

# Touching the World – Vision, Hearing, Hapticity and Atmospheric Perception

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The hands want to see, the eyes want to caress.<sup>1</sup> (J.W. von Goethe)

The dancer has his ear in his toes.<sup>2</sup> (Friedrich Nietzsche)

## 1. Hegemony of the Eye

Architecture has been predominantly theorized, taught, practised and critiqued as an art form of the eye, emphasizing form, geometry and focused *Gestalt*. Until the early beginnings of modernity, architecture aspired to express the order of the world through symbolization and proportionality as an analogue of cosmic harmony. It was seen as an instrument of mediation between macrocosm and microcosm, divinities and mortals, myth and life, metaphysics and lived reality.

Despite the general hegemony of vision in architecture, there are historical studies suggesting that some of the earliest structures of man, built for ritual purposes were actually conceived to articulate sound rather than visual imagery. But hearing and vision could also be regarded as equal and interacting realms. Indeed, since the theoretical studies of Pythagoras in the 5<sup>th</sup> century B.C., harmonic principles of music were applied in architecture. This fusion was particularly important in Renaissance time for architecture in its attempt to be recognized as a field of knowledge among the *quadrivium* of the mathematical arts of arithmetics, geometry, astronomy and music, instead of a mere craft. The eye and the ear were understood to acknowledge the same principles of harmony mediating between man and cosmos.

I can confess that in my own design work since the 1960s I have used a Pythagorean system of harmonic proportions developed in the 1950s by my professor and mentor

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1. As quoted in *Not Architecture But Evidence That it Exists*. Laretta Vinciarelli: *Watercolors*, Brooke Hodge, editor. Harvard University Graduate School of Design, 1998, 130.

2. Friedrich Nietzsche, *Thus Spake Zarathustra*, Viking Press, New York 1956, 224.

Aulis Blomstedt (1906–1979) which he called Canon 60.<sup>3</sup> Blomstedt's ideas echo the contemporaneous studies in Pythagoreanism by Dr Hans Kayser (1891–1964) and his current successor Rudiolf Haase at the Music Academy of Vienna.<sup>4</sup> Also R.M. Schindler (1887–1953), the Vienna-born architect, developed a similar proportional system based on the harmonic principles of western music.<sup>5</sup> In our quasi-rational and secular age, however, architecture has abandoned its metaphysically mediating task, and it has turned into mere visual aesthetics, an art of the eye without any metaphysical or spiritual aspirations, and the senses have become strictly hierarchized and separated from each other.

The hegemony of the visual realm has gradually strengthened in western perception, thought and action. This bias, in fact, has its origins already with the ancient Greeks. “The eyes are more exact witnesses than the ears”, Heraclitus writes in one of his fragments expressing thus the view that has prevailed in philosophy as well as practical life until our time.<sup>6</sup> Through the history of western thought clear vision has been the metaphor of understanding. Plato connected vision with understanding and philosophy as he argued: “The supreme benefit for which sight is responsible is that through the cosmic revelations of vision man has acquired philosophy, the greatest gift the gods have ever given or will give to mortals”.<sup>7</sup> In western thought, knowledge has eventually become entirely detached from the body and sensory experience, and we can historically discern a “treacherous and blind hostility of philosophers towards the senses”, as Friedrich Nietzsche argued.<sup>8</sup> Max Scheler called this attitude bluntly “the hatred of the body”.<sup>9</sup>

## 2. An Architecture of the Eye

In the modern times the hegemony of vision has been strengthened by countless technical inventions, which enable us to see inside matter as well as into deep space. The entire world is made visible and simultaneously present through modern technology. The obsession of vision and visibility has also created the gloomy society of surveillance, which has its philosophical beginnings in the *Panopticon*, Jeremy Bentham's novel scheme for a prison that could be controlled from one single spot.<sup>10</sup> In the beginning of the third millennium, we

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3. See, Juhani Pallasmaa, *Aulis Blomstedt: Pensée et forme – études harmoniques*, Musée d'Architecture de Finland, Helsinki, 1977.

4. Hans Kayser, *Lehrbuch der Harmonik*, Occident Verlag, Zurich, 1950.

5. R.M. Schindler: *composition and Construction*, Lionel March and Jeudith Sheine, eds., Academy Editions / Ernst & Sohn, London and Berlin, 1993.

6. Heraclitus, Fragment 101 a as quoted in David Michael Levin, *Modernity and the Hegemony of Vision*. University of California Press, Berkeley and Los Angeles, California 1993, 1.

7. Plato, *Timaeus and Critias*, Penguin Books, London, 1977, 65.

8. Friedrich Nietzsche, *The Will to Power*, Book II, ed. Walter Kaufmann, Random House, New York, note 461, 253.

9. Max Scheler, *Vom Umsturz der Werte: Abhandlungen und Aufsätze*, 87–88. As quoted in David Michael Levin, *The Body's Recollection of Being*, Routledge & Kegan Paul, London-Boston-Melbourne and Henley, 1985, 57.

10. See, Michel Foucault, *Discipline and Punish: The Birth of the Prison*, Vintage, New York, 1979.

seem to be doomed to live in a world-wide Panopticon. In fact, today's instruments of vision and electronic control promote the strange dualism of surveillance and spectacle; we are objects of visual control and spectators at the same time. As many postmodern philosophers, such as David Harvey, Daniel Bell and Fredric Jameson have suggested, these developments have also dramatically altered our experience of space and time, as we now live in an era of "time-space compression"<sup>11</sup> and an imploded time horizon.

This development towards unrivalled retinality is also evident in architecture, to the degree that today we can identify an architecture of the eye, a mode of building, which suppresses other sensory realms. This is an architecture of the visual image and optical presence that aims at instant aesthetic seduction and gratification. It is thought-provoking that especially the technologically most advanced buildings, such as hospitals, headquarters of high technology industries, international airports, and refined hospitals, tend to exemplify this distorted and reductive attitude. In the middle of unforeseen wealth and material abundance, the technological culture seems to be drifting towards increasing sensory detachment and distance and isolation. During the past few decades this tendency has been further reinforced by the cerebral and conceptual emphasis in the arts and architecture. We suppress particularly hapticity, the sense of nearness, intimacy, touch, and affection, regardless of the fact that all modes of sensing are forms of touching. "With vision we touch the sun and the stars", as philosopher Martin Jay poetically argues.<sup>12</sup>

However, for some time there has been a growing concern in philosophy and the arts that the uncontested visual dominance and repression of other sensory modalities is giving rise to a cultural condition that generates alienation, abstraction and distance, instead of promoting the positive experiences of belonging, rootedness and intimacy. It is paradoxical, indeed, that the age of communication has turned into an age of alienation and loneliness.

### 3. Oral Versus Visual Space

Man has not always been dominated by vision; in fact a primordial dominance of hearing has only gradually been replaced by that of vision. Regardless of the philosophical prioritization of vision, it did not dominate normal life until the modern era. In Lucien Febvre's view: "The sixteenth century did not see first; it heard and smelled, it sniffed the air and caught sounds. It was only later that it seriously and actively became engaged in geometry... It was then that vision was unleashed in the world of science as it was in the world of physical sensations and the world of beauty as well".<sup>13</sup> Robert Mandrou makes a parallel argument:

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11. David Harvey, *The Condition of Postmodernity*, Blackwell Publishers, Cambridge, Massachusetts and Oxford, United Kingdom, 1992, 260–307.

12. Martin Jay, as quoted in David Michael Levin, ed., *Modernity and the Hegemony of Vision*, University of California Press, Manchester, New York, NY, 1994.

13. As quoted in Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*, University of Cali-

“The hierarchy (of the senses) was not the same (as in the twentieth century) because the eye, which rules today, found itself in third place, behind hearing and touch, and far after them. The eye that organizes, classifies and orders was not the favoured organ of the time that preferred hearing”.<sup>14</sup>

Outside of the western development, anthropological literature describes numerous cultures in which our private and suppressed senses of smell, taste and touch continue to have collective importance. The roles of the senses in the utilization of space in various cultures was the subject matter of Edward T. Hall’s seminal book *The Hidden Dimension*<sup>15</sup>, which regrettably seems to be forgotten by architects today.

Walter J. Ong, who analyzes the transition from oral to written culture in his book *Orality & Literacy*, points out that “the shift from oral to written speech was essentially a shift from sound to visual space ...<sup>16</sup> print replaced the lingering hearing-dominance in the world of thought and expression with the sight-dominance which had its beginning in writing (...)”<sup>17</sup>“This is an insistent world of cold, non-human facts”.<sup>18</sup>

Ong analyses thought-provokingly the changes that this shift from the primordial oral culture to the culture of the written, and, eventually, the printed word, has caused on human consciousness, memory, and understanding of space. The writer argues that as hearing-dominance has yielded to sight-dominance, situational thinking has been replaced by abstract thinking. And this fundamental change in the perception and understanding of the world seems irreversible to him: “Though words are grounded in oral speech, writing tyrannically locks them into a visual field forever ... a literate person cannot fully recover a sense of what the word is to purely oral people”, he argues.<sup>19</sup>

It is my understanding, however, that poetry has the capacity of bringing us momentarily back to the oral world. The re-oralized words of poetry bring us back to the center of an interior world again. In my view, it is the task of art and architecture in general, to reconstruct the experience of an undifferentiated interior world, in which we are not mere spectators, but to which we inseparably belong. Rainer Maria Rilke has a beautiful expression for this condition of belonging, *Weltinnenraum*, the interior space of the world.<sup>20</sup> This poetics of existence implies a re-sensualization, re-enchantment and re-eroticization of our relation with the world. And it implies a re-fusion of the sensory worlds.

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fornia Press, Berkeley and Los Angeles, CA, 1994, 34.

14. As quoted in *ibid.*, 34–35.

15. Edward T. Hall, *The Hidden Dimension*, Doubleday, New York, 1969.

16. Walter J. Ong, *Orality & Literacy – The Technologizing of the World*, Routledge, London and New York, 1991, 117.

17. *Ibid.*, 121.

18. *Ibid.*, 122.

19. *Ibid.*, 12.

20. Liisa Enwald, editor, “Lukijalle” [To the reader], *Rainer Maria Rilke, Hiljainen taiteen sisin; kirjeitä vuosilta 1900–1926* [The silent innermost core of art; letters 1900–1926], TAI-teos, Helsinki, 1997, 8.

## 4. Acoustic Intimacy

Sight isolates, whereas sound incorporates, vision is directional, whereas sound is omni-directional. I gaze at an object, whereas sound reaches me. The sense of sight implies exteriority, whereas sound creates an experience of interiority. “The centering action of sound effects man’s sense of cosmos”, Ong writes. “For oral cultures, the cosmos is an ongoing event with man at its center. Man is the *umbilicus mundi*, the navel of the world.”<sup>21</sup> The tragedy of our contemporary life is that we do not dwell in the center of our existential world. “Things fall apart: the center cannot hold...”, as W.B. Yeats professed.<sup>22</sup>

Hearing structures and articulates space just as much as vision. We are not normally aware of the significance of hearing in spatial experience, however. But when the sound is switched off from a film, for instance, the scene loses its plasticity, meaning and sense of life. One who has momentarily woken up to the sound of a distant train at night and, through his sleep, experienced the space of the city with its countless inhabitants scattered in its dwellings, knows the power of sound to imagination; the nocturnal whistle of a train makes one conscious of the entire sleeping city. Anyone who has become entranced by the sound of water drops in the darkness of a ruin can attest to the extraordinary capacity of the ear to carve a volume into the void of darkness. The space traced by the ear becomes a cavity sculpted in the very interior of the mind.

We can also recall the acoustic harshness of any uninhabited and unfurnished house as compared with the affability of a lived home, in which sound is refracted and softened by the surfaces of numerous objects of personal life. Every building or space has its characteristic acoustic qualities and sounds of intimacy or monumentality, invitation or rejection, hospitality or hostility. A space is understood through its echo as much as through its visual shape.

Sight makes us solitary, whereas hearing creates a sense of connection and solidarity; the gaze wanders lonesomely in the dark depths of a cathedral, but the sound of the organ makes us realize our affinity with the space. The sound of church bells echoing through the streets makes us aware of our citizenship. The echo of steps on a paved street has an emotional charge because the sound bouncing off the surrounding walls puts us in direct interaction with space; sound measures space and makes its scale comprehensible. We stroke the boundaries of space with our ears. But, our contemporary city has lost its echo. The wide and open spaces and streets do not return sound, and the interiors of today’s buildings absorb and censor the echo. Our ears have been blinded.

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21. Ong, op. cit., 73.

22. As quoted in Hans Sedlmayr, *Art in Crisis: The Lost Center*, Hollis & Carter, London, 1957, III.

## 5. Silence, Time and Solitude

The most essential auditive experience created by architecture is tranquillity. In our hectic and noisy world, we have lost the gift of silence; this is the message of Max Picard, the philosopher of silence in his poetic book *The World of Silence*.<sup>23</sup> Ultimately, architecture is the art of petrified silence. It presents the drama of construction silenced into matter and space. After the clutter of construction work ceases and the shouting of workers dies away, the building becomes a museum of a waiting, patient silence. In Egyptian temples we encounter the silence that surrounded the pharaohs, in the silence of a Gothic cathedral we are reminded of the last dying note of a Gregorian chant, and the echo of Roman footsteps has just faded on the walls of the Pantheon. Old houses take us back to the slow time and silence of the past. The silence of architecture is a responsive and benevolent silence with a memory.

A powerful architectural experience silences all external noise; it focuses attention on one's very existence. Architecture, as all art, makes us aware of our fundamental solitude. Buildings and cities are instruments and museums of time. They enable us to see and understand the passing of history, and to participate in time cycles that surpass the scope of individual life.

Architecture connects us with the dead; through buildings we are able to imagine the bustle of the medieval street, and fancy a solemn procession approaching the cathedral. The time of architecture is a detained time; in the greatest of buildings time stands firmly still. In the Great Peristyle at Karnak time has petrified into a timeless present; time and space are eternally locked into each other between these immense columns.

Experiencing a work of art is a private dialogue between the work and the viewer, and that excludes other interactions. 'Art is made by the alone for the alone', as Cyrille Connolly writes in *The Unquiet Grave*.<sup>24</sup> Melancholy lies beneath moving experiences of art; this is the sorrow of beauty's immateriality and temporality. Art projects an unattainable ideal, the ideal of beauty that touches the eternal.

## 6. The Art of Integration

It is evident, that "life-enhancing" (to use Goethe's notion) art and architecture address all the senses simultaneously, and fuse our sense of self with the experience of the world. The task of architecture is to strengthen our sense of the real and the self, not to fabricate settings of mere fantasy. The essential mental task of the art of building is mediation and integration. Architecture frames and structures experience and projects a specific horizon of perception

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23. Max Picard, *The World of Silence*, Gateway Editors, Washington, 1988.

24. Cyrille Connolly, *The Unquiet Grave*, Penguin Press, Harmondsworth, 1967, quoted in Emilio Ambasz, *The Architecture of Luis Barragan*, The Museum of Modern Art, New York, 1976, 108.

and meaning. In addition to inhabiting us in space, it also relates us to time; it articulates limitless natural space and gives endless time a human measure. Architecture helps us to overcome “the terror of time”, to use an expression of Karsten Harries, the philosopher<sup>25</sup>.

Maurice Merleau-Ponty, whose stimulating writings establish a ground for the understanding of the complexities and mysteries of artistic phenomena, argues strongly for the integration of the senses: “My perception is [...] not a sum of visual, tactile, and audible givens: I perceive in a total way with my whole being: I grasp a unique structure of the thing, a unique way of being, which speaks to all my senses at once.”<sup>26</sup> The true wonder of our perception of the world is its very completeness, continuity and constancy regardless of the fragmentary nature of our observations.

Architecture concretizes “how the world touches us”<sup>27</sup>, as Merleau-Ponty writes of the paintings of Paul Cézanne. Paraphrasing another notion of this seminal philosopher, I wish to argue that meaningful architecture concretizes and sensualizes human existence in the “flesh of the world”.<sup>28</sup> The philosopher explains the world-body relation with another poetic metaphor: “Our own body is in the world as the heart is in the organism: it keeps the visible spectacle constantly alive, it breathes life into it and sustains it inwardly, and with it it forms a system.”<sup>29</sup>

## 7. The Primacy of Touch

I wish to return back to the importance of the sense of touch. The boundary line between ourselves and the world is identified and crossed by our senses. All the senses, including vision and hearing, are extensions of the tactile sense; the senses are specializations of skin tissue, and all sensory experiences are modes of touching, and thus related with tactility. ”

The view of Ashley Montagu, the anthropologist, based on medical evidence, confirms the primacy of the haptic realm, “[The skin] is the oldest and the most sensitive of our organs, our first medium of communication, and our most efficient protector [...] Even the

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25. Karsten Harries, “Building and the Terror of Time”, *Perspecta, The Yale Architectural Journal*, issue 19, The MIT Press, Cambridge, 1982.

26. Maurice Merleau-Ponty, “The Film and the New Psychology”, in Maurice Merleau-Ponty, *Sense and Non-Sense*. Northwestern University Press, Evanston 1964, 48.

27. Maurice Merleau-Ponty, “Cézanne’s Doubt”, in Merleau-Ponty, *ibid.*, 19.

28. Merleau-Ponty describes the notion of the flesh in his essay “The Intertwining – The Chiasm” (*The Visible and the Invisible*, ed. Claude Lefort, Northwestern University Press, Evanston, 1969): “My body is made of the same flesh as the world [...] and moreover [...] this flesh of my body is shared by the world [...]” (248), and; “The flesh (of the world or my own) is [...] a texture that returns to itself and conforms to itself ” (146). The notion of “the flesh” derives from Merleau-Ponty’s dialectical principle of the intertwining of the world and the self. He also speaks of the “ontology of the flesh” as the ultimate conclusion of his initial phenomenology of perception. This ontology implies that meaning is both within and without, subjective and objective, spiritual and material. See Richard Kearney, “Maurice Merleau-Ponty”, *Modern Movements in European Philosophy*, Manchester University Press, Manchester and New York 1994, 73–90.

29. Maurice Merleau-Ponty, *Phenomenology of Perception*, Routledge, London, 1992, 203.

transparent cornea of the eye is overlain by a layer of modified skin [...] Touch is the parent of our eyes, ears, nose, and mouth. It is the sense, which became differentiated into the others, a fact that seems to be recognized in the age-old evaluation of touch as ‘the mother of the senses’<sup>30</sup>

Touch is the sensory mode that integrates our experiences of the world and of ourselves. Even visual and auditory perceptions are fused and integrated into the haptic continuum of the self; my body remembers who I am and how I am located in the world. In Marcel Proust’s *Combray*, the protagonist, waking up in his bed, reconstructs his identity and location “by the memory of the sides, knees and shoulders”.<sup>31</sup> My body is truly the navel of my world, not in the sense of the viewing point of a central perspective, but as the sole locus of reference, memory, imagination and integration.

The visual-biased culture of our time, and the consequent retinal architecture, are giving rise to a quest for a haptic and multi-sensory architecture, an architecture of invitation and reconciliation. Today’s culture of control and speed, efficiency and rationality favours an architecture of the eye with its instantaneous imagery, and distant yet immediate impact. Haptic architecture, conversely, promotes slowness and intimacy, appreciated and comprehended gradually as images of the body and the skin. Montagu sees a wider change taking place in western consciousness, that certainly has immediate implications on architecture, art and design: “We in the Western world are beginning to discover our neglected senses. This growing awareness represents something of an overdue insurgency against the painful deprivation of sensory experience we have suffered in our technologised world.”<sup>32</sup>

## 8. The Unconscious Hapticity

We are not usually aware that an unconscious experience of touch is unavoidably concealed in vision and hearing. As we look, the eye touches, and before we even see an object, we have already touched it and judged its weight, temperature and surface texture. We hear and feel the qualities of space before we consciously understand them. We hear volumes, sizes, scales, materials surface structures, etc. We hear specific ambiances, such as the differences of night, morning, day and evening as the meteorological facts (temperature, moisture, etc.) condition acoustic qualities. In darkness we touch the world with our ears and skin. Even in normal sensing, touch is the unconsciousness of vision and hearing, and this hidden tactile experience determines the sensuous qualities of the perceived space or object. The unconscious sense of touch mediates messages of invitation or rejection, nearness or distance, pleasure or repulsion. It is exactly this unconscious dimension of touch in vision that is disastrously

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30. Ashley Montague, *The Human Significance of the Skin*, Harper & Row, New York, 1986, 3.

31. Marcel Proust, *Kadonnutta aikaa etsimässä: Combray* (Remembrance of Things Past), Otava, Helsinki, 1968, 8.

32. *Ibid.*, Montagu, XII.



neglected in today's visually biased hard-edge architecture. Our architecture may entice and amuse the eye, but it does not provide a domicile for our bodies, memories and dreams.

## 9. Integrating the Senses

“We see the depth, speed, softness and hardness of objects – Cézanne says that we see even their odour. If a painter wishes to express the world, his system of colour must generate this indivisible complex of impressions, otherwise his painting only hints at possibilities without producing the unity, presence and unsurpassable diversity that governs the experience and which is the definition of reality for us”<sup>33</sup>, Merleau-Ponty writes emphatically.

“The senses translate each other without any need of an interpreter, and are naturally comprehensible without the intervention of any idea”, Merleau-Ponty claims.<sup>34</sup> Also every profound piece of architecture has its auditive, haptic, olfactory and gustatory qualities, and those qualities even give the visual percept its sense of fullness and life, in the same way that a painting of Claude Monet, Pierre Bonnard or Henry Matisse evokes a full sense of lived reality.

Confirming the philosopher's assumptions, today's research in the neurosciences provides swiftly increasing information on the extraordinary interconnectedness and interactions of the various sensory areas of the brain.<sup>35</sup> The unexpected flexibility of our sensory system has become especially evident in studies of the sensory capabilities of the blind. “The world of the blind, of the blinded, it seems, can be especially rich in such in-between states – the intersensory, the metamodal – states for which we have no common language”, argues Oliver Sachs. And he continues: “And all of this (...) blend into a single fundamental sense, a deep attentiveness, a slow, almost prehensible attention, a sensuous, intimate being at one with the world which sight, with its quick, flickering, facile quality, continually distracts us from”.<sup>36</sup> This argument of an esteemed medical doctor suggesting that vision rather prevents our intimate union with the world instead of enabling this fusion, is most remarkable and thought-provoking for us architects.

The true miracle of our perception of the world is its very completeness, continuity and constancy regardless of the fragmentary and discontinuous nature of our perceptions, mediated by the different, seemingly incommensurable sensory channels. Normally we manage

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<sup>33</sup>. Maurice Merleau-Ponty, “Cezanne's Doubt”, in Maurice Merleau-Ponty, *Sense and Non-Sense*, Northwestern University Press, Evanston, Ill., 1991, 15. For a discussion of the image, see Juhani Pallasmaa, *The Architecture of Image: Existential Space in Cinema*, Rakennustieto, Helsinki, 2001, and; Juhani Pallasmaa, *The Embodied Image: Imagination and Image in Architecture*, John Wiley & Sons, London, 2011.

<sup>34</sup>. Maurice Merleau-Ponty, source unidentified.

<sup>35</sup>. See, *Mind in Architecture*, Sarah Robinson, Juhani Pallasmaa, eds., MIT Press, Cambridge, Mass., scheduled for publication in the end of 2014.

<sup>36</sup>. Oliver Sachs, source unidentified.

to live in a unified and continuous world, whereas in certain sensory and mental failures this integration is lost.

## 10. The Fusion of the World and the Mind

The quality of a space or place is not merely a visual perceptual quality as is usually assumed. The judgement of environmental character is a complex multi-sensory fusion of countless factors which are immediately and synthetically grasped as an overall atmosphere, ambience, feeling or mood. “I enter a building, see a room, and – in the fraction of a second – have this feeling about it”, Peter Zumthor, one of the architects who have acknowledged the importance of architectural atmospheres, confesses.<sup>37</sup>

This experience is multi-sensory in its very essence. In his book *The Experience of Place*, Tony Hiss uses the notion “simultaneous perception” of the system we use to experience our surroundings”.<sup>38</sup> This is, however, also the way we normally observe, with all the senses at once. An atmospheric perception also involves judgements beyond the five Aristotelian senses, such as sensations of orientation, gravity, balance, stability, motion, duration, continuity, scale and illumination. Indeed, the immediate judgement of the character of space calls for our entire embodied and existential sense, and it is perceived in a diffuse, peripheral and unconscious manner rather than through precise, focused and conscious observation. This complex assessment also includes the dimension of time as experiencing implies duration and the experience fuses perception, memory and imagination. Moreover, each space and place is always an invitation to and suggestion of distinct acts: spaces and true architectural experiences are verbs.

Paradoxically, we grasp the atmosphere before we identify its details or understand it intellectually. In fact, we may be completely unable to say anything meaningful about the characteristics of a situation, yet have a firm image, emotive attitude, and recall of it. In the same way, although we do not consciously analyze or understand the interaction of meteorological facts, we grasp the essence of weather at a glance, and it inevitably conditions our mood and intentionality. As we enter a new city, we grasp its overall character similarly, without having consciously analysed a single one of its countless material, geometric, or dimensional properties. John Dewey even extends processes that advance from an initial but temporary grasp of the whole towards details all the way to our processes of thinking: “All thought in every subject begins with just such an unanalysed whole. When the subject matter is reasonably familiar, relevant distinctions speedily offer themselves, and sheer qualitiveness may not remain long enough to be readily recalled”.<sup>39</sup>

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37. Peter Zumthor, *Atmospheres – Architectural Environments – Surrounding Objects*, Birkhäuser, Basel-Boston-Berlin, 2006, 13.

38. Tony Hiss, *The experience of Place*, Random House, Inc., New York, 1991.

39. John Dewey, *Art As Experience*, as quoted in Mark Johnson, *The Mean:ing of the Body: aesthetics of Human Undersanding*,

This is an intuitive and emotive capacity that seems to be biologically derived and largely unconsciously and instinctively determined through evolutionary programming. “We perceive atmospheres through our emotional sensibility – a form of perception that works incredibly quickly, and which we humans evidently need to help us survive”, Zumthor suggests.<sup>40</sup>

## 11. Atmospheres in the Arts

Atmosphere seems to be a more conscious objective in literary, cinematic and theatrical thinking than in architecture. Even the imagery of a painting is integrated by an overall atmosphere or feeling; the most important unifying factor in paintings is usually their specific feel of illumination and colour, more than their conceptual or narrative contents. In fact, there is an entire painterly approach, as exemplified by William Turner and Claude Monet, which can be called “atmospheric painting”, in the two meanings of the notion; atmosphere being both the subject matter and expressive means of these paintings. “Atmosphere is my style”, Turner confessed to John Ruskin as Zumthor reminds us.<sup>41</sup> The formal and structural ingredients in the works of these artists are deliberately suppressed for the benefit of an embracing and shapeless atmosphere, suggestive of temperature, moisture and subtle movements of the air. “Colour field” painters similarly suppress form and boundaries and utilize large size of the canvas to create an intense immersive interaction and presence of colour.

Music of the various art forms is particularly atmospheric, and has a forceful impact on our emotions and moods regardless of how little or much we intellectually understand musical structures. Music creates atmospheric interior spaces, ephemeral and dynamic experiential fields, rather than distant shapes, structures or objects. Atmosphere emphasizes a sustained being in a situation rather than a singular moment of perception. The fact that music can move us to tears is a convincing proof of the emotive power of art as well as of our innate capacity to simulate and internalise abstract experiential structures, or more precisely, to project our emotions on abstractly symbolic structures

## 12. Unconscious Perception, Emotion and Creative Thought

Against the common understanding, also creative search is based on vague, polyphonic and mostly unconscious ways of perception and thought instead of focused and unambiguous attention.<sup>42</sup> Also unconscious and unfocused creative scanning grasps complex entities and

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The University of Chicago Press, Chicago and London, 2007, 75.

<sup>40.</sup> Peter Zumthor, op.cit., 13.

<sup>41.</sup> Ibid., title page.

<sup>42.</sup> See, Anto Ehrenzweig, *The Hidden Order of Art*, Paladin, London, 1973, and; Juhani Pallasmaa, “In Praise of Vagueness:

processes, without conscious understanding of any of the elements, much in the way that we grasp the entities of atmospheres.

I wish to underline the fact that we have unexpected synthesizing capacities that we are not usually aware of, and, besides, which we do not regard as areas of special intelligence or value. The biased focus on rational logic and its significance in human mental life is a major reason behind this unfortunate rejection.

We have traditionally underestimated the roles and cognitive capacities of emotions in comparison with our conceptual, intellectual and verbal understanding. Yet, emotional reactions are often the most comprehensive and synthetic judgements that we can produce, although we are hardly able to identify the constituents of these assessments. When we fear or love something, there is not much scope or need for rationalization.

Mark Johnson assigns emotions a crucial role in thinking: “There is no cognition without emotion, even though we are often unaware of the emotional aspects of our thinking”.<sup>43</sup> In his view, emotions are the source of primordial meaning: “Emotions are not second-rate cognitions; rather they are affective patterns of our encounter with our world, by which we take the meaning of things at a primordial level”.<sup>44</sup>

### 13. Atmospheric Intelligence – A Capacity of the Right Hemisphere

Recent studies on the differentiation of the human brain hemispheres have established that regardless of their essential interaction, the hemispheres have different functions; the left hemisphere is oriented towards the processing of detailed observation and information whereas the right hemisphere is dominantly engaged in peripheral experiences and the perception of entities. Besides, the right hemisphere is also oriented towards emotional processes while the left deals with concepts, abstractions and language.

It seems that the recognition of atmospheric entities takes place in a peripheral and subconscious manner primarily through the right hemisphere. In his challenging and thorough book on “the divided brain” *Master and His Emissary* Iain McGilchrist assigns the task of peripheral perception and the integration of the multifarious aspects of experience to the right hemisphere: “The right hemisphere alone attends to the peripheral field of vision from which new experience tends to come; only the right hemisphere can direct attention to what comes to us from the edges of our awareness, *regardless of the side* (...) So it is no

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Diffuse Perception and Uncertain Thought”, in *Encounters 2: Juhani Pallasmaa – Architectural Essays*, Rakennustieto Publishing, Helsinki, 2012.

<sup>43.</sup> Mark Johnson, *The Meaning of the Body: Aesthetics of Human Understanding*, The University of Chicago Press, Chicago and London, 2007, 9.

<sup>44.</sup> *Ibid.*, 18.

surprise that phenomenologically it is the right hemisphere that is attuned to the apprehension of anything new (...)”<sup>45</sup> The right hemisphere, with its greater integration power, is constantly searching for patterns in things. In fact its understanding is based on complex pattern recognition.<sup>46</sup>

## 14. Space and Imagination

Our innate capacity to grasp comprehensive atmospheres and moods is akin to our capacity of imaginatively projecting the emotively suggestive settings of an entire novel, as we read it. When reading a great novel, we keep constructing all the settings and situations of the story at the suggestion of the words of the author, and we move effortlessly and seamlessly from one setting to the next, as if they pre-existed as physical realities prior to our act of reading. Indeed, the settings seem to be there ready for us to enter, as we move from one scene of the text to the next. Remarkably, we do not experience these imaginary spaces as pictures, but in their full spatiality and atmosphere. The same fullness applies to our dreams; dreams are not pictures as they are spaces, or quasi-spaces, and imaginatively lived experiences. Yet, they are entirely products of our imagination. The sensory imagery evoked by literature seems to be a kind of an imaginative sensory atmosphere.

Experiencing, memorizing and imagining spatial settings, situations and events, all engage our imaginative skills; even the acts of experiencing and memorizing are embodied acts in which lived embodied imagery evokes an imaginative reality that feels like an actual experience. Recent studies have revealed that the acts of perception and imagining take place in the same areas of the brain and, consequently, these acts are closely related.<sup>47</sup> Even perception calls for imagination, as percepts are not automatic products of our sensory mechanisms; perceptions are essentially creations and products of intentionality and imagination.

I suggest that we may well become more interested in atmospheres than individually expressive visual forms. Understanding atmospheres will most likely teach us about the secret power of architecture and how it can influence entire societies, but at the same time, enable us to define our own individual existential foothold.

Our capacity to grasp qualitative atmospheric entities of complex environmental situations, without a detailed recording and evaluation of their parts and ingredients, could well

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<sup>45.</sup> Iain McGilchrist, *The Master and His Emissary: The Divided Brain and the Making of the Western World*, Yale University Press, New Haven and London, 2009, 40.

<sup>46.</sup> *Ibid.*, 47.

<sup>47.</sup> Ilpo Kojon, “Mielikuvat ovat todellisia aivoille (Images are real for the brain), *Helsingin Sanomat*, Helsinki 16.3.1996. The article refers to the research at Harvard University in the mid 1990s by a group of researchers under the supervision of Stephen Rosslyn.

be named our sixth sense, and it is likely to be our most important sense in terms of our existence, survival and emotional lives.

As the grip of the visual-analytical world weakens and is replaced by intuition and sensation, we will begin to discover again the true tuning of the world and the exquisite counterpoint of its voices. We will find a center.<sup>48</sup>

(R. Murray Schafer)

If the body had been easier to understand, nobody would have thought that we had a mind.<sup>49</sup> (Richard Rorty)

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48. R. Murray Schafer, "I Have Never Seen a Sound", *Environmental and Architectural Phenomenology*, Vol. 17 No 2, Spring 2006, 15.

49. Richard Rorty, *Philosophy and the Mirror of Nature*, Princeton University Press, Evanston, 1979, 239.