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# The transparency of ambiances in architecture.

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## Abstract

How ambiance is created in the frame of the architectural design process of public spaces? This paper shows that creating an ambiance is to design a dialectic relationship between the architectural elements that might constitute the back-plan and the ones that assure the potential emergence of the events, expressing thereby several levels of transparency as the transparency of senses and the transparency of practices. Based on the analysis of the research corpus of 25 projects of public spaces, mainly from Greece and France and also from other European countries such as Sweden and Spain, emerge several types of ambiance that cross projects, countries and cultures: the actual ambiance that exists due to the climatic, geographic, architectural and social conditions of the place and those that are not even there but they are waiting to be activated (virtual) by the individual perception and sensibility of users. These ambiances can become more identifiable and collective by the repetition of perceptual and perceptible phenomena. The paper presents the emerging attitudes concerning the creation of ambiance in public space. They are described by abstract nouns indicating the actions of managing the actual and emerging ambiances, such as the *revelation*, the *reconfiguration* and the *merge*. Through these actions are revealed the architectural intentions which will activate the affective dimensions of the project, such as the *acclimatization*, the *appropriation* and the *challenging*.

**Keywords: ambiances, transparency, design, back-plan, event.**

## Transparency of senses

Every architectural project manages physical, social, sensible qualities of space and creates ambiance when experienced by future users. What kind of ambiance is created by the design? What do designers seek? If the ambiance is an overall and diffused feeling, then it needs a random event in order to awake the perception of its quality. So, the ambiance in the singular degree expresses a general and subtle feeling, while in the plural degree, ambiances are the expressions of the micro events that emerge from the dynamic interaction between the subject's sensibility and its context - *emerging ambiances* (Paxinou, 2016).

In other words, the ambiance can be considered as the transparent link between the designed space and the lived one. It filters architectural practices through the lived experience. It creates a general, stable, transparent back-plan which reflects the unexpected events. The events unfold in the front-plan and are activated by the interaction between users and the architectural design. This dialectical relation between the elements that assure the back-plan and the conditions that activate events determines the transparency between the architectural practices and the ones of the users (Paxinou, 2016).

Every place has an ambiance which arises from the combinations of its various environmental, architectural and cultural characteristics (Norberg-Schulz, 2009). A person feels constantly in the back-plan of his body a general and indeterminate feeling (Damasio, 2010). Due to the transparency of the senses he cannot perceive immediately its quality. In order to understand what is happening he mentally

processes the sensory environmental solicitations, according to his personal desires and experiences (Merleau Ponty, 1945). He selects and evaluates the senses that trigger his actions and awake his perception. This overall sensation is formed over time by the activation of unexpected momentary events. Due to their repetition, the events can become ordinary and they pass in the back-plan (Thibaud, 2015) as the example of the human steps. During their activation, their intensity varies depending on the sensibility of the person who is experiencing them and they can pass on the front plan again. They can become remarkable and they provoke more intense emotions that will influence the overall sense of the place. So, the ambiance is the "medium" (Böhme, 2008) which allows the simultaneous perceptions of the ordinary back-plan and the unforeseen events that emerge from it. In that sense, it enables the appearance of the architectural form - its perception by the users.

The paper shows that the handling of the simultaneous perceptions of the back-plan and the unfolding events is important for the architectural ambiances creation. It constitutes the activation mechanism of the design and enables the incorporation of the architectural intentions and the incarnation of the sensible experience. It encourages the innovation of the architectural design by the activations of events, either as unexpected - innovated architectural forms or by the improvisation of the users (unexpected behaviours). These reflections (simultaneous perceptions) express also the interaction between the existing diffused space and the ordinary interpersonal relations.

Therefore, «the conditions that assure the appearance of the ambiances» (Böhme, 2008) are studied through the analysis of the conditions that constitute the back-plan, the ones that assure the appearance of the events and their relations with their back-plan. Each category is analysed by the three interrelated levels of the lived experience: the immediate - sensory experience, the active sensible experience that makes sense and the affective experience - the activated emotions.

Regarding the conditions that assure the appearance of the back-plan on which unfold the sensible experiences (events), the following interrelated categories can be used (Thibaud, 2015):

- the «*multi-sensory solicitations*»,
- the «*dominant tonality*»,
- the «*emotional tonalities*».

During the design, the architect handles the material conditions which constitute the reflecting surface of the immaterial emerging complexities (ambiances). By the subject's sensible confrontation with the materiality of the space emerge «multi-sensory solicitations» which will open up the range of the users' perceptible potentials for actions, revealing or changing the dominant spatial perception. By the mental evaluation of the multi-sensory solicitations will emerge a «dominant tonality» colouring the existing ambiance. The dominant tonality predisposes «emotional tonalities» that affect the ways of being together in space (Thibaud, 2015).

In the same way, the interrelated categories regarding the conditions assuring the appearance of the events are as follows:

- The *sensory-motor materiality*, which consists of the material conditions which activate the sensory - motor system of the subject (immediate bodily reactions).

- The *sensible materiality* is the material qualities which enable the appropriation of the event. They are triggered by the «expressive capacities of the body in-motion» (Thibaud, 2015) and ensure the interaction between the architectural forms and the social behaviours.

- The *affectivity* expresses the bodily exteriorisations of the inner world of the person experiencing the event (behaviour changes, facial expressions, postures of the body), which influence the interpersonal relations and «colour» the ambiance of the space.

The above levels unfold according to their degree of objectivity and combine the objective with the subjective conditions of the ambiances. The first level gathers the objective material-physical conditions, the second refers more to the moral dimensions and the third describes the spontaneous behaviours and the unpredictability of feelings. Their analysis enables the comprehension of the dynamic relations between the back-plan and the events in the architectural design. What kind of relations are produced by the promotion of either the back-plan or the events? What happens when the two are involved and self-reinforced?

The public urban space is considered as the ideal research field for the study of the above dynamic relations, due to its unpredictability and the interactivity between its materiality and the unfolding individual and social activities. The ambiances emerge in the social space and influence its public character. The simultaneous perceptions of the *ambiance/ambiances* express the oscillation between the individual and collective experiences. The ambiances emerge as individual internal emotional expressions that become the expressive medium of the sense of place when they are exteriorised and ensure the social interaction.

## Approach

The paper presents the results of a PhD thesis on the creation of an ambiance in urban public spaces. The research corpus consists of 25 projects of public spaces, located mainly in Greece and in France and also in other European countries, such as Sweden and Spain. These projects are mainly documented with semi-directive interviews with the creators.

The semi-directive interviews aim of the reactivation of the designing process around ambiances, by the perception of the experienced pre-linguistic phenomenon. The verbal formulation of the experienced senses provides the semiotic material (language and graphic) for the creation of the ambiances, which is subsequently translated into the architectural language.

The pre-selection of the creators is based on assumptions about their practices and their relations with the ambiances. How do they deal with the interactions between the material qualities and the action-perception of the users? The final selection of the projects was done in order to study a large panel of creation postures. The interviews were with Annie Tardivon (landscape architect, agency IN SITU, Lyon), Pascal Urbain and Thierry Cicionne (architects, agency STOA, Marseille), David Humbert (architect, agency Les Passagers des Villes- EAGD, Lyon), Jeppe A. Andersen (architect, Hellebæk), Prodromos Nikiforidis - Bernard Cuomo (architects, Thessaloniki), Sofia Vyzoviti (architect, School of Architecture, Volos), Philippe Liveneau (architect, School of Architecture, Grenoble) and Horacio Gonzales Dieguez (artist, noTours).

Even so, architectural practices of the selected creators can be roughly described as poetical, functionalist, political, sensitive, dynamic, technological, interactive, the analysis of the corpus, which belongs from different countries and cultures, shows that there are many common comments between the creators. Actually, they all express a form of a dialectic between the architectural elements that might constitute the back-plan and the ones that assure the potential emergence of the events. In addition, our analyse shows that this dialectic relation between back-plan and events can oscillate, whatever the project, between three states: the *conflict*, the *negotiation* and the *sympathy*. These categories are the same for the 25 projects studied. Therefore, their descriptions, concerning the influence of the competitive relations between the back-plan and the unfolding events, explain main differences between the public spaces studied whether in terms of their creation or their publicity (Paxinou, 2016). Finally, the above relations express also the *levels of transparency* between the back-plan and the emerging events, a transparency that let elements emerge from the back-plan as unexpected events and the opposite.

### Transparency of practices

The ambiances challenge the limits between the architectural practices and the users' activities because they have to be perceived by someone in order to exist. The design assures the conditions of the appearance of an ambiance (Böhme, 2008). The emerged complexities behind the transparent back-plan of an architectural object challenge the human senses and activate the potentialities of action (Gibson, 1977) which will affect the general ambiance. So the ambiances are not created only by the architect but also by the future users. This dynamic approach of the ambiances requires the transparency of the architectural practices in order to reveal the potentialities of the users' actions and encourage the improvisation, without disconnecting them from their spatial, sensible and social context.

According to the above, the back-plan reflects the existing environment - the overall sense of the place where the architect is invited to create his ideas - events that solicit the users' senses and activate their feelings.

From the transversal analysis of the corpus of the 25 projects of public spaces, emerge different design postures that express and explain the main position of the creators in terms of their ambiance's creation. They are organized around abstract nouns indicating actions that handle the relation between the actual ambiance and the emerging ambiances (that will be created). The creation postures are the *revelation*, the *reconfiguration* and the *merge*. They describe the encounter of the ambiance on the back-plan with the ambiances on the front-plan. Either the design converges them into the same direction, revealing the existing general feeling, or it articulates them into new experiences which transform the existing, or finally it merges them and fuses the actual and the virtual.

### Revelation of ambiances - acclimatisation

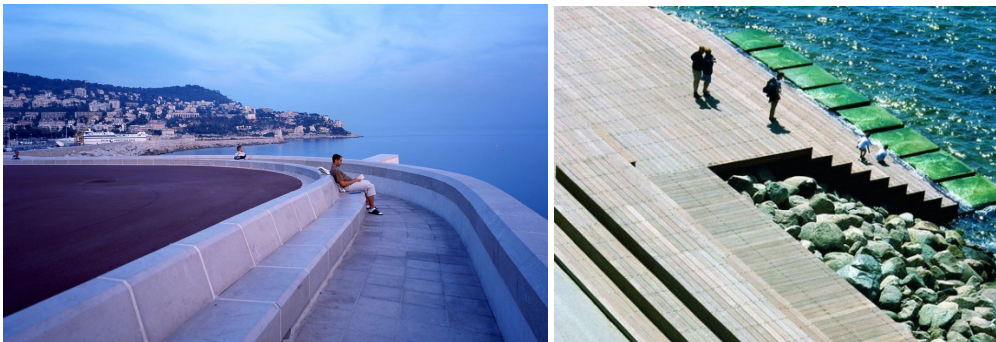
The *revelation* posture investigates the existing ambiance of space (back-plan) in order to reveal it and accentuate it by contemporary design methods (conditions of events' presence).

**Back-plan:** It consists of the diagnostic of the place, in order to perceive its overall sense and of the creation of simple, ordinary architectural forms, in order to reveal

and reinforce the existing landscape. Ephemeral tonalities emerge from the «negotiation» between the architectural intentions and the existing natural and historic landscape (sea, wind, light, vegetation, monuments, etc.). The design opens up the potentialities of actions and encourages the “synergy” of the multi-sensory solicitation (Thibaud, 2015), in order to enable the re-appropriation of the space and the acclimatisation of the users.

**Events:** The sensory-motor materiality of space is inspired by the physical space. The design encourages the improvisation by the creation of ordinary architectural forms soliciting microevents through their embodied experience (e.g the staircase that leads to the sea at Bo01 in Malmö) and the areas without predefined uses (e.g. linear lounge at Rauba-Capeù, Nice). Their materiality solicits various spontaneous behaviours and potentialities of actions. In this case, the events emerge from the social interaction which activate the materiality of the space. The potentialities of action are not completely predicted by the design, but they are predictable in practice (e.g. self-reinforced events). They emerge discreetly from the back-plan - as if they were always there<sup>1</sup> - and activate feelings of appropriation and habituation (e.g. «it feels like home»). The creators are trying to «get into the mind» of the people, in order to understand how they feel<sup>2</sup>. They work with the materiality that will excite them.

The ambiance is revealed for and from the public (Thibaud, 2015). The public embodies the back-plan through the spontaneous behaviours (events) which converge and create the collective overall sense of place.



**Figure 1:** (left) *«l’ambiance est là»* at the Rauba Capeù waterfront in Nice and (right) Bo01 in Malmö.  
Sources: archives of ‘STOA’ and Jeppe A. Andersen.

**Levels of transparency:** The design encourages the articulation of the perceptions of the existing back-plan and the emerging events. The existing ambiance is revealed through its reflections (events). Its revelations presuppose the exacerbation and the evolution of its characteristics. The overall sense is maintained, however, the project translates it into the contemporary construction language. Sometimes the events and the back-plan co-emerge (simultaneous perceptions) in order to acclimatize the users and make them feel as if nothing has ever changed.

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<sup>1</sup> Pascal Urbain : «l’ambiance est là ».

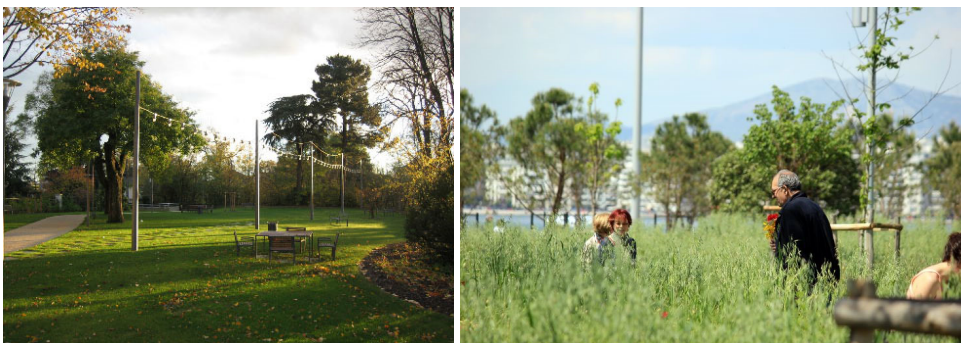
<sup>2</sup> Jeppe A. Andersen: «We found some way into people’s mind and it suddenly gave us a way of thinking ».

## Reconfiguration of ambiances - appropriation

The existing ambiance is transformed into a different one (which has never been experienced before). In our research corpus, it concerns mostly of places with no spatial quality. The design seeks for a new urban identity which will activate its public character.

**Back-plan:** The organisation of the architectural and functional elements of the project aims to the architectural quality and the environmental balance and it forms a back-plan where the existing and disturbing ambient qualities are «corrected» (eg car noise, disturbing odours, poor lighting, etc.). In particular, by allowing nature to penetrate into the city emerge new urban ambiances. The architect subverts the existing activities and proposes new «scenarios» of activities<sup>3</sup>. Most of the time the architectural intentions are focused on the design of a dominant sense, like lighting design, soundscape etc. Sometimes one sense is promoted (e.g. light or sound design) but this doesn't mean that the other senses do not participate in the perception of the spatial quality. Generally, the spatial quality is related to the emotions of belonging and habitation. In order to activate such emotions, the creator is inspired by the sense of the place and by his personal desires and fantasies and create a «scenography of feelings», based on «archetypes» of collective spaces (e.g. house -yard, living-room, moonlight, etc.).

**Events:** For the modulation of the ambiance, the architect is inspired by other architectural references and his personal experiences and he reconfigures the existing context into a new one (e.g. a meadow in the city). These reconfigurations often express his sensory relations to the characteristic phenomena of the landscape (light, water, sounds, odours, textures, etc.). He creates various sensible effects (lighting effects, sound effects) whose «reflections» on the back-plan destabilize the users<sup>4</sup>. The architectural and personal references reflect the creator's artistic sensibility. His inner personal feelings are exteriorised and are converted to a common experience, in order to enable the subject's appropriation of the imaginary and the unfamiliar.



**Figure 2:** (left) *The Feyzin Park in Lyon, by Les Passagers des Villes- EAGD* and (right) *The Garden of Seasons in Thessaloniki. Sources: archives of 'Les passagers des villes- EAGD' and 'P. Nikiforidis & B. Cuomo'.*

**Levels of transparency:** The goal is the creation of sensible contrasts between the imaginary and the real world which express the personal and fantastic reflections on

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<sup>3</sup> David Humbert: «*On se raconte des petites histoires et petit à petit on construit notre projet par la somme de ces petites histoires*».

<sup>4</sup> Jeppe A. Andersen: «*The cool blue light transforms the public space and creates a different atmosphere of darker, starrier night skies*».

the architectural space. The contrasts emerge from the articulation of the back-plan and the unfolding events and they re-configure the overall sense of the place.

### Merge of ambiances - challenging

The merge relates to projects where the existing ambiance is fused with the projected one, in a way that the one emerges from the other, or the one configures the other. Merging ambiances involves and creates an overall controversial feeling of a back-plan with fluid boundaries between what actually happens and what is about to happen. The design aims to represent the transformations of the architectural object within its dynamic field and the interaction between the actual and the virtual space.

**Back-plan:** The architect creates parametric, unusual forms – «microarchitectures» which emerge from the dynamic interaction between the materiality and the corporality of the object and offer unexpected multi-sensory solicitations. The dynamic transformations of the multi-sensory solicitations encourage the creation of more eventful and ephemeral tonalities, which differ from the ordinary - everyday tonality of the public space.

In particular, the interactive technologies and the «augmentation» of the senses enable the merge of the different tonalities, activating a feeling of sympathy (Spuybroek, 2012). This feeling is developed by the corporation of the aesthetic relation between the architecture and the subject and determines the space quality, which means that someone feels nice when he becomes aware - he coordinates with the harmony of the space.

**Events:** The creators are experimenting with the material and immaterial spatial qualities. They work with the aesthetic relations between the materiality of an object and its embodied experience (sensible materiality), in order to stimulate the senses and activate unusual and unpredictable emotions, depending on the subject's posture and movement - «ambient events»<sup>5</sup>. These simultaneous emotions are created by microarchitectures that solicit microevents (spontaneous behaviours). The dialectical relation between the microarchitectures and the microevents enables the confrontation of the innovative and the ordinary forms, from which emerge the ambient events.

The completely unexpected events might emerge also in virtual environments, (e.g. like soundwalks). The interactive technologies create dynamically transformable effects which activate the merge of known and unknown experiences<sup>6</sup>. When the effects are based on the active interpersonal relations (sensible materiality of the public) they activate the dynamic exchanges of experiences between people (e.g. artistic performance «Samba dress» by David da Paz and noTours). By augmenting the people's spontaneous behaviours, the users themselves become the events. They feel confused but not shocked. These feelings of confusion destabilise and trouble the participants and challenge them to discover the sense of place.

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<sup>5</sup> Philippe Liveneau: «... le sujet et l'objet d'architecture émergent dans un même processus qui est l'évènement architectural».

<sup>6</sup> noTours : «...they are not just interacting with the events, they have access with other events that you don't have access».





**Figure 3:** Couvent Sainte Cécil, expo. Peinture + Architecture, Grenoble (2010).  
Source: archives of Philippe Liveneau.

**Levels of transparency:** The back-plan and the events co-emerge in a dynamic relation that varies according to time and create sensible contrasts between perception, action and existence. Through the experience of improvisation people are encouraged to choose when and how they will experience the space. In that sense real is what excites them (e.g. soundwalk in Gijon cemetery by NoTours).

### Complementary actions

The above nouns describe general and structured postures and design approaches of the space-time and social characteristics of each project. They prescribe actions that encourage the emergence of the spontaneous, the instantaneous and the virtual elements. Because of their transparency, they can be applied separately or simultaneously at any project. In each case they activate the interaction between the back-plan and the emerging events.

Other complementary action nouns (Torgue, 2012) are proposed in order to express the generalization methods of the nuances of the dynamic reflections between the back-plan and the emerging events. In another way, the following diagram combines the levels of transparency between back-plan and events with the basic design postures and complementary actions (Paxinou, 2016).

Table 1: Emerging ambiances creation diagram

Back-plan-events										
Contrasts			Articulation			Co-emergence			Contrast	
←→			←→			←→			←→	
←→ Reconfiguration				←→ Revelation			←→ Merge			
deco ration	isola tion	transi tion	conne ction	dilu tion	gathe ring	recur rence	remo val	embo diment	incar nation	deco ration

The events emerge in contrast, or within, or simultaneously with the back-plan. Each process is not hermetically defined, it oscillates with its adjacent in sensible balances, by flickering from the contrasts to the configuration and the coordination: the designer handles the material conditions activating events in order to reveal the existing back-plan, or to reconfigure it from ordinary to eventful and inversely, even to merge it with the instantaneous and the unpredicted.

For the *revelation* of the existing back-plan, he resorts to more direct actions combining place and time that will start to articulate, even merge, the back-plan with the events. Through the division and the densification of the events (*dilution* -

*gathering*) he creates spaces with potential of actions. The revelations occur also by the control and the amplification of the active events, (*recurrence*), or their replacement, even their deletion (*removal*).

The *reconfiguration* of the back-plan requires more qualitative actions which will activate events based on the contrasts between the new and the existing (familiar - unfamiliar), and on the articulations of the real with the imaginary. The contrasts are revealed through the *isolation* of events which are identified and distinguished. The articulations are achieved by the smooth passages of the events to the existing back-plan (*transition*).

The action of *decoration* is oscillating between contrasts and co-emergences. The contrasts emerge when the decoration pursue the embellishment of the back plan (e.g. Disney Land) and the *removal* of the nuisances. The *decoration* which is inspired by the aesthetic relations between the back-plan and the events activate architectural events (e.g. micro-architectures). It expresses the medium for the creation of original events and unexpected emotions and it transits to the next approach, where both the existing back-plan and the events co-emerge. The assimilation of the back-plan by the events and vice versa (*incorporation*) engages also the corporality of the users (*incarnation*).

To conclude, the above table presents the synthesis of the analysis results of the research field (25 architectural and artistic works in public spaces) and can be considered as the theoretical tool (analytical grid) for the analysis of the ambiances of existing public spaces, and the design tool for the creation of the public space. The dynamic variations of the relations back-plan/events reflect the emerging ambiances, as subjective sensible experiences depending on the sensibility and socio-cultural references of the users. They become collective and social when they can be shared, through the repetition and duration of the perceptual and sensible phenomena.

## Discussion

The emerging ambiances in architecture oscillate between two contexts: the sensible experience and the creation of space. The first includes the complexity of the *in situ* sensible experience that is, all the necessary dimensions for the immediate physical experience (sensory) and its understanding through the evaluation of the senses. The second context focuses on the creative act and the complexity of the sensible architectural and urban design, which places the individual in the environment and the society. The feelings produced by this sensible interaction between the human and its context depending on his perceptual ability, sensibility, and experiences, reflect the emerging ambiances of the space. The design of the emerging ambiances through the "game" between the back-plan and the unfolding events concerns all design practices and architectural postures, from the most «classics» up to the technological interactivity and unfolds the qualitative relation *ambiance – ambiances*. This dynamic relation reflects the dialectic relation between the creation and the experience of public space, through the approach of the time dimension (*duration-instant*) and the emotional dimension of architectural design (*emotions -excitement*).

This work does not impose a particular or effective design strategy which comes into conflict with the (contemporary) architectural trends and principles. It proposes the consideration of the ambiances through the handling of the dialectic relation back-

up / events as an activating mechanism of the design process. Therefore, the main contribution of the ambiances in architectural design lies on their ability to affect, even to produce the project.

Particularly in public space, the notion of "public" imposes the study of different levels of transparency between the back-plan and the emerging events as their contrasts, their articulations and their co-emergence, in order to facilitate the dialogue between the dynamic and ethic performance of the ambiance phenomenon, proposing ways of existence and coexistence. It reveals, reconfigures, and merges the real with the virtual and the personal with the interpersonal.

The ambiance creation in architecture is a reachable horizon. The approach of architectural design through the interactive relation between the architectural elements that constitute the back-plan and those activating events provides the theoretical and practical tools for the creating of quality sensible experiences from which will emerge remarkable ambiances.

## References

Berthoz, A. (2013) *Le Sens du mouvement*, Paris: Odile Jacob.

Böhme, G. (2008) Un paradigme pour une esthétique des ambiances : l'art de la scénographie, In: Augoyard, J.-F. ed. *Faire une ambiance = creating an atmosphere : actes du colloque international Grenoble 10-12 September 2008*, Grenoble: À La Croisée, pp.221–228.

Chelkoff, G. (2008) Ambiance Formers in Built Environment : An Experimentation with Sound and Motion, In: Lucas, R. ed. *Sensory urbanism proceedings 2008*, University of Strathclyde, Glasgow: The Flâneur Press, pp.38–46.

Damasio, A. (2010) *L'erreur de Descartes : La raison des émotions*, Paris: Odile Jacob.

Levy, P. (2001) *Δυνητική πραγματικότητα: η φιλοσοφία του πολιτισμού και του κυβερνοχώρου* (Μ. Καραχάλιος, Tran.), Αθήνα: Κριτική.

Merleau Ponty, M. (1945) *Phénoménologie de La Perception*, Paris: Gallimard

Norberg-Schulz, C. (2009) *Genius Loci: Το πνεύμα του τόπου : Για μια φαινομενολογία της αρχιτεκτονικής* (Χ. Γραμμένου, Ed., Μ. Φραγκόπουλος, Tran.), Αθήνα: Πανεπιστημιακές Εκδόσεις ΕΜΠ.

Paxinou, E. (2016) Αναδυόμενες ατμόσφαιρες στον αρχιτεκτονικό σχεδιασμό του δημόσιου χώρου, In: Remy, N. Tixtier, N. ed. *Ατμόσφαιρες αύριο, Ambiances demain, Ambiances tomorrow. Proceedings of the 3rd international congress on Ambiances, 21-24 September*, Volos : International Ambiances Network & University of Thessaly.

Rancière, J. (2008) *Le Partage du sensible : Esthétique et politique*, Paris: La Fabrique

Spuybroek, L. (2012) *The Sympathy of Things: Ruskin and the Ecology of Design*, Rotterdam : New York, NY: nai010 publishers.

Thibaud, J.-P. (2015) *En Quête D'ambiances*, Genève: MétisPresses.

Torgue, H. (2012) *Le Sonore, L'imaginaire et La Ville: De La Fabrique Artistique Aux Ambiances Urbaines*, Paris: Harmattan.