

# “Close Your Eyes and I’ll Kiss You”: The Role of Soundtracks in the Construction of Place

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## Abstract

This paper seeks a way to uncover the role of aural experience in the affective and more effective construction of place. In the films of Tarkovsky, the ‘weak’ narrative, based on ambiguity and improvisation, intentionally creates a distance between the image and the story in order to weaken the logic of the narrative, originating a field of associative images that arouses strong personal interpretations. The same may happen in a city by applying subtle acoustic strategies, suggesting to its users a new, more involved, attitude, so that they cease to be external elements and become participants, accepting a moral responsibility in the progression of events. This hypothesis is explored through the analysis of the relation between image and sound in Tarkovsky’s film *Stalker* (1979) and behaviour observations in two sonic interventions held in the cities of Lisbon (1999) and Guimarães (2012).

**Keywords:** Architecture, Affect, Place Attachment, Aural Experience, Soundtrack

## 1. Introduction

In 1997, ECM released an anthology<sup>1</sup> presenting on its cover a photograph<sup>2</sup> of an object, upon which is projected a statement from Paul Virilio: “The Essential is No Longer Visible”. The object – a bunker built by Nazi Germany during WWII – is beautifully shot and the image is pleasant; however, it is the writing projection that stays in the mind. As one lingers for a moment, the question arises: was the essential ever visible?

Between 1928 and 1930, the British decided to build on the south and northeast coasts of England a group of large concrete structures. Known as acoustic mirrors, concrete dishes or listening ears, they were designed to pick up the sound of approaching enemy aircraft. Sound waves were caught in the belly of the mirror and relayed back through microphones and a stethoscope to an operator who raised the alarm. The mirrors effectively gave Britain a fifteen-minute warning of an impending attack. The essential was not visible but was capable of being heard.

Going a bit further back to the Middle Ages, Bernard of Clairvaux, a French abbot and the primary reformer of Cistercian order that encouraged the contemplation of nature and avoided any images or artefacts, said: “You wish to see; listen. Hearing is a step toward Vision.” This statement is strangely relevant to our world of 21st century technological multi-sensory experiences where nevertheless we still close our eyes to kiss, to savour, to listen, to feel something deeply.

This paper investigates how architects may explore our sensory perception of image and sound, both of which are inseparable ways in which we experience the world, to design places. This dialectic is the leitmotiv of our research. Hearing is one of the first and last of our sensory experiences in this world, so it seems interesting to use it to subvert the relationship between image and sound in the city – sight being the dominant of all our senses – and thus invite the citizen to engage affectively with the multidimensionality of reality and build the place upon it.

The purpose is to uncover the role of aural experience in the affective (and more effective, as we will see) construction of place. In the films of Tarkovsky or Antonioni, the ‘weak’ narrative, based on ambiguity and improvisation, intentionally creates a distance between the image and the story in order to weaken the logic of the narrative, originating a field of

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1. *Selected Signs*, 1, ECM (1997).

2. Magdalena Jetelová (1995), *Atlantic Wall*, accessed May 20, 2014, <http://www.jetelova.de/project/atlantic-wall-1995/>.

associative images that arouses strong personal interpretations. The same may happen in a city by applying subtle acoustic strategies, suggesting to its users a new, more involved attitude, so that they cease to be external elements and become participants, accepting a moral responsibility in the progression of events.

Rather than attempting to reinvent architectural form or function, this paper explores how, through a sensitivity to the possibilities of sound in architecture, it is possible to transcend the confines of its traditional uses and enable in its perceiver the freedom to engage that allows for the individual's own sensitivity and mind to take an active role in creating a personal connection with space and charging it with meaning, hence defining or constructing the place. This is further explored through the examination of sound in Tarkovsky's film *Stalker* (1979) and the analysis of two sonic interventions in public space held in Lisbon (1999) and Guimarães (2012).

## 2. Framework

The construction of place is rooted in place attachment, the bonding that occurs between individuals and their meaningful environments that has gained much scientific attention in recent years (e.g., Giuliani, 2003; Low and Altman, 1992). Part of this interest is a consequence of the awareness that person-place bonds have become fragile as tendencies like globalization, increased mobility and virtual connectivity, and environmental problems threaten the existence of, and our connections to, places that used to be important to us.

Interest in understanding the attachments that people form with places can be found in a variety of disciplines. Sociology, for example, emphasizes how the symbolic meanings of environments influence the social context of human interactions (Grieder and Garkovich 1994). Anthropology seeks to understand the cultural significance of places in everyday life (Gupta and Ferguson 1997). Human geography has explored the concept of 'sense of place' (Relph 1976, 1997, Buttner and Seamon 1980, Tuan 1977, 1980), which is similar to the notion of 'place attachment' as developed in environmental psychology (Altman and Low 1992). When viewed from this latter discipline, attachment represents a positive connection or bond between a person and a particular place (Giuliani and Feldman 1993, Williams and

Patterson 1999). In the course of this interaction, indifferent spaces turn into places charged with meaning which serve as objects of attachment (Tuan 1977).

More attention has been given in the domains of human geography and environmental psychology to the study of place attachment. This concept has been related to psychological and physical characteristics (Bonnes and Secchiaroli 1995), and to variables related to feelings, emotions, and bonds that people develop toward places where they live (Bagozzi 1978; Hay 1998). Pretty et al. (2003) and Groat (1995) proposed that individual relations with places assign them with meaning and order by means of personal, social, and cultural processes. Riger and Lavrakas (1981) reported two particular characteristics of place attachment that relate to rootedness and bondedness. While rootedness is related to duration of residence, ownership, and expectations to live in the same place, bondedness is associated with belonging to and familiarity with the place.

One thing is certain: emotion was shown to have a deep influence on the links that people establish with particular environments. Tuan (1977) suggested that emotion is a major aspect by means of which people charge environments with meaning. Eisenhauer et al. (2000) showed how interaction with certain natural environments contributed to the development of emotional attachment to those settings. Casakin and Billig (2008), Jorgensen and Stedman (2001; 2006), and Kyle et al. (2004) found that affective attachment received higher scores as compared to other dimensions of attachment such as place identity and place dependence.

Place attachment is also worthy of study because of its relevance to many important processes. For instance, the examination of place attachment as an emotional bond has shed light on the distress and grief expressed by those who are forced to relocate (e.g., Fried 1963; Fullilove 1996). Place attachment has thus been applied to disaster psychology (e.g., Brown and Perkins 1992), immigration (e.g., Ng 1998), and mobility (e.g., Giuliani, Ferrara, and Barabotti 2003; Gustafson 2001). Other research has shown that place meaning and attachment can be used to plan and encourage the use of public spaces, such as national parks (e.g., Kyle, Graefe, and Manning 2005; Moore and Graefe 1994; Williams and Stewart 1998).

Place attachment is also relevant to the study of environmental perception. Attached individuals experience a heightened sense of safety, even when their place is situated in a war zone (e.g., Billig 2006). On a smaller scale, attachment to one's neighbourhood is associated with fewer perceived incivilities (e.g., drug dealing, gang activity, traffic, etc.) on one's block and less fear of neighbourhood crime (Brown, Perkins, and Brown 2003). Finally, because of its associations with environmental risk perception, and place-protective attitudes (e.g., Kyle, Graefe, Manning, and Bacon 2004; Nordenstam 1994; Stedman 2002; Vorkinn and Riese 2001), place attachment contributes to the understanding of pro-environmental behaviour,

although the research on this topic is limited and the findings are inconsistent (e.g., Uzzell, Pol, and Badenas 2002; Vaske and Kobrin 2001).

The diversity of definitions reflects the growing interest in place attachment, and can be seen as progress in the concept's theoretical framework. Researchers have highlighted different processes, places, and people involved in person–place bonding, but these definitions remain atomized in the literature, and thus the theoretical progress of the concept has not yet been acknowledged, nor has a more general definition of place attachment been agreed upon. By exploring the affinities across the different uses of the concept, we can begin to outline, and then structure, a coherent understanding of it.

We adopted the three-dimensional organizing framework proposed by Scannell and Gifford (2010). This framework proposes that place attachment is a multidimensional concept with person, process, and place dimensions (see Figure 1). The first dimension is the living being: who is attached? To what extent is the attachment based on individually and collectively held meanings? The second dimension is the psychological process: how are affect, cognition, and behaviour manifested in the attachment? The third dimension is the object of the attachment, including place characteristics: what is the attachment to, and what is the nature of this place? This three-dimensional framework of place attachment organizes the main definitions in the literature.

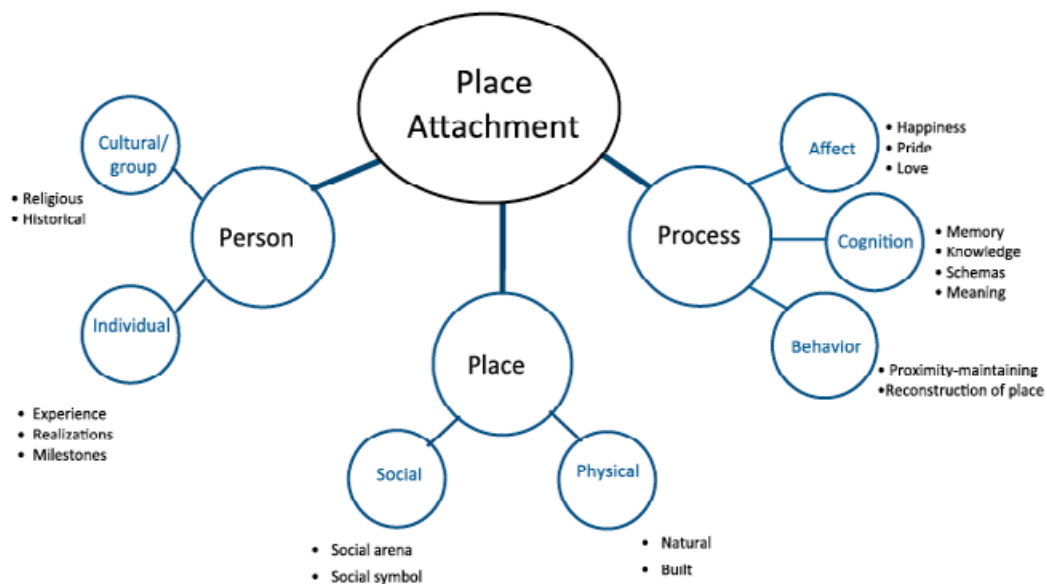


Figure 1. The tripartite model of place attachment.

We consider this framework with a special attention on the affective dimension (process) associated to individual experience (person) of built environments (place).

## 2.1. Place attachment as individual experience

At the individual level, it involves the personal connections one has to a place. For example, place attachment is stronger for settings that evoke personal memories, and this type of place attachment is thought to contribute to a stable sense of self (Twigger-Ross and Uzzell 1996). Similarly, places become meaningful from personally important experiences, such as realizations, milestones (e.g., where I first met my significant other), and experiences of personal growth, as Manzo (2005) notes in her study of the experiences and places that create place meaning. She comments, “it is not simply the places themselves that are significant, but rather what can be called ‘experience-in-place’ that creates meaning”. Although other theorists argue that place characteristics are integral in the construction of place meaning, the argument that individual experiences may form the basis for the attachment is convincing.

## 2.2. Place attachment as affect: Topophilia

Person–place bonding undoubtedly involves an emotional connection to a particular place (e.g., Cuba and Hummon 1993; Fullilove 1996; Giuliani 2003; Hidalgo and Hernández 2001; Manzo 2003, 2005; Mesch and Manor 1998; Riley 1992). Humanistic geographers describe place belongingness in emotional terms. Tuan (1974), for example, coined the word ‘topophilia’ or ‘love of place’, for this connection, and Relph (1976) defined place attachment as the authentic and emotional bond with an environment that satisfies a fundamental human need. Environmental psychologists similarly assert the central role of affect in person–place bonding. Most often, their definitions portray place attachment in affective terms, such as an emotional investment in a place (Hummon 1992), or “feelings of pride and a general sense of well-being” (Brown et al. 2003).

Further evidence that attachment to a place is grounded in emotion comes from the literature on displacement, when individuals must leave their places such as in the event of a natural disaster or war, immigration, or relocation. In his classic study on the effects of displacement, Fried (1963) investigated a neighbourhood redevelopment project in the West End of Boston. The ‘improvements’ planned for the neighbourhood caused the residents to lose familiar structures and social settings, and many of them were forced to move. Essentially, this reconstruction meant the collapse of a tight-knit community. After the fact, residents mourned and displayed symptoms of grief. Fried concluded that grief is not limited to the death of a loved one, but can emerge following the loss of a significant place. Fullilove (1996) also found that displacement results in feelings of sadness and longing, and so concluded that attachment is primarily based in affect.

Relationships with place can represent an array of emotions from love and contentment to fear, hatred, and ambivalence (Manzo 2005). For example, one can experience a childhood home as a significant place, but that does not necessarily mean the bond is positive. Rather, unhappy or traumatic experiences in a place may create negative feelings or even aversion toward it. Although strong negatively charged bonds can be formed with important places, attachment usually is defined in positive terms; the desire to maintain closeness to a place is an attempt to experience the positive emotions that a place may evoke (Giuliani et al. 2003).

It is also in this (positive) sense that fosters Tuan's cited work on environmental attitudes and perception that investigates the love to the place: "My main concern is with the formation and nature of positive attitudes and values". To this end, Tuan defines the neologism 'topophilia' as "the affective link between the person and the place or physical environment. Diffuse as a concept, vivid and concrete as personal experience" (Tuan 1974). The concept covers all the emotional ties of human beings with the material environment that differ profoundly in intensity, subtlety and mode of expression. According to Tuan, topophilia "is not the strongest human emotion. When is irresistible, we can be sure that the place or environment is the vehicle of emotionally strong events or is perceived as a symbol" (Tuan 1974).

One aspect emphasized in his analysis is the lower variability of urban experience and reduced physical contact with the natural environment in developed societies (i.e., literally, un-involved): "What's missing people in advanced societies (and hippie's groups seem to pursue) is a smooth, unconscious engagement with the physical world, that prevailed in the past when the pace of life was slower and which children still enjoy" (idem). In fact, children have an open-minded involvement, indifferent for oneself, and vague rules of beauty.

While not necessarily the direct cause of topophilia, the environment provides the sensory stimuli that act as the perceived image and shapes our joys and ideals: "what we decide to pay attention (value or love) is an accident of individual temperament, purpose and cultural forces that act at a particular time" (*ibid.*). In short:

Topophilia takes many forms and varies in intensity and emotional range. It's a start describing what they are: ephemeral visual delight; sensual delight of physical contact; attachment to a place for being familiar, because it is home and represents the past, because it evokes pride of possession or creation; the joy in things due to animal health and vitality (*ibid.*).

From his innovative, for the time, and still refreshing analysis, we are particularly interested in the association he rebuilds<sup>3</sup> between the notions of emotion, motivation and movement, ending with:

“Human beings have persistently sought an ideal environment. As it stands, it varies from one culture to another, but in essence it seems to entail two antipodal images: the garden of innocence and the cosmos. [...] Thus we move from one to another [...]; seeking a balance that is not of this world “(*ibid.*).

In her analysis of spatiality in motion, Giuliana Bruno crosses the realm of emotion, constantly returning to the place of topophilia, although in a somehow distinct perspective:

Although I have found inspiration in this work, my engagement with the notion of topophilia stems from a very different premise. In order to explain the love of place, Yi-Fu Tuan ended up establishing a system of values for places, ultimately making claims for ideals of landscapes in an evaluative structure based on binary oppositions and harmonious wholes. By contrast, I have used the term topophilia to describe that form of cinematic discourse that exposes the labor of intimate geography – a love of place that works together with the residual texture of cineres. Such work is driven by a passion for mapping that is itself topophilically routed not on wholeness but on the fabric of lacunae. [...] This is the site of (in)visible traces, inscribed and laid bare, yet enduring erasable on the white fabric of the screen. (Bruno 2002)

It's precisely this dynamic mapping of affection we explore in this paper, resulting not from a univocal sense of place but from interpretive openings, voids or tears requesting repair, imaginary patches that overlap without, however, leaving a mark. In this sense, space, as the film screen, becomes a place precisely when accommodating the projections we do of what affects us, making us participants of an individual wholeness, after all the same that Tuan craved.

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3. Since the words have the same etymology: the Latin *motus*, “movement.”



## 2.3. Affect in the Construction of Place

Thrift (2007) in the presentation of non-representational theory proclaims a geography of what happens to relate space and affect. He starts by the event and its essential feature - the surprisingness - to describe the world-in-motion we live, in which decisions have to be made for the moment, every moment. A momentary world, awaiting each one's action. A world that is not foreshadowed is a world of radical possibility, where each real event arises among many alternatives, where the possibilities exceed actualities: "in a becoming, one term does not become another, rather, each term encounters the other and the becoming is something between the two, outside the two" (Smith, 1997: xxx, apud Thrift, 2007). But if something exceeds the event, what is it? Thrift argues that this excess is a 'virtual' expressive dimension that can be summarized as a generation of signals seized in practice: "the sign is an encounter rather than an act of recognition, and it can only be felt or sensed: signs act directly on the nervous system" (Marks 1998: 38 apud Thrift, 2007). This constant deleuzian becoming is thus always performative (sensorimotor and corporeal) and interpretive, allowing us to pass from the abstract nature of the concept of event to the concrete nature of the notion of body.

This eventual thus corporeal form of realization is the touchstone of affect in the construction of place. In this concept of embodiment is interwoven an important role for the affect that should be clarified. Affect is not only emotion, nor is it reducible to the affects or perceptions of an individual subject: "Percepts are not perceptions, they are packets of sensations and relations that outlive those who experience them. Affects are not feelings, they are becomings that go beyond those who live through them (they become other)" (Deleuze 1995: 137, apud Thrift, 2007: 116). And more:

affect is synaesthetic, implying a participation of the senses in each other: the measurement of a living thing's potential interaction is its ability to transform the effects of one sensory mode into those of another. . . . Affects are virtual synaesthetic perspectives anchored in (functionally limited by) the actually existing particular things that embody them. The autonomy of affect is its participation in the virtual. Its autonomy is its openness. Affect is autonomous to the degree to which it escapes confinement in the particular body whose vitality, or potential for interaction, it is. Formed, qualified, situated perceptions and cognition's fulfilling functions of actual connection or blockage are the capture and closure of affect. Emotion is the interest's (most contracted) expression of that capture - and of the fact that something has always and again escaped. Some-

thing remains unactualised, inseparable from but unassimilable to any particular, functionally anchored perspective. That is why all emotion is more or less disorienting, and why it is classically described as being outside of oneself, at the very point at which one is most intimately and unshareably in contact with oneself and one's vitality. Actually existing, structured things live in and through that which escapes them. Their autonomy is the autonomy of affect. (Massumi 1997b, apud Thrift, 2007)

Besides the affect of living things there is a world of other things, things that have their own resonances, so artfully captured by actor-network theory: "Latour's famous example of the automatic door closer and the weighted hotel key are both just the simplest of the means by which bodies are guided along particular paths by things." (Thrift 2007) The encounters with other things are growing in importance and as a result, the nature of these other things became increasingly active, providing a greater decentralization of 'human' subject. People thus become quite ill-defined constellations that are spread around the world:

not confined to particular spatio-temporal coordinates, but consist of a spread of biographical events and memories of events, and a dispersed category of material objects, traces, and leavings, which can be attributed to a person and which, in aggregate, testify to agency and patienthood during a biographical career which may, indeed, prolong itself well after biological death. The person is thus understood as the sum total of the indexes which testify, in life and subsequently, to the biographical existence of this or that individual. Personal agency, as inherent in the causal milieu, generates one of these 'distributed objects', that is, all the material differences 'in the way things are' from which some particular agency can be abducted. (Gell 1998, apud Thrift 2007)

From these custom constellations Thrift extracts the tools to address the founding element of meaning: creativity. Many contemporary thinkers addressed the issue without, however, stimulate applied research on the subject, making the understanding of certain forms of expressive action that are important for the analysis of the urban phenomenon:

"a whole category of social and cultural action, usually termed play, is unable to be grasped. Play is a process of performative experiment: 'The ongoing, underlying process of off-balancing, loosening, bending, twisting, reconfiguring,

and transforming the permeating, eruptive / disruptive energy and mood below, behind and to the side of focused attention' (Schechner 1993) which is brought into focus by body-practices such as dance and which 'encourages the discovery of new configurations and twists of ideas and experience' (Schechner 1993). It is the world of the 'subjunctive enacted' (Sutton-Smith 1997), the world where possibilities are acted out. [...] Such meta-communication presupposes fantasy produced through intersubjectivity, and is characterized by quirkiness, redundancy, and oddity. It is, in other words, about producing variation" (Thrift 2007).

This is the practical knowledge mode of experimental basis we use in daily urban life.

Thrift analyses dance as an example of performative experience process and mode of understanding the expressive potential of public space:

To begin with, dance can help us to understand urban 'skills'. Day after day, all kinds of skills of expression are constantly deployed in the city, delineating time-spaces in which something significant and worthy of notice is to occur. These 'minor' skills include all the everyday means of negotiating the city – driving the car, walking the pavement, crossing the street – and the knowledge stemming from those encounters (sometimes formalized in City Guides and A-Zs)... In turn, these skills produce a city which is in continual flux. According to Lefebvre (1995) apprehending the to and fro of these skills of expression itself requires the cultivation of special skills of 'rhythm-analysis', which will apprehend the city as a series of times, polyrhythmically interacting with one another to produce a 'music of the city'. (idem)

From this analysis emerges a category of experience, already addressed by Breton, Benjamin, de Certeau, and other scholars of the city that can be accessed with proper preparation: a process of tuning based on a lyrical expectation and willingness to experiment. This type of awareness seems to open the spaces of urban eventuality, each one with their own senses of possibility.

From the analysis of dance, Thrift also extracts the key innovations of non-representational theory. The first is the attempt to produce 'therapeutic' interventions rather than claim the grand theory. The second is the focus on a class of experiences seldom addressed, the trivial, the interactive, the game: "moving towards a poetics of encounter which both conveys a sense of life in which meaning shows itself only in the living, and which, belatedly,

recognizes that the unsayable has genuine value and can be felt ‘on our pulses’” (Wittgenstein 1969, apud Thrift 2007). The third is methodological and questions the traditional tools (ethnography, focus groups, and the like) for being cognitive in origin and effect:

Non-representational work, in contrast, is concerned with multiplying performative methodologies which allow their participants equal rights to disclosure, through dialogical actions rather than texts, through relation rather than representation. In particular, therefore, it has tried to enhance ‘performance consciousness’ (Denning 1996) by turning to examples of the intensification of presence provided by the performing arts – art, sculpture, theatre, dance, poetry, music. (Thrift 2007)

Recognizing the importance of dialogical action is understanding, as Martin Buber (1937), that life can not be restricted to the scope of transitive verbs: what I do, what I buy, what I eat or I own. It takes a “you”. The one that says “you” does not own anything, and in fact, has nothing: just remains in relation. The relationship is our principle and cities may be seen as means of turbulent relationship and therefore affect. This affect manifests itself continuously in events that may occur on a large scale or simply be part of the daily routine life. The attachment to a place is not nourished only by episodic encounters or extraordinary deeds.

The construction of place is a continuum. It has the flavours of everyday life, familiar spaces, sharing, common hours, intimacy, slow conversations, time spent on details, laughter and tears, and entrusted exposure. Given this absolute ubiquity of affect as a vital element of the city it may be thought that the affective record would constitute a substantial part of urban studies. Nothing more wrong. With some honourable exceptions, such as Walter Benjamin and Richard Sennett (1994), to read about affect and cities we need to seek pages of novels or poems stanzas. How to explain this gap in the knowledge about the city? Thrift outlines three reasons:

One is a residual cultural Cartesianism (replete with all kinds of gendered connotations): affect is a kind of frivolous or distracting background to the real work of deciding our way through the city. It cannot be a part of our intelligence of that world. Another is concerned with the cultural division of labour. The creative arts already do that stuff and there is no need to follow. A third explanation is that affect mainly figures in perceptual registers like proprioception which are not easily captured in print. (Thrift 2007)

And points out as many to justify the urgency of an affective approach to the city:

First, systematic knowledges of the creation and mobilization of affect have become an integral part of the everyday urban landscape: affect has become part of a reflexive loop which allows more and more sophisticated interventions in various registers of urban life. Second, these knowledges are not just being deployed knowingly, they are also being deployed politically (mainly but not only by the rich and powerful) to political ends: what might have been painted as aesthetic is increasingly instrumental. Third, affect has become a part of how cities are understood. As cities are increasingly expected to have ‘buzz’, to be ‘creative’, and to generally bring forth powers of invention and intuition, all of which can be forged into economic weapons, so the active engineering of the affective register of cities has been highlighted as the harnessing of the talent of transformation. (idem)

Each of these three reasons points out to the relevance of affect, although it was always a constant of the urban experience, it is now, more than ever, prone to a proposed activation (often manipulated) and is getting closer to the networks pipes and cables that provide the basic mechanisms and root textures of urban life, becoming as a set of binding elements and relay working continuously establishing new biographies and emotional topographies, “com açúcar, com afeto” (in English, with sugar, with affection) as Chico Buarque composed.

## 2.4 What Is or Can Be Affect in the Construction of Place?

To progress we need to answer this question. The problem is that there is no stable definition of affect. Affect can mean several things that are normally associated with words like emotion and feeling, and the consequent repertoire of terms such as anger, shame, envy, fear, disgust, anger, shame, sadness, pain, grief, love, happiness, joy, hope, astonishment... We will follow the instructive literature review of Nigel Thrift (2007), which begins by setting aside the approaches that work with the notion of individual emotions (as found in much of the empirical research in sociology and psychology) and focuses in approaches working with a notion of emotion as motion in the literal and figurative sense, as does Giuliana Bruno (2002):

None of these approaches could be described as based on a notion of human individuals coming together in community. Rather, individuals are generally understood as effects of the events to which their body parts (broadly understood)

respond and in which they participate. In each case affect is understood as a form of thinking, often indirect and nonreflective true, but thinking all the same. And, similarly, all manner of the spaces which they generate must be thought of in the same way, as means of thinking and as thought in action. Affect is a different kind of intelligence about the world, but it is [emotional] intelligence nonetheless, and previous attempts to either relegate affect to the irrational or raise it up to the level of the sublime are both equally mistaken. (Thrift 2007)

Thrift considers four approaches (and respective epistemologies): affect as a set of bodily practices that produce visible behaviours (phenomenology and hermeneutics); affect as drive (psychoanalysis); affect as the property of the active result of an encounter (Spinozo-Deleuzian); and finally affect as a universal expression of emotion (Darwinian).

“Each of them depends on a sense of push in the world but the sense of push is subtly different in each case. In the case of embodied knowledge, that push is provided by the expressive armoury of the human body. In the case of affect theory it is provided by biologically differentiated positive and negative affects rather than the drives of Freudian theory. In the world of Spinoza and Deleuze, affect is the capacity of interaction that is akin to a natural force of emergence. In the neo-Darwinian universe, affect is a deep-seated physiological change involuntarily written on the face.” (idem)

But how can we think the activation of affect through sound if these notions seem to imply different tracks and even different ontologies? Thrift begins by addressing the four changes in the affective tone of the (Euro-American) cultures that are redefining the exercise of power in the transformation of the urban landscape: the way that seeks to make affect an increasingly visible element; on its continuous mediatization; in the growth of new ways of assessment based on sensory records; and, finally, in the design of urban space. This research is mainly interested in the last two, being the first two in some way involved in these latter.

The works of Heidegger, Merleau-Ponty and Varela show how the structure of the expectation of the world (its background, where sound as definitely something to say) is configured by bodily practices that have complex genealogies. More recent work has contributed to this understanding, emphasizing the degree to which these bodily practices rely on emotions as a vital element of apprehension of the world by the body. The embodiment space is expanded by a fleeting but crucial moment, a preconscious frontier in constant motion, and emotions are a vital part of the anticipation of this moment by the body. We can thus understand emotions as a way of body thinking (Le Doux 1997; Damásio 1999, 2003).



It derives a microbiopolitics of the subliminal: the ability to operate the small gap between action and cognition (about half a second) that became detectable, the amount of time that shapes the moment. Increasingly, urban spaces and times are designed to invoke an emotional response according to practical and theoretical knowledge derived and encoded by several sources ranging from psychoanalysis to the performing arts. It follows that the affective response can be projected in the spaces, often from something that seems irrelevant. Although the affective response can never be guaranteed, the fact is that this is no longer a completely random process: “It is a form of landscape engineering that is gradually pulling itself into existence, producing new forms of power as it goes.” (Thrift 2007)

From his analysis we can extract some tracks for the architectural theory and practice that we seek to illuminate: corporeal because it uses the sensitive evidence we have learned since childhood as cultural signifiers of intensity, embedded in time and in space, resisting the paradigm of reading-writing-text but still intelligible to an awoken audience, as various forms of (e)motion, and subliminal because it operates in the gap between action and cognition as a kind of visceral shorthand only possible in small spaces and subliminal times. As an example of visual approach that seems to follow these premises we may consider the Butterfly House by davidclovers in Poyntelle, Pennsylvania (USA), seeking an empathetic relationship with the context. This project can be interpreted as a manoeuvre of phenomenological survival that questions the notion of ‘self’ and ‘other’, the natural and the artificial, involving the user in the process of construction of meaning through a set of optical effects that generate three-dimensional visual ambiguities.



Figure 2. Butterfly House render

Thrift ends, drawing as a path to follow (among others) the work resulting from alliances between the social sciences and the arts that is leading to the formation of a new type of cultural engineering: “The marriage of science and the arts is often called ‘engineering’ and this seems to be the right term for the kind of theoretical-practical knowledges that are

now being derived, ad hoc knowledges of the ad hoc which can simultaneously change our engagements with the world.” Is this the crux of the matter: how to intensify our engagement with the world without modifying it? For Thrift, the answer lies in the new ecologies of belonging that transcend the social and have a performative bio-logic: “I have tried to begin to show that the challenge of affect is, at least in part, a challenge to what we regard as the social because it involves thinking about waves of influence which depend upon biology to an extent that is rarely recognized or theorized in the social sciences.” (Thrift 2007) Consequently, a new and fertile field is emerging where the affect practices can be understood and worked. This field is at the intersection of bodily practices and technology and results in the reinvention of several space crafts, among which naturally stands out the practice of architecture, in particular its aural dimension, we seek to address here.

### 3. Weak Architecture: Strong Affect

Architecture in every form or type is an experience, thus dealing with phenomena that are, as defined by Seamon (2000): “things or experiences as human beings experience them.” As experience, according to Steven Holl (1993), involves a certain vulnerability: “[e]xperience of phenomena – sensations in space and time as distinguished from the perception of objects – provides a ‘pre-theoretical’ ground for architecture. Such perception is pre-logical i.e., it requires a suspension of a-priori thought. Phenomenology, in dealing with questions of perception, encourages us to experience architecture by walking through it, touching it, listening to it.” Architecture involves an opening not only to the sensorial realm, but also to the possible revelation of meaning with ontological implications. This revelation is interpreted differently from individual to individual. To deal with this open and plural ontological significance, Gianni Vattimo (1983) introduced the provocative notion of ‘weak thought’ (il pensiero debole).

Behind the propositions of this phenomenology is an interpretation of contemporary cultural conditions. We live a fragmented reality of overlapping virtual and ‘real’ times that is presented precisely as juxtaposition: a discontinuity, something that is in complete contrast to a single, unique, closed and complete system. Vattimo claims that a lot of the gen-



erally accepted certainties that have sustained our monolithic culture are not certainties at all. He says that, in order to see them as they are, we need to find a type of ‘weak thought’ whereby our strongest and most basic intellectual assumptions are dissolved from within and replaced with a more flexible set of possibilities, which we should avoid moulding into yet another fixed and static foundation for thought: “[w]e shall no longer be conditioned by a single image, a single interpretation. [...] one can no longer say that there is a golden number, an ideal measure that can be used in the construction of buildings or the planning of cities, nor even that there are basic natural needs, since it is increasingly absurd to try to distinguish them from new needs induced by the market and therefore superfluous, not natural [...]” (Vattimo 1988). Vattimo argues that traditional metaphysics has privileged ‘strong thought’ in the form of ‘reason’ and, following nihilistic thinkers such as Nietzsche and Heidegger, advocates instead the ontological as a form of ‘weak thought’, where Being itself becomes an “unnoticed and marginal event”.

Architecture is traditionally associated with narrative, based in a formal logic of coherence and legibility, causal, linear, visual, that facilitates understanding but reduces the complexity of the experience. Mystery, the instrument of enhanced engagement and affective density is subtle, open, haptic, and necessarily improbable except for those who experience it, for which it becomes inevitable. Here is the fundamental difference of the approach we propose here. The question is not only the information – “natural elements, figurative art, or ornament” (Salingaros and Masden 2006) – nor its organization, but the way it presents itself: the experience of mystery, in architecture as in theology, “as of nudity, often muteness, fragility, doubt, silence and night; is an experience of not knowing, not seeing, not having the power... It is a repeated no that paradoxically ends up becoming a meeting place.” (Tolentino Mendonça 2012) After all the same essential fragility that nature manifests at birth, as recalls Tarkovsky in *Stalker* (1979):

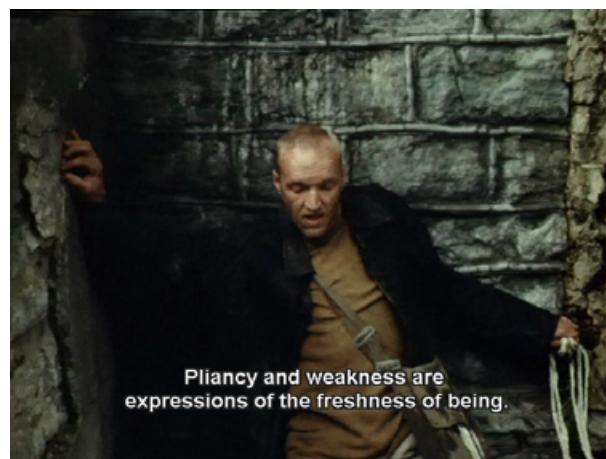


Figure 3. *Stalker* snapshot

Pallasmaa (2000) says our culture aspires to power and dominance and this ambition also characterizes western architecture, an architecture that seeks a strong image and impact. This approach to architecture does not respond to the need of mystery referred above, which results in emotional and hence existential enrichment of human life. Vattimo introduced the notion of 'weak ontology' and 'fragile thought' (with affinities with Goethe's "delicate empiricism") that identifies the need of the effort to understand the meaning of anything through a prolonged empathic contemplation based in direct experience. In this line we can also speak of a 'subtle' or 'weak' architecture or, more precisely, an architecture of weak structure and image. While the first – strong – wishes to impress through a singular exceptional image and the consistent articulation of form, the architecture of weak image is contextual and responsive, is more concerned with the actual sensory interaction than with idealized and conceptual demonstrations.

Ignasi de Solà-Morales was one of the first to project the Vattimo's ideas in the reality of architecture in an essay entitled "Weak Architecture" published in 1987 where he offers a theory of architecture after the crisis of the modern project, calling it 'weak architecture', in reference to Vattimo's 'weak thought' that fits the loss of the plea and the desire of representation: "La interpretación de la crisis del Proyecto Moderno sólo puede hacerse desde lo que Nietzsche llama "la muerte de Dios", es decir, desde la desaparición de cualquier tipo de referencia absoluta que de algún modo coordine, "cierre", el sistema de nuestros conocimientos y de nuestros valores, a la hora de articularlos en una visión global de la realidad." (Solà-Morales 1987: 72-73) The end of the classical period, of the vision of a closed and complete universe as if it was a finished whole. A universe where there was no place for the diversity of time, the Big Bang and Darwin's evolution.

Weak architecture is built, therefore, on the transition from an 'enlightened' culture, in which the 'enlightened' architect expresses the order of the world through architectural form, to an 'existentialist' culture, in which each individual constructs his own reality based on experience. This 'individualization' of experience, confirmed by neurosciences, allows an approach to the initial conjecture of this work: the affective role of soundtracks in the construction of place.

Other features of weak architecture are its decorative and monumental condition. Decorative as to what is accessory and does not requires an attentive reading because it emerges from the periphery, the surroundings, the atmosphere. In this sense, it is diffusive and becomes the opening that enlarges awareness. Monumental, not as a representation of the absolute, but in the sense that Foucault gives to it of trace or resonance. Solà-Morales develops these ideas based on concrete works of artists like Duchamp and Sierra, and architects

as Jujol, Hoffmann and Melnikov, defending the aesthetic experience as the more relevant model of a weak construction of reality. The art world, which includes architecture, appears as a kind of reality reserve that can feed on humans. It does not intend to be a central experience from which one can deduce the organization of all reality, but be produced in a subtle, peripheral and fragmentary way, with the ability to insinuate, rather than determine, a more intense and deeper understanding of reality.

Another notion that brings us to the concept of weak architecture is the Deleuzian fold telling us that the subjective and the objective are not distant fields and sometimes intersect, giving rise to folds of the same reality. And that's very enlightening to this approach to architecture because the encounter occurs precisely when the time of the subject and the time of the object meet, like a wrinkle in their own journeys, a co-motion, a moment of poetic and creative intensity. This set of the precariousness of the event and the extemporaneous folding of reality can only be decorative. In its most common sense, the decorative is not essential, is not substance but 'just' accident. Solà-Morales outlines it like that which does not want to be central, not to impose itself. This recognition of the tangential value, of a certain fragility, is possibly its condition greatest elegance and its strength. It's like the sound of the bell after ringing. It has to do with the taste of poetry after reading it, the savour of music after listening, to the pleasure of architecture after experiencing it: "Es la fuerza de la debilidad. Aquello que el arte y la arquitectura son capaces de producir precisamente cuando no se presentan agresivas y dominantes, sino tangenciales y débiles." (Solà-Morales 1987: 85)

We can identify, even before 1980, some examples of architecture capable of reproducing the conception of weak thought: Álvaro Siza's bank buildings and Frank Gehry's house in Santa Monica (previous image) are references to consider. In these works we see an acceptance of the precarious relationship that architecture has with the physical and social environment that dispels the modernist heroism and facilitates a sort of convalescence in the fragmentary. These fragments constitute themselves precisely as material inscriptions of possible inconsistencies of the milieu. Siza (1980) says: "an architectonic proposition whose aim is to go deep [...] can't find support in a fixed image, can't follow a linear evolution. [...] Each design must catch, with the utmost rigor, a precise moment of flittering image in all its shades, and the better you can recognize that flittering quality of reality, the clearer your design will be. It is the more vulnerable as it is true."

The problem identified by Siza (1980) remains present, and Yaneva and Latour (2008) recognize it: "the problem with buildings is that they look desperately static. It seems almost impossible to grasp them as movement, as flight, as a series of transformations." We perceive the world as a process, constantly changing, and we cannot not reach any higher level of

consciousness and sense of place without grasping this dynamic. Only then we are aware of ourselves, the world, and the constancy of this inevitable and mysterious relationship. It is this dynamics that architecture should reveal, allowing the user to understand his deeply personal experience of space and, from there, build his place in the world. We need, therefore, to conceive an architectural device that, unlike Marey's 'photographic gun', transforms (the vision or sensation) of something seemingly static in a multisensory synthesis of its flow, an essentially projective instrument, imaginative, cinematic, something as Giuliana Bruno's (e)motion picture, which enables intimate experiences open to multiple interpretations: "a polyphonic instant in the heart of the chaotic metropolis." (Solà-Morales, 1992)

It is precisely in cinema that Juhani Pallasmaa (2000) will fetch the necessary analogies, notably in the films of Tarkovsky or Antonioni where the 'weak' narrative, based on ambiguity and improvisation, creates an intentional distance between the image and the story with the objective of weakening the logic of the narrative, creating an associative field of images that arouses strong personal interpretations. Andrei Tarkovsky's *Stalker* (1979), for example, takes us on a journey of inner discovery where is more important the insinuating and mysterious path, than the place where it gets. Also on weak architecture what matters is the journey because that's where we can find meaning. We know the starting point and we have an expectation of the arrival, it is nevertheless along the route that we can be distracted and, in this mode of peripheral perception and expanded awareness, build our own place in reality. This process can happen in the city by applying subtle strategies, with minimal need for physical intervention, suggesting to the user a new gaze, diffuse, involved, so that it ceases to be an external element and becomes a participant, accepting a moral responsibility in the progression of events.

No other filmmaker of the modern era has created such indelible images of the urban universe and, with such a deliberate ambiguity, recalls in its audience such intense perceptions about what moves his characters as Michelangelo Antonioni (Samuels, 1972) who says: "We know that under the image revealed there is another which is truer to reality and under this image still another and yet again still another under this last one, right down to the true image of that reality, absolute, mysterious, which no one will ever see or perhaps right down to the decomposition of any image, of any reality." With a background in architecture, obsessed with the appearance of the contemporary city, Antonioni was interested above all in the presence of figures in urban or desert landscapes, and in no other film this clearer than in *The Passenger* (1975). What looks like a thriller is just the structure, because the dense and real suspense is actually the imaginary hook that leaves us oscillating between issues of identity, the riddle of existence and solitude. The actions on the screen are the medium

through which the images unfold. Actors and plot are parts of the scenario. The atmosphere overrides everything.

In short, weak architecture is not concerned with reinventing form or function but in fragmenting spaces to enable the possibility of an imaginary interpretation that may take it to be transformed in personal images. The soundscapes that constitute our aural experience of the city are certainly important in the process of weakening architecture. In the next section we will identify two conceptual tools that can be used for this to happen.

### 3.1. Ambiguity and Improvisation

Kracauer (1964) considers the volubility of the city as a starting point for improvisation and consequent appropriation, making it a good yardstick to measure the value of a city: “The value of cities is determined on the basis of the number of places in them that are conceded to improvisation.” The decomposition or fragmentation of spaces contains within it the possibility of an imaginary interpretation, which may lead to its transformation into personal multi-sensory images. Conversely, a city without ambiguities or tensions has no social or aesthetic value. This is a radical philosophical and theoretical outcome of a proposal, which takes the general characteristics of the cities of southern Europe as a starting point: “They admittedly are purposefully designed, with tracks, cars, benches, and cathedrals. But invisibly spread fingers plunge into the organism, separating all that belongs together. The whole is dismembered into tiny pieces, and doubts are raised concerning its totality. Nowhere are the places of rupture so frequent as in the cities of the south.” (Kracauer, 1964)

Neurosciences research reinforces this direct relationship between ambiguity, improvisation and the construction of place. According to Zeki (2006), our brain has a biological need to increase its neural efficiency and tries to satisfy it on a continuous quest for knowledge about the world. To make this activity feasible it must trivialize the visual event because, as refers Zeki, “the brain is only interested in obtaining knowledge about those permanent, essential, or characteristic properties of objects and surfaces that allow it to categorize them.” Thus, in its daily activities, our brain scans the world, quickly builds and organizes its images, and with its propensity for structural patterns, spends little or no cognitive energy with familiar or easily categorizable events. It’s the other events, those that it cannot easily categorize, that devotes more cognitive energy trying to classify them through memory (neural circuits that connect different parts of the brain and are activated when we recall something) or through consciousness, building new connections.

Zeki believes ambiguity is fundamental to trigger multi-sensory experiences, reading ‘ambiguity’ not in the conventional sense of ‘uncertainty’, but as a certainty, the certainty

of many equally plausible interpretations. The ambiguity in this neurobiological definition is, therefore, the obverse of constancy, it is “the ability to represent simultaneously, on the same canvas, not one but several truths, each one of which has equal validity with the others.” (Zeki, 1999) It is therefore more-than-representational, as intended by Thrift. The built environment can be an important catalyst for biological demand and weak architecture exploits it by evoking something less familiar, something that forces the brain to pause, engage its various sectors and reflect on the new phenomenon found. In short: the brain enjoys the challenge of a good puzzle, but vision is such a powerful sense that makes the use of ambiguity needed to drive significant thus memorable multi-sensory experiences.

Stephen Greenblatt, the founder of ‘the new historicism’, in his essay “Resonance and Wonder” (1990) gives special critical attention to how wonder’s boundary might be extended and made to resonate. This wonder should “intensify resonance between what’s in and what’s outside of the artefacts themselves.” The conclusion is an apology of hybrid strategies that use wonder to arouse the desire for resonance. When compared with Pallasmaa and Zeki, the difference is in the strength. While Pallasmaa and Zeki propose a weak approach based on ambiguity, Greenblatt defends a strong approach through visual marvelling. We are trying to approach a third and also subtle way through aural experience.

### 3.2. Aural Experience and Place

Let us now focus on how the aural dimension of architecture influences our sense of place by extending the premise advanced by Steen Eiler Rasmussen (1959), R. Murray Schafer (1977), and Juhani Pallasmaa (1996) that the experience of architecture involves all the senses. Although the idea is not new, only a few studies have explored the way in which multisensory architecture influences the inhabitants of a space. Because of differences both in light and sound and in the neurobiology of seeing and hearing, aural architecture is distinct from visual architecture, and each has the capacity to enhance or diminish place attachment and satisfaction.

First we must understand that sound is not merely a sonic representation of a visual occurrence. The aural produces a perspective and depth of field not possible through visual phenomena alone. Sound is all around us and is not bound by the same restrictions that limit our ability to see with our eyes. It is equal to, if not more important than, sight in creating the space in which we find ourselves. Media theorist Marshall McLuhan writes in his essay “Visual and Acoustic Space”:



We who live in the world of reflected light, in visual space, may be said to be in a state of hypnosis. Ever since the collapse of oral tradition, before the age of Parmenides, Western civilization has been mesmerized by a picture of the universe as a limited container in which all things are arranged according to a vanishing point, in linear geometric order [...] The term *sensus communis* in Cicero's time meant that all the senses were translated equally into each other. It was the Latin definition of man in a healthy state, when physical and psychic were constant and distributed in a balanced way to all sense areas. In such a condition it is difficult to hallucinate. In any cultural arrangement, trouble always occurs when only one sense is subjected to a barrage of energy and receives more stimulus than all the others. For modern Western man, that would be the visual state. By neglecting ear culture, which is too diffuse for the categorical hierarchies of the left side of the brain, Mankind has locked itself into a position where only linear conceptualization is possible. [...] Acoustic space is both discontinuous and nonhomogenous. Its resonant and interpreting processes are simultaneously related with centers everywhere and boundaries nowhere. Acoustic and visual space structures may be seen as incommensurable, like history and eternity, yet, at the same time, as complementary, like art and science or biculturalism. (Cox and Warner 2004)

By selecting and combining materials and shapes, architects embed their respective intentions in structures that we see, hear, and feel:

To communicate the artistic, social, emotional, and historical context of a space, however, architects almost exclusively consider the visual aspects of a structure. Only rarely do they consider the acoustic aspects. The native ability of human beings to sense space by listening is rarely recognized; indeed, some people think such an ability is unique to bats and dolphins. But sensing spatial attributes does not require special skills—all human beings do it: a rudimentary spatial ability is a hardwired part of our genetic inheritance. (Blessner and Salter 2007)

Besides offering sound cues that can be interpreted as objects and surfaces, aural architecture can also influence our emotions, even if we are not conscious that the aural is itself a sensory stimulus, we react to it:

We may experience a living room as cold or warm independent of its actual temperature, or a train station as lonely and forbidding independent of its actual appearance. The acoustics of a grand cathedral can create an exalted mood; those of a chapel can enhance the privacy of quiet contemplation; those of an elevator can produce the feeling of encapsulation and, in the extreme, claustrophobia. The acoustics of an open area can produce feelings of either freedom or insecurity. (idem)

Aural architecture, with its own aesthetics and meaning, complements visual architecture. Visual and aural meanings may align and reinforce each other or not. For example, we may sense the visual vastness of a cathedral through the eyes but also through the ears by enveloping reverberation, and this causes a feeling of absolute and divinity to those with religious beliefs. On the other side, imagine dining at a fashionable restaurant whose interiors suggest a sense of harmony and elegance, but whose acoustics emphasizes noise, causing stress, anxiety, and psychological tension. The visual and aural attributes are in this case conflictual and this may eventually be intentional: aural discomfort induces customers to leave sooner, which may increase the economic return for the owners, at least on a short-term perspective.

To investigate aural experience, we first need to understand the basics of listening. What does it mean to be aware of sound or spatial acoustics?

Aural awareness progresses through a series of stages: transforming physical sound waves to neural signals, detecting the sensations they produce, perceiving the sound sources and the acoustic environment, and finally, influencing a listener's affect, emotion, or mood. Notice that this conceptualization provides a continuum from the physical reality of sound to the personal relevance of that reality. (ibid.)

At one extreme, there is raw sensation. It comprises detecting an auditory stimulus that has no meaning or affect, as for example, laboratory signals composed of pure tones, transient clicks, or noise bursts. If we ignore minor physiological differences, there is little behavioural variability among individual listeners when detecting such sounds. Raw sensation is predominantly a biological property of a species.

Farther along, the next step is perception. This is essentially comprised of cognitive processes, containing the individual listener's personal history, that convert raw sensation



into an awareness that has a certain meaning. Perception integrates cultural influences and personal experiences. For example, understanding speech requires knowledge of the words—meanings and conventions specific to the culture—in order to decode sounds. Perception does not require the sound to have any relevance to life; a spoken sequence of random numbers can be perceived as linguistic objects, a sequence of musical notes can be perceived as a melody, and a sound source can be localized. Perception is predominantly a property of cultural exposure.

At the far end of the continuum, we find emotionally engaged listening. In this case, sounds produce a visceral response, a heightened arousal (Thayer 1989), and an elevated state of mental and physical alertness. Such sounds have personal meanings and associations for the listener. In some cultures, certain kinds of music are so powerful they are used to create trances, altered states of consciousness (Rouget 1985; Besmer 1983). Listening experiences have the capacity to produce overt or subliminal affect. Overt affect corresponds to strong feelings, whereas subliminal affect corresponds to subtle arousal. We are mostly interested in listening experiences that have the capacity to produce subliminal affect.

Even though a listener may clearly perceive and decode the information in a sound, the experience may produce neither overt nor subliminal affect. There are at least two reasons why listening might be experienced as irrelevant. First, the sound and acoustic space may be without meaningful content for a particular listener; there is nothing biologically relevant being communicated. Second, the listener may not be paying attention to the sound and space. Even if these are emotionally charged, you may not be engaged in focused listening; indeed, you may have tuned out altogether, ignoring all sounds while attending to daydreams. In both cases, sound is nothing more than background noise, quickly forgotten. (Blessner and Salter 2007)

Is this background noise, especially in the second case, when the listener is not paying attention, so insipid or innocuous? We need to explore the process of emotions to be able to respond to this question. How are emotions triggered? This is the question that follows and António Damásio answers:

Quite simply, by images of objects or events that are actually happening at the moment or that, having happened in the past, are now being recalled. [...] Whether “live,” reconstructed from memory, or created from scratch in one’s imagination, the images initiate a chain of events. Signals from the processed images are made available to several regions of the brain. Some of those regions are involved in language, others in movement, others in manipulations that

constitute reasoning. [...] On occasion, however, certain stimuli are ambiguous enough to activate more than one site, leading to a composite emotional state. A bittersweet experience is the result, a “mixed” feeling arising from a mixed emotion. (Damásio 2010)

In short, the triggering of emotion requires an emotionally relevant stimulus, depends on specific activation areas, comprises complex action programs involving the body, and is perceived by the subject in the form of a feeling. Furthermore, we may conclude that ambiguous stimuli trigger more complex emotions, usually less intense but more involving. This may be the potential of background sounds or urban soundtracks, as open matter of peripheral perception, in the process of weakening architecture and consequent place making.

## 4. Soundtracks

To clarify some key terms used in this paper, the adjective aural, which parallels visual, refers exclusively to the human experience of a sonic process; hearing, to the detection of sound; and listening, to active attention or reaction to the meaning, and emotions contained within sound. When you listen carefully with your eyes closed, you engage in attentive listening—intensely focusing on the sounds of life in the immediate environment. Take a moment to imagine the world from its sounds: the singing birds foreshowing the onset of spring in the park, the creaking of a rocking chair on a front porch, the laughter of children at the playground, or the sound of music piercing through the open window. Solely through sound, an entire environment, complete with memories and emotions, comes alive. Indeed, we feel included in the life of the soundscape: the auditory equivalent of a landscape. (Blessner and Salter 2007) Whereas landscapes can be comparatively static and sometimes almost lifeless, soundscapes, of necessity, are dynamic: they require animated activities to produce sonic events. In tribal societies where survival is a continuous struggle against hidden events, soundscapes are frequently more relevant than landscapes (Feld 1996).

Researchers who have studied the soundscapes of old settlements have noted that particular sonic events—soundmarks—were the auditory counterparts of landmarks (Truax

2001). Soundmarks are sounds that are unique and high status, often with important social, historical, symbolic, and practical value. The sounds of church bells, foghorns, railroad signals, factory whistles, fire sirens are examples. In many towns, only those individuals who lived within the auditory perimeter of the most important soundmarks were considered citizens of the town. Indeed, the size of a community was effectively determined by its acoustic geography—terrain features having noticeable acoustic effects, such as flat plains, dense forests, gentle hills, deep valleys, craggy mountain peaks—and by the vagaries of the local climate. (Blessner and Salter 2007)

For the purposes of this paper it is particularly important a second element of soundscapes: soundtracks. Its traditional definition is related with film: soundtrack is intentional sound that accompanies moving images in narrative film (Deutsch 2007) This does not exclude sounds that are captured accidentally (such as ambient noise most often associated with documentary footage); rather it suggests that any such sounds, however recorded, are deliberately presented with images. In our case, the definition is expanded to include the intentional sounds that accompany any environment and intensify it, the fragment of a soundscape that invites the perceiver to fill the space with his own consciousness. A soundtrack usually comprises two different (but not mutually exclusive) elements: sounds that encourage us to believe what we see, and sounds that invite us to feel something about what we are seeing. All elements of the soundtrack operate on the perceiver in complex ways, both emotionally and cognitively. The recognition of this potential to alter the viewer's reading of a film might encourage architects to become more mindful of using soundtracks, musical or non-musical sonic events, which, as we shall see below, are likely to shape the emotional environment through which the user experiences the city.

## 4.1. Sound in Tarkovsky's *Stalker*

As soon as the sounds of the visible world are removed from it, or that world is filled, for the sake of the image, with extraneous sounds that don't exist literally, or if the real sounds are distorted so that they no longer correspond with the image – then the film acquires a resonance. (Tarkovsky 1987)

Resonance and wonder are two elements particularly present in the films of Tarkovsky. These elements are articulated not only through image, as postulated by Greenblatt, Pallasmaa and Mallgrave (2011), but in the dialogue between image and sound. The analysis of the soundtrack of Tarkovsky's 1979 film *Stalker* will help us understanding how the use of sound

may create a unique perceptual awareness in an audience. Rather than attempting to reveal meanings and symbols in the film, this analysis explores how, through a sensitivity to the possibilities of sound in film, it is possible to transcend the confines of its traditional uses and enable in its perceiver the freedom to engage that allows for the individual's own sensitivity and mind to take an active role in creating a personal connection and meaning.

*Stalker* (and this is true of all Tarkovsky's films) is very much focused on the characters' intimate processes and how it is the individual who creates reality. Reality is not a predetermined set of values and rules that can be applied collectively but is constantly shifting and blurring, as the nature of the Zone itself. The essence of *Stalker* is oblique. It does not aim to clear up these anomalies, but rather to pose metaphysical questions for the viewer to engage with.

*Stalker* has something of a pilgrimage, as it traverses a path from one point to another, knowing that what is essential is the disposition and not the destination itself. This is the definition of a contemplative poetics, focused in a deed stripped of self, of fear and desire. Tarkovsky is therefore, focused on total experience, not of one part but of the whole, "a continuous examination of our perceptual awareness of the world and a continuous extension of our ability to understand the nature of that world" (Irwin 2000). This kind of examination of how we define our reality and the transience that surrounds us can be found in the films of Andrei Tarkovsky and is central to the theme of this paper. His films feel as if they have led us into Malevich's 'desert' and left us where all that was familiar and known has disappeared. Underneath this, however, is offered the opportunity to engage with the multidimensionality of reality. The soundtracks offer a complex and multidimensional experience of his films and create an intensified experience of listening that is very unusual within cinema. We will be focusing in particular on the use of sound in *Stalker*, and how its uses challenge the perception of reality and enable the complete involvement of its listeners.

By dissecting and analysing *Stalker*, it is possible to understand the methods, processes and objectives that facilitate and inform a deeper insight into how the sound is functioning and the affect it has on its audience. Tarkovsky uses sound in order to define place, whether that be literal, psychological or existing as some kind of parallel reality. He allows sound the time to evolve, develop and build the space, often before the viewer is aware of what is occurring visually. It is also his use of sound that creates a concealed precision and intricate development within the progress of the film, allowing individual soundscapes time to unfold, defining what is apparently obvious and/or revealing what is hidden from the auditor. The experience is often one of moving (sometimes noticeably, sometimes imperceptibly) between

'causal listening' and 'reduced listening'<sup>4</sup>. It is the blurring of the two modes that Tarkovsky manages to manipulate so effectively. (Smith 2007) This is attained by a complex amalgam of strata, where sound and music are rarely illustrative, always retaining the feeling that they are operating as more than representation as proposed by Thrift in his non-representational theory.

We can find here some affinities with Cage's use of noise and consider it as the decorative dimension of weak architecture: a peripheral element of perception. Kim Cascone, assistant sound designer on David Lynch's *Wild At Heart*, compares Lynch's work to *Stalker*. He observes that Lynch creates a sound world that is not contained within the screen but one that forms a dimensional space around it:

off-screen evocations of a type of space always existing beyond our periphery, just out of reach or dismissed as background noise. This is how their work achieves viral contagion: it lodges itself into your psychic membrane and starts to blur your dreams with real life. This blurred boundary is where the most interesting cinematic experience takes place, and awaits those curious enough to explore them. This is how film sound does its most damage, how it permanently infects the host body and alters our perceptual experience of life. (Cascone 2003)

In some parts, the soundtrack is so resonant and expressive that the absence of music is not missed in the development of the dramatic tension. The richness of dynamics and textures effectively acts as score which allows the diegetic sounds space to invoke their own innate musical qualities. A good example is the scene of the trolley train journey. The train can only be seen when the characters first sit down, we do not see it for the rest of the scene. The sound is the only evidence of its presence. The absence of the visual here plays a dual role. The close-up on the faces of the characters makes us overlook the surroundings and consequently the physical journey becomes an inner journey. In addition, separating the sound from its source over the period of the journey takes the auditor through a process that starts in the mode of causal listening moving to reduced listening. Here, as in *Stalker's* house, the sound of the environment is practically non-existent. The effect is to draw the viewer further and further into the inner worlds of the characters coaxed by the mesmerizing repet-

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4. Causal listening consists of listening to a sound in order to gain information about its cause (or source) and the reduced listening mode 'focuses on the traits of the sound itself independent of its cause and of its meaning (Chion 1994).

itive sound of the handcar. The delicate and precise balance between natural environment and the musique concrète leads to an ambiguity of time and space that makes the scene so profoundly effective. As with the trains and music heard in Stalker's house, the boundaries between diegetic and non-diegetic are being sensitively explored. A very careful blending of diverse tonal and distorted organic elements clouds the distinction between natural sound, sound design and music, encouraging the audience to question the very nature of the reality presented to them on the screen and to viscerally join the characters on the beginning of their "journey into the heart of darkness" (Peachment 2001: 1004).

It is largely through the absence of sound that the Zone evokes such a haunting and isolated sensation. Tarkovsky achieves this not through silence but by calling attention to certain sounds such as the cry of a cuckoo (a recurring aural theme in several of his films) or a ghostly breeze with no visual reference. This stripped-down soundtrack encourages a much stronger emotional impact as richer surreptitious sound elements periodically infiltrate the barren landscape, acting more as a metaphorical representation of the psychological state of the three characters and/or the abstracted consciousness that is the Zone itself. The source of this sound is unseen and therefore belongs to the realm of reduced listening. This use of sonic representation acts as an illusive score, whilst still allowing the sound to feel very much an extension of space. Again there is a pause within the story where there can be reflection, the use of abstracted sound raising questions and enabling connections that do not need to be answered or revealed but allowing for the visceral connection to something parallel to the immediate experience, something outside of human intellectual understanding. (Smith 2007) Using sound in this way also encourages reduced listening. Although we know the cause of the sound, separating the sound and placing it on an alternative image produces a heightened perception of both visual and aural space. The innate qualities of each sound are allowed to inhabit their own dimension and be experienced more viscerally. The image is therefore imprinted with a poetic quality. This visceral connection with sound is so strikingly different that there is the feeling of catharsis – the sense of 'hope' that Tarkovsky regarded as so important in his filmmaking.

The film's sound closing is like the opening, we can hear the sound of a train passing noisily and see vibrating some objects on the table, Beethoven's "Ode to Joy" enmeshed on the edge of perceptibility. The initial interrogations remain. What is real and what is illusion? Tarkovsky definitely leaves us in Malevich's desert. The use of discontinuous and inconsistent sounds found in Stalker leads to what Slavoj Žižek called 'ontological undecidability': "It seems as if Nature itself miraculously starts to speak, the confused and chaotic symphony of its murmurs imperceptibly passing over into music proper" (Žižek, 1999). This is the space of

affect, of visceral connection that, through alienation, generates the bond of appropriation by making us decompose the anonymous zone and build a proper place.

Although Tarkovsky is very meticulous with all elements of the sound in his films – music, dialogue, diegetic and nondiegetic sounds – it is in the spaces he leaves that allows these other elements to play out their idiosyncratic, hypnotic patterns. “Silence is where he hands over completely to the audience. We are invited to fill the space with our consciousness. This is the space of dreaming. Through his precision of structure in his film-making he invites us into a meta-physical world with no boundaries” (Pangborn 2006) (Smith 2007)

Traversing the sound tracks of Tarkovsky’s cinematic world leads the perceiver into a background of contradictions and abnormalities that will lead only to frustration and confusion, if sought to be understood through logic or rational thought. However, if the perceiver allows his conscious mind to renounce control and construct an intuitive connection to the film, then it makes the way for a surprisingly fulfilling experience.

## 4.2. Experiment #1: Walkie Talkie, Lisbon, 1999



Figure 4. Walkie Talkie view of installation.



*Walkie Talkie* is the title of a sound installation executed as part of idealities, an urban intervention realised in the context of the bicentenary of Almeida Garrett<sup>5</sup>'s birth. The project idealities brought forth tendencies and suggestions that, in either an oblique or explicit way relate to the garrettian cultural mould. Much like Garrett himself, who cultivated and devoted a diversity of very distinctive discourses, from the poet to the playwright, from the journalist to the politician, from the novelist to the historian, idealities refuses the use of monologues and offers an unexpected and subtly interactive feature.

The experiment was located in Chiado, an area of the city of Lisbon that was the stage of one of the most violent fires of its history on August 25, 1988. The fire had its initial origin in Rua do Carmo and then propagated to Rua Garrett, where the installation is located, and only thanks to the great efforts made by the fire-fighters was it possible to avoid its propagation to the surrounding areas, all of them also historical areas. This fire caused the destruction of 18 buildings, some of which were quite emblematic of the commercial activity of the city: the Chiado Stores, the Eduardo Martins Store, the Ferrari Pastry Shop, the Batalha Shop, and other shops dedicated to traditional commerce. Many offices and houses were also destroyed. It is estimated that about 2,000 people lost their jobs.

*Walkie Talkie* was conceived as a catalyst of urban rehabilitation and was executed at the end of the long process of reconstruction lead by Álvaro Siza. The site – the entrance of the inner courtyard of one of the blocks redesigned by Siza – is a space related to all others in a way that neutralizes or inverts the circuit of existing relations. It is a non-place, the volumetric negative of built masses that surround it and negation of the existence in its surroundings. There is a place, but the place does not exist; and this absence of a support that cannot translate into absent support nor absence as support, provokes and resists all binary or dialectic determination, leaving room for the interpretation of an emanating composition: the trans-site par excellence. The intention of this installation was to stimulate a sensory awakening, unconscious at first, and then conscious, re-creative, playful even, persisting in the perception of space the intensity of the lived moment. The character of the space and the conceptual premises of the project suggested the creation of a subtle spatial element that would function as an escape point from Chiado (and from ourselves) to a physical (the courtyard) and psychological (the self) inner journey.

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5. João Baptista da Silva Leitão de Almeida Garrett, Viscount of Almeida Garrett (February 4, 1799 – December 9, 1854) was a Portuguese poet, playwright, novelist and politician. He is considered to be the introducer of the Romanticism in Portugal. He is regarded as one of history's greatest romantics and a true revolutionary and humanist.





Figure 5. Passer-byes looking into the courtyard.

The apparatus comprised one shotgun condenser microphone (Sennheiser MKH 70), one digital audio delay processor (DBX Digital Dynamics Processor), one microphone pre-amplifier (Tascam MA-8) and two outdoor speakers. The microphone was discreetly installed 3 meters up the street between two balconies (Figure 5) and captured the sounds of the area of the sidewalk beneath it. This sound was then delayed 3 seconds and produced in the speakers subtly installed in the passage to the courtyard. Any passer-by would therefore be able to hear the specific soundscape he had perceived (or not) three steps before, on her/his way, walking down the street.

This provided an experience of *déjà-écouté*, a surprising echo or resonance coming from an unexpected location, something similar in aural terms to the visual sensation of *déjà-vu*. Observations registered 83% of the passer-byes slowing their pace (or even stopping) and gazing through the passage into the courtyard (image below); 27% of these eventually stepped into and crossed the space of the courtyard. Separating the sound from its source takes the perceiver through a process that starts in the mode of causal listening moving to reduced listening. The effect is to draw the perceiver to an ambiguity of time and space that makes the event so profoundly effective, encouraging him to question the very nature of the reality presented and to viscerally engage on a “journey into the heart of darkness” similar to the one performed by the characters of *Stalker*.

### 4.3. Experiment #2: Soundtrack, Guimarães, 2012



Figure 6. Soundtrack's view (photo: Hugo Santos Silva).

Soundtrack is an ephemeral installation that was presented in Guimarães, European Capital of Culture, from December 19 to 23, 2012. Inside a derelict shop, a small set of tier benches was assembled for an audience of 20 persons. The heartbeat sound of the audience is captured and amplified inside the shop while they watch the motion of the city and the public space.

The pocket auditorium was installed in Largo 25 de Abril, a small and retracted square in front of one of the main public spaces of Guimarães – Largo do Toural – that was renewed in 2011, by Maria Manuel Oliveira. Soundtrack was conceived as a catalyst of re-appropriation of this public space. The site is again a banal space that doesn't have a particular story but relates with very important landmarks of the city. It is a point of passage and also a space of concealment from the urban dynamics of the main core of the city.

In a conversation with Doris von Drathen, sculptor Rui Chafes asks very suggestively: “how can a sculpture happen in space so that thus arises an opening to another world, which is actually a liberation from this everyday life?” The way Chafes raises the question suggests a certain devaluation of “everyday life” which justifies the need for an escape to “another world”, a liberating alienation, denoting a sense of pessimism or difficulty in dealing with reality.

This experiment wanted to replace this question within a new perspective: how can an intervention happen in a public space so that thus arises an opening to the world, to reality

as it is, in this “everyday life”, enabling each person to interpret and create “another world” (your reality) from it (and not in spite of it)? The “liberation” in this case does not signify being able to have, but being able to not have, waive, abdicate, the objects but not the life (or significance) contained therein, whether of «everyday» or of «another world».

Soundtrack sought a way to stimulate the individual construction of place through audio and visual experience in a strategy similar to that identified by Juhani Pallasmaa<sup>6</sup> in the films of Tarkovsky or Antonioni in which the ‘weak’ narrative, based on improvisation, intentionally creates a distance between the image and the story in order to weaken the logic of the narrative, originating a field of associative images that arouses strong personal interpretations. This is an attempt to translate this cinematic strategy into the city experience, suggesting to its users a new more involved look, so that they cease to feel and act as spectators and become full participants.

The interior space is simply defined by a gypsum board wall painted black, mirror film and a black curtain on the window, tier benches with twenty chairs, and one table. The apparatus comprised also four ECG wireless sensors (Plux), one laptop, one soundboard and two speakers. Four volunteers among the audience were invited to wear the ECG wireless sensors. These Low-noise ECG triodes are specially designed for local differential placement and make ground for unobtrusive signal acquisition. The ECG works mostly by detecting and amplifying the tiny electrical changes on the skin that are caused during the heart muscle cycle during each heartbeat. Its state-of-the-art design maximizes the sensor performance providing high-resolution signals.

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6. ‘The Diffuse Image: fragile architecture, atmosphere and emotion’ written for *Soundtrack* and partly based on the author’s earlier essay ‘Hapticity and Time: notes on fragile architecture’ (2000), published in *Juhani Pallasmaa: Encounters 1, Architectural Essays*, Peter MacKeith, editor, Rakennustieto Publishing, Helsinki, 2005.



**Figure 7.** Soundtrack's entrance and improvised auditorium with partition (photo: Hugo Santos Silva).

The performance started with the curtains closed and the typical announcement: “Good afternoon! The performance is about to start. We remind you that the use of mobile phones is not permitted, nor any type of audio and video recording. Thank you and enjoy the performance.” Then, the curtains open, enabling the audience to see the exterior space through the window. The heartbeats start to be diffused in the room, at first one by one and later mixed, generating a literally live soundtrack. The duration of each performance was approximately 45 minutes. Observations registered 8% of dropouts. This provided an experience of intimate resonance that led, in some cases, to altered states of consciousness with descriptions similar to trance.

As in the soundtrack of *Stalker*, although we know the cause of the sound, disconnecting the sound and reproducing it on an alternative image, the image of the living city, creates a heightened perception of both visual and aural space. The innate qualities of each sound, banal exterior urban sounds included, are allowed to inhabit their own dimension and be experienced more viscerally. The image of the city is therefore imprinted with a poetic quality. This visceral connection enabled by the sound is so strikingly different that there is the feeling of catharsis that leads to what we may call the construction of place.

## 5. Conclusion

Interactive sound installations such as the ones analysed in the previous section of this paper encourage the audience to become participants in the construction of place by generating, listening and reacting to sounds extracted from the everyday life and/or environment. These sounds may be found, recuperated, or remembered. This practice is based on intervening in public spaces in such a way that people's experience of the space is enhanced by its new articulation that interrogates the pre-existing space and identifies and underlines the key phrases of the language in place through the reuse of banal sounds which are normally filtered out in ordinary day-to-day life.

John Cage used two tools, in music, that may be useful in this weakening of architecture through the de/re/composition of urban soundscape: the accentuated practice of chance to arrange and select the sounds and the durations of a piece, and the introduction of noise (from the physical impossibility of silence) within a composition as an equivalent to conventional musical sound.

There is no such thing as an empty space or an empty time. There is always something to see, something to hear. In fact, try as we may to make a silence, we cannot. For certain engineering purposes, it is desirable to have as silent a situation as possible. Such a room is called an anechoic chamber, its six walls made of special material, a room without echoes. I entered one at Harvard University several years ago and heard two sounds, one high and one low. When I described them to the engineer in charge, he informed me that the high one was my nervous system in operation, the low one my blood in circulation. Until I die there will be sounds. And they will continue following my death. One need not fear about the future of music. (Cage 1961)

He took the world of noise and chance to penetrate the concert hall, following in this respect the example of Duchamp, who did the same thing in relation to the art gallery and museum. The next step was simply to leave this uncertain world and forget the sceneries of the concert, the stage, and so on. This was the theoretical foundation of happening, but also of several works on the body and on the landscape: "In Cage's cosmology (built on Asian philosophy) the real world was just perfect if we could hear, see, and understand it. If we

could not do that it was because our senses were closed and our minds full of preconceived opinions.” (Kaprow 1996)

In Western societies there is a difficulty digesting these ideas, and those who embrace them are more talkers than doers. It is here, in any case, that lies the main interest for this work of Cage’s innovations in music: these experiences can be a great invitation to the art of living, and, with this invitation, art may disappear and give way to the richness of life and everyday experience. Here’s what we propose in this interventions in public space: an opening, an introitus, an awakening of the senses and consciousness<sup>7</sup>, opening the door to an interpretation and a deeper understanding of the ordinary reality of the pre-existing space.

What happens when we are attentive to everything, particularly to routine behaviour, is that it changes. Attention transforms what we pay attention to. Just think of the most basic operations of everyday life, for example, walking. When walking on the sidewalk do you walk straight or irregularly? What is your normal speed? Do you usually cross the street diagonally? Do you look at the shop windows? Do you look at the passers-by? What part of their body do you look at first? What is the minimum distance that you keep from others? Do you hear their conversations? How many different sounds can you distinguish and identify? And how many odours?

If you want to rebuild this whole system of operations while walking, you’ll notice that they seem to take longer than they should and that everything happens due to chance, or at least nothing seems to add up. You may never have reflected on the amount of movements you do automatically or the physical sensations they provide. You could easily develop a fascination with the rhythm of your steps, the movement of your feet, the act of looking at the different colours of the eyes of passers-by. Then, realizing that everything is strange you would notice you’d just entered the territory of the familiar unfamiliar.

These events contain, indeed, the meaning of life. From the moment in which art similar to life participates in its daily source, intended to be as life, it provides an interpretation and thus a ‘meaning’. But it is not life in general that has a meaning; one cannot experience a generalization. Only life in its particular aspects can be experienced. The meaning here is

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7. The simple and classic definition of consciousness from the dictionary - the perception by the organism of his own being and his environment - allows us to easily imagine how consciousness brought human evolution to a new order of creations that would not be possible without it - the moral conscience, the social and political organization, the arts, the sciences, technology - and that are of fundamental importance in the field of urban studies. Thus, we cannot study the urban landscape nor understand it if we do not consider the centrality of human consciousness in the analysis of the interaction of the human being with his environment. Damásio (1999) defines consciousness in a enlightning way: “At its simplest and most basic level, consciousness lets us recognize an irresistible urge to stay alive and develop a concern for the self. At its most complex and elaborate level, consciousness helps us develop a concern for other selves and improve the art of life.”

not just variable and unfixd, but also inventive. It's what we add, by our imagination and our interpretation, to what we do. The artists whose artistic production processes seek to resemble life itself are, in the same way, conscious inventors of the same life that also invents them (or at least they try to be as conscious of it, as they can).

Interpreting life, is that life? Interpreting life, is that 'life'? 'Life' is simply another way of life? Am I playing with words or posing real questions about life? The life of birds, flowers and volcanoes, simply exists. But when I think of life, it becomes 'life'. Therefore lifelike art is played somewhere between the attention we give to the physical process and the interpretation. It is of the order of experience, yet, it is impalpable. Requires quotation marks like life, but loses them as the un-artist<sup>8</sup> loses art. In a nearly parallel and equally tortuous route, the 'soundtrack' may as well lose the quotation marks and be a source of meaning for the city.

It is not necessary for the true always to take on material form, it is enough that it should flutter to and fro, like a spirit, promoting a kind of accord; as when the companionable pealing of a bell rings out, bringing us some little measure of peace. (Goethe)

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8. "L'artiste expérimental d'aujourd'hui est l'Un-Artiste. Non pas l'anti-artiste, mais l'artiste vidé d'art." (Kaprow 1996). In "Education of the Un-Artist", Allan Kaprow elaborates four passwords for members of the art club: Non-art, Antiart, Art-art, and Un-art. Originally published in *ArtNews*, n. 3, pp. 34-39, 1972. The author used the version published in Allan Kaprow, *Essays on the blurring of art and life*, Jeff Kelley (Ed.), University of California Press, 1993.



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