

Sonic fields

Anastasia Karandinou, Martin Parker

“In the work of remarkable writers, artists, or composers one sometimes finds disconcerting elements located at the edge of their production, at its limits. These elements, disturbing and out of character, are misfits within the artist’s activity. Yet often such works reveal hidden codes and excesses hinting at other definitions, other interpretations. The same can be said for whole fields of endeavour: there are productions at the limit of literature, at the limit of music, at the limit of theatre. Such extreme positions inform us about the state of art, its paradoxes and its contradictions. These works, however, remain exceptions, for they seem dispensable – a luxury in the field of knowledge.”¹

Bernard Tschumi

Seeking the un-representable

Out of the broad field of contemporary research on the themes of the intangible, ephemeral, immaterial aspects of space, we will focus -within this paper- on the theme of atmosphere, and in particular on a series of sonic mapping of Edinburgh and Athens. In this paper, the theme of the sonic ambience will be examined through the tension between the non-rationalisable (the intangible) and the tendency to comprehend, experience it and ultimately represent it. One of the most characteristic conclusions has been the fact that such mappings or exploration processes do not predetermine the nature of the findings. Each different city and environment reveals – by itself – different things. Sound carries rich information and experience, and opens up fragments of stories that

¹ Bernard Tschumi, *Architecture and Disjunction* (Cambridge, Mass. ; London: MIT Press, 1994). p. 101-102

through other methods may have remained unnoticed. Another characteristic aspect of such a method is that it looks into the city or a place through dispersed fragments, without reconstructing a concept of the whole.

Atmospheric

“I would say that the true focus of the film is there: in the background. And it is crucial to leave it as a background. [...] It’s the paradox of what I would call anamorphosis: If you look at the thing too directly – the oppressive social dimension – you don’t see it. You can see it in an oblique way only if it remains in the background.”²
Slavoj Zizek

“[Walter Benjamin] argues that architecture is appropriated through ‘habit’ as opposed to ‘attention’, by perception that is about tactile encounter rather than that of viewing and thus contemplation. With Benjamin this extends to issues of mass consumption, and the nature of the aura of the object.”³
Arie Graafland and Deborah Hauptmann

Atmosphere or ambience, for Mark Wigley, is what a thing (or a building) emits, what ‘clings’ onto it.⁴ As he argues, “the atmosphere of a building seems to be produced by the physical form. It is some kind of sensuous emission of sound, light, heat, smell, and moisture; a swirling climate of intangible effects generated by a stationary object.”⁵ Wigley regards the atmosphere as what is created by the building and experienced by the users as such. Other theorists, such as Jonathan Hill, look into the elusive nature of space in a slightly different way. Hill does not make a clear distinction between the physicality of the building and the atmosphere as something separate and perceived as such. He considers as abstract the particular way in which the user experiences and interprets the physical building itself.⁶ For Wigley, the beyond the matter, the atmosphere, *IS* what is experienced by the users and not the matter of the building as such.⁷ Wigley’s poetic theoretical remarks on the atmosphere lead us, thus, to the phenomenological account of Heidegger on the *thingness*. Martin Heidegger refers to the *thingness* or *core* of a thing through the example of the jug.⁸ As he argues, the thingness of the jug lies in its void; the

² Slavoj Zizek, (Commentary on the film: Children of Men, directed by Alfonso Cuarón: 2006).

³ And they continue: “Thus distance and proximity comes into play, as it does with Metz, who points out that it is not coincidental that the most important socially accepted art forms are based on the sense of distance, and that the art forms which rely on the senses are often considered second-class (culinary art, art of perfuming). Yet architecture has the relatively unique possibility of combining the senses of distance related to the haptic and those of contact related to the tactile. In this way there is not only an ever changing perception, but there is also a tactile experience involved.” p.227, Arie Graafland, and Deborah Hauptmann, "Camera Eye: A Machine for Projective Practice in Architecture," in *The Body in Architecture*, ed. Deborah Hauptmann (Rotterdam: 010 Publishers, 2006).

⁴ As he claims about the atmosphere: “it seems to emanate from the object”. M. Wigley, "The Architecture of Atmosphere," *Daidalos* 68 (1998).

⁵ Ibid.

⁶ Jonathan Hill, *Immaterial Architecture* (London: Routledge, 2006).

⁷ As Wigley claims, “atmosphere escapes the discourse about it”, atmosphere is what exists or “defines the space” between the building and its surroundings or between one building and another. According to his arguments, it is the atmosphere or the ‘void’ that the architects create or (at least) intend to create; and this argument seems to be emerging out of Heidegger’s consideration of the thing-making, or of the making of the very nature of a thing. Wigley, "The Architecture of Atmosphere." p.27

⁸ M. Heidegger, *Poetry, Language, Thought* (Harper & Row New York, 1971).

potter “does not, strictly speaking, make the jug”; “he shapes the void”.⁹ The void – the beyond or the in-between the formed matter – is, thus, what actually *is* the jug¹⁰.

The void or thingness is related, thus, to the very nature of the thing – to its being, effect, and purpose. Its thingness is related to what it *does*, rather to what it *is*. What Wigley calls atmosphere seems relevant to Heidegger’s *void* or *thingness*. Both notions refer to the origin and fundamental being of the thing; both ‘cling’ on it, and are not easily definable or controlled. The architect, like the potter, “shapes the void”¹¹; he seeks, after Wigley, to create and present the atmosphere.

Steven Connor¹² correlates the atmosphere with the notion of ‘haze’. For Connor haze scatters the light, blurs the vision, and creates optical effects but at the same time brings forth the in-between space as an entity in itself. This in-between space containing the particles of evaporating water and dust (scattering light), and electromagnetic waves carrying information, acquires some density – appears anew to our perception and gets inhabited.¹³

“If symbolism shifted into a poetic register the scientific apprehension of immateriality – the dissolution of solid matter into particles and forces in late nineteenth-century physics – then modernism began to see that a world of energies would be a world without permanent forms or distinctions.”¹⁴

Connor’s approach relates to Heidegger’s void, but at the same time, Connor’s void is being palpable. He suggests that, after modernism, the ambience, haze or atmosphere has being correlated to down-to-earth things.¹⁵ The ambience acquires a new kind of materiality and a sort of autonomy. It is loaded with electromagnetic waves, data, communications, and particles of haze, and is not considered as something that abstract anymore. The palpability of the ambience dissolves, thus, in some sense, the traditional distinctions between material and immaterial, form and formless, visible and invisible.

⁹ Ibid. p.167

¹⁰ As Heidegger claims, “the empty space, this nothing of the jug, is what the jug is as a holding vessel”. “From start to finish the potter takes hold of the impalpable void and brings it forth as the container in the shape of a containing vessel. The jug’s void determines all the handling in the process of making the vessel. The vessel’s thingness does not lie at all in the material of which it consists, but in the void that holds.” Ibid. p.167

¹¹ Ibid. p.167

¹² Steven Connor, “Haze: On Nebular Modernism,” in *Modernism and beyond: Interdisciplinary Seminar in art, theory and literary theory* (Oxford: 2006).

¹³ According to Connor, the haze “represents the interchange between the palpable and the impalpable”. (p.13) “The specialised interest in the haze of modernism gives way to arts and protocols of the atmospheric, a generalised occupation of the spaces of traversal and passage provided by the air. The air that had previously been the outside or the stabilising background of thought has become a populous inbetween, a milieu of the mid-air.” (p.15) Ibid.

¹⁴ Ibid. p.13

¹⁵ As Connor argues, “[t]he population of the air with electronic impulses and radiations of all kinds vitiated the imaginary lucidity of the air, making for a new alertness to impediment and interference.” Ibid. p.13. A relevant characteristic example is the work of the artist James Turrell. In his light works, he perceives “light as space”. He is not interested in the form revealed in light, but in the “presence of light as space”- the “idea of revealing light itself”. He deals with the impact of light straight on the ‘atmosphere’ or on the human body; as he says: “I feel my work is using the material of the light to affect the medium of perception. I’m using light in its material aspect... I try to take light and materialize it in its physical aspects so you can feel it- feel the physicality; feel the response to temperature and its presence in space, not on a wall”. James Turrell quoted in: Hill, *Immaterial Architecture*. p.117-118

However, for other theorists, such as Slavoj Žižek, atmosphere is what creates a ‘background’ for living; if it is brought forth to our attention it is not atmosphere anymore – it is a group of analysed features of space, and its affect is inevitably different.¹⁶

In order to investigate the notion of ambience and the non-visual sensations within space, we will look into a series of sonic experiments – sound recordings of Edinburgh and Athens, transcribed into maps in different ways. Sound mapping is not a common way for architects to interpret space. However, as Marshall McLuhan and Richard Cullen Rath argue, the emergence of new technologies and mediums causes a shift in the sensorium, a turn towards the sensuous and in particular towards the sonic.¹⁷

Changing mediums – Edinburgh in sound

Mr. Robinson: “Terrible places... Airports, taxis, hotel, they’re all the same in the end.”

Mr. Locke: “I don’t agree. It’s us who remain the same. We translate every situation, every experience in the same old codes. We just condition ourselves.”

Mr.R.: We are creatures of habit... Is that what you mean...?

Mr.L.: Something like that. I mean, however hard you try it’s still so difficult to get away from your own habits. Even the way we talk to these people, the way we treat them, it’s a mistake. I mean how do you get their confidence? Do you know?

Mr.R.: Well, it’s like this Mr. Locke: you work with words, images, fragile things. I come with merchandise, concrete things, they understand me straight away.”¹⁸

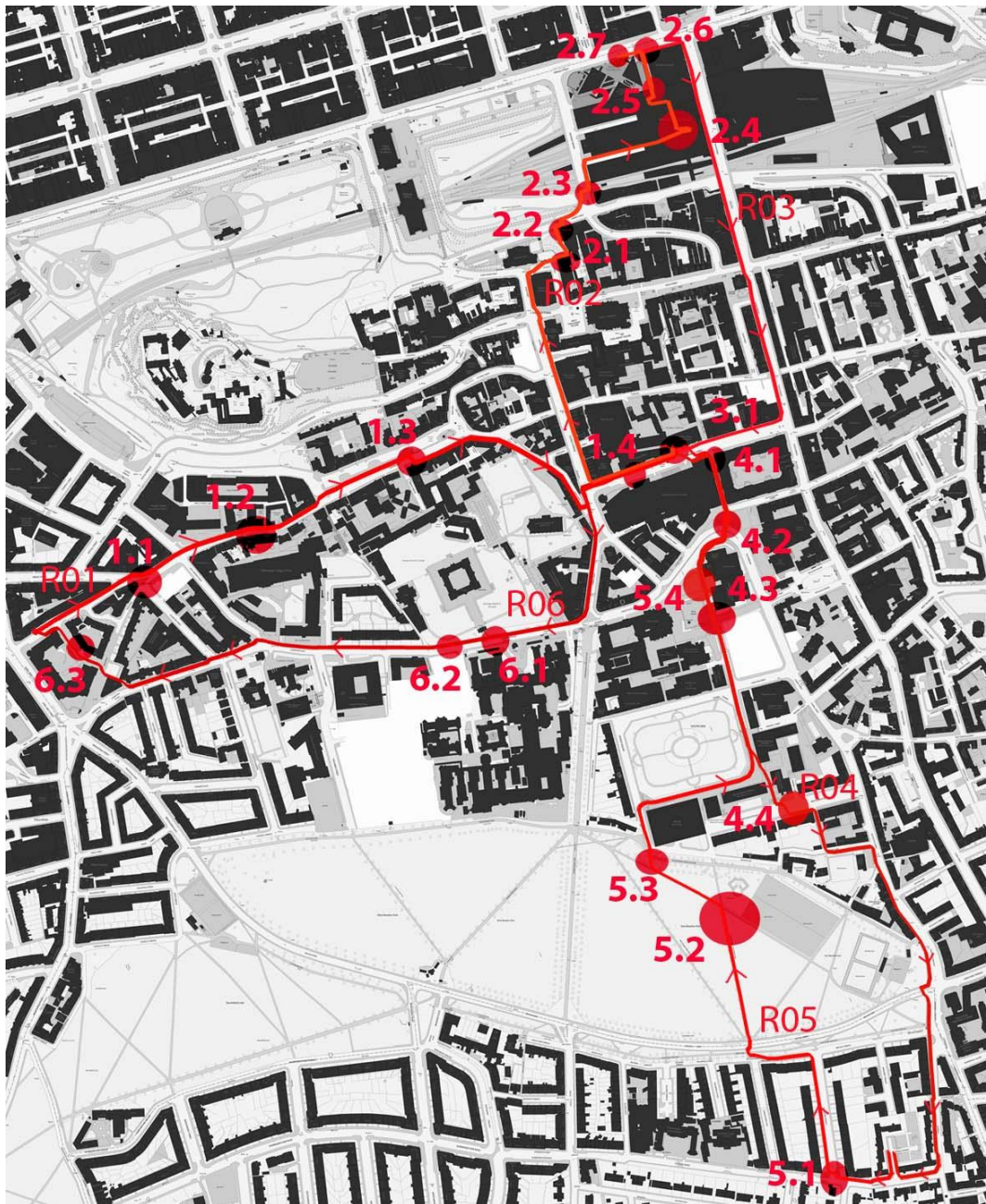
The Passenger, Michelangelo Antonioni, Mark Peploe

¹⁶ Žižek. See also: S. Žižek, *Looking Awry: An Introduction to Jacques Lacan through Popular Culture* (MIT Press, 1991), Žižek.

¹⁷ “Audio has made a comeback during the last century because of new media”, “sound recording, audio tracking of movies and video, online MP3’s, all have re-sounded our ways of thinking”. Richard Cullen Rath in: Emily Eakin, "Think Tank; History You Can See, Hear, Smell, Touch and Taste," *The New York Times*, December 20 2003. As Marshall McLuhan argues: “[o]ur new electric technology is organic and non-mechanical in tendency because it extends, not our eyes, but our central nervous systems” Marshall McLuhan, *Understanding Media: The Extension of Man* (Routledge, 2001). p.159. See also: Christoph Cox, Daniel Warner, *Audio Culture: Readings in Modern Music* (New York, London: Continuum, 2004). Other theorists, such as Susanne Hauser, correlate the increased interest in the aural, to a general shift towards the senses such as the smell and touch, which emerged out of political and environmental concerns of the 70’s and 80’s. As she claims: “[O]ne reason for this is the changed reflection about the relationship of humans to their environment in political discussions and cultural theory. It manifested itself initially in ecologically inspired theories and claims, but soon changed to a more extensive anthropological discussion of the physical experience and to studies, for example, of the audible space.” Susanne Hauser, "The Eye, the Ear and the City," in *Tuned City. Between Sound and Space Speculation*, ed. Doris Kleilein, et.al. (Berlin: Kook Books, 2008). p.129

¹⁸ Michelangelo Antonioni, Mark Peploe, "The Passenger " (1975).

Phase 01: exploring places through sound - transcribing the sound into text



[Image 01: the routes of Edinburgh sound recorded]

The first attempt was to create a sonic map of some everyday routes within the city.¹⁹ The routes were sound recorded and transcribed into text by 10 volunteers and myself.²⁰ The

¹⁹ The routes recorded were the first 6 routes I traversed within those days; going to work, and to other everyday activities.

²⁰ There are different ways of representing a sonic field or route; there are several examples of notation systems and mapping methods for sound within the city. Each kind of map presents different correlations of things, and categorizes the sounds according to different attributes of those. The way of processing and organizing the sonic map (notation system, way of categorizing things, etc) may have to do with two things: (a) if the map is made for a specific predetermined reason, and there are very specific things to be measured and registered, then this is what directs the kind of mapping. E.g. if the sonic pollution is studied, then the volume and the degree of disturbance (whatever this may mean) are the main things that would be looked at. (b) If there are no very specific parameters and issues to be looked at, the map may be made (in a more open way) in order to bring forth issues and information about the space. In this case it is the

sonic track was played several times (2-4 times) so as to transcribe the sounds that were missed out during the first listening. An interesting issue appearing is to see which sounds were initially missed out and were later on transcribed at the 2nd or 3rd listening.



[Image 02: Transcription of sounds in words]

environment itself that leads us to the sonic-mapping method. Thus, we start off the assumption that a new kind of mapping may reveal us things. See also: R. Murray Schafer, *The Soundscape : Our Sonic Environment and the Tuning of the World* (Rochester, Vt.: Destiny Books, 1994). R.M.Schafer presents several kinds of sonic maps and notation systems. Some of the maps he presents are superimposed to the geographical map of a place; other ones are being developed over a time-axis. Some maps present the volume of sound as measured at regular distances (p.264), other maps present the kinds of sounds heard (p. 266-267, e.g. birds, airplane, car), and other ones develop a more complex system representing the juxtaposition of information between the sonic and other kinds of information about the place (p.265).

The first category of sounds that were initially left out is the ones of some non-easily identifiable nature; sounds that we cannot figure out what source produces them and what they signify. The listeners²¹ intuitively seem to be seeking for some rational explanation for each sound; for some logical meaning. They seem, thus, to be automatically blocking off the sounds that cannot be interpreted and to which they cannot easily assign meanings and content.

The second category is of the ones that the equipment was accidentally making; e.g. the ‘clicking’ of the microphone on some surface. The medium – the sound recorder – is automatically blocked off; it ‘disappears’ from the sonic field that we are planning to investigate.²² Within this category of un-transcribed sounds, the sound of my footsteps is also included. The sound of the footsteps might have been initially blocked off because the footsteps are always there along the way, constituting, thus, a constant background sound. A closer look²³, though, would inform us that the footsteps are not heard at all times, and, moreover their transcription might inform us about the place as such, too – the level of ambient noise (covering or not the footsteps sound), the material of the ground, the walking speed, etc. The situation of hearing your own footsteps could be also considered as a parameter that situates you consciously into the place in which you are, making you conscious of your presence there.²⁴

Another element that was not initially mapped was the silences and the sounds of low volume. Moving from a very loud and busy part of the track to a more subtle one, makes us, probably, not realize soft variations of sounds that still exist – as if our ear needs some time to adapt to a new degree of sensitivity.

An interesting issue that we have to mention is the differentiation between what the listeners transcribed following an analytic method and what they described when they were asked to give a general idea of what the sonic fields sounded like. Some unspecified sounds of the background, which were not transcribed into text or diagram, had been unconsciously taken into account when the listeners described the overall ambience.

At this very primary stage of a sonic-mapping attempt, we realize that, having gone through this process, we start experiencing space differently. Walking in the city ‘plugged’ into a sound recorder makes the journey already different; it automatically changes the way one perceives his environment and differentiates the balance between the senses.

We also realize that the method and the equivalent observations direct the questions we eventually ask. The understanding of the place that we gain, thus, is not pre-indicated. We didn’t know beforehand what kind of things this process would reveal. The

²¹ The 10 volunteers and myself.

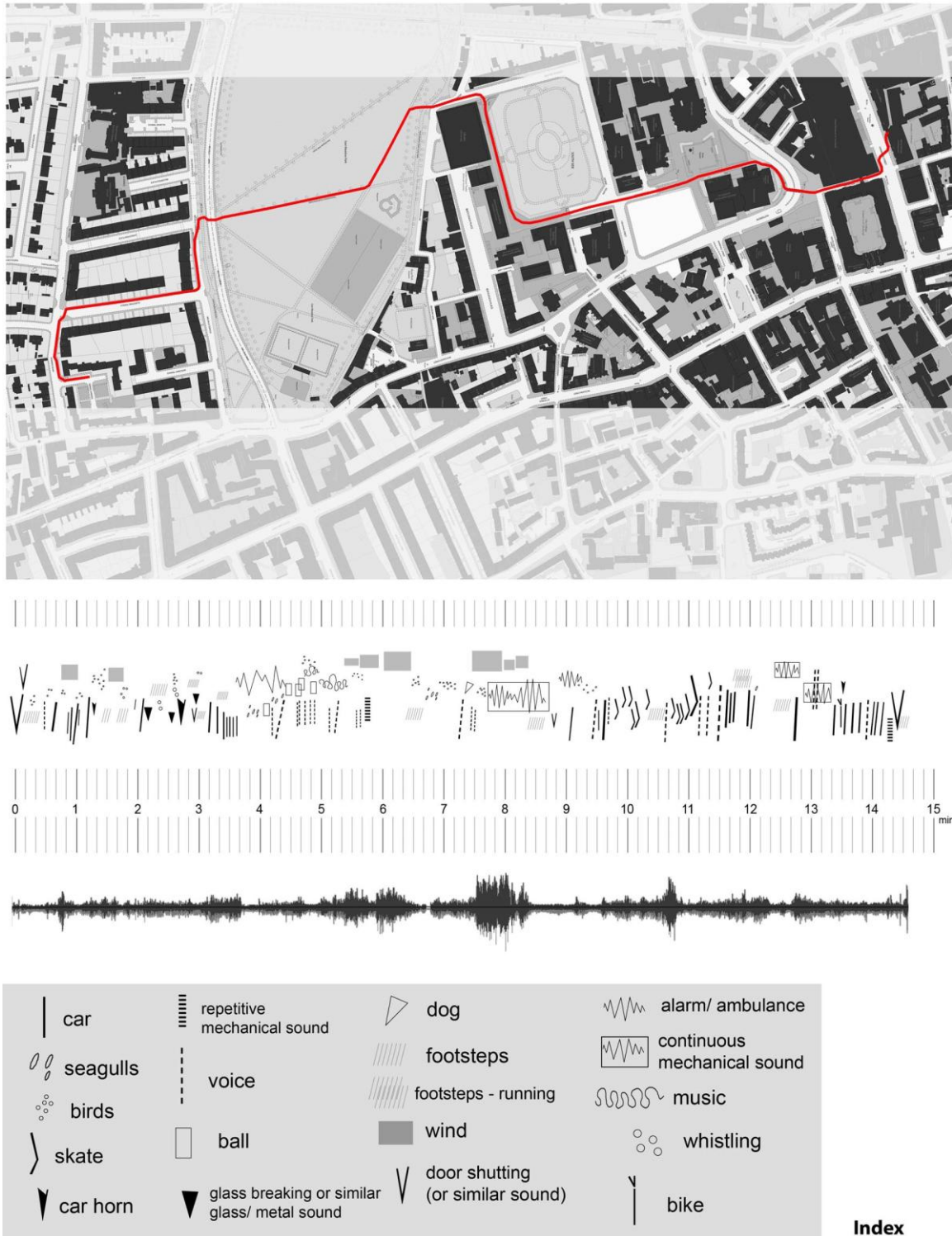
²² At certain stages of the research this would possibly be a conscious choice so as to focus on the sounds that the studied environment creates. However, still, the sound that we cause with our presence within the particular environment is derived by the characteristics of the environment itself, and for that, this kind of sounds are also informative about the place. In any case, at this particular stage, the sounds of the medium were left out not after such a consideration, but rather intuitively.

²³ The expression used refers to a visual metaphor, although here a sonic one would fit better...

²⁴ This reminds us of Richard Coyne and Martin Parker’s account on Rousseau’s Emile. In their paper “Sounding off”, they refer to the sense of sound as a means for perceiving one’s beingness and relation to others. As Jean Jacques Rousseau argues: “[c]hildren scattered about the fields at a distance from their fathers, mothers and other children, gain practice in making themselves heard at a distance, and in adapting the loudness of the voice to the distance which separates them from those to whom they want to speak.” R. Coyne and M. Parker, "Sounding Off: The Place of Voice in Ubiquitous Digital Media.," in *Seeing, Understanding, Learning in the Mobile Age* (Budapest: 2005).

experience gained, thus, concerns on one hand the space itself and, on the other, the listening exercise as a way for understanding how our perception of space and sound works.²⁵

Phase 02: diagram of sounds



[Image 03: One of the sonic routes transcribed into a visual diagram]

²⁵ E.g. which sounds we block of and which ones we intuitively interpret straight away.

After the first attempt to grasp and represent the sonic field by transcribing it into text, the next attempt has been to represent it visually with a diagram. The audio track is mapped with visual symbols upon a timeline. Through this kind of representation a more precise understanding of the sonic field occurs. The density of sounds, their coexistence, layering and duration are more precisely documented.²⁶

Through this method of transcription, we observe that at each moment we mostly notice the new sounds appearing, whereas the continuing ones remain at the background. Each time that a new sound is heard, the existing ones stop being transcribed (at least at the first few listenings), as our attention focuses at the new stimulus. However, there are some exceptions: when the existing sound is of some particular significance, such as someone speaking close to us, or a musician playing, then the existing (old) sound does not fade out at the presence of a new one. Within a phenomenological context of thought, we could argue that these two cases express, in some sense, the two kinds of *care* that Heidegger elaborates. On one hand our *care* focuses onto what creates a rupture, a 'breakdown', disrupting the existing condition of things, and on the other hand our *care* focuses to what is ontologically near us, and within our concern.²⁷

Unity-fragmentation: Can our rational or analytic language and tools deal with elements of a non-linear nature?

After these phases of the sonic mapping, we have to mention a kind of contradiction we fall within: The aural, as the condition that enables immersion, apprehends things in a *unity*, as "something one participates in experientially"²⁸, whereas the visual maps (like the ones of our case-study) refer to an analytic, *fragmented* approach to things. The discourse around the visual, as Coyne suggests, is related to the understanding of things, "to assume an overall perspective, [...] to lay things out spatially on paper as in lists, tables and diagrams".²⁹ As he claims:

"[T]he audile sense best captures space as an entity in itself, as ubiquitous and undifferentiated, with properties pertaining to ambiance, immersion, and homogeneity".³⁰

We realise that within our attempt to understand the sonic field of a city, because of its immersive, ephemeral and ambiguous nature, we tend to rationalise it, analyse it, break it down into pieces and represent it with a visual map. The question, thus, gets transformed into the following one: Can an analytical visual diagram represent qualities of the experience or atmosphere of a place? Can an analytical representational system handle non-visual elements – or elements that resist the analytical method?³¹

²⁶ Thus, one could make a more profound interpretation of the qualities of the studied route: about how busy the different parts of the route are, what kind of activities take place at different times of the day, what the approximate level of noise may be, how far a sound or someone's voice can be heard, etc.

²⁷ M. Heidegger, *Being and Time* (Blackwell Oxford, UK, 1962). p.238, 277, Richard Coyne, *Technoromanticism : Digital Narrative, Holism, and the Romance of the Real* (Cambridge, Mass. ; London: MIT Press, 1999). p.149-150

²⁸ "Sometimes unity is revealed as something one participates in experientially as a place, a state, a time, or a condition that one enters, as in cyberspace." p.4 Coyne, *Technoromanticism : Digital Narrative, Holism, and the Romance of the Real*.

²⁹ Ibid. p.163

³⁰ Ibid. p.163

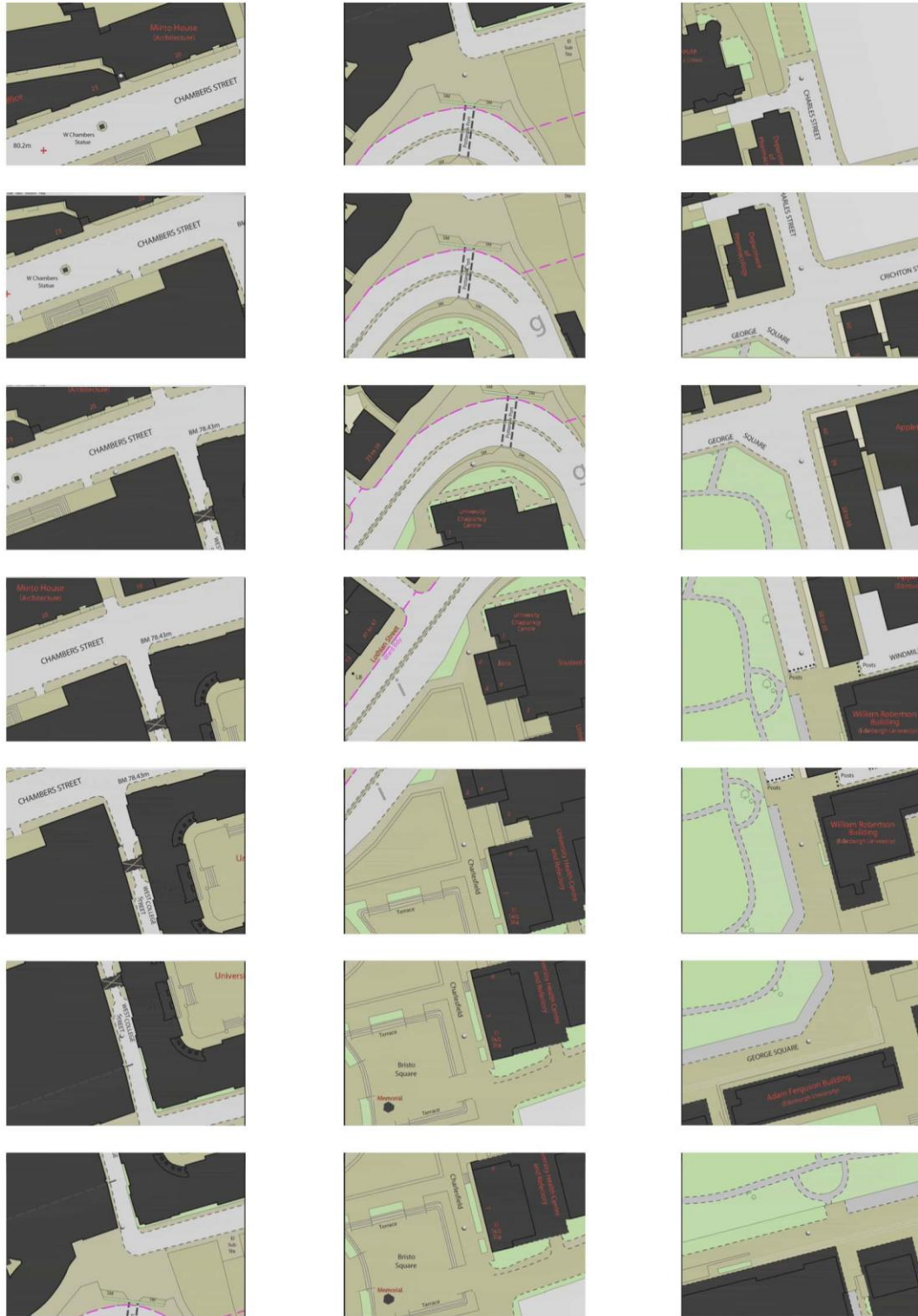
³¹ One could argue that a rational breakdown of the elements of a space can bring forth some qualities that remained un-realised. However, others may argue that the two systems are incompatible and for that, the breakdown of the sonic field of a place contradicts with its very nature of 'unity' and experiential values.

The fact that this experiment's outcomes cannot be easily put into words, as a rational conclusion or statement, makes this sort of knowledge or experience hard to be communicated, exchanged and documented. It is rather an experience, a feeling about the space what is gained. Language is closely related to visual metaphors – not sonic or tactile.³² For that, as McLuhan claims, the emergence of new mediums and 'languages' of communication affect our sensorium balance. The new recording techniques, the exchange of information of various sorts, and the degree of complication of communication mediums create a new kind of space or sensorium field.³³

Phase 03: Superimposing the geographical map of the city

³² Wishart characteristically comments on the resistance against the ambiguous or non-representable in relation to music: "This feeling that attention to aspects of sound beyond those which are capable of description, and hence prescription, in writing (and later in musical notation), is lascivious or morally harmful is a recurring theme of scribe-dominated societies." Trevor Wishart, *On Sonic Art* (Routledge, 1996). p.15

³³ As McLuhan claims: "[T]he satellite, the computer, the data base, teletext-videotext, and the international multi-carrier corporations, such as ITT, GTE and AT&T, will intensify the attack on the printed word as the 'sole' container of the public mentality, without being aware of it of course. By the twenty-first century, most printed matter will have been transferred to something like an ideographic microfiche as only part of a number of data sources available in acoustic and visual modes. This new interplay between word and image can be understood if we realize that our skulls really contain two brains straining to be psychically united." Marshall McLuhan, "Visual and Acoustic Space," in *Audio Culture*, ed. Christoph Cox and Daniel Warner (Continuum, 2005, 1970). p.72



[Image 04: Frames of the video presenting the sound itself superimposed on the geographical map of the city]

The static maps of the sonic field of the city (that were previously presented) have been to some degree informative about the city and the exploration processes, but do not reproduce the experience of time; the duration and sequence of sounds and ambiences. The sound itself, and its immediate richness and expressiveness, has been presented by superimposing the actual sound of the route and the animated geographical map of the

city (following the path that corresponds to the sound recording).³⁴ At this stage the most interesting outcome was the fact that the sound itself was far more engaging and rich than its visual representations with graphic symbols.

Through this process some particular, exceptionally informative, sonic moments appear along the way. (see image 1)³⁵ Questioning the nature of these characteristic sounds, we notice that they are relevant to Pascal Amphoux's description of 'sound signatures' and the categories he describes: The first one has to do with the kind of sounds recognized by everyone, whether local or not, due to their social 'codification', and are named 'sound emblems'. The second one has to do with sounds recognized only by a certain social group or 'by the inhabitants of the place', and are called 'sound clichés'. The third kind of sounds is named 'sound postcards', and after Amphoux they "restore hearing to the sense of touching the very essence of the town".³⁶

These key-moments of sound, which were picked out along the routes, were juxtaposed to a series of sound-spots of the city picked out randomly. A simple 5 by 5 grid was superimposed on the map of Edinburgh³⁷ and the spots thus indicated were sound recorded.³⁸ We figured out that there was some kind of ambience emerging at every spot. At each area the particular articulation of sounds, such as their layering, the echoing, some exceptional sound-mark, created a unique overall feeling.³⁹ In the case of the chosen spots the characteristic thing was mainly the shift from one ambience to another, and this juxtaposition of the two successive ambiances made us conscious of the specific sonic identity of each. In the case of the static recordings, the atmosphere of the place

³⁴ We could argue that the orientation and understanding that a rational 2d map-background provides is expressive of the dominant way of seeing and comprehending things. Although the actual experience of things develop in an abstract, possibly ambiguous and non-linear way, the rationalization around a familiar representation mode is sometimes necessary in order to handle the information and experience collected. It is as if the experience is being reconstructed also through the input of other information, not literally appearing, but perceived through the abstract geographical map. Thus, a geographical map of Edinburgh has been imported in a 3d max model and a dot – representing the person walking – moves around the city. The movement of the person (dot) is accompanied by the sound that he 'listens' to. Here we have 3 layers: the conventional visual 2d map of the city, the person moving along the route, and the sound (which evolves along time).

At another variation, the source of the sound was also animated as a moving volume on top of the geographical map. The sounds heard along the way were thus represented also through a visualisation approximating their position and movement. This was not taken much further though, because (a) it was too abstract and far from an actual realistic representation of the source's movement and position, and (b) because the arrangement of the moving elements was not based only upon the direction of the sound (at least as we experience it through the recording), but also upon the conventions of urban space; for example we know that the cars move on the street, on the left side of the road, etc. So the positioning of the moving sound sources has not been eventually based upon the sound, but a post-rationalized assumption of where it might be.

³⁵ The key-moments on the route between Chambers str. and the Waverley station were the following: characteristic sound of the university door, direction of the cars at the crossroad, pedestrians crossing (bipping of the stop lights), threshold between the sound of birds and footsteps at the some quiet steps and the sound of a busy road, train announcements, suitcases rolling, and echos in the train station.

³⁶ Pascal Amphoux, "Sound Signatures, Configurations and Effects," *Architecture & Comportement / Architecture & Behaviour* 9, no. 3 (1993).

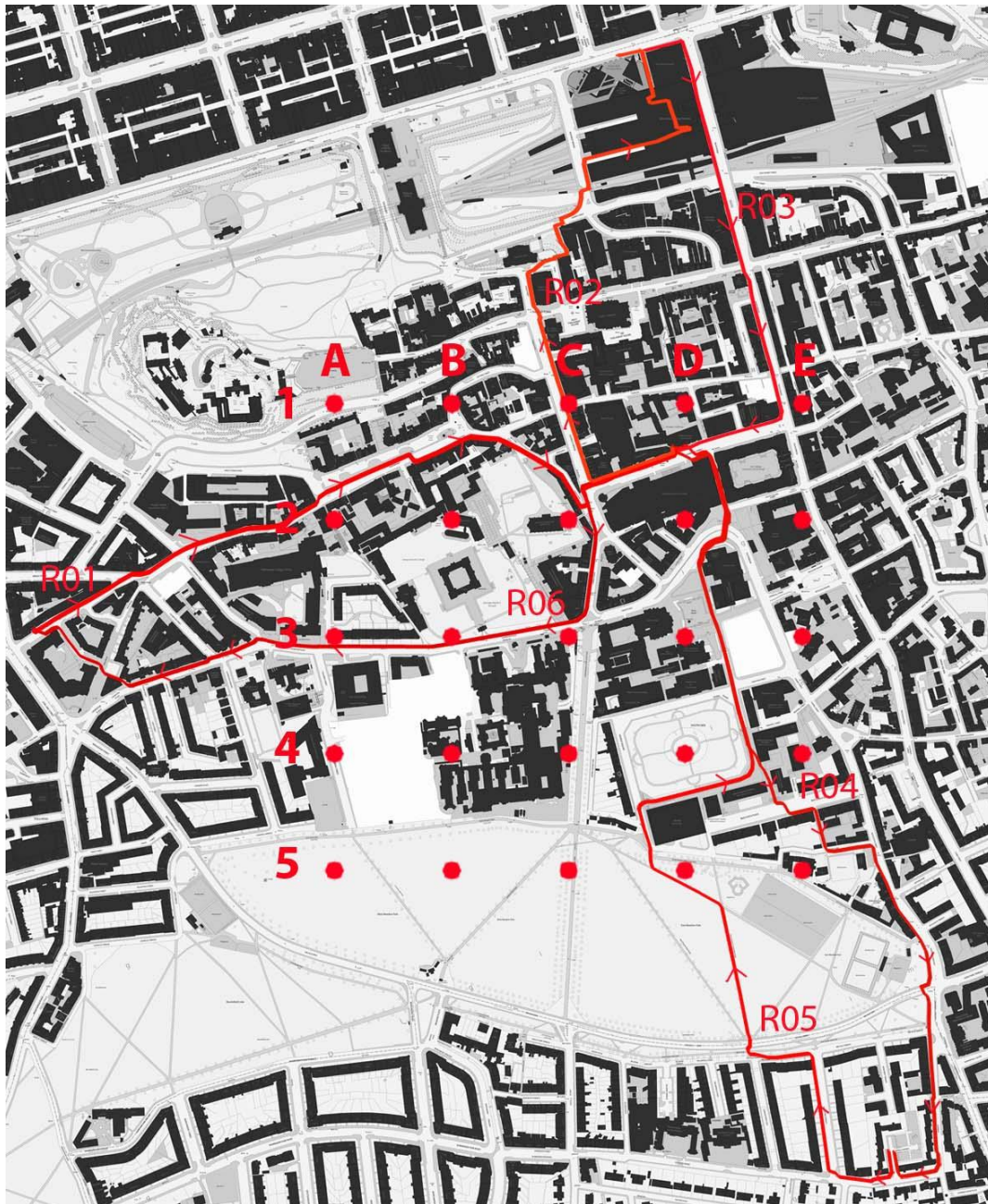
³⁷ The spots recorded were the accessible ones; 23 out of the 25 indicated ones.

³⁸ The purpose was to find out whether the sounds captured may be identifiable or not, and to compare it with the selected spots along the routes, that were previously picked out.

³⁹ At this stage the purpose had been to redo these (5 by 5) recordings simultaneously. The spots were relatively close to each other, so the sound of a spot would be also heard from other surrounding spots. A kind of sound field between different spots of the city would be thus reproduced. The length and the part of the sound recording chosen was what (subjectively) had been considered the most characteristic one, or the one that concentrated in some way the essence of the sonic field of that place.

Parts of this work in progress have been presented at the Architectural Workshop, at the HTW University, in Chur, Switzerland, 12-13 June 2007.

was emerging out of the listening to the spot itself, and out of its juxtaposition with the other randomly selected ones.



[Image 05: The 25 random spots recorded]

Through this part of the process, we realize that it is not the visual representation of sound what informs us the most about the atmosphere of a place but the sound as such. Although the visualization the sound is particularly useful for specific purposes (e.g. leading to design, analyzing pre-set questions about sound levels, etc.), in our case the sound listening provided a much more rich and immersive experience of the studied places.

Immersed: Would a being-in a map situation take us closer to non-rationally experienced qualities of space? And what narratives of the city would it bring forth?

Through the ‘Athens by sound’ project we will look into a sonic ‘map’ that is a space-to-be experienced by being within it.⁴⁰ The map is being developed in five layers of different sorts: (a) 50 sounds to listen to with headphones hanging from the ceiling, (b) 50 sounds to read in words on the floor, (c) 25 videos presenting fragments of the city based upon sound, (d) a light geographical map on the wall ‘following’ the visitors’ movements, (e) the in-between space filled in with optic fibres creating a kind of aura of the visitors’ movement.

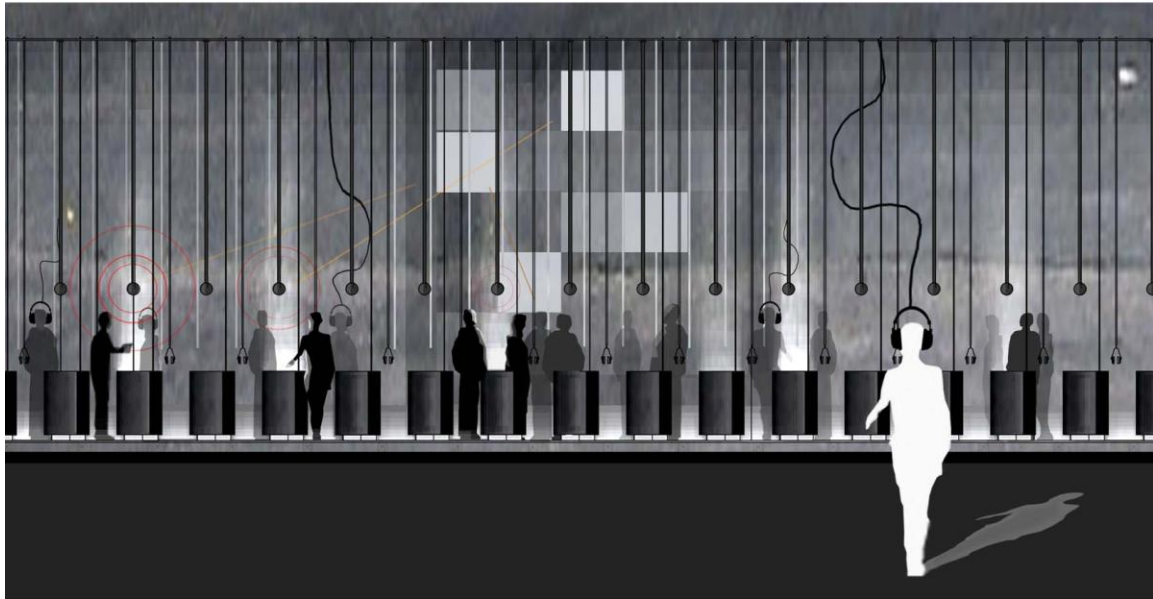
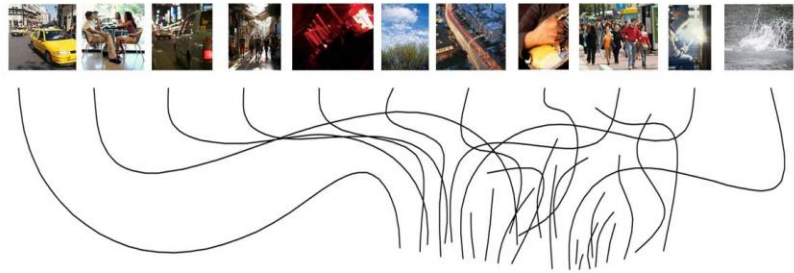


[Image 06: The pavilion installation space]

The sonic identity of Athens was not meant to be decided in advance, according, for example, to our experience of the city. It was rather meant to emerge out of the (random) sound recordings. Within the few minutes of each recording (5-20 minutes) there was a narrative appearing quite revealing about several details concerning the place and the events occurring within it.⁴¹

⁴⁰ The project was the winning entry at the competition for the Greek pavilion. The competition was carried out by the Greek Ministry of Culture and a team of academics. The installation in Venice has been created by the ‘Athens by sound’ team (see also: www.athensbysound.gr). For further info see also: Anastasia Karandinou, et.al. [eds.], *Athens by Sound* (Athens: Futura - Greek Ministry of Culture, 2008).

⁴¹ In order to avoid choosing the time of the day that each spot would be recorded, there was a simple algorithm set for that. Each column of the map was meant to be recorded at the same time, in 10 successive days. Each row would be recorded within one day, starting from the east in the morning and ending in the west at night. However, we didn’t stick to this initial plan in a strict way.



[Image 07: Section of installation space – links to fragments of the city]

One recording, for example, happened to be within a construction site. The sound of the hammer, the drill, some kind of sand, the voice and the accent of the technicians, their movement around in space, the echo of the construction sounds coming out of the empty half-constructed space, the birds singing, were all constituting a very descriptive narrative of the place, and were providing information such as about the way buildings are constructed, the materials used, the origin of the technicians, the mood within the construction site, the level of noise, etc. Another recording was made near a central crossroad; a gypsy woman singing with a remarkable voice, people passing by, busses stopping, footsteps of various speeds, coins dropping, some young people talking further away.⁴² Another recording happened to be near a quiet crossroad, where a car accident took place a minute after the recording started; the sound of the two cars colliding is heard. Then there was a brief silence followed by the voices of people shouting or quarrelling. Someone familiar with the city would had known how this has happened. In that area, like in a few others, the direction of the one-way small roads is often shifted in order to discourage cars from passing by that neighbourhood. Small accidents thus happen.⁴³

⁴² One could argue, thus, that the saying that ‘a picture is worth ten thousand words’ could be easily modified from image to sound.

⁴³ Most of the recordings, like the ones mentioned above, were made in spaces that wouldn’t had been picked out if we intentionally chose some typical spot of the city; the situation recorded wouldn’t be anyway predictable. Other spots were of places that one might had picked out as environments of typical or interesting sound-stories. Such a place was, for example, a temporary flea market where the merchants were advertising loudly their goods, people were asking the prices, and talking to each other. Other sounds

We could argue, thus, that these sonic ambiances provide several kinds of information and experience. First of all they provide some precise information about the spots picked out. One may find out what kind of song a woman had sung in a busy crossroad, what kind of materials are used in a construction site, what kind of tobacco or beer a kiosk sells, or how much a sausage costs at a local butcher. Changing the medium for exploring places, thus, brings forth simple but substantial bits of information that re-create the ambience of a place and that some other medium might had not encountered.⁴⁴

A common critique towards the way architects deal with sound is that they focus only upon sound's technical characteristics (e.g. acoustics for theatres or insulation). As Bjorn Hellstrom argues, acoustic design has dealt with sound in a rather *defensive* way in order to keep the annoying sounds away, leading eventually to a white noise flat background with no identity and character. He suggests, instead, that sound could be handled as a culturally loaded element that provides pleasant and engaging environments.⁴⁵ Within this study of sound we have been mainly looking in the cultural dimension of sound rather than its technical specifications.

Through this map the city is experienced over time, gradually, and each visitor can make his own way within it. Time, though, is condensed; one can travel from one part of the (virtual – or rather sonic) city to another within seconds. The installation could be described, thus, as a map in a time-scale rather than space-scale, whether the scale is the one of the time of the clocks (as Bergson would describe it) or of the one experienced. If we follow Heidegger's concept of temporality, in the sense of being *situated*, we could

heard there, were the ones of small trolleys carrying things, the voices of people of certain age groups, some cars horns from far away, etc. Both kinds of places, the ones one would possibly choose as characteristics and those ones one wouldn't, reveal many stories about the city. Apart from the origin and the kind of goods advertised, and the general ambience of the market, someone familiar with the place would go into interpreting further details: There are mostly voices of older people – who do not work in the morning (that the flea markets take place). The products advertised are often seasonal products; one could thus tell what time of the year it is and which parts of Greece the goods come from. There is also some sonic information about the topography of this kind of markets. They take place on local streets – not an avenue, but still they often block the traffic for the whole day. Sometimes, thus, the sound of horns of blocked cars is heard. For someone familiar with Athens, the above interpretation would be a very probable one. Someone less familiar with the city would possibly interpret things differently based upon other equivalent experiences. Even without knowing what story is closer to what was actually taking place there, the listener is being anyway immersed within a series of multiple coexisting stories of what might had potentially occurred.

⁴⁴ The video artists *Intothepill* – Giannis Grigoriadis, Giannis Isidorou and Lina Theodorou – describe the fragmented momentary approach of their work in the Athens by Sound project as follows:

“Empirical knowledge in the form of a general and consistent recording/ mapping of the sonic and visual indices of the city, does not provide a reliable plan that would decode the urban condition. It only provides information for the construction of a simulacrum. By contrast, the momentary, the minute, the ‘poetic’ event, that unique happening that emerges, or – if you like – that we, ourselves bring forth as unique, may prove revealing by overriding the ‘general plan’, the overall ‘objective’ presentation, which is counterfeit insofar as we live within a constantly shifting field of sensory input, potential and interpretation.”

Intothepill, "Notes from the Discussions Related to the Work Athens by Sound Project," in *Athens by Sound*, ed. A.Karandinou et.al. (Futura - Greek Ministry of Culture, 2008). p.25 Their video project was part of the installation described, and created within an equivalent field of thought. See also: www.intothepill.net

⁴⁵ Björn Hellström, "Theories and Methods Adaptable to Acoustic and Architectural Design of Railway Stations." (paper presented at the Twelfth International Congress on Sound and Vibration, Lisbon, 11-14 July 2005). p.2,3

Doris Kleilein and Anne Kockelkorn similarly notice that architects take sound into account in a restricted way. As they claim, “[w]hen architects talk about acoustics, they usually focus on the unavoidable basics – things like soundproof windows, footstep sound insulation, and resonators made of perforated gypsum board”. Doris and Anne Kockelkorn Kleilein, "Disconnection," in *Tuned City*, ed. Doris Kleilein, et.al. (Berlin: Kook Books, 2008). p.100

interpret the installation (and the city accordingly) as multiple times or temporalities occurring simultaneously; as being situated between different things that are either close together or further away from one another, and at each particular moment one's care is directed to a certain range of those.⁴⁶

Sound makes space heterogeneous. As Bergson suggests, animals perceive space as heterogeneous, whereas humans have developed the ability to consider space as empty or homogeneous.⁴⁷ Bergson differentiates the notion of homogeneity to the notion of externality, although, as he argues are closely related. Externality refers to what is perceived outside ourselves, within the homogeneous space, whereas homogeneous space is the abstract concept of the surrounding space in general.⁴⁸ As Bergson claims at various moments of his work, the heterogeneous space has been turned into an abstract idealized homogeneous one, which, can be divided and organized arbitrarily as we wish, and can be thus studied and analyzed.

“Homogeneous space and homogeneous time are then neither properties of things nor essential conditions of our faculty of knowing them: they express in an abstract form the double work of solidification and division which we effect upon the moving continuity of the real in order to obtain there a fulcrum for our action, in order to introduce into it real changes. They are the diagrammatic design of our eventual action upon matter.”⁴⁹

Sound space can be interpreted as heterogeneous, since it is – by itself, and not due to our analysis of it and random breakdown – a field of densities, directions, and variable qualities. However, what we do in order to study it through the above described installation is what Bergson states; we divide it and organize it in our familiar rational way as if it was homogeneous in itself.

Instead of concluding: Unpredictable media

We realize that we come across again this kind of tension between an attempt to represent and organize sound, and its elusiveness. Within the first attempts – the visual maps of sounds – this tension was more obvious and immediate, since the mapping was purely a visual diagram. Within the later attempts, one can actually experience the sound as such; it is still, though, cut-out, fragmented, and displaced in space and time.

We also notice that a new medium brings forth information, thoughts and experiences that could not had been easily imagined in advance. These outcomes refer, on one hand, to the city itself, and on the other, to our perception and interpretation of things. The exploration of a sonic field of a city, for example, informs us about what actually happens there, what activities take place, what materials are used, what the noise level is, etc. In parallel, out of this mapping, or rather exploration process, we realize which sounds we intuitively block off and which ones attract automatically our attention.

⁴⁶ Coyne, *Technoromanticism : Digital Narrative, Holism, and the Romance of the Real*. p.176-178 See also Henri Bergson, *Time and Free Will* (Dover Publications, 2001). p.96

⁴⁷ According to Coyne, Bergson notes “that it is a peculiarly human characteristic that we seem to be able to regard space as other than qualitatively differentiated” and that “as opposed to animals, [we] have a capacity to defy all experience and regard space as homogeneous”. “He notes that birds are often able to find their way across vast distances, presumably by sight, by smell, or by sensing magnetic currents, indicating that there must be an enormous range of spatial differentiation within the bird's experience. From this he deduces that space is not as homogeneous, nor as geometrical for animals as it is for us.” Coyne, *Technoromanticism : Digital Narrative, Holism, and the Romance of the Real*. p.118

⁴⁸ Bergson, *Time and Free Will*. p.95-104

⁴⁹ Henri Bergson, *Matter and Memory* (2004: Dover Philosophical Classics, 1896). p.280

Another thing that becomes obvious is the fact that sound can only partly be codified and transcribed into a visual incentive, and for that, architects are generally concerned with sound only in relation to acoustics specifications and noise levels. Having said that, we also have to acknowledge that besides the above mentioned limitations, sound ‘transferred’ quite successfully the atmosphere of a place.⁵⁰ Atmosphere has been brought forth and investigated, however in an inevitably fragmented, analytic way, since this is how west culture and research is developed. In the case of the video-sound-maps of Edinburgh the atmosphere, the intangible, was in some sense brought forth in the following way: The visual did not really matter, since it was very minimal and only indicative. What mattered were the things that were supposed to pass before one’s eyes along the route, but were not actually visible; they were only heard. In the case of the space-installation map of Athens, the intangible was brought forth by the ‘disappearance’ of the physical boundaries of the space, and by the dominance of the sonic and of the augmented representation of the temporal.

Going back to the question about the kind of information a medium provides, we observed that this particular kind of exploration provides us with different sort of information depending on the place or city observed. For example, the sound mapping of Athens brought forth mainly stories about everyday events, customs of different group of people, open air activities taking place within the city, such as markets, gatherings, protests, open-air cafes, etc. It brought forth everyday stories of the life of the people of the city; someone asking directions for a street at an outdoors kiosk having his car radio playing loud, someone quarreling at a construction site, a radio playing and a family talking in an apartments balcony, etc. On the contrary, the sound mapping of Edinburgh brought forth mainly other kinds of information, such as about the physical structure of the city, the echo of the closes, the footsteps on metal, stone, asphalt, etc. Due to the climate and mentality differences, the sounds captured were of different nature, and for that different kinds of stories appeared. In Edinburgh, there were less outdoors activities taking place, and for that a sound recording could not capture everyday situations such as conversations between people. The most dominant sounds, thus, were the ones of the particular reverberation of spaces, of narrow or wide streets, of enclosed spaces with low ceiling, of open alleys, parks or hills. This kind of sounds were not that much informative about cultural details of the city’s everyday life, but rather about the architecture and geometry of spaces, streets, courtyards, and about the materials, the dimensions, and the shapes of each area. In the case of Edinburgh, the sonic ambience was mainly constituted by the echoing of the built environment, whereas in the case of Athens, the ambience was mainly the result of human-made sounds and specific recognizable activities.⁵¹

Perhaps the best way to map sound is to attempt to experience it. The real result, if you can call it that, is not that people interviewed about the sounds said something we didn’t know, but that through this work they actually listened to places anew. The experience of the ephemeral is entirely personal and subjective. The experience of this sort of aspects of the city is not gained that much by graphing, describing or categorising recordings – it is something occurring there and then, while listening to the city itself.

⁵⁰ A characteristic example concerning the case of Athens sound mapping was the comment of a visitor: ‘there was something about the sounds that links to Athens but I don’t know what’.

⁵¹ The fact that such a mapping brings forth different kind of information, in each different city, is also due to our perception of sound. In both cities, there were all kinds of sounds appearing to one extend or another. However, the way in which we perceive and intuitively prioritise sounds affects also our understanding of place that such a process enables. In Athens, for example, the sounds are echoed and reverberated by spaces of particular geometry, material, volume, etc. Nevertheless, the cultural significance of human speech, music, and recognisable activities masked in some sense other qualities of the sound and the equivalent information they carried.

This paper hoped to present some of the contemporary concerns about the intangible aspects of space, the atmosphere, ambience or 'haze' as what constitutes the experience of a place beyond its visual impact. Within this framework, a part of the sonic mapping sequences was examined. The outcomes of that process were not foreseeable and were of different nature for each city examined. The medium itself and the methodology followed did not pre-indicate the kind of information that one would retrieve; on the contrary it was open and responsive to every different environment. The experience and understanding gained out of these experiments was represented, but, as already mentioned, only partly, due to the non-linear and intangible nature of the elements involved.

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