mood: mourning, outrage, joy, restlessness, expectancy, excitement, or resistance. In the terminology of this book it is helpful to think of the agency of attunement as widely distributed, engaging sociability, conversation, the mass media, digital communications, and other means of cultural creation, preservation, and transmission. For Heidegger, attunement also comes before any sense of time or space.

The philosopher and sociologist Alfred Schutz develops the tuning theme further, drawing attention to the "mutual tuning-in relationship" that becomes manifested as a sense of sociability or a "We."[7] This tuning-in relates less to the matter of synchronizing according to regularized clock time and more to the duration,[8] or the "inner time," of lived experience. Schutz uses music to explain this attunement. Ensembles of musicians are engaged in a complex play of anticipation. Any musician reading a score "has not only to interpret his own part which as such remains necessarily fragmentary, but he has also to anticipate the other player's interpretation of his—the Other's—part and, even more, the Other's anticipations of his own execution."[9] Tuning-in is an interpretive and relational process concerned with contingent human interactions and participation in human solidarity. My use of *tuning* in this book is intended to embrace tuning-in and attunement, opening up an examination of the micropractices by which designers and users engage with the materiality of pervasive digital media and devices, including the inexorable accumulation of small changes, divisions, and ticks of such devices.

So tuning provides a richer metaphor for the interconnected digital age than Mumford's trope of synchronization. Musicians tune musical instruments, mechanics tune internal combustion engines, and managers "fine-tune" their budgets, but people also use instruments, machines, and spreadsheets to tune their interactions with one another. By this reading, musicians might think of musical instruments as devices for tuning the interactions among ensemble players and with an audience. The social grouping and its spatial presence are the first consideration, with the instruments serving as vehicles for facilitating human interactions.

If tuning addresses the coordination of time increments, then what does it say about spatial increments? It is common to contrast the mathematical and mechanical orderings of space against the more engaged, experiential, contingent notion of place.[10] According to Edward Relph, "places are territories of meanings, meanings that arise from the experiences of living,

working or visiting somewhere, appreciating its architecture, being familiar with its routines, knowing its people and having responsibilities towards it."[11] In other words, places are inhabited spaces, particularly as populated by people, their concerns, memories, stories, conversations, encounters, and artifacts.[12] The tuning of place is a set of practices by which people use devices, willfully or unwittingly, to influence their interactions with one another in places. It is sound theorist Murray Schafer who brought the relationship between tuning and place into sharp relief. In *The Tuning of the World* Schafer suggested that we should think of the occupants of space as composers and performers, responsible for giving form and beauty to their environment through sound.[13] Whether or not people aspire to compose or perform, they may at least assume the role of instrument tuners, as if performing, or preparing to perform, in ensembles of players located in places.

If place is about the way people inhabit, interact, socialize, and remember, then tuning connects to the lived experience of temporal and spatial adjustment. By this reading time and space are the derivative, abstracted, and disengaged manifestations of what inhabitants ordinarily experience unreflectively simply as being in a place, positioning themselves, adjusting, and tuning. This accords with geographer Doreen Massey's constructional characterization of space: "because space . . . is a product of relations-between, relations which are necessarily embedded in material practices which have to be carried out, it is always in the process of being made."[14] While synchronization suggests a mechanical process arbitrated by the standard of time as a regular pulse, tuning suggests human contingency that pertains exclusively neither to time nor to space. Whereas synchronization pertains to time, tuning applies both to time and space.

Commentators who focus on synchronicity tend to look to a condition in which everything happens at once, a language of instants: instant travel, immediate access to information.[15] Tuning brings to the fore the processes by which people seek or arrive at the aligned condition, recovering when things drift, retuning and detuning.

In this book I wish to access the phenomenon of tuning by attending to the mechanistic as well as the social, which I think fold into one another, not least as meditation on the materiality of the mechanical provokes renewed thought of the everyday.[16] I will problematize the

human's relationship with technologies and place by amplifying otherwise underdeployed metaphors derived from sound and the materiality of digital devices.

The tuning metaphor has not escaped those who theorize pervasive media.[17] Tuning pervades the human animal's relationship with its environment. I adjust, tweak, and tune my environment. I flick the light switch, turn down the electric radiator, and turn up the stereo. With such microadjustments I shape spaces to suit my immediate requirements and those of fellow occupants, and through operations far less costly and requiring less foresight and planning than relocating a window, moving the fireplace, or raising the roof. It is helpful to think of tuning as a form of constrained microdesign, oriented to immediate circumstances. The concept of tuning draws attention to what some have termed *subarchitecture*.[18] This is the condition by which "one takes one's place" in a public place to optimize one's position to hear, be heard, or enjoy quiet. It is a stratum of design activity that does not require the costly and expert positioning of structural elements. Anyone can tune, or attempt to tune, their place without recourse to expert knowledge.

The materiality of space and that of sound often converge through meteorological metaphors. The Situationists of the 1960s attempted to turn architecture into the pursuit of "atmospherics," in the meteorological as well as the phenomenal sense.[19] The boundaries of atmospheric zones rarely follow the boundaries of buildings, and require subtle means of control and adjustment.

Atmospheric adjustment inevitably is social. In polite circumstances a person will consult other occupants of a room before opening a window or turning on the radio. Comfort and discomfort are shared phenomena. There is a richly social aspect to this spatial tuning. As suggested by Schafer's democratization of environmental modification, occupants' interventions are more in the manner of a collaborative and spontaneous performance than a concerted plan instituted by a single designer or a class of experts. Tuning reflects back on design. As sociologist Bruno Latour asserts, "all designs are 'collaborative' designs,"[20] and in this sense design is tuning on a grand scale, or a collection of many tuning operations. Thinking of design as a collaborative micropractice also helps design theorists and developers understand further how ubiquitous digital media are complicit in the tuning of place.

Many ubiquitous media and devices, such as cell phones, smartphones, digital cameras, and streamed media players are conspicuously social media, dedicated to communication. Mobile phone functions are arguably more social than clocks. Urban dwellers saturated in pervasive media use ubiquitous devices to tune their interactions with one another: to organize meetings, coordinate travel, tell each other what they are doing and where they will be. Not all pervasive devices facilitate the transmission of messages, but even clocks, global positioning systems (GPS), personal organizers, game consoles, and other ubiquitous devices bring synchronization and communication into the arena as basic social functions,[21] not least as the consumers of such services identify meeting places, share online diaries, and play multiuser computer games. In his book titled *Mobilities*, John Urry highlights some of the subtle practices introduced by mobile connectivity. The office worker can phone ahead if she is running late, change venues, and be more selective in offering invitations to meetings: "clock-time is increasingly supplemented by a negotiated 'network' or fluid time of mobile communications."[22] A judicious text message or phone call can act as a reminder, or a hint, and can nudge someone to do something or move into a different mode of practice: for example, to start preparing paperwork for signing, to fulfill family obligations, to reciprocate a dinner invitation. But the tuning of place suggests that the influences people exert on one another go beyond those between two agents seeking to affect each other's behavior.

Pervasive digital devices have obvious spatial aspects: phones connect across distances, GPS locates people in space, computer games and streamed media synthesize spatial environments, personal stereos apparently confine the listener to a sensory container—all of these devices are distributed across space. Short text messages, or tweets, are propagated through the Internet and phone networks to signal the change in position of a friend ("I am in the park") or the state of arbitrary objects, as when the transport enthusiast receives an automated text message that London's Tower Bridge is raised. As instruments of social tuning, ubiquitous devices also abet the formation of place, as the context in which people interact, in synchronic face-to-face encounters or indirectly through artifacts, devices, and the stories people tell, implicating concepts of identity, memory, history, and meaning.

What activities are tuned through pervasive digital media? If pervasive devices abet the tuning of place, then researchers and designers need to

expand their understanding of the role of such technologies from synchronization or coordinating schedules to aligning human practices. Humans are social creatures, mimicking, copying, and learning from one another.[23] As well as conveying messages, the communicative functions with which pervasive media are concerned facilitate sharing practices. According to a tradition of social theorizing, from Thorstein Veblen and Erving Goffman to Michel Foucault, human society sets in train certain institutions, practices, and artifacts by which it regulates itself.[24] To the extent that people order their lives by timetables, agree to military drills, keep their elbows off the dinner table, and practice musical scales, they instill and perpetuate social norms and promote habits and customs that help identify with one group or another, decide who is in and who is out, and transmit power relations.[25] It seems that such cultural transmission is essential for getting things done. The proliferation of pervasive digital media as one of the means by which humans refine social relationships—the tuning of place—is consistent with this understanding of the crucial role of human practices, and their preservation and transmission.

How can cultural critics, commentators, designers of human-computer interactions, urbanists, and architects respond to a call for the tuning of place? Certain factors conspire against a clear articulation of the nature of place in light of pervasive digital devices. My own studies into digital media[26] corroborate findings in psychological studies that not everyone is equally adept at conceptualizing, representing, and reasoning about space or place.[27] Many users of spaces and of pervasive devices are less articulate in reflecting on and giving expression to their spatial experience than they are at disclosing insights into interpersonal relationships.[28] For one thing, the communication of spatial experience often requires aptitude in drawing, sketching, mapping, measurement, descriptive prose, and other specialized forms of representation. Digital devices are pervasive, but spatial understanding and the means to express it are not.[29] Nor is the base of evidence on which the researcher might draw incontrovertible or entirely transparent. My topic, the tuning of place, calls for a speculative resourcefulness, an orientation that draws on metaphor and imagination.

Concepts of virtual reality (VR) provide a further complication to the pursuit of place and pervasive digital media. In their article on pervasive media in 1997, Ishii and Ullmer took it for granted that people potentially "live between two realms: our physical environment and cyberspace."[30]

The apparent challenge of tangible digital media—that is, pervasive media with a particularly tactile quality—is to connect the two spaces. The concepts of cyberspace and virtual reality continue to thrive, bolstered by the power of dynamic 3D modeling and the automation of rapid perspective rendering, and their combination with networked communications. The ethereal otherness of putative virtual spatial experience occasionally dominates people's reflections on digital media and spatiality, accented by immersive, multiuser, user-created 3D environments such as Second Life, and other massively multiplayer online role-playing games (MMORPGs) and environments.[31]

The discourse of cyberspace is potent and alluring. But there is growing resistance to the concepts of virtuality and cyberspace. Many critics think the theme of virtual reality distracts from a consideration of everyday spatiality.[32] Many of those who now study pervasive media from a social perspective oppose the imaginative but nonverifiable assertions of cyberspace enthusiasts, a protest that is gaining ground among researchers into pervasive computing.[33] Concepts of space are, after all, subservient to concepts of society; space as place is socially as well as materially constructed,[34] not the product of three-dimensional representations presented to the eye. Tuning relates more strongly to concepts of augmentation, interaction, and sociability than the alignment of parallel worlds.

A further factor that renders the consideration of place and pervasive media so challenging is that many of the technologies under discussion are nascent, or at least they are not available in sufficient volume in the marketplace for their effects to be observed and studied. Whereas the consequences of pervasive mobile phones, smartphones, and personal media players are available for study, other ubiquitous devices and networks are by their nature inconspicuous or invisible. They are also undergoing transformation. As web critic Geert Lovink says of related Web 2.0 developments: "How can you do research when your object is in a state of hyper-growth and permanent transformation?"[35]

I have alluded so far only to the obvious and current mass commodities of phones, handheld devices, games, cameras, and personal stereos, but the range of ubiquity is vast, including the inconspicuous deployment of radio frequency identification (RFID) tags, smart badges, networked "specks," smart sensors, actuators and environmental controls in buildings, dynamic signage, surveillance devices, microprocessors in cars, refrig-

erators, toasters, and washing machines, office equipment, wearable computing, life-support, prosthetics, and assistive technology, still under development, not all tested on the market, and with spatial applications and consequences that are still coming to light. Researchers and developers characterize these under various headings: ubiquitous computing, pervasive digital media, augmented reality, tangible interfaces, wearable computers, cooperative buildings, and context-aware computing.[36]

In fact, to even list devices and technologies suggests that the sum of components captures the whole of this complex milieu. Some might regard such tallies as short changing the phenomenon of pervasive computing, which builds notions of interconnection, invisibility, and context awareness, an all-pervasive shared field of sensing, processing, communicating, and actuating, the individual components of which only reveal themselves when needed.[37] Such configurations also attest to the availability of an "Internet of things."[38] For some, the concept of pervasive digital media extends well beyond the Internet as currently understood. According to computer scientists Rolf Pfeifer and Josh Bongard, although it is likely that the world will see increased integration of ubiquitous devices with the Internet, "ubiquitous computing networks are conceptually and practically much more than another kind of Internet." They are "embodied."[39] Researchers of ubiquity often suggest that their subject area covers all computing, or at least the imminent computing of the future. Computation is well on the way to permeating the human being's entire experiential field.

In characterizing this ubiquity I have already indicated a preference for the metaphor of the computer as medium as opposed to machine or device.[40] A medium can be understood as a carrier; such as air or water that transmit sound waves. In classical information theory the medium is incidental to the message being carried, other than as a source of noise or disturbance to the message signal.[41] Under ideal conditions the medium is transparent and invisible. Harold Innes and Marshall McLuhan as leaders in the field of media theory promoted a major revision to how cultural theorists and computer hardware and software designers think of media.[42] The medium not only influences the message, but also "the medium *is* the message."[43] David Bolter and Diane Gromala articulate clearly the formative character of computer media in their book on the myth of media transparency.[44] Media are not incidental to the messages they transmit,

nor are they interchangeable. Cinema did not replace live theater. Though they are complicit in the transformation of the mass media, websites do not necessarily replace newspapers. Note the emergence of free, easy-read newspapers for consumption on pubic transport, and the symbiotic relationship between web content and mainstream news. Media do not immediately replace one another, or become obsolete, as if the world is on the way to a convergent, invisible, all-encompassing cyberspace matrix or pervasive media blur. Media such as books, paintings, televisions, films, computers, portable DVD players and cell phones interact and influence one another through a process Bolter describes as "re-mediation."[45] As further evidence of the crucial role of media, consider how consumers reveal their concern about the physicality of media devices, as recognized in the market value attached to products independently of any apparent notion of function or utility. Think of designer watches, stylish handhelds, and branded laptops. People care about the medium through which this functionality is delivered, and the design of the medium is as potent as its putative content.

Ubiquity relates to processes of innovation and dissemination within mass markets. Studying commercial processes provides a further way of analyzing ubiquitous technologies[46] abetted by evidence gathered from surveys and interviews. The methods of social science prefer to analyze phenomena that are already present, but identifying and describing the mediated and ambient character of contemporary ubiquitous computing also requires insights gained from disconnected experiments along with imaginative conjecture. Were pervasive computing imminent or at hand then it might be difficult to scrutinize anyway. An understanding of ubiquitous technologies requires invention and speculation, which takes me to the matter of design.

My own discipline, architecture, has obvious concerns with place. Interaction designers sometimes draw on some of the lessons of architecture, particularly on the themes of place and space, thanks to the work of several architectural practitioners, educators, and theorists, who have pioneered aspects of computing since the 1960s,[47] and the work of contemporary commentators such as William Mitchell and Malcolm McCullough who have made explicit the connections between pervasive computing and architecture,[48] a theme about which more needs to be said.

My investigation in this book of necessity sits at the intersection of several disciplines. The sociology of technology advances understanding of how devices are being used in practice, and how they are complicit in formal and informal social organization. Interaction design develops and explores innovative technologies and applications, and positions ubiquitous technologies in contexts of embodied, situated agency and spatiality. Studies in the cultures of the senses draw attention to the problematic of human perception. Contemporary urbanism and architecture work through issues of place, space, and non-place. These disparate disciplines do not necessarily rest on common ground. Nor does the sum of their contributions lead inevitably to a consistent or inclusive picture. Their differences can reveal as much as their similarities and sympathies.

How can the researcher and social commentator structure a study of ubiquitous technologies of place? Interaction design might consider affordance, augmentation, seamlessness, usability, and integration.[49] By invoking a more provocative terminology, contemporary architectural urbanism might conscript the typology of gaps, seams, the uncanny, the sublime, dark space, warped space, and non-place in its typology.[50] In this book I structure the themes of ubiquity and the senses along the vectors set by the conspicuous character of digital media devices: their need for adjustments, the repetitive nature of their operations, their role in storing and indexing data, their locational functions, and the problematic issue of noise. As for the experiences and practices of those who use these devices, I translate these themes in terms of intervention, calibration, wedges, habits, rhythm, tags, taps, tactics, thresholds, aggregation, noise, and interference. I group these phenomena under section headings pertaining to temperament, the everyday, and the commonplace. Alternatively, they deal in tuning, time, and space. Temperament introduces the tuning metaphor in detail; the everyday pertains to the experience of temporal cycles, and the commonplace to location and issues of environment. I argue that a consideration of these prosaic and practical aspects of pervasive devices reveals socially and spatially interesting characteristics of pervasive digital media and devices, particularly pertaining to their design and to the environments they occupy and create.

In chapter 1 ("Intervention") I present the design process as an intervention into the everyday. Design is ubiquitous, conflictual, agonistic,

potentially provocative, and at its core a tactical and incremental operation that works with small differences.

Chapter 2 ("Calibration") makes the case for encouraging designers and users to take into account the adjustment of digital devices in assessing their operations. Calibration practices are those instrumental processes by which models are brought into alignment, notably in the calibration of a scientific instrument against a standard, the adjustment of a building form to its ideal archetype, and of course the tuning of musical instruments. Precise manufacture and automated procedures sometimes conceal the processes of calibration, but calibration persists in the subtle and mutual adjustments required in the tuning of machines. The chapter canvases issues of recalibration, the role of registration and control points in graphic representations, the interference between representations, how the idealist tradition deals in discrepancy, and the operations of scales and musical temperament. Calibration presents as a covert operation that permeates the world as experienced, as well as the world as studied, analyzed, and engineered.

In chapter 3 ("Wedge") I start with the simple idea of the archetypal device that accomplishes the hedge or fudge to bring constructional elements, environments, and digital components into alignment. I build on this metaphor of the wedge to develop the idea of calibration as a human-oriented, contingent, and contextual process of tuning: the physical and metaphorical role of the wedge as a tool of adjustment, tunings between social actors, the tuning of metaphors, and design as tuning. I examine digital media devices as generators of, and solutions for, deviation and calibration, an insight that applies to early machines (Vitruvius's war engines), architectural artifacts, scales in music, iPods, smartphones, and other pervasive digital media.

In chapter 4 ("Habit") I examine how pervasive digital devices constitute everyday objects, which in turn implicate cycles and patterns that are also crucial in the devices' operation and reception. Habit implies routine and ritual integrated into everyday life. In this respect pervasive digital media are designed to blend into the everyday world of mundane objects. Habitat is the place where habits are born and cultivated. Pervasive digital devices are complicit in the creation and maintenance of the everyday habitat, of the schedules of broadcast media, and the everyday and ritualized practices surrounding the use of phones, media players, and digital

cameras. I counterpoint the homely idea of habitat with the more aggressive, assertive operations by which people create territory.

Chapter 5 ("Rhythm") draws attention to repetition. Repetition helps define space through the regular ordering of colonnades, grids, and other architectural devices, including beacons, church bells, and alarms. Sounds offer a more covert means of ordering and claiming space than physical structures, especially when repeated, as in the case of bird calls, the criers in the marketplace, voices on the sports field, and half conversations conducted on cell phones. Digital technologies repeat and promote repetition. They also contribute to the human obsession with a world picture, through endless visual scans in ever-greater detail. It is against the sameness of repetition that differences stand in relief. A small difference can nudge an organization or set of practices into a different mode of repetition.

Among those small apparently inconsequential differences resides the world of the tag, the subject of chapter 6 ("Tags"). Tags are small indices pointing to something greater and more complex. Tags proliferate through RFID and other pervasive indexing technologies. Tags make sense in the company of other tags and contexts. As such they form languages of small changes brought into relief by ideas of collective tagging, or *folksonomies*, promoted through social network sites. Tags mark moments in time, as transient indicators of a change in state. The tag is emblematic of participative moves to adjust the environment by means of small-scale local interventions: putting your own label on a thing.

Chapter 7 ("Taps") looses the tag from its dependence on the host and further demonstrates the importance of the incremental move in understanding pervasive digital media and devices. Tags are closely related to touch, the way a tap on the door or a tap on the shoulder signifies an important moment. Tags as taps are prone to the possibilities of misunderstanding, mislabeling, persuasion, and transience. The chapter therefore promotes the sensual potential of the tag.

In chapter 8 ("Tactics") I address technologies that locate travelers and mobile workers in space. Pervasive devices increasingly deploy technologies that position people and devices. Here I demonstrate how the way locational technologies operate, and the ways people interact with them, can further an understanding of the incremental move in the design and use of pervasive digital devices. The chapter compares GPS with the tactics of simply walking about, and the extent to which each mirrors the other

in its attention to detail and the small change. The chapter amplifies the extent to which the tuning of places and nonplaces are tactical throughout.

Chapter 9 ("Threshold") examines how pervasive digital devices render familiar places and activities strange. Spatial navigation involves negotiating so many thresholds and small transitions. One way people tune their relationship to place and each other is to adjust their position across, on the edge of, and in response to thresholds, processes now abetted in no small part by pervasive digital devices.

Chapter 10 ("Aggregation") outlines the trajectory of pervasive media design development. To reinforce the idea that design works as a provocation to further as yet undefined interventions, I present and analyze a working project involving smartphones. The chapter amplifies the character of design as a collaborative, participative, opportunistic, incremental, and experimental process. Design also functions as a mode of research, which is to say a way of revealing new understandings of pervasive digital media and the societies and spaces in which they operate.

Communication is impeded by noise, a type of signal distortion that is the subject of chapter 11 ("Noise"). I show how noise has two interesting characteristics that can inform an understanding of pervasive digital media. First, noise can render communication incoherent, but it does so by purveying ambiguity. A noisy channel might confuse because it conveys too many messages. Second, noise enters from the outside, from another channel, from beyond the frame. From these two characteristics, ambiguity and externality, flow an understanding of pervasive media in terms of silences and a kind of sociability that assumes someone else is listening in, an absent other. The chapter explores various means by which digital devices invoke the absent other, leading to a consideration of the role of the human voice in pervasive media.

Chapter 12 ("Interference") develops further the theme of the putative externality of noise. In any case, cultural theories of sound invoke contrasting ideas of both continuity and the cut. The externality of noise is also suggestive of impurity, anomaly, and incongruity—acceptable grist for any designer's mill. The chapter concludes with a consideration of detuning to complete this acknowledgment and verification of the role of pervasive digital media in the tuning of place.

By way of summary, my investigation is driven by five key propositions. First, design offers a preeminent mode of understanding, for which metaphors provide a potent resource.[51] Designers value associations and profusion, even an excess, of connections. In keeping with the practices relating to much cultural theory, creative designers like to draw on a wide range of varied sources.[52] The metaphor of tuning invites associations among fields such as music, sound, design, architecture, urbanism, psychology, engineering, technics, and ethnography, a cornucopia supported in no small part by the associative matrix of the World Wide Web, and the ready availability of online journals, sound files, and images, particularly through institutional subscription accessible from the work desk and while on the move. Therefore my focus on design provides license to traverse a field of rich associations.

Second, this work attends to the idea of small increments, nudges, and cues ahead of grand plans and systems. Influences among workers, politicians, and citizens are purveyed most effectively as nudges and subtle shifts in practices that are carried over into technologies, such as pervasive and mobile digital devices. In this book I seek to push to its limits the energy of the small change. I take it for granted that human relations and practices are complex and ready to be tipped into a new state, mode, or key by the judicious application of the appropriate small change, a subtle tuning to context and environment.

Third, I advance the cause for the judicious application of the small change as tactic. Deliberate interventions, responsibility, and agency are better described in terms of tactics than plans. The ways people adapt to and adopt various technologies are highly tactical, and so is design.

Fourth, the small increment, the minor shift can serve as an irritant, a foreign body, a catalyst, a transforming agent that renders what consumers of public and private space normally identify as somehow alien or strange. This is a function of much design and art in any case, to challenge accepted norms, to transform environments by offering a different take on the world. But the design process and all acts of creation are subject to such processes. In this sense any innovation has the potential to present as an opportunity for discovery. Ethnographically attuned observation releases cultural commentary from the necessity to criticize everything technological as buying into capitalist hegemony. So in response to media theorist

Geert Lovink's identification of the net user as "data dandy," "wrapped in the finest facts and the most senseless gadgets,"[53] I would add that even superfluous items of consumption have the capacity to inform users, designers, and theorists about the human condition. In order to innovate, designers, creative writers, artists, and entrepreneurs keep seeing new possibilities in the ordinary by rendering the familiar strange. What could be stranger than the ways that digital media and devices now pervade every aspect of the environment, and tune the places people inhabit?

My fifth point of course relates to sound. What follows will be permeated by a plethora of unavoidable ocular metaphors, but moderated by an acute sense of the acoustical, which provides a further means of defamiliarizing sociable spaces increasingly permeated by digital media and devices.