



Drawing Landscapes on the Clouds

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To draw on a surface is to make things appear: a face, a situation, a landscape, the shapes that dwell in our imagination and in our dreams. “Making things appear” can manifest itself as a line image of what we have seen, of what we dream or desire. However, drawing often brings out the unforeseen. A drawing can show up an unexpected configuration of the body, of the world, or of oneself.

A drawing leaves its marks on the receiving surface: the cave wall, the notebook page, the stretched canvas, the wood, the fabric, the sand ... or the clouds. Between the eye, the hand, the surface and the drawing, there seems to be a flow of sensitivity, a tension from which bursts forth a line, a colour, an image that transfigures the former space of the cave wall, the notebook page, the stretched canvas...

Drawing in the clouds, the hand withdraws to let the eyes establish the flow of sensitivity. However, with that withdrawal, we witness the magic of an action purportedly without intermediaries. By watching the clouds, we experience a drawing that seems not to belong to our eyes; as if only the clouds were responsible for it. By watching the clouds, drawings take on movement without us seemingly adding anything. Such may have been the experience of the men and women who witnessed the first moving images on the cinema screen, or even that of the child watching cartoons on the television.

Just like children, when we watch the clouds, we can play at finding the face of an angry giant and then see how the giant turns into a dwarf, all in the space of one cumulus being blown by the wind. We can try to guess the landscapes emerging from the seas of cloud as they are relentlessly combed by the wind. Is the wind our hand?

Landscape is usually defined as the stretch of terrain that can be seen from any one place, whether or not it is viewed from an artistic perspective, or as a drawing or painting representing a stretch of terrain¹. Landscape includes a viewpoint, a segment of our gaze that embraces a stretch of land and draws a horizon. The segment of gaze can be what is seen through a keyhole or a loophole, or what appears from the top of a mountain or from the sea shore. Except in the case of drawing or painting, the hand is withdrawn. The keyhole, or the segment of our gaze, offers us a landscape. The wind that blows the clouds across the sky draws us a landscape. However, there is an obvious difference between the surface of the land by which landscape is defined and the clouds that we have chosen. The surface of the clouds shows that their edges are in continuous movement; the surface can open out in ways that either appear motionless or are subjected to unforeseen changes by our gaze. Clouds can be traversed with no apparent suffering. Clouds do not mark out our horizon, except when the sun is setting and our gaze is preparing itself for the dark.

¹ Translation of the entry *paisaje* (landscape) from the *Diccionario de la Real Academia de la Lengua Española*.

Like the infinite variations shown by the clouds, the term “landscape” has also been subjected to many variations, which have given rise to expressions such as cultural landscape, biological landscape and soundscape². If we focus our attention on soundscape, we feel like we do when we are watching clouds: the malleability of soundscape makes it hard to offer a definition, a single image comprising all that is designated by the word today. In the first place, soundscape designates the environment as it is heard: the sounds of a pond, a forest, the sea, the wind in a mountain range, or the sounds of a city. But soundscape can also describe an artistic creation made out of a sound environment, e.g. compositions bearing the title *Soundscape of...* We will focus on the former acceptance and on the city soundscape in particular.

Soundscape resembles clouds, in its diversity, and in the inherent characteristics of sound which, like clouds, can reveal sound drawings in movement. When we watch the movement of clouds, like we listen to the movement of sound, a question hammers in our minds like an *ostinato*: how do our sound clouds appear?

Like clouds moving across the sky, sound clouds take on different shapes but their material, sound, is always the same. Just as the clouds in the sky tell us something about the weather, sound clouds transmit something over and above their mere passing by. Before we tackle the subject of city soundscapes, let us approach it from the perspective of sound in musical organisation. By way of example, we shall consider the 100-year curve ranging from Claude Debussy to Iannis Xenakis.

Claude Debussy composed *Nuages*, part of *Nocturnes*, between 1897 and 1899. The piece is considered a masterpiece of musical impressionism. According to the composer, *Nuages* “renders the immutable aspect of the sky and the slow, solemn motion of the clouds”. Debussy wanted to shape sound into the image of the sky and the clouds. We could say that *Nuages* is still at the viewpoint, in a segment of gaze that privileges *hearing* the sky and transmutes into a *listening* perspective. However, despite the tripartite A B A form harking back to classical music, Debussy’s incomplete parallel chords bring us close to an atmospheric construction which is the expression of an image.

At the other end of the curve is Iannis Xenakis, whose sound clouds and crackling masses provide a good example of what Makis Solomos calls “sound sculpting”. Pieces such as *Pithoprakta* (1955-1956) and *Herma* (1961) work with sound clouds arising out of the introduction of mathematical probability into music³. In Xenakis, sound is composed; his clouds move away from the viewpoint. Debussy’s musical impressionism aimed at transmitting an impression of clouds moving across the sky; Xenakis’ sounds turn into clouds, sound conglomerations that enter an inner movement and transport the listener right inside the sound, inside the clouds.

² Word coined in the late 1960s by Canadian R. Murray Schafer to draw attention to our sound environment.

³ Solomos (1996) p. 26-37 and Xenakis (1963).

Debussy's clouds move rhythmically over a deliberately unchanging background, one sound surface in movement over another static sound surface. Xenakis' clouds, in contrast, approach the image of a sky where each cloud has an inner wind keeping it in a state of kinetic turmoil. The difference on the ear between the two sound clouds could be summed up by the distance that can be maintained. Debussy's game of movement and immutability can be listened to without the listener being dragged along by the clouds. Xenakis' sound clouds, in contrast, carry away the listener; their strength is such that the listener can hardly stay in the same place after listening. This may be the curve of sound clouds and listening, in which there are inevitably multiple types of sound clouds and multiple ways of listening. The two ends of this curve, Debussy's sound clouds and Xenakis' sound clouds, will serve to illustrate the curve drawn from listening to the city soundscape.

In the period of time between Debussy and Xenakis, the colour and composition of our sky and our clouds have changed. In the field of sound, Xenakis' sound clouds were preceded by the avant-garde art movements with the introduction of noise, in the same period as the first music laboratories. This is all of significance when dealing with the question of soundscape.

The avant-garde art movements, led by the Futurists, were fundamental for the opening up of hearing. After Luigi Russolo's 1913 manifesto *The Art of Noises*, the Futurists latched on to the idea of "noise sound", an indication that sensitivity was being transformed and multiplied.

In 1915, Balla and Depero advocated a Futurist reconstruction of the universe which embodied the invisible, the impalpable, the imponderable and the imperceptible. Their reconstruction heralded everything that has constituted our present for some time. The following text is but a small example:

"Watching an aeroplane swiftly climbing while a band played in the square, we had the idea of plastic-motor-noise music in space and the launching of aerial concerts above the city. (...) Clouds flying in a storm suggested buildings in *noise-ist* transformable style."
(Balla and Depero).

For the inauguration of the Pompidou Centre in 1977, Xenakis proposed a concert of sound and light in the sky over Paris, a rain of sounds made unviable by its high cost. Later, Stockhausen brought us his *Helicopter String Quartet* (1992-1993); Llorenç Barber started his series of urban concerts in 1988, bringing back the bells formerly used to measure out time in towns and cities.

Between Debussy and the Futurists, clouds build up speed as they herald the Futurists' reconstruction of the universe: a noisy transformable universe with the city as its hub. Russolo

asked citizens to lend an ear to the noise of water pipes, engines, valves, pistons, mechanical saws, trams and flags, to listen to the sounds of daily life and not just to so-called musical sounds.

Attention to ordinary everyday life was multiplied in many other places. On 14 April 1921, the Dadaists began their strolls around Paris, starting with a walk to the church of Saint-Julien-le-Pauvre. On the handbills, the Dadaists emphasised the picturesque aspects of places which seemed to have no particular *raison d'être*, places usually ignored from the aesthetic point of view⁴.

Attention to noise and interest for anodyne, non-picturesque places made the city into the laboratory of a new sensitivity. The eye and the ear were called upon to focus on everything that had not been considered hitherto as a proper subject for art, and the aesthetic qualities of everyday life were discovered. The new focus, along with the multiplication of city sounds, was the starting point for interest in the sound environment.

The city became an aesthetic machine, and streets were to be the new audible scores. But what is implied by living in the city through one's sense of hearing?

It is true that hearing, sight and touch cannot be isolated from the rest of the human organism, particularly in terms of sensitivity, but each sense has distinct features which must be taken into account. Hearing is usually associated with survival, with cause-and-effect relationships such as the hum of a car engine warning us of the danger of crossing the road, the unexpected noise of footsteps in a house when we do not expect anybody to be in, and so on. But hearing also accentuates man's nomadism in the city. By opening a window, the sounds place us in the middle of the street; even without opening it, we can hear fragments of our neighbours' lives, arguments and celebrations, favourite pieces of music, radio and television programmes, mealtime preparations.

The nomadism of hearing does not require moving around. The lack of sound etiquette, as Kant would say, is what possesses us and drives us out onto the street or around to the neighbours' house. Sound turns us into nomads without needing to move around. Gilles Deleuze and Félix Guattari call this nomadism *sur place*, a line of flight or escape, a breaking of codes, a de-territorialisation. In the case of the Futurists, we can consider that the city soundscape transformed hearing into nomadic hearing; paying attention to the soundscape meant breaking the former codes of considering and listening to sound. But today, nearly 100 years later, the city soundscape is being questioned, and the nomadism of hearing no longer implies de-territorialisation or the breaking of codes. We do not like hearing our neighbours from inside our homes; we do not want to hear noises from the street when we are listening to music or just sitting quietly. We could include all

⁴ Careri (1995) p. 49.

the other sounds that we are not even aware of, or that drift through our heads, e.g. *muzak* or pop songs. In fact, Deleuze and Guattari point out that nomadism can sometimes make us fall into a new territorialisation, a reaffirmation of certain codes or an acceptance of others. This happens frequently with sound⁵.

The city is an aesthetic machine in which a multitude of soundscapes can be heard. However, just as we must watch the clouds in order to see or draw landscapes in them, we must also pay attention to the city and our environment in order to draw or draw out their soundscapes. This is the attention demanded by the Futurists and the Dadaists. This attention may prevent us from falling into a new territorialisation, into a sound network that shapes us as it pours into our ears. We should reflect on what is implied by living in the city through hearing, and whether it is even possible to live permanently through hearing. If this were the case, we would have to set up the escape lines suggested by Deleuze. The first task may be to break listening habits that use the ear as a cage, and the person as a resonance centre, for sounds that pass through or settle there at different moments of the day and night.

It is commonly held that sound, and music in particular, has great power to shape identity. Examples abound of how music is used as a sound image creating identity bonds among youth, or even among different types of youth; the same can be said of patriotic and sports anthems, demonstration chants and songs that mark an era. Today, there are companies offering musical identities, sound images, logos and signature tunes to identify a product on the market. Some even offer to create a sound territory for your firm: a designer soundscape to add to the logic of capitalism?⁶

Following a similar line of thought although with a different objective in mind, we also find references to how a soundscape identifies a district or a city. The soundscapes of districts in Barcelona and Girona most certainly indicate the living conditions and the way of life in each district. Soundscapes can act as indicators of social and/or cultural divergences; of the so-called degree of development; and of the quality of the air. In all these cases, we are using soundscape as a tool, but scant attention is being paid to the sound itself. We are stuck in a cause-and-effect logic which only adds more documentation to what we already know, in this case sound documentation.

⁵ Gilles Deleuze and Félix Guattari establish that “there is territory precisely when milieu components cease to be directional, becoming dimensional instead, when they cease to be functional to become expressive. There is territory when the rhythm has expressiveness.” As regards soundscape, this can be said to happen when the functional becomes expressive, when purpose is neglected and we focus on the sounds themselves. However, this does not mean that soundscape is not always present. In fact, our cities are composed of a multiplicity of lines making up a diversity of soundscapes. For the city to be experienced as a soundscape, we must move from inattentive listening to a listening that stresses the quality of the sounds.

⁶ <http://www.territoiresonore.com>. Under *musical identity* on this website we can read: “Our team will help you compose a readable, identifiable sound territory for your company, adapted to the sensitivity of your aims”.

We can also question the making of sound maps of a city, area or region. The originator of this initiative was the well-known Murray Schafer, who set up the World Soundscape Project at Simon Fraser University (Vancouver) in 1972. His aim was to attract attention to the sound environment, particularly to noise pollution and the rapid aural changes happening in cities like Vancouver. The research team produced two CDs, *The Vancouver Soundscape* (1973) and *Soundscape Vancouver* (1996), showing the changes in soundscape between the two recordings, as well as a 10-hour radio programme called *Soundscapes of Canada* (1974).

To some extent, Murray Schafer's proposal was the exact opposite of what the Futurists stood for, despite the fact that both approaches demanded attention to the sounds of the environment. The Futurists' positive appreciation of the sounds of engines and water pipes contrasts with Murray Schafer's concern about noise pollution from these same sounds. In the fifty-year period between the former and the latter, industrial development and sound concentrations have increased vertiginously to their present level.

Sound maps such as those produced by the World Soundscape Project are situated close to the nomadism of hearing. By renewing attention to the sounds of the city, or soundscape, the nomadism of hearing has the function of breaking down codes and moving on to another type of listening. However, not all sound maps can fulfil this function. It is simply not enough to make a sound map in the manner of an old military campaign map, with colours and symbols pinpointing the sounds that have been recorded, conquered, rescued or simply found lying around the place. Map making must go hand-in-hand with increased awareness of the sound environment and a new type of listening.

Beyond the pleasure, vexation or indifference felt on listening to the soundscape of a city, the act of listening also has an ethical and political dimension. The city soundscape is directly related to the economic system and the so-called degree of development of the city. The multiplicity and movement of city sound clouds combine regulation systems and spaces for protest. By observing these sound clouds, we could figure out a small treatise on sound bio-politics⁷.

A retrospective glance at bio-politics brings us back to Plato (5th-4th c. BC), where we find a convergence between bio-politics and a technology of individualising power. Starting from the conviction that music and soul are movement, and that musical education can therefore be used to mould the soul, Plato concludes that sound and listening can redress a deficient soul. In describing

⁷ Michel Foucault states that at the end of the 18th century, individualising technology, in which power is exercised through individualisation, joined the discovery that power was exercised over the individual "biological entity" to be exploited for production. Foucault calls this bio-political technology. Bio-politics acts through problems arising from city hygiene, housing and living conditions.

the ideal State, he takes into account the relationships between sound, the soul and the constitution of the State.

Plato distinguishes between an unhealthy State driven by the desire for luxury and expansion, and a healthy State in which each person remains within his own music. This music is made up of a rhythm and a melody which the citizen has learned from early childhood. In order to demonstrate the need to inscribe each person with his own music, for the good of the State, Plato gives examples of three types of city: Magnesia, Atlantis and Ancient Athens. The layout of each city is based on a mathematical-musical model. Magnesia corresponds to the tuning system devised by Archytas; Atlantis corresponds to the just tuning system, considered to be the worst. The buildings in Atlantis are laid out in a disordered, unmeasured manner which leads to agglomeration, producing vice and much noise. The perfect model is reserved for Ancient Athens. The moderation of Athens endows the State with a single voice. Individual rhythm and melody, matching the social group of the person, governor, warrior or producer, lead to harmony with the voice of the State, which constitutes the rhythm and melody of the social body represented by the State.

Despite the enormous distance, Plato is cited here because we can find in his writings at least two elements that provide food for thought on the sound environment. Firstly, we have his distinction between the unhealthy State and the healthy State, and the evolution of the latter into our so-called social body. Medical vocabulary is now the order of the day, known as neo-hygenicism. It is no coincidence that a doctor, Robert Koch, predicted in 1880 that “the day will come when man will have to fight *noise* as inexorably as *cholera* and the plague”⁸. Without doubt, analysis of noise pollution dovetails with the medical view of persons and society.

Secondly, Plato makes us question the rhythm and melody characterising the individual in relation to the voice of the State and its demand for unison. To explore this question further would go beyond the scope of this paper; this is without doubt an issue affecting the make-up and analysis of the sound environment.

The single voice proposed by Plato for his ideal State has now turned into a multiplicity of clamouring voices, in economics and politics, known today as public opinion. We need only recall the loudspeaker announcements punctuating our soundscape, e.g. “please refrain from smoking in the underground”, “please refrain from smoking on the platforms” and the ubiquitous “for your own safety”. We could add in the unisons marking the beat of different events, such as the relentless Christmas carols piped onto the streets to create a merry, uninhibited atmosphere, i.e., to encourage shoppers to spend their money.

⁸ Cf. Bello Morales-Merino (1990).

We should ask, therefore, which architectural and urban scale has been used, and what relationship it establishes with the surrounding soundscape. We would probably find different scales used for different parts of the city. The same city may seem like a cumulus of musical scores from different eras, with different degrees of interest, criss-crossed by unisons in different shapes where the internalisation of the intoned norm coexists with the repetition of the intonation.

Likewise, regarding the city soundscape and what we wish to do about it, the question of melody and rhythm acquired in childhood is of fundamental importance. A case in point is the controversy often generated by the content of children's nursery rhymes.

Sound has thus become a bio-political tool, in the individual and the social fields. Let us reflect for a moment. Traffic lights use sound to make us smarten up our pace; sound signals warn us of the imminent closing of the subway doors; sound is used to impose order and regulate social behaviour when an area is affected by the arrival of so-called antisocial elements. The Mosquito ultrasonic device is the favourite tool used to achieve law and order. On the home page of Compound Security Systems we can read:

“The Mosquito anti-vandal system is the solution to the eternal problem of unwanted gatherings of youths and teenagers in shopping malls, around shops and anywhere else they are causing problems. The presence of these teenagers discourages genuine shoppers and customers from coming into your shop, affecting your turnover and profits. Anti-social behaviour has become the biggest threat to private property over the last decade and there has been no effective deterrent until now.”

“Acclaimed by the Police forces of many areas of the United Kingdom, the Mosquito anti-vandal system has been described as ‘the most effective tool in our fight against anti-social behaviour’. Shopkeepers around the world have purchased the device to move along unwanted gatherings of teenagers and anti-social youths. Railway companies have placed the device to discourage youths from spraying graffiti on their trains and the walls of stations”⁹.

Teenage gatherings are part of the city soundscape but, insofar as they are considered undesirable on account of their so-called antisocial behaviour (which more than likely consists of nothing worse than making too much noise, drinking alcohol on the street, acting disrespectfully to pedestrians, and so on), they are dispersed by ultrasonic devices. This example shows how the city soundscape can be used to support a notion of law and order combined with the logic of efficiency. Profit, private property and public transport are all part of this network. There are various positions on the

⁹ <http://www.compoundsecurity.co.uk/>

issue. Some people consider that shopkeepers and street furniture should not be subjected to aggression; others consider that the city belongs to everybody, and since teenagers do not own their own private spaces, they have the right to gather and have fun in public spaces. The use of ultrasonic devices is a question that still has to be resolved.

In the light of this issue, we must recall that the problem of noise exposure was first addressed in the 1990s. In 1996, the European Commission Green Paper on Future Noise Policy pointed out that about 20% of the population in the European Union (about 80 million persons) was exposed to sound levels considered unacceptable by scientists and health experts. Today, approximately 170 million persons live in the so-called *grey zones* with a high level of daytime noise. The Sixth Environment Action Programme of the European Community (2002-2012) aims to reduce the number of persons continuously subjected to high levels of noise, on account of the health risk that this incurs. In order to achieve this, one European line of action consists in making strategic sound maps for main roads, railway lines, airports and urban agglomerations.

If the European Commission is so concerned with public health, then why does it authorise the Mosquito ultrasonic device, which is known to cause discomfort and can affect children's hearing? How can the EC have a noise reduction policy and at the same time allow sonic aggressions to be carried out against persons?

The European Commission has not produced any statement on this subject, but the answer is undeniably linked to the contradictions inherent in the political, economic and social system. The introduction to the Communication from the Commission to the Council and the European Parliament on Thematic Strategy for the Urban Environment (2006) reads:

“Urban areas play an important role in delivering the objectives of the EU Sustainable Development Strategy [COM(2001)264]. In urban areas the environmental, economic and social dimensions meet most strongly [this is reflected in the Bristol Accord]. Cities are where many environmental problems are concentrated, but cities are also the economic drivers, the places where business is done and investments are made. Four out of five European citizens live in urban areas, and their quality of life is directly influenced by the state of the urban environment. A high-quality urban environment also contributes to the priority of the renewed Lisbon Strategy to *make Europe a more attractive place in which to work and to invest*. The attractiveness of European cities will enhance their potential for growth and job creation, and cities are therefore of key importance to the implementation of the Lisbon Agenda [COM (2005) 330]”.

Nevertheless, the state of the European urban environment is causing increasing concern. The environmental challenges facing cities have huge repercussions on their inhabitants' health and

quality of life, but also on the economic yield of the cities themselves. The Sixth Environment Action Programme of the European Community (2002-2012) urged the establishment of an urban environment thematic strategy in order to ‘contribute to a better quality of life through an integrated approach focused on the urban areas’ and to bring about ‘a high level of quality of life and social wellbeing for citizens by providing an environment in which the pollution level does not endanger human health or the environment, and by promoting sustainable urban development’.

This long quotation gives a categorical response: everything boils down to what is understood by sustainable development. On the one hand, we have cities as the economic driving force; on the other hand, we have the effects of this driving force on people’s quality of life and, of course, the health expenses incurred thereby. The document clearly sets out the links between the impact of the urban environment on public health and on economic yield. The strategic sound maps thus have the dual purpose of improving citizens’ quality of life and of maintaining the cities’ economic yield.

Plato attempted to reconcile individual melody and rhythm with the voice of the State in a territorial organisation based on a musical-mathematical model; the challenge now facing us is to reconcile public health and economic development. Plato’s aim was for individual melody and rhythm to harmonise with the voice of the State in order to create a healthy State; the EC aim is to reconcile public health with the economy in order to make Europe “*a more attractive place in which to work and to invest*”.

Attention to the city soundscape thus includes a multiplicity of cartographies arising from the simultaneousness of its sound clouds, and from the political and economic drives which make the cityscape what it is.

Bearing in mind the above circumstances, and the lack of sound etiquette, we must return to a former issue. What does hearing as a nomadic organ entail? If the issue is addressed merely from the perspective of health and the economy, citizens would be under the obligation to look after their health in order to contribute to the general progress of the economy. Leaving aside ethical considerations, this would lead to a reaffirmation of codes preventing major changes in the relationship between the soundscape and the city dwellers.

To avoid this reaffirmation, we should listen to the city soundscapes like a child watching the clouds go by. If we turn the city soundscape into a sea of clouds in which unexpected moving images can be discovered, we will adopt an attitude in which a de-territorialised nomadism is still possible. In the first place, if we consider the city soundscape like a sea of clouds, we will sidestep the single discourse that aspires to regulate the landscape. In the second place, if we are convinced that we

can start again, that change is possible and desirable, then we can think out how to create a soundscape that will improve our quality of life.

The time has come to go beyond the static economic backdrop of our soundscapes; the time has come to think about creating our own sound conditions and building our own sound clouds.

By drawing landscapes in the clouds, by dreaming about new relationships with sound clouds, by thinking up how to create different sound clouds ... is to open up a crack through which one day we will have the strength to confront the city soundscape in all its ethical, political and aesthetic dimensions.

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