
INTRODUCTION

‘To Summon All the Senses’

David Howes

Just as time and space are not perceived by the vast majority of human societies as a regular continuum and grid, so the [sensorium] is rarely thought of in strictly biological terms ... The five senses are given different emphases and different meanings in different societies. A certain sense may be privileged as a sensory mode. It is important to analyse how people think they perceive.

Anthony Seeger, *Nature and Society in Central Brazil* (1981)

This book brings together a series of essays in anthropology and adjacent disciplines (psychology, linguistics, cultural history) which are noteworthy for the attention they pay to the senses as shapers and bearers of culture. The approach / field of study these essays articulate may be called the ‘anthropology of the senses.’¹

The anthropology of the senses is primarily concerned with how the patterning of sense experience varies from one culture to the next in accordance with the meaning and emphasis attached to each of the modalities of perception. It is also concerned with tracing the influence such variations have on forms of social organization, conceptions of self and cosmos, the regulation of the emotions, and other domains of cultural expression. The most basic tenet of this emergent field of study is that it is only by developing a rigorous awareness of the visual and textual biases of the Western episteme that we can hope to make sense of how life is lived in other cultural settings.

The anthropology of the senses grows out of the interest in bodily modes of knowing, and the place of the body in the mind, which gripped the imaginations of ethnographers and philosophers alike in the 1980s

(see Jackson 1983, 1989; Fernandez 1985; Lock and Scheper-Hughes 1987; Johnson 1987; Csordas 1990). But its goal is not simply to expand social science discourse on the body so as to include the senses. Rather, it is hoped that the wisdom gained by *plunging* into the realm of the non-visual senses – and exploring how the possibilities of awareness contained within these senses have been exploited by others – can help to *liberate* us from the hegemony which sight has for so long exercised over our own culture's social, intellectual, and aesthetic life (Foucault 1979; Tyler 1984; Summers 1987; Synnott, ch. 5).

The World outside the 'Civilization of the Image'

The need for us to experiment with other ways of sensing the world has never been more acute. Indeed, if we do not 'come to our senses' soon, we will have permanently forfeited the chance of constructing any meaningful alternatives to the pseudo-existence which passes for life in our current 'Civilization of the Image.' This rather dire prognosis is based on Richard Kearney's analysis of the image of today as compared to those of bygone centuries in *The Wake of Imagination*:

now the image *precedes* the reality it is supposed to represent ...

This reversal is evident at a number of levels. In politics, we find presidents and prime ministers being elected because of the media image they represent ... [At] the economic level, it is now a well-documented fact that our consumerist society ... can sustain material production only by means of the 'hidden persuaders' of new brand-images and ever more elaborate advertising campaigns. Even at the everyday social level, we notice the image taking pride of place over the real, as in Boorstin's humorous anecdote about the contemporary suburban housewife who responds to a neighbour's compliment to her child with the boast: 'Yes, he is lovely, but you should see the photograph.' (1988: 2)

It is instructive to inquire into the origins of the hyper-visual aesthetic expressed by Boorstin's suburbanite, an aesthetic within which the 'real' child figures as but a pale reflection of its technologically generated image. The origin of this aesthetic can be traced to the invention of linear perspective vision by the fifteenth-century Italian painter Alberti. Linear perspective does not come naturally to humans; initially it required the support of a physical structure, a grid, which served to fix the eye upon its object, as in Dürer's etching of a *Man Drawing a Reclining Woman* (Figure 1).

The cultural repercussions of Alberti's little invention have been many



FIGURE 1
Albrecht Dürer, *Man Drawing Reclining Woman*

and far-reaching. I shall not dwell on them here, for they have already been described in detail in *Technology as Symptom and Dream* (1989), where Robert Romanyshyn does a magnificent job of reconstructing how 'within this landscape of linear perspective vision the self becomes a spectator ensconced behind his or her window on the world, how the body, now divorced from this self, becomes a specimen, and how the world, as a matter for this detached and observing eye, becomes a spectacle' (1989: 31). Neither shall I dwell on the gender dimensions of this particular 'way of seeing,' as those too have been amply documented (Berger 1972; Irigaray 1980). What I would like to underline, however, is the stultification of the non-visual senses which results from the interposition of the window between the artist and his model. In effect, Alberti's grid screens out all the smells and sounds, tastes and textures, of the artist's environment. It 'steps up' the natural power of the eye to survey things from afar, while at the same time de-emphasizing the other senses as ways of knowing and communicating.

As an antidote to the fixity of Dürer's representation, consider the design in Figure 2, which *pulsates* and will not remain still. This design comes from the Shipibo-Conibo Indians of eastern Peru. Such designs, which are kept by the Shipibo-Conibo in glyptic books, are said to embody songs. During the healing ritual, the shaman, in a hallucinogenic trance, perceives these designs floating downwards. When the designs reach the shaman's lips he sings them into songs. On coming into contact with the patient, the songs once again turn into designs which penetrate the patient's body and heal the illness. These design-songs also have an olfactory dimension, as their power is said to reside in their 'fragrance.' Indeed, the Shipibo-Conibo term *quiquin*, which means both 'aesthetic'

and ‘appropriate,’ is used to refer to pleasant auditory and olfactory as well as visual sensations (Gebhart-Sayer 1985: 161–72).

The essence of aesthetic experience by Shipibo-Conibo standards is, therefore, *pluri-sensorial*, whereas the contemporary Western aesthetic is almost exclusively visual. The former integrates the senses while the latter dissociates them. This may explain why there is nothing healing about most contemporary Western art,² and why a child’s photograph can appear preferable to the child itself, as in Boorstin’s anecdote.

There is a world of difference between the uttering of geometric designs, which are also fragrant, by the Shipibo-Conibo shaman, and the reduction of the world to a geometric composition by the Western ‘spectator-self.’ Is it possible for us to liberate ourselves from the latter perspective and approach the world through the Shipibo-Conibo ‘ratio of sense’? What is the world like to a culture that takes actuality in less visual, more auditory or olfactory, gustatory or tactile, terms than those to which we are accustomed? These are the two most central questions of the anthropology of the senses, and they will be addressed at numerous points throughout this book. The first question is especially vexing, for as Romanyshyn observes: ‘what originated with Alberti and his times as a metaphor – look at the world through this grid and it looks like a geometrical pattern – has become for us a map. The grid-like structure of the window and even the window itself have become invisible, and all that remains is the reproduction which we now take for the world itself’ (1989: 82).

Making Sense in the Human Sciences

The ethnographer desirous of ‘interpreting’ some other culture assumes a perspective remarkably similar to, if not identical with, that of Dürer’s artist. The only difference is that it is the ‘model of the text’ instead of Alberti’s window that serves to filter his or her perceptions. In the words of Clifford Geertz, the founder of ‘interpretive anthropology’: ‘The culture of a people is an ensemble of texts, themselves ensembles, which the anthropologist strains to read over the shoulders of those to whom they properly belong’ (1973: 452).

The ‘metaphor of the text’ has generated many fine ‘readings’ of the possible meanings contained in such events as the Balinese cockfight. However, as anthropologists have since come to recognize, it also tends to suppress the interactive, negotiative, or ‘dialogical’ aspects of the ethnographic encounter. That realization has led some ethnographers to experiment with a range of ‘other’ modes of ‘text construction,’ all

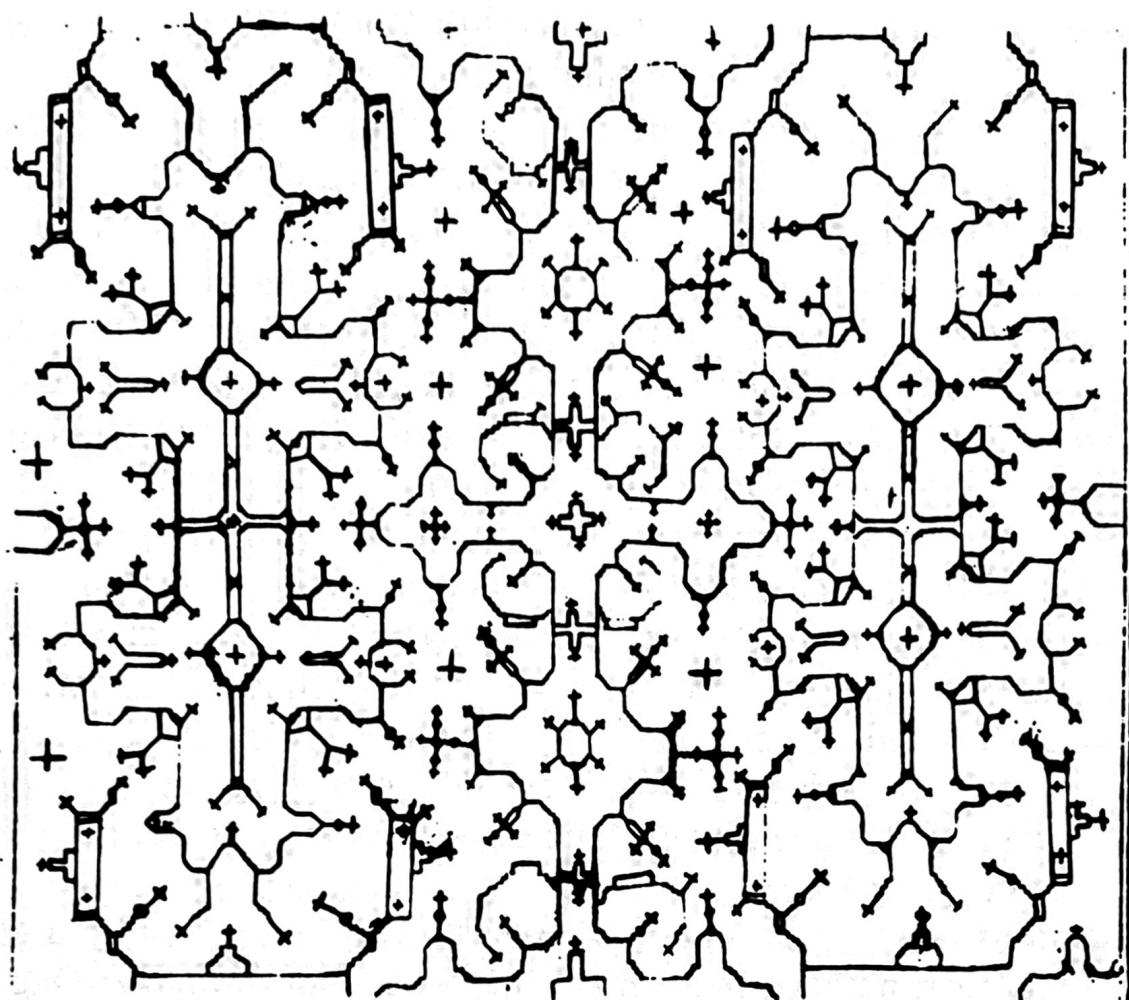


FIGURE 2
Shipibo-Conibo geometric design (after Gebhart-Sayer 1985: 158)

of which emphasize dialogue as opposed to Geertzian 'thick description.' James Clifford evokes this new turn, the rise of 'dialogical anthropology,' as follows: 'Once cultures are no longer prefigured visually – as objects, theatres, texts – it becomes possible to think of a cultural poetics that is an interplay of voices, of positioned utterances. In a discursive rather than a visual paradigm, the dominant metaphors for ethnography shift away from the observing eye and toward expressive speech (and gesture)' (1986: 12).

It is certainly more lifelike and (as we are repeatedly reminded) more politic to conceive of **cultures as involving an 'interplay of voices'** than to treat them as objects to be viewed or **texts to be read**; hence, the emergence of dialogical anthropology is to be applauded. However, the **'discursive paradigm'** of dialogical anthropology is itself lacking in at least one dimension – namely, what Ohnuki-Tierney (1981) has called the **'sensory dimension.'** This dimension cannot be comprehended within the framework of either interpretive or dialogical anthropology because both remain, in effect, 'verbocentric' (text-centred in the first case, and

speech-centred in the second). Thus, the shift from the ocular to the oral must be accompanied by a further shift, which takes in the gustatory, olfactory, and tactile modalities as well. With these other senses in mind, it becomes possible to think of cultures as contrasting in terms of the distinctive patterns to the *interplay of the senses* they present.

This idea of cultures as consisting of contrasting 'ratios of sense' has, in fact, been around for some time. It was first introduced by Marshall McLuhan, Edmund Carpenter and Walter Ong (see Carpenter and McLuhan 1960).³ It has influenced a number of ethnographers, most notably Anthony Seeger (1975), Emiko Ohnuki-Tierney (1981), Steven Feld (1982 and 1986), Paul Stoller (1984), Stephen Tyler (1984), and most recently Michael Jackson (1989).⁴ Readers familiar with Stoller's and Tyler's work might think that they belong more to the school of 'dialogical anthropology' than to the emergent discipline of 'sensorial anthropology' (as defined in chapter 11 of this book). But Stoller, certainly, has veered in the latter direction more than once, and may even be considered one of sensorial anthropology's leading proponents (see especially Stoller 1989).

If, as Clifford suggests, the 'dominant metaphors for ethnography' are truly shifting, then perhaps the work of the McLuhan-Carpenter-Ong triumvirate can finally get a proper hearing. The anti-textual/sensual approach they pioneered was sidetracked by the rise of interpretive anthropology but, as noted above, never completely silenced because of the ongoing work of their more enlightened follower-critics (Seeger, Ohnuki-Tierney, Feld, etc.). That work now commands our attention as never before because it would seem to offer the only practicable solution to the widespread (and still growing) 'crisis of representation' in the human sciences (Marcus and Fischer 1986). Simply put, that solution consists in 1) reconvening our senses, 2) recognizing cultures as 'ways of sensing the world,' and 3) learning how to use and combine our senses in accordance with the preferences of the cultures we study – so that we actually *make some sense* of them, instead of looking for a 'world-view' where there may not be one, or 'positioning utterances' without reference to all the other senses engaged in the communicative process, and so on.

The Senses in Cultural Context

Before introducing the chapters of this book, I would like to comment in some detail on an article by Paul Stoller first published in 1984, and since reprinted elsewhere (Stoller 1989), which I consider to be one of

the charters of sensorial anthropology. It recounts how Stoller had his ears 'opened' to the significance of sound among the Songhay of Niger by an incident involving a sorcerer. Stoller relates how he accompanied the sorcerer to the top of a dune (where Songhay women traditionally sift millet seed from husk) in search of a sick man's 'double,' or spirit. The sorcerer went to work sifting, and suddenly jumped up, exclaiming: 'Wo wo wo wo'. When asked whether he had heard, or felt, or seen, the sick man's double as the sorcerer liberated it, Stoller, bewildered, had to confess that he had not. The sorcerer admonished him: "You look, but you do not see. You touch, but you do not feel. You listen, but you do not hear. Without sight or touch, ... one can learn a great deal. But you *must* learn how to hear, or you will learn little about our ways'" (Stoller 1984: 560). So began Stoller's apprenticeship in 'Songhay hearing,' which in turn developed into one of the most profound critiques of Western epistemology ever written by an anthropologist. Stoller is particularly critical of the way we tend to 'reach through the sensation to the object' when we perceive things, instead of heeding the way the sensations present themselves to consciousness, or attending to the differences between sensations in different modalities (see Zukerkandl 1958: 70).



The knowledge Stoller acquired from his Songhay teachers also led him to reject two widely accepted explanations for the magical power of words (see Searle 1968; Tambiah 1968) mostly on account of these explanations being too discursive (or verbocentric). In their place, he suggests that ethnographers should take seriously and at face-value that oft-repeated native explanation for the efficacy of magical utterances: 'The power is in the words.' For the Songhay, according to Stoller, words are not knowledge or information, they are not representations of something, they are power, energy, the reason for this being that: 'Words in the oral-aural culture are inseparable from action for they are always sound' (Ong, cited in Stoller 1984: 561). Indeed, it was only by coming to hear the words in and of themselves, instead of trying to picture what they meant, that Stoller came to understand how they were understood to operate by the Songhay:

[The Songhay] believe that sound, being an existential phenomenon in and of itself, can be the carrier of powerful forces. This simple point undermines a major premise of Western epistemology: we conceive-perceive the world in terms of space rather than sound. Sound gets filtered out within an episteme which considers language ... a neutral instrument of representation. More specifically, most

anthropologists use the sound of language or music as a means to gather information with which they 'construct' the culture of the Other. We take the sound of language for granted. The Other, however, may consider language ... as an embodiment of sound which practitioners can use to bring rain to a parched village or to maim or kill their enemies. (Stoller 1984: 569).

I have quoted this passage at length because it brings out three points which are central to the anthropology of the senses: first, concerning cosmology, that it is possible to conceive-perceive the world as constructed on an acoustic scaffolding, as the Songhay do, rather than a visual-spatial one, as in the West; second, concerning language, that the relation between the signifier and the signified, sound and meaning, may not be as 'indissociable' as the French linguist de Saussure (1959) would have us believe – Songhay signifiers can function independently of their signifieds;⁵ third, concerning method, that anthropologists would be well-advised to pay more attention to the media through which they 'gather information,' since the medium may well be the message, to paraphrase McLuhan, or in any event have a force quite independent of its content.⁶

The Songhay example helps us to understand how inappropriate the concept of 'world-view' is when applied to certain non-Western cosmologies (Ong 1969). It also brings out how people can 'think in' a medium which is neither verbal nor visual but, in the Songhay case, fundamentally aural. If people can think in sound, is it also possible to think in touch? The idea of touch as a medium of intelligence seems foreign to us because of a long-established Western bias in favour of sight as 'the most informative' and 'intellectual' of the senses (Synnott, ch. 5). But, as Helen Keller once noted: 'Touch brings the blind many sweet certainties which our more fortunate fellows miss, because their sense of touch is uncultivated. When they look at things, they put their hands in their pockets. No doubt that is one reason why their knowledge is often so vague, inaccurate and useless' (1909: 42). What Keller says of touch could also, in principle, be said of taste and smell.⁷

The preceding discussion raises a fascinating question which has for too long been neglected by anthropology – no doubt because it encroaches on territory normally reserved to psychology. That question may be put as follows: What if there exist different forms of reasoning, memory, and attention for each of the modalities or faculties of consciousness (seeing, smelling, speaking, hearing, etc.) instead of reasoning, memory, and attention being general mental powers? It has long been assumed that the latter is the case, that reasoning and memory are

unitary rather than modality-specific processes. But recent advances in cognitive psychology have led to this assumption being overthrown, and it is now recognized that there may exist a variety of specific 'intelligences.' One of the implications of this new theory of the 'modularity of mind' (Fodor 1983) is that the logico-mathematical intelligence of the scientist, which is the standard by which individual intelligence has traditionally been measured, is but one intelligence among others (Gardner 1983). The musical intelligence of the composer, the bodily-kin-aesthetic intelligence of the dancer, the visual intelligence of the painter, and so on, all involve the cultivation of qualitatively different sorts of 'competences.' They are neither to be preferred nor (more important) devalued relative to that of the scientist.

It is good that the idea of intelligence as singular is finally being dismantled and replaced by the recognition that individuals may be equally intelligent in different intelligences. But Howard Gardner, the chief proponent of the theory of 'multiple intelligences,' displays a characteristically Western bias (and ignorance) when he writes: 'Acute use of sensory systems is another obvious candidate for a human intelligence ... [but] when it comes to keen gustatory or olfactory senses, these abilities have little special value across cultures' (1983: 61). Gardner accordingly dismisses olfaction and gustation from his list of seven intelligences. Similarly, in *Visual Thinking*, Rudolf Arnheim argues that seeing and thinking are one and the same, but as for smell and taste, 'one can indulge in smells and tastes, but one can hardly think in them' (1969: 19). Both of these authors, therefore, foreclose what could have been a highly productive inquiry into the varieties of sensory refinement in different cultures.

That is precisely where this book, with its focus on the senses in cultural context, begins. It challenges the conclusions of Western psychology by confronting those conclusions with the evidence of diverse ethnotheories of perception and cognition. The anthropology of the senses also provides a platform from which to critique the visual reductionism of Western canons of aesthetics, as discussed in the first section of this Introduction. But psychology and aesthetics are not the only disciplines which are called upon to rethink their sensory underpinnings by the essays in this book, for scholars of religion, linguistics, philosophy, museology, communication studies, and education will also find much that is of critical relevance to their disciplines in what follows.

On the Format of This Sourcebook

The present book is divided into three parts. The first consists of three landmark essays from the 1960s, which may be regarded as precursors

to the anthropology of the senses proper. Part I also contains two essays of more recent vintage, which are concerned with historicizing the senses. The second part is made up of essays from the 1980s, each of which explores how a specific sense or medium is elaborated symbolically in a given culture. The third part opens with a chapter which sums up the implications of the two preceding parts and sets the stage for the study of intersensory relationships in specific cultures in the chapters which follow. All of the latter essays were written by members of the Concordia Sensoria Research Group, a research team constituted in 1988 with the express purpose of documenting some of the 'varieties of sensory experience.' The book ends with a chapter entitled 'Sounding Sensory Profiles.' In it, Constance Classen and myself present a paradigm for sensing and making sense of other cultures. This paradigm is designed primarily for use by field researchers, and by students in advanced undergraduate or graduate courses in anthropology (and adjacent disciplines) interested in writing on a subject within the anthropology of the senses, but it also speaks to a general audience.

One further aspect of the format of this book that bears underlining at the present juncture is its cyclical structure. Thus, parts I and II both end with essays, by Anthony Synott and Kenneth Little respectively, that incorporate ourselves 'into the picture' by turning the 'anthropological lens' back on Western society. The importance of such a reflexive approach to the study of our own and other cultures has been stressed by numerous scholars (Fabian 1983; Herzfeld 1987; Mitchell 1989). The present chapter is also part of a cycle. It provides a preliminary reconnaissance of the terrain of the anthropology of the senses. That ground is reconnoitred again in chapter 11. But it is not until the Conclusion that a complete map, or 'fieldguide to the senses,' is given. Readers interested in 'the total picture' may therefore wish to start with the Conclusion, and cycle back to the present juncture along the above-mentioned paths.

On the Chapters of Part I

Chapter 1, 'The Shifting Sensorium,' by Walter J. Ong SJ, was chosen from the vast corpus of works by Ong himself, McLuhan, and Carpenter, because of the clarity with which it introduces the idea of shifts in the 'ratio or balance of the senses' as one passes from one culture to another, and within the same culture over time. In later works, such as *Orality and Literacy* (1982), Ong seems to go back on, or retreat from, his original theory: a fundamental duality of sense experience – ear/eye, oral/literate – is posited in place of the infinite varieties contemplated

in the original model. Like all 'Great Divide' theories (another example would be Goody 1977), Ong's radical discontinuity argument is of limited use with regard to the analysis or explication of concrete cases (see Feld 1986; Finnegan 1988). His original model, however, seems to me to contain a great wealth of potential applications.

'The Sensotype Hypothesis' (chapter 2), by Mallory Wober, is a case in point. This chapter provides some intriguing evidence of what Ong would call 'productive specialization' in the organization of the sensorium. Wober discusses the results of a series of tests which revealed that African subjects display significantly more 'analytic ability' than American subjects in tasks involving proprioceptive discrimination, while the reverse holds true in the case of tasks involving visual discrimination. The 'sensotype hypothesis' is of interest because it anticipated the theory of 'multiple intelligences' (Gardner 1983) by a good fifteen years. It also poses a direct challenge to Western beliefs in the 'unity of the subject' by showing that individuals do not necessarily display the same degree of 'psychological differentiation' in all domains of cognitive functioning.⁸

Chapter 3, by the late George Devereux, is another article which appeared far in advance of its time. In this chapter, Devereux argues that certain differences in psychological disposition ('self-oriented' versus 'reality-oriented') can be seen to underlie the selection by different cultures of different faculties (speaking versus hearing) as *the* defining characteristic or locus of the intellect.⁹ It is unfortunate that Devereux's article is so little known, for it might have encouraged other ethnopsychologists to focus more on indigenous theories of perception and intelligence and less overwhelmingly on 'the emotions' (e.g., Rosaldo 1980; White and Kirkpatrick 1985; Lutz 1988). The latter focus seems to have been inspired by Geertz's suggestion that anthropologists look closely at how a given 'world-view' is made 'emotionally acceptable' by an ethos, and an ethos is made 'intellectually reasonable' by a 'world-view' (Geertz 1973: 127). Thought-provoking as this suggestion may be, it completely ignores the 'sensory dimension of symbolic perception' (Ohnuki-Tierney 1981: 8, 17). My hope is that the inclusion of Devereux's piece will inspire ethnopsychologists to be more attentive, in future, to the role of sensory techniques and imagery in uniting idea and affect, or cosmology and ethos.

The fourth chapter, by Constance Classen, explodes what she calls the myth of 'perceptual transparency' (the notion that the senses give us direct, unmediated access to reality) in a singularly compelling way. Classen examines three classic cases of 'wild children' and the responses they provoked in the scientific communities of the day. The sensory

prejudices of the latter stand clearly revealed in the manner in which they went about 'educating' the senses of the children to conform to the dominant sensory model. This chapter raises many fascinating questions, such as: Is there a natural order to the senses, or is that order invariably historical? Do human beings naturally prefer some colours or tastes or sounds to others, or are all of our likes and dislikes conditioned by culture?

In the fifth chapter, Anthony Synnott presents a brief history of the senses in Western philosophy and culture. His account ranges from the Greeks, who lived and loved the sensuous life (but had already begun to suspect the senses), to Descartes, who proclaimed: 'I shall now close my eyes, I shall stop my ears, I shall call away all my senses' (Descartes was a thinking man), to Marx, who railed against the alienation of the senses under industrial capitalism. One question that arises from Synnott's account, which stops with Marx, is whether the extinction of the senses under industrial capitalism has not been reversed by the rise of post-industrial, consumer capitalism. Rather than repressing the senses, the latter seems bent on fulfilling them (but see Haug 1986, who regards this development – i.e., the lavish amounts now spent on enhancing the 'sense-appeal' of commodities – as doubly alienating and exploitative of 'human nature'). Another question is whether female philosophers would evaluate the sensorium, or rank the senses, the same way the all-male cast of philosophers Synnott considers do; Luce Irigaray (1980), for example, has argued that women prefer touch to sight (see also Bordo 1986). Finally, the question arises of whether 'the problems of Western philosophy' are genuine problems, or simply problems thrown up by the way that tradition has tended to accord pride of place to the sense of sight (Rorty 1979). It is interesting to note that the so-called mind-body problem, or subject/object dichotomy, dissolves when one substitutes 'acting' for 'seeing,' as in traditional Chinese philosophy, which privileged 'the act' as opposed to 'the gaze' (Billeter 1984). This leads one to wonder how many other seemingly intractable 'problems' could be resolved by inverting or otherwise altering the conventional Western hierarchy or sensing?

On the Chapters of Part II

One would expect those engaged in cross-cultural research to be extremely conscious of how the sensory priorities of their own society differ from those of other societies, and that such scholars would adjust their research agendas accordingly. But so far, at least, the requisite sensitivity has been lacking, for as Charles Adams points out: 'Far more

cross-cultural research has been undertaken on the topics of visual illusion and colour classification than on the perception of timbre or tactile qualities' (1986: 307) – not to mention the perception of olfactory or gustatory qualities. The five essays in part II manifest a different sensibility, one that is sensitive to local particularities: the first four explore how those senses which in the West are defined as 'other' have been elaborated symbolically in 'other' cultures, while the fifth takes a critical look at the role of sight in the construction of the very category of 'otherness.'

Chapter 6, by Steven Feld, introduces us to the Kaluli of the Southern Highlands of Papua New Guinea, and the special role that drumming plays in Kaluli ceremonial life. The Kaluli use drumming to convey messages and mobilize emotions in a range of ways that the Western ear is but poorly tuned to pick up. There are two reasons for this. The first has to do with the silence that inevitably descends when Papuan drums are put on display in Western museums: transformed into 'art objects,' they become imprisoned within an aesthetic that confuses the apprehension of beauty with the disengagement of all the senses, save for sight. In short, the drums are rarely sounded. The second has to do with our not being disposed to listen attentively enough to perceive what the Kaluli call 'the "inside" of a beat.' Feld helps us to achieve this experience by means of various graphs. His essay is also a model example of the approach advocated earlier in connection with our discussion of Devereux's article, for it shows how idea and affect, cosmology and ethos, are integrated, in the Kaluli case, through the medium of sound.

In chapter 7, Valentine Daniel describes the pulse-taking technique of the Siddha medical practitioners of South India. Interestingly, the Siddha physician is enabled by his training to detect six pulses where the Western physician would discern only one. Daniel shows how the tactile involvement of the Siddha physician contrasts with the visual detachment of the Western physician, and draws out the implications of these contrasting epistemes for the quality of doctor-patient interaction. This chapter also contains a discussion of the Peircean doctrine of the sign. Despite the lucidity of Daniel's account of Peirce's threefold classification of signs, some readers may find this chapter difficult to follow. It is important, though, to acquire an appreciation for the differing levels of abstraction involved in the relationship between the signifier and the signified in the case of the 'index,' the 'icon,' and the 'symbol,' for it is only by attuning ourselves to such differences that we can begin to perceive how some signs 'matter' more than others, and thus affect the consciousness of their users in different ways.

The next chapter, by Joel Kuipers, is an ethnolinguistic study of taste-term usage among the Weyéwa of Sumba, eastern Indonesia. The main interest of this chapter lies in the way it reopens the debate over the relativity of perception which Berlin and Kay's (1969) monumental study of colour classification *seemed* to close down (but see Sahlins 1977; Bousfield 1979). Kuipers does so by extending the search for lexical universals to one of the (many) domains Berlin and Kay overlooked – the domain of gustation – and pointing out some of the reasons why the Berlin and Kay approach cannot be applied to the study of taste perception. Kuipers's essay is also of interest for the way it gives the lie to the old saying: 'There can be no disputing taste.' This saying implies that taste is a matter of purely personal preference, hence not codable or social in a way that would permit so subjective a medium to be the bearer of shared meanings. Whatever the case may be in bourgeois society, taste has a social structure on Sumba, for as Kuipers shows, there is a definite correlation between the use of taste terms or substances and such 'external' social factors as the phases of a social visit.

The ninth chapter, 'Olfaction and Transition,' begins by exploring the phenomenology of the 'speechless sense' (Howes 1986) – namely, smell – and goes on to describe and analyse the rationale behind the apparently universal practice of using odoriferous substances in the context of puberty, death, and other rites of passage. The author argues that it is the continuous character of smells that makes them so suitable for both signalling and precipitating the transition from one socially defined category (such as 'boy' or 'girl') to another (such as 'man' or 'woman'). While the primary concern of this chapter is to establish a universal connection, it also examines how that connection has been weakened in the case of Western society as a result of the declining presence of smells in social life in the wake of the perceptual revolution of the mid-eighteenth century. It is further suggested that the emergence of the modern concept of the person was directly linked to the sudden lowering of thresholds of olfactory tolerance which took place during that period. Hence, our current sense of personal identity may be nothing more than the effect of a shift in the ratio of the senses.

The last chapter in part II, 'On Safari' by Ken Little, is a very humorous and deadly serious critique of 'the tourist perspective.' Taking the Kenya safari tour as the focus of his inquiry, Little examines how productions of this type are centred around the enactment of the visualist metaphor of 'observing the natives and seeing the sights.' The safari tour is shown to be the expression of a cultural logic of objectification, which transforms the peoples and landscape of East Africa into

'authentic spectacle.' Little does far more in this essay than simply demythologize the 'authenticity' or 'realism' of the tourist's experience of 'wild nature' and 'proud Samburu warriors,' however. For he also challenges anthropologists, who are, after all, also in the business of producing and consuming representations of Africa and Africans (but who think they speak from the 'superior' perspective of an 'ethnographic natural') to examine the visual presuppositions and politics of their own discourse. In the end, Little argues, it is the construction of the very idea of a privileged 'vantage point' on 'the Other' that we must question, and there can be no escape from the Western episteme until we do.

Little's deconstruction of the 'ethnographic gaze' clears the way for the emergence of the anthropology of the senses. The latter paradigm is distinguished by the fact that, unlike any previous school of anthropology, it has no 'perspective' or 'vision' to defend, because it is equally open to, and interested in, what all of the senses have to contribute to our knowledge of the world and other cultures.

A Clash of Sensory Ratios

In *The Absent Body*, Drew Leder makes the important point that cross-cultural variations in the use of the senses (like those we shall be considering) 'are possible only within, and are limited by, the common structure of the human body. Its sensory organs, ... its muscular capacities, are prearticulations upon which all cultures must build' (1990: 29). Some of these 'prearticulations' we even share with the primates, such as the practical dominance of sight and touch over hearing, olfaction, and taste – an articulation which appears to have been 'selected' on the basis of the greater power in the manipulation of nature the former senses give (Passingham 1982: 23–53).

Practical dominance, however, is no guarantee of cultural dominance, and the cultural history of the senses deserves study quite apart from their natural history. The senses are shapers of culture, but they are also bearers of culture, and that means that one can never assume in advance what their *ratio* (in the fullest sense) in another culture will be. Let me illustrate what I mean by presenting a scene from the play *Jero's Metamorphosis* by the great West African playwright Wole Soyinka.¹⁰ In the interpretation that follows, I shall develop what I take to be the parallels between Soyinka's message and the message of the anthropology of the senses.

Jero's Metamorphosis is set in Nigeria, and the scene in question involves two characters, Major Silva, who is British, and a local Yoruba man by the name of Chume. As the scene opens, Major Silva is trying

to teach Chume how to play the trumpet for the Salvation Army Band. Chume has his own ideas about how the hymns Silva has him play should sound. He adds an extra note here, varies the beat there, and so on. These improvisations distress Major Silva: 'No flourishes please, no flourishes ... We march to [the hymn] remember, not dance' (Soyinka 1973: 65).

One of the reasons Chume does not stick to the score is that he cannot read music, but the Major does not know this. The ruse is finally exposed when Silva sees that Chume's music sheet is, in fact, upside down on the stand. The major immediately accuses Chume of being 'musically illiterate.' Chume reverses the charge, pointing out that at least he can play music whereas Silva only knows how to read.

While there is a sense in which Chume simply 'plays it by ear,' in point of fact he is interpreting the music in a richly synaesthetic way. This comes out when Silva corrects him a third time for playing 'Ta-a-ta' instead of 'ta-ta,' and Chume finally realizes what the Major means by 'flourish':

Chume: Oh you mean the pepper.

Silva: Pepper?

Chume: Enh, pepper. When you cook soup you go put small pepper.

Otherwise the thing no go taste. I mean to say, 'e go taste like something. (Soyinka 1973: 66)

Major Silva is mystified by this allusion, and visibly begins to 'doubt his senses' as Chume goes on to discourse about the *iru*, salt, *ogiri*, *kaun*, and other condiments he puts into his playing.

Silva: Mr Chume, I'm afraid I don't quite see the relevance.

Chume: No no, no try for *see* am. Make you just *hear* am.

(Soyinka 1973: 66)

So Chume begins to blow, introducing each note by reference to its corresponding taste (stockfish, *ngwam-ngwan*, smokefish, etc.). In this way he tries to teach the Major how to *hear* tastefully. But Major Silva only has eyes (and ears) for the score, and 'no time for all this nonsense.' Chume is offended by this dismissal of traditional Yoruba cuisine, and the situation quickly deteriorates. He proceeds to give Silva a taste of locust bean on his trumpet. Then he launches into a tune, turns it into a traditional beat, and dances menacingly in the direction of the Major. The latter flees in terror.

To interpret, in this scene, the problem of contact between two cultures is represented as a clash between two mutually refractory 'sense ratios' or 'sensory orders' – one visually biased, the other tastefully

biased, in its appreciation for music. Chume cannot see what Silva means, the Major has no taste for Chume's metaphors. In short, each apprehends the music in accordance with his own sensory preferences. The two characters would also seem to be at odds over the question of what rhythm or beat to give the music. The problem in this case is that Silva has no rhythm to speak of, while Chume has many. To be precise, the African musician resists being confined within the single metrical perspective typical of most Western music (see Chernoff 1979).

Now, some would attribute the breakdown in communication between the Englishman and the Yoruban to the fact that the latter belongs to a 'non-literate' or 'pre-literate' culture, but this interpretation goes against the intention of the playwright. What Soyinka wants us to recognize, I think, is that the lack or deficiency is best regarded as reciprocal. Thus, Chume's power of sight may be 'underdeveloped' in that he does not know how to read, but by the same token Silva's sight is 'overdeveloped' and, what is more, impinges on his ability to hear or taste things as fully as does Chume. To put this another way, the Major's auditory and gustatory faculties are 'restricted' to the same extent that Chume's are 'elaborated' (Douglas 1982b). It is on this ground, the ground that *their sense ratios don't quadrature*, and only secondarily because they are situated to either side of the so-called orality/literacy divide, that they have such difficulty communicating.

To conclude, Soyinka calls upon us to open our minds to the different meanings that different senses have for different peoples; to resist the hegemony of the visual faculty (and the imperialist order it supports); to respect other ways of combining the senses (instead of dismissing them as nonsense); and, to recognize that the division of the world's cultures into two categories, literate and nonliterate, masks a far more interesting and complex reality of multiple, conflicting sensory (and cognitive) models, which we really ought to be exploring. That, very briefly, is also the call of the anthropology of the senses.

Notes

1 To the best of my knowledge, the first scholar to use the expression 'cultural anthropology of the senses' was the historian Roy Porter (1986: vii).

I should also note that the title of the present essay, 'To Summon All the Senses,' is borrowed from a passage in Book IX of William Wordsworth's *The Prelude* (1959).

2 There are those, such as Romanyshyn (1989: 58–64), who regard the artistic experiments of the Cubists as having a therapeutic effect because of the way their style challenged the conventions of linear perspective vision,

and thus helped to restore the body to the viewer. As is well known: 'For the Cubists the visible was no longer what confronted the single eye, but the totality of possible views taken from points all round the object (or person) being depicted' (Berger 1972: 18). My own sense is that Cubism augmented the fragmentation of the sensorium, that it furthered the dissociation of sensibility, because multiplying perspectives remains, after all, a *visualist* strategy. Rather than decentring the subject, the Cubists ought to have explored ways of decentring sight.

- 3 Many who read McLuhan assume that what he meant by the expression 'sense ratio' was a kind of quantification of the senses. Nothing could have been further from the mind of the man who described himself as 'a Thomist for whom the sensory order resonates with the divine Logos' (quoted in Jeffrey 1989: 21). The expression 'ratio of sense' is perhaps best translated as 'each sense has its reason' (in both senses). See Bateson's (1973) discussion of Pascal's aphorism *la coeur a ses raisons que la raison ne connaît point*, which embodies an analogous thought.
- 4 Of course, Michael Jackson's work, like that of Renaat Devisch (1985), owes more by way of inspiration to phenomenology (Merleau-Ponty 1962) than it does to the concerns raised by McLuhan and Ong. I cite the work of these 'cultural phenomenologists' here by way of illustration of how many paths are now converging on the anthropology of the senses. Other convergent paths include Peircean semiotics as explored by Daniel in chapter 7, 'performance theory' as explored by Sullivan (1986) and Gill (1987), the notion of 'lived myth' (Leenhardt 1979) as explored by Howell (1984) and the present writer (Howes 1988), and the heterodox approach of Jim Fernandez (1985).
- 5 The Songhay case is not unique. The same absence of fusion between signifier and signified has been documented for the Hindu tradition in the Vedic period 1500–700 BC. During this era, meaning was 'radically subordinated' to sound: 'There [was] no tradition for the preservation of meaning, a concern regarded as a mere individualistic pastime. The brahmans' task [was] more noble: to preserve the sound for posterity, maintain it in its purity' (Staal, cited in Mackenzie Brown 1986: 73). These sacred sounds, or mantras, were held to produce vibrations having real effects in the universe. Only much later did the texts 'become conscious of themselves as books' and 'a synthesis of sound and meaning' take place (Mackenzie Brown 1986: 75–6). Each culture thus makes the link between the signifier and the signified in its own way and in its own time.
- 6 Abrahams (1983: 7–8) and Chernoff (1979: 143, 158) put forward a compelling argument to the effect that in order to apprehend West African social forms, dance forms – and even such ostensibly visual phenomena as dress styles and woven fabrics – in a culturally appropriate manner, one

must approach them from an acoustic angle. Such phenomena cannot be comprehended from a conventional Western 'point of view' (see, further, Jackson 1989: 10–11).

7 For example, the biologist Lewis Thomas has remarked: 'The act of smelling something, anything, is remarkably like the act of thinking itself' (1980: 42). See also Classen (ch. 4) on this and the previous point.

8 The literature on Witkin's field independence theory is vast and complex. See Witkin and Berry (1975) for a good overview. The sensotype hypothesis has been criticized on technical grounds by Berry et al. (1988: 200–3), even though some of the data presented by these authors clearly support it.

9 My own inclination would be to reverse the sequence Devereux posits (see Howes 1980).

10 I am indebted to Ian Ritchie for bringing this play to my attention, and my interpretation should be read in the light of his discussion of the sensory order of another Nigerian people, the Hausa (ch. 12).

CHAPTER 1

The Shifting Sensorium

Walter J. Ong, SJ

Man communicates with his whole body, and yet the word is his primary medium. Communication, like knowledge itself, flowers in speech.

The fact that man communicates with his whole body through all his senses is evident enough to us today. Modern psychology has underscored the way in which the child constructs his first world under the influence of touch (including kinaesthesia), of taste, and of smell, as well as of sound and sight. The child's physical contact with his mother's body and hers with his is already communication, a sharing through touch, which will influence not only his feeling but his thought throughout his life. Taste and smell attract and repel him in his relations with persons and things around him, helping him ultimately to shape his life-world in which his thought itself will take form. Sight, at first perhaps less informative, soon becomes in many ways the most informative of the senses, commonly in connection with kinaesthesia and other senses of touch, for the tactile senses combine with sight to register depth and distance when these are presented in the visual field.

Finally sound, a medium of communication since the child's first cry, manifests new potential of meaning as the child passes through the lalling stage, where he constructs around himself a vast bubble of sound, burbling, gurgling, playing with his diversifying vocal powers – and with his lips at the same time, for **sound, both in speaking and in hearing, is closely linked with touch and kinaesthesia.** One 'mouths' words quite literally, and our hearing is partly feeling, as Ilse LeHiste and Gordon E. Peterson (1959) have shown. The term 'seesaw,' to take an example related to theirs, seems to our hearing to have the accent on the first syllable, even though the last syllable may actually be pronounced to

produce more volume (this can be tested on a moderately sensitive oscilloscope), for we have to work harder to produce the sound 'see-' constricting our oral muscles and pushing air through a small space, and we interpret this greater effort (whether we make it ourselves or by listening share in the effort of others) as greater noise.

The oral-aural world of words is a highly complex and mystifying construct, but as he passes through the lalling stage the child learns to insert himself into it, and this world of words soon becomes paramount in the communications process. By the same token it becomes paramount in the child's thinking processes, since human thought apparently cannot arise at all outside a communications setting, either proximate or remote.

This is not to say that for the child or the adult all communication is lodged in speech or even, in the deepest sense of communication, in other bodily activities as apprehended by the senses. It is quite true, as Heidegger in *Being and Time* (1962, 1: sec. 34) and other existentialist thinkers like to insist, that language itself is at its deepest level not primarily even a system of sounds. There is a primordial attunement of one human existent to another out of which all language comes. Man is rooted in 'speaking silence.' All this is true, and in a certain sense commonplace, but it is noteworthy that when we thus think of silence as communicating, we are likely to think of it as a kind of speech rather than as a kind of touch or taste or smell or vision - 'speaking silence,' we say. The reason is plain: silence itself is conceived of by reference to sound; it is sound's polar opposite. Thus, even when we conceive of communication as a transaction more fundamental than speech, we still conceive of it with reference to the world of sound where speech has its being, and thus attest in a reverse way to the paramountcy of sound and the oral-aural world in communication.

Because words are always primarily spoken things - writing transposes language to a spatial medium, but the language so transposed has come into existence in the world of sound and remains permanently a part of this world - to a certain degree the oral-aural world, the world of voice and hearing which the child enters in learning verbal communication, will retain its paramountcy for good. But only to a certain degree. For, as we have lately learned, the world of sound itself does not have always the same importance in all cultures with relation to the worlds of the other senses.

Cultures vary greatly in their exploitation of the various senses and in the way in which they relate their conceptual apparatus to the various senses. It has been a commonplace that the ancient Hebrews and the ancient Greeks differed in the value they set on the auditory. The He-

brews tended to think of understanding as a kind of hearing, whereas the Greeks thought of it more as a kind of seeing, although far less exclusively as seeing than post-Cartesian Western man generally has tended to do. Thorlief Boman (1961) has brought together massive evidence of the Hebrew-Greek contrast, and, although James Barr (1961) has contested some of Boman's interpretations and procedures, the contrast itself remains clear enough. The work of Benjamin Whorf (1956) with the Hopi Indians has shown how, in the Hopi life-world, time is retained as a sense of duration (with a base which appears largely kin-aesthetic) and how this life-world contrasts with that built into and out of what Whorf styles Standard Average European languages, which present time as 'long' or 'short' (as though it were a stick) and as discontinuously quantified, with one minute or hour or day broken off from the next as on a clock face or calendar, as time itself never is.

Some cultures, similarly, make more of the tactile than do others. In his *Art and Geometry*, William M. Ivins, Jr., has pointed out that ancient Greek geometry differs from most modern geometry in that the ancient Greeks thought more about the way the various shapes felt (they tended to imagine themselves fingering their way around a geometrical figure), whereas modern geometricians think more about the way the various shapes look (1946: 1-13). Ours, consequently, is a spectator's geometry, theirs was a participator's.

Some cultures make more of taste than do others. Whereas modern English, for example, has only a handful of concepts formed directly from gustatory sensations (concepts such as sweet, bitter, sour), complementing these with analogies borrowed from other sensory fields (a taste is flat or sharp) or with crude similitudes (it tastes like an overripe pineapple), the Korean language, I am told by Korean friends, has many more concepts referring more directly to taste.

Taste provides a good example of a sensory field which even the same culture attends to with different intensity at different points in its history. In the eighteenth century through much Western culture, questions concerning taste somehow or other become extraordinarily urgent. In England Pope cried out against vulgar 'taste'; Dr John Armstrong published an important poem entitled *Taste* (1753); and Hume wrote an essay 'Of the Standard of Taste' (1757). The questions agitated did not concern the sense of taste directly in any obvious way, it is true, but rather its analogical extensions into other areas of life - taste in poetry, art, style of living. Nevertheless, this analogical taste had indubitable, real connections with the sense of taste. That is why the term taste rather than smell or hearing or touch or vision came into play.

Some reasons for the ascendancy of taste in the eighteenth century

can readily be seen. The sense of taste is basically a discriminatory sense as the other senses are not (Hume's title registers this fact: taste provides a standard or norm). Taste is a yes-or-no sense, a take-it-or-don't-take-it sense, letting us know what is good and what is bad for us in the most crucial physical way, for taste concerns what we are inclined to take into ourselves by eating, what will by intussusception either actually become ourselves or refuse to be assimilated and perhaps kill us. Undoubtedly the eighteenth-century concern with taste, analogously understood, derived in great part from the growing number of acts of discrimination which men were having to make. As feudal society finally bowed out, the individual and even a whole society were being forced to make decisions which an older, more tradition-bound culture used to provide ready-made. With democracy, the concern with taste wanes, as 'public opinion' is formed to take over regulatory functions, the crises of decision assume other shapes, and the relationship of the human life-world to the complex of the senses changes once more.

The relationship of sound and of the word itself to the human life-world varies, too. Sound and the word itself must thus be considered in terms of the shifting relationships between the senses. These relationships must not be taken merely abstractly but in connection with variations in cultures. In this connection, it is useful to think of cultures in terms of the organization of the sensorium. By the sensorium we mean here the entire sensory apparatus as an operational complex. The differences in cultures which we have just suggested can be thought of as differences in the sensorium, the organization of which is in part determined by culture while at the same time it makes culture. Freudians have long pointed out that for abstract thinking the proximity senses – smell, taste, and in a special way touch (although touch concerns space as well as contact and is thus simultaneously concrete and abstract) – must be minimized in favour of the more abstract hearing and sight. Growing up, assimilating the wisdom of the past, is in great part learning how to organize the sensorium productively for intellectual purposes. Man's sensory perceptions are abundant and overwhelming. He cannot attend to them all at once. In great part a given culture teaches him one or another way of productive specialization. It brings him to organize his sensorium by attending to some types of perception more than others, by making an issue of certain ones while relatively neglecting other ones. The sensorium is a fascinating focus for cultural studies. Given sufficient knowledge of the sensorium exploited within a specific culture, one could probably define the culture as a whole in virtually all its aspects. Such full or exhaustive knowledge is not easy to come by, and

we are a long way from it at present. But to say we are far from knowing all about the sensorium is not to say we know nothing about it.

A seminal book by Marshall McLuhan, *The Gutenberg Galaxy* (1962), shows, among other things, how widespread the interest in the sensorium has become, often among authors who do not even think of the sensorium as such under that name. McLuhan's work connects closely with that of Harold A. Innis (1950, 1951), as McLuhan himself has always graciously insisted, though few of his admirers or critics seem aware of the connection. In addition to Innis, McLuhan quotes from scores of scholars in vastly different historical fields – art history, literature, economic history, sociology, anthropology, religion, and many others – who have been turning up more and more material relevant to variations in the ratio or balance between the senses. The interests of most of these authors are not technically psychological but historical or cultural. Vast as McLuhan's spread of citations is, one could enlarge it indefinitely. There is, for example the well-known interest of the French *symboliste* poets in the transposition of the senses (assigning specific colours to specific sounds, as Baudelaire and Mallarmé do). The work of a number of recent philosophers enters into or touches on the organization of the sensorium. One thinks of Bergson's misgivings in *Time and Free Will* (1960) about the tendency of the past few centuries to over-spatialize the universe so that everything is reduced to models picturable in space, and what is unpicturable ('unimaginable' is often the term invoked) is discarded as impossible or unreal. Or one thinks of Whitehead's subsequent comments in *Process and Reality* (1929). Louis Lavelle (1942) and Jean Nogué (1943) elaborate discussion of the sensorium far beyond Bergson. Others concerned in one way or another with what we are here styling the sensorium include of course Freud and his followers, linguistic historians such as Jespersen and Sapir, psychologists such as Jean Piaget and Jerome Bruner, and a number of phenomenologists. Many in these last three groups can be identified through the comprehensive bibliography in John W.M. Verhaar's valuable work, *Some Relations between Perception, Speech, and Thought: A Contribution toward the Phenomenology of Speech* (1963).

Whitehead, in his *Modes of Thought* (1958), was one of the earliest to call rather specific attention to the need for study of the effects of changes in the communications media on the organization of the sensorium (without, however, naming the sensorium as such). Today there is a common awareness of the general pattern of these changes as man has developed his verbal communications media out of the initial spoken word. In general, before the invention of script man is more

oral-aural than afterward, not merely in that his words are all spoken and heard words, never visually perceived marks on a surface, but in that his whole response to actuality is thereby organized differently from that of typographic man. **Writing, and most particularly the alphabet, shifts the balance of the senses away from the aural to the visual**, favouring a new kind of personality structure, and alphabetic typography strengthens this shift, as I pointed out at length some years ago when assessing the significance of Ramism in *Ramus, Method, and the Decay of Dialogue* (Ong 1958).

The greater visualism initiated by script and the alphabet is given more and more play in the West through the Middle Ages and then suddenly is brought to a new intensity in the fifteenth century and thereafter with the invention of alphabetic typography. As will be seen, this new intensity involves much more than print – the word literally locked in space – for at approximately the same time that alphabetic typography appears, painting is being swept by a revolution in its treatment of perspective, and the mechanical reproduction of instructional (as against decorative) illustrations and diagrams becomes widespread. Historians of art and design, such as Erwin Panofsky (1955) and Gyorgy Kepes (1956), have traced this and other developments in the use of vision. **The visualism encouraged by print connects also with the increased use of maps and with the actual physical exploration of the globe** (dependent on visual control of space in maps and imagination) which opens the modern age.

The modern age was thus much more the child of typography than it has commonly been made out to be. And, largely by reason of this fact, the modern age is now a thing of the past. Our own age today, as has by now frequently been pointed out, is marked by a new stress on the auditory. We live by telephone, radio, and television (which is never mere pictures, but is unequivocally a sound medium quite as much as it is a visual one), as well as by rapid transit, which expedites physical presence, and the use of voice to a degree unthinkable for typographic man.

But this is not to say that we are returning to an earlier oral-aural world. There is no return to the past. The successive verbal media do not abolish one another but overlie one another. The present sensorium is dismally mixed and we are hard put to understand it, but for the first time in the history of mankind the possibility of some kind of understanding is opening up. This itself gives us a unique opportunity to become aware at a new depth of the significance of the word.

CHAPTER 11

Sensorial Anthropology

David Howes

It would seem that the extension of one or another of our senses by mechanical means, such as the phonetic script [an extension of the eye], can act as a sort of twist for the kaleidoscope of the entire sensorium. A new combination or ratio of the existing components occurs, and a new mosaic of possible forms presents itself.

Marshall McLuhan, *The Gutenberg Galaxy* (1962)

The purpose of this chapter is to articulate a new sub-field of anthropology, which may be called the ‘anthropology of the senses,’ by elaborating upon some of the theoretical implications of the chapters in parts I and II. This chapter will also introduce the essays which make up the balance of this book, all of which exemplify the new paradigm in their insistence upon approaching other cultures through their own ‘sense ratios.’

In what follows, the sensorium, which may be defined as ‘the entire sensory apparatus as an operational complex’ (Ong, ch. 1), is pictured as a combinatory, or, to use McLuhan’s metaphor, a ‘kaleidoscope’ (1962: 55). This image agrees with the fact that it is through a combination of the five senses that human beings perceive the world. Take the case of tasting a meal. It is the correlation of gustatory and olfactory (and tactile and visual) sensations that gives a meal its flavour. For this reason, if one’s sense of smell is impaired because of a head cold, the meal will not taste the same as on other occasions.

The image of a combinatory can also be taken to suggest that the way in which the senses are combined in one individual, or society, may

not be the same as in the next. Donald Lowe (1982: 7) gives the example of a musician, who would have a better ear than most, as opposed to a chef, whose taste buds and nose would be better than others'. It will be appreciated how the differing combination of the five senses in these two individuals would result in their each enjoying a somewhat different experience of reality.

Lowe's example underlines a point made by Edmund Carpenter (1972: 20): '**Any sensory experience is partly a skill and any skill can be cultivated.**' Musicians exercise their ears, chefs cultivate their palates, and the effect of this is that their 'sensory profiles' (to use Carpenter's expression) or 'sense ratios' (to use McLuhan's) diverge proportionately. It must be emphasized, however, that this essay is not concerned with individual differences in sensory mixes. Differences among individuals (by age, sex, occupation, or temperament) only take on meaning against the background of the culture to which they belong. It is the sense in which *whole* societies can be classified as more tasteful than others (for example, French society compared with British), or more aurally than visually minded (for example, cultures without writing are to some extent bound to rely more on the ear than the eye for purposes of communication), that is of primary interest to the 'anthropology of the senses.'

One way to conceptualize what is meant by this idea of 'sensory profile' or 'sense ratio' is on the analogy of Wilder Penfield's famous 'sensory homunculus' (Penfield and Rasmussen 1950). The sensory homunculus is a map of the body as it appears on the surface of the cerebral cortex (see Figure 1).¹ It will be observed that the brain's map of the body is not drawn to scale. Some areas on the skin are represented over a much wider area of the brain than others, and not at all in proportion to their size. For example, the face, especially the mouth, is allocated much more space than the leg; and the hand, especially the thumb, seems grossly overrepresented compared with the trunk. As Jonathan Miller observes, **the brain's map of the body is 'like an electoral map as opposed to a geographical one'** (1978: 21). Basically, what is represented on this map is the functional importance of the hand and the mouth relative to the leg or the trunk as far as the body *as a whole* is concerned. It is because of their functional significance to the human organism that the former have so many more sensors per square centimetre than the latter, and are represented in the brain accordingly.

It is this idea of function, and of sensory functions in particular, with which the anthropology of the senses is most centrally concerned. In approaching other cultures, what we want to find out is: What *is* the relative importance and meaning of the different senses to the members



FIGURE 1
The sensory homunculus (after Penfield and Rasmussen 1950)

of that culture? How does their culture's map of the senses differ from ours? These questions do not admit of easy answers, and themselves raise further questions, such as: **What would reliable evidence that one sense is considered more 'important' or trustworthy than some other consist in?**

As a preliminary indication, consider Alan Dundes's analysis of everyday English in 'Seeing Is Believing' (1980). According to Dundes, such expressions as 'I see' when what one means is 'I understand,' or 'seeing is believing,' constitute pretty strong evidence of a visual bias among English speakers, particularly when one considers that the latter phrase used to read 'seeing is believing, but touching's the truth.' The proportional representation of the visual and tactile modalities in the English-speaker's 'cultural map' of the senses has thus changed substantially over time. This inversion of the truth value of the senses of touch and sight underlines the dynamic, ever-shifting character of the relationship between the modalities (Ong, ch. 1).

Linguistic expressions like 'seeing is believing' are best regarded as evidence of the body and senses 'in the mind' (Johnson 1987), or how 'what is done with the body [and senses] is the ground of what is thought and said' (Jackson 1989: 131). This way of interpreting these expressions accords with the interactive, instrumental view of metaphor which has emerged in recent years. To dismiss such metaphors as mere 'figures of

speech' would be to recur to a theory of mind/body dualism which is no longer tenable (Lock and Scheper-Hughes 1987). At the same time, in our attempts to arrive at a definition and understanding of a society's sensory profile, we must extend our attention beyond language, and seek to quadrate the evidence of as many cultural domains as possible. The most salient domains for this purpose, as the chapters in this part will show, include: a society's technology of communications, modes of body decoration, child-rearing practices, art, architecture, folk-tales and proverbs, myths of creation, techniques of divination, and above all, ritual life. All of these domains have something (and sometimes different things) to tell us about how the senses are used in practice. They also tell us about how the senses are imagined to operate, which is equally relevant to our understanding of their praxis – that is, of their function in an 'operational complex' that is both constituted by and constitutive of culture.

In this chapter, I shall be concentrating on the first three domains, beginning with a re-examination of Marshall McLuhan and Walter Ong's theory of how communications media shape the sensorium, then turning to consider a paper by Anthony Seeger which suggests that body decoration represents another site at which a society both expresses and enforces its particular sensory order. In the third section, I extend Mauss' notion of 'body techniques' into a general theory of the 'techniques of perception,' and illustrate this by means of a study of Wolof child-rearing practices.

Technology of Communications

One of McLuhan and Ong's most basic insights is that different communications media 'distort' our experience of the world in the very process of making such experience possible because of the differential way they call the senses into action. Thus, the newspaper extends the range and sensitivity of the eye, but suppresses other sensory functions; the African talking drum extends the normal range of functioning of the ear (and the voice) but at the expense of sight (Ong 1977: 102–4). Rather controversially, McLuhan sought to explain all of human history, as well as the differences in social organization between the West and the 'tribal' societies of Africa and the Orient, in terms of transformations in the 'ratio of the senses' brought on by changes in the technology of communications. Let me sketch this theory, according to which cultures can be understood as differential extensions of the senses and classified as belonging to one of four kinds or stages (oral-aural, chirographic,

typographic, electronic) before critiquing it. I shall focus on McLuhan's *The Gutenberg Galaxy* and *Understanding Media*.

In the oral stage of Western civilization (as in 'tribal Africa' as understood by McLuhan), speech was *the* mass medium and there was an 'audile-tactile bias' to collective thought. Speech confers a disproportionate emphasis upon the sense of hearing, hence the heightened audile component. Persons must be present to each other to communicate verbally, hence the tactile component. And, because of this forced proximity, various non-verbal channels of communication (facial expression, gestures, the smell of one's interlocutor) also figure prominently in verbal intercourse, making communication 'synaesthetic.'

This unity or orchestration of the senses began to come undone in the succeeding chirographic stage. The immediate cause of this split or rupture was the substitution of visual signs for spoken words: 'the phonetic alphabet makes a break between eye and ear, between semantic meaning and visual code' (McLuhan 1962: 26–8). But this split had to await the invention of the printing press to be fully consummated, because for a long time after the invention of writing books continued to be read aloud: 'with print [however] the eye speeded up and the voice quieted down' (1962: 42–4).

The printing press made the process of acquiring knowledge an experience at once more available, private, and visual than any experience that had gone before. The printing press also increased the reliability of visual information in direct proportion to the number of copies of a text or diagram printed (that is, typographic standardization put an end to the problem of chirographic corruption). And it was the printing press, according to McLuhan, that was responsible for the bias in favour of explicit or objective, causal or sequential, logical thinking so characteristic of Western culture from the Renaissance on. The reason for this: hearing is omnidirectional, synthetic, and sounds always have an emotional impact; sight is unidirectional, analytic, and distancing. As Ong (1982: 72) puts it, sound surrounds and penetrates the listener, sight situates the viewer outside what he sees.

The electric age, which was heralded by the invention of the telegraph and culminated in the invention of television and the computer, altered the balance of the senses once again by rupturing the silence which had been imposed by print, and making communication instantaneous again. McLuhan saw the youth of the 1960s, with their emphasis on being 'involved' or 'in touch' rather than detached, as the first to live out the logic of the electric age. The new media undermined the hegemony of the visual and sensitized people to the auditory and tactile dimensions of experience (again). Thus, in the 1960s, 'Dance and dress, music and

hair styles must not only have a "look"; they must also have a "sound" and above all a "touch". They must appeal to all the senses simultaneously. It is not only that youth wants experience; it wants experience that unifies rather than dissociates the senses' (Carey 1969: 288). This reunion of the senses made possible a new awareness of human interconnectedness, or the 'retribalization of man,' this time on a global scale – the 'global village.'

By way of summing up, let me quote McLuhan at length:

Any culture is an order of sensory preferences, and in the tribal world, the senses of touch, taste, hearing and smell were developed, for very practical reasons, to a much higher level than the strictly visual. Into this world, the phonetic alphabet fell like a bombshell, installing sight at the head of the hierarchy of senses. Literacy propelled man from the tribe, gave him an eye for an ear and replaced his integral, in-depth communal interplay with visual linear values and fragmented consciousness. As an intensification and amplification of the visual function, the phonetic alphabet diminished the role of the senses of hearing and touch and taste and smell, permeating the discontinuous culture of tribal man and translating its organic harmony and complex synesthesia into the uniform, connected and visual mode that we still consider the norm of 'rational' existence. (*Playboy* 1989: 109)

The logic of the industrial assembly line may be cited in illustration of what McLuhan meant by thought in the uniform, connected, and visual mode.

McLuhan's work has attracted a great deal of criticism (e.g., Stearn 1967; Hymes 1974a; Finkelstein 1968), much of which is invalid because it is based on a superficial reading.² Before turning to consider some of the more valid criticisms, one thing I must say in favour of his approach is that all of the chapters in this sourcebook show that he was right to suggest that cross-cultural understanding can be enhanced greatly by attending to the sensory dimensions of other people's experience with the same order of preferences and intensity they do. By contrast, scholars like Berlin and Kay (1969), who focus exclusively on the comparison of colour terminologies, never thinking to compare odour or taste vocabularies, have plainly failed to transcend our culture's sensory biases. The same could be said of the expanding field of 'visual anthropology' (Bellman and Jules-Rosette 1977), which colonizes the sensory orders of other cultures at the same time it reifies our own.

One of the respects in which McLuhan's theory is open to criticism

has to do with his imputation of a 'primitive' or non-logical mentality to 'oral man.' Recent research in cross-cultural psychology has discredited the suggestion that the cognitive operations of non-literate people differ in any substantial way from those of literate people (Scribner and Cole 1981). But while the 'great divide' theory has to be abandoned, there are many littler divides that persist, such as Wober's finding that African subjects perform better on tasks involving proprioceptive discrimination but poorer on tasks entailing visual skills than do Western subjects, and vice versa (Wober, ch. 2). These seemingly minor differences in what Wober calls 'perceptual style' could have major cognitive implications since, according to the latest research in cognitive neuropsychology, it appears that knowledge of the world is coded in a *modality-specific* rather than unitary fashion (McCarthy and Warrington 1988; Marshall 1988). It follows that insofar as different cultures emphasize the development of different modalities, their ways of thinking will also differ (see Marsella and Quijano 1974; Jocano 1976: 106–9; Shizuru and Marsella 1981; Luria 1976).

Many have also objected to the lineal evolutionary schema in terms of which McLuhan interprets the cultural history of the West and other societies, although McLuhan himself short-circuits this objection by arguing that 'electronic man' has in fact come full circle (i.e., that the course of history is cyclical). Nevertheless, most contemporary anthropologists would regard the differences in social organization and cosmology McLuhan discusses as due to a variety of factors (such as history, economics, environment, value differences) rather than the unfolding of some universal, technologically driven developmental process (see Feld 1986).

The most serious objection to McLuhan's theory, it seems to me, is that while he gives us the idea of cultures as constituted and differentiated by contrasting 'sensory ratios,' most of his writing on this subject revolves around the conflict between the ear and the eye. The other senses receive but scant attention (exceptions include McLuhan 1964: 135–8 and 1967, ch. 18). As a result, all of the oral cultures he discusses end up sounding identical, while the literate ones he treats all come to look much the same. There should be more to the notion of 'sensory ratio' than meets the eye or reverberates in the ear.

The peril of simply assuming that all 'tribal' cultures will display the same 'overwhelming tyranny of the ear over the eye' (McLuhan 1962: 28) can be illustrated by considering the example of the Chewong, an aboriginal people who live deep in the rain forest of the Malay Peninsula. 'The spoken word is the main medium of Chewong art. They make no

sculpture and no painting' (Howell 1982: xiv). Chewong society may thus be classified as 'oral-aural.' Hence, if one follows McLuhan, one would expect the Chewong to place special emphasis on the ear.

But instead, the Chewong have evolved a highly complex doctrine of seeing as knowing. Each level or species of being (animal, human, and superhuman) is credited with eyes different from those of every other species, and their behaviour is explained accordingly. For example, at one level, monkeys see nuts and leaves not as what they are but as 'meat'; at the next level, 'when the Chewong see monkeys, they only think of eating them' – that is, they see monkeys as 'meat' (Howell 1984: 161); at a third level, *bas*, a class of spirits with eyes at the back of the head who often cause harm to human beings, do so precisely because they do not see human beings as such, but only as 'meat' (1984: 104–6). Thus, every species of being inhabits a different visual world. Only the *putao* or shaman, whose eyes are 'cool,' is able to see the actual or true state of affairs in all these different worlds at once; for example, the *putao* can see that the true cause of a patient's suffering is that he or she walked into an invisible (to the patient) trap set by the *bas*.

The Chewong recognize another class of spirits, the beautiful female *bi hali* or 'leaf people,' who live in fragrant-smelling flowers and leaves, dance and sing a great deal, and love to attend the singing séances held in their honour. Howell writes: 'When many different *bi hali* are present [at a séance], the house is filled with a fragrance, and often the women cry because it is so beautiful' (1984: 96). But while everybody can smell the *bi hali*, only the shaman whose eyes have been 'cooled' by a special smoke can see them and report back on their beauty.

Other facts which point to the centrality of sight in the Chewong sensorium include: the belief that the eyes of the foetus are the first parts to develop (1984: 52); the way madness is represented by a phrase meaning 'to see the world upside down' (1984: 165–6); and the many references to men and women being attracted to each other by their physical appearance in Chewong myth – in only one case is it the beauty of a man's voice that exerts attraction (Howell 1982: 28). At the same time, it is apparent that the Chewong enjoy a far more balanced sensorium than we do. Chewong technology simply does not permit one or two of the senses to be extended at the expense of all the rest the way such practices as reading a book or 'watching TV' do. As Lowe (1982: 9) observes, film and television, by the extension and extrapolation of seeing and hearing, have 'created a "reality" ... without reference to the other three senses.' It is significant in this regard that a Chewong shaman's eyes must be ritually 'cooled' with aromatic smoke for him to be able to see in other worlds, and that a constant drumming

must be kept up during the séance in order for his soul to be able to find its way back (Howell 1984: 158–9).

What the Chewong case alerts us to is the importance of studying 'how people think they perceive' (Seeger 1981: 80) *in addition to whatever their technology enables them to see or hear or touch, etc.* Within the limits imposed by its technologies of communication, a society yet remains free to vary the emphasis it places on the different sense organs. In terms of McLuhan's framework, these variations are necessarily slight, but they can loom large when all of the societies one is studying are of the so-called 'oral-aural' type.

Body Decoration

In illustration of the last point, consider the situation among the Gê-speaking peoples of central Brazil as described by Anthony Seeger (1975) in a fascinating article on the meaning of body decorations. Seeger found that in the Mato Grosso the ornamentation of a body part (eye, ear, nose, penis, etc.) is normally related to the symbolic meaning of the related faculty. Thus, Suya men pride themselves on their ear-discs, lip-discs, and distinctive singing style. These elements make one 'fully human' (*me*). The Kayapo, by contrast, are very conscious of their penis sheaths. Adult Kayapo do not wear ear-discs (only strings of beads), and while they do wear lip-discs, these are not very ornate. Interestingly, among the Kayapo a boy's puberty is marked by the bestowal of a penis-sheath, while among the Suya it is signalled by an ear-piercing ceremony. The purpose of the latter ceremony is to make the youth 'hear well.' Suya thus try to control sexuality (read: tactile experience) indirectly, through the ear, while the Kayapo control it directly. Indeed, Suya say that 'sexual intercourse is "bad for the hearing" of young men' (Seeger 1975: 220).

It could be said that Suya emphasize hearing and obeying at the expense of 'feeling up.' The economy of their sensorium is exactly the reverse of that of the Kayapo insofar as touch and hearing are concerned (see Table 1). It would be interesting to know whether Kayapo men, having invested less symbolic energy in their ears and more in other organs, enjoy a more balanced sex life than the latter. They certainly seem to have a more 'tactile culture' than the Suya do (see Montagu 1978: 231–316).

Just as a certain contrapuntal pattern emerges when one compares the overall shape of the Suya sensorium with that of the Kayapo – Suya enlarge their ears, Kayapo their penises – so a quite definite pattern emerges when one examines the balance of the senses within Suya cul-

TABLE 1
Comparison of Suya and Kayapo sensory profiles

	Suya	Kayapo
Ear-disc	+	-
Lip-disc	+	+
Penis-sheath	-	+

ture itself. The reason the Suya wear lip-discs and ear-discs has to do with the faculties of speech and hearing being 'highly elaborated and positively valued in Suya society' (Seeger 1975: 215). For example, the Suya word for hearing, *ku-mba*, means not only 'to hear (a sound)' but also 'to know' and 'to understand.' Hence, when 'the Suya have learned something – even something visual such as a weaving pattern – they say, "It is in my ear"' (Seeger 1975: 214). The ear is therefore the primary organ through which the world is cognized and, as noted previously, the human subject socialized: a person who is fully social, that is, one who conforms fully to the norms of the tribe, 'hears, understands and knows clearly' (Seeger 1975: 214).

Among the Kayapo, active knowledge of how to 'make and do things' is associated with 'seeing' and only passive knowledge, such as understanding social codes, is associated with 'hearing' (Turner 1980: 120). The latter association is perhaps reflected in the unmarked (or unremarkable, by Suya standards) character of Kayapo ear ornaments, while the former association is marked by the Kayapo custom of painting the eyes (as well as the hands and feet) bright red so as to 'intensify' or 'accentuate' their contact with the external world (1980: 123). The positive value the Kayapo attach to seeing is also manifest in their 'bird's-eye' conception of beauty: 'Birds fly, and "can scan" the whole world,' Kayapo say (1980: 131). To be able to perceive the wholeness of the world is the very essence of aesthetic experience, by Kayapo standards.

By Suya standards, however, such extraordinary vision is the defining characteristic of a witch: 'A person becomes a witch when an invisible witch thing enters his or her eye. Certain species of birds all have such witch things in their eyes ... The "thing" in the person's eye allows him literally to "see everything" ... the village of the dead in the sky ... the fires of the people under the earth ... enemy Indians in their own villages far away' (Seeger 1975: 215). The association of extraordinary powers of sight with being a witch is motivated, according to Seeger, by the prior association of being 'fully human' (*me*) with 'hearing clearly.' It bears underlining that the 'witch-thing' is neither inherited nor congenital: it only enters the eyes of people who do not *heed* what they are

told by their elders or chiefs (i.e., who behave immorally). Thus, extraordinary vision is an 'antisocial faculty' – it is only attained by those who transgress the moral (acoustic) bounds of society.

Seeger (1975: 216–18) states that Suya witches are also distinguished by their perverted or ‘bad speech’ in contrast to the ‘plaza speech’ or ‘everybody listen talk’ of the chiefs. Thus, another pattern emerges, which complements the one we discerned earlier when we compared the Suya and Kayapo sensory orders as wholes. In effect, the sensory profile of the Suya witch is the *reverse* of the sensory order exemplified and upheld by the chiefs. What is more, the two balance out: just as the witch's poor hearing and bad speech is compensated for by extraordinary vision, so the chief's ordinary vision is compensated for by a good ear and a loud mouth.

To complete our picture of the Suya economy of the senses, there are certain facts about smell which should be considered. Only certain highly dangerous and elusive game animals are credited with a keen sense of smell, as well as ‘strong eyes’ (1975: 216). Related to this is the fact that adult men are thought to be ‘bland smelling’ while adult women, who participate more in nature than in society, are said to be ‘strong smelling’ (Seeger 1981: 111). Thus, vision and olfaction are ‘antisocial faculties,’ or animal-like characteristics, by Suya standards. This negative valorization explains why the nose and especially ‘the eyes are not ornamented, tattooed or specially painted’ (Seeger 1975: 216), while the positive valuation of speaking and hearing is reflected in the elaborate attention paid to adorning the ears and lips.

The Suya case is of interest for a number of reasons. First, it reveals the arbitrariness of the association between vision and cognition implied in the English phrase ‘I see’ as a substitute for ‘I understand.’ Second, it reveals the arbitrariness of the way in which Western discourse divides up the sensorium into the ‘intellectual’ or distance senses (sight and hearing) and the ‘affective’ or proximity senses (smell, taste, and touch); the Suya ‘social/antisocial’ dichotomy cross-sects the conventional Western way of grouping the modalities. Third, it suggests that there may be a connection between aurality and sociability, on the one hand, and visuality and individuality (or an ‘asocial’ disposition), on the other. All Westerners would be witches by Suya standards, because they ‘see’ but do not ‘hear.’ We shall come back to this point, but a fourth point demands our more immediate attention, and that is how sexist, or gender-biased, the Suya sensory order is.

Those familiar with feminist critiques of the ‘male gaze’ and the phallogracy that gaze institutes (see Irigaray 1980; Jordanova 1989; Mulvey 1989) may, like myself, have cherished the idea that in more ear-, less

eye-minded societies, like that of the Suya, women's senses would not be as suppressed. But the Suya case dashes that expectation. In place of the 'male gaze' there is the 'male voice': 'plaza speech' – the most valued form of oratory – is only spoken by fully adult men (Seeger 1975: 214). Moreover, 'the major role of women in Suya ceremonies is as audience and suppliers of food rather than as singers' (1975: 215). Then is taste valued by Suya men? Apparently not: 'the faculties of taste, touch, and other types of feeling are far less important symbolically and are used to describe many fewer semantic areas' (1975: 216). Suya women are thus restricted to expressing themselves through smell (body odour) and taste (food) – the first of which is definitely 'antisocial,' and the second simply treated with indifference. In short, there is a *politics* to the Suya sensory order, and a markedly sexual politics at that (on which more in the concluding part of this essay).

To return to the connection between aurality and sociability, and visuality and individuality, posited earlier, this connection can be rephrased as a law of sorts: the more a society emphasizes the eye, the less communal it will be; the more it emphasizes the ear, the less individualistic it will be. In principle, this 'law' should serve to enunciate not only the difference in tone between North American culture and Suya culture, but that between any visually minded society and Suya society. Consider the Chewong case again. Significantly, Howell states that she found a marked lack of co-operation among the Chewong: 'Although they do not compete, they do not help each other either,' and they are 'unusually reserved' in their dealings with each other (1984: 1, 38). The minimalism of Chewong society – 'no lineages, no alliances, no social hierarchies' (1984: 1) – agrees with the heightened visualism of Chewong cosmology. By the same token, the synaesthetic tendencies of Chewong thought, particularly its olfactory bias, clearly differentiate it from Western thought.

Fifthly and finally, the Suya example is helpful because it suggests a way of studying how the senses are ordered in societies which do not possess elaborate technologies of communication: one should look to how the sense organs are decorated. It will be appreciated that this directive for research represents a refinement of McLuhan's theory rather than standing in contradiction to it. The implication of Seeger's work is that body decoration, like communications media, can be analysed as 'extensions of the senses' (to use McLuhan's phrase), and that the effect on cognition is similar: they *freeze* attention in a particular combination of modalities, and in this way serve not only to express a society's map of the senses but also to 'embody' that schema in the perceiving subject.

*what's
weird
about
Chewong*

Can Seeger's approach be generalized? The Highlands of Papua New Guinea offer an exceptionally rich terrain for testing his hypothesis. Body decoration there is a complex affair, beautifully described and pictured by Marilyn and Andrew Strathern in their book on *Self-decoration in Mount Hagen* (1971). The sense organs that appear to receive the most emphasis, judging from the photographs in that book, are the nose (typically emphasized by inserting a curved pig-tusk or shell-ornament through the septum) and the ears (frequently adorned with shells or tufts of marsupial fur). Many people also encircle the eyes with daubs of paint (Strathern and Strathern 1971: 108), but let us begin with smell.

In Seeger's terms, if the nose is decorated it follows that olfaction must be considered a 'social faculty.' It is perhaps somewhat difficult for North Americans to imagine how the nose could have a social function, since this organ is so little used in our society (Howes 1988: 93–4). But in the Highlands the nose does have a social vocation. For example, among the Ommura, 'It is said that the adequacy with which a man fulfills his exchange obligations to his affines may affect the shape of his nose. Failure to keep up to date with payments, and the resulting acrimony, may cause his nose to swell out painfully. There is a pervasive association between "correct" circulation of blood in the body and "correct" circulation of "blood" [read: pigs and other bridewealth articles – symbolic blood] between affines' (Mayer 1982: 243). The idea here is that a blockage in the flow of 'blood' to a man's affines causes the blood in his body to stagnate as well, and accumulate in his nose. The explanation for this is that the Ommura do not dissociate the body from society (or the psyche) to the same extent most Westerners do. The state of a man's nose is therefore a barometer of the state of his social relations. But the nose is more than this as well: Ommura also make inferences as to a person's character or personality based on its shape, and have an elaborate vocabulary with which to do so. Thus, in summing up a man's character, they may say 'I know his nose. It is of such and such a type' (aquiline, broad, flat) much the way we say 'That man has shifty eyes' or 'piggy eyes' or 'starry eyes' and so on (Mayer 1982: 243). **It is not the eyes that are the 'windows of the soul' for the Ommura, but the nose.**

The nose plays a prominent role in other domains of the cultures of Papua New Guinea. For example, the Gnau divine the cause of a person's illness by 'smelling out' the identity of the affliction spirit (Lewis 1975: 170, 268); among the Umeda, a man sleeps within olfactory range of a bundle containing scented herbs – the aroma of these herbs is supposed to guide his dreams, and acting out these dreams ensures a successful hunt (Gell 1977).³ Again, the contrast with North American

society is quite striking: to orient and find our way about in space we tend to rely on maps and road signs – not scented dreams. To diagnose the cause of an illness we rely on X-rays or brain scans, etc. (Daniel, ch. 7); indeed, Western physicians used to be quite proficient at diagnosing illnesses by odour, but this ability has declined steadily since the turn of the century (Howes 1987).

While olfaction is an important way of knowing, it remains subordinate to hearing. Hearing is *the* medium of intelligence in New Guinea, as the following quotation, which also concerns the Ommura, attests:

It was stressed to me that one cannot ‘see’ the motives, thoughts or intentions of another. They are ‘inside the ear.’ As elsewhere in Papua New Guinea, intellectual processes, knowledge and memory are associated with the ear. The same verb ‘*iero*’ is used to mean ‘to hear’ (a sound) and ‘to know’ or ‘to understand’ ... [Mayer’s] habit of asking questions such as ‘Why did he do that?’ or ‘Does she like these?’ was generally regarded as rather pointless. Such questions are not treated as matters for overt speculation or analytic discourse, and the typical retort was ‘Why ask me? I cannot see inside his ear.’ (Mayer 1982: 246)

Two things stand out about this passage. The first is the assimilation of knowing to hearing implied in the verb *iero*, which helps to explain why the ear receives special emphasis in the context of body decoration.⁴ The second is the blunting of sight implied in the retort: ‘Why ask me? I cannot see inside his ear.’

What the latter response suggests is that seeing has not been ‘symbolically elaborated’ (to use Seeger’s phrase) to the same extent as hearing. **For the Ommura, sight can reveal only surfaces.** It may be for this reason that they, like the Hageners, attach so much significance to appearances: ‘In Hagen thought, material success and physical health are alike expressed in a man’s bodily condition. A person should be well filled-out, with a gleaming skin, and oiling the body contributes to it a desired, glossy appearance’ (Strathern and Strathern 1971: 134; Mayer 1982). But precisely because of this focus on appearances, there is no elaboration of the power of sight beyond the visibly manifest, no ‘mind’s eye.’ Compare, for example, the English phrase ‘I see how you feel,’ which uses a visual idiom to express the idea of apprehending another person’s inner state. This idiom would make no sense in the Highlands (see Mayer 1982: 246).

In view of this limitation, it is tempting to suggest that in the Highlands generally, if to varying degrees, people are ultimately more attentive to the non-visual than the visual aspects of things.⁵ Significantly,

among the Kaluli, whom we encountered earlier (Feld, ch. 6), animals are not described by their appearance but rather by the sounds they make (Schieffelin 1976: 95). 'When presented with pictures or specimens out of context, Kaluli tend first to think of and imitate the sound, then to say the name of the bird' (Feld 1982: 72). Similarly, one of the most important rituals of Kaluli ceremonial life, the *gisalo*, is sung and danced by brilliantly attired men only at night, in the darkness of the longhouse. The staging is meant to evoke the image of a bird at a waterfall in the darkness of the forest: 'In the dark house, as in the forest, it is hearing, not vision that is the dominant sensory mode. While the audience is aware of the motion, colour and demeanour of the dancer, the nuances of meaning lie in the texts of the songs and the sounds of the voice, the instrumental pulse and the bodily motion' (Feld 1982: 180).

Taken together, what this heterogeneous array of facts suggests is that sight is a 'social faculty' but that it is muted relative to hearing, and may even be of less cultural importance than smell. If so, the reader may well wonder, why are the eyes still decorated? And why do the people of this region nevertheless strike us as among the most colourful people in the world?

The answer to the last question should be obvious. Most of our general knowledge of these peoples comes from the colour plates and descriptions of books like (if nowhere near as excellent as) Strathern and Strathern's *Self-decoration in Mount Hagen* (e.g., Kirk 1981). As McLuhan would be quick to note, the textual-photographic mode of presentation distorts the fundamentally *multimodal* or 'synaesthetic' form that communication takes in its native context. A careful reading of the Stratherns' book confirms this point. The Hageners are not interested in mere visual display. Many of the substances they use for decorative purposes are in fact 'synaesthetic': for example, red ochre is valued for its brightness, which is said to be 'attractive' (or able to 'pull in' wealth and women) but it is also fragrant, and therefore doubly attractive (Strathern and Strathern 1971: 26, 92); pigs' tails are valued because they are bright and connote prosperity, but no less important is the swishing sound they make when worn as an apron (1971: 94). The implication here, as I have insisted before, is that anthropologists who study only the 'colour symbolism' of a culture, without examining how the colour system relates to the smell or sound systems, are approaching the culture 'through Western eyes,' and are unlikely to do justice to the *total* system of communication in place (see Howes 1990a).

As for why the eyes are decorated, no one in the Mount Hagen vicinity was able to say, and the Stratherns could only phrase their conclusions on this subject in negative terms: Hageners 'do not say, for example,

that they encircle the eyes to enhance the attractiveness of these' (1971: 108, n. 3). The very fact that the Hageners could give no reason for why they decorate the eyes points, I think, to the deeper, the ultimate meaning of self-decoration on ceremonial occasions in Mount Hagen. Paradoxically, this is *not to see or be seen*. As the Stratherns remark of one of the main cult dances, the men 'staring out unseeingly at the crowd of spectators ... concentrate on their posture' (1971: 50) – that is, the men are more *proprioceptively* than visually aware of what they are doing. At the same time, their elaborate wigs and charcoaled beards, which throw their faces into shadow, are meant to make them 'harder to recognize as individuals' by the audience. Indeed, the highest compliment a performance can elicit from an audience is for the latter to say: 'Their ancestors have come on to their faces and they are dark in appearance' – *unrecognizable* (1971: 137). Since the success of a performance, as well as the strength and prosperity of a clan, is entirely dependent on 'ancestral approbation' (1971: 134), it is only fitting that there should be this *blurring of the visible and the invisible*, the living and the ancestors, which eclipses anything that can be captured in a photograph. According to Western notions, 'the camera never lies,' but it does by Hagen standards, insofar as no photograph could render sensible the 'invisible presence' of the ancestors.

Techniques of Perception

Thus far we have focused on two sorts of cultural instruments, or techniques, for the regulation of perception: communications media and body decorations. But as Marcel Mauss long ago pointed out, it is false to think that there is technique only when there is an instrument: the ways in which from society to society people know how to use their bodies (how to run, swim, lift things) may also be spoken of as technical. Indeed, the body is 'man's first and most natural instrument' or, better, 'technical means,' and the training of this instrument begins in infancy: '[the weaned child] can eat and drink; it is taught to walk; it is trained in vision, hearing, in a sense of rhythm and form and movement, often for dancing and music' (Mauss 1979b: 104, 111). The education of the senses was thus an integral part of the field of study Mauss hoped to open up when he urged us to pay close attention to cultural differences in the elaboration and transmission of 'body techniques.'

Perhaps the most in-depth study of what Michael Jackson, following Mauss, has called 'the social regulation of the senses' (Jackson 1977: 209) – that is, how people learn to use and control their senses – is Jacqueline Rabain's *L'Enfant du lignage* (1979). Rabain's book concerns

add

the Wolof of Senegal. I would like to discuss it at some length by way of showing how it is possible, through the study of how a given people use the senses, and teach their children to do likewise, to arrive at a statement of how the senses are evaluated in that culture. My argument is that in Wolof society the distance senses, as well as taste, are tabooed or restricted in various ways so as to favour tactile communication. If this analysis is correct, then the Wolof sensory order is the reverse of the occidental hierarchy of sensing, for it is commonly supposed that it is the proximity senses which have had to be suppressed in the interests of 'Western civilization' (Montagu 1978: 249).⁶ At the same time, in Western society, a refined sense of taste is commonly regarded as the epitome of social sophistication.

Part of the interest of Rabain's analysis lies in the way she dissects Wolof culture into a series of 'modalities of exchange' or 'sensory registers of communication' (tactile, alimentary, verbal, visual), and then proceeds to describe how the child grows into them. It is by learning the rules which govern exchanges in each of these modalities that the child, eventually, emerges as a full member of society.⁷

One of the things the weaned child quickly learns is that food is not so much for purposes of consumption (or delectation) as for purposes of exchange. *The child who responds to the gift of a candy with an expression like 'May God give you a child!' or 'I will give you a sheep!' has mastered both the alimentary and the verbal registers of communication; the child who responds with 'Yummy!' has not. Verbal exchanges concerning food consumed or to be consumed never insist on the quality, the taste, in short on the attributes of the food as object, but on its position in the circuit of exchange: gift received, gift to be given, etc.* (Rabain 1979: 67). We may conclude that *taste per se is a relatively 'asocial faculty' by Wolof standards, not subject to much 'symbolic elaboration.'*

Another rule the weaned child must learn is that one should not speak to, and above all never look at, people while they are eating (Gamble 1967: 75). The rationale behind this rule is complex. It has to do with the assumption that anyone may be a witch (that is, may harbour malevolent intentions), and that the witch 'devours by his gaze.' The person eating is vulnerable to such 'visual aggression' because of the principle of the 'reciprocity of positions' (that of the aggressor and that of the victim) which governs witchcraft relations. In other words, the eater risks being 'eaten' because he eats (see Rabain 1979: 45). The best way not to get trapped in this vicious circle is never to enter it – that is, to avoid eye contact. In this way, the potential for aggression is neutralized.

Talk is prophylactic, because speech is automatically 'protective as

long as it is not ensorcelling' (Rabain 1979: 45), but speech is restricted during the meal. Indeed, it is the absence of speech while eating that is the principal reason for everyone being so vulnerable. This leads us to conclude that sight is the least social of the faculties, being so intimately associated with witchcraft, while speaking is more sociable than looking, but not as sociable as touch.

The evidence for the last point, concerning touch, comes from Rabain's account of how visitors are received in the family compound. Apparently, when a visitor arrives, male or female, often before any word is exchanged, he or she is handed a baby. This gesture is intended to 'mediate' the relation between adults. Rabain explains: 'It is important to emphasize the special valence of physical exchanges as regards two other registers of relationship. While speaking at a distance and looking at a child are subject to restrictive rules (don't stare, don't make direct compliments), and are sometimes bearers of evil intentions, tactile contact is regarded as "disarming." Better yet, it neutralizes the menacing exteriority of the gaze, and paves the way for the free-flow of verbal exchanges' (1979: 86). We may conclude that it is words spoken at a distance that are most dangerous. When spoken up close they do not provoke the same anxiety. Rabain (1979: 144) states that speech is 'the social exchange par excellence,' but the fact remains that speech is regarded more ambivalently than touch. Touch is *the* medium of social solidarity: 'Close physical proximity, prolonged bodily contact – as in the squeezing of hands in greeting, or lying stretched out side by side during times of repose – are not only tolerated but sought out by persons of the same sex' (1979: 79). Indeed, such proximity 'constitutes throughout the individual's life the most comfortable register of exchange' (1979: 116). By contrast, the person who withdraws from the 'field of co-presence' is regarded as positively antisocial.

One way to sum up the preceding account would be to plot the faculties we have been discussing on a continuum ranging from the most social to the least social. For the Wolof, then, that continuum would look like this:

touch – speech – taste – sight

This schema has a variety of implications for the analysis of other domains of Wolof culture. The first is that given the pre-eminence of touch in the Wolof sensorium, one would expect them to excel in what could be called 'bodily intelligence' (Gardner 1983). Significantly, as Gamble records of the Wolof he knew, wrestling is the favourite sport, and: 'More than any other Senegambian peoples one finds in the Wolof

a marked sense of rhythm which constantly pervades their actions' (1967: 76), from pounding grain to dancing.

A second implication is that the Wolof will tend to combine or associate the senses differently from Westerners – namely, they will associate touch with speech, and taste with sight. We have already considered one example of the latter association (taste-sight): the witch 'devours by his gaze.' An example of the other association (touch-speech) would be the tendency to evoke bodily motion by means of onomatopoeic sounds so characteristic of Wolof oral narratives. For example, in one of the tales recorded by Emil Magel in Gambia, there is a line which goes: '[The old man] walked very slowly and stiffly POROK-PO-ROK-POROK-POROK until he reached the entrance to the mosque' (Magel 1984: 83).

A third implication is that as far as relations between the faculties are concerned, in any given pairing (touch/speech, speech/taste, taste/sight) the more social faculty will exert a constraining influence or power over the less social faculty, (because power is, after all, a social creation). We have already seen how physical proximity controls speech, obviating the latter's potential dangerousness. An example of the domination of speech over taste is found in one of the many narratives involving Hare and Hyena. In this tale, Hare uses 'musical suggestion' (playing a flute and singing) to control Hyena's consuming passion for meat. Significantly, Hare's song tricks Hyena into sharing his meat with him, and thus observing the social code (Magel 1984: 61). As for taste prevailing over vision, the best example of this relation of sensory domination is the notion that the witch 'devours by his gaze.'

These examples could be multiplied, but perhaps they will suffice to show that Walter Ong does indeed have a point when he writes: 'Given sufficient knowledge of the sensorium exploited within a specific culture, one could probably define the culture as a whole in virtually all its aspects' (Ong, ch. 1).

On the Chapters of Part III

This chapter has attempted to show something of the importance of approaching other cultures through their own sensory ratios, instead of analysing them through the Western order of sensory preferences, with its visual bias and passion for measurement. The main conclusion to be drawn from the cases considered is that we must stop 'Seeing the World as a Colour Chart' (Bousfield 1979), and start learning how to see, hear, touch, taste, and smell beyond (or beneath) our normal range of powers – depending on the position and meaning of the ocular mo-

dality, the auditory modality, the olfactory modality, etc. in the sensorium of the culture under study. Only by developing the capacity to dilate (or contract) our sensory modalities consciously and indefinitely, and to combine them in new ways (in accordance with the preferences of our interlocutors) can we hope to really 'make sense' of how life is experienced in other cultures.

The chapters which follow exemplify what I have just said in the attention they pay to the relations *between* the senses. This focus on inter-sensory relations – that is, on patterns of sensory dominance, substitution, and interpenetration – is quite unique. Western philosophers and psychologists have tended to treat the senses individually, ignoring the fact that they always act in concert (Gonzalez-Crussi 1989: 26–30). Other notions which the following chapters develop include the idea that the senses have a history; that they are never value-neutral; and, that how people think they perceive can influence what they perceive. This is in contrast to the discipline of 'sensory psychology' or 'psychophysics' (Mueller 1965; Goldstein 1984), which presumes that one can take the measure of the senses without inquiring into their history or value, as if perception were a purely physical process.

As the following chapters represent a new departure in anthropological as well as psychological theory, a few words are in order concerning the circumstances of their production. All of the authors have participated in the 'Concordia Sensoria Research Group,' an interdisciplinary research team that was founded in the spring of 1988 to inquire into 'the varieties of sensory experience.' Most have first-hand experience of the cultures they analyse – Classen as a folklorist in the Andes, Ritchie as a teacher in a College of Education in Nigeria, Griffin in the course of her many visits to her Moroccan in-laws, and Pinard as a result of a sojourn in Benares. However, their aim is to show what can be gleaned from a critical 'sensory interpretation' of the pertinent ethnographic literature, and whatever intuitions the authors picked up during their travels and work have all been grounded in this way (i.e., in the literature).

The chapters were first presented in the form of talks at our seminars and lecture series, then as papers at the 1989 meeting of the Canadian Anthropological Society, and now as essays. They were written in response to the questions and commentaries in the 'Paradigm for Sensing' part of the Conclusion ('Sounding Sensory Profiles'), and have also helped to expand those questions and commentaries from a bare skeleton into, as it were, a sensory homunculus. As announced in the Introduction, the following chapters are intended to serve as model examples of (and for) the exercise proposed in the third part of the

Conclusion – namely, writing a paper for an advanced undergraduate or graduate course in anthropology, religion, communications studies, and perhaps even psychology.

For all their scholarship, these chapters remain preliminary explorations or ‘probes’ of what the ethnographic record has to offer when analysed for data on the senses. They are suggestive rather than conclusive, meant to open debate not close it. The chapters have been laid out ‘geographically’ – that is, in an arc which extends from Africa via India to South America. I shall say only a few brief words about each one here, because they really should be discussed topically rather than individually, as is, in fact, done in the Conclusion. Indeed, the reader would be well-advised to read the Conclusion before proceeding, as I have suggested once before.

In chapter 12, Ian Ritchie enlarges upon Wober’s ‘sensotype hypothesis’ (ch. 2) through a study of the folk-tales and proverbs of the Hausa of Nigeria. He notes that the Hausa have a more action-based than visually oriented conception of beauty. He also observes that hearing and eating or tasting seem to loom larger as metaphors for the organization of experience in Hausa discourse than in North American discourse. Of particular interest is the way he relates both this foregrounding of the sense(s) of hearing and taste, and the action-based conception of beauty, to the manner in which the Hausa divide the sensorium into two as opposed to five parts or functions.

It could be said that when you go to see a doctor what he or she sees in you is a corpse, in that ever since the invention of the ‘anatomo-clinical method’ (c. 1800) it is the image of the dissected corpse that has informed the medical ‘gaze’ (Foucault 1973; Howes 1987; Romanyshyn 1989: 114–42). In the Ndembu ‘system of medical perception’ the gaze also figures prominently, but it is tempered in a variety of ways by the other senses, as Lisa Andermann brings out in chapter 13. Andermann also discusses the possibility that there has been a shift in the Ndembu hierarchy of sensing, which is reflected in the way sight-based modes of divination have come to take precedence over more touch-based ones. This raises an important issue: a society may be ‘without history’ (in the sense of written records) but that does not mean its sensory order is static. The balance of the senses is always shifting (Ong, ch. 1).

In chapter 14, Kit Griffin approaches the Moroccan sensorium through the analysis of a particular ritual, engaged in only by women. Gradually, she extends the scope of her study to incorporate the elements of other rituals, and concludes with a statement of the structure of the Moroccan sensory order. In the process, she demonstrates how the prominence of

a given sensory channel in some rituals, and its repression in others, can be related to the 'social' or 'asocial' meaning the sense has in Moroccan culture.

In chapter 15, Sylvain Pinard examines Diana Eck's (1985) thesis that India is a 'visual culture' which must be 'seen to be known,' and concludes that India should also be tasted to be known. His analysis is exemplary of the kind of critique that could be directed at any work that reduces a culture to a single sense, instead of carefully weighing how each of the senses contributes to the overall shape of experience.

Chapter 16, which is also by Andermann, takes us to Mexico. Here she seeks to determine the sensory underpinnings of Zinacanteco society. Her analysis focuses on how the sensory qualifications and characteristics of the Zinacanteco shaman fit him for his position at the apex of the social hierarchy. Her account establishes very clearly that perception is not simply a physical process (as students of psychophysics have taught us to believe), but more in the order of a cultural and moral *act*, the paradigm for which is provided by ritual.

Finally, we come to Constance Classen's intricate analysis of the contrasts between the sensory models of the cultures of the central Andean highlands and the Desana of the Amazonian lowlands. Her study comprehends more cultural domains than the other studies in this part, and partly for this reason arrives at a more nuanced interpretation of the two sensory orders. Interestingly, she finds that the sensory priorities revealed through a study of the two cultures' cosmogonies, or creation myths, are at variance with what people expressly state to be the most important of the senses. Classen's study thus raises another important point: sensory models are not reducible to the conscious models people have of the perceptual process. Rather, they must be constructed by the analyst, using what people say as a preliminary guide, but always contextualizing this in terms of what they do.

As Classen also brings out, with particular reference to the Desana, the sensory order of women need not be the same as that of men. The male sensory order, which is treated as normative, is characterized by an emphasis on transcendent sight (induced by the ingestion of narcotic substances). Desana women are not allowed to take narcotics, and their sensory order would appear to emphasize other senses than sight, in particular touch, in consequence. This finding recalls our discussion of how Suya women participate in but are also in some ways oppressed by the Suya sensory order, which raises a third essential point: there are varieties of sensory experience within as well as between cultures.

The last point will be discussed further in the section on 'Alternative Sensory Modes' in the Conclusion, but to avoid any misunderstanding

by certain critics, let me expand on it a bit more here. All of the following chapters seek to construct general sensory models for the cultures they cover. The reader, seizing on the fact of internal diversity alluded to above, might ask: Why postulate *one* general sensory model per culture? Why not say that sensory hierarchies vary within a society according to the individuals and situations concerned?

My response is that one must work out the general sensory model first, and only then proceed to the analysis of individual differences in specific contexts because (1) such differences only have meaning in relation to the whole, and (2) they may even be said to be generated by that whole. Consider the following example. It has been argued – convincingly, I think – that women in Western society do not come by their femininity naturally, for ‘femininity’ is not an essence, but a way of acting. Women find this way of acting difficult to resist because virtually all of the images that surround them make them ‘do to themselves what men do to them ... [that is,] survey, like men, their own femininity’ (Berger 1972: 63).

Sexual dominance is thus intimately related to visual dominance. This observation helps to explain why men in Western society generally devalue and avoid touch while women ‘prefer touch’ (Irigaray 1980: 101). The opposition between the sexes is, therefore, partly expressed and partly constituted by an opposition between the senses. It follows that for women to come into their own (i.e., for gender equality to become a fact), there would have to be an overthrow of the Western hierarchy of the senses, which privileges sight. Women in Suya society, however, would be faced with a different struggle, since it is not the male gaze that oppresses them but the male voice. These remarks should suffice to disabuse the reader of the notion that the ways in which the senses are used depends on context and individual preference.

Acknowledgments

I wish to thank Constance Classen and the members of the Concordia Sensoria Research Group for the many useful debates we have had over earlier versions of this paper.

Notes

- 1 The sensory and motor areas of the brain were charted at the Montreal Neurological Institute in the 1940s in the course of surgical operations on patients with brain tumours. The mapping procedure involved opening the skull while the patient was under local anaesthetic, electrically stimulating

the surface of the brain, and having the patient report in what area of the body (finger, face, foot, etc.) he experienced a tingling or prickly sensation (Penfield and Rasmussen 1950). My thanks to A. Laflèche for the drawing on page 169.

- 2 Many of the recent 're-appropriations' of McLuhan suffer from a similar shallowness, according to Heyer (1989) and Jeffrey (1989).
- 3 See further Lewis (1975: 46–7) and Schieffelin (1976: 95) on the limitations of sight and the salience of smell and sound with respect to orienting oneself in the forest.
- 4 Of related significance is the fact that in many parts of New Guinea the word for madness is 'shut ears' (Lewis 1975: 208; Herdt 1986; but see Mayer 1982: 257). By contrast, among the more eye-minded Chewong, madness is denoted by a phrase meaning 'to see the world upside down' (Howell 1984: 165–6). Thus, in both cases, mental disorder is conceptualized in terms of a perceptual disorder, and the modality affected is the most prominent modality in terms of the culture's sensory profile.
- 5 In the particular case of the Melpa-speakers of Mount Hagen, it could be said that the bluntness or straightness of vision is compensated for by the elaboration of a form of speech, called *ik ek*, which is highly convoluted. *Ik ek* means 'talk which is bent over or folded ... in other words, one cannot "see" all sides to it' (Strathern 1975: 189). As Strathern goes on to explain, it is vital to a big man's success that he be a master of this metaphorical form of speech, as well as a good *metteur-en-scène*. It should be noted that my interpretation of Melpa ideas of knowledge is at variance with Strathern's own analysis. Elsewhere, he states that the Melpa distinguish three primary ways of apprehending things: seeing (direct knowledge), hearing (education), and doing or experiencing (cult participation), and rank them in that order (Strathern 1989: 301–3).
- 6 It is the Freudians who are primarily responsible for the notion that touch and the other proximity senses have had to be sublimated or repressed in the interests of 'civilization.' The fact that this pattern is reversed in the case of Wolof society (where it is the distance senses that have had to be restricted) suggests to me that the whole edifice of Freudian psychology will have to be rethought in the light of the anthropology of the senses. A promising start in this direction has been made by Alfred Margulies (1985), who criticizes Freudian dream theory for its obsession with the latent content, and neglect of the sensory content, of dream experience.
- 7 A few words are in order concerning the process of child development, its trajectory, among the Wolof. On one plane, the process involves the child growing out of touch (with the mother), and into speech. On another plane, it involves the child (in its capacity as the reincarnation of some ancestor) growing out of visual contact with the dead and the spirits, and

into speech. The latter contact is had in dreams; it is manifested by the 'nocturnal cries and groans, [as well as] the more or less intelligible words [the child] utters ... following his visions of the dead and the ancestors. This gift [of clairvoyance] disappears progressively as of the age the child begins to know how to speak' (Rabain 1979: 179). Should this 'gift' not disappear, and should the child persist in showing wisdom beyond its years or prophesying (something the community finds profoundly disturbing), a ritual called 'shut the mouth, cover the eyes' is performed (1979: 204–6, 209–10). This ritual both gives expression to what the Wolof consider to be the ideal sensory ratio (hearing over seeing, always guarding one's mouth) and enforces it. (On speech control see Magel 1984: 18–20.)

CONCLUSION

Sounding Sensory Profiles

David Howes and Constance Classen

The purpose of this final chapter is to present a paradigm for sensing and making sense of other cultures. We want to emphasize the practical and open-ended nature of the discussion that follows. It sums up some of the main points of the preceding chapters, but is equally concerned to open up new directions and questions for research.

The chapter begins with a discussion of some general considerations, or first principles, which ought to be borne in mind when studying the sensorium. The next two parts are concerned with field research and library research respectively. They offer practical advice on, among other things, how best to clear one's senses for purposes of sensory analysis, and how to read between the lines of an ethnography for information on a culture's sensory profile. The fourth part is called 'A Paradigm for Sensing.' It is divided into ten sections. The sections are entitled: 1) language, 2) artefacts and aesthetics, 3) body decoration, 4) childrearing practices, 5) alternative sensory modes, 6) media of communication, 7) natural and built environment, 8) rituals, 9) mythology, and 10) cosmology. These headings refer to those cultural domains which, in our experience, have proved the most informative with regard to eliciting a given culture's 'sensory profile' or way of 'sensing the world.'

Some General Considerations

Other cultures do not necessarily divide the sensorium as we do. The Hausa recognize two senses (Ritchie, ch. 12); 'the Javanese have five senses (seeing, hearing, talking, smelling and feeling), which do not

coincide exactly with our five' (Dundes 1980: 92). In short, there may be any number of 'senses,' including what we would classify as extra-sensory perception – the 'sixth sense.'¹ According to the Peruvian curer interviewed by Douglas Sharon in *Wizard of the Four Winds*, for example, a sixth clairvoyant sense opens up when all five other senses have been stimulated through the use of hallucinogens and other ritual elements (1978: 117). Eduardo, the curer, describes this sixth sense as 'a "vision" much more remote ... in the sense that one can look at things that go far beyond the ordinary or that have happened in the past or can happen in the future' (Sharon 1978: 115).

The senses interact with each other first, before they give us access to the world; hence, the first step, the indispensable starting point, is to discover what sorts of relations between the senses a culture considers proper. One commonly finds that when a particular sense is emphasized by a culture, some other sense emerges as its opposite, and becomes the target of repression. It is also quite common to find one sense substituting for another, more dangerous, sense. For example, Desana men, who manifest a high degree of anxiety regarding sexual contact, would appear to use sight as a substitute for touch when they relive birth and other sexually related experiences through the visual imagery of hallucinations (Reichel-Dolmatoff 1972, 1985a: 4). In Islamic society, the repression of sight which results from the prohibition on the visual representation of God or creation, and the fear of being accused of casting the 'evil eye,' would seem to be designed to emphasize hearing (and obeying or 'submitting' to) the word of God.

Senses which are important for practical purposes may not be important culturally or symbolically. For instance, while sight is greatly valued by the Inuit for hunting and other activities, it does not have the symbolic importance of hearing and sound, which are associated with creation. Language, in fact, is likened by the Inuit to the knife of the carver which creates form out of formlessness. Sight can thus be said to be of practical value for the Inuit because it perceives form, but sound has cultural priority because it creates form (Carpenter 1973: 33, 43). An analogous profile is presented by the Suya of Brazil who, as will be recalled from an earlier discussion, privilege speech and hearing:

In discussion of Suya ideas about vision, the ability to see must be distinguished from the symbolic meaning of the eyes. Good everyday sight, in the sense of accurate reception of visual stimuli, is apparently unrelated to the other modes [i.e., speaking and hearing] because it is not symbolically elaborated. The Suya prize a good hunter who can accurately shoot fish and game. It is not his sight

that is stressed but the accuracy of his shooting. Hunting medicines are applied to the forearm to make a man a good shot, not to his eyes. (Seeger 1975: 215)

Sensory orders are not static: they develop and change over time, just as cultures do. Some of the sensory expressions of a society, manifested in its language, rituals, and myths, may be relics or survivals from an earlier sensory order. This is particularly evident in societies 'with history' (i.e., where records of earlier ways of life are extant). For example, Mackenzie Brown (1986) gives a fascinating account of how visuality came to dominate aurality in the history of the Hindu tradition, based on a reading of India's sacred texts.² As another example, the Latin-based word 'sagacious,' which now means only 'wise,' originally, at a more olfactory-conscious period, meant 'keen-scented' as well. In societies 'without history' (i.e., those for which earlier records do not exist), this kind of sensory layering is more difficult to discern, but not impossible. In *Do Kamō*, Maurice Leenhardt (1979) was able to trace the origin of certain olfactory and visual representations of the body to different stages of Melanesian civilization by relating the representations in question to evolving concepts of space (see further Howes 1988). In such cases, the contemporary relevance of a given sensory expression can only be determined by relating it to the *total sensory dynamic* of the culture.

There may be different sensory orders for different groups within a society, for example, women and men, children and adults, leaders and workers, people in different professions, as will be discussed below in the section on alternative sensory modes.

Doing Field Research

If one's research involves participant observation, then the question to be addressed is this: *Which senses are emphasized or repressed, and by what means and to which ends?* This complex question can be broken down into a variety of subsidiary questions, which range from the particular to the general. Particular questions would include: Is there a lot of touching or very little? Is there much concern over body odours? What is the range of tastes in foods and where do the preferences tend to centre? At a more general level: Does the repression of a particular sense or sensory expression correspond to the repression of a particular group within society? Finally, how does the sensory order relate to the social and symbolic order?

Every culture strikes its own balance among the senses. While some cultures tend toward an equality of the senses, most cultures manifest some bias or other, either privileging a particular sense, or some cluster of senses. In order successfully to fathom the sensory biases of another culture, it is essential for the researcher to overcome, to the extent possible, his or her own sensory biases. The first and most crucial step in this process is to discover one's personal biases.³ The second step involves training oneself to be sensitive to a multiplicity of sensory expressions. This kind of awareness can be cultivated by taking some object in one's environment and disengaging one's attention from the object itself so as to focus on how each of its sensory properties would impinge on one's consciousness were they not filtered in any way (see Merleau-Ponty 1962; Rawlinson 1981). The third step involves developing the capacity to be 'of two sensoria' about things (Howes 1990c), which means being able to operate with complete awareness in two perceptual systems or sensory orders simultaneously (the sensory order of one's own culture and that of the culture studied), and constantly comparing notes.

The procedure sketched above may be illustrated by taking the example of blood. Blood has a variety of sensory properties: it is warm, viscous, red, salty and odorous. The salience of these properties, however, depends on the sensory order within which they are perceived. Thus, North Americans tend to think of blood in terms of its visual appearance, its redness. In South India, practitioners of Siddha medicine give priority to the tactile dimension of blood; the pulse it produces within the body (Daniel, ch. 7). This holds true in Guatemala as well, although there the pulse is said to be the 'voice' of blood, suggesting an audio-tactile perceptual framework (Tedlock 1982: 53, 134). Among the Ainu of Japan, it is the odour of blood that is most salient, as the smell of blood is thought to repel spirits (Ohnuki-Tierney 1981: 97). In the myth of the Wauwalak sisters as told in northern Australia, there is reference to both the smell of blood and to 'blood containing sound' (Berndt 1951: 44), which implies an audio-olfactory bias. As this brief survey illustrates, a single substance or object may figure very differently in different sensory imaginaries. But by using one's imagination judiciously, which is to say multi-modally, it is possible to bracket or suspend one's 'natural' way of perceiving the world, and allow these other ways of sensing, with their own biases, to inform one's consciousness. That is the essence of 'being of two sensoria' about things. One thing we must say is that developing such a capacity can be a source of many delights, as well as insights into how other cultures construct the world.

Doing Library Research

If one's research is to be based on textual sources, the best method is to select an ethnography, or other piece of literature (e.g., an African novel, a life history), or even a film, and proceed as follows:

- a) Extract all the references to the senses or sensory phenomena from the source in question.
- b) Divide the references into intra-modal sets, and analyse the data pertaining to each modality individually after the manner of the essays by Feld, Daniel, and Kuipers in part II of this book.
- c) Analyse the relations between the modalities with regard to how each sense contributes to the meaning of experience in the culture, using the questions in 'A Paradigm for Sensing' (see the following part) as a guide.
- d) Conclude with a statement of the hierarchy or order of the senses for the culture. Andermann's reading of Evon Vogt's *Tortillas for the Gods* (ch. 16) is exemplary in all of these respects. Note especially how the sketch of the Zinacanteco sensory order with which she concludes her piece allows for comparison with other sources on the Zinacanteco, as well as other cultures.

If one is relying on a text, there is always the problem of how the ethnographer's own sensory biases may have influenced the selection and presentation of the material. Such biases are, at times, evident in the particular focus of the ethnography; for example, it may be on linguistics, or music, or the visual arts. At other times, one can see that the ethnographer has emphasized certain of the culture's sensory expressions and excluded others according to the sensory model of his or her own culture. In such cases one will only be able to analyse the role of those senses which were brought out by the ethnographer. Such a problem can sometimes be resolved by examining other ethnographies on the same culture, as Pinard (ch. 15) does in his critical reading of Eck's book *Darśan*. Note: This section provides a good framework for a research paper assignment, and has been so used in courses in anthropology and religion at both Concordia and McGill. It helps if students are presented with a list of sensory-minded ethnographies to choose from, such as Boddy (1989), Katz (1982), Reichard (1974), and Roseman (1991). Also, it facilitates marking if students are asked to incorporate all four stages of the research (i.e., steps a) to d) above) into their final presentations.

A Paradigm for Sensing

In this part, each section will begin with a series of questions which introduce the sorts of considerations one would want to bear in mind in turning to examine a given cultural domain, such as language, body decoration, or the built environment, for information on a culture's sensory profile. The questions are followed by commentaries which elaborate on some of the ways in which the facts revealed in the course of a sensory analysis of a culture might be interpreted.

1. Language

- *What words exist for the different senses?*
- *Which sensory perceptions have the greatest vocabulary allotted them (sounds, colours, odours)?*
- *How are the senses used in metaphors and expressions?*

The way the senses are used in the language of a culture can reveal a good deal about that culture's sensory model. In the following discussion, we shall focus on the similarities and differences between Quechua, the language spoken in the central Andes, and English. (The Quechua material is derived from González Holguín [1952].)

The level of onomatopoeia in a language may indicate the relative importance of aurality. In some cases the onomatopoeia is obvious, for example, *achini* in Quechua, 'to sneeze,' while in other cases it is more difficult to determine: Is the word *otoronco*, Quechua for jaguar, meant to imitate the jaguar's roar? In any event, it appears customary in most languages for words which represent sounds to imitate those sounds, as in 'crack' or 'thud.' When an object or action which is multisensory, however, such as an animal, is represented by a word which mimics the sound it makes, this would seem to point to an auditory bias in that culture. Similarly, if things are usually named according to their visual appearance this indicates a visual bias, and so on. In Western languages words for objects are usually not based on any of their sensory qualities, or if they originally were, they no longer evoke these qualities for us. Perhaps this indicates a 'de-sensualizing' and 'abstracting' of the environment in order to render it more accessible to detached manipulation.

Some words imitate the sound supposedly produced by a certain sensation, for example, 'ugh' and 'ugly.' In many cases this may be cross-cultural. For instance, the word 'aha' is used to express a sudden experience of enlightenment in Quechua and in Western languages. Other words try to convey certain kinetic sensations, such as 'slip.' Visual qualities can also be indicated; for example, the word 'glossy' is probably

meant to convey the impression of a shiny surface. In *The Unity of the Senses*, Lawrence Marks (1982) refers to studies which show that people associate certain vowel sounds with 'brightness' and others with 'dullness.' It is difficult to find examples of this happening with tastes or smells. Does 'sweet' have a sweet sound? Most examples of this kind of synesthesia in English apparently occur with words referring to tactile sensations: 'prickly,' 'smooth,' 'mush.' This suggests that tactile and aural sensations have a certain closeness for English-speakers. Finally, certain sounds may be used to express value judgments. In English, for instance, many words starting with 'sl' have the sense of a metaphorical slippage, as in 'slut' and 'sly.'

The importance of a sensory organ can be revealed in part by the number of words used to describe it. In Quechua there are separate terms for outer ear, inner ear, upper ear, and lower ear; outer and inner mouth and upper and inner lip; etc. The spaces between the sensory organs – that is, the space between the nose and the mouth and the space between the eyes – also have their own terms. This may simply express a preoccupation with spatial divisions; however, it likely affects the understanding of the senses as well. The concern for in-between spaces in Quechua, for example, suggests a parallel concern for how the senses relate to each other, rather than an emphasis on sensory organs as independent entities.

Terms which are used for the different senses provide the most basic source of knowledge on how the senses are understood through language. In Quechua there is a special word to indicate one who uses his senses sharply, and verbs to express the subtle use of all of the senses: *ccazcachini mallini*, 'to taste subtly'; *ccazcachini uyarini*, 'to hear subtly'; etc. Undoubtedly, keen sensory ability is of importance in this culture. There are also words to express the loss of each of the senses through old age.

The number of terms for each of the senses is an indicator of the relative importance of that sense, or else of the different ways in which it is understood to operate. In Quechua there are verbs meaning 'to smell any smell,' 'to smell a good smell,' 'to smell a bad smell,' 'to give a bad smell to others,' 'to smell naturally bad,' 'to leave a good smell,' 'to come across the remains of a smell,' 'to let oneself be smelled,' etc. This implies that smell is highly important for Quechua speakers. However, the virtual absence of reference to smell in Andean myths indicates that, while smell may be important on a practical or popular level, it is less so at the level of symbols.

Metaphors for the senses provide further information on how they are perceived and valued. In Quechua these metaphors generally follow

those in Western languages; for example, 'to smell' can mean 'to discover.' Of particular importance in this regard is to determine which sense is most associated with knowledge and understanding.

The structure of the verbs used for the different senses can also be informative. Does each sense have a separate single word? Are compound words used for some of the senses? Finally, it can be useful to look at related words. In Quechua, for instance, the verb 'to see,' *ricuni*, is very close to the verb 'to go,' *riccuni*. This perhaps expresses the distance involved in sight, or that seeing is a kind of vicarious going. As always, sensory metaphors must be understood within the cultural context. An association between 'hearing' and 'obeying,' for example, might indicate a positive valuation of hearing in a culture in which obedience is highly valued, but a negative valuation in one in which individual initiative is stressed.

2. Artefacts and Aesthetics

- *What do a culture's aesthetic ideals suggest about the value it attaches to the different senses?*
- *How are the senses represented and evoked in or by a culture's artefacts?*
- *How may other senses be involved in the coding, or essential to the decoding, of representations that appear primarily visual or auditory?*
- *What does putting a non-Western artefact 'on display' in a museum do to its sense(s)? How should such artefacts be presented?*

In the West, aesthetic ideals are primarily visual: beauty is first and foremost beauty of appearance (Synnott 1989, 1990). In other cultures the concept of beauty may involve various senses. For the Shipibo-Conibo of Eastern Peru, for instance, an aesthetic experience, denoted by the term *quiquin* which means both 'aesthetic' and 'appropriate,' involves pleasant auditory, olfactory, or visual sensations (Gebhart-Sayer 1985).

Although all cultures would seem to have some concept of beauty, **most non-Western cultures have no term for 'art,' nor do they privilege the attitude of detached contemplation once thought so essential to the 'aesthetic experience' by Western art critics.** 'Art' is used rather than viewed, and the conception of beauty which goes along with this is dynamic rather than static (Witherspoon 1977). Navajo sand paintings are a case in point. Photographs of these paintings taken by tourists or art collectors capture the whole of the design from above. The Navajo, however, never see the paintings from that perspective. They situate

themselves *within* the painting. When a sand painting is used in a healing ritual, the person to be healed, or 're-created' as the Navajo say, actually sits in the painting. Sand is taken from the bodies of the holy people represented in the drawing and pressed on the body of the ill person (Gill 1987: 37–40). Thus, while outside observers see the sand paintings as visual objects, for the Navajo their tactile dimension is, in fact, more important.

The idea of sensing a painting 'from within it, being surrounded by it' (Gill 1987: 39), as the Navajo do, is foreign to conventional Western aesthetic sensibilities. Contemplation is encouraged (at the expense of participation) by rules like: 'Do not touch the exhibit!' The disengagement of all the senses, save for sight, is also encouraged by the technique of linear perspective drawing, as discussed by Howes in the Introduction. This technique is foreign to most non-Western cultures. Among the Tsimshian of the Northwest Coast, for example, one finds a style, known as 'split representation,' that is the virtual antithesis of linear perspective vision. Consider the representation of Bear taken from a Tsimshian housefront in Figure 1.

If we ask 'What is the point of view expressed in this representation?' we are forced to admit that it does not have one, but many, as many as there are sides to Bear. The animal has, in fact, been cut from back to front and flattened so that we see both sides of Bear at once, as well as the back, which is indicated by the jagged outlines meant to represent its hair (Boas 1955: 225). Since we know that one cannot see an object from all sides at once, we conclude that the artist 'lacked perspective.' But what we ought to be asking ourselves is how the artist's hand might have been guided by the multidirectional world of the ear rather than the unidirectional world of the eye, given that his culture is an oral-aural one.

In effect, the Tsimshian 'wraparound' representation of Bear corresponds to the experience of sound, which also envelops and surrounds one (Ihde 1976). The 'ear-minded' Tsimshian would thus seem to transpose visual imagery into auditory imagery in their visual art. To understand that art involves what Edmund Carpenter has described as 'hearing with the eye' (1972: 30).

A more explicit example of an auditory-based visual representation is found in the intricate geometric designs of the Shipibo-Conibo. These designs, which are kept by the Shipibo-Conibo in glyptic books and used extensively in the decoration of artefacts and clothes, are said to embody songs. During the healing ritual the shaman, in a hallucinogenic trance, perceives these designs floating downwards. When the designs reach the shaman's lips he sings them into songs. On coming into contact



FIGURE 1
Tsimshian representation of Bear
(After Boas 1955: 225)

with the patient, the songs once again turn into designs which penetrate the patient's body and heal the illness. These design-songs also have an olfactory dimension, as their power is said to reside in their 'fragrance' (Gebhart-Sayer 1985).

Geometric designs are also used extensively by the Desana of Colombia, who, like the Shipibo-Conibo, associate them with a series of sensory manifestations. The symbolic significance of Desana baskets and mats, for instance, lies not only in the design of their weave, but also in their specific odour and texture (Reichel-Dolmatoff 1985a). It is telling of the extent to which we in the West live under the thrall of the visual that, although the multisensory nature of Desana baskets is evident, while that of the Shipibo-Conibo designs is not, most Westerners would be as unlikely to pick up on the non-visual significance of the former as they would that of the latter.

Just as artefacts and designs can have sensory significance beyond the

visual, so can music have sensory significance beyond the auditory. One example of this is the design-songs described above. Another is that of Desana instrumental music, discussed by Classen in chapter 17, which interrelates all of the senses. The music of the Kogi of Colombia has a specifically tactile aspect, because, for the Kogi, sacred songs are 'threads' which tie one to benevolent forces (Reichel-Dolmatoff 1974: 298). Artefacts and aesthetic manifestations, therefore, may well evoke sensory associations or resonances far beyond those immediately apparent to the outside observer.

Masks provide other kinds of information about a culture's sensory order. As Edmund Carpenter (1972: 22) notes with regard to the use of masks in West Africa: 'West African dancers and singers close their eyes partially or wholly. The masks they wear are similarly carved. Masks with open, staring eyes are rare and usually covered by hanging hemp or fur. Sight is deliberately muted.' By way of contrast to the down-playing of vision evidenced by West African masks, a positive emphasis on vision is manifested by the paper figures used ritually by the Otomi of Mexico. The Otomi only give eyes to those figures representing good beings, such as humans, thus according a high moral value to eyesight (Dow 1986: 103). Yet another contrast is presented by the masks which the Kalapalo of Brazil make to represent powerful spirits. Kalapalo spirit masks emphasize all of the senses: eyes are fashioned from mother-of-pearl, ears protrude, noses are long, and the tongue and breath are represented by a pair of red cotton strings hanging from the mouth. This is because powerful spirits are said to be 'hyperanimate,' and thus possess extraordinary sensory powers. The particular auditory bias of the Kalapalo is evidenced, however, in the fact that the most important distinguishing characteristic of powerful spirits is their ability to create music (Basso 1985: 70, 245-7).

Given all that has just been said, it should be apparent that when artefacts are put on display in museums they are stripped of much of their sense. Can their sense be preserved rather than reified in museum exhibits? If so, how? Would it help to affix a note explaining the other sensory dimensions of the artefact? Or, should curators stop at nothing less than re-creating the total sensory environment in which the artefact was originally used? What might be the drawbacks of providing simulations of the latter sort (see Baudrillard 1983; Ames 1985: 10)? The problem raised here can be focused by setting oneself the task of designing an exhibit for a Kaluli drum, bearing in mind everything noted by Steven Feld in his chapter in part II.

The preceding discussion is somewhat one-sided, insofar as it has concentrated on how non-Western artefacts are perceived by Western

observers. In the interest of balance, one should also examine how Western artefacts are perceived according to the sensory models of other cultures. In *A Musical View of the Universe*, for instance, Ellen Basso relates that her glasses were understood by a member of the 'ear-minded' Kalapalo, not in terms of their visual function, but in terms of the sound they made on being put on: 'nnguruk' (1985: 64).

3. Body Decoration

- *What can the ways in which a culture decorates and deforms (reforms) the human body tell us about that culture's sensory order?*
- *Are any of the sense organs physically emphasized through the use of earrings, nose-rings, scarification, paint, etc.?*
- *Which senses figure foremost in cultural ideals of personal beauty?*

The topic of body decoration is closely related to the previous section on artefacts and aesthetics. A culture's ideals of personal beauty are influenced by its aesthetic ideals, and the ways in which bodies are decorated are often similar to the ways in which artefacts are decorated. The designs which the Shipibo-Conibo use to decorate artefacts and clothes, for instance, are also painted on the faces of members of the tribe for healing and festive purposes (Gebhart-Sayer 1985).

Body decorations (ornaments, scars) can seem purely 'cosmetic,' but they frequently convey information about group identity and social status as well. At a deeper level, they may serve to 'embody' a particular sensory order, as Seeger (1975) found among the Suya of Brazil. As will be recalled from our discussion in chapter 11, among the Suya ear-discs serve to emphasize the cultural importance of hearing and moral behaviour while lip-discs are associated with speaking, singing and aggression.

An interesting variation on the Suya example is presented by the Dogon of Mali. Among the Dogon, a girl's 'education in speaking' begins at age three with the piercing of a hole and the insertion of a metal ring in her lower lip. This is followed by the piercing of her ears at age six. If she continues to make grammatical errors or utter uncouth remarks by age twelve, then rings are inserted in the septum and wings of her nose (Calame-Griaule 1986: 308–10). For those who come from cultures which do not postulate any connection between the organ of smell and speech, this practice will be found difficult to comprehend. For the Dogon, however, 'Despite its invisible nature, [speech] has material properties that are more than just sound ... [It] has an "odour"; sound and odour having vibration as their common origin, are so near to one

another that the Dogon speak of "hearing a smell" (Calame-Griaule 1986: 39 and 48, n. 69). Thus, according to Dogon conceptions, words may be classified by smell. Good words smell 'sweet,' and bad words smell 'rotten,' which explains the practice of operating on the nose so as to encourage the reception and utterance of 'good-smelling words' and the repression or deflection of bad ones. We may conclude that the Dogon (unlike the Suya) regard smell, speech, and hearing as equally 'social faculties.' At least ideally: 'the mouth too ready to speak is likened to the rectum' (Calame-Griaule 1986: 320). In other words, bad or impetuous speech is synonymous with flatulence.⁴

Sometimes it may take some probing to discover the deeper sense of what are ostensibly 'beauty marks.' To take an example from Western culture, the artificial beauty spots which were so popular in Enlightenment France, and which we think of as purely visual, were in fact always dipped in perfume giving them an olfactory dimension (Genders 1972: 129). In modern Africa, the Tiv of Nigeria have a special marking called 'catfish' which is incised on a young woman's belly. When confronted with the suggestion that the designs were not purely decorative, but rather symbolic of the girls' biological roles as wives and mothers (i.e., their fertility), the Tiv more or less agreed: 'They said that the scars are tender for some years after they are made and these artificial erogenous zones make women sexier and hence more fertile' (Brain 1979: 78). Note how the Tiv give a tactile meaning to the visual markings. What we would also note is that the heightened cutaneous awareness such markings make possible is consistent with other facts about Tiv society. Kinaesthetic awareness also appears to have been developed to a remarkably high degree in this culture: 'Those of us brought up in the northern European tradition are underdeveloped rhythmically. We have a single beat that we dance to, whereas the Tiv ... have four drums, *one for each part of the body*. Each drummer beats out a different rhythm; talented dancers move to all four' (Hall 1977: 77-8). Is the Tiv case unique, or are scarification and related forms of body decoration normally found in those cultures which place a premium on 'bodily intelligence'?

4. Child-rearing Practices

- Which of the senses do caretakers stress or repress the most in raising children? Touch, taste, hearing?
- Do the socialization practices emphasize self-control or self-indulgence, individuality or conformity?

- *Are these emphases reversed or altered at any stage of a child's development?*
- *Is the primary means of education visual, oral, kinaesthetic? How are children taught to conform to their culture's sensory order?*

The first moments and months of a child's existence are of paramount importance with respect to shaping the sensory orientation that individual will manifest for the rest of his or her life. In North American society, it is customary for the newborn to be separated from its mother, clothed, and put to sleep in a crib. In other cultures, infants are virtually always in contact with the skin of some caretaker or other. The communication styles of adults have been shown to reflect these early childhood experiences (Montagu 1978). For example, North American society is an extreme example of a 'non-contact culture,' in that there is considerably less sensory involvement, eye contact, and touching, and relatively greater interpersonal distance, during social interaction, than in, for example, most African societies, where child-rearing practices tend to be more tactile.

Socialization practices have also been found to influence 'perceptual style' (Wober, ch. 2). For example, the Inuit perform better on Witkin's Embedded Figure tests, and thus manifest greater 'field independence,' than the Temne of Sierra Leone. Temne child-rearing practices tend to be strict, and emphasize conformity; those of the Inuit are more lenient and foster individuality. The greater ability on the part of Inuit subjects to disembed figures from surrounding fields (i.e., to experience items as separate from context) may thus be related to the greater likelihood for a sense of separate identity to emerge in Inuit society than in Temne society (Berry 1966).

Of course, the Embedded Figure test only pertains to differentiation in the visual field. As far as the Temne are concerned, it may simply be that vision is not a field of 'productive specialization' (in Ong and Wober's sense) for them, because they attach more importance to discrimination in the auditory or proprioceptive field. This possibility must always be borne in mind. It is best gauged by examining the *full* range of educational practices in place in the society, as well as the amount of time allotted to each of them. Thus, in some cultures children are taught how to dance from an early age, in others to recite sacred texts from memory.⁵ Or again, in some cultures children (and adults) are told what to do, in others they are shown what to do. Thomas Gregor writes of the Mehinaku of the Brazilian Amazon: 'The villagers are given to the use of visual aids in teaching. Whenever I failed to follow an explanation of a ritual or custom, I was urged to wait until I could see

it; then I would understand. The Mehinaku teach physical skills ... by having the pupil look on as the work is performed. There are ... occasional verbal explanations but these are a relatively small part of the teaching process' (1977: 40). Different techniques may be used according to the nature of the material which is being communicated. Among the Yanoama of the Brazilian Amazon, for example, shamanistic knowledge can only be communicated in the darkness, thus a shaman speaks only at night (Biocca 1970: 72).

Children do not always manifest the same sensory order as adults. For example, it has often been observed that North American children have a greater interest in odours and tastes than do North American adults (Porteus 1990: 145–73). Among the Inuit, the self-control manifested by adults contrasts with the self-indulgence of infants. Inuit children are characterized by their 'touchability.' They are 'cuddled, cooed at, talked to and played with endlessly' (Briggs 1970: 71). When they cry they are instantly comforted, either through touch or through food. Indeed, nearly all delicacies are saved to be given to children for this purpose. Touch and taste, therefore, are given free rein in infancy.

As an Inuit child passes infancy, she or he is expected to learn to suppress the senses of taste and touch. Jean Briggs notes several examples of this among the Utku. When a new child is born, its older sibling is discouraged from breastfeeding by the mother as follows: 'Your little sister has nursed and gotten the breast and the inside of the parka all shitty and stinky; it smells [and tastes, one word has both meanings] horrible' (Briggs 1970: 158). Similarly, being poked in various parts of the body is a favourite game with infants. Older children, however, are warned: 'Watch out, your uncle's going to poke you if you don't cover up and get dressed!' (Briggs 1970: 149). Thus, older children are taught to regard as unpleasant sensations which they formerly regarded as highly pleasurable. Touch, in particular, is greatly restricted after the period of infancy. Briggs writes: 'Utku husbands and their wives, children older than five or six and their parents, never embrace or kiss ... and rarely touch one another in any way, except insofar as they lie under the same quilts at night' (1970: 117).

The senses which are developed in adults are sight, so necessary for hunting and other practical endeavours, and above all hearing, by which oral traditions are passed on (Carpenter 1973: 26, 33). People in Inuit society are therefore trained to grow out of the 'infantile' senses of touch and taste into the 'practical' sense of sight and the 'social' sense of hearing. Many cultures mark such an entrance into the adult sensory and social order by a specific rite, as in the case of the Barasana male puberty rite described in the section on cosmology (see below).

5. Alternative Sensory Modes

- *What exceptions to the dominant sensory model exist within a society?*
- *Are different ways of sensing attributed to or manifested by women and men?*
- *How are persons with sensory handicaps treated?*

In the previous section we saw that children sometimes manifest a markedly different sensory order than adults. Women also frequently manifest a sensory order which differs from the dominant one. Women and men are commonly held to perceive the world in different ways, with the male way usually being normative and the female way a complementary adjunct at best, and an aberration at worst. Different sensory characteristics are often attributed to men and women as well. Among the Hua of Papua New Guinea, for instance, the inside of the male body is considered to be white, hard, and odourless, that of the female body to be dark, juicy, and fetid (Meigs 1984: 127). In the Amazon, men are commonly thought to be cold and women to be hot (e.g., S. Hugh-Jones 1979: 111), while the reverse holds true for the indigenous cultures of Mexico (e.g., Lopez Austin 1988: 53). All of these characteristics, of course, are associated with fundamental cultural values.

Those rites which initiate a girl or boy into the adult world often serve as initiations into a particular, gender-determined sensory order. The Yanoama, for instance, believe that a woman should not speak with a louder voice than a man's, i.e., that she should not assert herself (Biocca 1970: 136). During the female puberty rite, consequently, a girl will be shut in a cage and not allowed to speak for three weeks. After this time, she may begin to speak, but only very softly. At the moment of re-emergence, her lips and ears are pierced (Biocca 1970: 82), which undoubtedly serves to mark the socialization of her speech and hearing according to the 'correct' female sensory order.

Aside from, but related to, these sensory differences arbitrarily imposed upon the sexes by culture, are the differences in sensory orders which women and men may actually (as opposed to theoretically) manifest. Among the Desana, for instance, the male sensory order is characterized by an emphasis on transcendent sight acquired through narcotic visions. Women, who are not allowed to take narcotics, appear to have a sensory order which emphasizes senses other than sight – in particular, touch (Classen, ch. 17).

Such sensory distinctions are related, it goes without saying, to the social distinctions made by a culture between different groups, as well as to the different practices of such groups. Some of the groups within

society which may manifest alternative sensory modes include: religious specialists, outcasts, and, in larger societies, the ruling and working classes and ethnic groups. Among the ancient Nahuas of Mexico, for example, nobles had 'the right to eat human flesh, to drink pulque and cacao, to smell fragrant flowers, and to be given the gift of aromatic burning incense' (Lopez Austin 1988: 393).

The reactions displayed by a culture to the real or imagined sensory differences of persons from other cultures can also prove revealing of local sensory preferences. The Sharanahua of Peru, for example, see westernized Peruvians as 'speakers of another language, eaters of disgusting animals like cows, potential cannibals with enormous sexual appetites' (Siskind 1973: 49). Anthony Seeger reports that the Suya regarded his practice of taking notes as evidence that his ears were 'swollen,' for the Suya believe that knowledge is acquired and retained by the ear, not the eye (Seeger 1987: 11).

The treatment a culture accords to persons with sensory handicaps, notably the blind and the deaf, is especially revealing. While one must keep in mind that blindness is a handicap even in the most auditory of societies (because of the practical value of sight), it may be much less of a handicap in some cultures than in others. In certain cultures blind persons may be thought to compensate for their sightlessness by being clairvoyant, or by having supernatural powers of hearing (Paulson 1987: 5-6). Indeed, the different modes of perceiving of persons with sensory handicaps can in themselves form the basis of a fascinating study (see Sacks 1985 and 1989).

Finally, alternative sensory modes often come into play when people are rebelling against some aspect of their existence. Among the Inuit, for example, who regard excessive emotions of all kinds as dangerous, anger is usually expressed by withdrawal and rejection of all sensory stimuli. Jean Briggs gives an example of this among the Utku Inuit of the Northwest Territories: 'In such moods [of anger] Raigili might stand for an hour or more facing the wall, her arms withdrawn from her sleeves – the latter pose a characteristic Utku expression of hunger, cold, fatigue, and grief. If her mother tried to tempt her with a piece of jammy bannock [cake] she dropped it or ignored it. If her father tried to move her she was limp in his hands' (Briggs 1970: 137). Another example of this rejection of external stimuli is the case of an adolescent girl in the same community who, intensely unhappy, pretended to be deaf for a summer (Briggs 1970: 137). Such withdrawal can also take the form of sleep. Sleeping long hours is a characteristic sign among the Inuit of an emotional disturbance (Briggs 1970: 281).

Varieties of sensory experience thus exist not only among cultures, but also within cultures.

6. Media of Communication

- *What media does a society use for communication? Is the dominant medium the spoken word, the written word, the printed word, or the electronic 'bit'? What other kinds of sensory codes are employed?*
- *How do members of the culture react when exposed to new communications media?*
- *If the culture manifests a preference for some media of communication over others, which senses are engaged the most and how?*

It is important to analyse the *full* range of media used for communication in the culture – music, dance, food, perfumes, designs, writing, television, etc. – and not simply those which have to do with the transmission of ‘the Word.’⁶ The so-called ‘orality/literacy divide’ has been shown to be misleading. As the essays in this book attest, oral cultures can be quite diverse in their sensory and symbolic systems, as can literate cultures. Furthermore, not all cultures which possess writing are literate to the same degree or in the same ways (Scribner and Cole 1981). Among the Hanunoo of the Philippines, for instance, writing is used almost exclusively for romantic purposes (Frake 1983: 340). In general, one may expect a culture which is predominantly oral to manifest an auditory bias and one which is predominantly literate to manifest a visual bias. However, this is at best a preliminary typology which must be supplemented by the study of the full range of media used in a society and how they interact with one another.⁷

Reactions upon first exposure to Western communications media can serve as a litmus test of a culture's sensory order. Thus, a Tully River Aborigine, seeing whites communicate with each other by means of written marks on paper, put a letter to his ear ‘to see if he could understand anything by that method’ (Chamberlain 1905: 126). As one would expect, in the local language, ‘to understand’ is expressed by the same verb as ‘to hear.’ Such reactions can also shed light on our own sensory order. For example, the naivety of the Western belief in the ‘truth of photography’ is nicely brought out in the story of the Tanzanian chief who, when shown various photos, ‘recognized some of the pictures of animals ... but invariably looked at the back of the paper to see what was there, and remarked that he did not consider them finished since they did not give the likeness of the other side of the animal’ (Wober 1975: 80). This clash of expectations is instructive: the chief expected

the picture to show what he *knew* about the animal in question (namely, that it has more than one side), whereas we are satisfied with being shown only what one can *see*.

Such inventions as the telephone and television might seem to have extended the scope of human communication to an unprecedented degree, but it is important to recognize how they also limit human communication by occluding other channels of sensory awareness. Cultures which do without these particular means of communication exploit other media – that is, they extend their senses in other ratios, which may be equally complex. Odour communication is very important to the Desana, for instance, who admire and elaborate on the use of odours by animals (Reichel-Dolmatoff 1985b). The Murngin of northern Australia have evolved an intriguing ‘audio-olfactory’ sort of technique for communicating with whales. As one informant told Warner: ‘we can take sweat from under our arms and put our hands in the water, and we can put that water in our mouths and sing out the power names of that whale. It is just the same as if we were asking him for something’ (1958: 354–7). In a related form of communication found among a neighbouring people, the members of one moiety rub the sweat from their armpits on the eyes of the other moiety to enable the latter to ‘see with sacredness’ (Berndt 1951: 44).

As these examples suggest, there exist many possible ways of combining the senses for purposes of communication, and the audio-visual is but one among them.⁸ The extent to which this particular combination (the audio-visual) has been developed in the West reflects the depth of our commitment to a particular ‘régime of sensory values’ (Corbin 1986), one which, significantly, privileges the distance senses. The Murngin and their neighbours have experimented with other ratios, the audio-olfactory and the olfacto-visual, and they evidently enjoy a very different mode of relating self to self, and self to world, in consequence.

7. Natural and Built Environment

- Does the natural environment call for the exercise of some senses more than others, and if so in what ways?
- How does the layout of the community influence sensory perception? Is the home sealed off from the outside world or is there an interchange of sensory perceptions?
- Does the home consist of only one room or are there separate rooms for different activities? Does the family sleep together or separately?

Perception, like cognition, must be studied in its ‘natural setting’ (Berry

et al. 1988). Perceptual experiments carried out in psychology laboratories yield clear results. Try carrying out the same experiment in the midst of a Moroccan bazaar, the Arctic tundra, the Sepik River region of Papua New Guinea – suffice it to say, the results will not be the same. The point here is that **the natural environment does influence perception**. It may call for the use of some senses more than others, or in any event in different ways from our own, as Gilbert Lewis found in the course of his fieldwork among the Gnau of Papua New Guinea:

Although it is usually easy to walk through the forest, there are no perspectives, no open views ... The light is dimmed and greenish ... Occasionally one passes through a path of unmoving air faintly scented by some plant like honey-suckle; one passes transient smells, of humus, of moist rotting wood or bruised fruits. The Gnau people are alert to smell ... in some cases they use scent to decide the identification of trees or shrubs, scraping or cutting the bark ... The canopy and confusion of trees alters sounds and calls, limiting and muffling them, but as though enclosed in a leafy hall, the sharp screech or squawks from a nearby bird sound echoes in one's ears. I found the localization of forest sounds difficult, ... although the native people were accurate in pointing to the direction and finding them. They excel in identifying bird calls. (Lewis 1976: 46)

Lewis's account of how the environment affects the senses agrees in an interesting way with the privileging of the auditory and olfactory modalities in the context of ritual communication, and as metaphors for cognition, in other New Guinea societies (Howes ch. 11).⁹ However, as Classen points out in chapter 17, cultures may seek to compensate for the restrictions imposed upon the senses by the environment. A society in which the availability of odours and flavours is limited by nature, for example, may value these all the more because of their scarcity. Witness the high value accorded to Eastern spices in the Europe of the Middle Ages (Clair 1961: 15). Therefore, contrary to Berry (1966, 1975), we would hold that there is no one-to-one correspondence between the characteristics of a culture's physical environment (e.g., arctic tundra vs. tropical forest) and its cognitive style (e.g., field-independent vs. field-dependent).

The built environment also influences perception. In a classic study, Segal et al. (1966) demonstrated that the fact of living in a 'carpentered world' as opposed to a 'circular' one (like that of the Zulu, with their oval huts and compounds) makes a person more susceptible to the Sander Parallelogram illusion (see Figure 2).

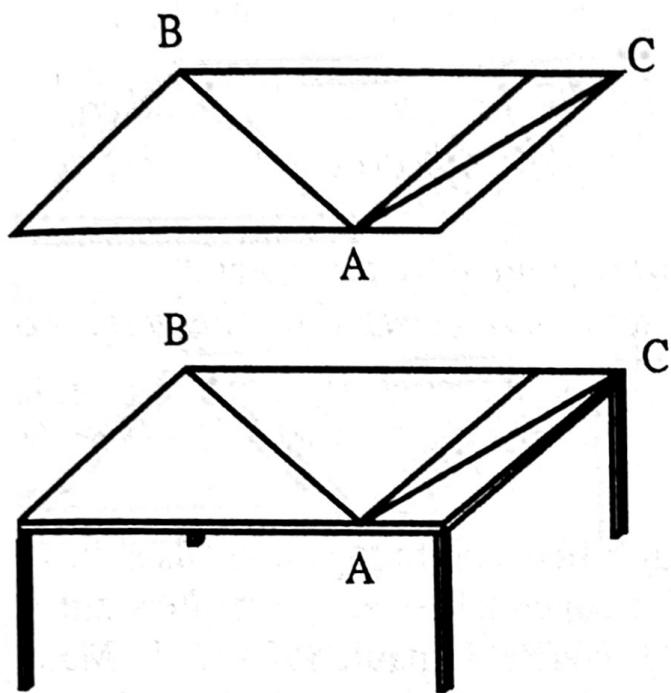


FIGURE 2

The Sander parallelogram. The respondent is asked: 'Which of the two lines, AB or AC, is shorter?' (See discussion at page 288.) (After J.B. Deregowski, *Illusions, Patterns and Pictures: A Cross-Cultural Perspective* [New York: Academic Press, 1980], 14)

The built environment can also be analysed as a projection of a given culture's sensory profile. We think of Michel Foucault's (1979) insightful analysis of how Bentham's design for a prison, the Panopticon, has been generalized to encompass other spaces (the hospital, the school), such that we moderns live in a 'society of surveillance.' By contrast, for the Suya, 'the sonic transparency of their community makes of their village a concert hall' (Seeger 1987: xiv). For the Inuit, 'visually and acoustically the igloo is "open," a labyrinth alive with the movements of crowded people' (Carpenter 1973: 25).

The construction of the built environment in the image of a culture's sensory profile is apparent in the nineteenth-century English and French bourgeois fetish for balconies: 'From the balcony, one could gaze, but not be touched' (Stallybrass and White 1986: 132). It is also apparent in the proliferation of rooms within the bourgeois dwelling. This multiplication had the effect of privatizing what were once more social functions (the preparation and consumption of food, the elimination of bodily wastes, sleeping) by confining each to a separate room (Corbin 1986; Howes 1989). The fragmented (as opposed to synaesthetic) understanding of the sensorium with which we moderns operate is at least partly attributable to this great nineteenth-century repartition of space and bodily functions. Imagine the intermingling of sensations that would result from simply removing some of the inner walls we have built up.

8. Rituals

- In ritual settings, is any sense usually more engaged than others, for example, sight by costumes and dance, hearing by speeches and music?
- Are any senses suppressed in order to privilege other senses?
- Is there a sequence to how the senses are engaged or alternately extinguished in a ritual?
- Is the ritual specialist distinguished by the use of any one sense or particular combination of senses?

It has frequently been noted that ritual communication takes place through physical demonstration: 'it concretely enacts assertions rather than simply referring to them in discourse' (Knauf 1985: 247). Many anthropologists have also drawn attention to the 'multi-channel character' of ritual communication (Leach 1976; Stone 1986). As Fredrik Barth (1975: 223) observes of ritual performance among the Baktaman of Papua New Guinea: 'Different aspects of a ritual performance reach the participant by way of each of his different senses; and the diversity of meaningful features and idioms is very great.'

Ideally, the ethnographer wants to attend to each and every message in each and every channel; for example, among the Baktaman, the smell of burning marsupial, the redness of the dancers, the different drum rhythms each invoking a different spirit, all contribute to the total meaning of the event. Regrettably, it is rarely possible for the ethnographer to attend to all these sensations at once. However, cultures also tend to be selective regarding the media they emphasize. The Suya, for instance, perform their major rituals at night, excluding the significant participation of vision and giving prominence to their ceremonial singing (Seeger 1981: 87). The Bosotho of southern Africa resort to 'played aurality' (as a matter of conscious preference to other sensory modes) to resolve situations of crisis (Adams 1986). The Moroccan ritual of silent wishes described by Griffin (ch. 14), where even speech is proscribed and everything centres around the burning of the seven kinds of incense, is a further example of a ritual which augments some meanings at the expense of others by restricting the number of sensory channels in use.

In addition to rituals which stimulate all the channels of sensory awareness at once,¹⁰ and those which restrict them to a few, there are rituals that accentuate and suppress different modalities according to a certain sequence. We think of the Japanese midday tea ceremony (*shogo chaji*), a minutely prescribed rite, which takes from three to five hours to complete. In the tea ceremony, the 'progressive induction into ritual'

time is reflected in an increasing emphasis on non-verbal modes of communication' (Kondo 1983: 297). Thus, conversation is permitted upon first entering the tea garden, but in the tea hut itself it is the burning incense, scrolls, and flower arrangements that set the tone. The moment of greatest symbolic intensity – imbibing the tea – is surrounded by silence. The whole purpose of this ritual is to instil a mental attitude of introspective 'emptiness' (Kondo 1983: 301); hence the sequencing of the sensations. In Japan to be introspective (which is *the Zen state*) is to close one's ears but keep one's other senses open. We close our eyes.

At the opposite extreme from the Japanese tea ceremony, which celebrates the senses in a determinate order, are those rituals designed to 'overcome' or 'vanquish' them, and thus pave the way for a transcendental experience. Valentine Daniel describes one such rite in *Fluid Signs* (1984). The ritual involved an arduous six-mile pilgrimage in honour of Lord Ayyappan (that was supposed to help the devotee achieve union with Ayyappan), which Daniel undertook with some Tamil friends. There is a definite sequence to the order in which the senses are 'merged' or 'collapsed' in the course of this ritual. As Daniel recounts, first hearing goes, then smell, then sight, then 'the sense organ *the mouth*' (taste and possibly speech), and finally, all these organs having 'merged' into the sense of touch (which itself feels nothing besides pain as of this late point), that sense too 'disappears,' along with any sense of self (Daniel 1984: 270–6).¹¹ This sequence may be read as an expression of the sensory profile of the Tamil culture of South India, hearing and touch being at opposite ends of the Tamil sensorium, the other senses in-between.

The rituals described above can be said to use techniques of 'sensory deprivation' to achieve their effects. As the sensory deprivation literature attests, restricting sensation in one channel enhances sensitivity in other channels as the sensorium seeks to recover 'sensoristasis' – that is, to compensate for the deficit (Zubek 1969). When all the senses are occluded, experimental subjects have been known to hallucinate sensations, or produce percepts from within, so as to fill the void. There is a further body of literature, less well known than the above, which concerns how applying a stimulus to one sensory channel can enhance perception in some other. For example, exposing subjects to the scent of cassia or vanillin facilitates the perception of the colour green while at the same time inhibiting the perception of red or violet (Allan 1971).

It would be interesting to analyse accounts of vision quests, shamanic flight, possession dances, and the like in the light of this literature on the application of sensory restriction and cross-modal enhancement

techniques to human subjects. Lisa Andermann's analysis of how the senses are combined in Ndembu rituals of divination (ch. 16) is a step in this direction. Another account is provided by Gerardo Reichel-Dolmatof, who describes the ways in which the Tukano restrict and stimulate the senses in order to have bright and pleasant narcotic visions:

In the first place, the participants should have observed sexual abstinence for several days before the event and should have consumed only a very light diet, devoid of peppers and other condiments. In the second place, physical exercise and profuse perspiration are thought to be necessary for the visionary experience ... Next, the amount and quality of light are said to influence the sensitivity of the participants who occasionally should stare for a while into the red glow of the torch ... Finally, acoustical stimulations are said to be of importance. The sudden sound of the seed rattles, the shrill notes of a flute, or the long-drawn wails of the clay trumpets are said to release or to modify the luminous images. (Reichel-Dolmatoff 1978a: 11)

Lastly, the sensory specializations of a culture's ritual experts can indicate which senses are considered most important by that culture. In chapter 17, Classen explores this topic in relation to the ritual experts of the Andes, who are characterized by their orality, and those of the Desana, who are characterized by their penetrating gaze. By contrast, the healers of the olfactory-conscious Warao of Venezuela must possess an acute sense of smell, as both diseases and the medicinal herbs which cure them are distinguished by their odours (Wilbert 1987). In cases where shamans or sorcerers are believed to stand outside society, their particular sensory characteristics can be considered to contradict the normative sensory model, as among the Suya of Brazil and the Wolof of Senegal (Howes, ch. 11).

9. Mythology

- *How is the world created? By sound, light, touch?*
- *What kinds of sensory descriptions are contained in the myths? Is there much visual description, interaction involving touch, dialogue?*
- *How are the senses of the first human beings portrayed? If there is a 'fall from grace,' does this come about through the misuse of any particular sense?*
- *Does a culture hero have acute eyesight, a keen sense of smell, superior strength, or any particular physical characteristics?*
- *How are myths passed on? Are they told or acted?*

The 'sensory codes' of diverse South American Indian myths have been analysed by Lévi-Strauss, and he has shown how the contrasts in one sensory modality can be transposed into those of another, after the manner of a fugue. What this form of analysis unfortunately leaves out is the whole question of the *value* attached to the different modalities in different societies; if factored in, these values might explain why, for example, in one of the myths discussed by Lévi-Strauss, the Opaye myth of 'How men lost their immortality,' death came because they smelled its stench, while in a Shipaya myth it came because people failed to detect its odour (see Lévi-Strauss 1969: 147–63).

A sensorial (as opposed to structural) anthropological analysis of myth would be attentive not only to how a culture 'thinks with' smells and tastes, and textures and sounds or colours, but also 'thinks in' or 'through' such media (see Jackson 1989: 137–55). Since Plato, as Synnott shows in his essay in part I, but particularly since the 'Enlightenment' (Ong 1967: 63, 221), the idiom of Western thought has been ocular.¹² It is hard for us to imagine the world in any other light.¹³

The Hopi do, however. The Hopi think 'in sound,' as Kathleen Buddle has shown in a recent article called 'Sound Vibrations' (1990), which analyses the Hopi Myth of Creation. In the myth, Spider Woman brings the Twins into being by chanting the Song of Creation over them, and then commands one of them to: 'Go about all the world and send out sound so that it may be heard throughout all the land.' The Twin goes out, and: 'All the vibratory centres along the earth's axis from pole to pole resounded his call; the whole earth trembled; the universe quivered in tune. Thus he made the whole world an instrument of sound' (Waters quoted in Buddle 1990: 10). It is consistent with Buddle's analysis that there are no 'things' – no tables or chairs, to use the standard example of Western philosophers – in the Hopi universe, only vibrations; hence the fact that in the Hopi language one speaks of 'tabling,' not 'a table,' and 'chairing,' not 'a chair' (Whorf 1956).

In the Hopi cosmogony the world is created by sound, whereas in the Desana cosmogony the world is created by the light of the sun. The emphasis on light in the latter myth agrees with the great importance the Desana accord to sight. However, in the Desana case, the sense which is most emphasized in creation is not the one most valued in society. Sight is the subject of immense symbolic elaboration in Desana culture, because of its prominent role in creation and perception, but hearing is ultimately of greater importance because of its association with comprehension (Classen, ch. 17).¹⁴ Thus, the study of cosmogonies can provide a basis for a fuller, more nuanced understanding of the meaning of the senses in society.

Other kinds of myths can be read for information on a culture's sensory priorities in other ways. In many myths from the Massim region of Papua New Guinea, the ancestors of humanity lack mouths or digestive tracts. Food is simply dropped in a hole on top of the head and comes out of the anus still whole. These ancestral beings only become human when their mouths (and genital orifices) are cut or burst open, which normally occurs at the same time they acquire 'culture' or rules. Thus, according to Melanesian notions, the sensory order and the social order emerged together, and 'orality' is equally central to both. Put simply, 'to have a mouth' is to be 'civilized the Melanesian way' (Kahn 1986: 151–3). As Michael Young observes: 'The mouth, from which issues the magic which controls the world and into which goes the food which the world is manipulated to produce, is the principal organ of man's social being, the supremely instrumental orifice and channel for the communication codes of language and food' (1983: 172).

A culture's ideal sensory model can sometimes be inferred from the sensory abilities and qualities manifested by its culture heroes. In a Desana myth, for instance, Megadiame, an ant-man, is presented as eating only pure foods, having perfect face paintings, giving off the odour of herbs 'that induce respect and love,' making clear sounds while bathing, and singing and dancing well (Reichel-Dolmatoff 1971: 267). In the myths of other cultures, a hero may display one or two outstanding sensory qualities, such as a beautiful appearance, clever speech, or remarkable sexual powers. In the case of a hero who is quick-witted, but has no particular sensory characteristics, one is led to wonder whether this may not be indicative of a certain 'desensualization' in the culture concerned. It is not only the direct employment of the senses and sensory stimuli in myths which should be attended to, but also their indirect use or exclusion. For example, a lack of visual description, such as we find in the Hausa 'Tale of Daudawar Batso' (Ritchie, ch. 12), implies a corresponding lack of interest in (or repression of) the visual.

Finally, it is essential to consider the means by, and context in which, myths are passed on. Are they read in private or told to a group? If the latter, are they usually told in the dark or in the light? Are they told before meals, during meals, after meals? Are they danced? Sung? Represented in pictures? What other sensory phenomena accompany their communication? Are the myths understood differently by different groups within society?

10. Cosmology

- *How are sensory data used to order the world? Are things classified by their colour, shape, smell, texture, sound, taste?*

- What symbolic use is made of the imagery of the senses?
- How are the 'soul' and 'mind' conceptualized? In which part of the body is the soul or mind thought to reside?
- What are the sensory characteristics of good or evil spirits?
- How are the senses elaborated in the afterlife? Is there a different sensory order from that of earthly life? Are sweet fragrances or good foods emphasized? Is there any sensory deprivation, such as darkness, silence, hunger?

It has often been noted that non-Western cultures classify things by sound to a much greater extent than do Western cultures (Ohnuki-Tierney 1981; Schieffelin 1976). Even more pronounced, at least in certain parts, is the classification of things by smell or taste. The Batek Negrito of peninsular Malaysia classify virtually everything in their environment by smell, including the sun and the moon. The sun is said to have a bad smell, 'like that of raw meat,' while the moon has a good smell, 'like that of flowers' (Endicott 1979: 39).

This is not so much a case of the 'classificatory urge' (Lévi-Strauss 1966) gone wild as an index of the centrality of smell in the Batek sensorium. This smell-mindedness also distinguishes the Batek as a people from the other people of the Malay Peninsula (in a manner analogous to the way the differential extension of the senses by means of body decoration functions as a means of cultural differentiation in the Mato Grosso region of Brazil). For example, the neighbouring Chewong also pay close attention to odours. However, unlike the Batek, they have only to be careful that no two different foodstuffs be present *in the stomach* at the same time (Howell 1984: 231). The Batek must never so much as cook different species of meat at the same time, for fear that the mixing of smells would offend the nostrils of the Thunder deity, and bring calamity (Endicott 1979: 74). Thus, the order of both peoples' universes depends on keeping the categories of creation separate, but whereas in the Batek case the distinctions are expressed primarily in terms of ethereal odours, in the Chewong case the categories are more substantive, having to do with stuffs. The greater substantivism of the Chewong cosmology is consistent with the heightened visualism of Chewong epistemology, as discussed by Howes in chapter 11.

In the previous section on myths, the importance of examining how a culture thinks 'in' or 'through' the senses was underlined. To grasp the indigenous epistemology it also helps to study how the culture conceptualizes and localizes the 'soul' or 'mind' within the body. Not all cultures are agreed in this regard. The ancient Greeks associated the soul with the breath, the Mehinaku of Brazil place the soul in the eye

(Gregor 1985: 152), the Zinacanteco of Mexico, in the blood (Karasik 1988: 5). In the West, we think of the mind as residing in the head; the Uduk of the Sudan locate it in the stomach (James 1988: 69). According to the Aguaruna of the Amazon: 'The people who say that we think with our heads are wrong because we think with our hearts. The heart is connected to the veins, which carry the thoughts in the blood through the entire body. The brain is only connected to the spinal column, isn't it? So if we thought with our brains, we would only be able to move the thought as far as our anus?' (Brown 1985: 19). What different sensory priorities and modes of thinking are produced by these different localizations of being and thought within the body?

A culture's representations of spirits can be a good source of information on its sensory model. In cultures with a pronounced olfactory sensitivity, good spirits are often associated with good odours and evil spirits with bad odours (see Griffin, ch. 14). Care must be taken in analysing such material, however, for a one-to-one correspondence between the sensory profile of spiritual beings and the sensory order of human beings cannot be assumed. The fact that the chief deity of the Tarahumara of Mexico is blind, for instance, might lead one to think that the Tarahumara do not value sight. On the contrary, sight is of the utmost importance to the Tarahumara, since it enables them to provide the deity with game (which his blindness makes him unable to hunt for himself) and thus maintain a harmonious relationship between the supernatural and natural worlds (Kennedy 1978: 130).

The same caveat holds for the analysis of the role of the senses in the afterlife. Sometimes the imagined sensory gratifications and/or deprivations of the afterlife replicate the ideal sensory model, at others they invert it, while in still other cases the afterlife is simply a projection of what a culture imagines the sensory existence of a corpse or disembodied spirit to be. The Barasana of the Amazon, for instance, consider the world of the dead to be characterized by coldness, hardness, a strong odour, the separation of the sexes, and the consumption of 'spiritual' foods, such as coca, beer, and tobacco. To some degree this represents an ideal male sensory order, as men are supposed to be cold and hard. The complete realization of this sensory order, however, occurs only in the context of the male initiation rite. During this rite, initiates must have no contact with fire or women, only tobacco, coca, and beer are consumed, and strong-smelling beeswax is burnt. During ordinary life, the ideal sensory order in fact consists of a combination of hot and cold, regular foods and spiritual foods, and so on (C. Hugh-Jones 1979; S. Hugh-Jones 1979).

It is of particular interest to examine representations of the afterlife

in relation to the liturgy, or ritual life, of a given community. Sometimes it is possible to detect a sort of balance of opposites between the quality of worship and the vision of the afterlife. We think of the contrast between Islam, on the one hand, and Hinduism, on the other – Islam with its austere worship and sensual heaven, Hinduism with its sensual worship and ultimate transcendence or escape from sensation. Other religions appear to fall in-between these two extremes, such as some of the varieties of Christianity, where earthly liturgy and heavenly bliss mirror each other. Understanding the role of the senses in the afterlife postulated by a culture, therefore, requires first understanding the role of the afterlife in that culture.

Epilogue

In this book, we have explored all sorts of different ways of combining and emphasizing the senses in culture. In the process we have disabused ourselves of the notion that the senses are ‘windows’ on the world and have come to realize that perception is not value-neutral: everywhere the sensory order is bound up with the cultural order in intimate ways. It is paradigmatic of the sensory order of our own culture that we have approached this variety of sensory experience through the visual medium of a book. We hope that in this case, however, the medium will *not* be the message, and that the essays contained in this volume will provide a basis and an impetus for an exploration of sensory patterns and combinations that go far beyond any of the reigning paradigms of textuality (see Howes 1990c).

The ‘ethographer’s ethnographer,’ Bronislaw Malinowski, once invited book-bound anthropologists ‘to step outside the closed study of the theorist into the open air of the Anthropological field’ (Lessa and Vogt 1972: 63). It is not enough for anthropologists to leave behind their texts and step into the field, however, if their senses continue to be shuttered by visual metaphors and models such as that of the text. Our new invitation to anthropologists and students of culture is to step outside the closed visual model of the text into the open-ended, dynamic model of the sensory combinatory.

Notes

- 1 The idea that human beings are equipped with five senses, not two or six, might seem obvious and beyond dispute, but it is in fact no less symbolic than the idea that there are two or six, since according to the latest scientific estimates there are seventeen senses (see Rivlin and Gravelle 1984).

- 2 For a tasteful critique of the Mackenzie Brown article see Pinard 1990.
- 3 How can one become aware of what one's own sensory biases are? The simplest exercise for this purpose is the one initially popularized by Galton. The exercise involves recalling the scene at breakfast, describing it, and then analysing the extent to which you depend on each of your senses in memory. For example, is it the words for each of the objects on the table that come to you, or their visual images, or the motions you performed in grasping them, etc. The labels for these three pre-dispositions are 'verbalizer,' 'visualizer,' and 'kinesthete' (see James 1961: 169–77). More comprehensive discussions of how to discover your own sensing pattern, and how to control as well as use it for purposes of cultural analysis, can be found in Métraux (1953), Hall (1977: 169–87), and Cesara (1982: 48, 109–11).

Other techniques for enhancing sensory awareness include, paradoxically, the 'spiritual exercises' first proposed by Loyola (see Synnott, ch. 5), and developed to an excessive degree by James Joyce (1946: 409–12). It is also helpful to consider the work of the musicologist R. Murray Schafer (1977) on 'soundscapes' and the geographer J. Douglas Porteus (1990) on 'smellscapes' and 'bodyscapes' by way of sensitizing oneself to the limits of 'the tourist perspective' (Little, ch. 10), and coming to perceive how sounds, smells, and textures really *matter* in the environment of a given culture.

- 4 Like the Suya, however, the Dogon would seem to regard sight as an 'antisocial' or pre-social faculty. For example, it is by means of graphic symbols (paw marks) that Fox communicates with human beings in the context of Dogon divination. The dreams inspired in people by Fox are also silent. The reason for this is that Fox's tongue was severed by the Creator, Amma, as punishment for resisting the latter's cosmic plan and bringing death into the world (Calame-Griaule 1986: 102–3, 146).
- 5 In North American society, such skills are relatively underdeveloped, because of the paramount value attached to learning to read and write, which entails shutting up and sitting still. On the cognitive implications of the amount of stress different cultures attach to the development of different faculties, such as to read, to recite, or to dance, see Gardner (1983).
- 6 Indeed, why the fascination in Communications Studies departments with 'the technologizing of the word' (Ong 1982)? Might this verbocentrism have something to do with the religious orientation of those who laid the groundwork for this discipline (i.e., McLuhan and Ong)?
- 7 While anthropologists normally search for 'consonance' across media (Douglas 1982b: 68), dissonances can be equally revealing. Stoller and Olkes (1990) have shown how messages in one medium, say the verbal message 'This is a formal (read: "thick") social occasion,' may be contra-

dicted by those in another; for example, a woman serving a 'thin' (meatless, hence informal) sauce on the occasion in question (see further Appadurai 1981). Similarly, documentary producers have been known to get a point across by, for example, playing 'Rule Britannia' while images of London slums, as opposed to Buckingham Palace, pass by on the screen (Morgan and Welton 1986).

8 Of course, Western culture also employs non-audio-visual media of communication, such as food codes, but these are rarely explicit and are completely overshadowed by the dominant media.

9 One also wants to be attentive to how the different environmental niches spanned by a culture (for example, sea and land) give rise to different sorts of sense perceptions (such as wet/dry, or feeling buoyant and moving speedily / feeling heavy and slow), and how these are valued and elaborated upon in the culture's symbolic system, as Nancy Munn (1986) so well demonstrates in *The Fame of Gawa* (see also Ohnuki-Tierney 1981).

10 Perhaps the most splendid example of stimulating all the senses to the same extent at the same time is provided by the traditional Indian courts: 'The fulfillment of every sense was considered an art in the Indian courts ... Scents were blended to suit moods and seasons and were believed to complement the colour of clothing' – thus, musk was worn with winter silks; vetiver was associated with lemon scent, and gossamer went with summer garments' (Patnaik 1985: 68). The complex combinatorics of emotions, seasons, and sensations played out daily in these courts has no Western equivalent. Baudelaire's *Correspondances* pales by comparison (see Howes 1986: 42–3).

11 To illustrate, midway through the third stage of the trek, an informant told Daniel: 'I stopped smelling things after Aruda Nati.' To which Daniel responded: 'Did you not even smell the camphor and incense sticks offered at the various shrines on the way after Aruda?' His informant replied: 'You might say I felt it. I didn't smell it' (Daniel 1984: 272). Incidentally, when the last of the senses, that of pain, 'goes' or 'dissolves,' close to the end of the trek, 'love' is said to take its place.

12 For an intriguing account of French thought in the sixteenth century, when the sensorium appears to have been more balanced, and 'thoughts existed in a more clouded and less purified atmosphere' than they have since the 'Enlightenment,' see Febvre (1982). According to Febvre (1982: 432): 'The sixteenth century did not see first: it heard and smelled, it sniffed the air and caught sounds.'

13 Indeed, we are positively hindered from so doing by the glare of the television screen: 'On the television screen, the world, broken down at its source, is reassembled as dots of light, and in this respect the television screen is everyone's personal converter of light back into matter which

originally has been decomposed as light.' The television screen makes the world 'matter as a matter of light,' and that is all (Romanyshyn 1989: 186).

- 14 Of course, oral communication usually forms an important part of education in our society as well. It is not essential, however, as the existence of 'correspondence courses' attests. In experiments involving the Sander parallelogram (see above, page 277, Figure 2), the respondent is asked: 'Which of the two lines, AB or AC, is shorter?' Respondents raised in a carpentered environment usually say 'AC' even though AC is, in fact, 15 per cent *longer* than AB. Respondents raised in a circular environment, like that of the Zulu, do not usually make this error. The reason for this misperception may have to do with the Western subject automatically interpreting the two-dimensional representation as if it were three-dimensional (i.e., as if it were drawn on the surface of a rectangular table).