

The Destruction of Acoustic Specificity by Amplified Sound

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Abstract

Already for some time, people concerned with the acoustic environment have spoken about the effects of motorization. Above all, motors are dangerous for the acoustic specificity of a given place because of their acoustic masking effect. However, it is also important to consider the effect of amplified sound, which has become practically omnipresent in cities and towns throughout the world.

Most often, amplification is used to broadcast sounds without specific character, whether it be MUZAK – a music concocted by a psycho-industrial process to be “neutral” – or another music, that of the global commercial entertainment culture. The presence of this music that is not specific to a place has the effect of erasing or overwhelming any sound that gives an acoustic identity to that space. We are thus overwhelmed by this non-specific sound, and we lose the possibility of using our ears to give us the sense of belonging to a specific place.

This paper explores aspects of this phenomenon:

- *A rough attempt to define what makes a sound environment specific to a place*
- *Anecdotal examples*
- *A deontology of amplified sound by social function and physical disposition*
- *Rave parties and other “overload” situations as special cases.*

1 Introduction

For many years, I have followed a double life, working as a sound artist and radio producer, and as a communications consultant in industry. The psychological mix created by these parallel activities also led me naturally to an interest in the artistic potential of all sound, (in the Cagian sense), and therefore also to the possible harm that can come from, and happen to, the sound environment.

Since 1993 I have been active in acoustic environment circles, and co-founded, with Pierre Mariétan, the *Collectif Environnement Sonore (CES)* in Paris in 1996. Since that time, I have been able to notice an evolution in my artistic output,

which has been the direct result of new perspectives gained from my sound environment explorations.

This influence is most apparent in my recent sound portrait of the city of Barcelona, *Metropolis: Barcelona de la Ceba*, produced for the Studio für Akustische Kunst of the Westdeutsche Rundfunk (WDR) – the public service radio outlet in Cologne, Germany.

The reflections that follow come as a direct result of observations made during the preparation of that work. The context for those reflections is the basic working premise we developed for the CES, our “manifesto,” which I cite in the following subsection.

1.1 The CES Manifesto

“It is just barely 50 years ago that the sounds produced in the course of daily life delivered distinct, readable messages to everyone. Today, due to the acoustic masking effect of the mounting proliferation of residual noise, the perception of ‘significant’ sounds has become more and more difficult.

The legislative and technical measures put in place to stem the tide of this ecological disaster have not been sufficient to erase the qualitative degradation of public sonic space.

Imposing zones of silence does not suffice either as this often comes in contradiction with needs to communicate and to situate oneself in acoustic-space:

Need For Silence = Need For Sound

How can we listen to, how can we hear, ‘it,’ and talk about it? This everyday question brings us up short before our legitimate rights to a high-quality sound environment: how to know the true, deep nature of the problem; to try and respond to it with multiple approaches? How do we treat emotion objectively? The creation of a quality sound environment requires researching acoustic balance, well beyond noise protection measures.

Thanks to recent research in this area, we can now offer basic elements for constituting environmental sonic models for examination and reflection by those who are called upon to take part in urban and architectural creation. The object is to

raise consciousness of the sonic dimension as a component of the constructed environment.” (translated from the French by the author)

2 Sound Specific to a Place

During work on *Barcelona de la Ceba*, I noticed how the existence of amplified sound, almost everywhere, tends to erase the sounds specific to a place just as much as do the sounds of motors, a nuisance which is already a common target of anti-noise activists.

I believe that this omnipresence of amplified signals threatens our capacity to situate ourselves in both physical and cultural space, which we do using the sounds that one could call, “specific to a place.”

2.1 Characteristics

I’m going to try to define a few characteristics that can provide some insight into what I mean by “sounds specific to a place” using a classified list. This list is based on my personal observations, and is therefore more anecdotal than it is based on research. Furthermore, I do this without attempting a definition, which risks being too limited, and this list does not pretend to be exhaustive:

Physical characteristics

- Architectonic orchestration of the space – volume, situation relative to other architectural spaces etc.
- Atmospheric conditions (“state” of the atmosphere – this affects propagation) e.g. humidity, wind, temperature...
- Composition of absorbent and reflective surfaces and their relative proportions in the space.

Event characteristics

- Activity on the part of humans, animals, weather (storms, other temporal events – not to be confused with atmospheric conditions above, which are more long-term).
- Who is present? Number and type of voices, footsteps, etc.
- Mechanical or electrical activity in the space.

Psychological factors

- Relationship between acoustic figure and ground – there are several possible perceptual levels, not only two.
- The psycho-acoustic response of the listener to all the above characteristics.

2.2 Background Sound/ Noise

The level of background sound is a very sensitive factor for people’s comfort. Again, anecdotal observation seems to indicate that a

certain level of “buzz” is desirable – it’s why we find ourselves so easily and naturally gathered into metropolitan areas of different sizes. One often hears city people complain that the country is intolerable because it’s “too silent.” Of course, it is nothing of the sort. The countryside is a rather noisy place, but one where acoustic singularities prevail, rather than the constant din more common in the city.

On the other hand, country folk, despite the fact that they live amidst an alarming brouhaha of cicadas, crickets agricultural animals and machinery, find it hard to sleep in the city, because it has “too much [background] noise.”

A recent survey showed that 54% of French citizens consider noise to be the major cause of disruption in their lives – well before concerns about security (cited by Delacomptée, 2002).

Obviously, the border between agreeable background sound and unpleasant background noise is a question of habit, and of subjectivity as much as a decibel level that can be measured.

And there lies the folly of the kind of anti-noise legislation that exists today. Most municipal anti-noise bylaws simply place a restriction on the number of decibels spl allowable in public places. Yet many people willingly submit themselves to a sound experience well in excess of even the most liberal anti-noise bylaw – the discotheque. At the same time, if the sound of fingernails scratching a blackboard were projected into the courtyard of the average apartment building, the residents would be in an uproar, though the sound doesn’t come anywhere near the legal limit defining “noise.”

3 Masking Effect

I define background sound as a nuisance when *its masking effect prevents us from hearing and understanding the acoustic singularities that bring something to us: information, pleasure, the sounds of the space around us which we need to situate ourselves physically, etc.*

This definition allows subjectivity to operate while at the same time providing an objective phenomenological definition – which we need in order to have some common ground to use in discussing the phenomenon.

If we walk around almost any great city, anywhere in the world, east west, north or south, we are subjected to two sounds, both significant components of background noise, which effectively mask the sonic specificities of the place: motors, and amplified sound. Motors have a harmful effect that is well known, if poorly controlled. The phenomenon is well summarised by Pierre Mariétan (2000):

“The masking effect produced by motors (those of vehicles as well as stationary motors, and regardless of their acoustic amplitude) erases, for

the ear, a large part of the sonic richness of the everyday environment.

The first reactions were protection, to eliminate the ‘too much noise’ of the environment, and then to preserve that which could be considered good acoustic spaces.

This dual approach, based exclusively on the search for silence has resulted in an exacerbated appreciation of the nuisance value of sound, without bringing any positive response to the problem.”

A problem less frequently remarked upon is the presence, almost everywhere, of music that originates in a culture of global distribution, broadcast via loudspeakers in stores, in restaurants and bars, and even in the street. This sound, by its masking effect, coupled with its cultural weight, threatens to almost completely efface local sounds.

During my work on the city of Barcelona, I recorded the preparations for the Mercé 2000 – the annual city holiday – in the Plaça Sant Jaume, the heart of the old city. On the morning in question, sound technicians were testing the amplification system for the stage set up in the square. The loudspeakers blared out a popular music selection, seemingly of U.S. origin. In my recording, you can clearly hear how the sounds of a great public square are completely wiped out by the amplification, until the moment when the technician lowered the volume. All of a sudden, the voices and ambient sounds of the place re-enter our field of perception, which gives us a better appreciation of the nature of the space and its specific acoustic qualities, and helps us understand where we are.

4 A Deontology of Amplified Sound

The table below represents a collection (via memory and listening) of some of the social functions and situations where amplified sound is most frequently heard, together with the place, or type of event where this sort of acoustic broadcast normally takes place.

Social Function / Situation	Place / Type of Event
Municipal events, political rallies etc.	Portable stages and podia for speakers, for music etc.
Commercial events	The High Street, commercial centres
Background Music	Restaurants, stores, commercial centres, metros, public markets etc.
Personal Screening	Walkman and variations, in any public situation
Sensorial deprivation through overload	Rave parties and variations, video arcades...

The content of this amplified sound is generally (though not always) “universalized-” That is to say, deprived of any specificity of place or culture – and deliberately so:

- International «Pop» music, largely from the USA is among the most common content – whether recorded or performed live.
- Commercial announcements imitating radio style (as in department stores), jovial for everyone and thus for no one are now also quite common – also so-called “in-store radio.”
- The radio itself is often used in similar environments, and (at least in many French towns) on the main street.
- When a local celebration is concerned, the nature of the music is often modified to render it more “digestible” to a larger public, or else, the amplification itself has a denaturing effect on a music that is, in its essence, intimate.
- One of the newest phenomena is the use, as described by Sterne (2003), of background music in outside spaces to chase unwanted people (often groups of loitering youth) away. Typically, “easy listening” or classical music is used for this.

As with motors, this sound, due to the fact of being amplified, is capable of overloading the ear with an acoustic power situated well above any subjective idea of a “normal” background sound level. The danger of this fact comes, not from the amplitude of the sound, usually well below the threshold of physical damage and even anti-noise bylaws, but from the fact of masking our conscious and unconscious listening to the sounds that belong to the space where we find ourselves.

I remember sitting, one early spring day, in the sun in the historic Plaza Mayor of Madrid. It was one of the first warm days of the year, and people were enjoying the outdoor tables of the cafés in the plaza. An itinerant flamenco guitarist was working the crowd, and he was quite good. I found it a pleasure to listen to him, and gave him some money in appreciation. Just a few minutes later, the police entered the plaza, and chased this “illegal” musician away, preventing him from further “annoying” the public.

Not long after, technicians on a portable stage at the other end of the plaza began conducting “sound tests” at a level of amplification that was so high that it was physically painful as well as psychologically discomforting. I fled the plaza, as did many other patrons of the outdoor cafés.

The police did nothing to stop these electric musicians, even though they made much more noise than the flamenco guitarist. It would seem that the reason was that the electric musicians were “authorized.”

I think it important to underline here that the objection I raise is not a function of discriminating between “good” music and “bad” music. I’m an ex-rocker from the sixties, and enjoy electric music as much as anyone. The objection that I raise is rather to the situation – one in which the *intrinsic quality* of listening available to me in a public place is interfered with in a negative fashion by the imposition of amplified sound, whose masking effect excludes all others from the conscious as well as the unconscious sphere of listening.

Nor am I making a case for the elimination of amplified sound. As a sound artist, I use it all the time; to make such an argument would be disingenuous and hypocritical at worst, naive and unrealistic at best. Rather, as in many cases where the sound environment is concerned, I make a plea for greater awareness – and for a modicum of control.

As technological animals, we fashion our environment, and we fashion our acoustic environment as much as we do any other aspect of it. Whether technology operates in a positive or negative way on the environment is always a function of good judgement and balance.

Let me get personal for a moment. In the same way that I don’t like motorcycles racing past my windows with the mufflers removed, or impatient drivers blaring their car horns because the driver at the front of the traffic light didn’t step on the gas quickly enough when it turned green, I also don’t like loudspeakers imposing sound on me in public spaces simply because I choose to partake in public activities. I usually do not choose to listen to the sound they are broadcasting.

If restaurants and bars feel that it adds ambience to have music at such a high level that conversation is impossible, I have no particular objection – people must like it or they wouldn’t go to such places. However, I am angry that I do not have the choice (practically speaking) to go to a bar where there is a room *without* such ambience, which I would choose if I could.

On a less personal level, that which we call “local culture” is rooted in an appreciation of the things that make a place special. These include architecture, climate, language, food, social customs and so on. Many of the above have acoustic aspects, and the total sound environment of a place is also part of our consciousness about that place, and part of our subliminal understanding of where we are, and how we respond in that particular space. If our perceptions are constantly dulled by masking effect – whether it be by motors or by amplified sound – we gradually lose the ability to discriminate, and lose part of our biological and instinctual heritage.

5 Sensory Overload – Rave Parties as a Special Case of Masking

It is interesting to look at the phenomenon of techno rave parties from this perspective. Like hip-hop, techno can be seen not just as a style of music, but as a social movement, and even a lifestyle. While I am not expert in the field, I have made some observations, which at least raise interesting questions.

To begin with, there seems to me to be a direct functional connection between rave parties and use of walkmans or other portable listening devices. In both cases, there is a deliberate desire for masking. We can find the same impulse, moreover, in the incessant endowment of fountains in major cities, where at least one of the functions of the fountain is to mask traffic noise along busy boulevards.

In the same way, many people use portable listening devices to substitute a favourite music for the din of the city, traffic noise, blaring sirens from emergency vehicles etc. – perceived as “bad” quality sound environment by the users.

Participants in a rave party are also screening out the environment. They use a high level of repetitive sound to enter a trance state. They talk of “going into the sound” when they enter the circle of loudspeakers, and it is the perfect example of what I call sensory deprivation through overload.

The question of techno is a sensitive one, and one risks tripping up against fashion, and the politico-culturally correct at the slightest criticism. All the same, for me, the phenomenon raises an important and disturbing question.

Acolytes speak of a sense of togetherness, of collectivism through a counter-cultural movement, much like that of the sixties. From a purely acoustic point of view, I believe that the techno counter-culture is 180 degrees opposed to that of the sixties. The sixties musical counter-culture was about listening. Sound levels that were considered loud at that time, would now be considered insignificant. Festivals such as Woodstock were places where music was the vehicle of intense social interaction.

In a rave, the sound level is so high, and the music so repetitive, I have more the impression of shutting the auditory system down. Conversation is impossible “in the sound,” and people dance alone, united in their isolation – from their daily troubles, from the oppressive and ever-more-confusing environment, but also from each other and from their own senses – in other words, a diminution of consciousness.

Although the music is often very carefully crafted and produced with care and hard work, it is music that shuts listening off, which in fact deprives the auditory sense of its natural function

by overwhelming it. This seems, to me, also a symptom of loss of acoustic consciousness.

The same comments and criticisms apply to certain avant-garde “art music” composers who favour an aggressive “wall of sound” approach.

Conclusion

Since so much of what gets amplified fits into what might broadly be called “popular music,” I think it is important, even essential to emphasise that in making comments about the *use* of such music, no value judgement is made about the music itself. The object of this paper is not to determine “good” and “bad” music, nor “good” and “bad” listening. The object is simply to leave space open for the activity of listening as an active, energetic part of daily life, which we do on a variety of levels all the time.

I militate for any activity that allows us to listen actively (to whatever we choose). I militate for increased awareness of the *cultural* component of the sound environment. I militate for increased consciousness of the sound environment, which includes increased sensitivity and respect for the sonic rights of every person. In the U.S. state of New Hampshire, property owners have a right to their “view.” That is, they have a right to have the landscape visible from their home unspoiled. Will we ever have a right to maintain our soundscape also unspoiled?

“Permission granted – but not to do anything you want”

-John Cage

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