

Silent, Invisible City: Mediating Urban Experience for the Other Senses

Day after day my Daily Candy email shares a little taste, whisper, touch, peek, or sniff of what's new and hot in New York. The newsletter's editors make sure I know about all the latest sample sales, the newest designer dog spas, the bars and restaurants I'll never get into. I occasionally take a glance before hitting delete, but more often than not, these empty calories go straight to the trash, unwrapped. In early January, however, I received an invitation to participate in Daily Candy's 2007 "best of" poll (see Figure 1). It wasn't Web 2.0's promise of democratic taste-making that pulled me in, but the site's multisensorial conceit: "If we threw a year's worth of ideas at you and asked you to pick your favorites," the message read, "you'd undoubtedly experience sensory overload. So to make it easy, we've broken it down into categories...that correspond to the five senses." In "Sight" I was to seek out New York's "most innovative, inspiring, and promising designer or boutique." In "Sound," I selected "the best thing I've heard this year." In "Smell," I was to sniff out New York's "most creative florist, soothing aromatherapist, or other purveyor of ode-worthy odors," and in "Taste," I was to select "the hottest new chef, baker, or other foodie front-runner." Finally, in "Touch," I tapped my favorite barber, manicurist, or facialist.

I hadn't patronized, or even heard of, the vast majority of the nominees, so I abstained from voting. But I poked around the site, pleased by the coincidental harmony between this online guilty pleasure and my recent research on the multisensory city and its mediation. Daily Candy offered a convenient object lesson. Sight, sound, smell, taste, and touch were translated through text and image: the site offered a clean design with plenty of white space, and its body copy, in Georgia, was accompanied by flat, playful, pastel illustrations. A mask, an ipod, a bouquet, a cupcake, and a lobster each served as an apparent icon of its respective sense. The site addressed primarily the eye, although in "Sound," visitors could click through to external sites to find audio recordings of the featured artists.

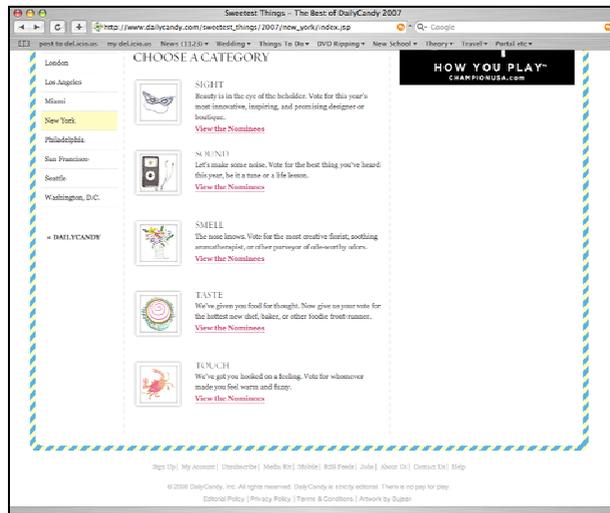


Fig. 1: Copyright 2008, DailyCandy, Inc.

Because there was no implied third dimension, no graphic texture, to the site, the only tactile experience was off-screen: between my fingers, mouse, and keyboard. My tongue and nose would have been engaged if the illustrated flowers and cupcake had evoked a synaesthetic response. I wondered if Daily Candy, despite its flat, text-and-image presentation, could be said to have somehow captured the five forms of sensory perception through their mediated presentation – or if the site’s sensory conceit was merely a convenient means of categorizing the “best of the city” awards.

Representing myriad forms of sensory perception is perhaps more feasible when the media are material, as in an exhibition. Between 2005 and 2006, the Canadian Centre for Architecture in Montreal hosted *Sense of the City*. Seeking to “challenge the dominance of vision,” the exhibition “propose[d] a re-thinking of latent qualities of the city, offering complex analyses of the comforts, communication systems, and sensory dimensions of urban life – thus advancing a new spectrum of experience and engagement” (Canadian Centre for Architecture). The show was divided into five sections. In *Nocturnal City*, we examined the night-time city and its illumination, and, through Braille and audio-tactile maps, we imagined a sightless means of navigation. In *Seasonal City*, videos showed plows digging Montreal out from under feet of snow, and photographs imaged architectures of ice. In *Sound of the City*, we donned

headphones to hear the unique soundscapes of various cities throughout the world. Surface of the City drew attention to the color, texture, and smell of asphalt by encouraging us to touch and smell samples of the materials that coat the city's surface. Air of the City (see Figure 2) explored air quality and the regulation of the urban atmosphere with heating, ventilation, and air conditioning systems. Here we also sniffed vials of bottled "urban" scents ranging from subway detergent to garbage. The exhibition covered new territory for the CCA and offered options for mediating the multisensory city: its graphics, models, recorded sounds, bottled aromas, and tangible artifacts appealed directly to the eyes, ears, nose, and skin. Still, the exhibition relied primarily on wall text and imagery, and, according to McGill University's David Theodore, "never quite overcame] the difficulty of how to explore senses other than sight through visual material" (2006: 69). If not in execution, then at least in theory, *Sense of the City* offered, as its catalogue's subtitle proposed, an "alternative approach" to architecture and urban design.¹



Fig. 2: View of the installation *Sense of the City* @ Canadian Centre for Architecture, Montreal; Photo Michael Legendre

"[T]he whole gamut of 'sensorial' phenomena that figure prominently in daily experience, and largely determine the design of buildings, are strikingly absent from urban studies," wrote Phyllis Lambert, the CCA's founder (2005: 14). Urban studies' neglect of "sensorial phenomena" parallels absences or biases in

other fields of research and practice – all of which, if brought into communication, could contribute greatly to an understanding of the multisensory city. Within media studies, two growing areas of study – urban communication and sound studies – promise to bring the field in touch with other scholars and practitioners interested in the design, representation, and perception of the “material city.” There has been longstanding interest within media and design studies in the “mediated” city: literary, cartographic, photographic, and filmic representations of the city; the role of urban media in defining community identity; and, more recently, urban wireless networks and locative media. Much of this work focuses on the textual, visual city. Meanwhile, the nascent field of sound studies has been calling attention to sonic experiences in material landscapes.

Many studies of, or creative interventions in, the city have already integrated the concerns of urban communication and sound studies. Media historians and theorists (e.g., Jonathan Sterne, Michael Bull) have recently joined technology and environmental historians (e.g., Raymond Smilor, Karin Bijsterveld, Emily Thompson) in exploring how new sound media play out in nineteenth, twentieth, and twenty-first century urban soundscapes. Even before the scholars reached this terrain, artists and composers – including R. Murray Schafer, Bill Fontana, Janet Cardiff, The Urban Sound Institute and a plethora of new artists and collectives – began mapping, measuring, and modulating the sounds of cities.

Yet the city is more than image and sound – and mediating the city requires attention to urban dimensions beyond the visual and sonic. Some researchers, designers, and artists are investigating how media might be used to capture and convey urban experience for the *other* senses – for smell, taste, and touch. Recent exhibitions and publications – including *Sensorium* at MIT’s List Visual Arts Center and *Sense of the City* – have explored the embodied experience as an “alternate approach to urbanism.” Joining the project is a growing body of recent scholarship on sensory history. How might “other-sensory” mediations of the city inspire, corroborate, or supplement this recent scholarship on urban sensory experience? Mirko Zadini, in his introduction to the *Sense of the City* exhibition catalogue, proposes that these mediations have the potential to

pose a different way of talking about, describing, and planning our cities; they suggest thinking of them as places for our bodies...; they remind us how mutable is our way of perceiving the urban environment; they offer

us a history of the changes in the Western city from new points of view that have been hitherto neglected; in addition, they reveal to us the possibilities provided by the urban environment in its various aspects – those of sound, smell, touch, vision, and climate – and invite us to look at them in new ways (Zardini 2005: 24).

Or hear, smell, taste, or touch them in new ways, he might rather have said. These urban mediations would enhance and expand the field of resources available to researchers, who still attend primarily to graphic sources. They also have the potential to enhance exhibitions exploring urban history or city life, to play a role in the development of multisensory and urban pedagogies, and to open up new directions for media art.

Because the challenges of mediating the multisensory city are shared by a variety of disciplines, I will begin by reviewing some relevant work in sensory, urban, and media studies to see what each of these fields can contribute to this collaborative project. I will then examine how designers and artists are already experimenting with ways of mediating the city for the full sensory spectrum. As artists, engineers, designers, and researchers from various disciplines continue to explore sensory mediations and sensory design, they grapple with aesthetic, epistemological, and political questions – about the capacities of media, about the nature and culture of sensory experience, about the biases of our disciplines and practices, about our models for understanding and planning our cities. Mediating the multisensory city offers an ideal opportunity for “project-based” inquiry: in this project all of these significant questions converge – and the search for answers promises to be much more rigorous and fruitful when we see how each question comes to bear on the others.

1 Sensory Studies

“In recent years”, Zardini explains, “the human and social sciences, from anthropology to geography, have undergone a ‘sensorial revolution’ in which the ‘senses’ constitute not so much a new field of study as a fundamental shift in the mode and media we employ to observe and define our own fields of study” (22). The “revolution” was just that: a return to concerns that were once central to philosophy and the nascent social sciences, but eventually cycled out of fashion. The separation and prioritization of sight and visual modes of

thinking is a modern phenomenon: “In premodernity,” anthropologist David Howes writes, “the senses were considered as a set.”

This elemental understanding of the architecture of the senses came undone during the Enlightenment, when the association of vision with reason became entrenched, and the progressive rationalization of society became identified with the increasing visualization of society and space (2005a: 324).

Smell, in particular, was marginalized. As art historian and *Sensorium* curator Caroline Jones explains, “Smell, at least since Locke, Kant, and Condillac, has been relegated to philosophical abjection, with fragrance, odor, scent, aroma, perfume, and stench all placed at the bottom of the epistemological hierarchy” (2006: 12).

Through the past decades, academia has twisted through a series of intellectual “turns” – including the linguistic turn of the 1960s and 70s and the pictorial turn of the 80s. Emphases on the text and the image are still pervasive in the humanities, although there have been subsequent turns toward the corporeal and its focus on “embodiment,” and the material, which drew attention to the “physical infrastructure of the social world,” yet still “occlude[d] the multisensoriality of objects and architectures” (Howes 2005a: 322–3). Sensorial – specifically, non-visual – models have been, and continue to be, suppressed, Howes suggests, out of lingering fear that “an emphasis on sensation entails a loss of critical awareness and precipitates a slide into a morass of emotion and desire” – that sensation does not lend itself to intellectual distance, to critical investigation (2005b: 6).

Yet there is a growing body of recent scholarship on sensory history and culture, including Alain Corbin’s (1986) and Constance Classen’s (1994) work on smell; Peter Charles Hoffer’s (2003) research on the *Sensory Worlds in Early America* (2003); Elizabeth Harvey’s (2003) work on touch; Mark M. Smith’s (2001, 2004) research on race in sensory history and his 2008 anthology, *Sensory History*; and the new academic journal *The Senses and Society*. Howes and his interdisciplinary colleagues in Concordia University’s Sensoria Research Team have undertaken many fascinating, interdisciplinary studies on sound, taste, touch, and smell. Some of this work is presented in Howes’s 1991 edited volume, *The Varieties of Sensory Experience*, and his 2005 *Empire of the*

Senses. In the latter volume, Howes proposes a necessary link between this work on sensation and the spatial practices: “emplacement,” a conceptual thread that links the various essays in *Empire of the Senses*, presupposes a “sensuous interrelationship of body-mind-environment,” and regards the “environment” in this triad as both social and physical (2005: 7).

2 Urban Senses

While it is true that the full sensory spectrum has, until recently, been neglected by urban studies and architecture, the senses are not as strikingly absent as Lambert claims. Howes and Zardini, director of the CCA, suggest that we might look to the environmental research and activism of the 1960s and 70s; to Henri Lefebvre’s, Michel de Certeau’s and Guy Debord’s interest in “everyday urbanism”; to Yi-Fu Tuan’s (1974, 1977) work on environmental perception; and even to Marshall McLuhan’s notion of the “sense ratio” and Edward Hall’s “proxemics” – all of which informed designers of their time – to find early interest in the sensory aspects of design and urban experience (Zardini 2005: 18–19; Howes 2005a). Today, architects Jacques Herzog, Juhani Pallasmaa, Steven Holl, Peter Zumthor, Shigeru Ban, and Kengo Kuma regard architectural design as a multisensory endeavor. “Critical thinking in this context is no longer driven by language, semiotics, text, and signs,” Zardini writes, “but by a rediscovery of phenomenology, experience, the body, perceptions, and the senses. This ‘sensorial revolution’ has been matched in architecture and urbanism by a rediscovery of the element of character” (2005: 23). The notion of spatial character addresses a place’s specificity; it “embraces all the various sensory experiences that one can have in a place” (ibid.).

Richard Sennett’s *Flesh and Stone: The Body and the City in Western Civilization*, published in 1994, examines the specific characters of Perikles’ Athens, early Christian Rome, medieval and Revolutionary Paris, Renaissance Venice, 19th-century London, and 20th-century New York. Sennett presents a “history of the city told through people’s bodily experience: how women and men moved, what they saw and heard, the smells that assailed their noses, where they ate, how they dressed, when they bathed, how they made love in cities from ancient Athens to modern New York” (1994: 15). The essays in Alexander Cowan’s and Jill Steward’s (2007) *The City and the Senses* offer additional examples of historical urban sensory “character,” including the smells of 16th

century Venice, the socio-sensory life surrounding beer in 19th century Munich, and food cultures of modern Vienna. Urban food spaces – their sights, smells, textures, and tastes – have proven to be ideal case studies for exploring the multisensory city. In 2005 Karen A. Franck edited a special “Food + the City” issue of *Architectural Design*; contributors examined the varieties of eating spaces in the city, including food carts and sidewalk dining; the tastes, smells, and sounds of food activities in urban cultural enclaves; roof and neighborhood gardens and greenmarkets; and the growing and selling of food as a necessary concern for urban planners.

While food has been shaping the multisensory character of cities since the beginning of civilization, studies of modern cities have had to grapple with the impact of new technologies – particularly transportation and media technologies – on urban form and experience. For instance, street cleaning and paving, and other techniques and technologies intended to sanitize and standardize the urban landscape, have contributed to the “continual erosion of the perceptual sphere” (Zardini: 21). Zardini writes,

[C]ity planning has long privileged qualities of urban space based exclusively on visual perception. Above all, sounds and odours have been considered disturbing elements, and architecture and city planning have exclusively been concerned with marginalizing them, covering them up, or eliminating them altogether. (20-1)

Sennett argues that modern “technologies of motion” have contributed to this marginalization and masking. Modern transit has made possible the dispersal of the urban population, while facilitating effortless movement, collapsing geography and insulating travelers from external stimuli. “The new geography,” Sennett writes, “reinforces the mass media. The traveler, like the television viewer, experiences the world in narcotic terms; the body moves passively, desensitized in space, to destinations set in a fragmented and discontinuous urban geography” (1994: 18). Of course the mass media are not simply a convenient metaphor for the alienation of the urban dweller; media are among the primary *contributors* to this desensitization.

More recently, researchers have drawn attention to the “invisible media” of the city – particularly its wireless and mobile networks – and how they inform urban planning and the way people navigate and interact with the city and with one another. The SENSEable City Laboratory at MIT and the Urban

Atmospheres group at Intel Research Berkeley, for instance, have focused on “senseable” or “sensory” media – that is, the use of sensors and hand-held electronics in studying the built environment. Yet much of this work, as evidenced by Brian McGrath’s and Grahame Shane’s “Sensing the 21st-century City” (2005) issue of *Architectural Design* and the recently published *Encountering Urban Places: Visual and Material Performances in the City* (2007), focuses on the gathering of data via sensors, and the subsequent *visualization* of that data.² “Sensing,” in these cases, refers not to *sensation*, but to data collection and visualization – to the engagement, once again, of the eye, and on rare occasions, the ear. But what about the *other* senses? How might we heed Howes’ advice to move beyond “‘reading’ or ‘visualizing’ the city,” and think about how to represent “‘sensing’ the city through multiple sensory modalities”? (2005a: 323).

3 Sensory Media

There has been a great deal of recent scholarship in media and film studies on the materiality of media, even ostensibly immaterial digital media, and the sensory nature of media reception – yet much of this work still focuses on the auditory and visual.³ Laura U. Marks, in *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses*, aims to understand “how meaning occurs in the body, and not only at the level of [audio and visual] signs” (2000: xvi-xvii). She looks beyond the image and sound to discern “how film and video represent the ‘unrepresentable’ senses”: touch, smell, and taste. Echoing Howes, she admits that these “elements of an embodied response to cinema...have until recently been considered ‘excessive’ and not amenable to analysis,” yet she insists that “they can indeed be analyzed – or, more properly, met halfway.”

There are of course media that are inherently tactile, and there are mediated experiences in which the senses of smell and touch are *reproduced*, rather than *represented* through media.⁴ Marks, drawing on the work of art historian Alois Reigl, mentions various historical “tactile modes of representation,” including late Roman metalwork, the “‘low’ traditions of weaving, embroidery, decoration, and other domestic and women’s arts” (2002: 6). Since the “cinema of attractions,” filmmakers like D. W. Griffith, Marcel Pagnol, John Waters, Yervant Ghiankian and Angela Ricci Lucci have used incense, scratch-and-

sniff cards, and scents diffused via bunsen burner to make the exhibition of their films multisensory experiences (ibid.: 212). The exhibition site – including, for example, Walter Gropius’s Total Theater, Frederick Keisler’s Film Guild Cinema, and the Labyrinth Pavilion at Expo 67 in Montreal – is sometimes regarded as an integral part of the cinematic experience, adding tactile and kinesthetic dimensions to the audio and visual signs on the screen. Similarly, theme parks and immersive branded spaces are intended to function as holistic sensory spaces.

Stationery has long been scented, and leather covers have long imparted to books a distinctive olfactory character – but even electronic media are sometimes made to *feel* and *smell*. Video game designers seek to perfect tactile feedback systems to enhance the “real-feel” of the game. In her 2002 book *Touch: Sensuous Theory and Multisensory Media*, Marks wrote about Digiscents, a start-up that aimed to “scent-enable movies, games, music, animation, or any digital media” in an attempt to “create a more immersive and captivating environment” (<http://digiscents.com>). Digiscents folded in mid-2001 – but other inventors continue to experiment with the mediation of smell: in 2005 ZAN, a Georgia-based pop/funk/New Age group, reportedly released a CD that emits choreographed scents via a ScentDome™ that plugs into the listener’s home computer. In early ScenTeck Technologies announced the release of Scratch-N-Sniff Pro, a “scent card” that “broadcast[s]” from a user’s computer speakers a “unique vibrating tone” that “asks the brain to recognize it, not as a sound, but as a scent”; the download came with a free Trojan virus (<http://www.scenteck.com/>). These entrepreneurial developers, in collaboration with companies like Symrise, a large global manufacturer of flavorings and fragrances, might someday announce that consumers can now smell- and taste-test online recipes, via our ScentDomes™ and TasteSpoons™, before deciding what to make for dinner.

Yet Marks claims that this objectification and instrumentalization of smell precludes a sensory experience that is inherently “embodied, precognitive, and sensuous” and denies the variety of rich, personal responses, and non-semiotic meanings, that smell evokes (2002: 116). She proposes instead that the “unrepresentable” senses are most effectively presented not as physical productions supplementing audiovisual or digital media, but as mediated evocations. The body then translates this evocation into a unique sensory experience. Mark Hansen similarly argues that, for digital media, the body plays a crucial role in *converting* a pure flow of data into perceptive frames – the photograph, the

filmic image, the video, and even the auditory and tactile “image” – each of which is a “rich, singular experience”; “the body undergoes a certain empowerment, since it deploys its own constitutive singularity (affection and memory) not to filter a universe of preconstituted images, but actually to enframe something...that is originally formless” (2004: 3, 11). When the “unrepresentable” and “preconstituted” sense is filtered through the body, the perceiver is able to call on affect and memory in order to “frame” a rich, singular sensory experience.

Marks and film scholar Vivian Sobchack propose several means by which audiovisual media can evoke non-visual and non-auditory experiences. First, they might do so by promoting narrative identification; we see a character eating a hot dog at Coney Island or sunning in Central Park and, by identifying with that character, we sense the experience as he or she might experience it. Second, film and video might evoke smell, taste, or touch through “intersensory links,” or synaesthetic references. We might hear the jingle of windchimes and feel a light breeze, or we might synesthetically experience the “visual aroma” of a film like *The Scent of Green Papaya* (Sobchack 2004: 65). Marks explains how this works:

By appealing to once sense in order to represent the experience of another, cinema appeals to the integration and commutation of sensory experience within the body. Each audiovisual image meets a rush of other sensory associations. Audiovisual images call up conscious, unconscious, and nonsymbolic associations with touch, taste, and smell, which themselves are not experienced as separate (Marks 2000: 222).

Third, film or video might promote what she calls *haptic perception* by encouraging a “bodily relationship between the viewer and the image,” a relationship that Benjamin described as *mimesis* (2002: 3). Film or video that “indexes the physicality and mortality of its medium” – via grainy, pixellated, decaying, pixellated, or digitally manipulated images; images dispersed over the screen surface; images varying in quality, color, or tone – require the viewer to participate in reconstructing the image (ibid.: xxii). This participation, Sobchack argues, is “a form of *sensual catachresis*”: “the spectator’s lived body in the film experience...fills in the gap in its sensual grasp of the figural world onscreen by turning back on itself to reciprocally (albeit not sufficiently) ‘flesh it out’ into literal physicalized sense” (82). “Haptic images pull the viewer close,”

transforming the eye into an organ of touch, and vision into a “multisensory, intimate, and embodied perception” (Marks 2002: 16, 133).

Did the CCA’s grainy images of a snow-covered Montreal make me lean in to the photographs, to complete the city scene pixellated by snowflakes – and, in leaning in, did I feel a blast of cold air? Did Daily Candy’s flat, grainy cupcake illustration “overwhelm...[my] vision and spill...[over] into other sense perceptions,” teasing my nose and mouth with a hint of chocolate cake and vanilla icing? (Marks 2002: 133). Would a hazy photograph of a steamy afternoon at the Staten Island Fresh Kills landfill have evoked a more personal, more intense olfactory response than the CCA’s vial of “garbage” aroma? How can we draw from this work on mediated sensation to enhance mediated representations of the multisensory city? In the following section we will explore a few examples of urban mediation.

4 Mediating the Multisensory City

To interrogate the city; to extract knowledge from what is on the surface unknowable; to render visualizations beyond the dictates of official cartography or planning; to discover secret movements and connections: From the pioneering photography of Nadar to the psychogeography of the Situationists, it is by these Baudelairean methods and motives that artists have sought to comprehend the city and their own place in it, often responding to the technological imperatives of the day even as they employ those same devices (Vanderbilt 2007: 119).

Artist Christian Nold seeks to understand how people explore and experience urban space by “capturing and visually conveying our moments of psychological ‘arousal’ in the city” via “emotional mapping” or biomapping (2007: 119–20). He outfits his subjects with finger cuffs that measure emissions of galvanic skin response as they wander through various urban areas, and cross-references those measurements with comments the participants make in walking notebooks. The result, critic Tom Vanderbilt says, is a “narrative, ambulatory version of the polygraph” (ibid.). Nold takes as his raw material people’s affective, sensory, kinesthetic, and proprioceptive responses to the urban environment. But then he ultimately renders this data in graphic form, thereby collapsing a multidimensional experience into a flat representation.

How might similarly situated practices, projects that take place on the streets and sidewalks of the city, use media to call attention to the multiple channels of urban sensation? Conflux, a psychogeography festival held (almost) annually in Brooklyn, includes several participatory projects that promote situated experiences, and many of these projects are enhanced by or coordinated through media technologies – primarily sensors, personal digital devices, or audiovisual media. Yet in others, “mediation” is as simple as verbal communication, chalking the sidewalk, or, in the case of Jaclyn Meloche’s “Making Winter” at the 2007 festival, punching holes from sheets of white paper. Meloche used thousands of these holes as paper snowflakes to evoke the sensory character of winter: “I want to cover the area around me with snow, and play in, roll in it, and make snow angels in it. In the context of global warming and our ever-changing environment, this performance comments on the so-called erasure of winter” (“Making Winter”). The medium of white paper visually represented snowflakes, and was intended to synaesthetically evoke the feel of snow – and perhaps, if the experience of making snow angels was sufficiently immersive to drown out the stench and swelter of a New York July, the project would also call to mind the muffled sounds and crisp smells of winter. Yet the contrast between the real and imagined environments highlighted the disparity between the iciness of her native Canada and the snowlessness of New York, and elicited the disturbing realization that, thanks to a changing climate, snow in July may be no more unlikely than a white January.

Hybrid on-site/mediated experiences were also the work of Red Dive, a now inactive cross-disciplinary performance group that sought to create “artistic experience in which audiences could engage with many different kinds of art and performance on a multi-sensory level and interact with each other and the surroundings in a heightened way”; their performances often encouraged civic engagement and addressed such social issues as gentrification and immigration (Red Dive, “About Us”). The collective’s guided “performance-tours” throughout New York involved impromptu dances and musicians that sometimes appeared alongside the tour, “animating an overlooked piece of architecture through rhythm and sound” (ibid.). Of particular interest here is their 2000 work, “One Less Sense,” a tour of an old school building in which participants were blindfolded and encouraged to hear, feel, taste, and smell their way through the space. Alexis Soloski of the *Village Voice* found the tour to be a very “girly” experience: “The participant is subject to very little conflict or confrontation”; “the piece mostly proceeds one sense at a

time,” rather than capturing the simultaneous, sometimes cacophonous, multisensoriality of most spatial experiences (2000). Still, Red Dive’s work sought to engage each of the senses and connect them to the character of a particular place, and they inspire us to consider how these senses of spatial experience might be *represented* through mediation. How might we capture the directness of this experience off-site? What if this old school, or another historic site, were about to be demolished: How might we capture for posterity the unique smells of its rooms and rhythms of its staircases?

While these works defy categorization into “the old genre categories” of “video art,” “sound art,” or “tangible media,” Caroline Jones says, they also represent a new “aesthetic attitude” in which “modernist segregation of the senses is giving way to dramatic sensorial mixes, transmutations, and opportunities for intensified and playful mediation” (Jones 2006: 3, 6). This work functions variously – sometimes by orienting the subject within his or her urban context, by using sounds or scents or textures to connect one to his or her surroundings; and other times, as with the summertime snow in “Making Winter” and the impromptu dances in Red Dive’s work, through “displacement, dislocation, distribution, and disorientation” (Jones 3).

This is not the disorientation of the 1960s, when “the senses were identified as a site for *counter-culture*,” Jones writes. “The politics of today demand a conscious culture rather than a counterculture... [T]he same capacity for intellection” that contributed to the modern hierarchization of the senses, with vision on top and smell on the bottom, “can be enlisted in its critique. And now we can try to tap body senses as additional ways to think” (42). Meloche intends for “Making Winter” to involve the body in a critique of climate change. The bottled aromas at *Sense of the City* highlight the contrast between the stench of decaying garbage and the artificial non-odor of sanitation in the urban environment. Even on-screen representations of the city, when haptically perceived, pull the viewer in close to taste the foods of a busy multicultural metropolis, to feel the contact of others’ skin in a crowded urban square, to smell the aromas of these bodies and foods. These mediated sensory experiences can promote “empirical thinking” about such issues as air quality, noise pollution, ergonomic design, gentrification, or environmental conservation.

They can also contribute greatly to scholarship in urban studies, geography, history, media studies, and other disciplines that address sensory experience. For instance, *Juncture*, a joint project of UCLA, the California Department of Parks, and Disney Imagineering, allows citizens to use mobile phones and

digital cameras, along with global positioning devices and geographic information systems, to map their urban networks and identify social forces informing the evolution of Los Angeles (UCLA CENS, et. al.; “Remapping LA”). This input, represented in maps, still images, audio and video recordings, and text, is ultimately brought together in media installations and performances at various sites throughout the city. Similar work has taken place at Parsons The New School for Design; the Department of Communication Design and Technology’s “Mobile Geographies” project uses mobile phones and data types similar to those used at UCLA to create a platform for “geo-tagged urban information”: “The goal is to connect virtual narrative layers to tangible places, providing a ghosted space where stories, histories and statistics reveal patterns of association and visions of the future” (“About Mobile Geographies”). Yet, one wonders how these sensing technologies capture non-audiovisual experiences and responses, and how the representations of this data, in text, image, and audio, evoke the *silent, invisible* city – the one we cannot see or hear.

One final project grapples intelligently with these questions, and warrants a close examination. Anthropologists Ruth Tringham’s, Michael Ashley’s, and Steve Mills’ Remediated Places Project “aims to share the multisensorial experience, construction and memory of places, specifically cultural heritage sites” – in this case, the 9000-year old mound of Çatalhöyük, Turkey (Tringham et. al. 2007). This project doesn’t deal specifically with cities, but its techniques can certainly be applied to the representation of urban places. The project developers have collected representations and recordings of the mound in a wide variety of media formats: photographs, drawings, video, virtual reality renderings, GIS maps, texts, and numerical data created during archeological digs, videowalk logs recorded with binaural microphones, video interviews with archeologists about their “remembered sense perception” at Çatalhöyük, and ambient sound clips. All of these media are then tagged to identify their relevance to various themes; the developers have identified four that are central to the project: “Life Histories of People, Places, and Things (incorporating memory); the Senses of Place (incorporating the sensorial experience); Viewing the Past at Multiple Scales (incorporating information); and Communicating and Collaborating with the Public (which lies at the heart of the Remediated Places Project).”

The project is scalable, modular, and portable for reception in various formats and by difference audiences. On-site in Turkey, the project could serve as an installation at an interpretive center; visitors could take an ipod and head-

phones with them while touring the site, and they could choose an audiovisual tour that represents any of the four themes. One option is a “sensuous tour,” which would describe

the scents of the early morning; the sound and feel of the snow underneath your feet...; you will see intimate close-ups of the excavation where you cannot go; you can walk (virtually) amongst the actual remains of the houses and experience the rhythm of excavation in the hands and tools of the archaeologists, and hear the multi-lingual quiet chatter of voices.

The “life history” tour recreates memories of past excavations through recorded voices, readings of diaries, images, and videos chronicling the site at various stages of its history. Imagine applying similar techniques in Red Dive’s “One Less Sense” tour of the old schoolhouse.

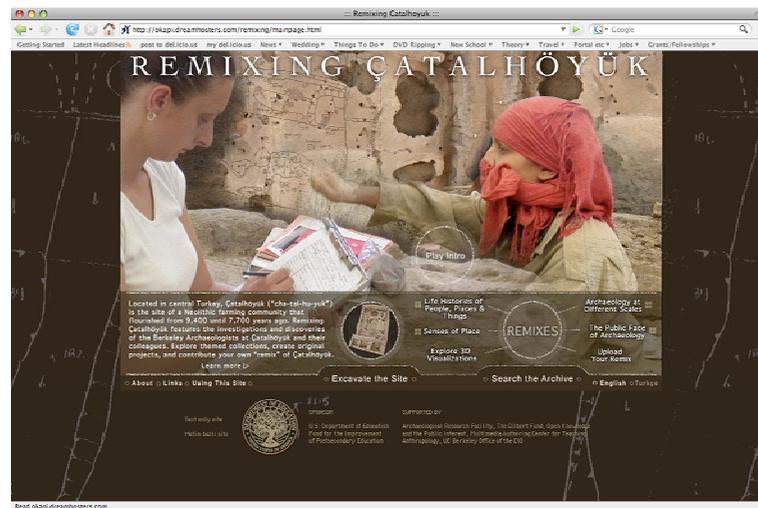


Fig. 3: Courtesy of Remixing Çatalhöyük

The project could also be experienced remotely as a website (see Figure 3): you might take a virtual tour that provides some of the same content presented in the on-site audiovisual tour, including video and photographs, but online, the still and moving images stand in for direct experience. The imagery and narration strive to recreate the senses not directly experienced: there is a “slow

pace of movement, a focus on hands and trowels and feet to express the sense of touch, the sounds and slow pace of excavation.” Finally, the project could be a live performance, which the developers describe as “something between a play, an opera, and a circus” – a form of improvisational theater that appeals to embodied sensory knowledge of the place.

Tringham et. al. regard the user as the primary agent in organizing and imparting structure to the site’s content. Mark Hansen argues that, in perceiving digital media, the body “deploys its own constitutive singularity not to filter a universe of preconstituted images, but actually to *enframe* something...that is originally formless” (2004: 11) Remediated Places seeks to “enable the user – at whatever level of experience and skill – to draw out these innumerable fragments of multisensorial places, memories, life-histories, and interpretations of the archaeological data at multiple scales...and recombine or remix them”; a “key point of the project,” the developers say, “is to demonstrate transparently the intentionality of authoring and the shared experience of author and audience that is created through interactivity.” The project developers and users share in this process of authoring the mediated experience of Çatalhöyük.

Tringham et. al. also think critically about the pedagogical value and rhetorical potential of the visualizations – photos, videos, and virtual reality reconstructions – in the project. Rather than striving for photorealism, the authors advocate “incorporating and engaging with elements of uncertainty and process” – like the grainy, pixellated, decaying images that foster haptic perception. “Only in this way,” the authors say, “can digital visualisations move beyond a sole concern with imitation and embrace issues of creativity and ambiguity that more fully engage and challenge audiences.” The sense and past of a place should be represented not as linear and universal, but as something pieced together, colored by affect and personal memory – and the media used to represent this spatial past should be chosen to reflect this patch-worked history.

The developers are also particularly concerned with the mediation of the non-audiovisual senses. They note that archaeology is a predominantly visual and tactile field, but that archaeologists “are not practiced in thinking about the role of non-visual senses and do not take pleasure in recording them.” They suggest that non-audiovisual aspects of a site can be relayed through textual description – yet the challenge is to “dynamically share those ... sensations with wider ... audiences and in combination with other modes of sensory engagement.”

Their proposals for accessibly representing these “other” senses bear significant resemblance to Marks’ strategies for representing the “non-representable” senses through audiovisual media. The anthropologists’ first strategy is what Marks calls “narrative identification”: in *Remediated Places*, “sweat dripping off an excavator’s forehead triggers a feeling or memory of heat in the user; a close-up of hands excavating will trigger through their rhythm the memory of a song or a dance.” Their second strategy addresses the embodiedness of even virtual media use, which both Marks (2002) and Michelle White (2006) have discussed. *Remediated Places* requires the user to “swing from virtual touch and movement to physical movement and touch”; “even the on-line format,” they note, “requires the hand-movement of the keyboard and mouse.” They seek additional ways to “increase the bodily haptic experience,” by, say, instructing the user to move her hands and feet, or to move away from the screen and perform a particular action. Even in the on-site video-walk, narrators issue instructions to visitors to carry out specific tasks “to trigger imagined tactile experience.” Video itself, as opposed to other more static representations, imparts a sense of movement to the mediated site: its “immersiveness and immediacy of kinesthetic experience,” they suggest, cannot be replicated in other media. “The videos take advantage of movement through space and proximity to various textures and objects, tactile sensation of the feet, even the ... breathing of the videographers.” The use of first-person game engines has the potential to offer differently embodied means of moving through the mediated space.

Their final strategy is essentially what Marks calls haptic perception: they seek to create footage that expresses a more “intimate scale.” “Intimate” refers first to the proximity to the mediated subject; the anthropologists aim to capture this intimacy on film through “close-up video walks within the ‘forbidden’ excavation area” – by granting access to secret spaces – and through “ultra close-ups of the hands and trowels at work.” Capturing the “hand-ballet” of excavation work imparts a rhythm to the work and might again encourage narrative identification or projection into the image. Yet the project developers also use the term “intimate” to refer to “the lack of orchestration, direction, and explicitness, to reflexivity” of their recorded images. These are the blurry, distributed, disorganized images that pull the viewer in close and encourage heightened engagement with the on-screen image.

The theories of media materiality and sensory mediation put forth by Hansen, Marks, Sobchack, Munster, White, and a host of other artists and scholars

come alive in the anthropologists' project. We began with an object lesson – Daily Candy – and we end here with another – Remediated Places, which demonstrates that an emphasis on sensation need not entail “a loss of critical awareness” or a “slide into a moral of emotion and desire”; rather, it demonstrates that “critical investigation” need not bracket out feeling – that these are not exclusive categories of cognition and experience (Howes 2005b: 6). This project crosses epistemological boundaries and raises questions, including those we mentioned earlier, about the capacities of media, about the nature and culture of sensory experience, about the biases of our disciplines and practices, about our models for understanding space. This project, and several we examined earlier, raises questions about the effectiveness and ethics and of *reproducing* versus *representing* various sensory experiences; do we attempt to simulate the feel of clay, or do we capture that experience through haptic perception?

How do we address these questions in mediating the simultaneous, often cacophonous, multisensoriality of everyday urbanism? How do we mediate without flattening the experience, instrumentalizing sensation, or denying the variety of rich, personal responses? The mediation of taste, in particular, requires additional research and experimentation. How might the exciting research on urban foodways, for instance, be enhanced by or represented through mediated olfaction and taste? Furthermore, what are the methodological implications of examining the already-pervasive mediation of urban experience – and the unique sensations of, say, navigating by GPS, or perambulating inside an ipod “sound bubble” – by “employ[ing] those same devices” of mediation (Vanderbilt 2007: 119)? These questions are best addressed through collaborative work involving scholars and practitioners in various fields invested in the city, who are concerned with writing histories and analyses and criticism that engage more than the eye and ear – that capture the silent, invisible city. Ultimately, such work has the potential to enhance the exhibitions in our city museums, to contribute to the development of multisensory pedagogies, to inspire new media art, to open up new “other sensory” resources to scholars in myriad fields. And, as Zardini reminds us, urban mediations like those described here “pose a different way of talking about, describing, and planning our cities” (2005: 24). These mediations may in turn shape the very cities they represent.

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¹ We might look to Archigram's 1963 "Living City" exhibition at the London Institute of Contemporary Arts as a precedent. "Through image, text, sound and light, this 'assault on the senses' that physically enveloped visitors attempted to convey 'a vision of the city as an environment conditioning our emotions.'" (Sadler 2003: 556; quoting Maxwell 1964). Archigram member Dennis Crompton reported to Hadas Steiner that the group considered integrating "city smells," as well; "You must have noticed the different characteristic smells of Paris, Milan, London and New York..." (Steiner 2006: n27). But as Sadler points out, "The potential of an exhibition to operate as a total, sensorially conditioning environment had already been demonstrated at the Institute of Contemporary Arts by the 1959 *Place* show, coordinated by a team that included the erstwhile Situationist Ralph Rumney" (2003: 567).

² For an exception, see the SENSEable Media Group's Sandscape project, developed in cooperation with MIT's Tangible Media Group: <http://senseable.mit.edu/projects/sandscape/sandscape.htm>

³ See, for instance, Hans Ulrich Gumbrecht and K. Ludwig Pfeiffer, Eds., *Materialities of Communication* (Palo Alto: Stanford University Press, 1994); Steven Shaviro, *The Cinematic Body* (Minneapolis: University of Minnesota Press, 1994); Samuel Weber, *Mass Mediauras: Form Technics Media* (Palo Alto: Stanford University Press, 1996); and Bernadette Wegenstein, *Getting Under the Skin: Body and Media Theory* (Cambridge, MA: MIT Press, 2006). Film scholar Vivian Sobchack argues that film theory usually "locates the sensuous on the screen as the semiotic effects of cinematic representation and the semantic property of cinematic objects or off the screen in the spectator's phantasmatic psychic formations, cognitive processes, and basic physiological reflexes that do not pose major questions of meaning" (2004: 59–60).

⁴ In their "Beyond the Aesthetic Gaze for an Aesthetics of the 'Other' Senses" project, the Concordia Sensoria Research Team have explored the work of numerous artists who work with the recreation of scent, touch, and taste (<http://alcor.concordia.ca/~senses/Consert-Gaze.htm>).