Architecture Taking Shape Between Nature and Culture: The Primitive Hut as a Man-Made Creation

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Abstract

Architecture's bounds with nature are represented as a complex process in a perverse cycle in the linear history of architecture and the process is intertwined with human actions, resulting in the built environment. Architecture tries to legitimize itself by incorporating culture to control and spatialize over nature in the socio-cultural dimension. This study aims to analyse architecture as remain in-between nature and culture by problematizing and questioning nature/culture dualism in the context of mimesis. In this way, this research focuses on the statements on mimesis and concerns that mimesis is a natural phenomenon and an artificial invention impacting architecture related to manners and customs collected under the cultural context. The mediating role of culture over nature is traced from the primitive hut which represents the cultural re-evaluation of nature in the most primitive level of architecture and the origins of architecture. The study traces the precedents of the primitive hut from the antiquity at first dwelling house by Vitruvius and other evolving figures as rustic cabin and primordial dwelling by the explicit viewpoints of Marc-Antoine Laugier and Jean Nicolas Louis Durand in the 18th century, and Gottfried Semper in the 19th century. Then this study finds out the paradigm shift on the nature-culture doctrine through rethinking evolving architectural practice until today by regarding nature as a sort of object to be manipulated and exploited as a different ontological reality under the cultural re-evaluation of the nature. In a further investigation, it has resulted that; primitive hut as a typical model is an output of culture with its bounded codes in balance with nature as a result of its evaluation of a critical object through enlightening the mimesis by the architectural existence and literary efforts.

Keywords: Nature, culture, mimesis, primitive hut, origin, architecture.

Genişletilmiş Öz

Mimarlığın doğayla olan bağlantısı mimarlık tarihinde karmaşık bir döngü içerisinde temsil edilir ve süreç olarak yapılı çevre ile sonuçlanan insan eylemleriyle iç içe geçer. Mimarlık, doğayı kontrol etmek ve mekânsallaştırmak için kültürü kendi disiplini ile birleştirerek meşrulaştırmaya çalışır. Bu çalışma, mimarlık üzerinden taklit, kopya, benzerlik ve farklılık gibi pek çok kavramı kapsayan mimesis bağlamında doğa/kültür ikilemini sorunsallaştırmakta ve sorgulamaktadır. Antik çağdan günümüze otoriter varlığı ile mimarlıkta önemli konumda olan doğa, farklı yorumlarla birlikte disiplin içerisinde materyal varlığını kültür aracılığıyla temsil etmektedir. Çalışma iki terimi de anlamak için mimarlığın kutsal kitapları olarak bilinen Vitruvius'un Mimarlık Üzerine 10 Kitabı'ndan başlayarak, Serlio ve Palladio'nun Mimarlık Üzerine kitaplarındaki doğa algısının mimarlıkta kültürü nasıl ikincil bir doğa olarak kurguladığını eleştirel bir literatür taraması üzerinden irdelemektedir. Doğa ve kültür arasındaki ilişki birbirleriyle çekişmeli bir tartışmayı ortaya çıkarmıştır. Bunun üzerine klasik dönemden günümüze doğrusal bir tarihsel anlatı içinde kültürün doğadan ayrılmasının eleştirisi adına temeller atılmıştır. Mimesis kavramının bu temeller üzerinden doğanın özünü ortaya çıkarmak için insan eylemi üzerinden anlamlı yorumlar ve örüntülerle ortaya çıkması da bu eleştirileri güçlendirmektedir. Mimesis mimarlığın zamansallığa doğa ile pazarlığı içerisinde ve kültürel sürekliliklerin derinliğindeki yaratıcı ve anlamsal çıkarımlarla mimari imgeleri oluşturur. Böylece doğadaki bir nesnenin benzerliği veya işlevselliği doğanın taklidinin mimari imgesiyle kültürel kimlik kazanması ve gerçekliğin asimilasyonlarıyla temsil edilir.

Bu araştırma mimesis üzerine değinilen ifade ve söylemlerle mimesisin yalnızca doğayla ilintili değil, aynı zamanda kültürel bağlamda da ortaya çıkan biçim ve geleneklerle mimarlık disiplininde yapay bir düzen oluşturduğunu savunmaktadır. Belirli evrensel veya mutlak değerlerle doğayı ve kaynaklarını insan mükemmelliğine göre evcilleştiren, kültür ve mimarlık üretiminin kökenlerine dayanan en belirgin pratik ilkel kulübedir. Çalışmada kültürün doğa üzerindeki rolü, ilkel mimarlığın ve mimarinin kökenlerinden gelerek doğanın kültürel olarak değerlendirmesini temsil eden ilkel kulübe üzerinden gözlemlenmektedir. Çalışma ilk olarak Vitruvius'un antik dönemde mesken olarak ele aldığı ilkel kulübenin, 18. yüzyılda Marc-Antoine Laugier ve Jean Nicolas Louis Durand'ın ve 19. yüzyılda Gottfried Semper'in bakış açılarına ve kurgularına göre yeniden şekillenmesi ve temsiliyetini sorgulamaktadır. Mimarlığın evrensel dilini karakterize ederken doğanın kısıtlayıcı koşulları altında "bütün bir destek ve ölçü sistemine dönüşen iki gövdeye düşen bir ağaç dalının kazası" olarak ilkel kulübe, doğal koşulların mimesis ve analoğu ile bilişsel temsiller ve şemalar zemininde kültüre ilerleyen insan zihnini çağrıştırır. Mimarlığın temelleri doğadan gelen basitlik, sağlamlık, düzenlilik ve simetri normlarının manevrasıyla, içerisinde sosyo-kültürel bir ekonominin döndüğü ilkel kabinlerden, anıtsallık ve süslemenin ön plana çıktığı mimari elemanların toprak yığını üzerinde çevrelenip, bütün bu oluşumu korumak adına üst örtünün getirildiği ve zenginleştiği konut kavramına doğru evcilleştirilir. Mimesis, özne ve nesne (doğa/kültür) arasındaki antitezin ötesine geçerek modern dönem ve sonrasında antikiteden farklılaşmıştır.

Mimesis histografisi üzerinden gelişen çalışma, ilkel kulübelerin gelişimindeki mütevazı başlangıçları daha sonraki bir aşamaya eklemleyerek oldukça karmaşık mekan yaratma bilincine ışık tutmaktadır. Doğayı manipüle edilecek bir ontolojik gerçeklik olarak ele alarak günümüze kadar gelişen mimarlık pratiği doğa-kültür doktrini üzerinde değişen paradigmayı öne çıkarır. Bu paradigma, 21. yüzyılda doğadan geri çekilmek için mimesisi bir jeneratör olarak kullanarak mimari prototipler yaratmanın yerine sosyo-mekansal süreklilik içerisinde doğa-kültür diyalektiğini yeni ve var olmayan olasılıklara doğru yönlendirir. Geometrik soyutlamanın arkitektonik kavramı olan mimesis, daha nesnel, rasyonel ve maddi olarak insan kültürüne yakın ikincil doğadan gelişen ve birçok boyuttan oluşan yeni bir dünya olarak temsil eder. Bütün bu temsil ve soyutlama süreci ve mimarlıktaki yaratıcı dürtü "mimesisin genel şemsiyesi" altında taklitten öte duyusal bilgi kümülatifi olarak toplanabilir. Böylece mimarlık, insana ve çevresindeki nesnelere aracılık ederek duyusal bilgi akışıyla insanın iç doğasını daha da yansıtır. Mimesisin yaygın olarak uygulanması, doğayı metalaştırarak mevcut teknolojiye uyum sağlayan mimari tasarıma entegre edilir. Malzeme kullanımındaki yaratıcılık, uyarlanabilirlik, ölçeklenebilirlik ve optimize edilmiş üretim teknikleri aracılığıyla, doğanın değişmez yasalarını göz ardı ederek, doğadan arındırılmış optimal modeller kolayca karakterize edebilir. Bu çalışma, tipik ve eleştirel bir model olarak ilkel kulübenin mimesis üzerinden mimarlık disiplinindeki varoluşunun literatürde yeniden değerlendirilmesi sonucunda, doğa-kültür diyalektiği içerisinde yalnızca doğa ile sınırlı kalmayan bir kültür verisi olduğu kanısına varmaktadır. Böylelikle, kültürü takip etmek için doğasal varoluştan, fikirlerin daha refleksif ve örgütsel yansıdığı bir mimarlık imajına doğru mimesis bütünlüğü içerisinde farkındalık yaratılabilir.

Anahtar Kelimeler: Doğa, kültür, mimesis, ilkel kulübe, köken, mimarlık.

1.   Introduction

Nature has held place of importance since the time of ancient Greeks, and it is legitimized through culture in architecture with different interpretations of design. Architecture, as a discipline, is between the polemic of a nature/culture dualism that always problematizes and questions what nature is, what culture is, and how they are related to each other. To understand both terms, first, the literature on nature should be examined. Then, culture can be scrutinized as second to nature in architecture because of nature's variety and components. The attempt to "understand humanity's place within nature has been a central concern in the philosophy of architecture since antiquity" (Glacken, 1967: 70). The relationship between nature and culture has exposed a broad debate as a point of contention, and there is a point of departure for a critique of the separation of culture from nature in a linear historical narrative from the classical period up to the present (Owen, 2008). In Vitruvian understanding of nature, "things are produced in accordance with the will of nature" by following its guidance in order to "form a judgement on the quality of the knowledge of the arts and architecture," which is hidden (Pollio, 1960: 67). Under this paradigm, nature should inform the proper arrangement of buildings under the ruling of it as duly proportioned in the general perspective. Hence, the ancient predecessors followed the rules which were founded as analogies and truths of nature in order to reach perfection, and the legacy of definite principles and establishment of the rules of symmetry and proportion for orders were also intended to be grounded in nature (Pollio, 1960). Following the "footsteps of nature," there is a great variety of different aspects to consider from said nature, and Vitruvius claimed this as a "general assemblage" that has pivots and axes (Pollio, 1960: 299). Thus, architects has been taking models from nature through the laws and the working of the laws by which nature governs.

Parallel with Vitruvius' arguments, according to Alberti "nature is not at all easy to understand and very perplexing" (1726/1955: 327). It instructs us what to do as an amalgam of different elements as the best model. According to him, as a model with a fixed proportion by revealing the principles, methods, and exact means of the perfect beauty is distributed by nature among many bodies. The discovery of the art of building was influenced by nature and envisioned as an observation of the form of human body with close scrutiny of the "hidden and obscure evidences that nature offers" in harmony (Alberti, 1726/1955: 17). The outline of architecture is determined as a method best taken from objects (pattern, fabric, material, body, etc.) that nature offers as a process of inspection and admiration while also examining it as a cumulation of regulated laws. For Palladio (1570/1997), nature provides foundations when building on it that teaches the versions of natural orders as accurate, good, and beautiful methods of building. All these methods continued in harmony between nature and architecture as demonstrated by architectural and engineering achievements of the Greeks and early Romans (Palladio, 1570/1997). In Serlian writings, there is a comparison of building as a product of nature to those that are man-made, which refers to the construction on-site by growing out of the landscape or raising above its surrounding ground level (Serlio, 1545/1996).

After the definitive and wayfinding approaches of nature by Vitruvius, Alberti, Palladio, and Serlio, there was a detachment from the creation of the built environment where humans and nature were seen in practical and cognitive harmony, and thus space wasn't only attributed to nature's formation. According to Perrault, a building should have a "mutable character of architectural elements" derived from nature and is dependent upon customs and habits (1683/1993: 34). Reaching the ideal architecture endorsed by nature became more complex, so a process emerged that represented nature as a process of

human actions. This was envisioned as a recognition of culture as an achievement to complete nature in the socio-spatial dimension. The notion of culture defines itself as an expression by humans and their achievements in a civilized manner that is distinct from nature by imposing meaning upon it (Descola, 2013). From these statements, it can be said that culture has a mediating role over nature, and that correlation can be traced from a primitive hut at first Vitruvius's "dwelling house" as its precedent. After setting up with a constructional and material basis over Greek and Egyptian architecture, the hut was represented as "rustic cabin" or "primordial dwelling," which have evolved according to the explicit viewpoints of Marc-Antoine Laugier and Jean Nicolas Louis Durand in the 18th century, and Gottfried Semper in the 19th century.

Correspondingly, this study first examines the mimesis of nature as a natural and artificial phenomenon and then evaluates in-betweenness of architecture on a primitive level by taking the "primitive hut" as an object of nature-culture dualism. Unfolding the terminology of mimesis plays an essential role while learning from the past by abstracting natural elements in reviewing built environment dwelling on the art, philosophy, and building construction and techniques as a key to juncture with reviving culture. Mimesis not only re-presents or re-narrates architecture but justifies and legitimizes the discipline as an act of emulation. From ancient times to today, as an artistic and literary effort and a method to learn and a representation from reality, mimesis brings multiple parameters from the material reality, worldview and knowledge according to the evolving era (Demirkan et al., 2019). Thus, the performative dimension of mimesis resonates between the architectural object and environment, which keeps a reference between such interaction with the adaptive characteristics of culture as a creative-re-creation to learn by anthropocentric domination of nature. Finally, this study brings the paradigm shift on the nature-culture doctrine by rethinking on evolving

architectural practice until today by regarding nature as a sort of object to be manipulated and exploited as a different ontological reality by constructing over literary efforts. Through this study, understanding the cultural significance of architecture is revaluated and considered within the implicit characteristics of equivalence between knowledge from nature as a background and mimetic representations. As such we can reconsider nature and culture as two separate entities again via architecture's usage of mimesis as the re-presentation of nature rather than seen both in a hybrid which is no more purely human and also natural in continuum after the modern era.

2   Mimesis as an In-Between Representation of Nature and Culture in Architectural Thinking and Practice

As a philosophical notion, mimesis has deep roots in human history. Using it in a basic definition, it means encompassing the essence of nature and culture. It is important to understand that "mimesis transcends mere copying and search for meaningful interpretations and patterns to reveal the essence of nature first and then integrate the representations of nature and culture" (Seif, 2010: 246). Being a progressive instrument, mimesis is a result of human action on nature as a final product (Lavin, 1992). It has several interlinked ideas that lead to a composition of a schema in order to recover architecture's historicity until today, and there is a temporality in its depth within cultural continuities.

In Ancient Greek literature, mimesis is lexicalized from the word 'mimeisthai,' meaning imitation that represents the heroes in Greek mythology name "Dionysian Cult Drama" (Gebauer and Wulf, 1996). Since antiquity, the role given to the formation of mimesis has varied between forms of simplification, imitation, and copying of nature in principle, which has led to an ambiguous understanding of its manifestation in architecture through imagination and transformation. The analogic relationship between architecture and nature is to go beyond observing and

exploring the rationale of the dynamic and fluid characteristics of nature. In this way, there is an attempt to link mimetic approach with structures nurtured by nature, which leads to a man-made creation with nature that is inevitably connected with cultural production.

Under a conventional understanding, nature was adopted as a giver and a teacher, and, according to Plato, giver is the closest adjective to the mimesis of nature when deviating from a literal representation of nature (Younes, 1999). According to Quatremere de Quincy, who was a Platonic dialectician in the late 18th century, mimesis is created by "conflating the abstraction of nature on architecture in a social thought" (Younes, 1999: 19). From this perspective, to reach the notion of the ideal, there is an extensive observation of natural systems, traits, and relations, and nature is distilled through imitation. From his own words, Quatremere de Quincy emphasized the imitation of nature as:

> Now this system is nothing else than the ideal type of imitation or that isolated work of nature, this is on the generality of the laws and motives manifested in the universal whole of nature. Ideal imitation must be accounted pre-eminently the imitation of nature when we appropriate the very principle of nature's laws in a collective whole of universal order of nature (1832: 196).

There is a reason why Quatremere saw that nature manifests in both art and architecture's every object and that imitation are parallel with nature's end. He emphasized the similarity between art and nature and architecture and nature by stating nature as being involved in producing dwellings "which have the appearance that architecture bestows upon them" (Younes, 1999: 20). Thus, correspondence between nature and architecture is represented through the imitation of nature "when the resemblance of an object in nature become the image of architecture," and copying the nature results in "a repetition of a reality and

similarity by means of an identity" under the framework of mimesis (Younes, 1999: 23). Ideally, mimesis of nature is based on both unity and variety, general and specific, under the rules of symmetry and proportion; and these all need to be taken into consideration in the application of architecture. Nature was a comprising force of regularities and symmetries, and their abstraction by architecture is evidence of the "perceived order of nature," which then becomes a building tradition (Younes, 1999: 25). In turn, examining and observing nature with its objects' qualities, purposes, and symbols in architecture, such a mimetic tendency forms a system and a set of rules by a whole human endeavor that can be atributed to culture (Younes, 1999).

Touching on the subject of mimesis, the most evident example is in Greek architecture, which is "exclusively worthy of admiration and imitation were features not of a stylistic but of a natural model: in point of fact to imitate Greek architecture is nothing other than to know and to imitate nature" (Lavin, 1996: 104). Because nature played an important role, architecture became not only naturalistic in terms of representation but also functional and rational in the linear dimension of the history of architecture since ancient Egyptian and Greek civilization.

Architecture is grounded with intellect and creates a system of imitation of ideas from nature, which are both universal and the farthest achievement from what can be seen by an individual. This is also seen in Diderot's Encylopedia as "the inclusion of architecture amongst the imitative arts was contested, the notion that the distinction of architectural mimesis lays in its ideal nature was part of a long-standing tradition" (D'Alembert, 1963: 67). Since we are obliged to proceed and employ the elements with similar logic and manner as nature and its certain laws, there are inevitable transitions in the built-environment from nature. Upon this, Viollet-le-Duc, an architect who is "waiting for an inspiration" was seeking the elements and principles of a logical

order because "only human reason allows us to achieve a pale human imitation of the relentless march of logic that was followed in the creation of the world" (1854/1990: 237). He stated that, "if anything is meant by the word other than a kind of conventional law or form, comes from the manner of observing nature, and not from the reproduction of an eclectic type" (Hearn, 1990: 137). Architecture, as a derivative of nature and a result of its imitated forms, is turned into a success when a man knows what to gather and follows rules governed by the human mind.

Adorno correlated mimesis as an adaptive behaviour that humans can assimilate, which is similar through surrounding environments (1997). Since mimesis was no longer interrogated with copying in architecture and coinciding with the certain additives in the discipline in the process of correspondence, similarities and differences become a layout of reference points for "the program of demands, the physical context, a typological series, a particular form of idiom, historical connotations which are translated into its context" (Heynen, 2000: 4). Thus, rather than a surfacing similarity in a reformer sense of imitation, representation, and reproduction, it enhances architecture in a different way than instrumental thinking on a deeper level by torning nature by an architectural existence (Heynen and Adorno, 1992). Unconsciously, a mimetic impulse is created when there is an equation with objects in surroundings by mankind as origins of natural shapes that can be adapted through artifacts.

In this way, mimesis becomes not a natural phenomenon but instead an artificial invention impacting architecture immersed by unfolding the nature. For Quatremere, "imitation and invention are both ontologically linked with the nature," and this linkage is established in relation to societal and individual parameters (Younes, 1999: 33). From his statements, it can be understood that architecture as a result of the mimesis of nature is related to the adherence to manners and customs that are collected under the cultural context.

Various analyses and discourses on mimesis reveal a progression of ideas that are rooted in Quatremere's evolving understanding of architecture which are articulated as a social phenomenon that mediates between tradition and construction. Thus, this reciprocal process grounds architecture as a cultural production which is ingrained in nature. Therefore, nature is "conquered by the communal efforts of society which modified buildings in terms of the making of a place" and "different cultures seek to discern common elements or to distinguish between what was natural to man and what were his own creations" (Semper, 1851/1989: 63).

3. Primitive Hut in-between the Nature/ Culture Dichotomy

The dialectical relationship between nature and culture can be examined through the representation of the primitive hut as a basic building which is posited as the origins of architecture. Since culture is a set of adaptive strategies for survival related to ecology, architecture becomes a product and producer of culture, cultivating nature and its sources according to human perfection with certain universal or absolute values (Williams, 1961; Hagan, 2001). Architecture has a catalyst role in persuading and shaping nature as a site for development with particular ideology and dimensions of aesthetics and social desires values. Since nature is animated and powerful, architecture makes it open to be tolerated by embracing continuity-discontinuity, homogeneity-heterogeneity complexity, stability, and fragmentation (Hagan, 2001). As such, according to Ruskin, when searching nature as "a true origin and order of the things," one can observe architecture's superimposition on nature by creating its "origins of memory and invention of culture" (1885).

The primitive hut embodies the display of cooperative contract between nature and culture as the cultural re-evaluation of nature revealed by the most primitive level of architecture. According to Michael

Hays, architecture has always been seen as "mimesis and analogue of natural conditions" in terms of creating a space on a primitive level (2010). He explains such placemaking as "an accident of a tree branch falling across two trunks which is turned into an entire system of support and measure". Herewith, as a result of human invention and the functional demands made of architecture, the primitive hut is under the restrictive circumstances of nature tending towards culture that characterizes the "universal and particular grammar of architecture" (Hays, 2010: 26). The outcoming terminology of primitive as more violent and threatening state is sophisticated through the hut brings the need to protect, conserve, and guard against natural features by using nature itself (Figure 1).

According to Joseph Rykwert, the primitive hut is referred to the paradigm of the building that becomes a standard for other buildings to be judged and criticized (1972). His argument of the primitive hut as a rationale of architecture was setting principles by giving rise to "why we build and what we build for" (Rykwert and Laanes, 1972: 190). Thus, the answers of questions enlighten the principles for architects

to formulate a built environment by reforming and corrupting the hut itself with custom and practices. The primitive hut is accepted as old as an architectural theory by domesticating the primitive, which many theoreticians of architecture critically analyse in a dual enactment which generates a process of productive engagement of mankind with revealing the potential of the primitive (Figure 2).

Natural model abstracted with a human intellect that is derived from nature's principles creates a contradiction between "forms as a product of human reason and forms as a product of nature" (Emmons et al, 2012: 32). According to Quatremere, architecture evokes the human mind as an unnatural entity that progressed into a culture in mind as cognitive representations and schemas turned into the culture in the ground (Lavin, 1992; Shore, 1996). This has resulted in where culture is materialized, internalized and externalized simultaneously exaggerating the re-negotiability and permeability of culture over nature intangibly and tangibly by representing figures of primitive hut types.

3.1. The Dwelling House

In Vitruvian approach to building knowledge, accepting nature as imitative

Figure: 1
The first shelter where humans were grouped beneath under the bushy trees (Hearn, 1990: 24).

Figure: 2
The first hut proceeding from functional requirements as an improvement and progress in the earliest stages of architecture (Hearn, 1990: 26).
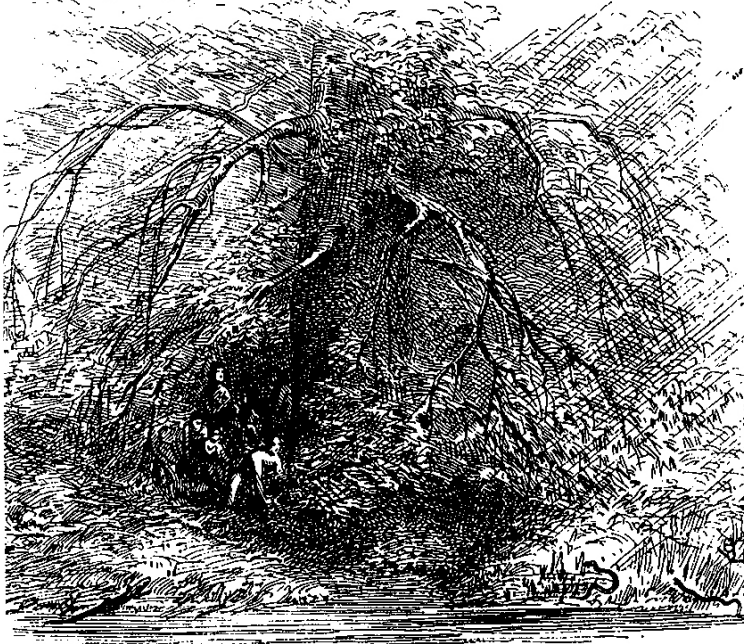
and reachable resulted in the building of a shelter called a "dwelling house." Providing a deliberate assembly and gathering socially by formatting the landscape, there is a distinguishing civilization from wilderness, culture from nature in the dwelling house as being in the category of hut (Pollio, 1960). In Ten Books on Architecture, Vitruvius explained this sheltering procedure as mimicking nature and turning it into architecture as:

> Some made them of green boughs, others dug caves on mountain sides, and some, in imitation of the nests of swallows and the way they built, made places of refuge out of mud and twigs. Next, by observing the shelters of others and adding new details to their own inceptions, they constructed better and better kinds of huts as time went on (1960: 55).

Vitruvius described the dwelling house as a basic building set in space that is created in-between four trees enclosure with right angles. It is built by placing timber sticks, covering it with mud and chips, and then putting a roof on top in a tortoise style (Pollio, 1960). Through that scene, mimesis inevitably tends to see the structure of the given object in nature as creative work by taking references from the specific or entire portion of the whole. Thus, nature provides material ways of knowing and being an expert on advanced building techniques while also protecting the inhabitants from its forces. In this way, human control realigns and domesticizes nature after discovering a fire by placing it in the centre of the dwelling as a socio-cultural construction over hierarchized enclosure of structures (Chestnova, 2017).

3.2. The Rustic Cabin

After the dwelling house, in the 18th century, Marc-Antoine Laugier emphasized the linkage with certain architectural forms with nature, which was first propounded by Vitruvius. Laugier arrived at a basic and comprehensible framework while making a statement on the primitive hut, which he called a "rustic cabin," and he reproduced its illustration in editions of Essai sur l'architecture (Figure 3) (Herrmann, 1962: 159). The phrase 'rustic' means a "medium of exchange between the human and the natural" (Mitchell, 1994: 5). Since Laugier's approach was bounded with architecture as a demand to follow nature in its simplicity, he examined the duality of human-nature with the medium of the rustic cabin. In a normative function executed in a simple manner, "there is only the column made by pieces of wood raised perpendicularly, the horizontal pieces laid upon them provokes the idea of the entablature, and the roof gives the idea of the pediment that can essentially enter into this composition" (Laugier, 1753: 11). In this representation of the hut, he foresaw it close to nature as being "the first habitation in human history," and its construction utilizes the elements of nature in a simple and rational manner (Herrmann, 1962: 48). Thus, Laugier presented nature as a model, and architecture's position as which it rests between the essence of laws of nature and human nature.

Quatremere's reference to the rustic hut in 1785 is in the progress of duplication of nature, which is precisely attributed to human culture, and he criticized Laugier's theory on the primitive hut because he

Figure: 3
The Primitive Hut; engraven, Right Frontispiece designed by Mr. Wale and Left Frontispiece from second edition of the Essai sur l'Architecture (Laugier, 1753; Herrmann, 1962).
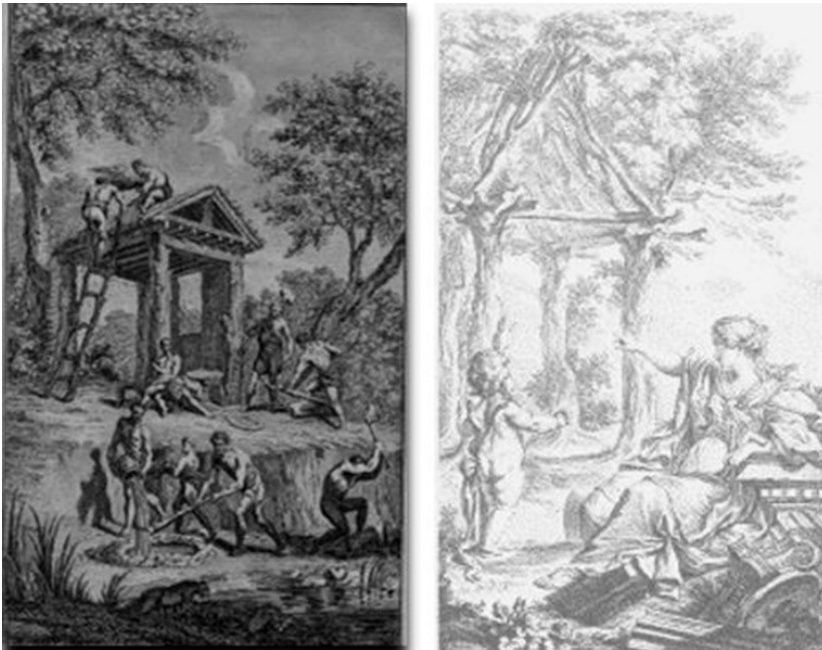
advocated for its domination and rule by nature. Thus, he replied, "the hut has not been made by nature, but nature has suggested it and is so closely linked with it that to give it up as a model, would mean to move away from nature" (Herrmann, 1962: 197). The same was also stated by Wolfgang Herrmann: Laugier's representation of the primitive hut is not seen as built by the four man-made posts -- it is just four trees rooted from the ground and the crossbars and uprights of the roof which are very difficult to distinguish from the crowns of the trees. Therefore, it is naturally structured (Herrmann, 1962).

In Quatremere's understanding, there are three generic forms of primitive dwelling, hut, tent, and cave, which are all already integrated into architecture as a natural model in different nations (Lavin, 1992). Since they differ in terms of their formations, there is a potential to produce its implementations by way of architectural imitation setting upon simplicity of nature. Quatremere implied the idea of imitation of nature as an essential principle of architecture. Additionally, within the process of architectural creation, oppositions occurred as culture and nature embodied in the hut versus the cave and then resulted in other contrasts like primitive-modern, universal-particular when it is removed from a state of nature (Noble, 2000). Accordingly, primitive dwellings became models of architectural mimesis as being subjected to human intervention and modification (societal influence), rather than being only generated from nature as its architectural origins (Di Palma, 2002). As a result, "just as the hut was appropriate model for imitation because it was removed from a state of nature, the act of its duplication was mimetic because it necessitated the transposition of wooden forms into stone" (Lavin, 1992: 111).

In 1802, Jean-Nicolas-Louis Durand went beyond the role of imitation in the formation of the hut as a model of the origin of architecture in his book Précis of the Lectures on Architecture. He claimed that "if the primary objective of architecture is to please it must either imitate to better effect, or choose other models to imitate, or adopt other means than imitation" (Durand, 1802/2000: 83). In this way, he sought the symbolic level of architecture, like Boullee's and Ledaux, in terms of dramatizing its transition from the state of nature to that of civilization (Durand, 1802/2000). Beginning a break from Vitruvian tradition, and unlike Laugier, as a response to nature's forces, Durand criticized the primitive hut as an object unsuitable to serve as a basis of the discipline of architecture. Architecture was detached from the natural world, and its main purpose was to replace nature in a system of abstract ideas and concepts as human-made creations. Rather than simplicity, regularity, solidity, or symmetry, the theory of mimesis was replaced by propriety and economy. His path was on constructive functionalism, and forms evolved through customs (Kruft, 1994).

3.3. The Primordial Dwelling

To create a building tradition against an unadorned response to the laws of nature, Gottfried Semper (1851/1989) followed the texts of architectural theory from scholars like Vitruvius and other 18th century rationalists and grounded the first architectural prototypes in the form of a primitive hut, which he prescribed as a "primordial dwelling" in 1851. In his book, Four Elements of Architecture and Other Writings, he described nature's impact on architecture by saying that, "When I observed the variety of nature in its simplicity, I very often thought by myself that it may be possible to reduce the creations of man and especially the works of architecture, to certain normal and elementary forms with a comparing method of contemplation in natural history" (Semper, 1851/1989: 32). Nature constantly repeats its basic forms, and, through modifying them in architecture in many ways, there is a formative stage discernible in form making stage. Thus, his standpoint, according to Quatremere's theory of imitation, was viewing transformation

as a process that needs to follow existing conventions. Expanding on that, Semper based his theory on primordial dwelling on the notion that there are four elements generating its architectural form: the hearth, the roof, the enclosure, and the mound. They should be recognized as artifacts by applying according to the laws conditioned by nature (Semper, 1851/1989). His model indirectly challenged the hut posited by Laugier in terms of the meaning of architecture's transformation of construction into the cultural realm towards the language of monumentality and ornamentation (Loschke, 2016).

As seen in Vitruvius's model, the hearth is centrally located in the dwelling house and referred as a place of gathering, cooking, and warmth; for conversations and silence; and for heating and stocking the food for daily life. Semper writes about the hearth by saying that:

> It is the first and most important, the moral element of architecture. Around it grouped the three other elements: the roof, the enclosure and the mound, the protecting negations or defenders of the hearth's flame against the three hostile elements of nature (1851/1989: 102).

In this way, adding those elements as a spatial enclosure and substructures to protect the hearth, everything became the invention of architecture over the few primordial motives by borrowing from first dwellers initially starting with the mounding, which raises it above the dampness of the earth (Semper, 1851/1989). Examining ancient cultures, Semper matched the enclosure with the protective walls that were initially made by weaving fabric or twigs together, depending on what was available in nature and climate conditions (Emmons et al., 2012). What was imitated there is the original woven enclosure to provide encompassment as a structure to be found in different ages in which culture substitutes as second nature to imitate (Buchli, 2020). For Semper (1851/1989), roof begets the hut and due to its enclosure and raising over the ground,

domestic life evolved in contrast to free life in nature with toil and struggle (Figure 4).

The narrative of primitive huts evolved multiple times, as did Semper's primordial dwelling in terms of making architecture that is bounded up with its cultural and material context (Figure 5). In terms of material contexts, four elements require different technical skills and traditional crafts and included "ceramics and afterwards metal works around the hearth, water and masonry works around the mound, and carpentry around the roof and its accessories" (Semper, 1851/1989: 103). There was more material and subject matter of artistic and tectonic endeavour. For Semper, the cultural context in terms of creating social structure sets up to create a meaningful place which helps man to dwell comes after the four elements' production, not only meeting the functional criteria as protecting and framing but also interfacing between individuals and their community, while also considering its symbolic meaning and construction techniques in conjunction with nature. This is also advocated and evaluated by architectural

Figure: 4
Gottfried Semper's "Caribbean hut" representation in 1851 shows four elements of the primordial dwelling (Frampton, 1995: 85).
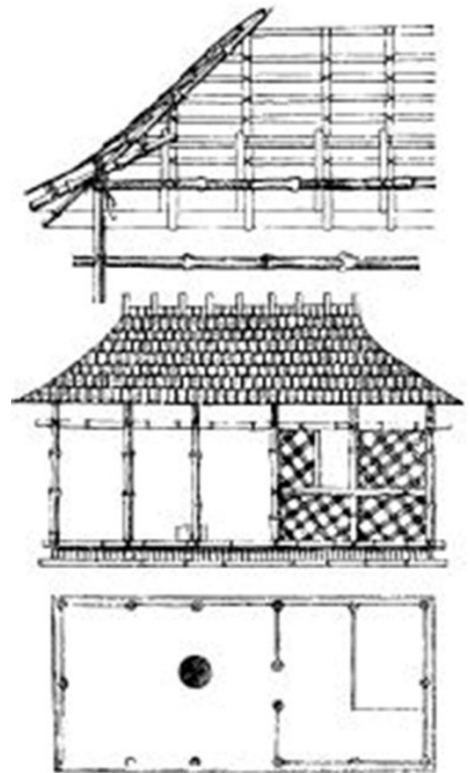
critic and historians of the current era especially after 1980s towards 21st century. As Frampton (1995) states: there is both ontological and representational nature of the four construction elements, and these are further varied by technique, topography, and temporal conditions generated by different cultural conditions in this primitive building form.

As a recurring paradox which is defined by Rolston, nature and culture as a thesis and antithesis turned into a synthesis of culture that is situated in nature as an act of fit that can be defined within the domains of wild/uncivilized and urban/civilized (1988). As an accurate or development sense in the history of mimesis, there is an awareness of creating quite complex matters of architecture by articulating humble beginnings into a later stage as already seen from the progress of primitive huts as a primary moment of architectural invention. There are many other assemblies or embellishments as an architectural prototype by using mimicry as a generator to retreat from nature.

4. Cultural Significance of Architecture within the Implicit Dimensions of Mimetic Approach Until 21st Century

Mimetic narratives as a primary vehicle of more advanced stages of a cultural

development in architecture deal with cultural screening and projection. According to Semper, constructing a wooden shelter with its simplicity in a basic form has become glittering with cultural endeavours ever since discussing its origins (Semper, 1989). Besides primary functional elements of the structure, secondary approaches through the make-up of the hut by 'the motifs, patterns and textile surfaces' give a social, cultural, and ideological identity to the spatial formation. By demarcating the space and its surfaces from nature with human endeavour, cultural representations become a manipulative analogy to nature. As primary vehicles for architecture to orient the world, primitive hut led to more advanced stages of cultural development, which is "a mimetic response to a universal human urge to communicate and coexist" (Hvattum, 2006).

Mimesis is consciously or unconsciously used as second nature to be a cultural evolution method that is still valid from ancient times to the modern and postmodern period. After the 19th century, by re-examining the syntactic and historicist theories until the 20th century with modernist and postmodernist understanding, mimesis is approached through hidden dimensions that do not concern typal and typological reasoning
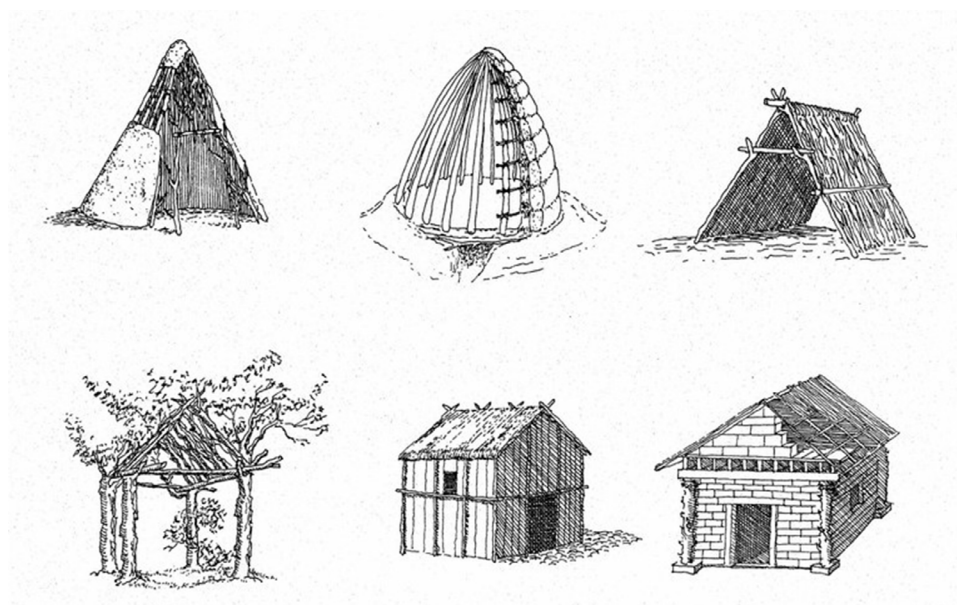
Figure: 5
Different versions of the first hut drawn by Renaissance architects (Crowe, 1995).

anymore, replaced by the modern architectural theory. Furthermore, the concept of mimesis is replaced rather than a sensuous similarity with memesis and abstraction by an un-sensuous one and can be produced as a mediated kind through speculation (Benjamin and Tarnowski, 1979; Jacoby, 2013). Since architecture already reproduces what is already existed in nature, there is always a trigger to express the social condition in an expressive way to shape space by taming nature (Heynen and Adorno, 1992). Thus, the manière over nature exceeds nature and is supposed to be more accurate than nature in architecture (De Beistegui, 2012). As a result, within the realm of architecture, mimesis further develops the design abilities of architects by absorbing or layering external forms and schemata by superimposing on another grid and layout within the language of design (Leach, 1998; Foucault, 2010). So, conceiving the firm principles and ruling out the material and natural language of construction presupposes the cultural abstraction of nature to merge.

According to 21st-century scholars, the intertwinement of nature and culture as a dichotomy between subject and object does not exist anymore, and a socio-spatial continuum comes forward (Kaika, 2005; Possamai, 2013). Today, as Jacques Herzog and Pierre de Meuron express: we see nature/culture as one thing rather than seeing them as opposed to each other and "artificial and artistic processes that allow us to understand our natures, our perception, and sensation of nature, and our effect on and alteration of it" (1993) (Figure 6).

That is why mimetic tradition does not exist in the same manner in architecture, and it opens up new and non-existent possibilities. Abstraction from natural likeness of things based on observation of proportions and formal relationships provides a practice into an architectural object by "translation, stylization, reduction or visual enrichment, in order to make it more expressive and more meaningful, but in any case, to represent somehow" (Üveges, 2008). Through geometric abstraction as an inherent aspect of mimesis, the architectonic conception is more objectively, rationally, and materially represented as the second nature or a new world of many dimensions alternated from the real world (Figure 7).

Today mimesis occurs via similitude and difference as two opposite vectors. It is not come to the forefront lexically as being not a privilege in the architectural practice, it is

Figure: 6
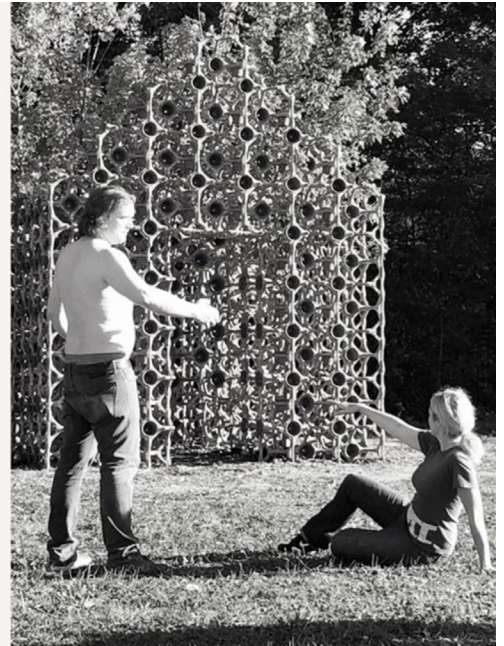*Depiction of the primitive hut as a hybrid between nature/culture by OMG! Project, 2017 inspired by Marc-Antoine Laugier's primitive hut (Source: https://www.architectmagazine.com/project-gallery/primitive-hut).*

somehow embedded in hidden dimensions. Dwelling on that, the difference becomes the measure of the work and the similitude as a background that guides the received/designed object "within the sphere of the cultural to be equivalent to the object" (Costa Lima, 2013). These two re-thoughts the emphasis on processualism of the creation of a new form. Correspondingly, architecture becomes more constructivist in nature which has more and more deliberate refinement and elaboration of mental model, worldviews, and their connotations (Donald, 2006). Therefore, inevitably, an ability to reduplicate some aspect of action as a skilled rehearsal by creating variations of previous actions as transitional and transformational mimetic art synchronized to the modern technologies and developments are loaded as a duty to any architect in the current period (Figure 8).

Characterizing the use of material, structural and functional configurations according to the solutions based on the observation and virtually replicating from nature become a part of situated design environment and alternations has been created when cultural turn happens. In this turn, there is a striving consciously to embody quasi-natural principles (Alberti, 1726/1955; Donald, 2006; Lee, 2014). Recent critical theorists and interdisciplinary scholars of the current era looks upon mimesis not as an imitation/mimicry but as "sensuous knowing". In that sense it indicates "creative methods such as collaborating with artists and participants, sometimes using participatory action research methods, and working together through narrative, talk, communicate design ideas and artmaking" (O'Neill and Hubbard, 2010). So, architecture becomes a translator that facilitates this sensuous knowing as a mimetic impulse that mediates the man and objects in his surroundings, and nature outside man further reflects man's inner nature. Therefore, as Adorno also claimed, mimesis goes beyond the antithesis between subject and object (nature/culture) differed from antiquity during the modern period and afterwards. Hence its orderly setting in architecture has been changing.

Current discussions on mimesis are mainly on architecture's search for prototypes to imitate rather than "a literal copying or imitation, but as a depiction
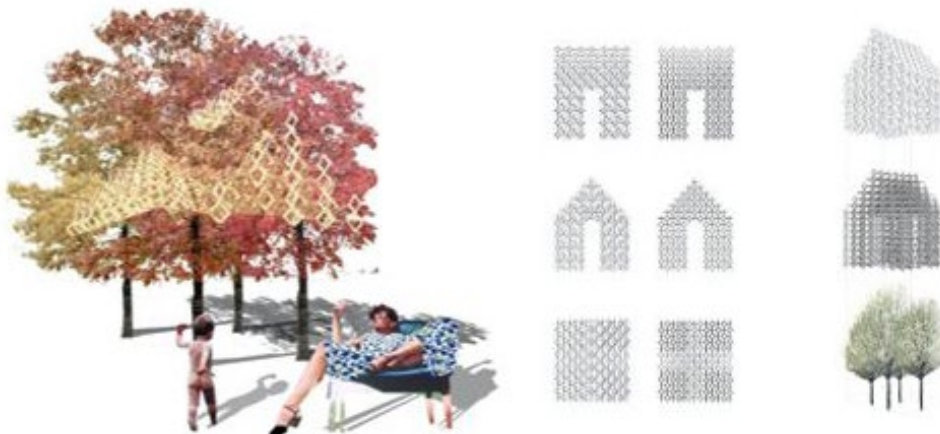
or reproduction of a given reality" (Heynen, 2000). So, it is not easy to discern its presence in architecture anymore. While applying it holistically as a design method, variables such as conceptual, imaginary, cultural, and perception of the form must adapt to current technologies and possibilities. Thereby, reproducible typologies from "naturally evolving prospect of existence to follow the traces of cultures in architectural image" can be possible by creating ideas in a more reflexive and reticulate manner (Usta and Demirkan, 2017).

A changing understanding of the mimesis coexists as a tactile experience has been created rather than dominating nature, which differs from antiquity by dominating nature and enlightenment by firmly using the cartesian coordinates of the spatiality over subject and object reproducing malleable ones. Extensive implementation of mimesis is commonly integrated into the architectural design, which is responsive, adaptive to the current technology by commodifying nature (Figure 9). So does through material creativity, adaptability, scalability, and optimized production techniques, architecture can easily characterize optimal models refined from

nature by ignoring the immutable laws of nature (Lee, 2014).

Observing the massive and relentless work upon human remainders, the work which has made nature into the culture in antiquity is not sustained anymore. It is clearly seen that nature unmade-up the cultural topography when we are tracing mimesis in the architectural image of the cultural environment (Staiger et al., 2009). Of these, mimesis is now using as a creativity step in architectural practice rather than traditional and inductive manipulations. As external stimuli, the creative impulse as a representation and abstraction process can be collected under the "general umbrella of mimesis" (Whittick, 1977). Mimesis as a visual trickery of naturalism is the easiest way of form-making, which can deliver a congruence between the reproducibility of the new reality as a subject matter and the ground that where such reproduction is represented (Dalwood et al., 2013).

From the ancient notion of mimesis to the modern one, mimesis is far from the static and artistic representation; it is somewhat more complex than its conventional translation in architecture in recent years. There are several endeavours to revitalize it instead sticking in the outmoded

Figure: 9
Space Shuttle- Commodification of nature by mimicking bird nest as a sculpture of sharing, a refuge for human beings and the recommendation to rediscover the essence of being (Source: http://www.formakers.eu/ project-237-arne-quinze-uchronia).

aesthetic doctrine of the classical tradition. Its marriage with forms like naturalism has breakthrough the postmodernist understanding of the artistic processes that inherited its tradition, which questions the term "being of little significance in relation to artistic production" (Sohn, 2011). So, Plato's addition to the term "imagination and transformation" constitutes analogies with nature operating many interesting elaborations by aspiring artificial built environments evolved from "the complex differentiated order, beauty and legibility we find in natural environments" (Gebauer and Wulf, 1996; Schumacher, 2018). As a powerful driving force within human development, computational simulations create such analogies that are much more dynamic and complex natural formations as innovative and new that intertwine with our understanding of architecture as second nature in the new era (Figure 10).

However, by remarking that there is a paradigm shift in the common coding of the conception and action in the mimetic understanding that seeks a variety in the architectural design culture and practice that evolves from antiquity to the enlightenment and enlightenment to the 21st century. What is ongoing in a simple manner as formal structures of the primitive hut: the column, the pediment, the entablature, and the roof or the hearth, the enclosure, and the mound has been rethought in pursuit of their evolution according to the adaptive design and fabrication systems that are decomposed by unfollowing the rules of regularity, symmetry, and alignment by tracing the traditional geometric forms. In this respect, by remarking Aristotle's emphasis on the

embodiment of architecture's distillation of materials provided from nature "as a revelation of its beautiful essence and implementation" and inverting into the logic of the space with known analogies of the industrial/artificial world as a process that generates mimesis not only as a broad fundamental theory but also a synthetic approach (Woodruff, 1992). Transmission of the mimetic codes today becomes an active, productive, and affirmative manner which direct architecture as evolutionary by deriving from complexity, randomness, arbitrariness, and uncertainty (İnceköse, 2008; Demirkan et al., 2019) (See Figures. 7, 9 and 10). The algorithmic logic interfered with memesis theory by reproduction, mutation, and repetition alongside creating a fractal design with few rules and repetitive parameters cause the evolution of mimesis in architecture by creating a new nature morpho-genetic and heterogenic approach to nature-like forms (Blackmore, 2000; Chu, 2006).

The fruitful relationship between architecture and nature is inserted in a harmonic totality transgressively shifted from the nature of space to the space of culture through mimesis. So, on a holistic integration, mimesis is not preconditioned in a synecdoche that even the smallest part could represent the whole. It is now become autonomous and self-determined where "relatively autonomous parts would also be related to each other forming an integrated whole" (See Figure 10) (Pope, 2018: 35). Hence the imitation of nature creates a complex relationship between cultural and technical rather than situated in a single pole. Then, in the new age, it displays enough details of the description

Figure: 10
Technological interventions interact with natural material reality- Steam-bent hardwood using primitive hand tools augmented with the precision of intelligent holographic guides/Steampunk Tallinn Architecture Biennale 2019 – Beauty Matters (Source: https://www.archdaily.com/926191/ steampunk-pavilion-gwyllm-jahn-and-cameron-newnham-plus-soomeen-hahm-design-plus-igor-pantic).

of random everyday life, which codes the matrix of natural landscape with culturally constructed reality (Auerbach, 2003). It is now within the new digital/constructed spaces that mimesis acts and is open to the upcoming innovations.

5.   Conclusion

All in all, mimesis can be evaluated as a philosophical and critical term throughout the antiquity to the 21st century. It has been becoming different today and changing contextually and substantially throughout architectural history with a long list of mimetic formations. Referencing and emplacing natural forms and forces in the built environment has been unwavering and present architecture beyond "the simplification of natural forces to a series of discrete objects or signs that are capable of evoking all of nature and going back to the primitive ones" (Pope, 2018: 25). The cartesian split between nature and culture as opposing poles is more profound through architecture from smallest to bigger scale by alienating the non-human world with the mimetic approach.

In that polarization, we are more aware that "cultural space with which to regard nature as an ideal that is external to our routine, man-made existence" (Pope, 2018: 27). Within that awareness, what architects understand or interpret from the objects in the built environment is constructing analogy from the things. What they are doing is bringing frameworks of interpretation onto this analogical experiment via mimesis.

In this study, whether the critical analysis of mimesis is examined over the primitive hut, which is a simple entity of architecture is connected to the transformation and construction of a structure while marrying the natural and cultural realms, the standardized building form between nature and culture become the core of architecture that evolves over it. This has progressed from simple to complex, from Vitruvius's dwelling house and Laugier's primitive hut to Quatremere and Durand's expressions and Semper's primordial dwelling in which culture is legitimated by nature but not in a greater extent (Hagan, 2001). As a result

of this, following the lead of the classic texts of architectural theoreticians and practitioners and current practices, nature provides a framework which humans can base their ideas off of, not ready-made solutions to deal with it. According to Colquhoun (1981), this is provided by the application of technical, material, and mathematical tools associated with a given culture. Therefore, there is always a tension between nature being overcome by human intervention and culture and the normative and ultimate representation of material and symbolic contexts as underlying structures in shaping the world (Rapoport, 1987). All together, these embody an architectural space which "signifie[s] an active intervention of natural and cultural order" (Schwarzer, 1993: 267).

In conclusion, mimetic expression can be further developed by technology, and its roots can be traced with the primitive hut, which goes deep into the earliest evolutionary layer of human existence and that resulted in discussing architecture over a simple entity in a nature-culture duality. Rather than separating each other throughout an old philosophical idea, culture feeds on a particular understanding of what nature is all about by domesticating and giving endless time a human measure through architecture (Pallasmaa, 2010). By attaining the absolute limit of human cognition, there is a hybridity in architecture where the human mind takes up a natural routine. Rather than a dilemma, architecture transgresses the boundaries between two through the mimesis which can be identified progressively with our surroundings.

Thus, it has become culturally and architecturally responsive to the inhabitants' needs and aspirations, as a collective and shared practice of pre-existing elements as a medium of exchange between the human and the natural (Rykwert and Laanes, 1972). In this sense, nature will attain more and more a cultural dynamic through cultural evolution that is characterized within the historic lineage by resulting in complex adaptations

and accumulation of information in architecture. Through mimesis, architecture is capable of generating similarities and differences by revealing and concealing which exists in nature and can develop further beyond the normal and expected. So that, it can be adhered to an intervention between what is designed and what nature has, as seen in the evolving primitive hut prototypes, which became complicated through the conceptual and cultural background of the architectural form as a holistic design method ranging from materials to tectonics and aesthetics. Herewith, the clash between naturally evolving existence and culture's traces on representing the architectural image has continuously shaping up ●

References

Adorno, T. W. (1997). Aesthetic theory. A&C Black.

Alberti, L. B. (1955). Ten books on architecture (G. Leoni, Trans.). Transatlantic arts. (Original work published 1726).

Auerbach, E. (2003). Mimesis: The Representation of Reality in Western Literature (W. Trask, Trans.). Princeton: Princeton UP.

Benjamin, W., & Tarnowski, K. (1979). Doctrine of the Similar (1933). New German Critique, (17), 65-69.

Blackmore, S., & Blackmore, S. J. (2000). The meme machine (Vol. 25). Oxford Paperbacks.

Buchli, V. (2020). An anthropology of architecture. Routledge.

Chestnova, E. (2017). The house that Semper built. Architectural Theory Review, 21(1), 44-61.

Chu, K. (2006). Metaphysics of genetic architecture and computation. Architectural Design, 76(4), 38-45.

Costa Lima, L. (2013). On mimesis and the control of the imaginary. Culture, Theory and Critique, 54(2), 145-165.

Crowe, N. (1995). Nature and the idea of a man-made world, an investigation into the evolutionary roots of form and order in the built environment. The MIT Press, USA.

D'Alembert, J. L. R. (1963). Preliminary discourse to the Encyclopaedia of Diderot (Richard N. Schwab. and Walter E. Rex, Trans). Indianapolis.

Dalwood, D., Blier, S. P., Bohde, D., Evans, H. C., Fraser, S. E., Habinek, T., ... & Potts, A. (2013). Notes from the field: Mimesis. The Art Bulletin, 95(2), 190-211.

Demirkan, Ö., Usta, A., & Engin, E. (2019). Archi-mimesis as a design doctrine. The Turkish Online Journal of Design Art and Communication, 9(2), 207-215.

De Beistegui, M. (2012). Aesthetics after metaphysics: from mimesis to metaphor (Vol. 40). Routledge.

Descola, P. (2013). Beyond nature and culture. University of Chicago Press.

Di Palma, V. (2002). Architecture, environment, and emotion: Quatremére de Quincy and the concept of character. AA Files, (47), 45-56.

Donald, M. (2006). Art and cognitive evolution. The artful mind: Cognitive science and the riddle of human creativity, 3, 20.

Durand, J. N. L. (2000). Précis of the Lectures on Architecture (D. Britt, Trans.). The Getty Research Institute (original work published 1802).

Emmons, P., Lomholt, J., & Hendrix, J. S. (2012). The cultural role of architecture: contemporary and historical perspectives. Routledge.

Foucault, M. (2010). The Archaeology of Knowledge and The Discourse on Language [1969]. London and New York: Vintage Books.

Frampton, K. (1995). Studies in tectonic culture: The poetics of construction in nineteenth and twentieth century architecture. MIT Press.

Gebauer, G. & Wulf, C. (1996). Mimesis: Culture, Art, Society. Berkeley: University of California Press.

Glacken, C. J. (1967). Traces on the Rhodian shore: Nature and culture in Western thought from ancient times to the end of the eighteenth century (Vol. 170). Univ. of California Press.

Hagan, S. (2001). Taking shape: a new contract between architecture and nature. Routledge.

Hays, K. M. (2010). Architecture's desire: reading the late avant-garde. MIT Press.

Hearn, M. F. (1990). The architectural theory of Viollet-le-Duc: readings and commentary. Cambridge MA: MIT Press.

Herrmann, W. (1962). Laugier and eighteenth-century French theory. Zwemmer.

Herzog & de Meuron (1993). Poesis-Production in Cynthia

C. Davidson (Ed.). Anyway. Symp. Proceedings Barcelona, Spain. 1993. New York, Anyone Corporation / Rizzoli International, 1994. Vol. 3, 84-89.

Heynen, H., & Adorno, T. W. (1992). Architecture between Modernity and Dwelling: Reflections on Adorno's "Aesthetic Theory". Assemblage, (17), 79-91.

Heynen, H. (2000). Architecture and modernity: a critique. MIT press.

Hvattum, M. (2006). Origins redefined: a tale of pigs and primitive huts. Primitive: Original matters in architecture, 33-42.

İnceköse, Ü. (2008). Çağdaş Mimarlık Söylemleri ve Doğa Bilimsel Bilgi: "Yeni" Mimarlık için "Yeni"den Bilimsel Kavramlar. Mimarlık Dergisi, 341(5-6), 32-34.

Jacoby, S. (2013). The reasoning of architecture: type and the problem of historicity [Doctoral Dissertation, Berlin Technical University].

Kaika, M. (2005). City of flows: Modernity, nature, and the city. Psychology Press.

Kruft, H. W. (1994). History of architectural theory. Princeton Architectural Press.

Latour, B. (1993). We have never been modern. Harvard University Press.

Laugier, M. A. (1753). Essai sur l'architecture. Duchesne.

Lavin, S. (1992). Quatremère de Quincy and the invention of a modern language of architecture. The MIT Press.

Leach, N. (1998). Vitruvius crucifixus: Architecture, mimesis and the death instinct. AA Files, 37-43.

Lee, S. (2014). Architecture in the age of apparatus-centric culture [Doctoral Dissertation, TU Delft].

Loschke, S. K. (2016). Materiality and architecture. Routledge.

Mitchell, W. J. T. (1994). Imperial landscape. Landscape and Power, Chicago: University of Chicago Press.

Noble, J. (2000). The Architectural typology of Antoine Chrysostome Quatremere de Quincy (1755-1849). The Architectural Typology of A. Quatremère, 161.

Owen, C. (2008). Architecture between the culture-nature dualism: a case study of Geoffrey Bawa's Kandalama hotel. International Journal of Architectural Research, 2(1), 40-56.

O'Neill, M., & Hubbard, P. (2010). Walking, sensing, belonging: ethno-mimesis as performative praxis. Visual Studies, 25(1), 46-58.

Palladio, A. (1997). The four books on architecture (R.Tavernor and R. Schofield. Trans). MIT Press. (Original work published 1570).

Pallasmaa, J. (2010). Aesthetic and existential space the dialectics of art and architecture. Bringing the World into Culture: Comparative Methodologies in Architecture, Art, Design and Science, ASP/VUBPRESS/UPA.

Perrault, C. (1993). Ordonnance for the five kinds of columns after the method of the ancients (I. K. McEwen Trans.). Getty Center. (Original work published 1683).

Pollio, M. V. (1960). Ten books of architecture (M. H. Morgan. Trans.). Dover Publications.

Pope, A. (2018). On the Modern Mimesis of Nature. Networks, Tools, and Ecological Thought. Ra. Revista de Arquitectura, 20, 22-41.

Possamai, F. V. (2013). Nature and culture dualism: Genesis

of an obsolete dichotomy. Philosophy Study, 3(9), 836.

Quincy Q.& Chrysostome A. (1832). Dictionnaire historique d'architecture : comprenant dans son plan les notions historiques, descriptives, archéologiques, biographiques, théoriques, didactiques et pratiques de cet art. Paris: Librairie d'Adrien le Clere.

Rapoport, A. (1987). On the cultural responsiveness of architecture. Journal of Architectural Education, 41(1).

Rolston, H. (1988). Environmental ethics: duties to and values in the natural world-book summary [Doctoral dissertation, Colorado State University].

Ruskin, J. (1885). The seven lamps of architecture (Vol. 521). New York: John B. Alden.

Rykwert, J. & Laanes C. (1972). On Adam's house in paradise: The Idea of the primitive hut in architectural history. Museum of Modern Art.

Seif, F. Y. (2010). Mutual mimesis of nature and culture: A representational perspective for eco-cultural metamorphosis. Sign Systems Studies, 38(1/4), 242-267.

Semper, G. (1989). The four elements of architecture and other writings (H.F. Mallgrave and W. Herrmann Trans.). Cambridge University Press. (Original work published in 1851).

Serlio, S. (1996). Sebastiano Serlio on architecture (V. Hart and P. Hicks Trans.). Yale University Press. (Original work published in 1545).

Schumacher, P. (2018). Design as second Nature. Retrieved February 19, 2021 from, https://www.patrikschumacher.com/Texts/Design%20as%20Second%20Nature.html.

Schwarzer, M. (1993). Ontology and representation in Karl Bötticher's theory of tectonics. The Journal of the Society of Architectural Historians, 52(3), 267-280.

Shore, B. (1996). Culture in mind: cognition, culture, and the problem of meaning. Oxford: Oxford University Press.

Staiger, U., Steiner, H., & Webber, A. (2009). Memory culture and the contemporary city: building sites. Springer.

Sohn, W. J. (2011). In Search of Another Eye: Mimesis, Chinese Aesthetics, Post/modern Theatre [Doctoral dissertation, University of London].

Usta, A., & Demirkan, Ö. (2017). Mimesis and cultural codes in architectural design process. 3rd ICNTAD Conferences, 28-30 April 2017, Helsinki, Finland.

Üveges, G. (2008). Mimesis and abstraction-the paradigmatic principles and traditions of fine art representation in the training of architects. Periodica Polytechnica Architecture, 39(1), 35-40.

Viollet-le-Duc, E. E. (1990). The foundations of architecture (K.D. Whitehead Trans). New York: George Braziller. (Original work published 1854).

Whittick, A. (1977). Mimesis, Abstraction and Perception. Philosophy, 52(199), 82-89.

Williams, R. (1961). The Analysis of Culture. Long Revolution, 61-94.

Woodruff, P. (1992). "Aristotle on Mimesis." Essays On Aristotle's Poetics. Ed. A.O. Rorty. Princeton (Nj): Princeton University, 73-95.

Younes, S. (1999). The True, the Fictive and the Real: The historical dictionary of architecture of

Quatremere de Quincy. Introductory essays and
selected translations. A. Papadakis.