SENSORY STUDIES

The Expanding Field of Sensory Studies

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> The sensorium is a fascinating focus for cultural studies
> Walter J. Ong, "The Shifting Sensorium" (1991)

In sensory studies, the senses are treated as both object of study and means of inquiry. Sensory studies stands for a cultural approach to the study of the senses and a sensory approach to the study of culture. It challenges the monopoly that the discipline of psychology has long exercised over the study of the senses and sense perception by highlighting the sociality of sensation. History and anthropology are the foundational disciplines of this field. Sensory studies encompasses many other disciplines besides these two, however, as scholars from across the humanities and social sciences have, over the past few decades, successively "come to their senses" and turned their attention on the sensorium. *The Senses and Society* journal, which launched in 2006, is one manifestation of this convergence. The Sensory Studies website, which went live in 2010, is another (see www.sensorystudies.org),

This essay is dedicated to tracing the history of the sensory turn in contemporary scholarship, and pointing to some directions for future research. It starts with an overview of the emergence and development of the history and anthropology of the senses. It goes on (in Part II) to examine how the senses have come to figure as a subject of study and means of inquiry in a range of other disciplines, including, for example, geography, sociology, linguistics, aesthetics and communication studies. In Part III, the focus shifts to how the field of sensory studies can otherwise be conceptualized as made up of visual culture, auditory culture (or sound studies), smell culture, taste culture and the culture of touch. An account is given of the genesis and interrelationship of these divisions. The essay concludes with eight theses for sensory studies.

This review is limited to book-length studies and the occasional survey article. It is also confined to books that were published or translated into English. Furthermore, it is very much a work-in-progress, with the first installment being posted on the Sensory Studies website in June 2013 and various additional installments to be posted at intervals in the

months to come. Cursory though this review may be, it is hoped that it might nevertheless provide some useful signposts for the interested reader.

PART I: SENSORY ANTHROPOLOGY AND HISTORY

The sensory turn in history and anthropology dates from the 1980s,[1] though there were various overtures to the senses in the anthropological and historical literature of previous decades. For example, in *The Savage Mind* ([1962] 1966), Claude Lévi-Strauss introduced the notion of a "science of the concrete" -- that is, a science of "tangible qualities" characteristic of the classificatory systems of traditional societies in contrast to the abstractions of modern physics. In *The Raw and the Cooked* ([1964] 1970) he sought to decipher the "sensory codes" of Amerindian myth. The analysis of sensory imagery was also integral to Margaret Mead and Rhoda Métraux's (1957) approach to the study of culture (see further Howes 2003: ch. 1).

In the case of history, the precursors to the sensory turn include Johan Huizinga and Lucien Febvre. In *The Autumn of the Middle Ages* ([1919] 1996), Huizinga sought to convey not merely the "historical experience" but the "historical sensation" of the late medieval period. He was inspired by a Dutch literary genre known as Sensitivism (see Ankersmit 2005: 119-39). Towards the end of his classic work on the mentality of sixteenth-century France, Febvre ([1942] 1982) observed that the sixteenth century was more attentive to smells and sounds than sights, and went on to suggest that "a fascinating series of studies could be done of the sensory underpinnings of thought in different periods" (see further Classen 2001).

Anthropology of the Senses

Steven Feld's *Sound and Sentiment* ([1982]1990) could be considered the foundation text of the anthropology of the senses. It foregrounded the fundamental aurality of Kaluli modes of perception and cultural expression. It was echoed two years later in Paul Stoller's account of "Sound in Songhay Cultural Experience" ([1984] 1989: chs. 6 and 7). Both these works, in addition to deepening our understanding of the potential cultural significance of sound and hearing, contained cautions about the "visualism" of Western thought and culture and emphasized the importance of transcending this bias in order to connect with the cultural experience of non-Western subjects (see further Fabian 1983). The anthropology of the senses was thus characterized by a certain anti-visualism at the outset, but gradually overcame this fixation as more and more was discovered about the variable and intricate ways in which sight is configured in different cultures (Howes 1991: chs. 13, 16, 17 and 2003: ch. 5; Eck 1998) including Western cultures (Grasseni 2007; Goodwin 1994). Vision is not synonymous with domination, and doing sensory anthropology does not entail shutting one's eyes, though it typically requires focussing them differently.

In its initial stages, the anthropology of the senses was also informed by a certain anti-textualism or, "anti-verbocentrism." Of course, anthropology had always been "a discipline of words" (Grimshaw 2001) insofar as anthropologists relied on interviews to gather data and monographs and journal articles to disseminate their findings. However, this bias was

exacerbated in the anthropology of the early 1980s by the excessive emphasis on "text" -- cultures "as texts," ethnography as "textualization," and so forth. The focus on "interpreting" and "writing culture" (Clifford and Marcus 1986) distracted attention from *sensing* cultures. A growing number of anthropologists felt the latter should take priority (Jackson [1983] 1989 ch. 3; Howes 2003: ch. 2)

The introduction of "embodiment" as a paradigm for anthropology (Csordas 1990, 1994) together with the notion of "sensuous mimesis" (Taussig 1993) and the idea of "sensory models" (Classen 1993) helped galvanize the sensory turn by attuning anthropologists that much more acutely to how they could use their own bodies and senses as means of ethnographic analysis, and then write about what they had found (see, by way of example,. Desjarlais 1992, 2003; Roseman 1993; Seremetakis 1994; Stoller 1997; Ingold 2000; Sutton 2001; Geurts 2002; Howes 2003; Pink 2004; Downey 2005; Hahn 2007; Romberg 2009; Holtzman 2009; Trnka, Dureau and Park 2013). Various electronic prostheses, such as audio tape recorders and camcorders, also came to figure more and more centrally in the practice of ethnography during the last decades of the twentieth century. This imported a new set of biases to anthropological knowledge (giving it an audiovisual cast, though this is not often recognized), and dealt a further blow to the language- and text-based models and methods of previous decades. It had to be acknowledged that we make sense of the world not just through language, not just by talking about it, but through all our senses, and their extensions in the form of diverse media (Finnegan 2002; MacDougall 2006). [2] Furthermore, there are some places and some matters that the senses and sense-based media can reach that words cannot. [3]

The liberating effect of this recognition is evident in the ensuing explosion of interest in "sensorial fieldwork" (Robben and Slukka 2007: Part VIII) or "sensory ethnography" (Pink 2009), as it is also known. Sensory ethnography experiments with multiple media for the registration and communication of cultural facts and theories. There is a lively internal debate over the limits and potentialities of, for example, the medium of writing compared to film (MacDougall 2005: 52; Howes 2003: 57-8 and 2012: 637-42; Sensory Ethnography Lab [http://sel.fas.harvard.edu/), installation art compared to traditional modes of ethnographic display (Grimshaw 2007; Schneider and Wright 2010), the medium of performance compared to the slideshow (Schechner 2001; rasaboxes), and so on.

The term "sensory ethnography" has come to cover a wide spectrum of research and communication practices. It figures in the name of a highly dynamic ethnographic film lab at Harvard University directed by Lucien Castaing-Taylor, which is committed to expanding the frontiers of media anthropology. It appears in the title of a manual of fieldwork practice by Sarah Pink (2009), which advocates intensive use of audiovisual media but also acknowledges the usefulness of the unaided senses. It applies to Kathryn Geurts' (2002) in-depth ethnographic study of the enculturation of the senses among the Anlo-Ewe of Ghana. (Geurts contemplated using the term "sensography" to describe her method, but decided against it). Her book includes a photo essay by James O'Neal. The term "sensory ethnography" could equally well be predicated of the intensely sensorial prose of Kathleen Stewart in *Ordinary Affects* (2007), which conjures multi-sensory images of everyday "happenings" that seem (almost) to lift off the page. In Stewart's work, like that of Nadia

Serematakis (1994), representation and sensation blend. The standards of ethnography have changed. Having an "experimental style" (Clifford and Marcus 1986) is fine, but good ethnography, increasingly, is seen as going beyond poetics and engaging with the senses (Stoller 1997; Herzfeld 2000: ch. 11).

Parenthetically, a new approach to display has emerged in museum circles that complements the rise of sensory ethnography. It could be called sensory museology. This approach emphasizes the *presence* of objects. It is aimed at curators and visitors "experiencing the properties of things" directly via, for example, allowing handling and dispensing with labels, or, by encouraging what could be called "assisted sensing" –- that is, through the diffusion of select scents, sounds, coloured light and other stimuli which serve to accentuate different sensory dimensions and meanings of the object or objects on display (Dudley 2010: chs. 1, 4, 10, 13, 15; 2012: chs. 1, 3, 14, 21; Edwards et al 2006). [4]

In my own work, like that of Constance Classen, beginning with our respective contributions to *The Varieties of Sensory Experience* (Howes 1991), the emphasis has been on taking a relational approach to the senses, using the comparative method to highlight the contrasts between the sensory orders of different cultures, developing the power of language to analyze and express sensory nuances, abjuring phenomenology and consistently challenging the dictates and assumptions of Western sensory psychology and neuroscience. Other sensory anthropologists have embraced phenomenology and Gibson's "ecological psychology" and sought explanations for cultural practices in neuroscience (Pink and Howes 2010; Ingold and Howes 2011: Lende and Downey 2012), opted for the medium of film and sound recordings in preference to writing, chosen to focus on a single community for their research, or elected to concentrate on a specific sense, such as sound/hearing or "the visual," rather than the relations among the senses. There exists, then, a wide spectrum of approaches, and they continue to multiply. This plurality of sensory modes of engagement, representation/reproduction, and theorization, and the liveliness of the arguments over their respective merits, are signs of the methodological and epistemological bounty of the sensory turn in anthropology.

History of the Senses

The writings of Alain Corbin are fundamental to the sensory turn in history. Breaking with the focus on "mentalities" in the work of Febvre and the *Annales* School, and the focus on "discourse" on the part of Foucault and the poststructuralists, Corbin set out to write a history of the sensible (Corbin and Heuré 2000; the French term *sensible* does not translate well into English: *le sensible* is perhaps best rendered as "the sensate", or "the perceptible").

Corbin's *The Foul and the Fragrant* ([1982] 1986) explored the social life of smell in nineteenth-century France. It was followed a decade later by *Village Bells: Sounds and Meanings in the 19th Century French Countryside* ([1994] 1998). In the interim, Corbin initiated a dialogue with anthropology in a piece called "Histoire et anthropologie sensorielle" ([1990] 2005). This essay contains many keen precisions regarding sensory studies methodology. For example, Corbin urges us to "take account of the *habitus* that

determines the frontier between the perceived and the unperceived, and, even more, of the norms which decree what is spoken and what left unspoken"; he also highlights the dangers of "confusing the reality of the employment of the senses and the picture of this employment decreed by observers" (2005: 135, 133). In other words, the key to writing the history of the senses lies in sensing between the lines of written sources.

The late British social historian, Roy Porter, was instrumental in getting Corbin's book on the cultural history of smell translated into English, and was a great pioneer of sensory history in his own right. He co-edited *Medicine and the Five Senses* (Bynum and Porter 1993) and was working on *Flesh in the Age of Reason* (2003), a truly monumental contribution to the history of sensibilities, at the time of his premature death in 2002. Porter was also responsible for coining the term "cultural anthropology of the senses", which he used in his Foreword to Corbin's *The Foul and the Fragrant*.

Another key text of 1980s sensory history is *Sweetness and Power* (1985) by the anthropologist Sidney Mintz. This book traced the social, political and economic impacts of a taste – namely, sucrose. Mintz showed how capitalism went better with sugar than any other commodity, while wreaking untold misery on the lives of the many Africans sold into slavery, insinuating itself into the rhythms of the British workday, and ultimately coming to be classified as a health risk (an ironic twist since sugar was initially touted as a cure-all). *Sweetness and Power* opened a space within the nascent field of sensory history for researching and writing the history of *particular* sensations, or "qualia". This subfield has mushroomed dramatically in the ensuing decades to include, among numerous other topics, the social history of salt (Kurlansky [2002] 2010), chocolate (Off 2006), all the colours of the paintbox (Findlay 2002; Pleij 2004), darkness and light (Schivelbusch 1998), noise (Schwartz 2011), stench (Barnes 2006) and other ephemera, such as dust (Amato 2001), as well as reactions like, for example, disgust (Miller 1997: chs. 1, 4).

The American historian typically credited with being the first to call his fellow historians to their senses is George Roeder Jr.. In "Coming to Our Senses" (1994), Roeder recounted the results of his analysis of the sensory content of sixteen American history textbooks published over the previous 40 years. He found there to be little use of sensory references (save negative ones) or materials (such as photographs) in the earlier texts but noted a gradual increase in the attention paid to "the sensory dimension of history" in the more recent texts, and urged that this continue, for: "When we write about the senses with the same fullness and precision that we demand of ourselves when discussing politics, philosophy or social movements, we *enlarge our audience*, *our field of study* and *our understanding of the past*" (Roeder 1994: 1122 emphasis added).

The field of American sensory history has definitely come into its own since Roeder's summons, thanks to the contributions of Leigh Schmidt (2000), Donna Gabaccia (2000) Emily Thomson (2002), Peter Charles Hoffer (2005), Mark M. Smith (2001, 2006, 2007), and Sally Promey (2006; Promey and Morgan 2001), among others. Their work has done more than simply "enlarge [the] audience" and add another subfield, though. It has reshaped the *way* the U.S. past is understood. For what interests these authors is the senses *in* American history. Hence, they do not treat the history of the senses and the history of,

say, politics or religion as separate subfields, but rather focus on the senses *in* politics or religion, and the politics or religious life *of* the senses. In other words, they see the senses as both shaping and being shaped by history. Thus, Hoffer holds that sensation and perception played a "causal role" in the conflicts between Indians and settlers in *Sensory Worlds in Early America* (2005). Schmidt delves into the heated debates over the meaning of divine signs and the rationalization of listening in the American Enlightenment (2000). In *How Race is Made* (2008), Mark Smith documents how in the southern United States, as the black/white divide became blurred due to the burgeoning number of children of mixed race parentage, white Southerners pressed other sensory stereotypes of race into service -- most notably smell -- in an effort to police social boundaries and shore up segregation. African-Americans themselves attributed very different meanings to these sensations. In these works, the historical process is shown to have been moulded by conflicts in and between the "means of perception" deployed by different social groups.

While sensory history has typically been organized along specific sensory and national lines, there is also a growing interest in forging a more synthetic, multisensory, transnational understanding, as evidenced by the recent publication of a number of synthetic texts (Jütte 2005; Smith 2007), some earlier works (Vinge 1975; Classen 1993, 1998; Tuan 1995; Rée 1999) and the highly ambitious *Cultural History of the Senses* project, which is currently in press. The latter work, under the direction of Constance Classen, covers the period from antiquity to the end of the twentieth century with separate volumes dedicated to the senses in Antiquity (Toner, forthcoming), the Middle Ages (Newhauser, forthcoming), the Renaissance (Roodenburg, forthcoming), the Enlightenment (Vila, forthcoming), the nineteenth century (Classen, forthcoming), and the twentieth century (Howes, forthcoming). Each volume is divided into nine chapters and each chapter treats a particular cultural domain, including: media, literature, the arts, religion, philosophy and science, medicine, the marketplace, the city, and the social life of the senses generally. The domain-based approach makes it possible to develop a fuller sense of the differential elaboration and interplay of the senses both within each of the periods covered, and across them.

PART II: SENSORY STIRRINGS IN COGNATE DISCIPLINESS

Sociology of the Senses

Georg Simmel was the first to imagine a sociology of the senses. In a pair of essays which date from the first decades of the twentieth century, he drew attention to how the senses and sense experience impact social attitudes and interaction: "That we get involved in interactions at all depends on the fact that we have a sensory effect upon one another" (quoted in Degen 2012a:

In "The Metropolis and Mental Life" ([1903] 1976) Simmel attributed the "blasé outlook" of the modern city dweller to the need to develop a "protective organ" in the form of intellectual distance so as not to be overly affected by the constant barrage of sensations that is characteristic of life in the metropolis. In "Sociology of the Senses" ([1921] 1997), he related the general perplexity and lonesomeness of the modern urban subject to the

"great[er] preponderance of occasions to *see* rather than to *hear* people." [5] Contrary to the country village, where people typically exchange glances and greet each other when out walking, in the city people are forced to spend long periods staring absently and keeping silent while riding on a street car or other public transport. And when a gaze chances to light upon a face, that face can appear to reveal *too much* about the individual, making the observer feel uneasy. At the same time, faces are notoriously difficult to read, particularly in the absence of conversation, which adds to the urban dweller's feelings of perplexity and isolation. Whence the cultivation of indifference as a coping mechanism: better to be blasé.

Simmel's insights into the link between the senses and sociality lay fallow for much of the twentieth century but were then retrieved and extended by a number of sociologists working in the area of the sociology of the body in the 1990s. For example, Anthony Synnott explored the "sociological function" of touch and smell as well as sight in *The Body Social* (1993). In *Flesh and Stone* (1994), Richard Sennett proposed a different explanation for the blasé attitude of the city dweller. He saw it as more connected to the "tactile sterility" of the modern urban environment.[6] The latest work in this area, such as Lisa Blackman's *Immaterial Bodies* (2012), extends the study of embodiment to include various extrasensory phenomena, such as telepathy and hearing voices. Blackman is also deeply concerned with analyzing how the mobilization of the senses impacts the production and circulation of affect.

Pierre Bourdieu opened a different perspective on the senses in society from that of Simmel in *Distinction* (1986) where he documented how, in bourgeois society, attending to the senses and acquiring the capacity to make fine discriminations can be a source of cultural capital, rather than distraction. In a further departure, recent studies of clubbing have revealed the sensation-*seeking* side of modern life. The club is a zone of sensory and social experimentation, where the rigours of the *habitus* of everyday life are suspended. Transgression or "getting your freak on" is the order of the night, abetted by the ingestion of sense-enhancing stimulants, and this can unleash new forms of intimacy. Some will try to take the ethos of *communitas* they experience in the club back into their everyday life. They are not particularly concerned with accumulating cultural capital (Jackson 2004).

Other areas of sociology in which a sensory approach has made significant inroads include the sociology of work (Fine 1996, 1998) the sociology of sport, such as running and extreme-fighting (Hockey 2006; Spencer 2012), the sociology of multiculture, (Rhys-Taylor 2010), and the sociology of everyday life (Kalekin-Fishman and Low 2010; Vannini et al. 2011; Highmore 2011). The emphasis throughout this literature is on understanding "the senses as interaction" (Vannini et al. 2011)

Sensuous Geography

The key insight of the geography of the senses is that the senses mediate the apprehension of space and in so doing contribute to our sense of place. Yi-Fu Tuan (1972) was the first to call attention to the spatiality of the senses and their role in shaping the affective relation of people to their habitat. "What begins as undifferentiated space becomes place as we get to

know it better [through our senses] and endow it with value" (Tuan 1977: 6; see also Tuan 1995).

Primed by Tuan's work, some geographers started questioning the (presumed) transparency of concepts like that of landscape, and techniques of data gathering like that of remote sensing (i.e. satellite generated imagery of Earth). As regards the latter, J. Douglas Porteous (1990: 201) observed: "Remote sensing is clean, cold, detached, easy. Intimate sensing, especially in the Third World, is complex, difficult, and often filthy. The world is found to be untidy rather than neat. But intimate sensing is rich, warm, involved … " (1990: 201). In parallel fashion, the concept of landscape came under critical scrutiny for its rootedness in a particular Western painterly and literary tradition – namely, the picturesque, with its reliance on the Claude Glass and other technologies of vision (Cosgrove [1984] 1998; Maillet 2004; see further Broglio 2008). This led to the term "landscape" being replaced by "sensescape," and the latter construct being broken down into soundscape, smellscape, bodyscape, etc. (Porteous 1990). This refinement stemmed from the recognition that: "Each sense contributes [in its own way] to people's orientation in space; to their awareness of spatial relationships; and to the appreciation of the qualities of particular micro- and macro-spatial environments" (Urry [2003] 2011: 388). As a corollary to this, following Rodaway (1994), geographers started taking note of the distinct ways in which different senses are "interconnected" with each other to produce a sensed environment. These ways of sensing include:

> *cooperation* between the senses; a *hierarchy* between different senses, as with the visual sense during much of the recent history of the West; a *sequencing* of one sense which has to follow on from another sense; a *threshold* of effect of a particular sense which has to be met before another sense is operative; and *reciprocal* relations of a certain sense with the object which appears to 'afford' it an appropriate response (Urry 2011: 388 summarizing Rodaway 1994: 36-7).

These reflections concerning the multiple possible modes of sensory interconnection are noteworthy for the way they highlight the relations among the senses, above and beyond their content or deliverances. We have a word for this: "intersensoriality" (on which more presently)

The sensory turn in geography (see Pocock 1993) has precipitated a shift within the discipline from a focus on "spatial organization" (which mainly meant visualization) to one on activity (Low 2005), rhythm (Edensor 2010), and, above all, atmosphere – that is, the multisensory character and experience of *lived* space. This shift has spilled over into allied disciplines of an applied nature, such as urbanism and architecture (Palasmaa 1996; Zardini 2005). Designing buildings and planning cities has accordingly morphed from a visual-technical art into a sensuous science of creating ambiences. Geographers have followed suit by devising ever more sensitive methods for registering sensescapes and also of critiquing the political and commercial interests that drive schemes of "urban renewal," gentrification, and the like (Degen 2008, 2012a). The methods they have devised are typically of a populist, participatory nature and centre on walking (e.g. the soundwalk,

smellwalk, touch tour, etc.) as opposed to the God's-eye-view of the city planning bureaucrat (Paterson 2009; Degen 2012b; Henshaw 2013). .

Other areas of geography where a sensory approach is making inroads include the geography of tourism (Crang 1999; Edensor 2002) and that most venerable of geographical practices -- mapmaking. The practice of cartography has metamorphosed from the production of two-dimensional scalar projections into cybercartography or "multisensory mapping". This development is partly due to advances in technology. But it is also inspired by a growing awareness of what the study of indigenous knowledge systems, which tend to be nonpictorial, such as Inuit wayfinding, can contribute to our understanding of human spatial orientation (see Fraser and Lauriault 2013; Aporta 2006; see also Carpenter 1973).

Two of the latest areas to be opened up include the geography of the insensible and the geography of displacement. These areas have been pioneered by Joy Parr, who holds the Canada Research Chair in Technology, Culture and Risk in the Department of Geography of the University of Western. Parr is the author of *Sensing Changes: Technologies, Environments and the Everyday, 1953-2003* (2010). In it she writes: "Our bodies are archives of sensory knowledge that shape how we understand the world. If our environment changes at an unsettling pace, how will we make sense of a world that is no longer familiar?" The geography of displacement concerns how people cope sensorially with being uprooted and relocated to make way for state-sponsored megaprojects such as hydroelectric dams. The geography of the insensible concerns how workers in nuclear power plants, for example, try in their own way to detect and protect themselves against radiation.

Sections to follow (at intervals in the coming months):

Sensory Urbanism
Archaeology of the Senses
Sensory Communication Studies
Senses and Sensation in Literature
Philosophy of the Senses
Sensory Linguistics
Sensory Aesthetics
Sensory Marketing
Sensory Design
Disability Studies
Gender Studies
Religion
Neurodiversity (the encultured brain)

PART III: A FULL COMPLEMENT OF SENSES

Another way in which to conceptualize the field of sensory studies, besides the disciplinary route that we have been tracing thus far, is along sensory lines. Thus, sensory studies can be divided into: visual culture, auditory culture (or sound studies), smell culture, taste culture, and the culture of touch. This fivefold schema provided the model for the *Sensory Formations* series from Berg , which included, in order of publication, *The Auditory Culture Reader* (Bull and Back 1993), *The Book of Touch* (Classen 2005*), The Taste Culture Reader* (Korsmeyer 2005), *The Smell Culture Reader* (Drobnick 2006) and *Visual Sense: A Cultural Reader* (Edwards and Bhaumik 2008), as well as two other volumes (on which more presently). Each reader in the *Sensory Formations* series focussed on a separate sense but from a multidisciplinary perspective. The disciplines included anthropology and history along with sociology, geography, philosophy, literature, religion, media and communication studies, and science and technology studies. This multidisciplinary infrastructure was augmented by contributions from the odd musician/musicologist, painter, perfumer, masseur, chef/gastronomer, oenologist, and one very eminent and also very cultured neurologist (Oliver Sacks), depending on the volume.

The enthusiastic reception of the *Sensory Formations* series testifies to the point made by Walter Ong in the epigraph to this survey: the sensorium *is* a fascinating focus for cultural analysis - any way you slice it. Ong's point is further borne out by the rich profusion of other readers, handbooks and introductions that began in the 1990s and continues unabated (eg. Evans and Hall 1999 / Heywood and Sandywell 2012 and Kocur 2011 in the case of visual culture studies, or Kahn 1999 / Pinch and Bijsterveld 2012 and Sterne 2012 in the case of sound studies)

Tracing the genealogy of the subfields of sensory studies results in a somewhat different picture to the view that emerged when the focus was on disciplines, as in the Parts I and II of this survey. Thus, for example, the origin of visual culture studies is usually traced to John Berger's *Ways of Seeing* (1972), or to Michael Baxandall's *Painting and Experience in 15th Century Italy* (1972) and Svetlana Alpers' *The Art of Describing: Dutch Art in the Seventeenth Century* (1983) (see Sturken and Cartwright 2009; M. Smith 2008). From there (i.e. from art history), it quickly spread to encompass film, television, fashion, advertising, and architecture.[7] The genesis of sound studies goes back to the seminal notion of the "soundscape", which was coined by R. Murray Schafer in the early 1970s (Schafer 1977; Kelman 2010). Smell was first constituted as an object of multidisciplinary investigation in *Aroma: The Cultural History of Smell* (Classen, Howes and Synnott 1994), which devoted equal space to the history, anthropology and sociology of olfaction. It is more difficult to pinpoint an ur-text for the domain of taste culture studies, although Pierre Bourdieu's *Distinction: A Social Critique of the Judgment of Taste* ([1979] 1984) and the chapters on food in Mary Douglas' *In the Active Voice* (1982) would certainly figure prominently in any such account (see Sutton 2010; see also Farb and Armelagos 1980). Ashley Montagu pioneered a cultural approach to the study of skin and tactility or haptics in *Touching: The Human Significance of the Skin* ([1971] 1986).

This genealogy is provisional. It will require further elaboration. Even in this provisional form, however, it points to some important questions. Why the unevenness to the development of these subfields (i.e. why are some senses better represented than others)?

What is the role of institutions in maintaining and/or changing the current "distribution of the sensible" (Rancière 2004)? The question I would particularly like to ask is this: it is customary to speak of "turns" when describing these openings -- as in "the pictorial turn" (Mitchell 1992; Curtiss 2010), "the auditory turn" (Kahn 2002), and so forth -- but might it not be time to think of this quickening of the senses that has become so widespread as more in the nature of a revolution (Howes 2006)? [8]

While it is only possible to recognize visual culture, sound studies, taste culture, and so forth as flowing into sensory studies in retrospect (since the term "sensory studies" did not exist, or was not used in this way, prior to 2006), it is nevertheless apparent that these previously independent streams now form a vast, fast-flowing river. What began as a series of trickles is now a torrent. Indeed, it could be said that the sensory turn – or, better, revolution – now rivals the linguistic turn of the 1960s and '70s in terms of its impact on scholarship in the humanities and social sciences.

In so far as the impetus behind the sensorial revolution was to liberate the study of sense perception from the psychological laboratory and insert it (back) into society by insisting on the historicity and sociality of sensation (Bull et al 2006), it has succeeded.[9] (There were other motivations too, of course.) However, as in the case of any revolution worth its salt, the sensorial revolution is never-ending. For this reason, when a book announces itself as belonging to "the now established interdisciplinary field of visual culture" (gleaned from the back cover of a book which shall remain nameless) or "sound studies", and so on, such a claim must be met with caution. No field of sensory studies should *ever* be considered "established", because *the sensorium is always shifting* (Ong 1991). Nor should any one field of sensory studies be considered exclusive of any other, because *the senses are interactive* (Howes and Classen 1991: 258)

By way of illustration of the last two points, consider the following quotation from an essay by Renaissance literary scholar Bruce R. Smith, in which he reflects on the principles that hold the field of sound studies together. Smith writes,

> At least three principles in particular seem to unite [sound studies practitioners] across their disciplinary differences: (1) They agree that sound has been neglected as an object of study; (2) they believe that sound offers a fundamentally different knowledge of the world than vision; and (3) they recognize that most academic disciplines remain vision-based, not only in the materials they study, but in the theoretical models they deploy to interpret them (Smith 2004: 390-1)

All three of Smith's points are valid. However, there is a problem with the boundary work he does in this passage. This problem is best illustrated by considering an observation he makes elsewhere in his oeuvre (Smith 1999) to the effect that, during the Renaissance, it was held that a person's handwriting carried the sound of the writer's voice. This is a fascinating observation which confounds modern assumptions about the muteness of writing. But what this example particularly points to is how the interface of the senses (here, sight and hearing) deserves no less attention than their specificity as modalities of apperception. Put another way, charting the relations among the senses, and how these

shift over time, should occupy us no less than seeking to fathom the depths of each of the senses in any given period or culture.

This brings us to the concept of "intersensoriality," which was touched on by Paul Rodaway in *Sensuous Geographies* (see above), and otherwise elaborated in *Empire of the Senses*, the lead volume in the *Sensory Formations* series. Mark Smith (2007) has signalled the centrality of this concept to future research in sensory studies. Intersensoriality refers to the interrelation and/or transmutation of the senses, which may take many forms.. In its simplest form it has to do with the sensory simultanaeity (i.e. multisensoriality) of everyday life: most objects and events sound in multiple senses at the same time. At the opposite extreme there is the careful sequencing of sensations in the context of the Japanese tea ceremony (Howes 2005: ch. 11) or the progressive loss of the senses in the course of certain religious pilgrimages.[10] An increasingly sophisticated vocabulary has been evolving to help analyze and describe the myriad of forms which the cultural patterning or "interplay" of the senses and sensations can take in between these two extremes. New terms include "entwinement" (Teffer 2010), and "transduction" (Pinch and Bijsterveld 2012), while older terms such as compensation (the notion that a deficit in one modality may be offset by heightened acuity in one or more other modalities), substitution (the finding that one sense can function as a surrogate for another sense), sublimation, transposition, correspondence, iconicity, and (particularly) synaesthesia are all being reworked to take account of the multiplicity (regarding synaesthesia see van Campen 2007; Howes and Classen 2013: ch. 6). Various indigenous terms, such as the Anlo-Ewe *seselelame* or "feel-feel at flesh inside" (Geurts 2002) and the Kaluli *dulugu ganalan* or "lift-up-over sounding" (Feld 1982), have also found their way into this vocabulary on account of their expressive potential. All these terms warrant extended study, critique and further elaboration

One especially influential source, with respect to opening up reflection on the topic of intersensoriality, has been Michel Serres' *The Five Senses* ([1985] 2008). Serres challenges us to think of the senses as continuously exceeding or surpassing the body, "mingling" with the world, and each other. The metaphor of the "knot" is elaborated at length by Serres as a way of highlighting the mutual imbrication of the senses.

Beyond the Five Senses

The question of the cultural categorization of the senses is another area that has attracted increased attention of late, as evidenced by *The Sixth Sense Reader* (Howes 2009). The five-sense sensorium is said to have been invented by Aristotle, though some would credit Democritus instead. Aristotle's enumeration enjoyed great authority, but this did not prevent it from being challenged by those who lobbied for other senses to be recognized, such as the genital organs (Origen, Brillat-Savarin), the heart (the sixth tapestry in the *Lady and the Unicorn* series), the sense of beauty (Hutcheson), the muscle sense (kinaesthesia), and the vomeronasal organ (also known as Jacobson's Organ), to mention but a few (Classen 1993: 1-4; Jütte 2005: chs. 2, 3; Kivy 2003; Wade 2009; Watson 1999). The list continues (see www.sixthsensereader.org).

According to the latest scientific estimates, there are at least ten senses and possibly as many as 33 (Howes 2009: 22-25). But there is no necessary reason to prefer the latter enumeration over any other because science itself is constantly changing its mind (Rivlin and Gravelle 1984; Geurts 2002: 7-10). The point is rather to recognize (and accept) the cultural and historical contingency of *any* taxonomy of the senses (see McHugh 2012).

This becomes apparent when the window on the past is expanded to include popular representations of the senses (in place of concentrating exclusively on the discourse of philosophers and self-proclaimed men of science).

> The notion of individual sensory faculties ... took time to become established across Western societies. In Old English, for example, we do not find the five-sense division to which we are so accustomed today. The word *smec*, for instance, stood for both smell and taste. In the medieval poem *Piers Ploughman* the five "senses" are given as "Sirs See-well, Hear-well, Say-well, Work-well-with-thine-hand, and Godfrey Go-well" (walking). The notion of the five senses being sight, hearing, smell, taste and touch was "a learned Roman idea" and translating it posed difficulties for medieval English writers who tried to convey its sense in the words of a culture which had not articulated this particular division of experience ... (Howes and Classen 2013).

The cultural contingency of sensory taxonomies becomes even more apparent when the wisdom of other traditions is factored into the debate over categorization. For example, the Hausa of Nigeria distinguish between *gani* or "sight" and *ji,* which includes "hearing, smelling, tasting and touching, understanding, and emotional feeling, as if all these functions formed part of a single whole" (Ritchie 1991: 194). In classical Indian philosophy (the *Brhadaranyaka* Upanishad), a list of eight senses is given: "(1) *prana* (breathing organ, i.e., nose; also 'breath of life'); (2) the speech organ; (3) tongue (taste); (4) eye (color); (5) ear (sounds); (6) *mana* (thought, mind, inner organ); (7) hands (work); and (8) skin (sense of touch)" (Elberfeld 2003: 483). It is significant that the olfactory organ is listed first. This agrees with the importance attached to breathing in the various meditative traditions of India, such as yoga. Breathing is the sense of reflection in India as sight is the sense of reflection in the West.

It is striking that mind is listed too. The idea of mind being one sense among others goes against the deeply entrenched mind/body (including senses) rift in Western thought. However, it is common to a range of Eastern philosophies, including Buddhism (see Klima 2002). The Western tradition would appear to be the odd man out in this connection.

That speech should be considered a sense might seem curious at first glance, though this categorization is not altogether foreign to the Western tradition, as the above example from *Piers Ploughman* attests. As a further example, there is a play called *Lingua* that dates from the seventeenth century in which the tongue argues that she should be counted among the senses, and not only that, but that she (language) should be recognized as supreme (Classen 1993: 4; Mazzio 2005). The argument did not succeed, on either count, but the notion of speech as a sixth sense has never completely disappeared, and continues to crop up from time to time (see Howes 2009: 5).

The other four (or five) senses in the list given in the *Brhadaranyaka* Upanishad – sight, hearing, taste and touch (which is divided internally into the hands and skin) – are more readily recognizable and translatable – or are they, given that they stand in different relations to each other (being part of an eightfold scheme) than those of the Western subject?

The Politics of Perception

Some contemporary Western philosophers have argued that the five senses are natural kinds (Macpherson 2010), but this position is difficult to maintain in the face of the historical and ethnographic record. So too must the idea of a "natural history of the senses" (Ackerman 1991) be categorically rejected for the simple reason that , when we examine the meanings and uses attributed to the senses in different cultures and historical periods

> we find a cornucopia of potent sensory symbolism. Sight may be linked to reason or to witchcraft, taste may be used as a metaphor for aesthetic discrimination or for sexual experience, an odour may signify sanctity or sin, political power or social exclusion. Together, these sensory meanings and values form the *sensory model* espoused by a society, according to which the members of that society 'make sense' of the world, or translate sensory perceptions and concepts into a particular 'worldview.' There will likely be challenges to this model from within the society - persons and groups who differ on certain sensory values - yet this model will provide the basic perceptual paradigm to be followed or resisted (Classen 1997: 402).

In other words, every ordering of the senses is at the same time a social ordering. To ignore this fact by positing a "natural history of the senses" is to risk naturalizing a particular, ideologically charged, cultural construction. By way of example, consider how the traditional Western model of "the five senses" was used to categorize (and rank) "the five races of Man" in the grand evolutionary taxonomy proposed by the great German natural historian Lorenz Oken in the early nineteenth century:

1. The skin-man is the black, African
2. The tongue-man is the brown, Australian-Malayan
3. The nose-man is the red, American

4. The ear-man is the yellow, Asiatic-Mongolian
5. The eye-man is the white, European (Gould cited in Howes 2009: 10)

Oken's ascending scale of "sensory perfection" in "Man" was not based on any intrinsic propensities of the peoples concerned, but rather on their social ranking within the European imperial imagination. His ostensibly biological categorization of senses and peoples was actually shot through with social values.

"Sensual relations are social relations" (Howes 2003). We can see this in the way the ranking of the senses is often allied with the ranking of social groups on the basis of gender and class as well as race. For example, the traditional Western association of the male sex with the "higher" senses of sight and hearing supported the notion that men are naturally fitted for such activities as exploring, ruling and studying or writing, while the association of the female sex with the proximity senses of smell, taste and touch relegated women to the home, and made them mistresses of the kitchen, the nursery and the bedroom. Such was the power of this categorization that those women who challenged the sensory division of labour (e.g. by writing or painting instead of cooking and sewing) faced considerable social opprobrium until well into the twentieth century (Classen 1998).
As regards social class, the traditional association of the lower classes with manual labour is telling. Workers, in fact, were often referred to simply as "hands," a term which reduced their social being to a single sense. In *Hard Times*, Dickens would say of labourers that they were "a race who would have found more favour with some people, if Providence had seen fit to make them only hands" (quoted in Howes and Classen 2013: ch. 3). Meanwhile, the higher echelons of society were distinguished by their visibility, as well as their allegedly refined and discriminating "taste" in music, painting, literature, etc.

As noted by Classen (above), there can be resistance to the dominant sensory and social model by marginal groups within society.

> One technique frequently used to upset sensory and social hierarchies in modernity [has been] that of assigning positive values to traits which have been viewed negatively. We can see this in the "Black is beautiful" movement which countered stereotypes of African bodies as unattractive, or in the positive characterization of the working classes as being 'down-to-earth' - honest and practical - rather than lowly and dirty. Such reversals of the values attached to sensory markers worked as much to boost the self-image of the marginalized group itself as they [have] to improve its public image (Howes and Classen 2013: ch. 3).

When we look across cultures we find no end of other ways in which sensory ordering and social ordering arise together. For example, in the thermal cosmos of the Tztotzil of Mexico, the physical and social world are conceptualized in terms of gradations of temperature: East is the region of rising heat, West that of waning heat; men become hotter with age while women and newborn infants are cool (Classen 1993). Among the Suya of Brazil, pubescent boys and girls are fitted with ear-discs during their respective initiation ceremonies into adulthood, but only senior men are permitted to wear lip-discs. These body modifications (or sensory extensions, as it were) express the importance attached to

the faculties of hearing and speaking in Suya culture. Chiefs are further distinguished by their acute powers of listening and loud, clear voices, whereas (female) witches mumble and are attributed extraordinary powers of vision, such as being able to see at a distance. The Suya do not decorate the eyes, because for them vision is an anti-social faculty. All of their major ceremonies take place at night, a time of diminished visibility and heightened aurality (Howes 1991: 175-77).

Elsewhere (Howes 2003), I have described the sensory and social order of the Kwoma, who inhabit the Washkuk Hills region in East Sepik Province, Papua New Guinea. In Kwoma society, men control the means of communication with the spirits. They make the wood sculptures and paintings of the spirits which adorn the rafters and ceiling of the men's house and "watch over" the community. (No woman is permitted to see these sacra, and men must keep apart from the women when creating them, or the effigies and images will crack.) The men also play the large bamboo flutes, bullroarers and other instruments which make manifest the presence of the spirits at the annual yam harvest ceremony. The din created by these instruments is deafening and particularly unnerving for those – namely, the women and (noninitiated) male youths - who are prevented from seeing its source by virtue of the screens that surround the men's house inside which the men are playing. The women and youths believe their ears. They suppose that the fearsome sounds are the voices of the spirits. The men inside the fence are not fooled: they are in the know because they can "see".

Things were not always this way, however. The Myth of the Origin of the Flutes relates how, one day, a group of women chanced upon the flutes when they were out fishing. Recognizing them to be spirits, they decided to keep their discovery a secret. Each day they told their husbands they were going fishing but instead repaired to a ceremonial house they had built high in the branches of a hardwood tree, where they would play the flutes. This left the men having to do the work of gardening and caring for children. In time, the women started ordering the men to cook and bring them food so they could continue with their ceremonies. When the men, who were ignorant about ceremonies, came to the base of the tree with the food, they could hear the sounds of the instruments but not know what was making them. Then, one day, after a man was beaten by his wife for failing to follow orders, the men teamed up with a borer beetle which ate through the trunk, causing the tree house to topple. The men speared the women as they fell, appropriated the flutes for themselves, and henceforth kept them secret from women and noninitiates.

This myth portrays social dominance as dependent on which sex controls the aural and visual means of communication with the spirits. What is more, it acknowledges that male mastery of the visual and aural realms is the result of an act of treachery (teaming up with the borer beetle) and continuing acts of duplicity (the ceremonies). It is not given in men's "nature" to be the overseers, only in their actions. This transparency or *realpolitik* of the senses is refreshing, even if nothing else about Kwoma society is transparent (and tends to be shrouded in secrecy instead).

One area, besides fishing and cooking, in which women excel and from which men are excluded is the weaving of *bilums* (netbags). The looping technique which the women

employ is highly intricate, and the resulting texture is quite unique. The netbags are used to carry most everything, including children. They are likened to a womb. It could be said that while the men have arrogated seeing and sounding to themselves, the women have made the most of touch. It is their field of specialization. What is more, when they weave a bag for another woman, boyfriend or husband and present it to the latter, they are literally weaving this visually fragmented, and highly fractious society together. In other words, their touch integrates while the men's vision divides.

PART IV: EIGHT THESES FOR SENSORY STUDIES

By way of closing (for now, since there are still many installments to this essay to come), I would like to propose a set of eight theses for sensory studies (inspired by Heywood and Sandywell 2012: ch. 29). The first couple of theses are expressed negatively to underscore the extent to which they depart from the received wisdom about the senses (and the pre-eminence of language in western culture. The last couple of theses are expressed positively to highlight the tremendous dynamism and complexity of the expanding field of sensory studies.

> The senses are (*not*) passive receptors. They are *interactive,* both with the world and each other.
>
> Perception does (*not simply*) go on in the head. "The perceptual is *cultural and political*" (Bull et al 2006).
>
> The limits of my language are (*not*) the limits of my world, *pace* Wittgenstein, for the senses come before language and also extend beyond it.
>
> The senses collaborate but they may also conflict. The unity of the senses should not be overstressed, *pace* Merleau-Ponty. It can often be forced.
>
> In most societies, the senses are hierarchized, with higher ranked groups being associated with the "higher" senses and what are considered refined (or neutral) sensations.
>
> No account of the senses in society is complete without some account being taken of the subaltern sensoria of less advantaged groups, such as women, children, the disabled and other others.
>
> "*The senses are everywhere*" (Bull et al. 2006). They mediate the relationship between idea and object, mind and body, self and society, culture and environment.
>
> The meaning of the senses is in their use, and the number of different ways of sensing is boundless: "As we sense, we also make sense" (Vannini et al 2011: 15). The senses are made, not given.

AN OPEN INVITATION

I wish to thank various colleagues who have taken the time to read and comment on earlier drafts of this essay. I would also like to extend an invitation to any reader who wishes to comment on the observations and arguments contained in this essay to write us at senses@concordia.ca. We will be happy to see about posting your commentary (and my response) in the Sensorial Investigations section of the Sensory Studies website.

NOTES

1. The following sources provide additional insight into the origin and development of the anthropology of the senses: Howes 1991 and 2003: chs. 1, 2; Serematakis 1994; Classen 1997; Herzfeld 2000; Bendix and Brenneis 2005; Robben and Slukka 2007; Hsu 2008; Pink 2009; Porcello et al 2010; Pink and Howes 2010; Ingold and Howes 2011; Vannini et al 2011. Regarding the historiography of the senses see: Corbin [1990] 2005; Roeder1994; Classen 1993, 1998, 2001; Schmidt 2000; Smith 2004, 2007a, 2007b; Jütte 2005; Howes 2008; Jay 2012.

2. This understanding is actually already given in the English word "sense" which includes sensation *and* signification, feeling *and* meaning, in its spectrum of referents. We should think of the act of sensing as distributed along a continuum with the registration of sensation at one pole and the attribution of significance (or "meaning") at the other. Vannini et al (2011: 15) put this point well when they write: "as we sense, we also make sense" (i.e. find meaning). Following Stahl (2008), we could go further and start thinking of "meaning" as "sensing". This would free up "meaning" from the logocentric way in which it is conventionally understood (i.e. meaning as linguistic signification) and admit more "bodily ways of knowing" into the standard definition of cognition, as a growing chorus of anthropologists has advocated (Jackson 1989; Geurts 2002; Marchand 2008).

3. For example, anthropologists sometimes encounter a "refusal to verbalize" on the part of their informants about the meaning of certain actions or objects, though the meaning may be plain to see (Howes 2003: 32-6). In a related vein, one of the advantages of sensory ethnography being sense-based (rather than language-based) is that it can be extended across species boundaries, with the result that there are many fine studies now emerging of the sensory life of animals, plants and even cells, sometimes in interaction with humans, sometimes not (O'Connell 2007; Kirksey and Helmreich 2010; Chamvitz 2012; Myers 2006; Myers and Dumit 2011),

4. Also of note in connection with the new sensory museology is the "performative sensory environment" entitled *Displace* designed by Chris Salter in collaboration with TeZ and the present writer, which was staged in the Hexagram Black Box at Concordia University to coincide with the 2011 meeting of the American Anthropological Association in Montreal. *Displace* dispensed with objects and instead immersed the visitor in a

symphony of sensations inspired in part by the sensory code of an Amazonian society. *Displace* took the idea of a mixed media installation to new heights by interpellating scents and flavours, temperatures and kinesthesias, swirling mists and synchronized lights which, together with a digitized sound track, were triggered by strategically placed sensors. Described as "a kind of flight simulator for anthropologists," it offered a training ground in which to experiment with one's senses, disarticulating and rearticulating them in all sorts of novel combinations, in preparation for fieldwork. It also opened up interesting new possibilities for the communication of anthropological knowledge.

5. According to Simmel (1997), this is why the "social attitude" of the modern subject tends to be "agitated", like that of the deaf-mute ("the one who sees, without hearing") in contrast to the "peaceful and calm disposition" of the blind ("the one who hears without seeing"). This formulation unduly naturalizes the sensoria of the blind and deaf (compare Barasch 2001; Rée 1999 who provide a cultural historical perspective on these disabilities)

6. According to Sennett (1993) urban sprawl disperses the population – thus increasing interpersonal distance - while the various "technologies of motion," such as cars, elevators, and movie theatres, provide "freedom from resistance" by insulating bodies from their surroundings and whisking them (effortlessly) from point to point. This "freedom from resistance" increases passivity, diminishes empathy, and undermines meaningful engagement in public life (the domain of alterity) by dulling touch.

7. Visual culture was famously responsible for toppling the hierarchical division between "high" and "low" (or popular) culture. What is not so often recognized is how it has contributed to reproducing and further entrenching the hierarchical division among the senses. Thus, the condition of its popularity (vision being first among the senses in the West) was also the reason for its blindness to the multisensory character of most human experience. For example, some would question the ranging of architecture with visual culture because of how this deflects attention from the acoustic, tactile, thermal and other qualities of buildings (Palasmaa 1996; Blesser and Salter 2009).

8. The pictorial turn may be considered to have spearheaded the sensory turn in more ways than one. It did so, first, by questioning the privileging of language (and the idea or model of language) in the humanities and social sciences by exposing the increasing salience of visual communication in contemporary culture (though the roots of the opposition between language and vision, word and image, actually go back to Antiquity [Boman 1960]). This created a space for exploring how the senses function as signifying systems independent of their representation in language. It did so, second, by coming to figure as a target in its own right, partly on account of its success as a paradigm. Thus, as we have seen, the emergence of new subdisciplines, like the anthropology of the senses, and other subfields, like sound studies, was motivated in no small part by a critique or rejection of visualism (though this position would later soften). The relationship of the sensory turn to other turns, such as the corporeal turn (Csordas 1990), the material turn (Dant 1999; Bennett and Joyce 2010) and the affective turn (Gregg and Seigworth 2010; Blackman 2012) is also instructive to ponder. For example, it might be supposed that there

exist strong affinities between the sensory turn and the affective turn, insofar as both are grounded in the analysis of "feeling", but this remains to be determined.

9. I reserve discussion of the implications of the sensory turn in the humanities and social sciences for Western sensory psychology and neuroscience for the section on Neurodiversity (the encultured brain)

10. Thus, for example, there is a culturally determined order to the sequence in which the senses "merge" or "collapse" in the course of the pilgrimage which devotees of Lord Ayyappan make to a certain shrine in Sri Lanka. (The goal of the pilgrimage is for the adept to achieve union with the deity). As Valentine 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 by this late point in the trek), that sense too "disappears," along with any sense of self (Daniel 1984: 270-76).

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