

# ***Towards a praxiology of sound environment***

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Instead of dealing with the aesthetic aspects of the acoustic environment, the evolution of listening habits or cultural representations of urban noise, sound will be considered as a means for action and social practice. This paper tries to develop a praxiological approach to sound. To do so, two major obstacles must be overcome. On the one hand, it is necessary to challenge the three main socially recognized categories of sounds: music, speech and noise. Some fields of research have widened their domains or even reconsidered their basic premise in order to integrate certain phenomena previously neglected by the traditional scientific disciplines. We will convey that even if these new perspectives bring us closer to our daily experience of sounds, they still remain insufficient to fully account for sounding as acting. On the other hand, the pragmatic dimension of the acoustic environment has been largely under-estimated until now. Most research studies focus on symbolic, aesthetic or cultural aspects of audition, but very rarely recognizes it as a practical and contextual accomplishment. From this point of view, anthropology of everyday sounds could take advantage of what sociology of action and ecological psychology have to offer in this matter. It becomes more and more urgent to open the field of acoustics to the most recent results of human sciences. How is it possible to consider sounding as acting? How does the acoustic environment afford and implement coordinated action? What is the relationship between everyday sounds and ordinary practices? These questions aim at overcoming a purely representational approach to the acoustic environment and raise a number of issues that can be briefly reviewed.

## **1. The heterogeneity of audition**

The first issue pertains to the difficulty of considering all kinds of sounds, even those which seem valueless or insignificant. Acoustic ecology is mainly concerned with the perception, the composition and the characterization of soundscapes. The notion of soundscape, developed by Murray Schafer (1977), is one of the best attempts to challenge the distinction between everyday sounds and music, to recognize the importance of « sounds of little significance » and to analyze how they shape our ordinary audio culture. Nevertheless, by considering that the acoustic environment can be listened to as a musical composition, this fundamental shift in attitude towards everyday sounds tends to enhance a contemplative perception of the world and exclude other kinds of more practical listening (selective, focused, distracted, etc.).

Aesthetic conduct is only one of the diverse possible ways to relate to the environment. In everyday life, various modes of auditory orientation specify our attitude towards the audible world. Depending on the situation in which we are involved, we configure the surrounding one way or another: we can hear or listen, eavesdrop or heed, prick up our ears, notice or remark... Several classifications of listening have been suggested : Pierre Schaeffer (1966) distinguishes listening from receiving, hearing and understanding, Barry Truax (1984) disassociates listening-in-search, listening-in-readiness and background-listening, Pascal Amphoux (1991) differentiates between the listening to the environment, milieu or soundscape.

If these basic categories can be very useful for analyzing the way we frame the audible world, are they discriminating enough to encompass the complexity and diversity of everyday situations ? What kinds of ordinary activities make the above ways of listening to the world possible? How and under what conditions do we manage to move from one type of listening to another ?

## **2. The affordances of the acoustic environment**

The second issue involves acknowledging the pragmatic dimension of sound. Most research tends to evaluate the surroundings in physical, cultural or aesthetic terms without considering its practical significance. The acoustic environment is not ineffective regarding what people do here and now; rather, it affords, limits or prevents different types of activities. For example, street musicians know perfectly well that some places are more appropriate than others to play music and be best heard by the passers-by (subway corridors, reverberating places, junctions of galleries...). The theory of affordances, developed by James Gibson (1986), fully recognizes that perception is of practical layout, without reducing it to the mere conditioned-response behaviorism. From this perspective, perception consists in picking up information displayed by the environment in order to control actions (such as locomotion or manipulation). Thus, the environmental properties and the actor/perceiver activities cannot be disassociated, they shape each other. As Gibson puts it: « an affordance is equally a fact of the environment and a fact of behavior ». This ecological approach to perception has been mainly devoted to vision but it can equally apply to audition. Nevertheless, the specificity of the acoustic environment cannot be too quickly disregarded. Auditory perception involves surroundability (i.e. sounds coming from everywhere) rather than frontality, dissemination (i.e. sounds separable from one to another) rather than contiguity, and instability of the figure-ground relationship (Augoyard, 1991).

If the field shapes of sound are to be considered as a resource for acting, how do these properties actualize in everyday activities ? Is it possible to differentiate and characterize various types of acoustic contexts according to the kinds of actions they afford ?

### 3. The embededness of sound in gesture

The third issue consists in reintroducing sound-making in everyday life. Usually, soundmaking is studied through professional and specialized practices. No doubt we have a lot to learn from musicians, sound-effects engineers or sound designers. However, we have also to admit that whatever we do and wherever we are, intentionally or not, we continually produce sounds. City dwellers are not only competent listeners of their environment, they also skillfully compose within it (Augoyard & al., 1985). Nevertheless, only a few types of sounds are socially recognized in this matter: those intending to transmit explicit information (speech, a honk in traffic, applause to express contentement, a knock at the door before coming in, ect.). A whole range of soundful actions are completely neglected by laymen and scientific discourse. This does not mean that they are disinteresting, insignificant, and should not be explored as well. Furthermore, soundlistening and soundmaking are not two separate kinds of activities, they are closely intertwined through gesture. On the one hand, music for dancing, training, working or marching demonstrates that sound stimulates body movement, enhances its rhythmic dimension and is to be heard with our whole body. In other words, listening requires our ability to orient ourselves towards the acoustic environment and move in accordance with it. On the other hand, gesture is the more basic means for producing sounds. Several possibilities can be distinguished depending on the level of control we have towards sounds and the degree of body involvement. First of all, we can make sounds directly with our own body: voice, hands, feet, ect. Before being speech, voice is first and foremost a sound gesture (Jousse, 1972). Similarly, feet cannot be reduced as merely a way of getting around, they are probably the most primitive means for producing sounds (Schaeffner, 1936). Secondly, we also make sounds in our use of and interaction with everyday life objects. In extending our bodily capacities, these manual devices produce sounds and provide acoustic information that help us to control in return the way we cope with the physical world (Norman, 1988). Thirdly, more automatic machines such as household appliances, audio equipment and electronic devices take part in the acoustic environment with minimum human intervention. Very elementary acts - to push a button, press or turn on a switch - can sometimes have tremendous effects on changes in the whole environment. Important differences characterize these three main situations. However, each of them involves some basic « body techniques » (Mauss, 1980), motor skills that are inherent in our bodily capacities, technical equipment and socio-cultural background.

If soundful practices are very much related to our motion habits, is it possible to specify the basic gestures involved in the production of sound ? How do daily gestures embody the interaction between sound-listening and sound-making ? How is the

acoustic environment organized according to the acquisition of common motor abilities ?

#### 4. Sound as a feature of practical accomplishment

The fourth issue is to define a domain of research that fully recognizes ordinary practices of sound. Most of the time, sounds are treated as a mere epiphenomenon or secondary consequence of activity. Such an idea must be reconsidered. It is not only impossible to disassociate the acoustic environment from the activity in which the actor is engaged, but the former is to be considered as an essential feature of action. From this point of view, the acoustic environment is not given beforehand, « already there » and waiting to be heard by a disengaged listener, it is rather the product, expression and condition of social practices. We move from one problematic to another: the acoustic accompaniment of social activities to the practical accomplishment of the acoustic environment. In other words, we do not act in the acoustic environment but within it. Several research studies have already demonstrated the social efficiency of sounds. One of them points out that noise can foster various types of interpersonal communication (Augoyard, 1989), another one conveys that the acoustic environment of construction worksites is an essential feature of coordinated actions (Thibaud, 1991), and a third one argues that the various ways of using a Walkman can be considered as a means for sustaining new types of relations in public (Thibaud, 1994). In one way or another, all these fieldwork studies elaborate on the relationship between sound and sociality. In order to elucidate « how we do things with sounds », it is necessary to recognize the phenomenological dimension of the social world, i.e. the way things show up for us and are accountable through our senses.

If sound is an essential feature of action, is there any social phenomena specifically embodied in this sensorial modalité ? What kinds of sonic performances maintain and implement the construction of the social world ?

The figure below briefly summarizes the four major arguments that have been presented.

Issues	Specifications	Notions
Everyday sounds	Audition as attentional frame	Auditory orientation
Acoustic environment	Environment as resource display	Acoustic affordance
Soundmaking	Embodiment as motor skills	Sound gesture
Soundful action	Sound as practical accomplishment	Sonic performance

## 5. Towards a praxiology of sound

The goal of this paper was to present a praxiological approach to sound. Although many questions that were raised were not answered, they could be used as a basis for building a research program. From a theoretical viewpoint, this approach purports to be an alternative of both cognitivism, which relies on « inner representations » to explain perception, and behaviorism, which emphasizes overt behavior from a very mechanistic point of view. Several methodological principles can help us to achieve such an approach. Sounds must be considered as a public account of the social world. They can be observed and described as an expression of the way we live together and share our common daily environment. An « ethnophony » of everyday life could be achieved by recording all kinds of ordinary soundful practices. However, in order to be properly analyzed, in situ recorded sounds must be ascribed to the context in which they were produced, i.e. the place and the circumstances in which they appeared. Various techniques developed at CRESSON – « reactivated listening », « commented city walk », « conducted story », « recurrent observation » - offer a first account of this methodological issue (Grosjean and Thibaud, 2001). Furthermore, we also showed the complexity of real-world sonic phenomena by focusing on the heterogeneity of audition, the pragmatic dimension of the acoustic environment, the embeddedness of sound in gesture and the close relationship between sound and sociality. This complexity inevitably requires an interdisciplinary approach that integrates the physical, spatial, perceptual and social dimensions of sound. Of course, sounds can be described separately from these various perspectives, but the major problem is to develop analytical tools that articulate them all together. The notions of « soundanais » (Schafer, op. cit.) and « sound effect » (Augoyard and Torgue, 1995) have already proved interesting to anybody studying or designing the acoustic environment. A further step would be to start projects that allow all sorts of sound professionals to work together and take advantage of their respective skills (acoustic engineers, social scientists, architects and sound designers). From this point of view, urban public space is a very resourceful domain that is worth exploring more carefully (Chelkoff, 1996). The pragmatic approach that has been presented may help us to overcome the traditional distinction between sound designers and researchers. They both have to take into account the way people perceive their daily environment and act within it. Probably, one of the major objectives of the next decade is to integrate the changes of modern life in the design of the acoustic environment. This requires being able to produce an environment that is both pleasant and hospitable, attractive and welcoming.

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