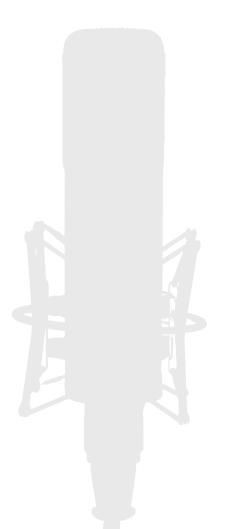


The Iconic Microphone

Insight and Audibility: Iconic Sound in Media

Jos Mulder

(1970) is a sound technologist, researcher and educator. Music is the common factor in his education and professional experience. His research looks at bridging the gap between technology, its creative use and broader discussions of the performance arts and society. He is a lecturer at Murdoch University in Perth teaching sound studies and production subjects in the Bachelor of Sound.



Abstract

This paper discusses the iconicity of the microphone both as a physical object but also as a transducer and shaper of a distinctive mediatized sound. Different facets of iconicity are examined in order to tease out the multiple meanings and usages of this ubiquitous artifact. In addition to the physical object, whether hidden or highlighted, used as a prop or as a crutch, common microphone usage since the early days of radio have resulted in an iconic mediatized sound, which has realigned the way we experience the spoken word and the musical voice.

Keywords: Microphones, Transducers, Media, Technology, Experience

It looks just like a Telefunken U47

(Frank Zappa, Joe's Garage Act I, 1979)

Microphones are omnipresent. TV, radio, YouTube, your mobile phone, most media, old or new, use sound and generally need a microphone at the start of the audio chain. Microphones can be iconic; some are more iconic than others. Even though they perform



a strictly sound technological function, their visual presence can be equally important. Images of Crooners and Rockers alike depict such singers generally with a microphone in or at hand. TV talk show hosts present with 70 year old – unconnected – antique microphones on their desks. Sometimes microphones are kept out of sight, at other times they are emphasized visually, supporting some sort of authenticity as if wanting to express: "it is really me you are hearing". For that very reason a lip-syncing – pretend – artist will rarely perform without a microphone, even if it has no technical function. Microphone usage attracts a repertoire of iconic gestures, sometimes involving microphone stands (Elvis Presley, Freddy Mercury) or even swinging the microphone by the cable (The Who's Roger Daltrey as reported in Abelson 2011, 18). In the 1990s Madonna reformed the look of pop and dance music shows when she changed from a handheld microphone to a head worn type, freeing up her hands and enabling her to enhance her choreographies. Rappers and MCs have a tendency to hold the device by its head, instead of by its stem (which looks cool but in technological terms sounds terrible). The microphone has become ubiquitous to such extent that even so-called unplugged concerts need microphones, as if the plugs on the cables that connect the microphones don't count (generally the term unplugged appears to mean using only acoustic instruments and singing voice).

Iconolatry can be identified in the obsession of some sound engineers' enthusiasm for certain vintage microphones which, according to some, are unsurpassed in technical and/or aesthetic sound characteristics; so called gear-freaks roam the Internet for affordable classic models, such as the famous Telefunken or Neumann U47. Recording and live sound engineers select microphones along both technical and aesthetic criteria. As a consequence of shape, size and working principle all different microphone models behave differently in terms of directionality and sensitivity. Many older, but still current, microphones use pre-transistor tube technology. The specific non-linearity (in terms of sensitivity for low frequency (bass) or high frequency (treble) for instance) of such tube microphones is sought after in many popular music recording studios. The presence of classic tube microphones in a studio's stock can give a considerable boost to a studio's credibility and reputation.



Some microphones have both an iconic sound and look, for instance Helen Macallen and Andrew Plain (2010, 255) describe working with what is known as the "Larry King" microphone:

The use of the 1950s Larry King microphone rather than a modern one, brings a particular grain to Frannie's voice, but without the inevitable dirt that would have attached to it if it had been recorded in the 1950s. The voice is, of course, still a mediated one and it is perhaps not without significance that this particular microphone was principally used for radio broadcasting, the medium where the ultimate separation of the voice from the body occurs.

That particular microphone (RCA type-77) was in production from 1945 until 1973 and currently there is lively trade in both used models and replicas. It is a relatively large and heavy model whose design echoes the Streamline Moderne (late Art Deco) style of the 1930s, featuring rounded edges and a chrome base. Another example of an iconic model is the Shure Unidyne 55, first presented in 1939 and sporting an equally modernist look. It can be spotted in famous images of Mahatma Ghandi, John F. Kennedy or Eva Peron and takes a lead role, with billing credits, in the radio themed movie *Good Morning Vietnam* (1987) starring Robin Williams. A Shure Brother Inc. promotional brochure (DeTogne 1996) assures us it is the device's technical qualities that gave rise to its prominent status:

The visibility of the 55 Series and the permanent marks it etched on the world's collective psyche are not the result of happenstance [either]. Nor are they the careful craftings of some slick advertising campaign. The 55 Series' benchmark status was earned through its reputation as a tireless workhorse and dependable performer, and achieved by its unprecedented audio quality and reliability.

Frank Zappa (1979) has underlined phallic connotations attached to some particular microphone models, notably on his Joe's Garage albums. The narrative presented on those records is drenched in male rock and roll stereotypes with a special roll for the roadie whose most prominent tools include "a wrench in his pocket" and a U47



microphone at one point even dressed in leather, to pile up the (rock) stereotypes. Although its functions initially appear straightforward the microphone and its many iconic appearances hint at a plethora of meanings in as many every day and cultural settings.

To have the floor

The microphones on the desks of Larry King, David Letterman and other TV hosts are not physically connected to any broadcasting apparatus, but they are connected semiotically to the wider broadcasting traditions. In addition to a sentiment related to the golden era of radio in an unspecified past, they can be read as a symbol of power, the importance of the 'talking stick' and the significance of 'having the floor'. Deborah Wong (2004, 249) in her book Speak it Louder refers to the microphone as: "...the technologically and socially empowering vehicle op the rap artist." Earlier in that publication (86) she points at the agency derived from the microphone: "I've got the microphone, I want the microphone, and yes, I'm an agent". A scene in the movie *Bridesmaids* (Feig 2011) shows two competing bridesmaids declaiming their appreciation of the to-be-weds at a pre-wedding ceremony. The drama of the scene is amplified by the use of a microphone, which the two actresses end up pulling from each other's hands, competing to be heard. Although a simple and common prop the microphone performs important functions, including that of a talking stick: the holder is granted not just the power of speech but also the attention of the audience. Amanda Weidman (2006, 90) discusses microphone use in classical Indian music performance and points out that microphones can also aid in drawing crowds: "... the promise of microphone arrangements would make people imagine that a great crowd would show up and therefore that the event couldn't be missed." (cited in Weidman (ibid) from a satirical article *The greatness of the mic* that appeared in India in 1947).

Outside of the entertainment world, at rallies or meetings, the microphone can more easily be perceived as talking stick, sometimes just in a metaphorical way as demonstrated by the 'human microphone' at occupy Wall Street, amplifying speeches while the use of sound systems was prohibited; even in absence a microphone has its own meaning (Kim 2011). There is a photograph of Lenin addressing an enormous crowd on the Sverdlov Square in Moscow. The photo is famous for its manipulative history; the images of



Trotsky and Kamenev were erased from that photo after they fell out of grace with the communist party. Another interesting aspect of this photo is another thing that is lacking: a microphone or even a megaphone (which would not solve very much a megaphone bundles the acoustic energy and delivers it in one specific direction only). Without the support of advantageous acoustic support how and what did the crowd hear? Along similar lines: how many people actually heard Abraham Lincoln's Gettysburg address being delivered, there and then? Recent work by Braxton Boren and Agnieszka Roginska (2012) revisits anecdotal research (by Benjamin Franklin) into preacher George Whitefield addressing a crowd of as many as 30,000 people in 18th century Philadelphia. Combining historical and empirical approaches the authors aim for the reconstruction of a number of elements including quantitative measurement of an orator's acoustic output, likely background noise in that city around that time and acoustic conditions presented by the built environment of the era.

Not quite as successful as the microphone, but nevertheless iconic is the megaphone. For a while synonymous with cheerleaders and player announcements in sports matches it became a sign for activism, a tool for voicing opinions. 1 Footage of political rallies in newspaper or on TV often includes one or more people with a megaphone; although generally unintelligible, hearing and seeing megaphones equates with political or social activism. Perhaps more than the words it is the rhythm and melody of the amplified chants that do the job. 'Das Rote Sprachrohr' ('the red speaking tube') was a Berlin communist agitprop group lead by Maxim Vallentin active from the 1920s until the rise of the Nazis in 1933. Composer Hans Eisler worked with the group as a composer, pianist and conductor and wrote their signature tune 'Wir sind das Rote Sprachrohr' (Blake 1995, 79). The iconic megaphone was not just claimed by the political activists, according to C.S. Lewis (1942, 83), metaphorically it was a holy instrument in its own right: "God whispers to us in our pleasures, speaks in our conscience, but shouts in our pain: it is His megaphone to rouse a deaf world."

Modern electronic megaphones combine microphone and loudspeaker, the latter essentially realizing the inverse process of a microphone. Loudspeakers transduce electronic signals to audible sound in air, and these devices too can be perceived as iconic in



some situations. For example, the white ear-buds that were the trademark of the iPod, or at rock concerts where more means louder which, apparently, equates to better. Rock band ACDC allegedly toured with an enormous PA system, which was much bigger than needed and therefore half the system consisted of dummy loudspeakers. Swedish metal guitarist Yngwie Malmsteen is famous for referring to his 'stack' of legendary Marshall guitar amplifiers as the only other man-made structure visible from space besides the Great Wall of China (Hickling 2012, 16).

Etymophony

Philip Tagg (2013, 159) operationalizes a sonic parallel to etymology, namely *etymophony*: studying the origins of a non-verbal sonic structure and the development of its meanings and functions over time. Somewhat obviously, we wouldn't be able to hear what we see on TV or in the cinema without microphones (and amplifiers and loudspeakers). Less obvious is the impact microphone choice has on how we hear people's voices when mediated. The microphone's iconicity is not limited to the actual object or the visual; the transduced sound – the technical outcome – can also be iconic. The latter can be found in the close-microphone intimate speaking voice of radio, TV, cinema and more recently in theatre.² The phenomenon is perhaps best illustrated by the stereotypical voiceover of many Hollywood movie trailers. The sonic particulars are not just a result of the common deep dark authoritative male voice, it is exploiting the non-linearity that comes with placing a directional microphone very near a speaker's mouth.

It took a little while for performers and presenters in the 1920s to adjust their voices to the novel technologies of radio and electronic – microphone – recording (before circa 1925 recording was mechanical, inscribing the medium directly). The earliest microphone models were very sensitive and could easily be over-modulated causing audible and undesirable distortion. There is a story of opera singer Rosa Raisa performing with her back to the device when recording her music (in Vennard 1967, 206). The need to address the early microphones with a gentle voice, to treat them as if singing a lullaby, is one of possible origins of the term crooner (McCracken 1999, 5).



From Roosevelt's fireside chats and the crooners of the thirties to the French breathy vocal stars such as Vanessa Paradis or Charlotte Gainsbourg, the close microphone sound has realigned the social distance of vocal sounds (see Hall (1966) on social distance and Van Leeuwen (1999, 12) on its relation to the sonic). For the sake of intelligibility (and in some situations for sensuality) our mediated voices have been decontextualized, severed from local acoustics and placed in a spatial void. Embodiment – shaped by speech-affect, spitting, breathing, swallowing, popping – determines our relation to the recorded voice instead of the present acoustics conditions (in the outdoors versus in a cathedral, for instance). The same goes for the disconnection of speech level and distance; the dynamic range of speech has become a technical procedure ultimately determined by our local control over playback volume. When it comes to recorded speech whether for auditory or audiovisual media, everything that is not recorded with a close microphone is perceived as a fault, or an indication of amateurism. For instance in the many online videos that are made with people's phones; the image may be in HD but the sound is distant and hampered by the microphone being too distant from the subject, allowing the local acoustics to reduce intelligibility and intervene with the 'grain' of the voice (here in a technical reading of Roland Barthes' (1977) famous essay).

This iconicity of the mediated voice is not limited to Western culture, as Weidman (2006) points out at length. Synchronous with developments in Europe and the USA the microphone became an option for music amplification in India in the 1930s. An interesting current day cultural difference is that often performing Indian classical musicians insist on using amplification regardless of the acoustics, whereas in the European classical music tradition the use of microphones and loudspeakers other than for recording and radio broadcast is frowned upon (see also Potter and Sorrel 2012, 181). European classical music concerts generally take place in purpose built concert halls with acoustics that are optimized for the romantic symphonic repertoire. In India (classical) music performance venues, in the 20th century, have developed less formally, often relying on microphones, amplifiers and loudspeakers to project the performance.



Auditory Icons and Iconic Sounds

The iconic close microphone sound differs from so-called auditory icons. An auditory icon, as proposed by Bill Gaver (1989), is comparable to icons in your word processor or on your computer's desktop. Auditory icons are related to single events whereas the microphone sound is a continuous aspect of mediated sound. The iconic sound of the mediated voice is a consequence of the transduction processes that first create an electronic signal from sound in air (microphone) and later in reverse, loudspeakers reproducing sound in air. In a similar vein we can identify iconic sounds of different audio technologies. The static crackles of a vinyl record, the reduced fidelity of old wax cylinders and pre-electronic records, the tiny fluctuations (in speed) of reel-to-reel tape and audiocassettes or the particular distortion that goes with the yelling of demagogues. Such audio effects can be compared to video technologies: the reduced quality of VHS recordings or the low frame rate of our parent's 8-millimeter films. Those subtle effects are used in, for instance, cinematic sound design to bring sound technologies to life, in addition to the tradition of re-recorded close microphone voices for reasons of intelligibility and affect. Even über-wizard Dumbledore in the Harry Potter movies has to resort to an iconic gesture, a touch of his wand to the side of his throat allows the headmaster's voice to carry all over the premises of the wizardry school. In non-magic cinematic sound design scenes featuring an amplified public address are often preceded by the squeal of a microphone feeding back, a misfiring of technology underscoring its use. That iconic signal (referred to as sonic vomiting in Weidman's (2006, 89) book) is both emblematic for, and a consequence of, electronic amplification.

Conclusion

Microphones, even though univocally linked to sonic process are visually and sonically iconic. The close microphone voice is a key element of the electronic media soundscape. Microphones are everywhere, in your phone, in your computer, or in the intercom. Often these domestic microphones have been molded into an appliance that performs more functions than just mediating sound. The microphone's iconicity is the tip of the iceberg that is a metaphor for its ubiquity. It is connected as a technological object and in imagery through tradition, heuristics, reputation and application to the rea-



lignment of sonic communication. That realignment has been with us and grown upon us since the days of early radio and the dry rational sound of radio studio and movie theatre, as argued by Emily Thompson (2003). The intimacy of the iconic close microphone voice has become the de facto standard of mediatized sound. Acoustic information (so essential in our everyday hearing and getting about) has been reduced to noise, but we have traded up in intelligibility, immediacy and 'grain'.

Notes

- 1. Coincidently, 'Player Announce' fits with the acronym for Public Address (system): PA.
- 2. Michel Chion (1994, 98-9) points out that increased definition in film sound, contributed to by the use of the close microphone, is often misunderstood as fidelity. See also Jonathan Sterne (2012, 4-5).
- 3. Rosa Raisa (1893 –1963) was a Polish-born, Italian-trained, dramatic operatic soprano. She was well known for her vocal power.

References

Abelson, D. 2011. "The World's Fastest Moving Mic." *Live Sound* no. 20 (12).

Barthes, Roland. 1977. "The Grain of the Voice." In *Image-Music-Text*, 179-189. London: Fontana.

Blake, D. 1995. *Hanns Eisler: A Miscellany*. Luxembourg: Harwood Academic Publishers.

Feig, Paul. 2011. Bridesmaids. DVD. Universal.

Boren, Braxton, and Agnieszka Roginska. 2012. Analysis of noise sources in colonial Philadelphia. In *Internoise* 2012. Accessed August 10, 2014. https://files.nyu.edu/bbb259/public/papers/IN2012_Boren.pdf

Chion, Michel. 1994. *Audio-vision : sound on screen*. Translated by Claudia Gorbman. New York: Columbia University Press.

DeTogne, Greg. 1996. THE SHURE 55 SERIES MICROPHONES: Setting the Standard of Performance. Accessed August 10, 2014. www.shure.com/publications/us_pro_unidyne_ea.pdf.

Gaver, William W. 1989. "The SonicFinder: an interface that uses auditory icons." *Hum.-Comput. Interact.* no. 4 (1):67-94.



- Barry Levinson. 1987. *Good Morning Vietnam*. DVD. Touchstone Pictures.
- Hall, Edward T. 1966. *The hidden dimension*. Garden City, NY: Doubleday.
- Hickling, Alfred. 2012. "Jim Marshall: 'They call me the Father of Loud'." *The Guardian*, 11 April 2012.
- Lewis, C.S. 1942. *The problem of pain*: G. Bles: and Centenary press. Kim, Richard. 2011. We Are All Human Microphones Now. In *thenation*. Accessed August 10, 2014. http://www.thenation.com/blog/163767/we-are-all-human-microphones-now.
- Macallen, H., and A. Plain. 2010. "Filmic Voices." In *Voice: Vocal aesthetics in digital arts and media*, edited by Norie Neumark, Ross Gibson and Theo Van Leeuwen. Boston: MIT Press.
- McCracken, Allison. 1999. "God's Gift to Us Girls: Crooning, Gender, and the Re-Creation of American Popular Song, 1928-1933." *American Music* no. 17 (4): 365-395.
- Potter, John, and Neil Sorrell. 2012. *A History of Singing*. Cambridge: Cambridge University Press.
- Ryfe, D. M. 1999. "Franklin Roosevelt and the fireside chats." *Journal of Communication* no. 49 (4):80-103.
- Sterne, Jonathan. 2012. *MP3: The meaning of a format*. Durham and London: Duke University Press.
- Tagg, P. 2013. *Music's Meanings: A Modern Musicology for Non-Musos*: Mass Media Music Scholars' Press, Incorporated.
- Thompson, Emily Ann. 2002. *The Soundscape of Modernity : ar-chitectural acoustics and the culture of listening in America, 1900-1933*. Cambridge, Mass.: MIT Press.
- Van Leeuwen, Theo. 1999. *Speech, Music, Sound*. Houndmills, Basingstoke, Hampshire: Macmillan.
- Vennard, W. 1967. *Singing: the mechanism and the technic*. Revised ed. New York: Carl Fischer, Inc.
- Weidman, A.J. 2006. Singing the Classical, Voicing the Modern: The Postcolonial Politics of Music in South India. Durham and London: Duke University Press.
- Wong, D. 2004. Speak it Louder: Asian Americans Making Music: Taylor & Francis.
- Zappa, Frank. 1979. Joe's Garage Act I: Barking Pumpkin Records.