

# *Irem Hafiz*

*RIXARCH2023 conference white paper*

## *Allegories of the primitive hut<sup>1</sup>*

## Abstract

*This study proposes both a contemporary critical stance and a historical look back to architectural form generation through the discussion of the origin of architecture. From a post-structuralist perspective to the concept of “origin,” the formal expression of architecture that holds representational properties and presents universal validity in search of the beautiful is delved into by using three significant symbolic figures of the hut: the primitive hut by Abbé Marc-Antoine Laugier, the Caribbean hut by Gottfried Semper, and the Dom-ino skeleton by Le Corbusier. Each of the prototypes of the hut illustrates the distinct ideas of a paradigm; verifies its own standards to obtain the beautiful; and constitutes a historical lineage of architectural form generation. Either analogous or conflicting concepts of the tectonic and symbolic qualities of the forms are analysed with regard to the constituents of these iconic models: the three basic members of the primitive hut; the four elements of the Caribbean hut; and the four units of the Dom-ino skeleton.*

*By following Semper’s analytical method of researching, a comparative rereading of hut allegories is suggested in association with Alberti’s concept of “building” and the influence of the principles of classical architecture. The main argument of this paper is that the tectonics of form and building, standardized in the form of hut allegories, can be conceptualized in the dialogue between two significant values of form: ontological and representational. It is suggested that these two dimensions of form should be discussed in parallel with the fundamental distinction between signifier and signified in semiotics, which has been extracted from ancient discussions on the symbolic aspects of architecture. This duality of form determines not only the changing tectonics and new meanings of building but also another sense of beauty and different taste of the time. This paper aims to lay the groundwork for an ontological inquiry into architectural form, the simplest nature of which is supposed to illuminate the intricacy of form production.*

## Keywords

*architectural form, origin, ontology, representation, beauty*

...

## Introduction

Primitive hut allegories, embodying the concept of the origin of architecture, are comprehended as the diverse expressions generating the standards of architectural form, which has been thoroughly explored throughout history. Following John Summerson’s analogy between language and architecture, this study seeks to analyse formal expressions and manifestations of building, dependent on beauty and universality, from a semiotic perspective and post-structuralist standpoint, with a focus on models of the hut. Specifically, three prominent concepts of the hut are considered: the primitive hut by Abbé Marc-Antoine Laugier, the Caribbean hut by Gottfried Semper as the counterthesis of Laugier’s concept, and the Dom-ino skeleton by Le Corbusier as the more recent “archetypal” example corresponding to the new paradigm in architectural design. The concepts of these symbolic models not only conflict with each other but also offer a common discussion ground for understanding the nature of architectural form. It is suggested that the nature of form generation is developed between the representational qualities and the technical values of form within this particular research. The aspiration to find out the essence of architecture by classifying its basic elements and by analysing the factors in the designing and building process has formed the basis of the history of architectural theory since Vitruvius. Each of the prototypes of the hut, illustrating the distinct ideas of a paradigm, presents its own constituent elements that establish the standards: the primitive hut features three basic members – columns, entablature, and pediment; the Caribbean hut comprises four elements – hearth, roof, enclosure,

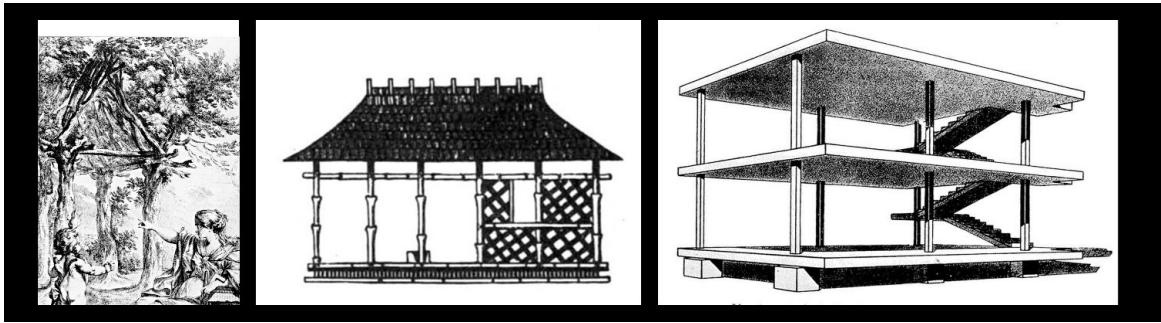


Figure 1. The Primitive Hut; The Caribbean Hut; The Dom-ino Skeleton (Sources from left to right: Charles-Dominique-Joseph Eisen, Frontispiece of Marc-Antoine Laugier's *Essai sur l'architecture*, 1755; Semper, G., 1860/2004. *Style in the Technical and Tectonic Arts*; or, *Practical Aesthetics*. Los Angeles: Getty Publications, p. 666; Le Corbusier, Jeanneret, P., 1964. *Œuvre Complète Volume 1, 1910–1929*. Zürich: Les Editions d'Architecture, p. 23.)

and mound; and the Dom-ino skeleton consists of four units – slabs, posts, blocks, and stairs. These elements of the models in the illustrations turn into symbols which provide a glimpse into how the process of building and form generation has changed over time. Beyond being a mere critique of architectural theories, following a historical timeline, the objective of this research is to unveil continuities and discontinuities as well as intersections and conflicts among concepts of form building by means of a comparison between huts. A comparative rereading of hut allegories is used as the method of this research by employing Semper's analytical approach, which suggests reducing works of architecture to certain elementary or primitive forms and tracing them from the simplest to their highest expressions (Mallgrave, 1989). Although the architectural expressions introduced by the prototypes present diverse arguments on the "origin" and form generation, this study suggests highlighting their association with the principles of Greek architecture and the

Albertian art of building based on the distinction between *matter* and *lineaments*. According to Alberti, building as a form of body is comprised of two aspects of design: matter and lineaments. While the former refers to the physical presence of form through practicing, material selection, application, etc., the latter indicates the abstract dimension or intellectual basis of the design process. This double-sided aspect of building is examined in parallel with the twofold nature of the Caribbean hut: its ontological or technical aspects of architectural form and its representational or symbolic significance. This dual nature of form, which prompts a semiotic exploration of the tectonics of form and its significance through hut allegories, is further elucidated by examining the impact of classical concepts on the generation of novel forms in the subsequent section.

### Matter-Lineaments

Vitruvius's treatise, *De architectura* / Ten Books on Architecture, as the only treatise on architecture from antiquity pointing out the distinction between practice and theory, is regarded as the foremost reference source for researching the concept of matter and lineaments of form. Vitruvius (fl. 1st century BC) emphasizes two different subjects for architects, theory and practice, in the first paragraph of the first chapter of his first book. Whereas practice is a regular and repeated physical activity, theory is described as

the ability to explicate (Vitruvius, 1960). Besides practice and theory, Vitruvius also mentions the basic separation between “the thing signified, and that which gives it its significance”. These classifications, which are supposed to have semiotic implications, align with the differentiation between building and designing and matter and mind which are used by Leon Battista Alberti (1404-1472). In his treatise *De re aedificatoria* / On the Art of Building, which is similar to Vitruvius’s treatise, but different in content and style (De Zurko, 1957), Alberti focuses on the distinction between matter and lineaments similar to the division between significance and signified used by Vitruvius. For Alberti, building as a form of body is comprised of matter and lineaments; the former is “dependent on preparation and selection”, and the latter is indicated as “the product of thought, the other of Nature; the one requiring the mind and the power of reason” (Alberti, 1485/1988). In this regard, the building or architectural form is related to the interaction between matter and mind, a concept found in both the ideas of the ancient Roman architect Vitruvius and the Renaissance work of Alberti.

Joseph Rykwert, an architectural historian, critic and one of the translators of Alberti’s treatise, asserts that Alberti’s two factors – matter and lineaments, which are separated from each other – must be connected by means of a third factor, ornament (Rykwert, 1979). Unlike its contemporary definition as an additive and decorative object instead of a useful one, ornament has another meaning for Alberti. He depicts the column as the foremost ornament of architecture, inasmuch as he does not totally alienate ornament from structure, which can also be ornament, and furthermore, ornament can be connected with the arrangements, the plans and the various elements in use rather than mere decoration (Damisch, 1979). Therefore, ornament is not strictly divided from matter and lineaments, but is in between the two factors as Rykwert claims.

Lineaments of the building with “lines and

angles”, providing a procedure for the creation of architectural form, bring out a sense of beauty via order according to Alberti’s treatise. He believes that “the universal sensation of beauty” is a product of an organic order, thereby accepting Aristotle’s teachings and anticipating Kant’s quest for beauty which “likens beauty to the expression of the adaptation of the parts to the whole” (Choay, 1979). In this regard, the order of designing, provided by the architect’s numbers, rationalizes the building as the Creator ordered the universe against chaos (Rykwert, 1979). Alberti’s sense of beauty, which is the result of implementing mathematical rules and using harmonies and proportions of the human body and nature, links his architecture to the sense of beauty in the classical tradition.

In spite of being influenced by classical writings and buildings, Alberti’s concepts of architecture and his buildings are not mere imitations of antiquity but reinterpretations of classical architecture. This way of building, defined as “the re-establishment of the grammar of antiquity as a universal discipline”, can be seen as a common practice in Renaissance architecture. The elements taken from “the architectural vocabulary of the ancient world”, such as the canon of five orders, the way of treating doors, openings, mouldings, etc., are all “standards” of form visible throughout the buildings (Summerson, 1963). Since these standards of the classical language of architecture have their roots in Greek and Roman architecture, the reconstructed language of form, taken out of its original context, is defined as “allusions” in another time and paradigm. However, it is argued that reproduced classical elements as allusions lead to a confusion and collision of time regarding the concept of signifier and signified in the built form because the signifier recalls the previous language of form in the present time while the signified is only related to production in the present moment. The Basilica of Sant’Andrea in Mantua, designed by Alberti, can be given as an example of this reproduction of the grammar of antiquity. In this

instance, the Roman triumphal arch as an allusion, the lineaments of which are the representation of a triumph in the past, was taken and transformed into a church which is used for a different function in the present time (Figure 2). Indeed, a new architectural expression of form comes out of the previous symbolic and representational character of form rebuilt within the present materiality of architecture.

### The Primitive Hut: Columns, Entablature, and Pediment

The recreation of the classical language of architecture during the Renaissance, which started in Italy in the early fifteenth century and spread across Europe by the end of the sixteenth century, is the result of the admiration for Rome and unreasoning belief in Roman excellence (Summerson, 1963). In his book, Summerson asks why Rome was the source of all goodness in architecture, and subsequently finds the answers in three points: the unique beauty of Roman architecture, “certain mathematical rules to which all beauty was accountable”, and Greek influence on Roman architecture as the most primordial era of human history. In the seventeenth century, this appreciation for the classical language of architecture was replaced by a critical stance

which questioned the true nature of the orders and how they should be applied in modern buildings (Summerson, 1963). Instead of strict adherence to traditional standards, a critical spirit came out in France as one of the aspects of Rousseauism, driving the search for new architectural archetypes. At the beginning of the eighteenth century, the Abbé Jean-Louis de Cordemoy (1660-1713), a French architectural theorist, is an important figure as one of the predecessors of modern functionalism who influenced a French Jesuit, Marc-Antoine Laugier (1713-1769) (Kruft, 1994). In the *Nouveau Traité de Toute l'Architecture / New Treatise on the Whole of Architecture*, Cordemoy criticizes the orders so as to release them from their unnatural use and discard the ornamental use of the orders, such as pilasters, half, three-quarter columns, attached columns, ornamental pediments, pedestals, and attic storeys. “His approach is a sort of primitive methodism, stripping away all the elaborate linguistics of

Figure 2. Basilica of Sant'Andrea in Italy by Alberti, 1470-76 (Source for the facade: <https://smarthistory.org/alberti-santandrea-in-mantua/>; source for the interior: Alinari/Art Re-source, New York, (plan) RIBA, London and University of London, retrieved from <https://www.britannica.com/place/SantAndrea-church-Mantua-Italy/media/523146/462>)



architecture, all the mystery and drama, all the brilliant play of the Italian masters, and making the orders speak their own original functional language” (Summerson, 1963). Cordemoy’s approach represents French thought of the period, which was very rational, yet not applicable, since the orders taken from Rome are highly stylized rather than primitive and functional (Summerson, 1963).

By the mid-eighteenth century, in addition to the reproduction of normative Classical style, Rousseauism, which is related to the Rousseauist school of thought in France, tries to find out rationally justifiable archetypes from which every architectural principle is derived (Kruft, 1994). Therefore, with Rousseauism, there is an attempt to discover models outside of the stylized and canonized Roman language of architecture. Laugier, who is an architectural theorist and a layman, like Cordemoy, is the most important representative of Rousseauism in architectural theory, Kruft states. In *Essai sur l’architecture / An Essay on Architecture*, which takes its basis from Cordemoy’s theory, Laugier identifies the true principles of architecture and proposes constant rules with regard to buildings, the ornaments of cities and gardens. The true principles, which Laugier discusses in his book, are founded upon simple nature, according to his statement in his *Essai* (Laugier, 1755). He believes that “essential” beauty, which is deprived of custom and convention, is to be found in nature, where all rules are derived (Kruft, 1994). Laugier’s theory is described by Summerson as a breaking point in architectural theory which shifts the basis of architectural thought, consequently building practice inasmuch as he discovers the true principles of architecture in nature defined outside of the existing order.

Laugier develops his primitive hut as a prototype against all “standards” (Figure 3). The theory of the hut “as the origin of all possible forms of architecture” is presented in parallel to the primitive and natural state conceived by Rousseau

(Kruft, 1994). Laugier delineates the hut as follows: “A long square, wherein thirty columns support an entablature, and a roof terminated at the two extremities by a pediment, this is all it contained; this collection has such a simplicity and grandeur that strikes every eye” (Laugier, 1755). In place of Roman excellence, Laugier suggests that the primitive model’s magnificence arises through nature. As the fundamental principle and measure for all architecture, the primitive hut is a pattern by which the structure of a building is reduced to its basic members: column, entablature, and pediment (Herrmann, 1973). These three elements constitute the structural logic of the hut, which rejects the division between structure and ornament, thereby recognizing the ornament as an integral part of its structural logic. As regards the structural character of the column, Laugier’s concept of the order is contrary to the Roman ideal and its re-establishment in Renaissance architecture. Whereas Alberti gives precedence to the wall as a continuous structure over the column, which is defined as a decorative element inferior to the wall as Damisch states, Laugier includes the column as one of the basic elements of the structure and, furthermore, excludes the wall through this statement: “the less (the wall) appears the more beautiful the building will be and when it does not appear at all, that building will be perfect” (Herrmann, 1973). Therefore, Laugier’s primitive hut as rationally conceptualised prototype, the essential beauty of which can only be found in nature, introduces form and its significance in one entity. That is to say, rather than the dual characteristics of matter and lineaments that are obvious in the Caribbean hut, ontological and representational characteristics of form merge into each other in the example of Laugier’s model.

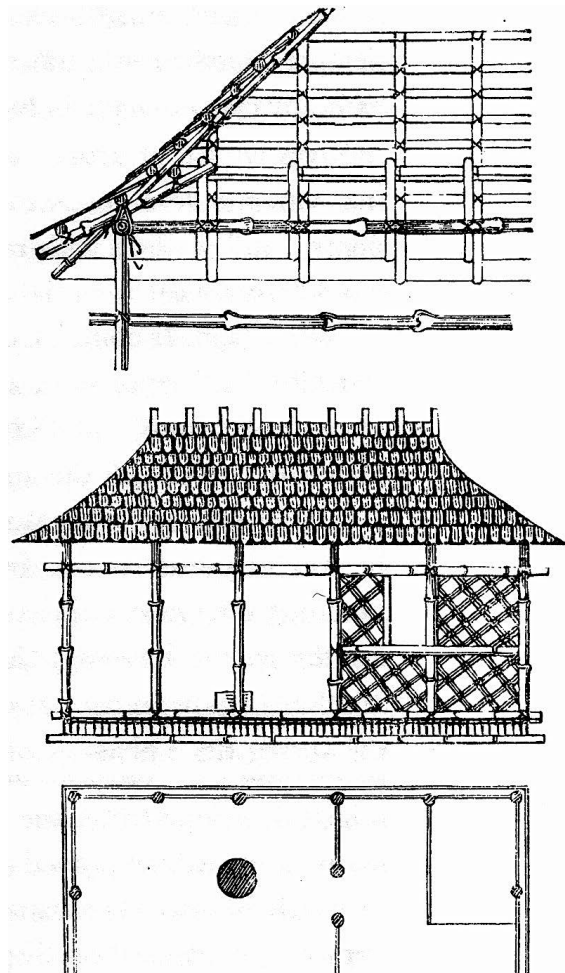
### **The Caribbean Hut: Hearth, Roof, Enclosure, and Mound**

The discussion on the “origin” and the formation of the hut starts with Vitruvius in the first chapter

of his book *The Origin of the Dwelling House*. This narrative text, which summarizes how the first group of human beings was established from the individual by the invention of the dwelling, has a symbolic and allegorical connection with the concept of “the four elements” developed by Gottfried Semper (1803-1879). Semper, the foremost German architectural theorist of the mid-nineteenth century, introduces his primordial dwelling as another representation of the origin of architecture, which is an anthropological counterthesis of Laugier’s primitive hut (Frampton, 1995). The four elements which constitute the Caribbean hut – the hearth, the roof / framework, the enclosure, and the mound / earthwork / terrace – are, Krufft states, the “visual reminders of man in his primitive state” (Figure 4); the hearth, for instance, is correlated with “the fire”, which the antecedents gather around as mentioned in Vitruvius’s text. According to Vitruvius, the first conversation between individuals, social intercourse, and subsequently construction of shelters started via the warm fire discovered by human beings as a result of a natural disaster (Vitruvius, 1960). The hearth, where people assemble, the first alliances form, and religious concepts arise – defined as the sacred centre of the hut by Semper – allegorically represents the story of the emergence of the first human settlement in history. While the hearth – as Mallgrave notes, “the social and spiritual centerpoint for the dwelling” – is an important moral element of the Caribbean hut or the prototype, the other elements – the roof, the enclosure, and the mound – which are located around the hearth, defend the hearth’s flame from the outer world (Semper, 1851/1989). These “elements” of the hut do not refer to material elements or forms; they are conceived as “motives” or “ideas”, as technical operations, for example, the idea of roofing, which is related to a tectonic or structural framework (Mallgrave, 1989). However, besides the technical or ontological aspects of architectural form, such as the earthwork, frame,

and roof, Semper distinguishes the symbolic or representational nature of the hearth and the infill wall. This distinction between ontological and representational form is drawn concerning the separation between the core of the hut and the skin, illustrating the complex character of building. Furthermore, this dual nature of form

Figure 4. The Caribbean Hut (Source: Semper, G., 1860/2004. *Style in the Technical and Tectonic Arts; or, Practical Aesthetics*. Los Angeles: Getty Publications, p. 666)



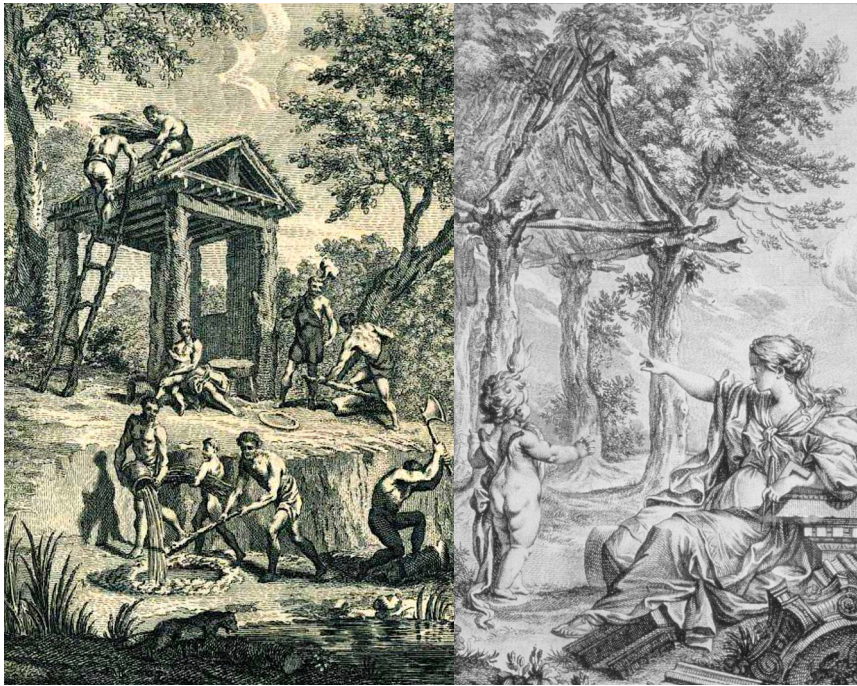


Figure 3. Marc-Antoine Laugier, the Primitive Hut, 1755 (Two engravings as frontispieces in different editions of the *Essai*. Source for the first image: <https://tr.pinterest.com/pin/330240585155687159/?lp=true>; Source for the second image: <https://www.themorgan.org/collection/printed-books-and-bindings/278126#overlay-context=collection/printed-books-and-bindings/278126>)

can be traced back to the Vitruvian concepts of architecture, rooted in the interplay between the signifier and the signified.

In addition to the division between the technical and the symbolic aspects of construction, the building crafts of the Caribbean hut are also classified into two procedures: the stereotomy of the earthwork and the tectonics of the frame. Stereotomy – from *stereos*, solid, and *tomia*, to cut, in Greek etymology – is related to solid and void of the earthwork, which are formed with stacked heavyweight units, such as load-bearing masonry, while tectonics, from the term *tecton*, meaning carpenter or builder in Greek, refers to lightweight and linear components of the frame which embody a spatial matrix (Frampton, 1995). Kenneth Frampton explains the distinction between heavy and light with respect to material production as “wood construction displaying an affinity for its tensile equivalent in terms of basketwork and textiles, and stonework tending

toward its substitution as a compressive material by brickwork or *pisé* (rammed earth) and later by reinforced concrete”.

All of the classifications of the Caribbean hut, whether in a more general or specific sense, arise from the dichotomy between the core and the skin, or the inner and the outer. The enclosure of the hut simply exemplifies this division, with the invisible structure as solid walls representing the core and the visible walls like hanging carpets constituting the skin. Semper defines hanging carpets as “the true walls” of the building which determine the visible boundaries of space; however, the solid walls behind the carpets have no role in the creation of space. This subordination of the core or the solid walls to the skin, which comprises the colourful woven carpets in the creation of space, leads to another significant point in Semper’s concepts, “the wall dressing”. Hanging carpets, which are replaced by other materials, such as stucco, wood and metal plaques, terra

cotta facings, and alabaster and granite panelling, turn into dressing behind solid and durable walls (Mallgrave, 1989). Consequently, the wall dressing gives rise to its own phenomenon according to Semper's concept. Additionally, the enclosure provides a new insight about the meaning of the wall, which is disregarded in the concept of the primitive hut. There is a double meaning for the wall: the exposed character of the wall dressing and the concealed existence of the solid wall, visible only in its pure form. These dual characteristics of form are exemplified within the enclosed wall system of the Caribbean hut that diverges from the generative system of the Dom-ino skeleton. The latter is presented and analysed in the following section as the mass producible and flexible prototype for housing, representing another paradigm: modern architecture in the Industrial Age.

### **The Dom-ino Skeleton: Slabs, Posts, Blocks and Stairs**

*“If we eliminate from our hearts and minds all dead concepts in regard to houses and look at the question from a critical and objective point of view, we shall arrive at the “House Machine,” the mass production house, healthy (and morally so too) and beautiful in the same way that the working tools and instruments which accompany our existence are beautiful.”*

*Le Corbusier (1986)*

Le Corbusier (Charles Edouard Jeanneret, 1887-1965), who is one of the most significant architects and theorists of the twentieth century, redefines the sense of beauty in architecture by changing the paradigm. The true nature of the orders in the classical language of architecture is replaced by “the standards of mechanical beauty”, which are defined as ephemeral. Therefore, there is a temporary nature of the beauty of the machine in the new epoch instead of the permanent principles which are founded upon nature in Laugier's case.

This temporariness represents the movement of the industrial era and the mass production concept introduced by Le Corbusier. Inasmuch as Le Corbusier defines this new epoch through “the mass-production spirit” and puts forward “the mass-production house” or “House-Machine”, the elements of which are mass-produced by industry, the Dom-ino skeleton is discussed here as the third hut prototype of the lineage, representing the new spirit of the time of the Industrial Revolution (Figure 5).

The Industrial Revolution, which started first in England in the mid-eighteenth century and spread to the rest of Europe, brought about both an increase in industrial production and the mechanization of productive systems (Benevolo, 1985). Moreover, the developments in building techniques, the discovery and implementation of new materials, and the progress in science and engineering during the revolution have led to the transformation of architecture as well, hence the birth of modern architecture. However, there is not an exact time when modern architecture has been born since the mid-eighteenth century. Leonardo Benevolo (1923-2017), an Italian architect and architectural historian, specifies three different starting points for modern architecture: First, modern architecture began when the Industrial Revolution had effects on building and town planning between the end of the eighteenth and the beginning of the nineteenth century, after the Battle of Waterloo. Second, modern architecture emerged with the integration of thought and action which occurred for the first time in England, with Morris. Third, the time immediately before and after the First World War (1914-1918), when the problem of bridging the gap between theory and practice was solved, determined the starting point for modern architecture (Benevolo, 1985).

The Dom-ino concrete housing system of 1914-1915 was produced by Le Corbusier within the period which is included in Benevolo's third depiction of the moments of modern architecture. This period was, Curtis states, when Le Corbusier worked

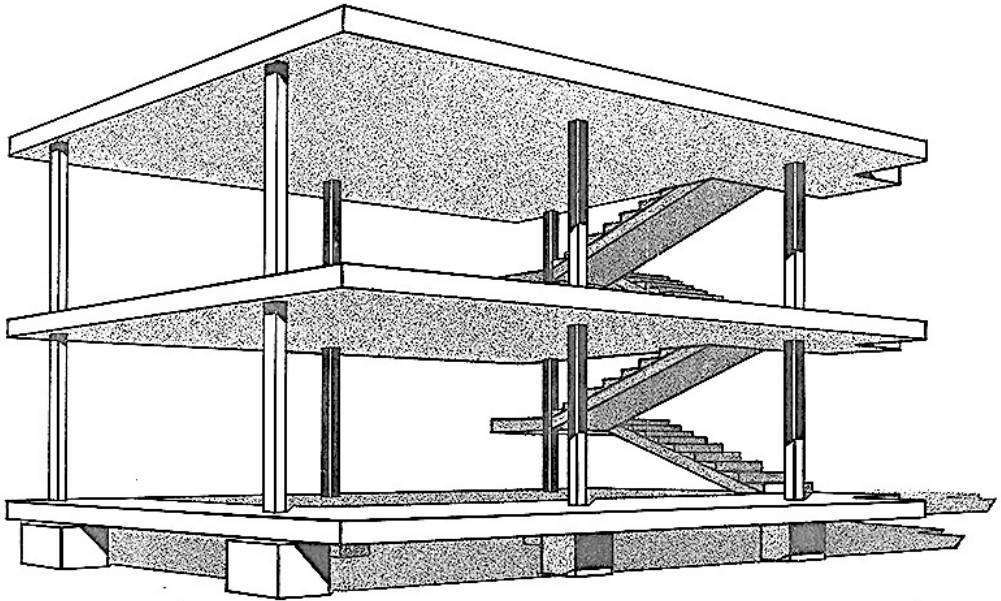


Figure 5. The Dom-ino Skeleton (Source: Le Corbusier, Jeanneret, P., 1964. *Œuvre Complète*, Volume 1, 1910–1929. Zürich: Les Editions d'Architecture, p. 23.)

in Peter Behrens's office in Berlin, "where he absorbed the idea that a new architecture must rest on the idealization of types and norms designed to serve the needs of modern society, while being in harmony with the means of mass production". Although the Dom-ino skeleton is designed as a mass producible housing kit for the rapid reconstruction of cities after the war, it later turns out to be an image of origins, a genotype, with the basic diagram of structure in pure and ideal forms (Curtis, 1982). The word "Dom-ino" corresponds to both the Latin word *domus* (house) and the game dominoes, representing the standardization of the houses, the free-standing columns of which are regarded in plan as domino dots and

the pattern of which resembles the formations of dominoes (Frampton, 1980).

The Dom-ino prototype as a structural unit consists of three horizontal slabs, square sectional posts of concrete supporting the slabs, squat concrete blocks which lift the lower level from the ground, and concrete stairs connecting the levels (Curtis, 1982). The structural frame of the Dom-ino with the slabs and posts causes the separation between the posts and the walls in place of the uniform enclosure of the Caribbean hut, which constitutes the whole system of the walls with the structural core and the skin as dressing. Since the slabs extend beyond the lines of the posts as the cantilever and the frame of the Dom-ino does not have to be filled with the walls as an enclosure, the structural and the screening functions of the walls, Curtis states, are detached from each other in the case of the Dom-ino. He adds that, besides the external walls, which are freed from the structural

frame, the interior walls as partitions are also flexible with respect to functional necessities of the building. In an embryonic form, the skeleton enables transformations in order to apply certain principles invented as a new “Classical” order by Le Corbusier, such as removing parts of the slabs to have higher volumes, liberating the lower level of the building, and using the flat top as a roof terrace (Curtis, 1982).

Indeed, the primitive form of the Dom-ino skeleton has the capability to reproduce itself, which is a way of representing and encoding the mass production spirit. That is to say, the Dom-ino, with its flexible pattern, represents an innovative approach to form production that can be characterized as ephemeral and generative, in contrast to the permanent principles purportedly derived solely from nature, as evident in Laugier’s hut. Similarly, the formal expression of architecture evolves by the disentangled values of the structural frame, such as the structural posts and the screening functions of the wall, rather than relying on the enclosed wall system of the Caribbean hut: the structural solid wall and the wall dressing. Overall, the Dom-ino as a genotype in comparison with the other primitive models represents the new formal characteristics of the era by introducing new ontological and symbolic aspects of architectural form.

## Conclusion

This research delves into the symbolic and technical qualities of constituent elements of huts – columns, entablature, and pediment of the primitive hut; hearth, roof, enclosure, and mound of the Caribbean hut; and slabs, posts, blocks and stairs of the Dom-ino skeleton – by using a critical and descriptive approach. The aim is to reveal continuities and discontinuities as well as agreements and contradictions within theories of the origin of architecture, which is represented through hut allegories. By reconstructing past theories in the context of the present, this research

embraces Curtis’s standpoint, asserting that “the past was not, therefore, rejected, but inherited and understood in new ways” (Curtis, 1982).

Moreover, the theoretical and conceptual framework of this research adopts a historical yet post-structuralist perspective, adopting Walter Benjamin’s concept of history discussed through the notion of “historical materialism” in his essay “On the Concept of History” in 1940. His allegory for Paul Klee’s monoprint *Angelus Novus*, which portrays the angel of history positioned between the past, towards which he faces, and the future, from which he turns away, depicts history as the subject of a construction filled with “Jetztzeit (now-time)” (Figure 6). Accordingly, there is the significance of “the notion of a present which is not a transition, but in which time takes a stand and has come to a standstill” like the position of *Angelus Novus* (Benjamin, 1938), hence creating unique experiences with the past fusing with the present moment instead of a universal image of the past as in historicism.

In this historical, analytical, and comparative method of research, two significant shifts in architectural form building are critically examined by using hut allegories as theoretical frameworks: The first argument revolves around change of form and its symbolic meaning in relation to sense of beauty, which is based on mathematical rules, harmonies, and proportions of the human body and nature according to Alberti’s definition of building by adhering to the classical tradition. While Laugier, in the pursuit of the true principles of architecture outside the standards of classical language, suggests that there is “essential” beauty in the form and organization of the primitive hut as derived from the simplicity of nature, Semper suggests that there is beauty in “the material’s appearance as a natural symbol”. Although they have diverse connections with nature and present distinct concepts of how nature should be related to the hut – for instance, whereas the primitive hut establishes a direct reference to nature through its basic pattern and structural system, the Caribbean



Figure 6. Angelus Novus by Paul Klee, 1920 (Source: [https://www.1000museums.com/art\\_works/paul-klee-angelus-novus](https://www.1000museums.com/art_works/paul-klee-angelus-novus))

hut embodies a symbolic, indirect connection with nature, such as the materiality of wall dressing – both huts draw upon nature to represent beauty. However, the Dom-ino skeleton, serving as a mass producible and generative model, ushers in a radical shift by introducing the beauty of the machine in the new epoch.

The second issue revealed from this study is connected to the diverse tectonic characteristics of form and formal elements comprising the architectural prototypes. Tectonic qualities, arising from the ontological aspects of building apart from the representational ones, are analysed in the case of walls and columns as the constituent elements of the huts. Contrary to Alberti's concept of columns as decorative elements of the

structural wall, Laugier's primitive hut includes columns as one of its basic structural members instead of walls, as Laugier delineates the hut with thirty columns carrying an entablature and a roof. Furthermore, Semper's Caribbean hut puts forward a different concept of the wall – the enclosure – which fuses the structural wall and the wall dressing into a unified closed system, thereby generating the duality between the core of the hut and the skin outside, as pointed out by Frampton. Nevertheless, in the Dom-ino skeleton, this enclosed system is divided into the structural posts and the screening function of partition walls. These walls of the Dom-ino are liberated from the structural frame, and hence introducing a peculiar tectonic framework, the symbolic aspect of which can be described as self-referential. At this juncture, both Laugier's hut and Le Corbusier's Dom-ino display ontologically parallel expressions of form, where the technical function of building is integrated as a part of the symbolic form. However, their ontological framework contradicts the Caribbean's approach, where the tectonic framework as a symbolic existence takes precedence over the technical and structural values of form.

All three hut prototypes, representing diverse ways of conceptualizing the origin and establishing new standards for their respective times, delineate distinct conceptual frameworks for the generation of architectural form based on tectonic principles and symbolic characteristics. In addition to these three models, which illustrate the simplest nature of architecture and the standards of form confirming a sense of beauty, it is anticipated that the hut trilogy can be developed and extended as a lineage of form production. This lineage could enable us to comprehend the nature of form, allowing us to trace and reinterpret the generation of architectural form; and it may encourage us to re-contextualize the concept of origin within the contemporary field of architecture.

...

## References

- Alberti, L. B., 1485/1988. *On the Art of Building in Ten Books*. Rykwert, J., Leach, N., Tavernor, R. (trans.) Cambridge, MA: MIT Press.
- Benevolo, L., 1985. Introduction: Architecture and the Industrial Revolution. In: *History of Modern Architecture, Volume I: The Tradition of Modern Architecture*. Cambridge, MA: The MIT Press, pp. xv-xxxiv.
- Benjamin, W., 1938/2003. On the Concept of History. In: Eiland, H., Jennings, M. W. (eds.), *Selected Writings: 1938-1940, Volume 4*. Cambridge, MA: Harvard University Press, pp. 392-396.
- Choay, F., 1979. Alberti and Vitruvius. In: *Architectural Design 49, Profile No. 21, Nos. 5-6*, pp. 26-35.
- Curtis, W. J. R., 1982. *Modern Architecture Since 1900*. Oxford: Phaidon Press.
- Damisch, H., 1979. The Column and the Wall. In: *Architectural Design 49, Profile No. 21, Nos. 5-6*, pp. 18-25.
- De Zurko, E. R., 1957. Alberti's Theory of Form and Function. In: *The Art Bulletin*, Vol. 39, No. 2, pp. 142-145.
- Frampton, K., 1980. *Le Corbusier and the Esprit Nouveau 1907-31*. In: *Modern Architecture: A Critical History*. London: Thames and Hudson Ltd.
- Frampton, K., 1995. *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*. Cambridge, MA: The MIT Press.
- Herrmann, W., 1973. *The Theory of Claude Perrault*. London: Zwemmer.
- Kruft, H. W., 1994. *A History of Architectural Theory from Vitruvius to the Present*. Taylor, R., Callander, E., Wood, A. (trans.) New York: Princeton Architectural Press.
- Laugier, M. A., 1755. *An Essay on Architecture*. London: T. Osborne & Shipton.
- Le Corbusier, 1986. Mass-Production Houses. In: *Towards a New Architecture*. Etchells, F. (trans.) New York: Dover Publications, pp. 225-267.
- Le Corbusier, 1987. Permanence. In: *The City of Tomorrow and Its Planning*. Etchells, F. (trans.) New York: Dover Publications, pp. 43-57.

Mallgrave, H. F., 1989. Introduction. In: *The Four Elements of Architecture and Other Writings*. Cambridge: Cambridge University Press.

Picon, A., 2014. Dom-ino: Archetype and Fiction. *Log*, No. 30 (Winter): pp. 169-175.

Rykwert, J., 1979. Inheritance or Tradition? In: *Architectural Design* 49, Profile No. 21, pp. 2-6.

Semper, G., 1851/1989. *The Four Elements of Architecture and Other Writings*. Mallgrave, H. F., Herrmann, W. (trans.) Cambridge: Cambridge University Press.

Semper, G., 1860/2004. *Style in the Technical and Tectonic Arts; or, Practical Aesthetics*. Mallgrave, H. F., Robinson, M. (trans.) Los Angeles: Getty Publications.

Summerson, J., 1963. *The Classical Language of Architecture*. London: BBC.

Vitruvius, 1960. *The Ten Books on Architecture*. Morgan, M. H. (trans.) New York: Dover Publications.

## Endnotes

**1**  
This research has been developed in the context of two compulsory PhD courses held in the subsequent terms of the 2018-2019 academic year at Middle East Technical University: “Arch 615: Architectural Research, Methods, and Ethics” instructed by Prof. Dr. Zeynep Mennan; and “Arch 616: Architectural Research II” conducted by Prof. Dr. Ayşen Savaş. The first written version of the research was submitted as a term paper for Arch 616 in the 2018-2019 spring semester, and its conceptual framework was used in a term presentation for Arch 604, a PhD seminar course, in the same semester.

**2**  
John Summerson (1904-1992), British architectural historian, uses “grammatical expressions” in his book *The Classical Language of Architecture*, in which he makes an analogy between language and architecture. He defines the “five orders of architecture” as grammatical expressions imposing a formidable discipline, which is similar to forming a language by using words and grammatical expressions. For more information, please see: Summerson, J., 1963. *The Grammar of Antiquity*. In: *The Classical Language of Architecture*. London: BBC, p. 17.

**3**  
This paper includes and discusses the Dom-ino skeleton as one of the prototypes illustrating the origin of architecture in addition to Laugier’s primitive hut and Semper’s Caribbean hut. Antoine Picon, Professor of the History of Architecture and Technology at the Harvard Graduate School of Design, regards Le Corbusier’s Dom-ino as an “archetype” and compares the Dom-ino with Laugier’s primitive hut, which are defined as sharing a “mix of matter-of-factness and fiction” in his article “Dom-ino: Archetype and Fiction”. In this text, Picon states that the Dom-ino is more archetypal than the primitive hut in spite of their “common ambition to propose a new architectural archetype”. Before Picon’s discussion on the Dom-ino’s “generic condition”, which is said to produce different types of buildings, William J. R. Curtis, an architectural historian, describes the Dom-ino as “a genotype, an image of origins, out of which a symbolic architecture might be developed”, in 1982. The character of the Dom-ino skeleton as a “genotype”, which relates it to the other prototypes, is discussed in the third section, “The Dom-ino Skeleton: Slabs, Posts, Blocks and Stairs”. For more information about the relation between the Dom-ino skeleton and the primitive hut, please see: Antoine Picon, “Dom-ino: Archetype and Fiction”, *Log*, No. 30 (Winter 2014): pp. 169-175.

**5**  
John Summerson regards the Basilica of Sant’Andrea as a transformation of the triumphal arch idea; he states that Alberti “not only adapted the triumphal arch idea to the west front but brought it inside and made it the model for his nave arcades; and, more than that, he designed the west front and the arcades to the same scale, so that the whole church, inside and out, is, as it were, a logical three-dimensional extension of the triumphal arch idea”.

**6**  
Jean-Jacques Rousseau (1712-1778), a philosopher, writer, and important figure in the French Enlightenment period, published a prize essay for the Dijon Academy, titled “Discours sur les sciences et les arts” (A Discourse on the Sciences and the Arts) in 1750. In his essay, Rousseau places the human in “a blissful primaeva natural state”.

**7**  
Besides Cordemoy’s influence on Laugier’s *Essai*, Cordemoy also takes his bearings from Michel de Frémin, who is defined as one of the forerunners of modern functionalism along with Cordemoy according to Krufft’s depiction.

**8**  
Laugier clarifies his prototype as comprising three basic members: the column, which is designed to support all the weight perpendicularly; the entablature “placed horizontally upon the vertical pillars to form a floor”; and the pediment as the last piece of the building representing the ridge of the roof in a triangular form.

**9**

Kenneth Frampton relates the symbolic and technical aspects of construction to the representational and ontological aspects of tectonic form.

**10**

Harry Francis Mallgrave, the architectural theorist who translated Semper's writings with Herrmann and wrote the introduction part of the book *The Four Elements of Architecture and Other Writings* relates the material disappearance of the wall behind the dressing to the existence of its pure form.

**11**

Le Corbusier states that the beauty of the machine is not permanent since each piece of mechanism has more aesthetic value than what it preceded. For more information, please see: Le Corbusier, 1987. *Permanence*. In: Etchells, F. (trans.), *The City of Tomorrow and Its Planning*. New York: Dover Publications, p. 49.

**12**

The battle, which took place near Waterloo in Belgium in 1815, is the end of France's 23 years of war in Europe. Napoleon Bonaparte, the emperor of France, and the French army were defeated by the British and Prussians, which marked the end of France's domination in Europe. For more information, see: History, 2009. *Battle of Waterloo*. <https://www.history.com/topics/british-history/battle-of-waterloo>

...