
THE EYES OF THE SKIN
Architecture and the Senses

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PART 1

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, Foreword to *Obra Poética*.¹

How would the painter or poet express anything other than his encounter with the world.

Maurice Merleau-Ponty, *Signs*.²

Vision and Knowledge

■ In Western culture, sight has generally been regarded as the noblest of the senses, and thinking itself thought of in terms of seeing. 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.³ Plato regarded vision as humanity's greatest gift,⁴ and insisted that ethical universals must be accessible to 'the mind's eye'.⁵ Aristotle, likewise, considered sight to be the most noble of the senses 'because it approximates the intellect most closely by virtue of the relative immateriality of its knowing'.⁶ Since the Greeks, philosophical writings of all times abound with ocular metaphors to the point that knowledge has become analogous with clear vision and light the metaphor for truth. Aquinas even applies the notion of sight not only to intellectual cognition but to other sensory realms as well.

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-oneself-see.'⁷

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 with 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.⁸

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.

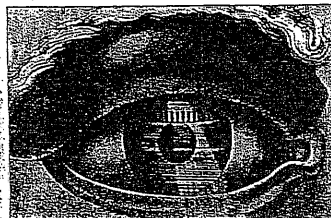
There is no doubt that our technological culture has ordered and separated the senses even more distinctly. Vision and hearing are now the privileged sociable senses, whereas the other three are considered archaic sensory remnants with a merely private function, and they are usually suppressed by the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

The dominance of vision over the other senses – and the consequent bias in cognition – has been observed by many philosophers. A recent collection of philosophical essays entitled *Modernity and the Hegemony of Vision*⁹ argues that 'beginning with the ancient Greeks, our Western culture has been dominated by an ocularcentric paradigm, a vision-generated, vision-centred interpretation of knowledge, truth, and reality'.¹⁰ The essays

of this thought-provoking book analyse 'historical connections between vision and knowledge, vision and ontology, vision and power, vision and ethics'.¹¹

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 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, expressing and relating 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.¹² Furthermore, as a consequence of this interdependence, our unconscious and conscious attitudes and priorities concerning the senses, their relative roles and interactions, have an essential impact on the arts and architecture.

David Michael Levin motivates the philosophical critique of the hegemony of the eye: 'I think it is appropriate to challenge the hegemony of vision – the ocularcentrism of our culture.

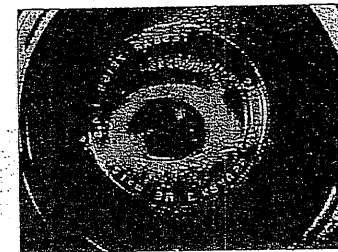


Architecture of the eye: Eye Reflecting the Interior of the Theatre of Becancon, engraving after Claude-Nicholas Ledoux – the theatre was built from 1775 to 1784

And I think we need to examine very critically the character of vision that predominates today in our world. We urgently need a diagnosis of the psychosocial pathology of everyday seeing – and a critical understanding of ourselves, as visionary beings'.¹³

Levin points out the autonomy-drive and aggressiveness of vision, and 'the spectres 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'.¹⁴

I believe that many aspects of the pathology of everyday architecture 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 an imbalance in our sensory system. The growing experiences of alienation, detachment and solitude in the technological world today, for instance,



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

may be related with a certain pathology of the senses. The dominance of the eye and the suppression of the other senses tends to push us into isolation, detachment and exteriority. The 'art of the eye' has certainly produced imposing and thought-provoking structures, but it has not rooted humanity in the world. The fact that the Modernist idiom has not been able to penetrate the surface of popular taste and values is due to its one-sided visual emphasis; Modernist design has housed the intellect and the eye, but it has left the body and the other senses, as well as our memories and dreams, homeless.

Critics of Ocularcentrism

The ocularcentric tradition and the consequent spectator theory of knowledge in Western thinking have also had their critics among philosophers. Descartes, for instance, regarded vision as the most universal and noble of senses and his objectifying philosophy is consequently grounded in the privileging of vision. However, Descartes also equated vision with touch, a sense which he considers to be 'more certain and less vulnerable to error than vision'.¹⁵

Nietzsche, too, attempted to subvert the authority of ocular thinking, in seeming conflict with the general line of his thought. He criticised the 'eye outside of time and history'¹⁶ presumed by many philosophers.



Vision and tactility: Herbert Bayer, *The Lonely Metropolitan*, 1932

The forcefully critical 'anti-ocularcentric' view of Western ocularcentric perception and thinking, as developed in twentieth-century French intellectual tradition, is thoroughly surveyed by Martin Jay in the six hundred pages of his recent book, *Downcast Eyes – The Denigration of Vision in Twentieth-Century French Thought*.¹⁷ The writer traces the development of the modern vision-centred culture through such diverse fields as the invention of the print, artificial illumination, photography, visual poetry and experience of time. On the other hand, he analyses the anti-ocular positions of many of the seminal French writers: Bergson, Bataille, Sartre, Merleau-Ponty, Lacan, Althusser, Debord, Barthes, Derrida, Irigaray, Levinas and Lyotard.

Jean-Paul Sartre was outspokenly hostile to the sense of vision to the point of ocularphobia; his *œuvre* has been estimated to contain 7,000 references to 'the look'.¹⁸ Sartre was concerned 'with the objectifying look of the other', and 'the medusa 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.¹⁹ Sartre's observation of the reversal of the dimensions of space and time has important reflections; the relative significance given to the notions of space and time has, of course, essential consequences on how physical and historical processes are understood. And the prevailing concepts of space and time and their inter-relations form an essential paradigm for 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'.²⁰ His entire philosophical work focuses on perception in general, and vision in particular. Instead of the Cartesian eye of the outside spectator, however, 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'.²¹ Merleau-Ponty pointed out an osmotic relation between the

re-oralsed word of poetry again brings us back to the centre of an interior world. 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.

Retinal Architecture and the Loss of Plasticity

It is evident that the architecture of traditional cultures is 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 structures seem to be born of the muscular and haptic senses more than the eye.

The dominance of the sense of vision pointed out in philosophical writings is equally evident in the development of Western architecture. Greek architecture, with its elaborate systems of optical corrections, was ultimately refined for the pleasure of the eye. However, privileging sight does not necessarily imply a rejection of the other senses as the haptic sensibility, materiality and weight of Greek architecture proves. The sense of sight may incorporate, and even reinforce, other sense modalities; the unconscious tactile ingredient in vision is particularly important.



The haptic city, the city of nearness and interiority: the island of Santorini, Greece

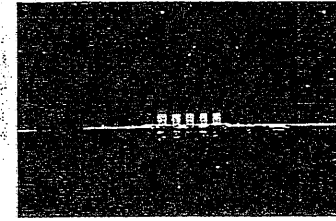
Western architectural theory since Alberti has likewise been engaged primarily with questions of visual perception, harmony and proportion. Alberti's statement 'Painting is nothing but the intersection of the visual pyramid following a given distance, a fixed centre and a certain lighting',³³ outlines the perspectival paradigm which also became part of architectural thinking. Again, it has to be emphasised that the conscious focusing on the mechanics of vision did not result in the decisive and deliberate rejection of other senses before our own era of the visual image. Both consciously and unconsciously the eye finds its hegemonic role in architectural practice gradually, with the emergence of the bodyless observer. The observer is 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'.³⁴

The dominant sense of vision figures strongly in the writings of Modernists. Statements by Le Corbusier make the privileging of the eye very clear in early Modernist theory, such as: 'I exist in life only on the condition that I see',³⁵ 'I am and I remain an impenitent visual – everything is in the visual',³⁶ 'One needs to see clearly in order to understand',³⁷ '... 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 ...',³⁸ 'Man looks at the creation of architecture with his eyes, which are 5 feet 6 inches from the ground',³⁹ and, 'Architecture is a plastic thing. I mean by "plastic" what is seen and measured by the eyes'.⁴⁰ Further declarations by Walter Gropius reinforce this Modernist hierarchy of the senses: 'He [the designer] has to adapt 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',⁴¹ and by László Moholy-Nagy: 'The hygiene of the optical, the health of the visible is slowly filtering through'.⁴²

Le Corbusier's famous credo that 'Architecture is the masterly, correct and magnificent play of masses brought together in light'⁴³ unquestionably defines an architecture of the eye. Le Corbusier, however, was a great sculptural talent with a moulding hand, and a tremendous sense of materiality and gravity, all of which prevented his architecture from turning into sensory reductivism. Regardless of his Cartesian ocularcentric exclamations, the hand had a similar fetishistic role in Le Corbusier's work as the eye. A vigorous element of tactility is incorporated into Le Corbusier's regard for architecture. However, the reductive bias becomes clear and devastating in his urbanism projects.

In Mies van der Rohe's architecture a frontal perspectival perception predominates, but his sense of 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 inhabitant. 'In every case one must achieve a simultaneous solution of opposites', as Alvar Aalto wrote.⁴⁴ The verbal statements of artists and architects should not usually be taken at face value, as the verbal formulation is often a mere conscious surface rationalisation or defence, in sharp contradiction with the deeper unconscious intentions giving the work its 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 planning that reflect the 'hygiene of the optical'. In particular, the contemporary city is more and more '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 Cartesian eye of control and detachment; city plans are highly idealised and schematised visions seen through 'le regard surplombant'



The city of the eye, the city of distance and exteriority: Le Corbusier's proposed skyline for Buenos Aires – a sketch from a lecture given in Buenos Aires in 1929

(the look from above) defined by Jean Starobinski,⁴⁵ 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 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 and the visual hegemony in the art of architecture have never been more apparent than in the past thirty years, as a particular 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, of instant persuasion, and buildings have turned into image products detached from existential sincerity.

Harvey relates 'the loss of temporality and the search for instantaneous impact' in contemporary expression to the loss of experiential depth.⁴⁶ 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 'rainfall of images',⁴⁷ architecture of our time appears only as the retinal art of the eye, 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. Levin uses the notion 'frontal ontology'⁴⁸ to describe the frontal, fixated and focused vision.⁴⁸

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',⁴⁹ and argues that 'the reality has come to seem more and more what we are shown by camera',⁵⁰ and that 'the omnipresence of photographs has an incalculable 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.'⁵¹

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 and 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 of an authentic piece of art, has been lost. These products of instrumentalised technology conceal their processes of construction, appearing as

ghostlike apparitions. The increasing use of reflective glass reinforces the dreamlike sense of unreality and alienation. The contradictory opaque transparency of these buildings reflects the gaze back unaffected and unmoved; we are unable to see or imagine life behind these walls. The mirror that returns our gaze is an enigmatic and frightening device.

Materiality and Time

The flatness of today's standard architecture 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 and history, as well as the story of their origins and 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. However, 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 age aim at ageless perfection and do not incorporate the unavoidable and mentally significant processes of aging. This fear of the traces of wear and age is related to the fear of death.

Transparency and sensations of weightlessness and flotation are central themes in modernity. In recent decades a new architectural imagery has emerged, which employs reflection, gradations of transparency, overlay and juxtaposition to create subtle and changing sensations of space, 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 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'.⁵² We have a mental need to experience the reality 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.

The current over-emphasis on the intellectual and conceptual dimensions of architecture further contributes to the disappearance of the physical, sensual and embodied essence of architecture. Contemporary architecture posing as the avant-garde is often more engaged with the architectural discourse itself and mapping the possible marginal territories of the art, than responding to human existential questions. This reductive focus gives rise to a sense of architectural autism.

Beyond architecture, contemporary culture at large drifts towards a distancing, a kind of chilling de-sensualisation and de-erotisation 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 of art 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 confronting their existential questions.

I do not wish to express a conservative view of contemporary art in the tone of Hans Sedlmeyer's thought provoking but disturbing book *Art in Crisis*.⁵³ I merely suggest that a distinct change has occurred in our sensory and perceptual experience of the world, one that is reflected clearly by art and architecture. If we desire architecture to have an emancipating or healing role, instead of reinforcing the erosion of existential meaning, we must reflect on the multitude of secret ways in which architecture is tied to the cultural and mental reality of

its time. We should also be aware of the multitude of ways in which the feasibility of architecture is now being threatened or even annihilated by current cultural, cognitive, and perceptual developments.

The Rejection of Alberti's Window

The eye itself has not, of course, remained in the monocular, fixed construction defined by Renaissance theories of perspective. The hegemonic eye has conquered new ground for visual perception and expression. The paintings of Bosch and Bruegel, for instance, already invite a participatory eye to travel across the scenes of multiple events. The seventeenth-century Dutch paintings of bourgeois life present casual scenes and objects of everyday use which expand beyond the boundaries of the Albertian window. Baroque paintings open up the viewer's vision with hazy edges, soft focus and multiple perspectives, presenting a distinct, tactile invitation, enticing the body to travel through the illusory space.

An essential line in the evolution of modernity has been the liberation of the eye from the Cartesian perspectival epistemology. The paintings of William Turner continued the elimination of the picture frame and the vantage point begun in the Baroque era; the Impressionists abandoned the boundary line, balanced framing, and perspectival depth;



The city of sensory engagement:
Peter Bruegel the Elder, *Children's Games*, 1560, Kunsthistorisches Museum, Vienna

Cézanne aspired 'to make visible how the world touches us';⁵⁴ Cubists abandoned the single focal point and reinforced haptic experience, and colourfield painters rejected illusory depth to reinforce the presence of the painting itself as an iconic artefact.

The same countercurrent against the hegemony of the perspectival eye took place in Modern architecture regardless of the culturally privileged position of vision. The kinaesthetic and textural architecture of Frank Lloyd Wright and the muscular and tactile architecture of Alvar Aalto are particularly significant in this countercurrent.

A New Vision and Sensory Balance

Perhaps freed of the implicit desire of the eye for control and power, it is precisely the unfocused vision of our time that is again capable of revealing new realms of vision and thought. The loss of focus brought about by the stream of images emancipates the eye from its patriarchal domination and gives rise to a participatory and empathetic gaze. The technological extensions of the senses have until now reinforced the primacy of vision, but these technologies may also help 'to dethrone the disinterested gaze of the disincarnated Cartesian spectator'.⁵⁵

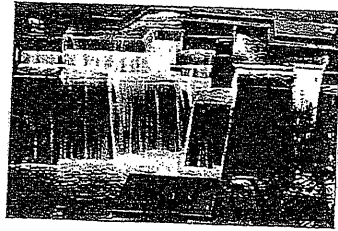
Martin Jay remarks that: 'In opposition to the lucid, linear, solid, fixed, planimetric, closed form of the Renaissance . . . the baroque was painterly, recessional, soft-focused, multiple, and open'.⁵⁶ He also argues that the 'baroque visual experience has a strongly tactile or haptic quality, which prevents it from turning into the absolute ocularcentrism of its Cartesian perspectivalist rival'.⁵⁷

The haptic experience seems to be penetrating the ocular regime again through the tactile presence of modern visual imagery – in a music video, for instance, or the layered transparency of contemporary cities. We cannot halt the flow of images for analytic observation; instead we have to appreciate the flow as an enhanced haptic sensation rather like a swimmer senses the flow of water through his skin.

In his thorough book *The Opening of Vision: Nihilism and the Postmodern Situation*, David Levin differentiates between two modes of vision: 'the assertoric gaze' and 'the alethic gaze'.⁵⁸

The assertoric gaze is narrow, dogmatic, intolerant, rigid, fixed, inflexible, exclusionary and unmoved, whereas the alethic gaze, associated with the hermeneutic theory of truth, tends to see from a multiplicity of standpoints and perspectives, and is multiple, pluralistic, democratic, contextual, inclusionary, horizontal and caring. As suggested by Levin, there are signs that a new mode of looking is emerging.

The new technologies have until now strengthened the hegemony of vision, but they may also help to re-balance the realms of the senses. In Walter Ong's view, 'with telephone, radio, television and various kinds of sound tape, electronic technology has brought us into the age of "secondary orality" . . . This new orality has striking resemblances to the old in its participatory mystique, its fostering of communal sense, its concentration on the present moment . . .'.⁵⁹



*Architecture of the senses:
Lawrence Halprin and Associates,
Ira's Fountain, 1970, Portland,
Oregon*

environment.⁶⁵ 'To at least some extent every place can be remembered, partly because it is unique, but partly because it has affected our bodies and generated enough associations to hold it in our personal worlds.'⁶⁶

Multi-Sensory Experience

A walk through a forest is invigorating and healing due to the interaction of all sense modalities; Bachelard speaks of 'the polyphony of the senses'. The eye collaborates with the body and the other senses. One's sense of reality is strengthened and articulated by this interaction of the senses. Architecture is essentially an extension of nature into the man-made realm, providing the ground for perception and the horizon to experience and understand the world. It is not an isolated and self-sufficient artefact; it directs our attention and existential experience to wider horizons. Architecture gives a material structure to societal institutions and to daily life, reifying the course of the sun and the cycle of the hours of the day.

Every touching experience of architecture is multi-sensory; qualities of matter, space and scale are measured equally by the eye, ear, nose, skin, tongue, skeleton and muscle. Architecture strengthens the existential experience, one's sense of being in the world, essentially giving rise to a strengthened experience of self. Instead of mere vision, or the five classical

senses, architecture involves several realms of sensory experience which interact and fuse into each other.⁶⁷

The psychologist JJ Gibson regards the senses as aggressively seeking mechanisms, instead of being mere passive receivers. Instead of the five detached senses, Gibson categorises the senses in five sensory systems: visual system, auditory system, the taste-smell system, the basic-orienting system, and the haptic system.⁶⁸

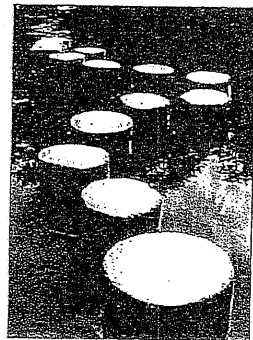
The eyes want to collaborate with the other senses. All the senses, including vision, can be regarded as extensions of the sense of touch; the senses are specialisations of the skin. The senses define the interface between the skin and the world, the interface between the opaque interiority of the body and the exteriority of the world. In the view of René Spitz, 'all perception begins in the oral cavity, which serves as the primeval bridge from inner reception to external perception'.⁶⁹ Even the eye touches; the gaze implies an unconscious touch, bodily mimesis and identification. As Merleau-Ponty remarks, 'through vision we touch the sun and the stars'.⁷⁰ Preceding Merleau-Ponty, the eighteenth-century Irish philosopher and clergyman George Berkeley related touch with vision and assumed that visual apprehension of materiality, distance and spatial depth would not be possible at all without the co-operation of the haptic memory. In Berkeley's view, vision needs the help of touch, which provides sensations of 'solidity, resistance, and protrusion';⁷¹ sight detached from touch could not 'have any idea of distance, outness, nor profundity, or consequently of space or body'. In accord with Berkeley, Hegel claimed that the only sense which can give a sensation of spatial depth is touch, because 'touch senses weight, resistance, and three-dimensional shape of material bodies and thus makes us aware that things extend away from us in all directions'.⁷²

Vision reveals what the touch already knows. We could think of the sense of touch as the unconscious of vision. Our eyes stroke distant surfaces, contours and edges, and the unconscious tactile sensation determines the agreeableness or unpleasantness

of the experience. The distant and the near are experienced with the same intensity, and they merge into one coherent experience. In the words of Merleau-Ponty: 'We see the depth, the smoothness, the softness, the hardness of objects; Cézanne even claimed that we see their odour. If the painter is to express the world, the arrangement of his colours must carry with it this invisible whole, or else his picture will only hint at things and will not give them in the imperious unity, the presence, the unsurpassable plenitude which is for us the definition of the real'.⁷³

In the same way, an architectural work generates an indivisible complex of impressions. An architectural work is not experienced as a collection of isolated visual pictures, but in its full material and spiritual presence. A work of architecture incorporates both physical and mental structures. The frontality of the architectural drawing is lost in the real experience of architecture. Good architecture offers shapes and surfaces moulded for the pleasurable touch of the eye. 'Contour and profile (modénature) are the touchstone of the architect',⁷⁴ as Le Corbusier put it, revealing a tactile ingredient in his otherwise ocular understanding of architecture.

Images of one sensory realm feed further imagery in another modality. Images of presence give rise to images of imagination. 'The chief benefit of the house . . . the house shelters day-



Japanese garden path, Heian-Jingu, Kyoto

dreaming, the house protects the dreamer, the house allows one to dream in peace',⁷⁵ writes Bachelard; but even more, an architectural space also frames, halts, strengthens and focuses one's thoughts, preventing them from getting lost.

In *The Book of Tea* Kakuzo Okakura gives a fine description of the multi-sensory imagery evoked by the simple experience of the tea ceremony: 'quiet reigns with nothing to break the silence save the note of the boiling water in the iron kettle. The kettle sings well, for pieces of iron are so arranged in the bottom as to produce a peculiar melody in which one may hear the echoes of a cataract muffled by clouds, of a distant sea breaking among the rocks, a rainstorm sweeping through a bamboo forest, or of the sighing of pines on some faraway hill'.⁷⁶ In Okakura's description the present and the absent, the near and the distant, the sensed and the imagined fuse together. The body is not a mere physical entity; it is enriched by both memory and dream. The world is reflected in the body, and the body is projected on the world.

The senses not only mediate information for the judgement of the intellect, they are also channels which ignite the imagination and articulate sensory thought. Each form of art elaborates metaphysical thought through its characteristic medium and sensory engagement. 'Any theory of painting is a metaphysics',⁷⁷ in Merleau-Ponty's view; but not only theory is engaged in metaphysical issues, for every painting is based on implicit assumptions about the essence of the world.

Similarly, the art of architecture is engaged with metaphysical and existential questions concerning man's being in the world. The making of architecture calls for clear thinking, but it is a specific embodied mode of thought that takes place through the senses and the body, and through the specific medium of architecture. Architecture elaborates and communicates thoughts of man's incarnate confrontation with the world through 'plastic emotions'.⁷⁸ The task of architecture is 'to make visible how the world touches us', as Merleau-Ponty said of the paintings of Paul Cézanne.

present symbols of melancholy; his buildings actually mourn.

Memory takes us back to distant cities, and novels transport us through cities invoked by the magic of the writer's word. The rooms, squares and streets of a great writer are as vivid as any that we have visited; the invisible cities of Italo Calvino have forever enriched the urban geography of the world. The city of San Francisco unfolds in its multiplicity through the montage of Hitchcock's *Vertigo*; we enter the haunting edifices in the steps of the protagonist and see them through his eyes. We become citizens of mid-nineteenth-century St Petersburg through the incantations of Dostoevsky. We are in the room of Raskolnikov's shocking double murder, we are one of the terrified spectators watching Mikolka and his drunken friends beat a horse to death, frustrated by our inability to prevent the insane and purposeless cruelty.

The cities of film makers, built up of momentary fragments, envelop us with the full vigour of real cities. The streets in great paintings continue around street corners and past the edges of the picture frame into the invisible with all the intricacies of life. '[The painter] makes [houses], that is, he creates an imaginary house on the canvas and not a sign of a house. And the house which thus appears preserves all the ambiguity of real houses', writes Sartre.¹¹⁰

There are cities that remain mere distant visual images when remembered, and cities that are remembered in all their vivacity. The memory re-evokes the delightful city with all its sounds and smells and variations of light and shade. I can even choose whether to walk on the sunny side or the shadowy side of the street in the pleasurable city of my remembrance.

An Architecture of the Senses

Various architectures can be distinguished on the basis of the sense modality that they tend to emphasise. In addition to the prevailing architecture of the eye, there is a haptic architecture of the muscle and the skin. There is an architecture that also recognises the realms of hearing, smell and taste.

The architecture of Le Corbusier and Richard Meyer, for instance, clearly favours sight, either as a frontal encounter, or the kinaesthetic eye of the *promenade architecturale* (even if the later works of Le Corbusier incorporate a strong tactile experience in the forceful presence of materiality and weight). On the other hand, the architecture of the Expressionist orientation, beginning with Erich Mendelsohn and Hans Scharoun, favours muscular and haptic plasticity as a consequence of the suppression of the ocular perspectival dominance. Frank Gehry's buildings also evoke kinaesthetic and haptic sensations, to give a contemporary example. Frank Lloyd Wright's architecture is based on a full recognition of the embodied human condition and of the multitude of instinctual reactions hidden in the human unconscious.

Alvar Aalto was consciously concerned with all the senses in his architecture. His comment on the sensory intentions in his furniture design clearly reveals this concern. 'A piece of furniture that forms a part of a person's daily habitat should not cause excessive glare from light reflection: ditto, it should not be disadvantageous in terms of sound, sound absorption, etc. A piece that comes into the most intimate contact with man, as a chair does, shouldn't be constructed of materials that are excessively good conductors of heat'.¹¹¹ Aalto is more interested in the encounter of the object and the body of the user than mere visual aesthetics.

The architecture of Alvar Aalto exhibits a muscular and haptic presence. Aalto's architecture incorporates dislocations, skew confrontations, irregularities and poly-rhythms in order to arouse these bodily, muscular and haptic experiences. His elaborate surface textures and details, crafted for the hand, invite the sense of touch, and create an atmosphere of intimacy and warmth. Instead of the disembodied Cartesian idealism of the architecture of the eye, Aalto's architecture is based on sensory realism; his buildings are not based on a single dominant concept or Gestalt; they are sensory agglomerations. Aalto's buildings often appear clumsy and unresolved as drawings, but

they are conceived to be appreciated in their actual physical and spatial encounter – ‘in the flesh’ – not as constructions of idealised vision.

The Task of Architecture

The timeless task of architecture is to create embodied existential metaphors that concretise and structure man's being in the world. Architecture reflects, materialises and eternalises ideas and images of ideal life. Buildings and towns enable us to structure, understand and remember the shapeless flow of reality and, ultimately, to recognise and remember who we are. Architecture enables us to perceive and understand the dialectics of permanence and change, to settle ourselves in the world, and to place ourselves in the continuum of culture.

Architecture is engaged with fundamental existential questions in its way of representing and structuring action and power, societal and cultural orders, interaction and separation, identity and memory. All experience implies the acts of recollecting, remembering and comparing. An embodied memory has an essential role as the basis of remembering a space or a place. We transport all the cities and towns that we have visited, all the places that we have recognised, into the incarnate memory of our body. Our domicile becomes integrated with our self-identity; it becomes part of our own body and being.

In memorable experiences of architecture, space, matter and time fuse into one single dimension, into the basic substance of being, that penetrates consciousness. We identify ourselves with this space, this place, this moment, and these dimensions become ingredients of our very existence. Architecture is the art of reconciliation between ourselves and the world, and this mediation takes place through the senses.

In 1954, at the age of eighty-five, Frank Lloyd Wright formulated the mental task of architecture in the following words:

What is needed most in architecture today is the very thing that is most needed in life – Integrity. Just as it is in

a human being, so integrity is the deepest quality in a building . . . If we succeed, we will have done a great service to our moral nature – the psyche – of our democratic society . . . Stand up for integrity in your building and you stand for integrity not only in the life of those who did the building but socially a reciprocal relationship is inevitable.¹¹²

This emphatic declaration of architecture's mission is more urgent today than at the time of writing forty years ago. This view calls for a full understanding of the human condition.

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