Quali(a)tative Methods: Sense-Based Research in the Social Sciences and Humanities

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Abstract: This paper begins by tracing the sensory turn in the human sciences—most notably, history and anthropology—which, in turn, gave rise to the interdisciplinary field of sensory studies. The latter field is articulated around the concept of the sensorium (defined as the entire sensory apparatus, including the extension of the senses via diverse media, as an operational complex) and the notion of qualia (defined as those aspects of the material world, such as color and sound, that are contingent on the human perceptual apparatus—in contrast to the inherent or elementary properties of materials, such as number or form, which are not). Sense-based research in the human sciences is tied to sensing and making sense together with others. Its methodology of choice is sensory ethnography, or "participant sensation." This method departs from the emphasis on observation in conventional qualitative research, as well as the latter's reliance on such verbocentric methods as the questionnaire or focus group. Sensory ethnography highlights the primacy of the quali(a)tative dimensions of our being together in society. It extrapolates on Georg Simmel's point: "That we get involved in interactions at all depends on the fact that we have a sensory effect upon one another" (as cited in Howes 2013). In part II of this paper, a critique is presented of the diminution of the quali(a)tative in the context of the Scientific Revolution of the sixteenth and seventeenth century, the cognitive revolution of the mid-twentieth century, and the scientization of the senses in the Sensory Evaluation Research Laboratory. These revolutions are problematized for their lopsidedness: the privileging of the infrasensible over the sensible and elemental (or atomistic) over the phenomenal in the case of the Scientific Revolution; the neuronal over the sensual and social in the case of the cognitive revolution; and, the unimodal (or one-sensation- and one-sense-at-a-time) over the multimodal, as well as the reduction of "significance" to the statistical, in the case of the research protocols of the sensory science laboratory. The paper concludes by presenting the results of a series of case studies in sensory ethnography that push the bounds of sense by leading with the senses and bringing the quali(a)tative back in.

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In July 2014, the interdisciplinary social scientist Helen Holmes organized a networking event at Manchester University, with the support of a grant from the British Academy. The event was called "Taking 'Turns'": there were three keynote speakers and approximately 50 attendees. The first to take a turn at the lectern was the sociologist Tim Dant, author of *Material Culture in the Social World* (1999) and *Materiality and Society* (2004), who had been invited to address "the material turn." Next up was the social psychologist Margaret Wetherell, author of *Discourse and Social Psychology* (1987, with Jonathan Potter) and *Affect and Emotion: A New Social Science Understanding* (2012), who spoke about "the affective turn." The third speaker was the present writer, an anthropologist by training. On the strength of my two books, *The Varieties of Sensory Experience* (1991) and *Sensual Relations: Engaging the Senses in Culture and Social Theory* (2003), I was asked to trace "the sensory turn."

In my talk, I began by noting the aptness of the title of the event. I observed that research in the humanities and social sciences had undergone a series of prior turns, such as "the linguistic turn" of the 1960s and '70s, which introduced into the human sciences the idea of society as "structured like a language" and culture "as text"; "the pictorial turn" of the 1980s, which gave rise to visual culture studies and underscored the rising importance of "visual literacy"—that is, the increasing salience of visual communication in the contemporary "civilization of the image"; and, "the corporeal turn" (or paradigm of "embodiment") of the 1990s, which sought to overcome the long-standing split between mind and body (in the Western tradition) by tabling such constructs as "the embodied mind" and/or "mindful body."[1]

I proposed that the sensory turn, which came over anthropology in the wake of Paul Stoller's *The Taste of Ethnographic Things: The Senses in Anthropology* (1989), both encompassed and sought to correct for the biases and excesses of these prior turns—namely, the verbocentrism of the linguistic turn, the ocularcentrism of the pictorial turn, and the spurious unity imposed on the sensorium by the corporeal turn. I argued that the latter turn had the pernicious effect of deflecting attention from the multiplicity of the senses due to its insistence on the unity of mind and body *tout court*. I was particularly critical of phenomenology, with its supposition of "the pre-reflective unity of the senses" and "the synergic system" of the body (Merleau-Ponty 1962; Ingold 2000). The centrifugal tendencies of the sensorium are no less worthy of investigation than the centripetal, or so-called synaesthetic, in our estimation.[2] Whereas, according to the phenomenology of perception:

> my body is a ready-made system of equivalents and transpositions from one sense to another. The senses translate each other without any need of an interpreter…Synaesthetic perception is the rule. [Merleau-Ponty 1962:235, 229]

I played up the fact that "translation" is just one possible relation among the senses: there are also relations of domination and contestation (e.g., the stick half in water that looks crooked to the eye, but feels straight to the touch), anticipation, complementarity (e.g., "the male gaze" vs. "the female touch"), and so forth (see: Howes 2022:26-27). This led me to suggest that the sensory turn was more in the nature of a *revolution* by virtue of its holism (in that it takes *all*

[1] On the linguistic turn, see: Surkis (2012); regarding the pictorial turn, see: Mitchell (1994); and, for an account of embodiment as a paradigm for research, see: Csordas (1990; 1993).

[2] It can help to think of the sensorium as a "collideroscope," following McLuhan (1962). See further the "collideroscope" entry in the Picture Gallery on the Sensory Studies website (http://www.sensorystudies.org/picture-gallery/).

of the faculties equally seriously) and dedication to enucleating diverse *heterarchies* of the senses (in history and across cultures) that not only depart from the conventional Western hierarchy of the senses but embody radically different enumerations of the senses (both beyond and beneath the canonical five) as well.

In the ensuing discussion, it was interesting to observe the points of overlap between the three "turns." For example, Tim Dant was critical of the emphasis on "the symbolic" and the focus on consumption in material culture studies, and sought to shift the onus onto materiality and a corresponding focus on production (see: Dant 2009). This dovetailed with the emphasis on multisensoriality and "making sense" in sensory studies. Margaret Wetherell observed that the affective turn also took leave of "the symbolic" due to its focus on intensities and "being affected." Furthermore, it emerged that the affective turn intersects with the sensory turn on account of their common focus on the notion of "feeling": this term, "feeling," sounds in both the sensory register (as tactility) and the register of emotions (as affectivity). Wetherell was also highly critical of affect theory, though, particularly as expounded by the philosopher Brian Massumi (2002), both for the flimsiness of the science on which it is based and for its psychophysical conceit. By psychophysical conceit, we mean the way Massumi pretends to be able to drill down to the putatively pre- or infra-cultural and sub-cognitive level of sensation (e.g., vibration is said to subtend the sense of hearing). I share her reservations about the superficiality of affect theory. Already in 1889, Franz Boas exposed the fallacy of psychophysics in his article "On Alternating Sounds" (see: Howes, Geertz, and Lambert 2018); or, as Henri Bergson (1991:103) observed in *Matter and Memory*: "Perception is never a mere contact of the mind with the object present… it is impregnated with memory-images which complete it as they interpret it." The consensus appeared to be that the affective turn (after Massumi) had been a turn for the worse, or cul-de-sac (see further Howes 2022:157-158).

In this paper, I present a genealogy of the field of sensory studies. The latter field emerged out of the sensory turn in history and anthropology, and the subsequent marriage or confluence of these two approaches (i.e., sensory anthropology, sensory history) as proposed by Alain Corbin in "Histoire et anthropologie sensorielle [History and Sensory Anthropology]" (1990). Sensory studies leads—or, if you prefer, "leans in"—with the senses (in place of, say, language or cognition): it is articulated around the concept of the sensorium (on which more in a moment). I go on to describe how these sense-based approaches open space within qualitative research for the quali(a)tative—that is, for sensing and making sense together with others alongside (or in place of) observation, questionnaires, interviews, focus groups, et cetera (i.e., the conventional instruments of qualitative research).[3]

This paper, then, detours into an investigation of the great ontological transformation in the Western episteme during the Scientific Revolution of the sixteenth and seventeenth centuries and the invention of "sensory science" in the 1930s. The current "sensorial revolution" in the human sciences is framed as a counter-revolution to the Scientific Revolution in the so-called natural sciences and the cognitive

[3] *Making Sense in the Social Sciences* (Northey, Tepperman, and Albanese 2018), now in its seventh edition, contains chapters on how to use qualitative and quantitative data, and is a standard guide for students. Its title sounds promising, but is actually grossly misleading. The book is sense-less (from the standpoint of sensory ethnography), even if it does teach students how to write well.

revolution in psychology; it is also shown to be at loggerheads with sensory science. This paper concludes with an examination of how the work of contemporary sensory anthropologists and sensory historians is pushing "the bounds of sense" and in so doing demonstrates the tremendous potential of quali(a)tative research for re-envisioning—or better, sensualizing—qualitative research.

The Sensorium

The sensory turn is articulated around the concept of "the sensorium." In the early modern period, this term was used to refer to the brain as "the seat of sensation," but also extended to the circumference of perception, as in the following usage (quoted in the *Oxford English Dictionary*), which dates from 1714: "The noblest and most exalted Way of considering this infinite Space [referring to 'the Universe'] is that of Sir Isaac Newton, who calls it the *Sensorium* of the Godhead." Another quote, which dates from 1861, brings out how this concept also had a social dimension: "Rome became the common sensorium of Europe, and through Rome all the several portions of Latin Europe sympathized and felt with each other" (as cited in Howes 2020:21). The implication of the latter quote is that perception is a two-way street: the senses are media, rather than receptors.

It is to the media theorist Walter J. Ong that we owe the retrieval of the concept of the sensorium, which had retreated from the interface between self and world to the neural pathways leading from sense receptors to their terminus in the cortex due to the rise of psychophysics in the nineteenth century and the subsequent rise of cognitive neuroscience.

Ong reversed this trend by highlighting the significance of the socialization and technologization of the senses in a section of *The Presence of the Word* (1967) that was subsequently reprinted under the title "The Shifting Sensorium" as the lead chapter in *The Varieties of Sensory Experience: A Sourcebook in the Anthropology of the Senses* (Howes 1991). In a contemporary article in *American Anthropologist* entitled "World as View and World as Event" (1969), Ong argued that the term sensorium should be used in place of "world view" since the latter term could not meaningfully be applied to the cosmologies of "oral societies." Unlike literate societies, where words figure as "quiescent marks on paper," in so-called oral societies, where speech is the dominant medium of communication, words figure as dynamic *events*, which are also soundful. Ong further proposed that "given sufficient knowledge of the sensorium exploited within a specific culture, one could probably define the culture as a whole in all its aspects" (Ong 1991:28). How so? Because "differences in cultures… can be thought of as differences in the sensorium, the organization of which is in part determined by culture while at the same time it makes culture" (Ong 1991:28).

Building on the work of Ong (and his mentor, Marshall McLuhan), what the sensory turn—or rather, *revolution*—stands for is a cultural approach to the study of the senses and a sensory approach to the study of culture. The senses are treated as both object of study and means of inquiry. The rise of sensory anthropology and sensory history since the 1990s, and the interdisciplinary field of "sensory studies" that has emerged out of their confluence (see: "Introducing Sensory Studies" by Bull et al. 2006), has challenged the monopoly that the discipline of psychology formerly exerted over the study of the senses and sensation/perception. Western perceptual psychology is predicated on the assumption of the privacy or interiority and

uniqueness of individual sense experience. Alternately, under the guise of neuroscience, it directs attention to the neurological underpinnings of perception. Either way, the guiding idea is that perception goes on "in some secret grotto in the head" (Geertz 1986:113). By contrast, sensory studies *outs* the senses. It avers the indissociability of the social and the sensible (Laplantine 2005). Perception (read: "making sense") is a *public* activity. Hence, Constance Classen's (1997:401) affirmation: "sensory perception is a cultural, as well as a physical, act…sight, hearing, taste, touch, and smell are not only means of apprehending physical phenomena but also avenues for the transmission of cultural values." Following Classen, perceiving is best conceptualized as a form of "worlding" (Stewart 2011), and it is always and everywhere conditioned by the prevailing "sensory regime" (Corbin 1990; 2005).

Participant Sensation

The methodology of choice within anthropology for investigating the sociality of sensation is sensory ethnography (Pink 2009; Rhys-Taylor 2017; Howes 2019; Lynch, Howes, and French 2020), also known as "participant sensation." François Laplantine (2015:2) aptly captures the gist of this approach in the following quote from *The Life of the Senses: Introduction to a Modal Anthropology*: "The experience of [ethnographic] fieldwork is an experience of sharing in the sensible [*le partage du sensible*]. We observe, we listen, we speak with others, we partake of their cuisine, we try to feel along with them what they experience." Participant sensation departs from the conventional anthropological method of participant observation by abjuring the status of the observer and concentrating on sensing and making sense together with others—the sharing of the sensible.

In other disciplines, such as history, which must rely on written documents, the trick is to "sense between the lines" of written sources to reconstruct the period sensorium (Classen 2001; 2012). The Medieval historian Richard Newhauser (2014) coined the term "sensology" to refer to this approach.

Another possible name for the sense-based mode of inquiry that concerns us here is "quali(a)tative research." This term, quali(a)tative, sounds rather awkward, on purpose. Like the term "differance" (a play on difference and deferment) introduced by Jacques Derrida (1982), it forces one to pause or do a double take and wonder: What is the (a) doing there? For all its awkwardness, this term is to be preferred to the more conventional term, qualitative research, on account of the way it underscores the fact that we are dealing here with *qualia*.

The concept of qualia stems from the distinction between the "qualities" of the material world and the "properties" of the material world. *Qualia* refers to those aspects of materials that are dependent on the human perceptual apparatus, such as color (humans perceive only a fraction of the electromagnetic spectrum; infrared and x-rays are off the human scale) or sound (the range of human hearing is from 20-20,000 Hz, which excludes so-called infrasounds). *Property* refers to the intrinsic aspects of materials, such as figure, number, mass, motion, et cetera. In other words, qualia are modality-specific whereas the properties of matter are amodal.

This distinction has a history. And, it is important to be mindful of this history since it goes to the root of the qualitative/quantitative dichotomy in the natural sciences no less than in the social sciences.

The Great Ontological Transformation in the Western Episteme

According to the Aristotelian worldview (i.e., classical science), the universe was composed of four Elements: Earth, Air, Fire, and Water. Each Element was distinguished by a different combination of qualities (or humors): the wet and the dry, the hot and the cold. Thus, Earth was classified as cold and dry, Water as cold and wet, Fire as hot and dry, and Air as cold and dry. Furthermore, the senses were understood to be distinguishable by reference to the Elements. According to Aristotle, Water was the element of sight (because the eye contains water), Air—the element of hearing, Fire—the element of smell, and Earth—the element both of touch and taste, due to the latter being classified as "a mode of touch." This cosmic understanding contrasts with the modern understanding of the senses as localized in their corresponding bodily organ (eye, ear, nose, etc.).

Each sense was further supposed to have its "proper sensible" (e.g., color in the case of vision, sound in the case of hearing, etc.), and those qualities of the material world that were perceivable by more than one sense (e.g., form or number, which can be perceived by vision and by touch) were referred to as the "common sensibles."

In the seventeenth century, a switch occurred: the proper sensibles (i.e., qualia) were recast as "secondary qualities," and the common sensibles came to be conceptualized as "primary qualities" (i.e., the elementary constituents or properties of matter). This switch was already envisioned by Galileo (Piccolino and Wade 2008), but it comes down to us mainly through Locke, whose reflections on this score were inspired by the new "corpuscular philosophy" championed by the chemist Robert Boyle. The switch was subsequently ontologized (circa 1869) by the Russian chemist Dmitri Mendeleev. He dissolved the four Elements of classical physics into the 63 (now 118) elements of his Periodic Table of Elements, wherein the elements are distinguished based on their atomic number and recurring chemical properties alone. Mendeleev's discovery effectively pulled the rug out from under the fundamentally qualitative, profoundly sensuous cosmologies of premodernity and substituted the predominantly quantitative, abstract, and infrasensible understanding of the "really real" that comes out of modern physics.

The new suprasensible understanding of the elementary structure of the universe was not well received by the poets or others of a (lingering) premodern sensibility. As Constance Classen (1998:5) observes in *The Color of Angels: Cosmology, Gender and the Aesthetic Imagination*, the "new science" propounded by Locke and Boyle (which was anticipated by Galileo and substantiated by Mendeleev) transformed the cosmos from "a vibrant universe of sense," a wondrous tapestry of sensations as during the Medieval period, "into what Alfred North Whitehead has called 'a dull affair, soundless, scentless, colorless [in its elementary constituents]; merely the hurrying of material, endlessly, meaninglessly.'" During the late nineteenth century, various artistic movements, such as Symbolism and the Arts and Crafts movement, arose to challenge the scientific worldview and reached back to the Middle Ages for their inspiration. But, they were denounced as decadent and outmoded (see: Classen 1998:119-121). The die was cast. Henceforth, the phenomenal world was but an epiphenomenon of activity at the atomic level.

Sensory Science

Beginning in the 1930s, however, an attempt was made to scientize the senses and render them useful for commercial purposes—most notably, product development in the food industry. The science of sensory evaluation (also known as sensory analysis, sensory science) was born. The practitioners of this science call themselves "sensory professionals." Their science involves assessing the sensory qualities of products in development using discriminative tests, descriptive tests, and hedonic tests, all of which are rooted in the protocols of psychophysics.

Ensconced in cubicles within the sensorially neutral confines of the Sensory Evaluation Research Laboratory (neutral in the sense of being uniformly lit, colorless, and muffled), the sensory professional analyzes the qualities of products one sense-at-a-time and one-sensation-at-a-time with the aid of blindfolds, ear defenders, nose clips, et cetera. The results of their analyses are then tabulated and subjected to statistical analysis to arrive at the ideal (which is to say, normative) "sensory profile" for a product before it is visited on the public.

This research is not qualitative; it is quantitative through and through. Any trace of subjectivity is eliminated, along with any element of sociality, in the interests of controlling the "variables" in play. For example, panelists seated at desks within their respective cubicles are instructed not to utter a peep since an inadvertent "ooh" or "aw" might influence other panelists' perceptions. Above all, panelists are instructed to "be spontaneous" in their judgments since if they were to reflect on their perceptions or converse with each other, their assessments would no longer be strictly psychophysical, they would be personally and socially *meaningful*. [Semantic tests are notably absent from the battery of tests deployed in the Sensory Evaluation Laboratory: in other words, the sense of the senses is screened out.][4]

Steven Shapin (2012) characterizes sensory evaluation as one of the "sciences of subjectivity" that forms part of the "aesthetic-industrial complex." In scientizing, the senses sensory evaluation protocols also objectify them, as is apparent from the following quote from *Sensory Evaluation Techniques* (2010), one of the standard textbooks in the field. The authors affirm that the key to sensory analysis is:

> to treat the panelists as measuring instruments. As such, they are highly variable and very prone to bias, but they are the only instruments that will measure what we want to measure so we must minimize the variability and control the bias by making full use of the best existing techniques in psychology and psychophysics. [Meilgaard, Carr, and Civille 2010:1]

Elsewhere (Howes 2015), I have challenged the methodology of sensory science, questioning whether the firewalls between the senses it institutes really work and problematizing whether the asocial environment it creates for purposes of analyzing and perfecting the "sensory profile" of food and other products has any bearing on the enjoyment of the senses in everyday life. Who wants to dine in a sensorially sterile cubicle?

The disciplining of the senses within the confines of the Sensory Evaluation Research Laboratory is worlds apart from the liberation of the senses that doing sensory history or doing sensory ethnography enjoin. We need to explore what these methods

[4] For a further social scientific examination of the laboratory methods of sensory science, see: Teil (2019) and Lahne and Spackman (2018).

bring to the analysis of the social life of the senses. But, first, let us take one last detour, this time through the field of cognitive science.

Sensuous Cognition

Danièle Dubois is a prominent scholar in the field of cognitive psychology in France, with the added distinction of being one of that field's most ardent critics. She directs the Paris-based Languages, Cognitions, Practices, and Ergonomics research team of the Centre National de Recherche Scientifique (CNRS) and is the lead author of the book *Sensory Experiences* (2021).

In her introduction, Dubois notes how, in the history of psychology, the behaviorist revolution upset psychophysics; then, the cognitive revolution toppled behaviorism. Now, she suggests, within cognitive psychology, there is another revolution afoot: the sensory revolution. By leading with the senses instead of, for example, "the categories of the understanding" (as defined by Kant), Dubois and her colleagues invite us to put our skin (and other senses) in the game. Thus, Dubois and company do not defer to "the brain" as "revealed" through an MRI scan or Kant's *a priori* categories, much less Descartes' *esprit*. Indeed, Descartes famously "called away" his senses to arrive at the truth of his existence and cogitations (Synnott 1991), whereas Dubois and company *embrace* the senses.

Dubois beseeches her fellow psychologists to recognize that there is more, much more to "sensory processing" than signal recognition or "information-processing." This word "information" abstracts and also flattens the senses: "information as abstract conceptualization of a stimulation" (with the idea of stimulation being left to the natural sciences to define) is fundamentally amodal and, therefore, at odds with the multimodality of sense *experience* as we humans know it, Dubois and colleagues (2021:34-37) argue.

According to Dubois, sensory processing involves "sensing" first and foremost. The term "sense" is rich in meaning. It includes in its spectrum of referents both sensation or stimulation *and* signification, both feeling *and* meaning (as in the "sense" of a word). The implication is that human beings sense and make sense of the world, and this process goes on at the level of the senses themselves, whatever their localization in the brain might be. The French term *sens* covers the same semantic field as the English word "sense" and also encompasses "direction" (as in *sens unique*). The senses may, thus, be understood as giving our thinking (read: meaning-making) direction.

Dubois and colleagues are highly critical of cognitivism and advocate a kind of *sensitivism* in its place. This brings the senses back into our understanding of cognitive processes (by treating them as agents rather than passive receptors) and thereby challenges Cartesianism, the "neuromania" of cognitive neuroscience (Tallis 2011), and also the computationalism that has come over cognitive psychology in the wake of the *révolution numérique* (in French, digital revolution in English)—the idea of the mind as programmed like a computer (see: Nudds 2014).

I admire the way Dubois and colleagues ardently refuse to reduce the deliverances of the senses to the idea of "information" or conceive of cognitive processes on the model of "computation," or assimilate our understanding of how the senses function to sensor technology (the mechanization of the senses, which harks back to Descartes). I particularly

admire the way their approach abjures quantifying qualia (as in the psychophysical paradigm) and concentrates instead on the *qualification of qualia*—that is, on investigating how qualia are categorized, evaluated, lived, and communicated through "discourses." This focus on the categorization of sensations shifts the onus from the private and subjective to the public, for categories are *collective* representations. This move has the effect of bringing not only the senses but also the social back into our understanding of the understanding. There is a strong synergy between Dubois' sensory cognitive psychology and sensory anthropology, as the following sections will show.

Techniques of the Senses

The anthropology of the senses could be seen as an outgrowth of the anthropology of the body. It has a long, if interrupted, history. It can be traced back to a seminal essay by Marcel Mauss entitled "Body Techniques" (1979).

By "techniques," he explained, "I mean the ways in which from society to society [people] know how to use their bodies." The body is our "first and most natural instrument." Mauss went on to list a series of examples of different cultural styles of walking, running, swimming, dancing, jumping, throwing, digging, and even sleeping (e.g., dozing while riding a horse like a Hun or the use of wooden headrests in Africa), and concluded that "there is perhaps no 'natural way' for the adult" to perform any of these actions (Mauss 1979:97).

Mauss might have gone on to adduce evidence of cultural differences in the ways of seeing, hearing, touching, et cetera, but he stopped short. The anthropological record was not yet robust enough to warrant such a thesis, it seems. The German sociologist Georg Simmel was alert to this, though. In "Sociology of the Senses" (1997:110), he surmised: "That we get involved in interactions at all depends on the fact that we have a sensory effect upon one another" (i.e., social intercourse is always mediated by sensory intercourse). By way of illustration, Simmel pointed to how his contemporaries adopted what he called "the blasé attitude" to cope with the barrage of sensations typical of life in the modern metropolis (i.e., filtering sense impressions by creating "intellectual" distance), how the smell was invoked to police social boundaries, and the different social and cognitive styles of blind people and deaf people.[5]

The insights of Mauss and Simmel into the techniques of the body and senses lay fallow for much of the twentieth century, at least in English-speaking academia. It had to await the sensory turn of the early 1990s for their insights to be retrieved and worked into a general sociological theory of the ways of sensing (Howes 1990; Classen 1997; 2001; Vannini, Waskul, and Gottschalk 2012). There was some stirring before that, however. For example, Mary Douglas reprised Mauss' essay in the 1960s, although, in her work, the emphasis is more on the body as a model for society than as an instrument. Familiar examples include the way a king or other leader may be referred to as the "head" of society while workers are referred to as "hands," and so forth.

In *Purity and Danger*, Douglas devoted considerable space to the analysis of body rituals. For example, she

[5] Marx believed that the senses could not come into their own until capitalist private property relations were upended and extirpated, but we cannot wait for that moment to arrive. For us, "the time of the senses" (Bendix 2005) is now. See further *Beyond Revolution: Reshaping Nationhood through Senses and Affects* (Lamrani 2021) and the chapter on "The Deep Experience of the Senses" in *The End of the Cognitive Empire: The Coming of Age of Epistemologies of the South* (Santos 2018).

proposed that body rituals "enact the form of social relations and in giving these relations visible expression they enable people to know their own society" (Douglas 1966:128). If, for instance, a given ritual expresses anxiety about the apertures of the body, this should be interpreted as testifying to society's concerns over the maintenance of its internal and external boundaries.

In the early 1980s, Douglas' approach to the body in society was criticized by Michael Jackson (1983a:143) for how it treated the body as "simply the passive ground on which forms of social organization are inscribed." In other words, the body becomes an "it" in Douglas' schema, a "medium of communication" at the disposal of a "reified social rationality" (Jackson 1983b:329). This stance, Jackson argues, contradicts our prior experience of the body "as a lived reality," or what Lawrence Kirmayer (1992) has called "the body's insistence on meaning."

Building on Jackson's work and the phenomenological philosophy of Maurice Merleau-Ponty, Thomas Csordas (1990) introduced the concept of "embodiment" (in contradistinction to "the body") as a "paradigm for anthropology." In doing so, he turned Douglas' approach on its head. The body is "the existential ground of culture," Csordas argues, and our experience of the world is mediated by diverse "somatic modes of attention." The latter are defined as "culturally elaborated ways of attending to and with one's body in surroundings that include the embodied presence of others" (Csordas 1993:138-139).

Somatic Modes of Attention

This notion of "somatic modes of attention" was deployed and developed in exemplary fashion by Kathryn Linn Geurts in her masterful analysis of the sensorium of the Ewe-speaking Anlo people of southeastern Ghana in *Culture and the Senses: Bodily Ways of Knowing in an African Community* (2003). Geurts goes to great lengths enucleating the Anlo-Ewe understanding of sensory processing that is given in the verb *seselelame*, which means "feeling in the body, flesh, or skin," or to put a finer point on it, "hear-feel hear-feel at the flesh inside." The term bridges the distinction between perception as cognitive and sensation as somatic, which has bedeviled Western perceptual psychology and also encompasses emotion. Here is how one of her interlocutors explained it (in English): "You can feel happiness in your body, you can feel sorrow in your body, and you can feel other things, like cold. *Seselelame* describes all these things because it is 'hearing or feeling in the body'" (Geurts 2003:40-43). In a later part of the same interview, Geurts' informant referred to the experience of going to the theater: "You go and watch it, and you feel something inside. You hear music, see the actors act very well, and you feel something inside. You applaud, get up and dance or shout something. That is a feeling and it comes through *seselelame*" (Geurts 2003:185). Significantly, *seselelame* also connotes intuition, feeling ill, or feeling inspired, and disposition or vocation. This term is as polysemous as it is polysensory. It embodies a whole "theory of sensory integration" (Geurts 2003:194) and an equally comprehensive theory of "how we know what we know" (Geurts 2003:179), which is at the same time a theory of the sociality of sensation.

Geurts' *Culture and the Senses* is noteworthy for the range of cultural domains it examines to arrive at an understanding of the Anlo sensorium, from the language of the senses to childrearing practices, from clothing to religious rituals, and from the body in sickness and in health to origin myths. Hers is a to-

tal sensory ethnography (see: Howes and Classen 1991).

Geurts found that Anlo attach a premium to the sense of balance. For example, the fetus is pictured as already practicing the art of balance on its "seat" (the placenta) in the womb. Children's limbs are massaged from birth to inculcate flexibility, both in the body and mind. The Anlo have a proverb: "When in the village of the toads, squat as they do." This adaptability has been the secret of their success. Even though they are a minority and have suffered much persecution, many Anlo have risen to occupy positions of importance in Ghanaian society.

In a chapter entitled "Toward an Understanding of Anlo Forms of Being-in-the-World," Geurts relates an incident that nicely exemplifies what Laplantine means when he defines sensory ethnographic research as involving "the sharing of the sensible." It was a moment of profound revelation for Geurts when all of the threads of her research into the Anlo sensibility came together, and she experienced what it means to be Anlo in a deeply visceral way.

The moment came when she was listening to a storyteller recount the migration myth of the Anlo. The Anlo once lived in the neighboring nation of Togo. A tyrant there made their lives unbearable, so they resolved to escape, led by the ancestor Tɔgbui Whenya. After a long and arduous trek, they arrived at the place they now call home, Anloga (or "Big Anlo"). It was there that Tɔgbui Whenya collapsed, saying, "I am rolled or coiled up from exhaustion and cannot travel further." At the utterance of these words, Geurts found her body curling inward, along with the bodies of all the other members of the audience. Upon reflection, she realized that this kinesic behavior, this curling inward, is echoed in the very name Anlo (pronounced *AHNG-low*), which "requires a formation in the mouth and a sonic production that triggers a rolled-up or curled-up sensation that resonates through the body" (Geurts 2003:117). This effect in the mouth and on the body is best understood, Geurts argues, in terms of iconicity (a concept she borrows from Feld [1996], which refers to the resonance of perceptual schemas across modalities).

Some years later, Geurts spoke about the incident by phone with an Anlo friend living in Houston, Texas. "You know how the term Anlo literally means to roll up or curl up in the fetal position?" she asked. "Yesss?" her friend answered. "What does it mean to you to be part of a people whose name means 'rolled up?'"

> In her lengthy response was the phrase "resentment and respect." She said that curling up in the fetal position is something you do when you feel sad, when you are crying, when you are lonely or depressed. She said that being Anlo meant that you felt that way a lot, but you always had to unroll, or come out of it, eventually, and that gave you a feeling of strength. I told her that I had used the phrase "persecution and power" [together with "resentment and respect"] in one discussion I had delivered about the name Anlo…and I asked if that fit what she meant. She confirmed that it did. [Geurts 2003:118]

Thus, probing the Anlo sensibility enabled Geurts to arrive at an understanding of Anlo affectivity, as articulated around the sentiments of resentment (or feeling persecuted) and respect. This affective disposition and form of being-in-the world is given in their collective appellation (*AHNG-low*), in the toponym for their homeland (Anloga) and in the migration story that relates "their ancestors' escape from slavery and migration to the coast, and then their as-

cendance to a position of influence (and resentment) in contemporary Ghana" (Geurts 2003:118). What is particularly noteworthy about Geurts' analysis is that it delves beyond the concept of embodiment (or unity of mind and body) to arrive at an understanding of *emplacement*, or "the unity of mind-body-habitus" in Michael Jackson's terminology (see further Howes 2005:7 and Pink 2009:25). This agrees with one of the elementary tenets of sensory studies: "the senses mediate the relationship between mind and body, idea and object, self and society," and individual and environment (Bull et al 2006:5).

Much has transpired in sensory studies scholarship since the term "sensory studies" was coined in 2006. Let me describe two case studies, or *études sensorielles* (it sounds better in French) for the reader's delectation.

The More-Than-Human Sensorium

Mark Doerksen is a recent graduate of the Ph.D. program in Social and Cultural Analysis at Concordia University, Montreal. He defended his thesis, entitled "How to Make Sense: Sensory Modification in Grinder Subculture," in 2018. In his thesis, Doerksen reports on his field research in Canada and the United States in a subculture of the body modification movement known as "grinders." Grinders are not satisfied with the normal allotment of senses. They implant magnets in their fingers to be able to sense electromagnetic fields. Doerksen followed suit so that he could sense along with them what they experience.

There is no dedicated vocabulary for electromagnetic sensation; nor are there any medically-approved procedures for fashioning an "nth sense," as Doerksen (2017) calls it. Grinders must, therefore, improvise, or "hack," as they say. They practice DIY surgery, which exposes them to many risks because no medical professional would aid them in their quest (and would lose their license if they did).

The grinders' reports of their experience of an otherwise insensible dimension of the material environment (e.g., microwaves, electronic security perimeters) represent an intriguing opening beyond the bounds of sense, as most humans know it. Here is how one grinder described his experience with a trash compactor:

> My favorite thing I've ever felt was actually during when I had my first implant. So it was still super fresh, not really sensitive, but at my old job we had this trash compactor in the back of the store, and every time I would take out the trash…just walking into the vicinity [he would get] this buzz…
>
> I like to say it feels like you're walking toward this super powerful object, but, I mean, really you are. That is what you're feeling because there is so much electricity going through that [appliance]…as if it were some mystical artifact or something that was the energies emanating from it. I haven't yet, but I still want to go back now that I have a fully healed one on my finger just to feel what it feels like at peak sensitivity. [Doerksen 2018:136]

Grinders could be likened to the X-men of Marvel Comic fame, only instead of their supersensory powers being the result of some genetic mutation, they develop their sensory prostheses, such as the magnetic implants, and also ingest chemicals and follow strict dietary regimes in their explorations of the far borderlands of sense perception. Doerksen found that grinders tend to have a superiority complex and are also deeply distrustful of many

social institutions, especially those of the academic-industrial complex, yet even though he could have been seen as a representative of the latter complex, these sensory anarchists accepted him into their ranks and shared their (extrasensory) wisdom with him.

Archaeology of Perception

Michel Foucault coined the concept of "the archaeology of knowledge." It highlights the ruptures or discontinuities in "the advancement of science." In *The Birth of the Clinic* (1973), for example, he put forward "an archaeology of medical perception." There he documents how the doctrine of signatures was displaced by the "speaking eye" of "the physician's gaze" that took its definition from the invention of the anatomo-clinical method of "opening up corpses" and performing autopsies à la Bichat.

Had Foucault not been so preoccupied with the relations between signifiers and signifieds he could have provided a much richer, multisensory account of the practice of medicine before the great rupture (as discussed in the above section on the Great Ontological Transformation in the Western Episteme). For example, in *The Problem of Unbelief in the Sixteenth Century: The Religion of Rabelais* (1982), Lucien Febvre had earlier pointed out that:

> It is interesting to see that Paracelsus, in insisting that medicine be preeminently a matter of physical observation, had recourse to a whole set of acoustical and olfactory images that are somewhat surprising to us. He wanted it to be "no less resounding to our ears than the cascade of the Rhine or the roar of waves on the Ocean." He wanted the nostrils to be used, too, to "distinguish the smell of the object under study." [Febvre 1982:43]

Modes of treatment were no less saturated with sensation than the techniques of diagnosis. Determining the etiology of a disease and its treatment relied on touch and hearing, smell, and even taste (Howes and Classen 2014 [chapter 2]). What caused Foucault to miss all this and focus exclusively on the physician's gaze supplanting the doctrine of signatures?

There is a genealogical explanation. Foucauldian poststructuralism descended from Lévi-Straussian structuralism. As is well known, the latter approach was inspired by Ferdinand de Saussure's Structural Linguistics and, in turn, inspired numerous studies, which treated everything from fashion (Barthes) to the unconscious (Lacan) as "structured like a language." While disrupting many of the certainties of Lévi-Straussian structuralism, Foucauldian poststructuralism, nevertheless, remained rooted in a linguistic-derived model, whence his description of diverse epistemes as "discursive formations," and the proposition that *il n'y a pas de hors-texte*. But, the senses are "beyond text" (see: Cox, Irving, and Wright 2016), and to write a veritable "archaeology of perception" must surely involve attending to them.

Sensory (Re)Construction

Sheryl Boyle is a recent graduate of the research-creation stream of the Interdisciplinary Humanities Ph.D. program at Concordia. She was also an associate professor of architecture in the Azrieli School of Architecture and Urbanism at Carleton University, Ottawa, and served as the Director of the program throughout her studies.

Boyle's Ph.D. thesis (2020) proposes what she calls "sensory (re)construction as a way of knowing." Its focus is on Thornbury Castle, built by Edward Staf-

ford, the Third Duke of Buckingham (1478-1521) between 1508 and 1521. The Duke's household was one of the largest and wealthiest households in England at the time, and he brought together scores of live-in artisans (masons, carpenters, cooks, gardeners, etc.) over the thirteen years.

Approaching the building as an "epistemic site" (after Rheinberger 1997), Boyle's thesis is laid out in three layers. The first layer has to do with the setting, which she (re)constructs using "works of the pen" (historical texts, chronicles, letters, and diagrams). It is not just the physical setting that concerns her, though, but the cosmology of sixteenth-century England, when all sorts of humoral and alchemical notions were in the air, and the air itself was of material interest. For example, Thornbury Castle was oriented to the winds so that its walls and apertures could channel the healthy air from the Northeast and dispel bad air. This was an important consideration at the time due to the prevalence of "Sweating Sickness," which was understood to be brought on by stagnant air.

The second layer has to do with the objects, methods, materials, and tools, such as mortar and pestle, that were used by the artisans. But, Boyle's research is not confined to reading about these items and building up a mental picture: she learned how to fashion and became quite adept at (re)making them. For example, she (re)constructed the recipe for building mortar. The term recipe is significant here, for it turns out that the process of building was conceptualized at the time as analogous to cooking. Boyle devotes a fascinating chapter to the resemblances between the ingredients and processes of making building mortar and preparing blancmange ("white-eat") with mortar and pestle: quick lime corresponds to capon breast, water or casein corresponds to almond milk, a loaf of tuff corresponds to a loaf of bread (used as a setting agent), sand corresponds to sugar, and a fragrant spirit (namely, rosewater) was used in both concoctions. Mortar filled in between bricks, while blancmange was an *entremets* served between the dishes at a banquet (to "open" and "close" the stomach). This was all very sensual and very alchemical (e.g., the emphasis on the qualia of whiteness).

Figure 1. Courtyard of Thornbury castle oriented to capture the healthy north-east winds

Drawing credit: Sheryl Boyle.

Figure 2. Roses and bee boles punctuating the walls of the privy garden at Thornbury castle

Images credit: Sheryl Boyle.

The third layer has to do with practices. One of the parts of this layer involved Boyle (re)making four elements of Thornbury Castle in her studio: a wall, a window, a chimney, and a trestle table. [The latter was a work table and a dining table at once, and it was intended to serve as the centerpiece at the oral defense of her thesis.] Each such (re)construction project involved combining different artisanal skills and creating a different, multisensory "epistemic object." For example, her (re)construction of an oriel window involved drawing on the skills of a confectioner, gardener, and plasterer. True to the original meaning of the word window (namely, "wind eye"), Boyle constructed a panel (in place of a pane) and impregnated each of its 24 squares with the scent and flavor of flowers and honey (reflecting the fact that the façade of Thornbury Castle was dotted with boles containing beehives, and climbing plants that wafted their fragrance through the "wind eyes"). The squares of the panel were also tinctured like stained glass. Boyle's "windows" are not for looking, they are for smelling and imaginatively tasting: that is, they are designed to bring the environment in rather than seal it out behind glass.

Figure 3. Verso (underside) of the drawing/table for interdisciplinary tools used by the artisan to manipulate luminosity, color, fragrance, and sweetness—four alchemical qualities

Note: Small working areas are left in each quadrant, creating a social space for discussion and exchange, before folding along the quadrants and transporting them to the next site.

Artwork credit: Sheryl Boyle.

To fully appreciate what Boyle accomplished in her work as a scholar *and* maker, a word is in order about the requirements of the research-creation stream of the Interdisciplinary Humanities Ph.D. program. According to the tenets of this program, it does not suffice for a student to write a thesis. The student must also stage an exhibition, be it a performance or (as here) an installation artwork. Furthermore, the creative component cannot be a mere illustration of the thesis, nor the thesis a mere exegesis of the artwork. The two components have to speak to each other so that the resulting contribution to the advancement of knowledge is both material and intellectual, sensible and intelligible—or, in short, a multimodal exchange.

Boyle's 312-page thesis and the four (re)construction projects that accompany it constitute a brilliant, highly redolent, textural, and flavorful enactment of sense-based research in architectural history. Throughout, the accent is on buildings conceived of as processes or "events" rather than such surface features as their form or style (see further Bille and Sørensen 2017). It is an exercise in the "archaeology of perception" that brings the sense(s) of the past to life (see further Karmon 2021).

Multimodal Anthropologies

Sheryl Boyle's sensory archaeology of Thornbury Castle in "Fragrant Walls and the Table of Delight: Sensory (Re)Construction as a Way of Knowing, the Case of Thornbury Castle 1508-21" (2020) represents an extension back through time of the methodology of participant sensation—that is, of sensing and making sense together with others. It also resonates with the increasingly widespread interest in "multimodal anthropologies" (Collins, Durington, and Gill 2017) within anthropology. The latter term evokes

how anthropologists have taken to experimenting with a wide array of sensory techniques to generate data and diverse media to communicate their findings. This new focus on sensing culture contrasts with the fixation on "writing culture" (Clifford and Marcus 1986) that came to a head in the 1980s when experimenting with one's writing style was all the rage (for a critique, see: Howes 2003 [chapter 1]).

A Different Kind of Ethnography: Imaginative Practices and Creative Methodologies (DKE) is exemplary of the new stress on multimodality. In their introduction to DKE, the editors Denielle Elliott and Dara Culhane (2017:3) advise the reader that: "In each chapter of this book, you will find participatory exercises that invite you to write in multiple genres, to pay attention to embodied multisensory experience, to create images with pencil and paper and with camera, to make music, to engage in storytelling and performance as you conceptualize, design, conduct, and communicate ethnographic research." The six chapters that follow each focus on a different means of investigation, or mode of perception-action-expression and communication: "imagining," "writing," "sensing," "recording and editing," "walking," and "performing." It bears noting that even the chapter on writing goes well beyond the old and rather prosaic notion of writing as "thick description" (Geertz 1973): this chapter includes a discussion of drawing and poetry as research methods, and when it does turn to discuss writing, the examples cited, such as Kathleen Stewart's *Ordinary Affects* (2007), are far from dry. Stewart approaches writing as a form of "worlding," which captures "emergent perceptions" (see further Stewart 2011). With the publication of DKE, the sensorial revolution in anthropology came of age. It set a new bar with respect to the conduct of quali(a)tative research—research that takes the senses as both subject of study and means of inquiry/expression.

Conclusion

This paper has traced the genealogy of the sensory turn in the humanities (history) and social sciences (anthropology). In addition to giving birth to the two subfields (history of the senses, anthropology of the senses), this turn introduced a range of new ways of going about research (sensing between the lines, sensing and making sense together with others). The confluence of these two disciplines, in turn, laid the foundations for the emergence of the interdisciplinary field of sensory studies (as defined by Bull et al. 2006 in the inaugural issue of *The Senses and Society*), and this field has continued to expand and attract researchers from a wide array of disciplines, such as religion (Promey 2014), archaeology (Hamilakis 2014; Skeates and Day 2019), architecture (Karmon 2021), classics (Butler and Purves 2013; Betts 2017), and art history (Jones 2006; Deutsch 2021).

It would be interesting to explore the similarities and differences between the theory and methodologies of sensory studies and other paradigms that foreground the senses (e.g., the "Philosophical Anthropology" of Helmuth Plessner (2019), the "aesthetics of atmospheres" of Gernot Böhme (2017), or "the sociology of the body and modernity" of David Le Breton (1990). But, that investigation will have to await another paper. As for phenomenology (i.e., Merleau-Ponty 1962; Ingold 2000), let us just let sleeping dogs lie. The message I want to leave the reader with for now is that "the time of the senses" (Bendix 2005) is now, particularly as regards the conduct of qualitative research. Through contemplating and putting into action the notion of *quali(a)tative* research, as exemplified by the work of Classen, Stoller, Geurts, Doerksen, and Boyle, qualitative research stands to be transformed into "sensuous scholarship" (Stoller 1997).

At a yet grander, metanarrative and multimodal, level such a turn would lead us to recognize that the "sensorial revolution" within the human sciences beginning in the late twentieth century—with its stress on the quali(a)tative—figures as a *counterrevolution* to the Scientific Revolution of the sixteenth and seventeenth centuries and the cognitive revolution (*révolution numérique* in French) in the psychology of the mid-twentieth century—with their stress on the quantitative and neurological. Sensory studies avers the primacy of the perceptual, the sensible, but not in the way phenomenologists do. Sensory studies scholars are attuned to the multiple ways in which the senses are "relationally produced" and their work brings us closer to the day when the senses may be hailed as "directly in their practice theoreticians" (Marx cited in Dawkins and Loftus 2013:665).

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