

Exploring Balance & Focus in Acoustic Ecology

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This article features accompanying sound files, available online at: http://www.akouse.gr/soundscape_journal_Vol11/westerkamp.html
Or if preferred, the entire keynote presentation can be heard at the same online address.

The presentation begins with this sound example:
*Backyard soundscape in Vancouver, with the following
welcoming words:*

It is September 20th in Vancouver – a sunny September day – in a residential area – a fountain in the background – sirens, traffic – air planes – sounds from the nearby tennis court – birds in the maple tree – chickadee-dee-dee, the chickadee. And yet for you in Corfu it is October 3rd in the morning – you have just all gotten together for this conference – and hopefully there is great excitement about what you will be experiencing at this conference in the next few days – so at least I can offer my voice to this event, some thoughts, ideas, sounds, words – we can see this as an opportunity – you can close your eyes while you are listening, since there are probably no visuals in this presentation – I am grateful that I am having this opportunity to do this presentation in this way and I thank all the organizers in Corfu, my friends and colleagues, very much for this.

Introduction

The world at this time is in quite a bit of turmoil – environmentally, politically, socially, economically. Our conference hosts live in the middle of one right now that – I imagine – must have created some extraordinary challenges in their conference preparations. Despite it they kept going, following their passions and interests, working hard and against all odds. That's why we are all able to gather for this event now. Please let's acknowledge this and thank them warmly and loudly with a big round of applause.

Applause expresses how an audience feels about a performance or presentation. Is it a supportive sound, enthusiastic, bored, happy, moved, angry, or indifferent? Applause also gives us feedback about the room acoustics: how reverberant or sound absorbent it is; how the space distributes the frequencies, whether the space transmits all frequencies equally, or whether it emphasizes certain parts of the spectrum more than others, and so on.

I had a spectacular applause experience a few years ago when I visited the ancient amphitheatre of Herodeion, built at the base of the Acropolis in Athens. I had gone because I was curious about its acoustics. By chance a concert of Greek folk music was on that evening. The theatre holds 5000 people and was packed that night. Quite apart from the enthusiastic expression in the 5000 claps, the acoustics of this amphitheatre gave the applause a powerful brilliance and transparency. As a result my ears were drawn right inside this sound, into the whole massive texture, while seemingly hearing each little grain, each clap. I found my ears actively moving inside this entire acoustic space, inspired by its clear quality, crisscrossing through the full sound spectrum, and investigating the multiple ever-changing rhythms among the many little clapping grains. Similar to how one can listen to flowing water.



Sound Example: creek, water flowing

When I was invited to do this keynote presentation, I told Ioanna, Andreas and Katerina that I would gladly do it, but I could not be sure that I could be there in person. My presentation however would be there. So here is my voice presenting to you in Corfu while I am fast asleep in Vancouver.

I will be crisscrossing through a network of listening paths in this presentation, a network that is deeply characteristic of the field of acoustic ecology, indeed perhaps even its essence. My main theme for this journey is exploring the *idea of balance and focus in acoustic ecology* – a theme that has been our deepest challenge since the beginning. And even now, each conference and each soundscape journal struggles with the same issue. How can we find focus and balance in such a vast interdisciplinary, intercultural field – in a field that has listening at its very core of study and educational action and therefore naturally touches on all aspects of life. Like all of us, I will be coming to various crossroads in this network of listening paths where ideas will meet, overlap, or grow apart. As in a soundwalk, even though there is always a bit of a plan and pre-composed route, I may walk along unplanned and unprogrammed paths in this presentation, stop and listen to unexpected thoughts and sounds that will come up in the process. Please join me on this journey in thoughts, words and sounds.

Already in these first few minutes we have walked on various listening paths that highlight issues of balance in the soundscape. Let's take the ambience in my backyard: at the beginning of the recording the soundscape does not sound like a garden soundscape.

Sound Example: Backyard, Vancouver, loud

Sirens and airplanes dominate. After these recede, the closer sounds of water, birds and wind become more audible. We are more clearly inside the garden now, at the same time hearing sounds half a block away of tennis balls bouncing while still aware of distant urban sounds.

Sound Example: Backyard, Vancouver, quieter

From the listener's stance in the garden this soundscape is completely out of balance at the beginning of the recording. The acoustic space of sirens, plane and traffic overlap significantly with the acoustic space of the garden soundscape and indicate that we are close to a number of hospitals, under a flight path of seaplanes as well as jets, and that there are nearby and distant roads. After a few minutes in this recording a more balanced relationship develops between all sounds of this location: the foreground sounds, although not exactly dominating, are present enough to establish a sense of place and focus inside the garden; the mid-ground sounds from the nearby tennis court and park connect the listener to the activities in her immediate community, while the distant traffic sounds make it clear that this garden is in a fairly central urban neighbourhood of Vancouver. Considering the urban context, the quieter parts of the recording could be indicators of a relatively balanced garden soundscape.

Sound Example: Footsteps in quiet ambience (continues under text off and on for a few minutes)

However, when this listener returns home from a time in quieter places, even the quietest moments in this garden seem acoustically imbalanced. The *memory* of an ambience without traffic, planes and sirens creates this perception of imbalance. Similarly if one were to come from a noisy, lively soundscape into a silent space that feels oppressive and lifeless, a strong sense of imbalance would be perceived as well. Like all transitions in life, these transitions in soundscape and perceptual experience, unpleasant or difficult as they may be, can in fact be important opportunities of learning. Rather than getting frustrated, depressed, or angry, these transitional experiences, *if sufficiently noticed*, may be wake-up calls, significant sources of inspiration that may spark action in us to make creative changes in our soundscapes – may in fact cause us to rebalance what was out of balance. The keyword here is: *if sufficiently noticed*. Interestingly enough many noise studies, if they include the listener at all, avoid such transitional experiences, as they add a level of complexity that is daunting to say the least.

Ecological balance has been defined by various online dictionaries as, “a state of dynamic equilibrium within a community of organisms in which genetic, species and ecosystem diversity remain relatively stable, subject to gradual changes through natural succession.”¹

When I was addressing the applause earlier, I was talking about different ways of listening: on the one hand a more analytical form in which we listen to the acoustic properties of the sound and how the room acoustics feed the sound back to us; on the other hand listening to the tone and emotional expression of a sound. In most situations we make sense of sound meaning by applying these two types of listening and balancing them simultaneously in our own personal way. Blesser and Salter in their book *Spaces Speak, are you listening?* distinguish between these two with new terminology. They say that

...Acoustic architects focus on the way that space changes the physical properties of sound waves (spatial acoustics), whereas aural architects focus on the way that listeners experience the space (cultural acoustics). Although some individuals function as both aural and acoustic architects, the fundamental difference in the two functions is the distinction between choosing aural attributes and implementing a space with previously defined attributes.²

Ideally it would be acoustic ecologists who function as both aural and acoustic architects. If so, it would mean acquiring and balancing the know-how of both approaches. The task would also be to aim for an *inner* balance inside our listening attention, that will shift in emphasis continuously precisely because we would be traveling on two different listening paths at the same time. The more conscious we are of this process the more we may be able to keep a dynamic equilibrium – the term we just heard in the definition of ecology – between various listening levels and approaches. So, the multiple listening paths do not just cross in the external multidisciplinary sound worlds, but also in our very personal inner world of sound experience and listening.

For a moment let's examine the type of listening balance that American composer Pauline Oliveros proposes. She illustrates it visually with a simple, drawn image: a circle with a dot in the middle.

She says:

While one's attention is focused to a point on something specific, it is possible to remain aware of one's surroundings, one's body, movement of all kinds, and one's mental activity (in other words remain aware of inner and outer reality simultaneously). Attention is narrow, pointed and selective – that's the dot in the middle. Awareness is broad, diffuse and inclusive – that's the circle. Both have a tunable range: attention can be honed to a finer and finer point. Awareness can be expanded until it seems all-inclusive. Attention can intensify awareness. Awareness can support attention. There is attention to awareness; there is awareness of attention.³

This balance about which she speaks is relatively easy to experience in such a soundscape as this:

Sound Example: Crickets, at Ioanna Etmektsoglou's place, Corfu 2010

I recorded this in Corfu from Ioanna's house south of Kerkyra in July of 2010, in the middle of the day when it was about 35° Celsius! The crickets are the point of focus, the dot in the middle. All other sounds are the circle of awareness around it.

But let me tell you of a recent experience where this concept of balance in listening was challenged hugely but ultimately elevated to a higher level of balance and equilibrium, precisely because of the challenge.

I had signed up for a five-day yoga intensive workshop in town. A construction site was in full action right next door during the entire workshop. We all knew that the class could not be moved and the noise was going to stay. We all wanted to be there, work hard and stay positive. But really the instructor's stance was key here. Her voice stayed calm and clear throughout. She made sure we could hear her. Her words and instructions emphasized and encouraged intense engagement with our physical bodies and a positive spirit, and deeply focused our attention to the task at hand.

Her wacky sense of humour also helped. In one instance when we had returned from lunch and were asked to relax in a restorative pose that would help with digestion, she suggested, “just pretend that it is your digestive system, those sounds out there”.

Sound Example: Construction noise near yoga studio, Vancouver, 2011 (continues under text for a while)

This was one of the very few times when the noise was even spoken about. The intense intrusiveness of the noise could have become a huge and negative issue during those five days. Instead we had a positive, enriching experience and felt truly rejuvenated by the end

1 http://www.panda.org/about_our_earth/teacher_resources/webfieldtrips/ecological_balance

2 Barry Blesser, Linda-Ruth Salter, *Spaces Speak, are you listening?* 2007. MIT Press, Cambridge, Mass., London, England, p. 5.

3 Pauline Oliveros “On Sonic Meditation” in *Software for People*, 1984, Smith Publications, p. 139



Window of Faliraki (the main conference venue) where Westerkamp's keynote speech was heard.

of it. How was this possible? When external pressures are present and we cannot escape them for whatever reason, our focus *has* to turn inside and with extra strength and determination. Inner focus and inner expansion become a necessity for survival in such instances.

I said earlier that Oliveros' concept of balance in listening attention and awareness was ultimately elevated to a higher level in this instance. Let me explain. Awareness of the noise was inevitable as it was right in our face. And intense inner focus was a necessity as a result if we wanted to get anything out of this experience. Visually the circle and dot image would be drawn in bold for this occasion.

We could have used all our psychological effort to block out the noise, to fight it in some way, to numb ourselves to it. This would have meant, that we had closed our receptive listening door not only to the outside but also to our inner world. Instead the atmosphere in the room suggested that we accept the presence of the noise and use our energy to find the inner focus for the yoga tasks at hand. I found that it created a kind of highlighted equilibrium between inner and outer sound worlds, leaving enough room for experiencing both, even moments of receptive listening to the construction sounds.

I had experienced this kind of listening stance consciously for the first time in India: for example in a meditation room while outside loud car motors and trucks were struggling up a mountain road, or people worshipping in deep inner focus at a temple while crowds and noises, hustle and bustle happen around them. Strangely there was a feeling of balance in these situations as well: a strong sense of inner calm and silence in the face of unpredictable noise mayhem from outside. In this culture, the inner world is a source of sacredness that empowers daily life. It is that which seems to give such situations what I called earlier, an elevated sense of focus and balance.

None of this is to say that we should buckle down and accept unbearable soundscapes in our lives, of course. It simply points out the many complexities we face in the acoustic environment and in the relationship we have to it. Each soundscape situation has its very own characteristics, each culture, each listener reacts uniquely. And it is precisely this complexity that challenges us as acoustic ecologists to keep opening our listening, to keep up the practice, to keep on learning at all stages of our work and action.

Again the word dynamic equilibrium jumps into the foreground here. In acoustic ecology it would imply the recognition and acceptance of the continuously shifting sound dynamics that are

characteristic for most soundscapes. The shifts occur over time and that fact alone demands continuous openness and flexibility in aural perception from us, no matter what is studied. What is stable and not shifting is the acoustic ecologist's commitment to listening.

And it is precisely this that needs improvement and increased understanding in all of us. How can the practice of listening be better learnt and developed. Blesser and Salter discuss various scientific studies that examine how sensory practice changes the brain. I quote:

There is evidence that those who practice a sensory or motor skill for thousands of hours change their brain wiring. Neurological studies [...] show that the cortical regions that process specific auditory cues are larger in conductors, musicians, and those with visual handicaps than in other people. [...] Listeners strengthen their neurological structure by repeated auditory exercise, just as athletes strengthen their muscles by physical exercise.⁴

Can we develop a school of listening practices specifically for acoustic ecologists? Already in 1967, 44 years ago, Murray Schafer wrote his book *Ear Cleaning*, and in it he says,

Before ear training it should be recognized that we require ear cleaning. Before we train a surgeon to perform delicate operations we first ask him to get into the habit of washing his [or her] hands. Ears also perform delicate operations, and therefore ear cleanliness is an important prerequisite for all music listening and music playing.⁵

...and for all soundscape listening and soundmaking, I might add.

Ear cleaning can happen through one powerful listening experience that will never be forgotten. Or it can happen over a longer stretch of time. But once the ears have been cleaned, unplugged, opened, it is impossible to close them again. This is an important and necessary first stage that has been part of our work now for a long time. But my sense is that we are at a cross roads now. While ear cleaning

4 Barry Blesser, Linda-Ruth Salter, *Spaces Speak, are you listening?* 2007. MIT Press, Cambridge, Mass., London, England, p. 36

5 R. Murray Schafer, "Ear Cleaning", in *The Thinking Ear*, 1986, Arcana Editions, Toronto, Canada, p. 46

needs to remain part of our ongoing professional practice, a rigorous ear *training* program – specifically for acoustic ecologists – needs to be developed and implemented and needs to include soundmaking training for obvious reasons: a central issue in acoustic ecology is about the balance between listening and soundmaking, impression and expression, input and output. In *Ear Cleaning* Schafer addresses this as well:

[...] as a practicing musician, I have come to realize that one learns about sound only by making sound, about music only by making music. All our investigations into sound should be certified empirically by making sounds ourselves and examining the results.⁶

This also means understanding and using the terminology, the language of the various fields to do with sound, music, noise, acoustics, ecology and more. Listening to them, being open to them, speaking them ourselves in competent ways – this is not only another type of balance in listening and soundmaking, it is also the moment when we start to cross each other's listening paths in a very real and informed sense.

I would like to suggest an additional aspect to such a program. Like in the study of psychology that requires a rigorous self-analysis, I would like to propose that every budding acoustic ecologist might benefit from undergoing a process of inner study and self-reflection in order to better understand what kind of soundscape listener and soundmaker he or she is. With that knowledge as a basis, issues of acoustic ecology and balance I believe can be studied and understood more profoundly.

In my own erratic way I voluntarily underwent what I called a personal case study in the late 80s, which was motivated by what I perceived as a personal oversensitivity to aspects of the soundscape and I found that disturbing enough to want to do something about it. This case study became part of my Master's Thesis in 1988 entitled *Listening and Soundmaking, A Study of Music-as-Environment*. As a balance to the rather serious academic study I ended up satirizing it in my performance piece *Cool Drool*. Let me play you an excerpt of the piece, performed during a Vancouver New Music concert in the 1980s, in which I speak of this oversensitivity. I apologise for the rather poor recording quality, but the point comes across despite it, I believe.

Sound Example: Excerpt from *Cool Drool* with following text:

I want to listen to background music because it affects me. The worst schlock can make me cry, especially if it is in a minor key or if it's a Christmas song or if I feel vulnerable. It makes me angry when that happens.

We are all sophisticated listeners here? How can we stoop so low and helplessly sink into the swamp of Muzakland? It is interesting to note that between 1963 and 1971 the Muzak Corporation was a wholly owned subsidiary of the Wrather Corporation, who also owned Disneyland Hotel and the TV film series "Lassie", "Lone Ranger", and "Sergeant Preston".

It seems politically and ideologically simply incorrect to cry to the tune of Muzak.

Nevertheless, it does affect me. If it affects me it must affect others. The Muzak Corporation itself – through its "Human Engineering Laboratories" – has done enough research to prove that it not only affects people, but it affects them in very specific ways. I quote, from Muzak's own publicity material:

People are encouraged to work harder and to be more relaxed at jobs, which – by nature – may not be exciting or motivating...

The music should be barely noticeable, and non-distracting – a soft fog, or music you "breathe"... It is not the music itself that increases production, but rather, the relief from the monotony of the work that the music provides.

End of quote.

TAPE ON: churchmusic by the cash register
(sound of cash register)

We are at Eaton's. A few days before Christmas. This is the men's clothing department. Two loudspeakers are placed close to the cash register. (banging of cash register, rustling of bags)

(instrumental) The music invokes the image and atmosphere of a cathedral (chorus comes back) and thereby the memory of religious celebration. (men sing main tune, one phrase) It creates a holy atmosphere around the cash register, makes it an altar. (voice on tape, cash register) It is as if one is involved in a holy act while paying for the goodies. (cash register)

My thesis argues that the existing delicate balance between listening and soundmaking in quiet environments is vulnerable to the influx of externally imposed "voices". It proposes that "MUSIC-AS-ENVIRONMENT"—and I am referring here to background music or Muzak—is such a voice, which encourages "distracted" listening habits and silences our own voices. Proceeding from the soundscape and acoustic communication perspectives developed by Schafer and Truax, it argues that music-as-environment has a "schizophonic" effect on the human soundmakers/listeners and thus dislocates them from their physical present and the self.

The irony has it that I am joining you in your space in full schizophonic presence. I will take full advantage of this situation now and explore the experience of schizophonia in further depth. It is a split or gap that we all have learnt to bridge with a certain amount of ease. In fact, it has become such a 'new normal' (one of the many new normals that keep cropping up as new technologies, new inventions, new attitudes, new habits flood the markets and us) that many people are disturbed by the term schizophonia. Let me remind you of the definition given originally in the WSP's *Handbook for Acoustic Ecology* in 1978:

(Greek: *schizo* = split; *phone* = voice, sound) The term was first employed by R.M. Schafer in *The New Soundscape* (Toronto 1969, pp. 43–47) to refer to the split between an original sound and its electroacoustic reproduction. Original sounds are tied to the mechanisms, which produce them. Electroacoustic sounds are copies and they may be reproduced at other times or places. Schafer employs this 'nervous' word in order to dramatize the aberrational effect of this twentieth-century development.⁷

The dramatization certainly has worked. The word has received a lot of attention. Initially it simply raised awareness and clarified a very simple fact: the split between the sound source and its electroacoustic reproduction. Nothing more. The fact that the word *schizo* may imply an unhealthy split was not usually contested in those years. Perhaps it was even perceived as an inspiring, slightly amusing aspect that helped to shift our perception of such soundscapes and perhaps even stimulated us to study them in more depth. Whoever has researched the Muzak Corporation – like I did for my Master's Thesis – quickly recognizes that the term was rather well applied for this corporate practice of piping background music into commercial and industrial spaces.

⁷ *Handbook for Acoustic Ecology*, Barry Truax, Editor, 1978, A.R.C. publications, Vancouver, p. 109

⁶ *Ibid.* p. 46

Sound Example: Background music, excerpts from Cool Drool (continues underneath text for a while)

And there was nothing amusing about this, quite the opposite, the more one studies it the more sinister the practice seems. Muzak created *music-not-to-be-listened-to*, as its own advertising stated then. In other words, it intentionally created an atmosphere of lulling workers or consumers into a kind of false comfort in order to increase production or encourage purchasing and thus its own corporate profits. Because the corporation had done its research about listening perception and psychological reactions to music, the specific approach of piped-in music worked exceedingly well for a long time to the delight of the corporation. Muzak helped corporations, industry and businesses to increase their profit because millions of people became habituated non-listeners, unconscious of how the schizophrenic situation attempted to direct and manipulate their behaviour.

That was then. In the late 80s when I wrote my thesis, headphone listening was a relatively new phenomenon. With the Walkman, initially brought onto the market by the Sony Corporation, music listening became for the first time ever, a private experience in public space, and the acoustic environment became further removed from the Walkman listener's consciousness. Nowadays Apple's iPod provides hours and hours more music than the Walkman cassette recorder ever could.

This is the new normal I was speaking about earlier. Nowadays using the term schizophrenic tends to backfire. Its dramatic or nervous character is not only rejected but also criticized precisely because for so many people headphone listening or hearing music, voices and sounds over loudspeakers has become a daily status quo. Why would we want to rattle them by calling it schizophrenic and thereby suggesting the possibility of an unhealthy trend? Get used to it, may be a current response.

Of course I recognize and don't need to elaborate here that not every use of headphones or loudspeakers means an unhealthy split. But the split simply *is* a fact and ideally we would treat it consciously in our use of it. Despite the wide spread resistance to and critique of the term schizophrenic I continue to find its use entirely appropriate especially when there is *no* awareness of the split between source and reproduction. But more importantly, let's go back to the Muzak Corporation in this context.

When I checked its website in 2008 I found a very up-to-date corporation swinging with the modern iPod times. We would be hard-pressed nowadays to call it "a firm dealing in the music of silencing", as Jacques Attali did 20 years ago. Muzak's language has changed; in fact, it *had* to change in order for the corporation to stay in business. Not a word anymore about *music-not-to-be-listened-to*. Instead it aims to affect people's emotions quite directly and openly. Here is some of the language that made up the tone of Muzak's website in 2008:

MUSIC IS OUR SOUL. IT IS THE PASSION THAT RACES OUR PULSE. ... MUZAK ISN'T ABOUT MUSIC PER SE. WE'RE ABOUT THE EMOTION BEHIND THE MUSIC. ... WHAT REALLY MAKES US DIFFERENT IS THE WAY WE TRANSFORM MUSIC FROM SOMETHING HEARD TO SOMETHING FELT (*written in capital letters on website*).

That was Muzak's language in 2008. Now, 3 years later in 2011 I checked the site again and found a very different tone:

Music and more for any business.
Drive your brand. Drive customer loyalty. Drive sales.

At Muzak, we're passionate about the experiences we create and how they impact your business. Your customer experience is a business opportunity. Muzak can partner with you in strategic and creative ways to maximize this opportunity and ensure that every aspect of the customer experience works for you.⁸

⁸ See: <http://www.muzak.com>

No romantic language left here! It's quite simple and straightforward: music will help your business. History shows that it has worked. Muzak's almost 80 years of existence has been successful in spreading this kind of music use all over the world. In fact I would like to go further and propose that it has managed to condition large parts of the world's population towards believing that they need music in the background of their daily life, not realizing that it is potentially masking the real connection to and concern for the environment in which they live. One could argue that this need has taken on an addictive quality especially with those who think that they cannot exist without it.

When I have discussed the issue of music and headphone listening with students, one frequent comment would be "I cannot study, I cannot concentrate without music on". I requested that they do an experiment and study with ear plugs in their ears instead and pay attention to what happens to their concentration. Many of them returned to class, speaking with astonishment about the fact that they could concentrate really well. In some cases this may have been the beginning of breaking an addictive cycle. It may be interesting for someone to conduct a proper scientific study about this.

As I said earlier, over the years Muzak has had to adjust its approach, as consumers on the one hand grew deaf to its soft background music and were seemingly unaffected by its subtle manipulation; on the other hand a younger generation became increasingly savvy as audio consumers, purchasing Walkmans, iPods and light portable recording equipment and thus transformed into more active and perhaps more selective music listeners. In addition computer software that allows anyone to compose music in the digital domain, has created a new generation of potential music makers.

Of course, this latter development was also picked up by Muzak. Like any self-respecting corporation, Muzak also has a community outreach programme. It's name: the *Heart & Soul Foundation*. I quote:

Heart & Soul is just that, the heart and soul of Muzak—the world's largest business music provider. The Foundation is rooted in Muzak's core belief in the emotional power of music, and extending that power to the lives of today's youth.

The Foundation's mission is to redefine and expand the scope of music education.

....taking the curriculum and definition of music education to the next level.

.....changing the way we think about music education outside of the classroom.

The Muzak Heart & Soul Foundation helps students turn their passion for music into real world opportunities—by providing teens with new and exciting programs focused on all aspects of the music business.⁹

Cleverly it calls this programme for young people *Noise!* I quote from the website:

What is NOISE!?

Aside from what your second grade teacher told you not to make, NOISE! is the first summer program for teens who long to understand and someday be a part of the music industry. NOISE! is loud! Not to mention life altering, mind-bending and dream-inspiring.¹⁰

The message is: *Noise!* is cool. Muzak is cool. Muzak wants to appeal to the boundary pushing energy in teenagers who like noise, need noise expression in order to make themselves heard in the face of

⁹ See: <http://heart.muzak.com/default.aspx>

¹⁰ *ibid*.

parental or institutional authority. It seduces by offering a much-needed creative outlet to teenagers but which ultimately educates them to create music speaking the “heart of Muzak” and thus successfully subsumes their creative talents into what they called “muzak culture” in the 2008 website.

So you see, the Muzak corporation knows all about focus and balance. It is clever enough to create its own internal balance: a culture of listening (the music it sells to businesses) and a culture of soundmaking (the training program for young people to make, create music). Not only that, it is aiming to build its own profitable future.

*Sound Example: student of NOISE! playing and talking, from YouTube*¹¹

Our most urgent task perhaps is to create our own listening and soundmaking training program, ‘redefining and expanding’ the scope of education in environmental listening and soundmaking as an effective balancing agent in the face of such corporate forces.

We can extend this argument into many other areas that involve schizophonic/audio and visual media. Consider the gaming world where we have millions of mostly young people in front of screens whether in an arcade or on the computer, in the internet, intensely focused on often violent games with the corresponding soundscapes – a huge industry making huge profits, giving many people jobs, including the sound designers out of our ranks – creating a most addictive pastime. Considering the soundtracks that gaming people are exposed to daily Muzak’s soundtracks seem outright benign. The silence of each player and isolation in the soundscape of their game is the sonic expression of this industry – people caught in a global prison-like network of game soundscapes, disconnecting from their own expressive voice, their family and immediate community, ultimately caught in the corporation’s real agenda of the flow of money and profit. The Muzak Corporation and audio industry in my opinion have done their part – by making individual listening under headphones attractive – in moving people further into isolated, ultimately meaningless activities that disconnect them from life reality. We have a big job ahead of us indeed if we want to reach such a population.

But on a much more positive note, I have noticed that many young people quite naturally and spontaneously seek a balance from this isolation behind headphones and computer screens by showing up at our soundwalks. This simple activity of walking, listening and soundmaking, invariably has the effect of not only re-grounding people in their community but also inspiring them about it, about creating a more balanced life between the global attraction of the computer and the local contact and touch with live human beings and reality. The enormous upsurge of music and sound improvisation certainly in North America and Europe may also be an indication of such a natural re-balancing act. In my thesis in 1988 I wrote that:

...paying attention to and developing body, ear and voice are forms of taking control of one’s acoustic and physical existences in time and space; that it is a form of “naming”, “composing” and “designing our lives”; and finally that it is a way of being receptive and creative at the same time and thereby acquiring a state of peace.¹²

And today I would add – balance.

I was referring to exactly this when I recommended earlier that every budding acoustic ecologist might benefit from undergoing a process of *inner* study and self-reflection in order to better

understand what kind of soundscape listener and soundmaker he or she is. This personal education naturally would need to happen parallel to a rigorous educational program in acoustic ecology. All of us in the field have developed enough experience, materials, documents, recordings, and ideas, to be able to focus it on such a training program. It has been precisely in that balance between the personal experience of listening and soundmaking and the acquiring of the more objective, specialized knowledge about all aspects of sound, soundscape, and the environment that our understanding of acoustic ecology has deepened. It is precisely in that balance also where acoustic ecology is located.

The theme of the acoustic ecology conference in Stockholm in 1998 was *From Awareness to Action*. We all received a *Manifesto for a better environment of sound* that was adopted by the Board of the Royal Swedish Academy of Music, February 8, 1995. It is 28 pages long and really tries to cover all aspects of soundscape issues and listening perception. Let me just read three examples. The first paragraph says:

Awareness and knowledge about our acoustic environment, its potentials and its risks, must be generated at all levels of society from the individual citizen to governmental authorities. A whole-some environment of sound is based – as all other social situations – on empathy, sensitivity and respect for our fellow human beings’ situation or needs.¹³ (p.8)

Under Acoustic Ecology it says:

A new course of studies at graduate school level ought to be established, combining environmental sciences, urban planning and architecture in which acoustics and aesthetics play a central role. Acoustical design studies can be established in schools of art and industrial design. Appropriate governmental agencies and business enterprises ought to be urged to recruit regularly personnel with competence in acoustic ecology in all areas of urban and landscape planning.¹⁴

And lastly about Hearing Silence:

Decibel is not a measure of silence but only the intensity of sound waves. Absolute silence does not exist for human beings with functioning organs of hearing. There is always a mixture of sound and different kinds of silence. If one has auditory sensibility one can hear the silence in a pause or between the tones in a harmony or in the song of birds. Becoming sound conscious requires training in listening for moments of silence – and hearing their significance.¹⁵

Sound Example: Excerpt of Whisper Study

(continues under text for a while)

Whisper Study is based on the whispered words “When there is no sound hearing is most alert”. This sentence floated among us, in the consciousness of the WSP group in the seventies. It is by Kalil Gibran and penetrated powerfully enough that my first ever composition emerged from it a few years later, entitled *Whisper Study*. The excerpt you heard is the beginning of the piece.

This sentence speaks of silence as an enriching experience, as one enhancing our listening, as an opportunity for discovery, in a similar sense in which Canadian Physicist Ursula Franklin spoke about it at our very first *International Conference on Acoustic Ecology* in Banff, in 1993. Her powerful words have been quoted often and I will repeat them here again.

11 See: http://www.youtube.com/watch?v=GZxu_PLpyto

12 Hildegard Westerkamp, *Listening and Soundmaking: A Study of Music-as-Environment*, Thesis for a Master’s Degree in Communication at Simon Fraser University, Vancouver, 1988, p. 150.

13 *Manifesto for a better environment of sound*, 1996, The Royal Academy of Music, Stockholm, Sweden, p.8

14 *Ibid.* p. 9

15 *Ibid.* p. 15

...silence as an enabling environment...*an enabling condition in which unprogrammed and unprogrammable events can take place.* That is the silence of contemplation; it is the silence when people get in touch with themselves, it is the silence of meditation and worship. What makes this domain distinct, is that silence is an enabling condition that opens up the possibility of unprogrammed, unplanned and unprogrammable happenings.¹⁶

Soundwalks, where we walk in silence, not speaking, are similarly enabling opportunities. To walk in a group without talking is a rare opportunity in this day and age where few of us engage in spiritual worship and meditation. Such silence enables the deepening of our listening and invariably makes unexpected, unplanned inspirations and recognitions possible in the engaged listener.

I witness this opening of listening perception, this unplugging of ears, again and again in people who participate in soundwalks. Enthusiasm and inspiration invariably mark such moments of true perceptual opening. They are a pleasure and often unforgettable. Would it not be an essential task and a natural desire for any educator, whether in music, psychology, urban planning, acoustic engineering, architecture, environmental studies, biology, and of course acoustic ecology, to enable such inspirational moments in all students?

Taking people regularly on soundwalks is a little bit like building trails into unexplored wilderness environments: like a person walking in an indigenous forest for the first time will recognize what is lost when this forest gets logged, a first time soundwalker will notice what is missed when not listening, when not being aware of the sonic environment. It is as if people experience the rich nature of the soundscape for the first time, and the source of inspiration it in fact can be. And this experience drives most of us listeners to go on many more soundwalks, perhaps even developing a soundwalk practice.

Acadia University, Wolfville, Nova Scotia, Canada, Sunday, January 23, 2011:

We are on the last day of the Acadia New Music Festival entitled *Shattering the Silence*. It is Sunday morning and we are meeting at 11 a.m. for a 1-hour soundwalk that had been prepared during the previous days by three music students, two of whom had never been on a soundwalk let alone led one. It is deep and cold winter. It had been snowing, the wind had been very icy and piercing during the last few days, and on this day it is -15°C. Luckily it is no longer windy and eventually the sun comes out. The final route leads us through many interesting acoustic worlds, but here I'll limit myself to highlighting just one significant moment.

We have been immersed for a while now in the sound of our footsteps crunching through the cold snow. Suddenly our leader stops in her tracks. All is quiet once the last soundwalker has arrived and stopped. We are standing in a bright and sunny spot. Gradually as if by magic tiny dripping sounds enter our consciousness and enliven the quiet atmosphere. They are warming sounds: despite the freezing weather the sunshine slowly melts the icicles hanging from the roof of a small house. The dripping sounds are random, each drop sounding its own weight and size, drumming and splashing differently onto the frozen ground below. Our ears are drawn into this glassy-transparent and watery-clear sound.¹⁷

Speaking of listening and soundmaking, focus and balance in acoustic ecology... I will now end my presentation by taking you on a short listening experience to another, hotter place that will keep your ears very busy and occupied.

Sound Example: "Silent Night", excerpt From the India Sound Journal (composed by the author between 1993 and 1999)

"donkey bray"

November 26, 1997. This is the season of weddings in India. Last night we witnessed a glittering, rich version from the rooftop terrace of our hotel. Some relative of the Maharaja of Udaipur was getting married. Musical sounds floated up to us from where the guests were gathering to receive the bridegroom. Gradually distant band sounds mingled with the music below: drums, trumpets and euphoniums were approaching from our left, getting louder and at times covering up the other music.

first brassy, musical phrase

We can see the band now, a whole procession of instruments, lights and people accompanying the bridegroom who is arriving on a magnificently decorated elephant. A majestic scene, but the music sounds just as raunchy as at any ordinary Indian wedding. (*brass*)

multitone carhorn

On the street below another small procession of uniformed musicians enters the already dense musical soundscape with its own strangely incoherent wedding band sound and disappears again around the next corner.

reverb music fades in

Another wedding procession announces itself with explosions from friendly firecrackers, two glittering bridegrooms on horseback and huge musical clamour. This time there is no live band. Instead one of those loudspeaker-carts is pushed through the streets and blasts out similarly raunchy music with max reverb, in tandem with the live band still playing at the other wedding.---I can't help but think of Charles Ives' music as I hear all this.

loud multitone carhorn followed by quieter one

Cars, scooters, auto rickshaws are not deterred and squeeze past the procession, honking their way through the music-filled street. In the middle of all this, as if there was still room for more sounds, we suddenly hear electronic fragments of "Silent Night". (*listen to fragment*) The source: a small passenger car. Every time the driver puts the car in reverse gear, this electronic signal is turned on, continuing the tune of *Silent Night* wherever it had stopped the last time he drove backwards. As the driver maneuvers the car back and forth, back and forth in a small alleyway, we are ear witnesses for several minutes to "Silent Night" being ripped into small, sonic shreds.

HILDEGARD WESTERKAMP lectures on topics of listening, environmental sound and acoustic ecology, and conducts soundscape workshops internationally. A founding member of the *World Forum for Acoustic Ecology* and co-editor of its journal *Soundscape*, Westerkamp was a researcher with the *World Soundscape Project*, and has taught acoustic communication at Simon Fraser University with colleague Barry Truax. Her compositional work draws attention to the act of listening itself and to the inner, hidden spaces of the environment we inhabit. For details see: <http://www.sfu.ca/~westerka>

16 Dr. Ursula Franklin, "Silence and the Notion of the Commons" in: *Soundscape – The Journal of Acoustic Ecology*, Vol. I, Number 2, Winter 2000, p15.

17 Hildegard Westerkamp, "Ears Unplugged, Reflections on 40 Years of Soundscape Listening" *Japanese Journal of Music*, Vol. 9, No. 1, August 2011, pp. 7/8.