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[essays]

Environmental sound matter by Francisco López April 1998

[From the liner notes of the CD “La Selva. Sound environments from a Neotropical rain forest” (released by V2, The Netherlands).
Extracted and modified version of parts of the in-progress larger essay “The dissipation of music”]

La Selva is an immersion into the sound environments of a tropical rain forest in the Caribbean lowlands of Costa Rica. An astonishing natural sonic web created by a multitude of sounds from rain, waterfalls, insects, frogs, birds, mammals and even plants, through a day cycle during the rainy season. A powerful acousmatic broad-band sound environment of thrilling complexity. And above all, a *tour de force* of profound listening".

Much against a widespread current trend in sound art and the customary standard in nature recordings, I believe in the possibility of a profound, pure, 'blind' listening of sounds, freed (as much as possible) of procedural, contextual or intentional levels of reference. What is more important, I conceive this as an ideal form of transcendental listening that doesn't denies all what is *outside* the sounds but explores and affirms all what is *inside* them. This purist, absolute conception is an attempt at fighting against the dissipation of this inner world.

Nature sound environments vs. bioacoustics At a first level of approach to *La Selva* I'd like to emphasize its departure from traditional bioacoustics, which is a common reductive interpretation of nature recordings. This discipline focuses on capturing the sounds produced by different animal species, mainly for identification purposes (see ref. 1 for a short review with examples of the analytical perspective in bioacoustics). Many animal species appear in the recordings of *La Selva* and they have even been identified (part II), but none of them has been the focus of the processes of recording and editing. It is precisely the way of proceeding through these processes what makes the essential difference: traditional bioacoustics -justified by its own scientifc goal- tend to isolate the calls, songs or whatever other sounds of a certain species from the 'background' sound of its environment. Both the recording and the editing processes are directed towards this isolation and even further enhancement of the contrast between the foreground species and its background.

In *La Selva* there is not such an intentional discrimination; the sound-producing animal species appear together with other accompanying biotic and non-biotic components of the sound environment that happened to be there when the recordings were done. In this sense, there is no purposeful *a priori* distinction of foreground / background, but only their unavoidable arisal due to the location of the microphones, as it happens with our ears. I'm not claiming objectivism (see below) but rather that the 'focus' of my attention was the sound environment as a whole. This is one of the reasons for the

absence of indexes on the CD, to discourage a focal listening centered on particular appearances of species or other sonic events.

In addition -but also in close connection with the foreground / background issue- I find particularly limiting the habitual focus on animals as the main elements of the sound environment. Not only non-biotic sound sources are clearly prominent in many nature environments (rainfall, rivers, storms, wind...; see ref. 2), but there is also a type of sound-producing biotic component, present in almost every environment, that is usually overlooked: plants. They are also living organisms and in most cases -especially in the case of forests- what we call the sound of rain or wind we could better call the sound of plant leaves and branches. If our perspective of nature sounds were more focused on the environment as a whole, instead of on behavioural manifestations of the organisms we foresee as most similar to us, we could also deal with plant bioacoustics. Furthermore, a sound environment is not only the consequence of all its sound-producing components, but also of all its sound-transmitting and sound-modifying elements. The birdsong we hear in the forest is as much a consequence of the bird as of the trees or the forest floor. If we are really listening, the topography, the degree of humidity of the air or the type of materials in the topsoil are as essential and definitory as the sound-producing animals that inhabit a certain space.

The widening of the attention scope from individual species to the whole environment has recently led B. Krause to the proposal of a 'niche hypothesis' (3, 4, 5) in which different aural niches are basically defined in terms of frequency bands of the sound spectrum that are occupied by different species. To me, the interest of this approach -which was already implicit in many bioacoustical studies dealing with slight differentiations of vocalizations by close species- lies upon the explicit intention of expanding classical bioacoustics from an auto-ecological (single-species) to a more systemic perspective, considering assemblages of sound-producing animal species at an ecosystem level. This hypothesis, however, still pertains in a strong way to the field of bioacoustics, in the sense that it features a sound analytical approach and also -and more importantly- because it focuses on the differentiation of the biotic sources of sounds.

My approach to nature sound environments is devoid of such analytical or explanative goals, trying to forcefully move away from a rationalization and categorization of these aural entities. The reason why I pursue this environmental perspective is not because it's more 'complete' or more 'realistic', but rather because it promotes a perceptional shifting from recognition and differentiation of sound sources to the appreciation of the resulting sound matter. This is not a scorn of the biotic or non-biotic elements that are typically considered as components of the environment but an appraisal of other -sonic- components that are not reductible to the former. As soon as the call is in the air, it doesn't belong to the frog that produced it anymore.

The illusion of realism or the fallacy of the 'real' The recordings of *La Selva* have not been modified or subjected to any process of further mixing or additions. In a traditional context, it could therefore be said that this work features 'pure' straight nature sound environments, as it is often claimed in many nature recordings releases. Yet I believe this to be too simplistic and also to obscure a series of problems on the sense of reality and its portrayal through sound recordings.

A common procedure in some nature recordings that try to convey an easy sense of naturalness is to

mix different animal vocalizations over a background matrix of environmental sound (much like some visual counterparts that feature a fictional landscape filled with many species sharing the same -crowded- space). As in the case of traditional bioacoustics (by exclusion), this artificial mixing approach (by massive inclusion) could be criticized as 'unrealistic'; or even as 'hyper-realistic'. Yet we should then consider on which grounds are we criticizing this tricky departure from reality.

Now that we have digital recording technology (with all its concomitant sound quality improvements) we can realize more straightforwardly that the microphones are -they always have been- our basic interfaces in our attempt at aprehending the sonic world around us, and also that they are non-neutral interfaces. Different microphones 'hear' so differently that they can be considered as a first transformational step with more dramatic consequences than, for example, a further re-equalization of the recordings in the studio. Even although we don't substract or add anything we cannot avoid having a version of what we consider as reality.

There are indeed attempts to solve this by means of technological improvements. The ambisonics surround sound system, for example, is foreseen as a means of *reproducing* soundscapes, conveying a more realistic sense of envelopment and an illusion of 'being there' (6, 7). This illusion of place seems to be a common goal in nature recordings (4). Although I appreciate very much the multitude of new sound nuances and the 'spaceness' provided by these technological developments, I don't have a special interest in pursuing 'realism'. Moreover, I believe these techniques actually work through hyper-realism, since the carefully recorded, selected and edited sound environments that we can comfortably enjoy in our favourite armchair offer an enhanced listening experience (with regards to some sound qualities and the existence of certain sound events) that we could probably never have in the supposedly portrayed 'reality'. Somewhat paradoxicaly, it is precisely what they have of non-realistic what I find most appealing in these sound work efforts. With this I don't mean the recorded version is better, but rather that there's also the possibility of not conceiving it as a *version*. No matter how good they can be, recordings cannot replace the 'real' experience. What is more important, however, is that in my opinion they shouldn't try to do that. As I see it, this is a futile attempt to reproduce the world, that tends to become a kind of commodity directed to sofisticated entertainment or other forms of pragmatism. In its essence, a modern consequence of the same kind of mentality that long ago led to the creation of zoos.

There is another seemingly unavoidable obstacle in this attempt at portraying aural reality: sound editing. Whereas the 'microphone interface' transfigures the spatial and material characteristics of sound, editing affects its temporality. This process is already present during the act of recording; there is always a start and an end for the recording. In most cases, further 'time windows' are created when editing at the studio by establishing a new start and a new end for the sound fragment. Additionally, whenever we have several sound fragments, we are faced with montage. If we are pursuing naturalness in our sound work, what kind of editing is more 'real'? D. Dunn has recently criticized a common decision in the work with nature recordings: that of eliminating human-made sounds. He defends the idea that the non-inclusion of sound fragments with human sonic intrusions (aircrafts, road traffic...) in a natural environment, by way of not recording them or by further editing removal, is a 'false representation of reality' that 'lures people into the belief that these places still fulfill their romantic expectations' (8).

While I share Dunn's concerns about what he calls 'the armchair environmental movement', I think this interpretation of falsification through phonography is a simplification of a much more complex problem that leads to another level in the quest for reality. We are much less inert for transciption and reproduction than the machines we have supposedly invented for these purposes. Compared to a microphone, we can either have a much more striking perception of such a human sonic intrusion or not perceive it at all. Both in the present and in the traces a sound environment left in our sonic memory. Do we always realize that there's some distant traffic noise when our perception is focused on an insect call? Do we remember the occasional voices of some people nearby when we are recalling that day we enjoyed the sound of the rain inside the forest? If not, was our experience -or is what we still keep of it- false? Even if our level of conciousness includes both the traffic and the insect, do we have to embrace both of them to talk about reality? Because this perceptional / conciousness level is at the basis of our aprehension of 'reality', I don't think that a recording that has been 'cleaned up' of human-made sounds (even if this involves more than editing) is more false than another that hasn't. In many cases, I would even think of the contrary.

I don't believe in such a thing as an 'objective' aprehension of the sonic realiy. Moreover, regardless of whether or not we are recording, we could think of an ideal conception of sound, but we definitely cannot 'let the sounds to be themselves'.  Not only do different people listen differently, but also the very temporality of our presence in a place is a form of editing. The spatial, material and temporal transfigurations exist independently of phonography. Our idea of the sonic realiy, even our fantasy about it, *is* the sonic reality each one of us has.

La Selva does have some human-made sound intrusions, and it's not my intention to conceal the fact that they exist (part II), but I deliberately avoided them during recording (in most cases) or removed them through editing.

In the context of the discussion above, I claim for the right to be 'unrealistic'. In broader terms, I'm not concerned with such considerations and I let each listener to judge by himself / herself. The people that live at La Selva already did, and they found the recordings 'strikingly real'.

This is not La Selva: sound matter vs. representation

This is not a pipe (Ren  Magritte)

What you can listen on this CD is not La Selva; it explicitely doesn't pretend to be so. In other words, *La Selva* (the music piece) is not a representation of La Selva (the reserve in Costa Rica). It certainly contains elements that can be understood -and even used- as representational, but the essence of the creation of this sound work that I'm calling a piece of music is rooted on a 'sound matter' conception, as opposed to any documentative approach.

The immense majority of works dealing with nature sound environments reveal some form of documentative understanding of the recordings. Not surprisingly, the sound documentation of natural places is one of the main aims of the activities of the Nature Sounds Society, which regularly organizes field recording workshops. This goal has been expressed so as 'to provide an aural window into places that many people might never visit' (9). A similar documentary perspective is distilled in different ways from most nature sound works, either by giving descriptions of non-sonic relational

elements or by accompanying the sound content with them (see, e.g., refs. 10-17).

In the case of the 'Acoustic Ecology movement', although the scope of its activities is larger and there is a greater focus on descriptive aspects of sound itself (see, e.g., ref. 18), its approach essentially relies upon a representational / relational conception, sometimes also leading to 'encourage listeners to visit the place' (19).

What I find remarkably striking is how the comprehension of virtually all approaches to nature sound recording is so rarely referred to the sonic matter they are supposedly dealing with, but rather to whatever other non-sonic elements of the experience of the -thus documented- place. As I see it, this is a paradoxical convolution that tends to relegate the recorded sounds to the role of documenting or referring to a certain space. This is not only implicit in the most direct 'picturesque' representations, but also in the transcendental critiques to it, that identify recording with this simplistic role (8, 20). Moreover, these latter critiques are partly justified by survival or health arguments (in terms of the relationship with our environment), which I see as a form of pragmatism that I definitely don't share.

What I'm defending here is the transcendental dimension of the sound matter *by itself*. In my conception, the essence of sound recording is not that of documenting or representing a much richer and more significant world, but a way to focus on and access the inner world of sounds. When the representational / relational level is emphasized, sounds acquire a restricted meaning or a goal, and this inner world is dissipated. I'm thus straightforwardly attaching to the original 'sound object' concept of P. Schaeffer and his idea of 'reduced listening' (21). I prefer the term 'matter', instead of 'object', because I think it better reflects the continuity of the sonic entities that is at the basis of the non-representational conception and also of the very nature of sound environments. Similarly, I prefer 'profound' to 'reduced', because of the connotations of simplification of the latter term in the present context.

The richness of this sound matter in nature is astonishing, but to appreciate it in depth we have to face the challenge of profound listening. We have to shift the focus of our attention and understanding from representation to being. Or, in other terms, we should be free to do this. When listening to this CD, I hope you will desire to be there, in La Selva, but I also -and especially- hope you will be amazed to be here, in *La Selva*.

Environmental acousmatics. The hidden cicada paradox Acousmatics, or the rupture of the visual cause-effect connection between the sound sources and the sounds themselves (22), can contribute significantly to the 'blindness' of profound listening. La Selva, as most tropical rain forests, constitutes a strong paradigm of something we could call 'environmental acousmatics'.

There are many sounds in the forest but one rarely has the chance to see the sources of most of them. Is not only that the multitude of animals are hidden in the foliage. The foliage also hiddens itself, keeping away from our sight a myriad of plant sound sources, not only caused by wind or rain, but also by falling leaves and branches (sometimes of considerable size), which is a quite frequent event in this forest.

Many animals in La Selva live in this acousmatic world, in which the rule is not to see their

conspecifics, predators or preys, but just to hear them. This acousmatic feature is best exemplified by one of the most characteristic and widespread sounds in La Selva: the strikingly loud and harsh song of the cicadas. During the day, this is probably the most typical sound that naturally stands in the foreground of the sonic field. One can perceive it with an astonishing intensity and proximity; many times you hear the cicada in front of your face. Yet, like a persistent paradox, you never see it.

A non-bucolic broad-band world Another widespread conception about nature sound environments regards them as 'quiet places', peaceful islands of quietude in a sea of rushing, noisy man-driven habitats. This constitutes the main motto of the Nature Sounds Society (23), as made explicit in the title of the CD released by the Oakland Nuseum, 'Quiet Places' (24), and also that of G. Hempton's releases, 'Quiet Places Collection' (13-16).

While this can be true for certain natural environments and under certain conditions, I think this understanding leads to a restricted and bucolic view of nature that I don't share. La Selva, as many other tropical rain forests, is also a paradigm of an antithesis to this view. It is indeed quiet a noisy place. The multitude of sounds from water (rain, water courses), together with the incredible sound web created by the intense calls of insects or frogs and plant sounds, make up a wonderfully powerful broad-band sound environment of thrilling complexity. The resulting sound textures are extremely rich, with many sound layers that merge and reveal themselves by addition or substraction, challenging perception and also the very concept of individual sounds.

As I see it, this certainly contributes to expand our aural understanding of nature, not denying quietude, but embracing a more complete conception, freed of our judgement and of a somewhat simplistic categorization. I'm certainly on the side of those defending the 'pristine' sound quality of natural environments, but essentially because I think we should avoid the sound intrusion that leads to sonic homogeneization, thus pursuing the conservation of sound diversity in the world.

Within the same spirit, I also defend the preservation and enhancement of the diversity of man-made sound environments and devices. The value we assign to sound environments is a complex issue we shouldn't simplify; under some circumstances, nature can also be considered as an intrusion in environments dominated by man-made sounds. In this sense, my approach is as futurist as it is environmentalist, or, in broader terms, independent of these categorizations.

Is there music in nature? Background music and profound listening I consider *La Selva* to be a piece of music, in a very strong and profound sense of the word. After listening to the sound content of the CD, some will probably find this statement strange, adventurous or maybe arrogant. In any case, it's obvious I'm not attaching to the classical conception of music. What is more important, though, is that I think it's a sad simplification to restrict ourselves to this traditional concept to 'find' music in nature. I don't subscribe the coupling of nature to these schemes, by way of -for example- a search for melodic patterns, comparisons between animal sounds and musical instruments, or 'complementing' nature sounds with 'musical' ones (5, 25, 26). To me, a waterfall is as musical as a birdsong.

On the contrary, I believe in an expansion and transformation of our concept of music through nature (as through 'non-nature' in the sense expressed above). This doesn't mean an absolute assignment of sounds to music (either in any restricted traditionally academic sense or in the Cagean universal

version (27)). Instead, it refers to my belief that music is an aesthetic (in its widest sense) perception / understanding / conception of sound. It's our *decision* -subjective, intentional, non-universal, not necessarily permanent- what converts nature sounds into music. We don't need to transform or complement the sounds. Nor we need to pursue an universal and permanent assignment. It will arise when our listening move away from any pragmatic representational 'use', and I claim for the right to do so with freedom (28).

Structurally, *La Selva* follows a voluntary constraint represented by a prototypical day cycle of the rainy season, starting and ending at night. Some might see this as a 'natural' way of proceeding, but it was indeed a 'compositional' decision. *La Selva* has been conceived and created musically. My aprehension of sound matter itself, and not any possible *intention* of documenting the place, dictated all editing and montage decisions. The representational possibilities of the recordings -which I'm not denying- are 'side-effects', but not essential content in *La Selva*.

To me, attaining this musical state requires a profound listening, an immersion into the *inside* of the sound matter. I consider despective to foresee nature recordings as 'background music' or as a relaxation commodity; a trivialization that leads to consume and 'medicinal effects', some of the worst forms of pragmatism.

There's a fundamental reason for having a single track on the CD. As I conceive it, *La Selva* is not an easy background sound; it's a *tour de force* of transcendental listening that can lead to many places. Decide by yourself.

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