

# The Broadcaster's Choice: Your Space or My Space

By Barry Blesser ©2005

[www.blesser.net](http://www.blesser.net)

The obvious approach to broadcasting an announcer's voice becomes only one of many choices if we examine the hidden assumptions buried in our modern traditions. Consider those assumptions. A broadcast studio should be acoustically isolated from all external sounds. It should have sound absorbing surfaces to suppress reverberation, resonances, and reflections. It should have microphones placed a few inches from the announcer's mouth. By scrubbing the studio of spatial information, the space becomes the aural analog to a sanitized hospital operating room—the announcer's voice is “pure.”

The tradition of spaceless sound arose from the early days of Edison recording and primitive broadcasting, all of which suffered from weak signals and high noise. Close microphones originated almost a century ago as a solution to an otherwise insolvable technical problem. The solution survives the problem. Close-microphones remove acoustics.

There are, however, other choices. For example, in the 1930's, NBC negotiated the rights to transmit live performances of the New York Metropolitan Opera, made famous by its host of forty years, Milton Cross. For many reasons, microphones were not close to the singers and musicians, and audience sounds and spatial reverberation were part of the broadcast. Rural farmers sitting in their kitchens had the feeling of being at the opera: actually sitting with the audience in the opera hall.

Similarly, in the days of radio theater, special effects created the experience of a haunted house by adding the sounds of creaking floors, spatial resonances, and reverberation. The resulting illusions of a specific space, even with primitive techniques of the 1940's, were very compelling. Listeners were in the house.

Using Marshall McLuen's innovative idea that the “medium was the message,” radio is a hot medium, while television is a cool medium. Radio requires imagination, and the active use of imagination actively engages the listener. He absorbed into the experience that he creates in his head.

This raises the issue of how we experience a space. Real spaces have an aural personality that originates from two sources: its unique sounds and its local acoustics. A forest has the sounds of birds and rustling leaves combined with the acoustics of dense foliage. An old-fashioned railroad station has the sounds of train wheels combined with the cavernous echoes of a grand space. The combination of signature sounds and acoustic personality creates the *soundscape*, the aural analog to a visual landscape.

In the case of an announcer in a sanitized studio, there is no soundscape. Listeners experience his voice only in *their* soundscape, be it in their automobile or local athletic

gymnasium. And with headphone reproduction, there is neither an originating nor a listening soundscape. The aural experience of the voice is *spaceless*. Yet, both announcers and listeners have to be someplace.

Human beings evolved an auditory system that can experience spatial attributes even though most of us remain oblivious to that ability. As a simple experiment try walking toward a wall with your eyes closed and stopping when your nose is just a few inches from the surface. Most of us can do this without training, and with a little practice, we can all do it quite reliably. We hear the wall. Actually, we hear how the wall changes the spectral balance of background sound, a kind of bass boost. Similarly, we can hear an open door, a staircase, and the depth of a cave.

Some blind individuals, as illustrated by Ray Charles and others, can ride bicycles in mountains and city streets without crashing into obstacles. If we can hear space, why should broadcasters remove the spatial personality of the studio? Like the mixing engineer producing recorded music with spatial synthesizers, broadcast engineers can also provide a virtual space for an announcer. Creating a soundscape and spatial texture for the announcer's voice is simply another choice at the opposite extreme from our current tradition. The technology is readily available to support such an artistic approach to space. While experiential illusions are part of 21<sup>st</sup> century media, radio remains anchored in the archaic past.

This introductory discussion on hearing space is an extract from my new book on *Aural Architecture* (provisional title), which will be published by MIT Press in 2006. The topic is far broader than radio. For a quick introduction to the topic of hearing space, listen to the BBC program, called Acoustic Shadows. It can be accessed from the link: <http://www.bbc.co.uk/radio4/science/acousticshadows.shtml>

While our culture thinks of experiencing space entirely as visual attributes, there is a larger tradition of experiencing space by its sensory architecture. Eyes are only one means of sensing an environment. Clearly broadcasting technology cannot transmit olfactory or tactile experiences, but to an extent, radio can broadcast the aural experience of space.

Part of the explanation for our culture's lack of interest in aural architecture arises from our preoccupation with vision, as exemplified by the dominance of television over radio. Nevertheless, there are situations where the eyes are otherwise unavailable, and where the world is entirely aural. Other cultures recognize the importance hearing: God spoke to his disciples rather than leave written notes. In the rehabilitation profession, it is known that those with an aural deficit have a more difficult burden adjusting than those with a visual deficit.

For those who are not enchanted by the arguments for including a soundscape, consider that the addition of synthetic space modestly boosts the perceived loudness in a way that cannot be duplicated by a compression processor. This is especially true for the speech of a male announcer. Reverberation reduces the peak-to-average ratio by smearing energy

over a wider time span, but without creating an unnatural sound. Reverberation is natural. Although not well known, a few broadcast engineers already include modest amounts of reverberation as part of their dynamics processing chain.

Experimenting with new ways of presenting audio is not revolutionary if used wisely, discretely, and only on appropriate occasions. While broadcasters look for new ways to capture listener head-space, subtle forms of experience create an attractive warmth. Listeners need not be presented only with high impact—in your face—audio experiences. As I said in the opening sentence, there are choices.