

READING SOUNDS or AN ESSAY ON SOUNDS, MUSIC, KNOWLEDGE, ROCK & SOCIETY (excerpted from < <http://www.tagg.org/articles/readsound.html>>)

by Philip Tagg

We have no earlids

Nonverbal sound is important to humans. The human brain monitors it constantly from the age of minus 5 months until deafness or death takes over. The newborn baby's hearing is infinitely more developed than its sight and prenatal sound experiences are perhaps a basic element in our sense of rhythm and time. Nonverbal sound is, together with the sense of touch, one of the most important sources of information and contact with the social and natural environments at the most formative stages of any individual's development. It is vital to sensomotoric and symbolic learning processes at the preverbal stage of development and central to the formation of the basic personality we carry through life.²

Nonverbal sound enters our heads incessantly because, as Murray Schafer points out in his *The Tuning of the World*, we have no earlids. Whereas eyes can be shut and senses of touch, taste and smell be effectively dulled during states of coma, sleep, anaesthetic, etc., ears cannot be closed, hearing never switched off. This is presumably why I rely more on an alarm clock than on the sun to be at work in time or why it is not advisable to throw a tray of surgical instruments on to the floor during a brain operation.

Sounds and music: louder and more

In *The Tuning of the World*, Schafer also provides a vivid description of how modern industrialised society "developed" its sonic environment or "soundscape". According to Schafer, our soundscape is not only much louder than that of any other culture in time or place, but is also characterised by incessant "lo-fi" broad-band noises, such as mains hum, ventilators, distant traffic — the disk drive in front of me issues a permanent as well as irritating F# minor triad —, noises which came in with the industrial, electric or electronic revolutions and which have probably had as revolutionary an effect on our culture as the better known aspects of those revolutions.

If our culture is the most sound-saturated ever and anywhere, it must also surely be the most music-mad. Leaving aside the more far-reaching social-cultural and psychosocial aspects of sound and music for the time being, we could say that if decibels, herz, duration, etc. can measure certain readily quantifiable aspects of our soundscape, then money and time might be good ways of quantifying the importance of music.

The average Swede (babies, pensioners and the deaf included) spends over \$70 a year on musical commodities and, like the Italians, around 3.5 hours a day with music, while the US music business has an annual turnover of around \$4.5 billion, a figure outstripping the GNP of many "third world" nations.³

In short: my daughter (12 years) has probably heard more music than my grandfather did throughout his entire lifetime.

Life is loud

Well-meaning parents have frequently worried about what they feel to be an inherent aggressiveness in rock music. Imagine then what it was like trying to explain the expressive qualities of heavy metal (extremely popular with jeans-and-denim-jacket youngsters from high rise suburbs of Swedish cities) to sixty psychotherapists on a weekend course about "Creativity in the Arts". Not until I met two of the participants on the street outside a nearby shopping centre did I manage to get my point across. The noise of the traffic was so great that they could no longer speak to each other in their sort of professionally pacificatory and confidential tone of voice.

To make themselves understood, valid as individuals speaking to each other, they had to shout above the din of the traffic. In relation to this main source of ambient sound, the word above applied to the figures speaking at conversation distance to each other has three senses: (1) louder than the ambient noise, (2) higher in fundamental pitch and sharper in timbre. Moreover, (3) to make their conversation even more efficient (so that each of them would hear more clearly the other rather than the ambient sound), the speaker could have reduced the spatial and acoustic distance separating him from the listener and spoken quite intimately in the latter's ear.

This is the first and most obvious set of connections between the urban soundscape and rock and roll. The ambient sound of our cities is, as Schafer points out, severely polluted. The characteristics of this sonic environment can be simplified as follows:

- * it's loud - to be heard, you have to be louder yourself
- * it's full of lo-fi middle or low pitched broad band and continuous noises - you have to raise your vocal pitch as well as

increasing accentuation and sharpness of timbre

- * it drastically reduces your distance to/from the acoustic horizon.

What does all this have to do with music?

Figure/ground = melody/accompaniment

We have just described a situation where two humans in a particular socially constructed environment (i.e. the soundscape outside the shopping centre in the Göteborg suburb of Frölunda) must modify their behaviour if they want to go into a different mode of social construction (i.e. saying something to each other). The conflict to be resolved here is that the social construction expressed by the soundscape is not the one these two people want to communicate to each other. Thus, if the social symbols of the loud ambient noise are to become secondary to the social symbols involved in talking to each other, the loud ambient noise will have to take on a new symbolic role as accompaniment or background to what has now become the main social activity (talking to each other).

Such figure-ground relationships constitute the main dialectic of our European-North American music culture and can be found in the dualism between melody and accompaniment. Without this dualism in music, today's European or North American runs up against considerable problems. Few of us really comprehend the interaction and symbolism of the various voices in renaissance polyphony or medieval motets. Even fewer of us comprehend Afro-Sudanic polyrhythm or the Tunisian nouba. This is because we tend to impose the melody-accompaniment listening mode on music conceived according to totally different principles of acoustic, cultural and social perspective. In listening for the music's "foreground" and "background" we will probably end up complaining either that there is "no backing" (Arabian music) or that "there is no tune" (does renaissance polyphony and African polyrhythm have "too many" and only "tunes", or is it all "background" in our ears?)

In other words, the European/North-American music culture uses the dualism melody-accompaniment as a common basis for constructing musical meaning, whether the creator's name be Haydn or AC/DC. The melody-accompaniment dualism has parallels in other European modes of thought: with the figure/ground of visual arts, the hero/story of novel writing, the particular/general of natural sciences, etc. These foreground/background relationships seem to make clear distinctions between the individual and the rest of social and natural reality.

Now the relationship between the modern urban soundscape and music becomes clearer. "In the music of our culture", you might say, "the soundscape becomes the accompaniment and the individual becomes melody". But this would mean that one could directly transpose soundscape into music and, as pointed out earlier, our music very rarely includes sounds from outside its own culturally determined framework as a specific sort of symbolic system. In other words, there we would be no need for music if the soundscape "was" or "became" music.

Who runs the soundscape?

Mozart's soundscape was not only without steam engines. He also never heard internal combustion engines, aeroplanes, power drills, ventilators, air conditioning, humidifiers, refrigerators, transformers or mains hum. These are the sounds of our urban industrialised culture, those that distinguish it sonically from other cultures.

Schafer points out that strength of socially produced sound is usually in direct proportion to the social power of those who "own" the sounds. Thus the louder the sound, the greater the acoustic (and probably aerial) space occupied by the owner of the sound and the greater the power of that person in that social context. The most obvious example is the newborn baby's ability to dominate household acoustic territory. The acoustic potential of this tiny human (it emits the loudest, shrillest and sharpest noises in the home soundscape) seems to be out of all proportion to other aspects of its physical size, simply because it needs more attention and care than anything or anyone else in its vicinity.

Such "sonic property ownership" works equally well in the public sphere. Schafer describes how the church was allowed to make the loudest noises in preindustrial urban soundscapes- ringing bells- whereas those at the bottom of the social ladder- beggars, street musicians and pedlars- could be prosecuted for making far less noise. Similarly, some of the loudest regular sounds in our own society are produced by or on behalf of those who already own disproportionate amounts of territory in the non-acoustic sphere too and who already wield social and political power on a par with that which they exert in the field of sound. So jet planes (air force, businessmen), helicopters (military, law enforcement, businessmen) and police sirens (law enforcement) make with impunity far more noise than a gang of rowdy teenagers in the street, the latter being considered a far more serious sonic disturbance than the former. By the same token, rockers on noisy bikes, although obviously quieter than jet planes taking off or landing, are considered more of a nuisance, not so much for the actual row they make as because their din disrupts and threatens the dominant socio-acoustic order. In short: only in exceptional circumstances do members of our society exercise control over the loudest of our loud sounds: it is the big boys, not we, who may make the big noises.

Add to this the lack of control most of us have over all the new permanent lo-fi sounds around us. I cannot influence the noise which the metaphorical wheels of this society seem to regard necessary to keep itself going. I cannot change or stop the permanent sounds of traffic, mains hum, aeroplanes etc. without stopping the effects produced by the sources of these sounds. So the sounds just drone on as if I did not exist, as if I was not part of it whatsoever. I must shout to make myself heard or escape (if I

have the money) to another soundscape.

Rock music: an anthropological necessity?

The caves at Lascaux in the Dordogne are a famous anthropological site, renowned for a prehistoric drawing of a bison. It is assumed that hunters have painted their presumptive or actual prey with arrows or spears stuck into it. They seem to have visually either enacted in advance what they hope will be a successful kill or celebrated the event in retrospect. Through a symbolic act the hunters seem to have created the feeling of what it is like to meet this great animal that must be killed if they and their dependants are to have enough food and clothing for survival. It is like an emotional re-enactment of or preparation for a particularly dramatic and demanding but nevertheless absolutely essential part of life in that hunting community.

Rock music can be seen as working in a similar way. Young urban dwellers will probably only come directly into contact with "nature" as a leisure resource, their "food and clothing" being acquired by money (that curiously inadequate system the social environment has devised to quantify power and the value of an individual). Young people today do not need to overcome the forces of "nature" to survive. Instead of killing bison and running through the forest, they must become clock slaves, allow themselves to be digitally quantified and atomised (worth so much an hour, so much for a bank loan, etc.) and must brave the dangers of a social and sonic jungle whose forces they do not control.

It would be strange if this dangerous environment required no adjustment and no strategies for survival on the part of the humans populating it. It would be strange if these humans did not develop specific strategies allowing for individual and collective appropriation of the seemingly uncontrollable forces of the environment. Just think if we could stick proverbial pins into a sonic image of that environment (just like the cave-dweller had done), thereby emotionally re-enacting and preparing an essential part of our daily struggle for mental survival. Temporary symbolic control over the sounds of power, like the cave-dweller's version of the animal's appearance, is not just a matter of anthropological magic, nor is it a mere substitute for lack of real control: it is also part of a strategy for survival and emotional preparation for a real, even if temporary, state of power.

Rock and soundscapes

It should now be clear why rock accompaniment (the "environment") is loud, metrically and periodically regular and full of constant broad-band sounds in the bass and middle register. If you are subjected to the noises and rhythms symbolising real power in your environment, they might become less overpowering if appropriated into your own terms. Rock accompaniments resulting from such a process "are not" the soundscape because, as we have suggested, the latter includes very little by way of sonic counterpart to the regular rhythms of the music and because the characteristics of the soundscape which do enter into the music have passed through the cultural filter, become stylised and resocialised. In this way, Iron Maiden's music may sound more like power drills or motor bikes and less like digital watches or bar code cash registers than the music of Laurie Anderson but, to my knowledge, direct references to the sounds just mentioned are quite rare in the music of both artists.

Similar observations could well be made about rock and roll's famous wall of sound. As noted above, with the acoustic horizon brought closer to our ears in the urban soundscape, there are few sounds which seem to reach us from afar. This is not because the city street contains no reverb (length and amplitude of reverberation being one of the main determinants of perceived acoustic space). On the contrary, if you were to stand alone in the same street, to empty it of sounds and to shout, the acoustic space would be very large. Now fill the soundscape with traffic again. Since the noise is once more loud and, more importantly, constant, by the time the sound of a car has had a chance of being perceived as reverberation (a continuous series of decreasingly loud signals from the same original source), it has been instantaneously drowned by more of the same (louder) original continuous noise (from the same or similar source). This process impedes perception of large acoustic space.

By drowning discrete reverb in this way, the overall impression of acoustic space is that it is crowded and close. Shouting to a friend on the other side of the street becomes impossible because there is an impenetrable wall of sound between the two of you. This wall now becomes your acoustic horizon, much closer than its visual counterpart and far closer than the acoustic horizon in the same space devoid of traffic.

This aspect of our urban soundscape is intoned in rock and roll accompaniment, not only by creating the sort of loud broad-band sounds mentioned earlier, but also by adding considerable amounts of reverb to a recording or performance. The effect is similar to the that of "actual" reverb on the busy street. This effect of crowding and homogenisation is further enhanced in rock and roll by compressing accompanying instruments, individually and/or en masse. In this intonation process, the relative quiet of decays is brought up to the higher dB level of the same tone's envelope, this "filling in the holes" of the sound wall. Moreover, since decays are intrinsic determinants of the unique character of individual sounds, using compressors (along with noise gates and limiters) helps is a good way of getting that characteristic urban and rock and roll sound - loud and close-up but full of different elements which can be hard to distinguish.

So what?

What I have written here "proves" nothing. I have only tried to put one or two pieces together that I do not feel are as separate as our schizophrenic tradition of knowledge would leave us to believe. In 1981, the US-American musicologist Charles Hamm

(1981:14) wrote:

"if one had been truly attentive to trends in the mass dissemination of music"... "one could easily have predicted the outcome of last fall's presidential election and anticipated other recent events in the USA signalling a massive swing to the right".

Just as the soundscape - to which our collective social intellect apparently remains oblivious while it continues to affect our hearing and psyche - tells us much about the relations of power in our society, so it seems that music can no longer be meaningfully marshalled into the traditional conceptual categories of "art" or "entertainment". For as long as we continue to put nonverbal sounds (including music) into isolated ghettos of human practice and do not incorporate them wholly as legitimate, albeit specific, modes of knowledge and experience on a par with the natural and social sciences, we shall remain ignorant and schizophrenic, still failing to grasp how an idiot like Reagan could ever become president.

If the young urban dweller's intimate knowledge of our society through rock and roll were to be allowed out of the conceptual ghetto to which we have banished it and to be explicitly connected with other types of knowledge and experience, would we not be better equipped to deal with the political realities of our time? This of course would presuppose that those of us privileged enough to wield the knowledge power of other symbolic systems (like the intellectual jargon used now and again in this article) are prepared to slaughter one or two of our holy cows and get to know ourselves and our fellow humans a bit better. This includes understanding the social, collective and political nature of symbolised feelings and atmospheres in the soundscape and music.