

Chapter

Chapter 4: Theoretical premise

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Sensory architecture

INTRODUCTION

In our current ocular-centric society few spatial experiences stimulate the full spectrum of our senses. Architecture, being the only art form capable of producing lived space, provides the spatial boundaries within which we as human beings experience space. However, most experiences of articulated space today can be reduced to a single experience of sensory bliss, with predominantly aesthetically pleasing designs dominating our built environment. Juhani Pallasmaa writes about this predominantly visual architecture of our time and believes that this has definitely led to “the disappearance of sensory and sensual qualities from the arts and architecture” (Pallasmaa, 2005:10).

In the words of David Michael Levin: “I think it is appropriate to challenge the hegemony of vision in the ocular centrism of our culture. And I think we need to examine very critically the character of vision that predominates today in our world” (Pallasmaa, 2005:78).

Maurice Merleau-Ponty (Merleau-Ponty, 1964:48) believes that architecture cannot be seen only, and I quote, as a “sum of audible givens” and describes the simultaneity of experience and sensory interaction as follows:

“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” (Pallasmaa, 2005:78). This notion of being, relating to architectural space, has been illustrated by Christian Norberg-Schulz, writing about the work of Martin Heidegger, as the primary role of architecture, which is, as Heidegger terms it, to provide human beings with an existential foothold, ultimately allowing human beings to dwell within space (Norberg-Schulz, 1980:5).

Thus this dissertation aims to build a theoretical argument around the importance of a multi-sensory experience within architectural place-making, rethinking an aesthetics-only approach, motivated to create a methodology for architectural place-making that allows human beings to dwell. I strongly believe that a re-emphasis on sensory experiences in architecture as formative design generator will provide an enriched architectural tectonic that will positively influence its users. As a result, this dissertation primarily seeks to provide a proactive executable approach to a sensory architectural methodology with the primary aim of being translated from a theoretical premise to an executable architectural tectonic.

To achieve this methodology, it is important that the argument follow a chronological order while building upon important philosophical ideas that trace back the argument so that informed responses for a 21st century architectural expression can be motivated.

THE NATURE OF BEING

The question of man's existence within the world encompasses the basis of all philosophical thoughts but it is the aspect of exactly how we experience our sense of being within the world that stands central to my argument.

“the possibilities and destinies of philosophy are bound up with man's existence, and thus with temporality and with historicity” (Heidegger, 1975:1)

This section investigates how man's existence relates to his being, and how architecture directly influences our perception of being within a specific place. For Heidegger the primary purpose of life is to dwell. Heidegger describes this terminology of dwelling as follows: “The way in which you are and I am, the way in which we humans are on earth, is dwelling” (Norberg-Schulz, 1980:10).

However, to be able to dwell, one needs a specific environment in which to dwell. Heidegger describes the role of architecture in an existential sense as “to allow for a specific site to become a place” (Norberg-Schulz, 1980:5). Christian Norberg-Schulz (Norberg-Schulz, 1980:5) illustrates this through an understanding that for such a place to be successful, it needs to have a distinct character. This character he terms the specific *Genius Loci* of a place. The specific character of the place thus allows us to dwell within that given space, and it is within this specific area where architecture can

mould the physical parameters that human beings can be. Juhani Pallasmaa sums up this ongoing quest of architecture when he states that “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” (Pallasmaa, 2005:16).

Gabriel Marcel claims that “I am my body” (Pallasmaa, 2005:64). Noel Arnaud takes this statement one step further and proclaims that “I am the space, where I am in” (Noel Arnaud in Pallasmaa, 2005:64). As can be seen from these statements, the relationship between place, space and the search for individual being works on a twofold ideology. Firstly, it is the individual experience of that place, and secondly it is the combined experience with others which collectively facilitates, as Pallasmaa puts it, our human rootedness (Pallasmaa, 2005:19).

However, the questions I ask are how we physically experience a place, and through what means architecture enhances this experience. For an answer to these questions I believe it is important to introduce the philosophy of phenomenology, which stands central to various architectural theorists enquiring into how we experience architecture.

PHENOMENOLOGY IN ARCHITECTURE

Various definitions of phenomenology have been identified, but the definitions adopted by the philosopher Edmund Husserl and Martin Heidegger for the sake of my argument describe phenomenology the best. For Husserl, phenomenology is “the reflective study of the essence of consciousness as experienced from the first-person point of view” (Smith, 2007). Heidegger extended this definition and introduced the philosophy of ontology, with ontology being “the study of conceptions of reality and the nature of being and [he] believes that phenomenology is the method of the studying being itself”.

Many architectural theorists have adopted a phenomenological approach to architecture, which in essence can be defined as an approach that incorporates a multi-sensory experience of place-making, striving towards a methodology of creating spatial phenomena. However, the challenge lies not in a single sensory experience, but in a collective environment stimulating all of our senses. This collective experience of our senses is explained by James J Gibson, not in terms of our five senses as we know them, namely smell, taste, see, hear and feel, but rather as a collection of these. He describes them as five sensory systems that include visual systems, auditory systems, the taste-smell systems, the basic-orienting system and the haptic system (Pallasmaa, 2005:41-42).

Bachelard (Bachelard, 1971:6) talks about a polyphony of the senses and believes that there are in fact nine senses that can be defined as a combination of the known five.

“Space, Lefebvre maintains, is not read but experienced by means of the body which walks, smells, tastes and in short lives a space” (Wiles, 2003:10)

It is from a phenomenological approach that Pallasmaa proclaims that “Every touching experience of architecture is multi-sensory; qualities of space, matter and scale are measured equally by the eye, ear, nose, skin, tongue, skeleton and muscles” (Pallasmaa, 2005:41).

The challenge now lies in how we create a multi-sensory experience, and as seen in our current ocular-centric society, this challenge imposed on architecture seems more complex than ever before.

“Today the depth of our being stands on thin ice” (Steven Hall in Pallasmaa, 2005:8).

ARCHITECTURE IS IN A CRISIS

The view in this chapter might not be shared by all. In an era with immense architectural wonders, literally defining the laws of gravity and achieved through an awesome display of contemporary materials, this statement definitely is not shared by all. However I feel that a critique of this statement has to be evaluated according to the current state of our society. I draw my argument from the debate by theorists who view our current society as an ocular-centric society.

“The pathology of today’s architecture can be understood through a critique of the ocular bias of our culture. Architecture has turned into an art form of instant visual image” (Pallasmaa, 2000:78).

The idea of an ocular-centric society places vision as the primary sensory stimulant that dominates creative expression. The reason that I use the terminology of dominating creative expression is because this bias towards vision is seen in other art forms and not only in architecture. Pallasmaa writes:

“The Bias towards vision and the suppression of the other senses has resulted in the disappearance of sensory and sensual qualities from the arts and architecture” (Pallasmaa, 2005:10).

In a society dominated by mass media and consumerist trends, bombarded by visual stimuli transmitted via television, internet and advertising, this bias towards vision is understandable. However, when this bias is critically assessed and with the negative effect that an ocular-centric approach has on the richness of our urban realm clearly evident, I have to agree with Pallasmaa when he states that: “our cities have lost their echo altogether. The wide open space of contemporary streets does not return sound. And in the interiors of today’s buildings echoes are absorbed and censored” (Pallasmaa, 2005:51).

It is important that when an approach towards a multi-sensory architecture is proposed, the philosophy of phenomenology stated previously should be understood in context to our point in society. Norberg-Schulz states that:

“Phenomenology was conceived as a return to things as opposed to abstractions and mental constructions” (Norberg-Schulz, 1980:8), ultimately arguing for an architectural approach that stimulates the full penchant of our senses through a return to essential architectural elements, lost in contemporary architecture.

This return to things should, however, not be misinterpreted and does not negate technological advances. It aims to recreate awareness into an architectural language that can promote intimacy, and ultimately a

language that aims to unite us with the built environment through an articulation done according to the human scale. This shift in articulation encourages users as active participants instead of uninvolved spectators.

Pallasmaa describes this challenge towards a contemporary sensory architecture as follows: “Around the world today we are attempting to re-sensualise architecture through a strengthened sense of materiality and hapticity, texture and weight, density of space and materialized light” (Pallasmaa, 2005:37).

Steven Hall, on the other hand, describes this approach in much simpler terms and states that architecture should strive towards a language where “The way spaces feel, the sound and smell of these places, has equal weight to the way things look” (Steven Hall in Pallasmaa, 2005:7).

Le Corbusier wrote: “The purpose of architecture is to move us. Architectural emotions exist when the work rings within us in tune with a universe whose laws we obey, recognize and respect” (Norberg-Schulz, 1980:6).

The question now remains: how do we create an architectural tectonic that can stimulate multi-sensory phenomena? How can such a tectonic express technological advancement and a return to a more traditional approach at the same time?

TOWARDS A SENSORY ARCHITECTURAL LANGUAGE

To achieve such a methodology it is important to recognise physical examples that successfully address a sensory architecture. However, when these examples were studied I realised that a common denominator throughout these examples was the awareness created through the architecture regarding the spatial relationship between nature and the constructed reality. Nature in this sense not only includes scenic beauty, as seen in many examples, but also often aspects that are taken for granted, such as light intensity, shadows, the sound of rain on a roof, materiality of a road or even just the feeling of a calm breeze in our faces. The challenge lies in the skill of making the user aware and appreciating these aspects.

I believe that these simplistic natural elements, if exploited appropriately, will result in an architecture that embraces our being within the world without a brute domination of the environment. Luis Barragan confesses to this approach by saying that: “most contemporary public spaces would become more enjoyable through lower light intensity and its uneven distribution” (Barragan, 1989:242).

Pallasmaa states that “In great architecture there is a constant deep breathing of shadow and light; shadow inhales and illumination exhales light (Pallasmaa, 2005:47), which reminds one of the famous credo of Le Corbusier proclaiming that “Architecture is the masterly, correct and magnificent play of masses

brought together in light” (Le Corbusier, 1959:31).

The relationship between our natural environment and the built phenomena experienced within architecture is substantiated when Pallasmaa believes that tranquillity is the most essential auditory experience created by architecture.

The challenge now lies in the fact that not all sites are located in a place that has an inherited spiritual connection between building and nature. However I believe that all sites have the inherited potential to express natural phenomena in a masterly display of space creation. It is exactly in this challenge that this dissertation aims to initiate a thought process that will work towards a sensory architectural experience, regardless of site location.

A large number of buildings today completely negate the experience of natural phenomena. Terminology such as ‘sick building syndrome’ sums up how negative interior-orientated buildings can be for their inhabitants. Artificially regulated environments remove us from the reality and sensory qualities of the world. I believe that an architectural language that blurs the edges between the outside and inside of a space invites us to start projecting our thoughts towards an architecture that reinstates sensory experiences, tranquillity and human rootedness within our urban environments.

Materiality plays an important role in the search for architecture of sensory expression. Building materials provide the essential building blocks with which our creative ideas are brought to life. So in the process of establishing an architectural tectonic, I feel it is necessary to elaborate on the basis on which materials are selected. In our current society, the ageing effect of buildings is not often seen as a positive aspect, with expansive claddings and finishes altered as soon as they show signs of decay.

Pallasmaa rightfully illustrates our current fixation with ageless beauty by saying that “The architecture of the modern era aspires to evoke an air of ageless youth of a perceptual present.” (Pallasmaa, 2000:79).

I will have to agree with this and believe that some solution to this can be found in the credo of Louis Khan that “a building should be what it wants to be” (Bron, xxxx:xx). This approach stands central to an honest materiality that expresses the sensory experience of these materials in its purest form. It embraces the ageing effect of the materials in a way that celebrates the patina of age.

From a formative approach to sensory architecture Gianni Vittimo introduced the notion of “weak ontology” and “fragile thought”, similar to Goethe’s method of Delicate Empiricism (Pallasmaa, 2000:81). Pallasmaa (2000:81) reinterpreted this approach, which he

termed a fragile architecture. As he points out, in our current society the idea of a fragile architecture might be negatively understood, but this ideology can be better understood through Pallasmaa's direct translation: An architecture of "weak" or "fragile" or, more precisely, an "architecture of weak structure and image", as opposed to an architecture of "strong structure and image" (Pallasmaa, 2000:81). He further describes such an approach as an architecture that is contextual and responsive, encouraging inhabitants to linger and explore. However, I believe that strong structure and image should be combined with a strong sense of materiality and texture that respects our human scale, and with a constant breathing of light and shadow that are rooted in our context to establish an appropriate language.

The question stated previously as to how such a tectonic can express technological advancement and promote a return to a more traditional approach to architecture can be answered as follows:

I believe that the strength of a contemporary architectural language that stimulates a multi-sensory approach lies in the combination of traditional and contemporary technologies.

This direct contradiction illustrates the architecture of our time in a way that projects a new beginning, while remaining deeply rooted in the phenomena of our past, and embracing the performance life. When the spatial arrangement of these new buildings promotes intimacy and tranquillity with an awareness of natural phenomena, I believe that technologically advanced screens, claddings and skins can be used to complement and further enhance these spaces.

CONCLUSION

The quest to create a multi-sensory methodology is a complex one, with each project asking for its own unique interpretation. I also believe that, as Jan Smuts proclaimed: "The whole is more than the sum of its parts". A multi-sensory architecture cannot be abstracted to individual combined elements, but when it is used collectively, it is the combined magical musical harmony that these tectonic elements produce, in conjunction with the energy human beings bring to the place, that proclaims an architecture that touches the soul as a symphonic whole with each aspect performing in tune.



FIG 4.1_Mesh transparency when not activated



FIG 4.2_Mesh transparency when activated

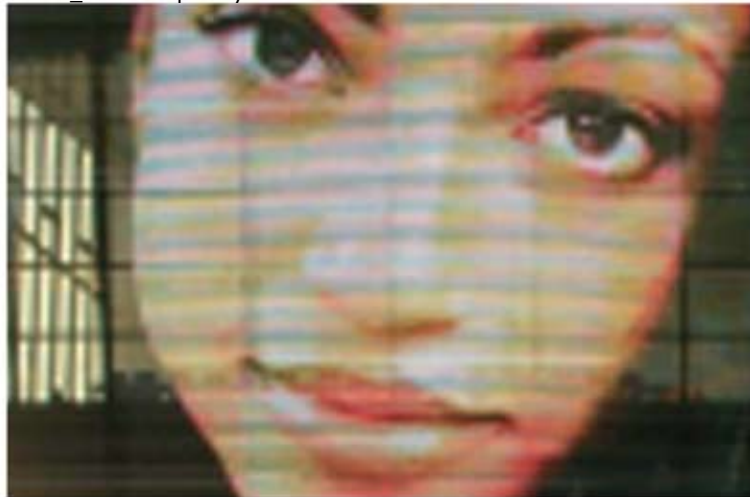


FIG 4.3_Mesh creates multimedia experience on building facade



FIG 4.4_Mesh spacing determines visible distance of media

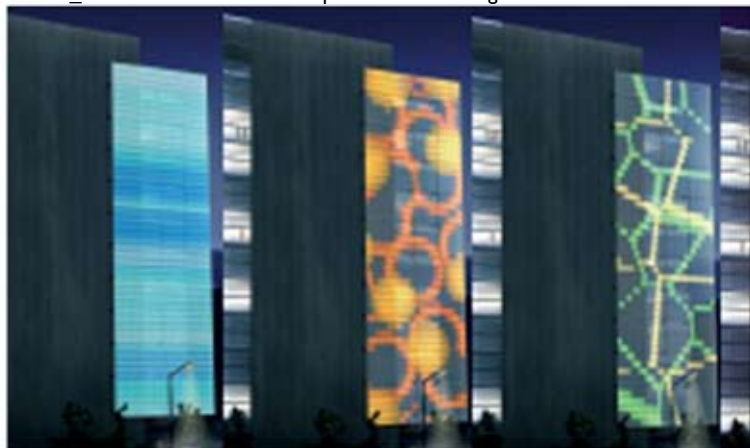


FIG 4.5_GKD Media mesh effects



FIG 4.6_GKD Media mesh on building facade

Light

FIG 4.7_Density of space enhanced through shadow articulation



FIG 4.8_Materiality enhances shadow



FIG 4.10_Filtered light quality



FIG 4.9_Colour panels creates colorful shade spectrum



“In great architecture there is a constant deep breathing of shadow and light; shadow inhales and illumination exhales light
(Pallasmaa, 2005:47)

FIG 4.11_Shadow adds to the layered depth of planer elements



FIG 4.13_Dramatic play of shadows onto textured wall



FIG 4.12_Soft light filtering into space interior



Materiality

FIG 4.14_Layered materiality



FIG 4.15_Shadows reveals true textured materiality on wall



FIG 4.16_Colourfull palette of brickwork

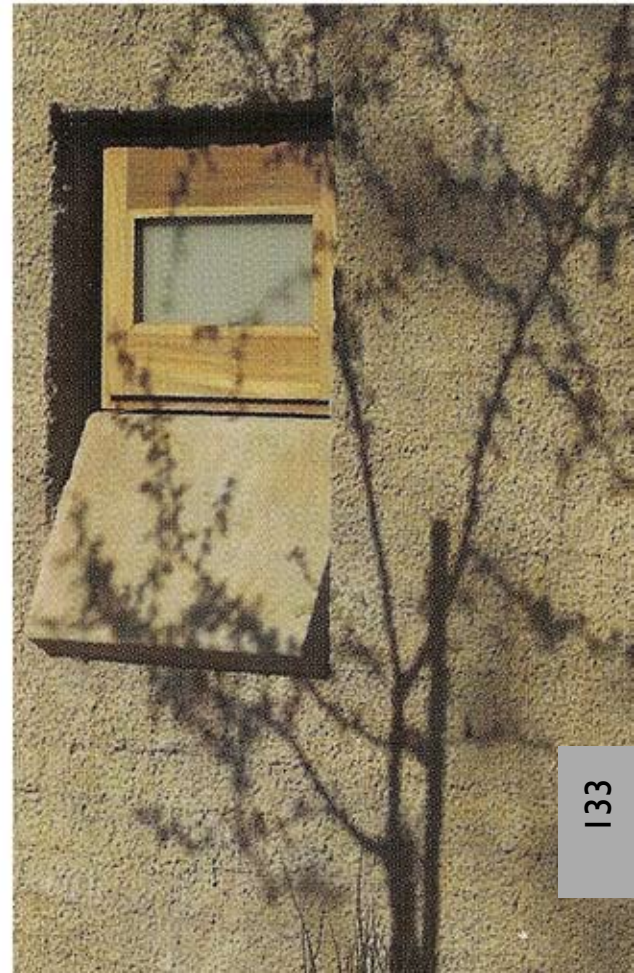


“Around the world today we are attempting to re-sensualise architecture through a strengthened sense of materiality and hapticity, texture and weight, density of space and materialized light”
(Pallasmaa, 2005:37).

FIG 4.17_Nutral surface brought to life through shadow articulation



FIG 4.18_Textured depth enhanced trough light



Spatiality

FIG 4.19_Tranquil roof space



FIG 4.20_Spatial relationship between external and internal space



FIG 4.21_Focused view onto courtyard space



FIG 4.22_Spatiality enhanced by color



FIG 4.23_Spatial connection between internal and external environment



“Nature spelled with a capital N the way you spell God with a capital G”[Frank Lloyd Wright further proclaimed that] “Nature is all of the body of God we will ever know” Frank Lloyd Wright
(Pfeiffer,2007:26)

FIG 4.24_Light shaft provides spatial continuity with external environment



FIG 4.26_Natural connection



FIG 4.27_Internal courtyard



FIG 4.25_Tranquility enhanced trough material choice



Massing

FIG 4.28_Opening placement enhances mass articulation



FIG 4.29_Window placement enhances wall depth experience



“Architecture is the masterly, correct and magnificent play of masses brought together in light”
(Le Corbusier, 1959:31).

FIG 4.30_Light enhances the formal language of the masses



FIG 4.31_Mass to void relationship

