Foreword

When I sat down to write these notes in rainy New York City, thinking of the fresh white snow which had just fallen in Helsinki and the early thin ice, I remembered stories of Finland's cold winter, where every year short-cut roads are improvised across the thickly frozen north lakes. Months later as the ice begins to thin, someone will take the gamble to drive across the lake and crash through. I imagine the last look out over white ice cracks spaced by cold black water rising up inside the sinking car. Finland's is a tragic and mysterious beauty.

Juhani Pallasmaa and I first began to share thoughts about the phenomenology of architecture during my first visit to Finland for the 5th Aalto Symposium in Jyväskylä in August 1991.

In October 1992, we met again in Helsinki when I was there to work on the competition for the Museum of Contemporary Art. I remember a conversation about Maurice Merleau-Ponty's writings as they might be interpreted or directed toward spatial sequence, texture, material and light, experienced in architecture. I recall this conversation took place over lunch below decks in a huge wooden boat anchored in the Helsinki harbour. The steam rose in curls above the vegetable soup as the boat rocked slightly in the partially frozen harbour. I have experienced the architecture of Juhani Pallasmaa, from his wonderful museum additions at Riihimäki to his wooden summerhouse on a remarkable little stone island in the Turku Archipelago, in southwestern Finland. The way spaces feel, the sound and smell of these places, has equal weight to the way things look. Pallasmaa is not just a theoretician; he is a brilliant architect of phenomenological insight. He practices the unanalyzable architecture of the senses whose phenomenal properties concretise his writings towards a philosophy of architecture.

In 1993, following an invitation from Toshio Nakamura, we worked together with Alberto Pérez-Gómez to produce the book Questions of Perception: Phenomenology of Architecture. Several years later the publishers, A+U, chose to republish this little book, finding its arguments proved important to other architects.

Juhani Pallasmaa's The Eyes of the Skin, which grew out of Questions of Perception, is a tighter, clearer argument for the crucial phenomenological dimensions of human experience in
architecture. Not since the Danish architect Steen Eiler Rasmussen's *Experiencing Architecture* (1959) has there been such a succinct and clear text which could serve students and architects at this critical time in the development of 21st-century architecture.²

Merleau-Ponty's *The Visible and the Invisible*, the book he was writing when he died, contains an astonishing chapter: 'The Intertwining – The Chiasm'. (It was, in fact, the source of the name I gave my 1992 competition entry for the Museum of Contemporary Art in Helsinki – Kiasma was changed to Kiasma, there being no 'C' in Finnish.) In the chapter's text on the 'Horizon of Things', Merleau-Ponty wrote: 'No more than are the sky or the earth is the horizon a collection of things held together, or a class name, or a logical possibility of conception, or a system of "potentiality of consciousness": it is a new type of being, a being by porosity, pregnancy, or generality ...'³

In the second decade of the 21st century these thoughts go beyond the horizon and 'beneath the skin'. Throughout our world, consumer goods propelled by hyperbolic advertising techniques serve to supplant our consciousness and diffuse our reflective capacity. In architecture the application of new, digitally supercharged techniques currently join the hyperbole. With this noisy background, the work of Pallasmaa evokes reflective solitude and resolve – what he has once called 'The Architecture of Silence'. I will urge my students to read this work and reflect on 'background noise'. Today the 'depth of our being' stands on thin ice.
Introduction to the Third Edition

My little book The Eyes of the Skin: Architecture and the Senses was first published in 1996 in the 'Polémics' series of Academy Editions, London. The editors of the series invited me to write an extended essay of 32 pages on a subject matter that I found pertinent in the architectural discourse of the time.

The second part of the manuscript took its basic ideas from an essay entitled 'An Architecture of the Seven Senses', published in the July 1994 special edition of A+U entitled Questions of Perception, a publication on Steven Holl's architectural work, which also included essays by Holl himself and Alberto Pérez-Gómez. A somewhat later lecture of mine given in a seminar on architectural phenomenology at the Royal Danish Academy of Fine Arts in Copenhagen in June 1995, where the three writers of Questions of Perception presented lectures, provided the basic arguments and references for the first part of this book.

Somewhat to my surprise, the humble book was received very positively, and it became required reading in architectural theory courses in numerous schools of architecture around the world.

The polemical essay was initially based on my personal experiences, views and speculations. I had simply become increasingly concerned about the dominance of vision and the suppression of other senses in the way architecture was taught, conceived and critiqued, and the consequent disappearance of sensory and sensual qualities from architecture.

During the years since I wrote the book, interest in the significance of the senses, both philosophically and in terms of experiencing, teaching and making architecture, has grown significantly. My assumptions about the role of the body as the locus of perception, thought and consciousness, as well as about the significance of the senses in articulating, storing and processing sensory responses and thoughts, have been strengthened and confirmed by other writers. In particular, philosophical investigations on human embodiment and recent neurological research have provided support for my assumptions.

With the choice of the title 'The Eyes of the Skin', I wished to express the significance of the tactile sense for our experience and understanding of the world, but I also intended to create a
conceptual short circuit between the dominant sense of vision and the suppressed sense modality of touch. Later I learned that our skin is capable of distinguishing a number of colours; we actually do see by our skin.\(^1\)

The significance of the tactile sense in human life has become increasingly evident. 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 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’.\(^2\)

Touch is the sensory mode which integrates our experiences of the world and of ourselves. Even visual 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. My body is truly the navel of my world, not in the sense of the viewing point of the central perspective, but as the very locus of reference, memory, imagination and integration. All the senses, including vision, are extensions of the tactile sense; the senses are specialisations of skin tissue, and all sensory experiences are modes of touching, and thus related to tactility. Our contact with the world takes place at the boundary line of the self through specialised parts of our enveloping membrane.

It is evident that ‘life-enhancing’ \(^3\) architecture has to address all the senses simultaneously, and help to fuse our image of self with the experience of the world. The essential mental task of buildings is accommodation and integration. They project our human measures and sense of order into the measureless and meaningless natural space. Architecture does not make us inhabit worlds of mere fabrication and fantasy; it articulates the experience of our being-in-the-world and strengthens our sense of reality and self.

The sense of self, strengthened by art and architecture, also permits us to engage fully in the mental dimensions of dream, imagination and desire. Buildings and cities provide the horizon for the understanding and confronting of the human existential condition. Instead of creating mere objects of visual seduction, architecture relates, mediates and projects meanings. The ultimate meaning of any building is beyond architecture; it directs our consciousness back to the world and towards our own sense of self and being. Profound architecture makes us experience ourselves as complete embodied and spiritual beings. In fact, this is the great function of all meaningful art.

In the experience of art, a peculiar exchange takes place; I lend my emotions and associations to the space and the space lends me its atmosphere, which entices and emancipates my perceptions and thoughts. An architectural work is not experienced as a series of isolated retinal pictures, but in its full and integrated material, embodied and spiritual essence. It offers pleasurable shapes and surfaces moulded for the touch of the eye and the other senses, but it also incorporates and integrates physical and mental structures, giving our existential experience a strengthened coherence and significance.

In creative work, both the artist and craftsman are directly engaged with their bodies and their existential experiences rather than focusing on an external and objectified problem. A wise architect works with his/her entire body and sense of self. While working on a building or an object, the architect is simultaneously engaged in a reverse perspective, his/her self-image, or more precisely, existential experience. In creative work, a powerful identification and projection takes place; the entire bodily and mental constitution of the maker becomes the site of the work. Ludwig Wittgenstein acknowledges the interaction of both philosophical and architectural work with the image of self. ‘Working in philosophy – like work in architecture in many respects – is really more a work on oneself. On one’s own interpretation. On how one sees things [...]’.\(^4\)

The computer is usually seen as a solely beneficial invention, which liberates human fantasy and facilitates efficient design work. I wish to express my serious concern in this respect, at least considering the current role of the computer in education
and the design process. Computer imaging tends to flatten our magnificent, multi-sensory, simultaneous and synchronic capacities of imagination by turning the design process into a passive visual manipulation, a retinal journey. The computer creates a distance between the maker and the object, whereas drawing by hand as well as working with models put the designer in a haptic contact with the object, or space. In our imagination, the object is simultaneously held in the hand and inside the head, and the imagined and projected physical image is modelled by our embodied imagination. We are inside and outside of the conceived object at the same time. Creative work calls for a bodily and mental identification, empathy and compassion. Recent research on mirror neurons provides an experimental basis for the understanding of the complex processes of embodied simulation.3

The role of peripheral and unfocused vision in our lived experience of the world, as well as in our experience of interiority in the spaces we inhabit, has also evoked my interest. A remarkable factor in the experience of enveloping spatiality, interiority and hapticity is the deliberate suppression of sharp focused vision. This issue has hardly entered the theoretical discourse of architecture as architectural theorising continues to be interested in focused vision, conscious intentionality and perspectival representation. The very essence of the lived experience is moulded by unconscious napric imagery and unfocused peripheral vision. Focused vision confronts us with the world whereas peripheral vision envelops us in the flesh of the world. Alongside the critique of the hegemony of vision, we need to reconsider the very essence of sight itself and the collaboration of the various sensory realms.

Photographed architectural images are centralised images of focused Gestalt. Yet, the quality of an architectural reality seems to depend fundamentally on peripheral vision, which enfolds the subject in the space. A forest context and richly moulded architectural spaces provide ample stimuli for peripheral vision, and these settings centre us in the very space. The preconscious perceptual realm, which is experienced outside the sphere of focused vision, seems to be more important existentially than the focused image. In fact, there is medical evidence that peripheral vision has a higher priority in our perceptual and mental system.4

These observations suggest that one of the reasons why the architectural and urban settings of our time tend to make us outsiders, in comparison with the forceful emotional engagement of natural and historical settings, is in their poverty of the field of peripheral vision. Unconscious peripheral perception transforms retinal Gestalt into spatial and bodily experience. Peripheral vision integrates us with space, while focused vision pushes us out of the space making us mere spectators.

Architectural theories, education and practices have primarily been concerned with form. Yet, we have an astonishing capacity to perceive and grasp unconsciously and peripherally complex environmental entities and atmospheres. Atmospheric characteristics of spaces, places and settings are grasped before any conscious observation of details is made. Despite the obvious importance of atmospheric perception, it has hardly been introduced in architectural discourse. Again, neurological investigations suggest that our processes of perception and cognition advance from the instantaneous grasp of entities towards the identification of details, rather than the other way round.

Since writing The Eyes of the Skin just over 15 years ago, I have expanded my critical analysis of the neglect of the embodied essence of perception, cognition and consciousness in two later books also published by John Wiley & Sons: The Thinking Hand: Existential and Embodied Wisdom in Architecture (Chichester, 2009), and The Embodied Image: Imagination and Imagery in Architecture (Chichester, 2011).

(introduction revised, Washington, DC, 20 September 2011)
'The hands want to see, the eyes want to caress.'
Johann Wolfgang von Goethe

'The dancer has his ear in his toes.'
Friedrich Nietzsche

'If the body had been easier to understand, nobody would have thought that we had a mind.'
Richard Rorty

'The taste of the apple [...] lies in the contact of the fruit with the palate, not in the fruit itself; in a similar way [...] poetry lies in the meeting of poem and reader, not in the lines of symbols printed on the pages of a book. What is essential is the aesthetic act, the thrill, the almost physical emotion that comes with each reading.'
Jorge Luis Borges

'How would the painter or poet express anything other than his encounter with the world?'
Maurice Merleau-Ponty
Vision and Knowledge

In Western culture, sight has historically been regarded as the noblest of the senses, and thinking itself thought of in terms of seeing. Already in classical Greek thought, certainty was based on vision and visibility. "The eyes are more exact witnesses than the ears," wrote Heraclitus in one of his fragments. Plato regarded vision as humanity's greatest gift, and he insisted that ethical universals must be accessible to "the mind's eye." Aristotle, likewise, considered sight as the most noble of the senses "because it approximates the intellect most closely by virtue of the relative immateriality of its knowing." Since the Greeks, philosophical writings of all times have abounded with ocular metaphors to the point that knowledge has become analogous with clear vision and light is regarded as the metaphor for truth. Aquinas even applies the notion of sight to other sensory realms as well as to intellectual cognition.

The impact of the sense of vision on philosophy is well summed up by Peter Sloterdijk: "The eyes are the organic prototype of philosophy. Their enigma is that they not only can see but are also able to see themselves seeing. This gives them a prominence among the body's cognitive organs. A good part of philosophical thinking is actually only eye reflex, eye dialectic, seeing-one-self-see." During the Renaissance, the five senses were understood to form a hierarchical system from the highest sense of vision down to touch. The Renaissance system of the senses was related to the image of the cosmic body: vision was correlated to fire and light, hearing to air, smell to vapour, taste to water, and touch to earth.

The invention of perspectival representation made the eye the centre point of the perceptual world as well as of the concept of the self. Perspectival representation itself turned into a symbolic form, one which not only describes but also conditions perception.

There is no doubt that our technological culture has ordered and separated the senses even more distinctly. Vision and hearing are now the privileged sociable senses, whereas the other three are considered as archaic sensory remnants with a merely private function, and they are usually suppressed by the code of culture. Only sensations such as the olfactory enjoyment of a meal, fragrance of flowers and responses to temperature are allowed to draw collective awareness in our ocularcentric and obsessively hygienic code of culture.

The dominance of vision over the other senses – and the consequent bias in cognition – has been observed by many philosophers. A collection of philosophical essays entitled Modernity and the Hegemony of Vision argues that "beginning with the ancient Greeks, Western culture has been dominated by an ocularcentric paradigm, a vision-generated, vision-centred interpretation of knowledge, truth, and reality." This thought-provoking book analyses "historical connections between vision and knowledge, vision and ontology, vision and power, vision and ethics.

As the ocularcentric paradigm of our relation to the world and of our concept of knowledge – the epistemological privileging of vision – has been revealed by philosophers, it is also important to survey critically the role of vision in relation to the other senses in our understanding and practice of the art of architecture. Architecture, as with all art, is fundamentally confronted with questions of human existence in space and time; it expresses and relates man's being in the world. Architecture is deeply engaged in the metaphysical questions of the self and the world, interiority and exteriority, time and duration, life and death. "Aesthetic and cultural practices are peculiarly susceptible to the changing experience of space and time precisely because they entail the construction of spatial representations and artefacts out of the flow of human experience," writes David Harvey. Architecture is our primary instrument in relating us with space and time, and giving these dimensions a human measure. It domesticates limitless space and endless time to be tolerated, inhabited and understood by humankind. As a consequence of this interdependence of space and time, the dialectics of external and internal space, physical and spiritual, material and mental, unconscious and conscious priorities concerning the senses as well as their relative roles and interactions, have an essential impact on the nature of the arts and architecture.

David Michael Levin motivates the philosophical critique of the dominance of the eye with the following words: 'I think it is appropriate to challenge the hegemony of vision – the ocularcentrism of our culture. And I think we need to examine very critically the character of vision that predominates today in our world.'
OCULAR CENTRISM AND THE VIOLATION OF THE EYE

1 Architecture has been regarded as an art form of the eye.

2 Vision is regarded as the most noble of the senses, and the loss of eyesight as the ultimate physical loss.

Eye Reflecting the Interior of the Theatre of Besançon (detail), engraving after Claude-Nicolas Ledoux. The theatre was built from 1775 to 1784.

Luis Buñuel and Salvador Dalí, Un Chien Andalou (Andalusian Dog), 1929. The shocking scene in which the heroine's eye is sliced with a razor blade.

We urgently need a diagnosis of the psychosocial pathology of everyday seeing — and a critical understanding of ourselves, as visionary beings.15

Levin points out the autonomy-drive and aggressiveness of vision, and 'the specters of patriarchal rule' that haunt our ocularcentric culture:

The will to power is very strong in vision. There is a very strong tendency in vision to grasp and fixate, to reify and totalize: a tendency to dominate, secure, and control, which eventually, because it was so extensively promoted, assumed a certain uncontested hegemony over our culture and its philosophical discourse, establishing, in keeping with the instrumental rationality of our culture and the technological character of our society, an ocularcentric metaphysics of presence.16

I believe that many aspects of the pathology of everyday architecture today can likewise be understood through an analysis of the epistemology of the senses, and a critique of the ocular bias of our culture at large, and of architecture in particular. The inhumanity of contemporary architecture and cities can be understood as the consequence of the neglect of the body and the senses, and an imbalance in our sensory system. The growing experiences of
alienation, detachment and solitude in the technological world today, for instance, may be related to a certain pathology of the senses. It is thought-provoking that this sense of estrangement and detachment is often evoked by the technologically most advanced settings, such as hospitals and airports. The dominance of the eye and the suppression of the other senses tend to push us into detachment, isolation and exteriority. The art of the eye has certainly produced imposing and thought-provoking structures, but it has not facilitated human rootedness in the world. The fact that the Modernist idiom has not generally been able to penetrate the surface of popular taste and values seems to be due to its one-sided intellectual and visual emphasis; Modernist design at large has housed the intellect and the eye, but it has left the body and the other senses, as well as our memories, imagination and dreams, homeless.

Critics of Ocularcentrism

The oculocentric tradition and the consequent spectator theory of knowledge in Western thinking already had their critics among philosophers before today's concerns. René Descartes, for instance, regarded vision as the most universal and noble of the senses, and his objectifying philosophy is consequently grounded in the privileging of vision. However, he also equated vision with touch, a sense which he considered to be 'more certain and less vulnerable to error than vision'.

Friedrich Nietzsche attempted to subvert the authority of ocular thinking in seeming contradiction with the general line of his thought. He criticised the 'eye outside of time and history' presumed by many philosophers. He even accused philosophers of a 'treacherous and blind hostility towards the senses'. Max Scheler bluntly calls this attitude the 'hatred of the body'.

The forcefully critical 'anti-ocularcentric' view of Western oculocentric perception and thinking, which developed in the 20th-century French intellectual tradition, is thoroughly surveyed by Martin Jay in his book *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*. The writer traces the development of the modern vision-centred culture through such diverse fields as the invention of the printing press, artificial illumination, photography, visual poetry and the new experience of time. On the other hand, he analyses the anti-ocular positions of many of the seminal French writers, such as Henri Bergson, Georges Bataille, Jean-Paul Sartre, Maurice Merleau-Ponty, Jacques Lacan, Louis Althusser, Guy Debord, Roland Barthes, Jacques Derrida, Luce Irigaray, Emmanuel Levinas and Jean-François Lyotard.

Sartre was outspokenly hostile to the sense of vision to the point of ocularphobia; his oeuvre has been estimated to contain 7,000 references to 'the look'.

He was concerned with the objectifying look of the other, and the 'medium glance' [which] 'petrifies' everything that it comes in contact with.

In his view, space has taken over time in human consciousness as a consequence of ocularcentrism. This reversal of the relative significance accorded to the notions of space and time has important repercussions on our understanding of physical and historical processes. The prevailing concepts of space and time and their interrelations form an essential paradigm for architecture, as Sigfried Giedion established in his seminal ideological history of modern architecture *Space, Time and Architecture*.

Maurice Merleau-Ponty launched a ceaseless critique of the 'Cartesian perspectivalist scopic regime' and its privileging of an ahistorical, disinterested, disembodied subject entirely outside of the world. His entire philosophical work focuses on perception in general, and vision in particular. But instead of the Cartesian eye of the outside spectator, Merleau-Ponty's sense of sight is an embodied vision that is an incarnate part of the flesh of the world. Our body is both an object among objects and that which sees and touches them. Merleau-Ponty saw an osmotic relation between the self and the world— they interpenetrate and mutually define each other—and he emphasised the simultaneity and interaction of the senses. 'My perception is [therefore] 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,' he writes.

Martin Heidegger, Michel Foucault and Jacques Derrida have all argued that the thought and culture of modernity have not only continued the historical privileging of sight, but furthered its negative tendencies. Each, in their own separate ways, has regarded the sight-dominance of the modern era as distinctly different from
that of earlier times. The hegemony of vision has been reinforced in our time by a multitude of technological inventions and the endless multiplication and production of images – an unending rainfall of images’, as Italo Calvino calls it.30 The fundamental event of the modern age is the conquest of the world as picture,’ writes Heidegger.31 The philosopher’s speculation has certainly materialised in our age of the fabricated, mass-produced and manipulated image.

The technologically expanded and strengthened eye today penetrates deep into matter and space, and enables man to cast a simultaneous look on the opposite sides of the globe. The experiences of space and time have become fused into each other by speed (David Harvey uses the notion of ‘time-space compression’32), and as a consequence we are witnessing a distinct reversal of the two dimensions—a temporalisation of space and a spatialisation of time. The only sense that is fast enough to keep pace with the astounding increase of speed in the technological world is sight. But the world of the eye is causing us to live increasingly in a perpetual present, flattened by speed and simultaneity. Visual images have become commodities, as Harvey points out: ‘A rush of images from different spaces almost simultaneously, collapsing the world’s spaces into a series of images on a television screen [...] The image of places and spaces becomes as open to production and ephemeral use as any other commodity.’33

The dramatic shattering of the inherited construction of reality in recent decades has undoubtedly resulted in a crisis of representation. We can even identify a certain panicked hysteria of representation in the arts of our time.

The Narcissistic and Nihilistic Eye

The hegemony of sight first brought forth glorious visions, in Heidegger’s view, but it has turned increasingly nihilistic in modern times. Heidegger’s observation of a nihilistic eye is particularly thought-provoking today; many of the architectural projects of the past 20 years, celebrated by the international architectural press, express both narcissism and nihilism.

The hegemonic eye seeks domination over all fields of cultural production, and it seems to weaken our capacity for empathy, compassion and participation with the world. The narcissistic eye views architecture solely as a means of self-expression, and as an intellectual-artist game detached from essential mental and societal connections, whereas the nihilistic eye deliberately advances sensory and mental detachment and alienation. Instead of reinforcing one’s body-centred and integrated experience of the world, nihilistic architecture disengages and isolates the body, and instead of attempting to reconstruct cultural order, it makes a reading of collective signification impossible. The world becomes a hedonistic but meaningless visual journey. It is clear that only the distancing and detaching sense of vision is capable of a nihilistic attitude; it is impossible to think of a nihilistic sense of touch, for instance, because of the unavoidable nearness, intimacy, veracity and identification that the sense of touch conveys. A sadistic as well as a masochistic eye also exists, and their instruments in the fields of contemporary arts and architecture can also be identified.

The current industrial mass production of visual imagery tends to alienate vision from emotional involvement and identification, and to turn imagery into a mesmerising flow without focus or participation. Michel de Certeau perceives the expansion of the ocular realm negatively indeed: ‘From television to newspapers, from advertising to all sorts of mercantile epiphanies, our society is characterised by a cancerous growth of vision, measuring everything by its ability to show or be shown, and transmitting communication into a visual journey.’34 The cancerous spread of superficial architectural imagery today, devoid of tectonic logic and a sense of materiality and empathy, is clearly part of this process.

Oral versus Visual Space

But man has not always been dominated by vision. In fact, a primordial dominance of hearing has only gradually been replaced by that of vision. Anthropological literature describes numerous cultures in which our private senses of smell, taste and touch continue to have collective importance in behaviour and communication. The roles of the senses in the utilisation of collective and personal space in various cultures was the subject matter of Edward T Hall’s seminal book The Hidden Dimension, which, regrettably, seems to have been forgotten by architects.35
THE POWER AND THE WEAKNESS OF THE EYE

3 Particularly in modern times, vision has been strengthened by numerous technological inventions. We are now able to see deep into both the secrets of matter and the immensities of outer space.

4 Regardless of our prioritisation of the eye, visual observation is often confirmed by our touch.

Caravaggio, The Incredulity of Saint Thomas (detail), 1601–2, Sainsouci Picture Gallery, Potsdam.

The eye of the camera, detail from the film The Man with a Movie Camera by Dziga Vertov, 1929.

Hall's proxemic studies of personal space offer important insights into instinctual and unconscious aspects of our relation to space and our unconscious use of space in behavioural communication. Hall's insight can serve as the basis for the design of intimate, bioculturally functional spaces.

Walter J Ong analyses the transition from oral to written culture and its impact on human consciousness and the sense of the collective in his book Onality and Literacy. He points out that 'the shift from oral to written speech was essentially a shift from sound to visual space', and that 'print replaced the lingering hearing-dominance in the world of thought and expression with the sight-dominance which had its beginning in writing'. In Ong's view, '[t]his is an insistent world of cold, non-human facts'.

Ong analyses the changes that the 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. He argues that as hearing-dominance has yielded to sight-dominance, situational thinking has been replaced by abstract thinking. This fundamental change in the perception and understanding of the world seems irreversible to the writer:
Through 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. 

In fact, the unchallenged hegemony of the eye may be a fairly recent phenomenon regardless of its origins in Greek thought and optics. 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, focusing attention on the world of forms with Kepler (1571–1630) and Desargues of Lyon (1593–1662). It was then that vision was unleashed in the world of science as it was in the world of physical sensation, and the world of beauty as well." Robert Mandrou makes a parallel argument: "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 favored organ of a time that preferred hearing." 

The gradually growing hegemony of the eye seems to be parallel with the development of Western ego-consciousness and the gradually increasing separation of the self and the world; vision separates us from the world whereas the other senses unite us with it. Artistic expression is engaged with pre-verbal meanings of the world, meanings that are incorporated and lived rather than simply intellectually understood. In my view, poetry has the capacity of bringing us momentarily back to the oral and enveloping world. The re-oralised word of poetry brings us back to the centre of an interior world. The poet speaks not only 'on the threshold of being', as Gaston Bachelard notes, but also on the threshold of language. Equally, the task of art and architecture in general is to reconstruct the experience of an undifferentiated interior world, in which we are not mere spectators, but to which we inseparably belong. In artistic works, existential understanding arises from our very encounter with the world and our being-in-the-world — it is not conceptualised or intellectualised. 

Fetish Architecture and the Loss of Plasticity

It is evident that the architecture of traditional cultures is also essentially connected with the tacit wisdom of the body, instead of being visually and conceptually dominated. Construction in traditional cultures is guided by the body in the same way that a bird shapes its nest by movements of its body. Indigenous clay and mud architectures in various parts of the world seem to be born of the muscular and haptic senses more than the eye. We can even identify the transition of indigenous construction from the haptic realm into the control of vision as a loss of plasticity and intimacy, and of the sense of total fusion characteristic in the settings of indigenous cultures.

The dominance of the sense of vision pointed out in philosophical thought is equally evident in the development of Western architecture. Greek architecture, with its elaborate systems of optical corrections, was already ultimately refined for the pleasure of the eye. However, the privileging of sight does not necessarily imply a rejection of the other senses, as the haptic sensibility, materiality and authoritative weight of Greek architecture prove; the eye invites and stimulates muscular and tactile sensations. The sense of sight may incorporate, and even reinforce, other sense modalities; the unconscious tactile ingredient in vision is particularly important and strongly present in historical architecture, but badly neglected in the architecture of our time.

Western architectural theory since Leon Battista Alberti has been primarily engaged with questions of visual perception, harmony and proportion. Alberti's statement that 'painting is nothing but the intersection of the visual pyramid following a given distance, a fixed centre and a certain lighting' outlines the perspectival paradigm which also became the instrument of architectural thinking. Again, it has to be emphasised that the conscious focusing on the mechanics of vision did not automatically result in the decisive and deliberate rejection of other senses before our own era of the omnipresent visual image. The eye conquers its hegemonic role in architectural practice, both consciously and unconsciously, only gradually with the emergence of the idea of a bodiless observer. The observer becomes detached from an incarnate relation with the environment through the suppression of the other senses, in particular by means of technological extensions of the eye, and the proliferation of images. As Marx W Wartofsky
argues, 'the human vision is itself an artifact, produced by other artifacts, namely pictures'.

The dominant sense of vision figures strongly in the writings of the Modernists. Statements by Le Corbusier — such as: 'I exist in life only if I can see', 'I am and I remain an impenetrable visual — everything is in the visual', 'One needs to see clearly in order to understand', 'I urge you to open your eyes. Do you open your eyes? Are you trained to open your eyes? Do you know how to open your eyes, do you open them often, always. Well?', 'Man looks at the creation of architecture with his eyes, which are 5 feet 6 inches from the ground' and, 'Architecture is a plastic thing. I mean by “plastic” what is seen and measured by the eyes' — make the privileging of the eye in early Modernist theory very clear. Further declarations by Walter Gropius — 'He [the designer] has to adopt knowledge of the scientific facts of optics and thus obtain a theoretical ground that will guide the hand giving shape; and create an objective basis' and by László Moholy-Nagy: 'The hygiene of the optical, the health of the visible is slowly filtering through' — confirm the central role of vision in Modernist thought.

Le Corbusier's famous credo, 'Architecture is the masterly, correct and magnificent play of masses brought together in light', unquestionably defines an architecture of the eye. Le Corbusier, however, was a great artistic talent with a moulding hand, and a

---

**THE SUPPRESSION OF VISION — THE FUSION OF VISION AND TACTILITY**

5 In heightened emotional states and deep thought, vision is usually repressed.


6 Vision and the tactile sense are fused in actual lived experience.

Herbert Bayer, _Lonely_ Metropol, 1932 (detail), Bahl Collection.
 tremendous sense of materiality, plasticity and gravity, all of which prevented his architecture from turning into sensory reductivism. Regardless of Le Corbusier's Cartesian ocularcentric exclamations, the hand had a similar fetishistic role in his work as the eye. A vigorous element of tactility is present in Le Corbusier's sketches and paintings, and this haptic sensibility is incorporated into his regard for architecture. However, the reductive bias becomes devastating in his urbanistic projects.

In Mies van der Rohe's architecture a frontal perspectival perception predominates, but his unique sense of order, structure, weight, detail and craft decisively enriches the visual paradigm. Moreover, an architectural work is great precisely because of the oppositional and contradictory intentions and allusions it succeeds in fusing together. A tension between conscious intentions and unconscious drives is necessary for a work in order to open up the emotional participation of the observer. 'In every case one must achieve a simultaneous solution of opposites,' as Alvar Aalto wrote. The verbal statements of artists and architects should not usually be taken at their face value, as they often merely represent a conscious surface rationalisation, or defence, that may well be in sharp contradiction with the deeper unconscious intentions giving the work its very life force.

With equal clarity, the visual paradigm is the prevailing condition in city planning, from the idealised town plans of the Renaissance to the Functionalist principles of zoning and planning that reflect the 'hygiene of the optical'. In particular, the contemporary city is increasingly the city of the eye, detached from the body by rapid motorised movement, or through the overall aerial grasp from an aeroplane. The processes of planning have favoured the idealising and disembodied Cartesian eye of control and detachment; city plans are highly idealised and schematised visions seen through le regard surplombant (the look from above), as defined by Jean Starobinski, or through 'the mind's eye' of Plato.

Until recently, architectural theory and criticism have been almost exclusively engaged with the mechanisms of vision and visual expression. The perception and experience of architectural form has most frequently been analysed through the Gestalt laws of visual perception. Educational philosophy has likewise understood architecture primarily in terms of vision, emphasising the construction of three-dimensional visual images in space.

An Architecture of Visual Images
The ocular bias has never been more apparent in the art of architecture than in the past half century, as a type of architecture, aimed at a striking and memorable visual image, has predominated. Instead of an existentially grounded plastic and spatial experience, architecture has adopted the psychological strategy of advertising and instant persuasion; buildings have turned into image products detached from existential depth and sincerity.

David Harvey relates 'the loss of temporality and the search for instantaneous impact' in contemporary expression to the loss of experiential depth. Fredric Jameson uses the notion of 'contrived depthlessness' to describe the contemporary cultural condition and 'its fixation with appearances, surfaces and instant impacts that have no sustaining power over time'.

As a consequence of the current deluge of images, architecture of our time often appears as mere retinal art, thus completing an epistemological cycle that began in Greek thought and architecture. But the change goes beyond mere visual dominance; instead of being a situational bodily encounter, architecture has become an art of the printed image fixed by the hurried eye of the camera. In our culture of pictures, the gaze itself flattens into a picture and loses its plasticity. Instead of experiencing our being in the world, we behold it from outside as spectators of images projected on the surface of the retina. David Michael Levin uses the term 'frontal ontology' to describe the prevailing frontal, fixated and focused vision.

Susan Sontag has made perceptive remarks on the role of the photographed image in our perception of the world. She writes, for instance, of a 'mentality which looks at the world as a set of potential photographs', and argues that 'the reality has come to seem more and more what we are shown by camera', and that 'the omnipresence of photographs has an ineluctable effect on our ethical sensibility. By furnishing this already crowded world with a duplicate one of images, photography makes us feel that the world is more available than it really is.'
As buildings lose their plasticity, and their connection with the language and wisdom of the body, they become isolated in the cool and distant realm of vision. With the loss of tactility, measures and details crafted for the human body - and particularly for the hand - architectural structures become repulsively flat, sharp-edged, immaterial and unreal. The detachment of construction from the realities of matter and craft further turns architecture into stage sets for the eye, into a scenography devoid of the authenticity of matter and construction. The sense of 'aura', the authority of presence, that Walter Benjamin regards as a necessary quality for an authentic piece of art, has been lost. These products of instrumentalized technology conceal their processes of construction, appearing as ghostlike apparitions. The increasing use of reflective glass in architecture reinforces the dreamlike sense of unreality and alienation. The contradictory opaque transparency of these buildings reflects the gaze back unafected and unmoved; we are unable to see or imagine life behind these walls. The architectural mirror, that returns our gaze and doubles the world, is an enigmatic and frightening device.

**Materiality and Time**

The flatness of today's standard construction is strengthened by a weakened sense of materiality. Natural materials - stone, brick and wood - allow our vision to penetrate their surfaces and enable us to become convinced of the veracity of matter. Natural materials express their age, as well as the story of their origins and their history of human use. All matter exists in the continuum of time; the patina of wear adds the enriching experience of time to the materials of construction. But the machine-made materials of today - scaleless sheets of glass, enamelled metals and synthetic plastics - tend to present their unyielding surfaces to the eye without conveying their material essence or age. Buildings of this technological era usually deliberately aim at ageless perfection, and they do not incorporate the dimension of time, or the unavoidable and mentally significant processes of aging. This fear of the traces of wear and age is related to our fear of death.

Transparency and sensations of weightlessness and flotation are central themes in modern art and architecture. In recent decades, a new architectural imagery has emerged, which employs reflection, gradations of transparency, overlay and juxtaposition to create a sense of spatial thickness, as well as subtle and changing sensations of movement and light. This new sensibility promises an architecture that can turn the relative immateriality and weightlessness of recent technological construction into a positive experience of space, place and meaning. The weakening of the experience of time in today's environments has devastating mental effects. In the words of the American therapist Gotthard Booth, 'nothing gives man fuller satisfaction than participation in processes that supersede the span of individual life'. We have a mental need to grasp that we are rooted in the continuity of time, and in the man-made world it is the task of architecture to facilitate this experience. Architecture domesticates limitless space and enables us to inhabit it, but it should likewise domesticate endless time and enable us to inhabit the continuum of time.

The current overemphasis on the intellectual and conceptual dimensions of architecture contributes to the disappearance of its physical, sensual and embodied essence. Contemporary architecture posing as the avant-garde is more often engaged with the architectural discourse itself and mapping the possible marginal territories of the art than with responding to human existential questions. This reductive focus gives rise to a sense of architectural autism, an internalised and autonomous discourse that is not grounded in our shared existential reality.

Beyond architecture, contemporary culture at large drifts towards a distancing, a kind of chilling de-sensualisation and de-eroticisation of the human relation to reality. Painting and sculpture also seem to be losing their sensuality; instead of inviting a sensory intimacy, contemporary works of art frequently signal a distancing rejection of sensuous curiosity and pleasure. These works speak to the intellect and to the conceptualising capacities instead of addressing the senses and the undifferentiated embodied responses. The ceaseless bombardment of unrelated imagery leads only to a gradual emptying of images of their emotional content. Images are converted into endless commodities manufactured to postpone boredom; humans in turn are commodified, consuming themselves nonchalantly without having the courage or even the possibility of