The Expanding Field of Sensory Studies

(version 1.0 – August 2013)

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This essay, originally posted in August 2013, contained the germ of the idea for the four-volume set Senses and Sensation: Critical and Primary Sources to be published by Bloomsbury in March 2018. Most of the topics of this piece — and many new ones — have been taken up and elaborated in the introductions to each of the four volumes of the Senses and Sensation compendium

Volume 1: Geography and Anthropology
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For further information see https://www.bloomsbury.com/uk/senses-and-sensation-9781474274050/

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

Sensory studies involves 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 foregrounding the sociality of sensation. History and anthropology are the foundational disciplines of this field. However, sensory studies also encompasses many other disciplines as scholars from across the humanities and social sciences have, over the past few decades, successively turned their attention on the sensorium. {n1}

This essay presents a brief survey of the sensory turn in contemporary scholarship, and points to some directions for future research. It makes no claims to be comprehensive,{n2} but rather aims to indicate major trends in the field. The essay 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 an object of study and means of inquiry in a range of other disciplines of the humanities and social sciences, including geography, sociology, 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 propositions for sensory studies.

PART I: SENSORY ANTHROPOLOGY AND HISTORY

The sensory turn in history and anthropology dates from the 1980s, {n3} 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 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 an early text in 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 contained cautions regarding the

"visualism" of Western thought and culture. They 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 initially inspired by a desire to explore under-investigated non-visual modes of experience. It would later draw attention to the varying ways in which sight is configured in different cultures (Howes 1991: chs. 13, 16, 17 and 2003: ch. 5; see also Eck 1998) including Western cultures (Grasseni 2007; Goodwin 1994). Sensory anthropology, hence, does not entail shutting one's eyes, though it typically requires focussing them differently.

In its initial stages, sensory anthropology was also animated by a critique of the "verbocentrism" and "textualism" of then current anthropological theory. 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 emphasis on "text" – cultures "as texts" or "discourse," 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 1989 ch. 3; Stoller 1997; 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), Constance Classen's idea of alternative "sensory models" (Classen 1990, 1993) and Paul Stoller's call for "sensuous scholarship" (Stoller 1997) 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 their experience (see, by way of example, Desjarlais 1992, 2003; Roseman 1993; Seremetakis 1994; Ingold 2000; Sutton 2001; Geurts 2002; Farquhar 2002; Howes 2003; Pink 2004; Downey 2005; Hahn 2007; Hinton et al 2008; Romberg 2009; Holtzman 2009; Throop 2010; Barcan 2010; Trnka et al 2013).

Various electronic devices, 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 and on into the twenty-first. This development 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 (Taylor 1994; Seremetakis 1994; Finnegan 2002; MacDougall 2006). {n4} Furthermore, there are some places and some matters that the senses and sense-based media can reach that words cannot. {n5}

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 film compared to that of writing (MacDougall 2005: 52; Howes 2003: 57-8 and 2012: 637-42), installation art compared to the conventional ethnographic exhibit (Grimshaw 2007; Schneider and Wright 2010), the medium of performance compared to the public lecture (Schechner 2001), 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 an 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. 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, as in that of Nadia Serematakis (1994), representation and sensation blend.

In the wake of all the different works mentioned above, 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 the senses (Stoller 1997; Herzfeld 2000: ch. 11; Pink 2006).

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; and 2012: chs. 1, 3, 14, 21; Edwards et al 2006).{n6}

In my own work, beginning with The Varieties of Sensory Experience (1991), the emphasis has been on taking a relational approach to the study of 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, critiquing the essentialism of phenomenology, and constantly challenging the dictates and assumptions of Western sensory psychology and neuroscience. Other sensory anthropologists have embraced phenomenology or sought explanations for cultural practices in neuroscience (see Pink and Howes

2010; Ingold and Howes 2011: Lende and Downey 2012). Some have opted for film and sound recordings in preference to writing, or elected to concentrate on a specific sense, such as sound/hearing or "the visual," rather than the relations among the senses. As well, some sensory anthropologists prefer single- or multi-site ethnography to using the comparative method. There exists, then, a wide spectrum of approaches within the anthropology of the senses, and they continue to multiply. This plurality of sensory modes of engagement, and the liveliness of the discussions over their respective merits, are signs of the methodological and epistemological vigour 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" (see Corbin and Heuré 2000). The term "sensible" can be loosely rendered into English 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 pioneering work of the Canadian cultural historian Constance Classen helped to define the fields of both the anthropology of the senses and the history of the senses. In Inca Cosmology and the Human Body (1993a) she investigated how the Incas made senss of the world at the time of the Spanish Conquest through corporeal and sensory metaphors and practices. She went on to explore a range of sensory models and practices in such works as Worlds of Sense: Exploring the Senses in History and Across Cultures (1993b), The Color of Angels: Cosmology, Gender and the Aesthetic Imagination (1998) and Aroma: The Cultural History of Smell (Classen et al 1994). During the same time period, Classen was commissioned to write foundational texts for the anthropology of the senses (1997) and the history of the senses (2001). In her subsequent work, she has continued to expend the field of sensory history, bringing out, for example, how changing tactile practices and perceptions shaped the transition from premodern to modern culture (2005, 2012).

The British social historian, Roy Porter, was an early supporter of sensory history. He was instrumental in seeing Corbin's work translated into English, co-edited Medicine and the Five Senses (Bynum and Porter 1993) and was working on Flesh in the Age of Reason (2003), a profound 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.

One influential early text in 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 thrived on the sugar trade while wreaking misery on the Africans slaves who worked the sugar plantations, how sugar insinuated itself into the rhythms of the British workday via its use in tea and coffee, and how it ultimately came 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 sensuous substances. This subfield has mushroomed dramatically in the ensuing decades to include such topics as the social history of spices (Schivelbusch 1992), salt (Kurlansky [2002] 2010), chocolate (Off 2006), colours (Findlay 2002; Pleij 2004), perfume (Dugan 2011) and other stimulants. A related trend has been the emergence of what could be called the cultural history of ephemera, such as darkness and light (Schivelbusch 1998), noise (Schwartz 2011), stench (Barnes 2006) and dust (Amato 2001), as well as visceral responses, such as disgust (Miller 1997: chs. 1, 4).

As regards the United States, the development of a history of the senses was shaped by the writings of a number of American scholars as well as by the above-mentioned works. George Roeder Jr. is often credited with being the first to call American historians to their senses. In a 1994 review article, Roeder recounted the results of his analysis of the sensory content of sixteen American history textbooks published during the previous 40 years. He found little use of sensory references or materials (such as photographs) in the earlier texts but noted a slight increase in the attention paid to "the sensory dimension of history" in the more recent texts, and urged that this trend 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 Thompson (2002), Peter Charles Hoffer (2005), Sally Promey and, particularly, Mark M. Smith (2001, 2006, 2007a, 2007b). By attending to "the sensate" (Smith 2007b) in their explorations of social processes, these

scholars have reshaped the way the U.S. past is understood. Thus, Hoffer held that sensation and perception played a "causal role" in the conflicts between Indians and settlers in Sensory Worlds in Early America (2005). Schmidt delved into the heated debates over the meaning of divine signs and the rationalization of listening in the American Enlightenment. Gabbaccia recounted how "crossing the boundaries of taste" and savouring (as well as experimenting with) the cuisine of the "other" became the norm in interethnic relations in late nineteenth and twentieth century U.S., giving new meaning to the notion of America as a melting pot. Thompson brought out how the silence that resulted from the "quest for quiet" that drove the invention of various sound insulating materials during the first decades of the twentieth century was then filled by the sounds of radio, which in turn produced a new "culture of listening" and national consciousness.

Smith's first work also concerned sound – specifically the clash between the soundscapes of the Northern (industrial) and Southern (quiet, pastoral) United States, and what role this friction may have played in the lead-up to the Civil War (Smith 2001). He went on in How Race is Made (2006) to expose the sensory dynamics of racializing processes in the Southern United States, and concluded that racial issues were never black and white, but instead involved a range of emotionally-charged sensory stereotypes, which now require analysis and deconstruction. In addition to these detailed studies, Smith proposed a charter for sensory history in Sensing the Past (2007b), a comprehensive introduction to current research in the field. He is also the editor of the Studies in Sensory History series from University of Illinois Press, that makes a point of dealing "not simply with the way people thought about the senses but also the full social and cultural contexts of [sensory] experiences. "

While sensory history has typically been organized along specific sensory and national lines, there is a growing interest in forging a more synthetic, multisensory, and comparative or transnational understanding of the sensorium as an historical formation. The first intimations of such an integrative approach are to be found in such works as Louise Vinge's The Five Senses (1975) and Classen's Worlds of Sense (1993) and The Color of Angels (1998) as well as Yi-Fu Tuan's Passing Strange and Wonderful (1995) and Jonathan Rée's I See a Voice (1999). This trend intensified with the publication of Robert Jütte's A History of the Senses: From Antiquity to Cyberspace (2005) and Mark Smith's Sensing the Past (2007b). Of particular note in this connection is the Cultural History of the Senses project, which is currently in press. This work, under the direction of Constance Classen, consists of six volumes which explore 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, each of which treats a particular cultural domain: 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," he wrote (quoted in Degen 2012a: 239)

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." {n7}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. {n8} 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 concerned with analyzing how the mobilization of the senses impacts the genesis 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. A further departure from Simmel's take can be seen in recent studies of clubbing, which 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 is the order of the night, abetted by the ingestion of sense-enhancing stimulants, and this can unleash new forms of intimacy (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). As regards the latter, J. Douglas Porteous ventured that: "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). For Porteous there was no question as to which methodology – remote sensing or intimate sensing – is more grounded in geographic reality and therefore to be trusted.

The concept of landscape was also interrogated.. As the work of Cosgrove ([1984] 1998), among others, had shown, the idea of landscape is rooted in a particular Western painterly and literary tradition – namely, the picturesque, with its reliance on the Claude Glass and other technologies of vision (Maillet 2004; see further Broglio 2008). This ostensibly visualist bias led to the concept of landscape being bracketed and replaced by the more neutral term "sensescape." The latter concept was in turn broken down into soundscape, smellscape, bodyscape, and so forth (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 Paul Rodaway's lead in Sensuous Geographies (1994), a number of geographers started taking note of the distinct ways in which different senses are "interconnected" with each other to produce a sensed environment. These ways 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; see further Howes and Classen 1991: 258).

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

The sensory turn in geography (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. The term atmosphere foregrounds the multisensory character and experience of lived space while downplaying the more formal aspects of environments. This attentional shift has spilled over into cognate disciplines, 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 atmospheres or (to use another current term) 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 and 2012a). The methods in question 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. At the Geomatics and Cartographic Research Centre at Carleton University, there are many innovative cybercartographic forms being developed, which take their inspiration from indigenous practice (see Fraser and Lauriault 2013; Aporta 2006; see also Carpenter 1973).

Two of the latest areas of research 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.

Other academic fields which have acquired increasing definition in recent years as a result of the sensory turn in the humanities and social sciences include:

Archaeology of the Senses
Sensory Communication Studies
Senses and Sensation in Literature
Philosophy of the Senses
Sensory Linguistics
Sensory Aesthetics
Sensory Design
Sensory Marketing
Gender Studies and the Senses
Disability Studies and the Senses
Religion and the Senses

A subsequent installment of this essay will contain discussions of developments in some of these fields.These fields will be treated in subsequent iterations of this essay.

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 anthology in the Sensory Formations series focussed on a separate sense but from a multidisciplinary perspective.

The positive 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 late 1990s and continues unabated. Thus, the publication of Visual Culture: The Reader (Evans and Hall 1999) started a trend that most recently produced: The Handbook of Visual Culture (Heywood and Sandywell 2012) and Global Visual Cultures: An Anthology (Kocur 2011). The appearance of The Auditory Culture Reader (Bull and Back 2003) paved the way for the publication of The Oxford Handbook of Sound Studies (Pinch and Bijsterveld 2012) and The Sound Studies Reader (Sterne 2012).

Tracing the genealogy of the sense-specific subfields of sensory studies brings out new foundational works. 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 its cradle in art history, visual culture quickly spread to encompass film, television, fashion, advertising, and architecture.{n9} The subfield of sound studies could be seen as having its origin in the 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 et al 1994). Aroma 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 Mary Douglas' In the Active Voice (1982) would certainly figure prominently in any such account (see Sutton 2010). The field of tactile culture is also too broad to be traced to any one or two seminal twentieth century works, however Ashley Montagu's Touching: The Human Significance of the Skin ([1971] 1986) can be cited as a possible inspiration.

This genealogy is provisional. It will require further elaboration. Even in this provisional form, however, it raises interesting questions. Why the unevenness to the development of these subfields – that is, why are some senses (e.g. sight, hearing) better represented than others (e.g. smell, touch)? What is the role of institutions in maintaining and/or changing the current "distribution of the sensible" (Rancière 2004)? How else might the sensorium be divided for purposes of cultural analysis? Or, most pressing, while it

remains 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 – 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)? {n10}

While it is only possible to recognize visual culture, taste culture, sound studies, 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. 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 a major impetus behind the sensorial revolution was to liberate the study of sense perception from the psychology laboratory and insert it (back) into society by insisting on the historicity and sociality of sensation (Bull et al 2006), it has succeeded. {n9} However, there remain many important challenges to be met. One of these concerns theorizing the aforementioned interactivity of the senses. 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. At the same time, there is a problem with the kind of boundary work this passage is doing. This problem is best illustrated by considering an observation Smith makes elsewhere to the effect that, in the early modern period, it was thought that a person's handwriting carried the sound of the writer's voice (Smith 1999). This observation illustrates 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 historical period or culture. To cite another example, the ancients (following Aristotle) viewed taste as a form of touch whereas in the modern period taste is commonly seen as most closely connected to smell.

This brings us to the topic of "intersensoriality," which was touched on by Paul Rodaway in Sensuous Geographies (see above), and otherwise elaborated in Empire of the Senses (2005), 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, such as: a) cooperation/opposition, b) hierarchy/equality, c) fusion/separation, and d) simultanaeity/sequentiality. It helps to think of each of these dyads as describing a continuum. Thus, for instance, the senses may be arranged and deployed: a) more or less synergetically, b) more or less hierarchically, and c) more or less interconnectedly, depending on the context and the culture concerned. As regards the fourth dyad, (d), at one pole of the continuum there is the sensory simultanaeity (or "multisensoriality") of everyday life. This is given in the way most objects and events affect multiple senses at the same time. At the opposite pole there is the careful sequencing of sensations that occurs in certain ritual contexts, such as the Japanese tea ceremony (Howes 2005: ch. 11) or diverse forms of pilgrimage.{n11}

One influential source, with respect to opening up reflection on the topic of intersensoriality has been Michel Serres' The Five Senses ([1985] 2008). In this book, 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 introduced by Serres as a way of highlighting the mutual imbrication of the senses.

While the image of the knot is suggestive, it cannot stand alone. A more refined and extensive vocabulary is needed. Fortunately, there are some terms already at hand, and new terms being developed, which can help describe and analyze the many different forms of interrelation among the senses. Older terms include "compensation" (the popular 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" (which is similar to substitution, save that the rerouting is in response to some social taboo), "correspondence" (as in the poetry of Baudelaire and the cosmologies of many traditional societies), and "synaesthesia" (where a stimulus in one modality crosses over into another modality to yield the experience of, say, hearing colours, seeing sounds or tasting shapes). Some of the newer terms include "iconicity" (Feld 2005), "entwinement" (Teffer 2010), and "transduction" (Pinch and Bijsterveld 2012). Various indigenous terms, such as the Anlo-Ewe seselelame or "feel-hear feel-hear 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 for the description of intersensory relations. All these terms warrant extended investigation, critique and further elaboration. (The definition of synaesthesia is particularly in need of rethinking from a cultural perspective as distinct from the neurological definition which currently holds sway: see van Campen 2007; Howes and Classen 2013: ch 6).

Beyond the Five Senses

The question of the classification 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 (Jütte 2005). 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, the heart, the sense of beauty, the muscle sense or 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 scientific enumerations over any other because sensory experience is culturally well as physically ordered, and because the science of sensation, like any branch of science, is itself subject to constant revision (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; Howes and Classen 1991).

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 scientists).

"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 in this categorization the olfactory organ is listed first. This agrees with the importance attached to breathing in the various meditative traditions of India, such as yoga. It would seem that 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 person 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 we saw in the case of Piers Ploughman. A further, particularly compelling example comes from the play Lingua which dates from the seventeenth century. In Lingua, the tongue argues that she should be counted among the senses, and not only that, but that she (language) should be recognized as supreme (see 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) – appear more recognizable. However, they stand in different relations to each other (being part of an eightfold scheme as opposed to a fivefold scheme) so there is no one-to-one correspondence. Hence, the matter of the translatability of the senses cannot be decided in advance. It takes patience, and constant tacking back and forth between the cultures concerned. It can help to imagine the sensorium on the analogy of a kaleidoscope, with each culture representing a different twist of the cylinder. However, the analogy is of limited use, because the kaleidoscope operates on the principle of multiple reflection, whereas multiple sensation is different. The trick, as discussed elsewhere (Howes 2003: ch. 1), is to develop the capacity to "be of two sensoria."

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 rejected as too simplistic, for 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" (Classen 1997: 402).

Classen goes on to situate the preceding observations in their social context:

"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 sensory and social order (Taussig 1993). 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 taxonomy proposed by the great German natural historian Lorenz Oken in the early nineteenth century. Oken posited the following equivalences:

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 (see Howes 2009: 10)

Oken's ascending scale of "sensory perfection" in "Man" (with the European eye-man at the apex) 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 whether on the basis of race (as above), gender, class or age. 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 [i.e. the ruling class], if Providence had seen fit to make them only hands" (quoted in Howes and Classen 2013: ch. 3). Meanwhile, the higher echelons of British society were distinguished by their visibility, as well as their supposedly refined and discriminating "taste" in music, painting, literature, etc.

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

"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 ways in which sensory ordering and social ordering are intertwined. 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 "emergent heat" while west is the region of waning heat; the sun is addressed as "Our Father Heat"; men become hotter with age while women and newborn infants are classified as cool (Classen 1993).

Among the Suyà of Brazil, pubescent boys and girls are fitted with ear-discs during their respective initiation ceremonies, but only senior men are permitted to be fitted with lip-discs. These body modifications express the importance attached to the faculties of hearing and speaking in Suyà culture. They function in the same way as such technological extensions of the senses as the telephone and the microscope function to channel perception along modality-specific lines. Male chiefs are further distinguished by their powers of listening and strident voices, whereas witches (who tend to be female) are said to be hard of hearing, prone to mumble and ascribed extraordinary powers of vision, such as being able to see at a distance, instead. The Suyà do not decorate the eyes, because for them vision is an anti-social faculty. Significantly, 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. I would like to expand on the Kwoma case a little here, because it contains some important lessons regarding intersensoriality and intracultural diversity.

In Kwoma society, men control the means of communication with the spirits. It is the men who make the wood sculptures and paintings of the spirits which adorn the rafters and ceiling of the men's house and are said to "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 and the paint will lack the desired lustre.) It is the men who guard 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 unnerving. It is intended to be particularly terrifying for those – namely, the women and (noninitiated) male youths – who are prevented from seeing its source by virtue of the screens that are set up around the men's house (inside which the men play the instruments). The women and youths believe their ears. They (officially) suppose that the awesome 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. There 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 who or 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 from that moment on kept them secret from women and noninitiates.

This myth presents a blunt sensory and social charter. Gender inequality is taken as given, but, unlike in most societies, it is not rationalized in essentialist terms. Men are not presented as "naturally" stronger or otherwise superior to women. Rather, the myth portrays social dominance as entirely dependent on which sex controls the means of communication with the spirits. Men enjoy the upper hand because they have mastery over the media of sight and sound. The myth further acknowledges that this mastery is the result of an act of treachery (the men teaming up with the borer beetle) and continuing acts of duplicity (the impersonation of the spirits by aural means at the yam harvest ceremonies). It is not given in men's "nature" to be the overseers, only in their actions.

One area, besides fishing and cooking and childcare, in which women are thought to excel and from which men are excluded is the weaving of bilums (netbags). The looping techniques which the women employ are highly intricate. The resulting weave is extremely supple, and the texture of the netbags is quite singular. Bilums are used to carry almost everything: garden produce, personal belongings, even children. (Indeed, the term for netbag also means womb.) The netbags thus facilitate transportation. They make movement happen. In this respect, they are expressive of women's fate in Kwoma society, for women are obliged to marry out of their village of origin, while the men stay put.

Stepping back, we can see that while the men have arrogated seeing and sounding to themselves, the women have made much of touch. It is their field of specialization, even though it be a secondary sense. And when they weave a bag for a relative or a spouse, and present it to the latter, they are literally weaving this visually fragmented, and highly fractious society together. In other words, women's touch integrates while the men's vision isolates. The sensory division of labour gives Kwoma society its structure, and its dynamic..

PART IV: EIGHT PROPOSITIONS FOR SENSORY STUDIES

By way of closing (for the time being), I would like to propose a set of eight propositions for sensory studies (inspired by Heywood and Sandywell 2012: ch. 29). The first few propositions are expressed negatively to underscore the extent to which they depart from the received wisdom about the senses (and language) in Western philosophy and culture. The last few propositions are expressed more affirmatively. They bring out the sociality of sensations, and highlight a series of topics for further research in the expanding field of sensory studies.

The senses are not simply passive receptors. They are interactive, both with the world and each other.

Perception is not solely a mental or physiological phenomenon. "The perceptual is cultural and political" (Bull et al 2006: 5).

The limits of one's language are not the limits of one's world, pace Wittgenstein (1922), 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 presupposed, pace Merleau-Ponty (1962).

The senses are commonly 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 can be complete without mention being made of sensory differentiation, for example, by gender, class, ethnicity.

"The senses are everywhere" (Bull et al. 2006: 5). They mediate the relationship between idea and object, mind and body, self and society, culture and environment.

Each culture elaborates its own ways of understanding and using the senses. No one sensory model will fit all.

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.

NOTES

1. The Senses and Society journal, launched in 2006, represents one manifestation of this convergence. The Sensory Studies website, which went live in 2010, is another.

2. The overview presented here is limited to book-length studies (that were published or translated into English) and the occasional survey article. It is also very much a work-in-progress, with the first iteration (v. 1.0) being posted on the Sensory Studies website in August 2013 and subsequent installments to be posted at intervals in the months to come. Cursory though this review may be, it should nevertheless provide some helpful signposts for the interested reader.

3. The following sources provide additional insight into the origin and development of the anthropology of the senses: Howes 1991; Serematakis 1994; Classen 1997; Herzfeld 2000: ch. 11; 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; Roeder 1994; Classen 1993a, 1998, 2001; Schmidt 2000; Smith 2004, 2007a, 2007b; Jütte 2005; Howes 2008; Jay 2012.

4. As observed in the main text: "It had to be acknowledged that we make sense of the world not just through language, but through all of our senses …. " This understanding is actually already given in the word "sense," which includes sensation and signification, feeling and meaning, in its spectrum of referents. Vannini et al (2011: 15) put this point well when they write: "as we sense, we also make sense" (i.e. find or attribute 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 in the academy (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).

5. One of the advantages of a sense-based (rather than language-based) approach is that it can be extended across species boundaries. One of the more exciting recent developments in the field of sensory ethnography has been the emergence of "multi-species ethnography" which uses the senses as a basis for exploring animal life, sometimes in interaction with humans, sometimes not (see, for example, O'Connell 2007; Kirksey and Helmreich 2010). The sensory life of plants and even cells has also become the subject of sensory ethnography (see Chamvitz 2012; Myers 2006; Myers and Dumit 2011).

6. 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. 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 novel combinations. It also suggested interesting new possibilities for collaboration between artists and anthropologists.

7. Simmel entertained some highly stereotypical (and hence distinctly unsociological) views regarding the nature of the senses and certain disabilities. For example, he held that 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 and Rée 1999 who bring out well the degree to which such constructions are profoundly shaped by history and culture).

8. According to Sennett (1993) urban sprawl disperses the population – thus increasing interpersonal distance – while the various modern "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.

9. The invention of 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 of the senses. Thus, the prime reason for the popularity of this subfield (namely, vision being first among the senses in the West) was also the reason for its blindness to the multisensory character of most human experience (vision being the paragon sense, it could stand for all the senses, with the result that the "other" senses were easily ignored or assimilated to a visual model). The proliferation of visual culture studies has been challenged by some. For example, there are those who question the ranging of architecture with visual culture because of how this deflects attention from the acoustic, tactile, thermal and other sensory qualities of buildings (Palasmaa 1996; Blesser and Salter 2009).

10. Paradoxically, relative to the previous note, were it not for the pictorial turn there might have been no sensory turn. The pictorial turn occupied a lead role, first, by questioning the privileging of language (and the idea or model of language) in the humanities and social sciences through exposing the increasing salience of visual communication in contemporary culture. This created a space for exploring how not only vision but all the senses function as signifying systems independent of their representation in language. It did so, second, by coming to figure as a target, partly on account of its success as a paradigm (like the linguistic turn before it). Thus, as we have seen, the emergence of new subdisciplines, like the anthropology of the senses, and other subfields, like auditory culture, was motivated in part by a "critique" or "rejection of visualism."

11. 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 the shrine in his honour in southern India. (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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