

## ON TIME

If a tree falls in the forest, sound waves – vibrations in the particles of air in a space around the tree-ground event – will be produced. To ask whether it makes a sound is to ask whether “sound” means the production of vibrations or the stimulation of the eardrum by those vibrations (or, more obscurely, whether the stimulation is assigned any meaning by the hearing body). Regardless of the response, sound is a spatio-temporal event. The rate of compression and expansion of molecules bumping against one another determines the perceived properties of the sound, which happens in the moment and then passes.

Recording technologies promise to freeze sound like language printed onto paper, yet pressing the pause button or interrupting the rotation of the record player only results in silence. Sound happens in time, over time. Perhaps it's this experience of sound that leads to characterizations of it as immersive, in opposition to the fantasy of visual detachment. Absolutely dependent on the embodied subject of the listener, sound is considered interior and, in this sense, suspect. Radio, as a producer of sounds and affects, is held to be entertainment, or art at best – not a trustworthy medium for research.

## ON OPPORTUNISM

Internet radio is an opportunity and, if history is a guide, it won't last long. In periods from the 1920's to the 1940's, it was primarily noncommercial groups that first broadcast on AM and then FM radio, while commercial interests avoided them, failing to see any profit-making potential. Once the enterprise appeared viable, though, the few air channels were turned over to business, leaving the pioneers without a voice. Internet radio is in a similar position today, with questions on the horizon – Who will profit from it and how? When will the FCC begin to regulate it? How will it be broadcast then?

In the meantime, the medium is wide open to experimentation. For now the question should be: what new organizations can we

help build with these networks, softwares, and electronics? How can we use the medium as a vehicle for exploring the known to produce the unknown? And more specifically, how can it be activated to get architectural research out while allowing a broader public in? Acting on the boundaries, unencumbered by rules, what is possible?

## ON RADIO AND INTERNET RADIO

Radio is not the same as internet radio in both technological design and consumption, yet we often conflate the terms. Perhaps the most significant difference is that with radio, sound is modulated and distributed from a source via radio waves, which move through the air; but with internet radio, sound is digitally encoded, compressed and transmitted, mainly along a network of cables. Whereas the radio waves are always already present to the listener (who only has to tune a device to hear them), internet radio data must be requested from its source before it is delivered and decoded by the listener's computer.

In either case, “listening” is only one of many modes for individuals interacting with the medium: the internet can be used for streaming video, serving text and images, transmitting files, and remotely accessing other computers; radio waves are also the technology behind cordless phones, RC cars, television, GPS receivers, garage door openers, and television. The listening mode is generally characterized by a vibrating physical speaker, which generates sound waves from the radio waves or digital data, thus returning the information to the scale of the human ear.

Although listening practices vary from person to person, the place of personal computers within the workspace (as opposed to the radio which is typically found in the car, the kitchen, the bathroom, the bedroom, the

workplace, the construction site, on one's belt, and integrated into many everyday activities) creates a particularly immobile and solitary listener. Recent developments in wireless networks and portable devices, which can “plug in” to these networks, hint that many of our appliances, radios included, may soon be connected to the internet – listening practices may not change, but all radio will be internet radio.

While commercial strategy moves towards digital transmission or control of radio (for example, Clear Channel's national “KISS” station brand), guerrilla media groups do as well by connecting FM transmitters to the receiving ends of a webcast, such that the pirate might be automated, small, and distributed – “the only way to resist the jamming is by multiplying the number of transmitters and by miniaturizing the material in order to minimize the risks.”<sup>1</sup>

At the moment we are operating in two spheres: the intimate, confessional world of webcast-PC-speaker-ear-worker – which includes the white collar peon, the student, the foreigner – and the atmospheric world of broadcast-radio-car – moving bodies, crowds, empty rooms, all over a city. These two modes, more or less hot and cool are coming together through developing hybrid technologies into a lukewarm mix of worldwide-ambient manufactured scarcity, clean entertainment, careless whispers, dissident noises, site-specific sound enhancement, who knows what. It's the web out loud, wherever you are.

1. Felix Guattari. “Popular Free Radio” in *Radiotext(e)*. Autonomedia. 1993. Pg. 86. Written in 1978.

## ON LISTENING AND VIEWING

The relationship between listening and viewing usually plays itself out in discourse as a kind of see-saw. When one is advanced, it is at the expense of the other (or when one is put down, it is for

the purpose of advancing the other).

spherical	directional
immersive	perspectival
inward	outward
interiors	surfaces
contact	distance
subjectivity	objectivity
life	atrophy and death
affect	intellect
temporal	spatial
magic	neutral <sup>1</sup>

These intuitive oppositions are, of course, cultural constructs and not universal truths. That architecture is generally free from the conflict of these oppositions suggests the degree to which sound has been foreclosed from representation. Loud architecture has a silent history. The “blind” medium of radio, however, forces us to consider how architectural representation can happen without the visible. This challenge, this impossibility, is exactly what’s appealing (and maybe necessary) about the project. “The extension of any one sense alters the way we think and act – the way we perceive the world.”<sup>2</sup> In the analysis of a space, sound not only provides an other set of data, it also asks us: what does the photograph leave out? How is our understanding of architecture conditioned by techniques of representation?

1. Jonathan Sterne, summarizing Walter Ong. *The Audible Past*. Duke Univ. Pr, 2003. Pg. 15.

2. Marshall McLuhan and Quentin Fiore. *The Medium is the Massage*. Bantam, 1967. Pg. 44.

## ON SERIALITY

Building Sound has often operated in a serial format: with constant deadlines, we are forced to research and develop new topics and techniques on an ongoing basis; and because any series has a kind of consistency, the program is not simply being added to, but revised with each show.

## ON COLLABORATION

Our first 12 shows were put out in the context of nested networks of collaboration:

First, the Building Sound working group has been six individuals.

Second, we solicit submissions and invite people to perform or participate in the shows – we have had a radio play, a poet, a vocalist.

Third, the killradio collective shares expenses and decision-making power in order to maintain the physical studio and netcasting infrastructure, within which Building Sound is broadcast.

Fourth, because Building Sound is also affiliated with the Independent Media Center, and the shows and archive are publicized to the worldwide IndyMedia network.

Fifth, others download, modify, or rebroadcast the shows we have made, on other internet radio stations, or on traditional radio, like KPFK. Here, quite beyond our involvement, the material enters the network of Pacifica radio stations.

## ON RESEARCH THAT FEELS LIKE PRACTICE

For many architects, the process of design incorporates such things as: making sketches on paper; giving form to the design using computer software; trading these sketches and files to others who are also working on the project; a feedback between simulation and design; programmatic requirements; negotiation with deadlines. Building Sound is not architectural practice, but the process of designing a show often places its producers in the same subject positions (idea-maker, sketcher, software monkey, materials-researcher).

## ON THE UNKNOWN AUDIENCE

There are two ways that a book or an article gets printed – either the author is acutely aware of the audience (or made aware of it by their editor) and writes accordingly; or the author has already internalized the audience and needs to make no conscious effort (needs no prodding) to resonate with it. Certainly there are exceptions and combinations, but today’s world of commercial media – with sophisticated market analysis, little public money for the arts, giant, ever-conglomerating media corporations – tends toward a specialization, toward target audiences, niche markets.

This leads to a homogenization of style and content within each niche, particularly from the perspectives of those outside of it. Within academic disciplines, normative styles, concerns, references, and techniques emerge, implicitly creating a specific, eligible audience of experts. On the one hand, the discourse becomes esoteric and exclusive, but on the other hand, specialized topics and conversations can be covered in great detail, changing the discipline little by little.

Although non-commercial internet radio isn’t free from this feedback between production and consumption, our experience has been that we are generally uncertain of who the audience is – their background, their tastes. The normative styles, concerns, references, and techniques of academic research become an impediment, rather than an expedient, to communicating meaning. Setting aside these norms forces us (through the impossibility and impracticality of the gesture) to reevaluate our own fundamental assumptions about the discipline.

## ON WHAT RADIO CAN OFFER TO ARCHITECTURAL RESEARCH

Radio and internet radio offer more than simply opportunities for increasing or diversifying the audience of architectural research; they also suggest a radically different kind of research. We have learned first-hand that the aural form suggests alternative structures of composition, sources of information, and organizational frameworks. These shifts in process can direct one’s research towards new areas of inquiry, or simply open existing ones to new approaches and artifacts.

For some time, architects have been rethinking space in relation to proliferating digital networks, portable communication devices, and other technologies of telepresence. While much research has been done on these phenomena by more or less conventional means, sound is generally not utilized. We propose that these distributed, dynamic spaces, which are created through the interaction of people and machines, might find as useful expression through sound as through visual diagrams or textual description. “Objects are unobservable. Only

relationships among objects are observable.”<sup>1</sup> Iannis Xenakis *heard* the architecture of demonstrating crowds, anticipating our current interest in the structure of self-organizing systems.

The silence of architectural representation – photographs, models, books, magazines, drawings – parallels a preoccupation with the building and an academic fixation on the gaze. Although these tendencies necessitate a continued investigation into visuality and image, they should not preclude the use and study of sound in research, particularly for those interested in media and the “unbuilt.” Gaston Bachelard long ago suggested that radio would be better suited than the book for exploring archetypes like the home.<sup>2</sup>

1. Marshall McLuhan. “A Dialogue” in *McLuhan: Hot & Cool*. Signet, 1967. Pg. 292.
2. Gaston Bachelard. “Radio and Reverie” in *The Right to Dream*. Grossman, 1971.

## ON THE VOICE IN ARCHITECTURE

Architecture is not a visual medium.

Or, at the very least, the architecture discipline possesses a chattering body, far removed from the fictional portrait of a purely optical self-consciousness hanging on its wall. More than most fields, things happen here by word of mouth:

the crit  
the jury  
the lecture  
the job talk  
the seminar  
the sales pitch  
the conference  
the name drop

Architectural design classes are nonstop talking. Not just talking but also gesturing, scribbling, posing, sighing, pausing, interrupting, nodding, groaning, hmm-ing, and intoning. All those things that make bleary incoherent sentences, improvised words, and handmedown critical fragments all make sense.

It's no coincidence that those theorists best known- most effective at seeing architecture into a world of pure retinal splendor - are also such good speakers.

Hot conversations can determine everything. Relevance in architecture is largely defined by these semi-accidental conversations, whether public or private. Shortlists, commissions, faculty hires, student work, magazines, book sales listen to every word...

Who sets up these conversations? Who can join them? Is this something anyone can do?

## ON BUILDING SOUND

Sounds from a variety of sources build over time: quick cuts can result in jarring juxtapositions, hybrid mixes in fictional places or events, varied levels in a sense of depth and space. The possibilities multiply with the combination and improvisation of techniques.

## ON FAILURE

“And here the word 'experimental' is apt, providing it is understood not as descriptive of an act to be judged in terms of success and failure; but simply as an act the outcome of which is unknown.”<sup>1</sup>

1. John Cage. “Experimental Music: Doctrine” in *Silence*. Wesleyan, 1961. Pg. 13.

## ON THE ARCHIVE

Unlike traditional radio, the internet offers the possibility of publicly archiving shows after they have been broadcast. Listeners, then, can choose their own trajectory through multiple shows, even moving nonlinearly through each. The archive transforms the listener from a relatively passive point of reception of the linear, real-time broadcast, to an active explorer of the audio database.

As a database, the archive is not simply an end, a collection of finished products, but a set of new beginnings, source material for the listener to splice and mix into new arrangements for new shows. The possibility inherent in the open archive revives Bertolt Brecht's wish that radio be two-directional rather than one-directional: “change this apparatus over from distribution to communication... a vast network of pipes.”<sup>1</sup>

1. Bertolt Brecht. “The Radio as an Apparatus of Communication” in *Radiotext(e)*. Pg. 15.

## ON PERSUASION

Remember the Soviet loudspeakers, which under Brezhnev were replaced by two and three channel radios, physically connected by a wire to Moscow – the totalitarian regime made manifest. This was not a network, but a tree. Hitler said in a radio speech, “I go my way with the assurance of a somnambulist,”<sup>1</sup> suggesting that there is no thinking left to be done, only action. Adorno criticized western commercial radio's role in producing “pseudo-individualism to hide the increase of standardization.”<sup>2</sup> And more recently, Rwanda's Radio Mille Collines were judged partly responsible for genocide. The voice, intimate to all at once, becomes surrogate thought.

Alternatively, consider how a technology for communication, such as the telephone, is sometimes incorporated to undermine the fascist qualities of the broadcast: Negativland's unfinished mixes, which are only completed with the live caller; or the direct broadcast of phone calls on Italy and France's Free Radio, where “anyone, even the one who is most hesitant, who has the weakest voice, has the means of expressing himself whenever he desires!”<sup>3</sup> Contrast this, however, to the many ideological “call in” radio shows on the air today, which are hosted by a vocal, authoritarian personality. On these shows, the host mediates between caller and audience, subverting the democratic promise of 'opening up the lines.'

1. Quoted from McLuhan. *Understanding Media: The Extensions of Man*. McGraw-Hill, 1964. Pg. 298.
2. Theodor Adorno. “A Social Critique of Radio Music” in *Radiotext(e)*. Pg. 278.
3. Guattari. Pg. 86.

## ON AUTHORSHIP

Although Building Sound is an ongoing collaboration on both individual and institutional scales, an internet radio show could be made and broadcast by an individual. There is nothing essentially cooperative about the medium. Yet, popular radio programs that tend to fall

into the generic 'interview' genre focus on the personality, in spite of the numerous people involved. Authorship is an affect.

We try to take our own voices out of the mix and let the material 'speak for itself.' Generally treating radio as a reference medium rather than an originating one,<sup>1</sup> we recycle audio from mass culture and the spoken architectural discourse into recombinant broadcasts. The listener, then, is called upon to not simply absorb information, but to locate for themselves the meanings possible in juxtapositions of samples from widely varying sources. Meanings wander without resolution. Fiction springs from direct-references.

1. Don Joyce of Negativland, summarizing McLuhan, in "Get Your Own Show"

## ON THE COLLECTION OF MATERIAL

Audio can be collected from a wide variety of sources: it can be found on the internet; it can be extracted from physical storage media like records, CD's, tapes, DVD's, and videocassettes; it can be recorded from live television or radio; it can be assembled from sound effects; it can be solicited in the form of interviews; it can be recorded from environmental sounds or special events; it can be electronically synthesized.

In order to make the shows fast and cheap, it requires a constantly attentive ear, a ready recording device, an understanding of where sounds might be found, and the attitude of a cassette tape trader (or maybe, today, a file-sharer). Like the cassette tape trader or file-sharer, we have accumulated a sizable library of audio material, much of which has not yet found its way into any shows but would have otherwise disappeared into thin air (or a restricted archive).

## ON THE SUBJECTIVITY OF THE LISTENER

The medium of radio cuts off the most common mode of perception for architectural representation - the visual. In its place, sound is necessarily enlisted to give a sense of a space, to provide context, or to support a point. This demands an engagement with the interpretive faculties

of subjective listeners - who compensate for the gap by recreating images and spaces in their imaginations; who make sense of the surplus generated from productive appositions. Although the role of sound in architectural design is widely studied, the role of sound in presenting architectural research (as a photograph or drawing might) is relatively unexplored.

## ON MONSTERS

Building Sound is not easy listening, nor does it sit easily with architecture. There is rarely any kind of introduction, instead the listener is thrown directly into the mix of disembodied sounds, some of which are rarely recorded in architectural representation - the hum of air conditioners not seen in photographs, the stutters of speech not recorded in transcripts, honking horns and squealing tires, the monotony of a lecture. It combines and confuses popular genres, academic disciplines, critical theory, and advertising. It is chimeric, confusing.

## ON THE EXPANDED AUDIENCE

The unknown audiences of radio and internet radio also represent an expanded audience, people who might not otherwise be in the position to act as consumers of architectural research. Whereas the scarcity, price, or specialized language of much research might place them outside of the discourse, it requires comparatively little investment or training to listen to radio. The point isn't to criticize these publications, but to suggest the differences involved in producing a radio program for a more general audience, while advancing architectural research. We are interested in a radio that is intellectually challenging and theoretically rigorous, not patronizing and reductive. This may not be a radio of mass-appeal, but it should be a radio of mass-availability.

## ON OUR RESEARCH

Some of the subjects explored through Building Sound have been memorials, the landscape of non-profit art institutions in Los Angeles, and traffic, which spanned over three two-hour shows and spun off into an exhibition in association with the

Center for Land Use Interpretation. Although topics occasionally become apparent from the material in our archive, they are usually chosen in advance - some on the horizon include borders and boundaries, Clear Channel, and the American Funeral Home.

The research that goes into these shows is executed through ordinary channels - through interviews, historical documents, news footage, site visits, books - as well as some unusual ones - field recordings, everyday conversations, popular music. We then study the material, looking for patterns in sound or theme that might suggest a presentation structure. Will the show be broken up like a magazine, where articles are rigidly separated from one another? Or will it be like a curated exhibition in a gallery, where objects begin to relate to one another in a space? Or might it make more sense to structure it like a city such that sounds compete for attention? One show was scripted by the 405 freeway, in a variation of John Cage's *Indeterminacy*; another structured as an imaginary journey through parts of the southern California desert; and a third as a feedback loop between popular myth and quotidian reality.