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# The Sonic Identity of European Cities

**A presentation of the work conducted by  
the Swiss-French researcher Pascal Amphoux**

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**D**uring 1998-1999 I had the opportunity to study at the French research institute CRESSON,<sup>1</sup> located in Grenoble, and it was during this period I first had contact with the work of Pascal Amphoux. However, it was not until I was back in Stockholm that I more thoroughly started to study his work *L'identité sonore des villes Européennes* (The Sonic Identity of European Cities). The more I read the more overwhelmed I was by its methodological approach, its epistemological width and its richness of detailed information on how to use the method in practice. It is in its way unique and I'm quite convinced that there is no equivalent work to be found elsewhere.

*The Sonic Identity of European Cities* is constructed as a manual – or a guide – strictly disposed in chronological order, and hence – to be as explicit as possible – I've chosen to follow the original disposition. This article is, thus, a presentation of the work and consequently I've excluded my own opinion in the text. This is a unique and a very important work and since it's the first time the work is published in English I hope it can reach out to 'non-francophone' readers.<sup>2</sup>

## Introduction

The architect and geographer Pascal Amphoux lives in Lausanne in Switzerland and works as a researcher at IREC<sup>3</sup> in Lausanne and at CRESSON in Grenoble, France. His research activities concerning this methodological work started in the late 80's. In 1991 *Aux écoutes de la ville*<sup>4</sup> was published, which is an exploration of three Swiss cities. *L'identité sonore des villes Européennes*,<sup>5</sup> which this article is focusing on, consists of two volumes and was published in 1993.

The work is indeed multi-modal in the sense that it embraces different methods such as interviews, questionnaires, instrumental and perceptual observations when collecting data. The uniting link, however, is the terminology, i.e., the work consists of a repertoire of concepts that have family resemblance and together these concepts frame a paradigmatic model.

The defined concepts can basically be viewed on two specific levels. First, on a *representational level* in the sense that the concepts together work as a manual with which it's possible to spot the sonic identity of a place. Second, from an *operational level*, i.e., as a potential of creation, in the sense that the user can apply the concepts as tools when designing a sonic environment.

According to Amphoux, one main issue has been to formulate the work to be usable both in theory and in practice. To achieve this, Amphoux has elaborated a multi-modal system that consists of three levels:

- *Technical description*, i.e., recommendations of how to use the methodology in practice;
- *Methodological description*, i.e., methodological clarifications;
- *Theoretical description*, i.e., theoretical references.

The three themes are put into three columns, which means that the layout is easy to survey since one can simultaneously follow the three different descriptive levels on each page.

The work addresses practitioners, elected representatives, researchers, teachers and other professionals who work with the sonic environment, and Amphoux has distinguished three main types of users that respectively refers to three scales of intervention:

- The local politicians, the town planner or the planning technician – on a local political level;
- Those responsible for the future sonic environment – on a regional and national political level;
- The researchers – within the comparative European analysis.

It's also important to bear in mind that the work is a methodological guide and doesn't give any explicit recipes or results, but, on the other hand, it offers the means and tools with which it's possible to approach the sonic identity of a city.

## **Notion of Urban Sonic Identity**

According to Pascal Amphoux, the dominant attitude among politicians and specialists who work in the field of urban sonic environment nowadays can be denoted as defensive. Basically, this attitude consists of "diagnostiquer le mal" (diagnosing the bad) in order to protect citizens from annoying sounds, e.g., to normalise, to regulate, to control, to build noise barriers, to reduce the traffic, to double walls etc. The work of *The Sonic Identity of European Cities* however, is based on the inverse attitude aiming at "diagnostiquer le bien" (diagnosing the good), i.e., to make inquiries about the situations of well-being and also to promote the favourable conditions of an actual and specific sonic quality in urban space. A keyword is, thus, the signification of *quality* in the sense that each urban place has a certain characteristic sonic identity and that the city, within its diversity, produces various sonic ambiances. To picture the sonic identity one must, according to Amphoux, take the given acoustics, the sonic action and the phonic perception into consideration, which means that one has to integrate different disciplines when decoding the quality of sound. Moreover, Amphoux states that social and spatial characteristics today are interpreted solely from a visual point of view, but a further aspect is that the auditory space as well can contribute with valuable information.

Amphoux emphasises that the appreciation of the sonic identity is personal since it can be looked upon both from a subjective and objective viewpoint, but one can also apprehend the sonic identity from an inter-subjective perspective in the sense that the appreciation of sound gradually becomes conform among citizens. In this sense a certain space that 'sounds

good' mustn't necessarily be quiet, but Amphoux states that it's rather "a space where the sonic ambience seems to be adequate in relation to ones images".<sup>6</sup>

What about practical matters? Which concepts are suitable as tools when making investigations? How to select a limited number of situations and places that can be representative of the sonic identity of a city? These and other questions will be presented in this article, which are subdivided into the three approaches of:

- **First approach:** *Selection of representative examples – sonic memory;*
- **Second approach:** *Constitution of an analytical framework – sonic perception;*
- **Third approach:** *Characterisation of the sonic identity of a city – sonic interpretation.*

The article ends with an *epilogue* that deals with issues regarding how to handle the method in practice.

To avoid overloading the text with footnotes I've chosen to change the layout of the parts that – more or less – is a translation of Amphoux's work. Mainly, these parts concern the theoretical description, though it's important to bear in mind that it's rather my interpretation of the text than a word-by-word translation.

Some of the concepts that Amphoux uses do not exist and/or are not grammatically correct even in the French language. Instead, these concepts are a construction of Amphoux in order to fit into a linguistic context. It's also important to point out that the field of research is quite new and therefore a continuous development of a descriptive vocabulary is needed, and hence some of the concepts are not possible to find in a glossary.\*)

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\*) This article is not a complete description of the method since it doesn't serve the reader with a complete presentation and clarification of the concepts, which the investigator actually needs when making a survey. This article also lacks criticism of the sources, as well as a presentation of the different underlying theories. However, my intention has been to present the complete list with conceptual clarifications and theoretical explanations within my Ph.D. which I'm working on right now, and which, hopefully, will be examined in the spring 2003.

## **First Approach - Sonic Memory**

### *Selection of Representative Examples*

According to its title, the initial step deals with the selection of places that will serve as field examples, which are representative for the sonic identity of a city. The approach comprises of the two complementary techniques of *The sonic mind maps* and *The phono-reputable inquiry*,<sup>7</sup> and also a final step that concerns the selection of representative places according to the model of CVS (see below theoretical description of the CVS-model).

### **Sonic Mind Maps**

The first technique – the sonic mind maps – aims at locating and making a first selection of representative places. To carry this technique out one needs 20-50 interlocutors who are as diverse as possible regarding age, social categories, education, knowledge of the city where they live and their geographical spread. In brief, each interlocutor has to draw a sonic map of the city and make short comments on the obtained map. The interlocutor is also asked to specify a certain number of places that he/she finds particularly rich in acoustic qualities. Amphoux emphasises that the inquirer must be attentive and helpful if the interlocutor has difficulties in understanding questions and making drawings since the task can be found very abstract. This procedure is quite fast and it takes just two days to produce about twenty maps.

### **Phono-Reputable Inquiry**

The following technique, the phono-reputable inquiry, aims at collecting a number of comments from the obtained maps, from which it's possible to extrapolate pertinent criteria. The inquirer has to gather interlocutors who have a particular sensibility and knowledge of the sonic environment: On the one hand those who operate in the city such as the postman, the stroller, the street musician and the blind; And, on the other hand, those who represent the city such as a columnist, a historian of the city or architecture, an acoustician, a musicologist and a city planner.

In brief, the inquirer starts with a short survey of the framework and the objectives of the meeting. The inquirer also explains the idea of the notion of sonic quality. Moreover, the interlocutors have to scrutinise questions

regarding the sonic qualities of each present place that was selected in the first step, and likewise they'll be asked to propose and reflect upon what type of sonic criteria contribute to the situations of the experiences of well-being. The estimated time to make such an inquiry is three days, comprising four sessions with six or seven interlocutors in each.

## Choice of Places - The CVS-model

The next step is to make the final selection of representative examples with the help of the two previous inquiries. To make this possible, Amphoux in a transferred sense relates the three polar model of CVS [*connu*–known, *vècu*–lived and *sensible*–sensed] to three different dimensions of urban sonic identity.<sup>8</sup>

### Theoretical Description of the CVS-model

*Connu* (known) refers to a sonic dimension of *symbolic representation* that is discussed in terms of sonic *symbols* or sonic *emblems* of a city. The symbolic function of sound is much stronger than the conventional sonic code, and known by a great number of people. Thus, the sonic ambience of sonic places known by all, native-born or foreigner fulfils to a great extent a symbolic function – as an epithet – where it has an immediate representation (such as Big Ben in London).

*Vècu* (lived) refers to a sonic dimension of *indicative expression* that is discussed in terms of sonic *indicia* of a city in the sense that the sound through contiguity reveals, indicates or expresses a particular place. This dimension is, thus, not within the order of representation (it's not necessary to know a particular code to understand the signification), but within the experience that develops through contiguity and by people's practice. The choice of place is, thus, arbitrary and subjective since the sonic dimension of *vècu* deals with the individual experience. Such a place can be a certain district or a garden where one lives. The sonic *indicia* of a place or a district is uniform to the listener.

*Sensible* (sensed) refers to a sonic dimension of *iconic representation* that is discussed in terms of sonic *icons* of a city. This dimension is defined as the proper quality of sound in which one forgets its reference to a factual reality. It doesn't symbolise the epithet of the city or the practice in a district, but the essence of a place, which is totally identified. Thus, Amphoux talks about the 'sonic urbanity of icons'<sup>9</sup> in order to designate the sonic climate that gives the

city its particular sonic atmosphere, or where it signifies a place independent of the geographical situation. The sonic atmosphere of a cafe or a marketplace can represent such a place. It's the sound within itself that matters, beyond the immediate perception, not its spatial references.

When making the selection of representative places, Amphoux outlines four principle orders: 1. Creating a list of places and synthesising the commentaries and their orders in function of the level of redundancy. I.e., when analysing the results of the mind maps and the phono-reputable inquiries, it's important to dispose of irrelevant data; 2. Indicating the motive of the commentaries, and distinguishing the sonic identity in accordance with the CVS-model; 3. Setting up the quantitative limitations of places and the analysed situations in accordance with the means and the time that one disposes. I.e., a limited investigation may comprise of a smaller amount of places in comparison with an extensive investigation; 4. Distributing a reasonable amount of places according to the CVS-model, i.e., to choose about ten places of which a third conform respectively to either the polarity of 'connu', 'vècu' or 'sensible'.

Thus, the relation of CVS becomes the control instrument – from a sonic identification viewpoint – when balancing the analysed places. Finally, after the selection and balancing of about ten places which are representative for the sonic identity of a city, one has:

- [C] Three or four *representative places*, in the sense that they are well known to all the people in the survey (mentioned by most of the consulted interlocutors). The places that are taken under consideration are places such as “the main street” and “the town-hall”.
- [V] Three or four *expressive places*, in the sense that they represent and give rise to certain personal *experiences* - a street, a place, a public garden. The choice of places is individual and arbitrary since it varies in accordance with the interviewee's personal behaviour and to the places he or she use frequently.
- [S] Three or four *sensed places*, in the sense they give rise to a specific 'sentiment of city'.<sup>10</sup> Most of such places express a 'sonic urbanity' within themselves, e.g., the marketplace, the station and the cafe.

Amphoux emphasises that the three criteria of known, lived and sensed

(CVS) are always present at the same time in this three polar model. Within a certain sonic space one of these three polarities can be dominating, but the two others are always present to some extent.

## **The Second Approach - Sonic Perception**

### *Constitution of an Analytical Framework*

The first approach dealt with citizens' memory and specialists within different disciplines, with the purpose to select representative places. This second approach, however, is focusing on the perception of sound. This doesn't concern people's knowledge, practice or sensed relation to the city, but it deals with people's perception of sound and how they react when listening to sonic fragments. Initially, this is realised through recordings of the places that were selected in the first phase. Amphoux states that it is possible – within a limited study – to skip this approach and pass directly to the third approach (i.e., *characterisation of the sonic identity of a city*).

### **The Synoptic Form Supporting the Sound Recordings**

In order to be as precise as possible, Amphoux emphasises that it's of great importance to control the process when making a sound recording. Accordingly, he's outlined a synoptic form that comprises four main categories: *location*, *composition*, *intention* and *factual information* respectively that'll support the sound recording.

– *Location* concerns the name of the place, but it's also important to mark out exactly where the recording took place.

– *Composition* – this is doubtlessly the most extensive part of these four categories concerning the rendering of the sounds into a synthetic form that was earlier described by the interviewed people. Amphoux has outlined three categories: *sonic background*, *sonic ambience* and *sonic signals* in order to subdivide the sonic environment into manageable parts, which also help the investigator to store the information in an operative form. Another advantage when subdividing the sonic landscape is that it obliges the investigator to be extremely concrete when recording the sonic elements (see also the theoretical description of sonic background, sonic ambience and sonic signal in the next part).

- *Intention* is about giving the sound recordist as precise information as possible on the qualitative criteria that distinguishes a certain place.
- *Information* concerns the timetable, e.g., when the recordings took place etc., but also a column that is reserved for different types of information.

## Theoretical Description of Sonic Background, Sonic Ambience and Sonic Signals

As was stated above, Amphoux has outlined three categories: *sonic background*, *sonic ambience* and *sonic signals* – as a conceptual tool – in order to distinguish certain sonic environmental characteristics. The three categories correlate to aspects such as the listening behaviour, and also spatial and temporal aspects within the environment.

The category *sonic background* refers to an order that one actually doesn't pay any attention to. Yet, it's clearly audible from that moment when starting to listen actively. Amphoux defines the sonic background with the sentence "one must listen to it to 'attend' it",<sup>11</sup> which implies that it plays a silent role because it reveals other sonic orders. In a transferred sense Amphoux applies Pierre Schaeffer's model of ordinary listening that consists of the four listening categories *listening*, *hearing*, *attending* and *comprehending*.<sup>12</sup> The sonic background corresponds to Schaeffer's listening perspective hearing (ouïr). When Amphoux connects 'hearing' with sonic background, he unites the concept with a third person in the sense of 'one hears', independently of what 'I' do or what 'you' do. Moreover, he states that "one can neither attend it, nor listen to it, but it will always be heard if one is not deaf".<sup>13</sup> From a time perspective view sonic background can be outlined in terms of continuity or duration, i.e., it's an ongoing stream – a continuum – of sounds.

The category of *sonic ambience*, Amphoux defines as the composition of the present sounds within a sonic environment, i.e., the sound that gives a distinctive character – a sonic code – to a place. Moreover, Amphoux correlates 'sonic ambience' to Schaeffer's listening perspective of attending. Briefly, Schaeffer's definition of attending deals with a perceptual field when we don't etymologise the sound, i.e., we don't search for the sound's derivation and origin. Instead our perception operates on a selective level: we are searching for specific qualities of a certain sound and/or a sonic ambience.

Thus, it is the sounds within themselves that are in focus and not their physical context. Amphoux uses the term *ecoute flottante* (floating listening) to describe the process when we are confronted with this type of sonic order. Moreover, he discusses 'sonic ambience' by correlating 'attending' to a second person in the sense that one can put the question 'did you attend?' in order to reassure what was perceived. Amphoux says that it's hardly necessary to listen actively to perceive the 'sonic ambience'. Contrary to 'sonic background' he states that: 'one can attend to the sound without listening'<sup>14</sup> – and he exemplifies this sentence with the French expression of: "Il y a de l'ambiance ici!" (It's a nice atmosphere here!). On the other hand, however – regarding the above sentence from a reverse angle – Amphoux states that: 'one can not listen to other signals without attending to them',<sup>15</sup> which implicates that we will always be attentive to the characteristic sounds when listening. From a temporal viewpoint Amphoux says that the sonic ambience can be characterised through its *dynamics* in the sense that it's the mobility, the movement, the rhythm and the alteration of the sonic units of a cohesive ensemble that constitutes the sonic ambience of a place.

The third category, the *sonic signals*, concerns emitted sounds that one envisages from an acoustical viewpoint (e.g., difference in intensity), a statistical viewpoint (e.g., an aleatorical event), a psychosociological or a semantic viewpoint (e.g., an uncommon noise). The 'sonic signal' correlates to Schaeffer's perspective of *listening*, which deals with the intermediation of sound and the event that caused the sound. Amphoux discusses 'sonic signals' by correlating 'listening' with the first person in the sense that 'I'm listening', which implicates that one acts intentionally and with determination on the subject that makes us start listening: "one cannot listen without hearing and attending".<sup>16</sup>

The sonic signal, literally speaking, grabs our attention: the signal will suddenly appear in our mind, unexpectedly, we don't have to listen but instead the signal will always call for our attention; contrary to the sonic background "one has to pay attention to it to listen to it".<sup>17</sup> Y From a temporal viewpoint, the signal is always a *discontinuity*; it's an order of a *sonic event* that makes us listen.

Amphoux states that the dividing of the sonic environment into the three orders *background*, *ambience* and *signal* also can be discussed in terms of the dual relation of figure/ground that is a dominating theory within the field of gestalt psychology. In brief, the duality of figure/ground in a transferred sense can be substituted by the above

described trilogy *background/ambience/signal* which is reflected into the three temporalities *duration/dynamics/event*, and the three functions of ordinary listening which are *hearing/attending/listening*.

## The Achievement of Sound Tracks and Interviews Concerning Listening Perception

The next two steps deal, firstly, with the sound recording of the chosen places, which Amphoux has outlined with very detailed instructions on how to carry this through. The second step is detailed and concerns the interviews and comprising different manuals and forms. However, regarding the limitation of this article it's not possible to go deeper into the conducting of the sound recording and the realisation of the interviews. Instead the article will continue with the third and last approach.

Nevertheless, the core of this second approach is Amphoux's framing of the three categories *sonic background*, *sonic ambience* and *sonic signals*.

## The Third Approach - Sonic Interpretation *Characterisation of the Sonic Identity of a City*

The third approach – *Characterisation of the sonic identity of a city* – is interpretative in the sense that it aims at making an assessment of the obtained results from the first and second approaches (i.e., *Selection of representative examples* and *Constitution of an analytical framework*). The tools for this assessment consist of a *Sonic Identity Chart* and a *Repertoire of Qualitative Criteria* that Amphoux has outlined. The main focus of both 'tools' embodies three radical different modalities: 1) E, *l'écoute environnementale* (the environmental listening); 2) M, *l'écoute mediale* (the milieu listening), and; 3) P, *l'écoute paysagère* (the landscape listening), also known as the *model of EMP*. These three modalities designate different types of relation to the 'sonic World',<sup>18</sup> each one denominating certain qualities: [E] denominates the *representation* of the sonic environment; [M] the *expression* of the sonic milieu; and [P] the *perception* of the sonic landscape. Thus, they concern different contexts of sounds.

This third approach – *Characterisation of the sonic identity of a city* – is the final part and the average number of places when making such an investigation is about ten.

## The Sonic Identity Chart and the Repertoire of Qualitative Criteria

The Sonic Identity Chart has been outlined in tabular form where the investigator makes the notations of the obtained results. When making an investigation of a city, the investigator has to fill in one form of each explored place. The chart consists of four different categories: 1. *Specifications of sequences*; 2. *Synthesis of hypotheses and comments*; 3. *Semantic niche and remarkable expressions*; and 4. *Objectification of qualitative criteria*. The first three categories consist of compiling the results from the obtained maps, interviews, inquiries and recordings. The fourth category, however, is doubtlessly the most extensive and consists of a description of the qualitative criteria – the sonic identity – of a certain place, expressed in terms of the three modalities of environmental listening (E), milieu listening (M) and landscape listening (P), i.e., the *model of EMP*. The tool for making such a description of the qualitative criteria is the previously mentioned *Repertoire of Qualitative Criteria* that consists of a repertoire of concepts.

The **Sonic Identity Chart** consists of four categories:

1. *Specifications of the sequences*, that consist of:

- A factual description of the sound levels (LEQ - maximal and minimal level);<sup>19</sup>
- Recognition of the executed interviews (immediate, easy-going, difficult, impossible etc);
- Short description of the sonic fragments (place, time, audible elements etc); Reception of the sonic fragments (the auditor's relation to the audition and the sonic fragments);
- A systematic list of the *sonic effects*<sup>20</sup> that were conceived from the interviews. (The use of the *sonic effects* is an important part of Amphoux's work, but due to the limitation of this article it's not possible to give a substantial explanation, see further explanation in previous footnote.)

2. *Synthesis of the hypotheses and comments*, which consists of an analysis of the content of the executed questionnaires and interviews, and scrutinised in terms of:

- Space (commentaries of the perception of spatial aspects);

- Time (commentaries of the perception of temporal aspects);
- Semantic and/or cultural aspects (commentaries in terms of anonymity, intimacy, nostalgia, ambiguity, tranquillity, integration and cosmopolitan etc);
- Sonic material (commentaries of the perceived sounds-sources of the place).

3. *Semantic niche and remarkable expressions*, consists of short quotations – in the original language – that have been stated by the interlocutors during the interviews and questionnaires.

4. *Objectification of qualitative criteria* (that also includes the *Repertoire of Qualitative Criteria*): This fourth category – doubtlessly the core of this work and the most extensive category as well – is the description of the qualitative criteria of the sonic identity, which Amphoux has distinguished into the three different EMP orders:

- [E] : The modality of environment concerns the *acoustic quality* of sound, denoted as the *criteria of quality*. i.e., a sonic order that is objective, assessable and controllable. Beside criteria such as reverberation, intensity, frequency and timbre it also embraces spatial criteria, e.g., in terms of localisation and delocalisation, but also temporal criteria discussed in terms of the rhythm of sound. Thus, the criteria of quality concerns an analytical discourse on the content of sound, denoted by Amphoux as a *sonic environment* (environnement sonore), i.e., an objective order that is outside of us but with which we support the functional relations concerning emission and reception, and which is symbolised by [E] (environnement).

- [M] :The modality of milieu concerns the *sonic comfort*, denoted as the *criteria of qualification*, i.e., a sonic order that is amalgamated, natural and vivid, and which arises from the social structure of a place and people's activity. This order is subjective in the sense that one evaluates the sounds in relation to people's practices and habits. Thus, the criteria of qualification concerns an analytical discourse on the form of sound. It is denoted as a *sonic milieu* (milieu sonore), which we are plunged into and with which we support the *united relations* right through our activities; symbolised by the [M] (milieu).

- [P] : The modality of landscape concerns the perceived *quality of sound*, denoted as the *criteria of qualitiveness*,<sup>21</sup> i.e., a sonic dimension that evokes aesthetical and sensible sensations of sounds. One typical criterion within this order is the representation of sound

in the sense that the sounds are e.g., rare, typical and/or authentic. It also deals with the expressiveness of sound, as well as the listener's reflection of sound that, among other things, concerns musical values. The criteria of qualitiveness concerns an analysis of the discourse of the form and the content of sound. It is an inter-subjective order denoted as a *sonic landscape* (*paysage sonore*), simultaneously inside and outside of ourselves, with which we support the *perceptual relations* right through our aesthetical experiences; symbolised by [P] (*paysage*).

### Theoretical Explanation of the Three Orders of Sonic Criteria and the Three Types of Listening of the City

As was mentioned above, the three orders of sonic qualitative criteria (quality, qualification and qualitiveness) and the three orders of listening criteria (environment, milieu and landscape) constitute the most extensive part of the Sonic Identity Chart. Together they serve as a tool in order to frame the sonic identity from different perspectives. Below, the theoretical ideas of the definition of the sonic environment, the sonic milieu and the sonic landscape will be outlined.

**The sonic environment** designates an objective, measurable and controllable whole of the sonic world. In other terms, it's the *representation* that shapes the sonic world when exercising an objective 'listening' (*écoute*), which is analytical and manageable within a given culture (see also the theoretical description of 'sonic signal'). The object of such a listening concerns, thus, the *acoustic qualities* of the sonic environment. The **criteria of quality** is not only confined to acoustic values such as intensity, frequency and timbre, or to specialists knowledge. On the contrary, it also embraces the collected data from the interviews of "ordinary man" describing the users' space in terms of spatio-temporal criteria, as well as criteria that is linked to the sonic material. Consequently, the criterion of quality designates a quality in itself, which is objective.

**The sonic milieu** deals with people's acting in the sonic world. In other terms, it concerns the *expression* of the sonic world through the practices, uses or the custom of the inhabitants when exercising the "hearing" (*l'ouïe*), i.e., a listening perspective that lacks a particular intention: the listener doesn't search consciously for the sound (see also the theoretical description of "sonic background").

The object with such hearing concerns the *sonic comfort*, individual or collective. On this level, one doesn't talk about "acoustic qualities":

the sonic milieu is either of good or bad quality, it's "comfortable" or "uncomfortable". Properly speaking, the sonic world doesn't concern the qualities, but the *qualifications* (of the comfortable and uncomfortable). The qualitative criteria of the sonic milieu concern thus the *criteria of qualification*, which are classified and defined in terms of evaluation, idealisation and imagination. Consequently, the criterion of qualification designates a quality 'through' itself, which is subjective.

**The sonic landscape** designates the collective field of phenomena that make possible a sensed appreciation of the sonic world. In other terms, it's *the seizure* that operates within the sonic world when reflecting 'attentive' (*entente*), i.e., an emotive listening or simply the absorbed contemplation from an auditor (see also the theoretical description of 'sonic ambience'). The object with such attention concerns *the phonic beauty* of the sonic landscape. In this order one neither talks of acoustic quality on an objective environmental level, or of the subjective qualification of such a milieu: The sonic landscape concerns the *qualitativeness* – being inter-subjective – by nature subjective and yet universal. The *criteria of qualitativeness* are classified and defined in terms of 'representativeness', 'expressiveness' and 'reflexiveness'. Consequently, the criteria of qualitativeness designate a process that is inter-subjective: which 'by itself takes a value in itself',<sup>22</sup> i.e., the appreciation of certain subjective criteria are shared by a lot of people.

## The relation between the modalities of EMP

When discussing the relation between the EMP modalities, it's important to bear in mind that it's not possible to oppose the environment to the landscape, the milieu to the environment etc. Each of the three modalities only make sense in relation to the others and one can only approach this course by successive homologies, i.e., the one of the known, the lived, the sensed / the listening, the hearing, the attending / the symbol, the indicia, the icon / the quality, the qualification, the qualitativeness / the diagnosis, the handling, the creation, etc. The environment is not more important than the milieu or the landscape. Hence, it's not possible to put them in a hierarchical system since these three dimensions are incommensurable. But they are always co-present in relation to the 'World' and it's, thus, a question of treating them jointly.

## **Summary**

To sum up, when analysing and compiling the obtained results in order to describe the sonic identity of a city, the investigator uses a *Sonic Identity Chart* and a *Repertoire of Qualitative Criteria*. The Sonic Identity Chart has been outlined in tabular form where the investigator makes the notations of the obtained results. (See the below enclosed example of a Sonic Identity Chart.) The Repertoire of Qualitative Criteria - that is a part of the Sonic Identity Chart - consists of a vast number of concepts that functions as a tool in order to depict the context of sound, expressed in terms of *environmental quality*, *qualification of milieu* and *qualitativeness of landscape*: i.e., the criterion of environmental quality gives priority to a physical, spatial and semantic context; the criterion of the qualification of the milieu gives priority to a pragmatic context where the subject or the social group is committed; and the criterion of the qualitativeness of landscape gives priority to a cultural context where the perception is committed. (See the below enclosed 'Scheme: Repertoire of Qualitative Criteria'.)

Due to the limitation of this article it's not possible to present a precise definition of each of the concepts (about 80 in number) that constitutes the Repertoire of Qualitative Criteria. However, it's important to underline that, without knowing the definition of each concept it's in fact impossible to make a survey. Hence, this article is not a complete description of the method since it doesn't serve the reader with a complete list of concepts, as well as it lacks a description of the above mentioned repertoire of sonic effects.

**SONIC IDENTITY CHART (example)****1. SPECIFICATION OF THE SEQUENCES:**

- *Sound level.* e.g., LEO 70 max 89 - min 62 - 1.52 minutes.
- *Recognition of the executed interviews:* e.g., in terms of "immediate", "easy-going", "difficult", "impossible".
- *Short description of the sonic fragments:* about the name of place, when it was recorded, about the audible sounds at the place etc.
- *Reception of the sonic fragments:* about the auditor's relation to the audition and the sonic fragments.
- *Sonic Effects:* e.g., in terms of "masking", "reverberation", "cutting" or "cocktail" effect.

**2. SYNTHESIS OF THE HYPOTHESES AND COMMENTS:**

(Analysis of the content of the executed questionnaires and interviews, scrutinised in the four categories):

- *Space:* e.g., in terms of "reverberant", "diffuse", "unstable" or "omnidirectional" spatiality.
- *Time:* e.g., in terms of "continual", "non-rhythmical" or "non-linear".
- *Semantic/cultural aspects:* e.g., in terms of "anonymity", "modernity" or "insecurity".
- *Sonic material.* a synthesised description about the commentaries of the perceived sound-sources of the place.

**3. SEMANTIC NICHE AND REMARKABLE EXPRESSIONS:**

(Consists of short quotations that have been stated by the interlocutors during the interviews and questionnaires).

- E.g., "It's a mix between the traffic noise, the scattered voices and the kinetic sounds from the moving people."

**4. OBJECTIFICATION OF QUALITATIVE CRITERIA:**

(which also embraces the *Repertoire of Qualitative Criteria*)(About the qualitative criteria of the sonic identity, expressed in terms of the environmental orders EMP)

- *The criterion of quality* [E]: in terms of "space", "time" or "sonic material".
- *The criterion of qualification* [M]: in terms of "judgement", "ideals" or "images".
- *The criterion of qualitiveness* [P]: in terms of "representativeness", "expressiveness" or "reflexiveness".

**SCHEME: REPERTOIRE OF QUALITATIVE CRITERIA**

<b>ENVIRONMENTAL LISTENING</b>	<b>E</b>
<b>THE ACOUSTIC CRITERIA OF QUALITY</b>	
<b>Spatio- Temporal Criteria</b>	<b>ee</b>
- Scale	eee
- Orientation	em
- Atemporality	eep
<b>Semantic.cultural Criteria</b>	<b>em</b>
- Publicity	eme
- Collective memory	emm
- Naturalily fnsecunly	emp
<b>Criteria Linked to the Sonic Material</b>	<b>ep</b>
- Reverberation	epe
- Sonic signature	epm
- Sonic metabolism	epp
<b>MILIEU LISTENING</b>	<b>M</b>
<b>THE SONIC CRITERIA OF QUALIFICATION</b>	
<b>Criteria of Evaluation</b>	<b>me</b>
- Artificialisation	mee
- Trivialisation	mem
- Stigmatisation	mep
<b>Criteria of Idealisation</b>	<b>mm</b>
- Privatisation	mme
- Melropolisation	mmm
- Naturalisation	mmp
<b>Criteria of Imagination</b>	<b>mp</b>
- Visualisation	mpe
Aesthetisation	mpm
- Fabrication	mpp
<b>LANDSCAPE LISTENING</b>	<b>P</b>
<b>THE PHONIC CRITERIA OF QUALITATIVENESS</b>	
<b>Criteria of Representativeness</b>	<b>pe</b>
- Typicity	pee
- Rarity	pem
- Authenticity	pep
<b>Criteria of Expressiveness</b>	<b>pm</b>
- A sense of internalisation	pm
- A sense of belonging	pmm
- A sense of immersion	pmp
<b>Criteria of Reflexiveness</b>	<b>pp</b>
- Schizophony	ppe
- Symphony	ppm
- Eidophony	ppp

## Epilogue

### *Handling of the Urban Sonic Environment*

#### Handling Instrument

Pascal Amphoux emphasises that the work of *The Sonic Identity of European Cities* first of all is a method of analysis of the sonic quality in urban space. The work is not limited to an evaluation of the correlation between sound-levels and the degree of discomfort, but it rather takes architectural, social and cultural dimensions into account. These aspects are usually ignored in the work of noise.

On a local level, Amphoux also points out that the work can support the different local studies that aim at conducting noise maps where specific problems – the 'points noirs' – are documented. In this sense this work can be complementary by spotting the 'unproblematic' – the 'points blancs'. Amphoux also says that the guide is to be used as an instrument for the handling of sounds in urban spaces. The Sonic Identity Chart constitutes not a goal in itself, but it supplies the support of information, which is updateable and complementary to a noise map. Since the method is applicable within different cultural contexts, it also can be regarded on a global level as a starting-point of a European comparative methodology.

The two homologous models of CVS (*connu* – known, *vécu* – lived and *sensible* – sensed) and EMP (*environnement* - environment, *milieu* - milieu and *paysage* – landscape) bring a pragmatic and theoretical support in order to develop and to control the different levels of intervention.

In the concluding part the three different operative attitudes of *handling of the environment*, *handling of the milieu* and *handling of the landscape* will be discussed. Amphoux denotes these 'operative attitudes' as three political poles in the sense that they outline three different *plans of action* concerning the handling of the urban sonic environment.

#### Handling of the Environment

The first attitude is *defensive* and consists of *protecting the sonic environment* from acoustic pollution, which firstly concerns the traditional institutions, e.g., to normalise, to regulate, to control, to build noise barriers, to double the walls, to thicken the interior partitions, to divert the stream of cars, to reduce the traffic etc. But Amphoux also adds the importance of protecting the acoustic qualities such as the spatial and

temporal configurations, and also the social and cultural signification that constitutes the objective conditions of the identity of the sonic environment.

Handling of the environment is, thus, operative within the frame of *national, regional or local observations of the sonic environment*. Such observations aim at – on the one hand – collecting statistics and quantifiable acoustic data, and – on the other hand – collecting data of the listed variables of the qualitative criteria in order to acquire a comparative analytical tool of the acoustic quality of the sonic environment.

### Handling of the Milieu

The second, inverse, attitude Amphoux denotes as *offensive*, since it aims at *consolidating the sonic milieu*, i.e., to strengthen the amalgamated and vivid dimension of a certain place and also to bring out the sonic comfort to the inhabitants. Amphoux emphasises that such a program is evidently very large since it concerns the *handling of the declared micro-social conflicts and their prevention*. i.e., people's opinions about sounds and noises differs a lot. Some people find a certain sound-source disturbing, whereas other can handle it without any problem. This conflict between different opinions may cause problem when planning and regulating the sonic environment at a certain place. The comfort problematics shall, thus, be viewed in the frame of security and social communication.

The handling of the milieu is also directed to a political order that concerns *regulation of social interactions*, e.g., treatment of the complaints of noise in the neighbourhood. The question of the public awareness is another important political issue, which will stimulate and supply the inhabitants with instruments so they – as far as possible – can regulate and control their own sonic milieu.

### Handling of the Landscape

Finally, the third attitude is *creative* in the sense that it consists of *composing the landscape*. Two types of actions are outlined. Firstly, Amphoux discusses the rather new profession of urban light design, which rapidly has won great success among politicians and habitants. On the analogy of light design, Amphoux discusses the need of an *urban sonic designer*, i.e., a new type of discipline that must be built up by *savoir-faire* and experiences in order to find its public and its usefulness. Secondly, he discusses the promotion of operations in order to stimulate citizens' *consciousness of the sonic environment*, e.g., to develop a large public

register of urban sonic recordings, to organise sonic exposition and manifestations that aims at stimulating and improving the citizens awareness of the richness of sonic qualities etc. This is, indeed, a new perspective that deeply acts on the cultural and esthetical moods of our hearing.

## Summary of the Handling of the Urban Sonic Environment

Firstly, this guide is a *tool of representation* – i.e., a descriptive level – in the sense that it supplies instruments in order to spot and to describe the sonic identity of a place. Secondly, this guide is also a *potential of creation* – i.e., an operative level – in the sense that it can be used as a tool when designing a sonic environment, which operational model – divided into three forms of identity – is outlined as follows:

PROTECTION OF THE SONIC ENVIRONMENT	CONSOLIDATION OF THE SONIC MILIEU
Defensive attitude	Offensive attitude
Technician	User - habitant
Normative and evaluative control	Regulation of social interactions
'Acoustic correction'	'Sonic development'
Observation of the sonic environment	Treatment of plaint and social action
COMPOSITION OF THE SONIC LANDSCAPE	
Creative attitude Designer	
Evolution of cultural and esthetical models	
'Phonic creation	
Urban sonic design	

**METHODOLOGICAL OVERVIEW**

course of action:

**First Approach**  
**Sonic Memory**

*Selection of representative places*

sonic mind maps  
*(first selection)*

phono-reputable inquiry  
*(second selection)*

choice of places - the CVS-model  
*(third and final selection)*

course of action:

**Second Approach**  
**Sonic Perception**

*Constitution of an analytical framework, which aims at analysing interviewees' perception of sound recordings of the representative places.*

synoptic form  
supporting the sound recordings

successive homologies:

known    lived    sensed  
symbol    index    Icon

successive homologies:

signal    background    ambience  
listening    hearing    attending

course of action:

**Third Approach**  
**Sonic Interpretation**

*Analysis and compilation of the obtained results in order to characterise the sonic identity of a City*

sonic identity chart,  
repertoire of qualitative criteria,  
the EMP-model

course of action:

**Handling of the**  
**Urban Environment**

*Three plans of action concerning the handling of the sonic environment*

diagnosis of the environment  
*protecting*

management of the milieu  
*consolidating*

creation of the landscape  
*composing*

successive homologies:

environment    milieu    landscape  
quality    qualification    qualitativensess

successive homologies:

defensive    offensive    creative  
technician    habitant    designer

## Footnotes

<sup>1</sup> The French institute CRESSON (Centre de Recherche sur l'Espace Sonore et l'Environnement) is located in Grenoble and connected to the School of Architecture. See <http://www.cresson.archi.fr/>

<sup>2</sup> I'm also taking the opportunity to thank Nicolas Remy and Nicolas Tixier for being the link between Mr. Amphoux and myself, but also for all the support regarding valuable advice and helpful clarifications of the work.

<sup>3</sup> The Swiss institute IREC (Institut de Recherche sur l'Environnement Construit) is located in Lausanne and connected to the Department of Architecture, Federal School of Polytechnic.

<sup>4</sup> AMPHOUX Pascal, *Aux ecoutes de la ville*, Rapport de recherche N°94, IREC, Lausanne 1991.

<sup>5</sup> AMPHOUX Pascal, *L'identite sonore des villes Européennes – Guide methodologique, à l'usage des gestionnaires de la ville, des techniciens du son et des chercheurs en sciences sociales*. Tome 1: Techniques d'enquêtes, Tome 2: Répertoire de concepts. CRESSON / IREC, 1993:Rapport no 117.

<sup>6</sup> "un espace dont l'ambiance sonore semble adéquate par rapport à l'image que l'on s'en fait", Idem, p. 7.

<sup>7</sup> "l'enquête phonoréputationelle", Idem p. 13.

<sup>8</sup> The CVS-model is most common applied in the field of geography, communication theory and semiology, Idem, p. 15.

<sup>9</sup> "d'une urbanité l'icône sonore", Idem, p. 16.

<sup>10</sup> "sentiment de la ville" ("le Stadtgefühl"), Idem p. 16. il "il faut l'écouter pour l'entendre", Idem, p. 21.

<sup>12</sup> In *Traité des Objets Musicaux*, Editions du Seuil, 1966, the French composer, engineer and author Pierre Schaeffer distinguish four different modes of listening: *écouter* (listening); *ouïr* (hearing); *entendre* (attending) and *comprendre* (comprehending). These four verbs are subordinated to the listening perspective that Schaeffer entitles *écoute ordinaire* (ordinary listening), which concerns an identification process in the sense that the sound is used as a medium: the surrounding sonic information is decoded with the four above listening modes. Briefly, the four verbs *listening*, *hearing*, *attending* and *comprehending* deals with:

- *Listening*: deals with the attention to someone or something; the intermediation of sound and the event that caused the sound. The sound is treated as indicia of the source.

- *Hearing*: concerns the most elementary rough order of listening perception. One listens passively without specifically searching for a certain sound and/or explicitly comprehending the sonic information.

- *Attending*: deals with the perceptual stage when one doesn't etymologise the sound: the sounds' derivation and origin aren't searched for. Instead the perception operates on a selective level: one searches the specific qualities of a certain sound.

- *Comprehending*: is a semantic mode of listening. The sound is treated as a sign or a code that consists of certain values.

<sup>13</sup> "il peut n'être ni entendu, ni écouté; mais il sera toujours ouï par qui n'est pas sourd", AMPHOUX P, *Aux ecoutes de la ville*, Ibid. p. 62.

<sup>14</sup> "on peut l'entendre sans l'écouter", AMPHOUX Pascal, *L'identité sonore des villes Européennes*, Ibid. p. 21.

<sup>15</sup> "on ne peut écouter d'autre signaux sans l'entendre", Idem, p. 21.

<sup>16</sup> "il ne peut écouter sans ouïr et entendre", AMPHOUX P, *Aux écoutes de la ville*, Ibid p. 62.

<sup>17</sup> "il faut l'entendre pour l'écouter", Idem, AMPHOUX Pascal, *L'identité sonore des villes Européennes*, Ibid. p 21.

<sup>18</sup> When discussing the sound environment from an overall viewpoint Amphoux uses the denomination "*Monde sonore*" (sonic World).

<sup>19</sup> L<sub>EQ</sub> concerns the equivalent level of sound pressure, expressed in dB.

<sup>20</sup> The notion of sonic effects is indeed a very extensive and important work developed at CRESSON and published in: *A l'Écoute de l'environnement* (Augoyard, Torgue and others, Editions Parenthèses, 1995) – and to do full justice to this work would demand a thorough survey.

When the book was published in 1995 the research and elaboration of the repertoire of sonic effects had been going on at Cresson for more than ten years. One can say that this work mirrors the dominating attitude at Cresson, i.e., to approach the urban environment from a multidisciplinary point of view, and through detailed investigations elaborate design tools that are suitable within the architectural sphere.

What is then a *sonic effect*? In brief, a sonic effect can not be described as a pure concept but is rather a generic concept since it functions as an intermediate link between different disciplines. The repertoire of sonic effects - which consists of sixteen major and about sixty minor effects - is to be used in order to identify and describe the vast amount of sonic configurations that arise in the built environment. Each of the major effects is systematically defined into acoustical, architectural, sociological, psychological, cultural, philosophical and musical contexts, and consequently the approach is multi-disciplinary. Moreover, one can say that the ensemble of sonic effects function as a guide that supports a general discourse of sound.

N.B. the French expression "sonic effects" is "*effets sonores*" and when translating it into English the Cresson-researchers prefer to use "*sound effects*". However, the reason why I've chosen "*sonic effects*" is not to mix the concept with the notion of "sound effects" which is commonly used within the terminology of electroacoustic music and popular music as well. Their context is by all means considerably narrow.

<sup>21</sup> Amphoux uses the concept of "qualitativité" which in fact is not grammatically correct. The concept is a construction in order to fit into a linguistic context, but later on in his work Amphoux uses the homologue noun of "rareté" (rarity) and "expressivité" (expressiveness). Hence, the concept/noun of qualitativité can be turned into the English noun *qualitativeness*.

<sup>22</sup> "de qui pour soi prend une valeur en soi", AMPHOUX Pascal, *L'identité sonore des villes Européennes*, Ibid. p 38.