

EXPERIENCE OF ARCHITECTURE

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ABSTRACT – Ever since Freudian space; Experience of Architecture has been a point of discussion. With Phenomenology and especially with Ponty; experiential analysis of Architecture began to be philosophically explored. With Neuroarchitecture there came a breakthrough in the analysis of Architectural experience. Simultaneously many theorists continued to explore the characters that played a role in the experience of architecture. These characters continue to be refined; this paper attempts at understanding the important characters that play a role in the experience of Architecture. Subject (User) and Object (Space) are the most important of characters. Space is further subdivided and explained in the paper. For an experience most vital is interaction between the Space and its User; which is called as Dialogue; Ideas of Dialogue leading to an experience are also elaborated here. The paper concludes with an inter-relationship diagram between the characters of Architectural experience that can lead into the Experiential Analysis of Architecture; which is the next stage of this research.

KEYWORDS: Architectural Experience, User-Space Relation, Phenomenology, Spatial Atmosphere, Space Envelope

I. INTRODUCTION

“For a phenomenologist, a psychoanalyst, or a psychologist; it is not a question of describing houses, or enumerating their picturesque features and analysing for which reasons they are comfortable. On the contrary, we must go beyond the problems of description (Pallasmaa, 2003). Ever since the Freudian space of Sigmund Freud; Experience of Architecture has been a point of discussion. With Phenomenology and especially with Maurice Merleau Ponty; Experiential Analysis began to be philosophically explored. With Neuroarchitecture there came a breakthrough in the analysis of Architectural experience. As an Architectural theorist; Pallasmaa sets the groundwork for the study of Architectural Experience. This paper takes a leap forward from there.

MacCannell in his paper says “Space for Freud was as crucial a factor as time in the work of analysis, and that contemporary practitioners might be advised to reconsider its potential importance in treatment” (MacCannell, 2005). If the medical practitioners are expected to consider the advantages of the understanding of Freudian space; shouldn’t the architects also re-visit the theory?

“It is sensible, perhaps even irresistible to assume that human experience begins with space and time and then proceeds to place.” (Casey, 1996). Taking it from Freud; Edward Casey adds the element of place to the study of experience. Somewhere later in the timeline; Norberg Schulz will emphasize on the idea of Place and discuss the spirit of Place “The Genius Loci”. Pallasmaa connects the dots of ‘Place’ and ‘Space’ with the multi-sensory experience philosophy from Ponty.

With Ponty the number of parameters multiply; they are not limited to space, place and or time. Infact we have a clearer picture of the characters also; there is the ‘I’ (user, subject) and the ‘Other’ (object, space). “No longer is it a matter of speaking about space and light, but of making space and light, which are there, speak to us. There is no end to this questioning, since the vision to which it is addressed is itself a question. All the inquiries we believed closed have been reopened. What is depth, what is light, [what is being]?” (Merleau-Ponty, 1964)

One can see that experience of Architecture has a history of evolution. This paper enlists a fixed number of characters that play vital role in the experience and draws an inter-relationship diagram for the same. Figure 1 provides a list of characters and their subdivisions. The paper will explain each character and their sub divisions based on this list; leading to the inter-relation.

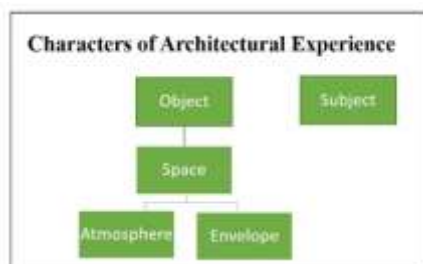


Figure 1: List of Characters of Architectural Experience

II. SUBJECT

The Subject is an animated being existing in the given time-space continuum. Subject was first discussed by Descartes; “I think; I am (Cogito, ergo sum)”. This fundamental principle of Descartes existed on the concept of Dualism - the mind and the Body. Hence existence of mind is realized only through the fact that it can reason and think. Mind yields the realization of the existence of body.

Discussion is further continued by Kant through his philosophy of ‘Self Consciousness’. The foundation of Kant’s ‘self’ is laid through the argument of Descartes’ ‘I’. Kant’s ‘Self’ can be interpreted at seven levels of relation. One of the critical interpretation of the Self is; “There are two kinds of consciousness of self: 1) consciousness of oneself and one's psychological states in inner sense and 2) consciousness of oneself and one's states via performing acts of apperception” (Brook, 2004). So; Kant also narrates the idea of Dualism in his own way; one is the Psychological Consciousness of One’s self and the other is a physical consciousness; only Kant says; it is realized through action. Kant’s Action is also a sort of act, communication, intercourse, dialogue between subject and object.

The ‘Self’ of Kant is termed as ‘Body’ by Ponty. Ponty; in one phrase discusses the Body as part of the environment and also a carrier of the perception of the environment within itself for later; “The objective body is only a moment in the constitution of the object, the body, by withdrawing from the objective world, will carry with it the intentional threads linking it to its surrounding and finally reveal to us the perceiving subject as the perceived world.” (Merleau-Ponty, 2002)

The Subject hence is a being that acts in the presence of an object. Kant calls it as ‘Self’ and Ponty calls it ‘Body’

III. OBJECT (SPACE)

“Space is a society of named places - Claude levi-strauss” (Edward, 1996)

The Object is a non-animated being within which the subject exists. In the seven layers of Kant’s Self Consciousness; the object is also given seven varied forms, similar to the Subject. Kant says; “When we are conscious of ourselves as subject, we are conscious of ourselves as the ‘single common subject’ of a number of representations” (Brook, 2004). Here the subject is very clear; and the object is the multiple representations of the subject itself. Hence saying that the object is a versatile charatcer; it can take mutiple forms. It can be experienced through one or all six senses; restrictions on this front are not applicable to the identity of the object.

The object can also be termed as Freud’s ‘Space’, It was first seen in Freudian analysis; here patient underwent day dreaming, hallucination or Delusions to arrive at that singular point where the particular disturbance was caused. Freud reorients the patient; changing the point of vision and perspective plane. Object is also Ponty’s ‘Lived World’. According to Dovey, the phenomenological position ‘entails a primacy of lived-space over abstract conceptions of geometric space’, and that ‘the lived experience of the body-in-space is the primary relation from which all conceptions of space are constructed’(Wong, 2012).

“Built spaces are extensions of our bodies” (Johnson, 2016) as aptly said by Edward Casey. “As we enter a space, the space enters us, and the experience is essentially an exchange and fusion of the object and the subject” (Pallasmaa, 2014). Pallasmaa and Tschumi lead us to the duality and interchangeability of space. Bernard Tschumi’s Architectural paradox gives a detailed idea of the two type of spaces. Tschumi calls his

spaces as The Mental Space (the product of mental processes) and The Physical Space (the product of social praxis); (Tschumi, 1996). Tschumi's space type remains similar; is renamed here as Atmosphere (the product of mental processes) and Envelope (the product of social praxis).

Space Type 1 – Envelope

The Physical Space – is called Envelope. Envelope is tangible, built space that one can experience through *visual, tactile and motion senses*. Discussing Envelope as a tangible boundary one can call it as a Cartesian space that was evolved by Descartes based on Euclidian geometry. Cartesian Space involved the study of forms beyond the orthogonal; just where Euclid had stopped. All these ideas of spaces are still understood as a container and not as an experiential model.

Ponty says that “we experience space not as a locative container but as a spatiality of situation that turns on bodily movement.” (Morris, 2016). At this point Ponty takes the Envelope (object) beyond a Cartesian exterior boundary. He takes further into account that more elements play a role in experiencing an object. “The point above is that the spatiality of situation expresses a deeper ontology in which spatiality itself is rooted in place as a processional non-given-ness. This is difficult to think about. This is because Cartesian concepts of space, movement, and navigation are so obvious to us that we think that space just is that exteriority we map out as already given via a ‘view from above’” (Morris, 2016). Here envelope type space will connect and overlap with the Atmosphere type space. One cannot study the two in isolation anyways.

Space Type 2 – Atmosphere

The Mental space – is called Atmosphere. Atmosphere is an intangible space that one can experience through *audible, edible, tactile and intuitive sense*. Experience of Atmosphere will be equally intangible as its existence. Considering its incorporeal nature; definition and process to its perception and experience will be different, yet not later. “Paradoxically, we grasp the atmosphere of a place before we identify its details or understand it intellectually. In fact, we may be completely unable to say anything meaningful about the characteristics of a situation, yet have a firm image and recall of it, as well as an emotive attitude towards it.” (Pallasmaa, 2014). Subject will experience the atmosphere at a mental level; hence the parameters dominating the experience will also be psychological. Namely Sensory perception, Emotions, Energy / Vibrations and so on. “Atmosphere is the overarching perceptual, sensory, and emotive impression of a space, setting, or social situation... It is ‘the common denominator’, ‘the colouring’ or ‘the feel’ of the experiential situation.” (Pallasmaa, 2014).

Subject will see the envelope as well as feel the atmosphere; it will hear the envelope as well as dream the atmosphere. Experience of the space by the subject occurs at multiple levels of ‘lived-world’ as Ponty terms it. “Edges—felt as well as seen, heard as well as thought—have everything to do with how things and thoughts come to an end as well as with how they commence and get under way.” (Casey, 2016)

Ponty also says that; our fields merge, overlap and are doubly articulated. The senses are fields.” (Merleau-Ponty, 2002).

“Beyond the physicality of architectural objects and the necessities of programmatic content, enmeshed experience is not merely a place of events, things, and activities, but a more intangible condition that emerges from the continuous unfolding of overlapping spaces, materials and detail. This “in-between reality” is analogous to the moment in which individual elements begin to lose their clarity, the moment in which the object merges with its field” (Holl, 2000).

Very poetically Ponty defines the subject, the object and their relation. He says that subject is the element and there is a field of this subject. Within this field are the objects; at times the complete field also could be the object. Now it's the role of the subject to project over the object and bring it forth and hence develop a dialogue. “Things are “absent” in the sense that they are in the background of my existence and thus do not have a place in my existential field. They are summoned forth and given a place in my perceptual field, becoming a meaningful component of my world. In summoning figures from the background to the foreground, I pull the absent into the present; I “breath[e] a spirit into them” and thereby assign life and meaning to the previously lifeless and meaningless” (Merleau-Ponty, 2002). Here ‘I’ is any subject that is bringing forth the ‘absent’ which is a non-existent object into its ‘existential field’; that is the boundary of experience.

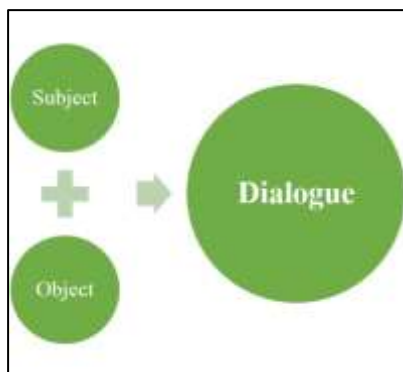


Figure 2: Inter-relation of Subject and Object

IV. DIALOGUE

“For Merleau-Ponty, bodily existence is projective and projection is part of an inter-subjective dialogue between the embodied subject and the world” (Sullivan, 1997). Ponty claims that a subject and an object can develop a relation beyond simply existing in the proximity of each other. This relation is developed only with an exchange of some form. Leaving the form of exchange un-defined; one can still say that the exchange is a type of Dialogue between the two. Hence one can say that Dialogue is a form communication that the Subject (Body) projects over the Object (lived-world) due to their relation developed in given proximity.

“Dialogue' comes from the Greek word dialogos. Logos means 'the word' or in our case we would think of the 'meaning of the word'. And dia means 'through' - it doesn't mean two. A dialogue can be among n number of people. Even one person can have a sense of dialogue within himself, if the spirit of the dialogue is present” (Bohm, 1996). The two or more characters between which the dialogue is possible as stated by Bohm; are the subject and one or more objects. “Buber holds that man must be essentially dialogic. The human subject enters into a relation with the whole being of the other in real dialogue” (Winright, 1991). This ‘Other’ that Buber is talking about could be any form of Object (Space, Sign, Prop). With either of the object; subject can have three varied type of dialogues; *Endopsychic, Phenomenological and Semiotic.*

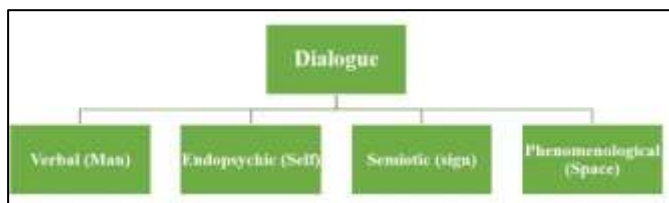


Figure 3: Dialogue types possible between Subject and Object

Endopsychic

As clarified by Tulio Maranhao “Dialogue includes any verbal communication, even endopsychic one.” (Maranhao, 1990). An Endopsychic Dialogue will include a communication of the subject with itself; a self-contemplation or a recollection of past etc. In this type of self-dialogue; it is important to acknowledge that there has to be an external stimulus that causes the internal dialogue. This external stimulus becomes the primary object; even though the subject builds its conversation with the object within itself; yet the external object is the true catalyst of the communication.

Phenomenological

Ponty in his discussion on dialogue mentions an idea of the “World”. Tulio Maranhao says that “The dialogue creates a world, or at least an understanding of differences between two worlds.” (Maranhao, 1990) . World is a term used for anything that may be physically or mentally woven with the subject. The interweaving between the Knowing subject and the Knowable object is a Phenomenological Dialogue according to Buber. “In the domain of phenomenology its explication of human knowledge in an alternative mode on the basis of the relational space between the knowing subject and the knowable takes the shape of phenomenology of dialogue.” (Winright, 1991)

Therefore phenomenological dialogue may be defined as “an exploration and description of phenomena, where phenomena refers to things or experiences as human beings experience them. Any object, event, situation or experience that a person can see, hear, touch, smell, taste, feel, intuit, know, understand, or live through” (Seamon, 2000)

Semiotic

The third form of dialogue is semiotic. “Semiotic derives from the Greek *semeion*, meaning sign, *semainon* which means signifier and *semainomenon* meaning signified or indication” (Yakina, 2014). Peirce’s theory of Semiotic dialogue is divided into three parts; 1) Sign or signifier, which means physical signs or symbols. 2) Signified is the idea/thing/concept that is being exemplified by the sign. 3) Interpretant is the meaning that the first two are trying to send. A layer is added by this research to Peirce’s theory; ‘the existence of subject’. The sign will obviously signify the message to the subject; hence the existence of subject is inevitable. It will also depend on the background of the subject to interpret the sign and conclude the message. Variations in perception are possible in this form of dialogue.

In Umberto Eco’s book ‘A Theory of Semiotics ’; he says “A sign is everything which can be taken as significantly substituting for something else” (Eco, 1979). This something else is understood by Eco as a lie or deception because it may or may not be existing in the space at the time of the dialogue. It may be an implied message; one that is constructed to mislead. Hence one can conclude that a semiotic dialogue can lead to false conclusions and or misleading interpretations.

A quotation by E. M. Forster said; “How can I tell what I think till I see what I say”. But “tell”, “see” and “say” can be interpreted and understood from different perspectives and on different levels of symbolization. It is by “saying” that we create the world that we communicate, that we think and reflect. We are blind to that which we have no concepts to express. One can say that in a way we exist through language.” (Ulla-Britt Parment, 2000). One can conclude that expression of self is the key to any form of communication/Dialogue. Considering that the dialogue is an involvement of some or all six senses; hence the dialogue is an experience in itself by the subject within the object.

V. EXPERIENCE

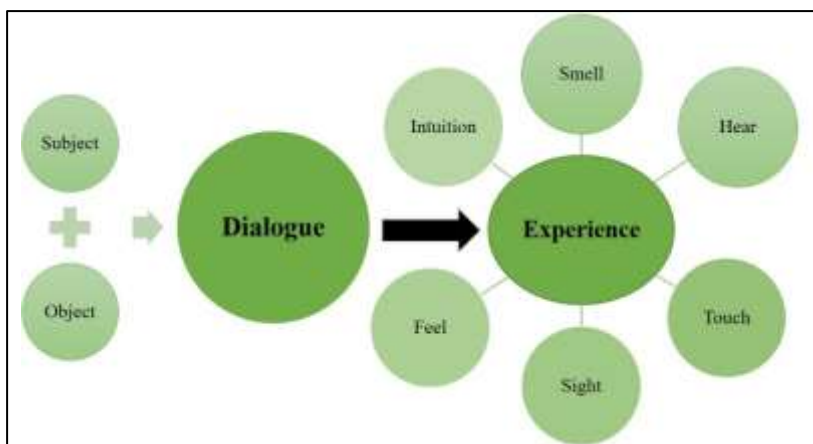


Figure 4: Dialogue leads to Experience through six senses of Subject

From Kant to Pallasmaa through Ponty; all have a definition of experience that builds the story of the Subject and Object inter-relation. Kant says; “Space and time are the framework within which the mind is constrained to construct its experience of reality” (Brook, 2004). Ponty says; “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” (Merleau-Ponty, 2002). On similar lines Pallasmaa says, “Every significant experience of architecture is multi-sensory; qualities of matter, space and scale are measured by the eye, ear, nose, skin, tongue, skeleton and muscle” (Pallasmaa, 2000). Experience in itself is an extensive discussion; hence this study intends to only bring the idea from explanation of existence of the subject to the introduction of experience. “The richest experiences happen long before the soul takes notice. And when we begin to open our eyes to the visible, we have already been supporters of the invisible for a long time” (Bachelard, 1983). Here the role of the sixth sense also gets clearer. One can also visualize how the atmosphere may be getting experienced when Gabriele discusses the role of the invisible.

Pallasmaa describes a holistic experience; this account provides a picture of the subject, object, their dialogue and the experience as achieved. "The history of life can be traced in the minutest fragment of the dwelling. But the walls themselves were the most unforgettable. The stubborn life of these rooms had not allowed itself to be trampled out. It was still there; it clung to the nails that had been left in the walls; it found a resting-place on the remaining handbreadth of flooring; it squatted beneath the corner beams where a little bit of space remained. One could see it in the colors which it had slowly changed, year by year: blue into a moldy green, green into grey, and yellow into a stale, drab, weary white.

But it was also in the places that had kept fresher, behind the mirrors, the pictures, and the wardrobes; for it had outlined their contours over and over again, and had been with cobwebs and dust even in these hidden retreats that now lay uncovered. It was in every bare, flayed streak of surface, it was in the blisters the dampness had raised at the edges of the wallpapers; it floated in the torn-off shreds, and sweated out of the longstanding spots of filth. And from these walls once blue, and green and yellow, framed by the tracks of the disturbed partitions, the breath of these lives came forth - the clammy, sluggish, fusty breath, which no wind had yet scattered." (Pallasmaa, 2003)

VI. CONCLUSION

Merleau Ponty explains how a Body integrates itself with a lived World or the Space in order to gain experience. "The integration is effected by various "intentional threads" that bind the body and place in a common complex of relations. But none of this pervasive integumentation between body and place would be possible without the freely moving members of the body as it situates itself in a particular place, remembers itself in that place, and so forth. The lived body – the body living (in) a place – is thus "the natural subject of perception" (Merleau-Ponty, 2002).

The inter-relationship

Figure 5 shows the Architectural Experience characters; their dialogue; leading into the experience. The bubble of Subject is the User while Object is the Space. The relation of subject with the Object is inevitable as one can see; hence the experience of the subject while in proximity of the object will be due to the object. One has already understood the various types of objects and the various types of relation / communication / dialogue that the subject can have with the object. Based on these understandings a further research may be taken up of how the subject's experience can be understood considering the object in proximity and the subject's dialogue with it.

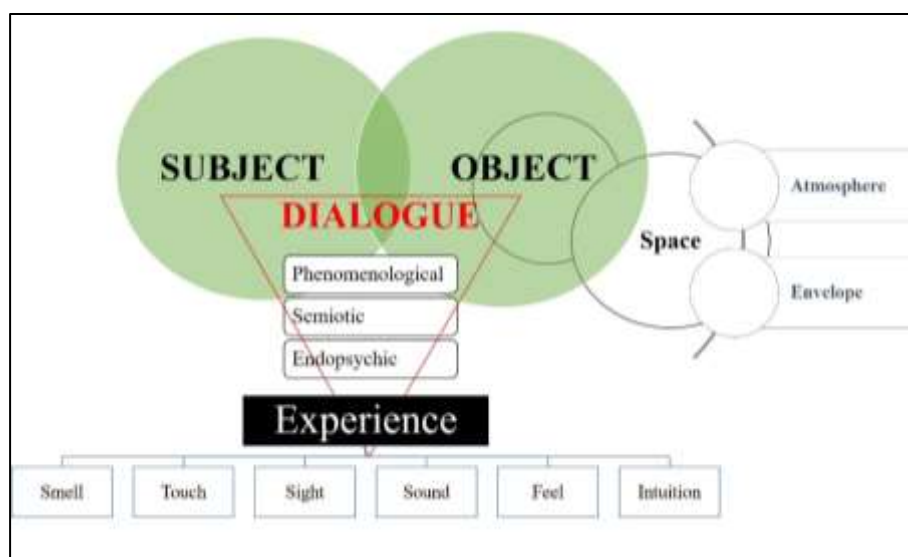


Figure 5: A Diagrammatic relationship of Characters and Parameters that play a role in Architectural Experience.

VII. REFERENCE

- [1] Bachelard, G., 1983. *Water and dreams: an essay on the imagination of matter.*, - ed. Dallas: The Pegasus Foundation.
- [2] Bachelard, G., 1994. *The Poetic of Space.* 3 ed. Boston : Beacon Press.
- [3] Bohm, D., 1996. *On Dialogue.* 1 ed. New York: Routledge.
- [4] Bollas, C., 2000. Architecture and the Unconscious. *International Forum of Psychoanalysis*, 1-2(9), pp. 28-42.
- [5] Brook, A., 2004. *Kant's View of the Mind and Conciousness of Self.* [Online] Available at: <https://plato.stanford.edu/entries/kant-mind/> [Accessed 1 May 2017].
- [6] Casey, E., 1996. How to get from space to place in a fairly short stretch of time: phenomenological prolegomena. In: F. S. a. B. K, ed. *Sense of Place.* Santa Fe: N.M school of American Research advanced seminar series, pp. 13-52.
- [7] Casey, E. C., 2016. liminal space: Finding architectural edge in the wake of merleau-ponty. In: P. Locke, ed. *Merleau-Ponty: space place and architecture.* Athens, OH: Ohio Univ press, pp. 65-90.
- [8] Durão, M. J., 2009. Embodied Space: a Sensorial Approach to Spatial Experience. *AIP Conference Proceedings 1103*, p. 399.
- [9] Eco, U., 1979. *A theory of semiotics.* - ed. Bloomington: Indiana University Press..
- [10] Edward, S. C., 1996. How to get from space to place in a fairly short stretch of time: Phenomenological Prolegomena. In: f. S. a. B. K, ed. *sense of place* . Santa Fe, NM: school of American Research advanced seminar series. , pp. 13-52.
- [11] Heidegger, M., 1971. *Poetry, Language, and Thought.* New York: Harper & Row.
- [12] Heidegger, M., 1997. *Building, Dwelling and Thinking.* 1 ed. New York: Harper & Row.
- [13] Holl, S., 2000. *Parallax.* 2 ed. New york : Princeton Architectural Press.
- [14] Jenlink P.M., B. B., 2005. *Dialogue as a Means of Collective Communication.* 1 ed. Boston, MA: Springer.
- [15] Johnson, G. A., 2016. Liminal space: Depth of space and depth of world. In: P. L. a. R. Mccann, ed. *Merleau-Ponty: Space Place and Architecture.* Athens, OH: Ohio Univ press, pp. 43-65.
- [16] Kabir, F., 2018. Theory Based Design Practice Today. *International Journal of Engineering Research*, 7(Special 1 (NCETA-2018)), p. ?.
- [17] Ledford, D. L., 2008. 'Psychology of Space': The Psycho-Spatial Architecture of Paul Rudolph. In: P. Rudolph, ed. *Paul Rudolph, Writings on Architecture* . New Haven: Yale School of Architecture: Yale University Press,, p. 148.
- [18] Leyva, J. L. T. D., 2018. In Praise of Shadows Or The Rational Intuition Of Light . In: D. Kozłowski, ed. *Defining The Architectural Space: Rationalistic or Intuitive way to Architecture* . Poland: Cracow, pp. 151-158.
- [19] Low, S. M., 2003. Embodied Space(s): Anthropological Theories of Body, Space, and Culture. *space & culture*, Volume 6, pp. 1,9-18.
- [20] Luyat, E. G. . G. B.-B. . M., 2008. The haptic perception of spatial orientations. *Exp Brain Res*, p. 31–348.
- [21] MacCannell, J. F., 2005. FreudSpace: Architecture in Psychoanalysis. In: J. W. A. a. E. D. J. Winer, ed. *Architecture and Psychoanalysis.* Irvine : The Annual of Psychoanalysis, pp. 1-15.
- [22] Maranhao, T., 1990. *The Interpretation of Dialogue.* Chicago: univ of Chicago press.
- [23] Merleau-Ponty, M., 1964. The Eye and The Mind . In: J. M. Edie, ed. *The Primacy of Perception.*, Evanston: Northwestern University Pres, pp. -.
- [24] Merleau-Ponty, M., 1964. The film and the new psychology. In: M. Merleau-Ponty, ed. *Sense and non-sense.* Evanston: Northwestern University Press, p. 48.
- [25] Merleau-Ponty, M., 2002. *Phenomenology of Perception.* London: Routledge.
- [26] Morris, D., 2016. Temporal space: Spatiality, temporality, and architecture as a place of memory . In: P. Locke, ed. *Merleau-Ponty: space place and architecture.* Athens, OH: Ohio Univ press, pp. 109-127.
- [27] Norberg-Schulz, C., 1979. *Genius Loci – Towards a Phenomenology of Architecture.* Christian Norberg-Schulz ed. New York : Rizzoli.
- [28] Pallasmaa, J. & N. B. D., 2003. Identity, Intimacy and Domicile - notes on the phenomenology of home. In: -, ed. *The Home: Words, Interpretations, Meanings, and Environments.* Surrey, UK: Avebury, pp. 131-147.
- [29] Pallasmaa, J., 2000. Hapticity And Time. *Architectural Review*, -(207), pp. 78-84.

- [30] Pallasmaa, J., 2014. Space, Place, and Atmosphere: Peripheral Perception in Existential Experience. In: C. Borch, ed. *Architectural Atmospheres: On the Experience and Politics of Architecture* . Switzerland : Birkhauser, pp. 18-42.
- [31] Preziosi, D., 1979 . Architecture, language and meaning . In: D. Preziosi, ed. *Architecture, Language and Meaning: The Origins of the Built World and Its* New York : mouton publishers, pp. -.
- [32] Schwandt, T. A., 2001. A Postscript on Thinking about Dialogue. *Evaluation*, 2(7), pp. 264-276.
- [33] Seamon, D., 2000. A Way of Seeing People and Place: Phenomenology in Environment-Behavior Research. In: J. D. T. Y. a. H. M. S. Wapner, ed. *Theoretical Perspectives in Environment-Behavior Research* . New York: Plenum, pp. 157-78.
- [34] Sullivan, S., 1997. Domination and Dialogue in Merleau-Ponty's Phenomenology of Perception. *Hypatia*, 1(12), pp. -.
- [35] Tschumi, B., 1996. *Architecture and disjunction*. Tschumi, Bernard ed. massachusetts: MIT Press.
- [36] Ulla-Britt Parment, B. C. ., J. H. ., M. S. & V. W., 2000. Editorial: Psychoanalysis Meets Art and Architecture. *International Forum of Psychoanalysis*, 1-2(9), pp. 3-4.
- [37] Üngür, E., 2011. *Space: The undefinable space of architecture (Thesis Based paper)*. Budapest, ITU.
- [38] Winright, E. R. C., 1991. *Martin Buber's I and Thou As Model For Relationship*. - ed. Texas: Elaine R. Clark Winright.
- [39] Yakina, H. S. M., 2014. *The Semiotic Perspectives of Peirce and Saussure: A Brief Comparative Study*. Langkawi, MALAYSIA , The International Conference on Communication and Media .
- [40] Wong, J. F. (2012). The script of viscosity: the phenomenal experience in Steven Holl's museum architecture. *Journal of Architecture*, 17(2), 273–292. <https://doi.org/10.1080/13602365.2012.678646>