *Learning from Las Vegas,* figs 59, 60)
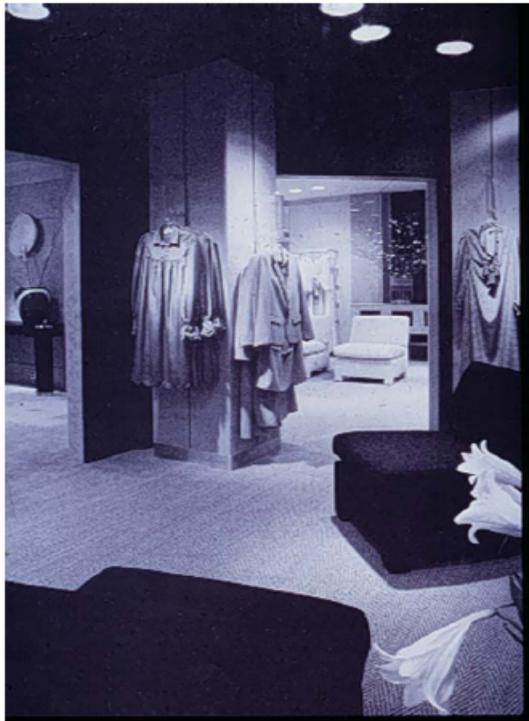
Metaphor: High Class Shop Designed on Metaphor of Luxurious Home. (Weishar, *Design for Effective Selling Space*)

C5 Ideological—Whose Interests are the Meanings Skewed to Serve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Indication of Interests: How does the meaning maker declare their interests?	• Shop facades: 'store fronts represent the attitude, price, perception, value and target the market by the combination of architecture, location, and signing.' (Weishar, 1992, pp.2-5) • Bentham's (and Foucault's) 'panopticon' prison, representing constant surveillance and the interests of incarceration.
Attributions of Truth Value and Affinity: What status does the meaning maker attribute to their message?	• The definitive truths in the spatiality of a court room compared to the more open and negotiable truths of a public square.

Space for Alternative Uses: What is the role of the user?	• A lecture hall compared to internet surfing. • Park seats fixed to the ground compared moveable park seats—which people will almost invariably move if they can, even if only slightly. (Whyte 1980: p.36) • Spaces in which men feel more comfortable, and spaces in which women feel more comfortable. (Betsky 1995)
Deception and Manipulation: What's not spatially obvious and what is spatially obvious but presented in an actively one-sided or deceptive way—deliberately or unconsciously?	• Front and back spaces: the restaurant and its kitchen (Goffman 1959) • 'Bounce plans' used in shop design to predict the movement of shoppers from front door, to area, to area; 'destination' or essential items at the back of the shop; items for children at their eye height. • Casinos—characteristically designed as places with out time by an absence of windows and clocks. • Hard seats in McDonald's to keep the food—and the cashflow—fast.
Types of Transformation: How is a new design of meaning created out of available designs of meaning?	• New and hybrid forms of spatiality: the food court, or the internet.

Indication of Interests: Fonts and Facades, with Class Connotations. (Weishar, *Design for Effective Selling Space*)

Indication of Interests: Fonts and Facades, with Class Connotations. (Weis-har, *Design for Effective Selling Space*)
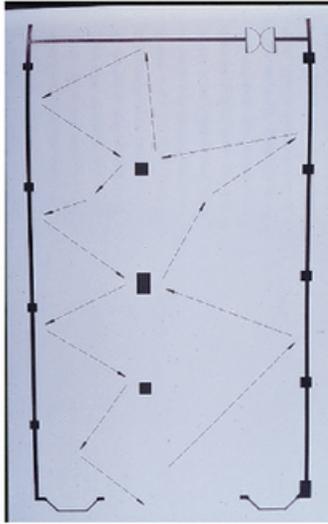
Deception and Manipulation: 'Bounce plans used in shop design to predict the movement of shoppers from front door, to area, to area. Shoppers enter and move to the 'invariable right' – the vast majority of people is drawn right initially. Aisle structure is then design to maximise people's attention on the goods displayed. (Weishar, *Design for Effective Sellin Space*)
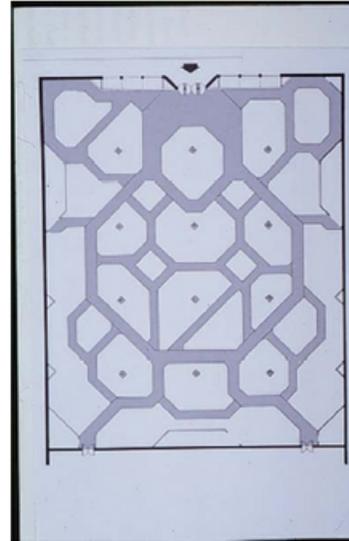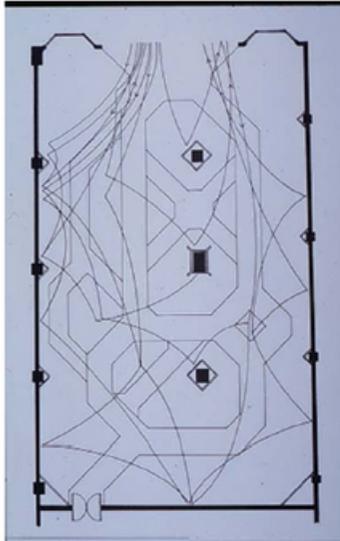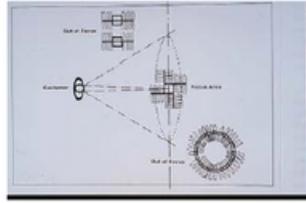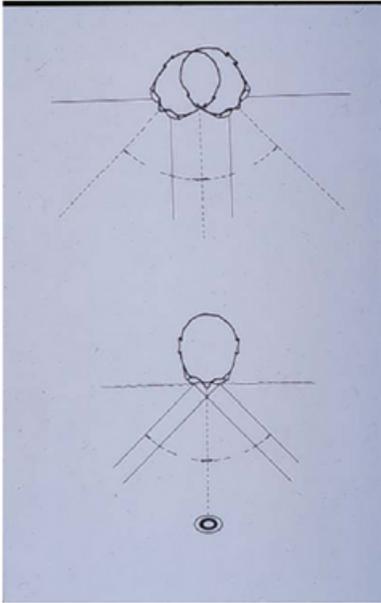
Deception and Manipulation: Lines of sight and fields of vision — drawing shoppers towards 'destination items'. (Weishar, *Design for Effective Selling Space*)
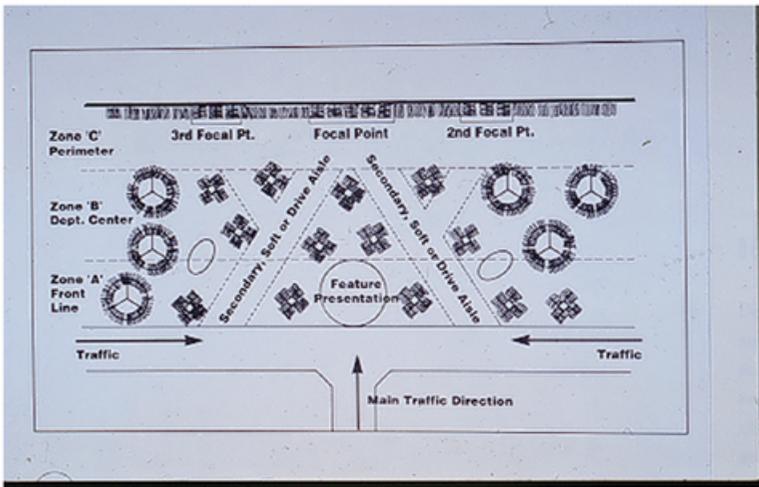
D Gestural Meaning

D1 Representational—What do the Meanings Refer to?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Participants: Who and what is being represented by gesture?	• A person (mimicry) • A thing in the form of gesture-shape, or the elements of sign language. • The relation of one gesture/meaning by contrast with previous/subsequent gestures
Being and Acting: What kinds of being and acting does the gesture or bodily presence represent?	
• Processes	
- in the external world	- a direction (pointing), kinesics
- in the world of consciousness	- sad or happy expression
• Attributes	
- location	- being positioned in relation to couch as doctor, patient; proxemics
- possessive	- bodily characteristics, clothing—fashion is the borderline between subject/person/gesture and object (Buck-Morrs 1989: p.97)
- identity	- bearing, uniform worn
• Circumstances:	
- space	- size, and place gestures
- time	- 'beat' in hand movements (McNeill 1992: p.15)

Circumstances of Space: Pointing at a Shared Space, 'Did you go to School there?' The Speaker is Orienting to the Listener's Space for 'there'. (McNeill, Hand and Mind, p.174)

Processes and Circumstances of Time: Hands Spread Outward (Image of Potentiality), Simultaneously Opening Outward to Form Cups of Meaning, then Abruptly Close (Potentiality Closes): Gesture Equivalent of the Past Subjunctive 'have'. (McNeill, Hand and Mind, p.150)

Mental State: Gesture as a Metaphor of Wonderment, An Aura Created Around Head.
(McNeill, Hand and Mind, p.158)

D2 Social—How do the Meanings Connect the Persons they Involve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
The Roles of the Participants in the Communication of Meaning: How does the gesturer mean to draw the viewer into their meaning?	
• Participant relationships:	
- Statement	- Visible sentiment
- Offer	- Stall holder standing beside a stall of objects for sale
- Question	- A quizzical look, a hand gesture
- Order or exclamation	- A hand up, visible anger

Interactivity: Who starts the interchange, and who determines its direction?	• Who gestures to whom; pattern response and interaction.
Relations between Participants and Processes: How are the participants connected to each other and with the actions and states of being that are represented?	
• Agency—or 'transitivity'.	• Sulking compared to assault.

Participant Roles: ... the Head down, the Beseeching Hands, the Stare through the Glistening Glasses, the Shape of the Exclamatory Mouth. A Scene from The Big Knife (1955). (Kress & van Leeuwen, 1996, Visual Images, p.162)

D3 Organisational

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Mode of Communication: What is distinctive about the form of communication, and what conventions and practices are associated with this form of communication?	• Gesture • Behaviour, demeanour • Fashion

Medium: What is the communication medium and how does this define the shape and the form of the representation?	• Hand gesture • Facial 'looks' • Clothing • Standing/sitting: distances/orientation • Tactile: touch, fabric
Cohesion: How do the smaller information units hold together?	• A look as a part of a behaviour. • Beginning, ends, changes of subjects with crossing hands. (McNeill, 1992, pp.16-17)
Composition: What are the overall organisational properties of the meaning making event?	• Style

D4 Contextual—How do the Meanings Fit into the Larger World of Meaning?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Reference: What how do meanings point to contexts and contexts point to meanings?	
• Frame of reference—locating the situation of the meaning.	• Police hand gestures, in relation to a traffic intersection.
• Iconic or pictorial—close formal resemblance to a meaning.	• Appearing to grip something and pull it back.
• Metaphor—resemblance and analogy. (McNeill, 1992, pp.12-15)	• An abstract idea offered as an entity bounded by hand movements.
Cross-reference: How do meanings refer to other meanings?	• Gestures which indicate types of behaviour. • Hybrid behaviours and presentations of self, with elements/characteristics drawn from multiple sources.
Persona: How does the whole of what I communicate bodily say something about who I am in a particular context?	• Behaviour that indicates a whole world of experience, such as feminine compared to masculine.

### D5 Ideological—Whose Interests are the Meanings Skewed to Serve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Indication of Interests: How does the meaning maker declare their interests?	
• Authorship: The character of the meaning maker, and clues in the various bits of their identity and roles pointing to their interest in a particular meaning.	• The police gesture in relation to the uniform.
Attributions of Truth Value and Affinity: What status does the meaning maker attribute to their message?	• Acting/mimicry compared to authentic sentiment.
Space for Interpretation: How much scope is there for interpretation of gesture?	• Directness versus ambiguity/complexity of meaning.
Deception by Omission if not Commission: What's not said and what's actively one-sided or deceptive—deliberately or unconsciously?	• Covering of larger motions to blur smaller motions: a fundamental principle of Gestalt psychology—and magic tricks (Tufte, 1997, p.56) • Creating impressions, a social front, decorum, forms of concealment (Goffman, 1959, pp.4,29,107,43-46)
Types of Transformation: How is a new design of meaning created out of available designs of meaning?	• Predictable and formulaic gestures and behaviours, versus difficult and hybrid forms. • Conscious versus unconscious behaviours (in the fashion of the Freudian slip).
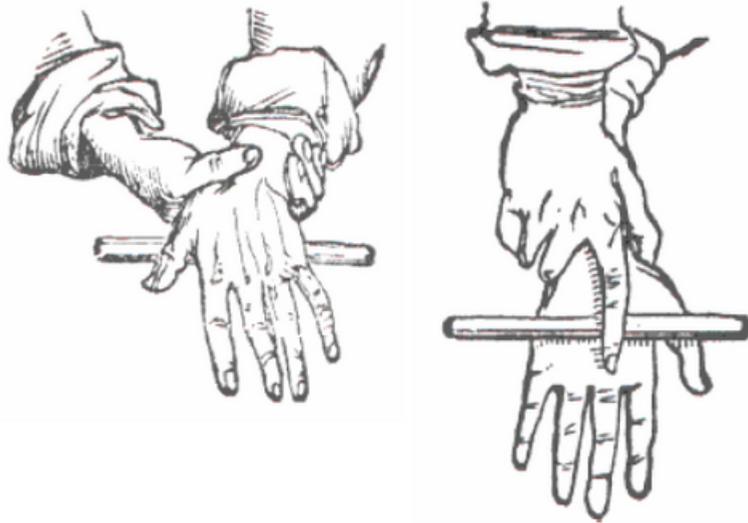
Concealment and Deception: The Revealed Frontview (what Appears to be done) Fails to Reveal Reliable Knowledge about the Concealed Backview (what is Actually done). Creating Gestural Illusions is a form of Disinformation Design. (Tufte, *Visual Explanations,* p.57)

Concealment and Deception: Illustrating the principle of Gestalt psychology, that larger motions hide or blur smaller motions. (Tufte, *Visual Explanations*, pp.54,56,60)
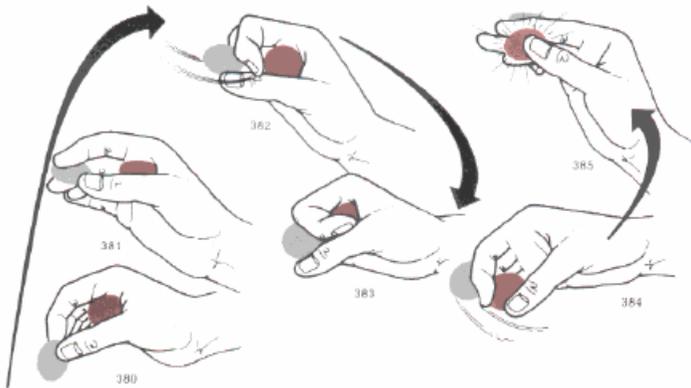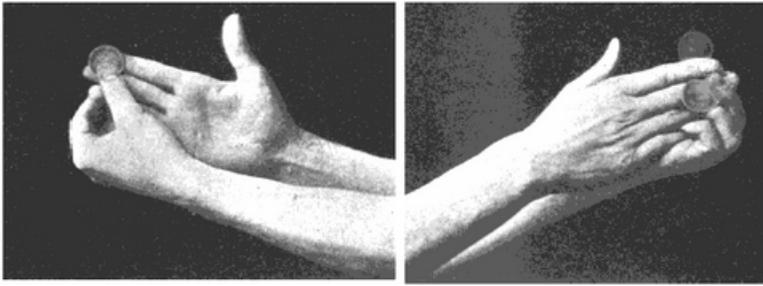
E Audio Meaning

E1 Representational—What do the Meanings Refer to?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Participants Represented in Sound: Who and what is participating in the meanings being represented?	
• Naturalistic representations; tonal etc. relationships of exclusion to other sounds, 'background noise'.	• Recordings of bird sounds, train sounds.

• Iconic and symbolic representations.	• Hooters, car alarms.
Being and Acting Represented : What kinds of being and acting do the meanings represent?	
• Processes: pace, direction	• Tempo
• Attributes	• Elements of tonality that make a sound
• Circumstances	• Sounds as distinguishable from and identifiable in relation to their accompaniment, background sounds
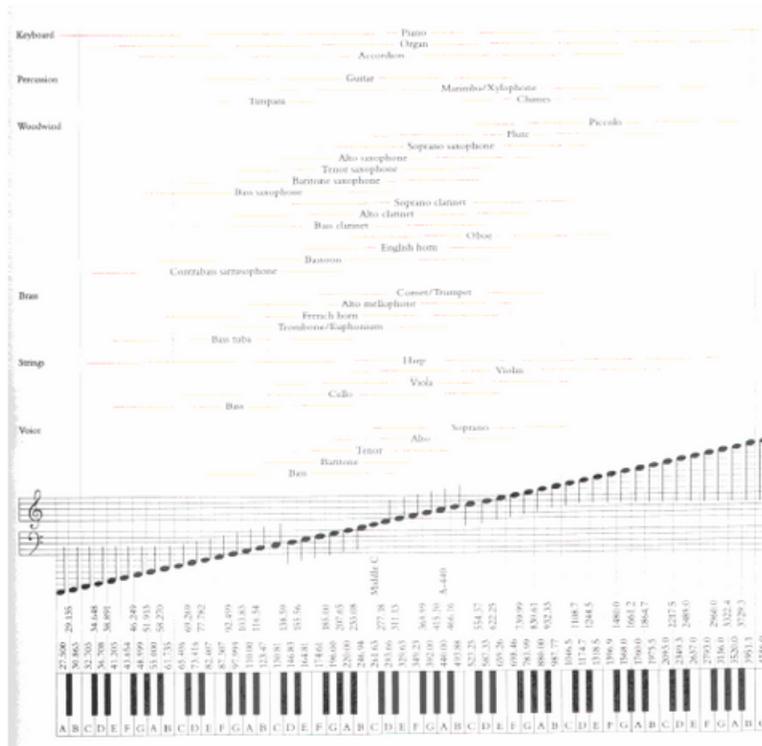
Tonal Elements: Multiple Parallelism to Compare, Contrast, Describe Tonal Elements. (Tufte, *Visual Explanations,* p.87)

E2 Social—How do the Meanings Connect the persons they Involve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
The Roles of the Participants in the Communication of Meaning: How does the sound-maker mean to draw the listener into their meaning?	
• Participant relationships:	
- Statement	- Music
- Order or exclamation	- Burglar alarm
• Vicarious or listener relationships	• Listening, as compared to overhearing, sounds or music.
Commitment: What kind of commitment does the producer have to the message?	• Affinity of the meaning maker to their propositions: Beethoven compared to 'easy listening'
Interactivity: Who starts the interchange, and who determines its direction?	• An orchestra in an auditorium, compared to a car cassette player (volume, balance, starting and ending)

E3 Organisational—How do the Meanings Hang Together?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Mode of Communication: What is distinctive about the form of communication, and what conventions and practices are associated with this form of communication?	• Natural sounds • Prosody in voice • Music
Medium: What is the communication medium and how does this define the shape and the form of the representation?	
• Physical medium	• Sound waves in the air
• Recorded or ephemeral	• Performance versus sound track • Jazz versus performance of musical score in the classical repertory.

Delivery: How is the medium is used?	• Intonation, stress, rhythm, pitch, loudness. E.g. prosody in speech (Crystal & Quirk 1964: pp.94ff; Gee 1996)
Cohesion: How do the smaller information units hold together?	• Notes, bars, scales. • Repetition, parallelism, elaborations, contrasts.
Composition: What are the overall organisational properties of the meaning making event?	• Genre: baroque, reggae.

E4 Contextual—How do the Meanings Fit into the Larger World of Meaning?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Reference: What how do meanings point to contexts and contexts point to meanings?	
• Frame of reference—locating the situation of the meaning.	• The music in the lift, the music in the concert hall. • The music in the thriller movie, the music in the romantic comedy.
• Pointers—foregrounding or backgrounding aspects of the context.	• Emphasis in a movie's musical score.
• Metaphor—resemblance and analogy.	• The sounds of nature, or the mechanical world, recreated in music.
Cross-reference: How do meanings refer to other meanings?	
• Hybridity, intertextuality	• Motifs, riffs transposed from one genre to another—where gospel meets jazz meets rhythm and blues meets rock and roll
Repertoire: How does an ensembles of sounds or and music say something about a whole setting.	• Classical or popular musical repertoires.

E5 Ideological—Whose Interests are the Meanings Skewed to Serve?

SOME QUESTIONS TO ASK ABOUT MEANING	EXAMPLES
Indication of Interests: How does the meaning maker declare their interests?	
• The context and purpose of the meaning—where? when? why? what for?	• A shop or a performance in an auditorium.
• Context and interests in reception—who are the meanings intended for? how are they received by intended and unintended listeners and readers?	• The uses of recorded sounds—not always congruent with the primary purposes of the image maker.
Space for Listener: How much scope is there for influencing the listening?	• Capacity to turn the sound on or off, volume, balance, sampling.
Deception by Omission if not Commission: Are sounds presented in an actively one-sided or deceptive way—deliberately or unconsciously?	• Wallpaper music, music designed to intrude into unconsciousness but not consciousness—Muzak.
Types of Transformation: How is a new design of meaning created out of available designs of meaning?	• New and hybrid forms of music, or faithfulness to received traditions of the repertoire.

Multimodal Meaning

Multimodal meaning is no more than the other modes of meaning working together, and much more as well.

The 'no more' is based on the fact that all meaning making is in its nature multimodal. Multimodal meaning is no more than the other modes of meaning working together. And work together they always do.

Linguistic meaning in the form of speaking, for instance, is achieved in combination with audio meaning (prosody) as well as gestural meaning, not to mention spatial meaning (the words of the lecturer compared to the conversation of two students sitting next to each other).

And, to give another example, linguistic meaning in the form of writing is linked to visual, from the business of handwriting itself (graphology) all the way through to the heavily designed pages of desktop publishing in which fonts, point sizes, leading, kerning, bolding and italics, are all integral to the grammar of the words—and the organisation of linguistic meaning around headings, subheadings, indents, bullet points, pictures, diagrams and open spaces.

Yet multimodal meaning is also much more than the sum of linguistic, visual, spatial, gestural and audio modes of meaning. It also involves processes of integration and moving the emphasis backwards and forwards between the various modes. At the heart of the processes of integration is the inherent 'multiness' of human expression and perception, or synaesthesia. Meanings come to us together: gesture with sight, with language, in audio form, in space. And, we can shift our meaning-making emphasis, through processes of transduction or transcoding. We can describe in words scenes that might otherwise be represented pictures, or represent three dimensional spaces visually in two dimensions, or represent through the gesture language of signing what might otherwise have been said in spoken words. We visualise a thought before the words come. Or we hear a word and a whole lot of visual and audio senses seem to fill our minds. It is revealing how naturally metaphors from one mode of meaning slip over to describe meaning processes in another: 'imagery' in written text, or 'perspective' in oral argument, or 'visualisation' of alternative word-centred 'points of view'.

Synaesthesia and transduction are things of our human nature. However, as Kress argues, in our recent modernity we have privileged linguistic meanings, and particularly written or literate linguistic meanings, over the others modes of meaning. Not only does this represent a reduction expressive possibility. It is also increasingly anachronistic given recent social as well as technological trends in our communications environment which extend the range and technical integration of multimodal communication—from the highly designed audio-linguistics of radio, for instance, through to the digitalisation of words and images which allows the unprecedented integration of visual and linguistic design.

The introductory parts of this paper have been published elsewhere (Cope & Kalantzis 2009; Kalantzis & Cope 2008); the multimodal grammar is published here for the first time.

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