The sensory fabric of urban ambiances

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Introduction

The domain of urban ambiances has developed apace over the past twenty years*. Disciplines as diverse as aesthetics, architecture, ethnography, environmental psychology, microsociology, cultural geography and urban studies have all come round to the idea of ambiance in order to describe and analyze the sensory fabric of the urban world more effectively (Amphoux, Thibaud, Chelkoff 2004). Ambiance cannot simply be assimilated to such concepts as the environment, landscape or physical comfort, close as it may be to them. Rather, it involves a socio-aesthetic approach that attunes the researcher to everyday urban atmospheres. In a nutshell, an ambiance can be provisionally defined as a space-time qualified from a sensory perspective. It emerges as an alternative way to bridge the sensate, spatial and social domains.

Four main features distinguish this multidisciplinary research field. To begin with, the notion of ambiance posits the unity of the senses. Hence, any ambiance involves all the senses at once (hearing, seeing, smelling, touching, tasting, moving…) and gives rise to multisensory experiences. Secondly, an ambiance expresses an "affective tonality" that draws upon the sensibility of city dwellers. In other words, ambiance gives access to the various moods and emotional tones of urban life. Thirdly, the field of ambiance research tends to distance itself from normative approaches that aim to identify what is either annoying, comfortable or beautiful. It allows us to describe the whole spectrum of sensory experience without necessarily evaluating what is at stake (for example, to say that an ambiance is climactic or monotonous does not mean that it is positive or negative). Finally, ambiance foregrounds the interaction between the properties of the built environment and the lived experience of city dwellers. It asserts the activity of inhabitants and the role of social practices in the sense people make of the urban world.

As intimated above, as soon as we attempt to define the notion of ambiance, we are confronted by the problem of perception. But what model for deciphering perception can be used to circumscribe and clarify the notion of ambiance? Conversely, in what respects do architectural and urban ambiances lead us to adopt new ways of addressing the issue of everyday perception? The aim of this paper is to highlight the close links between ambiance and perception. We shall seek to demonstrate that one of the key imperatives for the notion of ambiance is a reappraisal of the situational, intersensorial and practical character of perception.

1- Ambiance as the quality of a situation

We should start by pointing out that an ambiance-centric approach places the perceiver at the heart of the world he or she perceives and puts the emphasis on its all-encompassing nature, rather than any direct face-to-face relationship. (The word "ambiance" itself comes from the Latin *ambire* which means to surround or go around.) If the ambiance surrounds us, it necessarily results in "perception from the inside" and makes it difficult for the subject to step back and observe. As everyday speech suggests, we may be part of the ambiance or we may feel it, but we cannot contemplate or observe it from a distance. In other words, ambiance puts us in immediate contact with an overall situation and consequently involves an *ecological approach to perception*. Perception cannot be dissociated from the concrete conditions in which it occurs. It is necessarily bound up with the built environment, multiple stimuli, and the ongoing actions that render it possible. In short, in normal everyday life, when I perceive, I am always perceiving from somewhere, exposed to my surroundings and in the process of doing something. Far from being simply epiphenomena, these contextual dimensions are an integral part of perceptual activity. As a result, if we proceed in an exclusively analytical fashion, treating parameters consecutively - or separately - we cannot grasp what makes a particular situation a consistent, unified whole. Having accepted this, not only do we need to recognise the heterogeneity of the conditions affecting perception, we must also ask how the various factors are integrated into everyday situations. How then are we to conceptualise the unity of a given situation? We contend that it is ambiance that blends and unifies the many components of a situation. It proceeds from an overall movement that gives each situation a specific "look."

To develop this initial hypothesis we must start by specifying what we mean by situation. The philosophy of experience developed by John Dewey will guide us in this matter. Not only did he write extensively on this notion, but his aesthetics appears particularly relevant and useful for a theory of ambiances (Thibaud 2004). According to Dewey, situations form the basic units of all types of experience and can be defined as the "environing experienced world". "What is designated by the word 'situation' is *not* a single object or event or set of events. For we never experience nor form judgments about objects and events in isolation, but only in connection with a contextual whole. This latter is what is called a 'situation' " (Dewey 1938: 66). A situation, therefore, cannot be reduced to a series of isolated or separable elements. It necessarily involves a unity that gives meaning to the whole and its parts.

Defining a situation in terms of the overall context raises the question of what unifies a situation. To answer this question Dewey introduced the notion of "pervasive quality" (Dewey 1931). This notion is particularly important and is perhaps best grasped as another way of referring to ambiance. The three components used to define pervasive quality certainly all concern the notion of ambiance itself.

Quality as unity
First, for a situation to exist, all the components of a context must be integrated within

a single quality, or else the experience would be lost in a series of confused, inconsistent perceptions. Empirical philosophy makes a distinction between primary (form, number, movement, solidity) and secondary qualities (colour, sound, smell, taste). But Dewey highlights what Santayana referred to as "tertiary qualities". Whereas the first two categories refer to specific aspects of an experience, the third applies to the experience as a whole. In other words pervasive quality ties the components of a situation into a consistent whole and gives each situation a specific character. As Dewey describes it, any situation is both "qualitative" and "qualificative": qualitative in the sense that quality "constitutes in each situation an individual situation, indivisible and unduplicable"; qualificative in that the very same quality "penetrates and colours all the objects and events materially involved in the experience" (Dewey 1938: 68). This first point concerning pervasive quality could equally well apply to ambiance. An ambiance may be described using a single qualifier which does not apply to a specific component of the situation, but rather to the situation as a whole. We say that an ambiance is "happy" or "sad", "frightening" or "playful", "pleasant" or "depressing," and so on. From this perspective, the ambiance cannot be reduced to a sum of isolated objects, discrete signals, successive sensations or individual behaviour patterns. It unifies the situation and colours the environs.

Quality as mood

Secondly, pervasive quality is experienced in its immediacy, before being conceptualised or analysed. It consequently relates to the concrete character of the situation, the part we live and breathe. As such, knowledge of the experience matters less than the actual experience itself. By emphasising this distinction, Dewey rejects an overly intellectual approach that reduces reality to the object of knowledge or cognition. Pervasive quality involves the pre-reflective dimension of the experience, an intuitive way of grasping reality (Dewey 1934). In other words, this quality operates on a "lower level" than articulate language and is more a matter of comprehension than interpretation. It belongs to the realm of immediate feeling and bodily sensation and gives primacy to the aesthetic side of ordinary experience. Here again, this argument is reminiscent of what we might say about ambiance. In everyday language, we "experience" or "feel" an ambiance rather than "perceive" it. It is always charged with emotion. By placing us in a certain bodily and emotive disposition, it reminds us that perception is never disembodied or dispassionate. In other words, ambiance can under no circumstances be reduced to a simple act of interpretation. It confers value on what is perceived and expresses the prevailing emotional tonality. In addition, we sometimes say of an ambiance that it "gets inside us", or that we are "caught up in it". If an ambiance pervades a space, we can hardly localise or circumscribe it by assigning it a specific place and setting clearly identifiable limits. For example, although it is impossible to accurately circumscribe a fragrance or a warm area, this does not prevent us from feeling their environing presence. It is a diffuse presence that is perceived with varying degrees of intensity depending on what precedes and what follows it. In a nutshell, if ambiance relates to

the immediate, pre-reflective character of experience, this is because it is invested with a logic of "vagueness"[1] that is very distinct from the logic that applies to the world of material objects.

Quality as a dynamic process

Thirdly, the qualitative character of the situation is fundamentally temporal and teleological. A situation represents the solution to a practical problem and must therefore be the subject of an inquiry, i.e., a process transforming a problematic or ill-defined situation into one that is clearly defined. But the inquiry should not be seen as a strictly intellectual or cognitive activity. It is based on a series of perceptual actions and drivers (selection and configuration of the items relevant to the current action, adjustment and coordination of gestures, etc.). It initiates the transaction between an organism and its environment and must provide for the transition from an initial state of imbalance to a final state of balance. In this respect, pervasive quality is precisely what motivates the inquiry and gives internal consistency to the situation, conferring meaning and a clear direction. To paraphrase Dewey, the inquiry is the controlled or directed transformation of an indeterminate situation into a situation that is so determinate in its distinctions and constituent relations that it converts the components of the original situation into a unified whole. The original, indeterminate situation is not only "open" to inquiry, it is open to inquiry precisely because its constituent components do not hold together. In contrast, the determinate situation that marks the end of the inquiry is a situation, a closed and finite "world of experience" (Dewey 1938). So pervasive quality is not only a question of passive reception but also involves a course of action. It is neither localised in the perceiver's organism nor in the objects of the environment, but applies to the situation itself, i.e., to a domain defined by the interaction between an organism and its environment.

As we shall explain in greater detail below, ambiance is related to the manner in which we act and behave. However, for the time being, we shall merely demonstrate that it also results from a dynamic that contributes to ongoing social activity. When we say that an ambiance is "setting in", "catching on", "in full flow", "breaking up" or "deteriorating", we are not only revealing its temporal character, but also stressing the fact that it emerges and develops in a certain way and in a certain direction. As such, an ambiance is not necessarily a stable and invariable state, but a dynamic process comprising different consecutive phases. But once again, the dynamic of the ambiance is part of an overall movement that expresses and conditions the way we behave and act collectively. Depending on the state of the ambiance at any given time, the situation will be more or less tense or relaxed, conflicted or consensual, problematic or straightforward. By shaping ongoing activities, the ambiance guides the manner in which a situation unfolds. The second part of the paper will discuss this point.

To sum up, this exposition of the theories of John Dewey has helped us formulate our first proposition regarding ambiance. Drawing on the notion of pervasive quality, we define ambiance as the *quality of the situation*. In this respect, perceiving does not just mean interpreting the world, it also involves *integrating a situation* – that is, it

requires us both to pull the various components of a context into a consistent whole and to get involved in activities from a practical standpoint.

2- Ambiance as a motor stimulation

In this second section, we wish to emphasise that the perceiver is an actor in the world he or she perceives. Subjects are always engaged in situations that demand their attention and mobilise their action to a greater or lesser degree. Ambiance triggers a certain form of tension in the body that requires action and this underpins a *praxeological approach to perception.* Several recent publications explore this issue and attempt to pinpoint the close relationship between perception and action. In cognitive science there are those who see perception in terms of "simulation of action" (Berthoz 1997) or "enaction" (Varela, Thompson, Rosch 1991). Ecological psychology advances the notion of "affordance" (Gibson 1979) to describe how the environment functions as a series of resources for action. Lastly, ethnomethodology focuses on "situated action" (Suchman 1987) and defends the idea that each of our ways of perceiving has specific practical potential (Coulter, Parsons 1990). While the aforementioned authors are clearly working in very different fields, each contends that perception is closely linked to action and that it harnesses environmental properties. Furthermore, most of this research stresses the sensorimotor dimension of how we actually interact with the environment.

The capacity to act
But where does ambiance fit in here? How does it actually contribute to ongoing activities? To answer these questions, we should start by pointing out that ambiance affects our behaviour and bodily state. An ambiance may "stimulate" or "relax" us, "grab" us or "carry us away", "transport" or "paralyse" us, and so on. The use of verbs of this sort indicate that an ambiance is not just felt, it also involves movement. In other words, sensitivity and motility are two indissociable facets of the same phenomenon and neither predominates. In his sensory-tonic field theory, Kurt Goldstein demonstrated that for any sensorial impression there is a corresponding determined muscular tension (Goldstein 1995). He identified what he referred to as "tonic phenomena" whereby we may consider ambiance as an energy system that is apparent through physical signals delivered by the environment and the tonicity of living creatures. Thus, there is no radical break between living creatures and their environment. In its way, ambiance reminds us that living organisms and their milieu form a continuum. Moreover, by claiming that ambiance corresponds to a certain state of muscular tension, we also contend that it affects our capacity for action. Some types of ambiance – such as fairgrounds, major sporting events or night clubs – are particularly stimulating. They are designed to plunge us into a state of tension and excitement that makes it impossible not to react. Other types of ambiance – museums, churches, or hospitals, for example – tend to calm us down and are more conducive to contemplation and thought. Of course, these are extreme cases but they do show that an ambiance may increase or reduce our capacity for action by

placing us in a particular physical and emotional state. Although we are used to considering action as one of existence's "givens", the notion of ambiance prompts us to ask what may instigate or neutralise action.

Styles of motility

We have just seen how ambiance is connected to practical activities, however, we need to clarify exactly what such a claim means. To do this we should start by pointing out that ambiance affects all sorts of actions. It concerns not so much the nature of the activity (the "what" of the action in the process of being accomplished) as its manner of execution (the "how" of the action, or the form it takes while being accomplished). By creating a state of muscular tension in the body, the ambiance gives rhythm to our movements and modulates the manner in which we move. In other words it drives action at its most elementary level, i.e., the physical gesture. However, although gestures underpin actions they should not be confused with them. Gestures are both functional (action) and formal (expression). Gestures not only enable us to accomplish actions, they accomplish them in a certain way. For example, the action of walking may take myriad different forms. One's step may be slow or quick, smooth or jerky, and so on. Yet these different styles of movement are not specific to this action - they may also apply to all sorts of other activities such as opening doors or going downstairs. The same action may take different forms and different actions may involve identical styles of movement. Does this mean that there is no consistency or logic to the manner in which an action is accomplished? One answer would be to look at the problem from a strictly individual standpoint. Every human being may be characterised by a specific way of moving. The bodily style which is particular to each of us could represent the subject's signature[2]. While this is an interesting proposition, it is hardly sufficient. If bodily styles were exclusively individual it would be difficult to envisage how they could coexist in the same space. Once a place is frequented by several people, behaviour must be synchronised with a certain amount of mutual adjustment. There has to be a shared rhythm. So a second answer is needed and it involves looking at what is going on from a local and collective perspective. In other words, we shall assume that each ambiance corresponds to a style of motility and that this style is shared by all the participants involved in the ambiance. In this case, the manner in which we move would be affected by the place in which movement occurs. Our style of movement would express not only a "way of being" in a given environment but also a way of being together (Merleau-Ponty 1968). Obviously, this does not mean that individual differences are erased or neutralised, but rather that they are part of an overall pattern of movement that cannot be merely reduced to the sum of its parts. So gestures and ambiance are consubstantial insofar as both confer ongoing action with a specific form. Both are part of the fit between "me", the world and others.

To sum up, introducing action into the ambiance equation leads us to a second proposition. We may now define ambiance as a *motor stimulation* in the sense that it activates sensorimotor processes through which we engage with the world. In this respect, perception cannot be reduced merely to passive contemplation of the world

– it involves *moving in a certain way*.

3- Ambiance as a sensory background

In the two preceding sections, we have attempted to provide a number of pointers concerning the relationship between ambiance and situation, and between ambiance and action. We shall now attempt to describe the relationship between ambiance and perception more closely. To do so we need to develop a *phenomenological approach to perception*. The value of this approach is that it highlights the sensitivity of perception and challenges the idea that perception is always about perceiving objects. So if perception is not merely an objectifying act that enables us to perceive the world as a set of separate, recognisable things, what is it?

The medium as the third term
Challenging the notion of perception as a purely intellectual exercise does not necessarily involve adopting an empirical position that treats perception as the sum of discrete sensations. What we really need to clarify is the distinction between perception and feeling. The main argument developed in this final section is that ambiance is in no way an object of perception. Rather, we maintain that it establishes the terms of perception. In other words, we do not perceive the ambiance, we perceive on the basis of the ambiance.
We should start by stressing that the objects that we apprehend through perception are never separate, but always part of a relationship. They are always arranged one in relation to the other. One element may mask, or partially mask another. As the psychology of form has demonstrated, it is not so much isolated objects that we discern but rather configurations, articulated *ensembles*. But here again, objects affect the environment surrounding them. In a way, they radiate presence, projecting their qualities outwards and colouring the environs. It is sufficient to subtract or add an object in a particular place to realise that it does not just create or fill a vacuum. In some more fundamental way it changes what is there to be seen. We may substantiate this argument with the problems currently being encountered in research into simulating light ambiances. When virtual objects are embedded in photographs of real places, it is also necessary to factor in the light-related interaction that would inevitably occur *in situ* between the existing buildings and the new structures. But it is difficult to accurately calculate the "diffuse inter-reflection between surfaces" without which the final image would be quite unrealistic in terms of what a spectator would actually experience *in situ* (Perrin, Fasse 1998). This brief digression into vision-related research highlights the importance of the medium as a fundamental component in perception. Perceived objects always appear under certain lighting conditions and necessarily comprise a light structure that determines how they appear. James Gibson (1979) proposes the notion of an ambient optic array to analyse the manner in which a light field is structured. Even vision, the objectifying sense *par excellence*, cannot be understood without some reference to ambient light. In fact, light constitutes a third term, forming a link between the perceiver and the

world perceived. What we have just said about visual perception is even more applicable to other types of perception. Our perception of sounds, smells or temperature cannot be treated in the same way as that of a one-off source or a discrete signal. It always supposes a "sensing field" out of which phenomena emerge and take on specific properties. In brief, introducing the medium as the third term of perception enables us to conceptualise the perceptible world in terms of phenomena by revealing the conditions and manner in which they appear.

The basis for perception

Let us conclude by asking what is the consequence of the preceding argument? If ambiance can be distinguished from the world of objects it is precisely because it is bound up with the medium. This is why we talk about "luminous ambiances", "sound ambiances", "olfactory ambiances" or "thermal ambiances". These qualifiers refer to the nature of a medium but by characterising an ambiance in this way, we are also saying that it is not the ambiance that is perceived *per se*, but rather that it renders perception possible by specifying a "viewing field" [as above, do yiou mean :sensing field"?]in which these phenomena appear. We can never actually perceive everything that is encountered by our senses. As Merleau-Ponty demonstrated so clearly, "every perception is the perception of something solely by way of being at the same the relative imperception of a horizon or background which it implies but does not thematize" (Merleau-Ponty 1970: 4).

If the background is not perceived as such, it is precisely because it forms the basis for perception and the starting point from which phenomena and events assume individual and differentiable characteristics. This argument enables us to make a distinction between "perceiving this/that" and "perceiving on the basis of" (Garelli 1992). The first approach assumes perception of a determinate object by a perceiver. Perception is conceptualised in transitive, one-off terms: transitive in the sense that a direct relationship is established between a subject and an object; one-off in the sense that what is perceived can be clearly identified, localised and circumscribed. In the second approach, the stress is on an attitude to something without presupposing any object to be perceived. Perception is conceptualised in intransitive and differential terms: intransitive in the sense that the medium acts as an intermediary term between object and subject; differential in the sense that the perceptible world is configured by the differentiation and tensions between its various components. Obviously, in our opinion, ambiance is bound up with the whole background-related issue as defined by the second approach.

To sum up, this phenomenological approach to perception leads us to define ambiance as a *sensory background* that specifies the conditions under which phenomena emerge and appear. From this standpoint, perceiving involves not only discerning objects in the environment, but *experiencing the state of the medium* at a given time (Böhme 1992).

Conclusion

Environmental and urban issues are key challenges in the contemporary world. To cope with them effectively, new conceptual tools and methodological frameworks have to be developed which foster original ways of dealing with day-to-day situations. From this standpoint, the notion of ambiance implies a particular conception of situated perception that helps us to introduce and take on board the sensory, affective and material dimensions of the built environment.

Such an experience-based model of the urban environment recognizes the complexity of the relationships between people and their surroundings by recognizing inhabitants as stakeholders, experienced citizens and sensitive subjects. Hence, a comprehensive approach is required that acknowledges the variety of ways in which city dwellers deal with and handle urban situations. In order to grasp one of the main epistemological implications of the notion of ambiance, it is necessary to bear in mind that it relies on a modal rather than a causal logic. The goal is not to develop a behaviorist or positivist approach to the built environment, but rather to describe as clearly as possible the forms, processes and conditions under which an urban experience occurs. In other words, the question is not "what" but "how", and not "what do people perceive?" but "how and under what conditions do people actually perceive the way they do?".

This line of questioning opens up various avenues for research. One is to try to identify, characterize and classify various basic sensory phenomena that structure our ways of perceiving. This has been done extensively with the acoustic environment and the notion of *sonic effect* that draws upon scientific disciplines as diverse as applied acoustics, architecture, physiology of perception, sociology and aesthetics (Augoyard, Torgue 2006). Another approach is to harness the notion of ambiance as a tool to analyze and specify the sensory ecology of specific urban territories. For example, the study of urban underground ambiances reveals that these are particularly enveloping, over-stimulating, disorienting and restricting (Chelkoff, Thibaud 2000). A third perspective explores the ways in which social practices and daily activities help generate an ambiance. Walking is the best and most widely documented example, which emphasizes the importance of improvisation in the sensory qualities of urban life (Thomas 2010). In other words, ambiances can be studied when focusing on the related sensory phenomena in accordance with the specific places or practical activities that they affect.

The field of urban ambiances also implies a reconsideration of everyday life. Most of the time, environmental research focuses on exceptional, extreme or borderline situations (that trigger urban safety measures, acoustic disturbances, air pollution, etc.). Of course, there are good reasons for this and resolving the most urgent problems is a priority. Nevertheless, this focus is only a small part of the whole picture and merely the most visible aspect of environmental issues. The ambiance approach enables us to enlarge the scope of environmental research by focusing on what lies beneath the "iceberg". What about everyday unnoticed environments, the

ones we experience day in, day out in their most banal form without paying the least attention to them? Or, to put it differently, how does an ordinary ambiance become remarkable? Such questions are worth exploring and can provide new perspectives on environmental issues. After all, everyday situations are more significant than they seem. They form the basis of our ways of being in the world.

Finally, if the notion of ambiance can open new possibilities for studying the phenomenology of urban experiences, it can also help in the design and transformation of cities. Virtually all urban theories and current architectural projects need to take account of the sensory fabric of cities. Because the notion of ambiance helps to fit the physical within the social, the objective within the subjective, the sensitive within the practical, the perceived within the perceiver, it can prove particularly useful for architects and urban planners. At the juncture between quality of life, socio-economic urban strategies and current environmental issues, the notion of ambiance provides a new way of understanding and transforming the urban world.

Notes

1. For a discussion of vague logic, we refer the reader to the article by Charles Peirce (1878). If we follow Peirce's thinking, ambiance would undoubtedly be a part of "firstness", a category related to quality and feeling. Anne Cauquelin (1995) applies vagueness logic to ambiance.
2. The cinema characters played by Charlie Chaplin or Jacques Tati are particularly striking in this respect.

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