Tracing Liminality: A Multidisciplinary Spatial Construct

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Abstract

The theoretical idea of liminality emerged as a spatial condition of the contemporary built environment due to rapid urbanization and post-modernization of cities. In other disciplines, the notion of liminality is used mainly in theoretical and intellectual discourse. While in architecture, the term is being adopted through theoretical concepts such as thresholds, in-between and transitional spaces that offer similar meaning and condition thoughtfully designed into spaces. Synonymous to concepts of in-betweenness, transitions and thresholds, liminality is a spatial quality, which suggests a middle threshold location between two contrasting spaces, for example public and private spaces, here and there, and, in and out. While there are diverse conceptions of liminality, there is a lack of link between the theoretical study and the production of liminal architecture/space. This paper traces the theoretical idea of liminality and discusses how the multi-disciplinary term emerged and manifested in architecture. Drawing from multi-disciplinary literature on liminality, it suggests that liminality in architecture is a notion explored from the transdisciplinary standpoint – where links can be seen through relation to anthropology, philosophy, art, urban design and architecture. It argues that the factors of liminality in the production of architecture are shaped by spatial conditions, spatial division and spatial experience.

Keywords: liminal; in-between; transition; threshold; architecture

Introduction

Liminality is a multi-disciplinary theoretical concept that provides a wide meaning. The term liminal originates from Latin word *limen* defined by Oxford English Dictionary (Simpson & Weiner, 1989), the adjectival form: an initial stage of a process. The simplest meaning of the term liminal is an intermediate or transition between two states, conditions or regions ("Liminal," n.d.). Liminality is an integrative theory that has been adopted into various fields since the term first emerged in anthropologist Arnold van Gennep's writings in Rites of Passage (Van Gennep, 1909). Van Gennep explored the term in the context of rituals in small-scaled societies, where liminal or threshold realm is a space between the world of status that the person is leaving and the world of status into which the person is being inducted (Van Gennep, 1909). Liminality was rediscovered in 1967 by philosopher Victor Turner who argued that liminality not only identified as the in-between states, it also serves awareness to understand people's response to liminal experiences (Aldine, 1969). Theorist Martin Buber on the other hand, outlined two ways of being in the world: the modes of I-It and I-Thou. In the realm of the I-It, persons treat each other as objects and in the realm of I -Thou, persons seek to relate meaningfully to others (Buber, 1958). Besides that, psychologists referred liminal space as a state of mind of getting ready to move across. ("BETWEEN PLACES AND SPACES: LANDSCAPES OF LIMINALITY," 2014). These studies provide forward-thinking ideas about liminality in the usage of anthropology and philosophy suggestive of defining liminality as being an intangible construct in a state of ambiguity.

Everywhere which has in between spaces can be a transition space. In the 1960s, the term was related into spatial contexts through writings in the disciplines of art, urban design and architecture. The concept of liminality was brought to light into architecture by Aldo van Eyck, of Team 10 ("Aldo van Eyck," n.d.).

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One of the emerging topics that the members in conferences and periodicals were obsessed about, was the 'doorstep', the 'threshold', and also called the 'meeting place' or the 'shape of the in-between' (Teyssot, 2011). Eyck's conceptual philosophies are described in the unissued print, "The Child, the City and the Artist" (Van Eyck, 1962). His theory of the threshold or in-between addressed the need for architecture to resolve spatial divisions such as the idea of inside-outside.

This study is derived from the observation that there is a lack of understanding of the nature of liminality in existing landscape as posited by Irrigay (1999). Traditional architectural practice clearly demarcates between building conception and the inhabitation of architectural structure (Eli, 2013). On the other hand, theories of liminality point towards the zone of blurring between the making and experience of spaces (Zukin, 1991). In addition to that, this idea has been examined by HermenHertzberger (1991), in Lessons for students in architecture, that the threshold provides the key to the transition and connection between areas with divergent territorial claims and as a place in its own right, it constitutes the spatial condition for the meeting and dialogue between areas of different orders. The in-between concept is the key to blur divisions between areas with different territorial claims (Hertzberger, 1991). On the other hand, Jonathan Hill and Gianni Vattino (Smith, 2001) supplanted the idea that building objects are design to the user experience by drawing from contemporary art, and aided to explore other ways of seeing architecture as a concept rather than a finite conclusion. Hill elaborated that it involves a reconceptualization of architectural relationships using different media and rather than traditional, fixed conceptions of building form.

Despite the theoretical studies of liminality, there is a lack of understanding of the structure of liminal space and its characteristics in architecture and the built environment. Therefore, the need for integrated understanding of this idea is necessary to eliminate ambiguous assumptions. What is the relationship between theory of liminality in architecture and multi-disciplinary disciplines? What are the factors that inform liminality in architecture? This paper begins with tracing the notion of liminality from Arnold van Gennep's Rites de Passage (1909) to the contemporary research on liminality from a multi-disciplinary perspective, leading to the conception of liminality in architecture, and the factors that informs it.

The study takes on an interpretive research as the strategy of inquiry. The primary literature for analysis comprised of the writings on theory of liminality such as works by Arnold van Gennep (1909), Victor Turner (1967), Aldo van Eyck (1968), Herman Hertzberger (1991) and Martin Heidegger (1975). Using the theorization of liminality by Aldo van Eyck, HermenHertzberger and Peter Zumpthor, factors that inform liminality in architecture are defined.

Tracing Liminality

Liminality was first coined by Arnold Van Gennep in Rites de Passage (1909), a work that explored and developed the concept of liminality in the context of rituals in small-scale societies. According to a passage written by Aldine (1969), the characteristics of liminality stated in Gennep's writing are indefinite. He related the term as a state or a condition where a person eludes or slip through the attributes of a culture where state and position is normally located. Liminal as a condition is neither here nor there; they are 'between the positions assigned and arrayed by law, custom, convention, and ceremonial' (Aldine, 1969). Van Gennep (1909) defined rites de passageas "rites which accompany every change of place, state, social position and age" in such as coming of age rituals and marriage as having the following three-part structure: separation, liminal period and aggregation.

It also meant a threshold, originally used in anthropology where the quality of ambiguity or disorientation that occurs in the middle stage of rituals, when participants no longer hold their pre-ritual status but have not yet begun the transition to the status they will hold when the ritual is complete (Charles, 2005). Aldine elaborated in the excerpt from The Ritual Process, that 'as such, their ambiguous and indeterminate attributes are expressed by a rich variety of symbols in the many societies that ritualize social and cultural transitions.' Thus, liminality in anthropology term is often related 'to death, to being in the womb, to invisibility, to darkness, to bisexuality, to the wilderness, and to an eclipse of the sun or moon.'(Aldine, 1969)

It was not until the second half of the 20th century, that the terms "liminal" and "liminality" gained popularity through the writings of Victor Turner. Turner borrowed and expanded upon Van Gennep's concept of liminality, ensuring widespread usage of the concept not only in anthropology but other fields as well. In The Forest of Symbols Essay: Betwixt and Between: The Liminal Period in Rites of Passage (1967), Turner introduced the concept of 'liminal space' in order to understand rituals in African tribes as: a space of transformation between phases of separation and reincorporation. It represents a period of ambiguity, of marginal and transitional state(Turner,1967).

Quoting David E.Nye in his writings, From Landscape to Cityscape: Recent Interdisciplinary Work (E.Nye, 1997), he wrote about Turner on his concept of liminality, "Oversimplifying his theory, in a liminal state the hierarchical order of society temporarily breaks down, people merge briefly into an undifferentiated mass, and emerge renewed from the experience."

Martin Buber on the other hand, outlined two ways of being in the world: the modes of I-It and I-Thou, in the realm of the I-It, persons treat each other as objects and in the realm of I -Thou, persons seek to relate meaningfully to others (Buber, 1958). In the realm of the I-It, persons treat each other as objects. In the realm of I - Thou, persons seek to relate meaningfully to others. We must live in both worlds, Buber insists, yet only in the world of the I-Thou do persons relate with their whole being, and only here is true dialogue and relationship possible. The true hallmark of maturity and health becomes the successful negotiation of this twofold nature of existence (Buber, 1958). Besides that, psychologists call liminal space, "a place where boundaries dissolve a little and we stand there, on the threshold, getting ourselves ready to move across the limits of what we were, into what we are to be" ("BETWEEN PLACES AND SPACES: LANDSCAPES OF LIMINALITY," 2014). These studies provides forward-thinking ideas about liminality in the usage of anthropologist and philosophy kind of view, suggests the term could be intangible and a state of ambiguity.

Furthermore, D.W.Winnicott in Playing and Reality (1971) described liminality as, "a meeting-ground of potentiality and authenticity, located neither within the self nor in the world of political and economic affairs. In this space, one finds the most authentic and creative aspects of our personal and communal existence, including artistic, scientific, and religious expression." For Winnicott, life is often conveyed in representation, for it plays an integral part in the invention and recognition of transitional space. Besides that, liminality is explored with reference to Martin Heidegger's (1962) conceptions of time as it pertains to being. In Heidegger's thought, a particular approach to the concept of time lends itself to an investigation of liminality as the locus from which nothingness may emerge. In being-there, Heidegger (1962:26) posited liminality as a temporal unity as the origin of a presence (being) that is more present than the 'present-at-hanf' (or material presence).

Jonathan Hill and Gianni Vattino in Rethinking Architecture (1997) explored the concepts of liminality where the building objects are designed to the user experience by drawing from contemporary art. Therefore, this method aids to explore more ways than one of viewing architecture as a concept rather than a finite conclusion. Winnicott remarked, "creative living involves, in every detail of its experience, a philosophical dilemma–because, in fact, in our sanity we only create what we find." (Praglin, 2006). Using Winnicott's terms, we may say that the artist, for example, expresses his/her being by constructing a framed, transitional area in which creativity finds expression.

The artist creates and recreates unconscious processes, and presents these in a manner which resonate with our shared sense of symbols. By articulating these shared symbols, the artist invites us into this intermediate area of experiencing. In addition to that, Martin Heidegger in his book, The Origin of the Work of Art. In Poetry, Language Thought (1975) supplanted that material and aesthetic conceptions of art and architecture with a concern for the relationship between people, space and being. Quoting Heidegger, "A relationship between being, not-bring and being can be established in the site of Being-there." (1975). He utilized art in relation to architecture as well, to create space, form and experience for the users.

Liminality has also been approached in urban terms, as Sharon Zukin, described liminal space as a growing personality of modern-day city. Zukin argued that the localism, or neighborhood urbanism, of the modern city has been transformed into postmodern transitional space. She called this blurring of boundaries between public and private space a state of liminality. To elaborate, she wrote about the city landscape as a mediation of economic development driven place. These produces a blurring of distinctions between many categories of space and time that we experience everyday such as when the leisure of home life is invaded by well-designed machines and all cities appear more alike to one another. Besides that, Victor Turner's notion of liminality comes into play in the urban landscape. All spaces stand 'betwixt and between' institutions, where zones of businesses are transacted and public roles exchanged, liminal spaces institutionalize market culture in the landscape (Zukin, 1991). Quoting Zukin in Landscapes of power from Detroit to Disney world (1991), she wrote that "even in the late-ninteenth-century European cities Walter Benjamin wrote about urban spaces carried a potential that hesitated between conformity and utopic, a world of commodities or of dreams." (Zukin, 1991) Therefore, she further argued that contemporary urban places respond to market pressures with public dreams defined by private development projects and public pleasures restricted to private entry (1991).

Liminality in Architecture

In architecture, prior research on the link between liminality and architecture is undertaken by architects by Aldo van Eyck, Hermen Hertzberger and Peter Zumpthor along with multi-disciplinary theories. Liminality in architecture emerged around the 1960s within both the theoretical and design premises. Using a trans-disciplinary notion, this literature review is to investigate the emergence of the usage of liminality in architecture.
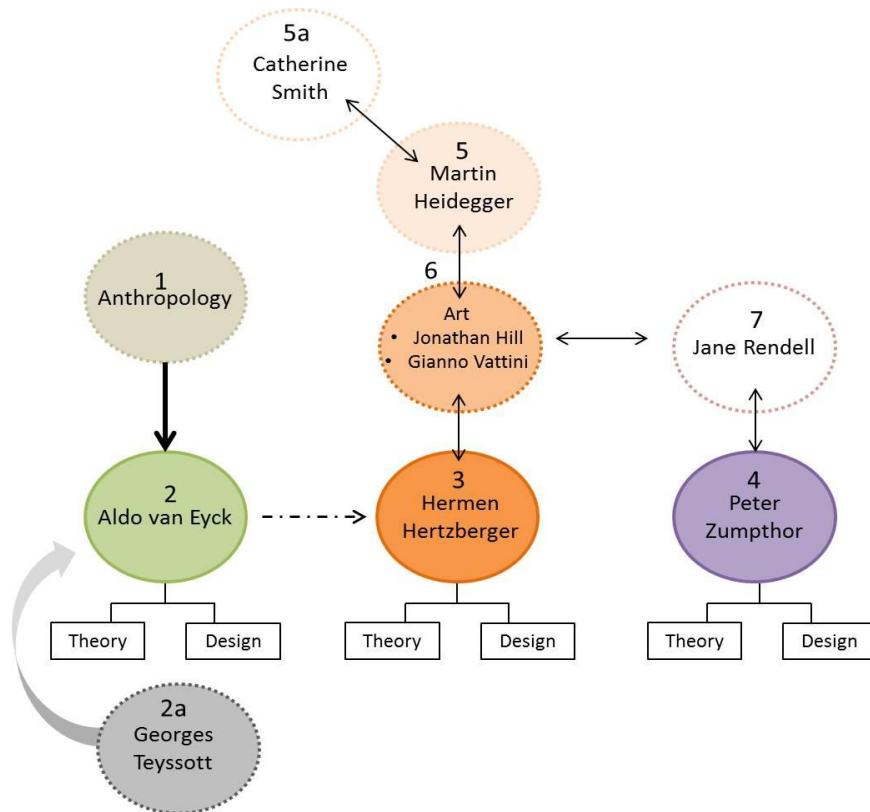
Figure 1. Liminality as a trans-disciplinary idea (Author)

Architect Aldo van Eyck of Team 10 during the early 1960s brought the term from anthropology to be applied as a concept in architecture which was named 'doorstep philosophy'. It was due to his general motion towards extending modern architectural discourse beyond the confines of Western countries. However, it is still vague and unclear on the link of emergence of liminality in relation to theory and architecture towards the contemporary times. However, in order to understand how the term came about to Aldo van Eyck's concept, therefore, Teyssot (2011) elaborated that in order to do that, there is a need to produce a more theoretical reflection, in order to illustrate the cultural background of which the notion of threshold appeared, and to expose the purpose of the discourse and lastly to show what were already, at the time, the ambiguities that presided over its birth.

Team 10, formed in the 1953, was a loosely organized group of individuals of mostly European architects such as Alison and Peter Smithson, Aldo van Eyck, Giancarlo De Carlo, Georges Candilis and JaapBakema whom met within the International Congresses of Modern Architecture (CIAM). Le Corbusier was among the pioneer architects that largely dominated the period of modern architecture founded CIAM – the international platform for modern architects in 1928, with the objective manifesto to spread the cause of 'Architecture as a social art', largely related to landscape, urbanism and architecture.

Subsequent to the disband of CIAM in 1959, Team 10 started to hold their own meetings that provided them a platform to present and debate about their project about the future course of modern architecture and urban planning. Even so, Le Corbusier was somewhat involved in Team 10, where he was at a stand point of passing the baton to the newer generation, and to keep the language of modern architecture alive (Strauven, 2007).

At the last CIAM congress (1959) Van Eyck presented his 'Otterlo Circles", a diagram visualizing his syncretic approach to design, bringing together the classical, modern and vernacular traditions in architecture. Other key terms and evocative mottos include the shift from 'space and time' to 'place and occasion', 'versunecasbahorganisée', the greater reality of the doorstep, the in-between realm, twin phenomena, reciprocity and relativity. Most of Van Eyck's ideas and concepts are explained in his unpublished typescript 'The Child, the City and the Artist' (1962). Quoting Smithsons(2006) who summarized Team 10's discussions in Architectural Design (AD) in December 1962 wrote that, Team 10 members came into a philosophy called 'doorstep philosophy', clarifying that "the basic relationship between people and life begins with the contact at the doorstep between man and man, it is the relationship between things that is of prime importance: 'the wonder of the moment the plane is touching the earth.', and we must resolve the polarities: individual-collective, permanence-change, physical-spiritual, inside-outside, part-whole which we no longer believe to exist."
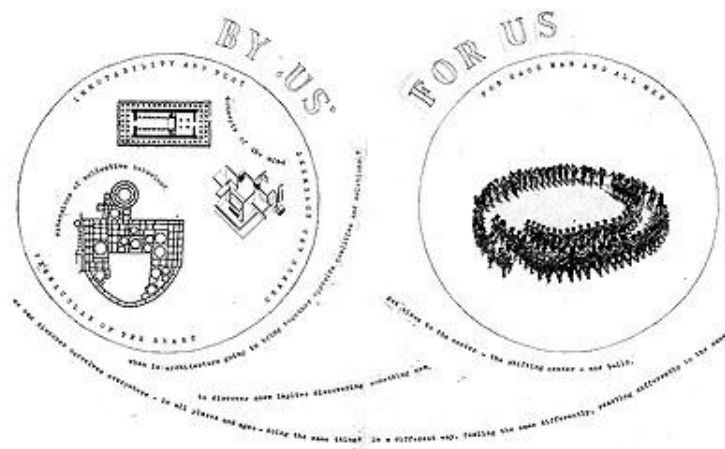

Figure 2. The Otterlo Circles by Aldo Van Eyck

The discourse of Van Eyck's 'Ortello Circles' is linked to the idea of in-betweenness where the emergence of this spatial division of inside outside is due his interest towards extending modern architectural discourse beyond the confines of Western countries (Teyssot, 2011). His interest in traditional, non-western cultures is due to his concern in the living conditions of poor non-western people in relation to the local cultural context. He was largely informed by anthropological literature and intellects, and formed interest in cultural configuration and processes ("Aldo van Eyck," n.d., TEAM 10 Keeping the Language of Modern Architecture Alive, 2006). He noticed a gap between the traditional cultures and modern societies as, 'a fundamental dimension of fulfilled human living that had been lost to modern society to a large degree and needed to be recovered, albeit in a modern guise.' (TEAM 10 Keeping the Language of Modern Architecture Alive, 2006). While Van Eyck was examining the written literature from theorists, he realized that there was very little design and understanding for a physical manifestation in architecture.

In A Typology of Everyday Constellations (Teyssot, 2013), Georges Teyssot, a German philosopher and cultural theorist, suggests that thresholds are markers of boundaries and bridges to the exterior or interior, creating encounters and communications (Teyssot, 2013). Quoting Teyssot from his article of Aldo van Eyck and the rise of an ethnographic paradigm in the 1960s (Teyssot, 2011), "Aldo's theory of the threshold or the in-between – a discourse on the need for architecture to reconcile spatial polarities such as inside-outside and produced keywords and leitmotifs, such as 'das Reich des Zwischen' ('the realm of the in-between) or 'la plus granderealite du seuil' ('the greater reality of the doorstep') showing dignified children sitting on the one-stepped terrace leading to a mud-constructed abode in some unidentified area." Aldo van Eyck's theory of the threshold or in-between is addressing the need for architecture to resolve spatial divisions such as inside-outside. In order to understand how the term came about, one must map the context of various trends leading to an 'anthropologization' of architectural discourses in the 1960s (Teyssot, 2011).

Besides that, architect Herman Hertzberger was one of the major influences on the 20th century architecture, who challenged the early modernist belief that 'form follows function'. Hertzberger believed that the core function of a building does not provide the total solution to space usage: it was a framework that should enable its users to interpret and define how they inhabit it ("Key projects by Herman Hertzberger," 2011).

Buildings are not only to be built as a structure, however the life that happens inside it, a life interpreted and defined by its users. His building design provides 'in between' spaces that encourages human needs for intimate and communal activities. In terms of in between as quoted from his book, Lessons for students in architecture (1991), Hertzberger called liminality as a state of in-between, where the doorsteps and thresholds provides the link to transit and connecting the spaces of different usage, that creates orders for interaction and gathering between people.

Although Herman Hertzberger in the late 1960s developed his own stand on the term liminality in architecture as a spatial condition of inside and outside, the stance of liminality in architecture in general was still unclear. Catherine Smith (2001), in her paper, Looking for liminality in architectural space, connected architectural acts with theories and practices of liminality. She wrote that even though the concept of liminality was being practiced in architecture, there existed lack of understanding of the idea of liminality in architecture, whether it is designed conscious or unconsciously.

Theories of liminality point towards blurring zones between the experiential and making spaces (Smith, 2001). Smith emphasizes that liminality is a common cultural concept used to refer to contemporary art and space experimentation (Sfinteș Ioana, 2013). The acceptance of liminality as the interaction between space and people, and the user's experience becomes a priority in designing a spatial configuration(Sfinteș Ioana, 2013). While there are examples of written texts in architecture, there is very little understanding to a physical manifestation. In a more recent works, architect Peter Zumpthor explained in Atmospheres (Zumpthor, 2003) in the chapter – in between, about the fascination on how architects is able to create a new transition, new entity and new intersection thus divides the space on two sides particularly internal-external, personal-public, and private-façade. Zumpthor raised his fascination on how architects are able to realize their idea, conscious or unconsciously, to build their spaces on a site and immediately creates an inside outside, here and there. This design thinking creates new transitions, entity, thresholds and intersection in a free space.

Martin Heidegger on the other hand, discussed on the materiality and visual compositions of the relationship between individuals, state and existence in art and architecture. There are many theoretical writings on liminality in architecture but did that happen based on their personal design philosophy, so happens that spaces designed were linked to concept of liminality? If so, are there any design elements that need to be laid out in terms of designing liminal spaces in architecture? The lack of link in between theorization of liminality and it design exploration in architecture is ambiguous. It requires a focus to explore architecture based on the relationship between building form and human relations (Smith, 2001). Catherine Smith (2001) wrote that even though the concept of liminalty is being practiced in architecture, there exists a lack of understanding of the idea of liminality in architecture, whether it is designed conscious or unconsciously. Theories of liminality point towards blurring zones between the experiential and making spaces (Smith, 2001).

Subsequently, Jane Rendell in The Setting and the Social Condenser (London, Routledge, 2012), argues on transitional objects and spaces. It is located in the overlap of inside and outside. The idea of liminality emerged in theoretical concept designed in architecture is captured as a state of transition or threshold defined to blur the in between, involves the interrelationship between two phenomena and as a need to discourse to reconcile spatial polarities such as inside-outside. The lack of link in theory and practical posits a reason to support the justification of this paper. It is not merely an analysis of the historical patterns of the term itself, but it traces the idea of liminality through the narration of theoretical notions, as a foundation which will lead the paper to a strengthened idea of positioning liminality in architecture as a strategy in designing architecture. Drawing from the use of the term liminality above, the term liminality refers to the pointed state of transition, threshold and in-between. The idea liminality is not to be taken for granted only as a theoretical concept but the capability of the term liminality brings life to architecture.

The following figure provides a graphic timeline describing the periodic development of the usage of the idea of liminality used in different multi-disciplinary studies.
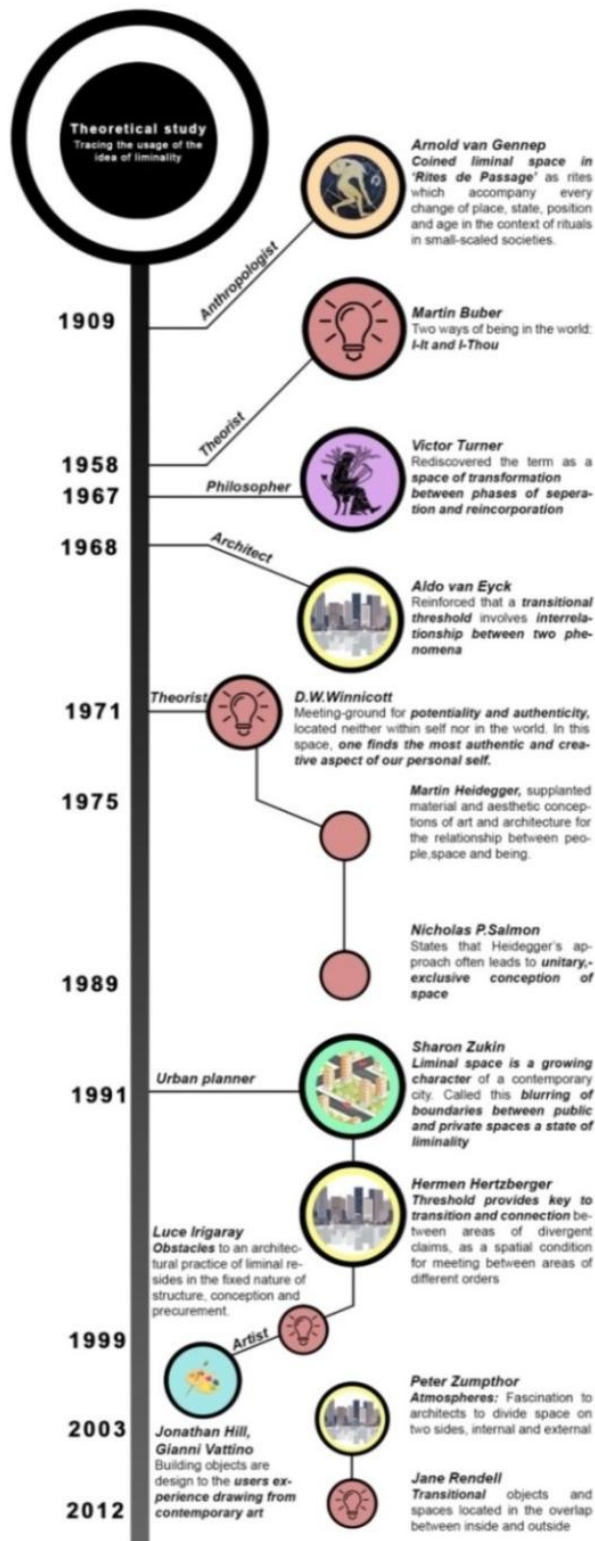
Figure 3. Timeline of the term liminality from the 19th century until the contemporary times (Author)

In addition to that, there were various adaptations of liminality used by architects in their respective contemporary architectural works. Although they did not specify the exact term of liminality in their design philosophy, these architects namely, Kengo Kuma, Tadao Ando and Steven Holl used the concept in their works. Their works exemplifies the notion and characteristics of liminality explored through spatial contexts.

Kengo Kuma expressed architecture movement from the 60s as a 'feeling of powerless', that sets him to process an understanding of the movement and tries to embark on a new path in architecture, rather than being drowned in building monumental objects. Although he was rather inspired by the modern architecture, he was very much into poetry and writing theories. He calls his architecture as 'anti-objects' (Pulvers, n.d.). Kuma attempts to relocate users in the midst of more human scaled buildings; more down to earth. A connection with architecture and environment is essential to his philosophy in architecture. The aspects of liminality come into the picture with the connections in-between subject and the world or the frame and the floor (Pulvers, n.d.). Sensory experience enhances the physical forms of architecture.

Subsequently, Tadao Ando's design philosophy is simple yet empowering. It connects the minimalist form with the intricacy of space. Ando's design is enriching, has a signature of clean lines and sheer simplicity of geometric forms. His design philosophy in architecture is frequently characterized by trademark innovative use of light, shadow and design that compliments the contours of the landscape. These characteristic is seen as a common feature in most of Ando's works developed in spatial composition. The spaces of diversified usages has distinctive thresholds which give an persona to his spaces (Billings, 2008). An interaction of form and the relationship between form and surrounding context can be seen as thresholds.

Besides that, Steven Holl experiments with design that presents clever articulation of space, details and forms that can be seen as his way of making architecture extending to a phenomenal intensity through built forms. As each of Holl's projects sets on specific site and condition, Holl understands the involvement of light, shadow and materiality. The sensory experience for the users is just as important as placing the pedagogical program for a building. "The materials of architecture symbolizes instruments in a musical arrangement, that provokes imagination and senses that heightens the experience of a place." ("Steven Holl," n.d.; YORGANCIOĞLU, 2004).

Factors of liminality

According to the prior research from selected theories of liminality by Aldo van Eyck, Herman Hertzberger, Martin Heidegger and Peter Zumpthor, there are characteristics that could be extracted on the theories that are applied into architecture design. These characteristics are not identical, however similar in the manner of the concept of liminality used in their respective design philosophies. The following factors for analysis could be categorized based on the notion of liminality.

Spatial Division

Spatial division refers to the relationship of the building and context of inside and outside, an in-between as a place where polaric things can link where conflicting polarities can become one. An entity of an in-between space of space A and B could relate to a physical connection to transit to one space to another. Subsequently, the physical connection of the building in the relationship to the urban city context is crucial as well. The scale of the building in reference to the surrounding context and includes scale of form, pathways and spaces. The transition from a city level to building itself creates an in-between division, in reference to Hertzberger, the continuum between inside and outside, in between cities and buildings gives life to architecture and gave identity to inhabitants. These in-between spaces provide the transitions and association in between spaces with different states. It holds a place for meeting and dialogues of two worlds overlap (Hertzberger, 1991). Aldo van Eyck of Team 10 unanimously formed the 'doorstep philosophy' (threshold) as a continuum to keep the modern characteristics alive as well as implement a new approach to bring significance to architecture. Modern architecture creates an apprehension with the relationship between interior and exterior. As architects design spaces in the modernism movement, the buildings are seen as objects that human dwells inside of it. There was little sensitivity to the outside world – the city. Aldo van Eyck introduced the theory of the threshold or in-between is addressing the need for architecture to resolve spatial divisions such as inside-outside. In this case, this is a spatial division where the term liminality is used to define the spaces from the inside-outside. Quoted by (Strauven, 2007), "Van Eyck conceived in-between as a place in reference to Martin Buber's where diverse things can encounter where conflicting polarities can become twin phenomenon."

He further elaborated that, "twin phenomenon is Van Eyck's concept" on the polarities such as inner and outer, open and closed are not conflicting but complementary halves of an entire entity such as Ying and Yang. The importance of the relationship of a building to the site context is crucial, as the buildings during the modernism movement tends to act as a monumental structure to a place. Less time is focused on the leftover spaces in between the buildings, resulting in lack of human interactions and connections. Aldo van Eyck initiated the structuralism movement as a break away from Team 10 in which he created spatial systems in 1959, that sees the structure of a building as a system of living cells. Examples of works that demonstrates his idea was the Amsterdam Orphanage (1960). Quoted by Righini (1999), the spatial systems are divisions of cells growing in any direction. Van Eyck's design revealed his "humanism and great compassion for people. It also presented an interesting formal system, which showed two mutually spatial ordering systems could be used together with positive results.

Van Eyck uses the ideas of movement to develop into architecture, using the metaphor of 'street', with the associations of place that it besought (Strauven, 2007). The design of the orphanage was conceptualized as a street as a series of places that encourages interaction. He developed the design based on user's needs and the program influences the dominant ordering reference, with a logic based on considerations of needs and then adapting spatial systems on order. Van Eyck's concept is a notion that was undertaken as a source of inspiration for architects, a leap from previous architecture movements.

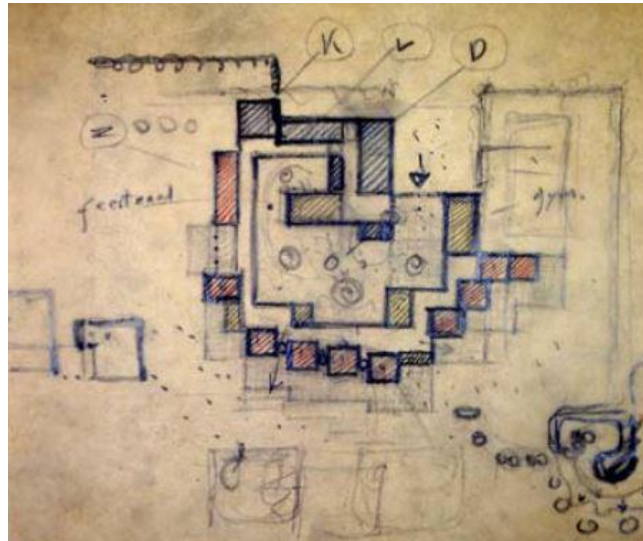**Figure 4. Floor plan of Amsterdam Orphanage (1961)**

Figure 5. Creating internal streets strung after one another

The configuration of the floor plan becomes an active spatial order, focusing on movement to develop it into 'place' (Righini, 1999). Van Eyck's consideration for human movement and interaction was largely influenced in the design. The usage of a metaphor of 'street' as a series of places encourages interaction (Righini, 1999). Derived from the needs of the programs, it became the dominant ordering reference where the logic behind designing useful formal spaces and incorporating the idea of interactive street movement as a controlled public realm was a profound shift in the ideas about ordering space. The plan of interlocking units that resembles streets to a little city as a whole, and houses are connected to the outside with articulated exterior spaces. The interior spaces made up of playhouses as such, is offset diagonally in respect to the geometrical plan. The design of the orphanage expresses openness and closeness, represented Van Eyck's philosophy that architecture mimics human that breathes in and out ("Aldo van Eyck," n.d.).The in-between in spatial division of being the moment where contrary tendencies come into balance, it establishes an uncertain space and thus creates space that relates to the hesitant nature of humans.

Figure 6. Interactions

Figure 7. Child playing

Spatial Condition

The separation of spaces according to programs provides territoriality in the building; however, there are always pathways and circulation spaces in-between those territorial spaces that could be designed as a spatial condition. Spatial condition forms a separation between inner and outer, however it mediate spaces by providing social interactive meaning to the leftover space. Therefore, the role of liminal spaces gives life to a building. Herman Hertzberger, following the footsteps of Team 10 and Van Eyck, subsequently hop on the wagon in the structuralist movement – a movement as a reaction to CIAM which had led to lifeless planning of urban cities and users. Therefore, that was where he realized the building is the framework where life happens around the spaces of humans dwell and interacts. The building is built to encourage gatherings and meetings for humans according to their needs, therefore believed in 'form follows function'. Hertzberger saw this as a spatial condition, where the doorsteps and thresholds provides the key to transition and connecting the spaces with different usage, and as a place in its own meaning, creating opportunities for gathering and interaction between different areas (Hertzberger, 1991). Quoting from Hertzberger's writing about in-between in Lessons for Students in Architecture (Hertzberger, 1991), "concretization of the threshold as an in-between means, first and foremost, creating a setting for welcomes and farewells. Conditions for privacy and conditions for maintaining social contracts with others are equally necessary." So thresholds in Hertzberger's conceptualization is important to the social encounters and meetings in-between, for example a street on one side, the private space on another, and the in-between is the entrance to a dwelling unit. Thus thresholds hold the key for spatial condition. To further elaborate, adopting from his book (Hertzberger, 1991), a child that is sitting on the frontstep of his home that is part of the street as well as his home, feels the excitement to be around the outside world yet feels secure in mind that his mother is nearby (Figure 4). This spatial condition is a powerful yet intangible feeling of overlapping in architecture (Hertzberger, 1991). The work of Hertzberger is demonstrated in Documenta Urbana Dwellings (Hertzberger, 1991), forms a fascination with communal spaces as well as providing privacy of homes. The housing block termed 'snake' consists of segments, each designed by different architects (Hertzberger, 1991).

Homes should not be distinguished only by architecture demarcations to prevent noise and privacy from the neighbors. Vertical circulation spaces such as communal staircases which are highlighted acts as an interactive communal space for children. The emphasis of the housing block should not lie exclusively on the housing units to prevent excess noise and inconvenience from neighbors, such that more attention has been provided to the function of the communal spaces. Nevertheless, conditions for privacy and maintaining contact with people in the public spaces are equally essential, just as threshold as a built necessity for social interactions and thick walls to gate of spaces for personal boundaries.. The threshold as an in-between creates a setting for hellos and goodbyes. Entrances, doors, front porches are some forms of spaces that gives opportunity to bind between adjoining spatial conditions. In planning of an architectural design, to achieve sensibility like these requires constant effort and thinking.

This kind of conditions enhances the articulation of the architecture that form links between conditions of interior and exterior – private and public.

Figure 8.Focus on Circulation Space

Communal staircases should not only be the source of getting back into homes, they should also serve as an internal playground for children and adults to interact and gather. It refers to the active drive transiting from one space to another as a continuum of interaction. This includes geographical orientation, nodes, views, flow and nature. A circulation space in a building could happen linearly, vertically as well as spiral movement, to name a few. A function of a space creates an order to the movement pattern of user's perception in the building. Order is derived from spatial program of a building that forms planning layout of the spaces. When there is function to a space, active circulation will happen. Building is the framework where life happens around the spaces of humans dwell and interacts (Hertzberger, 1991).

The threshold as a spatial division and spatial condition are significant in these theories adopted by architects into architecture. Their architectural concepts are not exactly similar however they are conscious in designing the spaces in the buildings. They saw that the continuum between inside and outside, in between cities and buildings gives life to architecture and gave identity to inhabitants.

Spatial Experience

With qualities of spatial division and spatial condition as correlation, then spatial experience becomes part of the exploration of liminal spaces in architecture. The potential of liminal spaces contributes to the thinking in architecture is capable of revealing the nature of experience and the meaning through architecture. However, experience that happen in-between spaces of space A and B could happen through movement patterns, function and materiality. These qualities could also enhance the sensory perception of a user; therefore liminal spaces are often linked to poetic characteristics. Architecture according to theory of Zumpthor and Heidegger could be seen as an art. An art perceives an abstract meaning for different person with different point of view. The nature of liminal spaces discussed in this framework happens consciously or unconsciously in the design exploration in architecture. Liminal spaces as leftover spaces whether it is in between buildings and city or space A and B, these spaces creates a mystical imagination to a person experiencing it. Peter Zumpthor wrote about people personally experience atmosphere in a space through their emotional sensibility (Zumpthor, 2003). Zumpthor recognizes the appreciation of the nature of people towards impulsive emotional feelings.

He compares poetic architecture to emotional response one gets from music which its melodies transports one to a certain response and feeling. Other than that, liminality is often addressed on art and spatial experience, explored in cultural and philosophical concept (Smith, 2001).

It suggests a poetic side of architecture whether it is applied by architects consciously or unconsciously in the practical works. Moving forward to the contemporary architecture, Peter Zumpthor is known to practice the aspects of liminality into design explorations of architecture. Words such as atmosphere and mood come to mind when faced with Zumpthor's architecture; the tempered feel of his built spaces is communicated to users and the immediate neighborhood (Zumpthor, 2003). He stressed on the importance of relationship of inside and outside in his book 'Atmosphere' (Zumpthor, 2003). Zumpthor is immersed in things that he found understated: the relationships between places, moods, atmospheres and art (Zumpthor, 2003). An entity for example a room that has a window, the window has a view and the view goes to the landscape, Zumpthor believed in interconnected spaces (Meelfabriek, 2010). An example of his work can be seen in Thermal baths, Vals Switzerland in a much rather poetic artistic way of design in architecture as well as attributes of liminality such as thresholds and in-between. Played with primary materials and therapeutic reflections, the spaces provide a sensory experience interpreted into architecture.

Figure 9. Thermal Vals, Switzerland

Liminality can be read from a poetic approach. Zumpthor is philosophical in his design thinking that focuses on spatial experience of a person and the material of the building that can create a poetic expression to narrate a story of a space. He refers to the notion of architects whom are able to design spaces that has an interconnection between interior and exterior. Thermal Vals exemplifies an architectural work that suggests liminality linking to poetic experiential spaces. Martin Heidegger wrote about experience in an intangible sense links besides passive experiences related to phenomenology but it includes imagination, emotions, desire and thoughts. These emotions that runs through a person when experiencing a liminal space in a building, it happens unconsciously or consciously resulting in a greater appreciation as a whole. Therefore, liminal spaces are not to be taken for granted as it includes everything that we live through or perform. However, as Heidegger has pointed out, "we are often not explicitly conscious of our habitual patterns of action, and the domain of phenomenology may spread out into semi-conscious and even unconscious mental activity." (Faulkner, 2001; Mastin, 2008)

Figure 10. Experiencing a space through materials and imagination

Zumpthor's buildings create fascinating atmospheres with a play with light, shadow and shifts provides an overwhelm of an emotion of awe (Zumpthor, 2012). The architecture may possess the qualities of the works of art if the works consists of forms and contents that merge to empower the sensory capabilities of humans (Zumpthor, 2012). Zumpthor treats architecture as a vision of a work of art. Quoting from Zumpthor's book, Thinking Architecture, "I am convinced that a good building must be capable of absorbing the traces of human life and taking on a specific richness…of innumerable small scratches on surfaces, of varnish that has grown dull and brittle. At these moments, architecture's aesthetic and practical values, stylistic and historical significance are of secondary importance. What matters now is this feeling of deep melancholy. Architecture is exposed to life."(Zumpthor, 2003).Architecture as a building object in the built environment should be appreciated as a piece of art that is to be appreciated. The experiences that engulfs a person's spontaneous emotional response captures the moment of the creation of spatial experiences in a space. To that, this is the beauty of architecture.

Conclusion

This research framed the discourse of liminality in various disciplines with the focus on the usage of the concept in architecture. It demonstrates that liminality in architecture is inter-related to ideas of liminality in anthropology, philosophy, urban design and art, whereby liminality is a trans-disciplinary concept which alludes to ideas of thresholds, transitions and in-between. However, while there are a lot of written texts about the usage of the term liminality in theoretical form which has been adopted from the early 20th century, there is a lack of link between the theorization and design explorations of liminality in architecture.

In architecture, prior research on the links between liminality and architecture is undertaken by architects and theorists such as Aldo van Eyck, Herman Hertzberger, and Peter Zumpthor.

In order for liminal space to come to life is when spatial division initiated along with the context, culture and function of a building. Without any division of space, an in-between space does not exist. Therefore, with spatial division that creates a relationship between two entity of inside and outside as an example, interaction and movement patterns are able to bring life into spaces and building known as spatial condition. Subsequently, as building designed as around people's lives, spatial experiences enhance the liminal spaces in architecture. The liminal acts surrounding it create moments of life into buildings.

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